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PeakTech® 4046 PROD-ID: P 4046

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2CH Arbitrary Waveform Generator, 1µHz - 160 MHz

This newly developed high-performance arbitrary waveform generator has excellent technical characteristics and a wide range of functions at a high output frequency of up to 160 MHz.

Of particular note here are the two equivalent output channels, the large number of stored arbitrary waveforms and the many types of modulation.

The waveform is graphically displayed in the color TFT display, which shows the selected item with guidelines, such as Frequency setting, period, amplitude, offset, polarity, phase shift angle and the different modulation types.

In addition to the frequency sweep, burst and modulation functions, this machine also has a 7-digit frequency counter with high measurement functions suitable for frequencies up to 350 MHz.

The high number of features and the ease of use of this device is ideal for nearly all tasks in research, development and education.

- Large 11 cm (4.3 ") TFT digital display for both channels
- Dual channel output with identical resolution
- 1µHz frequency resolution for the entire range
- High 500 MSa / s sampling rate with 14-bit vertical resolution
- Over 140 different standard and arbitrary waveforms (sin (x) / x, Gaussian, 1 / x, Noise etc.) integrated
- Many types of modulation (AM, FM, PSK, FSK, PM, PWM, SUM, ASK, 3FSK, 4 FSK)
- Channel Coupling, Sweep and burst function
- Integrated 350 MHz frequency counter with 7 digit resolution
- Software for remote control and waveform processing
- USB Host, USB Device and LAN interface
- Safety: EN 61010-1
- Accessories: Power cable, USB interface cable, Software for Windows 2000/XP/VISTA/7/8/10, BNC cable, Manual on CD



MANUAL

[PeakTech_4046_01_2017_DE.pdf \(1,681.3 kB\)](#)
[PeakTech_4046_01_2017_EN.pdf \(1,759.2 kB\)](#)

PICTURES

[4046_Front.jpg \(471.9 kB\)](#)
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FREQUENCY RANGE :	
Sine	1 μ Hz - 160 MHz
Square & Pulse	1 μ Hz - 50 MHz
Arbitrary	1 μ Hz - 30 MHz
Ramp	1 μ Hz - 5 MHz
Frequency Resolution	1 μ Hz; 12-digits
Accuracy	± 2 ppm+1 μ Hz
WAVEFORM :	
Standard Waveforms	Sine, Square, Rampe, Pulse, Noise, DC
Arbitrary Waveforms	137 Integrated Waveforms
SINE WAVEFORM :	
Harmonic Distortion (Sine)	≤ -60 dBc (< 10 MHz); ≤ -45 dBc (≥ 100 MHz)
Total Distortion (Sine)	$\leq 0.1\%$ (20 Hz ... 20 kHz, 20 Vpp)
SQUARE, PULSE AND RAMP :	
Edge-Time (Square)	≤ 8 ns
Duty Cycle (Square)	0.1% - 99.9%
Pulse Width	10 ns - 1000 s
Symmetry (Ramp)	0.0% - 100.0%
ARBITRARY WAVEFORM :	
Arbitrary Waveform Length	6 - 1M Points
Arbitrary Sampling Rate	500 MSa/s
Vertical Resolution	14 bits
AMPLITUDE SPECIFICATION :	
Amplitude Range	2 mVpp - 20 Vpp (≤ 40 MHz) ... 2 mVpp - 4 Vpp (≥ 120 MHz)
Accuracy	$\pm$ (setting value x1% + 2 mVpp)
Amplitude Resolution	0.1 mVpp - 2 mVpp
MODULATION OUTPUT (CHA & CHB) :	
Modulation Frequency	1 mHz ... 100 kHz
Modulation Depth	0% - 120%
Phase Deviation	0° - 360°
FSK, 3FSK, 4FSK Hop Frequency	1 μ Hz ... Max. Frequency @ 1 mHz...1 MHz Hop Rate
SWEEP (CHA & CHB) :	
Sweep Time	1 ms ... 500 s
Sweep Type	Linearity, Logarithm
BURST MODE :	
Waveform	Sine, Square, Sawtooth...
Period	1 μ s - 500 s @ 1 - 1000000
Start-End Phase	0° - 360°
Trigger Source	Internal, External, Manual
CHANNEL COUPLING :	
Frequency Coupling	Freq. Ratio, Difference

Amplitude Coupling	Amp. Difference, Offset Difference
FREQUENCY COUNTER :	
Measurement Range	0.1 Hz - 350 MHz
Resolution	7 Digits
Pulse Width Measurement	100 ns ~ 20 s
Duty Cycle Measurement	0.1% ~ 99.6%
GENERAL SPECIFICATIONS :	
Interfaces	USB-Host, USB Device, LAN
Operation Voltage	100 ~ 240 V AC, 45 ~ 65 Hz, < 30 VA
Dimensions (WxHxD)	367 x 256 x 106 mm
Weight	3,7 kg
EAN-13	4250569403804

