



### Features

- Max 250MHz 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

SPECIFICATIONS	
<b>Performance Specifications</b>	
Channel	2
Frequency Output	100MHz
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 150 built-in waveforms, and user-defined arbitrary waveform
<b>Frequency (resolution 1μHz)</b>	
Sine	1μHz - 100MHz
Square	1μHz - 40MHz
Pulse	1μHz - 25MHz
Ramp	1μHz - 5MHz
Harmonic	1μHz - 50MHz
Noise	120MHz (-3dB, typical)
Arbitrary Waveform	built-in waveform: 1uHz - 15MHz user-defined waveform: 1uHz - 50MHz
Accuracy	±1ppm, 0°C - 40°C
<b>Amplitude</b>	
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)
<b>DC Offset</b>	
Range (50Ω)	±(5 Vpk - Amplitude Vpp/2)
Range (open circuit, high-Z)	±(10 Vpk - Amplitude Vpp/2)
Accuracy	±(1% of  setting  + 1mV + Amplitude Vpp x 0.5%)

Note: Specifications are subject to change.

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)	≤10MHz: <-70dBc
(typical (0dB))	>10MHz: <-70dBc + 6dB/ octave
Phase Noise	10MHz: ≤-110dBc/Hz
(typical (0 dBm, 10 kHz deviation))	
<b>Square</b>	
Rise / Fall Time	<5ns
Overshoot	<3%
Duty Cycle	50.0% (fixed)
Jitter (rms)	300ps + 100ppm
<b>Pulse</b>	
Pulse Width	12ns - 996875s
Leading/Trailing Edge 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	Could be set for all the harmonics
<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
<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

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Modulating Frequency	2 mHz - 100 kHz
<b>PM</b>	
Carrier Waveform	Sine, square, ramp, and arbitrary (except DC)
Source	Snternal / 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 ~ 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
<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, ± 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 50,000 period, infinite, gating
Internal Period	10 ns - 500 s

Note: Specifications are subject to change.





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

Note: Specifications are subject to change.

