

BK Precision Frequency Counters 200M/1GHZ

Part Nos. 01BK1803 and 01BK1804

Back to [Frequency Counters](#) Main Page

Counters

B+K PRECISION counters provide versatility and reliability for a broad spectrum of laboratory and service applications. In addition to frequency measurement, most B+K PRECISION counters also provide period and totalize measurement capabilities.

Model 1803D & 1804D

- Selectable gate times 0.1 sec and 1.0 sec
- 7 digit LED display
- Highly accurate time base
- Compact bench top AC powered counter
- Wide Measuring range up to 200 MHz(model 1803D) only, and up to 1.0GHz(model 1804D) only

COUNTER TERMS

FREQUENCY RATIO—Measurement of the frequency ratio of two different input signals as applied to two different input channels.

PERIOD—The time required for a single cycle of the input event to occur. Measured in seconds or fractions of a second and is the reciprocal of frequency. (i.e., Time = 1/Frequency).

PERIOD AVERAGING—Sampling a number of input periods and displaying the average of these sampled periods.

PRESCALER—A frequency divider circuit which extends the high frequency measurement capability of a counter.

SENSITIVITY—The lowest amplitude (strength) signal that the counter will count.

TCXO—Temperature Compensated Crystal Oscillator. The time base of the highest quality frequency counters is a TCXO, which provides high accuracy and stability.

TIME BASE ACCURACY—The accuracy of a counter is determined by the stability of its internal time base. Stability is measured in parts per million (ppm), while undergoing temperature and operating voltage variations.

TIME INTERVAL—Measurement of the time difference from the edge of one channel's input signal to the edge of another channel's input signal.

TOTALIZE—Continuous counting of the number of events that have occurred since the counter was reset.

Specifications		
	1803D	1804D
Range	200MHz	1.0GHz
FUNCTIONS		
Frequency	√	√
Totalize		
Period		
Time Interval		
Ratio		
Time Base Stability	±0.1ppm	±0.1ppm
Best Resolution	1 Hz	1Hz
No. of Digits	7	7
Display Hold		
Low Pass Filter		
Sensitivity	25 mVrms	50mV
Remote Start-Stop		
Self Test		
FREQUENCY		
KHz MODE	10Hz to 25MHz sinewave	10Hz to 16MHz
MHz MODE	10MHz to 200MHz sinewave	10MHz to 1.0 GHz
ACCURACY	± Time base accuracy +1 count	
PERIOD CHARACTERISTICS		
RANGE	Does not apply	Does not apply
CONTROL		
INPUT CHARACTERISTICS		
SENSITIVITY	25 mV rms, 5Hz to 30 MHz, 50 mV rms 30 MHz to 100 MHz	50mV (10Hz to 200MHz)
IMPEDANCE	Direct: 1MΩ	HF=1MΩ, VHF=50Ω
ATTENUATOR		
COUPLING	AC	AC
FILTER		
PRESCALE		
SENSITIVITY	Does not apply	Does not apply
IMPEDANCE		
COUPLING		
MAXIMUM INPUT		
TOTALIZE START/STOP INPUT CHARACTERISTICS		
LOGIC LEVELS		
LOADING		
TIME BASE CHARACTERISTICS		
STANDARD TYPE	Crystal controlled oscillator	
FREQUENCY	10 MHz	5.24288MHz
STABILITY	±0.1 ppm	±0.1 ppm
LINE VOLTAGE STABILITY		
TEMPERATURE STABILITY	< ±10 ppm from 0° to 50°C, 2 ppm 20°C to 30°C	< ±10 ppm from 0° to 50°C
EXTERNAL TIME BASE INPUT		
DISPLAY CHARACTERISTICS		
DISPLAY	0.43" seven segment LED - 7 digits	0.43" seven segment LED - 7 digits
LED INDICATORS	N/A	N/A
GENERAL		
POWER REQUIREMENTS	9VDC 300mA	7-10VDC with 800mA
DIMENSIONS (H x W x D)	2.1x 9.06x6.18" (54 x 230 x 157mm)	2.1x 9.06x6.18" (54 x 230 x 157mm)
WEIGHT	24 oz (680 g)	24 oz (680 g)
Accessories		
One Year Warranty		
SUPPLIED: Instruction Manual, all models; AC adapter for model 1803D		
OPTIONAL:	PR-37A x1/x10/REF Probe	AT-21 antenna Kit