

TELEMETRY RECORDER

TDR

Telemetry signal recording, analysis and playback

Rugged, cost-effective, multi-purpose, telemetry data acquisition system



Features

- Export via GigE or USB
- Playback while recording
- Removable system and data drives
- Various chassis options, including TEMPEST Level III
- Various I/O modules
 - ◊ Analog
 - ◊ Annotation
 - ◊ Asynchronous Serial (RS-232, RS-422)
 - ◊ Ethernet
 - ◊ Serial PCM
 - ◊ Video
- SDK option

Recording:

- IRIG-106 Chapter 10 format
- Duration only limited by disk array size and configuration
- Annotation options
 - ◊ Voice
 - ◊ Timing (Galileo, GPS, IRIG, PPS, IEEE 1588)

Analysis:

- Real-time monitoring

Playback:

- Real-time data export to third-party processing or custom software applications



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Technical Specifications

Serial PCM

Option:	-50M	-85M	-500M	-1G
Signalling:	TTL, RS-422, LVDS, ECL, PECL	TTL, RS-422, LVDS, ECL, PECL	LVDS, ECL, CML	LVDS, ECL, CML
Data Rate:	≤ 50 Mbps	≤ 85 Mbps	≤ 500 Mbps	≤ 1 Gbps
Encoding/Decoding:	{NRZ-L, NRZ-M, NRZ-S, RNRZ-L, Async}	{NRZ-L, NRZ-M, NRZ-S, RNRZ-L, Async}	{NRZ-L, NRZ-M, NRZ-S, RNRZ-L, Async}	{NRZ-L, NRZ-M, NRZ-S, RNRZ-L, Async}
Output Impedance:	50 Ω	50 Ω	50 Ω	50 Ω
Prog. Output Levels:	Yes	Yes	No	No

Analog

Option:	-70K	-01M	-20M
Signal Type:	Single-ended or differential	Single-ended or differential	Single-ended or differential
Sample Rate:	4 to 144 kSPS	64 to 4000 kSPS	20 to 80 MSPS
Bandwidth:	70 kHz	1 MHz	20 MHz
Quantization:	24-bit	24-bit	16-bit
Input Signal Range:	{±1V, ±2V, ±5V, ±10V}	{±1V, ±2V, ±5V, ±10V}	{±2.5V}
Input Dynamic Range:	114dB (unweighted)	114dB (unweighted)	95dB (unweighted)
Input Gain Mismatch:	0.005 dB (0.1%) inter-channel	0.005 dB (0.1%) inter-channel	0.005 dB (0.1%) inter-channel
Input Phase Mismatch:	±120 ns inter-channel	±10 ns inter-channel	±150 ps inter-channel
Input THD:	-100 dB @ -1 dB signal	-70 dB @ -1 dB signal	-90 dB @ -1 dB signal
Input Impedance:	1 MΩ	1 MΩ	{50 Ω, 1 MΩ}
Input Coupling:	DC	DC	{AC, DC}
Input Filter:	{none, 1Hz high-pass filter}		-
Output Signal Range:	{±1V, ±2V, ±5V, ±10V}	{±1V, ±2V, ±5V, ±10V}	{±2.5V}
Output THD:	-41 dB @ -3 dB signal	-41 dB @ -3 dB signal	-75 dB @ -3 dB signal
Output Impedance:	170 Ω	170 Ω	{50Ω, 75Ω}

Video

Format:	{NTSC, PAL}
Input Signal Level:	± 1V _{pp}
Input Impedance:	75 Ω
Output Signal Level:	± 1V _{pp}
Output Impedance:	75 Ω

Ethernet

10/100/1000M Base-T

Annotation

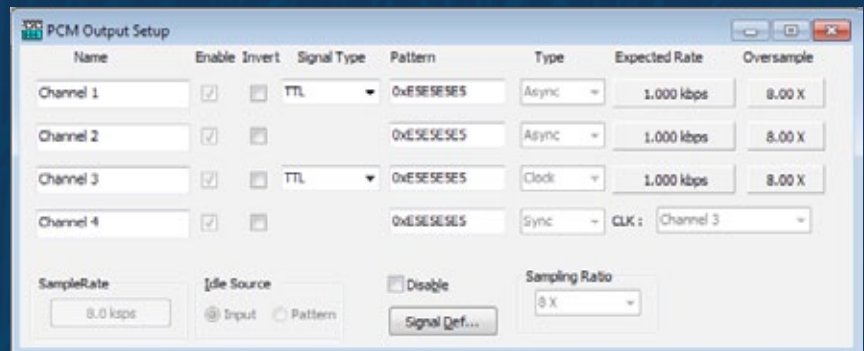
Voice Timing {Galileo, GPS, IRIG, PPS, PTP}

Storage Media

Type:	SSD or HDD
Form Factor:	2.5"
RAID:	0, 1, 5

Power

Input Voltage Range:	110-240VAC
Input Frequency Range:	50-60Hz



Ordering Options

TDR-##DXXX-##AXXX-##V-##E-NXXX-CX

##	Number of channels	
DXXX	Maximum Data Rate	{ 50M: 50Mbps, 85M: 85Mbps, 500M: 500Mbps, 1G: 1Gbps }
AXXX	Maximum Analog Bandwidth	{ 70K: 70kHz, 01M: 1MHz, 20M: 70 MHz }
V	Video	-
E	Ethernet	-
NXXX	Annotation	{ V: Voice, I: IRIG, P: IEEE-1588 (PTP) }
CX	Chassis	{ CN: 4U Rack (TEMPEST-III), CP: Portable, CR: 2U Rack, CW: Workstation }