

# Technical Specifications

**System Interface 3 (SI-3)<sup>TM</sup>**  
**Special Application Radar**  
**Revision Date 4-13-09**



Certified ISO 9001

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 Decatur, IL 62522

General Specifications	
Type	Special Application Radar
Accuracy	100% accurate with a resolution of $\pm 0.10$ unit of measure ( $\pm 0.10$ mph, $\pm 0.10$ km/h)
Ambient Operating Temperature	-22° F to +158° F (-30° C to +70° C)
Available Frequencies	K-Band
Communications	RS232, DB-9 serial connector
Controls	Adjustable through software.
Cosign - Horizontal	0 - 45° (Default = 0)
Cosign - Vertical	0 - 45° (Default = 0)
Data Format (Default)	<D> [SSS] <cr> D = Direction, S = Speed, cr = Carriage Return (Note: Various other protocols can be selected)
Data Hold Time	100 to 9999 ms (Default is 2000 ms)
Data Rate	1200, 2400, 9600, 19200, 38400, 57600 & 115200 baud rates. (Default is 9600 baud)
Detection Range	3,000 ft maximum (0.914 km) (Default is 1,500 ft (0.46 km))
Directionality	Towards, Away, or Both Directions (Default is Towards)
Features	DSP, 32 bit processing.
Finish	Black, scratch resistant powder coat finish
Frame	Deep drawn aluminum housing
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, & meters-per-second (Default is mph)
Speed Range	5 - 150 mph (8 - 241 km/h) (Min/Max user selectable)
Standard Warranty	One-year parts & labor
Target Acquisition Time	20 ms
Water Resistance	Meets International Robustness Standard IEC 529:1989 and European Community Standard EN60529 Classification IP67

Mechanical	
Length	5.6" (14.05 cm)
Width	3" (7.6 cm) diameter horn, 3.37" (8.55 cm) diameter with mounting base
Weight	1.14 lbs (0.52 kg)

Electrical	
Power Requirements	+10.8 VDC to +24 VDC
Low Voltage Shutdown	+10.8 VDC
Minimum Current Draw	0.120 ampere
Nominal Current Draw	0.180 ampere @ 12 VDC
Surge Current Requirements	1 ampere

Microwave	
Type	K-band
FCC Identifier	HTRCR-1KD
Frequency	24.150 GHz nominal
Beam Width	12° Nominal
Polarization	Linear
Power Density	$\leq 1$ mW/cm <sup>2</sup>
Power Output	7 mW nominal