

HF SIGNAL GENERATOR

HG2461 SERIES



Features

- Signal frequency up to 600MHz
- DDS Technology provides for a superior signal with low distortion and high stability
- Both RF output and function output
- 3.5" QVGA color LCD and soft keys
- Produced by SMT, smart metal case
- 1 μ Hz frequency resolution
- RS 232 interface and USB, GPIB optional
- Versatile modulation
AM, FM, PM, FSK, PSK, Sweep, Burst
- Variety of waveforms
Sine, square, pulse, triangle, ramp



HG2461 I

Technical Data

HG2461 I/II/III/IV/V

RF output (output A)			
		100 μ Hz~80MHz	HG2461 I
		100 μ Hz~110MHz	HG2461 II
Frequency range		100 μ Hz~150MHz	HG2461 III
		100 μ Hz~200MHz	HG2461 IV
		100 μ Hz~300MHz	HG2461 V
		100 μ Hz~600MHz	HG2461 VI
	Frequency resolution	1 μ Hz	\leq 80MHz
	1Hz	$>$ 80MHz	
Frequency stability		$\leq 5 \times 10^{-6}$	
RF output level		-127dBm~+13dBm	
RF output resolution		0.1dB	
Attenuator accuracy		± 2 dB	
Output impedance		50 Ω , VSWR<1.5	
Spectral purity	Harmonic	< -30 dBc	(output level $\leq +4$ dBm)
	Non harmonic	< -40 dBc	(output level $\leq +4$ dBm, deviation > 5 kHz)
	Sub harmonic	< -40 dBc	(output level $\leq +4$ dBm)
	Residual FM	< 100 Hz	
AM Modulation	Frequency	int. 100mHz~10kHz	
		ext. 20Hz~10kHz	
	Depth	0~120%	(fc ≤ 80 MHz, level $\leq +4$ dBm)
		0~80%	(fc > 80 MHz, level $\leq +4$ dBm)
	Resolution	0.1%	
FM Modulation	Frequency	int. 100 μ Hz~10kHz	(fc ≤ 80 MHz)
		int. 100 μ Hz~1kHz	(fc > 80 MHz)
	Deviation	fc/2	(fc ≤ 80 MHz)
		1 μ Hz~100kHz	(fc > 80 MHz)
	Resolution	100Hz	
Pulse Modulation (option)	Carrier frequency	≥ 9 kHz	
	Frequency	ext. DC~10MHz (TTL level)	
	Rise and fall	< 15 nS	
	On/Off	> 65 dB	
FSK Modulation		100 μ Hz~80MHz	(FSK rate < 10 kHz)
	F1, F2 range	80.000001MHz~120MHz	(FSK rate < 2 kHz)
		120.000001MHz~200MHz	(FSK rate < 2 kHz)
		200.000001MHz~300MHz	(FSK rate < 2 kHz)
	Control mode	internal and external (TTL level, low-F1, high-F2)	

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PSK Modulation	Carrier frequency	<80MHz	
	P1, P2 range	0~360°	
	Resolution	0.1°	
	Alternation	0.1ms~800s	
	Control mode	internal and external (TTL level, high-P2, low-P1)	
Burst Modulation	Carrier frequency	<80MHz	
	Burst count	1~10000 cycle ($\leq 800 \cdot f_c$)	
	Alternation	0.1ms~800s	
	Control mode	internal single external (TTL level)	
Sweep	Sweep rate	1ms~800s (lin., $f_c \leq 80\text{MHz}$) 100ms~800s (log., $f_c \leq 80\text{MHz}$)	
	Stepping time	10ms~800s ($f_c > 80\text{MHz}$)	
	Frequency range	100 μ Hz~80MHz	
		80.000001MHz~120MHz	
		120.000001MHz~200MHz	
	Sweep mode	200.000001MHz~300MHz	
		lin. and log. ($f_c \leq 80\text{MHz}$) Stepping ($f_c > 80\text{MHz}$)	
MOD Signal output	Frequency	100mHz~10kHz	
	Waveform	sine	
	Amplitude	5Vp-p $\pm 2\%$	
	Impedance	620 Ω	
Function output (output B)			
Frequency range	100 μ Hz~2MHz		
Resolution	100 μ Hz		
Accuracy	$\pm 5 \times 10^{-6}$		
Amplitude (sine)	100mVp-p~6Vp-p (high impedance)		
	50mVp-p~3Vp-p (50 Ω)		
Resolution	$\pm 0.1\text{mVp-p}$		
Accuracy	$\leq 5\% \pm 5\text{mVp-p}$ ($f \leq 100\text{kHz}$)		
Distortion	1% (2Vp-p, 1kHz)		
Impedance	50 Ω		
Waveform	Sine, square, triangle, ramp, pulse (rise and fall time $\leq 500\text{nS}$)		
A/B sine phase range	0.0~360.0°		
Power supply	110~127 VAC $\pm 10\%$, 220~240VAC $\pm 10\%$ 50Hz $\pm 2\text{Hz}$, 60Hz $\pm 2\text{Hz}$		
Dimensions(W×H×D)	255×170×370mm		
Weight	4kg		

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