



TDR4022

DVB PROFESSIONAL MPEG-2 INTEGRATED RECEIVER/DECODER

HIGHLIGHTS

- ASI, QPSK/8PSK/16QAM, DVB-S2, DS3*, E3* and IP* input options available
- QPSK And ASI Input options included in base unit
- 4-port RF input switch included
- PGCA, BISS 1 and BISS E Conditional Access
- Front Panel Power Switch
- Fully functional front panel control
- Easy-to-use Web Browser Control
- Large Illuminated LCD Display
- 1RU Compact Rugged Rack-Mount Chassis is Ideal for DSNG and Sports/Event Contribution
- Fully MPEG-2 and DVB Compliant
- 4:2:0 or 4:2:2 operation
- Broadcast Quality Video and Two Stereo Audio Pairs
- Composite PAL/NTSC and SDI Video Outputs
- Decode MPEG & AC3 Stereo*
- Pass-through Dolby AC3 5.1*
- Analog and AES Serial Digital Audio Outputs
- SDI Embedded Audio
- Supports Teletext, Closed Captions and other VBI



DESCRIPTION

The TDR4022 MPEG-2 IRD delivers features and performance collected over years of leadership in the Broadcast Contribution and Satellite Modem business. Tiernan technology enabled the first commercial deployment of 4:2:2 MPEG-2 video compression/decompression in 1997 and continues today with advanced video decompression technology as the industry demands higher performance. The TDR4022 combines the leadership of Radyne demodulator technology with proven Tiernan decoding to provide a complete IRD solution in a rugged 1U chassis. It is ideal for mobile broadcast contribution applications as well as monitoring in network and cable head end use.

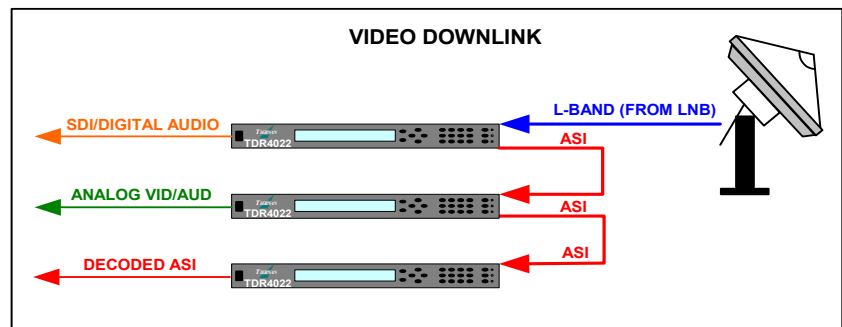
EASY TO USE: There is a complete set of alphanumeric buttons on the front panel for easy configuration. The large LCD display is illuminated, yet provides high contrast for visibility in direct sunlight. The power switch is on the front panel for easy access. There are 24 user programmable preset configurations that can be stored and recalled from the front panel menu. They can even be named by the user with the alphanumeric buttons to make them easy for the operator to remember.

RELIABLE AND AFFORDABLE: By using the latest integration of MPEG and low-power digital electronics technology, the TDR4022 combines a complete IRD in a small, low power, quiet, highly reliable and full-featured professional package.

AGILE RECEIVER: The TDR4022 comes standard with both ASI and DVB-S QPSK demodulator. Additionally, the TDR4022 may be optionally configured with a 8PSK/16QAM demodulator, DS3 receiver, or DVB-S2 demodulator, using Radyne's industry-leading S2 technology.

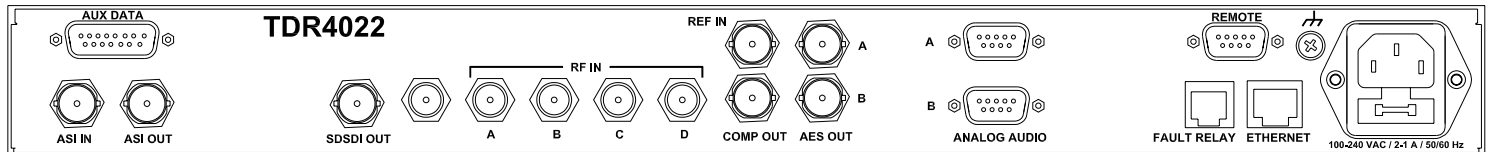
The TDR4022 supports all standard video (PAL/NTSC) and audio (MPEG, AC3, SMPTE302M) formats, making the TDR4022 ideal for virtually every application.

Secure Transmission: BISS Mode 1 and Mode E are supported by the TDR4022, in addition to the Tiernan proprietary Privacy Guard Conditional Access (PGCA). PGCA is a fixed key scrambling system that is included as a standard feature in Tiernan encoders and decoders. It is addressable, and, when used with a Tiernan encoder such as the SE4000 or HE4000, allows individual decoders to be added or deleted from the authorization list. No special intervention is required on the part of the TDR4022 operator.



TDR4022

DVB Professional MPEG-2 Integrated Receiver/Decoder



TECHNICAL SPECIFICATIONS STANDARD FEATURES

VIDEO OUTPUT:	PAL (625 Line) or NTSC (525 Line) Formats
ANALOG:	SMPTE 170M NTSC or ITU-R BT.470-6 PAL-I/B/D, BNC Connector
SERIAL DIGITAL:	SMPTE 259M SDI @ 270 Mbps, BNC Connector
VIDEO PROCESSING:	<ul style="list-style-type: none">MPEG-2 4:2:0 (Main Profile @ Main Level), 1.0 to 15.0 MbpsMPEG-2 4:2:2 (422Profile @ Main Level), up to 50.0 MbpsHorizontal Resolutions: 720, 704, 640, 544, 480 and 352 Pixels/LineVertical Resolutions 240 or 480 Lines (NTSC) or 288 or 576 Lines (PAL)4:3 and 16:9 Configurable Aspect Ratio
VERTICAL BLANKING INTERVAL:	<ul style="list-style-type: none">ATSC Closed Captions, Per A/53 (Composite or SDI)DVB Teletext For World System Teletext on PAL Composite Video4:2:2 Expanded windows operation (16 or 32 lines)Proprietary Tiernan Closed Captions
AUDIO OUTPUTS:	<ul style="list-style-type: none">Two Stereo or Four Independent Analog Mono Channels on Balanced XLR Connectors (with optional adapter)Two AES/EBU Digital Stereo Pairs on 75 Ohm BNC ConnectorsTwo pairs of SDI embedded digital audio
AUDIO PROCESSING:	<ul style="list-style-type: none">MPEG-1 Layer II, AC3 2.0 Encoding, AC-3 5.1 Pass-Through *Two Stereo Channels or Four Independent Mono ChannelsSampling Rates of 32, 44.1 and 48 KspsAll Data Rates Supported
AUXILIARY DATA:	<ul style="list-style-type: none">One Synchronous: 1 to 20 Mbps, Resolution 1 bps, EIA-422, on Female DB-9 Connector *One Asynchronous: 1200 to 115 Kbps, EIA-232, on Female DB-9 Connector *
CONTROL TABLES:	<ul style="list-style-type: none">Process MPEG or DVB-Compatible PSI/SI Tables
CONDITIONAL ACCESS:	<ul style="list-style-type: none">BISS Mode 1/E & PGCA Proprietary Conditional Access
TIMING:	<ul style="list-style-type: none">Lip Synchronization Adjustment – 30 to +300 ms
TRANSPORT INPUT:	<ul style="list-style-type: none">DVB ASI Input (75 Ohm BNC Connector) and QPSK L-Band (F-type) Standard4-Input L-band input switch standard
TRANSPORT OUTPUT:	<ul style="list-style-type: none">DVB-ASI transport stream output of received source
FRONT PANEL CONTROL:	<ul style="list-style-type: none">Membrane style Pushbuttons; Special Purpose Status ButtonRecessed Front Panel AC Power SwitchBacklit 2 x 40 LCD Display24 User-Programmable Preset Configurations
REMOTE CONTROL:	<ul style="list-style-type: none">EIA-232 on Male DB-9 Connector (DTE), ASCII CommandsIEEE 802.3 10/100 Base-T (Ethernet) on RJ-45 ConnectorWeb Browser *
FAULT MONITORING:	<ul style="list-style-type: none">Contact Closure for Alarm Conditions on RJ-11 Connector
SOFTWARE UPGRADE:	<ul style="list-style-type: none">EIA-232 Remote Port, Ethernet Remote Port
PHYSICAL:	<ul style="list-style-type: none">1RU High, Rugged Chassis Suitable for Mobile Operations, 19" Rack-Mount, 17.7" (45 cm) DeepWeights Less Than 5.5 kg (12 lbs.)
POWER SUPPLY:	<ul style="list-style-type: none">Autoranging 90 to 240 VAC, 50/60 Hz, 40 Watts Typical Consumption
OPERATING CONDITIONS	<ul style="list-style-type: none">0° to +50°C, up to 95% Humidity, Non-Condensing

OPTIONAL FEATURES

TRANSPORT INPUT:	<ul style="list-style-type: none">DVB-S 8PSK/16QAM DemodDVB-S2 DemodDS3 / E3 Input (BNC Connector) *IP input card *
GENLOCK INPUT:	<ul style="list-style-type: none">Retime and Frame-Synchronize Audio/Video Outputs to external timing Input (75 OHM BNC) *

* Contact factory for current options availability

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