



## MFG-2125/MFG-2140/MFG-2160

Function Arbitrary Waveform Generator

- Use 3.5 inch 480\*320FTF LCD, with a clear graphical interface
- Dual channel output
- Two channels are independent and have phase synchronization function
- Build-in 5 sets of basic waveform and 32 types of arbitrary waveform
- Edge time adjustable pulse wave output Output of linear/logarithmic sweep frequency and pulse string waveform
- Equipped with multi-function arbitrary waveform editing software
- Support Chinese and English menu
- File management, support USB drives and local storage

- 160MSa/S sampling rate, 12bits vertical resolution, 16k storage depth
- Waveform storage: supports 10 groups of user defined editing waveforms
- Internal/external AM, FM, FSK modulation function
- with 160MHz high precision frequency meter
- RS232 interface, USB Device, USB Host interface

Model	MFG-2125	MFG-2140	MFG-2160
Frequency characteristics			
Waveform types	Sine wave, square wave, triangle wave, pulse, noise, arbitrary wave (including DC)		
Sine wave	1uHz ~ 25MHz	1uHz ~ 40MHz	1μHz-60MHz
Square wave	1uHz ~ 5MHz	1uHz ~ 10MHz	1μHz-10MHz
Triangle wave	1uHz ~ 500kHz	1uHz ~ 1MHz	1μHz-2MHz
Noise (-3db)	7MHz	7MHz	7MHz
Pulse	1uHz ~ 5MHz	1uHz ~ 10MHz	1μHz-10MHz
Arbitrary wave	1uHz ~ 5MHz	1uHz ~ 10MHz	1μHz-10MHz
Frequency resolution	1uHz		
Frequency accuracy	±5ppm		
Sine wave properties			
CH1 Harmonic distortion > 1Vpp	0~1MHz: < -45dBc ; 1MHz~10MHz: < -40dBc ; 10MHz~20MHz: < -30dBc ; 20MHz~40MHz: < -25dBc ; 40MHz~70MHz: < -20dBc ;		
CH2 Harmonic distortion > 1Vpp	0~1MHz: < -45dBc ; 1MHz~40MHz: < -40dBc ; 40MHz~70MHz: < -35dBc ;		
Total harmonic distortion	< 0.2% ( 20Hz-20kHz , 1Vpp )		
Square wave signal characteristics			
Rise/fall time	< 20ns		
Overshoot	< 5%		
Duty cycle	1%~99%≤100kHz ; 20%~80%≤5MHz ; 40%~60%≤10MHz ( resolution 0.1% )		
Asymmetry(50%duty cycle)	1% period + 5ns		
Serration			
Linearity	Less than 0.5% of the peak output (typical values, 1kHz, 1Vpp, symmetry 100%)		
Symmetry	0.0~100.0% ( resolution 0.1% )		
Impulse wave characteristics			
The pulse width	≥20ns		
Edge jump time	≥20ns		
Overshoot	< 5%		
Arbitrariness	CH1	CH2	
Sampling rate	160MSa/S	160MSa/S	
Wave amplitude resolution	12bits	10bits	
The wave length	16k	4k	
Minimum rise / fall time	< 20ns	< 20ns	
Storage quantity	10 waveforms	10 waveforms	