



GSG-5 Series (Single Frequency) Comparison Chart

FEATURE	GSG-L1 GPS Signal Generator	GSG-52 GPS Signal Simulator	GSG-53 GNSS Signal Simulator	GSG-54 GPS Constellation Simulator	GSG-55 GPS Constellation Simulator	GSG-56 GNSS Constellation Simulator
SIGNAL						
Channels	1	4	4	8	16	16
GPS	L1	L1	L1	L1	L1	L1
GLONASS	—	—	L1	—	—	L1
SBAS	Yes	—	—	—	Up to 3 WAAS, EGNOS, GAGAN, or MSAS	
White Noise	—	—	—	—	Yes	
Multi-path	—	Via events			Multi-path editor	
Power Level	-70 to -170 dBm		-65 to -160 dBm			
Attenuator Adjustment	Yes					
SCENARIOS						
Signal Generator Mode	Yes (RF: off, continuous or unmodulated)					
Pre-defined	—	12 includes 3-GPP standards				
User-defined	—	Unlimited				
Parameters	PRN (1-37 GPS, 120-158 SBAS), Zcounts (timestamp of msg. info)	Same as 54/55/56, except no trajectory		Date, time, position, duration, trajectory, number of satellites, power level, atmospheric and antenna model		
Front Panel Editing	—	Yes includes editing on the fly				
Remote Editing	Companion PC software		GSG StudioView™ PC software			
TRAJECTORY						
File Type	—	—	—	NMEA Message (GGA, RMC, or both)		
Builder	—	—	—	GSG StudioView PC software via Google Maps/Earth		
Baseline Limits	—	—	—	Accel: 4.0 g; Vel: 515 m/s; Jerk: 30 m/s ³ (extended limits available, contact factory)		
NAVIGATION DATA						
File Type	User-definable subframe	RINEX version 2 and 3 format (default or automatic download based on scenario start date)				
DYNAMIC EVENTS						
Parameters	—	Specify dynamic events: time, satellite(s), relative or absolute power, duplicate and offset channel to another channel to simulate multi-path				
Remote Editing	—	GSG StudioView PC software				
INTERFACE						
Type	RS-232, USB	Front Panel, LAN, USB, GPIB				
Web Server	—	Yes				
File Transfer	Companion PC Software	GSG StudioView PC software				
TIMING FUNCTIONS						
Internal Timebase	TCXO	High Stability OCXO				
Frequency In	—	—	—	Yes		
Frequency Out	—	—	—	Yes		
1PPS Out	—	—	—	Yes		
Leap Second Simulation	—	Yes				

