

# **Rishabh Testing and Calibration Laboratory**

(NABL Accridiated testing and calibration laboratory) Plot No. C-6, MIDC, Satpur, Nasik-422007, Ph. 0253-2202307/388/309







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Certificate No.: RTCL/EMC/2425/RS/030 ULR No.:TC132032400000045F

I : Electrical testing
1. EMI/EMC Test Facility

Test Report	Laboratory Scope	TEST REPORT RADIATED SUSCEPTIBILITY TEST
1. Certified to:	Organization Name:	Rishabh Instruments Ltd.
co. ucu to i	Address:	F-31, MIDC Satpur , Nashik 422 007, Maharashtra
2. Details of Unit	Product Name:	Digital TRMS Mulitimeter
under test. (UUT)	Manufacturer:	Rishabh Instruments Ltd.
	CRF NO:	2024-25/05/013 Dated: 15.05. 2024
	Type / Model:	Rishabh 610
	Detail Specifications :	Measuring Ranges DC Voltage: 1000V Current AC/DC: 10A Resistance: 60MΩ
	No. of item/Total item:	01
	Sr. No./ID No.:	62307012082
	Condition of item:	Physically OK.
	Location of testing:	RTCL, Nashik.
	Sample Received On:	15 May 2024.
3. Test Certificate Date of Issue :		18 May 2024.
	Date of Testing:	15 May 2024.

Tested By:	Checked By:	Approved By:
M. Sheikh	Zwix _	Och
(Mohmmad Hasan Sheikh)	(Ravindra Shingote)	(Prayeen Chaplot)

Note: 1. This certificate may not be reproduced either in full or part without prior written approval of RTCL.

- 2. This report relates only particular sample received in good condition for testing at RTCL.
- 3. only test asked for by the customer have been carried out.
- 4. In case of any dispute, Nashik will be exclusive Jurisdiction & shall be constructed as where the cause has arise.
- 5. RTCL is not Responsible for the authenticity of photocopied or reproduced test reports,RTCL provides support to customer For verification of the authenticity of the test reports issued by RTCL.



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### 4.0: Test Procedures and Applicable Standard

### 4.1. IEC 61326-1: Edition 3.0 2020

Electrical equipment for measurement, control and laboratory use- EMC requirements Part 1: General requirements

#### 4.2. IEC 61000-4-3:2020

Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test.

## 5.0: Brief Description of Unit Under Test:

RISHABH 610 digital multimeter is suited for universal, general applications in the electrical and electronics fields, as well as in radio and television service, training and education. It is of especially pocket size design, and thus fit into pocket.

#### 6.0: Performance Criteria

**Performance criteria A:** The equipment shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the equipment is used as intended.

The performance level may be replaced by a permissible loss of performance which shall recover, without user Intervention. A permissible loss of performance is allowed within the performance level only when this information is clearly provided to the end user via documentation, such as the product user manual. No change in the operating state is allowed nor is loss of data.

i.e. During and after the test, Measured Input values shall remain within +/- 0.5% of reading +3 Digits. for Applied input Resistance value  $1k\Omega$  allowed limit +/-0.053 $k\Omega$ . No malfunctioning of meter display as specified by the manufacturer.

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# 7.0 : Test Detail :

Test Conditions		
Ambient Temperature : 24.0°C	Relative Humidity : 51%	
Port Details: Enclosure .		
Connection : Resistance : $1 \text{ k}\Omega$		
Description: Resistance value monitored throughout the test on EUT display.		
Tested as table top equipment.		

Test Instruments:			
Equipment	Make	Model	Serial Number
Signal Generator	Rohde & Schwarz	SMB100A	114217
Amplifier	Rohde & Schwarz	BBA150	102566
Amplifier	Rohde & Schwarz	BBA150	102568
EMS Test Software	Rohde & Schwarz	EMC32-EB	
3m Shielded Semi Anechoic Chamber	Frankonia	SAC 3 Plus	
Stacked Log periodic Antenna	Schwarz Beck	STLP9129	9129042

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Test Description	Requirement	Observation	Remark
Test specification as per IEC 61326-1 : 2020, Annex A , electromagnetic environment and test procedure as per IEC 61000-4-3 : 2020 as specified by the manufacturer -			
Test Condition :			
Test was perform at 3 meter distance.			
-Frequency band : 80MHz to 1GHz -Test Field Strength : 3V/m		During and after the test Resistance was found within the limits of	
-Frequency band : 1.4GHz to 2GHz -Test Field Strength : 3V/m	The Equipment Should	performance criteria A specified by manufacturer.	Conform
-Frequency band : 2GHz to 6GHz -Test Field Strength : 1V/m	Meet the Performance Criteria A.	Equipment complies to performance criteria A.	Comorni
-Dwell Time : 2 sec.		porrormanes eriteria / ti	
-Modulation Index: 80%AM -Modulation Frequency :1KHz -Step Size of Frequency Increment : 1% of previous			
Antenna Polarization -Vertical			
-Horizontal			
EUT Orientation			
-Front			
-Left -Right			
-Rack			

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8.0 : Test Observations :

**Required Performance Criteria: A** 

**Test Result: Conform** 

# 9.0 : EUT Photographs :

# **Front View**



# **Back View**



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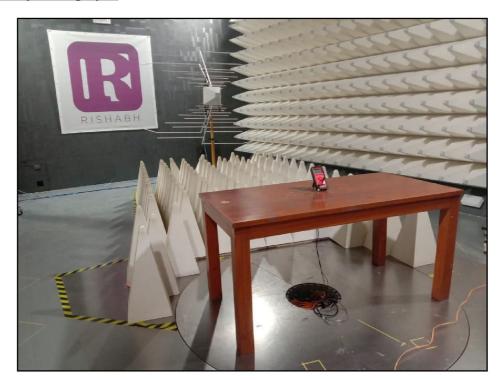


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10.0: Setup Photograph:



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Tested By :	Checked By:
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(Mohmmad Hasan Sheikh)	(Ravindra Shingote) RTCL-F-114 Rev 03