



TDR6

Modular Professional Network IRD



HIGHLIGHTS

- ▶ SDTV and HDTV formats
- ▶ Modular construction with six module slots for flexibility
- ▶ 4:2:2 and 4:2:0 SDTV video processing
- ▶ Analog and digital outputs
- ▶ Up to eight stereo audio channels
- ▶ MPEG or AC3 audio
- ▶ Four switchable L-band inputs on the DVB® QPSK/8PSK/16QAM satellite demodulator
- ▶ Embedded audio

DESCRIPTION

Performance

The TDR6 is a high performance, modular receiver/decoder providing a high degree of flexibility to meet a variety of standard definition (SDTV) and high definition (HDTV) applications. The modular design makes the TDR6 easy to adapt to changing requirements in digital TV contribution and distribution networks. A total of six module slots allow the flexibility of using common equipment for a variety of applications in SDTV requiring MPEG 4:2:2 Studio Profile @ Main Level or 4:2:0 Main Profile @ Main Level and HDTV requiring MPEG 4:2:0 Main Profile @ High Level video processing. The basic TDR6 provides a modular chassis including a backplane, universal power supply, and system control module with auxiliary input and data options.

Video

The TDR6 supports NTSC and PAL formats through the TDEC-6100 decoder module. Video output provides both analog composite and serial digital (SDI) with embedded audio. Video processing may be in MPEG 4:2:2 or 4:2:0 formats automatically sensed by the decoder. The TDR6 also supports decoding of HDTV signals in either 1080i or 720p formats through the use of a TDEC-6160 option module. Video output provides 1.5 Gbps SDI.

Audio

The TDR6 decodes up to two stereo (four mono) channels of audio in the standard configuration using the TDEC-6100 module. A total of four additional stereo (eight mono) channels of MPEG audio or ATSC audio (with external decoders) may be decoded using the TAUD-6100.

Auxiliary Data

In its basic configuration, using the TMAC-6125 control module, the TDR6 can support two channels of synchronous data up to 2048 kbps or asynchronous data up to 34.8 kbps on EIA-232 and EIA-422 ports.

Input Interfaces

The TDR6 can be configured for various inputs through the selection of input option modules. For example, a TDEM-6110 QPSK/8PSK/16QAM demodulator allows the TDR6 to perform as an SDTV or HDTV IRD with four switchable L-band inputs.

Operator Control

The TDR6 provides an intuitive menu of front panel operator controls with a bright display of the decoder functions. This is augmented by remote control of the functions through the Ethernet interface or by ASCII commands via the EIA-232 remote control interface.



TDR6

TECHNICAL SPECIFICATIONS

FACTORY-CONFIGURABLE FEATURES

INPUT INTERFACE MODULES	TDEM-6110 Module – Four switchable Input QPSK/8PSK/16QAM Receiver <ul style="list-style-type: none">• Four switchable L-band inputs• DVB®-compliant FEC decoding, deinterleaving, and descrambling• LNB power supplied through the L-band feed cable, 13V or 18V selectable, 350mA maximum current
HDTV DECODING	TDEC-6160 Module
HD VIDEO PROCESSING	<ul style="list-style-type: none">• MPEG-2 4:2:0 Main Profile @ High Level (up to 54 Mbps)• ATSC resolutions<ul style="list-style-type: none">• 1920 x 1080i (25, 30, and 29.97 fps)• 1280 x 720p (60 and 59.94 fps)
HD VIDEO OUTPUT	TDEC-6160 Module Two serial digital outputs per SMPTE 292M SDI @ 1.485 Gbps, two BNC connectors
HD AUDIO OUTPUT	TAUD-6100 Module <ul style="list-style-type: none">• Four AES/EBU digital stereo pairs (eight mono channels) via four BNC connectors• MPEG decoding and Dolby AC3 decoding of 2- or 5.1-channels through an external decoder
SDTV DECODING	TDEC-6100
SD VIDEO PROCESSING	<ul style="list-style-type: none">• MPEG-2 4:2:0 Main Profile @ Main Level (1 to 15 Mbps)• MPEG-2 4:2:2 Studio Profile @ Main Level (up to 50 Mbps)• Horizontal resolutions: 720, 704, 544, 480, and 352• Vertical resolutions: 480/240 (NTSC) and 576/288 (PAL)
SD VIDEO OUTPUT	TDEC-6100 Module <ul style="list-style-type: none">• Composite analog NTSC (525) or PAL (625), BNC connector• Serial digital component video (SMPTE 259M), BNC connector
SD VBI DATA	TDEC-6100 Module Proprietary passage of NTSC line 21 closed captions
SD AUDIO OUTPUT	TDEC-6100 Module <ul style="list-style-type: none">• Two AES3 digital stereo pair, XLR• Two AES3 digital stereo pairs @ 48 kSps, embedded in SDI, per SMPTE 272A• Two analog stereo pair, terminal block connector TAUD-6100 Module <ul style="list-style-type: none">• Four AES3 digital stereo pair, BNC• Dolby AC3 decoding of 2 or 5.1 channels through an external decoder• MPEG Layer II, sampling rates of 32, 44.1, and 48 kSps, output rates from 64 to 384 kbps

STANDARD FEATURES

DATA PROCESSING	TMAC-6125 Module <ul style="list-style-type: none">• DVB® ASI in and output, BNC connector• Two independently programmable auxiliary data ports on DB-9 connectors<ul style="list-style-type: none">• Asynchronous: 1200 to 38400 bps, EIA-232 and EIA-422 levels• Synchronous: 1 to 2048 kbps, resolution 1 bps, EIA-422 levels
CONDITIONAL ACCESS	PGCA proprietary conditional access
FRONT PANEL CONTROL	Pushbuttons, illuminated LCD, bright indicator LEDs
PHYSICAL	2U standard 19" rack-mount – 8.9 cm high, 48.3 cm wide, 58.4 cm deep (3.5" x 19" x 23") Weighs less than 10.5 kg (23 lbs)
POWER SUPPLY	Autosensing, autoranging 85 to 240 VAC, 50 to 60 Hz universal power supply
OPERATING CONDITIONS	Ambient temperature: 0° to 45°C
TYPICAL MODULE SELECTIONS	HDTV: TMAC-6125, TDEC-6160, TAUD-6100, and TDEM-6010 SDTV: TMAC-6125, TDEC-6100, TAUD-6100, and TDEM-6010

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