

Suin

SU5600 Series Pulse Function Arbitrary Waveform Generator



Features

- > 1 or 2 channel is selectable, differential outputs
- > Pulse, sine, square, ramp, noise, arbitrary and pattern (optional) could be generated
- > Noise, with selectable crest factor, and signal repetition time of 26 days
- > 14-bit, 2GSa/s arbitrary waveform, 512k samples deep arbitrary waveform memory per channel
- > FM, AM, PM, PWM, FSK modulation capabilities up to 10MHz
- > Trigger, sweep and burst modes are supported
- > Pattern generator with 16Mbit memory is optional
- > Communication interfaces USB Device, USB Host, LAN and GPIB are provided



Specifications

Model	SU5601	SU5602	SU5603	SU5604
Output	1	2	1	2
Pattern Generator	Yes	Yes	No	No
Pulse	Frequency	1μHz~120MHz		
	Resolution	1μHz		
	Pulse Width	4.1ns to (period-4.1ns) (limited by edge time and frequency)		
	Accuracy	± 500ps ±50ppm (edge time 2.5ns)		
	Transition Time	2.5ns~1000s (10%~90%)		
Sine	Accuracy	± 500ps (< 50ns,1Vpp)		
	Frequency	1μHz~240MHz		
Square	Resolution	1μHz		
	Frequency	1μHz~120MHz		
Ramp	Duty cycle	(Frequency/240MHz)~1-(Frequency/240MHz)		
	Frequency	1μHz~5MHz		
Noise	Symmetry	0.0%~100%		
	Bandwidth	120MHz typ.		
Arbitrary	Amplitude Distribution	Selectable Gaussian, user defined		
	Crest factor (peak/RMS) selectable	3.1, 4.8, 6.0, 7.0 typ. (Gaussian distribution)		
	Repetition Time	26 days		
	DAC Sample Rate	2GSa/s, Fixed		
	Length	2~512k points		
Modulation	DAC Resolution	14 bits		
	Frequency	1μHz~120MHz		
	Resolution	1μHz		
	PP Jitter	1ns typ.		
	AM, FM, PM	Carrier waveform: Sine, square, ramp, arbitrary Internal modulation: Sine, square, ramp, noise, arbitrary modulation frequency: 1MHz~10MHz		
Sweep	FSK	Carrier waveform: Sine, square, ramp, arbitrary Internal modulation: 50% square FSK rate: Internal: 1MHz~50MHz, External: DC~10MHz, Frequency Range: 1MHz~240MHz		
	PWM	Carrier waveform: Pulse Internal modulation: Sine, square, ramp, noise, arbitrary Offset: 0%~100% pulse width		
	Waveform	Pulse, sine, square, ramp, arbitrary		
	Sweep time	100μs~500s		
	Start/Stop frequency	1μHz~240MHz (Max frequency depends on selected waveform)		
Burst	Waveform	Pulse, sine, square, ramp, arbitrary		
	Frequency	1μHz~120MHz		
	# of waveforms in a burst	2~2 ³¹ -1		
	Max frequency	120MHz pulse/240MHz sine		
	Type	Single-end or differential		
Output	Amplitude (50Ω~50Ω)	50mVpp~10Vpp (<50MHz) 50mVpp~5Vpp (≤120MHz) 50mVpp~3Vpp (>120MHz)		
	DC offset range	Voltage (50Ω~50Ω) -10V~+10V typ.		
	Data rate	1kbit/s~120Mbit/s		
	Pattern memory	16Mbit		
	Number of levels	2, 3 or 4 (user selectable)		
Pattern Generator (only for SU5601/SU602)	Trigger modes	Continuous, gated, one bit per trigger event, one sequence per trigger event Internal: PRBS -7, 9, 11, 15, 23 and 31		
	Pattern sources	User Defined External: pass through pattern mode		
	Modulation	AM, FM, PM		
	Arbitrary bit shape	User-defined and predefined bit transitions with up to 64 arbitrary waveform points per bit transition		