

FG708S/F DDS Function Generator



Key Features:

- Direct Digitally Synthesized Multi-Functions Generator
- Sine, Square, Triangle, Sync, Pulse, DC
- Ultra Low Distortion and Low Noise (down to 1 mV peak signal)
- FSK and PSK Modulation
- Digital setting of Linear and Log sweep function
- Trigger and Gate function
- 20KHz Ramp up and Ramp down function (FG708F only)
- AM / FM modulation (FG708F only)

Model	FG 708S	FG 708F
Output waveform	Sine, Square, Sync output, Pulse : 100mHz~8MHz Triangle : 100mHz~1MHz DC	Sine, Square, Sync output, Pulse : 100mHz ~ 8MHz Triangle : 100mHz ~ 1MHz Ramp up , Ramp down : 100mHz ~ 20KHz DC
Frequency resolution	100mHz or 6 digits display	
Output impedance	50Ω ± 5%	
Amplitude	1mV to 20Vp-p (open-circuit) , 0.50mV to 10Vp-p (into 50Ω load)	
Resolution	2~3 digits, 1mV min (depend on attenuation)	
Accuracy	Typical 1% test at 1KHz 9Vp-p sine @ 50Ω load	
Output attenuation	0 db, -20 db, -40 db, -60 db	
FUNC_OUT self protection	FUNC_OUT short circuit protection Reverse voltage protection below 20 Vpeak	
DC_offset and DC output	± 10 V at open-circuit, ± 5 V at 50Ω load	
Resolution	2 digits, +/- 1mV min (depend on attenuation)	
Accuracy	1% ± 5 counts at DC Mode	
Sine wave	DC to 100KHz <-55 dBc typical	
Harmonic Distortion	100KHz to 1MHz <-45 dBc typical 1MHz to 8MHz <-35 dBc typical	
Spurious(non harmonic)	DC to 1MHz <-55 dBc typical	
Total harmonic distortion	DC to 100KHz <0.3%	
Square wave	rise / fall time ≤ 12nS for 10Vpp @ 50Ω load overshoot < 5% of Vp for 10Vpp @ 50Ω load	
Pulse	Frequency range : 1mHz to 8MHz Amplitude : 0 to 10V / 0 to -10V / +/- 10V Duty cycle : 1mHz to 5MHz: 20% to 80%; 5MHz to 8MHz: 40% to 60%	
Triangle wave linearity	99% up to 100KHz	
Sweep (linear / logarithmic)	Start frequency, stop frequency, and sweep step setting sweep type: up/down, up-down	
Sync output	Output level : low level ≤ 0.6V, high level ≥ 1V, @50Ω. Frequency range : 1mHz ~ 8MHz Output impedance : 50Ω.	
Modulation characteristics		
AM		Carrier : Sine, Triangle Modulation Source Internal : 400 / 1000Hz sine waveform External : any waveform about 6.6Vp input for 100% modulation Modulation depth : 0% to 100%
FM		Modulation : any Internal waveform Frequency : 100mHz to 10KHz Peak deviation : 100mHz to 8MHz Modulation Source : 400 / 1000Hz sine waveform
FSK	Function : Sine or Square or Triangle Frequency range : 100mHz to 8MHz Internal rate : 400 / 1000Hz Source : Internal / External	
PSK	Function : Sine or Square or Triangle Frequency range : 100mHz to 8MHz Internal rate : 400 / 1000Hz phase setting : 0.0000 to 360.0 degree Source : Internal / External	
Trigger/gate		
Trigger	Trigger Source : Manual trigger (rotary push trigger) / External trigger Main frequency setting range : 100mHz to 100KHz	
Gate	Gate Source : Manual gate (rotary push trigger) / External gate Main frequency setting range : 100mHz to 8MHz	
Frequency Counter		
Measuring range		Frequency range : 1Hz ~ 100MHz
accuracy		Time base error ± 5 count
Resolution		7 1/2 digits
Low pass filter (LPF)		auto mode
Time base stability		36.864MHz ± 25 PPM (23.5°C ± 5°C)
Input level attenuation		x1 , x20
Sensitivity		Standard : 1Hz ~ 75MHz / -22 dbm @ 50 Ω typical, 76M ~ 100MHz / -15 dbm @ 50 Ω typical
General characteristics		
Power source	AC 115 V / 230V (inner switch able) ±10%, 50/60Hz	
Accessories	Instruction manual, AC power cord.	
Operation environment	0°C ~ 40°C, relative humidity below to 80%, Storage temperature -20°C ~ 70°C	
Dimension	280mm × 235mm × 95mm (11" × 9.25" × 3.74") (D×W×H)	
Weight	3 kgs	