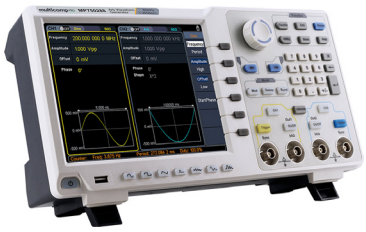
Dual Channel Arbitrary Waveform Generator

multicomp PRO

RoHS Compliant



Specifications

- Max 1.25GS/s sample rate, and 1μHz 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 / MP750290 US	MP750289 / MP750289 US	MP750288 / MP750288 US
Channel	2		
Frequency Output	160MHz	120MHz	80MHz
Sample Rate	1.25GSa/s		
Vertical Resolution	14 bits		
Waveform			
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		
Frequency (resolution 1μHz)			
Sine	1μHz - 160MHz		1μHz - 80MHz
Square	1μHz - 50MHz		1μHz - 30MHz
Pulse	1μHz - 25MHz		
Ramp	1μHz - 5MHz		
Harmonic	1μHz - 80MHz		1μHz - 40MHz
Noise	120MHz (-3dB, typical)		
Arbitrary Waveform	built-in waveform: 1μHz - 15MHz user-defined waveform: 1μHz - 50MHz		
Accuracy	±1ppm, 0°C - 40°C		
Amplitude			
into 50Ω load	1mVpp - 10Vpp (≤40MHz); 1mVpp - 5Vpp (≤80MHz) 1mVpp - 2.5Vpp (≤120MHz); 1mVpp - 1Vpp (≤250MHz)		
into open circuit, or high-Z	2mVpp - 20Vpp (≤40MHz); 2mVpp - 10Vpp (≤80MHz); 2mVpp - 5Vpp (≤120MHz); 2mVpp - 2Vpp (≤250MHz)		
Accuracy	±(1% of |setting| + 1mVpp) (typical, 1kHz sine, 0V offset)		
Resolution	1mV or 4 digits		
Load Impedance	50Ω (typical)		

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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		
Sine Wave Spectrum Purity				
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		
Square				
Rise / Fall Time		<5ns		
Overshoot		<3%		
Duty Cycle		50% (fixed)		
Jitter (rms)		300ps + 100ppm		
Pulse				
Pulse Width		12ns - 996875s		
Rise / Fall Time		≥7ns		
Overshoot		<3%		
Jitter (rms)		300ps + 100ppm		
Ramp				
Linearity		≤1% of peak output (typical, 1kHz, 1 Vpp, 50% symmetry)		
Symmetry		0% to 100%		
Harmonic				
Harmonic Order		≤16		
Harmonic Type		even, odd, all, user		
Harmonic Amplitude		could be set for all the harmonics		
Harmonic Phase				
Arbitrary				
Waveform Length		2 points - 1M points		
Vertical Resolution		14 bits		
Minimum Rise/Fall Time		<7ns		
Jitter (rms)		3ns		
Modulation				
Type		AM, FM, PM, PWM, FSK, 3FSK, 4FSK, PSK, OSK, ASK, BPSK, sweep, and burst		

Part Number	MP750290 / MP750290 US	MP750289 / MP750289 US	MP750288 / MP750288 US
AM			
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		
FM			
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		
PM			
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		
PWM			
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		
FSK / 3FSK / 4FSK			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
PSK			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
OSK			
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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ASK			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal / external		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
BPSK			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Source	internal		
Modulating Waveform	square with 50% duty cycle		
Key Frequency	2 mHz - 1MHz		
Sweep			
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)		
Type	linear, and log		
Sweep Time	1 ms to 500s, ± 0.1%		
Trigger Source	internal, external, and manual		
Burst			
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		
Frequency Counter			
Function	frequency period, +width, -width, +duty, and -duty		
Frequency Range	100mHz - 200MHz		
Frequency Resolution	7 digits		
Input / Output			
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	100V AC to 120V AC, 220V AC to 240V AC, 50/60 Hz		

Accessories

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

Warranty 12Months

Part Number Table

Description	Part Number
Arbitrary Waveform Generator, Dual Channel, 80MHz, 14-bits	MP750288
Arbitrary Waveform Generator, Dual Channel, 120MHz, 14-bits	MP750289
Arbitrary Waveform Generator, Dual Channel, 160MHz, 14-bits	MP750290
Arbitrary Waveform Generator, Dual Channel, 80MHz, 14-bits	MP750288 US
Arbitrary Waveform Generator, Dual Channel, 120MHz, 14-bits	MP750289 US
Arbitrary Waveform Generator, Dual Channel, 160MHz, 14-bits	MP750290 US

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