STALKER® Radar Traffic Speed Sensor

GENERAL SPECIFICATIONS

TYPE:	Moving/Stationary Doppler Radar Speed Sensor
OPERATING FREQUENCY:	34.7 GHz (Ka-band)
STABILITY:	±100 MHz
COMMUNICATION INTERFACE:	RS-232
POWER REQUIREMENTS:	**Voltage**: 9 - 16 VDC for SN ST6560 and below 9 - 24 VDC for SN ST6561 and above **Current**: (at 12 VDC nominal) Transmitter on: 370 mA Transmitter off: 100 mA
ENVIRONMENTAL:	**Operating**: -30°C to +70°C, 90% relative humidity **Non-operating**: -40°C to +85°C
MECHANICAL:	**Weight** – 1.15 lb. (0.52 kg) **Diameter** – 2.6 in. (6.7 cm) **Length** – 4.7 in. (11.8 cm) **Case Material** – Aluminum die cast
ACCURACY:	+1, -2 MPH stationary, +2, -3 MPH moving +1, -2 KPH stationary, +2, -3 KPH moving
AUDIO OUTPUT:	A 3.3Vpp pulse-width modulated (PWM) audio output signal is provided – must be filtered and amplified for best audio quality.
AUTO SELF-TEST:	Performed every 10 minutes while transmitting
STATIONARY SPEED RANGE:	Stationary low speed threshold configurable: 1 MPH to 200 MPH (8 to 321 KPH) 12 MPH to 200 MPH (19 to 321 KPH)
MOVING SPEED RANGE:	**Patrol speed** – Low patrol acquisition threshold configurable: *Standard* acquisition of 1 to 90 MPH (8 to 144 KPH), when Patrol Lo Cutoff = Low *Optional* acquisition of 20 to 90 MPH (32 to 144 KPH), when Patrol Lo Cutoff = High Patrol speed, once acquired, will track to 199 MPH (320 KPH)
	Opposite lane target speed - 200 MPH Max combined closing speed (321 KPH) For 5 MPH (8 KPH) patrol speed: 20 MPH to 195 MPH (32 to 313 KPH) For 70 MPH (112 KPH) patrol speed: 35 MPH to 130 MPH (56 to 209 KPH)
	Same lane target speed – Related to patrol speed: ±70% of patrol speed within 5 MPH (8 KPH) of patrol speed i.e. For 50 MPH: 16→45 MPH and 55→85 MPH (For 80 KPH: 25→72 KPH and 88→136 KPH) Same lane patrol speed must be greater than 16 MPH (25 KPH).

MICROWAVE SPECIFICATIONS

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

CONTROL and CONFIGURATION SETTINGS

BASIC CONFIGURATION:	Transmitter Control Mode Zone Unit of Measure Unit Resolution Faster Target Tracking AUX Pin Configuration
SERIAL PORT CONFIGURATION:	Baud Rate Output Format Leading Zero Character Message Period
TARGET RECOGNITION:	Opposite Lane/Stationary Sensitivity Same Lane Sensitivity Fine Sensitivity Adjust Patrol Speed Blank
TARGET FILTERING:	Stationary Low Cutoff Patrol Speed Low Cutoff Double Suppression Max AGC Gain Min AGC Gain Current AGC Gain
SPEED PRESENTATION:	Holdover Delay
LOCKING TARGETS:	Lock Option Faster Locking Enable Strongest Lock Fast Lock Patrol Speed Blank
SPEED ALARM:	Alarm Speed Threshold
AUDIO:	Doppler Audio Volume Aud 0 Enable Variable Doppler Loudness Squelch Beep Volume
TESTING:	Fork Enable Auto Test Period Auto Test Mode Enhanced Test
SYSTEM:	Get Product ID Get Product Type Get Software Version