

RELIABLE

ANALYTICAL LABORATORIES PVT. LTD.



Lab : Reliable House, 125 Indian Corporation, Dapoda Road, Mankoli Naka, Bhiwandi, Thane - 421302, Maharashtra (INDIA)
Phone: 02522 - 662907 / 662908 / 07400084589 / 7400084590 Website : www.reliablelabs.org, E-mail : info@reliablelabs.org

TEST REPORT (CUSTOMISED TESTING)	
Test Report Number.....	RAL/THW/EO24020036
Report issue date (DD/MM/YYYY).....	07/06/2024
Total number of pages.....	13
Test Report Issuing Lab.....	Reliable Analytical Laboratories Pvt. Ltd.
Testing / Witness Testing Location: Address.....	Bldg. No. 125-139, Indian Corporation Complex, Mankoli, Gundwali, Bhiwandi.
Location of Performance of Testing.:	Bldg. No. 125-139, Indian Corporation Complex, Mankoli, Gundwali, Bhiwandi.
Customer / Applicant's name.....	Reliance Retail Ltd
Address.....	Reliance Corporate Park, Ghansoli Naka, Thane Belapur road, Navi Mumbai -400701
Discipline	: Electronics
Product Group	: Audio/ Video & Similar Electronics Apparatus
Test specification:	
Standard.....	N/A
Non-standard test method.....	As per Customer Specifications
Test Report Form No.....	---
Version.....	---
Test item description.....	LED TV (LED Television size 50")
Trade Mark.....	
Manufacturer.....	Reliance Retail Ltd
Model/Type reference.....	50U-E5530
Ratings.....	AC 100-240V~, 50/60Hz
Tested by (Name + Signature+ Function).....	Sonali Dhongade (Sr. Engineer)
Reviewed & Authorized by (Name + Signature + Function).....	Onkareshwar Pandey (Tech. Manager)
An independent organization testing for safety, performance, and certification.	
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Registered Office: Reliable Analytical Laboratories Pvt. Ltd.
Bldg. No. 125-139 Indian Corporation Complex, Mankoli, Gundwali, Bhiwandi



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General product information:

The Equipment under test (EUT) is a LED TV SIZE 50" for use in general home environment and for indoor use only. Appliance inlet is considered as the disconnect device and the apparatus is considered as class II.

Testing

Date of receipt of test item.....: 15/02/2024
Condition of Sample Received.....: Good
Sample Identification no(s).....: 50U-E5530
Sample Serial no(s).....: -
Date (s) of performance of tests.....: 15/02/2024 to 07/06/2024

Laboratory conditions:

Ambient Temperature.....: 23±4°C
Relative humidity: 55±10%

Possible test case verdicts:

- test case does not apply to the test object.....: N/A
- test object does meet the requirement: P (Pass)
- test object does not meet the requirement.....: F (Fail)

General remarks (If any):

The test results presented in this report relate only to the sample tested.

This report shall not be reproduced, except in full, without the written approval of report issuing testing laboratory.

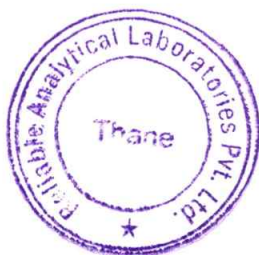
Reliable is responsible only for reporting measured value (results). Rest information is reported as provided by customer.

Remarks:

Please refer to individual test verdict for Compliance for each test.

Possible test case verdicts:

- test case does not apply to the test object.....: N/A
- test object does meet the requirement: P (Pass)
- test object does not meet the requirement: F (Fail)



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Test Condition:

Sr. No	Test	Test condition	Observation	Verdict
1	ESD test	Video signal at ambient temperature, Standard Mode Check Air as well as contact discharge to all input ports. (10Kv contact & 12Kv air)	As given below	P

Note:-

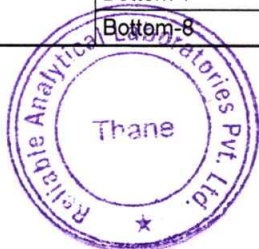
Category A: - No degradation in performance or loss of function during and after the test.

Category B: - Allowable temporary degradation during the test. Self recovers after the test. No change in operating state or stored data is allowed.

Category C: - Temporary loss of function or degradation in performance the correction of which requires operator intervention.

Category D: - EUT malfunctions and fails to recover.

S.No	Area	Points	Air/Contact	Mode	Voltage	Times	Remarks
1	External Accessible points	Control Button	Contact	Stand by	± 10 (KV)	30	A
2			Air	Stand by	± 12 (KV)	30	A
3			Contact	Operation	± 10 (KV)	30	A
4			Air	Operation	± 12 (KV)	30	A
5	Metal Cabinet	Top Center	Contact	Operation	± 10 (KV)	10	A
6		Bottom Center	Contact	Operation	± 10 (KV)	10	A
7		Left Center	Contact	Operation	± 10 (KV)	10	A
8		Right Center	Contact	Operation	± 10 (KV)	10	A
9		Center	Contact	Operation	± 10 (KV)	10	A
10	Open Cell	Top Left	Contact	Operation	± 10 (KV)	10	A
11		Top Right	Contact	Operation	± 10 (KV)	10	A
12		Top Center	Contact	Operation	± 10 (KV)	10	A
13		Center Left	Contact	Operation	± 10 (KV)	10	A
14		Center Right	Contact	Operation	± 10 (KV)	10	A
15		Center Center	Contact	Operation	± 10 (KV)	10	A
16		Bottom-1	Contact	Operation	± 10 (KV)	10	A
17		Bottom-2	Contact	Operation	± 10 (KV)	10	A
18		Bottom-3	Contact	Operation	± 10 (KV)	10	A
19		Bottom-4	Contact	Operation	± 10 (KV)	10	A
20		Bottom-5	Contact	Operation	± 10 (KV)	10	A
21		Bottom-6	Contact	Operation	± 10 (KV)	10	A
22		Bottom-7	Contact	Operation	± 10 (KV)	10	A
23		Bottom-8	Contact	Operation	± 10 (KV)	10	A



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24		Bottom-9	Contact	Operation	± 10 (KV)	10	A
25			Contact		± 10 (KV)		B(During the test lining observed on the display for very short duration and it automatically recovered back)
26			Air	Operation	± 12 (KV)	10	A
27		HDMI-1	Contact	Operation	± 10 (KV)	10	A
28			Air	Operation	± 12 (KV)	10	A
29		HDMI-2	Contact	Operation	± 10 (KV)	10	A
30			Air	Operation	± 12 (KV)	10	A
31		HDMI-3	Contact	Operation	± 10 (KV)	10	A
32			Air	Operation	± 12 (KV)	10	A
33	All Ports Signal	USB-1	Contact		± 10 (KV)		B(During the test lining observed on the display for very short duration and it automatically recovered back)
34			Air	Operation	± 12 (KV)	10	A
35		USB-2	Contact		± 10 (KV)		B(During the test lining observed on the display for very short duration and it automatically recovered back)
36			Air	Operation	± 12 (KV)	10	A
37		Earphone Out	Contact		± 10 (KV)		B(During the test TV turn off and automatically turn on.)
38			Air	Operation	± 12 (KV)	10	A
39		Optical Out	Contact	Operation	± 10 (KV)	10	A
40			Air	Operation	± 12 (KV)	10	A
41		LAN	Contact		± 10 (KV)		B(During the test lining observed on the display for very short duration and it
				Operation		10	



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								automatically recovered back)
	42			Air	Operation	± 12 (KV)	10	A
		Port Ground	Tuner	Contact		± 10 (KV)		B(During the test lining observed on the display for very short duration and it automatically recovered back)
	43				Operation		10	
	44			Air	Operation	± 12 (KV)	10	A
2	Line surge test	TV signal @ normal temperature, TV in standard statue type : L-N L-PE N-PE voltage : $\pm 1KV \pm 2KV \pm 4KV \pm 5KV$ counter : 10 cycle/groups				Unit functionally ok after the test.		P
3	Cold Test	- 10°C , set in OFF condition for duration of 16 Hours + 8 Hours recovery. As per IS 10662				Unit functionally ok after the test.		P
4	Low Voltage test (80VAC)	Video signal at 45 deg C temperature ,Standard Mode Set is continuously ON at 80 V ac with all controls max. Duration: 168 Hrs.				Unit is functionally ok after the test.		P
5	High Voltage test (300VAC)	Video signal at 45 deg C temperature, Standard Mode Set is continuously ON at 300V ac with all controls max. Duration: 168 Hrs.				Unit is functionally ok after the test.		P
6	Dry Heat Test	At 50°C , set in OFF condition Duration: 16 Hours + 8 Hours recovery				Unit is functionally ok after the test.		P
7	Dust chamber test	As per IEC60529, 13.4 (Dust chamber enclosure)				Unit is functionally ok after the test.		P
8	Humidity test	RH 95% , 40°C set in On condition Duration: 8 Hr.-On, 16 Hr.- recovery. Test period will be 30 days				Unit is functionally ok after the test		P
9	Bump Test	500 Bumps, 1 bump /sec @Height 25mm				Unit is functionally ok after the test.		P
10	Wall mount	Equivalent to three times the weight of the product / 150N whichever is more is suspended on the hook for 72 Hrs.				300N Applied for 72 Hours, No damage found.		P
11	Vibration Shield	Sine vibration on x , y & z axis. Frequency : 5-250Hz , Duration : 1 Hr/axis. Acceleration - 1.15G, Sweep time - 10 oscillations/min				EUT working properly during & after the test		P



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12	Drop Test	Check Drop test details sheet (Refer drop test Sheet for test SOP & report format) as per ISTA 2A standard	Unit is functionally ok after the test	P																																			
<table><tr><th>Drop Procedure</th><th>Sequence #</th><th>Orientation</th><th>Specific face, edge or corner</th></tr><tr><td rowspan="10"></td><td>1</td><td>Corner</td><td>most fragile face-3 corner, if not known, test 2-3-5</td></tr><tr><td>2</td><td>Edge</td><td>shortest edge radiating from the corner tested</td></tr><tr><td>3</td><td>Edge</td><td>next longest edge radiating from the corner tested</td></tr><tr><td>4</td><td>Edge</td><td>longest edge radiating from the corner tested</td></tr><tr><td>5</td><td>Face</td><td>one of the smallest faces</td></tr><tr><td>6</td><td>Face</td><td>opposite small face</td></tr><tr><td>7</td><td>Face</td><td>one of the medium faces</td></tr><tr><td>8</td><td>Face</td><td>opposite medium face</td></tr><tr><td>9</td><td>Face</td><td>one of the largest faces</td></tr><tr><td>10</td><td>Face</td><td>opposite large face</td></tr></table>					Drop Procedure	Sequence #	Orientation	Specific face, edge or corner		1	Corner	most fragile face-3 corner, if not known, test 2-3-5	2	Edge	shortest edge radiating from the corner tested	3	Edge	next longest edge radiating from the corner tested	4	Edge	longest edge radiating from the corner tested	5	Face	one of the smallest faces	6	Face	opposite small face	7	Face	one of the medium faces	8	Face	opposite medium face	9	Face	one of the largest faces	10	Face	opposite large face
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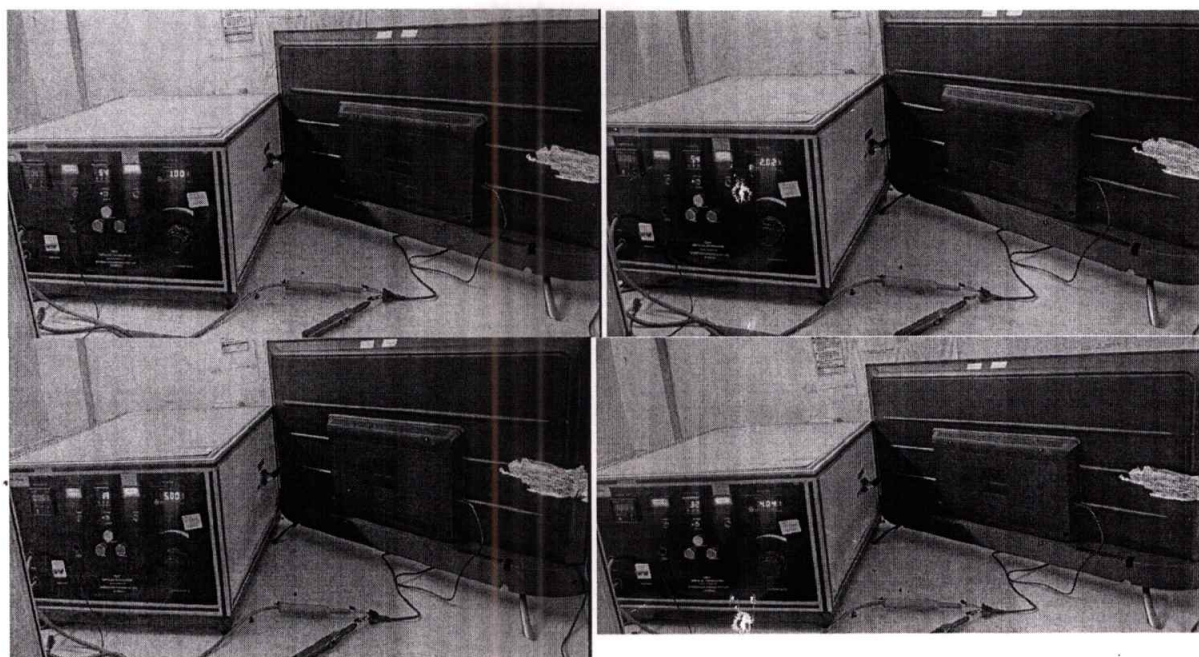


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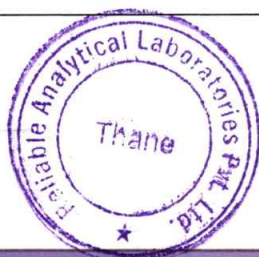
Photograph:



Setup for ESD test



Setup for Line surge Test



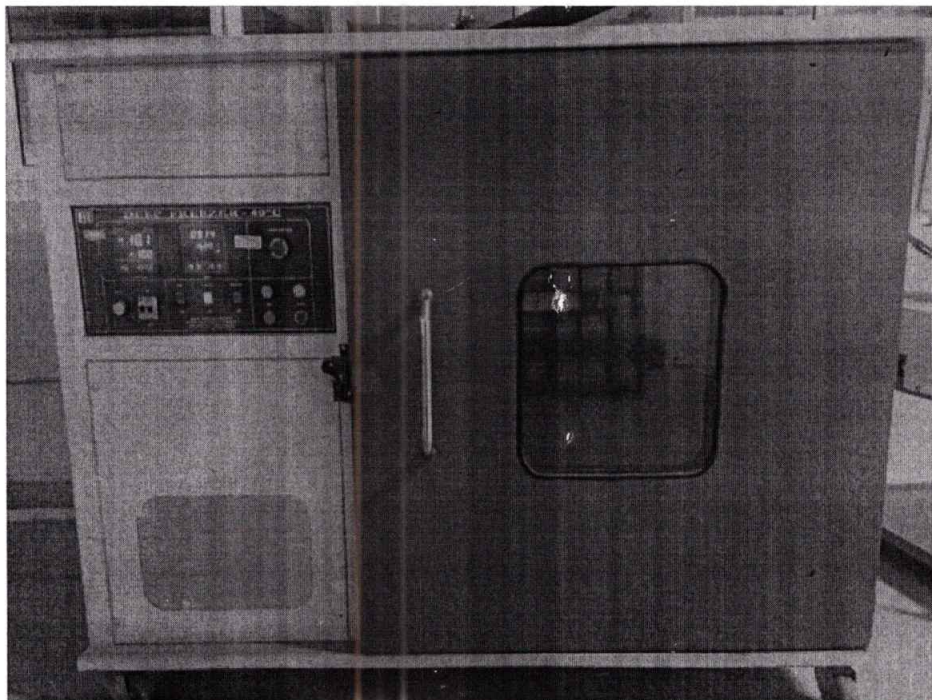
Handwritten signature

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Setup for Cold test



P 96778

Page 8 of 13

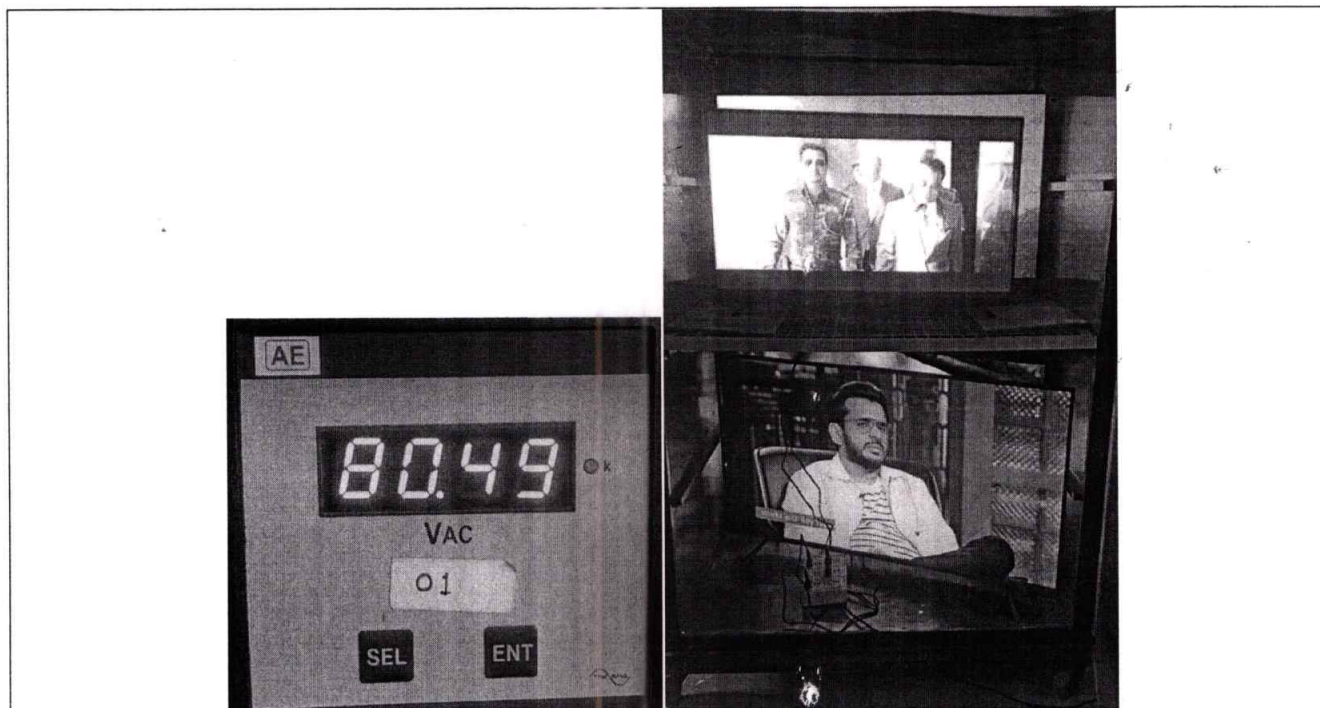
Test Report No.: RAL/THW/ EO24020036

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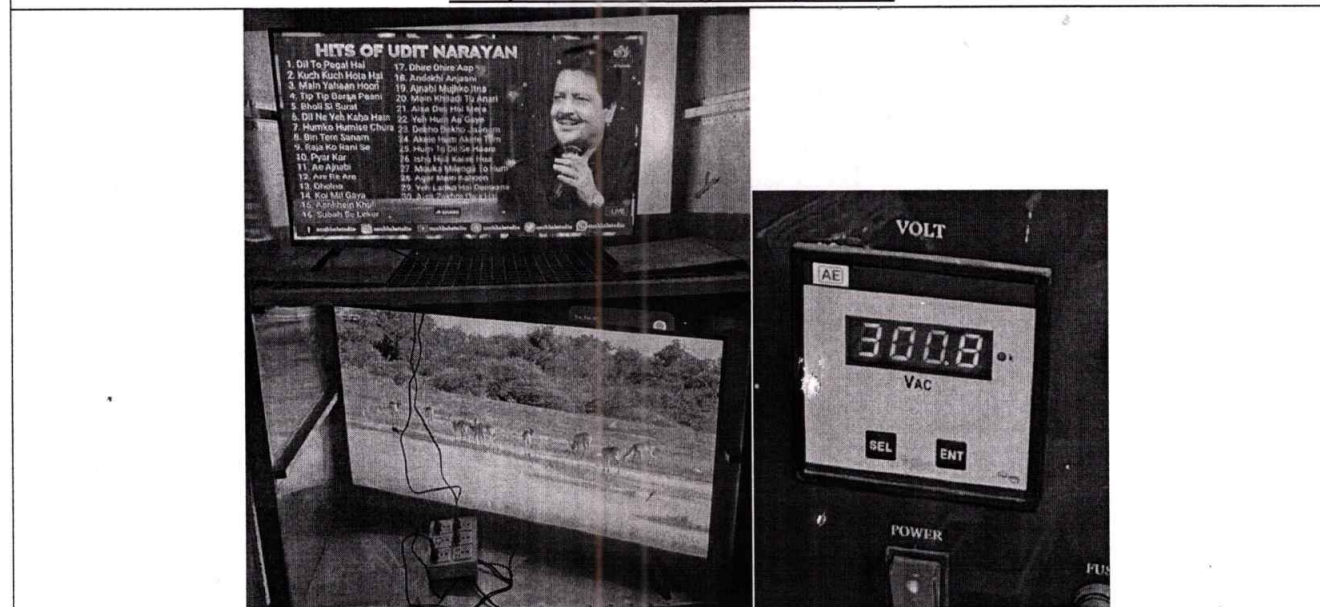
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Setup for Low Voltage test (80VAC)



Setup for High Voltage test (300VAC)

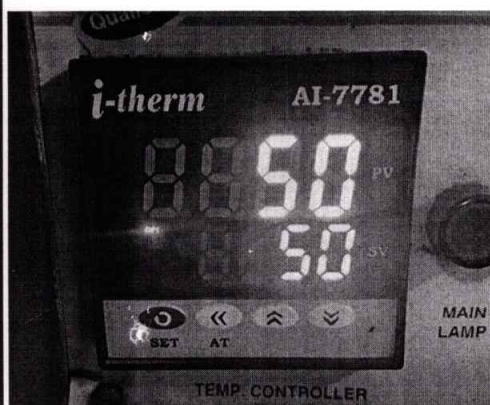
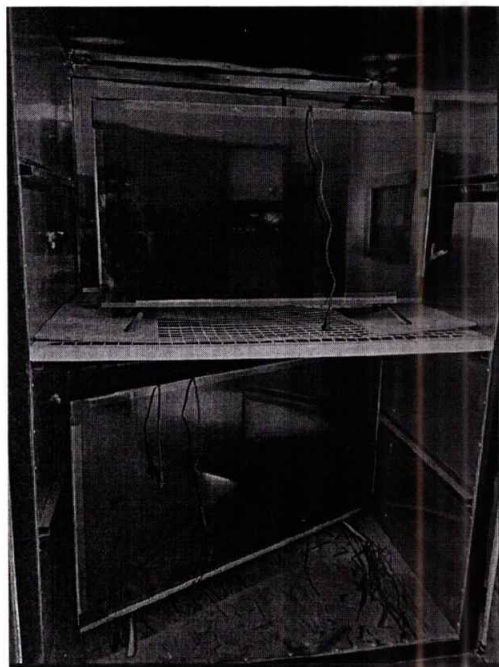


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Setup for Dry Heat Test



Setup for Dust chamber test



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Setup for Humidity test



Setup for Bump Test

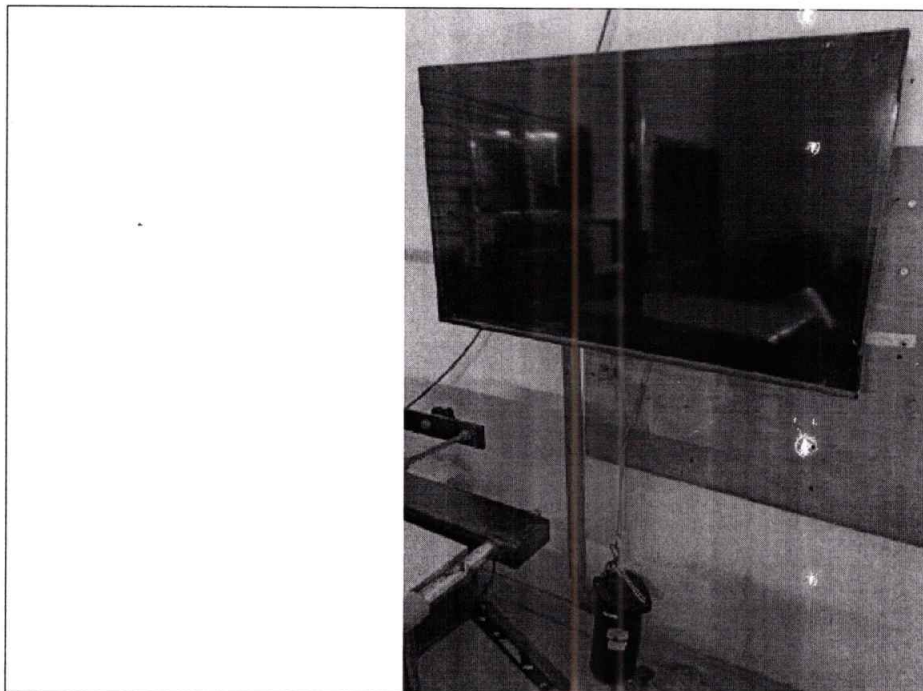


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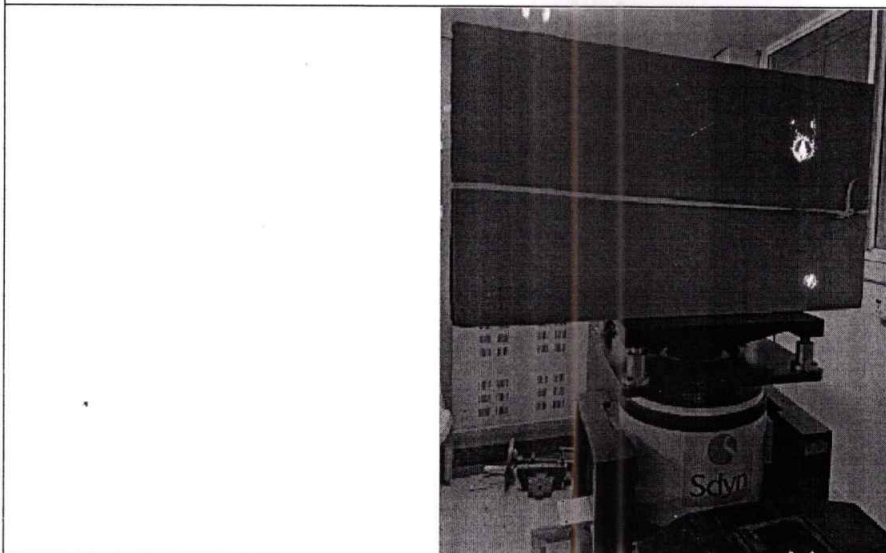
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Setup for Wall mount



Setup for Vibration Shield

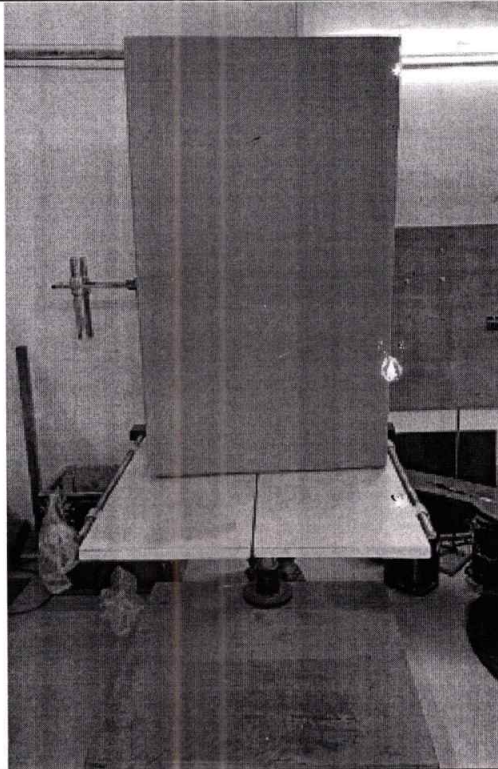


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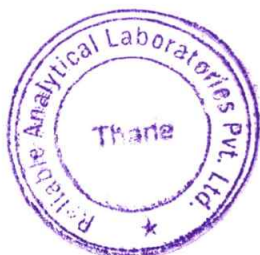


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Setup for Drop Test

END OF TEST REPORT



Page 13 of 13

Test Report No.: RAL/THW/ EO24020036

P 96783