

## Frequency Counter

# Protek U3003A

Protek U3003A Frequency Counter realizes intelligent measurement using microprocessor technology, Mutual counter technology, high measurement accuracy, wide frequency measurement range (1Hz ~ 3000MHz), high sensitivity gate time measurement is possible. Further, the loss-pass filter and attenuators on the front circuit of this counter are suitable for communication research and development.



## Features

- Microprocessor to realize intelligent measurement
- Low pass filter and attenuator in pre-position circuit
- Count backwards, realize the equivalent accuracy
- Measurement with fast speed and high sensitivity
- Micro SCM to measure frequency period and intelligent the management
- LSI design and CPLD application to diminish the components qty
- And the average working time be not less than 10000h without fault
- Fine outline, Small, light, easy to handle

## Specifications

Specification	
Frequency Measurement Range	1Hz ~ 3GHz
Period Measurement Range	10ns ~ 1s
Capacitance Counter	10 <sup>8</sup> - 1

## Specifications

Description	Protek U3003A
Frequency Measurement	1Hz ~ 3GHz
Cycle Measurement	10ns-1s
Count Capability	108-1 (역시 8제공 필요)
Input Impedance	Channel A 1M $\Omega$ //40pF Channel B 50 $\Omega$
Input Coupling mode	AC
Waveform Adaptability	Sine, triangle, pulse
<b>Dynamic Input Voltage</b>	
Channel A	30mVrms ~ 250Vp ~ p
Channel B	30mVrms ~ 1Vrms
<b>Frequency Measurement</b>	
Channel A	1Hz ~ 10MHz/100MHz
Channel B	100MHz ~ 1.5GHz/3GHz
Channel A low pass filter	-3dB bandwidth is about 100kHz
Channel A attenuation	$\times 1$ or $\times 20$
Measurement Error	$\pm$ time base error $\pm$ trigger error $\pm$ LSD LSD = 100ns/(Strobe time) $\times$ measured frequency (or measured period)
Trigger Error	When the measured signal noise is 40dB , trigger error $\leq 0.3\%$
Strobe time	10ms, 100ms, 1s, 10s
Count capability	0 ~ 99,999,999
Crystal vibrator freq	10MHz
Freq stability of Crystal vibrator	$1 \times 10^{-5}/d$
External Input Frequency	10MHz
Ext Freq Input Amplitutde	$> 1V_{p-p}$
Display	8 digits high bright, 0.5 inch numeral tube, 3 units LED indicator, a strobe LED indicator and a ext freq mark LED indicator:
Power Supply	AC 220V(1 $\pm$ 10%), 50Hz((1 $\pm$ 5%), 20VA
<b>Mechanic Character</b>	
Standard Products	Manual, Power Cable, RF Cable(Optional)
Operating Conditions	0~ 40°C $\leq 40\% \sim 80\%$
Dimension	90H $\times$ 280W $\times$ 240D (mm)
Weight	$\pm 1.5$ kg