

AX 4005/4010/4020/4040/4080/4012

Features AX 4005/4010/4020/4040/4080/4012

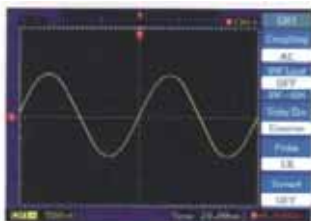
- .Using Direct Digital Synthesis (DDS) technology
- .Multi-waveforms (arbitrary is optional)
- .13-character highly visible VFD
- .100MHz equal-accuracy frequency counter
- .High resolution, high accuracy, high stability
- .Store / recall 10 panel setting
- .RS232 interface, GP-IB interface option

Specification AX 4005, AX 4010, AX 4020, AX 4040, AX 4080, AX 4012

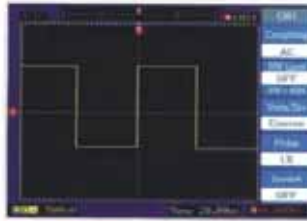
Main output	Output frequency	100 μ Hz ~ 5MHz (AX4005) 100 μ Hz ~ 10MHz (AX4010) 100 μ Hz ~ 20MHz (AX4020) 100 μ Hz ~ 40MHz (AX4040) 100 μ Hz ~ 80MHz (AX4080) 100 μ Hz ~ 120MHz (AX4012) sine, square (\leq 40MHz) sine ($>$ 40MHz) sine, square, triangle and arbitrary waves (100 μ Hz ~ 100kHz)	
	Output amplitude	1mVp-p ~ 10Vp-p (50 Ω load) ($f \leq$ 40MHz) 100 μ Vp-p ~ 3Vp-p (50 Ω load) ($f >$ 40MHz) 2mVp-p ~ 20Vp-p (1M Ω load) ($f \leq$ 40MHz) 200 μ Vp-p ~ 6Vp-p (1M Ω load) ($f >$ 40MHz)	
	Output wave	sine, square, pulse, triangle, ramp, ladder and etc. more than 30 waveforms	
	Output modulation	single frequency, sweep frequency, AM, FM, FSK, PSK	
	Wave length	8~16000 points	
	Wave accuracy	12bits	
	Sampling rate	300Ms/s	
	Frequency resolution	1 μ Hz	
	Frequency accuracy	$\leq \pm 0.0005\%$	
	Amplitude resolution	1 μ Vp-p	
	Amplitude accuracy	$\leq \pm 1\% + 0.2\text{mV}$	
	Amplitude flatness	$\pm 3\%$	
	Offset range	$\pm 10\text{V}$	
	Offset resolution	1 μ V	
	Offset error	$< \pm (1\% + 10\text{mV})$	
	AM modulation depth	1% ~ 120% adjustable	
	Phase range	0.1 ~ 360.0 $^\circ$	
	Phase resolution	0.1 $^\circ$	
	Sine wave	Harmonic distortion	-50dBc
		Distortion factor	$\leq 0.1\%$
Square wave	Rise time	$\leq 15\text{ns}$	
	SYMM.	0.1% ~ 99.9% adjustable	
40MHz ~ 120MHz	Output amplitude	13dBm	
	Amplitude flatness	$\pm 1\text{dB}$	
	Attenuation	0 ~ -76dB	
	Resolution	-0.1dB	
Arbitrary wave module (Option)	Frequency range	100 μ Hz ~ 100kHz	
	Wave length	8 ~ 16000 points	
	Resolution	10 bits	
Counter	Frequency range	1Hz ~ 100MHz	
	Counting capacity	$\leq 4.29 \times 10^9$	
Time base	Frequency	10MHz	
	Stability	$\pm 1 \times 10^{-6}/\text{d}$	
Power supply		110 ~ 127VAC $\pm 10\%$ / 220 ~ 240VAC $\pm 10\%$, 50Hz $\pm 2\text{Hz}$ / 60Hz $\pm 2\text{Hz}$	
Dimensions (W x H x D)		255 x 100 x 370mm	
Weight		2.5 kg	



Demonstration of Output Waveforms AX 4005/4010/4020/4040/4080/4012



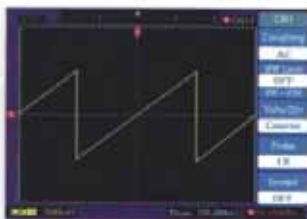
Sine Wave - 2V, 10kHz
Amplitude: $\geq 100 \mu$ Vpp
Frequency: 100 μ Hz ~ 120MHz



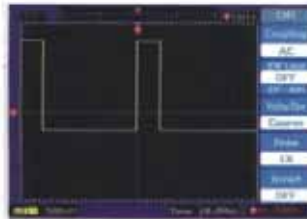
Square Wave - 2V, 10kHz
Amplitude: 100 μ Vpp ~ 20Vpp (High imp)
Frequency: 100 μ Hz ~ 40MHz



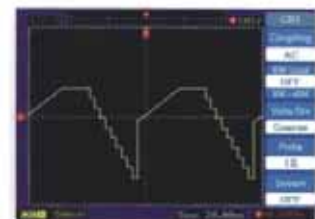
Triangle Wave - 2V, 10kHz
Amplitude: 100 μ Vpp ~ 20Vpp (High impedance)
Frequency: 100 μ Hz ~ 100kHz



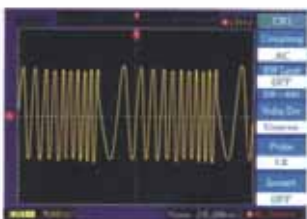
Sawtooth Wave - 2V, 10kHz
Amplitude: 2mVpp ~ 20Vpp (High impedance)
Frequency: 100 μ Hz ~ 100kHz



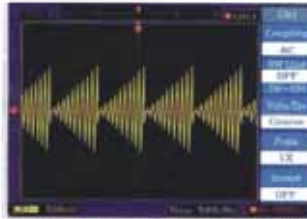
Pulse Wave - 2V, 10kHz
Amplitude: 2mVpp ~ 20Vpp (High impeda)
Frequency: 100 μ Hz ~ 100kHz



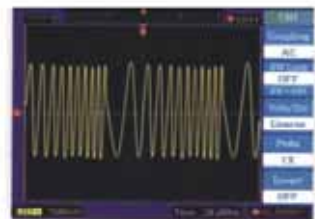
Combined Wave - 2V, 10kHz
Storage Waveform: 1 ~ 27 waveforms



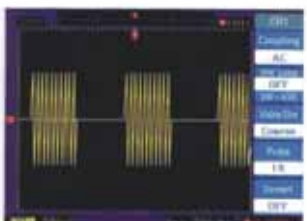
Sine Wave Frequency Modulation
FM mode adjustable parameter:
(Frequency deviation, Modulation frequency
trigger mode, waveform, INT/EXT)



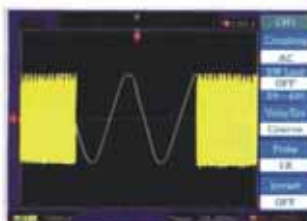
Sawtooth Wave Amplitude Modulation
AM mode adjustable parameter:
(Modulation depth, Modulation frequency
Waveform, INT/EXT)



Sine Wave Sweep
Sweep mode adjustable parameter:
(Linear/Logarithm, Start frequency, end
frequency, sweep time, trigger mode)



Burst Mode
Burst mode adjustable parameter:
(Trigger mode, Waveform quantity,
Space time, start phase)



FSK
FSK mode adjustable parameter:
(Frequency 1, Frequency 2, FSK time
Trigger mode)



PSK
PSK mode adjustable parameter:
(Phase 1, Phase 2, PSK time
Trigger mode)