

VT 1405

Features

- Performs BERTS Measurements on MPEG 2 Transport Stream Systems
- Compatible With All MPEG 2 Transport Based Systems
- Receiver and Transmitter in One Unit
- PSI table encoding and decoding supported
- Separate Pattern and User downloaded data streams
- Receive Capture Capability
- Full ASI rate for Transmit and Receive
- Selectable 188 or 204 byte packet size
- BERTS Measurements on MPEG2 Transport Payload
 - User Selectable Measurement PIDs
 - Multiple Patterns
 - User Selectable Error Insertion Rate
 - Single Error Insertion Capability
 - Variable Data Insertion Rate
 - Receiver Auto Pattern Select
 - Auto pattern synchronization
- MPEG Transport Stream Error Measurements
 - Checks MPEG Header Error Flag
 - Checks MPEG Continuity Counters
- DVB Asynchronous Serial Interface
- Serial Interface (RS232) For Automated Testing
- Light Weight, Fully Portable Unit
- Easy to Read Front Panel Display and Multiple Status Monitoring LEDs
- Optional QAM/VSF Demodulator

Description

The VT 1405 is a portable, easy-to-use, light-weight test set designed to test and monitor MPEG Transport Stream based equipment and systems. The VT 1405 performs measurements utilizing MPEG 2 transport bitstreams and industry standard BERT (Bit Error Rate Test) procedures and monitors key MPEG parameters for errors.

The VT 1405 generates MPEG data streams consisting of user selectable PIDs and test payloads which can be used for spot testing or continuous monitoring. User data streams can be generated by downloading MPEG2 compatible streams into onboard flash memory. The pattern and user streams are generated separately and thus may have different transmit properties. PSI table generation is supported and enables the stream to be easily multiplexed into a system and decoded by the VT 1405 by program number instead of specific PID values.

The VT 1405 contains a receive and transmit section. The transmitter outputs variable bitrate streams from 25 Kbps up to 214 Mb/s. Single bit errors can be inserted manually or automatically in rates from 10^{-1} to 10^{-7} . Eight user selected predefined patterns can also be inserted into the MPEG payload and transmitted. The receiver automatically synchronizes on the incoming bitstream and decodes the patterns and checks and counts for error conditions. Receive data may also be captured into onboard RAM and downloaded to a host system for further analysis. An easy-to-read color LCD displays all of the measured results and several LED indicators provide status conditions at-a-glance.



VeriFiber, LLC

Product Specification subject to change without notice.

Copyright 2002, 2003 VeriFiber, LLC. All rights reserved.

MPEG2 Enhanced Transport Test Set

VT 1405

Applications

The VT 1405 is designed to be used individually in stand alone tests, such as those performed on specific pieces of equipment, or in pairs for system testing in different locations. Both applications are depicted in Figure 1. Remote testing and monitoring can also be accomplished through the RS232 interface and ethernet on the unit.

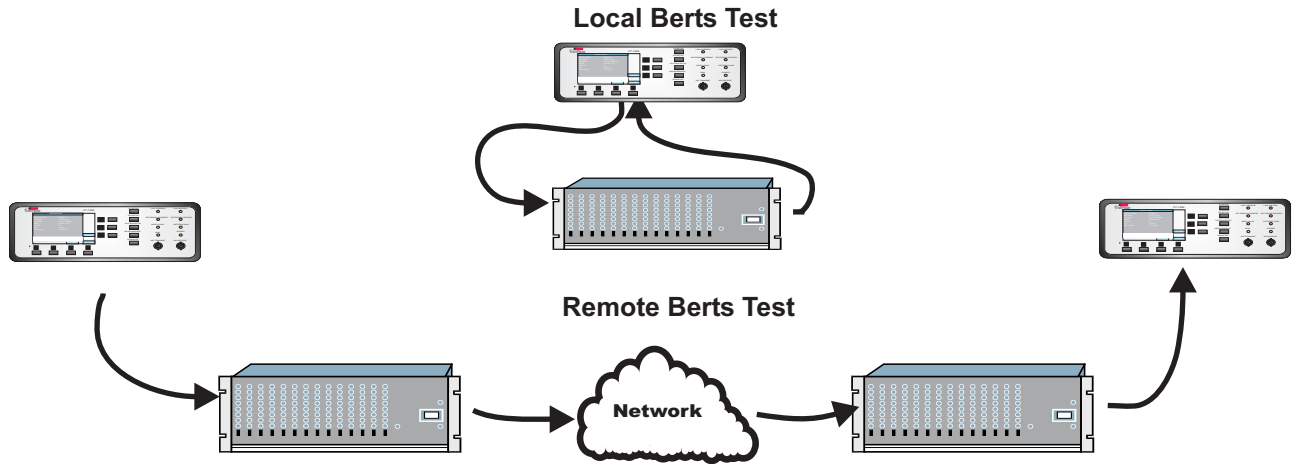


FIGURE 1

SPECIFICATIONS

Transmitter

- Packet PID: User selectable 0 to 1FFF
- Payload Patterns: 2^9-1 , $2^{11}-1$, $2^{15}-1$, $2^{23}-1$, All 1's, All 0's, Alternating 1/0, counting Manual single bit insert, auto insert rates 10^{-1} , 10^{-2} , 10^{-3} , 10^{-4} , 10^{-5} , 10^{-6} , 10^{-7}
- Error bit Insert
- Bit Rates: Variable from 25 Kbps to 214 Mbps
- Data Gap: 1 to 15
- Packet Size: 188 or 204 bytes

Receiver

- MPEG User Selectable PID 0 to 1FFF
- Detected Patterns 2^9-1 , $2^{11}-1$, $2^{15}-1$, $2^{23}-1$, All 1's, All 0's Alternating 1/0, counting
- Bit Rate: Up to 214 Mbps
- Error Rate: 2^{-2} to 2^{-9}
- Packet Size: 188 or 204 bytes

Indicators and Display

- Color graphic LCD with backlight
- Loss of Signal Current LED
- Loss of Signal History LED
- Bit Error Current LED
- Bit Error History LED
- MPEG Sync LED
- PRBS Sync LED
- Test Run LED

Controls

- Run/Stop
- Select receive configuration
- Select transmit configuration
- Select system configuration
- Select measurement
- Power
- Entry softkeys

Measurements

- Bit Error Rate
- Packet Rate
- Bit Rate
- Packet Count
- Bit Error Count
- TEI error count
- Errored Seconds
- Continuity Error count
- Sync Loss count
- Prbs Loss count

VeriFiber, LLC

49 Buford Highway, Suwanee, Ga. 30024

Phone (678) 482-4021

www.verifiber.com

Fax (678) 482-4022

Rev 1

Product Specification subject to change without notice.

Copyright 2002, 2003 VeriFiber, LLC. All rights reserved.