

# FUJIKURA FIBER OPTIC VIETNAM LTD.

## ESD MEASURING FOR ROADM LINE

WORK INSTRUCTION : 000/5-WI-121

Version: 02

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Effective date: 8-Feb-12

### I. Purpose

This work instruction is established the guideline of ESD protected areas measuring Roadm line

### II. Application

This work instruction is applied to Roadm line production in the Fujikura Fiber Optics Vietnam

### III. Reference document

1. 4-OP-596 ESD cleaning room requirements.
2. 4- OP-613 ESD Control program.
3. Standard: IEC 61340-5-1.
4. ANSI/ESD SP20.20
5. Manual Instruction of MetrISO 2000-Test Kit equipment.
6. Manual Instruction of TB-3041-1 equipment.

### IV. Terminology

ESD: Electrostatic discharge

EPA: ESD protected areas

IVA: Immediate vicinity area

### V. Measuring equipment

#### A. Mertriso 2000-Test Kit equipment



Checked by: Nguyen Quoc Hung  
Date : 7-Feb-12

Approved by : Phan Vinh Thach  
Date : 7-Feb-12

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Date: 7-Feb-2012

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## 1. Operating instruction:

### a. Installation.

- Assembling the T/F adapter: Insert the battery into the T/F adapter. Connect the temperature –humidity adapter to the instrument IR interface.



- Connecting the cables: Connect the red cable to the instrument's red marked socket. Connect the black, shielded test cable with the double plug to the "black & white" COM/SHIIEDED socket



- Switch ON/OFF: Press any button to switch on the instrument. The instrument can be switched off by pressing simultaneously the two outermost buttons. Automatic shutdown is also included.

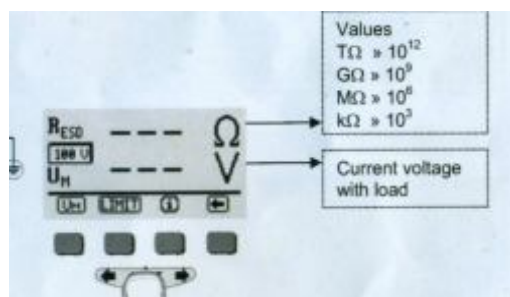


Switch ON



Switch OFF

### b. Value reading.



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B. Ionization test kit:



### 1. Feature:



**A. HOLD Button:** Press to freeze the reading on the display, press again to return to normal measurement operation.

**B. RANGE/ ZERO Button:** Press to select the measuring range, Press and hold to zero the Meter.

**D: POWER Button:** Press to turn the unit ON and OFF

### 2. Operation:

a. Power is turn on

Press Power button to turn on

b. Battery check:

The battery should be replaced when "BAT" is indicated on the display

c. Zero the meter.

Press and hold the RANGE/ZERO button until the Meter display ".000"

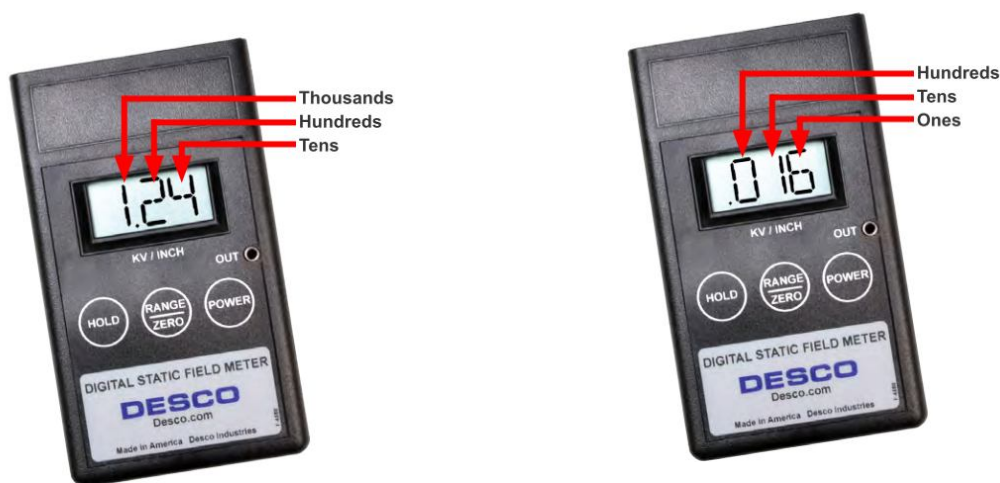
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d. Value reading: Press the hold button to freeze the reading



### VI. Measuring Process.

#### A. Resistance measuring:

- Using Mertriso 2000-Test Kit equipment
- Select U=100V when measured for Class 2 measuring and select U=500V when measured for Class 3

#### **Resistance to Ground Rg**

##### **a. Working surface**

Measuring method



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### b. Flooring

Measuring method



### c. Shelf

Measuring method



### d. Seating

Measuring method



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### e. Trays

Measuring method



### f. Wrist

Measuring method



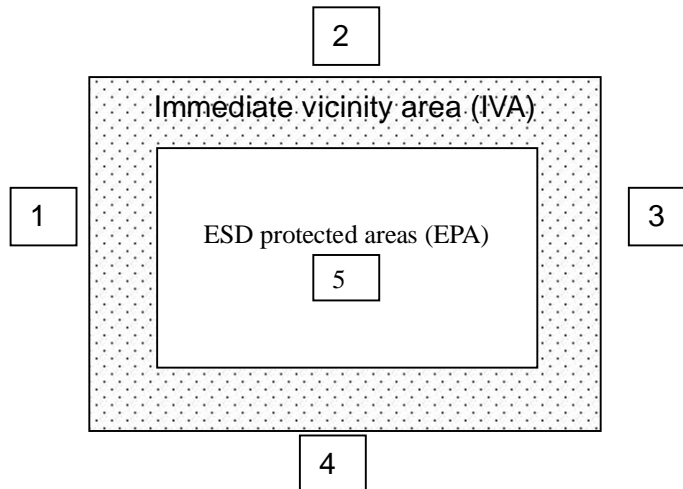
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g. Max volt of IVA measuring:

Using Ionization test kit

Position to measure follow horizontal as figure below. And equal with surface working of ESD-Sensitive device follow vertical direction.



Value measuring= Max {(1); (2); (3); (4); (5)}

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Date	P.I.C	Version	Revised Content Description	Reason	Requester
20/Nov/2011	Nguyen Quoc Hung	01	Established	New Machine	Phan Vinh Thach
6/Feb/2012	Nguyen Quoc Hung	02	Add TB-3041-1 equipment	New machine	Phan Vinh Thach

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