

# MSG-2060

## GNSS Signal Generator

BeiDou  
new release



Equipped with GPS, GLONASS, QZSS and IMES as standard, BeiDou is newly released as option.

### General

MSG-2060 and MSG2060ATT are signal generators that generate pseudo signals of GNSS (Global Navigation Satellite System).

(Positioning measurement is not possible because it is for level measurement.)

Equipped with American GPS, Russian GLONASS, Japanese QZSS and IMES as standard. Optionally, a Chinese BeiDou can be installed.

Simultaneous output of two kinds of pseudo signals of GPS, GLONASS, QZSS, IMES, BeiDou is possible.

### Features

- Utilizing color touch panel for ease of operation and setting on the panel.
- Possible to number each satellite
- Output level setting (swift switching possible from -80 to -140dBm)
- Output of CW (Carrier waveform)
- Setting of real time clock
- Operation and setting possible through USB using the PC application software

Trustworthy Brand

# Application screen

Featuring the following functions

- Most demanded operations are combined in one screen
- Each signal can be set either ON or OFF
- Two output level can also be set independently (-90.0 to -149.9dBm)(Optional)
- The clock can be switched between GPS(UTC) and GLONASS
- Message type, latitude and longitude can be rewritten on IMES
- One simple click to switch five signals
- The display can be switched between Channel and Slot of the satellite number on GLONASS



↑ Standard Main screen

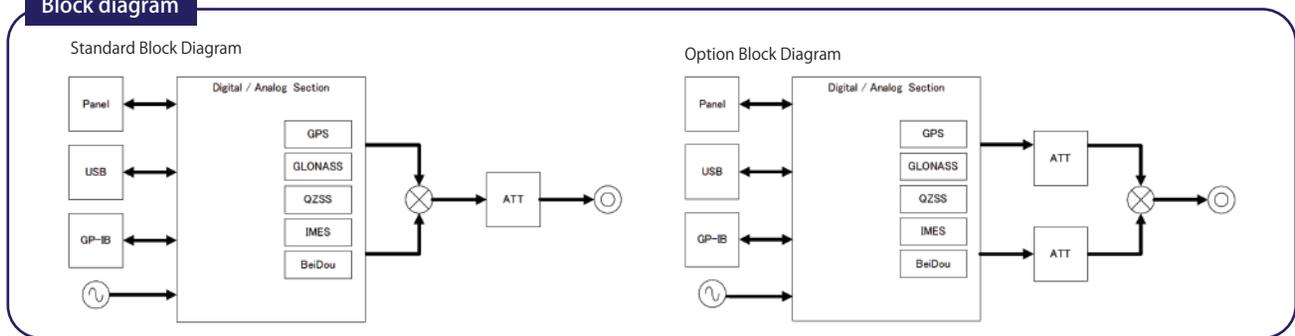


↑ Option Main screen



↑ Signal selection screen

## Block diagram



## Specifications

	Standard	ATT Option	Interface			
Level range	-80 to -140dBm	-90.0 to -149.9dBm	Serial interface	USB TYPE B		
Accuracy	+/- 1.0dB	+/- 1.0dB	Parallel interface	GP-IB		
Level step	1.0dB	0.1dB	Power requirement			
Spurious output	-50dB or less for the secondary harmonics	-50dB or less for the secondary harmonics	Voltage	DC 7.5V(AC adaptor: AC90 – 264V 50/60Hz)		
			Dimensions (Excluding projected portion)	210(W) x 88(H) x 300(D) mm		
			Weight	Approx.2.4kg (when in standard)		
			Operating temperature	0 to +40C		
			Operation guaranteed temperature	+10 to +35C		
			Battery back up	Setting and stored data		
			OS	Windows XP/Windows 7		
	GLONASS	GPS	QZSS	IMES	BeiDou	
Freq.	1.5980625GHz to 1.605375GHz (L1)		1.57542GHz	1.5754282GHz or 1.5754118GHz	1.561098GHz	
Freq. accuracy	Less than $5 \times 10^{-8}$			Less than $5 \times 10^{-8}$		
Freq. step	562.5kHz			—		
PRN code	PR ranging code (511 bit series GOLD coding)	37 C/A code	5 C/A code	10 C/A code	B1I Ranging code	
Channel	F-ch 7 to 6	SV1 ~ SV37	SV193 ~ SV197	SV173 ~ SV182	1 ~ 37	
Mod Freq.	511kHz clock		1.023MHz clock			2.046MHz clock
Data mod	PR ranging code synch divide, 50bps BPSK		C/A code synch divide, 50bps, BPSK			QPSK
NAVI data		50bps test pattern			250bps/50bps	
					D1: 50bps D2: 500bps	

\*IMES bit rate of 250bps or 5-bps can be switched.

● Specifications are subject to change without notice for product improvement.



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