

## Specifications

Model	MFG-2105	MFG-2110	MFG-2120		
<b>Frequency range</b>	1μHz~5MHz	1μHz~10MHz	1μHz~20MHz		
<b>Waveform (CHA)</b>					
Type	32 built-in waveforms, including Sine, Square, Triangle, Ramp, Pulse, etc.				
Length	1024 points				
Vertical resolution	8 bits				
Sampling rate	100MSa/s				
Harmonic distortion of sine	≥40dBc (<1MHz); ≥35dBc (1MHz~20MHz)				
Total distortion of sine	≤1% (20Hz~200kHz)				
Rise/fall time of square	≤35ns				
Overshoot of square	≤10%				
Duty cycle of square	1%~99%				
<b>Frequency (CHA)</b>					
Range	Sine	1μHz~5MHz	1μHz~10MHz	1μHz~15MHz	1μHz~20MHz
	Square			1μHz~5MHz	
	Other		1μHz~1MHz		
Resolution	1μHz				
Accuracy	±5×10 <sup>-5</sup>				
Stability	±5×10 <sup>-6</sup> /3hours				
<b>Amplitude (CHA)</b>					
Range	2mVpp~20Vpp, 1μHz~10MHz (high impedance) 2mVpp~15Vpp, 10MHz~15MHz (high impedance) 2mVpp~8Vpp, 15MHz~20MHz (high impedance)				
Resolution	20mVpp (amplitude>2Vpp); 2mVpp (amplitude<2Vpp)				
Accuracy	± (1%+2mVrms) (high impedance, RMS, frequency 1kHz)				
Stability	±0.5% /3hours				
Flatness	±5% (frequency <10MHz); ±10% (frequency >10MHz)				
Output impedance	50Ω				
<b>DC Offset (CHA)</b>					
Range	±10V (high impedance, attenuation 0 dB)				
Resolution	20mVdc				
Accuracy	±(1%+20mVdc)				
<b>Sweep (CHA)</b>					
Parameter	Frequency, Amplitude				
Range	Free to set starting point and end point				
Time	100ms~900s				
Direction	Up, Down, Up-Down				
Mode	Linearity, Logarithmic				
Control	Auto sweep or manual sweep				
<b>Frequency Modulation (FM) (CHA)</b>					
Carrier signal	CHA signal				
Modulating signal	CHB or external signal				
FM deviation	0%~20%				
<b>Burst (CHA)</b>					
Carrier signal	CHA signal				
Trigger signal	TTL_A signal				
Burst counts	1~65000 cycles				
Trigger mode	Internal TTL, External, Single				

# DDS Function Generator

# MEGATEK™

Model	MFG-2105	MFG-2110	MFG-2120
<b>Shift Keying (CHA)</b>			
FSK	Free to set the hop frequency and the carrier frequency		
ASK	Free to set the hop amplitude and the carrier amplitude		
PSK	Hop phase: 0~360°, resolution: 1°		
Alternative rate	10ms~60s		
<b>Waveform (CHB)</b>			
Type	32 built-in waveforms, including Sine, Square, Triangle, Ramp, Pulse, etc.		
Length	1024 points		
Vertical resolution	8 bits		
Sampling rate	12.5MSa/s		
Duty cycle of square	1%~99%		
<b>Frequency (CHB)</b>			
Range	Sine: 1μHz~1MHz; Other: 1μHz~100kHz		
Resolution	1μHz		
Accuracy	±1×10 <sup>-5</sup>		
<b>Amplitude (CHB)</b>			
Range	50mVpp~20Vpp (high impedance)		
Resolution	20mVpp		
Output impedance	50Ω		
<b>Burst (CHB)</b>			
Carrier signal	CHB signal		
Trigger signal	TTL_B signal		
Burst counts	1~65000 cycles		
Trigger mode	Internal TTL, External, Single		
<b>TTL output</b>			
Waveform	Square, rise/fall time ≤20ns		
Frequency	10mHz~1MHz		
Amplitude	TTL, CMOS compatible, low<0.3V, high>4V		
<b>Frequency counter</b>			
Testing frequency range	1Hz~200MHz		
Input signal amplitude	100mVpp~20Vpp		
<b>Remote control</b>			
	RS-232 interface (optional)		
<b>Power amplifier (optional)</b>			
Max. output power	7W (8Ω), 1W (50Ω)		
Max. output voltage	22Vpp		
Frequency bandwidth	1Hz~200kHz		
<b>Common characteristics</b>			
Operation characteristics	Key operation for all functions, Menu display, Rotary dial adjustment		
Display	Mono LCD		
Language	English, Chinese (simplified), Chinese (traditional)		
Power source	AC110V/220V±10% selectable, 50/60Hz, Max. 45VA		
Environmental condition	0~40°C, <80%RH		
Standard accessories	Power cord ×1, Operation manual ×1, BNC-BNC cable ×1, Test lead ×1		
Dimension	415×295×195mm		
Weight	3.5kg		

Specifications are subject to change without prior notice.