

# 2.5 GHz HAND HELD FREQUENCY COUNTER

## Model : FC-2500A

### FEATURES

|                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * High sensitivity for the VHF & UHF freq. measurement, useful for the CB amateur.                                                                                                        | * LCD display for low power consumption & clear read-out even in bright ambient light condition.                                                                                                                                                                                                    |
| * Handheld & pocket size instrument.                                                                                                                                                      | * The instrument used the low PPM crystal time base to offer high accuracy measurement.                                                                                                                                                                                                             |
| * Wide measuring range up to 2.6 GHz.                                                                                                                                                     | * The optional telescoping antenna accessory can be used to pick up transmit frequencies from handheld, fixed or mobile radios such as: POLICES, FIRE FIGHTER'S, HAM, TAXI, AIRCRAFT MARINE, etc. at ranges of approaching 5 to 30 cm (depending on transmitter power, antenna obstructions, etc.). |
| * Good resolution, 0.1 Hz min. display unit for 10 MHz range.                                                                                                                             |                                                                                                                                                                                                                                                                                                     |
| * Used the exclusive Microprocessor IC offered the intelligent function: Frequency, Period, Multi resolution, Data hold, Relative measurement, Data record (Max., Min., Average reading). |                                                                                                                                                                                                                                                                                                     |
| * Auto power off & manual power off.                                                                                                                                                      |                                                                                                                                                                                                                                                                                                     |

### SPECIFICATIONS

|                             |                                                                                                                         |                                           |        |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------|
| Display                     | 13mm (0.5") LCD (Liquid Crystal Display), 8 digits.                                                                     |                                           |        |
| Measurement                 | Frequency, Data hold, Relative, Memory(max., min., average), Period.                                                    |                                           |        |
| Range                       | 2500 MHz                                                                                                                | 50 MHz to 2500 MHz(typical max. 2600 MHz) |        |
|                             | 100 MHz                                                                                                                 | 5 MHz to 120 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>(rms)        | 2500 MHz                                                                                                                | 50 MHz - 75 MHz                           | 100 mV |
|                             | range                                                                                                                   | 76 MHz - 2500 MHz                         | 50 mV  |
|                             | 100 MHz                                                                                                                 | 5 MHz- 100 MHz                            | 50 mV  |
|                             | range                                                                                                                   | > 100MHz to 120MHz                        | 100 mV |
|                             | 10 MHz                                                                                                                  | 50 mV                                     |        |
|                             | Period                                                                                                                  | 50 mV                                     |        |
| Frequency Accuracy          | $\pm (4 \text{ PPM} + 1 \text{ d}) - 23.5^\circ\text{C}$ , after calibration.                                           |                                           |        |
| Time Base circuit           | 4.194 MHz quartz crystal.                                                                                               |                                           |        |
| Time Base Temp. Coefficient | 0.1 PPM/per $^\circ\text{C}$ (typical, $23.5^\circ\text{C}$ ).                                                          |                                           |        |
| Over-input                  | 2500 MHz & 100 MHz range                                                                                                | Max. 5V peak to peak.                     |        |
|                             | 10 MHz & Period range                                                                                                   | Max. 250 V peak to peak                   |        |
| Input Connector             | BNC, female.                                                                                                            |                                           |        |
| Case                        | Durable & strong ABS-plastic housing.                                                                                   |                                           |        |
| Operating Temperature       | $0^\circ\text{C}$ to $50^\circ\text{C}$ ( $32^\circ\text{F}$ to $122^\circ\text{F}$ ).                                  |                                           |        |
| Operating Humidity          | Max. 90% RH ( $0^\circ\text{C}$ to $35^\circ\text{C}$ ).                                                                |                                           |        |
| Power Supply                | 4 x 1.5 V AA(UM-3) battery.                                                                                             |                                           |        |
| Power Consumption           | 2500 MHz & 500 MHz range                                                                                                | Approx. DC 105 mA.                        |        |
|                             | 10 MHz & Period range                                                                                                   | Approx. DC 45 mA.                         |        |
| AC Adapter Power Input      | Optional, 9V DC , 300 to 500 mA rating, central positive for socket.                                                    |                                           |        |
| Power Off                   | Automatic power off & manual power off.                                                                                 |                                           |        |
| Dimension                   | 173 x 80 x 35mm (6.8 x 3.1 x 1.4 inch).                                                                                 |                                           |        |
| Weight                      | 340 g/0.75 LB (including battery).                                                                                      |                                           |        |
| Standard Accessories        | Instruction Manual ..... 1 PC.                                                                                          |                                           |        |
| Optional Accessories        | AT-20 ....Telescoping RF pick-up antenna with BNC connector.                                                            |                                           |        |
|                             | PE-21 ....Direct probe with BNC connector & alligator clip pairs.<br>(Be used only for the measuring frequency 500 MHz) |                                           |        |
|                             | CA-03 .... Soft carrying case.                                                                                          |                                           |        |



Table for Resolution & Sample Time

| Range    | Gate Time Select | Resolution | Sampling Time |
|----------|------------------|------------|---------------|
| 2500 MHz | 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      |
|          | FAST             | 100 Hz     | 0.75 SEC      |
| 500 MHz  | SLOW             | 10 Hz      | 6 SEC         |
|          | SLOW(select 1)   | 20 Hz      | 5 SEC         |
|          | SLOW(select 2)   | 50 Hz      | 1.5 SEC       |
|          | FAST             | 10 Hz      | 0.5 SEC       |
|          | SLOW             | 1 Hz       | 1.25 SEC      |
| 10 MHz   | SLOW(select 1)   | 0.2 Hz     | 6 SEC         |
|          | SLOW(select 2)   | 0.1 Hz     | 11 SEC        |

\* Appearance and specifications listed in this brochure are subject to change without notice. 0106-FC2500A