## **SMARTDRIVE**

# SR4: FUELLING THE FUTURE OF INTELLIGENT TRANSPORTATION

A state-of-the-art open and configurable hardware architecture built to carry your fleet into the future of video-based safety and transport intelligence, SR4 gives you next-generation capabilities that are big on innovation and small in scale.

#### System Features

- Open, extensible architecture supports OBDII, J1939 and J1708 protocols
- Ruggedised, tamper-resistant case
- Small footprint cameras allow for optimal placement and regulatory compliance
- 360° multiple camera integration
   support for up to 9 inputs in and around vehicle
- Solid State Drive (SSD) extended recording with 128, 256 and 512 GB configurations
- Microphone and audio out external speaker support for record and alert configurability
- Detect and alert on abrupt power loss
- Mobile configuration tool for enhanced installation and diagnostic support\*
- Cellular, Ethernet and WiFi connectivity
- Wireless key fob for in-cab and out-of-cab event triggering\*

### **SR4 Components**



CONTROLLER Purpose-built, future-ready unit housing the intelligent monitoring and recording functions. Provides expandable solid state storage and a powerful processor to support on-board ADAS functions and computer-vision aided processing requirements.



CAMERAS New small footprint road and interiorfacing cameras minimise impediments to the driver's field of view and provide easier compliance with regulations.



SENSOR BAR Combines GPS, accelerometers, microphone and LEDs that support driver feedback.



KEYPAD Offers manual event creation, privacy mode initiation and 6-digit entry driver ID.



WIRELESS KEY FOB This optional device provides drivers with the ability to initiate a manual recording event both inside and outside the vehicle.

#### **TECHNICAL BRIEF**

# **TECHNICAL SPECIFICATIONS**

OPERATING PARAMET	ERS	
Standard input voltage	<ul> <li>9V–48V</li> <li>Supports standard 12V, 24V &amp; 36V vehicle electrical systems</li> </ul>	
Disconnect reporting	<ul> <li>Detect and alert/report on abrupt power loss</li> </ul>	
Electrical system protection	<ul> <li>5A automotive blade-type fuse</li> <li>Reverse polarity protection</li> <li>Transient voltage spike protection</li> </ul>	
Power consumption approximate	<ul> <li>Active mode at 12V (transmitting) – 920mA</li> <li>Active mode at 12V (non-transmitting) – 810mA</li> <li>Sleep mode at 12V – 10mA</li> </ul>	
Environmental	<ul> <li>-40F to 185F (-40C to 85C) operating</li> <li>-40F to 221F (-40C to 105C) storage</li> </ul>	
Battery	Rechargeable	
Hibernation/standby	60 minutes; configurable	
PHYSICAL CHARACTERISTICS		
Dimensions (W x H x D)	<ul> <li>Controller: 6.45 in x 2.37 in x 4.94 in (163.9 mm x 60.3 mm x 125.5 mm)</li> <li>Sensor bar: 3.43 in x .57 in x 1.26 in (87 mm x 14.5 mm x 32 mm)</li> <li>Camera: 1.64 in x 1.77 in x 1.51 in (41.6 mm x 45.0 mm x 38.4 mm)</li> </ul>	
Weight	<ul> <li>Controller with modem: 1lb 10.2oz (mounting bracket excluded) (.74kg)</li> <li>Controller with modem &amp; SSD: 1lb 10.8oz (mounting bracket excluded) (.75kg)</li> <li>Road-facing camera with cable &amp; bracket: 5.0oz (.14kg)</li> <li>Interior-facing camera with cable &amp; bracket: 5.3oz (.15kg)</li> <li>Sensor bar with cable: 6.9oz (.19kg)</li> <li>Keypad: 5.3oz (.15kg)</li> </ul>	
CONTROLLER AND SENSOR BAR		
Motion sensors	<ul> <li>Low G, 3-axis accelerometer + 3-axis gyroscope</li> <li>High G, 3-axis accelerometer</li> </ul>	
Status lights (LEDs)	<ul> <li>Controller: 3 LEDs provide installation &amp; tech support</li> <li>Sensor bar: Tricolor LEDs provide system health &amp; triggering confirmation</li> </ul>	
Internal storage	• 16 GB	
Extended Recording storage (optional)	<ul> <li>128 GB, 256 GB or 512 GB Solid State Drive</li> </ul>	
Microphone	Built-in microphone	
GPS	<ul><li>Integrated GPS</li><li>Option for external GPS</li></ul>	

CAMERAS	
Field of view	<ul> <li>Road-facing 106° exterior view</li> <li>Interior-facing 140° interior view</li> </ul>
Video resolution	<ul><li>768 x 432 resolution</li><li>Four frames per second</li></ul>
Video channels (Streams)	• Up to 4 cameras supported at initial availability: encompassing 2 SmartDrive digital, 2 analog (as the road-facing camera). Future support for up to 9 cameras.
Night vision illumination	Two-area IR LEDs for night time & low- light cab video
COMMUNICATIONS AND	VEHICLE CONNECTIVITY
WiFi protocol	• 802.11 b/g/n at 2.4 GHZ
Cellular	4G/LTE with 3G fallback
GPS	Integrated GPS (NMEA 0183 protocol)
Ethernet	• 10/100 Mbps
Bluetooth	Bluetooth 4.x
Serial interfaces	• USB 2.0 (1); RS232 (1)
ECU vehicle communication protocol	<ul> <li>Light duty: OBDII protocol ISO 15765 CAN</li> <li>Medium and heavy duty: SAE J1708, SAE J1939</li> </ul>
ECU enabled services	<ul> <li>Integration to third-party active safety systems</li> </ul>
Vehicle interface	<ul> <li>6-pin, 2 &amp; 9-pin cable ECU interfaces (per OEM configuration)</li> <li>Wired ignition, power &amp; ground</li> </ul>
Expansion ports	Up to 6 additional inputs or interchange triggers
SECURITY	
WiFi	<ul> <li>WPA2 with EAP-PSK. EAP-TLS standard</li> <li>WPA PSK, TKIP</li> <li>WEP 64-bit &amp; 128-bit encryption available</li> </ul>
Cellular	Over-the-air encryption supported
CERTIFICATIONS	
Certifications/ standards	<ul> <li>FCC, PTCRB, CE, IC, RoHS, e-Mark</li> <li>EN 301 489-1/7/17 for USA, UK, Australia</li> <li>IEC/EN 60950-1</li> <li>ISO 9001:2000</li> </ul>
Limited warranty	2 years; extended warranties available

\*Some features may represent future product capabilities.



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#### **SMARTDRIVE SYSTEMS**

SmartDrive Systems, the recipient of Frost & Sullivan's Customer Value Leadership Award for Video Safety Solutions, gives fleets and drivers unprecedented driving performance insight and analysis, helping save fuel, expenses and lives. Its video analysis, predictive analytics and personalised performance programme help fleets improve driving skills, lower operating costs and deliver significant ROI. With an easy-to-use managed service, fleets and drivers can access and self-manage driving performance anytime, anywhere. The company, which is ranked as one of the fastest growing companies by Deloitte's Technology Fast 500<sup>™</sup> for four years in a row, has compiled the world's largest storehouse of more than 210 million analysed risky-driving events. SmartDrive Systems is based in San Diego, and employs over 650 people worldwide.

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