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CERTIFICATION TEST REPORT FOR A 5800 MHz TRANSCEIVER

Applicant:	RadioLAN 455 DeGuigne Drive Sunnyvale, CA 94089
Model:	Model 140 (“Flip radio”)
FCC ID:	MCI140
Operating Frequency:	5800 MHz
FCC Rule Part:	15.249
Used For:	WLAN in offices, etc.
Power Source:	Power from host computer via PCMCIA connector
Test Location:	Compliance Consulting Services 951F Monterey Road Morgan Hill, CA 95087

All tests were performed by me or under my supervision. The RadioLAN Model 140 meets all emissions and modulation requirements specified under Parts 2 and 15 of the Commission’s Rules.

THOMAS N. COKENIAS 11 Jan 1999

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EXHIBITS

EXHIBIT A: Letter Requesting Confidentiality under Sec. 0.457(d)

EXHIBIT B: Information for which Confidentiality is Requested

B1: Theory of Operation
B2: Block Diagram
B3 Schematics

EXHIBIT C: Product Photographs

EXHIBIT D: FCC ID Label Drawing

EXHIBIT E: User Manual

EXHIBIT F: Report of Measurements

EXHIBIT A: Letter Requesting Confidentiality under Sec. 0.457(d)

- see attachment *MCI140 Confidentiality Letter*

EXHIBIT B: Information for which Confidentiality is Requested

B1: Theory of Operation: see attachment *theory*

B2: Block Diagram: see attachment *system block and digital block diagram*

B3 Schematics: see attachments *schematic 1 and 2*

EXHIBIT C: Product Photographs

see attached photos in JPEG

EXHIBIT D: FCC ID Label Drawing

see attachment *FCC ID Label*

EXHIBIT E: User Manual

see attachment *User manual*

EXHIBIT I: Report of Measurements

TEST PROCEDURES

Radiated Emissions
Test Requirement: 15.249(a)

Measurement Equipment Used:

HP 8566B Spectrum Analyzer
HP 8449 B Preamplifier, 1-26 GHz
ARA Systems DRG-118A Horn, 1 - 18 GHz
ARA MWH 1826/B Horn, 18 - 26 GHz
HP 11970A harmonic mixer, 26.5 - 40 GHz
HP 11975A levelling pre-amplifier for harmonic mixer

Test Set-Up

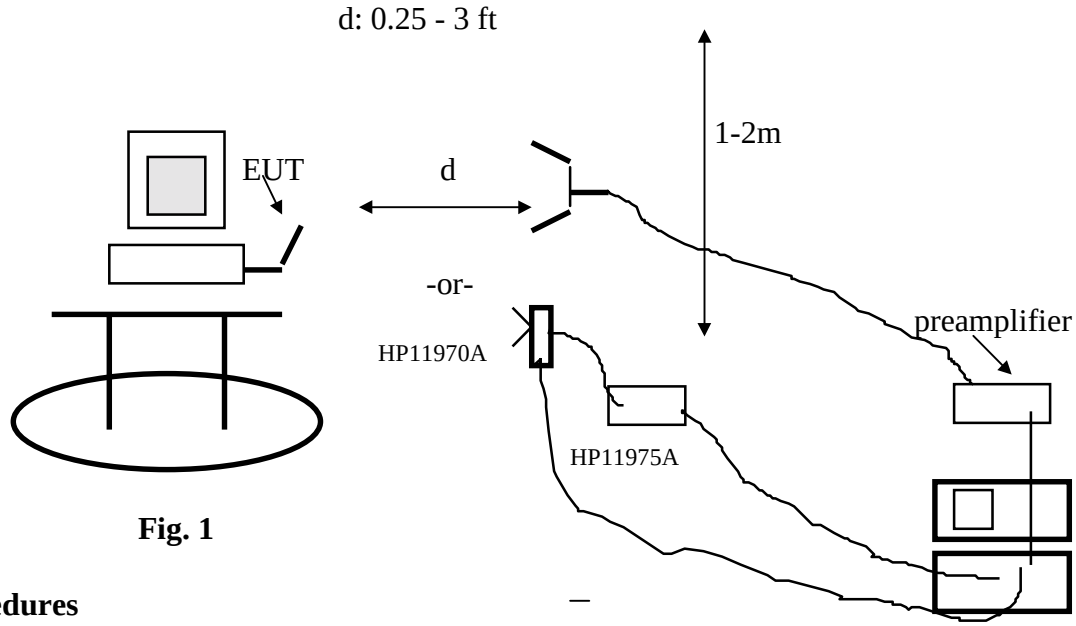

Fig. 1

Test Procedures

1. The EUT was placed on a wooden table. The search antenna was placed 3 ft from the EUT. The EUT antenna was mounted vertically as per normal installation.

2. The EUT was slowly rotated to locate the direction of maximum emission at each emission being measured.

3. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

Test Results: Refer to Excel spread sheet ***Radiated emissions 1/11/99***

Occupied Bandwidth
Test Requirement: 15.249(c)

Measurement Equipment Used:

HP 8564E Spectrum Analyzer
HP 8449 B Preamplifier, 1-26 GHz
AH Systems SAS-200/571 Double Ridge Waveguide Horn, 1 - 18 GHz
EMCO 3116 Ridged Waveguide Horn, 18 - 40 GHz

Test Set-Up

Refer to Figure 1.

Test Procedures

1. Antenna to EUT distance was decreased to approximately 4 inches.
2. The spectrum analyzer was set to display the entire 5725-5875 MHz frequency range.
3. The MAX HOLD and MARKER features of the analyzer were used to determine the occupied bandwidth of the signal.

Test Results

All out of band signals were at least 50 dB below the fundamental or else met the radiated requirements of 15.209. Refer to spectrum analyzer charts ***UBE.jpg and LBE.jpg***

AC Line Conducted Emissions
Test Requirement: 15.107, 15.207

Measurement Equipment Used:

Rohde & Schwarz EMI Receiver ESHS-20
Fischer Custom Communication LISN, FCC-LISN-50/250-25-2

Test Set-up

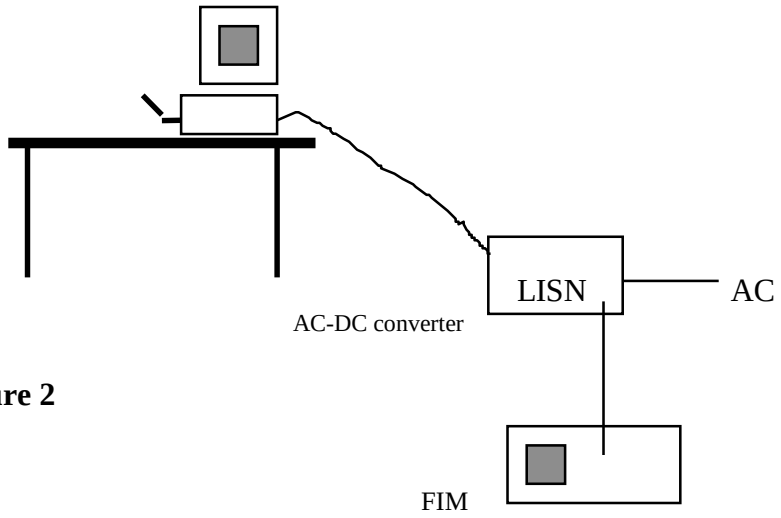

Figure 2

Test Procedure

1. The EUT was placed on a wooden table 40 cm from a vertical ground plane and approximately 80 cm above the horizontal ground plane on the floor. The EUT was set to transmit in a normal mode.
2. Line conducted data was recorded for both NEUTRAL and HOT lines.

Test Results

Refer to attached graph ***MCI140 AC Line Cond.***

Radiated Emissions from ITE Portion of EUT
Test Requirement: 15.101, 15.109

The EUT meets the requirements for a class A device. The classification is applicable to this product because it will be sold and used in an office network environment. A verification report will be sent to RadioLAN by the test laboratory.

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