

6.0 GHz, with TCXO, micro SD card datalogger, Bench type

FREQUENCY COUNTER

Model : FC-6000SD

ISO-9001, CE, IEC1010



Lutron

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The Art of Measurement

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FEATURES

* TCXO (temperature compensated crystal oscillator) time base, high stability & accuracy.
* High sensitivity for the VHF & UHF frequency measurement, useful for the CB amateur.
* Wide measuring range up to 6.0 GHz.
* Used the exclusive Microprocessor IC offered the intelligent function: Frequency, Period, Clock Width & Duty Multi resolution, Data hold, Relative measurement, Data record (Max., Min., Average reading).
* 4.3 " TFT LCD .
* 0.1 Hz resolution for 10 MHz.
* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* Power supply from battery or AC to DC 9V adapter.
* RS 232 PC serial interface.

General & Electrical Specifications (23 ±5 °C)

Circuit	4.3 " TFT LCD 480 x 272 Dots.
Measurement	Frequency, Data hold, Relative, Memory (max., min., average), Period, Clock Width & Duty
Range	6.0 GHz 950 MHz to 6000 MHz (INPUT A) 1 GHz 10 MHz to 1 GHz.(INPUT B) 10 MHz & Period 10 Hz to 10 MHz(INPUT C) Clock width&Duty 10 Hz to 100 KHz(INPUT C)
Resolution	Ref. the following "Table for Resolution & Sample Time".
Sampling Time	
Sensitivity	6 GHz ≤ 30 mVrms(950 MHz to 6 GHz).
(0 dB Function)	1 GHz ≤ 30 mVrms(10 MHz to 1 GHz).
	10 MHz & Period ≤ 15 mV rms.(10 Hz to 10 MHz)
Max. functional signal input (Sensitivity set to -20 dB position)	6 GHz ≤ 1 Vrms(950 MHz to 1.5 GHz) ≤ 4 Vrms(1.6 GHz to 6 GHz) 1 GHz ≤ 4 V rms 10 MHz , ≤ 15 Vrms Period , Clock width & Duty 3Vpp ~ 5 Vpp
Over-input (Max. signal will not hurt the circuit)	6.0 GHz & 1 GHz range : Max.4 V rms. 10 MHz & Period, Max. 15 Vrms
Time Base	1 PPM (- 20 to 70 °C).
Stability vs. Temp.	
Frequency Accuracy	± (2 PPM reading + 1 d) * at 23± 5 °C
Width/Duty Accuracy	± (3 % reading + 20d) * at 23± 5 °C
Time Base circuit	20 MHz, TCXO (temperature compensated crystal oscillator).
Input Connector	6 GHz range : N coaxial connector. 1 GHz range : N coaxial connector. 10 MHz & Period range : BNC connector.
Case	Durable & strong ABS-plastic housing with handle.
Datalogger	Auto 1 to 3600 sec.
Sampling Time	@ Sampling time can set to 1 second,
Setting range	but memory data may loss.

Data error no.	≤ 0.1 % no. Of total saved data typically.
Memory Card	SD memory card. 1 GB to 256 GB.
Advanced setting	* Set clock time (Year/Month/Date,Hour/Minute/ Second) * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * SD memory card Format
Data Hold	Freeze the display reading.
Memory Recall	Maximum & Minimum value.
Sampling Time of Display	Approx. 1 second.
Data Output	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug. * Connect the optional USB cable USB-01 will get the USB plug.
Operating Temp.	0 to 50 °C (32 to 122 °F).
Operating Humidity	Less than 80%.
Power Supply	6 x 1.5 V AA (UM-3) battery (Alkaline or Heavy Duty) or AC to DC 9V Linear power adapter.
Power Consumption	6 GHz : Approx. DC 310 mA 1 GHz : Approx.DC 220 mA.
(-20 dB position)	10 MHz & Period range Approx. DC 150 mA.
AC Adapter	Optional, Linear AC to 9V DC , 800 mA rating, central positive for socket.
Power Input	
Dimension	295 x 236 x 98 mm (11.6 x 9.3 x 3.9 inch).
Weight	1465 g/3.23 LB (without battery).
Standard	Instruction Manual 1 PC.
Accessories	
Optional Accessories	PB-21 Direct probe with BNC connector & alligator clip pairs, available for 10 MHz range BB-22 Direct probe with double BNC connector, available for 100 MHz & 10 MHz range. NN-23 Direct probe with double N coaxial connector, available for 1000, 6000 MHz range. NB-24 N coaxial connector to BNC connector adapter. UPCB-02 Isolated RS232 cable. AC-AA110V9 Linear AC to 9V DC , 800 mA rating AC-AG220V9 Linear AC to 9V DC , 800 mA rating

TABLE FOR RESOLUTION & SAMPLE TIME

Range	Gate Time Select	Resolution
	0.5 SEC	1000 Hz
6000 MHz (6.0 GHz)	6.5 SEC	100 Hz
	4 SEC	200 Hz
	2 SEC	500 Hz
1000 MHz (1 GHz)	1 SEC	100 Hz
	9 SEC	10 Hz
	8 SEC	20 Hz
	3 SEC	50 Hz
10 MHz	0.5 SEC	10 Hz
	1.5 SEC	1 Hz
	6 SEC	0.2 Hz
	11 SEC	0.1 Hz