

# INSTRUMENTATION DATA RECORDER

IDR

Instrumentation signal recording, analysis, and playback

Rugged, cost-effective, multi-purpose, analog data acquisition and analysis system



## Features

- High channel count options
- Playback
- Export via GigE, DVD or USB
- Timecode annotation
- Removable system and data drives
- Event Recording
- Several maximum bandwidth options
- Various chassis options, including TEMPEST Level III
- Signal Conditioning Modules (Current, High-Voltage, IEPE, Strain, Temperature, etc.)

### Recording:

- Single-ended or differential
- Variable gain on all channels
- 16 or 32-bit format
- Simultaneous sampling up to the highest sample rate on all channels
- Duration only limited by disk size
- Wave64 or IRIG-106 Chapter 10 formats

### Analysis:

- Signal level meters
- Signal level history
- Real-time FFT display of all channels
- Real-time high-resolution FFT of a single channel
- Multi-channel oscilloscope
- Extend analysis with SoundView installation
  - ◊ single-resolution multi-channel
- Extend analysis with TrueView processing system
  - ◊ multi-resolution multi-channel
  - ◊ extended time history
  - ◊ aural listening/playback

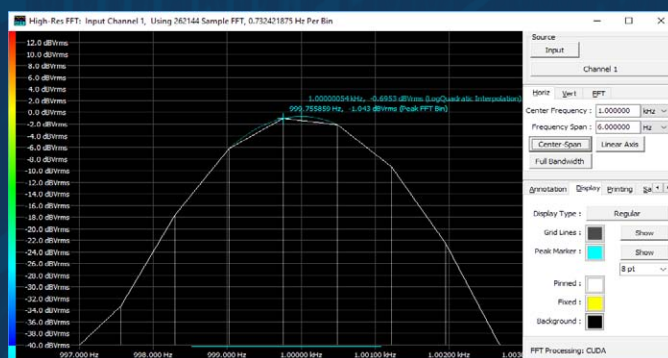
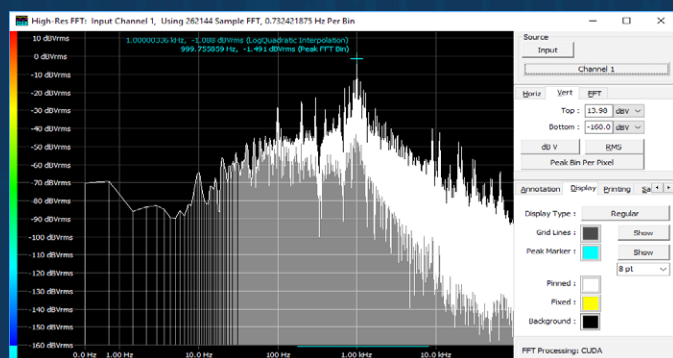
### Playback:

- 1:1 (input:output) signal reproduction
- Real-time data multicasting to third-party processing or custom software applications

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## Technical Specifications

### Analog

Option:	-70K	-01M
Signal Type:	Single-ended or differential	Single-ended or differential
Sample Rate:	4 to 144 kSPS	64 to 4000 kSPS
Bandwidth:	70 kHz	1 MHz
Quantization:	24-bit	24-bit
Input Signal Range:	{ $\pm 1V$ , $\pm 2V$ , $\pm 5V$ , $\pm 10V$ , selectable}	{ $\pm 1V$ , $\pm 2V$ , $\pm 5V$ , $\pm 10V$ , selectable}
Input Dynamic Range:	114dB (unweighted)	114dB (unweighted)
Input Gain Mismatch:	0.005 dB (0.1%) inter-channel	0.005 dB (0.1%) inter-channel
Input Phase Mismatch:	$\pm 120$ ns inter-channel	$\pm 10$ ns inter-channel
Input THD:	-100 dB @ -1 dB signal	-70 dB @ -1 dB signal
Input Impedance:	1 M $\Omega$	1 M $\Omega$
Input Coupling:	DC	DC
Input Filter:	{1Hz high-pass filter, selectable}	-
Output Signal Range:	{ $\pm 1V$ , $\pm 2V$ , $\pm 5V$ , $\pm 10V$ , selectable}	{ $\pm 1V$ , $\pm 2V$ , $\pm 5V$ , $\pm 10V$ , selectable}
Output THD:	-41 dB @ -3 dB signal	-41 dB @ -3 dB signal
Output Impedance:	170 $\Omega$	170 $\Omega$

### Annotation Options

Voice	
Bandwidth:	4 to 8 kHz
IRIG-B Timecode	
I/O Level:	2 VPP

### Storage Media

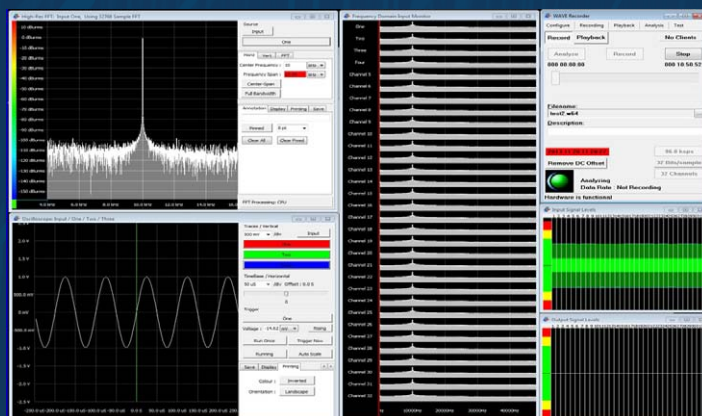
Type:	SSD or HDD
Form Factor:	2.5"
RAID:	0, 1, 5

### Power

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

### Temperature

Operating Range:	0 to +40°C
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## Ordering Options

IDR-BXXX-A##-D##-CC

BXXX  
A##  
D##  
CC

Maximum Bandwidth  
Number of analog channels  
Number of digital channels  
Chassis

{70K: 70kHz, 01M: 1MHz}  
{08 to 96 (multiples of 8)}  
{08 to 96 (multiples of 8)}  
{CN: 4U Rack (TEMPEST-III),  
P: Portable,  
R: 4U Rack,  
W: Workstation }