

Addendum 1.0

TEST RESULT SUMMARY

UNITED STATES STANDARD 47 CFR PART 15, SUBPART C

MANUFACTURER NAME	Lucent Technologies Nederland B.V.
NAME OF EQUIPMENT	Orinoco Mini PCI-3A
MODEL NUMBER	MPCI3A-20
MANUFACTURER ADDRESS	Zadelstede 1-10 Nieuwegein, Zip: 3431 JZ, The Netherland
TEST REPORT NUMBER	A2110352F01
TEST DATE	11 December 2000

According to testing performed at BABT Product Service, the above-mentioned unit is in compliance with the electromagnetic compatibility requirements defined in United States Standard 47 CFR Part 15, Subpart C.

BABT Product Service reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. BABT Product Service shall have no liability for any deductions, inferences or generalizations drawn by the client or others from BABT Product Service issued reports.

As the responsible EMC Project/Division Managers, we hereby declare that the equipment tested at BABT Product Service as specified above conforms to the requirements of United States Standard 47 CFR Part 15, Radio Frequency Devices, Subpart C, Intentional Radiators.

Date: 9 February, 2001

Location: Santa Clara, California
USA



Frank Ibrahim
Engineer In Charge



Harry Ward
EMC and Radio Manager



Certificate No: 1212-01

Not Transferable

Report No. A2110352F01
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RF Exposure Limits – CFR47 Part 15, Section 15.247(b)4:

MPE Distance Calculations

Calculations of the MPE distance are based on equation 3 of OET Bulletin 65. Equation 3 was used instead of equations 11 –18 for ease of calculation. This is also justified by the fact that equation 3 leads to calculations of higher field strength and a greater MPE distance. The distance has been calculated using the rated output power of <35mW.

Antenna gain has been taken as 0dBi. The maximum gain is –0.16dBi, the average gain being -6.03dBi.

$$R = \sqrt{PG/4\pi S} \quad S = 1\text{mW/cm}^2$$

$$P = 35\text{mW} \quad G = 10^{(0\text{dBi}/10)} = 1$$

$$R = \sqrt{(35 \times 1/4\pi)} = 1.7\text{cm}$$

Limit

The MPE distance limit for mobile devices is 20cm, which corresponds to a MPE of 1mW/cm^2 .

Addendum 1.0**EIRP Measurement , FCC Rule 15.247 (b):****Requirements:**

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt (+30 dBm).

For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to $(\text{GAIN} - 6) / 3$ dBm.

Test Results:

Max Antenna Gain = 0 dBi		
Frequency (MHz)	Output in dBm	Output in mWatt
2411	-20.4	0.009
2436	-19.4	0.011
2464	-19.0	0.013

Addendum 1.0**Maximum Power Density Reading, FCC Rule 15.247 (d):**

The spectrum analyzer RES BW was set to 3 kHz. The START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs. The specification calls for a 1 second interval at each 3 kHz bandwidth; total SWEEP TIME is calculated as follows:

$$\text{SWEEP TIME (SEC)} = (\text{Fstop, kHz} - \text{Fstart, kHz}) / 3 \text{ kHz}$$

Antenna output of the EUT was coupled directly to the spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

Frequency (MHz)	Power Density (dBm)
2411	-40.7

Channel 1

Frequency (MHz)	Power Density (dBm)
2436	-36.0

Channel 6

Frequency (MHz)	Power Density (dBm)
2464	-43.1

Channel 11

Frequency Span = 600 kHz

Sweep time = Frequency Span / 3 kHz
= 200 seconds