

VIRENZA-T+T2™

Frequency Agile DVB-T and DVB-T2 Receiver and MPEG-2 and 4 and H.264 HD Decoder with DVB-T, DVB-T2, IP (with Pro-MPEG FEC), or ASI Input. Demodulates DVB-T or DVB-T2 Frequencies and Decodes Either H.264 or MPEG-2 Video Formats to SMPTE 259M (SD-SDI), SMPTE 292 (HD-SDI), YPrPb, or IP. Supports AES-3 id Audio as well as MPEG-1/2, AAC, and AC-3. Supports BISS and Other CA.



Features

- Inputs: DVB-T, DVB-T2, IP, DVB-ASI
- Automatic switchover from DVB-T+T2 to ASI in
- Optional 2nd DVB-T+T2 RF input
- Supports Pro-MPEG FEC on IP input
- Includes CAM module and BISS-1/E and DVB-CI support
- Outputs: IP (up to 4 IP transport streams out, SPTS or MPTS), HD-SDI, SDI, DVB-ASI, YPrPb, RGB, composite, MPEG or AC-3 audio
- May choose or automate choice of digital stream from DVB-T or DVB-T2 or DVB-ASI or SMPTE-310M or IP signal. Auto switching with sync loss.
- Selected digital stream is supplied in DVB-T, DVB-T2, or IP format signal
- Dual MPEG-2 (HD/SD) decoding, single MPEG-4/ H.264 decoding (single audio decoding only)
- H.264 (MPEG-4) or MPEG-2 MP@HL compliant video decoder supplies digital and analog video signal
- Digital video signal compliant with SMPTE-259M or SMPTE-292M (SDI) with embedded 8 channel audio (SMPTE-299M)
- Dolby Digital® AC-3, HE-AAC, and MPEG-1/2 5.1 channel audio decoder
- Dolby Digital® AC-3 or PCM stereo audio selectable over BNC connector
- Dolby Prologic compatible stereo audio output on one XLR connector and one D-Sub 9P connector
- RGB video signal with 1080i/720p/576p/576i (480i) video mode
- 2 Lines by 40 characters LCD display
- Supports subtitles
- Down converts HD input to SD out
- Firmware upgradeable via Internet or USB
- USB 2.0 Support
- SNMP (10/100/1000 Ethernet) management support
- Supports LNB power on RF in if needed
- Tested with many other Encoders with FEC

Applications

- Off air terrestrial receiver
- MPEG-2 HD or SD Decoder
- HD-SDI file playback
- Content repurposing

Overview

The **Vireenza-T+T2™** is a new generation professional frequency agile frequency agile DVB-T receiver that demodulates all terrestrial frequencies and supplies crystal clear digital or analog video with the DVB-T and DVB-T2 formats used by Broadcast Professionals in Europe, Asia, and parts of Africa and South America. It not only functions as a broadcast demodulator but also works extremely well as a professional H.264 and MPEG-2 decoder. It features an easy-to-use GUI, plus front panel controls. Both allow you to change settings quickly.

The output of the demodulator is available on DVB-ASI connectors. With its IP, DVB-ASI, or its DVB-T/T2 inputs, it is able to decode transport streams up to 45 mbps. Designed to support all the industry standard forms of the DVB standard, it supports 576i/480i, 576p/480p, 720p and 1080i decoding. Supported video outputs include both digital and analog formats with HD-SDI with embedded audio, SDI, YPrPb, IP, RGB, and composite. A useful feature is its ability to automatically switch between RF and IP inputs.

Audio support is via embedded audio or via XLR connectors. Audio support includes analog audio output (L, R) on XLR's. For Dolby Pro Logic audio output there is a front panel control to enable Pro Logic surround sound audio on the two XLR's. For users looking for digital audio via PCM or compressed audio, the output TS via the BNC connectors and the outputs here are enabled via the MAIN/AUDIO/DIGITAL LCD menu. The compressed audio on the BNC has a Dolby AC-3 with 5.1 channels.



Computer Modules, Inc.

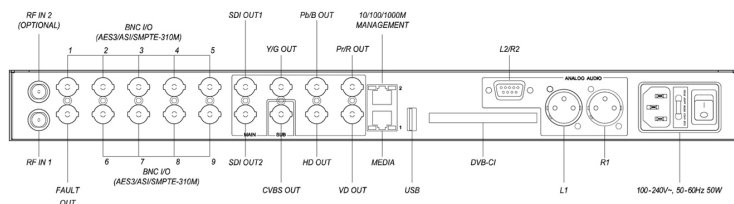
11409 West Bernardo Court

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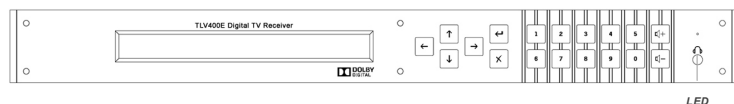
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Rear View



Front Panel View



Specifications

Front Display/Keys	<ul style="list-style-type: none"> 2 lines by 40 characters LCD 18 keys for Easy Control LOCK, ENTER, EXIT, ARROW, and Numeric Keys LED (3 colors: Green, Amber, Red)
DVB-T or DVB-T2 RF Input	
Channel:	6/7/8 MHz RF Selectable
Standard:	ETSI TS 102 773 V1.2.1
Connector:	2 x 75 Ohm BNC-type Connector (DVB-S/S2 Option available)
Symbol Rate:	DVB-T: 10 ~ 30 Msps
Note:	*Supports T2MI multiplexed streams
Optional Second RF Input	
DVB-S/S2, DVB-T+T2, 8VSB, or QAM	
TS Input	
Format:	SMPTE 310M or DVB-ASI (Select ASI or 310M at front panel)
Connectors:	75 ohm BNC, RJ-45
Audio Output	
Signal:	AES3-id (Select ASI or 310M or AES3-id output at front panel)
Connector:	75 ohm BNC
Format:	Dolby AC-3 audio with 5.1, AAC, MPEG 1/2, PCM
1st Audio Output:	Connector: XLR connector (AES 3-id)
2nd Audio Output:	Connector: D-sub 9p connector
Audio Pairs Decoded:	Standard – Select any one of four stereo pairs Optional – audio decoder board for selecting one additional stereo pair, for a total of 2 of 4 stereo pairs
Audio Levels:	Set to +4dBm for -20dBFS digital audio contents when the audio attenuation menu is set to zero. The audio level can be attenuated using the front panel audio configuration menu.
Digital Audio Output	Choose either PCM mode or COMPRESSED audio output mode for MAIN channel. The chosen audio mode is used for all BNC output ports. You can have PCM mode only for the SUB channel. You may have COMPRESSED audio out of MAIN channel over BNC port and PCM audio out of SUB channel over BNC port.
Amplifier/Speakers	One 10W amplifier and speaker for L+R channel

Supported SDI Modes

Supported modes of SDI are:

Video Mode	Frame Rate			Embedded Audio	
	29.97 Hz (59.94)	30 Hz (60)	25 Hz (50)	PCM	Compressed
1080i	Supported	Supported	Supported	Supported	Supported
720p	Supported	Supported	Supported	Supported	Supported
480p/576p	Not defined (480p)	Not defined (480p)	Not defined (576p)	Not Available	Not Available
480i/576i	Supported for 480i	Not supported (480i)	Supported (576i)	Supported	Supported

The SDI has EIA-608 and EIA-708 closed caption (=DTVCC) Embedded. It also has line 21 closed caption on 480i mode.

TS Output	
Format:	SMPTE 310M, DVB-ASI, or IP (up to 4 IP TS out, SPTS or MPTS – does not alter the source program)
Connectors:	75 ohm BNC, RJ-45
Component Video Output	
Formats:	1080i/720p/576p/480p/576i/480i
Connectors:	BNC connector, YPbPr/RGB Selectable
Preview Out (Composite)	
Signal:	NTSC/PAL
Connector:	75 ohm BNC
Digital Video Output (SDI, HD-SDI)	
SMPTE-259M/SMPTE-292M with embedded audio (SMPTE-299M)	
Ethernet Input/Output	
10/100/1000 Mbps MPEG over RTP/UDP	
USB 2 for Software Updates	
Connector: Type “A” Ethernet adapter available	
Fault	
Relay contact on signal loss	
Conditional Access	
BISS-1/E and DVB-CI for popular CA	
Network Management	
NMS supported through SNMP	
CPU and RAM	
MIPS 300 MHz 32 bit RISC	
Unit	
1 RU 19-inch rackmountable	
Operating Temperature	
+0 ~ +45°C (32 to 113°F)	
Storage Temperature	
-20 ~ +50°C (-4 to 122°F)	
Operating Humidity	
10 to 90%, non-condensing	
Power Supply	
AC 100-240V ~ 50-60 Hz 50W Max	
Dimensions	
HxWxL: 1.7 x 19 x 13.6 inches (4.3 x 48.26 x 34.55 cm)	
Weight	
10 lbs. (4.54 kg)	
Conformities	
FCC, RoHS CE Mark: Electromagnetic Compatibility Directive 2004/108/EC Low Voltage Directive 2006/95/EC	

Ordering Info

Virenza-T+T2 – DVB-T+T2 Version
 Virenza-T+T2/2RF – Optional 2nd DVB-T+T2 RF input
 Virenza-S+S2 – DVB-S+S2 Version



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