

**WAVECREST Corporation**

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**Date:** March 22, 2000

**Subject:** Errata sheet for the DTS-2079/2077/2075™ User's Guide and Reference Manual for code version 2.00, 1.99, 1.97 and 1.95.

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**1. TIME FILTERING (Limits): Menu 8, page 2-11 (Display Filter Limits).**

Limit field must be exited before change is recognized by the DTS. *Virtual Instruments™* and GPIB control will not update the values shown in the limit field of Menu 8 on the front panel.

**For code versions 2.00, 1.99 and 1.97.**

- 2.** It is recommended that while in CONTinuous mode no test parameters/settings should be changed. The following two items have been identified regarding changing parameters/settings while in CONTinuous mode operation.

**CONTinuous Mode/Sample size: Menu 14, page 2-17.**

When operating in the continuous mode with a sample size (Menu 14) less than 100, display characteristics may be affected on the front panel. Specifically, when parameters/settings are changed while in continuous mode, i.e., FUNCtion is changed from PER to PW- (Menu 1), a delay between the front panel action and the displayed results of the action may occur.

**CONTinuous mode - INTernal/EXTernal CALibration: Sections 2.4-1 and 2.4-3, pages 2-18 and 2-19.**

Although an internal or external calibration would not normally be done while in CONTinuous mode, the INTernal CALibration and EXTernal CALibration buttons are still "live."

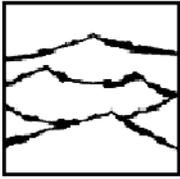
In case either button is pressed while in CONTinuous mode (Please refer to Sections 2.4-1 and 2.4-3 for operation sequences), allow the response time to elapse. Once the response time has elapsed, the display returns to CONTinuous mode and the GO button lamp is lit. However, front panel control is unavailable. To regain control of the front panel, push the GO button and the lamp will be turned off and front panel functions will become active.

**3: HARDcopy:SERialINCRement**

Currently, the front panel does not display any changes that were made to the SERialINCRement value via the GPIB interface.

**4. :SYSTEM:MAC**

Currently, if the :SYSTEM:HEADer return option is enabled (ON), all commands must be sent in the format specified by the :SYSTEM:LONGform command.



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### **5. :SYSTEM:TEST|<Hex value> - New Command**

The :SYSTEM:TEST command specifies which diagnostic tests are performed when executing the \*TST? query (See Section 3-13 of the GPIB Programming Guide). There are 24 individual tests that can be selected by setting the appropriate bit position in the status register to one. Upon completion, if any bits are set in the status register, the corresponding test failed. Writing 0xFFFFFFFF to the register performs all tests. A result of zero indicates a successful completion of all tests. Below is a list of available tests:

#### **CPU\_Test - Tests CPU Board**

- 0 - CPU 50ms Timer interrupt: Tests count down timer
- 1 - CPU Ramp Memory - All zeros: Write 0 and verify ramp memory.
- 2 - CPU Ramp Memory - All ones: Write 0xFFFF and verify ramp memory.
- 3 - CPU Ramp Memory - Increment word: Write data (word) and verify ramp memory.
- 4 - CPU Ramp Memory - Increment byte: Write data (byte) and verify ramp memory.
- 5 - CPU Memory - Lower bound: Write and verify 0000, FFFF, 5555, AAAA.
- 6 - CPU Floating Point - Multiply:
- 7 - CPU Floating Point - Divide:
- 8 - CPU Unexpected Interrupt: Check if any invalid or error interrupts have occurred.

#### **DCB\_Test - Tests Digital Control Board and Interface Backplane**

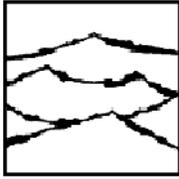
- 9 - DCB Test ID: Read the IQM ID
- 10 - DCB Test Data: Test the DCB test register
- 11 - DCB Test 8254 PIT (Programmable interval timer)
- 12 - DCB Test NVRam: Save page into local ram, test as byte and word

#### **MSU\_Test - Tests Measurement Setup Board**

- 13 - MSU Calibration Signal: Sets Cal signal to 200MHz, 1MHz, 8kHz, Off
- 14 - MSU ID: Reads the MSU ID
- 15 - MSU NV Ram: Save gains, write and read data, restore gains.
- 16 - MSU AD1170 Calibration: Checks functionality of gain and offset
- 17 - MSU AD1170 MUX Data: Set the AD mux to all 16 positions, check voltage and tolerance.
- 18 - MSU Test DACs: Sets the DAC mux for Vref Start, Stop, Arm1 and Arm2 for max.(0x3FFF), ½ and min.
- 19 - MSU Test Vref: Sets the DAC mux for Vref Start, Stop, Arm1 and Arm2 in .321v increments and displays output.
- 20 - Unused
- 21 - MSU Test Event Data: Test the DCB and MSU event registers

#### **IQM\_Test - Tests Interval Quantizer Board (Ramps)**

- 22 - IQM Setup: Sets up a test for Cal\_200MHz, Stop count = 1, Start count =1, TPDPP.
- 23 - IQM Interrupts: Set time for one second, Issue a clear to the IQM, Issue a reset trigger to the MSU, wait for timer to expire, print the IQM\_count.



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**6. :CAL:INT** (See Sections 7-4 and 7-5 of the GPIB Programming Guide)

When accessing via the front panel, internal calibration time defaults to 11 minutes. When accessing via the GPIB, internal calibration time defaults to 5.5 minutes and extended calibration multiplier factors apply.

**7. :CAL:STAT?** - New Query

Returns status of calibration tests (0 = pass, 1 = fail):

Bit Pos.	Hex Value	Description
0	1	Internal Calibration
1	2	External Calibration
3	4	DC Calibration
4	8	Strobe Calibration

**8. Oscilloscope Function**

Triggering using an Arm channel will only permit rising edge triggering. Triggering using an input channel will permit rising or falling edge triggering.

**For code version 1.97 only.**

**9. MANual Arm selection: Arming, page 1-8.**

Currently, this feature is not implemented for code version 1.97. If any measurements are taken while the DTS is in this mode (BURST or CONT), all DTS functions are disabled on the front panel. If this occurs, the DTS must be powered off.

**For code version 1.95 only.**

**10. WAVEFORM - Flat (Pulse Find), Menu 11, page 2-13.**

Feature not implemented for this code version. If a Flat Pulse Find is performed, "Square Wave Failed" will be displayed on Menu 1, Main Function Menu, page 2-6.

**11. CLEAR: Menu 11, page 2-13.**

After a Clear has been performed, the front panel will display Menu 11, the PORT menu. The cursor will then be positioned in the ADDR field of Menu 11. If the message "Unable to read command" is displayed, use one of the arrow keys to clear this message.