



DVStation: Advanced Monitoring for Digital Networks

8VSB Tuner/Demodulator and TSP

A COMPLETE SOLUTION

The 8VSB Tuner/Demodulator and TSP are DVStation™ monitoring platform modules. Together they offer an all-in-one preventive monitoring solution for ATSC DTV terrestrial broadcast networks.

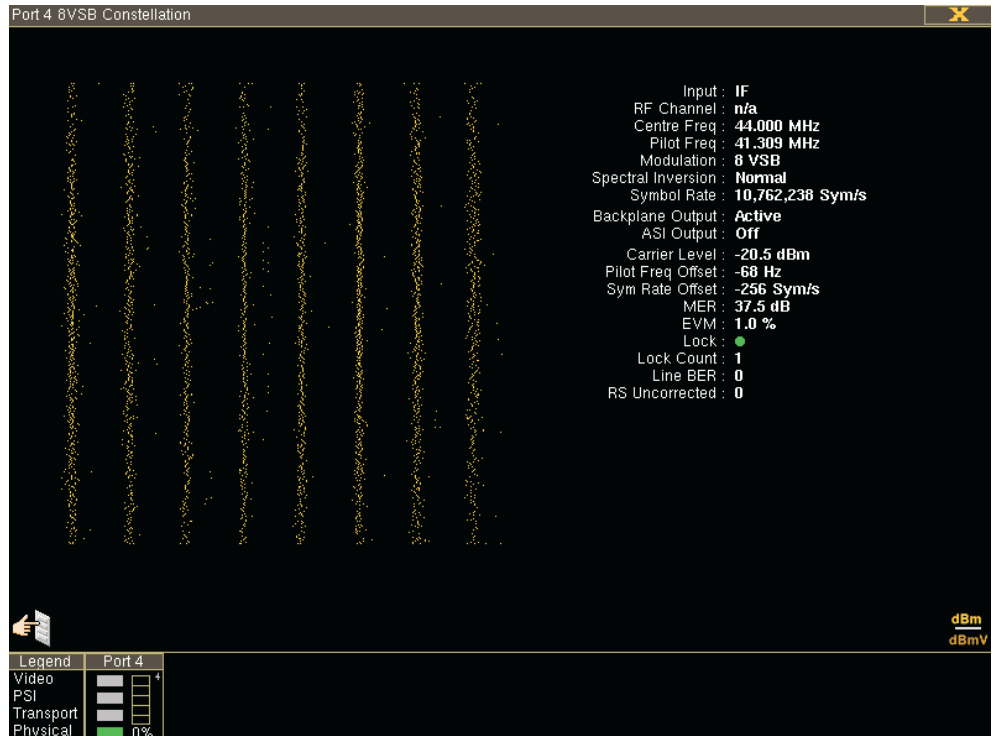
DVStation™ provides 8VSB modulation quality monitoring as well as transport stream monitoring in one solution. The module pair performs DTV 8VSB signal demodulation and a comprehensive suite of continuous RF, modulation, transport stream, and content validation tests.

A combination of real time signal measurements with user configurable alarm thresholds and rich graphical displays make this module pair the ideal operational monitoring and operational troubleshooting tool.

KEY FEATURES

- ATSC Digital Television Standard (Doc. A/53B) 8VSB and 16VSB demodulator
- 8VSB RF analysis including carrier power, EVM, and BER (RS performance)
- Transport stream signal and service integrity validation with TSP100 bundle
- Long-term logging of modulation and TS monitoring parameters for trend analysis*
- Multi-user remote access over LAN, internet, or modem connection
- Real-time constellation display
- Up to 21 complete 8VSB monitoring solutions in one DVStation™ (without TSP100 option)

*TS analysis is only with TSP100 bundle



RF MEASUREMENTS AND GRAPHICAL DISPLAYS

Signal measurements include RF level, signal quality, symbol rate accuracy and frequency, and BER.

A graphical display shows actual constellation points in the I/Q plane. RF measurements performed by the modules are integrated into the DVStation™ physical Status-at-a-Glance display.

ALARMS AND REMOTE ACCESS

RF, modulation and transport stream parameters can be monitored unattended through user definable alarms. The comprehensive DVStation™ Alarm Sub-system can trigger actions that include simple log entries, audible alarms, SNMP traps, contact closures, transport stream recording (96 MB), and even user programmable actions (email notification, paging, etc). All configuration parameters and SNMP Network Management System can be accessed via the local DVStation™ touch screen GUI, remote X-Windows terminal, HTML browser, SNMP client, or CORBA compliant database application*.

COMPREHENSIVE TRANSPORT STREAM MONITORING

Comprehensive real-time transport stream operational monitoring tests are performed including:

- Bandwidth of services and individual PIDs
- PCR jitter
- TR101-290 health checks
- Automatic On-Air Content Validation
- IP traffic monitoring (MPE)
- Stream capture

For a complete description of all transport stream related monitoring capabilities, consult the Pixelmetrix Transport Stream Processor Module (TSP) datasheet.

ADDITIONAL INFORMATION

For further information, contact your closest Pixelmetrix office.

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SPECIFICATIONS

8VSB Tuner/Demodulator

Standards

- ATSC Digital Television Standard (Doc. A/53B) J.83-Annex D, 8VSB (trellis) and 16VSB

Form Factor

- Pixelmetrix DVStation™ Card1 Module, 1 slot

Input

- Connector: BNC x 2 (IF & RF)
- Impedance: 75Ω
- Return Loss: 10 dB Typical
- RF Power Level: -25 dBm to -80 dBm*
- Tuner Center Frequency Range: 57 MHz to 855 MHz
- IF Centre Frequency: 44 MHz

Output

- Connector: BNC
- Impedance: 75Ω
- Return Loss: >19 dB
- Complies with EN50083-9 (Annex B)

Reported Demodulation Parameters

- FEC Frame Lock

Measurements

- RF Carrier Level
- Symbol Rate and Pilot Frequency Offset
- EVM (Error Vector Magnitude)
- RS uncorrected Packet
- Line BER
- MER (Modulation Error Ratio)

Graphical Presentations

- Constellation

Alarms

- FEC Frame Lock Acquired/Lost
- Symbol Rate and Pilot Frequency Offset Exceed User Specified Threshold
- BER Exceeds User Specified Threshold
- RF Carrier Level Falls Below User Specified Threshold
- EVM (Error Vector Magnitude) or MER Exceeds Specified Threshold
- RS Uncorrected Packets Exceed Specified Threshold

Transport Stream Testing

- Consult the Pixelmetrix Transport Stream Processor Module (TSP) datasheet

*For QEF @ 600 MHz

Distributor Contact

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