Tektronix DS1000™

Off-Air Receiver and Multistandard (NTSC or PAL) Analog Television Demodulator for Professional Broadcast Applications, Capable of Receiving RF Signals from Most Terrestrial or Cable Analog Broadcast TV Standards. Designed for Transmitter Feeds and Monitoring, OB Reception, and Service Acquisition in Digital Television Head Ends. Compact Half 1 RU Size. – Lightly Used –

Features

- Standards supported: NTSC or PAL M/N
- Tuning Range: 55.25 to 801.25 MHz
- Stereo Sound: BTSC, Dual Tone, NICAM (system dependent)
- Zero carrier pulse for depth of modulation measurements
- Standard and user-defined channel tables
- RF Ghost Cancelling processing (DS1001G Only)
- RS-232/RS-485 I/O port for remote control
- Simultaneous left and right and SAP audio output monitoring
- Remote monitoring of RF input level
- Lower power dissipation for increased efficiency and reliability
- Dual video outputs
- IF inputs and outputs
- Front panel lock-out feature
- Compact half 1RU size

Applications

- Monitoring transmissions and live programs
- Operational Demodulation
- Broadcast Demodulation

Overview

The Tektronix DS1000 Series Television Demodulators are the answer for cable operators, broadcasters and manufacturers that need a low-cost, high-performance demodulator. They support television standards M/N and B/G.

The DS1000 Series products are full measurement-grade demodulators, with specifications better than demodulators twice their size. Input sensitivity and other specifications make the DS1000 Series ideal for use as a repeater or as the analog front end of an RF-to-digital conversion system in all-digital cable systems. It can also act as a precision set-top converter for making baseband measurements in the field.

The DS1000 Series products are well suited for remote node monitoring. The addressable serial port allows remote control and status monitoring using computers and modems.

For a complete solution that includes a graphical display, the DS1000 Series can be combined with the 1740A Combination Waveform/Vector Monitor.

Ghost Canceling: The DS1001G incorporates state-of-the-art ghost canceling technology which improves overall video quality by using a specialized ghost canceling test signal, pre-inserted into the television signal by broadcasters, to automatically null out annoying static or dynamic picture "ghosts" caused by RF signal reflections from large buildings, trucks or changing weather conditions.

Audio Support: Audio support includes BTSC stereo for system M/N (DS1001A) as well as both FM (mono & dual tone) and NICAM support for System B/G (DS1002). The DS1001A audio outputs are through special terminal-block connectors, which provide simultaneous outputs of Left, Right and SAP audio channels. The DS1002 audio output is through 2xLR connectors. These connectors can be configured in a variety of ways (depending on system), including: mono, SAP, stereo right and left, both right or both left. The DS1001A also has a 4.5 MHz intercarrier output for driving an external aural modulation monitor.

Remote Programming: The DS1000 Series supports remote programming via either RS-232 or RS-485 at 9600 baud. Most front-panel controls can be accessed via the port.

DVEO Broadcast Division
Computer Modules, Inc.
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San Diego, CA 92127
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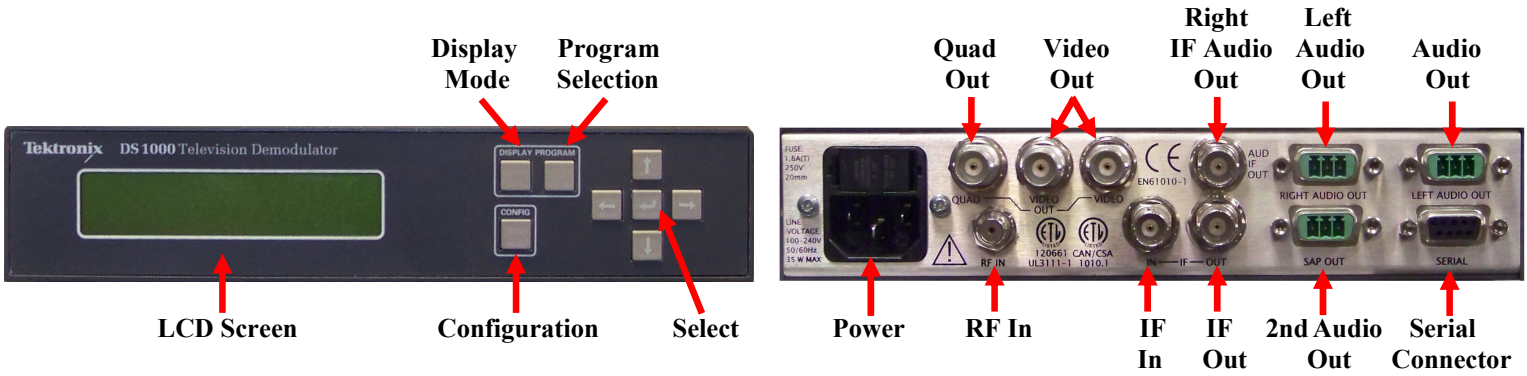
Panel Controls



Specifications

Video

RF Tuning Range:	55.25 to 801.25 MHz (Under range to 53.75)
RF Sensitivity: (Video signal to noise tested at +19 dBmV/+79 dBµV)	0 to +30 dBmV, +60 to +90 dBµV
Return Loss:	>6 dB
Input Impedance:	75 Ω
Input Connector:	Female "F"
Channel Tables:	User configurable
Visual IF Frequency:	45.75 MHz
Aural IF Frequency:	41.25 MHz
IF Output:	51 dBmV/+111 dBµV (typical), BNC
Video Outputs:	Two BNC connectors
4.5 MHz Intercarrier Input and Output:	Two BNC connectors
Video Signal Output:	1 Vp-p baseband video (GCR 1 channel only)
Video Signal-to-noise:	>50 dB (NTC7-weighted)
Frequency Response (18°C to 26°C):	±0.7 dB, 100 kHz to 3.58 MHz (typical)
Group Delay Sound Trap Off:	±50 ns, 100 kHz to 3.58 MHz
Group Delay Reference Sound Trap On:	FCC
Differential Gain:	<1.5% (<2.5% DS1001G typical)
Differential Phase:	<1.5° typical (<2° DS1001G typical)
Chroma/Luma Delay:	<40 ns
Luminance Bar Amplitude:	<2%
Luminance Bar Tilt:	<2% (typical 1%)
2T K-factor	<2.5% (typical 1%)
Line Time Distortion	<3% typical

Audio

Audio Outputs:	Terminal-block connectors (simultaneous outputs of Left, Right, SAP)
Level:	0 dBm across 600 Ω
Frequency Response:	±0.5 dB, 50 Hz to 12 kHz (typical)
Total Harmonic Distortion:	<1% at 1 kHz

Power Requirements

Voltage Range:	95 to 240 VAC
Line Frequency:	50/60 Hz
Power Consumption:	35 W maximum

Physical

Dimensions:	HxWxL: 1.8 x 8.1 x 17.3 inches (46 x 206 x 440 mm)
Operating Temp.	+5°C to +35°C
Storage Temp.	-20°C to +70°C
Altitude – Operating:	0 to 6,500 ft. (2,000 m)
Altitude – Non-Operating:	0 to 50,000 ft. (4,572 m)
Weight:	35 W maximum
Conformities:	FCC, CE, RoHS

Ordering Info

DS1000 Demodulator – Used but tested
Warranty from DVEO for six months

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