

Digital Network Video Recorder For Rolling Stock

eyeTrain is designed to rail group standards, and incorporates the very latest in video, storage and communications technology. The eyeTrain range offers digital (IP) technology matched to the harsh environment of rolling stock applications, providing the highest performance and resilience on the market.



Specifications

General

Type	Network Video Recorder for Rolling Stock Applications
Manufacturer	Petards
Part Number	NVR-ST-397
Form Factor	19" Rack to IEC 60297-3
Dimensions	483 mm (W) x 44 mm (H) x 280 mm (D) excluding connectors and flanges
Weight	5 kg (with 4 Storage Modules)



Specifications

Recording

Cameras	Up to 64 x IP cameras (Progressive Scan)
Storage Type	SATA 3.0 Storage Module
Storage Capacity	20 TB as 4 x 5 TB Storage Modules

Front panel indicators

Power (Green)
Recording (Green)
Event in Progress (Yellow)
NVR Healthy (Green)
Cameras Healthy (Green)
Storage Modules Healthy (Green)
Port 1 - Link 1 Gb/s (Green)
Port 1 - Link 100 Mb/s (Green)
Port 2 - Link 100 Mb/s (Green)

Environmental

Temperature Range	-25°C to +55°C (Operational T1) -5°C to +55°C (Recording)
Power Supply	PoE 802.1IEEE 3af Mixed DC & Data (Mode A)
Power Consumption	25 W
Ingress Protection	IP 2X



Specifications

Connectivity

Power	4 Way M12 Male A Coded																		
	<table><thead><tr><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>1</td><td>+DC1</td></tr><tr><td>2</td><td>+DC2</td></tr><tr><td>3</td><td>0 V 1</td></tr><tr><td>4</td><td>0 V 2</td></tr></tbody></table>	Pin	Signal	1	+DC1	2	+DC2	3	0 V 1	4	0 V 2								
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Ethernet (1 Gb/s PoE)	8 Way M12 Female X-Coded																		
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3	DB +																		
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6	DC -																		
7	DD +																		
8	DD -																		
Ethernet (100 Mb/s)	M12 Female D Coded																		
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Service Port	9 Way Standard D-Sub Female No end user wiring, use a standard RS232 cable to connect to laptop																		
Real Time Clock	Capacitor back-up for 30 days																		
Network	Unmanaged and managed Ethernet switch capabilities																		



Specifications

Standards Compliance

Shock	EN50155:2007, 12.2.11 EN61373:2010
Ingress Protection	EN60529:1992
Cooling	EN50155:2007, 12.2.3 EN60068-2-1:2007 Test Ad
Dry Heat	EN50155:2007, 12.2.4, EN60068-2-2:2007 Test Bd
Low Temp Storage	EN50155:2007, 12.2.14, EN60068-2-1
Insulation	EN50155:2007, 12.2.9.1
Voltage Withstand	EN50155:2007, 12.2.9.2
Variation of Voltage Supply	EN50155:2007, 12.2.2.a
Supply Over-voltage	EN50155:2007, 12.2.6
Supply Interruption	EN50155:2007 12.2.2.b
Earth Bonding	EN50155:2007
Reverse Polarity	EN50155:2007
Conducted Emissions	EN50155:2007 12.2.8.2, EN50121-3-2:2015 EN55011:2009 +A1:2010
Radiated Emissions	EN50155:2007 12.2.8.2, EN50121-3-2:2015 EN55011:2009 +A1:2010
Radiated Susceptibility	EN50155:2007, 12.2.8.1, EN50121-3-2:2015 EN61000-4-3:2006 +A1:2010
Conducted Susceptibility	EN50155:2007, 12.2.8.1, EN50121-3-2:2015 EN61000-4-6:2009
Fast Transient Burst Sus.	EN50155:2007, 12.2.7.3, EN 50121-3-2:2015 EN61000-4-4:2004 A1:2010
Electrostatic Discharge	EN50155:2007, 12.2.7.2, EN50121-3-2:2015 EN61000-4-2:2009
Surges	EN50155:2007, 12.2.7.1, EN 50121-3-2:2015 EN 61000-4-5:2006