Signal Sources Selection Guide

FLUKE®

Signal Sources

Fluke offers a range of function, pulse/function and universal waveform generators that are designed to meet your requirements and stay within your budget. Whether you require a simple LF function generator, or a powerful multi-channel arb, we have a product designed with you in mind.



	Function Generators			Universal Waveform Generators		
Model	**80**	**81**	**271**	**281**	**282**	**284**
Output channels	1	1	1	1	2	4
Maximum amplitude (into 50 Ω)	16 Vpp	16 Vpp	10 Vpp	10 Vpp	10 Vpp	10 Vpp
Standard Waveforms						
Sine maximum frequency	50 MHz	50 MHz	10 MHz	16 MHz	16 MHz	16 MHz
Square maximum frequency	50 MHz	50 MHz	10 MHz	16 MHz	16 MHz	16 MHz
Pulse maximum frequency	N/A	50 MHz	10 MHz	10 MHz	10 MHz	10 MHz
Pulses	No	Single	Multi-level	Pulse Train	Pulse Train	Pulse Train
Noise Generator	No	No	Random	No	No	No
Frequency Accuracy			10 ppm	10 ppm	10 ppm	10 ppm
Arbitrary Waveforms						
Maximum Sampling Frequency			27.48 MS/s	40 MS/s	40 MS/s	40 MS/s
Waveform length (points)			1024	4 – 65536	4 – 65536	4 – 65536
Waveform memory			5 x 1 K blocks	64 k blocks	64 K	64 K
Vertical resolution			10 bits	12 bits	12 bits	12 bits
Waveform sequencing (max. # of segments)				16	16	16
Looping			No	Yes	Yes	Yes
Operating Modes						
Triggered	Yes	Yes	Yes	Yes	Yes	Yes
Gated	Yes	Yes	Yes	Yes	Yes	Yes
Burst	Yes	Yes	Yes	Yes	Yes	Yes
Frequency sweep	Yes	No	Yes	Yes	Yes	Yes
Selectable output filter				10 MHz Eliptical, 10 MHz Bessel, none	10 MHz Eliptical, 10 MHz Bessel, none	10 MHz Eliptical, 10 MHz Bessel, none
Modulation source				External dc–100 kHz	External dc–100 kHz	External dc–100 kHz
Modulation	AM, FM	AM, PWM	AM, FSK, Tone	AM, Tone	AM, Tone, DTMF	AM, Tone, DTMF
Signal summing	No	No	No	No	No	No
VCO/VCA input	Yes	Yes	No	Yes	Yes	Yes
Phase lock to external analog signal	Yes	Yes	No	No	No	No
Multi-unit phase lock	Yes	Yes	Yes	Yes	Yes	Yes
General						
GPIB interface	Yes	Yes	Yes	Yes	Yes	Yes
RS-232 interface (conventional mode)	No	No	Yes	Yes	Yes	Yes
USB	No	No	No	No	No	No
Ethernet	No	No	No	No	No	No
Waveform software			Waveform Mgr. Plus Optional	Waveform Mgr. Plus	Waveform Mgr. Plus	Waveform Mgr. Plus
Recommended replacement for obsolete models	HP 8116A	HP 8116A	Wavetek 29A	Wavetek 39A	Wavetek/Fluke 195	Wavetek/Fluke 195/001

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	Arbitrary Waveform Generators				
Model	**291**	**292**	**294**	**396**	**397**
Output channels	1	2	4	1	2
Maximum amplitude (into 50 Ω)	10 Vpp	10 Vpp	10 Vpp	10 Vpp	10 Vpp
Standard Waveforms					
Sine maximum frequency	40 MHz	40 MHz	40 MHz	50 MHz	50 MHz
Square maximum frequency	50 MHz	50 MHz	50 MHz	50 MHz	50 MHz
Pulse maximum frequency	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz
Pulses	Pulse Train	Pulse Train	Pulse Train	No	No
Noise generator	No	No	No	Yes	Yes
Frequency accuracy	10 ppm	10 ppm	10 ppm	1 ppm	1 ppm
Arbitrary Waveforms					
Maximum sampling frequency	100 MS/s	100 MS/s	100 MS/s	125 MS/s	125 MS/s
Waveform length (points)	1 M	1 M	1 M	16 to 4 M	16 to 4 M
Waveform memory	Removable compact FLASH card	Removable compact FLASH card	Removable compact FLASH card	1 MByte memory	4 MByte memory
Vertical resolution	12 bit	12 bit	12 bit	14 bits	14 bits
Waveform sequencing (max. # of segments)	1024	1024	1024	4096	4096
Looping	Yes	Yes	Yes	Yes	Yes
Operating Modes					
Triggered	Yes	Yes	Yes	Yes	Yes
Gated	Yes	Yes	Yes	Yes	Yes
Burst	Yes	Yes	Yes	Yes	Yes
Frequency sweep	Yes	Yes	Yes	Yes	Yes
Selectable output filter	40 MHz Elliptic, 20 MHz Bessel, none	40 MHz Elliptic, 20 MHz Bessel, none	40 MHz Elliptic, 20 MHz Bessel, none	50 MHz, 25 MHz, both or none	50 MHz, 25 MHz, both or none
Modulation source	External dc–100 kHz	External dc–100 kHz	External dc–100 kHz	Internal dc–200 kHz	Internal dc–200 kHz
Modulation	AM, SCM,Tone	AM SCM,Tone	AM, SCM,Tone	AM,FM,FSK, Ramped FSK	AM,FM,FSK, Ramped FSK
Signal summing	Yes	Yes	Yes	No	No
VCO/VCA input	Yes	Yes	Yes	No	No
Phase lock to external analog signal	Yes	Yes	Yes	Yes	Yes
Multi-unit phase lock	Yes	Yes	Yes	Yes	Yes
General					
GPIB interface	Yes	Yes	Yes	Yes	Yes
RS-232 interface (conventional mode)	Yes	Yes	Yes	Yes	Yes
USB	Yes	Yes	Yes	Yes	Yes
Ethernet	No	No	No	No	Yes
Waveform software	Waveform Mgr. Plus	Waveform Mgr. Plus	Waveform Mgr. Plus	ArbExplorer software	ArbExplorer software
Recommended replacement for obsolete models				Wavetek 395	

Fluke. *Keeping your world up and running.*

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