

U62 Series

High Accuracy, Speed & Performance Universal/Frequency Counter

Interface:

STD. USB & LAN / OPT. GPIB
(Conform to USBTMC & IEEE-488.2)

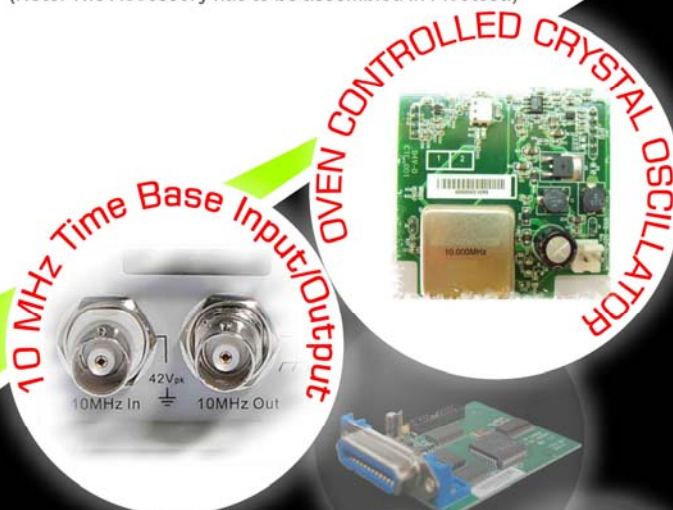


U6220A 400 MHz Frequency Counter - Single Channel -

- CH 1 Capacity: 1 mHz ~ 400 MHz (Standard)
 - Freq. Resolution: 12 Digits with 1s Gate Time
 - High Accuracy Timing Resolution: 40ps
 - Measurement Functions:
 - Frequency
 - Period
 - Totalize
 - Peak Voltage (100 Hz ~ 300 MHz)
 - Time Base Reference Stability: < 1 ppm
 - Time Base: 10 MHz Input/Output
 - Display: Multi-Parameter of Results
 - Webserver: Support
 - Free Software: PT-TOOL & PT-LINK
 - Dimension & Weight: (for Rack)
214.6(W) x 88.6(H) x 346.9(D) mm, 2887 g
 - Optional Accessory:
 - M3500-opt04: GPIB Card
- (Note: The Accessory has to be assembled in Picotest.)

U6200A 6 GHz Universal Counter - 3 Channels -

- CH 1/2 Capacity: 1 mHz ~ 400 MHz (Standard)
 - CH 3 Capacity I: 375 MHz ~ 6 GHz (Standard)
 - CH 3 Capacity II: 250 MHz ~ 20 GHz (Optional)
 - Freq. Resolution: 12 Digits with 1s Gate Time
 - High Accuracy Timing Resolution: 40ps
 - Measurement Functions:
 - Frequency & Ratio
 - Time Interval
 - Period
 - Pulse Width
 - Rise/Fall Time
 - Phase
 - Duty Cycle
 - Totalize
 - Peak Voltage (100 Hz ~ 300 MHz)
 - Time Base Reference Stability: < 1 ppm
 - Time Base: 10 MHz Input/Output
 - Display: Multi-Parameter of Results
 - Webserver: Support
 - Free Software: PT-TOOL & PT-LINK
 - Dimension & Weight: (for Rack)
214.6(W) x 88.6(H) x 346.9(D) mm, 3130 g
 - Optional Accessories:
 - U6200-opt01: High Stability OCXO
 - U6200-opt02: 20 GHz Input Channel
 - U6200-opt04: Rear Panel Input Module (CH1/2)
 - U6200-opt05: Rear Panel Input Module CH1/2/3
 - M3500-opt04: GPIB Card
- (Note: The Accessories have to be assembled in Picotest.)



For more information, link our website.

<http://www.picotest.com.tw>

CH1/2 Input Specifications

DC Coupled:	1 mHz ~ 400 MHz
AC Coupled:	200 KHz ~ 400 MHz (50 Ω) 30 Hz ~ 400 MHz (1 M Ω)
FM Tolerance:	25%

Voltage Range & Sensitivity

1 mHz ~ 225 MHz:	20 mVrms $\pm$ Vac + (Medium & High) 25 mVrms $\pm$ 5 Vac + dc (Low)
225 MHz ~ 400 MHz:	30 mVrms $\pm$ 5 Vac + dc
400 MHz ~ 450 MHz:	40 mVrms $\pm$ 5 Vac + dc

CH1/2 Input Characteristics

Impedance:	1 M Ω ~ 50 M Ω
ATT x 1, 1M Ω Capacitance:	24 pF
ATT x 10, 1M Ω Capacitance:	15 pF
Coupling:	AC/DC
Low-Pass Filter:	100 KHz (or Disabled) Internal, 200 μ Vrms -20 dB at > 1 MHz Noise (Typical)
Input Sensitivity:	Selectable btw. Low, Medium (Default) or High Medium (Approx. 1.35 x High Sensitivity) Low (Approx. 1.7 x High Sensitivity)

Voltage Range & Sensitivity (Single-Shot Pulse)

Pulse Width 1.5 ~ 10 ns:	80 mVpp ~ 10 Vpp
Pulse Width > 10 ns:	50 mVpp ~ 10 Vpp

Damage Level

(DC) 400 MHz, 50 Ω :	12 Vrms
0 ~ 3.5 KHz, 1 M Ω :	350 Vdc + ac pk
3.5 KHz ~ 100 KHz, 1 M Ω :	350 Vdc + ac pk linearly derated to 12 Vrms
100 KHz ~ 100 MHz, 1 M Ω :	12 Vrms

CH3 Input Specifications & Characteristics

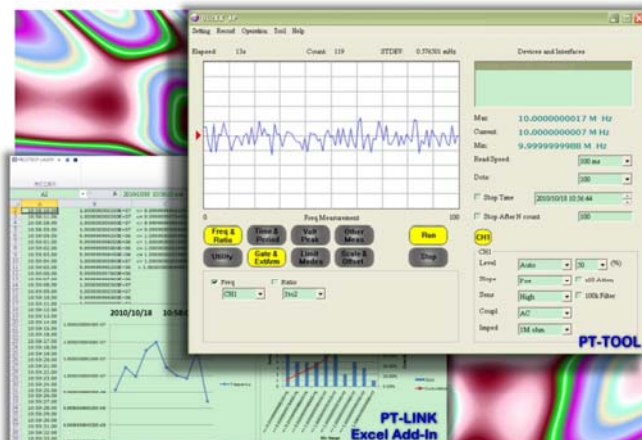
Frequency Range:	375 MHz ~ 6 GHz / NS
Impedance:	50 Ω / NS
Coupling:	AC / NS
VSWR:	< 2.5:1 / NS
Damage Level:	+25 dBm, DC $\pm$ 12 V / NS

Internal Time Base Stability

	Standard (0 $^{\circ}$ ~ 50 $^{\circ}$ C)	High Stability Oven (U6200-opt01)
Temperature Stability, 25 $^{\circ}$ C:	$\pm 1 \times 10^{-6}$	(NS) $\pm 5 \times 10^{-9}$
(Aging Rate)		(NS)
Per Day:	---	$\pm 8 \times 10^{-10}$
Per Month:	$\pm 0.2 \times 10^{-6}$ (Typical)	---
Per Year:	$\pm 1 \times 10^{-6}$ (Typical)	$\pm 8 \times 10^{-8}$
Turn-On Stability vs. Time (30 minutes):	---	(NS) $\pm 2.0 \times 10^{-8}$ (Refer to 24 Hr.)

Calibration:	Electronic	Electronic
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Remote Control Application through the free software



Measurement Specifications

Frequency & Period CH1/2: 1 mHz ~ 400 MHz (2.5 ns ~ 1000 s)			
STD CH3:		375 MHz ~ 6 GHz (0.166 ns ~ 2.6 ns)	
Frequency Ratio:		CH1/CH2, CH1/CH3, CH2/CH1, CH3/CH1 Measurement is specified over the full signal range of each input. Results Range: 10E - 10 ~ 10E + 11	
Time Interval:		Measurement is specified over the full signal ranges of CH 1 & 2. The width of the pulse must be greater than 1 ns, frequency range to 300 MHz. Results Range: -0.5 ns to 10E + 5 s Resolution: 40 ps RMS Resolution: 120 ps	
Pulse Width Time:		Measurement is specified over the full signal ranges of CH 1. The width of the pulse must be greater than 1 ns, frequency range to 300 MHz. Results Range: 1.5 ns to 10E + 5 s Resolution: 40 ps RMS Resolution: 120 ps	
Rise/Fall Time:		Measurement is specified over the full signal ranges of CH 1. The width of the pulse must be greater than 1 ns, frequency range to 300 MHz. Results Range: 2 ns to 10E + 5 s Resolution: 40 ps RMS Resolution: 120 ps	
Phase:		Measurement is specified over the full signal ranges of each input. The width of the pulse must be greater than 1 ns, frequency range to 300 MHz. Results Range: -180° ~ +360° Resolution: 40 ps RMS Resolution: 120 ps	
Duty Cycle:		Measurement is specified over the full signal ranges of CH 1. The width of the pulse must be greater than 1 ns, frequency range to 300 MHz. Pulse Selection: Positive or Negative Results Range: 0 ~ 1 Resolution: 40 ps RMS Resolution: 120 ps	
Totalize:		Measurement is specified over the full signal ranges of CH 1. The width of the pulse must be greater than 1 ns, frequency range to 400 MHz. Results Range: 0 ~ 10E + 15 Resolution: 1 count Results Range: -5.1 V ~ +5.1 V Resolution: 2.5 mV	
Peak Voltage:		Range	Resolution
DC Signals:		---	15 mV + 2 % of V
DC ATT x 10:		---	150 mV + 2 % of V
1 Vp-p 50 Ω, ATT OFF		100 Hz ~ 10 KHz 10 KHz ~ 5 MHz 5 MHz ~ 80 MHz 80 MHz ~ 300 MHz	15 mV + 2 % of V 15 mV + 4 % of V 15 mV + 7 % of V 15 mV + 15 % of V
			Peak-To-Peak Amplitude Greater than 200 mV

General Specifications

Item	Description	Item	Description
Power Supply	A. 100V/240V $\pm$ 10 % B. 100V/120V $\pm$ 10 %	Warm-Up Time	1 Hours
Power Cord Freq.	A. 50 Hz/60 Hz $\pm$ 10 % B. 400 Hz $\pm$ 10 %	Language	SCPI-1993, IEEE-488.2
Power Consumption	50 VA Max.	Dimension	214.6(W) x 88.6(H) x 346.9(D) mm
Operating Environment	0 ~ 55 $^{\circ}$ C	Weight	3130 g / 2887 g
Storage Environment	-40 $^{\circ}$ C ~ 70 $^{\circ}$ C	Safety	IEC61010-1 EN61010-1
Operating Altitude	Up to 2000 m	EMC	EN61326
Operating Humidity	Max. Relative Humidity 80 % for Temp. up to 31 $^{\circ}$ C Decreasing Linearly to 50 % Relative Humidity at 40 $^{\circ}$ C	Interface	STD. USB / LAN OPT. GPIB
		Warranty	1 Year
		Certificate	CE
		Recycle Level	

1. NS means the function is "Not Supported" by U6220A.

For more information, please refer to the user's manual.

The specifications are subject to change without notice due to design improvements.