EMI TESTING REPORT

EUT : 900 MHZ PAGER

MODEL : SP-8890

FCC ID : OERSP-8890

PREPARED FOR :

EPoX COMPUTER CO., INC.

10th FLOOR, NO. 346, CHUNG SAN RD., SEC. 2,

CHUNG HO CITY, TAIPEI HSIEN,

TAIWAN, R.O.C.

PREPARED BY :

SPECTRUM RESEARCH & TESTING LABORATORY INC.
NO. 101-10, LING 8, SHAN-TONG LI CHUNG-LI CITY,
TAOYUAN, TAIWAN, R. O. C.
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1. TEST REPORT CERTIFICATION

APPLICANT : EPoX COMPUTER CO., INC.

ADDRESS : 10th FLOOR, NO. 346, CHUNG SAN RD., SEC. 2,
CHUNG HO CITY, TAIPEI HSIEN,
TAIWAN , R.O.C.

EUT DESCRIPTION : 900 MHZ PAGER

(A) POWER SUPPLY : FROM BATTERY (1.5V)

(B) MODEL : SP-8890

(C) FCC ID : OERSP-8890

FINAL TEST DATE : 02/04/1999

MEASUREMENT PROCEDURE USED :

* PART 15 SUBPART B OF FCC RULES AND REGULATIONS (47 CFR PART 15)
* ANSI C63.4 - 1992
* TEST PROCEDURE AND DATA ARE TRACEABLE TO NIST / USA.

We hereby show that :

The measurement shown in the attachment were made in accordance with the procedures indicated, and the energy emitted by the equipment was found to be within the limits applicable.

TESTING ENGINEER : Taylor auth DATE 2/4/99
Tom Chuang

SUPERVISOR : DATE 2/4/99
Jesse Ho

APPROVED BY : DATE 2/4/99
Johnson Ho

2. TEST STATEMENT

2.1 TEST STATEMENT

To whom it may concern,

This letter is to explain the test condition of this project. The EUT be tested as the following status.

Operating Frequency : 910.2950MHz

The different is case and chip.

The data was shown in this report reflects the worst – case data for the condition as listed above.
Please disregard any other oricessir (s) speed shown in this user manual.

2.2 DEPARTURE FROM DOCUMENT POLICIES, PROCEDURE OR SPECIFICATIONS, THE STATEMNT

A. DID HAVE
Any departure from document policies & procedures or from specifications.
Yes _____, No ____√____ .
If yes, the description as below.

B. The certificate and report shall not be reproduced except in full, without the written approval of SRT laboratory.

C. The report must not be used by the client to claim product endorsement by NVLAP or any agency the government.

3. EUT MODIFICATIONS

The following accessories were added to the EUT during testing :

No modification by SRT LAB.

4. MODIFICATION LETTER

This section contains the following documents :

A. Letter of modifications

磐英科技股份有限公司

Epox Computer Co.,Inc.

台北縣中和市中山路二段346號 10 樓

10th Floor, No.346, Chung San Rd. Sec. 2, Chung Ho City, Taipei Hsien,

Taiwan R.O.C.

TEL: 886-2-22473208 FAX: 886-2-22472184

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern :

This is to serve as proper notice that our company agrees to make all modifications to FCC ID : OERSP-8890 as listed in section 3.0 of modification to submitted by Spectrum Research and Testing Laboratory, Inc.

Respectfully,

Arthur Hsieh
(Name, Surname)

Vice General Manager
(Position/Title)

DATE : Jan. 28, 1999

Effective Dates :

From Jan. 1999 to Jan. 2000

5. RADIATED EMISSION TEST

5.1 TEST EQUIPMENT

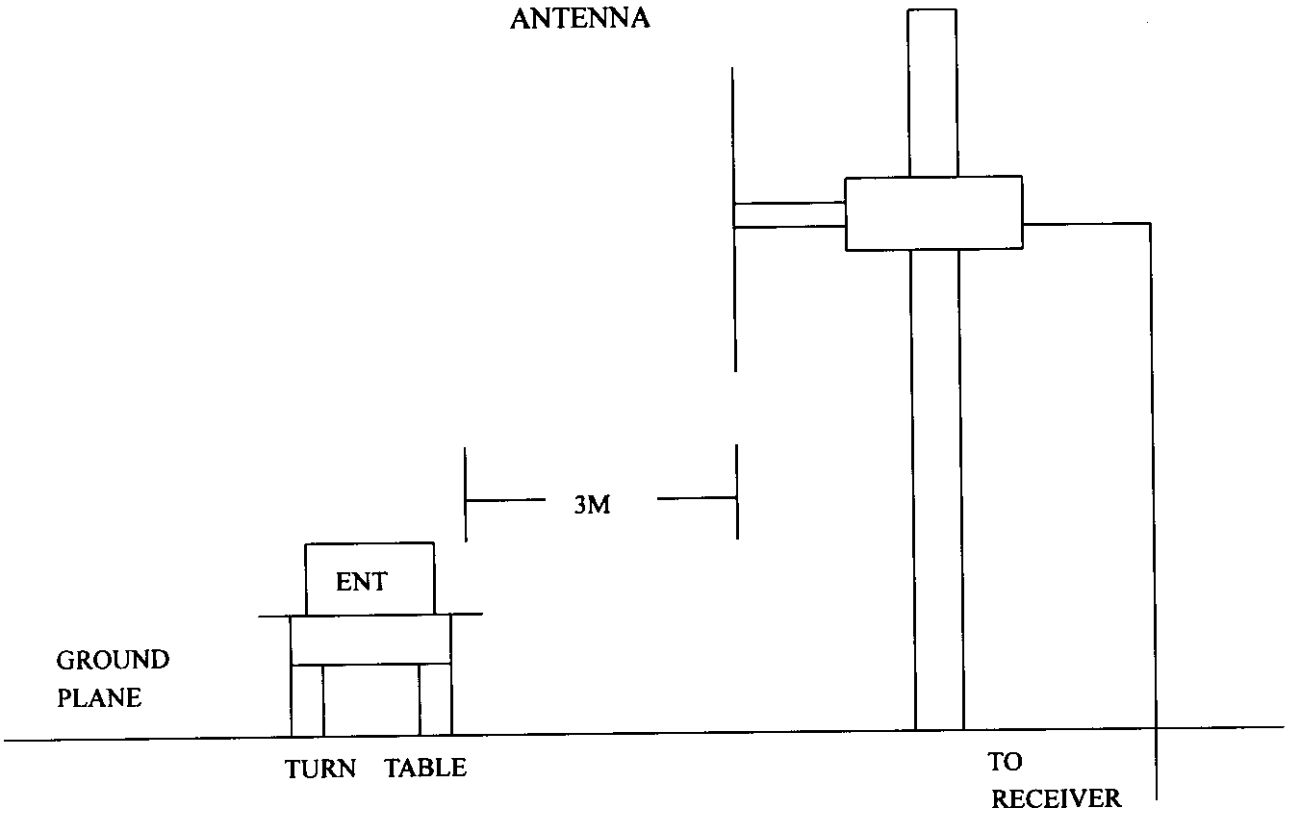
THE FOLLOWING TEST EQUIPMENT WERE USED DURING THE RADIATED EMISSION TEST :

RECEIVER	20 MHz TO 1000 MHz	R & S	ESVS30/ 841977/03	APRIL, 1998 ITRI	1Y
SPECTRUM ANALYZER	100 Hz TO 1500 MHz	HP	8568B/ 3019A05294	OCT., 1998 ETC	1Y
SPECTRUM ANALYZER	9 KHz TO 22 GHz	HP	8593E/ 3322A00670	APRIL, 1998 ITRI	1Y
SPECTRUM ANALYZER	100 Hz TO 1000 MHz	IFR	A-7550/ 2684/1248	JULY, 1998 ETC	1Y
SIGNAL GENERATOR	9 KHz TO 1080 MHz	ROHDE & SCHWARZ	SMY01/ 841104/019	APRIL, 1998 ITRI	1Y
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9003-535	SEP., 1998 SRT	1Y
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9611-1239	NOV., 1998 SRT	1Y
BI-LOG ANTENNA	26 MHz TO 2000 MHz	EMCO	3142/ 9608-1073	NOV., 1998 SRT	1Y
BI-LOG ANTENNA	26 MHz TO 1100 MHz	EMCO	3143/ 9509-1152	SEP., 1998 SRT	1Y
PRE-AMPLIFIER	0.1 MHz TO 1300 MHz	HP	8447D/ 2944A08402	APRIL, 1998 ITRI	1Y
PRE-AMPLIFIER	0.1 MHz TO 1300 MHz	HP	8447D/ 2944A06412	AUGUST, 1998 ETC	1Y
HORN ANTENNA	1 GHz TO 18 GHz	EMCO	3115/ 9612-3619	JAN., 1999 EMCO	1Y

5.2 TEST PROCEDURE

(1).The EUT was tested according to ANSI C63.4 - 1992. The radiated test was performed at SRT LAB'S OPEN SITE. this site is on file with the FCC laboratory division, reference 31040 / SRT.
(2).The EUT, peripheralls were put on the turntable which table size is 1m x 1.5 m, table heigh 0.8 m. All set up is according to ANSI C63.4-1992.
(3).The frequency spectrum from 30 MHz to 1 GHz was investigated. All readings from 30 MHz to 1 GHz are QUASI-PEAK values with a resolution bandeidth of 120 KHz. All readings are above 1 GHz, PEAK values with a resolution bandwidth of 1 MHz. Measurements were made at 3 METERS.
(4). The antenna heigh were varied from 1 m to 4 m heigh to find the maximum emission for each frequency.
(5). The antenna polarization : vertical polarization and horizontal polarization.

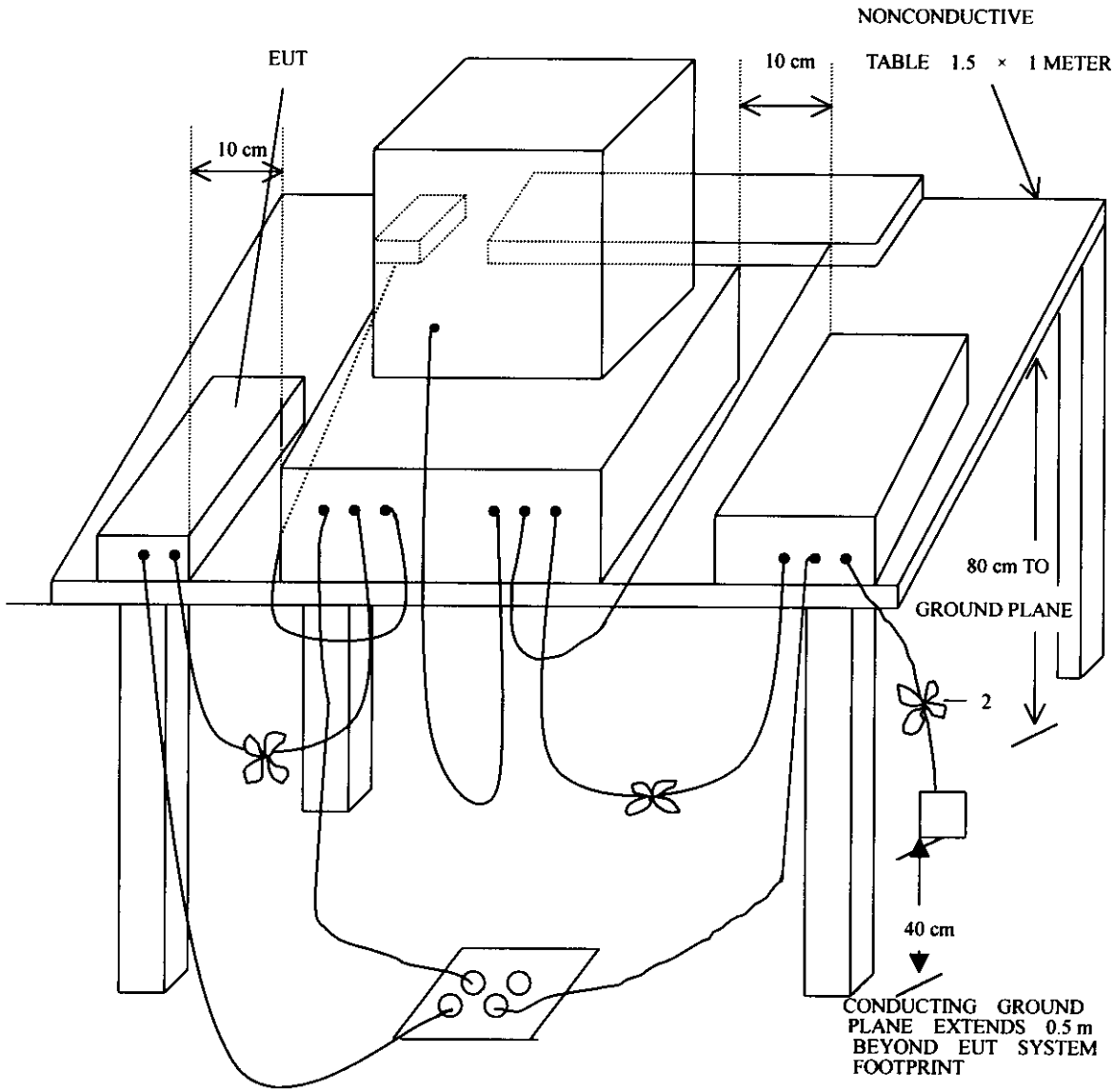
5.3 RADIATED TEST SET-UP



5.3 RADIATED TEST SET-UP

ELECTRICAL AND ELECTRONIC EQUIIPMENT IN THE RANGE IN THE RANGE OF 9 KHz TO 40 GHz

ANSI C63.4-1992



5.4 CONFIGURATION OF THE EUT

The EUT was configured according to ANSI C63.4 - 1992. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

900 MHZ PAGER	EPoX COMPUTER CO., INC.	SP-8890	OERSP-8890

B. INTERNAL DEVICES

N/A			

C. PERIPHERALS

DEVICE	MANUFACTURER	MODEL # SERIAL #	FCCID / DoC	CABLE
N/A				

- REMARK :

(1). cable - uns : unshielded
s : shielded

(2). cables - All 1m or greater in length – bundled according to ANSI C63.4 – 1992.

5.5 EUT OPERATING CONDITION

OPERATING CONDITION IS ACCORDING TO ANSI C63.4 - 1992.

1. EUT POWER ON.
2. OPERATING FREQUENCY : 910.2950MHz
3. THE DIFFERENT IS CASE AND CHIP.

5.6 REDIATED EMISSION LIMIT

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below :

CLASS B

[illegible]	[illegible]	[illegible]
30 - 88	3	100
88 - 216	3	150
216 - 960	3	200
ABOVE 960	3	500

CLASS A

[illegible]	[illegible]	[illegible]
30 - 88	3	316.3
88 - 216	3	473.2
216 - 960	3	613.0
ABOVE 960	3	1000.0

[illegible] : 1. In the emission tables above, the toghter limit applies at the band edges.

2. Distance refers to the distance between measuring instrument, antenna, and the closest point of any part of the device or system.

5.7 RADIATED EMISSION TEST RESULT

The frequency spectrum from 30 MHz to 10 GHz was investigated. All readings from 30 MHz to 1 GHz are QUASI-PEAK VALUES with a resolution bandwidth of 120 KHz. Measurements were made at 3 meters. The measurements above 1 GHz with a resolution bandwidth of 1 MHz are PEAK READING at a distance of 3 meters.

TEMPERATURE : 23 °C HUMIDITY : 55 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING (dBuV)		EMISSION (uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
37.1261	0.5	13.4	*	5.8	*	9.7	100
74.8152	0.8	7.9	*	6.6	*	5.8	100
113.7185	1.0	9.6	*	6.8	*	7.4	150
198.9581	1.2	12.2	15.7	12.1	28.5	18.8	150
557.4146	2.0	19.4	7.1	*	26.6	*	200
668.4812	2.2	22.5	6.5	*	36.3	*	200
910.2950	2.9	24.1	11.6	15.7	85.1	136.5	200
927.2814	2.9	24.2	8.3	*	58.9	*	200

REMARKS : (1). *= measurement does not apply for this frequency.

(2). uncertainty in radiated emission measured is <+/-4dB

(3). any departure from specification : N/A

(4). sample calculation

20 log (emission) uV/m = cable loss(dB)+factor(dB)+reading(dBuV/m)

(5).Test with blue case

SIGNED BY TESTING ENGINEER : Taylor with

5.7 RADIATED EMISSION TEST RESULT

The frequency spectrum from 30 MHz to 10 GHz was investigated. All readings from 30 MHz to 1 GHz are QUASI-PEAK VALUES with a resolution bandwidth of 120 KHz. Measurements were made at 3 meters. The measurements above 1 GHz with a resolution bandwidth of 1 MHz are PEAK READING at a distance of 3 meters.

TEMPERATURE : 23 °C HUMIDITY : 55 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING (dBuV)		EMISSION (uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
79.4700	0.7	7.9	18.5	*	22.6	*	100
93.0500	0.8	8.7	*	15.9	*	18.6	150
112.4500	0.9	9.4	*	17.9	*	25.7	150
131.8500	1.0	10.6	*	16.3	*	24.8	150
138.6400	1.0	11.9	15.3	*	25.70	*	150
179.3800	1.1	10.6	15.1	*	21.9	*	150
910.2950	2.9	24.2	11.6	12.2	86.1	92.3	200

REMARKS : (1). *= measurement does not apply for this frequency.

(2). uncertainty in radiated emission measured is <+/-4dB

(3). any departure from specification : N/A

(4). sample calculation

20 log (emission) uV/m = cable loss(dB)+factor(dB)+reading(dBuV/m)

(5).Test with yellow case

SIGNED BY TESTING ENGINEER : Taylor Smith