

KEY FEATURES

Swegeo SA20 is a multi-constellation and multi-frequency small form factor Survey-Grade GNSS antenna that supports GPS, GLONASS, GALILEO, BEIDOU, QZSS, IRNSS, SBAS and L-Band.



HIGH GAIN RECEPTION & RELIABLE LOW-NOISE AMPLIFIER FOR OPTIMAL SATELLITE TRACKING

- It is widely used in high-precision navigation and positioning applications such as geodetic surveying/mapping, hydrographic mapping, precision agriculture, ADAS, Autonomous Driving, and Deformation monitoring where an accurate and reliable system is crucial.

ENHANCED PERFORMANCE AND PRECISION

- Multi-feed point ensures high performance on right-hand circular polarization and phase center stability. It further lowers the measurement errors.

OPTIMIZED RECEPTION

- The overall design provides a high gain on low-elevation satellite signal reception so that a higher number of satellites are available for position calculation.

IMPROVED SIGNAL QUALITY

- Pre-filtering on the low noise amplifier effectively suppresses out-of-band interference signals and improves the reliability of the system.

VERSATILE AND DURABLE

- The enclosure is rated IP67 which ensures a reliable performance in any harsh environmental conditions.

GENERAL	
Architecture	Dual Four-point-feed, Dual Stacked Patch
Signal Supported	GPS L1/L2/L5
	GLONASS: G1/G2/G3;
	BEIDOU B1/B2/B3
	GALILEO E1/E5a/E5b/E6
	QZSS L1/L2/L5
	IRNSS L1/L2/L5
	SBAS L1/L2/L5
	L-Band
Nominal Impedance	50 Ω
Polarization	RHCP
Axial Ratio @zenith	≤ 1.5 dB
Gain @zenith	≥ 5.0 dB _i @F _c

MECHANICAL	
Dimensions	$\Phi 106$ mm*55mm
Connector	TNC (Female)
Weight	290 gram
Radome	PC-PBT
Attachment	5/8-11
Vibration	3 axis,sweep=15min,10 to 200Hz sweep:3G
Shock	Vertical axis:50G,other axes: 30G

LNA	
Frequency Range	1164MHz~1300MHz
	1525MHz~1621MHz
LNA Gain	40 $\pm$ 3.0dB (Typ. @25°C)
Noise Figure	≤ 2.0 dB@25°C , Typ. (Pre-filtered)
Output VSWR	$\leq 1.8:1$ typ. 2.0:1max
Operation Voltage	3.0 - 6.0 VDC
Operation Current	≤ 45 mA
Output of Band Rejection	L5/E5/L2/G2/B2
	<1050MHz: >55dB
	<1125MHz: >30dB
	>1350MHz: >55dB
	L1/E1/B1/G1
	<1450MHz: >40dB
	>1690MHz: >40dB
	>1730MHz: >45dB

ENVIROMENTAL	
Operating Temperature	-40°C to+85°C
Storage Temperature	-45°C to+85°C
Humidity	95% Non-condensing
Ingress Rating	IP67

MECHANICAL DRAWING (MM)

