

# STALKER® Radar Speedometer Speed Sensor

## GENERAL SPECIFICATIONS

<b>TYPE:</b>	Moving 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>AUTO SELF-TEST:</b>	Performed every 10 minutes while transmitting
<b>GROUND SPEED RANGE:</b>	Low ground speed acquisition threshold configurable: Standard acquisition of <1 to 90 MPH (<1.6 to 144 KPH), when Ground Speed Lo Cutoff = Low Optional acquisition of 20 to 90 MPH (32 to 144 KPH), when Ground Speed Lo Cutoff = High  Ground speed, once acquired, will track to 199 MPH (320 KPH)

## CONTROL and CONFIGURATION SETTINGS

<b>BASIC CONFIGURATION:</b>	Transmitter Control Unit of Measure Unit Resolution
<b>SERIAL PORT CONFIGURATION:</b>	Baud Rate Output Format Leading Zero Character Message Period
<b>TARGET RECOGNITION:</b>	Ground Speed Sensitivity Patrol Speed Blank
<b>TARGET FILTERING:</b>	Patrol Speed Low Cutoff Max AGC Gain Min AGC Gain Current AGC Gain
<b>TESTING:</b>	Fork Enable Test
<b>SYSTEM:</b>	Get Product ID

## 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