# multicomp PRO

RoHS

**Compliant** 



#### Features

- Max 160MHz frequency output
- 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 200MHz
- SCPI, and LabVIEW supported
- 8 inch (800 × 600 pixels) multi-touch screen

#### **Specification Table**

Characteristics	Part Number			
Characteristics	MP750290	MP750289	MP750288	
Channel		2	•	
Frequency Output	160MHz	120MHz	80MHz	
Sample Rate		1.25GSa/s		
Vertical Resolution		14 bits		
Waveform				
Standard Waveform	Sine, Squ	are, Pulse, Ramp, Noise, and	l 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 -	1µHz - 160MHz		
Square	1µHz -	1µHz - 50MHz		
Pulse		1µHz - 25MHz		
Ramp	1µHz - 5MHz			
Harmonic	1µHz -	1µHz - 80MHz		
Noise		120MHz (-3dB, typical)		
Arbitrary Waveform	built-in waveform: 1uHz - 15MHz user-defined waveform: 1uHz - 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)			



## **MP750XXX Series Waveform Generator**

Characteristics		Part Number		
Characteristics -		MP750290 MP750289 MP750288		
	Range (50Ω)		±(5 Vpk - Amplitude Vpp/2)	
Range DC Offset (open circuit, high-Z)		±(10 Vpk - Amplitude Vpp/2)		
	Accuracy	±(1% of  setting  + 1mV + Amplitude Vpp x 0.5%) 1mV or 4 digits		
	Resolution			
Sine Wave S	Spectrum Purity			
	DC - 1MHz: <-65dBc   armonic Distortion 1MHz - 10MHz: <-60dBc			
Total Harmo	nic Distortion		<0.05%, 10Hz to 20kHz, 1Vpp	
Spurious (no (typical (0dB	on-harmonic)	≤10MHz: <-70dBc >10MHz: <-70dBc + 6dB/ octave		9
Phase Noise (typical (0 dB	e 3m, 10 kHz deviation))	10MHz: ≤-110dBc/Hz		
Square	· · · · ·			
Rise / Fall Ti	me		<5ns	
Overshoot		<3%		
Duty Cycle		50.0% (fixed)		
Jitter (rms)		300ps + 100ppm		
Pulse				
Pulse Width			12ns - 996875s	
Rise / Fall Ti	me		≥7ns	
Overshoot			<3%	
Jitter (rms)		300ps + 100ppm		
Ramp				
Linearity		≤1% of peak output (typical, 1kHz, 1 Vpp, 50% symmetry)		% symmetry)
Symmetry		0% to 100%		
Harmonic				
Harmonic Or	rder	≤16		
Harmonic Ty	rpe	even, odd, all, user		
Harmonic Ar	nplitude		[Could be set for all the harmonic	
Harmonic Pr	nase	[Could be set for all the harmonics		,o
Arbitrary				
Waveform Le	ength	2 points - 1M points		
Vertical Reso	olution	14 bits		
Minimum Ris	se/Fall Time		<7ns	
Jitter (rms)			3ns	



## **MP750XXX Series Waveform Generator**

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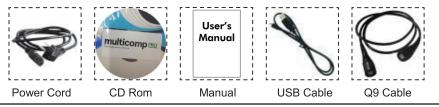
Characteristics	Part Number			
Characteristics	MP750290	MP750290 MP750289 MP750288		
Modulation	•			
Туре	AM, FM, PM, PWM, FSK,	3FSK, 4FSK, PSK, OSK, ASI	K, BPSK, sweep, and burs	
AM	·			
Carrier Waveform	sine, sq	uare, ramp, and arbitrary (ex	cept DC)	
Source		internal / external		
Modulating Waveform	sine,	square, ramp, noise, and ark	bitrary	
Depth		0.0% - 100.0%		
Modulating Frequency		2mHz - 100kHz		
FM	·			
Carrier Waveform	sine, sq	uare, ramp, and arbitrary (ex	cept DC)	
Source		internal / external		
Modulating Waveform	sine,	square, ramp, noise, and ark	bitrary	
Modulating Frequency		2mHz - 100kHz		
PM	· ·			
Carrier Waveform	sine, sq	uare, ramp, and arbitrary (ex	cept DC)	
Source	internal / external			
Modulating Waveform	sine, square, ramp, noise, and arbitrary			
Phase Deviation	0° - 180°			
Modulating Frequency	2mHz - 100kHz			
PWM				
Carrier Waveform		pulse		
Source		internal / external		
Modulating Waveform	sine, square, ramp, noise, and arbitrary			
Width Deviation	0 ~ minimum (pulse duty ratio, 100% - pulse duty ratio)			
Modulating Frequency	2mHz - 100kHz			
FSK / 3FSK / 4FSK	·			
Carrier Waveform	sine, sq	uare, ramp, and arbitrary (ex	cept DC)	
Source	Internal / external			
Modulating Waveform	square with 50% duty cycle			
Key Frequency	2mHz - 1MHz			
PSK	· ·			
Carrier Waveform	Sine, sq	uare, ramp, and arbitrary (ex	cept DC)	
Source	Internal / external			
Modulating Waveform	square with 50% duty cycle			
Key Frequency	2mHz - 1MHz			
OSK	·			
Carrier Waveform	sine, sq	uare, ramp, and arbitrary (ex	cept DC)	
Source	internal			



### **MP750XXX Series Waveform Generator**

	Part Number			
Characteristics	MP750290	MP750289	MP750288	
Oscillation Time	square with 50% duty cycle			
Key Frequency	2mHz - 1MHz			
ASK	•			
Carrier Waveform	sine, s	quare, ramp, and arbitrary (exce	ept DC)	
Source		internal / external		
Modulating Waveform		square with 50% duty cycle		
Key Frequency		2mHz - 1MHz		
BPSK				
Carrier Waveform	sine, s	quare, ramp, and arbitrary (exce	ept DC)	
Source	internal			
Modulating Waveform	square with 50% duty cycle			
Key Frequency	2mHz - 1MHz			
Sweep				
Carrier Waveform	sine, square, ramp, and arbitrary (except DC)			
Туре	linear, and log			
Sweep Time	1ms to 500s, ±0.1%			
Trigger Source	internal, external, and manual			
Burst				
Carrier Waveform	sine, square, ramp, pulse, and arbitrary (except DC)		except DC)	
Burst Count	1 to 50,000 period, infinite, gating			
Internal Period	10 ns - 500 s			
Gated Source	external trigger			
Frequency Counter				
Function	frequency period, +width, -width, +duty, and -duty		and -duty	
Frequency Range	100mHz - 200MHz			
Frequency Resolution	7 digits			
Input / Output				
Display	8" 800 × 600 pixels touch screen LCD			
Туре	frequency counter, external modulation input, external trigger input, external reference clock input / output			
Communication Interface	USB Host, USB Device, and LAN			
Warranty	03 years			

#### Accessories





### **Part Number Table**

Description		
Waveform Generator, Arbitrary, Function, 160MHz, BPSK, Burst, FM, FSK, OSK, PM, PSK, PWM, Sweep	MP750290	
Waveform Generator, Arbitrary, Function, 120MHz, BPSK, Burst, FM, FSK, OSK, PM, PSK, PWM, Sweep	MP750289	
Waveform Generator, Arbitrary, Function, 80MHz, BPSK, Burst, FM, FSK, OSK, PM, PSK, PWM, Sweep	MP750288	

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