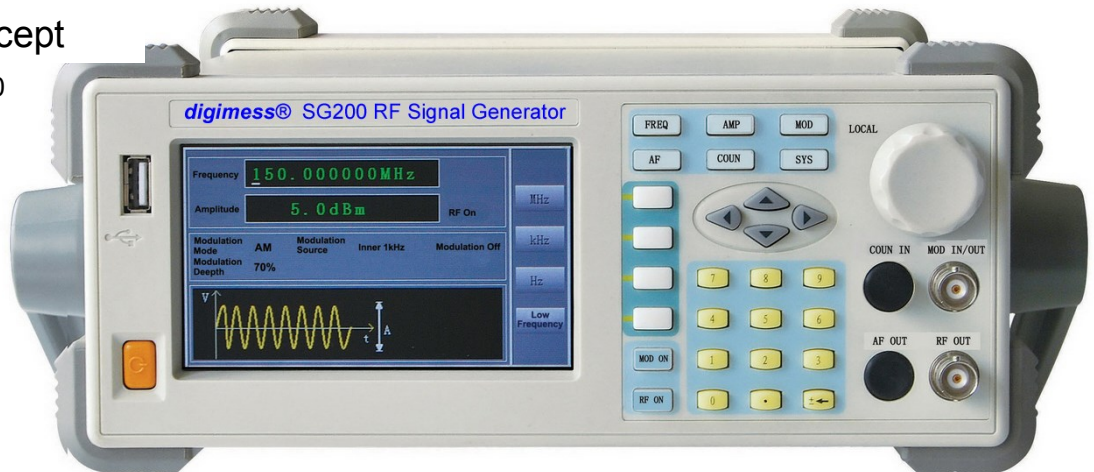


SG200 DDS RF Signal Generator

digimess® concept

Order No: HUC 64-00

CE



The **digimess®** SG200 is a DDS synthesised RF signal generator. The unit covers the frequency 9kHz to 450MHz with a resolution of 1Hz and auto switches between the Internal or an External frequency reference. The SG200 has a 4.3 inch TFT colour display, numeric keypad or rotary control data input and amplitude can be entered in either dBm, mV, μ V or dB μ V. The generator includes AM, FM and Phase modulation along with FSK, PSK and Sweep facilities. Up to 8 instrument set-ups can be stored in the non-volatile memory and the unit features both USB and RS232 interfaces with a USB lead and software supplied.

Specification

DISPLAY		FREQUENCY SWEEP	
Size	4.3 inch	Frequency (start)	100kHz - 450MHz resolution 1Hz
Type	TFT colour LCD	Ranges	100kHz - 75MHz, 75MHz - 140MHz, 140MHz - 260MHz, 260MHz - 360MHz, 360MHz - 450MHz
FREQUENCY		Sweep width	1kHz - 99.99MHz
Range	9kHz - 450MHz ($<$ 100kHz amplitude un-calibrated)	Step frequency	1Hz - 99.99MHz
Resolution	1Hz	Step time	10 μ s - 10s, 10 μ s steps
Accuracy	See Frequency Reference	Stop frequency	= start frequency + sweep width (within above ranges)
Settling	$<$ 100ms to within 100Hz	AM MODULATION	
FREQUENCY REFERENCE		Carrier frequency	\geq 1.5MHz
Internal or external	Automatic switch over	Range	0 - 120% ($>$ 70% un-calibrated)
Internal Reference	TCXO 10.000MHz	Resolution	0 - 70% (\leq +4dBm, \leq 75MHz)
Stability	\pm 2.5ppm +15°C - +30°C	Accuracy	0 - 50% (\leq +4dBm, $>$ 75MHz)
External frequency input	10MHz 0.3Vrms - 1Vrms 50 Ω	Source	1% (modulation \geq 10%)
OUTPUT		Distortion	0.1% (modulation $<$ 10%)
Level	-127dBm - +13dBm (0.1 μ V - 1000mV into 50 Ω)	PHASE MODULATION	$<$ \pm 7% settled value \pm 1.5% (Internal, 1kHz \leq 30%)
Resolution	0.1dB, 0.1 μ V, 0.1dB μ V	Source	Internal 400Hz or 1kHz
Entry format	dBm, mV, μ V, dB μ V	Phase deviation	0.1 rads - 6.0 rads
Accuracy	\pm 1dB at level +4dBm $>$ 400kHz	Resolution	0.1 rads
Attenuation precision	\pm 2dB at $<$ -105dBm	PSK	
SWR	$<$ 1.5 at carrier freq $>$ 300kHz and level $<$ -6dBm	Source	External TTL level
RF output impedance	50 Ω	Ranges	See FSK
Harmonics	$<$ -15dBc at level \leq +4dBm	Phase 1 and Phase 2	0.1° - 360°
Non-harmonics	$<$ -40dBc at level \leq +4dBm	Resolution	0.1°
Sub-harmonics	$<$ -40dBc at level \leq +4dBm	NON-VOLATILE STORAGE	
MODULATION SOURCE		Number of instrument set-ups	8
Type	Internal or external	INTERFACE	
Internal	400Hz or 1kHz, output 1Vpk	Type	Standard USB and RS232
External	0 - 1Vpk 600 Ω	GENERAL	
FM MODULATION		Input voltage	200-250Vac 50/60Hz \leq 30VA
Peak deviation	0 - 100kHz	Weight	3kg
Resolution	100Hz	Size W x H x D	250 x 120 x 400 mm
Accuracy	\pm 5% \pm 50Hz 1kHz Int, $>$ 5kHz	Temperature	Operating 0°C - 40°C Storage -10°C - +60°C Up to 75%
Distortion	$<$ 3% 1kHz Int, $>$ 10kHz 300Hz-3kHz	Humidity	
Source	Internal 400Hz or 1kHz	ORDERING INFORMATION	
FSK		HUC64-00 SG200	RF signal generator
Source	External TTL level	Accessories supplied	Operators manual, BNC test lead, software, USB and mains lead
Ranges	100kHz - 1.5MHz FSK $<$ 25kHz 1.5MHz - 20MHz FSK $<$ 25kHz 20MHz - 75MHz FSK $<$ 50kHz 75MHz - 140MHz FSK $<$ 2kHz 140MHz - 260MHz FSK $<$ 2kHz 260MHz - 360MHz FSK $<$ 2kHz 360MHz - 450MHz FSK $<$ 2kHz		