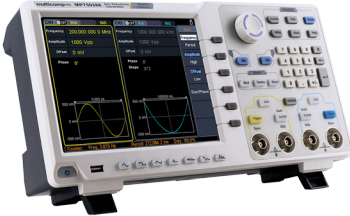


# Dual Channel Arbitrary Waveform Generator

# multicomp<sup>PRO</sup>

## RoHS Compliant



### Specifications

- Max 1.25GS/s sample rate, and 1 $\mu$ Hz frequency resolution
- Vertical Resolution :14 bits, max 1M arb waveform length
- Comprehensive waveform output : 6 basic waveforms and 152 built-in arbitrary waveforms
- Comprehensive modulation functions : AM, FM, PM, FSK, 3FSK, 4FSK, PSK, OSK, ASK, BPSK, PWM, Sweep and Burst
- High-accuracy frequency counter integrated supported range 100mHz to 200MHz
- SCPI, and LabVIEW supported
- 8 inch (800 × 600 pixels) multi-touch screen

Part Number	MP750290	MP750289	MP750288
Channel	2		
Frequency Output	160MHz	120MHz	80MHz
Sample Rate	1.25GSa/s		
Vertical Resolution	14 bits		
<b>Waveform</b>			
Standard Waveform	Sine, Square, Pulse, Ramp, Noise And Harmonic		
Arbitrary Waveform	exponential rise, exponential fall, sin(x)/x, step wave, and others, total 152 built-in waveforms, and user-defined arbitrary waveform		
<b>Frequency (resolution 1<math>\mu</math>Hz)</b>			
Sine	1 $\mu$ Hz - 160MHz	1 $\mu$ Hz - 80MHz	
Square	1 $\mu$ Hz - 50MHz	1 $\mu$ Hz - 30MHz	
Pulse	1 $\mu$ Hz - 25MHz		
Ramp	1 $\mu$ Hz - 5MHz		
Harmonic	1 $\mu$ Hz - 80MHz	1 $\mu$ Hz - 40MHz	
Noise	120MHz (-3dB, typical)		
Arbitrary Waveform	built-in waveform: 1 $\mu$ Hz - 15MHz user-defined waveform: 1 $\mu$ Hz - 50MHz		
Accuracy	$\pm$ 1ppm, 0°C - 40°C		
<b>Amplitude</b>			
into 50 $\Omega$ load	1mVpp - 10Vpp ( $\leq$ 40MHz); 1mVpp - 5Vpp ( $\leq$ 80MHz) 1mVpp - 2.5Vpp ( $\leq$ 120MHz); 1mVpp - 1Vpp ( $\leq$ 250MHz)		
into open circuit, or high-Z	2mVpp - 20Vpp ( $\leq$ 40MHz); 2mVpp - 10Vpp ( $\leq$ 80MHz); 2mVpp - 5Vpp ( $\leq$ 120MHz); 2mVpp - 2Vpp ( $\leq$ 250MHz)		
Accuracy	$\pm$ (1% of  setting  + 1mVpp) (typical, 1kHz sine, 0V offset)		
Resolution	1mV or 4 digits		
Load Impedance	50 $\Omega$ (typical)		

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Part Number		MP750290	MP750289	MP750288
DC Offset	Range (50Ω)	±(5 Vpk - Amplitude Vpp/2)		
	Range (open circuit, high-Z)	±(10 Vpk - Amplitude Vpp/2)		
	Accuracy	±(1% of  setting  + 1mV + Amplitude Vpp × 0.5%)		
	Resolution	1mV or 4 digits		
<b>Sine Wave Spectrum Purity</b>				
Harmonic Distortion (typical (0dB))		DC - 1MHz: <-65dBc 1MHz - 10MHz: <-60dBc 10MHz - 120MHz: <-50dBc 120MHz - 250MHz: <-45dBc		
Total Harmonic Distortion		< 0.05 %, 10 Hz to 20 kHz, 1 Vpp		
Spurious (non-harmonic) (typical (0dB))		≤10MHz: <-70dBc >10MHz: <-70dBc + 6dB/ octave		
Phase Noise (typical (0 dBm, 10 kHz deviation))		10MHz: ≤-110dBc/Hz		
<b>Square</b>				
Rise / Fall Time		<5ns		
Overshoot		<3%		
Duty Cycle		50% (fixed)		
Jitter (rms)		300ps + 100ppm		
<b>Pulse</b>				
Pulse Width		12ns - 996875s		
Rise / Fall Time		≥7ns		
Overshoot		<3%		
Jitter (rms)		300ps + 100ppm		
<b>Ramp</b>				
Linearity		≤1% of peak output (typical, 1kHz, 1 Vpp, 50% symmetry)		
Symmetry		0% to 100%		
<b>Harmonic</b>				
Harmonic Order		≤16		
Harmonic Type		even, odd, all, user		
Harmonic Amplitude		could be set for all the harmonics		
Harmonic Phase				
<b>Arbitrary</b>				
Waveform Length		2 points - 1M points		
Vertical Resolution		14 bits		
Minimum Rise/Fall Time		<7ns		
Jitter (rms)		3ns		
<b>Modulation</b>				
Type		AM, FM, PM, PWM, FSK, 3FSK, 4FSK, PSK, OSK, ASK, BPSK, sweep, and burst		

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Part Number	MP750290	MP750289	MP750288
<b>AM</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	sine, square, ramp, noise, and arbitrary		
Depth	0.0% - 100.0%		
Modulating Frequency	2 mHz - 100 kHz		
<b>FM</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	sine, square, ramp, noise, and arbitrary		
Modulating Frequency	2 mHz - 100 kHz		
<b>PM</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	sine, square, ramp, noise, and arbitrary		
Phase Deviation	0° - 180°		
Modulating Frequency	2 mHz - 100 kHz		
<b>PWM</b>			
Carrier Waveform	pulse		
Source	internal / external		
Modulating Waveform	sine, square, ramp, noise, and arbitrary		
Width Deviation	0 to minimum (pulse duty ratio, 100% - pulse duty ratio)		
Modulating Frequency	2 mHz - 100 kHz		
<b>FSK / 3FSK / 4FSK</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
<b>PSK</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
<b>OSK</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal		
Oscillation Time	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		

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Part Number	MP750290	MP750289	MP750288
<b>ASK</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
<b>BPSK</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
<b>Sweep</b>			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Type	linear, and log		
Sweep Time	1 ms to 500s, $\pm$ 0.1%		
Trigger Source	internal, external, and manual		
<b>Burst</b>			
Carrier Waveform	sine, square, ramp, pulse, and arbitrary (except DC)		
Burst Count	1 to 50000 period, infinite, gating		
Internal Period	10 ns - 500 s		
Gated Source	external trigger		
<b>Frequency Counter</b>			
Function	frequency period, +width, -width, +duty, and -duty		
Frequency Range	100mHz - 200MHz		
Frequency Resolution	7 digits		
<b>Input / Output</b>			
Display	8" 800 x 600 pixels touch screen LCD		
Type	frequency counter, external modulation input, external trigger input, external reference clock input / output		
Communication Interface	USB Host, USB Device, and LAN		
Input Voltage	Voltage 220VAC to 240VAC/100VAC to 120VAC, 50/60 Hz		
Warranty	12Months		

## Accessories

EU/UK Power Cord, USB Cable, Q9 Cable, CD-ROM and Manual

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