

ORDERING INFORMATION:

P/N:

TF-TDR1-HDX

APPLICATIONS:

- Rotorcraft
- General Aviation
- Law Enforcement
- Fire Authority
- EMS
- Automotive Applications
- Marine Applications
- Locomotive
- Pipe & Power Line Inspections
- Military & Defense
- Flight School
- SAR

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TF-TDR1-HDX



FEATURES:

- Single Channel HD-SDI Tactical Data Video Recorder with Graphic Overlay Placement System
- Multiple Sensor Inputs with Dynamic Graphic Overlays
- Record in HD-SDI up to 1080p30
- Internal memory storage
- Record to dual external USB drives simultaneously
- Dual GPS Inputs with Overlays and .KML & .GPX file generation
- Multiple Live Trigger & Flag Overlays
- Audio input as embedded or Analog Line Level (1Vp-p)
- H.264 compression
- Multi-Channel Interface

The TF-TDR1-HDX is the next generation of Tactical Data Recorders designed for all applications for land, air and sea operations. The TF-TDR1-HDX is capable of recording one independent HD-SDI signal (H.264 AVC Profile 4.2 / Motion JPEG) from a variety of video input options ranging from FLIR, Westcam, Imperx CMOS Cameras, Marshall Industries, HD Block Cameras and/or any SDI camera on the market. In addition to high definition video, the TF-TDR1-HDX can accept a single stereo audio input (G.711 / AAC) from an audio panel or headset which is synchronized with video during playback.

The TF-TDR1-HDX is capable of live streaming via SRT / RTSP / RTMP / HLS / UDP-TS / Onvif.



Technical Specifications

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VIDEO	
1 x SDI Input - Supported Resolutions	1080i 50 / 60 Hz, 1080p 23.98 / 24 / 25/ 29.97/ 30 Hz, 1080PsF 23.98 / 24 Hz, 720p 50 / 59.94 / 60 Hz, NTSC 480i60 Hz, PAL 576i50 Hz
1 x IRIG or CVBS Input	1 x Unmodulated IRIG-B signal (time & date code) OR 1 x CVBS input (NTSC/PAL) – superimposed on HD video as PIP
1 x SDI Output - Supported Resolutions	1080i 50 / 60 Hz, 1080p 23.98 / 24 / 25/ 29.97/ 30 Hz, 1080PsF 23.98 / 24 Hz, 720p 50 / 59.94 / 60 Hz, NTSC 480i60 Hz, PAL 576i50 Hz
1 x HDMI Output	Simultaneous HDMI Output transcoded from HD-SDI signal
Broadcast Formats	NTSC / PAL
Encoding	H.264 AVC Profile 4.2 / Motion JPEG
Encoding Latency	≤ 67ms
Coding Bitrate	16kbits/sec - 32Mbits/sec
Bitrate Control	Constant Bit Rate (CBR) /Variable Bitrate (VBR)
STREAMING	
Streaming Protocols	SRT / RTSP / RTMP / HLS / UDP-TS / Onvif
Dual Stream Output	Main Stream Code Rate up to 1080p60Hz
	Sub-stream Code Rate up to 720p60Hz
AUDIO	
Stereo Formats	G.711 / AAC
Sample Rates	8 / 16 / 22.05 / 32 / 44.1 / 48 / 64 / 88.2 / 96 KHZ
Bitrate	16 / 24 / 32 / 48 / 64 / 72 / 80 / 96 / 128 / 160 / 192 / 256 Kbps
Sampling Precision	24 bit
Coding Bitrate	64Kb/s - 384Kb/s
MEDIA & MEMORY	
1 x Internal Memory	Internal Memory - 16GB (Standard)
	Internal Memory Upgrade Options: 32GB, 64GB, 128GB, 256GB, 512GB, 1TB
2 x External Media	2 x USB 2.0 or 3.0 Drives (Record same files to both drives)
1 x External Media	1 x USB 2.0 dedicated for secondary .KML file
FILE TYPE	
Record File Types	.ts / .avi / .mp4 / .mov / .mkv
GPS File Types	.kml / .gpx
Image File Types	.jpeg

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GPS INPUT & OVERLAYS	
2 x GPS Input	GPS, GNSS, NMEA 0183, GPGGA/GPRMC/GPGSA/GPVTG parsed 1 Hz / 5 Hz / 20 Hz (Optional) RS232 Serial Data
GPS Overlays	Coordinates: Degrees/Minutes/Seconds or Degrees/Minutes or Degrees Altitude: Feet / Meters Speed: Knots / MPH / KPH Bearing (Heading) GPS Time & Date Overlay (GPST)
Text & Image Overlays	Unlimited Text Fields and Graphic Elements available with direct sensor inputs from: Quadrature or Simple Counters / Analog Data / XY Measurements / Targeting Reticles / Plane Situation Awareness / ROV Situation Awareness / Sliders / Moving Compass / Display Time & Date / Text / Images / GPS Data / NMEA Data / CSV Sentences / Unsupported NMEA Sentences / Append Milisecond Counter to IRIG / GPS / RTC time
System Time Overlay	System Time Overlay
OVERLAY PARAMETERS	
Overlay Parameters	Overlay parameters from the following sensor inputs: Quadrature or Simple Counters / Analog Data / XY Measurements / Targeting Reticles / Plane Situation Awareness / ROV Situation Awareness / Sliders / Moving Compass / Display Time & Date / Text / Images / GPS Data / NMEA Data / CSV Sentences / Unsupported NMEA Sentences / Append Milisecond Counter to IRIG / GPS / RTC time
FRONT PANEL	
2 x Media Drives	2 x USB 2.0 or 3.0 (External Drives) - Video/Audio Record Files
1 x USB Port	USB Port dedicated for secondary .KML files
1 x USB Port	USB Port for connecting external keyboard (Programming)
Record Function	Momentary Rocker ON/OFF Switch with LED indicator
LED Indicators	1 x Power 1 x Fault 1 x GPS

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REAR PANEL	
Video I/O	1 x BNC for SDI Input / 1 x BNC for IRIG-B or CVBS (PIP) Input 1 x BNC for SDI Output / 1 x HDMI Output (transcoded from HD-SDI signal)
External Record Switch	1 x External Record Switch (LEMO Push-Pull Locking)
Audio Input/Output	1 x Audio Input & Output (LEMO Push-Pull Locking)
GPS Input	2 x GPS Input (LEMO Push-Pull Locking)
Trigger	4 x External Triggers - Flag #1 / Flag #2 / Waypoint / JPEG (LEMO Push-Pull Locking)
Communications	Dual Com Serial Ports for RS232 Data Inputs Available (LEMO Push-Pull Locking)
CAN Bus	1 x CAN Bus Inputs (LEMO Push-Pull Locking)
Quadrature	Dual Quadrature Inputs Available (LEMO Push-Pull Locking)
Sensor	4 x Analog Sensor Inputs Available (LEMO Push-Pull Locking)
Multi-Link	1 x Multi-Link for multi-channel connections (DB37)
Ethernet	1 x LAN Ethernet (Settings Configuration)
Power	1 x Power Input (MIL-SPEC 3-pin)
MANAGEMENT	
Network Connection	WEB GUI via Ethernet Port
POWER	
Power Input	12-36VDC input (Nominal 12 volts 1A/5W)
PHYSICAL	
Operating Temp.	-40° Celcius to +85° Celcius (-40° F to +185° F)
Storage Temperature	-65° Celcius to +95° Celcius (-85° F to +203° F)
Humidity	10% - 90% relative
Dimensions	140mm (L) x 140mm (W) x 90mm (H) / 5.5in (L) x 5.5in (W) x 3.54in (H)
Weight	2.50 lbs / 1.13kg / 40oz
Mounting	4 x 1/4x20 Mounting Holes on both sides (L-bracket Mount Included)

Technical Drawings

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