



| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 1 OF 106 | |

Table of Contents

| | | |
|------|--|----|
| 1.0 | Introduction..... | 2 |
| 2.0 | Conventions | 2 |
| 3.0 | Requirements | 2 |
| 4.0 | Network Security Issues | 2 |
| 5.0 | Other Warnings and Recommendations | 2 |
| 6.0 | General Usage..... | 2 |
| 6.1 | Commands..... | 3 |
| 6.2 | Responses..... | 5 |
| 7.0 | Field Properties | 5 |
| 8.0 | Examples..... | 8 |
| 9.0 | Local/Remote Control..... | 9 |
| 10.0 | Custom Formats | 9 |
| 10.1 | Format symbols | 9 |
| 10.2 | Format templates | 9 |
| 11.0 | Field Descriptions | 11 |

ECCN 5E991. EXPORT CONTROL WARNING – Do not disclose or provide this document or item (including its contents) to non-U.S. Citizens or non-U.S. Permanent Residents, or transmit this document or item (including its contents) outside the U.S. without the written permission of Freedom Communication Technologies and required U.S. Government export approvals.

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 2 OF 106 | |

1.0 Introduction

This purpose of this document is to provide definition for the protocol interface used to command and interact with an R8000 Series Communications System Analyzer. The field description section of this document is subject to change and may vary between system versions.

2.0 Conventions

The following conventions are used herein:

Command strings are **bold** text

Response strings are ***bold italicized green*** text.

3.0 Requirements

The monitor and control (M&C) connection requires a cross-over Ethernet cable connected over a direct local network via TCP port **4000**. The interface is not currently available over a routed connection.

4.0 Network Security Issues

In order to enable the use of the monitor and control protocol, the R8000 must have its network settings configured. **The user should be aware that external security measures are required to protect the R8000 from unauthorized access.**

5.0 Other Warnings and Recommendations


While there are access restrictions when using this protocol to monitor and control the R8000, it is highly recommended that programmers be cautious and aware that this equipment is capable of generating and receiving high power signals through its configuration. **The protocol does not protect the user from improper physical connections or signal routing.** It is also recommended that programmers use the equipment ID command (*IDN?) to identify the equipment being controlled upon the initiation of a connection or following local control of the equipment.

6.0 General Usage

The M&C consists of a set of proprietary commands as well as supporting the IEEE standard equipment ID query. These various commands are used to access the menus and fields that control and report R8000 operation. Commands take the form of:

CMD[Tag[=data]]

If applicable, the Tag consists of the required region, also called the owner, of the field along with a specifier. Some fields require that the region is active in order to query or control the data. The specifier identifies the specific field or code being queried or controlled. The region and specifier are joined together with a colon ":"; e.g. DISPLAY:Span. The data is only used with write access controls and must be in the appropriate format per the field definition. The square

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 3 OF 106 | |

brackets ([]) illustrate these options and are not part of the actual command to be sent. All commands must be terminated by a carriage-return (CR) and line-feed (LF) character.

6.1 Commands

1. **NOOP**: This command has no affect on the R8000 but provides a mechanism for a prompt query. Programmers may use this command to poll for response of code **2** (Busy) to determine if a previous new command may still be being applied; see the field description section, Typical Completion Time.

Usage : **NOOP**

2. **GET**: Use this command to retrieve monitored information or current control settings

Usage: **GET <Tag>**

3. **SET**: Use this command to set a control to a new value

Usage: **SET <Tag>=<value>**

NOTE: If a field of Data Type BOOLEAN has no List Values then value is **F** or **T**.

4. **DO**: Use this command to have the R8000 perform a function.

Usage: **DO <Tag>**

5. **GO**: Use this command to navigate the R8000 menu tree. Some fields are only accessible if the field's required menu is active. In order to monitor or control these fields, use the **GO** command to navigate to the menu first.


Usage: **GO <Tag>**

6. ***IDN?**: Equipment ID command. Use this command to return the following formatted response:

Usage: ***IDN?**

*Freedom Communication Technologies, Inc. Communications System Analyzer
Model:<model number>, S/N:<serial number>, System Version:<version>*

7. **ERR?** and **CLEAR**: Use these commands together to manage the error notification system of the R8000. **ERR?** queries the R8000 for error information and **CLEAR** is used to acknowledge error messages and popups. There are two usages based on the response to **ERR?**.

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 4 OF 106 | |

Usage : **ERR?**

Usage 1(Popup): **CLEAR <Tag>[Response]**

If a popup is active, **ERR?** will return with the popup tag, a list of valid responses, and the text message of the popup. For example:

ERR?

*0:SYSTEM:6045[POP_CONTINUE,POP_CANCEL] WARNING!
 Access to USB device Press Continue to save screen capture to device
 Or Press Cancel to abort*

CLEAR SYSTEM:6045[POP_CONTINUE]

0:

Usage 2(Messages): **CLEAR**

If no popup is active, the **ERR?** will respond with the number of active messages and a list of the message codes. For example:

ERR?

0:2[6040,7001]

CLEAR

0:

ERR?

0:0[]

- HELP:** Use this command to obtain limited help information. This command can return help for a command, a specific field, or a brief explanation of a prompt or message code.

Usage 1(Command help): **HELP <Command>**

Usage 2(Field help): **HELP <Tag>**

The field help is formatted to allow users to format the response into a readable body. It contains the pipe-bar character “|” at each location where a carriage return/line feed (CRLF) should be placed. For example,


HELP SYSTEM:RF

will respond with the following string:

0:Name:RF Zone|Tag:SYSTEM:RF|Commands:GO|Data Type:SUBMENU|Typical Completion Time:250 ms||

By replacing all pipe-bar characters with a CRLF, the result is this:

0:Name:RF Zone

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 5 OF 106 | |

Tag:SYSTEM:RF
Commands:GO
Data Type:SUBMENU
Typical Completion Time:250 ms

Usage 3(Prompt\Message code): **HELP** <code>

6.2 Responses

Each command sent to the R8000 via the M&C protocol shall return a single response. The response consists of a prompt code and colon followed by any returned data. The returned data format depends on the field's data type.

1. Prompt codes
 - a. **0**: Okay – command was successful
 - b. **1**: Ranged – command was accepted but the data had to be coerced into the valid data range or format.
 - c. **2**: Busy – command was accepted (i.e. code would have been Okay) but previous command was not confirmed complete based on Typical Completion Time.
 - d. **3**: Denied – Access to the requested field was denied. Check field Commands property.
 - e. **4**: N/A – Not available at this time. Check availability requirements.
 - f. **5**: Option – Option not installed. Contact Sales to purchase options.
 - g. **6**: Error – Unexpected error.
 - h. **7**: Invalid – Command not valid for field. Check field Commands property.
 - i. **8**: Unknown – Tag is unknown. Check Region and Tag
 - j. **9**: Format – Data is in the wrong format. For example, the field is an INTEGER type but a character string was sent. Check field data type.


7.0 Field Properties

Fields are described by their set of properties. This section describes the field properties, valid commands for them, type of data, availability conditions, typical command completion times, etc.

1. Name: This is the name of the field. It is unused in the protocol but valuable for reference as this name corresponds to the name found on soft keys for controls on the R8000. It is also may be slightly more descriptive than the tag.
2. Tag: The tag consists of two parts; the Region, or owner, categorizes the scope of the tag reference; the tag itself specifies the particular field within the region.

The format of the Tag is always Region:Tag

3. Commands: this property is a list of valid M&C commands that may be used with the field.

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 6 OF 106 | |

4. Data Type: This describes the type of data expected in the **SET** command string or the data returned from a **GET** query. All data is passed in text string format, however the string is processed by the R8000 according to the data type.
 - a. Format: Some STRING and Numeric data fields have a specialized format for the data. See 10.0 Custom Formats.
 - b. Char set: Some STRING data fields are restricted to the character set that can be used. For example, the DTMF Code has a defined character set:

0,1,2,3,4,5,6,7,8,9,A,B,C,D,#,*
 - c. List Values: Both LIST and BOOLEAN data type fields have aliased text strings to make the command/response more readable. These aliases correspond to the horizontal soft key position or position in the list box in the R8000 editing system.

Some LIST and BOOLEAN data type values are dynamically available based on the condition of the system at the time of the command. These conditions are documented in brackets immediately following the list value and describe the run-time conditions necessary to set the field to the specific list value. For example, the following field description indicates availability conditions for both list values:


Name:Select Audio Measurement
 Tag:METER:Audio Meter
 Commands:GET, SET
 Data Type:LIST
 List Values: SINAD/Ext Distortion [Test Mode<>P25 Trunk and Test Mode<>NXDN Trunk], Internal Distortion [Test Mode=Standard]
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=SINAD/Distortion
 Typical Completion Time:100 ms

The **SINAD/Ext Distortion** value is available in all test modes except trunking modes.

The **Internal Distortion** is only available in Standard test mode.

NOTE: Do not include the condition when setting a value; the correct command for this example is: SET METER:Audio Meter=SINAD/Ext Distortion

- d. Range: Numeric values may have limited ranges that will be accepted. If the number has settable units (See Units), the range is always defined in the base units. If the data set into the field is outside the range, the R8000 will coerce the

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 7 OF 106 | |

new value into the range at either the minimum or maximum value. The command will be accepted and return with a prompt code of **I** (Ranged)

- e. Units: Some floating point values have settable units that the value can be set in. If the field has settable units, this property will list the valid entries. To set a floating point value with its units, format the data as “value units”; for example:

SET RF:Monitor Frequency=1.2 GHz
0:1.20000000 GHz


However, sending the units is not a requirement. If units are not sent, the system will apply the currently configured units to the data. For example, if the following two commands are sent, the second will be assumed to be in MHz.

SET RF:Monitor Frequency=403 MHz
0:403.000000 MHz
SET RF:Monitor Frequency=405
0:405.000000 MHz

5. Availability

Because the R8000 disables sub-systems to provide the most efficient use of processing, certain fields may not be available at all times. Fields that have availability requirements are denoted under this property.

- a. Synth Format: Field is only accessible when the specified Audio Format is selected. This availability requirement is unique to fields in the Audio Zone and used to configure specific audio formats such as PL, DPL, etc.
 - b. Operating Mode: Field is only accessible when the R8000 is in the mode(s) indicated. If this property is not present, the field is available in any/all modes unless otherwise unavailable.
 - c. Options: Field is only accessible when the specified option has been purchased. If this property is not present, the field is standard. Contact to purchase new options for your R8000.
 - d. Menu: Field is only accessible when the R8000 menu system has the given condition active. This condition may specify a region or a region and a subzone (Region ->Subzone). Use the **GO** and **SET** commands to navigate to and/or select the appropriate region. If this property is not present, the field is available regardless of region.
6. Typical Completion Time: This property provides the typical processing time for the field in milliseconds. Most commands take very little time to complete; however some commands take more time to apply the desired condition to the system. This is particularly important when creating automated control software. The M&C is designed for immediate command response. However if the previous command has not had time to complete, there is no guarantee that data will be ready to retrieve following a change in

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 8 OF 106 | |

configuration. For example, the following commands if sent without delay would most likely result in an inaccurate Input Level reading:

```

SET RF:Monitor Frequency=403 MHz
0:403.000000 MHz
GET MONITOR:Input Level
2:-32.3

```

The prompt will be returned with code **2** (Busy) if the previous command was not given enough time to complete its transaction.

8.0 Examples

There are a few examples of how to use different types of commands with fields within the following section. These examples assume the R8000 is starting from the main zone screen and call specific commands to activate the required regions necessary to command the field. These examples are given as if executed from a terminal with a connection to the remote monitor and control interface. Expected command responses are provided for reference.


1. Tune to local radio station with the highest signal. From a terminal program execute the following commands in sequence.

```

SET SYSTEM:Mode Request=Monitor
0:Monitor
GO SYSTEM:RF
0:
SET RF:Monitor Port=Antenna
0:Antenna
SET RF:Bandwidth=200 kHz (Wide)
0: 200 kHz (Wide)
GO SYSTEM:DISPLAY
0:
SET DISPLAY:Subzone=Spec An
0:Spec An
SET DISPLAY:Start Frequency=75 MHz
0:75.000000 MHz
SET DISPLAY:Stop Frequency=110 MHz
0:110.000000 MHz
DO DISPLAY:Center Peak
0:
SET DISPLAY:Span=158 kHz
0:158.000 kHz

```

2. Generate a DTMF tone and view it on the modulation scope. From a terminal program execute the following commands in sequence.

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 9 OF 106 | |

SET SYSTEM:Mode Request=Generate

0:Generate

GO SYSTEM:DISPLAY

0:

SET DISPLAY:Subzone=Mod Scope

0:Mod Scope

SET DISPLAY:FM Vertical Scale=5 kHz

0:5 kHz

GO SYSTEM:AUDIO

0:

SET AUDIO:Gen DTMF=12

0:12

SET AUDIO:DTMF Code=123ABC#

0:123ABC#-----

SET AUDIO:DTMF Mode=Continuous

0:Continuous

9.0 Local/Remote Control

The R8000 will temporarily lock out local users when the unit is remotely controlled. When the R8000 is in lock-out, the Operating Mode indicator on the lower-left part of the screen will flash between the operating mode and "Remote". To regain local control the Esc key must be pressed from the front panel.

10.0 Custom Formats

Some fields use a custom formatting that is required for data entry. This section describes each format type.

10.1 Format symbols


- \$** Alphabetic characters only (A-Z)
- #** Decimal digits only (0-9)
- 0** Hexadecimal characters only (0-9, A-F)
- x** Any/all characters are valid
- :** Location in string must be a colon
- .** Location in string must be a period.

10.2 Format templates

0x0000 – Hexadecimal format. This field is a string containing a hexadecimal value the length of the number of digits to the right of the 0x prefix. If the data is shorter than the format, add leading zeros to ensure the appropriate value is set.

Examples:

Format=0x0000

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 10 OF 106 | |

Setting => 0A3F

Format=0x00

Setting => 3F

Format=0x00000000

Setting => 00000A3F

#.##### – Floating point format. This field contains a floating point number with the precision defined by the number of digits to the right of the decimal point.

Examples:

Format=#.##

Setting => 4.02

Format=#.#####

Setting => 1.10031

(POCSAGCustom) – Used for blank formatting and the POCSAG text messaging, no particular formatting required.

(56Tone) - Used specifically for the 5/6 Tone code formatting. The 5/6 tone must be formatted as **#-#####c** where c is either empty or 'X' indicating the 6-tone. The valid character set for the digital format (#) is [0123456789R] where the 'R' character indicates a repeat tone.

Examples:

0-12345

2-12R45


0-12346X

(DTMFCode) – Used specifically for the DTMF Tone code formatting. The DTMF code field must be at exactly 16 characters long. Strings less than 16 characters will be appended with dashes "-" to extend the string to 16 characters. Strings longer than 16 characters will be truncated to 16 characters. The valid character set for DTMF code is [0123456789ABCD#*]

(GENSEQCode) - Used specifically for the General Sequence tone code, delay, and duration sequence formatting. These fields must be at exactly 20 characters long. Strings less than 20 characters will be appended with dashes "-" to extend the string to 20 characters. Strings longer than 20 characters will be truncated to 20 characters. The valid character set for the General Sequence format is [0123456789ABCDEFGHIJ]

(HH:MM) – Used for time entry where HH is 24-hour notation; MM is minutes. This field must have a colon in the 3rd character position.

(MM.DD.YYYY) – Used for date entry where MM is month, DD is day, and YYYY is year. This field must have a period in the 3rd and 6th character positions.

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 11 OF 106 | |

11.0 Field Descriptions

This section provides the specific properties for each field accessible through the R8000 Monitor and Control interface for R8000 system version 3.3.0.0.

Name:RF Zone
 Tag:SYSTEM:RF
 Commands:GO
 Data Type:SUBMENU
 Typical Completion Time:1000 ms

Name:AUDIO Zone
 Tag:SYSTEM:AUDIO
 Commands:GO
 Data Type:SUBMENU
 Typical Completion Time:1000 ms


Name:DMR
 Tag:SYSTEM:DMR
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-DMR
 Typical Completion Time:2000 ms

Name:PROJECT 25
 Tag:SYSTEM:P25
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-P25
 Typical Completion Time:1000 ms

Name:P25 II
 Tag:SYSTEM:P25_II
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-P25_II
 Typical Completion Time:1000 ms

Name:NXDN™
 Tag:SYSTEM:NXDN
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-NXDN
 Typical Completion Time:2000 ms

Name:dPMR
 Tag:SYSTEM:DPMR
 Commands:GO
 Data Type:SUBMENU
 Availability:

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 12 OF 106 | |

Option:R8-DPMR
 Typical Completion Time:2000 ms

Name:P25 Trunk
 Tag:SYSTEM:P25_TRUNK
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-P25TRNK
 Typical Completion Time:2000 ms

Name:PTC-ITCR
 Tag:SYSTEM:PTC_ITCR
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-PTC_ITCR
 Typical Completion Time:2000 ms


Name:TETRA
 Tag:SYSTEM:TETRA
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-TETRA_BSM, R8-TETRA_DMO
 Typical Completion Time:2000 ms

Name:TETRA TMO
 Tag:SYSTEM:TETRA_TMO
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-TETRA_TMO
 Typical Completion Time:2000 ms

Name:NXDN™ Trunk
 Tag:SYSTEM:NXDN_TRUNK
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-NXDNTYPC
 Typical Completion Time:2000 ms

Name:DISPLAY Zone
 Tag:SYSTEM:DISPLAY
 Commands:GO
 Data Type:SUBMENU
 Typical Completion Time:1000 ms

Name:METER Zone
 Tag:SYSTEM:METER
 Commands:GO
 Data Type:SUBMENU
 Typical Completion Time:1000 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 13 OF 106 | |

Name:State
 Tag:SYSTEM:State
 Commands:GET
 Data Type:LIST
 List Values: INIT, RUN, LOAD, CALIBRATE
 Typical Completion Time:0 ms

Name:Mode
 Tag:SYSTEM:Mode
 Commands:GET
 Data Type:LIST
 List Values: Monitor, Generate, Duplex, Track Gen, Cable Fault
 Typical Completion Time:0 ms

Name:Mode
 Tag:SYSTEM:Mode Request
 Commands:GET, SET
 Data Type:LIST
 List Values: Monitor, Generate, Duplex
 Typical Completion Time:2000 ms

Name:Squelch Position
 Tag:SYSTEM:Squelch Position
 Commands:GET
 Data Type:FLOAT
 Typical Completion Time:0 ms


Name:Squelch State
 Tag:SYSTEM:Squelch State
 Commands:GET
 Data Type:BOOLEAN
 List Values: Squelched - Low Signal, Not Squelched
 Typical Completion Time:0 ms

Name:Serial Number
 Tag:SYSTEM:UNITID
 Commands:GET
 Data Type:STRING
 Typical Completion Time:0 ms

Name:
 Tag:SYSTEM:BaseModel
 Commands:GET
 Data Type:STRING
 Typical Completion Time:0 ms

Name:External Drives
 Tag:SYSTEM:External Drives
 Commands:GET
 Data Type:LIST
 List Values:
 Typical Completion Time:0 ms

Name>Select Display
 Tag:DISPLAY:Subzone

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 14 OF 106 | |

Commands:GET, SET

Data Type:LIST

List Values: Spec An, Mod Scope [Test Mode=Standard or Test Mode=DPMR or Test Mode=NXDN or Test Mode=NXDN Trunk], Oscilloscope [Test Mode=Standard or Test Mode=DPMR or Test Mode=NXDN or Test Mode=NXDN Trunk or Test Mode=PROJECT 25 or Test Mode=P25 Trunk or Test Mode=P25 II], Bar Graphs [Test Mode=Standard or Test Mode=DPMR or Test Mode=NXDN or Test Mode=PROJECT 25 or Test Mode=P25 II], Eye Diagram [Test Mode=DPMR or Test Mode=NXDN or Test Mode=NXDN Trunk or Test Mode=PROJECT 25 or Test Mode=P25 Trunk or Test Mode=P25 II or Test Mode=PTC-ITCR], Power Profile [Test Mode=DMR or Test Mode=P25 II and P25_II:Mon Mod Type=HCPM or Test Mode=PTC-ITCR or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], General Sequence [METER:Decoder=General Sequence], Voice Frame Decode [Test Mode=PROJECT 25], Mod Spec / Constellation [Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], Constellation Plot [Test Mode=PTC-ITCR or Test Mode=PROJECT 25 and P25:Mon Mod Type=LSM or Test Mode=PROJECT 25 and P25:Mon Mod Type=WCQPSK], Distribution Plot [Test Mode=PROJECT 25 or Test Mode=P25 Trunk or Test Mode=P25 II or Test Mode=PTC-ITCR]

Availability:

Operating Mode:Monitor, Generate, Duplex

Typical Completion Time:500 ms

Name:Samples

Tag:DISPLAY:Spectral Data

Commands:GET

Data Type:ARRAY

Availability:

Operating Mode:Monitor, Duplex, Track Gen

Typical Completion Time:100 ms

Name:Samples

Tag:DISPLAY:Demodulation Data

Commands:GET

Data Type:ARRAY

Availability:

Operating Mode:Monitor, Duplex

Typical Completion Time:100 ms

Name:Samples

Tag:DISPLAY:Modulation Data

Commands:GET

Data Type:ARRAY

Availability:

Operating Mode:Generate, Duplex

Typical Completion Time:100 ms

Name:Samples

Tag:DISPLAY:External Data

Commands:GET


Data Type:ARRAY

Availability:

Operating Mode:Monitor, Generate, Duplex

Typical Completion Time:100 ms

Name:Center Frequency

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 15 OF 106 | |

Tag:DISPLAY:Monitor Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Spec An
 Typical Completion Time:5000 ms


Name:Span
 Tag:DISPLAY:Span
 Commands:GET, SET
 Data Type:FLOAT
 Range: 9751 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Spec An
 Typical Completion Time:5000 ms

Name:Start Frequency
 Tag:DISPLAY:Start Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Spec An
 Typical Completion Time:5000 ms

Name:Stop Frequency
 Tag:DISPLAY:Stop Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Spec An
 Typical Completion Time:5000 ms

Name:See and Hear Active
 Tag:DISPLAY:SNH Active
 Commands:GET
 Data Type:BOOLEAN
 List Values:
 Availability:
 Menu:DISPLAY:Subzone=Spec An
 Typical Completion Time:0 ms

Name:Resolution Bandwidth
 Tag:DISPLAY:Resolution Bandwidth
 Commands:GET

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 16 OF 106 | |

Data Type:FLOAT

Availability:

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:0 ms

Name:Reference Level (dBm)

Tag:DISPLAY:Reference Level

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 90

Availability:

Operating Mode:Monitor, Duplex

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:100 ms

Name:Vertical Scale

Tag:DISPLAY:Vertical Scale

Commands:GET, SET

Data Type:LIST

List Values: 10 dB/div, 5 dB/div, 2 dB/div, 1 dB/div

Availability:

Operating Mode:Monitor, Duplex

Option:R8-ESA

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:100 ms

Name:Display Mode

Tag:DISPLAY:Display Mode

Commands:GET, SET

Data Type:LIST

List Values: Normal, Freeze, Max Hold, Average

Availability:

Operating Mode:Monitor, Duplex

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:100 ms

Name:Trace Math

Tag:DISPLAY:Trace Math

Commands:GET, SET

Data Type:LIST

List Values: None, Spec-Ref (log),

Spec-Ref

(lin), Spec+Ref (lin)

Availability:

Operating Mode:Monitor, Duplex

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:100 ms

Name:Set Reference Trace

Tag:DISPLAY:Set Reference Trace


Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor, Duplex

Menu:DISPLAY:Subzone=Spec An

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 17 OF 106 | |

Typical Completion Time:100 ms


Name:Detector
 Tag:DISPLAY:Detector
 Commands:GET, SET
 Data Type:LIST
 List Values: Power, Peak, Sample, Mean, Valley
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Spec An
 Typical Completion Time:200 ms

Name:Coupling
 Tag:DISPLAY:Coupling
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: DC, AC
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Oscilloscope
 Typical Completion Time:500 ms

Name:Horizontal Scale
 Tag:DISPLAY:Horizontal Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 20 us, 50 us, 100 us, 200 us, 500 us, 1 ms, 2 ms, 5 ms, 10 ms, 20 ms, 50 ms, 100 ms, 200 ms, 500 ms, 1 s
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Mod Scope
 Typical Completion Time:100 ms

Name:Horizontal Scale
 Tag:DISPLAY:Ext Horizontal Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 20 us (Max 50 kHz In), 50 us (Max 20 kHz In), 100 us (Max 10 kHz In), 200 us (Max 5 kHz In), 500 us (Max 2 kHz In), 1 ms (Max 1 kHz In), 2 ms (Max 500 Hz In), 5 ms (Max 200 Hz In), 10 ms (Max 100 Hz In), 20 ms (Max 50 Hz In), 50 ms (Max 20 Hz In), 100 ms (Max 10 Hz In), 200 ms (Max 5 Hz In), 500 ms (Max 2 Hz In), 1 s (Max 1 Hz In)
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Oscilloscope
 Typical Completion Time:500 ms

Name:Vertical Scale
 Tag:DISPLAY:AM Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 1%, 2%, 5%, 10%, 20%, 50%
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Mod Scope

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 18 OF 106 | |

Typical Completion Time:100 ms

Name:Vertical Scale

Tag:DISPLAY:FM Vertical Scale

Commands:GET, SET

Data Type:LIST

List Values: 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 50 kHz

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:DISPLAY:Subzone=Mod Scope

Typical Completion Time:100 ms

Name:Vertical Scale

Tag:DISPLAY:Ext Vertical Scale

Commands:GET, SET

Data Type:LIST

List Values: 50 mV, 100 mV, 200 mV, 500 mV, 1 V, 2 V, 5 V, 10 V, 15 V, 20 V, 25 V

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:DISPLAY:Subzone=Oscilloscope

Typical Completion Time:500 ms

Name:Find Peak

Tag:DISPLAY:Find Peak

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor, Duplex

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:100 ms

Name:Center Peak

Tag:DISPLAY:Center Peak

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor, Duplex

Menu:DISPLAY:Subzone=Spec An

Typical Completion Time:5000 ms

Name:Trigger Mode

Tag:DISPLAY:Trigger

Commands:GET, SET

Data Type:LIST

List Values: Auto, Normal, Single

Availability:

Operating Mode:Monitor, Generate, Duplex


Menu:DISPLAY:Subzone=Mod Scope

Typical Completion Time:100 ms

Name:Trigger Level

Tag:DISPLAY:Trigger Level

Commands:GET, SET

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 19 OF 106 | |

Data Type:INTEGER
 Range: 0 to 200000
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Mod Scope
 Typical Completion Time:100 ms


Name:Trigger Level (%)
 Tag:DISPLAY:AM Trigger Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Mod Scope
 Typical Completion Time:100 ms

Name:Trigger Edge
 Tag:DISPLAY:Trigger Edge
 Commands:GET, SET
 Data Type:LIST
 List Values: Rising, Falling, Either
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Mod Scope
 Typical Completion Time:100 ms

Name:Scope Mode
 Tag:DISPLAY:Mod Scope Select
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Monitor, Generate
 Availability:
 Operating Mode:Duplex
 Menu:DISPLAY:Subzone=Mod Scope
 Typical Completion Time:100 ms

Name:Trigger Mode
 Tag:DISPLAY:Ext Trigger
 Commands:GET, SET
 Data Type:LIST
 List Values: Auto, Normal, Single, Freeze
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Oscilloscope
 Typical Completion Time:500 ms

Name:Trigger Level
 Tag:DISPLAY:Ext Trigger Level
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Oscilloscope

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 20 OF 106 | |

Typical Completion Time:500 ms

Name:Trigger Position
 Tag:DISPLAY:Ext Trigger Position
 Commands:GET, SET
 Data Type:LIST
 List Values: 10%, 50%, 90%
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Oscilloscope
 Typical Completion Time:500 ms


Name:Trigger Edge
 Tag:DISPLAY:Ext Trigger Edge
 Commands:GET, SET
 Data Type:LIST
 List Values: Rising, Falling, Either
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:DISPLAY:Subzone=Oscilloscope
 Typical Completion Time:500 ms

Name:Deviation Average
 Tag:DISPLAY:Deviation Average
 Commands:GET, SET
 Data Type:LIST
 List Values: Normal, Peak Average [Test Mode=Standard], Pwr-Weight Average [Test Mode=Standard], RMS Average [Test Mode=Standard], +/-Peak / 2 [Test Mode=Standard]
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Bar Graphs
 Typical Completion Time:100 ms

Name:Display Mode
 Tag:DISPLAY:Eye Display Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Normal, Fade Away
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Eye Diagram
 Typical Completion Time:100 ms

Name:Decode to Standard
 Tag:DISPLAY:Standard
 Commands:GET, SET
 Data Type:LIST
 List Values: None, CCIR1, CCIR2, PCCIR, CCITT, EEA, EIA, Euro, NATEL, MODAT, ZVEI1, ZVEI2, ZVEI3, PZVEI, DZVEI, PDZVEI
 Availability:
 Menu:DISPLAY:Subzone=General Sequence
 Typical Completion Time:100 ms

Name:Select View

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 21 OF 106 | |

Tag:DISPLAY:Select View
 Commands:GET, SET
 Data Type:LIST
 List Values: Current [Test Mode=DMR], Alternate [Test Mode=DMR], Both [Test Mode=DMR], Frame [Test Mode=P25 II or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], Slot 1 [Test Mode=P25 II or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], Slot 2 [Test Mode=P25 II]
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms


Name:Select Frame
 Tag:DISPLAY:Frame
 Commands:GET, SET
 Data Type:LIST
 List Values: 1, 2, 3, 4, 5, 6
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:Vertical Maximum (dBm)
 Tag:DISPLAY:PP Vertical Maximum
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 60
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:Vertical Scale
 Tag:DISPLAY:PP Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 10 dB/div, 5 dB/div, 2 dB/div, 1 dB/div
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:Horizontal Maximum (ms)
 Tag:DISPLAY:PP Horizontal Maximum
 Commands:GET, SET
 Data Type:INTEGER
 Range: 20 to 500
 Availability:
 Operating Mode:Monitor, Duplex
 Option:R8-PTC_ITCR
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:Power Profile before Display Mode
 Tag:DISPLAY:Power Profile Data

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 22 OF 106 | |

Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:Display Mode
 Tag:DISPLAY:PP Display Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Normal, Freeze, Max Hold, Average
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms


Name:Power Profile after Display Mode
 Tag:DISPLAY:Power Profile
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:Update Power Profile
 Tag:DISPLAY:Power Profile Request
 Commands:
 Data Type:BOOLEAN
 List Values: F, T
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DISPLAY:Subzone=Power Profile
 Typical Completion Time:100 ms

Name:
 Tag:DISPLAY:Distribution Data
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Typical Completion Time:1100 ms

Name:Constellation Data
 Tag:DISPLAY:Constellation Data
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Typical Completion Time:100 ms

Name:Select Meter
 Tag:METER:Subzone
 Commands:GET, SET

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 23 OF 106 | |

Data Type:LIST

List Values: Power Meter [Test Mode=Standard or Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN or Test Mode=PROJECT 25 or Test Mode=P25 II], Voltmeter [Test Mode=Standard or Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN or Test Mode=PROJECT 25 or Test Mode=P25 II or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], SINAD/Distortion [Test Mode=Standard], Decoder [Test Mode=Standard or Test Mode=PROJECT 25], Frequency Counter [Test Mode=Standard], P25 Trunking [Test Mode=P25 Trunk], Constellation [Test Mode=DMR or Test Mode=P25 II or Test Mode=PTC-ITCR], RF Scan [Test Mode=Standard or Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN or Test Mode=PROJECT 25], NXDN™ Trunking [Test Mode=NXDN Trunk]

Availability:

Operating Mode:Monitor, Generate, Duplex

Typical Completion Time:100 ms

Name:Reset Meter Fields

Tag:METER:Reset Meter Fields

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Duplex

Menu:METER:Subzone=P25 Trunking

Typical Completion Time:100 ms

Name:Range

Tag:METER:PWR Meter Range

Commands:GET, SET

Data Type:LIST

List Values: 5W, 10W, 50W, 150W

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:METER:Subzone=Power Meter

Typical Completion Time:100 ms

Name:Measured Power

Tag:METER:Measured Power

Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Monitor, Duplex

Menu:METER:Subzone=Power Meter

Typical Completion Time:0 ms

Name>Select Voltmeter Mode

Tag:METER:Voltmeter

Commands:GET, SET


Data Type:LIST

List Values: AC Volts [Test Mode=Standard or Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN or Test Mode=PROJECT 25 or Test Mode=P25 II or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], DC Volts [Test Mode=Standard or Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN or Test Mode=PROJECT 25 or Test Mode=P25 II or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO]

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:METER:Subzone=Voltmeter

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 24 OF 106 | |

Typical Completion Time:100 ms

Name:AC Range
 Tag:METER:AC Range
 Commands:GET, SET
 Data Type:LIST
 List Values: Auto, 1 V, 10 V, 70 V
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Voltmeter
 Typical Completion Time:100 ms


Name:Set dBr Reference
 Tag:METER:Set Reference
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Voltmeter
 Typical Completion Time:100 ms

Name:Clear dBr Reference
 Tag:METER:Clear Reference
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Voltmeter
 Typical Completion Time:100 ms

Name:DC Range
 Tag:METER:DC Range
 Commands:GET, SET
 Data Type:LIST
 List Values: Auto, 1 V, 10 V, 100 V
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Voltmeter
 Typical Completion Time:100 ms

Name:AC Volts
 Tag:METER:AC Volts
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Voltmeter
 Typical Completion Time:0 ms

Name:DC Volts
 Tag:METER:DC Volts
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Generate, Duplex

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 25 OF 106 | |

Menu:METER:Subzone=Voltmeter
 Typical Completion Time:0 ms

Name:Select Audio Measurement
 Tag:METER:Audio Meter
 Commands:GET, SET
 Data Type:LIST
 List Values: SINAD/Ext Distortion [Test Mode=Standard], Internal Distortion [Test Mode=Standard]
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=SINAD/Distortion
 Typical Completion Time:100 ms


Name:SINAD
 Tag:METER:SINAD
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=SINAD/Distortion
 Typical Completion Time:0 ms

Name:External Distortion
 Tag:METER:External Distortion
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=SINAD/Distortion
 Typical Completion Time:0 ms

Name:Internal Distortion
 Tag:METER:Internal Distortion
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=SINAD/Distortion
 Typical Completion Time:0 ms

Name:Select Decoder Type
 Tag:METER:Decoder
 Commands:GET, SET
 Data Type:LIST
 List Values: PL/Period Counter [Test Mode=Standard], DPL Decode [Test Mode=Standard], DTMF Decode [Test Mode=Standard], 2-Tone Decode [Test Mode=Standard], 5/6 Tone Decode [Test Mode=Standard], General Sequence [Test Mode=Standard], Voice Frame Decode [Test Mode=PROJECT 25]
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:100 ms

Name:Reset

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 26 OF 106 | |

Tag:METER:Reset
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Decoder, Frequency Counter
 Typical Completion Time:100 ms

Name:PL Freq
 Tag:METER:PL Frequency
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms


Name:PL Code
 Tag:METER:PL Code
 Commands:GET
 Data Type:STRING
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:DPL Code
 Tag:METER:DPL Code
 Commands:GET
 Data Type:STRING
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:DTMF Code
 Tag:METER:DTMF Code
 Commands:GET
 Data Type:STRING
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:General Sequence Decodes
 Tag:METER:GenSeqDecodes
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:Decode
 Tag:METER:Decode

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 27 OF 106 | |

Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:500 ms

Name:Code Sequence
 Tag:METER:Code Sequence
 Commands:GET, SET
 Data Type:STRING
 Format:(GENSEQCode)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J
 Availability:
 Operating Mode:Duplex
 Typical Completion Time:100 ms


Name:Decode Burst
 Tag:METER:Decode Burst
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Duplex
 Typical Completion Time:500 ms

Name:Tone1 Freq.
 Tag:METER:Tone1 Freq
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:Tone1 Duration
 Tag:METER:Tone1 Duration
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:Tone2 Freq.
 Tag:METER:Tone2 Freq
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:Tone2 Duration
 Tag:METER:Tone2 Duration

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 28 OF 106 | |

Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:5/6 Codes
 Tag:METER:56_Codes
 Commands:GET
 Data Type:STRING
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:0 ms

Name:5/6 Freqs
 Tag:METER:56_Freqs
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:100 ms

Name:5/6 Durations
 Tag:METER:56_Durs
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:100 ms

Name:Decode to Standard
 Tag:METER:Standard
 Commands:GET, SET
 Data Type:LIST
 List Values: None, CCIR1, CCIR2, PCCIR, CCITT, EEA, EIA, Euro, NATEL, MODAT, ZVEI1, ZVEI2, ZVEI3, PZVEI, DZVEI, PDZVEI
 Availability:
 Menu:METER:Subzone=Decoder
 Typical Completion Time:500 ms

Name:High Pass Filter
 Tag:METER:High Pass Filter
 Commands:GET, SET
 Data Type:LIST
 List Values: 1 Hz, 300 Hz, 3 kHz
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:100 ms

Name:Low Pass Filter

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 29 OF 106 | |

Tag:METER:Low Pass Filter
 Commands:GET, SET
 Data Type:LIST
 List Values: 300 Hz, 3 kHz, 20 kHz
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Decoder
 Typical Completion Time:100 ms

Name:Input Decoding
 Tag:METER:Input Decoding
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Internal, External
 Availability:
 Menu:METER:Subzone=Decoder, Frequency Counter
 Typical Completion Time:100 ms


Name:Frequency Counter
 Tag:METER:Frequency Counter
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=Frequency Counter
 Typical Completion Time:0 ms

Name:Resolution
 Tag:METER:Resolution
 Commands:GET, SET
 Data Type:LIST
 List Values: 0.001 Hz, 0.01 Hz, 0.1 Hz, 1.0 Hz, 10 Hz
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:METER:Subzone=Frequency Counter
 Typical Completion Time:100 ms

Name:Test Status
 Tag:METER:Trunk Status
 Commands:GET
 Data Type:STRING
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=P25 Trunking
 Typical Completion Time:0 ms

Name:Deviations
 Tag:METER:Constellation
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Typical Completion Time:100 ms

Name:Start Frequency (MHz)

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 30 OF 106 | |

Tag:METER:Start Frequency
 Commands:GET, SET
 Data Type:INTEGER
 Range: 1 to 3000
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=RF Scan
 Typical Completion Time:5000 ms


Name:Stop Frequency (MHz)
 Tag:METER:Stop Frequency
 Commands:GET, SET
 Data Type:INTEGER
 Range: 1 to 3000
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=RF Scan
 Typical Completion Time:5000 ms

Name:Scan
 Tag:METER:Run RF Scan
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Single, Auto
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=RF Scan
 Typical Completion Time:100 ms

Name:RF Scan State
 Tag:METER:RF Scan State
 Commands:GET
 Data Type:LIST
 List Values: Disabled, Scanning, Locked, Inactive
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=RF Scan
 Typical Completion Time:0 ms

Name:Spectrum
 Tag:METER:RF Scan Data
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:METER:Subzone=RF Scan
 Typical Completion Time:0 ms

Name:Test Status
 Tag:METER:NXDN Trunk Status
 Commands:GET
 Data Type:STRING
 Availability:
 Operating Mode:Duplex
 Menu:METER:Subzone=NXDN™ Trunking

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 31 OF 106 | |

Typical Completion Time:0 ms

Name:Toggle with DO RF:RF Power

Tag:RF:RF Power

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, On

Availability:

Operating Mode:Generate, Duplex

Typical Completion Time:100 ms

Name:Monitor Frequency

Tag:RF:Monitor Frequency

Commands:GET, SET

Data Type:FLOAT

Range: 250000 Hz to 1000000000 Hz

Units: Hz, kHz, MHz, GHz

Availability:

Operating Mode:Monitor, Duplex

Typical Completion Time:5000 ms

Name:Copy Frequency to Generator

Tag:RF:Copy Mon to Gen

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor

Typical Completion Time:5000 ms

Name:Generate Frequency

Tag:RF:Generate Frequency

Commands:GET, SET

Data Type:FLOAT

Range: 250000 Hz to 1000000000 Hz

Units: Hz, kHz, MHz, GHz

Availability:

Operating Mode:Generate, Duplex

Typical Completion Time:5000 ms

Name:Copy Frequency to Monitor

Tag:RF:Copy Gen to Mon

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Generate

Typical Completion Time:5000 ms


Name:Modulation Type

Tag:RF:Modulation Type

Commands:GET, SET

Data Type:LIST

List Values: FM [Test Mode=Standard], AM [Test Mode=Standard], USB [Test Mode=Standard and Option=R8-SSB], LSB [Test Mode=Standard and Option=R8-SSB], 4FSK [Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN], C4FM [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], LSM [Test Mode=PROJECT 25 or Test

| | | | |
|--|---|--|---|
|  Kilgore, TX | TYPE: <p style="text-align: center;">Programmer's Guide</p> | NO: <p style="text-align: center;">FCT-1110</p> | REV: <p style="text-align: center;">H</p> |
| | TITLE: <p style="text-align: center;">R8000 Monitor & Control</p> | PAGE: <p style="text-align: center;">32 OF 106</p> | |

Mode=P25 Trunk], WCQPSK [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], pi/4 DQPSK [Test Mode=PTC-ITCR or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], HCPM [Test Mode=P25 II], HDQPSK [Test Mode=P25 II and Operating Mode=Monitor or Test Mode=P25 II and Operating Mode=Generate]

Availability:

Operating Mode:Monitor, Generate, Duplex

Typical Completion Time:100 ms

Name:Output Level (dBm)

Tag:RF:Output Level

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 5

Availability:

Operating Mode:Generate, Duplex

Typical Completion Time:500 ms

Name:Gen Port

Tag:RF:Generate Port

Commands:GET, SET

Data Type:BOOLEAN

List Values: RF In/Out, Gen Out

Availability:

Operating Mode:Generate, Duplex

Typical Completion Time:500 ms

Name:Bandwidth

Tag:RF:Bandwidth

Commands:GET, SET

Data Type:LIST

List Values: 6.25 kHz (Narrow), 12.5 kHz (Narrow), 25 kHz (Wide), 50 kHz (Wide), 100 kHz (Wide), 200 kHz (Wide)

Availability:

Operating Mode:Monitor, Generate, Duplex

Typical Completion Time:100 ms

Name:Attenuation

Tag:RF:Attenuation

Commands:GET, SET

Data Type:LIST

List Values: 0 dB, 2 dB, 4 dB, 6 dB, 8 dB, 10 dB, 12 dB, 14 dB, 16 dB, 18 dB, 20 dB, 22 dB, 24 dB, 26 dB, 28 dB, 30 dB, 32 dB, 34 dB, 36 dB, 38 dB, 40 dB, 42 dB, 44 dB, 46 dB, 48 dB, 50 dB, 52 dB, 54 dB, 56 dB, 58 dB, 60 dB, 62 dB

Availability:

Operating Mode:Monitor, Duplex

Typical Completion Time:500 ms

Name:Pre-Amplifier

Tag:RF:PreAmp On

Commands:GET, SET


Data Type:BOOLEAN

List Values: Off, On

Availability:

Operating Mode:Monitor, Duplex

Typical Completion Time:500 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 33 OF 106 | |

Name:Mon Port
 Tag:RF:Monitor Port
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: RF In/Out, Antenna
 Availability:
 Operating Mode:Monitor, Duplex
 Typical Completion Time:500 ms


Name:Receiver Overload
 Tag:RF:RX Overload
 Commands:GET
 Data Type:BOOLEAN
 List Values: Okay, Receiver Overload - Increase Attenuation
 Typical Completion Time:0 ms

Name:Mod Port Mode
 Tag:AUDIO:Mod Port
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: In, Out
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Fixed 1kHz Level (V)
 Tag:AUDIO:Fixed 1kHz
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 8
 Availability:
 Operating Mode:Monitor
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Fixed 1kHz Level (kHz)
 Tag:AUDIO:Gen Fixed 1kHz
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Fixed 1kHz Level (%AM)
 Tag:AUDIO:Gen AM Fixed 1kHz
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 34 OF 106 | |

Typical Completion Time:100 ms

Name:Fixed 1kHz Mode
 Tag:AUDIO:Fixed 1kHz Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms


Name:Synth Level (V)
 Tag:AUDIO:Synth
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 8
 Availability:
 Operating Mode:Monitor
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Synth Level (kHz)
 Tag:AUDIO:Gen Synth
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Synth Level (%AM)
 Tag:AUDIO:Gen AM Synth
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Format
 Tag:AUDIO:Format
 Commands:GET, SET
 Data Type:LIST
 List Values: PL, DPL, DPL Invert, A/B Sequence, 5/6 Tone, POCSAG, General Sequence
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:1000 ms

Name:Synth Mode
 Tag:AUDIO:Synth Mode

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 35 OF 106 | |

Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst [AUDIO:Format=A/B Sequence or
 AUDIO:Format=5/6 Tone or AUDIO:Format=POCSAG or AUDIO:Format=General
 Sequence], Disconnect Tone [AUDIO:Format=DPL or AUDIO:Format=DPL Invert]
 Availability:

Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:500 ms

Name:PL Code

Tag:AUDIO:PL Code

Commands:GET, SET

Data Type:LIST

List Values: XZ, WZ, XA, WA, XB, WB, YZ, YA, YB, ZZ, ZA, ZB, 1Z, 1A, 1B, 2Z,
 2A, 2B, 3Z, 3A, 3B, 4Z, 4A, 4B, 5Z, 5A, 5B, 6Z, 6A, 6B, 7Z, 7A, M1, 8Z, M2,
 M3, M4, 9Z, M5, M6, M7

Availability:

Synth Format:PL
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:100 ms

Name:PL Frequency (Hz)

Tag:AUDIO:PL Frequency

Commands:GET

Data Type:FLOAT

Range: 0 to 999

Availability:

Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:100 ms

Name:PL Table

Tag:AUDIO:PL Table

Commands:GO

Data Type:SUBMENU

Availability:

Synth Format:PL
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:2000 ms


Name:DPL Code

Tag:AUDIO:DPL Code

Commands:GET, SET

Data Type:LIST

List Values: 000, 001, 002, 003, 004, 005, 006, 007, 010, 011, 012, 013, 014,
 015, 016, 017, 020, 021, 022, 023, 024, 025, 026, 027, 030, 031, 032, 033,
 034, 035, 036, 037, 040, 041, 042, 043, 044, 045, 046, 047, 050, 051, 052,
 053, 054, 055, 056, 057, 060, 061, 062, 063, 064, 065, 066, 067, 070, 071,
 072, 073, 074, 075, 076, 077, 100, 101, 102, 103, 104, 105, 106, 107, 110,
 111, 112, 113, 114, 115, 116, 117, 120, 121, 122, 123, 124, 125, 126, 127,
 130, 131, 132, 133, 134, 135, 136, 137, 140, 141, 142, 143, 144, 145, 146,
 147, 150, 151, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165,

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 36 OF 106 | |

166, 167, 170, 171, 172, 173, 174, 175, 176, 177, 200, 201, 202, 203, 204,
 205, 206, 207, 210, 211, 212, 213, 214, 215, 216, 217, 220, 221, 222, 223,
 224, 225, 226, 227, 230, 231, 232, 233, 234, 235, 236, 237, 240, 241, 242,
 243, 244, 245, 246, 247, 250, 251, 252, 253, 254, 255, 256, 257, 260, 261,
 262, 263, 264, 265, 266, 267, 270, 271, 272, 273, 274, 275, 276, 277, 300,
 301, 302, 303, 304, 305, 306, 307, 310, 311, 312, 313, 314, 315, 316, 317,
 320, 321, 322, 323, 324, 325, 326, 327, 330, 331, 332, 333, 334, 335, 336,
 337, 340, 341, 342, 343, 344, 345, 346, 347, 350, 351, 352, 353, 354, 355,
 356, 357, 360, 361, 362, 363, 364, 365, 366, 367, 370, 371, 372, 373, 374,
 375, 376, 377, 400, 401, 402, 403, 404, 405, 406, 407, 410, 411, 412, 413,
 414, 415, 416, 417, 420, 421, 422, 423, 424, 425, 426, 427, 430, 431, 432,
 433, 434, 435, 436, 437, 440, 441, 442, 443, 444, 445, 446, 447, 450, 451,
 452, 453, 454, 455, 456, 457, 460, 461, 462, 463, 464, 465, 466, 467, 470,
 471, 472, 473, 474, 475, 476, 477, 500, 501, 502, 503, 504, 505, 506, 507,
 510, 511, 512, 513, 514, 515, 516, 517, 520, 521, 522, 523, 524, 525, 526,
 527, 530, 531, 532, 533, 534, 535, 536, 537, 540, 541, 542, 543, 544, 545,
 546, 547, 550, 551, 552, 553, 554, 555, 556, 557, 560, 561, 562, 563, 564,
 565, 566, 567, 570, 571, 572, 573, 574, 575, 576, 577, 600, 601, 602, 603,
 604, 605, 606, 607, 610, 611, 612, 613, 614, 615, 616, 617, 620, 621, 622,
 623, 624, 625, 626, 627, 630, 631, 632, 633, 634, 635, 636, 637, 640, 641,
 642, 643, 644, 645, 646, 647, 650, 651, 652, 653, 654, 655, 656, 657, 660,
 661, 662, 663, 664, 665, 666, 667, 670, 671, 672, 673, 674, 675, 676, 677,
 700, 701, 702, 703, 704, 705, 706, 707, 710, 711, 712, 713, 714, 715, 716,
 717, 720, 721, 722, 723, 724, 725, 726, 727, 730, 731, 732, 733, 734, 735,
 736, 737, 740, 741, 742, 743, 744, 745, 746, 747, 750, 751, 752, 753, 754,
 755, 756, 757, 760, 761, 762, 763, 764, 765, 766, 767, 770, 771, 772, 773,
 774, 775, 776, 777

Availability:

Synth Format:DPL, DPL Invert
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:100 ms

Name:A/B Sequence

Tag:AUDIO:Sequence

Commands:GET, SET

Data Type:LIST

List Values: 1, 2, 3, 4

Availability:

Synth Format:A/B Sequence
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:100 ms

Name:Code Sequence

Tag:AUDIO:Code Sequence

Commands:GET, SET

Data Type:STRING


Format:(GENSEQCode)

char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J

Availability:

Synth Format:General Sequence
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO

Typical Completion Time:100 ms

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 37 OF 106 | |


Name:A/B Sequence Table
 Tag:AUDIO:SEQUENCE Table
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Synth Format:A/B Sequence
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:2000 ms

Name:General Sequence Table
 Tag:AUDIO:GENSEQ Table
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Synth Format:General Sequence
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:2000 ms

Name:5/6 Tone
 Tag:AUDIO:5/6 Tone
 Commands:GET, SET
 Data Type:STRING
 Format:(56Tone)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9
 Availability:
 Synth Format:5/6 Tone
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:POCSAG Message
 Tag:AUDIO:POCSAG Message
 Commands:GET, SET
 Data Type:LIST
 List Values: Tone Only, NumericNum, NumericSet, AlphaNumUC, AlphaNumLC, AlphaNumSP, NumericCust, AlphaNumCust
 Availability:
 Synth Format:POCSAG
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:POCSAG Table
 Tag:AUDIO:POCSAG Table
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Synth Format:POCSAG
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:2000 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 38 OF 106 | |

Name:Tone A Level (V)
 Tag:AUDIO:Tone A
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 8
 Availability:
 Operating Mode:Monitor
 Menu:AUDIO
 Typical Completion Time:100 ms


Name:Tone A Level (kHz)
 Tag:AUDIO:Gen Tone A
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Tone A Level (%AM)
 Tag:AUDIO:Gen AM Tone A
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Tone A Frequency (Hz)
 Tag:AUDIO:Tone A Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 20000
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Tone A Mode
 Tag:AUDIO:Tone A Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Tone B Level (V)
 Tag:AUDIO:Tone B
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 8

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 39 OF 106 | |

Availability:

Operating Mode:Monitor

Menu:AUDIO

Typical Completion Time:100 ms

Name:Tone B Level (kHz)

Tag:AUDIO:Gen Tone B

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 100

Availability:

Operating Mode:Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

Name:Tone B Level (%AM)

Tag:AUDIO:Gen AM Tone B

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 99

Availability:

Operating Mode:Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

Name:Tone B Frequency (Hz)

Tag:AUDIO:Tone B Frequency

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 20000

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

Name:Tone B Mode

Tag:AUDIO:Tone B Mode

Commands:GET, SET

Data Type:LIST

List Values: Off, Continuous, Burst

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

Name:Tone C Level (kHz)

Tag:AUDIO:Gen Tone C

Commands:GET, SET

Data Type:FLOAT


Range: 0 to 100

Availability:

Operating Mode:Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 40 OF 106 | |

Name:Tone C Level (%AM)
 Tag:AUDIO:Gen AM Tone C
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms


Name:Tone C Frequency (Hz)
 Tag:AUDIO:Tone C Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Tone C Mode
 Tag:AUDIO:Tone C Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:DTMF Level (V)
 Tag:AUDIO:DTMF
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 8
 Availability:
 Operating Mode:Monitor
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:DTMF Level (kHz)
 Tag:AUDIO:Gen DTMF
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:DTMF Level (%AM)
 Tag:AUDIO:Gen AM DTMF
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 41 OF 106 | |

Availability:

Operating Mode:Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

Name:DTMF Mode

Tag:AUDIO:DTMF Mode

Commands:GET, SET

Data Type:LIST

List Values: Off, Continuous, Burst

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:AUDIO

Typical Completion Time:500 ms

Name:DTMF Code

Tag:AUDIO:DTMF Code

Commands:GET, SET

Data Type:STRING

Format:(DTMFCode)

char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, #, *

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:AUDIO

Typical Completion Time:100 ms

Name:DTMF Table

Tag:AUDIO:DTMF Table

Commands:GO

Data Type:SUBMENU

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:AUDIO

Typical Completion Time:2000 ms

Name:Microphone Mode

Tag:AUDIO:Microphone Mode

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, Continuous

Availability:

Operating Mode:Monitor, Generate, Duplex

Menu:AUDIO

Typical Completion Time:500 ms

Name:Microphone Level (V)

Tag:AUDIO:Microphone

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 8

Availability:

Operating Mode:Monitor

Menu:AUDIO

Typical Completion Time:100 ms

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 42 OF 106 | |

Name:Microphone Level (kHz)
 Tag:AUDIO:Gen Microphone
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms


Name:Microphone Level (%AM)
 Tag:AUDIO:Gen AM Microphone
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Mod In Port Level (kHz)
 Tag:AUDIO:Gen Mod In Level
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Mod In Port Level (%AM)
 Tag:AUDIO:Gen AM Mod In Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:Mod In Port Mode
 Tag:AUDIO:Mod In Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode:Generate, Duplex
 Menu:AUDIO
 Typical Completion Time:100 ms

Name:High Pass Filter
 Tag:AUDIO:High Pass Filter
 Commands:GET, SET
 Data Type:LIST
 List Values: 1 Hz, 300 Hz, 3 kHz

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 43 OF 106 | |

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:AUDIO

Typical Completion Time:100 ms

Name:Low Pass Filter

Tag:AUDIO:Low Pass Filter

Commands:GET, SET

Data Type:LIST

List Values: 300 Hz, 3 kHz, 20 kHz

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:AUDIO

Typical Completion Time:100 ms

Name:Audio Sum

Tag:AUDIO:Audio Sum

Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Monitor
Menu:AUDIO

Typical Completion Time:0 ms

Name:Mod Sum

Tag:AUDIO:Mod Sum

Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Generate, Duplex
Menu:AUDIO

Typical Completion Time:0 ms

Name:AM Mod Sum

Tag:AUDIO:AM Mod Sum

Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Generate, Duplex
Menu:AUDIO

Typical Completion Time:0 ms

Name:PL Code

Tag:PL:PL Code

Commands:GET, SET

Data Type:LIST


List Values: XZ, WZ, XA, WA, XB, WB, YZ, YA, YB, ZZ, ZA, ZB, 1Z, 1A, 1B, 2Z, 2A, 2B, 3Z, 3A, 3B, 4Z, 4A, 4B, 5Z, 5A, 5B, 6Z, 6A, 6B, 7Z, 7A, M1, 8Z, M2, M3, M4, 9Z, M5, M6, M7

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:PL

Typical Completion Time:100 ms

Name:DTMF Code

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 44 OF 106 | |

Tag:DTMF:DTMF Code
 Commands:GET, SET
 Data Type:STRING
 Format:(DTMFCode)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, #, *
 Availability:
 Menu:DTMF
 Typical Completion Time:100 ms

Name:Tone Duration (ms)
 Tag:DTMF:Duration
 Commands:GET, SET
 Data Type:INTEGER
 Range: 70 to 9999
 Availability:
 Menu:DTMF
 Typical Completion Time:100 ms


Name:Inter-digit Delay (ms)
 Tag:DTMF:Delay
 Commands:GET, SET
 Data Type:INTEGER
 Range: 70 to 9999
 Availability:
 Menu:DTMF
 Typical Completion Time:100 ms

Name:Sequence
 Tag:SEQUENCE:Sequence
 Commands:GET, SET
 Data Type:LIST
 List Values: 1, 2, 3, 4
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 3 Tone A Duration (sec)
 Tag:SEQUENCE:S3 Tone A Duration
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 3 Tone A Delay (sec)
 Tag:SEQUENCE:S3 Tone A Delay
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 3 Tone B Duration (sec)

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 45 OF 106 | |

Tag:SEQUENCE:S3 Tone B Duration
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 3 Tone B Delay (sec)
 Tag:SEQUENCE:S3 Tone B Delay
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms


Name:Sequence 4 Tone A Duration (sec)
 Tag:SEQUENCE:S4 Tone A Duration
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 4 Tone A Delay (sec)
 Tag:SEQUENCE:S4 Tone A Delay
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 4 Tone B Duration (sec)
 Tag:SEQUENCE:S4 Tone B Duration
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Sequence 4 Tone B Delay (sec)
 Tag:SEQUENCE:S4 Tone B Delay
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 10
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Tone A Frequency (Hz)
 Tag:SEQUENCE:Tone A Frequency

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 46 OF 106 | |

Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 20000
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms


Name:Tone B Frequency (Hz)
 Tag:SEQUENCE:Tone B Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 20000
 Availability:
 Menu:SEQUENCE
 Typical Completion Time:100 ms

Name:Code Sequence
 Tag:GENSEQ:Code Sequence
 Commands:GET, SET
 Data Type:STRING
 Format:(GENSEQCode)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J
 Availability:
 Menu:GENSEQ
 Typical Completion Time:100 ms

Name:Select Tone Standard
 Tag:GENSEQ:Standard
 Commands:GET, SET
 Data Type:LIST
 List Values: None, CCIR1, CCIR2, PCCIR, CCITT, EEA, EIA, Euro, NATEL, MODAT, ZVEI1, ZVEI2, ZVEI3, PZVEI, DZVEI, PDZVEI
 Availability:
 Menu:GENSEQ
 Typical Completion Time:500 ms

Name:Synth Mode
 Tag:GENSEQ:Synth Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst [AUDIO:Format=A/B Sequence or AUDIO:Format=5/6 Tone or AUDIO:Format=POCSAG or AUDIO:Format=General Sequence], Disconnect Tone [AUDIO:Format=DPL or AUDIO:Format=DPL Invert]
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:GENSEQ
 Typical Completion Time:500 ms

Name:Select Symbol to Edit
 Tag:GENSEQ:Select Tone
 Commands:GET, SET
 Data Type:LIST
 List Values: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J
 Availability:
 Menu:GENSEQ

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 47 OF 106 | |

Typical Completion Time:100 ms

Name:Tone Frequency(Hz)
 Tag:GENSEQ>Edit Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 20000
 Availability:
 Menu:GENSEQ
 Typical Completion Time:100 ms


Name:Tone Duration(sec)
 Tag:GENSEQ>Edit Duration
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 0
 Availability:
 Menu:GENSEQ
 Typical Completion Time:100 ms

Name:Post-Tone Delay(sec)
 Tag:GENSEQ>Edit Delay
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 1
 Availability:
 Menu:GENSEQ
 Typical Completion Time:100 ms

Name:Save Sequence Definition
 Tag:GENSEQ:Save
 Commands:GET, SET
 Data Type:STRING
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, , ., _, (,)
 Availability:
 Menu:GENSEQ
 Typical Completion Time:2000 ms

Name:Load Sequence Definition
 Tag:GENSEQ:Load
 Commands:GET, SET
 Data Type:LIST
 List Values:
 Availability:
 Menu:GENSEQ
 Typical Completion Time:2000 ms

Name:Sync to Code Entry
 Tag:GENSEQ:Sync Sequences
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: No, Yes
 Availability:
 Menu:GENSEQ

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 48 OF 106 | |

Typical Completion Time:100 ms

Name:Duration Sequence
 Tag:GENSEQ:Dur Sequence
 Commands:GET, SET
 Data Type:STRING
 Format:(GENSEQCode)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J
 Availability:
 Menu:GENSEQ
 Typical Completion Time:100 ms


Name:Delay Sequence
 Tag:GENSEQ:Delay Sequence
 Commands:GET, SET
 Data Type:STRING
 Format:(GENSEQCode)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J
 Availability:
 Menu:GENSEQ
 Typical Completion Time:100 ms

Name:Spectrum Analyzer
 Tag:INSTRUMENTS:SPEC_AN
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:INSTRUMENTS
 Typical Completion Time:2000 ms

Name:Modulation Scope
 Tag:INSTRUMENTS:MOD_SCOPE
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:INSTRUMENTS
 Typical Completion Time:2000 ms

Name:Oscilloscope
 Tag:INSTRUMENTS:O_SCOPE
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:INSTRUMENTS
 Typical Completion Time:2000 ms

Name:Dual Display
 Tag:INSTRUMENTS:DUAL_SCOPE
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-ESA
 Menu:INSTRUMENTS
 Typical Completion Time:2000 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 49 OF 106 | |

Name:Tracking Generator
 Tag:INSTRUMENTS:TRACK_GEN
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Option:R8-TG
 Menu:INSTRUMENTS
 Typical Completion Time:5000 ms

Name:Presets
 Tag:TEST:PRESETS
 Commands:GO
 Data Type:SUBMENU
 Typical Completion Time:2000 ms


Name:Test Mode
 Tag:TEST:Test Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Standard, DMR [Option=R8-DMR], PROJECT 25 [Option=R8-P25], P25 Trunk [Option=R8-P25TRNK], NXDN [Option=R8-NXDN], NXDN Trunk [Option=R8-NXDNTYPC], TETRA BS Monitor [Option=R8-TETRA_BSM], TETRA DMO [Option=R8-TETRA_DMO], TETRA TMO [Option=R8-TETRA_TMO], DPMR [Option=R8-DPMR], P25 II [Option=R8-P25_II], PTC-ITCR [Option=R8-PTC_ITCR]
 Typical Completion Time:5000 ms

Name:AutoScript
 Tag:TEST:AUTOSCRIPT
 Commands:GO
 Data Type:SUBMENU
 Typical Completion Time:0 ms

Name:System Settings
 Tag:SETTINGS:SETUP
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:SETTINGS
 Typical Completion Time:2000 ms

Name:Battery Status
 Tag:SETTINGS:BATTERY
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:SETTINGS
 Typical Completion Time:2000 ms

Name:Acknowledge Message
 Tag:SETTINGS:ACK_MESSAGE
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Menu:SETTINGS
 Typical Completion Time:0 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 50 OF 106 | |

Name:About
 Tag:SETTINGS:ABOUT
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:SETTINGS
 Typical Completion Time:2000 ms

Name:Options
 Tag:SETTINGS:OPTIONS
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Menu:SETTINGS
 Typical Completion Time:2000 ms

Name:PLL Lock Status
 Tag:MONITOR:PLL Status
 Commands:GET
 Data Type:INTEGER
 Typical Completion Time:0 ms


Name:High Power Attenuator Temp
 Tag:MONITOR:HP Attenuator Temp
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Typical Completion Time:0 ms

Name:Receive Power Meter Temp
 Tag:MONITOR:RX Power Meter Temp
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Typical Completion Time:0 ms

Name:Generate Power Meter Temp
 Tag:MONITOR:Gen Power Meter Temp
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Typical Completion Time:0 ms

Name:Frequency Error
 Tag:MONITOR:Frequency Error
 Commands:GET
 Data Type:FLOAT
 Typical Completion Time:0 ms

Name:Input Level
 Tag:MONITOR:Input Level
 Commands:GET
 Data Type:FLOAT
 Availability:

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 51 OF 106 | |

Operating Mode:Monitor, Duplex
 Typical Completion Time:0 ms

Name:Deviation
 Tag:MONITOR:Deviation+
 Commands:GET
 Data Type:FLOAT
 Availability:

Operating Mode:Monitor, Duplex
 Typical Completion Time:0 ms

Name:Deviation
 Tag:MONITOR:Deviation-
 Commands:GET
 Data Type:FLOAT
 Availability:

Operating Mode:Monitor, Duplex
 Typical Completion Time:0 ms

Name:Center Frequency
 Tag:SPEC_AN:Monitor Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:5000 ms


Name:Span
 Tag:SPEC_AN:Span
 Commands:GET, SET
 Data Type:FLOAT
 Range: 9751 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:5000 ms

Name:Start Frequency
 Tag:SPEC_AN:Start Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:5000 ms

Name:Stop Frequency
 Tag:SPEC_AN:Stop Frequency
 Commands:GET, SET

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 52 OF 106 | |

Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:5000 ms


Name:Resolution Bandwidth
 Tag:SPEC_AN:Resolution Bandwidth
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:0 ms

Name:Reference Level (dBm)
 Tag:SPEC_AN:Reference Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 90
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:100 ms

Name:Vertical Scale
 Tag:SPEC_AN:Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 10 dB/div, 5 dB/div, 2 dB/div, 1 dB/div
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:100 ms

Name:Display Mode
 Tag:SPEC_AN:Display Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Normal, Freeze, Max Hold, Average
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:100 ms

Name:Trace Math
 Tag:SPEC_AN:Trace Math
 Commands:GET, SET
 Data Type:LIST
 List Values: None, Spec-Ref (log),
 Spec-Ref
 (lin), Spec+Ref (lin)
 Availability:

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 53 OF 106 | |

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:100 ms

Name:Set Reference Trace
 Tag:SPEC_AN:Set Reference Trace
 Commands:DO
 Data Type:FUNCTION
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:100 ms

Name:Detector
 Tag:SPEC_AN:Detector
 Commands:GET, SET
 Data Type:LIST
 List Values: Power, Peak, Sample, Mean, Valley
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:200 ms

Name:Find Peak
 Tag:SPEC_AN:Find Peak
 Commands:DO
 Data Type:FUNCTION
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:100 ms


Name:Center Peak
 Tag:SPEC_AN:Center Peak
 Commands:DO
 Data Type:FUNCTION
 Availability:

Operating Mode:Monitor, Duplex
 Menu:SPEC_AN
 Typical Completion Time:5000 ms

Name:OBW
 Tag:SPEC_AN:OBW
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Off, On
 Availability:

Operating Mode:Monitor, Duplex
 Option:R8-ESA
 Menu:SPEC_AN
 Typical Completion Time:100 ms

Name:OBW %
 Tag:SPEC_AN:OBW %
 Commands:GET, SET

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 54 OF 106 | |

Data Type:INTEGER

Range: 70 to 99

Availability:

Operating Mode:Monitor, Duplex

Option:R8-ESA

Menu:SPEC_AN

Typical Completion Time:100 ms

Name:Select Instrument

Tag:DUAL_SCOPE:Subzone

Commands:GET, SET

Data Type:LIST

List Values: Spectrum Analyzer, Modulation Scope

Availability:

Menu:DUAL_SCOPE

Typical Completion Time:100 ms

Name:Span

Tag:DUAL_SCOPE:Span

Commands:GET, SET

Data Type:FLOAT

Range: 9751 Hz to 1000000000 Hz

Units: Hz, kHz, MHz, GHz

Availability:

Operating Mode:Monitor, Duplex

Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer

Typical Completion Time:5000 ms

Name:Start Frequency

Tag:DUAL_SCOPE:Start Frequency

Commands:GET, SET

Data Type:FLOAT

Range: 250000 Hz to 1000000000 Hz

Units: Hz, kHz, MHz, GHz

Availability:

Operating Mode:Monitor, Duplex

Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer

Typical Completion Time:5000 ms

Name:Stop Frequency

Tag:DUAL_SCOPE:Stop Frequency

Commands:GET, SET

Data Type:FLOAT

Range: 250000 Hz to 1000000000 Hz

Units: Hz, kHz, MHz, GHz

Availability:

Operating Mode:Monitor, Duplex

Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer

Typical Completion Time:5000 ms


Name:Resolution Bandwidth

Tag:DUAL_SCOPE:Resolution Bandwidth

Commands:GET

Data Type:FLOAT

Availability:

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 55 OF 106 | |

Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:0 ms

Name:Reference Level (dBm)
 Tag:DUAL_SCOPE:Reference Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 90
 Availability:

Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:100 ms

Name:Vertical Scale
 Tag:DUAL_SCOPE:Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 10 dB/div, 5 dB/div, 2 dB/div, 1 dB/div
 Availability:

Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:100 ms

Name:Display Mode
 Tag:DUAL_SCOPE:Display Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Normal, Freeze, Max Hold, Average
 Availability:


Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:100 ms

Name:Trace Math
 Tag:DUAL_SCOPE:Trace Math
 Commands:GET, SET
 Data Type:LIST
 List Values: None, Spec-Ref (log),
 Spec-Ref
 (lin), Spec+Ref (lin)

Availability:
 Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:100 ms

Name:Set Reference Trace
 Tag:DUAL_SCOPE:Set Reference Trace
 Commands:DO
 Data Type:FUNCTION
 Availability:

Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:100 ms

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 56 OF 106 | |

Name:Detector
 Tag:DUAL_SCOPE:Detector
 Commands:GET, SET
 Data Type:LIST
 List Values: Power, Peak, Sample, Mean, Valley
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:200 ms


Name:Find Peak
 Tag:DUAL_SCOPE:Find Peak
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:100 ms

Name:Center Peak
 Tag:DUAL_SCOPE:Center Peak
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DUAL_SCOPE:Subzone=Spectrum Analyzer
 Typical Completion Time:5000 ms

Name:Vertical Scale
 Tag:DUAL_SCOPE:AM Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 1%, 2%, 5%, 10%, 20%, 50%
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope
 Typical Completion Time:100 ms

Name:Vertical Scale
 Tag:DUAL_SCOPE:FM Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 50 kHz
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope
 Typical Completion Time:100 ms

Name:Horizontal Scale
 Tag:DUAL_SCOPE:Horizontal Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 20 us, 50 us, 100 us, 200 us, 500 us, 1 ms, 2 ms, 5 ms, 10 ms, 20 ms, 50 ms, 100 ms, 200 ms, 500 ms, 1 s
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 57 OF 106 | |

Typical Completion Time:100 ms

Name:Trigger Mode
 Tag:DUAL_SCOPE:Trigger
 Commands:GET, SET
 Data Type:LIST
 List Values: Auto, Normal, Single
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope
 Typical Completion Time:100 ms


Name:Trigger Level
 Tag:DUAL_SCOPE:Trigger Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 200000
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope
 Typical Completion Time:100 ms

Name:Trigger Level (%)
 Tag:DUAL_SCOPE:AM Trigger Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 99
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope
 Typical Completion Time:100 ms

Name:Trigger Edge
 Tag:DUAL_SCOPE:Trigger Edge
 Commands:GET, SET
 Data Type:LIST
 List Values: Rising, Falling, Either
 Availability:
 Menu:DUAL_SCOPE:Subzone=Modulation Scope
 Typical Completion Time:100 ms

Name:Scope Mode
 Tag:DUAL_SCOPE:Mod Scope Select
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Monitor, Generate
 Availability:
 Operating Mode:Duplex
 Menu:DUAL_SCOPE
 Typical Completion Time:100 ms

Name:Center Frequency
 Tag:TRACK_GEN:Generate Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 58 OF 106 | |

Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:5000 ms


Name:Span
 Tag:TRACK_GEN:Span
 Commands:GET, SET
 Data Type:FLOAT
 Range: 1 Hz to 50000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:5000 ms

Name:Start Frequency
 Tag:TRACK_GEN:Start Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 3000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:5000 ms

Name:Stop Frequency
 Tag:TRACK_GEN:Stop Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 259751 Hz to 3000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:5000 ms

Name:Reference Level (dBm)
 Tag:TRACK_GEN:Reference Level
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 60
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Vertical Scale
 Tag:TRACK_GEN:Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 15 dB/div, 10 dB/div, 5 dB/div, 2 dB/div, 1 dB/div
 Availability:
 Operating Mode:Track Gen
 Option:R8-ESA

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 59 OF 106 | |

Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:# of Points
 Tag:TRACK_GEN:Number of Points
 Commands:GET, SET
 Data Type:INTEGER
 Range: 100 to 600
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:4000 ms


Name:RBW
 Tag:TRACK_GEN:RBW
 Commands:GET, SET
 Data Type:LIST
 List Values: Wide, Medium, Narrow
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:4000 ms

Name:Display Mode
 Tag:TRACK_GEN:Display Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Normal, Freeze, Max Hold, Average
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Marker Mode
 Tag:TRACK_GEN:SA Markers
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Absolute, Delta
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Marker Type
 Tag:TRACK_GEN:Marker Type
 Commands:GET, SET
 Data Type:LIST
 List Values: Point Cross, Vertical Bar, Horizontal Bar, Full Cross
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Toggle Marker
 Tag:TRACK_GEN:Toggle Marker

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 60 OF 106 | |

Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms


Name:Select Marker
 Tag:TRACK_GEN:Select Marker
 Commands:GET, SET
 Data Type:LIST
 List Values: 1, 2, 3, 4
 Availability:
 Operating Mode:Track Gen
 Option:R8-ESA
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Set Marker Frequency
 Tag:TRACK_GEN:Marker Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Find Peak
 Tag:TRACK_GEN:Find Peak
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Find Valley
 Tag:TRACK_GEN:Find Valley
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Center Marker
 Tag:TRACK_GEN:Center Marker
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:5000 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 61 OF 106 | |

Name:Output Level (dBm)
 Tag:TRACK_GEN:Output Level
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 5
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:500 ms


Name:Attenuation
 Tag:TRACK_GEN:Attenuation
 Commands:GET, SET
 Data Type:LIST
 List Values: 0 dB, 2 dB, 4 dB, 6 dB, 8 dB, 10 dB, 12 dB, 14 dB, 16 dB, 18 dB, 20 dB, 22 dB, 24 dB, 26 dB, 28 dB, 30 dB, 32 dB, 34 dB, 36 dB, 38 dB, 40 dB, 42 dB, 44 dB, 46 dB, 48 dB, 50 dB, 52 dB, 54 dB, 56 dB, 58 dB, 60 dB, 62 dB
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:500 ms

Name:Pre-Amplifier
 Tag:TRACK_GEN:PreAmp On
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Off, On
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:500 ms

Name:Gen Port
 Tag:TRACK_GEN:Generate Port
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: RF In/Out, Gen Out
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:500 ms

Name:Monitor Port
 Tag:TRACK_GEN:Monitor Port
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: RF In/Out, Antenna
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:500 ms

Name:Normalize
 Tag:TRACK_GEN:Normalize

| | | | |
|--|---|--|---|
|  Kilgore, TX | TYPE: <p style="text-align: center;">Programmer's Guide</p> | NO: <p style="text-align: center;">FCT-1110</p> | REV: <p style="text-align: center;">H</p> |
| | TITLE: <p style="text-align: center;">R8000 Monitor & Control</p> | PAGE: <p style="text-align: center;">62 OF 106</p> | |

Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Off, On
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:500 ms


Name:Update Trace
 Tag:TRACK_GEN:Trace Request
 Commands:
 Data Type:BOOLEAN
 List Values: F, T
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:
 Tag:TRACK_GEN:Trace
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Track Gen
 Menu:TRACK_GEN
 Typical Completion Time:100 ms

Name:Coupling
 Tag:O_SCOPE:Coupling
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: DC, AC
 Availability:
 Menu:O_SCOPE
 Typical Completion Time:500 ms

Name:Horizontal Scale
 Tag:O_SCOPE:Ext Horizontal Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 20 us (Max 50 kHz In), 50 us (Max 20 kHz In), 100 us (Max 10 kHz In), 200 us (Max 5 kHz In), 500 us (Max 2 kHz In), 1 ms (Max 1 kHz In), 2 ms (Max 500 Hz In), 5 ms (Max 200 Hz In), 10 ms (Max 100 Hz In), 20 ms (Max 50 Hz In), 50 ms (Max 20 Hz In), 100 ms (Max 10 Hz In), 200 ms (Max 5 Hz In), 500 ms (Max 2 Hz In), 1 s (Max 1 Hz In)
 Availability:
 Menu:O_SCOPE
 Typical Completion Time:500 ms

Name:Vertical Scale
 Tag:O_SCOPE:Ext Vertical Scale
 Commands:GET, SET
 Data Type:LIST
 List Values: 50 mV, 100 mV, 200 mV, 500 mV, 1 V, 2 V, 5 V, 10 V, 15 V, 20 V, 25 V

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 63 OF 106 | |

Availability:

Menu:O_SCOPE

Typical Completion Time:500 ms

Name:Trigger Mode

Tag:O_SCOPE:Ext Trigger

Commands:GET, SET

Data Type:LIST

List Values: Auto, Normal, Single, Freeze

Availability:

Menu:O_SCOPE

Typical Completion Time:500 ms

Name:Trigger Level

Tag:O_SCOPE:Ext Trigger Level

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 100

Availability:

Menu:O_SCOPE

Typical Completion Time:500 ms

Name:Trigger Position

Tag:O_SCOPE:Ext Trigger Position

Commands:GET, SET

Data Type:LIST

List Values: 10%, 50%, 90%

Availability:

Menu:O_SCOPE

Typical Completion Time:500 ms

Name:Trigger Edge

Tag:O_SCOPE:Ext Trigger Edge

Commands:GET, SET

Data Type:LIST

List Values: Rising, Falling, Either

Availability:

Menu:O_SCOPE

Typical Completion Time:500 ms

Name:Vertical Scale

Tag:MOD_SCOPE:AM Vertical Scale

Commands:GET, SET

Data Type:LIST

List Values: 1%, 2%, 5%, 10%, 20%, 50%

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms


Name:Vertical Scale

Tag:MOD_SCOPE:FM Vertical Scale

Commands:GET, SET

Data Type:LIST

List Values: 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 50 kHz

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 64 OF 106 | |

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms

Name:Horizontal Scale

Tag:MOD_SCOPE:Horizontal Scale

Commands:GET, SET

Data Type:LIST

List Values: 20 us, 50 us, 100 us, 200 us, 500 us, 1 ms, 2 ms, 5 ms, 10 ms, 20 ms, 50 ms, 100 ms, 200 ms, 500 ms, 1 s

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms

Name:Trigger Mode

Tag:MOD_SCOPE:Trigger

Commands:GET, SET

Data Type:LIST

List Values: Auto, Normal, Single

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms

Name:Trigger Level

Tag:MOD_SCOPE:Trigger Level

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 200000

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms

Name:Trigger Level (%)

Tag:MOD_SCOPE:AM Trigger Level

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 99

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms

Name:Trigger Edge

Tag:MOD_SCOPE:Trigger Edge

Commands:GET, SET

Data Type:LIST

List Values: Rising, Falling, Either

Availability:

Menu:MOD_SCOPE

Typical Completion Time:100 ms


Name:Scope Mode

Tag:MOD_SCOPE:Mod Scope Select

Commands:GET, SET

Data Type:BOOLEAN

List Values: Monitor, Generate

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 65 OF 106 | |

Availability:

Operating Mode: Duplex

Menu: MOD_SCOPE

Typical Completion Time: 100 ms

Name: System Version

Tag: ABOUT: SystemVersion

Commands: GET

Data Type: STRING

Availability:

Menu: ABOUT

Typical Completion Time: 0 ms

Name: Application Version

Tag: ABOUT: AppVersion

Commands: GET

Data Type: STRING

Availability:

Menu: ABOUT

Typical Completion Time: 0 ms

Name: R8000 Library Version

Tag: ABOUT: DllVersion

Commands: GET

Data Type: STRING

Availability:

Menu: ABOUT

Typical Completion Time: 0 ms

Name: Signal Service Provider Version

Tag: ABOUT: SSP_Version

Commands: GET

Data Type: STRING

Availability:

Menu: ABOUT

Typical Completion Time: 0 ms

Name: Audio Library Version

Tag: ABOUT: AudioVersion

Commands: GET

Data Type: STRING

Availability:

Menu: ABOUT

Typical Completion Time: 0 ms

Name: Operating System Version

Tag: ABOUT: OSVersion

Commands: GET

Data Type: STRING


Availability:

Menu: ABOUT

Typical Completion Time: 0 ms

Name: BIOS Version

Tag: ABOUT: BIOSVersion

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 66 OF 106 | |

Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:Main Board Revision
 Tag:ABOUT:MainPCBA
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:RF Board Revision
 Tag:ABOUT:RfPCBA
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms


Name:Control FPGA Version
 Tag:ABOUT:ControlFPGA
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:
 Tag:ABOUT:TxFPGA
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:RX FPGA Version
 Tag:ABOUT:RxFPGA
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:Comm FPGA Version
 Tag:ABOUT:PCIEFPGA
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:XTX BC Version

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 67 OF 106 | |

Tag:ABOUT:XTX_BC
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:XTX Product Revision
 Tag:ABOUT:XTX_Product
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms


Name:XTX Serial Number
 Tag:ABOUT:XTX_Serial
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:ABOUT
 Typical Completion Time:0 ms

Name:Input Decoding
 Tag:SETUP:Input Decoding
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Internal, External
 Availability:
 Menu:SETUP
 Typical Completion Time:100 ms

Name:Input Impedance
 Tag:SETUP:Input Impedance
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: 1 MegOhm, 600 Ohm
 Availability:
 Menu:SETUP
 Typical Completion Time:100 ms

Name:Reference Clock Mode
 Tag:SETUP:Ref Clock Mode
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Output, Input
 Availability:
 Menu:SETUP
 Typical Completion Time:500 ms

Name:Analog Measurement Averaging
 Tag:SETUP:Analog Msr Averaging
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Off, On

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 68 OF 106 | |

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Analog Averaging Samples

Tag:SETUP:Analog Msr Avg Samples

Commands:GET, SET

Data Type:INTEGER

Range: 2 to 100

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Digital Measurement Averaging

Tag:SETUP:Digital Msr Averaging

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, On

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Digital Averaging Samples

Tag:SETUP:Digital Msr Avg Samples

Commands:GET, SET

Data Type:INTEGER

Range: 2 to 100

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Automatic Attenuation

Tag:SETUP:Auto Attn

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, On

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Auto Attn Minimum

Tag:SETUP:Auto Attn Min

Commands:GET, SET

Data Type:LIST

List Values: 0 dB, 2 dB, 4 dB, 6 dB, 8 dB, 10 dB, 12 dB, 14 dB, 16 dB, 18 dB, 20 dB, 22 dB, 24 dB, 26 dB, 28 dB, 30 dB, 32 dB, 34 dB

Availability:

Menu:SETUP

Typical Completion Time:100 ms


Name:Auto Attn High Threshold

Tag:SETUP:Auto Attn Thd Hi

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 0

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 69 OF 106 | |

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Auto Attn Low Threshold

Tag:SETUP:Auto Attn Thd Lo

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 0

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Pre-Amplifier Auto Off

Tag:SETUP:PreAmp Auto Off

Commands:GET, SET

Data Type:BOOLEAN

List Values: Disabled, Enabled

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:RF Level Offset

Tag:SETUP:RF Level Offset

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, On

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:RF In/Out Offset (dB)

Tag:SETUP:RF In/Out Offset

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 99

Availability:

Menu:SETUP

Typical Completion Time:500 ms

Name:RF Gen Out Offset (dB)

Tag:SETUP:RF Gen Out Offset

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 99

Availability:

Menu:SETUP

Typical Completion Time:500 ms

Name:Antenna Offset (dB)


Tag:SETUP:Antenna Offset

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 99

Availability:

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 70 OF 106 | |

Menu:SETUP
 Typical Completion Time:500 ms

Name:Pre/De-emphasis
 Tag:SETUP:Emphasis
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: Off, On
 Availability:

Menu:SETUP
 Typical Completion Time:100 ms

Name:Meter In Filter
 Tag:SETUP:Meter In Filter
 Commands:GET, SET
 Data Type:LIST
 List Values: None, C-Msg, CCITT, De-emphasis
 Availability:

Menu:SETUP
 Typical Completion Time:100 ms

Name:Internal Audio Weighting
 Tag:SETUP:Internal Audio Weight
 Commands:GET, SET
 Data Type:LIST
 List Values: None, C-Msg, CCITT
 Availability:

Menu:SETUP
 Typical Completion Time:100 ms


Name:Language
 Tag:SETUP:Language Select
 Commands:GET, SET
 Data Type:LIST
 List Values: English, Spanish
 Availability:

Menu:SETUP
 Typical Completion Time:6000 ms

Name:Date
 Tag:SETUP:NewDate
 Commands:GET, SET
 Data Type:STRING
 Format:(MM.DD.YYYY)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, .
 Availability:

Menu:SETUP
 Typical Completion Time:100 ms

Name:Time
 Tag:SETUP:NewTime
 Commands:GET, SET
 Data Type:STRING
 Format:(HH:MM)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, :

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 71 OF 106 | |

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Apply Date/Time Changes

Tag:SETUP:ApplyDateTime

Commands:DO

Data Type:FUNCTION

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:R8000 Legacy Mode

Tag:SETUP:Legacy

Commands:GET, SET

Data Type:LIST

List Values: Standard R8100, Legacy R8000

Availability:

Menu:SETUP

Typical Completion Time:500 ms

Name:Reset to Defaults

Tag:SETUP:DefaultSetups

Commands:DO

Data Type:FUNCTION

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name:Cable Sweep

Tag:SETUP:Cable Sweep

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, On

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name>Select Frequency to Edit

Tag:SETUP>Select Frequency

Commands:GET, SET

Data Type:LIST

List Values: 100, 1000

Availability:

Menu:SETUP

Typical Completion Time:100 ms

Name>Select Attenuation to Edit

Tag:SETUP>Select Attenuation


Commands:GET, SET

Data Type:ARRAY

Availability:

Menu:SETUP

Typical Completion Time:100 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 72 OF 106 | |

Name:
 Tag: BATTERY:SerialNumber
 Commands: GET
 Data Type: INTEGER
 Availability:
 Menu: BATTERY
 Typical Completion Time: 0 ms

Name:
 Tag: BATTERY:TimeToEmpty
 Commands: GET
 Data Type: FLOAT
 Availability:
 Menu: BATTERY
 Typical Completion Time: 0 ms


Name:
 Tag: BATTERY:TimeToFull
 Commands: GET
 Data Type: FLOAT
 Availability:
 Menu: BATTERY
 Typical Completion Time: 0 ms

Name:
 Tag: BATTERY:Temperature
 Commands: GET
 Data Type: FLOAT
 Availability:
 Menu: BATTERY
 Typical Completion Time: 0 ms

Name:
 Tag: BATTERY:CycleCount
 Commands: GET
 Data Type: INTEGER
 Availability:
 Menu: BATTERY
 Typical Completion Time: 0 ms

Name:
 Tag: BATTERY:Charge
 Commands: GET
 Data Type: FLOAT
 Availability:
 Menu: BATTERY
 Typical Completion Time: 0 ms

Name:
 Tag: BATTERY:Charging
 Commands: GET
 Data Type: BOOLEAN
 List Values:
 Availability:
 Menu: BATTERY

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 73 OF 106 | |

Typical Completion Time:0 ms

Name:Save Configuration As

Tag:PRESETS:New

Commands:GET, SET

Data Type:STRING

char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, , ., -, (,)

Availability:

Menu:PRESETS

Typical Completion Time:2000 ms

Name:Load Factory Configuration

Tag:PRESETS:Load Defaults

Commands:DO

Data Type:FUNCTION

Availability:

Menu:PRESETS

Typical Completion Time:15000 ms

Name:RF Level Offset

Tag:AUTOTUNE:RF Level Offset

Commands:GET, SET

Data Type:BOOLEAN

List Values: Off, On

Availability:

Menu:AUTOTUNE

Typical Completion Time:100 ms

Name:RF In/Out Offset (dB)

Tag:AUTOTUNE:RF In/Out Offset

Commands:GET, SET

Data Type:FLOAT

Range: 0 to 99

Availability:

Menu:AUTOTUNE

Typical Completion Time:500 ms

Name:Brand

Tag:DMR:Brand

Commands:GET, SET

Data Type:LIST

List Values: MOTOTRBO™, Other

Availability:

Menu:DMR

Typical Completion Time:100 ms

Name:Mon Sync Pattern

Tag:DMR:SYNC Pattern

Commands:GET, SET


Data Type:LIST

List Values: BS Sourced Voice, BS Sourced Data, MS Sourced Voice

Availability:

Operating Mode:Monitor, Duplex

Menu:DMR

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 74 OF 106 | |

Typical Completion Time:100 ms

Name:

Tag:DMR:SYNC Count

Commands:GET

Data Type:INTEGER

Availability:

Operating Mode:Monitor, Duplex

Menu:DMR

Typical Completion Time:0 ms

Name:

Tag:DMR:Source ID

Commands:GET

Data Type:INTEGER

Availability:

Operating Mode:Monitor, Duplex

Menu:DMR

Typical Completion Time:0 ms

Name:Color Code

Tag:DMR:Monitor CC

Commands:GET

Data Type:STRING

Availability:

Operating Mode:Monitor, Duplex

Menu:DMR

Typical Completion Time:0 ms

Name:Copy CC to Generator

Tag:DMR:Copy CC to Generator

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor, Duplex

Menu:DMR

Typical Completion Time:100 ms

Name:Color Code

Tag:DMR:Color Code

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 15

Availability:

Operating Mode:Generate, Duplex

Menu:DMR

Typical Completion Time:100 ms

Name:Burst

Tag:DMR:Burst


Commands:GET, SET

Data Type:LIST

List Values: A, B, C, D, E, F

Availability:

Operating Mode:Monitor, Duplex

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 75 OF 106 | |

Menu:DMR
 Typical Completion Time:100 ms

Name:BER Test
 Tag:DMR:BER Test
 Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start
 Availability:
 Operating Mode:Monitor
 Menu:DMR
 Typical Completion Time:500 ms


Name:Modulation Mode
 Tag:DMR:Gen Mod Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode:Generate, Duplex
 Menu:DMR
 Typical Completion Time:500 ms

Name:Test Pattern
 Tag:DMR:Test Pattern
 Commands:GET, SET
 Data Type:LIST
 List Values: 1031 Hz Tone, Calibration (0.153 1%), 0.153, Silence, BS Idle
 Availability:
 Operating Mode:Generate, Duplex
 Menu:DMR
 Typical Completion Time:100 ms

Name:
 Tag:DMR:Symbol Deviation
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DMR
 Typical Completion Time:0 ms

Name:
 Tag:DMR:FSK Error
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DMR
 Typical Completion Time:0 ms

Name:
 Tag:DMR:Magnitude Error
 Commands:GET

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 76 OF 106 | |

Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:DMR
 Typical Completion Time:0 ms

Name:
 Tag:DMR:BER Result
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor
 Menu:DMR
 Typical Completion Time:0 ms


Name:DMR Library Version
 Tag:DMR:Version
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:DMR
 Typical Completion Time:0 ms

Name:
 Tag:P25:BER Result
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Menu:P25
 Typical Completion Time:0 ms

Name:
 Tag:P25:Symbol Deviation
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:0 ms

Name:
 Tag:P25:Symbol Rate Error
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:0 ms

Name:
 Tag:P25:EVM
 Commands:GET

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 77 OF 106 | |

Data Type:FLOAT

Availability:

Operating Mode:Monitor, Duplex

Menu:P25

Typical Completion Time:0 ms

Name:

Tag:P25:Modulation Fidelity

Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Monitor, Duplex

Menu:P25

Typical Completion Time:0 ms

Name:Mon Test Pattern

Tag:P25:Mon Test Pattern

Commands:GET, SET

Data Type:LIST

List Values: 1011 Hz Tone, Calibration (Tone 5%), Standard Tx (0.153/V.52),

Silence, Modified 1011 Hz

Availability:

Operating Mode:Monitor, Duplex

Menu:P25

Typical Completion Time:100 ms

Name:Gen Test Pattern

Tag:P25:Gen Test Pattern

Commands:GET, SET

Data Type:LIST

List Values: 1011 Hz Tone, Calibration (Tone 5%), Standard Tx (0.153/V.52),

Silence, Symbol Rate [Operating Mode=Generate], Low Deviation [Operating

Mode=Generate], C4FM Mod Fidelity [Operating Mode=Generate]

Availability:

Operating Mode:Generate, Duplex

Menu:P25

Typical Completion Time:100 ms

Name:Generate Modulation Type

Tag:P25:Modulation Type

Commands:GET, SET

Data Type:LIST

List Values: FM [Test Mode=Standard], AM [Test Mode=Standard], USB [Test

Mode=Standard and Option=R8-SSB], LSB [Test Mode=Standard and Option=R8-SSB],

4FSK [Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN], C4FM [Test

Mode=PROJECT 25 or Test Mode=P25 Trunk], LSM [Test Mode=PROJECT 25 or Test

Mode=P25 Trunk], WCQPSK [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], pi/4

DQPSK [Test Mode=PTC-ITCR or Test Mode=TETRA BS Monitor or Test Mode=TETRA

DMO], HCPM [Test Mode=P25 II], HDQPSK [Test Mode=P25 II and Operating


Mode=Monitor or Test Mode=P25 II and Operating Mode=Generate]

Availability:

Operating Mode:Generate, Duplex

Menu:P25

Typical Completion Time:100 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 78 OF 106 | |

Name:Modulation Mode
 Tag:P25:Gen Mod Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25
 Typical Completion Time:500 ms


Name:NAC (Hex)
 Tag:P25:NAC
 Commands:GET, SET
 Data Type:STRING
 Format:0x000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:Monitor Modulation Type
 Tag:P25:Mon Mod Type
 Commands:GET, SET
 Data Type:LIST
 List Values: C4FM, LSM, WCQPSK
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:Monitor NAC
 Tag:P25:Monitor NAC
 Commands:
 Data Type:STRING
 Format:0x000
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:Reset Symbol Rate Error
 Tag:P25:Reset SRE
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:BER Test
 Tag:P25:BER Test
 Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start
 Availability:

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 79 OF 106 | |

Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:500 ms

Name:Eye Diagram Data
 Tag:P25:Eye Data
 Commands:GET
 Data Type:ARRAY
 Availability:

Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:Voice Frame Encoder
 Tag:P25:P25_VFENCODE Table
 Commands:GO
 Data Type:SUBMENU
 Availability:

Operating Mode:Generate, Duplex
 Menu:P25
 Typical Completion Time:2000 ms

Name:Voice Frame Data
 Tag:P25:Voice Frames
 Commands:GET
 Data Type:ARRAY
 Availability:

Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:Copy NAC to Generator
 Tag:P25:Copy NAC to Generator
 Commands:DO
 Data Type:FUNCTION
 Availability:


Operating Mode:Monitor, Duplex
 Menu:P25
 Typical Completion Time:100 ms

Name:Version
 Tag:P25:Version
 Commands:GET
 Data Type:STRING
 Availability:

Menu:P25
 Typical Completion Time:0 ms

Name:NAC (Hex)
 Tag:P25_VFENCODE:NAC
 Commands:GET, SET
 Data Type:STRING
 Format:0x000
 Availability:

Operating Mode:Generate, Duplex

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 80 OF 106 | |

Menu:P25_VFENCODE
 Typical Completion Time:100 ms

Name:Key ID (Hex)
 Tag:P25_VFENCODE:KID
 Commands:GET, SET
 Data Type:STRING
 Format:0x0000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE
 Typical Completion Time:100 ms


Name:Algorithm ID (Hex)
 Tag:P25_VFENCODE:ALGID
 Commands:GET, SET
 Data Type:STRING
 Format:0x00
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE
 Typical Completion Time:100 ms

Name:Status Symbols
 Tag:P25_VFENCODE:SS
 Commands:GET, SET
 Data Type:LIST
 List Values: 0 - Unknown Talkaround, 1 - Busy, 2 - Unknown In/Out, 3 - Idle
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE
 Typical Completion Time:100 ms

Name:Low Speed Data (Hex)
 Tag:P25_VFENCODE:LSD
 Commands:GET, SET
 Data Type:STRING
 Format:0x00000000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE
 Typical Completion Time:100 ms

Name:Talk Group ID (Hex)
 Tag:P25_VFENCODE:Group Address
 Commands:GET, SET
 Data Type:STRING
 Format:0x0000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE
 Typical Completion Time:100 ms

Name:MFID (Hex)
 Tag:P25_VFENCODE:MFID

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 81 OF 106 | |

Commands:GET, SET

Data Type:STRING

Format:0x00

Availability:

Operating Mode:Generate, Duplex

Menu:P25_VFENCODE

Typical Completion Time:100 ms

Name:Raw (Hex)

Tag:P25_VFENCODE:Raw

Commands:GET, SET

Data Type:STRING

Format:0x00000000000000000000

Availability:

Operating Mode:Generate, Duplex

Menu:P25_VFENCODE:Subzone=Raw

Typical Completion Time:100 ms

Name:Link Control Opcode

Tag:P25_VFENCODE:Subzone

Commands:GET, SET

Data Type:LIST

List Values: Raw, 0 - LC_GRP_V_CH_USR, 3 - LC_U2U_V_CH_USR

Availability:

Operating Mode:Generate, Duplex

Menu:P25_VFENCODE

Typical Completion Time:100 ms

Name:SF - MFID Format

Tag:P25_VFENCODE:SF

Commands:GET, SET

Data Type:LIST

List Values: 0 - Explicit Format, 1 - Standard MFID

Availability:

Operating Mode:Generate, Duplex

Menu:P25_VFENCODE:Subzone=0 - LC_GRP_V_CH_USR, 3 - LC_U2U_V_CH_USR

Typical Completion Time:100 ms

Name:Service Options (Hex)

Tag:P25_VFENCODE:Service Options

Commands:GET, SET

Data Type:STRING

Format:0x00

Availability:

Operating Mode:Generate, Duplex

Menu:P25_VFENCODE:Subzone=0 - LC_GRP_V_CH_USR, 3 - LC_U2U_V_CH_USR

Typical Completion Time:100 ms

Name:S - Explicit Source ID

Tag:P25_VFENCODE:S


Commands:GET, SET

Data Type:LIST

List Values: 0 - Not Required, 1 - Required

Availability:

Operating Mode:Generate, Duplex

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 82 OF 106 | |

Menu:P25_VFENCODE:Subzone=0 - LC_GRP_V_CH_USR
 Typical Completion Time:100 ms


Name:Target Address (Hex)
 Tag:P25_VFENCODE:Target Address
 Commands:GET, SET
 Data Type:STRING
 Format:0x000000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE:Subzone=3 - LC_U2U_V_CH_USR
 Typical Completion Time:100 ms

Name:Source Address (Hex)
 Tag:P25_VFENCODE:Source Address
 Commands:GET, SET
 Data Type:STRING
 Format:0x000000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE:Subzone=0 - LC_GRP_V_CH_USR, 3 - LC_U2U_V_CH_USR
 Typical Completion Time:100 ms

Name:Reset to Defaults
 Tag:P25_VFENCODE:Reset
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_VFENCODE
 Typical Completion Time:200 ms

Name:Subzone
 Tag:P25_TRUNK:Subzone
 Commands:GET, SET
 Data Type:LIST
 List Values: Alert/Dispatch, BER
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK
 Typical Completion Time:100 ms

Name:Generate Modulation Type
 Tag:P25_TRUNK:Modulation Type
 Commands:GET, SET
 Data Type:LIST
 List Values: FM [Test Mode=Standard], AM [Test Mode=Standard], USB [Test Mode=Standard and Option=R8-SSB], LSB [Test Mode=Standard and Option=R8-SSB], 4FSK [Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN], C4FM [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], LSM [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], WCQPSK [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], pi/4 DQPSK [Test Mode=PTC-ITCR or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], HCPM [Test Mode=P25 II], HDQPSK [Test Mode=P25 II and Operating Mode=Monitor or Test Mode=P25 II and Operating Mode=Generate]
 Availability:

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 83 OF 106 | |

Operating Mode: Duplex
 Menu: P25_TRUNK
 Typical Completion Time: 100 ms

Name: Modulation Mode
 Tag: P25_TRUNK: Gen Mod Mode
 Commands: GET, SET
 Data Type: LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode: Duplex
 Menu: P25_TRUNK: Subzone=BER
 Typical Completion Time: 500 ms


Name: NAC (Hex)
 Tag: P25_TRUNK: NAC
 Commands: GET, SET
 Data Type: STRING
 Format: 0x000
 Availability:
 Operating Mode: Duplex
 Menu: P25_TRUNK
 Typical Completion Time: 100 ms

Name: Voice Call
 Tag: P25_TRUNK: Voice Call
 Commands: GET, SET
 Data Type: LIST
 List Values: Stop, Start
 Availability:
 Operating Mode: Duplex
 Menu: P25_TRUNK: Subzone=Alert/Dispatch
 Typical Completion Time: 100 ms

Name: Send Call Alert
 Tag: P25_TRUNK: Call Alert
 Commands: DO
 Data Type: FUNCTION
 Availability:
 Operating Mode: Duplex
 Menu: P25_TRUNK: Subzone=Alert/Dispatch
 Typical Completion Time: 100 ms

Name: WACN ID (Hex)
 Tag: P25_TRUNK: WACN ID
 Commands: GET, SET
 Data Type: STRING
 Format: 0x00000
 Availability:
 Operating Mode: Duplex
 Menu: P25_TRUNK: Subzone=Alert/Dispatch
 Typical Completion Time: 100 ms

Name: SYSTEM ID (Hex)
 Tag: P25_TRUNK: SYSTEM ID

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 84 OF 106 | |

Commands:GET, SET
 Data Type:STRING
 Format:0x000
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms


Name:WUID (Hex)
 Tag:P25_TRUNK:WUID
 Commands:GET, SET
 Data Type:STRING
 Format:0x000000
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:RFSS ID (Hex)
 Tag:P25_TRUNK:RFSS ID
 Commands:GET, SET
 Data Type:STRING
 Format:0x00
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:WGID (Hex)
 Tag:P25_TRUNK:WGID
 Commands:GET, SET
 Data Type:STRING
 Format:0x0000
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:SITE ID (Hex)
 Tag:P25_TRUNK:SITE ID
 Commands:GET, SET
 Data Type:STRING
 Format:0x00
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Bandplan Table
 Tag:P25_TRUNK:BANDPLAN Table
 Commands:GO
 Data Type:SUBMENU
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 85 OF 106 | |

Typical Completion Time:2000 ms

Name:Identifier Update
 Tag:P25_TRUNK:Iden Up
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: OFF, ON
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms


Name:Control Chnl TX Frequency
 Tag:P25_TRUNK:CCTx
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Control Chnl RX Frequency
 Tag:P25_TRUNK:CCRx
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:CCTx Channel
 Tag:P25_TRUNK:CCTx Chnl
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 4095
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:CCRx Channel
 Tag:P25_TRUNK:CCRx Chnl
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 4095
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Voice Chnl TX Frequency

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 86 OF 106 | |

Tag:P25_TRUNK:VCTx
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms


Name:Voice Chnl RX Frequency
 Tag:P25_TRUNK:VCRx
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:VCTx Channel
 Tag:P25_TRUNK:VCTx Chnl
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 4095
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:VCRx Channel
 Tag:P25_TRUNK:VCRx Chnl
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 4095
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Reset Symbol Rate Error
 Tag:P25_TRUNK:Reset SRE
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Duplex
 Menu:P25_TRUNK
 Typical Completion Time:100 ms

Name:BER Test
 Tag:P25_TRUNK:BER Test
 Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 87 OF 106 | |

Availability:

Operating Mode: Duplex
 Menu: P25_TRUNK

Typical Completion Time: 500 ms

Name: Test Pattern

Tag: P25_TRUNK: Test Pattern

Commands: GET, SET

Data Type: LIST

List Values: 1011 Hz Tone, Calibration (Tone 5%), Standard Tx (0.153/V.52), Silence

Availability:

Operating Mode: Duplex
 Menu: P25_TRUNK: Subzone=BER

Typical Completion Time: 100 ms

Name: BS Mode

Tag: P25_TRUNK: P25_EXP

Commands: GET, SET

Data Type: LIST

List Values: Implicit, Explicit

Availability:

Operating Mode: Duplex
 Option: R8-P25_EXP
 Menu: P25_TRUNK: Subzone=Alert/Dispatch

Typical Completion Time: 100 ms

Name: Band

Tag: BANDPLAN: Band

Commands: GET, SET

Data Type: LIST

List Values: 800 MHz, 700 MHz, UHF/VHF

Availability:

Operating Mode: Duplex
 Menu: BANDPLAN

Typical Completion Time: 100 ms

Name: Set Band Plan to Defaults

Tag: BANDPLAN: Band Defaults

Commands: DO

Data Type: FUNCTION

Availability:

Operating Mode: Duplex
 Menu: BANDPLAN

Typical Completion Time: 200 ms

Name: Bandwidth

Tag: BANDPLAN: Bandwidth

Commands: GET, SET


Data Type: LIST

List Values: 6.25 kHz, 12.5 kHz

Availability:

Operating Mode: Duplex
 Menu: BANDPLAN

Typical Completion Time: 100 ms

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 88 OF 106 | |

Name:Base Frequency
 Tag:BANDPLAN:Base Frequency
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:BANDPLAN
 Typical Completion Time:100 ms


Name:Channel Spacing (kHz)
 Tag:BANDPLAN:Chnl Spacing
 Commands:GET, SET
 Data Type:FLOAT
 Range: 0 to 512
 Availability:
 Operating Mode:Duplex
 Menu:BANDPLAN
 Typical Completion Time:100 ms

Name:Transmit Offset (MHz)
 Tag:BANDPLAN:TX Offset
 Commands:GET, SET
 Data Type:FLOAT
 Availability:
 Operating Mode:Duplex
 Menu:BANDPLAN
 Typical Completion Time:100 ms

Name:Channel Identifier
 Tag:BANDPLAN:Channel Id
 Commands:GET, SET
 Data Type:INTEGER
 Range: 1 to 16
 Availability:
 Operating Mode:Duplex
 Menu:BANDPLAN
 Typical Completion Time:100 ms

Name:
 Tag:NXDN:BER Result
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor
 Menu:NXDN
 Typical Completion Time:0 ms

Name:
 Tag:NXDN:Symbol Deviation
 Commands:GET
 Data Type:FLOAT

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 89 OF 106 | |

Availability:

Operating Mode:Monitor

Menu:NXDN

Typical Completion Time:0 ms

Name:

Tag:NXDN:Modulation Fidelity

Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Monitor

Menu:NXDN

Typical Completion Time:0 ms

Name:Bit Rate (bps)

Tag:NXDN:Bit Rate

Commands:GET, SET

Data Type:BOOLEAN

List Values: 4800, 9600

Availability:

Operating Mode:Monitor, Generate

Menu:NXDN

Typical Completion Time:100 ms

Name:

Tag:NXDN:Monitor RAN

Commands:GET

Data Type:STRING

Availability:

Menu:NXDN

Typical Completion Time:0 ms

Name:Copy RAN to Generator

Tag:NXDN:Copy RAN to Generator

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor

Menu:NXDN

Typical Completion Time:100 ms

Name:RAN

Tag:NXDN:Generate RAN

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 63

Availability:

Operating Mode:Generate

Menu:NXDN


Typical Completion Time:100 ms

Name:Mon Test Pattern

Tag:NXDN:Mon Test Pattern

Commands:GET, SET

Data Type:LIST

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 90 OF 106 | |

List Values: 1031 Hz Tone [NXDN:Bit Rate=4800], 1031 Hz Tone [NXDN:Bit Rate=9600], 1011 Hz Tone [NXDN:Bit Rate=9600], Calibration (0.153 2%), 511 (0.153/PN9)

Availability:

Operating Mode:Monitor, Duplex

Menu:NXDN

Typical Completion Time:100 ms

Name:Gen Test Pattern

Tag:NXDN:Gen Test Pattern

Commands:GET, SET

Data Type:LIST

List Values: 1031 Hz Tone [NXDN:Bit Rate=4800], 1031 Hz Tone [NXDN:Bit Rate=9600], 1011 Hz Tone [NXDN:Bit Rate=9600], Calibration (0.153 2%), 511 (0.153/PN9), 511 (0.153/FSW+PN9) [Operating Mode=Generate], Interference [Operating Mode=Generate], Max Freq Deviation [Operating Mode=Generate], 1/3 Freq Deviation [Operating Mode=Generate]

Availability:

Operating Mode:Generate, Duplex

Menu:NXDN

Typical Completion Time:100 ms

Name:Modulation Mode

Tag:NXDN:Gen Mod Mode

Commands:GET, SET

Data Type:LIST

List Values: Off, Continuous, Burst

Availability:

Operating Mode:Generate

Menu:NXDN

Typical Completion Time:500 ms

Name:BER Test

Tag:NXDN:BER Test

Commands:GET, SET

Data Type:LIST

List Values: Stop, Start

Availability:

Operating Mode:Monitor

Menu:NXDN

Typical Completion Time:500 ms

Name:Eye Diagram Data

Tag:NXDN:Eye Data

Commands:GET

Data Type:ARRAY

Availability:

Operating Mode:Monitor

Menu:NXDN


Typical Completion Time:100 ms

Name:Version

Tag:NXDN:Version

Commands:GET

Data Type:STRING

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 91 OF 106 | |

Availability:

Menu:NXDN

Typical Completion Time:0 ms

Name:Subzone

Tag:NXDN_TRUNK:Subzone

Commands:GET, SET

Data Type:LIST

List Values: Alert/Dispatch, BER

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK

Typical Completion Time:100 ms

Name:Modulation Mode

Tag:NXDN_TRUNK:Gen Mod Mode

Commands:GET, SET

Data Type:LIST

List Values: Off, Continuous

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK:Subzone=BER

Typical Completion Time:500 ms

Name:Voice Call

Tag:NXDN_TRUNK:Voice Call

Commands:GET, SET

Data Type:LIST

List Values: Stop, Start

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK:Subzone=Alert/Dispatch

Typical Completion Time:100 ms

Name:Test Pattern

Tag:NXDN_TRUNK:Test Pattern

Commands:GET, SET

Data Type:LIST

List Values: 1031 Hz Tone [NXDN_TRUNK:Bit Rate=4800], 1031 Hz Tone [NXDN_TRUNK:Bit Rate=9600], 1011 Hz Tone [NXDN_TRUNK:Bit Rate=9600], Calibration (0.153 2%), 511 (0.153/PN9)

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK:Subzone=BER

Typical Completion Time:100 ms

Name:BER Test

Tag:NXDN_TRUNK:BER Test

Commands:GET, SET

Data Type:LIST


List Values: Stop, Start

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK

Typical Completion Time:500 ms

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 92 OF 106 | |

Name:Send Status Inquiry
 Tag:NXDN_TRUNK:Status Inquiry
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms


Name:CCTx Channel
 Tag:NXDN_TRUNK:CCTx Chnl
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 1023
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:VCTx Channel
 Tag:NXDN_TRUNK:VCTx Chnl
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 1023
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Control Chnl TX Frequency
 Tag:NXDN_TRUNK:CCTx
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Voice Chnl TX Frequency
 Tag:NXDN_TRUNK:VCTx
 Commands:GET, SET
 Data Type:FLOAT
 Range: 250000 Hz to 1000000000 Hz
 Units: Hz, kHz, MHz, GHz
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Transmit Offset (MHz)
 Tag:NXDN_TRUNK:Tx Off
 Commands:GET, SET

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 93 OF 106 | |

Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms


Name:System Code
 Tag:NXDN_TRUNK:SYSTEM ID
 Commands:GET, SET
 Data Type:STRING
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Site Code
 Tag:NXDN_TRUNK:SITE ID
 Commands:GET, SET
 Data Type:STRING
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Unit ID
 Tag:NXDN_TRUNK:WUID
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 65535
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Group ID
 Tag:NXDN_TRUNK:WGID
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 65535
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch
 Typical Completion Time:100 ms

Name:Category
 Tag:NXDN_TRUNK:Category
 Commands:GET, SET
 Data Type:INTEGER
 Range: 0 to 2
 Availability:
 Operating Mode:Duplex
 Menu:NXDN_TRUNK:Subzone=Alert/Dispatch

| | | | |
|--|--|---------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 94 OF 106 | |

Typical Completion Time:100 ms

Name:Bit Rate (bps)

Tag:NXDN_TRUNK:Bit Rate

Commands:GET, SET

Data Type:LIST

List Values: 4800, 9600

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK:Subzone=Alert/Dispatch, BER

Typical Completion Time:100 ms

Name:Voice Playback

Tag:NXDN_TRUNK:Voice Playback

Commands:GET, SET

Data Type:BOOLEAN

List Values: OFF, ON

Availability:

Operating Mode:Duplex

Menu:NXDN_TRUNK:Subzone=Alert/Dispatch

Typical Completion Time:100 ms

Name:Constellation Data

Tag:TETRA:Constellation Data

Commands:GET

Data Type:ARRAY

Availability:

Menu:TETRA

Typical Completion Time:100 ms

Name:

Tag:TETRA:Modulation Spectrum

Commands:GET

Data Type:ARRAY

Availability:

Menu:TETRA

Typical Completion Time:100 ms

Name:Reset Averaging

Tag:TETRA:Reset RX

Commands:DO

Data Type:FUNCTION

Availability:

Operating Mode:Monitor

Menu:TETRA

Typical Completion Time:100 ms

Name:Measurement Averaging

Tag:TETRA:Measurement Averaging

Commands:GET, SET


Data Type:INTEGER

Range: 1 to 250

Availability:

Operating Mode:Monitor

Menu:TETRA

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 95 OF 106 | |

Typical Completion Time:100 ms

Name:Unwanted Power in Slot 3
 Tag:TETRA:Unwanted Active
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: No, Yes
 Availability:
 Operating Mode:Monitor
 Menu:TETRA
 Typical Completion Time:100 ms


Name:
 Tag:TETRA:Symbol Deviation
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:TETRA
 Typical Completion Time:0 ms

Name:
 Tag:TETRA:EVM RMS
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:TETRA
 Typical Completion Time:0 ms

Name:
 Tag:TETRA:EVM Peak
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:TETRA
 Typical Completion Time:0 ms

Name:
 Tag:TETRA:Unwanted Power
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:TETRA
 Typical Completion Time:0 ms

Name:
 Tag:TETRA:Residual Power
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:TETRA

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 96 OF 106 | |

Typical Completion Time:0 ms

Name:Test Pattern
 Tag:TETRA:Test Pattern
 Commands:GET, SET
 Data Type:LIST
 List Values: 1000 Hz Tone, Silence
 Availability:
 Operating Mode:Generate
 Menu:TETRA
 Typical Completion Time:100 ms


Name:Modulation Mode
 Tag:TETRA:Gen Mod Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode:Generate
 Menu:TETRA
 Typical Completion Time:500 ms

Name:Version
 Tag:TETRA:Version
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:TETRA
 Typical Completion Time:0 ms

Name:Version
 Tag:TETRA_TMO:Version
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:TETRA_TMO
 Typical Completion Time:0 ms

Name:
 Tag:OPTIONS:Enabled
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:OPTIONS
 Typical Completion Time:0 ms

Name:Synth Mode
 Tag:POCSAG:Synth Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst [AUDIO:Format=A/B Sequence or
 AUDIO:Format=5/6 Tone or AUDIO:Format=POCSAG or AUDIO:Format=General
 Sequence], Disconnect Tone [AUDIO:Format=DPL or AUDIO:Format=DPL Invert]
 Availability:
 Operating Mode:Monitor, Generate, Duplex

| | | | |
|--|---|--|---|
|  Kilgore, TX | TYPE: <p style="text-align: center;">Programmer's Guide</p> | NO: <p style="text-align: center;">FCT-1110</p> | REV: <p style="text-align: center;">H</p> |
| | TITLE: <p style="text-align: center;">R8000 Monitor & Control</p> | PAGE: <p style="text-align: center;">97 OF 106</p> | |

Menu:POCSAG
 Typical Completion Time:500 ms


Name:Capcode
 Tag:POCSAG:Capcode
 Commands:GET, SET
 Data Type:STRING
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:POCSAG
 Typical Completion Time:100 ms

Name:Function Bits
 Tag:POCSAG:Function Bits
 Commands:GET, SET
 Data Type:LIST
 List Values: 00, 01, 10, 11
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:POCSAG
 Typical Completion Time:100 ms

Name:POCSAG Message
 Tag:POCSAG:POCSAG Message
 Commands:GET, SET
 Data Type:LIST
 List Values: Tone Only, NumericNum, NumericSet, AlphaNumUC, AlphaNumLC, AlphaNumSP, NumericCust, AlphaNumCust
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:POCSAG
 Typical Completion Time:100 ms

Name>Edit Message
 Tag:POCSAG:NumericCust Message
 Commands:GET, SET
 Data Type:STRING
 Format:(POCSAGCustom)
 char set:0, 1, 2, 3, 4, 5, 6, 7, 8, 9, U, , -,], [
 Availability:
 Operating Mode:Monitor, Generate, Duplex
 Menu:POCSAG
 Typical Completion Time:100 ms

Name>Edit Message
 Tag:POCSAG:AlphaNumCust Message
 Commands:GET, SET
 Data Type:STRING
 Format:(POCSAGCustom)
 char set:!, ", #, \$, %, ', (,), *, +, -, ., /, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, , : , ; , < , = , > , ? , @ , A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z,], \, [, ^, _ , ` , a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, {, , }, ~

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 98 OF 106 | |

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:POCSAG

Typical Completion Time:100 ms

Name:Message Length

Tag:POCSAG:Message Length

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 60

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:POCSAG

Typical Completion Time:100 ms

Name:Data Rate

Tag:POCSAG:Data Rate

Commands:GET, SET

Data Type:INTEGER

Range: 400 to 4800

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:POCSAG

Typical Completion Time:100 ms

Name:Polarity

Tag:POCSAG:Polarity

Commands:GET, SET

Data Type:LIST

List Values: Normal, Inverted

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:POCSAG

Typical Completion Time:100 ms

Name>Error Bit

Tag:POCSAG>Error Bit

Commands:GET, SET

Data Type:INTEGER

Range: 0 to 2200

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:POCSAG

Typical Completion Time:100 ms

Name:Record Results

Tag:AUTOSCRIP:Reporting

Commands:GET, SET

Data Type:BOOLEAN


List Values: Off, On

Availability:

Menu:AUTOSCRIP

Typical Completion Time:500 ms

Name:

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 99 OF 106 | |

Tag:DPMR:BER Result
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor
 Menu:DPMR
 Typical Completion Time:0 ms


Name:
 Tag:DPMR:Symbol Deviation
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:DPMR
 Typical Completion Time:0 ms

Name:
 Tag:DPMR:Modulation Fidelity
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor
 Menu:DPMR
 Typical Completion Time:0 ms

Name:Test Pattern
 Tag:DPMR:Test Pattern
 Commands:GET, SET
 Data Type:LIST
 List Values: Calibration (0.153 2%), 511 (0.153/PN9), Interference [Operating Mode=Generate], Max Freq Deviation [Operating Mode=Generate], 1/3 Freq Deviation [Operating Mode=Generate]
 Availability:
 Operating Mode:Monitor, Generate
 Menu:DPMR
 Typical Completion Time:100 ms

Name:Modulation Mode
 Tag:DPMR:Gen Mod Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst
 Availability:
 Operating Mode:Generate
 Menu:DPMR
 Typical Completion Time:500 ms

Name:BER Test
 Tag:DPMR:BER Test
 Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start
 Availability:

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 100 OF 106 | |

Operating Mode:Monitor
 Menu:DPMR
 Typical Completion Time:500 ms

Name:Ideal Sym Dev (Hz)
 Tag:DPMR:Ideal Symbol Deviation
 Commands:GET, SET
 Data Type:INTEGER
 Range: 800 to 2400
 Availability:

Operating Mode:Monitor, Generate
 Menu:DPMR
 Typical Completion Time:100 ms

Name:Filter
 Tag:DPMR:Filter
 Commands:GET, SET
 Data Type:LIST
 List Values: ETSI, PDR
 Availability:


Operating Mode:Monitor, Generate
 Menu:DPMR
 Typical Completion Time:100 ms

Name:Eye Diagram Data
 Tag:DPMR:Eye Data
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor
 Menu:DPMR
 Typical Completion Time:100 ms

Name:Version
 Tag:DPMR:Version
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:DPMR
 Typical Completion Time:0 ms

Name:
 Tag:P25_II:BER Result
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25_II
 Typical Completion Time:0 ms

Name:
 Tag:P25_II:Symbol Deviation
 Commands:GET
 Data Type:FLOAT

| | | | |
|--|--|----------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 101 OF 106 | |

Availability:

Operating Mode:Monitor, Duplex
Menu:P25_II

Typical Completion Time:0 ms

Name:

Tag:P25_II:Modulation Fidelity
Commands:GET

Data Type:FLOAT

Availability:

Operating Mode:Monitor, Duplex
Menu:P25_II

Typical Completion Time:0 ms

Name:Test Pattern

Tag:P25_II:Test Pattern

Commands:GET, SET

Data Type:LIST

List Values: 1031 Hz Tone, Calibration (Tone 5%), Silence, High Deviation [Operating Mode=Generate], Low Deviation [Operating Mode=Generate], Interference [Operating Mode=Generate]

Availability:

Operating Mode:Monitor, Generate, Duplex
Menu:P25_II

Typical Completion Time:100 ms

Name:Generate Modulation Type

Tag:P25_II:Modulation Type

Commands:GET, SET

Data Type:LIST

List Values: FM [Test Mode=Standard], AM [Test Mode=Standard], USB [Test Mode=Standard and Option=R8-SSB], LSB [Test Mode=Standard and Option=R8-SSB], 4FSK [Test Mode=DMR or Test Mode=DPMR or Test Mode=NXDN], C4FM [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], LSM [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], WCQPSK [Test Mode=PROJECT 25 or Test Mode=P25 Trunk], pi/4 DQPSK [Test Mode=PTC-ITCR or Test Mode=TETRA BS Monitor or Test Mode=TETRA DMO], HCPM [Test Mode=P25 II], HDQPSK [Test Mode=P25 II and Operating Mode=Monitor or Test Mode=P25 II and Operating Mode=Generate]

Availability:

Operating Mode:Generate
Menu:P25_II

Typical Completion Time:100 ms

Name:Monitor Modulation Type

Tag:P25_II:Mon Mod Type

Commands:GET, SET

Data Type:LIST

List Values: HCPM [Operating Mode=Monitor or Operating Mode=Generate], HDQPSK


Availability:

Operating Mode:Monitor
Menu:P25_II

Typical Completion Time:100 ms

Name:Modulation Mode

Tag:P25_II:Gen Mod Mode

| | | | |
|--|--|----------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 102 OF 106 | |

Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous, Burst [Operating Mode=Monitor or Operating Mode=Generate]
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_II
 Typical Completion Time:500 ms

Name:LCH (logical channel)
 Tag:P25_II:Gen LCH
 Commands:GET, SET
 Data Type:LIST
 List Values: 0, 1
 Availability:
 Operating Mode:Generate, Duplex
 Menu:P25_II
 Typical Completion Time:100 ms

Name:BER Test
 Tag:P25_II:BER Test
 Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25_II
 Typical Completion Time:500 ms

Name:Eye Diagram Data
 Tag:P25_II:Eye Data
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:P25_II
 Typical Completion Time:100 ms

Name:Version
 Tag:P25_II:Version
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:P25_II
 Typical Completion Time:0 ms

Name:Mon Symbol Rate (sps)
 Tag:PTC_ITCR:Mon Sym Rate
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: 8000, 16000
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:100 ms

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 103 OF 106 | |

Name:Gen Symbol Rate (sps)
 Tag:PTC_ITCR:Gen Sym Rate
 Commands:GET, SET
 Data Type:BOOLEAN
 List Values: 8000, 16000
 Availability:
 Operating Mode:Generate, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:100 ms


Name:BER Test
 Tag:PTC_ITCR:BER Test
 Commands:GET, SET
 Data Type:LIST
 List Values: Stop, Start
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:500 ms

Name:Reset Symbol Rate Error
 Tag:PTC_ITCR:Reset SRE
 Commands:DO
 Data Type:FUNCTION
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:100 ms

Name:Modulation Mode
 Tag:PTC_ITCR:Gen Mod Mode
 Commands:GET, SET
 Data Type:LIST
 List Values: Off, Continuous
 Availability:
 Operating Mode:Generate, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:500 ms

Name:Symbol Rate Error (mHz)
 Tag:PTC_ITCR:Sym Rate Err
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:Packet Sync Status
 Tag:PTC_ITCR:Sync
 Commands:GET
 Data Type:BOOLEAN
 List Values:
 Availability:

| | | | |
|--|--|----------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 104 OF 106 | |

Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:BER Result
 Commands:GET
 Data Type:FLOAT
 Range: 0 to 100
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms


Name:Average Power (dBm)
 Tag:PTC_ITCR:Average Power
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:Peak Power (dBm)
 Tag:PTC_ITCR:Peak Power
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:EVM
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:IQ Imbalance
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:Phase Err
 Commands:GET
 Data Type:FLOAT
 Availability:

| | | | |
|--|--|----------------------------|------------------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 105 OF 106 | |

Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:Mag Err
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms


Name:
 Tag:PTC_ITCR:PAR
 Commands:GET
 Data Type:FLOAT
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:Packet Count
 Commands:GET
 Data Type:INTEGER
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR:Header Resync Count
 Commands:GET
 Data Type:INTEGER
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:PTC_ITCR>Last Packet Index
 Commands:GET
 Data Type:INTEGER
 Availability:
 Operating Mode:Monitor, Duplex
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:Eye Diagram Data
 Tag:PTC_ITCR:Eye Data
 Commands:GET
 Data Type:ARRAY
 Availability:
 Operating Mode:Monitor, Duplex

| | | | |
|--|--|------------------------|-----------|
|  Kilgore, TX | TYPE: Programmer's Guide | NO: FCT-1110 | REV: H |
| | TITLE: R8000 Monitor & Control | PAGE: 106 OF 106 | |

Menu:PTC_ITCR
 Typical Completion Time:100 ms

Name:Version
 Tag:PTC_ITCR:Version
 Commands:GET
 Data Type:STRING
 Availability:
 Menu:PTC_ITCR
 Typical Completion Time:0 ms

Name:
 Tag:UTILITY>LastParameter
 Commands:GET
 Data Type:INTEGER
 Availability:
 Option:R8-OEM
 Menu:UTILITY
 Typical Completion Time:0 ms

| | | | | |
|----------------------------------|--------------|-------------|----------|----------------------|
| H – Updates for 3.3 | D. Bulgrien | DC | 6/27/18 | 0198 |
| G – Updates for 3.1 | D. Bulgrien | DC | 3/7/18 | 0167 |
| F – Updates for 3.0.0.0 | M.Mullin | DC | 11/10/17 | 0156 |
| E – Updates for 2.3.4.0 | D. Bulgrien | DC | 5/18/17 | 0118 |
| D – Updates for 2.2.0.0 | D. Bulgrien | DC | 1/15/17 | 0098 |
| C – Updates for 2.1.0.0 | M. Mullins | F.Fu | 8/18/16 | 0063 |
| B – Updates for 2.0.0.0 | D. Bulgrien | F. Fu | 8/17/16 | 0052 |
| A – Was CG1110; Updates for 1.19 | M. Mullins | F.Fu | 11/5/15 | 0007 |
| Revision – Change | Requested By | Released By | Date | ECO# |