20MHz
100MSa/s
RS232(optional)
1024 points

MFG-6000CH Series
Features and Benefits

- Direct Digital Synthesis (DDS) technology,
- 2 independent output channels
- 3.5-inch TFT display, English/Chinese menu
- 32 built-in pre-stored waves, 8 user defined arbitrary waves
- Minimum stable output waveform: 1mV(50Ω)
- Multiple modulation functions: FM, FSK, ASK, PSK
- Frequency sweep, amplitude sweep and burst functions
- Over voltage, over current, output short-circuit and reverse voltage protections
- Standard parts: RS232 interface

  Optional parts: 200MHz frequency counter,
  7W(8Ω) power amplifier

Specifications

Model	MFG-6005CH	MFG-6010CH	MFG-6015CH	MFG-6020CH
Frequency range(sine)	1μHz~5MHz	1μHz~10MHz	1μHz~15MHz	1μHz~20MHz
Output Characteristics of Channel A				
Waveform Characteristics				
Waveform type	32 built-in pre-stored waveforms including: Sine, Square, Triangle, Ramp,Pulse etc. 8 user defined arbitrary waveforms			
Waveform length	1024 points			
Sample rate	100MSa/s			
Waveform amplitude resolution	8bits			
Sinusoidal harmonic rejection	≥40dBc (<1MHz), ≥35dBc (1MHz~20MHz)			
Sine wave total distortion	≤1% (20Hz~200kHz)			
Square rise/fall edge time	≤35ns			
Square overshoot	≤10%			
Square wave duty cycle	1%~99%			
Frequency Characteristics				
Frequency range	Sine: 1μHz~Max.frequency (MHz);Square: 1μHz~5MHz ; Other waveforms: 1μHz~1MHz			
Frequency resolution	1μHz			
Frequency accuracy	$\pm(5\times10^{-5})$			
Frequency stability	$\pm5\times10^{-6}$/3 hours			
DC Offset Characteristics				
Offset range	±10V (high impedance, attenuation 0dB)			
Resolution	20mVdc			
Offset accuracy	±(1%+20mVdc)			
Sweep Characteristics				
Sweep type	frequency sweep, amplitude sweep			
Sweep range	free to set the start and stop points			
Sweep time	100ms~900s			
Sweep direction	Up, Down, Up-Down			
Sweep mode	linear, logarithmic			
Control mode	auto sweep or manual sweep			
Frequency Modulation Characteristics				
Carrier signal	channel A signal			
Modulation signal	internal signal of channel B or external signal			
FM deviation	0%~20%			
Shift Keying Characteristics				
FSK	free to set carrier frequency and hop frequency			
ASK	free to set carrier amplitude and hop amplitude			
PSK	hop phase 0~360°, max. resolution 1°			
Alternative rate	10ms~60s			
Burst Characteristics				
Carrier signal	channel A signal			
Trigger signal	TTL_A signal			
Burst count	1~65000 cycles			
Burst mode	Internal TTL, External, Single			

Specifications

Model	MFG-6005CH	MFG-6010CH	MFG-6015CH	MFG-6020CH
Frequency range(sine)	1μHz~5MHz	1μHz~10MHz	1μHz~15MHz	1μHz~20MHz
Amplitude Characteristics				
Amplitude range	2mVpp~20Vpp 1μHz~10MHz (high impedance) 2mVpp~15Vpp 10MHz~15MHz (high impedance) 2mVpp~8Vpp 15MHz~20MHz (high impedance)			
Amplitude resolution	20mVpp (amplitude>2Vpp), 2mVpp (amplitude<2Vpp)			
Amplitude accuracy	±(1%+2mVrms) (high impedance, true RMS, frequency at 1kHz)			
Amplitude stability	±0.5%/3 hours			
Amplitude flatness	±5% (frequency<10MHz), ±10% (frequency >10MHz)			
Output impedance	50Ω			
Output Characteristics of Channel B				
Waveform Characteristics				
Waveform type	32 pre-stored waveforms and 8 user defined arbitrary waveforms including: Sine, Square, Triangle, Ramp, Pulse etc			
Waveform length	1024 points			
Sample rate	12.5MSa/s			
Waveform amplitude resolution	8bits			
Square duty cycle	1%~99%			
Frequency Characteristics				
Frequency range	Sine: 1μHz~1MHzOther waveforms: 1μHz~100kHz			
Frequency resolution	1μHz			
Frequency accuracy	$\pm(1\times10^{-5})$			
Amplitude Characteristics				
Amplitude range	50mVpp~20Vpp (high impedance)			
Amplitude resolution	20mVpp			
Output impedance	50Ω			
Burst Characteristics				
Carrier single	channel B signal			
Trigger signal	TTL_B signal			
Burst count	1~65000 cycles			
Burst mode	Internal TTL, External, Single			
TTL Output Characteristics				
Waveform characteristics	Square, rise/fall time≤20ns			
Frequency characteristics	10mHz~1MHz			
Amplitude characteristics	TTL, CMOS compatible, low level<0.3V, high level>4V			
Remote Control				
Remote interface	Standard RS232 serial interface			
Common Characteristics				
Display	3.5-inch TFT display, 320*240, English, Chinese (simplified), Chinese (traditional)			
Manufacturing technology	Surface Mount Technology, Integrated Circuit. High reliability and stability.			
Accessories	Power cord, Q9 test lead, Q9 BNC-clip test lead, Operation manual RS232 cable (optional), RS232 interface software CD (optional)			
Dimension	Machine dimension: 385(D)×260(W)×110(H)mm Chassis dimension: 415(D)×295(W)×195(H)mm			
Weight	3.5kg			
Optional Parts Characteristics				
Frequency counter	Testing frequency range: 1Hz~200MHz Input signal amplitude: 100mVpp~20Vpp			
Power amplifier	Max. output power: 7W (8Ω), 1W (50Ω) Max. output voltage: 22Vpp Frequency bandwidth: 1Hz~200kHz			