

RSR Transcoder™

RSR GNSS Transcoder and GPS Full-Constellation Simulator

Typical Electrical Specifications

Data/Power connectors	Mini-USB for power and SCPI, 12-pin 2 mm Hirose for power and external GNSS
Outputs	One 3 V CMOS 1 PPS output, one 10 MHz CMOS 3 V DC output, disciplined by external 1 PPS reference or internal CSAC
	One RF SMA, GPS L1 C/A code, -100 to -125 dBm
Spectral Purity (1 MHz to 13.2 GHz)	< -33 dBc in-band (L1, ± 20 MHz), < -80 dBm out-of-band
Harmonics of L1 (1.57542 GHz)	< -150 dBm
USB Control	SCPI-99 Control at 9.6 K, 19.2 K, 38.4 K, 57.6 K, 115.2 K
External GNSS receiver compatibility	Any NMEA compatible source, direct control of Rockwell Collins GB-GRAM and MicroGRAM SAASM GPS, and u-Blox GNSS receivers
USB SCPI Control/ Monitoring Port	Compatible to any terminal program and JLT-GPSCon, NMEA output sentences
Operating Temperature	-40°C to +75°C with TCXO, -10 to +70°C with CSAC
CSAC Holdover	< 1 μ s/24 hrs typical @ 25°C with $\pm 5^\circ$ C change after 48 Hrs with stable 1 PPS UTC reference input
MTBF	> 600,000 Hours with TCXO



RSR GPS RF-Transcoder

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