TECSTAR Electronics Ltd
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T: +44 (0)1480 399499 F: +44(0)1480 399503 e-mail:sales@tecstar.co.uk www.tecstar.co.uk
European distributor for Kenwood & Tecstar test and measurement, PrismSound audio a

FC2500 2.5 GHz Universal Frequency Counter

The FC 2500 is a microprocessor controlled portable universal frequency counter in a compact low cost instrument. The design incorporates an LED back light 16x2 LCD giving clear easily read characters. The frequency range is 5 Hz to 2.5 GHz and measurement functions include frequency, period, ratio, pulse width and count. The instrument uses a reciprocal counting technique to provide high resolutions, normally 7 significant digits of answer are produced per second of measurement time. A temperature controlled crystal oven provides high measurement accuracy and stability.

- *Simple operation*
- *RS232 interface as standard*
- *Temperature controlled crystal oven for high accuracy and stability*



FEATURES

- *5Hz to 2.5GHz in two overlapping ranges*
- *Trigger control for high mark space pulse measurement*
- *High sensitivity across the frequency ranges*
- *Frequency, period, ratio, pulse width and pulse count*
- *Reciprocal counting for high resolution at low frequencies*
- *Microprocessor controlled*
- *Optional PC software for additional features*
- *Low cost providing the optimum performance*
- *Backlit LCD display provides concise readout*

Measurement – Range A

Measurement range	
Frequency	5Hz to 25MHz (coupling: AC)
Period	5Hz to 25MHz (coupling: AC)
Gate Times	0.1S 1S 10S
Sensitivity	Max 15mV rms 15Hz to 25MHz
	Typically 5mV rms
	Pulse 50mV 0Hz to 25MHz
Impedance	1M Ohm // 25pF
Maximum input voltage	50V rms 5Hz to 50Hz
	1V rms 50Hz to 25MHz
Accuracy	+/- 1 count +/1 timbase accuracy
Low pass filter	100kHz , –3dB

Measurement – Range B

Measurement range	
Frequency	20MHz to 2500MHz (coupling: AC)
Period	20MHz to 2500MHz (coupling: AC)
Gate Times	0.1S 1S 10S
Sensitivity	Max 50mV rms 20MHz to 2500MHz
	Typically 15mV rms

Impedance	50 Ohm nominal
Maximum input voltage	1V rms 20MHz to 2500MHz
Accuracy	+/- 1 count +/1 timebase accuracy

Frequency– Range A

Measurement range	5Hz to 25MHz (coupling: AC)
Displayed Resolution	5.000000Hz to 25.00000MHz At least 7 digits displayed per second of measurement time.

Frequency– Range B

Measurement range	20MHz to 2500MHz (coupling: AC)
Displayed Resolution	10Hz to 1KHz depending on measurement time

Gate Time	Resolution	Readout	Units
0.1S	1KHz	_____ .001	MHz
1S	100Hz	____.0001	MHz
10S	10Hz	__ .00001	MHz

Period– Range A

Measurement range	5Hz to 25MHz (coupling: AC)
Displayed Resolution	200.00000mS to 99.999999nS depending on frequency and gate time. At least 7 digits are displayed per second of measurement time.

Period– Range B

Measurement range	20Mz to 2500MHz
Displayed Resolution	1pS to 100pS depending on measurement time

Ratio A/B

Measurement range	A: 5Hz to 25MHz B: 20MHz to 2500MHz
Displayed Resolution	The answer is displayed with 7 significant digits irrespective of frequency and measurement time.

Pulse Range A

Mode:	Pulse Low: falling to rising edge. Pulse High: rising to falling edge.
Measurement range:	200nS to 1Sec
Resolution:	100nS
Measurement Time:	The selected gate time determines the inter-measurement time.

Count Range A

Measurement range	5Hz to 2MHz
Displayed Resolution	0 to 99999999 pulses above 8 digits OVERFLOW is indicated
Minimum Pulse Width	25nS

Timebase

Oscillator frequency	TCXO 10MHz
Initial accuracy	+/-1ppm
Ageing	<+/-1ppm/year(pre aged)
Stabilisation	<+/-1ppm 5° C to 35° C After 10 minutes warm up

RS232 interface

All instrument functions are accessible via remote control and all measurements can be read via remote control.

Baud rate	9600
Data bits	8
Parity	No parity

Stop bits	1 stop bit
Mains requirement	
AC input	115V or 230V +/-15% 47 to 63Hz
Power consumption	25VA max. Installation category II

General

Electrical safety	Complies EN61010-1
EMC	Complies EN55011 EN500082-1
Environmental	Indoor use altitude to 2000m Pollution deg.2
Operating range	+5°C to +40°C, 20% to 80% RH
Storage range	-10°C to 65°C
Size (Exc. handle)	150(L) x 206(W) x 74(D) mm
Size (Inc. handle)	245(L) x 244(W) x (74(D) mm
Weight	1kg

Send mail to sales@tecstar.co.uk with questions or comments about this web site.
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