ROADRUNNER™ ANALOG HD VIDEO RECORDER

ON–BOARD VIDEO SECURITY SYSTEM

FEATURES

- Hybrid system supports up to 16 analog HD cameras and up to 6 audio inputs; up to 4 IP cameras
- Records up to 240 images per second (ips) at full HD resolution (1080p), and an additional 240 ips at 704x480 (D1) resolution
- Months of on-board recording with removable storage, up to 10TB
- Optimal network performance with H.265 compression and wireless-ready for any TCP/IP based network
- Fully compatible with mSET (Managing Safety and Efficiency in Transit) Software for fleet-wide management, advanced chain of custody reporting, health monitoring and more

SUPERIOR FLEXIBILITY

Supporting complete fleets of all vehicle types, the system is available in several compatible and interchangeable formats. A combination of IP and analog HD cameras can be utilized for recording up to 16 cameras.

FULL HD QUALITY VIDEO

The RoadRunner AHD system records high definition video, recording each camera up to 1080p. Excellent zoom capabilities capture license plates and other details with exceptional clarity, while maintaining up to months of on-board storage retention.

RUGGED AND RELIABLE

Designed and manufactured specifically for transit applications, the RoadRunner Recorder is Mil-Spec and SAE rated for proven durability and reliability in harsh mobile applications.

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TECHNICAL DATA

Product Ordering Information	
Part/Model Number (N. America)	RR-AHDR08 (8 Camera Model)
	RR-AHDR08-W (8 Camera Model with WiFi)
	RR-AHDR16 (16 Camera Model)
	RR-AHDR16-W (16 Camera Model with WiFi)
Software	
Operating System	Embedded Linux
Update	Via Ethernet or USB
Electrical Properties	
Operating Voltage	9 - 36 VDC
Power Consumption	232.5 W (8 Channel) 255 W (16 Channel)
Current Consumption	9.375 A at 12 V (8 Channel) 11.25 A at 12 V (16 Channel)
Interfaces	
Power In	1, 8-pin Minifit, 9-36 VDC
Aux Out	1, 4-pin Terminal Block, 12 VDC
Heater Power In	1, 4-pin Minifit, 12 VDC or 24 VDC
WLAN	2, RP-SMA Socket
Backup Power In	1, 4-pin Microfit, 12 VDC
GPS	1, SMA Socket
Digital Out	1, HDMI
Alarm In	8
Alarm Out	2
Ethernet	1, 1000 Mbps Ethernet , RJ45 WAN
	2, 1000 Mbps Ethernet , RJ45 LAN
RS232	2, DB9 Pin, Terminal Block
RS485	1, Terminal Block
USB	1, USB-A 3.0
	1, USB-A 2.0
Video Input	1, 8 & 16 BNC (2 or 4 IP with External PoE Switch)
Video Output	1, Digital (HDMI)
	1, Analog (BNC) Mirrored
Audio Input	2, BNC
Mechanical Properties	
Weight	6.66 kg ,14.7 lbs
Dimensions	250 mm x 117 mm x 350 mm, 9.8" x 4.6" x 13.8" (with Rear Cable Guard)
Mounting	Chassis Independent Shock Absorbing Mounting Plate

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Environment	
Operating Temperature	-30°C to 40°C , -22°F to 104°F (Hard Disk Drive)
	-30°C to 55°C , -22°F to 131°F (Solid-State Drive)
Storage Temperature	-30°C to 70°C , -22°F to 158°F
Relative Humidity	0% to 90% Non-Condensing
Cooling	Internal Fan
Standards	
ISO 16750-2	✓
MIL-Spec STD-810G	✓
Approvals	
E-Mark	✓
FCC	✓
CE	✓
Wi-Fi	
Wi-Fi Module Chipset	Qualcomm QCA9882
Supported Frequencies	5 GHz Only
Wi-Fi Standards	802.11ac, 802.11an, 802.11a
MIMO	2x2
Connector Type	RP-SMA Socket (x2)
Output	High Power 30dBm/1000mw (Aggregate)
Security	WPA2-PSK or WPA2-Enterprise
Cypher	TKIP/AES
Wi-Fi Modes	Client or Access Point
Mode Switching	Location Based (Geo-Fence) Programmable
Video Recorder	
Video Format	NTSC/PAL
Video Input Type	Analog and Digital (IP)
Video Inputs	8 or 16 Channels
Digital(IP) Video Inputs	2 or 4 (Model Dependent RR-AHDR8/16 and Requires External PoE Switch)
Video Input Connector	8 or 16 BNC Socket (50 ohms)
Recording Resolutions	IP Cameras: 5MP (2560x1920), 4MP (2560x1440), 3MP (2048x1536), F-HD (1920x1080), HD (1280x720), W-D1 (864x480), nHD (640x360), W-CIF (432x240)
	AHD Cameras: F-HD (1920x1080), HD (1280x720), D1 (704x480), nHD (640x360), CIF (352x240)
	Standard Analog Cameras: D1 (704x480), nHD (640x360), CIF (352x240)
Recording Rate (16 Channel)	Up to 240 ips at FHD (1080p) and additional stream up to 240 ips at 704x480 (D1) resolution
Recording Rate (8 Channel)	Up to 120 ips at FHD (1080p) and additional stream up to 120 ips at 704x480 (D1) resolution

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Compression	H.264 and H.265
Recording Mode	Time-Lapse, Text-In, Pre and Post Event (up to 30/15 minutes)
Search Modes	Text-In, Event, Date/Time, Calendar, Motion, Map Location, Speed
Image Control	Brightness, Contrast, Saturation, Hue
Video Out	
Type	Digital (HDMI) and Analog Video Out (BNC) - Mirrored
Frame Rate	Adjustable
Resolution	Digital Video Out (HDMI) Up to UHD
	Analog Video Out (BNC) 720x480
Indicators	
Operating Status	"Heartbeat" Health Indicator – Integrated with Operator Event Switch
Sensors	
Accelerometer	+/- 6 G's, 3-Axis, 0.001g Resolution; 500 Samples/Second
Temperature Sensor	Storage Temperature Sensor
GNSS	Built-In Receiver or External Source (NMEA0183 or TAIP)
Security	
Recording Media	Storage Key-Lock
Encryption	Proprietary Chained Frame Digital Watermarking
Access Rights	Password Protection Programmable by Group (Up to 256 Users; 64 Groups)
Authentication	This is a Part of Access Rights
System	
Database File System	Proprietary Optimized Multimedia Database
Disk Management	Temperature Check, Scheduled Diagnosis
Data Export Medium	USB Flash Drive
System Log	Up to 5,000; User Log-In/Out, Configuration Changes, Remote Connect/Disconnect, Errors
Event Log	Unlimited, Alarm-In, Motion, Video Loss, Text-In
Text Insertion	16 Channel Max
Removable Storage	Hard Disk Drive (3.5 in) Storage Capacity; 2, 4, 6, 8 or 10 TB
	Solid-State Drive (2.5 in) Storage Capacity; 1, 2 or 4 TB
Network	
Transmission Speed	Up to 150 Mbps
Protocol	RTP, RTSP, DHCP, DVRNS, SMTP/s (Client), ONVIF
Network Data Export	EXE, AVI, JPEG, BMP

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