### SD Card real time data recorder

# EMF TESTER 3 axis

Model: EMF-8218SD

ISO-9001, CE, IEC1010









**LUTRON ELECTRONIC** 

The Art of Measurement

## **EMF TESTER**

3 axis

Model: EMF-8218SD

#### **FEATURES**

| _ |  |
|---|--|
| * | Each axis (X, Y, Z direction )electromagnetic field measurement.       |
| * | Sum of XYZ electromagnetic field measurement.                          |
| * | Range : 20/200/2000 micro Tesla.                                       |
|   | 200/2000/20000 milli-Gauss.  |
| * | Measurement Bandwidth: 30Hz to 300Hz.                                  |
| * | Non-directional (isotropic) measurement with three-channel             |
|   | (triaxial) measurement probe   |
| * | Microcomputer circuit provides intelligent function and high accuracy. |
| * | Real time SD memory card Datalogger, it Built-in Clock                 |
|   | and Calendar, real time data recorder, sampling time set               |
|   | from 0 second to 3600 seconds.   |
| * | Manual datalogger is available ( set the sampling                      |
|   | time to 0 second ), during execute the manual datalogger               |
|   | function, it can set the different position ( location ) No.           |
|   | ( position 1 to position 99 ).   |
| * | Innovation and easy operation, computer is not need to                 |
|   | setup extra software, after execute datalogger, just take              |
|   | away the SD card from the meter and plug in the SD card                |
|   | into the computer, it can down load the all the measured               |
|   | value with the time information ( year/month/date/                     |
|   | hour/minute/second ) to the Excel directly, then user can              |
|   | make the further data or graphic analysis by themselves.               |
| * | SD card capacity: 1 GB to 16 GB.                                       |
| * | Can default auto power off or manual power off.                        |
| * | Data hold, record max. and min. reading.                               |
| * | Microcomputer circuit, high accuracy.                                  |
| * | Power by UM3/AA ( 1.5 V ) x 6 batteries or DC 9V adapter.              |
| * | RS232/USB PC COMPUTER interface.                                       |
| * | Heavy duty & compact housing case.                                     |
|   |  |

#### **General Specifications**

| Circuit        |                         | Custom one-chip of microprocessor LSI           |  |  |
|----------------|-------------------------|---|--|--|
|                |                         | circuit.  |  |  |
| Display        | LCD size                | LCD size : 52 mm x 30 mm                        |  |  |
| Measurement    | Digital, t              | Digital, triaxial measurement.                  |  |  |
| method         |                         |   |  |  |
| Range          | Manual                  |   |  |  |
| Datalogger     | Auto                    | 2 to 3600 seconds                               |  |  |
| Sampling Time  |                         |   |  |  |
| Setting range  |                         | @ Sampling time can set to 1 second,            |  |  |
|                |                         | but memory data may loss.                       |  |  |
|                | Manual                  | Push the data logger button                     |  |  |
|                |                         | once will save data one time.                   |  |  |
|                |                         | @ Set the sampling time to                      |  |  |
|                |                         | 0 second.                                       |  |  |
|                |                         | @ Manual mode, can also select the              |  |  |
|                |                         | 1 to 99 position ( Location ) no.               |  |  |
| Data error no. | ≦ 0.1 %                 | $\leq$ 0.1 % no. of total saved data typically. |  |  |
| Memory Card    | SD mem                  | SD memory card. 1 GB to 16 GB.                  |  |  |
| Advanced       | * SD m                  | * SD memory card Format                         |  |  |
| setting        | * Set cl                | * Set clock time ( Year/Month/Date,             |  |  |
|                | Hour/                   | Hour/Minute/ Second )                           |  |  |
|                | * Set sa                | * Set sampling time                             |  |  |
|                | * Auto                  | * Auto power OFF management                     |  |  |
|                | * Set beep Sound ON/OFF |   |  |  |
|                | * Decim                 | nal point of SD card setting                    |  |  |
|                |                         |   |  |  |

| Over Indication | Show " ".                                      |
|-----------------|--|
| Data Hold       | Freeze the display reading.                    |
| Memory Recall   | Maximum & Minimum value.                       |
| Sampling Time   | Approx. 1 second.                              |
| of Display      |  |
| 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.                  |
| Power off       | Auto shut off saves battery life or            |
|                 | manual off by push button.                     |
| Operating       | 0 ~ 50 ℃                                       |
| Temperature     |  |
| Operating       | Less than 85% R.H.                             |
| Humidity        |  |
| Power Supply    | * Batteries( UM3, AA ) x 6 PCs, or equivalent. |
|                 | * AC/DC power adapter .                        |
|                 | (adapter is optional ).                        |
| Power Current   | Normal operation :                             |
|                 | ( w/o SD card save data) :Approx. DC 24 mA.    |
|                 | ( w/o Backlight ) :Approx. DC 18 mA.           |
|                 | When SD card save the data: Approx. DC 50 mA.  |
| Weight          | 480 g/1.05 LB ( meter & probe ).               |
| Dimension       | 178 x 68 x 45 mm                               |
|                 | (7.0 x 2.7x 1.8 inch)                          |
| Accessories     | * Instruction manual                           |
| Included        |  |
| Optional        | * SD Card ( 4 GB )                             |
| Accessories     | * USB cable, USB-01.                           |
|                 | * RS232 cable, UPCB-02.                        |
|                 | <ul> <li>Data Acquisition software,</li> </ul> |
|                 | * SW-U801-WIN., SW-E802.                       |
|                 | AC to DC 9V adapter.                           |
| 1               |  |
|                 |  |

#### Electrical Specifications (23±5 ℃, 25% ~ 80 % RH)

| Frequency bandwidth              | 30Hz to 300Hz                        |
|----------------------------------|--------------------------------------|
| Units                            | mGauss, μTesla.                      |
| measurement range and            | 20μTesla (0.01) and 200mGauss (0.1)  |
| resolution:                      | 200µTesla (0.1) and 2000mGauss (1)   |
| NOTE: 1 µTesla = 10 mGauss       | 2000µTesla (1) and 20,000mGauss (10) |
|                                  |                                      |
| Accuracy                         | ± (4%FS + 3 digits)                  |
| (stated for 50/60Hz)             | @ 20 micro Tesla range               |
|                                  | @ 200 milli Gauss range              |
|                                  | ± (5%FS + 3 digits)                  |
|                                  | @ 200 micro Tesla range              |
|                                  | @ 2,000 milli Gauss range            |
|                                  | ± (10%FS + 3 digits)                 |
|                                  | @ 2000 micro Tesla range             |
|                                  | @ 20,000 milli Gauss range           |
|                                  | * Spec. accuracy tested under 50 Hz  |
|                                  | or 60 Hz.                            |
| Sensor (with typical CAL factors | coil                                 |
| Overload limit                   | 20000mGauss                          |
| Thermal response (0 to 50°)      | 0.5 Sec.                             |

@ Above specification tests under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.