

# SPK ELECTRONICS CO., LTD.

PROFESSIONAL IN NAVIGATION & COMMUNICATION

## GPS Antenna MODEL: SPK-GPS-088

Concinnity and Solid design for GPS Marine Antenna  
with Advanced technology



GPS Antenna 80mm(Dia) x 71.3mm(H)  
Mounting base 110mm(W) x 70mm(L) x 75.2mm(H)

**SPK-GPS-088** is designed for the Marine Vessels mast or tall buildings that require long extra cables without signal constraint to the GPS receivers. **SPK-GPS-088** is not only hidden in a durable and waterproof cover, but also cable is protected by a base which can prevent damage. The special design for **SPK-GPS-088** is really delicate, compact and reliable. Besides that have concinnity and compacted design for base. It is the integration of the high performance GPS patch antenna and a low noise amplifier into an extremely fully waterproof enclosure and when connected to a GPS receiver with 2.5~5.5VDC antenna power, it can provide excellent antenna signal amplification and out-band filtering with rejection for that

Specifications	
<b>Antenna Element</b>	
Center Frequency	1575.42 MHz +/-1.023 MHz
Polarization	R.H.C.P. (Right Handed Circular Polarization)
Absolute Gain @ Zenith	+5 dBi typical
Gain @ 10° Elevation	-1 dBi typical
Axial Ratio	3 dB max.
Output VSWR	1.5:1 max.
Output Impedance	50 ohm

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## ETEK NAVIGATION, INC.

**PROFESSIONAL IN NAVIGATION & COMMUNICATION**

<b>Low Noise Amplifier</b>	
Center Frequency	1575.42 MHz +/- 1.023 MHz
Power Gain	28 +/-4.5dB
Bandwidth	2 MHz min.
Noise Figure	1.5 max.
Outer Band Attenuation	20 dB min. @ Fo +/-50 MHz
Supply Voltages	2.5 to 5.5V DC
Current Consumption	13mA@ 3.0V DC,18mA@ 5.0V DC
VSWR	1.5 max.
Output Impedance	50 ohm
<b>Overall Performance: (antenna element, LNA &amp; coax cable)</b>	
Center Frequency	1575.42 MHz
Gain	30 +/-4.5dB
Noise Figure	2.0 max.
Bandwidth	2 MHz min.
Axial Ratio	3 dB max.
VSWR	1.5 max.
Output Impedance	50 ohm
<b>Environmental Conditions</b>	
Operating Temperature	-30°C to +80°C
Storage Temperature	-40°C to +100°C
Relative Humidity	40% to 95% non-condensing
Water Resistance	100% waterproof
<b>Physical Constructions</b>	
Constructions	Enclosure Center feeds TNC connector for antenna output
Dimensions	Antenna 80mm(Dia.) 71.3mm(H) Mounting Base 110mm(W) 70mm(L) 75.2mm(H)
Weight	150 grams (without cable)
Standard Mounting	Concinnity and Solid design
<b>Cable &amp; Connector</b>	
RF	10 meter RG58 A/U connectors are hermetically molded
Cable Pulling strength	12Kg for 5sec.
Connector available	TNC (standard), other types (optional)

This specification is subject to change without prior notice

Data Updated: Jan 06, 2006