

Technical Specifications

SI-3L Surface Velocity Radar™
Special Application Radar



SONCELL NORTH AMERICA
A PUBLIC SAFETY COMPANY



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3433 East Wood Street
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General Specifications	
Type	Special Application Radar
Accuracy	100% accurate with a resolution of ±0.10 unit of measure. (±0.10 mph), (±0.10 km/h), (±0.10 feet-per-second) (±0.10 meters-per-second)
Ambient Operating Temperature	-22° F to +158° F (-30° C to +70° C)
Available Frequencies	K-Band
Communications	RS232 via 6-pin waterproof connector. Parameters can be changed via serial port
Controls	Adjustable through software.
Cosine - Horizontal	0 - 45° (Default = 0)
Cosine - Vertical	0 - 45° (Default = 0)
Data Format (Default)	SS.SSS S = Speed, cr = Carriage Return (Note: Various other protocols can be selected)
Data Hold Time	100 to 9999 ms (Default is 1000 ms)
Data Rate	1200, 2400, 9600, 19200, 38400, 57600 & 115200 baud rates. (Default is 9600 baud)
Features	DSP, 32 bit processing. Software easily upgradable.
Finish	Gray
Frame	ABS Polycarbonate Blend
Maximum Humidity	100% (Note: Unit is weather proof, not water proof)
Ports	16 selectable communication ports. (Default is Com 1)
Power	+12 VDC nominal

General Specifications - continued	
Speed Measurements	mph, km/h, feet-per-second (fps), & meters-per-second (m/s) (Default is feet-per-second)
Low Speed Range	0.1 - 20 fps (0.1 - 6.1 m/s) 0.1 - 13.6 mph (0.1 - 20 km/h)
High Speed Range	0.2 - 65 fps (0.2 - 20 m/s) 0.2 - 45 mph (0.2 - 70 km/h)
Standard Warranty	One-year parts & labor
Target Acquisition Time	< 1 second

Mechanical	
Height	6.125" (15.5575 cm)
Width	6.5" (16.51 cm)
Depth	1.5" (3.81 cm)
Weight	1.75 lbs (0.793 kg)

Electrical	
Power Requirements	+10.8 VDC to +24 VDC
Low Voltage Shutdown	+10.8 VDC
Maximum Current Draw	175 milliamperes
Nominal Current Draw	150 milliamperes @ 12 VDC
Surge Current Requirements	250 milliamperes

Microwave	
Type	K-band
FCC Identifier	HTRSI-3L
Frequency	24.075 GHz ~ 24.175 GHz
Beam Width	6.5° x 5.5° at the -3dB point
Polarization	Linear
Power Density	114.3 dBuV/m at 3 metres
Power Output (EIRP)	+20 dBm
Horizontal Sidelobe Suppression	15 dB typical
Vertical Sidelobe Suppression	15 dB typical



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FCC Statement

This device complies with FCC part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada

English Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

French Statement

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

