

H3500 Depot Digital Test System

H3500 System Highlights

- "Worldwide Standard" digital depot tester for the F-16
- State-of-the-art system based upon current COTS technology
- Teradyne industry standard DTU

Modernized H3500

- VXI open architecture (plug and play)
- IEEE data bus/MXI data bus
- Pentium computer with Microsoft Windows NT software
- Complete suite of commercial off-the-shelf (COTS) instruments - current technology
- Significantly enhanced reliability and throughput

Field Proven

- Backward compatible with existing H3500 TPS's - proven by field use
- Configured by Honeywell and Lockheed Martin for the F-16 Depot
- Maintains USAF commonality

H3500 Upgrade Kit

- NDI field retrofit upgrade kits available for existing H3500 ATE



The fully modernized H3500 utilizes Pentium-based computer with Microsoft Windows NT operating system and a full array of commercial off-the-shelf "COTS" instruments.

Standard Features

System Specifications

- Bidirectional testing
- 520 programmable pins
- Compatible with LASAR 6
- Pattern burst capability
- Multiple phase pattern capability
- 2 nanoseconds resolution
- Universal switching
- ATLAS programmable

Software

- IEEE-416 ATLAS compiler
- Automatic TPS development tools
- LASAR-to-ATLAS post-processor
- Program debugging directly in ATLAS
- Automatic configuration management software
- Full self-test and diagnostics

Existing Logistics Support

- MIL-STD-1552 provisioning
- Air Force Technical Orders
- Calibration/measurement requirements summary
- Training for O&M and TPS development (video media options available)
- Field support in place

System Specifications (cont'd)

Digital Capability

Digital Pin Electronics

(Stimulus/Masurement)

- 520 channels: - 5V to + 15V bidirectional driver/receivers with stim and response capabilities for each channel
- 4096 pattern depth per channel
- 76 Hz to 10 MHz vector rate
- Programmable vector timing by pattern and in (8 phase clocks, 10 ns resolution)
- Programmable handshake capability and digital sequencing (loop, jump, subroutine, etc.)

- Built-in test
- Universal switching
- Selectable pull-up/pull-down configurations
- LASAR 6 timing data compatible
- Hardware real-time comparisons

Digital Analysis

- Teradyne M920

Bus Analysis

- MIL STD-1553 A or B
- Dual bus
 - 1553 bus controller
 - 1553 remote terminal
 - 1553 bus monitor

Analog Stimulus

Pulse Generator

- Repetition rate: 0.5 Hz to 50 MHz
- Pulse width: 10 ns to 1 sec
- Delay: 10 ns to 1 sec
- Amplitude: 5 mV to 22V p-p into 50 ohms
- Double pulse: 25 MHz max
- Burst: 1 to 9999 pulses

DC Power Supply (1)

- Voltage: - 99.99 to +99.99 Vdc in 2 mV steps
- Current: to 0.5A

Waveform Generator

- Waveforms: DC, sine, square, triangle, ramp, arbitrary
- Amplitude: 0 to 10V p-p into 50 ohms
- Frequency: 1 MHz to 10 MHz

DC Power Supply (7)

- Voltage: - 40 to +40 Vdc in 10mV steps
- Current limit: to 30A
- Overvoltage: programmable

Analog Measurement

Multimeter

- DC voltage: .001V to 1050V
- AC true RMS voltage: .01mV to 700V RMS
- Resistance: .0001 ohm to 1.2GΩ

Digitizing Oscilloscope

- Bandwidth: DC to 500 MHz
- Real time sampling: 1 msec/div to 500 msec/div
- Sweep rate: 500 ps/div max

Counter/Timer

- Frequency: 0 to 200 Mhz
- Time interval: 500 ps to 10⁷ seconds
- Period: 10 ns to 10⁷ seconds
- Rise/fall time: 20 ns to 10 ms
- Pulse width: 5 ns to 10⁷ seconds
- Duty cycle: 1% to 99%

Unit-Under-Test Interfaces

Fault-Isolation Probe

- Digital or analog by program control
- Test advance switch in probe
- Digital:
 - Programmable logic level measurement

- Analog switchable to:

- Digitizing oscilloscope
- Arbitrary waveform generator
- Pulse generators
- Counter/timer
- Multimeter

Switching interface

- 520 DPE pins switchable to analog stimulus and measurement instruments
- 64 high-frequency coaxial pins switchable to:
 - Digitizing oscilloscope
 - Pulse generators
 - Arbitrary waveform generator
 - Counter/timer

H3500: The right choice for your depot level test requirements!