Arbitrary Waveform Generator

MP751035

MP751036

RoHS Compliant

Specifications

Model	**MP751035**	**MP751036**
Channel	Dual channel	
Sampling rate	200 MSa/s	
Vertical resolution	16-bit	
Waveform characteristic	6 standard waveforms, 200 built-in arbitrary waveforms	
Waveform	Sine, Square, Ramp, Pulse, Noise, DC, Arb, AM, FM, PM, ASK, FSK, PSK, PWM, frequency sweep, burst	
Working modes	Output gating, continuous, modulation, frequency sweep	
LCD	4.3" TFT LCD, WVGA (480 × 272)	
Frequency characteristic		
Sine wave	1 μHz-20 MHz	1 μHz-40 MHz
Square wave	1 μHz-10 MHz	1 μHz-20 MHz
pulse wave	1 μHz-10 MHz	1 μHz-20 MHz
Ramp wave	1 μHz-400 kHz	1 μHz-1 MHz
Gauss noise	40 MHz(-3dB) (typical value)	
Resolution	1 μHz	
Reference frequency	Initial accuracy < 30ppm	
	Temperature stability ±2 ppm/°C, 0°C to 40°C	
	Aging rate ±50 ppm, First year aging rate	
Sine wave		
Harmonic distortion	Typical value (0dBm)	DC ~ 1 MHz: -60 dBc
		1 MHz ~10 MHz: -55 dBc
		10 MHz ~40 MHz: -50 dBc.
THD	< 0.2% (DC-20 kHz, 1 Vpp)	
Spurious signal(anharmonic)	Typical value (0 dBm)	≤10 MHz < -70 dBc
		> 10 MHz <-70 dBc+6 dB/octave
Phase noise (typical)	1 MHz ≤-125 dBc/Hz (typical, 0 dBm, 10 kHz deviation)	
Square wave		
Rise/fall time(1Vpp, 50Ω)	< 16 ns	
Overshoot(100kHz, 1Vpp, 50Ω)	< 2% (typical, 50Ω)	
Duty ratio	0.000% ~ 100.00% (limited by current frequency)	
Symmetry (duty ratio=50%)	1% of period + 4 ns	

Model	MP751035	MP751036
Shake(RMS)(1Vpp, 50Ω)	Typical (1 MHz) ≤5 MHz: 2 ppm + 200 ps	
	1 Vpp, 50Ω) >5 MHz: 200 ps	
Ramp wave		
Nonlinearity	< 1% of peak output (typical value, 1 kHz, 1 Vpp, symmetry 100%)	
Symmetry	0.0% to 100.0%	
pulse wave		
Minimum pulse width	22 ns	
Variable edge	15 ns to 10 s	
Overshoot	< 2% (typical,1Vpp)	
Shake	150 ps	
Arbitrary wave		
Frequency	1 μHz-5 MHz	1 μHz-10 MHz
Wave length	4 kpts	
Vertical resolution	16-bit (symbol included)	
Sampling rage	200 MSa/s (DDS)	
Nonvolatile storage	200 waves	

Output Characteristic

Output		
Amplitude(50Ω)	≤20 MHz:1 mVpp-10 Vpp	
	≤40 MHz:1 mVpp-5 Vpp	
Amplitude (HighZ)	≤20 MHz:2mVpp-20Vpp	
	≤40 MHz:2mVpp-10 Vpp	
Accuracy	Typical value (1kHz, sine ±(1% of set value+2 mVpp) wave, 0V, deviation, >10 mVpp)	
Amplitude flatness	Typical value (sine wave,0 dBm)	≤20 MHz: ±0.3 dB
		≤40 MHz: ±0.5 dB
DC offset		
Range(peak AC+DC)	±5 V (50Ω)	
	±10 V (high resistance)	
Accuracy of offset	Offset set value ±1% ± amplitude set value 2%±2mV	
Waveform outpu		
Impedance	50Ω typical value	
Protection	Short circuit protection, overload automatically disables waveform output	

General Technical Specifications

Specifications	
Supply voltage	100-240V ACrms (Fluctuations: ±10%), 50 Hz/60Hz
	100-120V ACrms (Fluctuations: ±10%), 400 Hz
Power consumption	<20 W
Fuse	2 A, Class T, 250 V
Environment	
Temperature range	operation: +10°C to +40°C
	Non operational: -20°C to +60°C
Cooling method	Natural cooling
Humidity range	+35°C Below: ≤90% relative humidity
	+35°C to +40°C ≤60% relative humidity
Altitude	Operating below 2,000 m
	Non-operating below 15,000 m
Class of pollution	2
Operating environment	indoor
Mechanical Specifications	
Dimensions	215mm × 103mm × 316mm (Width × Height × Length)
Net weight	2.2 kg
Calibration cycle	The recommended calibration circle is one year
Warranty	03 years

Part Number Table

Description	Part Number
Arbitrary Waveform Generator, 20MHz, UK	MP751035
Arbitrary Waveform Generator, 40MHz, UK	MP751036