Data Sheet

HUBER+SUHNER

GNSS Antenna

GNSS Antenna L1+L2

Excellent performance as part of a GPS-over-Fiber solution.

- Dual Frequency – GPS L1 and L2 bands
- Weatherproof housing, proven extra rugged, reliable
- Extended temperature range (-40°C / +85°C)

Order Information

Item Description	Item Number
GNSS ANT L1+L2 3.3V	85160014
GNSS ANT L1+L2 5V	85170543

Electrical Data

Parameters		Value		Remarks
		3.3V (85160014)	5.0V (85170543)	
Gain	dB	32dB @ 25°C	36dB ± 3	
Frequency	MHz	L2 1227.6 ±3 L1 1588 ±3		
VSWR		Maximum 2.0		
Polarization		RHCP		
Axial ratio	dB	<3		
Noise	dB	Maximum 3.3		(25°C ± 5°C)
Bandwidth (10dB RL)	MHz	L1: 30 (min) L2: 15 (min)		
Out of band rejection		fo=1575.42 MHz fo ±50 MHz: 30 dB min fo ±100MHz: 40dB min fo=1227.60 MHz fo ±50 MHz: 30 dB min fo ±100MHz: 40dB min		
Blocking 1dB Compression Point		100MHz to 1.5GHz >+15dBm 1.5GHz to 1.575GHz Linear decrease from +15dBm to -40dBm over frequency range 1.575GHz to 1.65GHz Linear increase from -40dBm to +15dBm over frequency range 1.65GHz to 3GHz >+15dBm		
Azimuth coverage		360° (omni-directional)		
Elevation coverage		0°-90° elevation (hemispherical)		
Supply voltage V	VDC	3.3 (±10%)	5.0 (±10%)	± 10%
Power Consumption	mA	<20	<35	
Output Impedance	Ohm	50		
RF connector (output)		TNC (female)		Adapter to SMA 22640940 Adapter to N 22640637

Environmental

Operating Temperature	°C	-40 to+90
Storage Temperature	°C	-40 to+90
Vibration		10 – 200 Hz Log sweep 3g (Sweep time 30 minutes) 3 axes
Shock		50g vertical, 30g all axes
Humidity Soak		+60°C @ 95% RH, 96 hours
Corrosion Salt Resistant		5% Salt spray tested, 96 hours

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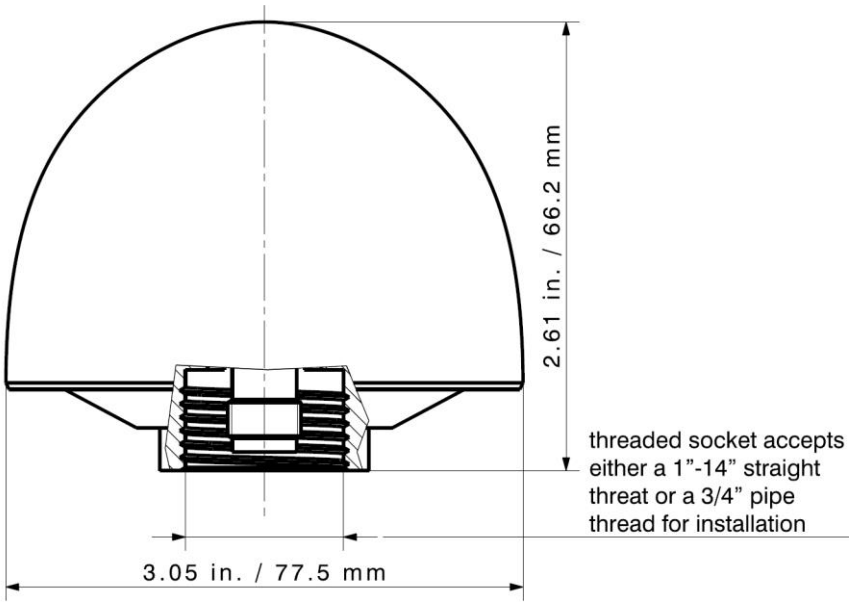
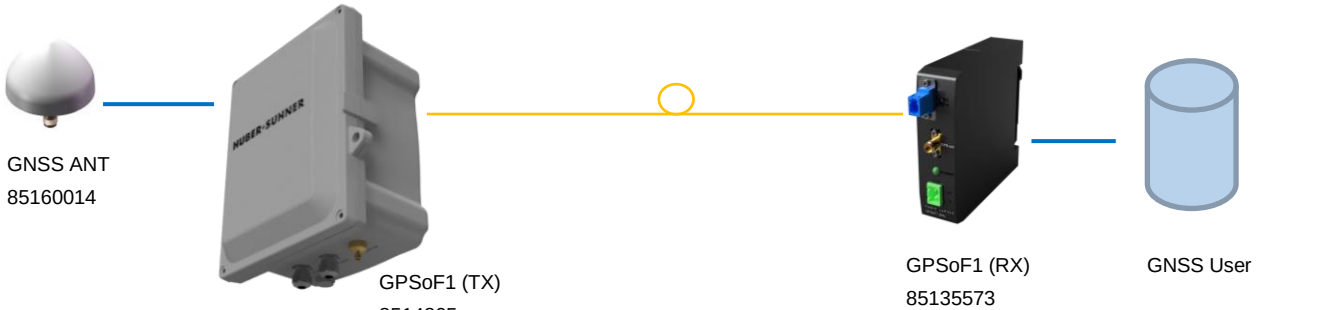
Mechanical Data

Dimensions	3.05”D x 2.61” H (77.5mm x 66.2mm)
Weight	0.2 kg
Enclosure	Off-white plastic
Connector	TNC (female)
Mounting	1” – 14” thread or ¾” pipe thread



Application note

Traditional connectivity over coaxial cable limits the performance, usability and safety of GNSS as used in timing and synchronisation for telecommunication and datacentre. Introducing GPS-over-Fiber as long range (up to 20km) scalable (multiple outputs) connectivity solution allows to overcome given challenges and limitations by transmission of GNSS over single mode optical fiber. The GPSoF1 (TX) transmitter provides 3.3V power to the antenna and uses a HUBER+SUHNER lighting protection.



Learn more about GPS-Over-Fiber with our blog and timing solution brochure!

Fiber
Coax

Additional Information

Important catalogue links

GPS-over-Fiber	https://literature.hubersuhner.com/Marketsegments/Communication/timing-solution-en/
RF Cables:	http://literature.hubersuhner.com/Technologies/Radiofrequency/RFCablesEN/
RF Connectors:	http://literature.hubersuhner.com/Technologies/Radiofrequency/RFConnectorsEN/
FO Standard Assemblies:	http://literature.hubersuhner.com/Technologies/Fiberoptics/FOcableassembliesEN/