ELECTRONIX EXPRESS
Tel. (732) 381-8020 • Fax (732) 381-1006
RSR Electronics, Inc.
Tel. (732) 381-8777 • Fax (732) 381-1572

365 Blair Road
Avenel, NJ 07001, U.S.A.
http://www.elexp.com (email: electron@elexp.com)

BK Precision 2.7 GHz Frequency Counter

Part No. 01FC1856

Back to **1856D** *Main Page*

Specifications	**model 1856D**							
Technical Specifications								
Input A Characteristics								
Frequency Range	0.1 Hz to 100 MHz (DC coupled) 30 Hz to 100 MHz (AC coupled)							
Sensitivity	30 mV rms							
Coupling	AC or DC selectable.							
Impedance	1 M resistance shunted by < 40 pF							
Attenuator	x1 or x10 switch selectable							
Low Pass Filter	-3 dB point at approx. 100 KHz, switch selectable							
Accuracy	± Time base error ± resolution (Table 1)							
Resolution and Number of Displayed Digits								
Time Base Selector	INT	EXT	INT		EXT	INT	EXT	INT	EXT
Gate Time	0.01S		0.1S			1S		10S	
Number of Display Digits	5	6	6		7	7	8	8	9
Frequency (Input A)	Resolution								
0.1 Hz-0.99 Hz	10 µHz	1 µHz	1 µHz		0.1 µHz	0.1 µHz	10nHz	10nHz	1nHz
1 Hz-9.9 Hz	0.1mHz	10 µHz	10 µHz		1 µHz	1 µHz	0.1 µHz	0.1 µHz	10nHz
10 Hz-99 Hz	1 mHz	0.1mHz	0.1mHz		10 µHz	10 µHz	1 µHz	1 µHz	0.1 µHz
100 Hz-999 Hz	10mHz	1 mHz	1 mHz		0.1mHz	0.1mHz	10 µHz	10 µHz	1 µHz
1 KHz-9.9 KHz	0.1 Hz	10 mHz	10 mHz		1 mHz	1 mHz	0.1 Hz	0.1 mHz	10 µHz
10 KHz-99 KHz	1 Hz	0.1 Hz	0.1 Hz		10 mHz	10 mHz	1 mHz	1 mHz	0.1mHz
100 KHz-999 KHz	10 Hz	1 Hz	1 Hz		0.1 Hz	0.1 Hz	10 mHz	10 mHz	1 mHz
1 MHz-9.9 MHz	100 Hz	10 Hz	10 Hz		1 Hz	1 Hz	0.1 Hz	0.1 Hz	10 mHz
10 MHz-99 MHz	1 KHz	100 Hz	100 Hz		10 Hz	10 Hz	1 Hz	1 Hz	0.1 Hz
100MHz	10 KHz	1 KHz	1 KHz		100 Hz	100 Hz	10 Hz	10 Hz	1 Hz

(Table 1)

Max. Input Voltage Level

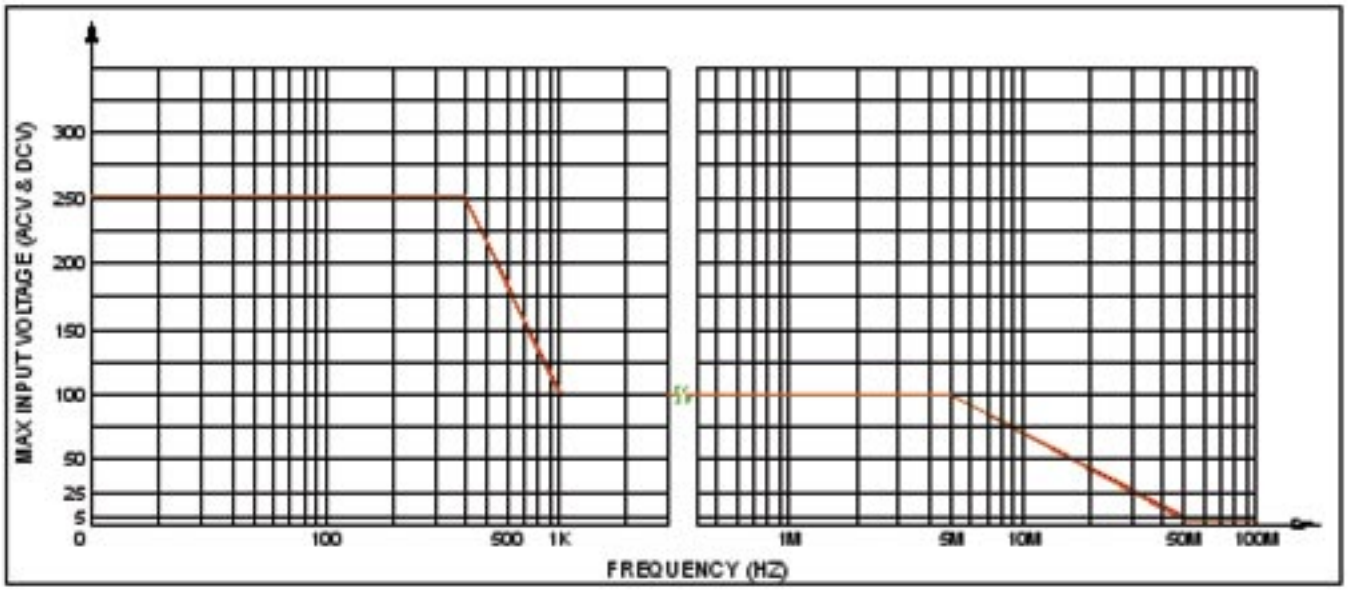

Fig. 1 Max. Input Level (Input A)

Period Range	10 nS to 10 S								
Display	n/µ/m (nano/micro/milli) Sec. with decimal point								
Total Range	10 Hz to 30 MHz								
Capacity	0 to 999 999 999, OVER FLOW: "OF"								
RPM Range	600 to 600 x 10^6 RPM, OVER FLOW: "OF"								
Input C Characteristics									
Frequency Range	80 MHz to 3.5 GHz								
Sensitivity	15mV from 80 MHz to 2000 MHz 20mV from 2000 MHz to 3.0 GHz 30mV from 3.0GHz to 3.2GHz 50mV from 3.2GHz to 3.5GHz								
Coupling	AC only								
Impedance	50 ±5%								
Max. Input Level	3 V rms sine wave								
Resolution and Number of Displayed Digits									
Time Base Selector	INT	EXT	INT		EXT	INT	EXT	INT	EXT
Gate Time	0.01S		0.1S			1S		10S	
Number Of Displayed Digits	5	6	6		7	7	8	8	9
Frequency (Input C)	Resolution								
100 MHz-999 MHz	10 KHz	1 KHz	1 KHz		100 Hz	100 Hz	10 Hz	10 Hz	1 Hz
1 GHz-3.7 GHz	100 KHz	10 KHz	10 KHz		1 KHz	1 KHz	100 Hz	100 Hz	10 Hz
(Table 2)									
Time Base Characteristics									
Type	TCO (Temperature Controlled Oscillator)								
Frequency	10.000000 MHz								
Stability	±1 PPM (±1 count)								
Line Voltage Stability	Less than ± 1 PPM with ± 10% line voltage variation								
Temperature Stability	±5 PPM from 0°C to 50°C								
Max. Aging Rate	±5 PPM/year								
Int. Std. Out Level Capacitance	10 MHz (Internal Standard Frequency Output) 1 V p-p or more. TTL (10TTL) 15pF								
Ext. Std. In Level Impedance	10 MHz (External Standard Frequency Input) 1.5Vrms to 5Vrms Approx. 600								
Display Characteristics									
Display	Nine Digit 0.56" LED with M (Mega) or K (Kilo) Hz; nano, micro, or milli (n/µ/m) Sec.; GT (GATE TIME); H (HOLD); and OF (OVERFLOW) indicators. FUNCTION and GATE TIME are user selected. OF display is shown when the count exceeds 999 999 999.								
Hold	In the FREQUENCY, PERIOD, TOTAL, RPM modes, measurement in progress is stopped; and the last complete measurement is displayed. When HOLD is released, a new measurement begins.								
Gate Time	Depending on input frequency < 10 mS --------- Somewhere between 0.9 and 9mS < 0.1 S ---------- Somewhere between 9 and 90mS < 1 S ---------- Somewhere between 90 and 900mS < 10 S ---------- Somewhere between 0.9 and 9S								
Note: Last measurement display will remain for 10 seconds after signal off.									

Dimensions and Weight	
Dimensions (WxHxD)	9.4 x 3.5 x 10.6” (240 x 90 x 270mm)
Weight (Approx)	5.5lbs. (2.5 kg.)
Equipment Ratings	
Power	115VAC±10%, 50-60 Hz, 9 W
Plug and Socket	3 wire ac power plug and 3 wire outlet
Fuse	500 mA/ 250V F type
Operating Environment	
Temperature	0 °C to +40 °C (Accuracy Specified at 23 °C ± 5 °C)
Humidity	up to 85% RH (Relative Humidity) to 40 °C without temperature extremes causing condensation within the instrument.
Storage Environment	
Temperature	-20°C to +70°C
Humidity	below 85% RH
Insulation Category II	Portable equipment of local level.
Pollution Degree	2
Protection to IEC 529	Ordinary
Note: Specifications are subject to change without notice.	