



NABL ACCREDITED  
LABORATORY No. T0001

Test Report No.  
ERTL(N)/90(4)-2K5 (c 963)  
Dated: 7/12/2005

## TEST REPORT



Government of India  
Ministry of Communications & Information Technology  
Department of Information Technology  
STQC Directorate

### ELECTRONICS REGIONAL TEST LABORATORY (NORTH)

[NSI Laboratory under IECQ, IECEE-CB & NABL Accredited Laboratory]  
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#### **NOTE**

1. This Test Report refers only to the particular item submitted for Testing.
2. This Test Report shall not be reproduced, except in full, unless written permission for the publication of an approved abstract has been obtained from the Director, Electronics Regional Test Laboratory (North), New Delhi.
3. The results reported in this Test Report are valid at the time of and under the stated conditions of measurement.



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Service Request No. 3202		Date : 18/10/2005
Name & Address of the Client		M/s. Asian Electronics Ltd., No. 68, MIDC Satpur, Nasik - 422 007.
Description/ Identification of the Item:-		
Nomenclature	Handheld Transmitter	
Model No./Type No.	SRE 9E 02	
Value/Tolerance	---	
Serial No. (s)	01	
No. of Samples	01 No.	
Trade Mark/Make	Westing House/Asian	
Year of Manufacture	2005	
Applicable Standard Specification IS/IEC/JSS/other	FCC Part 15 C Test Method: ANSI C63.4-1992	
Manufacturer's Name & address	M/s. Asian Electronics Ltd., No. 68, MIDC Satpur, Nasik - 422 007.	
Name & address where testing carried out (Subcontracting/Single Window/On-Site/ Using Customer Facilities)	ERTL (N)	
Test Method/Operating Procedure	ANSI C63.4-1992	
Condition of item on its receipt	Good	
Date of receipt of item	18/10/2005	
Date of Completion of Testing	25/10/2005	

  
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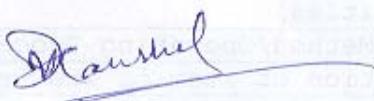
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Equipment used :

Sl.No.	Nomenclature	Make	Model No
1.	Spectrum Analyzer Based EMC Test System	HP	HP8566B
2.	LISN	R&S	ESH3-Z5
3.	Pulse Limiter	PMM	---
4.	Bi-conical Antenna	EMCO	3109
5.	Antenna log periodic	EMCO	3146
6.	Antenna horn	EMCO	3115
7.	Receiver	PMM	PMM9000 Plus
8.	Antenna Mast	EMCO	20752
9.	Turntable	EMCO	2087-2-03
10.	Anechoic Chamber	ETS Lindgren	Fact-3



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### Brief Description of EUT

## Handheld Transmitter

The Two Way Handheld Transmitter is a remote based light controlling unit . The unit consists of RF transmitter , selected the zone and the level the at has to be controlled by the transmitter to provide the user with the required light comfort user can select the zone and levels from 1 to 9 from the software to control the light intensity in that zone. This is RF Transmitter enables the user to communicate with the RF receivers to set the desired light level 1 being of and level 9 being full bright. The user selects the desired zone and the level in the transmitter to control the lights in a particular section.

Deauville

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TEST CONFIGURATION DETAIL:

Sl. No.	Equipment Description	Model No.	Make	Sl. No.	Cable Description
1.	Handheld Transmitter - SRE 9E 02		Asian Electronics 01		
2.	Dimmable Ballast (2x24W) with receiver		Asian Electronics 01	Unshielded mains Cable (2x24W)	
3.	AC adaptor	AD-0900500DV	Asian Electronics	Unshielded power cable	
4.	Receiver Module	SRE 9E 02	Asian Electronics 01	Antenna 160mm (RF cartridge two way)	

Test Facility:

3 meter open area test site & conducted emission measurement facility located at Electronics Regional Test Laboratory(North), Ministry of Communication & Information Technology, Deptt. of Information tech. Govt. of India, S - Block, Okhla Indl. Area, Phase - II, New Delhi - 110 020, Listed by FCC(USA) vide letter registration no. 90618 dtd. 15<sup>th</sup> Jan 2004.



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## Test Result :

Sl. No.	Cl. No.	Parameter	Nominal Value/ Requirements	Measured Value/ Observations	Remarks
1.	15.107	Conducted Emission (Class B) -Under Normal Working Condition (Idle State) -EUT : As per configuration Test Method : ANCI C63.4-1992 Freq. in MHz 0.15 to 0.5  0.5 to 5  5 to 30	Emission Limit (dBuV)QP (dBuV)Avg 66 – 56 56 – 46  56 46  60 50	Satisfactory Refer Annexure: "A1 to A2"	---
2.	15.231	Radiation Test Intended Freq. and Spurious Emission -EUT : As per standard configuration Measurement : 3m distance  Freq. range & field strength 260 – 470 MHz	Fundamental in uV/m  3750-12500	Harmonics & spurious uV/m  375-1250	Satisfactory
3.	15.231	Transmitter transmission period & freq. of radiation Under normal working condition	Transmission period shall be less than 5 sec.	Satisfactory Freq.=433.906 Time 4.62 sec.	

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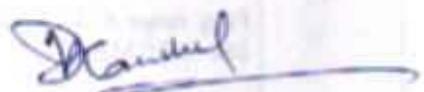
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## Test Result :

Sl. No.	Cl. No.	Parameter	Nominal Value/ Requirements	Measured Value/ Observations	Remarks
4.	15.109	Radiated Emission Measurement Under Normal Operating Condition Distance : 10m Test Method : ANCI C63.4-1992 Freq. in MHz 30 - 88  88 - 216  216 - 960  Above 960	PCC Limit Emission Limit (dBuV/m)QP 39  43.5  46.4  49.5	Satisfactory Refer Annexure "B"	...



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Remark :

- a) Report pertains only to the parameter(s) mentioned in the test results column.
- b) Handheld Transmitter meets the FCC part 15C, requirements for Conducted Emission Test Class B & Radiated Emission Test Class A.
- c) Conversion Formula & sample calculations are enclosed at Annexure - C.

*A. Sathyarayanan*

Approved By (Authorised Signatory)

Name A. SATHYARAYANAN

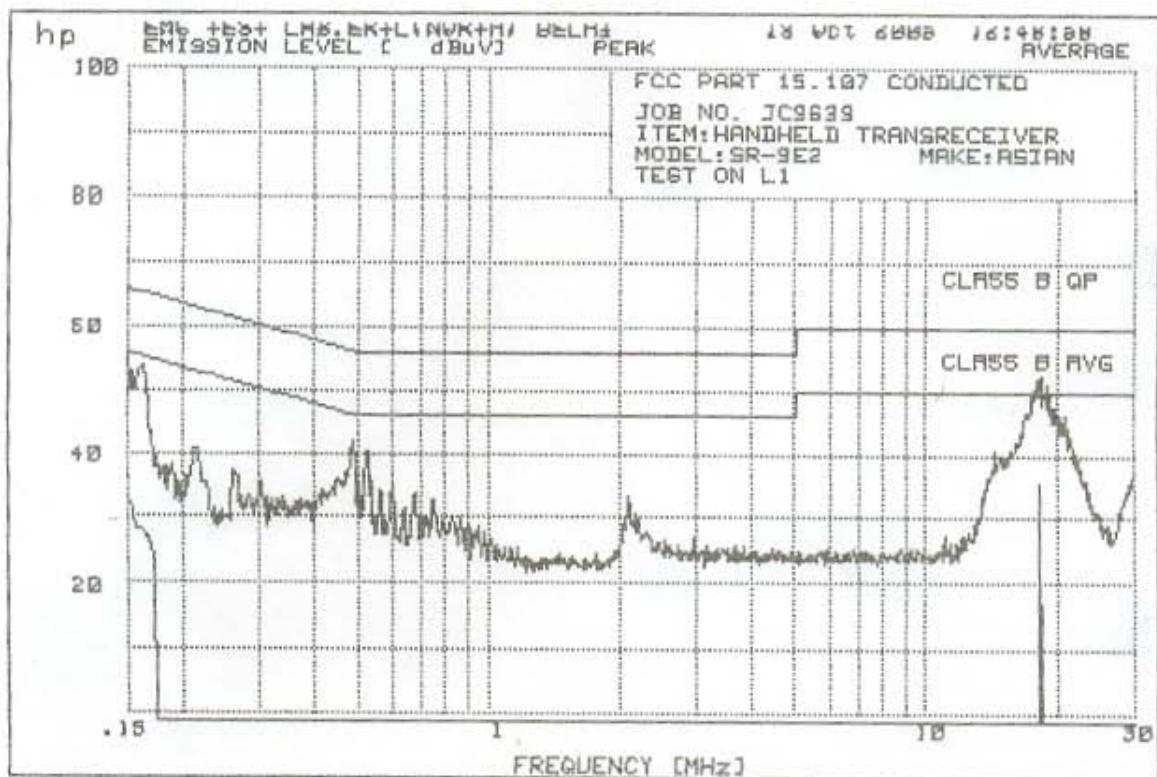
Designation SCIENTIST 'F'.

*Shankul*

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FOR DIRECTOR  
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V. D. KAUSHIK (Incharge Rep.)  
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Electronics Regional Test Laboratory (North)  
मोपू. एवं प्र. म. नं. 104, STQC Dte.  
सूचना प्रौद्योगिकी मंत्रालय  
Ministry of Information Technology  
भारत सरकार, Govt. of India  
नई दिल्ली, New Delhi-110011

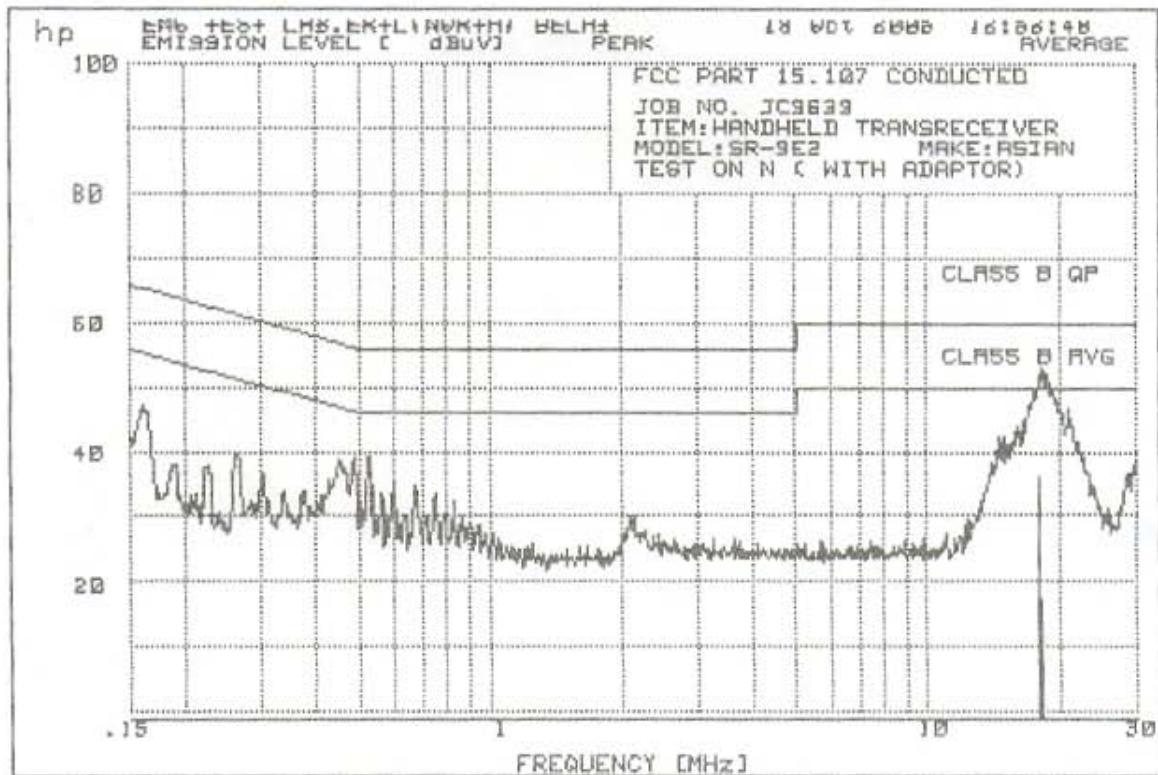
Annexure A1



*Ma*

*Maury*

## Annexure A2



*J. Ma*

Daniel

ANNEXURE-B  
 Test Report No  
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 DATED : 07/12/2005

Radiated Emission

Measurement Distance: 3m

Item: Handheld Transmitter Make: Asian

Sl. No.	Freq. in MHz	Pol. V/H	Emission Observed (dBuV) QP	Remarks.
1	30.2	V	46.4	Satisfactory
2	36.997	V	48.2	
3	42.061	H	45.4	
4	43.647	V	48.6	
5	54.972	H	43.7	
6	57.92	V	38.9	
7	61.72	V	43.2	
8	63.270	H	48.7	
9	64.964	V	47.8	
10	67.872	H	48.8	
11	82.84	H	48.0	
12	100.576	H	44.9	
13	108.65	H	46.6	
14	150.559	H	45.0	
15	164.313	H	40.8	
16	188.078	H	45.0	
17	200.00	H	33.5	
18	200.92	H	46.0	
19	271.45	H	45.1	
20	220.98	H	45.8	
21	222.14	H	45.5	
22	222.39	H	46.5	
23	246.47	H	40.0	
24	255.38	H	42.6	
25	232.26	V	37.9	
26	235.94	V	40.9	
27	246.47	H	41.0	
28	265.43	V	40.3	
29	255.31	H	42.6	

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ANNEXURE - C  
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Conversion Formulas :

A) Field strength : Emission observed in dBuV + Antenna factor  
(dBuV/m) (dB/m) + Cable loss (dB)

B) Field strength : Antilog (Field strength in dBuV/m)  
(uV/m) : -----  
20

C) Interference : Antilog (Interference observed in dBuV)  
(uV) : -----  
20

Sample Calculation :

Field strength in dBuV/m = Emission observed (dBuV)  
+ Antenna factor (dB/m)  
+ Cable loss (dB)

Example : Emission observed = 18dBuV at 35 MHz  
Antenna factor = 10dB/m  
Cable loss = 2dB

Field strength (dBuV/m) : 18 dBuV + 10dB/m + 2 dB = 30dBuV/m

Field strength uV/m : Antilog (field strength in (dBuV/m))  
-----  
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- ❖ High Precision Calibration Centre (HPCC) for offering High Precision Calibration.

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- ❖ All test facilities are as per National / International Standards.
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- ❖ Evaluation of Critical TV Components, Colour Televisions, Personal Computers & Peripherals.
- ❖ Testing of Energy Meters, Electronics Taxi Fare Meters.
- ❖ Electromagnetic Interference/ Electromagnetic Compatibility (EMI/EMC) Testing of Telecom, Power, Consumer Electronics, IT Equipment etc.
- ❖ Safety Testing of Consumer Electrical/ Electronics Equipment/ Appliances, Information Technology Equipment, Biomedical Equipment etc.
- ❖ Testing of Sub-assemblies & Equipment
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### FOR FURTHER DETAILS PLEASE CONTACT ON FOLLOWING TELEPHONE :-

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Head (Testing)	:	
EMC	:	26387103
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Environmental		— 26386205
Component		