

# Product Specifications

Model	DGE2035	DGE2070
Channel	2	
Frequency Output	35MHz	70MHz
Sample Rate	125MSa/s	300MSa/s
Vertical Resolution	14 bits	

## Waveform

Standard Waveform	sine, square, pulse, ramp, and noise	
Arbitrary Waveform	exponential rise, exponential fall, sin(x)/x, step wave, and others, total 150 built-in waveforms, and user-defined arbitrary waveform	

## Frequency (resolution 1 $\mu$ Hz)

Sine	1 $\mu$ Hz - 35MHz	1 $\mu$ Hz - 70MHz
Square	1 $\mu$ Hz - 15MHz	1 $\mu$ Hz - 20MHz
Pulse	1 $\mu$ Hz - 15MHz	1 $\mu$ Hz - 20MHz
Ramp	1 $\mu$ Hz - 1MHz	1 $\mu$ Hz - 2MHz
Noise	20MHz (-3dB, typical)	
Arbitrary Waveform	1 $\mu$ Hz - 10MHz	

## Sine Wave Spectrum Purity

Harmonic Distortion Typical (0dB)	DC - 1MHz: <-65dBc 1MHz - 30MHz: <-60dBc 30MHz - 60MHz: <-50dBc	
Total Harmonic Distortion Spurious (non-harmonic), Typical (0dB)	< 0.2%, 10 Hz to 20 kHz, 1 Vpp $\leq$ 10MHz: <-70dBc >10MHz: <-70dBc + 6dB/ octave	
Phase Noise	Typical (0 dBm, 10 kHz deviation) 10MHz: -110dBc/Hz	

## Square

Rise / Fall Time	<15ns	
Overshoot	< 2%	
Duty Cycle	50.0% (fixed)	
Jitter (rms)	200ps + 30ppm	

## Pulse

Cycle	66.667ns - 1000ks	50ns - 1000ks
Pulse Width	$\geq$ 24ns	
Leading / Trailing Edge Time	$\geq$ 15ns	
Jitter (rms)	200ps + 30ppm	

## Ramp

Linearity	$\leq$ 1% of peak output (typical, 1kHz, 1 Vpp, 50% symmetry)	
Symmetry	0% to 100%	