

TDR4022 Satellite Video Receiver

Applications

- Digital Satellite News Gathering
- Sports/Event Contribution

Features

- ASI, QPSK/8PSK/16QAM/16APSK*, DVB-S2, DS3, E3 and IP UDP and COP3 IP input options available
- QPSK and ASI input options included in base unit
- RF input frequency 950 to 2150 MHz, Symbol Rate up to 45 Ms/s
- 4-port RF input switch
- PGCA, BISS Mode 1 and E
- Front panel power switch
- Fully functional front panel control
- Easy to use Web browser control
- Large illuminated LCD display
- 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 and 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

Ideal for mobile broadcast contribution applications as well as monitoring in network and cable headend use, the TDR4022 Satellite Video Receiver combines best in class demodulator technology with proven IDC decoding to provide a complete IRD solution.

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 named, stored and recalled from the front panel menu.

Reliable and Affordable

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 an 8PSK/16QAM demodulator, DS3/E3 receiver, IP input or DVB-S2 demodulator, using industry-leading S2 technology. It will support all standard video (PAL/NTSC) and audio (MPEG, AC3) formats, making the TDR4022 ideal for virtually every application.

Secure Transmission

BISS Mode 1 and E are supported by the TDR4022, in addition to the IDC proprietary Privacy Guard Conditional Access (PGCA). PGCA is a fixed key scrambling system that is included as a standard feature in IDC encoders and decoders. It is addressable and when used with an IDC encoder such as the SE4000™ SD MPEG-2 Video Encoder, allows individual decoders to be added or deleted from the authorization list. No special intervention is required on the part of the TDR4022 operator.



TECHNICAL SPECIFICATIONS—TDR4022 Satellite Video Receiver

MODEL	DESCRIPTION
Base Unit	<ul style="list-style-type: none"> Standard Definition 4:2:0 or 4:2:2 video decoding Analog and digital video outputs 2 pairs of audio decoding with analog, digital or embedded outputs ASI and integrated QPSK satellite receiver with a 4-port L-band switch
HARDWARE OPTIONS	
DVB-S2 Advanced Satellite Receiver Module	
IP Interface Module	
G.703 Interface Module	
OPTIONAL FEATURES	
DVB-S2 QPSK/8PSK/16APSK* Demod	
DS3/E3 Input (BNC Connector)	
100/1000 Base-T IP input card with COP3 FEC	

VIDEO SPECIFICATIONS	
Video Output	PAL (625 Line) or NTSC (525 Line) formats
Analog	SMPTE 170M NTSC or ITU-R BT.470-6 PAL-I/B/D, 2 * BNC Connector
Serial Digital	SMPTE 259M SDI @ 270 Mb/s, 2 * BNC Connector
Video Processing	<ul style="list-style-type: none"> MPEG-2 4:2:0 Main Profile @ Main Level (1 to 15 Mb/s) MPEG-2 4:2:2 Profile @ Main Level (up to 50 Mb/s) Horizontal Resolutions: 720, 704, 640, 544, 480 and 352 pixels/line Vertical Resolutions: 240 or 480 lines (NTSC), 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 video 4:2:2 expanded windows operation (16 or 32 lines) Proprietary Tiernan Legacy Closed Captions
AUDIO SPECIFICATIONS	
Audio Outputs	<ul style="list-style-type: none"> 2 stereo and 4 independent analog mono channels on Balanced XLR connectors (with optional adapter) 2 AES/EBU digital stereo pairs on 75 Ohm BNC connectors 2 pairs of SDI embedded digital audio
Audio Processing	<ul style="list-style-type: none"> MPEG-1 Layer II, AC3 2.0 encoding, AC3 5.1 pass-through 2 stereo channels or 4 independent mono channels Sampling rates of 32, 44.1 and 48 Ks/s All data rates supported
AUXILIARY DATA	
One Synchronous	1 to 20 Mb/s, resolution 1 b/s, EIA-422, on Female DB-9 connector
One Asynchronous	1.2 to 115 Kb/s, EIA-232, on Female DB-9 connector

MISCELLANEOUS	
Control Tables	Process MPEG or DVB-Compatible PSI/SI Tables
Timing	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) standard 4-input L-band input switch standard
Transport Output	DVB-ASI transport stream output of received source
Software Upgrade	EIA-232 remote port, Ethernet remote port
FRONT PANEL CONTROL	
<ul style="list-style-type: none"> Membrane style pushbuttons, special purpose status button Recessed front panel AC power switch Backlit 2 x 40 LCD display 24 user-programmable preset configurations 	
CONDITIONAL ACCESS	
BISS Modes 1 and E , PGCA	
STATUS AND CONTROL INTERFACES	
Remote Control	<ul style="list-style-type: none"> EIA-232 on Male DB-9 connector (DTE), ASCII commands IEEE 802.3 10/100 Base-T (Ethernet) on RJ-45 connector Web browser
Fault Monitoring	Contact closure for alarm conditions on RJ-11 connector
POWER REQUIREMENTS	
Supply Voltage	Autoranging 90 to 240 VAC, 50/60 Hz
Power Consumption	40 Watts (typical)
PHYSICAL PARAMETERS	
Chassis	1RU rackmount, suitable for mobile operations
Dimensions (H, W, D)	4.4 cm x 44.5 cm x 45 cm (1.75" x 17" x 17.7")
Weight	5.5 kg (12 lbs.)
ENVIRONMENTAL CONDITIONS	
Operating Temperature	0° to 50° C (32° to 122° F)
Humidity	Up to 95% humidity, non-condensing



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