RS-3S

GNSS Receiver

Key Features

- All GNSS Constellations
- NTRIP Server / Caster
- CORS Receiver
- Spoofing detection
- Fiber optic, SFP
- Humidity, pressure, temperature sensors

RS-3S is a powerful and reliable receiver designed for telecom applications, high-precision GNSS systems, including high dynamics systems, machine and traffic control, geodynamics, and aerogeophysics applications.

RS-3S can operate as a receiver for post-processing, as a Continuously Operating Reference Station (CORS), and as a scientific station collecting information for special studies, such as ionosphere monitoring and the like.

RS-3S Specifications

Tracking	Total Channels	874	
	GPS	L1 C/A, L1C, P1, P2, L2C, L5	
	GLONASS	L1 C/A, P1, P2, L2 C/A, L3	
	GALILEO	E1, E5, E5A, E5B, E6	
	BeiDou	B1, B1C, B2B, B2, B2A, B3	
	QZSS	L1C C/A, L1C, L2C, L5, L6, L1S, L1Sb, L5S	
	SBAS	L1, L5	
	NavIC	L1, L5, S	
	L-Band	1525-1560 Mhz	
Performance		**Horizontal (m)**	**Vertical (m)**
	Standalone	1.000	1.500
	SBAS	0.500	0.850
	DGPS	0.250	0.500
	JStar (PPP)	0.025	0.050
	RTK	0.008 + 1 ppm	0.015 + 1 ppm
	Network RTK	0.008 + 0.5 ppm	0.015 + 0.5 ppm
	Static/Fast Static	0.003 + 0.1 ppm	0.004 + 0.4 ppm
Time to First Fix	Cold / Warm Start	< 35 s / < 5 s	
	Reacquisition	< 1 s	
	RTK Initialization	2 to 6 s	
Output Rate	Position / Measurments	Up to 200 Hz	
Storage	Internal Memory	Up to 64 GB	
Wired I/O	Fiber optic	LC, RJ45, SFP port	
	USB	Hi-Speed USB 2.0 (480 Mbps), dual role port	
	PPS	4 x 1PPS (RS422 level), output synchronized to GPS or UTC	
	GNSS Antenna	+5 VDC, 0.2 A max (TNC)	
Wireless I/O	Wi-Fi	5 GHz and 2.4 GHz 802.11 a/b/g/n/ac	
Sensors	Humidity Sensor	Tolerance - 3%RH (relative humidity)	
		Resolution - 0.008%RH	
	Pressure Sensor	Operating range - 300-1100hPa	
		Resolution - 0.18Pa	
	Temperature Sensor	Absolute accuracy - max 1.5°C	
		Resolution - 0.01°C	
Power	Input / Voltage	-40 to -57 VDC or +4.5 to +40 VDC	
	Power Consumption	4.8W, Typical	
Physical	Dimensions	229 x 43 x 275 mm	
	Weight	1.97 kg	
Environmental	Operating / Storage Temps	-50°C to +80° C / -55 C to +85C	
	Humidity	100%	
	Ingress Protection	IP68	
	Shock/ Vibration	MIL-STD-810H (Method 516.8) / MIL-STD-810H (Method 514.8)	

GNSS performance is dependent on signal quality, satellite geometry, ionospheric and tropospheric conditions, baseline length, multipath effects and RF interference. Specifications may be changed without notice.