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AVX-10K

Flight Line Test Set

Remote Programming Manual

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AVX-10K

Flight Line Test Set

Remote Programming Manual

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VIAVI Solutions
1-844-GO-VIAVI
www.viavisolutions.com

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Contact Information

Contact the Technical Assistance Center (TAC) for technical support or with any questions regarding this or other VIAVI products.

- Phone: 1-844-GO-VIAVI
- Email: Techsupport.Avcomm@viavisolutions.com

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Introduction

This document provides instructions for using the commands of the VIAVI AVX-10K:

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- [Command structure](#) 1-3
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1.1 Connection via the Ethernet interface

The instrument can be controlled and programmed remotely through the Ethernet interface. Port 5600 must be used to interface to the AVX-10K with the commands found in this document.

The link to the PC can be direct using an Ethernet cable to link the instrument to the PC, or via a network.

Direct connection

1. Connect the instrument directly to the PC with an Ethernet cable using the RJ45 port on each device.
2. Ensure the PC network configuration is set to Dynamic:
 - a Click **Start > Control Panel**.
 - b Double-click on **Network Connection**.
 - c Double-click on **Local Area Connection**.
 - d In the dialog box, click on **Properties**.
 - e Check that the **Internet Protocol (TCP/IP)** is selected and click once on it (underlined in blue.)
 - f Click the **Properties** button.
 - g In the **General** tab, check that the **Obtain an IP address automatically** parameter is selected; if not, select it.
 - h Click **OK** and close all the dialog boxes open on the PC.
3. On the instrument, go to **System > Network** and select **Static** in the IPv4 box.
4. Note the IP address and wait for about 10 seconds for the connection to be established.

Connection via a local network:

1. On the PC, find the IP address and the mask of the PC's sub-network:
 - For Windows 98 or Millennium: Select **Start > Execute**, then enter `winnipcfg` and click **OK**.
 - For Windows NT, 2000, XP, Vista, 7, or 10: Select **Start > Programs > Accessories > Dos Prompt**, type `ipconfig`, then press **Enter**.
2. Note the IP address and the mask for the PC's sub-network.
3. Plug the RJ45 port of the instrument into a hub or Ethernet switch with a straight-through Ethernet cable.

4. On the instrument:
 - a Go to **System > Network**, select **Static** in the IPv4 box, then enter the IP address, IP mask of the PC and IP gateway as previously noted (step 2).
 - b Go to **System > Network**, select **DHCP** in the IPv4 box. In this case, the IP address is automatically displayed but cannot be altered.
5. Wait for about ten seconds while the connection is established.
6. On the PC, make sure that the connection is operational by selecting **Start > Execute...** and typing `ping`.

1.2 Command structure

The following sections describe the command structure.

1.2.1 Format of commands

Some commands are of type SCPI. They have a hierarchical structure with a *root* level and one or more sub-levels known as *nodes*. A command is comprised of a concatenation of *nodes*.

Example: `REALtime:FREQuency:SPAN:ZERO`

- `REALtime` is the root
- `FREQuency` is the 2nd level node
- `SPAN` is the 3rd level node
- `ZERO` is the parameter of the 3rd level node

1.2.2 Syntax of commands

The string of commands includes upper-case and/or lower-case letters. Only the upper-case letters are essential; the lower-case letters may be omitted to shorten the commands. Parameters should be fully named without omission.

The successive nodes of a command must be separated by a colon (:).

Example of commands:

- Complete form: `INTERference:TRAcE:CLEAr:ALL`
- Shortened form: `INTER:TRA:CLEA:ALL`

1.2.3 Commands with numbers

Any commands that contain a number, the number is essential.

Example of commands:

- `DME:SETup:ANTenna:GAIN1`

1.2.4 Parameters

The following table shows the type and unit of the values used in this programming manual.

Table 1-1 Value types and units

Mark	Valid Unit	Description	Example
<real>	(dBm)	real number	10 dBm, -10.00 dBm
<integer>	-	integer number	1-, -10
<time>	ns, us, ms, s	time (nanosecond, microsecond, millisecond, second)	10 ms, 1 s
<ampl>	dBm	absolute Amplitude value	10 dBm, 0 dBm
<rel_ampl>	dB	relative Amplitude value	10 dB, -10 dB
<freq>	Hz, kHz, MHz, GHz	frequency value	10 Hz, 10 kHz
<bandwidth>	Hz, kHz, MHz, GHz	frequency's bandwidth value	10 Hz
<per>	%	percentage	100 %, 100%
<string>	-	Long string or special letters	"string_12 ()"
<table>	-	A lot of value	10.11,11.12,12.14
<IP Address>	-	IPv4 Address	"127.0.0.1"

1.2.5 Querying

For most commands there is a corresponding query. Most queries have no parameter, instead ending with a <<?>>. These queries are not given in the dictionary of commands provided below.

Example:

- `INTERference:TRAc1:INfOrMation:DETEctor?` Asks for the trace detector information

1.3 Common commands

The common commands described below are valid for the instrument.

1.3.1 *CLS

The Clear Status (CLS) command clears all the event status registers in the device status-reporting mechanism and the error/event queue. This also results in the corresponding summary bits in the Status Byte (STB) to be cleared.

Syntax: *CLS

Parameter/Response: None

1.3.2 *ESE/*ESE?

*ESE is a standard event status enable command or query.

Syntax: * ESE <integer>

Parameter/Response: <integer>

Allowable values: 0-255

1.3.3 *IDN?

*IDN asks for identification of the instrument.

Syntax: *IDN?

Parameter: None

Response: "<Manufacturer>,<Model>,<Serial number>,<Firmware version>"

Data Type: string

1.3.4 *OPC/*OPC?

*OPC is an operation complete command or query. *OPC (Operation Complete) sets bit 0 in the ESR to 1 when all commands received before *OPC or *OPC? have been completed.

Syntax: *OPC/*OPC?

Parameter: None

Query Response: 1

1.3.5 *RST

*RST resets the instrument to its default settings.

Syntax: * RST

Parameter/Response: None

1.3.6 *SRE

*SRE is a service request enable command or query that enables bits in the SRE register.

*SRE? query returns the decimal sum of the enabled bits in the SRE register.

Syntax: *SRE <integer>/* SRE?

Parameter/Response: <integer>

1.3.7 *STB?

*STB is a status byte query that reads the value of the instrument status byte.

Syntax: *STB?

Parameter: None

Response: <integer>

1.3.8 *TST?

*TST is a self-test query that initiates the device's internal self-test and returns the number 0 meaning all tests passed.

Syntax: *TST?

Parameter: None

Response: 0

1.3.9 *WAI

*WAI is a wait-to-continue command that stops the execution of any further commands or queries until all operations for pending commands are completed.

Syntax: *WAI

Parameter/Response: None

1.3.10 Instrument Catalog

The following table lists each instrument name and its corresponding index number for use with either the INSTRUMENT:SElect (instrument) or INSTRUMENT:NSElect (index number).

Table 1-2 AVX-10K Instrument Catalog

Instrument	Index	See
System Commands	1	"System Commands" on page 2-1
DME Commands	2	"DME Commands" on page 3-1
ILS Commands	3	"ILS Commands" on page 4-1
TACAN Commands	4	"TACAN Commands" on page 5-1
VOR Commands	5	"VOR Commands" on page 6-1

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System Commands

This chapter contains remote commands that are used to control which instrument control and query commands for the AVX-10K. This chapter contains the following commands:

- [SYSTem:APPLication:START 2-2](#)
- [SYSTem:APPLication:CLOSe 2-2](#)
- [SYSTem:APPLication:RUNNing? 2-2](#)
- [SYSTem:APPLication:AVAlable? 2-2](#)

2.1 SYSTem:APPLication:START

Description: Loads the commanded application

Parameter: DME | VOR | ILS | TACAN

Example: SYST:APPL:START DME

Query Example: None

Menu Location: Navigation -> (select application)

2.2 SYSTem:APPLication:CLOSe

Description: Closes the commanded application

Parameter: DME | VOR | ILS | TACAN

Example: SYST:APPL:CLOSE VOR

Query Example: None

Menu Location: (pressing back arrow twice from main application screen)

2.3 SYSTem:APPLication:RUNNing?

Description: Query for active application - will return None if not running a supported application

Parameter: None

Query Example: SYST:APPL:RUNN?

Menu Location: None

2.4 SYSTem:APPLication:AVAIable?

Description: Query for applications that are currently supported with RCI commands

Parameter: None

Query Example: SYST:APPL:AVAI?

Menu Location: None

DME Commands

This chapter describes the following remote commands for configuring DME Command settings:

• DME:SETup:ANTenna:CABLe:LENGth	3-3
• DME:SETup:COUPler:CABLe:LENGth	3-3
• DME:SETup:COUPler:CABLe:LOSS	3-3
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• DME:SETup:DIRect:CABLe:LENGth	3-4
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• DME:LEVel:UUT	3-12
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3.1 DME:SETup:ANTenna:CABLe:LENGth

DME:SETup:ANTenna:CABLe:LENGth

DME:SETup:ANTenna:CABLe:LENGth?

Description Set command defines the antenna cable length in feet

Query command returns the antenna cable length in feet

Example DME:SET:ANT:CABL:LENG 47

Query Example DME:SET:ANT:CABL:LENG?

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Menu Location Navigation -> DME -> SETUP -> Cable Settings -> Antenna Cable Length

3.2 DME:SETup:COUPler:CABLe:LENGth

DME:SETup:COUPler:CABLe:LENGth

DME:SETup:COUPler:CABLe:LENGth?

Description Set command defines the direct connect with coupler cable length in feet

Query command returns the direct connect with coupler cable length in feet

Example DME:SET:COUP:CABL:LENG 47

Query Example DME:SET:COUP:CABL:LENG?

9

Menu Location Navigation -> DME -> SETUP -> Cable Settings -> Direct with Coupler Cable Length

3.3 DME:SETup:COUPler:CABLe:LOSS

DME:SETup:COUPler:CABLe:LOSS

DME:SETup:COUPler:CABLe:LOSS?

Description Set command defines the direct connect with coupler cable loss in dB

Query command returns the direct connect with coupler cable loss in dB

Example DME:SET:COUP:CABL:LOSS 4.7

Query Example DME:SET:COUP:CABL:LOSS?

2.11

Menu Location Navigation -> DME -> SETUP -> Cable Settings -> Direct with Coupler Cable Loss

3.4 DME:SETup:COUPler:LOSS

DME:SETup:COUPler:LOSS

DME:SETup:COUPler:LOSS?

Description Set command defines the coupler loss in dB

Query command returns the coupler loss in dB

Example DME:SET:COUP:LOSS 4.7

Query Example DME:SET:COUP:LOSS?

2.8

Menu Location Navigation -> DME -> SETUP -> Coupler Loss

3.5 DME:SETup:DIRect:CABLe:LENGth

DME:SETup:DIRect:CABLe:LENGth

DME:SETup:DIRect:CABLe:LENGth?

Description Set command defines the direct connect cable length in feet

Query command returns the direct connect cable length in feet

Example DME:SET:DIR:CABL:LENG 47

Query Example DME:SET:DIR:CABL:LENG?

27

Menu Location Navigation -> DME -> SETUP -> Cable Settings -> Direct Cable Length

3.6 DME:SETup:FREQuency:ENTRy

DME:SETup:FREQuency:ENTRy

DME:SETup:FREQuency:ENTRy?

Description Set command defines the frequency entry type

Query command returns the frequency entry type

Argument PRESET | MANUAL

Example DME:SET:FREQ:ENTR MANUAL

Query Example DME:SET:FREQ:ENTR?

PRESET

Menu Location Navigation -> DME -> SETUP -> Frequency Entry Type

3.7 DME:SETup:PORT

DME:SETup:PORT

DME:SETup:PORT?

Description Set command defines the port in use

Query command returns the port in use

Argument ANTENNA | DIRECT | COUPLER

Example DME:SET:PORT DIRECT

Query Example DME:SET:PORT?

DIRECT

Menu Location Navigation -> DME -> SETUP -> RF Port

3.8 DME:SETup:UNITs:ERP

DME:SETup:UNITs:ERP

DME:SETup:UNITs:ERP?

Description Set command defines the units for the UUT ERP measurement

Query command returns the units for the UUT ERP measurement

Only affect gui. Rci always uses dBm

Argument dBm | W

Example DME:SET:UNIT:ERP W

Query Example DME:SET:UNIT:ERP?

dBm

Menu Location Navigation -> DME -> SETUP -> UUT ERP Units

3.9 DME:SETup:VERify

DME:SETup:VERify

DME:SETup:VERify?

Description Set command defines whether the test set will prompt user to verify setup before a test

Query command returns whether the test set will prompt user to verify setup before a test

It is recommended that the verify config be turned off when using rci

Argument NO | YES

Example DME:SET:VER NO

Query Example DME:SET:VER

YES

Menu Location Navigation -> DME -> SETUP -> Verify Unit Setup Configuration

3.10 DME:SETup:SQUitter

DME:SETup:SQUitter

DME:SETup:SQUitter?

Description Set command defines whether the test set will squitter or not

Query command returns whether the test set will squitter or not

Argument OFF | ON

Example DME:SET:SQU OFF

Query Example DME:SET:SQU?

ON

Menu Location Navigation -> DME -> SETUP -> Squitter

ILS Subsystem

3.11 DME:SETup:RANGe:MAXimum

DME:SETup:RANGe:MAXimum

DME:SETup:RANGe:MAXimum?

Description Set command defines the maximum simulated range in nautical miles

Query command returns the maximum simulated range in nautical miles

Example DME:SET:RANG:MAX 350

Query Example DME:SET:RANG:MAX?

375.95

Menu Location Navigation -> DME -> SETUP -> Maximum Range

3.12 DME:SETup:IDENt:STRing

DME:SETup:IDENt:STRing

DME:SETup:IDENt:STRing?

Description Set command defines the identification code

Query command returns the identification code

Example DME:SET:IDEN:STR IFR

Query Example DME:SET:IDEN:STR?

ICT

Menu Location Navigation -> DME -> SETUP -> Identification Code

3.13 DME:SETup:IDENt:PERiod

DME:SETup:IDENt:PERiod

DME:SETup:IDENt:PERiod?

Description Set command defines the identification period in seconds

Query command returns the identification period in seconds

Example DME:SET:IDEN:PER 6.5

Query Example DME:SET:IDEN:PER?

22.5

Menu Location Navigation -> DME -> SETUP -> Identification Period

3.14 DME:SETup:ANTenna:GAIN1

DME:SETup:ANTenna:GAIN1

DME:SETup:ANTenna:GAIN1?

Description Set command defines the antenna gain for 0.96 GHz

Query command returns the antenna gain for 0.96 GHz

Example DME:SETup:ANT:GAIN1 7.4

Query Example DME:SETup:ANT:GAIN1?

6.703

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 0.96 GHz

3.15 DME:SETup:ANTenna:GAIN2

DME:SETup:ANTenna:GAIN2

DME:SETup:ANTenna:GAIN2?

Description Set command defines the antenna gain for 1.03 GHz

Query command returns the antenna gain for 1.03 GHz

Example DME:SETup:ANT:GAIN2 8.05

Query Example DME:SETup:ANT:GAIN2?

5.2

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.03 GHz

3.16 DME:SETup:ANTenna:GAIN3

DME:SETup:ANTenna:GAIN3

DME:SETup:ANTenna:GAIN3?

Description Set command defines the antenna gain for 1.09 GHz

Query command returns the antenna gain for 1.09 GHz

Example DME:SETup:ANT:GAIN3 7

Query Example DME:SETup:ANT:GAIN3?

4

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.09 GHz

3.17 DME:SETup:ANTenna:GAIN4

DME:SETup:ANTenna:GAIN4

DME:SETup:ANTenna:GAIN4?

Description Set command defines the antenna gain for 1.15 GHz

Query command returns the antenna gain for 1.15 GHz

Example DME:SETup:ANT:GAIN4 8.004

Query Example DME:SETup:ANT:GAIN4?

7.391

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.15 GHz

3.18 DME:SETup:ANTenna:GAIN5

DME:SETup:ANTenna:GAIN5

DME:SETup:ANTenna:GAIN5?

Description Set command defines the antenna gain for 1.22 GHz

Query command returns the antenna gain for 1.22 GHz

Example DME:SETup:ANT:GAIN5 7.899

Query Example DME:SETup:ANT:GAIN5?

6.9

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.22 GHz

3.19 DME:SETup:ANTenna:HEIGht

DME:SETup:ANTenna:HEIGht

DME:SETup:ANTenna:HEIGht?

Description Set command defines the antenna height in feet

Query command returns the antenna height in feet

Example DME:SETup:ANT:HEIG 12

Query Example DME:SETup:ANT:HEIG?

15

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Height

3.20 DME:SETup:ANTenna:RANGe

DME:SETup:ANTenna:RANGe

DME:SETup:ANTenna:RANGe?

Description Set command defines the antenna range in feet

Query command returns the antenna range in feet

Example DME:SETup:ANT:RANG 31

Query Example DME:SETup:ANT:RANG?

44

Menu Location Navigation -> DME -> SETUP -> Antenna Settings -> Antenna Range

3.21 DME:SETup:CLOSs:ANTenna

DME:SETup:CLOSs:ANTenna

DME:SETup:CLOSs:ANTenna?

Description Set command defines the antenna cable loss in dB

Query command returns the antenna cable loss in dB

Example DME:SETup:CLOS:ANT 4.7

Query Example DME:SETup:CLOS:ANT?

3.3

Menu Location Navigation -> DME -> SETUP -> Cable Settings -> Antenna Cable Loss

3.22 DME:SETup:CLOSs:DIRect

DME:SETup:CLOSs:DIRect

DME:SETup:CLOSs:DIRect?

Description Set command defines the direct connect cable loss in dB

Query command returns the direct connect cable loss in dB

Example DME:SETup:CLOS:DIR 4.7

Query Example DME:SETup:CLOS:DIR?

1.69

Menu Location Navigation -> DME -> SETUP -> Cable Settings -> Direct Cable Loss

3.23 DME:ECHO

DME:ECHO

DME:ECHO?

Description Set command defines the echo enable state

Query command returns the echo enable state

Argument OFF | ON

Example DME:ECHO ON

Query Example DME:ECHO?

OFF

Menu Location Navigation -> DME -> DME -> ECHO

3.24 DME:FREQuency:CHANnel

DME:FREQuency:CHANnel

DME:FREQuency:CHANnel?

Description Set command defines the dme channel to use when in manual mode

Query command returns the dme channel to use when in manual mode

Can only be set in manual mode

Example DME:FREQ:CHAN 51

Query Example DME:FREQ:CHAN?

17

Menu Location Navigation -> DME -> DME -> CHANNEL

3.25 DME:FREQuency:MODE

DME:FREQuency:MODE

DME:FREQuency:MODE?

Description Set command defines the channel mode

Query command returns the channel mode

Argument X | Y

Example DME:FREQ:MODE X

Query Example DME:FREQ:MODE?

X

Menu Location Navigation -> DME -> DME -> MODE

3.26 DME:FREQuency:PRESet

DME:FREQuency:PRESet

DME:FREQuency:PRESet?

Description Set command defines the vor rf frequency to use when in preset mode

Query command returns the vor rf frequency to use when in preset mode

Three fixed freqs corresponding to channels 126Y, 17X, and 17Y

Argument 117.95 | 108.00 | 108.05

Example DME:FREQ:PRES 108.05

Query Example DME:FREQ:PRES?

117.95

Menu Location Navigation -> DME -> DME -> PRESET(MHz)

3.27 DME:FREQuency:TX

DME:FREQuency:TX

DME:FREQuency:TX?

Description Set command defines the dme rf frequency to use when in manual mode

Query command returns the dme rf frequency to use when in manual mode

Can only be set in manual mode

Example DME:FREQ:TX 1138

Query Example DME:FREQ:TX?

978

Menu Location Navigation -> DME -> DME -> TX FREQ

3.28 DME:FREQuency:VOR

DME:FREQuency:VOR

DME:FREQuency:VOR?

Description Set command defines the vor rf frequency to use when in manual mode

Query command returns the vor rf frequency to use when in manual mode

Example DME:FREQ:VOR 111.45

Query Example DME:FREQ:VOR?

108.00

Menu Location Navigation -> DME -> DME -> VOR(MHz)

3.29 DME:IDENt:STATe

DME:IDENt:STATe

DME:IDENt:STATe?

Description Set command defines the ident state

Query command returns the ident state

Argument OFF | MORSE | TONE

Example DME:IDEN:STAT TONE

Query Example DME:IDEN:STAT?

TONE

Menu Location Navigation -> DME -> DME -> IDENTIFICATION

3.30 DME:LEVel:UUT

DME:LEVel:UUT

DME:LEVel:UUT?

Description Set command defines the rf power level in dBm

Query command returns the rf power level in dBm

Example DME:LEV:UUT -7

Query Example DME:LEV:UUT?

-22.7

Menu Location Navigation -> DME -> DME -> RF LEVEL

3.31 DME:RANGe:STARt

DME:RANGe:STARt

DME:RANGe:STARt?

Description Set command defines the simulated start range in nautical miles

Query command returns the simulated start range in nautical miles

Example DME:RANG:STAR 20.5

Query Example DME:RANG:STAR?

2.57

Menu Location Navigation -> DME -> DME -> START RANGE

3.32 DME:RATE:ACTive

DME:RATE:ACTive

DME:RATE:ACTive?

Description Set command defines whether the range rate is paused or not

Query command returns whether the range rate is paused or not

Example DME:RATE:ACT FALSE

Query Example DME:RATE:ACT?

1

Menu Location Navigation -> DME -> DME -> Softkey 1 (Pause Rate | Resume Rate)

3.33 DME:RATE:DIRection

DME:RATE:DIRection

DME:RATE:DIRection?

Description Set command defines the range direction

Query command returns the range direction

Argument IN | OUT

Example DME:RATE:DIR OUT

Query Example DME:RATE:DIR?

OUT

Menu Location Navigation -> DME -> DME -> RANGE DIRECTION

3.34 DME:RATE:VALue

DME:RATE:VALue

DME:RATE:VALue?

Description Set command defines the simulated range rate in knots

Query command returns the simulated range rate in knots

Example DME:RATE:VAL 200

Query Example DME:RATE:VAL?

700

Menu Location Navigation -> DME -> DME -> RANGE RATE

3.35 DME:REPLy

DME:REPLy

DME:REPLy?

Description Set command defines the percentage of interrogations the test set replies to

Query command returns the percentage of interrogations the test set replies to

Example DME:REPL 50

Query Example DME:REPL?

22

Menu Location Navigation -> DME -> DME -> % REPLY

3.36 MEASure:DME:ACTive?

MEASure:DME:ACTive?

Description Query command returns whether measurements are active or not

Query Example MEAS:DME:ACT?

0

Menu Location Navigation -> DME -> DME -> Softkey 4 (RUN | STOP)

DME - Read the measured UUT ERP in dBm

3.37 MEASure:DME:ERP?

MEASure:DME:ERP?

Description Query command returns the UUT ERP in dBm

Query Example MEAS:DME:ERP?

27.37

Menu Location Navigation -> DME -> DME -> UUT ERP

3.38 MEASure:DME:FREQuency?

MEASure:DME:FREQuency?

Description Query command returns the UUT frequency

Query Example MEAS:DME:FREQ?

1024.99

Menu Location Navigation -> DME -> DME -> UUT FREQUENCY

3.39 MEASure:DME:LEVel?

DME - Read the UUT transmit power in dBm

MEASure:DME:LEVel?

Description Query command returns the UUT transmit power in dBm

Query Example MEAS:DME:LEV?

-63.38

Menu Location Navigation -> DME -> DME -> REPLY LEVEL AT UUT

3.40 MEASure:DME:PRF?

MEASure:DME:PRF?

Description Query command returns the prf of the interrogations

Query Example MEAS:DME:PRF?

50

Menu Location Navigation -> DME -> DME -> PRF

3.41 MEASure:DME:RANGe?

DME - Read the simulated range in nautical miles

MEASure:DME:RANGe?

Description Query command returns the simulated range in nautical miles

Query Example MEAS:DME:RANG?

7.15

Menu Location Navigation -> DME -> DME -> RANGE

3.42 MEASure:DME:SPACing?

MEASure:DME:SPACing?

Description Query command returns the P1 to P2 pulse spacing

Query Example MEAS:DME:SPAC?

11.99

Menu Location Navigation -> DME -> DME -> P1-P2 SPACING

3.43 MEASure:DME:WIDTh:P1?

DME - Read the measured P1 pulse width

MEASure:DME:WIDTh:P1?

Description Query command returns the P1 pulse width

Query Example MEAS:DME:WIDT:P1?

3.499

Menu Location Navigation -> DME -> DME -> P1 WIDTH

3.44 MEASure:DME:WIDTh:P2?

MEASure:DME:WIDTh:P2?

Description Query command returns the P2 pulse width

Query Example MEAS:DME:WIDT:P2?

3.501

Menu Location Navigation -> DME -> DME -> P2 WIDTH

3.45 DME:TEST:STARt

Description Starts the DME test to RUN

Parameter None

Example DME:TEST:STAR

Query Example None

Menu Location Navigation -> DME -> DME -> Softkey 4 (RUN)

3.46 DME:TEST:STOP

Description Stops DME test

Parameter None

Example DME:TEST:STOP

Query Example None

Menu Location Navigation -> DME -> DME -> Softkey 4 (STOP)

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ILS Commands

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4.1 ILS:SETup:EATTenuation

ILS:SETup:EATTenuation

ILS:SETup:EATTenuation?

Description Set command defines the external attenuation in dB

Query command returns the external attenuation in dB

Example ILS:SET:EATT 4.7

Query Example ILS:SET:EATT?

2.2

Menu Location Navigation -> ILS -> SETUP -> External Attenuation

4.2 ILS:SETup:FTYPE

ILS:SETup:FTYPE

ILS:SETup:FTYPE?

Description Set command defines the frequency input type

Query command returns the frequency input type

Argument PRESET | CHANNEL | VAR

Example ILS:SET:FTYP VAR

Query Example ILS:SET:FTYP?

PRESET

Menu Location Navigation -> ILS -> SETUP -> Frequency Input Type

4.3 ILS:SETup:MORSe:PERiod

ILS:SETup:MORSe:PERiod

ILS:SETup:MORSe:PERiod?

Description Set command defines the morse code period in seconds

Query command returns the morse code period in seconds

Example ILS:SET:MORS:PER 8.5

Query Example ILS:SET:MORS:PER?

9.3

Menu Location Navigation -> ILS -> SETUP -> Morse Code Period

4.4 ILS:SETup:MORSe:STRing

ILS:SETup:MORSe:STRing

ILS:SETup:MORSe:STRing?

Description Set command defines the morse code string

Query command returns the morse code string

Example ILS:SET:MORS:STR AVX

Query Example ILS:SET:MORS:STR?

IFR

Menu Location Navigation -> ILS -> SETUP -> Morse Code

4.5 ILS:SETup:PORT

ILS:SETup:PORT

ILS:SETup:PORT?

Description Set command defines the port in use

Query command returns the port in use

Argument ANTENNA | DIRECT

Example ILS:SET:PORT DIRECT

Query Example ILS:SET:PORT?

ANTENNA

Menu Location Navigation -> ILS -> SETUP -> RF Port

4.6 ILS:SETup:SRATe

ILS:SETup:SRATe

ILS:SETup:SRATe?

Description Set command defines the autopilot sweep rate

Query command returns the autopilot sweep rate

Argument 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40

Example ILS:SET:SRAT 35

Query Example ILS:SET:SRAT?

20

Menu Location Navigation -> ILS -> SETUP -> Autopilot Sweep Rate

4.7 ILS:SETup:UNITs:ILS

ILS:SETup:UNITs:ILS

ILS:SETup:UNITs:ILS?

Description Set command defines the ils units

Query command returns the ils units

Argument DDM | uA

Example ILS:SET:UNIT:ILS DDM

Query Example ILS:SET:UNIT:ILS?

DDM

Menu Location Navigation -> ILS -> SETUP -> ILS Units

4.8 ILS:SETup:UNITs:POWer

ILS:SETup:UNITs:POWer

ILS:SETup:UNITs:POWer?

Description Set command defines the units for the RF LEVEL

Query command returns the units for the RF LEVEL

Only affect gui. Rci always uses dBm

Argument dBm | V

Example ILS:SET:UNIT:POW V

Query Example ILS:SET:UNIT:POW?

V

Menu Location Navigation -> ILS -> SETUP -> RF Power Units

4.9 ILS:APILot:STARt:BOTH

Description Start dual auto pilot test running

Localizer and Glide slope must be enabled

Parameter None

Example ACT:ILS:APIL:STAR:BOTH

Query Example None

Menu Location Navigation -> ILS -> ILS -> Softkey 1 (Autopilot Test)

ILS - Set localizer and glide slope auto pilot state to running

4.10 ILS:APILot:STARt:GSLope

Description Start glide slope auto pilot test running

Glide slope must be enabled

Parameter None

Example ACT:ILS:APIL:STAR:GSL

Query Example None

Menu Location Navigation -> ILS -> ILS -> Softkey 1 (Autopilot Test)

ILS - Set glide slope auto pilot state to running

4.11 ILS:APILot:STARt:LOCalizer

Description Start localizer auto pilot test running

Localizer must be enabled

Parameter None

Example ACT:ILS:APIL:STAR:LOC

Query Example None

Menu Location Navigation -> ILS -> ILS -> Softkey 1 (Autopilot Test)

ILS - Set localizer auto pilot state to running

4.12 ILS:APILot:STOP

Description Stop auto pilot test

Parameter None

Example ACT:ILS:APIL:STOP

Query Example None

Menu Location Navigation -> ILS -> ILS -> Softkey 1 (Stop Localizer Autopilot | Stop Glide Slope Autopilot | Stop Autopilot)

ILS - Set auto pilot state to stopped

4.13 ILS:TEST:STARt

Description Start tests running

Parameter None

Example ACT:ILS:TEST:STAR

Query Example None

Menu Location Navigation -> ILS -> ILS -> Softkey 4 (RUN)
ILS - Set test state to running

4.14 ILS:TEST:STOP

Description Stop tests running
Parameter None
Example ACT:ILS:TEST:STOP
Query Example None
Menu Location Navigation -> ILS -> ILS -> Softkey 4 (STOP)
ILS - Set test state to stopped

4.15 ILS:CONTrol:GSLope

ILS:CONTrol:GSLope
ILS:CONTrol:GSLope?
Description Set command defines the glide slope control state
Query command returns the glide slope control state
Argument OFF | ON
Example ILS:CONT:GSL OFF
Query Example ILS:CONT:GSL?
OFF
Menu Location Navigation -> ILS -> ILS -> G/S

4.16 ILS:CONTrol:LOCalizer

ILS:CONTrol:LOCalizer
ILS:CONTrol:LOCalizer?
Description Set command defines the localizer control state
Query command returns the localizer control state
Argument OFF | ON | TONE | MORSE
Example ILS:CONT:LOC OFF
Query Example ILS:CONT:LOC?
MORSE
Menu Location Navigation -> ILS -> ILS -> LOC

4.17 ILS:CONTRol:MARKer

ILS:CONTRol:MARKer

ILS:CONTRol:MARKer?

Description Set command defines the marker control state

Query command returns the marker control state

Argument OFF | OUTER | MIDDLE | INNER

Example ILS:CONTRol:MARK OFF

Query Example ILS:CONTRol:MARK?

MIDDLE

Menu Location Navigation -> ILS -> ILS -> MKR

4.18 ILS:DEViation:APILot:GSLope:DDM

ILS:DEViation:APILot:GSLope:DDM

ILS:DEViation:APILot:GSLope:DDM?

Description Set command defines the glide slope auto pilot maximum ddm to use

Query command returns the glide slope auto pilot maximum ddm to use

Example ILS:DEV:APIL:GSL:DDM 0.035

Query Example ILS:DEV:APIL:GSL:DDM?

0.033

Menu Location Navigation -> ILS -> ILS -> G/S AUTOPILOT MAX DDM

4.19 ILS:DEViation:APILot:GSLope:DEViation

ILS:DEViation:APILot:GSLope:DEViation

ILS:DEViation:APILot:GSLope:DEViation?

Description Set command defines the glide slope auto pilot maximum deviation (uA) to use

Query command returns the glide slope auto pilot maximum deviation (uA) to use

Example ILS:DEV:APIL:GSL:DEV 29

Query Example ILS:DEV:APIL:GSL:DEV?

16

Menu Location Navigation -> ILS -> ILS -> G/S AUTOPILOT MAX DEV

4.20 ILS:DEViation:APILot:LOCalizer:DDM

ILS:DEViation:APILot:LOCalizer:DDM

ILS:DEViation:APILot:LOCalizer:DDM?

Description Set command defines the localizer auto pilot maximum ddm to use

Query command returns the localizer auto pilot maximum ddm to use

Example ILS:DEV:APIL:LOC:DDM 0.031

Query Example ILS:DEV:APIL:LOC:DDM?

0.031

Menu Location Navigation -> ILS -> ILS -> LOC AUTOPILOT MAX DDM

4.21 ILS:DEViation:APILot:LOCalizer:DEViation

ILS:DEViation:APILot:LOCalizer:DEViation

ILS:DEViation:APILot:LOCalizer:DEViation?

Description Set command defines the localizer auto pilot maximum deviation (uA) to use

Query command returns the localizer auto pilot maximum deviation (uA) to use

Example ILS:DEV:APIL:LOC:DEV 30

Query Example ILS:DEV:APIL:LOC:DEV?

25

Menu Location Navigation -> ILS -> ILS -> LOC AUTOPILOT MAX DEV

4.22 ILS:DEViation:GSLope:DDM

ILS:DEViation:GSLope:DDM

ILS:DEViation:GSLope:DDM?

Description Set command defines the glide slope deviation to use. Negative is down, positive is up

Query command returns the glide slope deviation to use. Negative is down, positive is up

Valid values depend on DEV STEP

Example ILS:DEV:GSL:DDM -0.091

Query Example ILS:DEV:GSL:DDM?

0.091

Menu Location Navigation -> ILS -> ILS -> G/S DDM

4.23 ILS:DEVIation:GSLope:DEVIation

ILS:DEVIation:GSLope:DEVIation

ILS:DEVIation:GSLope:DEVIation?

Description Set command defines the glide slope deviation (uA) to use. Negative is down, positive is up

Query command returns the glide slope deviation (uA) to use. Negative is down, positive is up

Valid values depend on DEV STEP

Example ILS:DEV:GSL:DEV -78

Query Example ILS:DEV:GSL:DEV?

78

Menu Location Navigation -> ILS -> ILS -> G/S DEV

4.24 ILS:DEVIation:LOCalizer:DDM

ILS:DEVIation:LOCalizer:DDM

ILS:DEVIation:LOCalizer:DDM?

Description Set command defines the localizer ddm to use. Negative is left, positive is right

Query command returns the localizer ddm to use. Negative is left, positive is right

Valid values depend on DEV STEP

Example ILS:DEV:LOC:DDM -0.093

Query Example ILS:DEV:LOC:DDM?

0.093

Menu Location Navigation -> ILS -> ILS -> LOC DDM

4.25 ILS:DEVIation:LOCalizer:DEVIation

ILS:DEVIation:LOCalizer:DEVIation

ILS:DEVIation:LOCalizer:DEVIation?

Description Set command defines the localizer deviation (uA) to use. Negative is left, positive is right

Query command returns the localizer deviation (uA) to use. Negative is left, positive is right

Valid values depend on DEV STEP

Example ILS:DEV:LOC:DEV -90

Query Example ILS:DEV:LOC:DEV?

77

Menu Location Navigation -> ILS -> ILS -> LOC DEV

4.26 ILS:DSTep

ILS:DSTep

ILS:DSTep?

Description Set command defines the deviation step mode

Query command returns the deviation step mode

Argument FIXED | VARIABLE | FIXED2

Example ILS:DST VARIABLE

Query Example ILS:DST?

FIXED

Menu Location Navigation -> ILS -> ILS -> BEARING STEP

4.27 ILS:FREQuency:GSLope

ILS:FREQuency:GSLope

ILS:FREQuency:GSLope?

Description Set command defines the glide slope frequency to use

Query command returns the glide slope frequency to use

Valid values depend on Frequency Input Type

Example ILS:FREQ:GSL 334.7

Query Example ILS:FREQ:GSL?

334.55

Menu Location Navigation -> ILS -> ILS -> G/S FREQUENCY

4.28 ILS:FREQuency:LOCalizer

ILS:FREQuency:LOCalizer

ILS:FREQuency:LOCalizer?

Description Set command defines the localizer frequency to use

Query command returns the localizer frequency to use

Valid values depend on Frequency Input Type

Example ILS:FREQ:LOC 108.05

Query Example ILS:FREQ:LOC?

108.15

Menu Location Navigation -> ILS -> ILS -> LOC FREQUENCY

4.29 ILS:FREQuency:MARKer

ILS:FREQuency:MARKer

ILS:FREQuency:MARKer?

Description Set command defines the marker frequency to use

Query command returns the marker frequency to use

Valid values depend on Frequency Input Type

Example ILS:FREQ:MARK 75.1

Query Example ILS:FREQ:MARK?

74.5

Menu Location Navigation -> ILS -> ILS -> MKR FREQUENCY

4.30 ILS:LEVel

ILS:LEVel

ILS:LEVel?

Description Set command defines the RF level in dBm

Query command returns the RF level in dBm

Example ILS:LEV -24.7

Query Example ILS:LEV?

-14.3

Menu Location Navigation -> ILS -> ILS -> LOC RF LEVEL / G/S RF LEVEL / MKR RF LEVEL

4.31 ILS:MMOD:GSLope

ILS:MMOD:GSLope

ILS:MMOD:GSLope?

Description Set command defines the glide slope master mod

Query command returns the glide slope master mod

Example ILS:MMOD:GSL 35

Query Example ILS:MMOD:GSL?

25

Menu Location Navigation -> ILS -> ILS -> M MOD

4.32 ILS:MMOD:LOCalizer

ILS:MMOD:LOCalizer

ILS:MMOD:LOCalizer?

Description Set command defines the localizer master mod

Query command returns the localizer master mod

Example ILS:MMOD:LOC 35

Query Example ILS:MMOD:LOC?

57.5

Menu Location Navigation -> ILS -> ILS -> M MOD

4.33 ILS:MMOD:MARKer

ILS:MMOD:MARKer

ILS:MMOD:MARKer?

Description Set command defines the marker master mod

Query command returns the marker master mod

Example ILS:MMOD:MARK 85

Query Example ILS:MMOD:MARK?

66

Menu Location Navigation -> ILS -> ILS -> M MOD

4.34 ILS:PHASe

ILS:PHASe

ILS:PHASe?

Description Set command defines the 90Hz / 150Hz phase offset

Query command returns the 90Hz / 150Hz phase offset

Argument 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90
| 95 | 100 | 105 | 110 | 115 | 120

Example ILS:PHAS 55

Query Example ILS:PHAS?

65

Menu Location Navigation -> ILS -> ILS -> 90 / 150 Hz PHASE

4.35 ILS:TDElete:GSLope

ILS:TDElete:GSLope

ILS:TDElete:GSLope?

Description Set command defines the glide slope tone delete state

Query command returns the glide slope tone delete state

Argument NONE | 90HZ | 150HZ | BOTH

Example ILS:TDEL:GSL 90HZ

Query Example ILS:TDEL:GSL?

150HZ

Menu Location Navigation -> ILS -> ILS -> G/S TONE DELETE / TONE DELETE

4.36 ILS:TDElete:LOCalizer

ILS:TDElete:LOCalizer

ILS:TDElete:LOCalizer?

Description Set command defines the localizer tone delete state

Query command returns the localizer tone delete state

Argument NONE | 90HZ | 150HZ | BOTH

Example ILS:TDEL:LOC 150HZ

Query Example ILS:TDEL:LOC?

90HZ

Menu Location Navigation -> ILS -> ILS -> LOC TONE DELETE / TONE DELETE

MEASure Subsystem

4.37 MEASure:ILS:ACTive?

MEASure:ILS:ACTive?

Description Query command returns whether the test is active or not

Query Example MEAS:ILS:ACT?

1

Menu Location Navigation -> ILS -> ILS -> Softkey 4 (RUN | STOP)

ILS - Determine if autopilot test is active or not

4.38 MEASure:ILS:APILot:ACTive?

MEASure:ILS:APILot:ACTive?

Description Query command returns whether the autopilot test is active or not

Query Example MEAS:ILS:APIL:ACT?

1

Menu Location Navigation -> ILS -> ILS -> Softkey 1

This page intentionally left blank.

TACAN Commands

This chapter describes the following remote commands for configuring TACAN Command settings:

• TACan:SETup:ANTenna:CABLe:LENGth	5-3
• TACan:SETup:COUPler:CABLe:LENGth	5-3
• TACan:SETup:COUPler:CABLe:LOSS	5-3
• TACan:SETup:COUPler:LOSS	5-4
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• TACan:SETup:CLOSs:ANTenna	5-8
• TACan:SETup:CLOSs:DIReCt	5-9
• TACan:SETup:IDENt:PERiod	5-9
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• TACan:FREQuency:TX	5-12
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• MEASure:TACan:WIDTh:P2?	5-18

5.1 **TACan:SETup:ANTenna:CABLe:LENGth**

TACan:SETup:ANTenna:CABLe:LENGth

TACan:SETup:ANTenna:CABLe:LENGth?

Description Set command defines the antenna cable length in feet

Query command returns the antenna cable length in feet

Example TAC:SET:ANT:CABL:LENG 47

Query Example TAC:SET:ANT:CABL:LENG?

44

Menu Location Navigation -> TACAN -> SETUP -> Cable Settings -> Antenna Cable Length

5.2 **TACan:SETup:COUPler:CABLe:LENGth**

TACan:SETup:COUPler:CABLe:LENGth

TACan:SETup:COUPler:CABLe:LENGth?

Description Set command defines the direct connect with coupler cable length in feet

Query command returns the direct connect with coupler cable length in feet

Example TAC:SET:COUP:CABL:LENG 47

Query Example TAC:SET:COUP:CABL:LENG?

33

Menu Location Navigation -> TACAN -> SETUP -> Cable Settings -> Direct with Coupler Cable Length

5.3 **TACan:SETup:COUPler:CABLe:LOSS**

TACan:SETup:COUPler:CABLe:LOSS

TACan:SETup:COUPler:CABLe:LOSS?

Description Set command defines the direct connect with coupler cable loss in dB

Query command returns the direct connect with coupler cable loss in dB

Example TAC:SET:COUP:CABL:LOSS 4.7

Query Example TAC:SET:COUP:CABL:LOSS?

2.44

Menu Location Navigation -> TACAN -> SETUP -> Cable Settings -> Direct with Coupler Cable Loss

5.4 TACan:SETup:COUPler:LOSS

TACan:SETup:COUPler:LOSS

TACan:SETup:COUPler:LOSS?

Description Set command defines the coupler loss in dB

Query command returns the coupler loss in dB

Example TAC:SET:COUP:LOSS 4.7

Query Example TAC:SET:COUP:LOSS?

3.7

Menu Location Navigation -> TACAN -> SETUP -> Coupler Loss

5.5 TACan:SETup:DIRect:CABLe:LENGth

TACan:SETup:DIRect:CABLe:LENGth

TACan:SETup:DIRect:CABLe:LENGth?

Description Set command defines the direct connect cable length in feet

Query command returns the direct connect cable length in feet

Example TAC:SET:DIR:CABL:LENG 47

Query Example TAC:SET:DIR:CABL:LENG?

17

Menu Location Navigation -> TACAN -> SETUP -> Cable Settings -> Direct Cable Length

5.6 TACan:SETup:PORT

TACan:SETup:PORT

TACan:SETup:PORT?

Description Set command defines the port in use

Query command returns the port in use

Argument ANTENNA | DIRECT | COUPLER

Example TAC:SET:PORT DIRECT

Query Example TAC:SET:PORT?

DIRECT

Menu Location Navigation -> TACAN -> SETUP -> RF Port

5.7 TACan:SETup:TMODe

TACan:SETup:TMODe

TACan:SETup:TMODe?

Description Set command defines the test mode

Query command returns the test mode

Argument DOD | ANASM-663 | ANARM-184 | 2650_2655 | VARIABLE

Example TAC:SET:TMOD VARIABLE

Query Example TAC:SET:TMOD?

DOD

Menu Location Navigation -> TACAN -> SETUP -> Test Mode

5.8 TACan:SETup:TTYPe

TACan:SETup:TTYPe

TACan:SETup:TTYPe?

Description Set command defines the tacan test type

Query command returns the tacan test type

Argument TRNORM | TRRANGE | AABEACON | AARANGE

Example TAC:SET:TTYP AABEACON

Query Example TAC:SET:TTYP?

TRNORM

Menu Location Navigation -> TACAN -> 1st tab -> TACAN TEST TYPE

5.9 TACan:SETup:UNITs:ERP

TACan:SETup:UNITs:ERP

TACan:SETup:UNITs:ERP?

Description Set command defines the units for the UUT ERP measurement

Query command returns the units for the UUT ERP measurement

Only affect gui. Rci always uses dBm

Argument dBm | W

Example TAC:SET:UNIT:ERP W

Query Example TAC:SET:UNIT:ERP?

dBm

Menu Location Navigation -> TACAN -> SETUP -> UUT ERP Units

5.10 TACan:SETup:VERify

TACan:SETup:VERify

TACan:SETup:VERify?

Description Set command defines whether the test set will prompt user to verify setup before a test

Query command returns whether the test set will prompt user to verify setup before a test

It is recommended that the verify config be turned off when using rci

Argument NO | YES

Example TAC:SET:VER NO

Query Example TAC:SET:VER?

NO

Menu Location Navigation -> TACAN -> SETUP -> Verify Unit Setup Configuration

5.11 TACan:SETup:ANTenna:GAIN1

TACan:SETup:ANTenna:GAIN1

TACan:SETup:ANTenna:GAIN1?

Description Set command defines the antenna gain for 0.96 GHz

Query command returns the antenna gain for 0.96 GHz

Example TAC:SETup:ANT:GAIN1 7.4

Query Example TAC:SETup:ANT:GAIN1?

6.362

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 0.96 GHz

5.12 TACan:SETup:ANTenna:GAIN2

TACan:SETup:ANTenna:GAIN2

TACan:SETup:ANTenna:GAIN2?

Description Set command defines the antenna gain for 1.03 GHz

Query command returns the antenna gain for 1.03 GHz

Example TAC:SETup:ANT:GAIN2 8.05

Query Example TAC:SETup:ANT:GAIN2?

3.5

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.03 GHz

5.13 TACan:SETup:ANTenna:GAIN3

TACan:SETup:ANTenna:GAIN3

TACan:SETup:ANTenna:GAIN3?

Description Set command defines the antenna gain for 1.09 GHz

Query command returns the antenna gain for 1.09 GHz

Example TAC:SETup:ANT:GAIN3 7

Query Example TAC:SETup:ANT:GAIN3?

4

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.09 GHz

5.14 TACan:SETup:ANTenna:GAIN4

TACan:SETup:ANTenna:GAIN4

TACan:SETup:ANTenna:GAIN4?

Description Set command defines the antenna gain for 1.15 GHz

Query command returns the antenna gain for 1.15 GHz

Example TAC:SETup:ANT:GAIN4 8.004

Query Example TAC:SETup:ANT:GAIN4?

7.337

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.15 GHz

5.15 TACan:SETup:ANTenna:GAIN5

TACan:SETup:ANTenna:GAIN5

TACan:SETup:ANTenna:GAIN5?

Description Set command defines the antenna gain for 1.22 GHz

Query command returns the antenna gain for 1.22 GHz

Example TAC:SETup:ANT:GAIN5 7.899

Query Example TAC:SETup:ANT:GAIN5?

6.9

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Gain (dBi)
-> 1.22 GHz

5.16 TACan:SETup:ANTenna:HEIGht

TACan:SETup:ANTenna:HEIGht

TACan:SETup:ANTenna:HEIGht?

Description Set command defines the antenna height in feet

Query command returns the antenna height in feet

Example TAC:SETup:ANT:HEIG 12

Query Example TAC:SETup:ANT:HEIG?

15

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Height

5.17 TACan:SETup:ANTenna:RANGe

TACan:SETup:ANTenna:RANGe

TACan:SETup:ANTenna:RANGe?

Description Set command defines the antenna range in feet

Query command returns the antenna range in feet

Example TAC:SETup:ANT:RANG 31

Query Example TAC:SETup:ANT:RANG?

27

Menu Location Navigation -> TACAN -> SETUP -> Antenna Settings -> Antenna Range

5.18 TACan:SETup:CLOSs:ANTenna

TACan:SETup:CLOSs:ANTenna

TACan:SETup:CLOSs:ANTenna?

Description Set command defines the antenna cable loss in dB

Query command returns the antenna cable loss in dB

Example TAC:SETup:CLOS:ANT 4.7

Query Example TAC:SETup:CLOS:ANT?

2.2

Menu Location Navigation -> TACAN -> SETUP -> Cable Settings -> Antenna Cable Loss

5.19 TACan:SETup:CLOSs:DIRect

TACan:SETup:CLOSs:DIRect

TACan:SETup:CLOSs:DIRect?

Description Set command defines the direct connect cable loss in dB

Query command returns the direct connect cable loss in dB

Example TAC:SETup:CLOS:DIR 4.7

Query Example TAC:SETup:CLOS:DIR?

1.1

Menu Location Navigation -> TACAN -> SETUP -> Cable Settings -> Direct Cable Loss

5.20 TACan:SETup:IDENt:PERiod

TACan:SETup:IDENt:PERiod

TACan:SETup:IDENt:PERiod?

Description Set command defines the identification period in seconds

Query command returns the identification period in seconds

Example TAC:SETup:IDEN:PER 8.5

Query Example TAC:SETup:IDEN:PER?

11.3

Menu Location Navigation -> TACAN -> SETUP -> Identification Period

5.21 TACan:SETup:IDENt:STRing

TACan:SETup:IDENt:STRing

TACan:SETup:IDENt:STRing?

Description Set command defines the identification code

Query command returns the identification code

Example TAC:SETup:IDEN:STR IFR

Query Example TAC:SETup:IDEN:STR?

ABC

Menu Location Navigation -> TACAN -> SETUP -> Identification Code

5.22 TACan:SETup:RANGe:MAXimum

TACan:SETup:RANGe:MAXimum

TACan:SETup:RANGe:MAXimum?

Description Set command defines the maximum simulated range in nautical miles

Query command returns the maximum simulated range in nautical miles

Example TAC:SETup:RANG:MAX 350

Query Example TAC:SETup:RANG:MAX?

299

Menu Location Navigation -> TACAN -> SETUP -> Maximum Range

5.23 TACan:IDENt:STATe

TACan:IDENt:STATe

TACan:IDENt:STATe?

Description Set command defines the ident state

Query command returns the ident state

Argument OFF | MORSE | TONE

Example TAC:IDEN:STAT TONE

Query Example TAC:IDEN:STAT?

OFF

Menu Location Navigation -> TACAN -> 1st tab -> IDENTIFICATION

5.24 TACan:BEARing

TACan:BEARing

TACan:BEARing?

Description Set command defines the tacan bearing to start at

Query command returns the tacan bearing to start at

Valid values depend on Test Mode

Example TAC:BEAR 251.5

Query Example TAC:BEAR?

17.1

Menu Location Navigation -> TACAN -> 1st tab -> START BEARING

5.25 TACan:BRATe:VALue

TACan:BRATe:VALue

TACan:BRATe:VALue?

Description Set command defines the simulated bearing rate in degree/second

Query command returns the simulated bearing rate in degree/second

Argument -5 | -2 | -1 | 0 | 1 | 2 | 5

Example TAC:BRAT:VAL -2

Query Example TAC:BRAT:VAL?

-5

Menu Location Navigation -> TACAN -> 1st tab -> BEARING RATE

5.26 TACan:ECHO

TACan:ECHO

TACan:ECHO?

Description Set command defines the echo enable state

Query command returns the echo enable state

Argument OFF | ON

Example TAC:ECHO ON

Query Example TAC:ECHO?

ON

Menu Location Navigation -> TACAN -> 1st tab -> ECHO

5.27 TACan:FREQuency:CHANnel

TACan:FREQuency:CHANnel

TACan:FREQuency:CHANnel?

Description Set command defines the tacan channel to use

Query command returns the tacan channel to use

Valid values depend on Test Mode

Example TAC:FREQ:CHAN 51

Query Example TAC:FREQ:CHAN?

18

Menu Location Navigation -> TACAN -> 1st tab -> CHANNEL NO

5.28 TACan:FREQuency:MODE

TACan:FREQuency:MODE

TACan:FREQuency:MODE?

Description Set command defines the channel mode

Query command returns the channel mode

Argument X | Y

Example TAC:FREQ:MODE X

Query Example TAC:FREQ:MODE?

Y

Menu Location Navigation -> TACAN -> 1st tab -> CHANNEL MODE

5.29 TACan:FREQuency:TX

TACan:FREQuency:TX

TACan:FREQuency:TX?

Description Set command defines the tacan rf tx frequency

Query command returns the tacan rf tx frequency

Valid values depend on Test Mode

Example TAC:FREQ:TX 1138

Query Example TAC:FREQ:TX?

978

Menu Location Navigation -> TACAN -> 1st tab -> TX FREQ

5.30 TACan:LEVel:UUT

TACan:LEVel:UUT

TACan:LEVel:UUT?

Description Set command defines the rf power level in dBm

Query command returns the rf power level in dBm

Example TAC:LEV:UUT -7

Query Example TAC:LEV:UUT?

-16.6

Menu Location Navigation -> TACAN -> 1st tab -> RF LEVEL

5.31 TACan:RANGe:STARt

TACan:RANGe:STARt

TACan:RANGe:STARt?

Description Set command defines the simulated start range in nautical miles

Query command returns the simulated start range in nautical miles

Valid values depend on Test Mode

Example TAC:RANG:STAR 20.5

Query Example TAC:RANG:STAR?

5.8

Menu Location Navigation -> TACAN -> 1st tab -> START RANGE

5.32 TACan:RATE:ACTive

TACan:RATE:ACTive

TACan:RATE:ACTive?

Description Set command defines whether the range rate is paused or not

Query command returns whether the range rate is paused or not

Example TAC:RATE:ACT OFF

Query Example TAC:RATE:ACT?

0

Menu Location Navigation -> TACAN -> 1st tab -> Softkey 1 (Pause Rate | Resume Rate)

5.33 TACan:RATE:DIRection

TACan:RATE:DIRection

TACan:RATE:DIRection?

Description Set command defines the range direction

Query command returns the range direction

Argument IN | OUT

Example TAC:RATE:DIR OUT

Query Example TAC:RATE:DIR?

OUT

Menu Location Navigation -> TACAN -> 1st tab -> RANGE DIRECTION

5.34 TACan:RATE:VALue

TACan:RATE:VALue

TACan:RATE:VALue?

Description Set command defines the simulated range rate in knots

Query command returns the simulated range rate in knots

Valid values depend on Test Mode

Example TAC:RATE:VAL 200

Query Example TAC:RATE:VAL?

118

Menu Location Navigation -> TACAN -> 1st tab -> RANGE RATE

5.35 TACan:REPLy

TACan:REPLy

TACan:REPLy?

Description Set command defines the percentage of interrogations the test set replies to

Query command returns the percentage of interrogations the test set replies to

Example TAC:REPL 50

Query Example TAC:REPL?

69

Menu Location Navigation -> TACAN -> 1st tab -> % REPLY

5.36 TACan:SQUitter

TACan:SQUitter

TACan:SQUitter?

Description Set command defines whether the test set will squitter or not

Query command returns whether the test set will squitter or not

Argument OFF | ON

Example TAC:SQU OFF

Query Example TAC:SQU?

ON

Menu Location Navigation -> TACAN -> SETUP -> Squitter

VOR Subsystem

5.37 TACan:TEST:STARt

Description Start tests running

Parameter None

Example TAC:TEST:STAR

Query Example None

Menu Location Navigation -> TACAN -> 1st tab -> Softkey 4 (RUN)

TACAN - Set test state to running

5.38 TACan:TEST:STOP

Description Stop tests running

Parameter None

Example TAC:TEST:STOP

Query Example None

Menu Location Navigation -> TACAN -> 1st tab -> Softkey 4 (STOP)

TACAN - Set test state to stopped

5.39 MEASure:TACan:ACTive?

MEASure:TACan:ACTive?

Description Query command returns whether the measurements are active or not

Query Example MEAS:TAC:ACT?

1

Menu Location Navigation -> TACAN -> 1st tab -> Softkey 4 (RUN | STOP)

5.40 MEASure:TACan:BEARing?

TACAN - Read the simulated bearing in degrees

MEASure:TACan:BEARing?

Description Query command returns the simulated bearing in degrees

Query Example MEAS:TAC:BEAR?

0

Menu Location Navigation -> TACAN -> 1st tab -> compass

5.41 MEASure:TACan:DElay?

MEASure:TACan:DElay?

Description Query command returns the A/A reply delay

Only applicable to selected test types

Query Example MEAS:TAC:DEL?

62.37

Menu Location Navigation -> TACAN -> 1st tab -> A/A REPLY DELAY

5.42 MEASure:TACan:ERP?

TACAN - Read the measured UUT ERP in dBm

MEASure:TACan:ERP?

Description Query command returns the UUT ERP in dBm

Query Example MEAS:TAC:ERP?

27.37

Menu Location Navigation -> TACAN -> 1st tab -> UUT ERP

5.43 MEASure:TACan:FREQuency?

MEASure:TACan:FREQuency?

Description Query command returns the UUT frequency

Query Example MEAS:TAC:FREQ?

1025.02

Menu Location Navigation -> TACAN -> 1st tab -> UUT FREQUENCY

5.44 MEASure:TACan:LEVel?

MEASure:TACan:LEVel?

Description Query command returns the UUT transmit power in dBm

Query Example MEAS:TAC:LEV?

-63.4

Menu Location Navigation -> TACAN -> 1st tab -> REPLY LEVEL AT UUT

5.45 MEASure:TACan:PRF?

MEASure:TACan:PRF?

Description Query command returns the prf of the interrogations

Query Example MEAS:TAC:PRF?

50

Menu Location Navigation -> TACAN -> 1st tab -> PRF

5.46 MEASure:TACan:RANGe?

MEASure:TACan:RANGe?

Description Query command returns the simulated range in nautical miles

Query Example MEAS:TAC:RANG?

7.15 NM IN

Menu Location Navigation -> TACAN -> 1st tab -> RANGE

5.47 MEASure:TACan:SPACing?

MEASure:TACan:SPACing?

Description Query command returns the P1 to P2 pulse spacing

Query Example MEAS:TAC:SPAC?

11.98

Menu Location Navigation -> TACAN -> 1st tab -> P1-P2 SPACING

5.48 MEASure:TACan:WIDTh:P1?

MEASure:TACan:WIDTh:P1?

Description Query command returns the P1 pulse width

Query Example MEAS:TAC:WIDT:P1?

3.501

Menu Location Navigation -> TACAN -> 1st tab -> P1 WIDTH

5.49 MEASure:TACan:WIDTh:P2?

MEASure:TACan:WIDTh:P2?

Description Query command returns the P2 pulse width

Query Example MEAS:TAC:WIDT:P2?

3.5

Menu Location Navigation -> TACAN -> 1st tab -> P2 WIDTH

VOR Commands

This chapter describes the following remote commands for configuring VOR Command settings:

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• VOR:SETup:FTYPE	6-2
• VOR:SETup:MORSe:PERiod	6-2
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6.1 VOR:SETup:EATTenuation

VOR:SETup:EATTenuation

VOR:SETup:EATTenuation?

Description Set command defines the external attenuation in dB

Query command returns the external attenuation in dB

Example VOR:SET:EATT 4.7

Query Example VOR:SET:EATT?

3.7

Menu Location Navigation -> VOR -> SETUP -> External Attenuation

6.2 VOR:SETup:FTYPE

VOR:SETup:FTYPE

VOR:SETup:FTYPE?

Description Set command defines the frequency input type

Query command returns the frequency input type

Argument PRESET | CHANNEL | VAR

Example VOR:SET:FTYP VAR

Query Example VOR:SET:FTYP?

CHANNEL

Menu Location Navigation -> VOR -> SETUP -> Frequency Input Type

6.3 VOR:SETup:MORSe:PERiod

VOR:SETup:MORSe:PERiod

VOR:SETup:MORSe:PERiod?

Description Set command defines the morse code period in seconds

Query command returns the morse code period in seconds

Example VOR:SET:MORS:PER 8.5

Query Example VOR:SET:MORS:PER?

9

Menu Location Navigation -> VOR -> SETUP -> Morse Code Period

6.4 VOR:SETup:MORSe:STRing

VOR:SETup:MORSe:STRing

VOR:SETup:MORSe:STRing?

Description Set command defines the morse code string

Query command returns the morse code string

Example VOR:SET:MORS:STR AVX

Query Example VOR:SET:MORS:STR?

IFR

Menu Location Navigation -> VOR -> SETUP -> Morse Code

6.5 VOR:SETup:PORT

VOR:SETup:PORT

VOR:SETup:PORT?

Description Set command defines the port in use

Query command returns the port in use

Argument ANTENNA | DIRECT

Example VOR:SET:PORT DIRECT

Query Example VOR:SET:PORT?

ANTENNA

Menu Location Navigation -> VOR -> SETUP -> RF Port

6.6 VOR:SETup:UNITs:POWer

VOR:SETup:UNITs:POWer

VOR:SETup:UNITs:POWer?

Description Set command defines the units for the RF LEVEL

Query command returns the units for the RF LEVEL

Only affect gui. Rci always uses dBm

Argument dBm | V

Example VOR:SET:UNIT:POW V

Query Example VOR:SET:UNIT:POW?

dBm

Menu Location Navigation -> VOR -> SETUP -> RF Power Units

6.7 VOR:TEST:STARt

Description Start tests running

Parameter None

Example ACT:VOR:TEST:STAR

Query Example None

Menu Location Navigation -> VOR -> VOR -> Softkey 4 (RUN)

VOR - Set test state to running

6.8 VOR:TEST:STOP

Description Stop tests running

Parameter None

Example ACT:VOR:TEST:STOP

Query Example None

Menu Location Navigation -> VOR -> VOR -> Softkey 4 (STOP)

DME Subsystem

DME - Antenna gain at 0.96 GHz

VOR - Set test state to stopped

6.9 VOR:BEARing

VOR:BEARing

VOR:BEARing?

Description Set command defines the bearing to use

Query command returns the bearing to use

Valid values depend on bearing step

Example VOR:BEAR 51

Query Example VOR:BEAR?

168

Menu Location Navigation -> VOR -> VOR -> BEARING

6.10 VOR:BSTep

VOR:BSTep

VOR:BSTep?

Description Set command defines the bearing step mode

Query command returns the bearing step mode

Argument FIXED | VARIABLE

Example VOR:BST VARIABLE

Query Example VOR:BST?

VARIABLE

Menu Location Navigation -> VOR -> VOR -> BEARING STEP

6.11 VOR:FREQuency

VOR:FREQuency

VOR:FREQuency?

Description Set command defines the vor frequency to use

Query command returns the vor frequency to use

Valid values depend on Frequency Input Type

Example VOR:FREQ 108.05

Query Example VOR:FREQ?

108

Menu Location Navigation -> VOR -> VOR -> VOR FREQUENCY

6.12 VOR:LEVel

VOR:LEVel

VOR:LEVel?

Description Set command defines the RF level in dBm

Query command returns the RF level in dBm

Example VOR:LEV -24.7

Query Example VOR:LEV?

3.6

Menu Location Navigation -> VOR -> VOR -> RF LEVEL

6.13 VOR:M30

VOR:M30

VOR:M30?

Description Set command defines the 30 Hz mod

Query command returns the 30 Hz mod

Example VOR:M30 35

Query Example VOR:M30?

15

Menu Location Navigation -> VOR -> VOR -> 30 Hz MOD

6.14 VOR:M9960

VOR:M9960

VOR:M9960?

Description Set command defines the 9960 Hz mod

Query command returns the 9960 Hz mod

Example VOR:M9960 35

Query Example VOR:M9960?

19

Menu Location Navigation -> VOR -> VOR -> 9960 Hz MOD

6.15 VOR:MMOD

VOR:MMOD

VOR:MMOD?

Description Set command defines the master mod

Query command returns the master mod

Example VOR:MMOD 35

Query Example VOR:MMOD?

72.3

Menu Location Navigation -> VOR -> VOR -> M MOD

6.16 VOR:TDElete

VOR:TDElete

VOR:TDElete?

Description Set command defines the tone delete state

Query command returns the tone delete state

Argument NONE | REF | BOTH | VAR

Example VOR:TDEL VAR

Query Example VOR:TDEL?

REF

Menu Location Navigation -> VOR -> VOR -> TONE DELETE

6.17 VOR:TFRom

VOR:TFRom

VOR:TFRom?

Description Set command defines the to/from state

Query command returns the to/from state

Argument TO | FROM

Example VOR:TFR TO

Query Example VOR:TFR?

FROM

Menu Location Navigation -> VOR -> VOR -> TO/FROM

6.18 VOR:TONE:CONTRol

VOR:TONE:CONTRol

VOR:TONE:CONTRol?

Description Set command defines the tone control state

Query command returns the tone control state

Argument OFF | TONE | MORSE

Example VOR:TONE:CONT TONE

Query Example VOR:TONE:CONT?

OFF

Menu Location Navigation -> VOR -> VOR -> TONE CONTROL

6.19 MEASure:VOR:ACTive?

MEASure:VOR:ACTive?

Description Query command returns whether the test is active or not

Query Example MEAS:VOR:ACT?

0

Menu Location Navigation -> VOR -> VOR -> Softkey 4 (RUN | STOP)

TACan Subsystem

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VIAVI Solutions

North America:	1.844.GO VIAVI / 1.844.468.4284
Latin America	+52 55 5543 6644
EMEA	+49 7121 862273
APAC	+1 512 201 6534
All Other Regions:	viavisolutions.com/contacts