Programmable 2.4GHz Universal Counter

- Highly accurate frequency measurements to 2.4GHz
- Measures Frequency, Period, Duty Cycle, RPM, Frequency ratio, Difference frequency, Time interval and Totalize
- Nine measurement functions
- Plots trend graph on LCD display
- Compare, Relative Error and Min/Max functions
- Standard RS-232 with optional GPIB interface
- Eight setup screens may be saved and retrieved from memory
- Software for controlling, displaying data and data logging
- Operates on all line voltages from 85V to 270V without any changes



C3100

SPECIFICATIONS

Frequency Measurement

Freq A

Ranges: DC coupled: 0 to 120MHz AC coupled: 10Hz to 120MHz

Resolution: 0.00001Hz @ 200Hz Gate Times: 50ms to 10s (20 settings) Accuracy: ±2PPM; Coupling: AC or DC Trigger Level: ±1.8V in a scale from -99 to +99

Freq B

Ranges: DC coupled: 0 to 120MHz
AC coupled: 10Hz to 120MHz
Resolution: 0.00001Hz @ 200Hz
Gate Times: 50ms to 10s (20 settings)
Accuracy: ± 2PPM; Coupling: AC or DC
Trigger Level: ±1.8V in a scale from -99 to +99

Freq C

Ranges: 100MHz to 2.4GHz
Resolution: 100Hz @ 500MHz
Gate Times: 50ms to 10s (20 settings)
Accuracy: ±2PPM + 1 count
Coupling: AC only

Totalize

Input: CH A

Frequency Range: DC to 10MHz Count Capacity: 0 to 99,999,999 counts

Resolution: 1 count Accuracy: ±1 count

Trigger Level: Auto

Time Interval (A→B)

Input: CH A and CH B Range: 0.5µs to 200,000µs Minimum Pulse Width: 250ns

Resolution: 1µs

Accuracy: ±1 count + timebase accuracy

Ratio (A/B)

Inputs: CH A and CH B

Range: CH A: 10MHz to 150MHzCH B: 0.1MHz to 10MHz

Resolution (0.000001)

Duty Cycle

Input: CH A

Measurement Range: 0.01% to 99.99% Frequency Range: 0 to 100kHz

RPM

Input: CH A

Measurement Range: 0 to 600,000 RPM

Minimum Pulse Width: 250ns Resolution: 0.1 RPM

Input Characteristics

Channel A & B

Frequency Range: 0 to 120MHz

Sensitivity: 25mV

Input Impedance: $1M\Omega + 35\mu F$ capacitance

Attenuator: X1, X10

Maximum Input Volts: 250V DC or AC peak

Channel (

Frequency Range: 100MHz to 2.4GHz (usable to 2.7GHz)

Sensitivity: 25mV RMS (100MHz to 2.4GHz)

Maximum Input voltage: 5V DC or AC peak

Attenuator: None Input Impedance: 50Ω

Reference Timebase Oscillator

Standard Frequency: 10MHz, 4.194304MHz Frequency Stability: ±5.0 PPM Max Aging Rate: ±1.0 PPM Max/Yr Temperature: -30 to +60°C

Storage Temperature Range: -40 to +85°C

Software

The supplied software is a Windows®-based program, which runs under Windows 95/98/ME/XP/2000. It allows the user to set the Instrument Parameters from the PC via the RS-232 interface and provides time stamped data logging for all functions.

General Specifications

Display: 128 × 64 pixel super twist LCD

Line Voltage: AC input Volts: 85 to 270 V AC ±10%

Line Frequency: 48Hz to 66Hz Power Consumption: 15W

Operating Temperature: 0 to 40°C (32 to 104°F) Size: 3.3" H x 11.6" W × 11.0" DWeight: 4.4 lbs. Supplied Accessories: Manual, Line cord, BNC cable,

Software, RS-232 cable

Optional Accessory: GPIB (installed)