

# STALKER® Radar Stationary Speed Sensor

## GENERAL SPECIFICATIONS

<b>TYPE:</b>	Stationary Doppler Radar Speed Sensor
<b>OPERATING FREQUENCY:</b>	34.7 GHz (Ka-band)
<b>STABILITY:</b>	±100 MHz
<b>COMMUNICATION INTERFACE:</b>	RS-232 or RS-485 available as separate models
<b>POWER REQUIREMENTS:</b>	<b>Voltage:</b> 9 - 16 VDC for SN ST6560 and below 9 - 24 VDC for SN ST6561 and above <b>Current</b> (at 12 VDC nominal) Transmitter on: 370 mA Transmitter off: 100 mA
<b>ENVIRONMENTAL:</b>	<b>Operating:</b> -30°C to +70°C, 90% relative humidity <b>Non-operating:</b> -40°C to +85°C
<b>MECHANICAL:</b>	<b>Weight</b> – 1.15 lb. (0.52 kg) <b>Diameter</b> – 2.6 in. (6.7 cm) <b>Length</b> – 4.7 in. (11.8 cm) <b>Case Material</b> – Aluminum die cast
<b>ACCURACY:</b>	+/- 0.3% – Speeds are rounded down to the nearest unit or tenths of a unit depending on the unit resolution setting.
<b>AUDIO OUTPUT:</b>	A 3.3Vpp pulse-width modulated (PWM) audio output signal is provided – must be filtered and amplified for best audio quality.
<b>AUTO SELF-TEST:</b>	Performed every 10 minutes while transmitting
<b>SPEED RANGE:</b>	Stationary low speed threshold configurable: 1 MPH to 200 MPH (1.6 to 321 KM/H) 12 MPH to 200 MPH (19 to 321 KM/H)

## MICROWAVE SPECIFICATIONS

<b>ANTENNA:</b>	Conical horn
<b>POLARIZATION:</b>	Circular
<b>3DB BEAMWIDTH:</b>	12° ±1°
<b>RF SOURCE:</b>	Gunn-Effect diode
<b>RECEIVER TYPE:</b>	Two direct-conversion homodyne receivers using four low-noise Schottky barrier mixer diodes
<b>POWER OUTPUT:</b>	10 mW minimum 15 mW nominal 25 mW maximum
<b>POWER DENSITY:</b>	1 mW/cm <sup>2</sup> maximum at 5 cm from lens

## CONTROL and CONFIGURATION SETTINGS

<b>BASIC CONFIGURATION:</b>	Transmitter Control Zone Unit of Measure Unit Resolution Faster Target Tracking AUX Pin Configuration
<b>SERIAL PORT CONFIGURATION:</b>	Baud Rate Output Format Leading Zero Character Format D Direction Character Enable (RS-232 only) Zeros After Target (RS-232 only) Message Period Format D Update on Change Only (RS-232 only) Format D Zero Report (RS-232 only) Polled Modes D0-D4 (RS-232 only)
<b>TARGET RECOGNITION:</b>	Opposite Lane/Stationary Sensitivity Fine Sensitivity Adjust Sensitivity Hysteresis Low Sensitivity Target Strength Sensitivity Target Acquisition Quality Target Loss Quality
<b>TARGET FILTERING:</b>	Stationary Low Cutoff Spurious Speed Filter Max AGC Gain Min AGC Gain Current AGC Gain
<b>SPEED PRESENTATION:</b>	Cosine 1 Angle Cosine 2 Angle Holdover Delay
<b>LOCKING TARGETS:</b>	Lock Option Faster Locking Enable Strongest Lock Fast Lock
<b>SPEED ALARM:</b>	Alarm Speed Threshold
<b>AUDIO:</b>	Doppler Audio Volume Aud 0 Enable Variable Doppler Loudness Squelch Beep Volume
<b>TX POWER SAVE:</b>	TX On Time TX Off Time Keep TX On with Target Max TX On Time
<b>TESTING:</b>	Fork Enable Auto Test Period Auto Test Mode Enhanced Test
<b>SYSTEM:</b>	Get Product ID Get Product Type Get Software Version Speed Sensor Address (RS-485 only)