The Timewave DSP-D300 decodes Automated Local Evaluation in Real Time (ALERT) data. Timewave’s advanced digital signal processing technology increases accuracy and reduces noise for today’s applications and establishes a platform for the improved protocols of the future.

**Ethernet + USB + Serial I/O**
The DSP-D300 plugs into the internet! If you have internet access on a network at a site, the DSP-D300 gives you remote data transfer, configuration and status. You can stream data to multiple IP addresses simultaneously.

Most current systems use the rapidly-disappearing RS-232 serial technology for control and data transfer. The multiple I/O protocols of the DSP-D300 let you extend the life of those legacy systems as you upgrade the system with new components. No more worries about whether a new laptop computer has an RS-232 serial port! The USB port handles all the control, configuration and diagnostics. You can even update the internal program of the DSP-D300 in the field.

**Address Filtering and Packet Error Detection**
The DSP-D300 includes configuration software to set the entire range of 8,192 remote addresses and filters via the local USB port or via SSH secure internet protocol. If you’re using a satellite uplink, internal error detection eliminates noisy bad packets.

**Internet security**
Federal guidelines call for secure internet communications no matter what other advantages an internet-enabled system has.

**Features**
- Low noise DSP demodulator
- Packet error detection
- Handles 8192 data addresses & filters
- Network enabled
- SSH Secure internet protocol
- Remote configuration and status
- Field configuration and diagnostics
- Field firmware update
- USB port
- 10/100 Ethernet port
- Two RS-232 serial ports
- Transformer-isolated receive data input
- Encoding option available

The DSP-D300 meets the challenge with the SSH 2.0 protocol for control and status communications.

**Flexible Installation**
The freestanding housing features a rugged aluminum extruded housing and EMI-blocking conductive paint. Single or dual rack mount and NEMA options make installation quick and easy. Two units can mount side-by-side with an optional 19 inch rack mount kit.

The DSP-D300 features readily available standard connectors on all input and output ports.

**Field Diagnostics**
The installation and diagnostics software package included with the DSP-D300 allows you to measure the output level of the receiver to optimize the receiver and DSP-D300 settings during installation. You can test the operation of the DSP-D300 in the field with just the DSP-D300 and a computer with a sound card.
DSP-D300 Specifications

Processors
- 400 MHz 32-bit DSP processor with 24 bit A/D
- 50 MHz 32-bit ARM RISC processor for Ethernet
- 25 MHz USB processor

Memory
- 4 MB Flash (option - expandable to 8 MB)
- 8 MB RAM

Input/Output
- Radio audio interface: 600 Ohm balanced, transformer isolated, RJ-45
- Monitor Audio output: Remote level control, 150 mW into 16 Ohms, 3.5 mm stereo jack
- Input sensitivity: Adjustable from −50 dBm to 0 dBm
- Demodulator: FSK , 300 bps, 240 Hz shift, programmable polarity for Mark/Space
- Demod. center frequencies: 600 Hz, 1080 Hz, 1560 Hz, 2040 Hz (default), 2520 Hz,, other frequencies/shift/bps optional
- Decode protocol: ALERT/IFLOWS (ADF, BDF, EIF)
- ALERT/IFLOWS ID range: 0000-8191 (remote and local programmable configuration)
- Modulator (option): FSK , 300 bps, 240 Hz shift
- Mod. center frequencies: 600 Hz, 1080 Hz, 1560 Hz, 2040 Hz (default), 2520 Hz,, other frequencies/shift/bps optional
- Modulation protocol (option): ALERT/IFLOWS (ADF, BDF, EIF) & others
- Digital I/O: Ethernet (10/100 base/T) (RJ-45 connector)
- Modulation protocol (option): ALERT/IFLOWS (ADF, BDF, EIF) & others
- Digital I/O: RS-232C (non-filtered) (DB-9 connector)
- Terminal data rates: RS-232 – 300 - 9600 bps
- Ethernet protocols: • SSH 2.0 (U.S. Government Specification) (Secure Shell)
- Ethernet protocols: • Telnet (RAW and with Protocol)
- Ethernet protocols: • NIST synchronized via internet
- Diagnostics: Local and remote IFLOWS status, system temperature, system power supply voltage.

Physical
- Enclosure: Extruded Aluminum, rack mount option, NEMA option
- Size: 7.6 in. wide x 8.5 in. deep x 1.9 in. high
- Weight: 2.4 lb. (1.1 Kg.)
- Operating Temp.: −20° C to 50° C
- Power: +5 to +18 VDC @200 mA.

Software
- USB Control: Control, configuration, logging and diagnostics
- Ethernet: Client diagnostic packet logger (Windows 2000/XP/98)
- COM port: Client diagnostic packet logger (Windows 2000/XP/98)
- Log Report Generator: Optional – parses packet logs and generates usage reports

Timewave Technology Inc.
1025 Selby Ave., Suite 101, St. Paul, MN 55104 USA • 651-489-5080 Voice • 651-489-5066 Fax
http://www.timewave.com E-mail: sales@timewave.com