

*2.7 GHz, Bench type, with TCXO*

# FREQUENCY COUNTER

**Model : FC-2700**

*ISO-9001, CE, IEC1010*



## 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 2.7 GHz.
- \* Battery power or AC/DC adapter.
- \* Used the exclusive Microprocessor IC offered the intelligent function: Frequency, Period, Multi resolution, Data hold, Relative measurement, Data record ( Max., Min., Average reading ).
- \* 8 digits, 18.3 mm large LCD .
- \* 0.1 Hz resolution for 10 MHz.



**LUTRON ELECTRONIC**



***The Art of Measurement***

with TCXO, Bench type

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| * 8 digits, 18.3 mm large 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 SPECIFICATIONS

|                                                                            |                                                                                         |                                                |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------|
| Display                                                                    | 18.3 mm ( 0.72" ) LCD (Liquid Crystal Display), 8 digits.                               |                                                |
| Measurement                                                                | Frequency, Data hold, Relative, Memory ( max., min., average ), Period.                 |                                                |
| Range                                                                      | 2.7 GHz                                                                                 | 100 MHz to 2700 MHz                            |
|                                                                            | 100 MHz                                                                                 | 10 MHz to 100 MHz.                             |
|                                                                            | 10 MHz                                                                                  | 10 Hz to 10 MHz                                |
|                                                                            | Period                                                                                  | 10 Hz to 10 MHz                                |
| Resolution, Sample Time                                                    | Ref. the following "Table for Resolution & Sample Time".                                |                                                |
| Sensitivity<br><br>( Sensitivity Sw. set to high position )                | 10 MHz                                                                                  | 30 mV rms.<br>( 10 Hz to 10 MHz )              |
|                                                                            | &<br>Period                                                                             | Typical : 15 mV rms.<br>( 10 Hz to 9 MHz )     |
|                                                                            | 100 MHz                                                                                 | 50 mV rms.<br>( 10 MHz to 100 MHz )            |
|                                                                            |                                                                                         | Typical : 25 mV rms.<br>( 30 MHz to 100 MHz )  |
|                                                                            | 2.7 GHz                                                                                 | 50 mV rms.<br>( 100 MHz to 2.5 GHz )           |
|                                                                            |                                                                                         | Typical : 35 mV rms.<br>( 300 MHz to 2.4 GHz ) |
| Max. functional signal input<br>( Sensitivity Sw. set to normal position ) | 10 MHz &<br>Period                                                                      | 15 V rms.                                      |
|                                                                            | 100 MHz                                                                                 | 4 V rms.                                       |
|                                                                            | 2.7 GHz                                                                                 | 4 V rms.                                       |
|                                                                            |                                                                                         | ( 400 MHz to 2.7 GHz )                         |
| Over-input<br>( Max. signal will not hurt the circuit )                    | 10 MHz & Period range :<br>Max. 15 V rms.<br>2.7 GHz & 100 MHz range :<br>Max. 4 V rms. |                                                |
| Time Base Stability vs. Temp.                                              | 1.5 PPM ( 10 to 30 °C ).                                                                |                                                |

|                        |                                                                      |                                                                                    |
|------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Frequency Accuracy     | ± ( 2 PPM + 1 d )<br>23± 5 °C, after calibration.                    |                                                                                    |
| Time Base circuit      | 16.777216 MHz, TCXO (temperature compensated crystal oscillator).    |                                                                                    |
| Input Connector        | 10 MHz & Period range : BNC connector.                               |                                                                                    |
|                        | 100 MHz range : N coaxial connector.                                 |                                                                                    |
|                        | 2700 MHz : N coaxial connector.                                      |                                                                                    |
| Case                   | Durable & strong ABS-plastic housing with handle.                    |                                                                                    |
| 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 or AC to DC 9V adapter.                |                                                                                    |
| Power Consumption      | 2700 MHz & 100 MHz range :<br>Approx. DC 105 mA.                     |                                                                                    |
|                        | 10 MHz & Period range<br>Approx. DC 45 mA.                           |                                                                                    |
| AC Adapter Power Input | Optional, 9V DC , 300 to 500 mA rating, central positive for socket. |                                                                                    |
| Dimension              | 280 x 210 x 90 mm ( 11.0 x 8.3 x 3.5 inch ).                         |                                                                                    |
| Weight                 | 1200 g/0.27 LB (including battery).                                  |                                                                                    |
| Standard Accessories   | Instruction Manual ..... 1 PC.                                       |                                                                                    |
| 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 100, 2700 MHz range.   |
|                        | NB-24                                                                | N coaxial connector to BNC connector adapter.                                      |
|                        | UPCB-02                                                              | Isolated RS232 cable.                                                              |

## TABLE FOR RESOLUTION & SAMPLE TIME

| Range                   | Gate Time Select | Resolution | Sampling Time |
|-------------------------|------------------|------------|---------------|
| 10 MHz                  | FAST             | 10 Hz      | 0.5 SEC       |
|                         | SLOW             | 1 Hz       | 1.25 SEC      |
|                         | SLOW (select 1)  | 0.2 Hz     | 6 SEC         |
|                         | SLOW (select 2)  | 0.1 Hz     | 11 SEC        |
| 100 MHz                 | FAST             | 100 Hz     | 0.75 SEC      |
|                         | SLOW             | 10 Hz      | 6 SEC         |
|                         | SLOW (select 1)  | 20 Hz      | 5 SEC         |
|                         | SLOW (select 2)  | 50 Hz      | 1.5 SEC       |
| 2700 MHz<br>( 2.7 GHz ) | FAST             | 1000 Hz    | 0.5 SEC       |
|                         | SLOW             | 100 Hz     | 2.75 SEC      |
|                         | SLOW (select 1)  | 200 Hz     | 1.5 SEC       |
|                         | SLOW (select 2)  | 500 Hz     | 0.75 SEC      |

\* Appearance and specifications listed in this brochure are subject to change without notice.

1112-FC2700