

Image Intelligence in Real-Time



For operations on the move, response time is critical. Troll Systems' new handheld receiver combines blisteringly fast HD decoding, unsurpassed video display and data rates of up to 46Mbps. Unquestionably the highest quality handheld video decoder on the market today, it incorporates a 13.3 inch high resolution daylight readable screen, H.264 and MPEG-2 video compatibility and AES-128 or 256 decryption with Bcrypt. Video over IP provides network connectivity, KLV metadata monitoring, GPS auto-tracking and network distribution capability.

Designed to decode in DVB-T2, DVB-T COFDM and ISDB-T OFDM modes the receiver takes advantage of a second generation modulation scheme capable of higher data rates, longer range and improved payload capacity.

A mix of highly advanced audio and video features, Troll's handheld receiver provides HD or SD decoding, selectable 4:2:0 or 4:2:2 - 10 bit color sampling with just a single frame, 33ms of end-to-end video latency. These high performance characteristics and comprehensive diagnostics put real-time image intelligence in the right hands.

Available Frequency Bands:

- 2.0 to 2.7 GHz
- 4.4 to 5.1 GHz
- 6.3 to 6.9 GHz

Video Formats:

- 1080p HD 1920x1080 - 1080p/60 (3G-SDI)
- 1080i HD 1920x1080
- 720p HD 1280x720
- 576i PAL 720x576- 50 Hz
- 480i NTSC 720x480 - 59.94 Hz

Monitoring and Alarms:

- Decoder parameters
- Demodulation parameters
- Frequency and input level
- Modulation Error
- Bit Error Rate
- Carrier Noise Ratio

Air-to-Ground Ethernet Connectivity

Handheld DVB-T DVB-T2 Receiver

H.264, MPEG-2 High-Definition Video Decoder with 33 milliseconds (one frame) of End-to-End Latency



- Two-way diversity antennas
- MRC - Maximum Ratio Combining
- AES-128 or AES-256 encryption with Bcrypt
- High data rates up to 46Mbps
- Standard V-mount battery or DC power supply
- 3G / HD/SD-SDI - 10bit high-quality output
- KLV metadata embedded GPS extractor
- Auto-tracking control (with compass)
- 13.3 inch sunlight readable screen
- ASI and Ethernet transport streams
- Internet server IP interface
- Rugged milled aluminum block - anodized

Single Frame Video Latency H.264, MPEG-2 High-Definition Video Decoder

handheld Receiver

SPECIFICATIONS

Specifications subject to change without notice.

Receive Antennas: Maximum Ratio Combining:	Diversity 2 DVB-T2, DVB-T and ISDB-T
DVB-T2 COFDM: Demodulation: Constellation Rotation:	DVB-T2 COFDM 1K, 2K, 4k, 8k and 8k ext QPSK, 16QAM, 64QAM, 256QAM Receiver technique to increase robustness in deep fades and/or erasure propagation events.
Forward error Correction: Guard Interval: Bandwidth: Max bit rate:	1/2, 3/5, 2/3, 3/4, 4/5, 5/6 1/4, 19/128, 1/8, 19/256, 1/16 1.7, 6, 7, 8 MHz 46 Mbps
DVB-T COFDM: Demodulation: Forward error Correction: Guard Interval: Bandwidth: Max bit rate:	DVB-T COFDM 2K and 8K QPSK, 16QAM, 64QAM 1/2, 2/3, 3/4, 5/6, 7/8 1/4, 1/8, 1/16, 1/32 5, 6, 7, 8 MHz 31.67 Mbps
ISDB-T OFDM: Demodulation: Forward error Correction: Guard Interval: Bandwidth: Max bit rate:	OFDM 2K, 4K and 8K QPSK, 16QAM, 64QAM 1/2, 2/3, 3/4, 5/6, 7/8 1/4, 1/8, 1/16, 1/32 6, 7, 8 MHz 31.67 Mbps
Decoder H.264 Profiles: Color Space: Latency:	Baseline, Main, High 4:2:0 or 4:2:2 -10 bit 33 milliseconds
MPEG-2: Latency:	422P@HL, MP@HL, 422P@ML, MP@ML 33 milliseconds
Audio decoder: Max. audio input bit rate:	MPEG-1 Layer I/II 384 kbps per channel
Video Video Outputs:	3G-SDI HD-SDI SD-SDI HDMI (1.4)
Video Inputs/Outputs:	ASI Transport Stream Video Transport Stream over IP (SMTP2022/CoP3) - FEC Max. TS packets / IP packet: 7
Video Formats 1080p (1920x1080): 1080i (1920x1080): 720p (1280x720): 576i (PAL): 480i (NTSC):	1080p (1920x1080) Frame Rate: 23.98/ 24/ 25/ 29.97/ 30/ 50/ 59.94/ 60 Hz 1080i (1920x1080) Frame Rate: 50/ 59.94/ 60 Hz 720p (1280x720) Frame Rate: 23.98/ 24/ 25/ 29.97/ 30/ 50/ 59.94/ 60 Hz 720x576- 50 Hz 720x480 - 59.94 Hz



Audio Output: SDI embedded:	HDMI/ SDI embedded/ Speakers (2) Speakers (1) Headphone jack
Decryption AES Decryption: BISS Scrambling:	AES-128 or AES-256 with Bcrypt BISS-1 and BISS-E
Power Supply DC Batteries: input: Max. Consumption:	V-Mount 12 VDC (5 hours C190) 11 to 36 VDC 3.2 A at 12 V
Dimensions Screen: Size:	13.3 inch 394mm x 205 x 46 mm (15.5 x 8.1 x 1.8 inches)
Weight:	2.8 Kg (6.6 lb) without battery
Environmental Temperature range: Humidity:	-20 to 55 °C 95%
GPS Auto-Tracking	Transmitter Position Receiver Position Receiver Configuration
Control and Monitoring Auto Detection Mode: Network Monitor: Monitoring:	Front panel & display Web Server interface Video and Audio SNMP Decoder parameters Demodulation parameters Frequency and input level Modulation Error Bit Error Rate Carrier Noise Ratio Warnings, logbook and clock



The Data Link Experts

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