

Straubing, April 27, 1999

**TEST - REPORT**

**No. 56305-90204-3**

**for**

**LUC PC24E-H-FC**

**RF-modem for wireless LAN**

Applicant: Lucent Technologies Nederland B.V.

Purpose of testing: To show compliance with

FCC Code of Federal Regulations,  
Part 15 Subpart C, Section §15.247

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Note:

The test data of this report relate only to the individual item which has been tested.  
This report shall not be reproduced except in full extent without the written approval  
of the testing laboratory.

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## 1. Administrative Data

Equipment Under Test (EUT): LUC PC24E-H-FC  
Serial number(s): 90990005 (RF-modem)  
Sample no. 1 (external antenna)  
Type of equipment: RF-modem using DSSS technology for wireless connection for e.g. portable and mobile computers which have a PCMCIA-bus.  
Parts/accessories:

- RF-modem LUC PC24E-H-FC, part no. 011438
- external YAGI antenna AOU24-YA-1414, Telex, part no. 011004
- coaxial antenna cable 3/8", 50 ft, part no. 010317
- Hyperlink lightning arrestor, part no. 010997
- RF-IEEE cable, 50 cm, part no. 010995

(for additional information see "Configuration of EUT and Peripheral Devices" on page 8)  
FCC-ID: IMRWLPCE24H

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Applicant:  
(full address) Lucent Technologies Nederland B.V.  
Zadelstede 1-10  
NL-3431 JZ Nieuwegein  
The Netherlands  
Contract identification: ---  
Contact person: Mr. Wout Kerkhof  
Manufacturer: Lucent Technologies Nederland B.V.

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Receipt of EUT: March 16, 1999  
Date of test: April 16 to 26, 1999  
Note: ---

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Responsible for testing: Rainer Heller  
Responsible for test report: Rainer Heller

## 2. Identification of Test Laboratory

|                                     |                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------|
| Test Laboratory:<br>(full address): | Senton GmbH EMI/EMC Test Center<br>Aeussere Fruehlingstrasse 45<br>D-94315 Straubing<br>Germany |
|-------------------------------------|-------------------------------------------------------------------------------------------------|

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|                 |                                                                                              |
|-----------------|----------------------------------------------------------------------------------------------|
| Contact person: | Mr. Johann Roidt                                                                             |
| Communication:  | Telephone (+49) 0 94 21 / 55 22-0<br>Fax (+49) 0 94 21 / 55 22-99<br>eMail: Office@senton.de |

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|                              |                  |
|------------------------------|------------------|
| FCC file number:             | 31040/SIT 1300F2 |
| Industry Canada file number: | IC 3050          |

### 3. Summary of Test Results

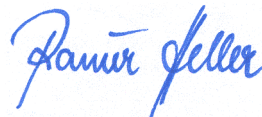
The tested sample (including accessories) complies with the requirements for

- minimum 6 dB bandwidth (§15.247.a2),
- maximum peak output power (§15.247.b),
- average power density (§15.247.d) and
- radiated emission 30 MHz to 25 GHz (§15.247.c, §15.205.a,b, §15.209)

set forth in the Code of Regulations Part 15 Subpart C, Section §15.247 (intentional radiators) of the Federal Communication Commission (FCC).



Johann Roidt  
Technical Manager



Rainer Heller  
Test Engineer

#### 4. Operation Mode of EUT

All tests were performed using the "WaveLAN-II Engineering Test Program", Version v01.15b (Feb 24 1999). According to applicant three different kinds of modulation are used for transmission specified by the appropriate bit rate:

Transmit mode (TX):

| Operating frequency<br>[GHz] | Rated output power (conducted) [dBm] |                   |                  | Test<br>performed <sup>1</sup> |
|------------------------------|--------------------------------------|-------------------|------------------|--------------------------------|
|                              | Bit rate 2 Mbps                      | Bit rate 5.5 Mbps | Bit rate 11 Mbps |                                |
| 2.412                        | +15                                  | +15               | +15              | X                              |
| 2.417                        | +15                                  | +15               | +15              |                                |
| 2.422                        | +15                                  | +15               | +15              |                                |
| 2.427                        | +15                                  | +15               | +15              |                                |
| 2.432                        | +15                                  | +15               | +15              |                                |
| 2.437                        | +15                                  | +15               | +15              |                                |
| 2.442                        | +15                                  | +15               | +15              | X                              |
| 2.447                        | +15                                  | +15               | +15              |                                |
| 2.452                        | +15                                  | +15               | +15              |                                |
| 2.457                        | +15                                  | +15               | +15              |                                |
| 2.462                        | +15                                  | +15               | +15              | X                              |

Receive mode (RX):

| Operating frequency<br>[GHz] | Test performed |
|------------------------------|----------------|
| 2.412                        |                |
| 2.417                        |                |
| 2.422                        |                |
| 2.427                        |                |
| 2.432                        |                |
| 2.437                        |                |
| 2.442                        | X              |
| 2.447                        |                |
| 2.452                        |                |
| 2.457                        |                |
| 2.462                        |                |

**Note:** See next page for instructions supplied by applicant to achieve required operation mode.

<sup>1</sup> Full testing with bit rate 11 Mbps only

## INSTRUCTIONS - TEST PROGRAM

WaveLAN Engineering Test Program, V01.15b, Mar 15, 1999

### **SETUP**

- INSERT Modem
- INSERT Test Program disk
- SWITCH ON PC
- GO TO A:\
- TYPE **Cert\_eng**
- **MAIN MENU** appears
- SELECT **INITIALISE** and ENTER
- INITIALISE appears for a short time, green power LED is on
- Program returns automatically to **MAIN MENU**

### **CHANNEL SELECTION**

- SELECT **SET CHANNEL** from MAIN MENU and ENTER
- SELECT channel and ENTER
- RESULTS appear
- ESC (back to **MAIN MENU**)

### **TX MODE**

- SELECT **TX CONTINUOUS ON** from MAIN MENU and ENTER,
- SET **BIT RATE** parameters: 2=2Mbps; 3=5.5Mbps; 5=11Mbps and ENTER  
(Modem transmits spectrum with specified bit rate on selected channel. Both LEDs are on. Check by spectrum analyzer)
- To stop transmission SELECT **RX CONTINUOUS ON / STOP** and ENTER
- To restart transmission SELECT **TX CONTINUOUS ON** and ENTER two times
- NOTE: Before changing the channel number **INITIALISE** has to be selected first. For further details see Channel Selection above.

### **RX MODE**

- SELECT **RX CONTINUOUS ON / STOP** from MAIN MENU and ENTER
- NOTE: Before changing the channel number **INITIALISE** has to be selected first. For further details see Channel Selection above.

### **CHANNEL LIST**

| Channel ID | FCC (MHz)   |
|------------|-------------|
| 01         | <b>2412</b> |
| 02         | 2417        |
| 03         | 2422        |
| 04         | 2427        |
| 05         | 2432        |
| 06         | 2437        |
| 07         | <b>2442</b> |
| 08         | 2447        |
| 09         | 2452        |
| 10         | 2457        |
| 11         | <b>2462</b> |

## 5. Configuration of EUT and Peripheral Devices

RF-modem module LUC PC24E-H-FC was tested operating with YAGI antenna AOU24-YA-1414 connected via 50 ft antenna cable, lightning arrestor and RF-IEEE cable and mounted in PCMCIA slot of personal computer AT & T Globalyst 550 via ISA adaptor board ISAPC-B0

External antenna AOU24-YA-1414 was mounted on a metal tripod in 1.5 m height.

In table 1 used accessories and host equipment are listed (with Lucent part numbers).

| Item                                                      | Part no. | Serial no.   | Designation                                                                             | Manufacturer |
|-----------------------------------------------------------|----------|--------------|-----------------------------------------------------------------------------------------|--------------|
| RF-modem                                                  | 011438   | 90990005     | LUC PC24E-H-FC                                                                          | Lucent       |
| External YAGI antenna                                     | 011004   | Sample no. 1 | AOU24-YA-1414                                                                           | Telex        |
| Coaxial antenna cable<br>3/8", 50 ft                      | 010317   | ---          | ---<br>(cable type TWB<br>4001, N connector<br>(male) on each side)                     | Amphenol     |
| RF-IEEE cable, 50 cm<br>(to be connected to RF-<br>modem) | 010995   | ---          | ---<br>(cable type Filotex P -<br>EDE 296769, N<br>connector (male) on<br>antenna side) | Lucent       |
| Lightning arrestor                                        | 010997   | ---          | ---                                                                                     | Hyperlink    |
| Personal computer                                         | ---      | 17-26190719  | Globalyst 550                                                                           | AT & T       |
| ISA adaptor board                                         | 010053   | B2-8         | ISAPC-B0                                                                                | Lucent       |

Table 1: Accessories and host equipment

In combination with external antenna AOU24-YA-1414 EUT is intended to be used with three versions of antenna cables. Depending on antenna cable the effective antenna gain is calculated by subtracting the appropriate total insertion loss including attenuation caused by RF-IEEE cable and lightning arrestor from the typical gain of external antenna (see table 2).

To combine maximum effective antenna gain with maximum length (with priority to gain) 50 ft cable was selected for testing.

| Part number | Antenna cable length | Type   | Antenna gain AOU24-YA-1414 [dBi] | Total insertion loss [dB] | Effective antenna gain [dBi] |
|-------------|----------------------|--------|----------------------------------|---------------------------|------------------------------|
| 010999      | 20 ft                | LMR200 | 13.5                             | 4.5                       | 9.0                          |
| 010317      | 50 ft                | LMR400 | 13.5                             | 4.5                       | 9.0                          |
| 011002      | 75 ft                | LMR400 | 13.5                             | 5.3                       | 8.2                          |

Table 2: Effective gain for external antenna AOU24-YA-1414 and different antenna cables

## 6. Setup of Host

### Configuration of cables of host

- Unshielded power lines for AC-power supply of personal computer and monitor, Kawasaki, 180 cm
- Shielded video cable E101344 Style 2990 VW-1 connected to video interface of personal computer, AWM, 170 cm
- Shielded data cable connected to parallel interface of personal computer, Inmac, 150 cm, Senton inv.-no. 1387
- Shielded data cable connected to serial interface of personal computer, Senton, 220 cm, Senton inv.-no. 1401

### Configuration of host and peripheral devices

- Personal computer AT & T Globalyst 550:  
Serial no.: 17-26190719                      FCC-ID: CTD3246
- Lucent ISA-card ISAPC-B0:  
Serial no.: B2-8
- Monitor Siemens S26361-K203-V311:  
Serial no.: 17569281                      FCC-ID: ASIC3X2
- PS/2-keyboard HP C1405A #ABD:  
Serial no.: 3221S30020                      FCC-ID<sup>2</sup>: B94VECTRA386S-20
- PS/2-mouse HP C1413A:  
Serial no.: 3227M01197                      FCC-ID: B94C1413X
- Parallel printer HP ThinkJet 2225C+:  
Serial no.: 3106S91193                      FCC-ID: DSI6XU2225  
with power supply Hayes 52-00008  
Serial no.: 9028A
- Serial printer HP ThinkJet 2225D+:  
Serial no.: 2920S44042                      FCC-ID: DSI6XU2225  
with power supply Hayes 52-00008  
Serial no.: 9033A

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<sup>2</sup> FCC-ID of corresponding personal computer

## 7. Measuring Methods

### 7.1. Minimum 6 dB Bandwidth (§ 15.247.a2)

The minimum 6 dB bandwidth was measured with a spectrum analyzer connected to the antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate center frequency.

The spectrum analyzer was set to:

RBW = 100 kHz, VBW = 100 kHz, span = 50 MHz, sweep = 20 ms

See figure 1 for the measurement setup.

Test equipment used (see equipment list for details):

02, 18, 57, 67, 68

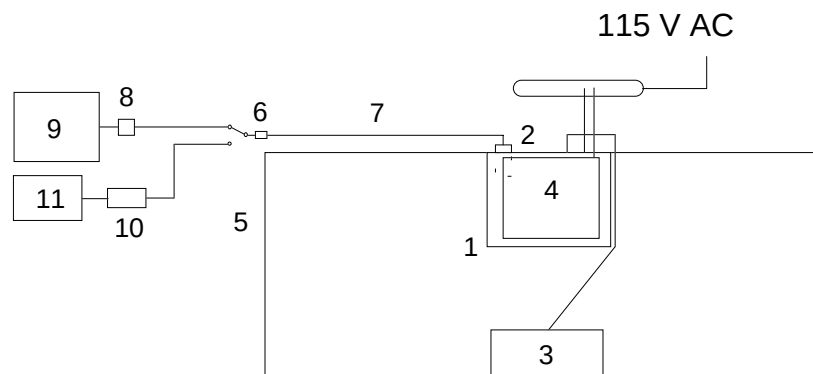


Figure 1: Measurement setup for testing on antenna connector

- |                                   |                     |
|-----------------------------------|---------------------|
| 1 Personal computer with ISA-card | 6 DC-block          |
| 2 RF-modem                        | 7 Adapter cable     |
| 3 Keyboard                        | 8 Attenuator        |
| 4 Monitor                         | 9 Spectrum analyzer |
| 5 Wooden table                    | 10 Power sensor     |
|                                   | 11 Power meter      |

## **7.2. Maximum Peak Output Power (§ 15.247.b)**

The maximum peak output power was measured with a power meter connected to the antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate center frequency.

A spectrum analyzer (set to RBW = 100 kHz, VBW = 100 kHz, span = 100 MHz, sweep = 40 ms) was used to record the shape of the transmit signal.

See figure 1 for the measurement setup.

Test equipment used (see equipment list for details):

02, 08, 09, 18, 67, 68

## **7.3. Peak Power Density (§ 15.247.d)**

The peak power density was measured with a spectrum analyzer connected to the antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate center frequency.

The spectrum analyzer was set to max hold with  
RBW = 3 kHz, VBW = 100 kHz, span = 300 kHz, sweep = 100 s  
See figure 1 for the measurement setup.

Test equipment used (see equipment list for details):

02, 18, 57, 67, 68

**7.4. Radiated Emission 30 MHz - 1 GHz (§15.209, §15.247.c, §15.205.a,b)**

Radiated emissions were measured over the frequency range from 30 MHz to 1 GHz. The bandwidth of the EMI-receiver was set to 120 kHz and the detector-function was set to CISPR quasi-peak.

The test setup was made in accordance with ANSI C63.4-1992. Measurements were made in both the horizontal and vertical planes of polarization. Preliminary scans were taken in a semi-anechoic room using a spectrum analyzer with the detector function set to peak. All tests were performed at a test-distance of 3 meters. For final testing an open-area test-site was used. During the tests the EUT was rotated all around and the receiving-antenna was raised and lowered from 1 meter to 4 meters to find the maximum levels of emissions. The cables and equipment were placed and moved within the range of position likely to find their maximum emissions.

See figure 2 for the measurement setup.

Test equipment used (see equipment list for details):

01, 06, 12, 38, 39, 40, 41, 58, 61, 64, 66

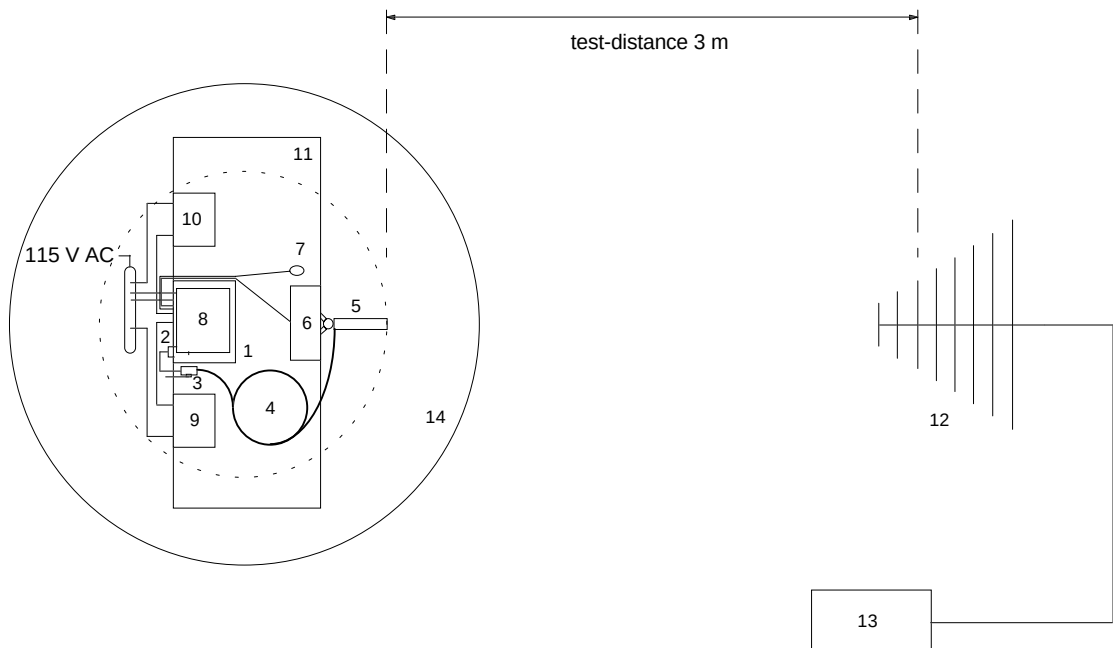


Figure 2: Measurement setup for radiated emission test below 1 GHz

- |                                                       |                               |
|-------------------------------------------------------|-------------------------------|
| <b>1</b> Personal computer with ISA-card              | <b>12</b> Measurement antenna |
| <b>2</b> RF-modem                                     | <b>13</b> Test receiver       |
| <b>3</b> Lightning arrestor with ground connection    | <b>14</b> Turn table          |
| <b>4</b> Antenna cable                                |                               |
| <b>5</b> RF-antenna (2.4 GHz) mounted on metal tripod |                               |
| <b>6</b> Keyboard                                     |                               |
| <b>7</b> Mouse                                        |                               |
| <b>8</b> Monitor                                      |                               |
| <b>9</b> Parallel printer                             |                               |
| <b>10</b> Serial printer                              |                               |
| <b>11</b> Wooden table                                |                               |

**7.5. Radiated Emission 1 GHz - 25 GHz (§15.209, §15.247.c, §15.205.a,b)**

Radiated emissions were measured in the frequency range 1 GHz to 25 GHz in transmit mode and 1 GHz to 12.5 GHz in receive mode. The resolution bandwidth of the spectrum analyzer was set to 1 MHz. Scans for the whole frequency range were taken with video bandwidth set to 1 MHz to check out the highest peak levels. In case of less margin to average limit additional prescans were made with video bandwidth reduced from 1 MHz to 100 kHz, 30 kHz or 10 kHz. Final measurements were performed at the critical frequencies with video bandwidth of the spectrum analyzer set to 100 Hz (average mode). EUT was rotated all around and receiving antenna was raised and lowered to find the maximum levels of emission. Cables and equipment were placed and moved within the range of position likely to find their maximum emissions.

All tests were performed in a semi-anechoic chamber with a test-distance of 3 meters (except for the frequency range 18 GHz - 25 GHz where test distance was reduced to 0.5 meter).

To avoid overload in transmit mode no preamplifier was used between 1 GHz and 3.95 GHz. Above 3.95 GHz tests were performed with appropriate preamplifiers (attenuation of operating frequency by horn antenna is sufficient to avoid overload of preamplifier).

For receive mode appropriate preamplifiers were used for the whole frequency range.

To eliminate variations in amplification of the preamplifiers a signal generator was used for substitution (however, during testing a correction according to the minimum amplification was added).

Substitution was performed in the following steps:

- antenna cable was disconnected from receiving antenna and connected to signal generator output
- level of signal generator was increased until the reading value of the analyzer was the same as caused by EUT
- level of signal generator was noted
- final value was calculated by converting the signal generator level to dB $\mu$ V/m and adding the antenna correction factor.

See figure 3 for the measurement setups.

Test equipment used (see equipment list for details):

02, 13, 14, 16, ,42, 43, 44, 45, 46, 47, 48, 49, 57, 64

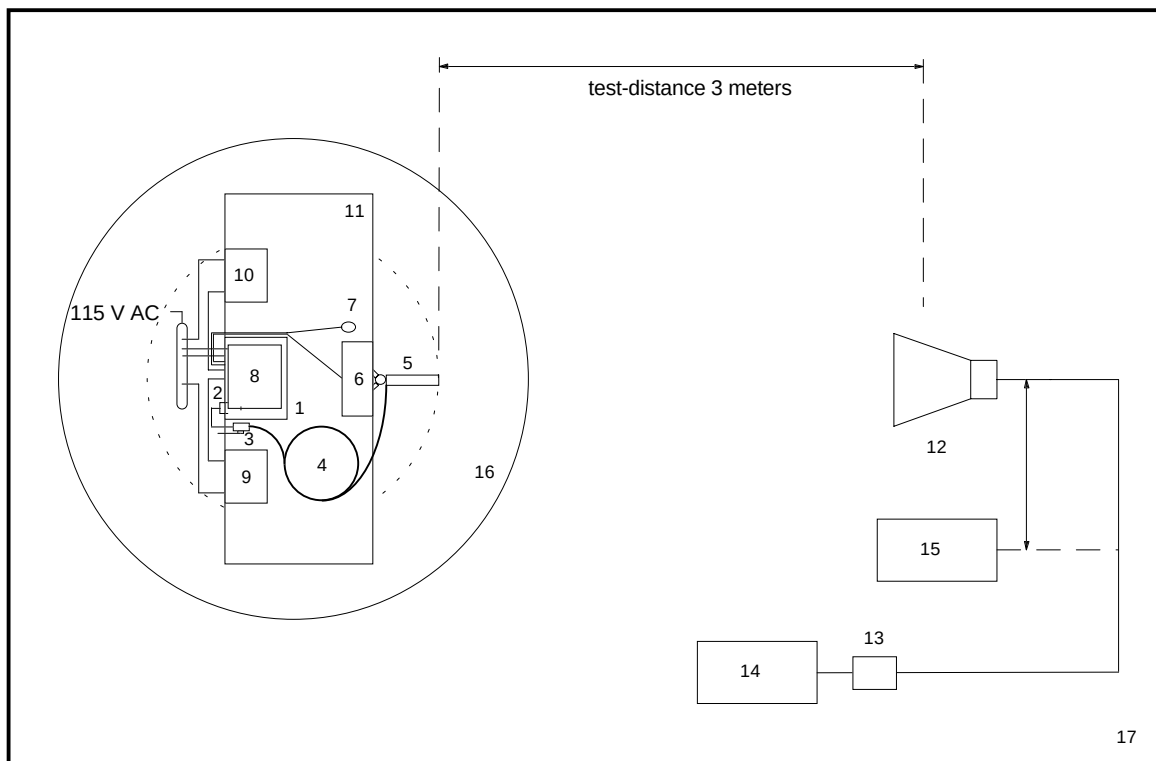


Figure 3: Measurement setup radiated emission test above 1 GHz

- |                                                       |                                        |
|-------------------------------------------------------|----------------------------------------|
| <b>1</b> Personal computer with ISA-card              | <b>12</b> Measurement antenna          |
| <b>2</b> RF-modem                                     | <b>13</b> Preamplifier (if applicable) |
| <b>3</b> Lightning arrestor with ground connection    | <b>14</b> Spectrum analyzer            |
| <b>4</b> Antenna cable                                | <b>15</b> Signal generator             |
| <b>5</b> RF-antenna (2.4 GHz) mounted on metal tripod | <b>16</b> Turn table                   |
| <b>6</b> Keyboard                                     | <b>17</b> Semi-anechoic room           |
| <b>7</b> Mouse                                        |                                        |
| <b>8</b> Monitor                                      |                                        |
| <b>9</b> Parallel printer                             |                                        |
| <b>10</b> Serial printer                              |                                        |
| <b>11</b> Wooden table                                |                                        |

## 8. Equipment List

To facilitate reference to test equipment used for related tests, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory.

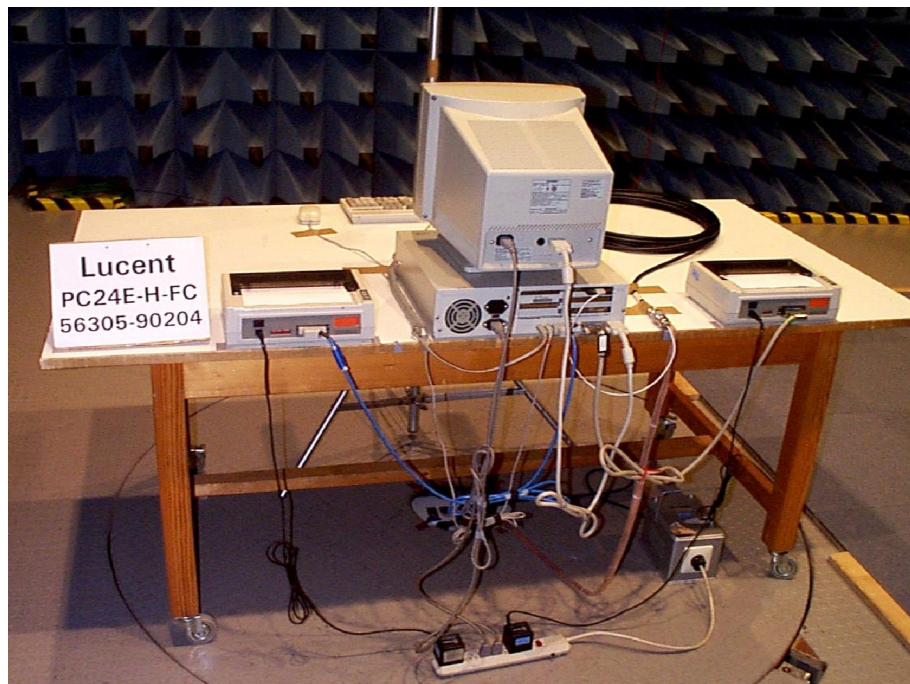
| No. | Type                 | Model        | Serial Number            | Manufacturer    |
|-----|----------------------|--------------|--------------------------|-----------------|
| 01  | Spectrum Analyzer    | R 3271       | 05050023                 | Advantest       |
| 02  | EMI Test Receiver    | ESMI         | 839379/013<br>839587/006 | Rohde & Schwarz |
| 03  | Test Receiver        | ESH 3        | 880112/032               | Rohde & Schwarz |
| 04  | Test Receiver        | ESHS 10      | 860043/016               | Rohde & Schwarz |
| 05  | Test Receiver        | ESV          | 881414/009               | Rohde & Schwarz |
| 06  | Test Receiver        | ESVP         | 881120/024               | Rohde & Schwarz |
| 07  | Audio Analyzer       | UPA          | 862954                   | Rohde & Schwarz |
| 08  | Power Meter          | NRVS         | 836856/015               | Rohde & Schwarz |
| 09  | Power Sensor         | NRV-Z52      | 837901/030               | Rohde & Schwarz |
| 10  | Power Sensor         | NRV-Z4       | 863828/015               | Rohde & Schwarz |
| 11  | Preamplifier         | ESV-Z3       | 860907/004               | Rohde & Schwarz |
| 12  | Preamplifier         | R14601       |                          | Advantest       |
| 13  | Preamplifier         | ACX/080-3030 | 32640                    | CTT             |
| 14  | Preamplifier         | ACO/180-3530 | 32641                    | CTT             |
| 15  | Signal Generator     | SMS          | 872166/039               | Rohde & Schwarz |
| 16  | Signal Generator     | HP 8673 D    | 2930A00966               | Hewlett Packard |
| 17  | Waveform Generator   | HP 33120 A   | US34005375               | Hewlett Packard |
| 18  | Attenuator 20 dB     | 4776-20      | 9503                     | Narda           |
| 19  | Attenuator 10 dB     | 4776-10      | 9412                     | Narda           |
| 20  | Pulse Limiter        | ESH 3-Z2     | 1144                     | Rohde & Schwarz |
| 21  | Pulse Limiter        | 11947 A      | 3107A00566               | Hewlett Packard |
| 22  | V-Network            | ESH 3-Z5     | 862770/018               | Rohde & Schwarz |
| 23  | V-Network            | ESH 3-Z5     | 894785/005               | Rohde & Schwarz |
| 24  | V-Network            | ESH 3-Z5     | 830952/025               | Rohde & Schwarz |
| 25  | V-Network            | ESH 3-Z6     | 830722/010               | Rohde & Schwarz |
| 26  | V-Network            | NSLK 8127    | 8127152                  | Schwarzbeck     |
| 27  | V-Network            | NNLA 8119    | 8119148                  | Schwarzbeck     |
| 28  | V-Network            | SE 01        | 01                       | Senton          |
| 29  | T-Network            | ESH 3-Z4     | 890602/011               | Rohde & Schwarz |
| 30  | T-Network            | ESH 3-Z4     | 890602/012               | Rohde & Schwarz |
| 31  | High Impedance Probe | TK 9416      | 01                       | Schwarzbeck     |
| 32  | High Impedance Probe | TK 9416      | 02                       | Schwarzbeck     |
| 33  | Current Probe        | ESH 2-Z1     | 863366/18                | Rohde & Schwarz |
| 34  | Current Probe        | ESV-Z1       | 862553/3                 | Rohde & Schwarz |

| No. | Type                        | Model      | Serial Number | Manufacturer        |
|-----|-----------------------------|------------|---------------|---------------------|
| 35  | Absorbing Clamp             | MDS 21     | 80911         | Lüthi               |
| 36  | Absorbing Clamp             | MDS 21     | 79690         | Lüthi               |
| 37  | Loop Antenna                | HFH2-Z2    | 882964/1      | Rohde & Schwarz     |
| 38  | Biconical Antenna           | HK 116     | 842204/001    | Rohde & Schwarz     |
| 39  | Biconical Antenna           | HK 116     | 836239/02     | Rohde & Schwarz     |
| 40  | Log. Periodic Antenna       | HL 223     | 841516/023    | Rohde & Schwarz     |
| 41  | Log. Periodic Antenna       | HL 223     | 834408/12     | Rohde & Schwarz     |
| 42  | Horn Antenna                | 3115       | 9508-4553     | Emco                |
| 43  | Horn Antenna                | 3160-03    | 9112-1003     | Emco                |
| 44  | Horn Antenna                | 3160-04    | 9112-1001     | Emco                |
| 45  | Horn Antenna                | 3160-05    | 9112-1001     | Emco                |
| 46  | Horn Antenna                | 3160-06    | 9112-1001     | Emco                |
| 47  | Horn Antenna                | 3160-07    | 9112-1008     | Emco                |
| 48  | Horn Antenna                | 3160-08    | 9112-1002     | Emco                |
| 49  | Horn Antenna                | 3160-09    | 9403-1025     | Emco                |
| 50  | Digital multimeter          | 199        | 463386        | Keithley            |
| 51  | DC Power Supply             | NGSM 32/10 | 203           | Rohde & Schwarz     |
| 52  | DC Power Supply             | NGB        | 2455          | Rohde & Schwarz     |
| 53  | DC Power Supply             | NGA        | 386           | Rohde & Schwarz     |
| 54  | Temperature Test Chamber    | HT4010     | 07065550      | Heraeus             |
| 55  | Cable                       | RG214      | 1309          | Senton              |
| 56  | Cable                       | 200CM_001  | 1357          | Rosenberger         |
| 57  | Cable                       | 150CM_001  | 1479          | Rosenberger         |
| 58  | Cable Set EG1               | RG214      | 1189 - 1191   | Senton              |
| 59  | Cable Set Cabine 1          | RG214      |               | Senton              |
| 60  | Cable Set Cabine 2          | RG214      |               | Senton              |
| 61  | Cable Set Cabine 3          | RG214      |               | Senton              |
| 62  | Shielded Room               | No. 1      | 1451          | Senton              |
| 63  | Shielded Room               | No. 2      | 1452          | Senton              |
| 64  | Semi-anechoic Chamber       | No. 3      | 1453          | Siemens             |
| 65  | Shielded Room               | No. 4      | 1454          | Euroshield          |
| 66  | Open Area Test Site         | EG 1       |               | Senton              |
| 67  | Cable for Antenna Connector |            |               | Lucent Technologies |
| 68  | DC Block 0.01-18GHz         |            | 8037          | Inmet Corp.         |
| 69  | High pass filter            |            |               | Lucent Technologies |

## 9. Photographs Taken During Testing

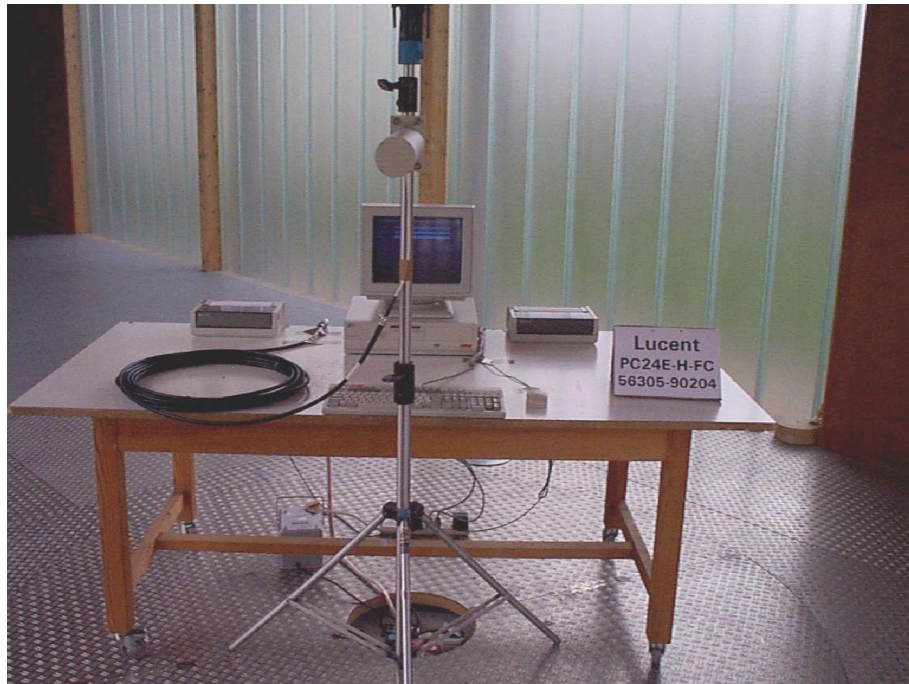
**Photos No. 9.1 - 9.2**

**Test setup for radiated emission pre-test 30 MHz - 1 GHz  
(semi anechoic room)**



**Photos No. 9.3 - 9.4**

**Test setup for radiated emission final test 30 MHz - 1 GHz  
(open area test site)**



**Photos No. 9.5 - 9.6**

**Test setup for radiated emission test above 1 GHz**



## 10. List of Measurements

| <b>FCC Part 15 Subpart C</b>        |                                             |        |                                    |
|-------------------------------------|---------------------------------------------|--------|------------------------------------|
| Section(s):                         | Test                                        | Page   | Result                             |
|                                     | <b>Transmit mode (TX):</b>                  | 25     |                                    |
| §15.247.a2                          | Minimum 6 dB bandwidth                      | note 1 | passed                             |
| §15.247.b                           | Maximum peak output power                   | 26     | passed                             |
| §15.247.d                           | Peak power density                          | note 1 | passed                             |
| §15.247.e                           | Processing gain                             | ---    | test performed by applicant        |
|                                     | Frequency range (conducted)                 | note 1 | for information only               |
| §15.207                             | Conducted emission test<br>450 kHz - 30 MHz | ---    | not performed                      |
| §15.247.c<br>§15.209<br>§15.205.a,b | Radiated emission test<br>9 kHz - 30 MHz    | ---    | not applicable<br>(acc. to §15.33) |
| §15.247.c<br>§15.209<br>§15.205.a,b | Radiated emission test<br>30 MHz - 1 GHz    | 36     | passed                             |
| §15.247.c<br>§15.209<br>§15.205.a,b | Radiated emission test<br>1 GHz - 25 GHz    | 60     | passed                             |
|                                     | <b>Receive mode (RX):</b>                   | 80     |                                    |
| §15.207                             | Conducted emission test<br>450 kHz - 30 MHz | ---    | not performed                      |
| §15.209                             | Radiated emission test<br>9 kHz - 30 MHz    | ---    | not applicable<br>(acc. to §15.33) |
| §15.209                             | Radiated emission test<br>30 MHz - 1 GHz    | 81     | passed                             |
| §15.209                             | Radiated emission test<br>1 GHz - 12.5 GHz  | 89     | passed                             |

**Note 1:** See Senton test report no. 56305-90204-1.

**Note 2:** Radiated emission tests in transmit mode were performed with bit rate set to 11 Mbps only. Additional conducted emission tests (called "frequency range") were performed to show that there is no significant difference in the shape of the transmitting signal when either using bit rate 2, 5.5 or 11 Mbps.

## 11. Test Results

**Test results for**  
**Transmit (TX) mode**

### Maximum Peak Output Power according to FCC Part 15 Subpart C, §15.247b

Model: LUC PC24E-H-FC with AOU24-YA-1414 (Telex)  
 Type: RF-modem with external antenna for wireless LAN  
 Serial No.: 90890026 (RF-modem), sample no. 1 (antenna)  
 Applicant: Lucent Technologies Nederland B.V.  
 Date of test: 04/22/1999  
 Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
       via ISA card ISAPC-B0 (#B2-8)  
       - FCC test setup  
       - supply voltage 115 V AC  
  
       - TX mode

Tested on: Antenna connector

| Selected bit rate | Operating frequency [GHz] | Power meter reading [dBm] | Correction-factor [dB] | Output power [dBm] | Limit [dBm]     |
|-------------------|---------------------------|---------------------------|------------------------|--------------------|-----------------|
| 2 MBit            | 2.412                     | 14.3                      | 0.5                    | 14.8               | See table below |
|                   | 2.442                     | 14.6                      | 0.5                    | 15.1               |                 |
|                   | 2.462                     | 14.4                      | 0.5                    | 14.9               |                 |
| 5.5 MBit          | 2.412                     | 11.0                      | 0.5                    | 11.5               |                 |
|                   | 2.442                     | 11.3                      | 0.5                    | 11.8               |                 |
|                   | 2.462                     | 11.1                      | 0.5                    | 11.6               |                 |
| 11 MBit           | 2.412                     | 11.1                      | 0.5                    | 11.6               |                 |
|                   | 2.442                     | 11.4                      | 0.5                    | 11.9               |                 |
|                   | 2.462                     | 11.2                      | 0.5                    | 11.7               |                 |

**Note:**

Typical gain of external YAGI-antenna AOU24-YA-1414 is 13.5 dBi. Depending on antenna cable the effective antenna gain is calculated by subtracting the appropriate total insertion loss including attenuation caused by RF-IEEE cable and lightning arrestor.

Limit of 30 dBm is reduced by the amount of the effective antenna gain exceeding 6 dBi.

| Antenna cable | Antenna gain AOU24-YA-1414 [dBi] | Total insertion loss [dB] | Effective antenna gain total value [dBi] | exceeding 6 dBi [dB] | Limit [dBm] |
|---------------|----------------------------------|---------------------------|------------------------------------------|----------------------|-------------|
| 20 ft         | 13.5                             | 4.5                       | 9.0                                      | 3.0                  | 27.0        |
| 50 ft         | 13.5                             | 4.5                       | 9.0                                      | 3.0                  | 27.0        |
| 75 ft         | 13.5                             | 5.3                       | 8.2                                      | 2.2                  | 27.8        |

**Result:** The limit is kept

# Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

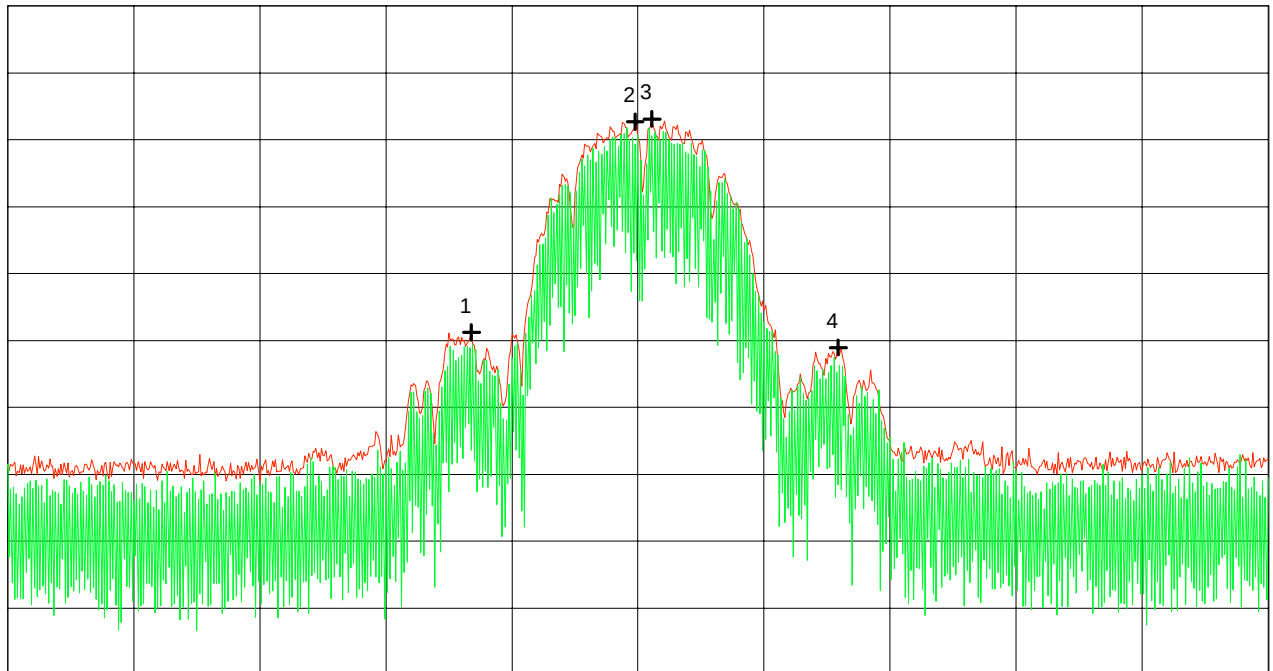
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 2 Mbps
- TX mode with  $f = 2.412$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.362 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.462 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.398778 GHz | -28.78 dBm |
| Nr.2 | 2.411778 GHz | 2.69 dBm   |
| Nr.3 | 2.413111 GHz | 3.12 dBm   |
| Nr.4 | 2.427889 GHz | -31.06 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

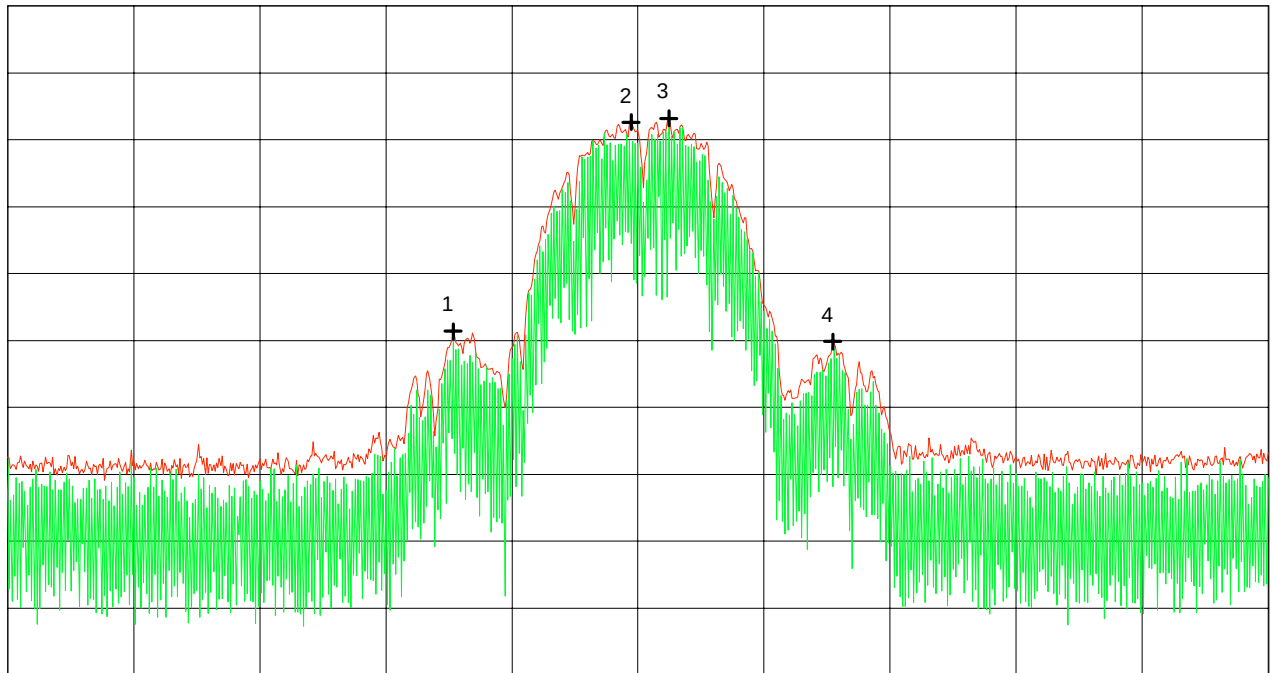
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 5.5 Mbps
- TX mode with  $f = 2.412$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.362 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.462 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.397333 GHz | -28.62 dBm |
| Nr.2 | 2.411444 GHz | 2.61 dBm   |
| Nr.3 | 2.414444 GHz | 3.22 dBm   |
| Nr.4 | 2.427444 GHz | -30.15 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

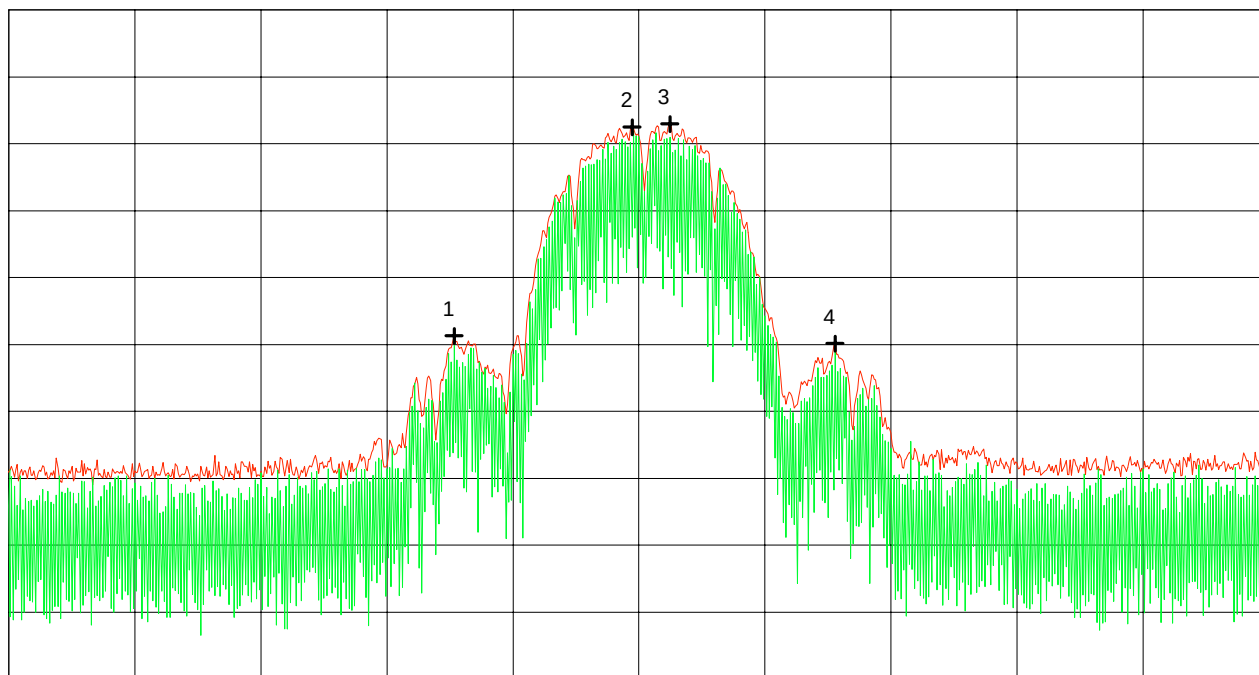
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 11 Mbps
- TX mode with  $f = 2.412$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.362 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.462 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.397333 GHz | -28.73 dBm |
| Nr.2 | 2.411444 GHz | 2.48 dBm   |
| Nr.3 | 2.414444 GHz | 2.97 dBm   |
| Nr.4 | 2.427556 GHz | -29.87 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

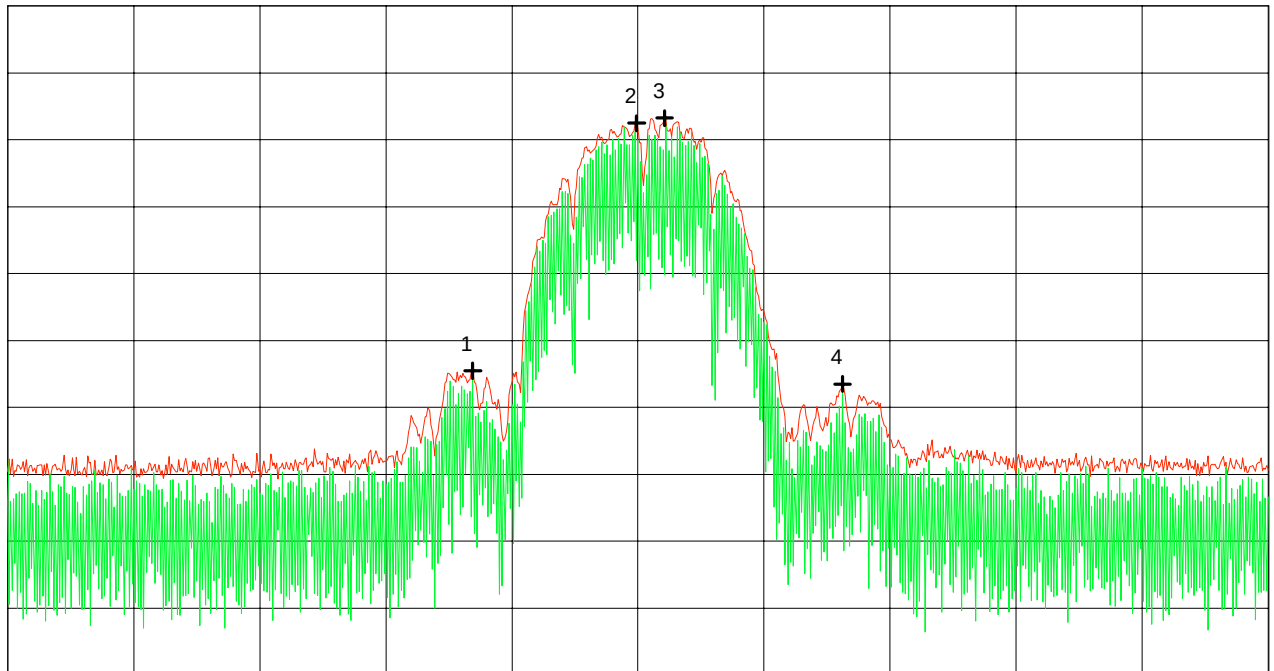
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 2 Mbps
- TX mode with  $f = 2.442$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.392 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.492 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.428889 GHz | -34.54 dBm |
| Nr.2 | 2.441889 GHz | 2.48 dBm   |
| Nr.3 | 2.444111 GHz | 3.25 dBm   |
| Nr.4 | 2.458222 GHz | -36.50 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

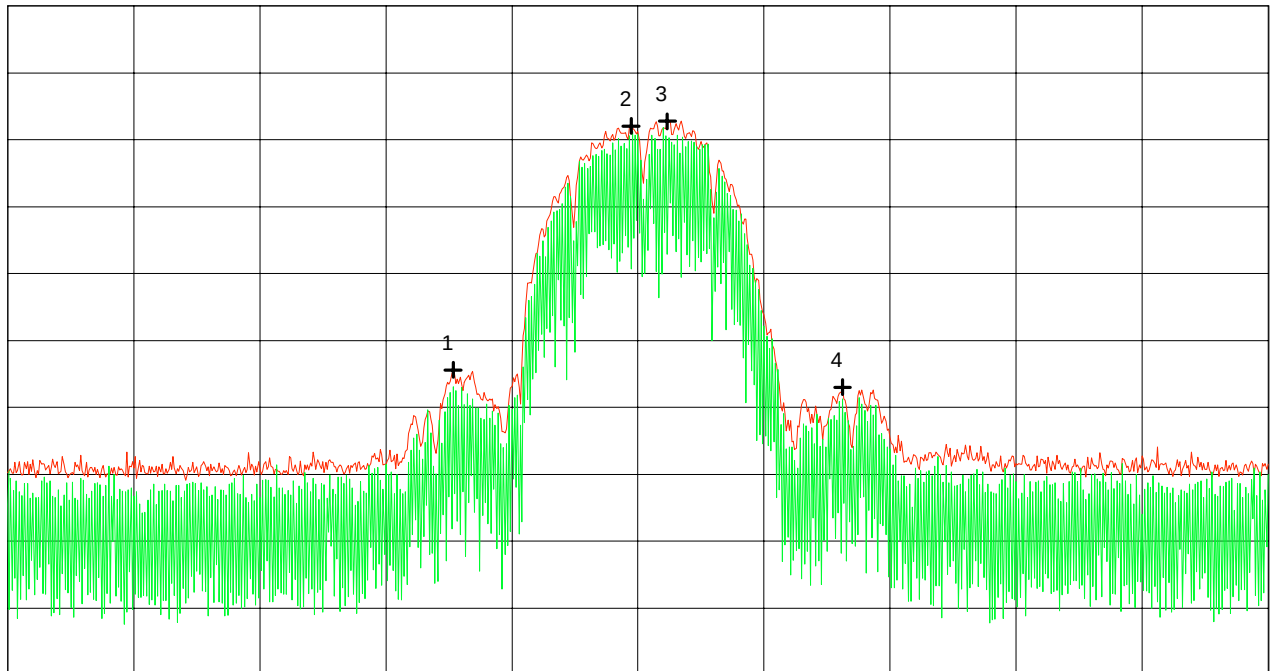
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 5.5 Mbps
- TX mode with  $f = 2.442$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.392 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.492 GHz  
SWP 40 ms

### \*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.427333 GHz | -34.41 dBm |
| Nr.2 | 2.441444 GHz | 2.05 dBm   |
| Nr.3 | 2.444333 GHz | 2.76 dBm   |
| Nr.4 | 2.458222 GHz | -36.98 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

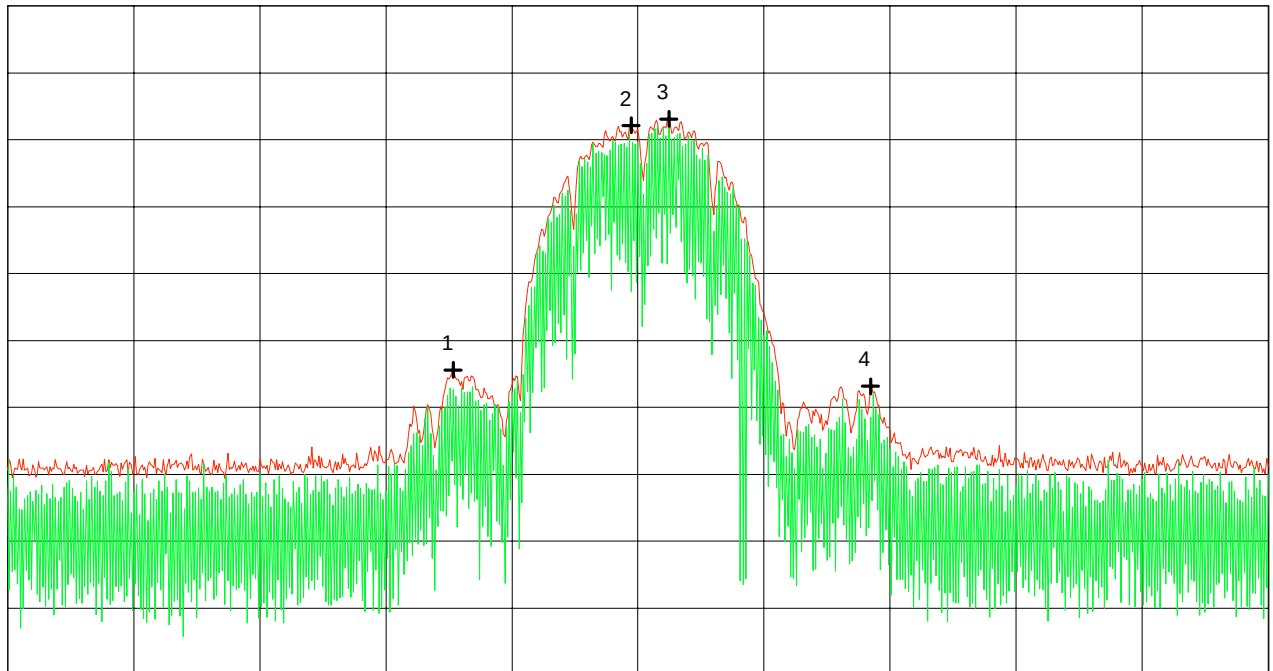
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 11 Mbps
- TX mode with  $f = 2.442$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.392 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.492 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.427333 GHz | -34.39 dBm |
| Nr.2 | 2.441444 GHz | 2.13 dBm   |
| Nr.3 | 2.444444 GHz | 3.09 dBm   |
| Nr.4 | 2.460444 GHz | -36.88 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

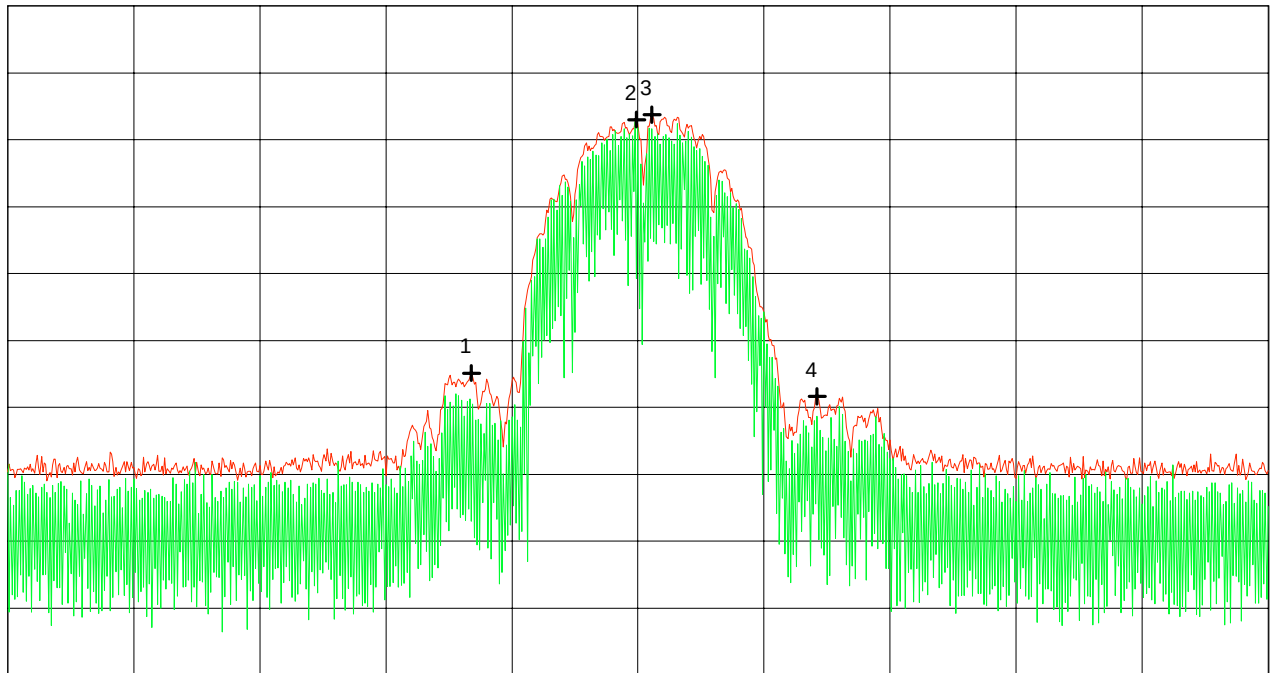
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 2 Mbps
- TX mode with  $f = 2.462$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.412 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.512 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.448778 GHz | -34.87 dBm |
| Nr.2 | 2.461889 GHz | 2.99 dBm   |
| Nr.3 | 2.463111 GHz | 3.75 dBm   |
| Nr.4 | 2.476222 GHz | -38.35 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

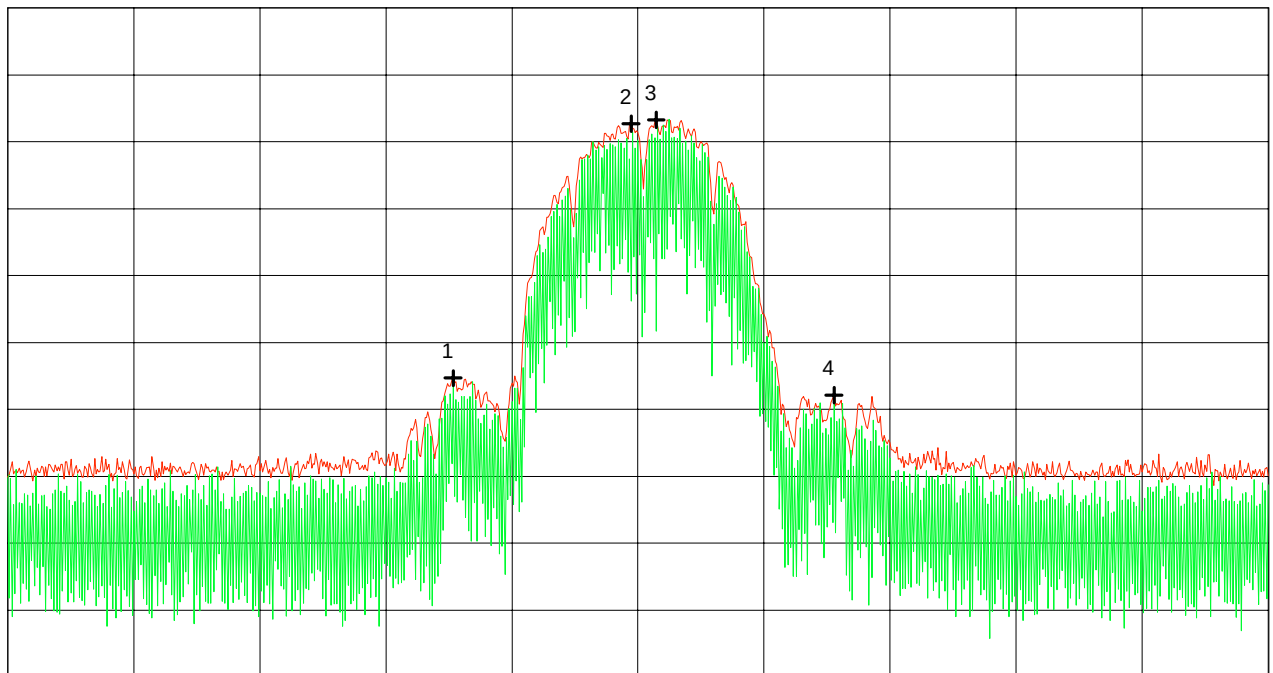
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 5.5 Mbps
- TX mode with  $f = 2.462$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.412 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.512 GHz  
SWP 40 ms

### \*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.447333 GHz | -35.33 dBm |
| Nr.2 | 2.461444 GHz | 2.69 dBm   |
| Nr.3 | 2.463444 GHz | 3.27 dBm   |
| Nr.4 | 2.477556 GHz | -37.87 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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## Maximum peak output power (conducted) acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

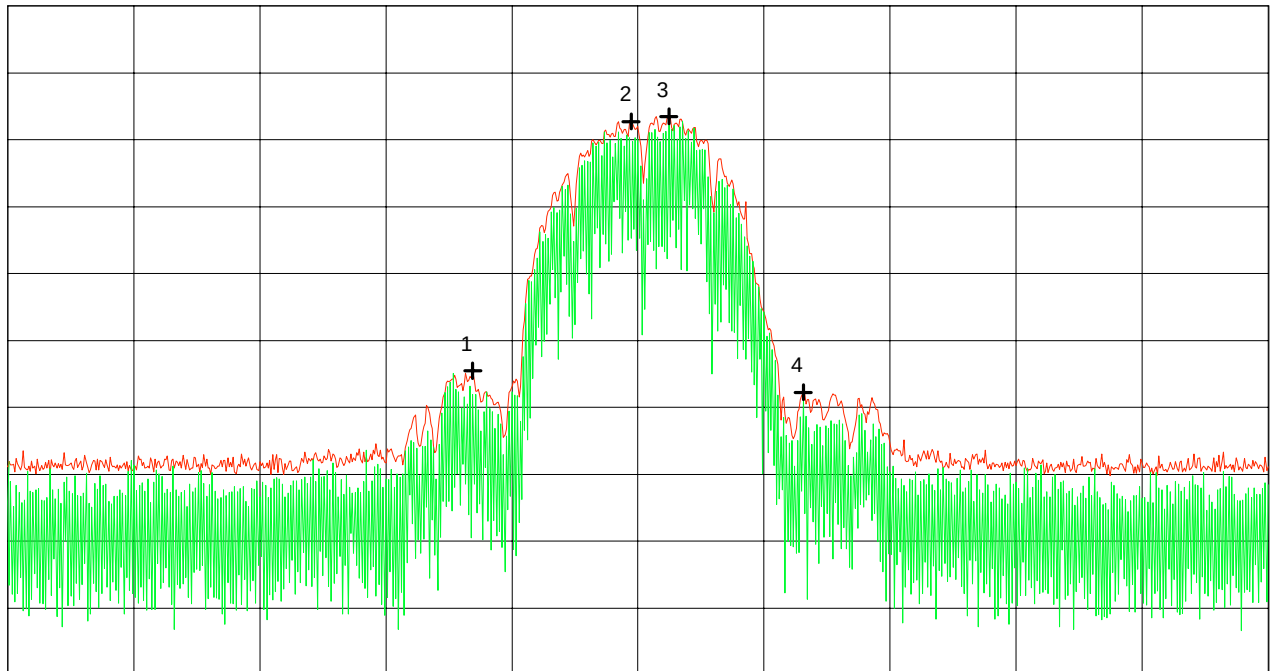
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- operating with bit rate 11 Mbps
- TX mode with  $f = 2.462$  GHz

Tested on: antenna connector

Ref.Level 20 dBm  
10 dB dB/Div.

ATT 20 dB

Ref. Offset 21.1 dB



Start 2.412 GHz  
RBW 100 kHz

VBW 100 kHz

Stop 2.512 GHz  
SWP 40 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |            |
|------|--------------|------------|
| Nr.1 | 2.448889 GHz | -34.54 dBm |
| Nr.2 | 2.461444 GHz | 2.74 dBm   |
| Nr.3 | 2.464444 GHz | 3.47 dBm   |
| Nr.4 | 2.475111 GHz | -37.74 dBm |
| Nr.5 |              |            |
| Nr.6 |              |            |
| Nr.7 |              |            |
| Nr.8 |              |            |

Tested by:  
Rainer Heller

Date:  
04/21/1999

Project-No.:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator:  
R. Heller

Test performed: automatically      File name:

Mode:

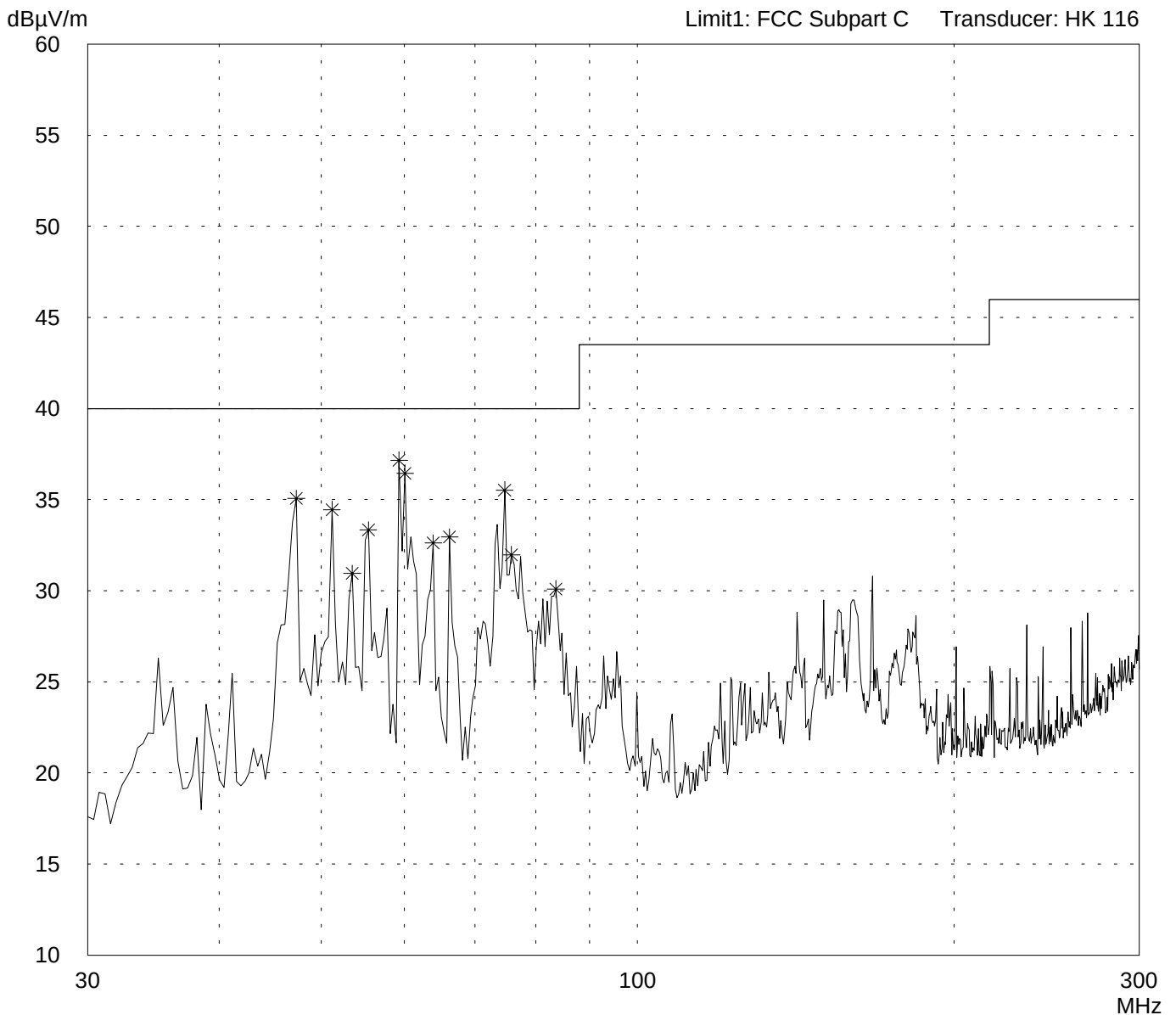
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Peak

List of values:

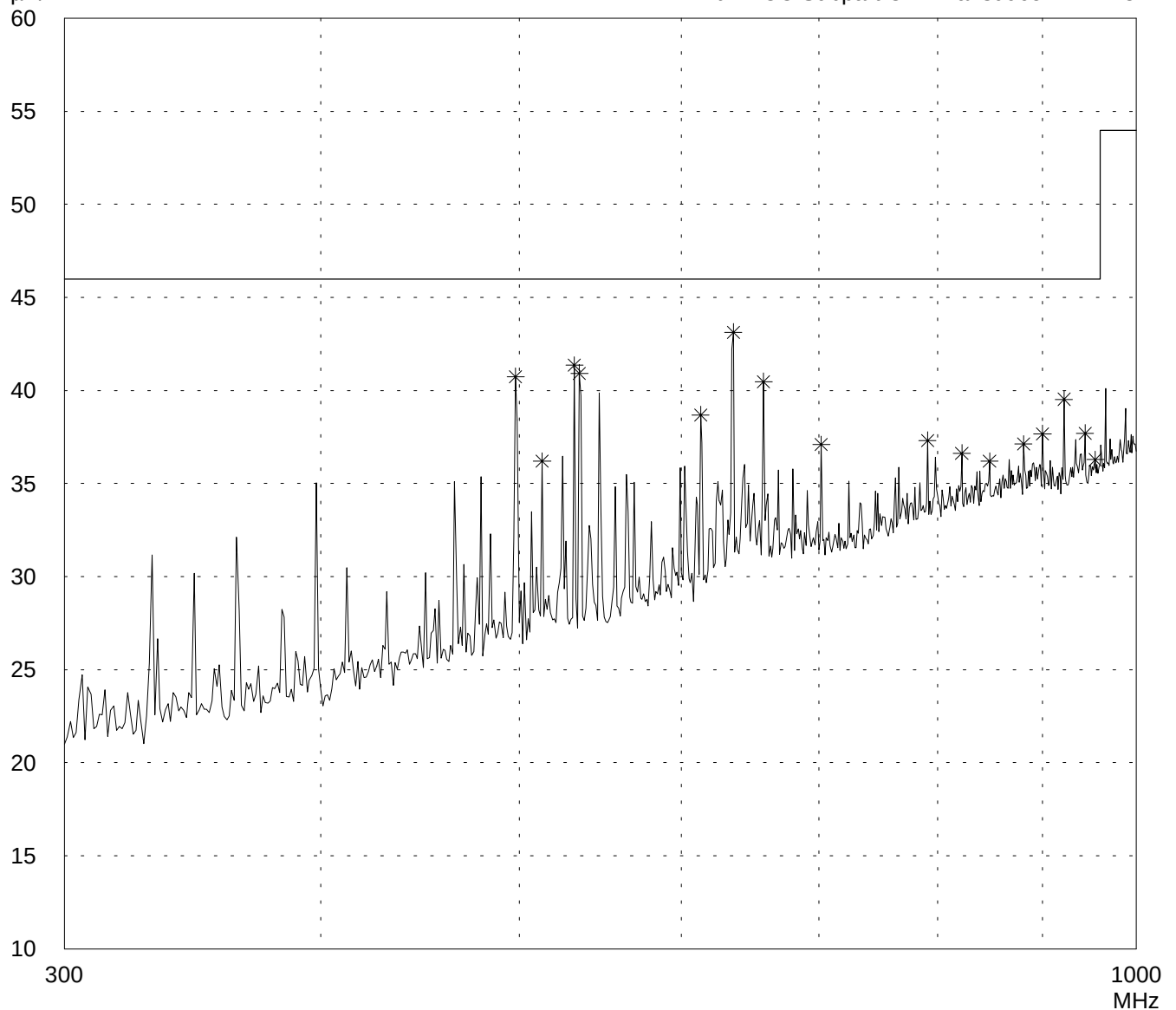
10 dB Margin

50 Subranges

$\text{dB}\mu\text{V/m}$

Limit1: FCC Subpart C

Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

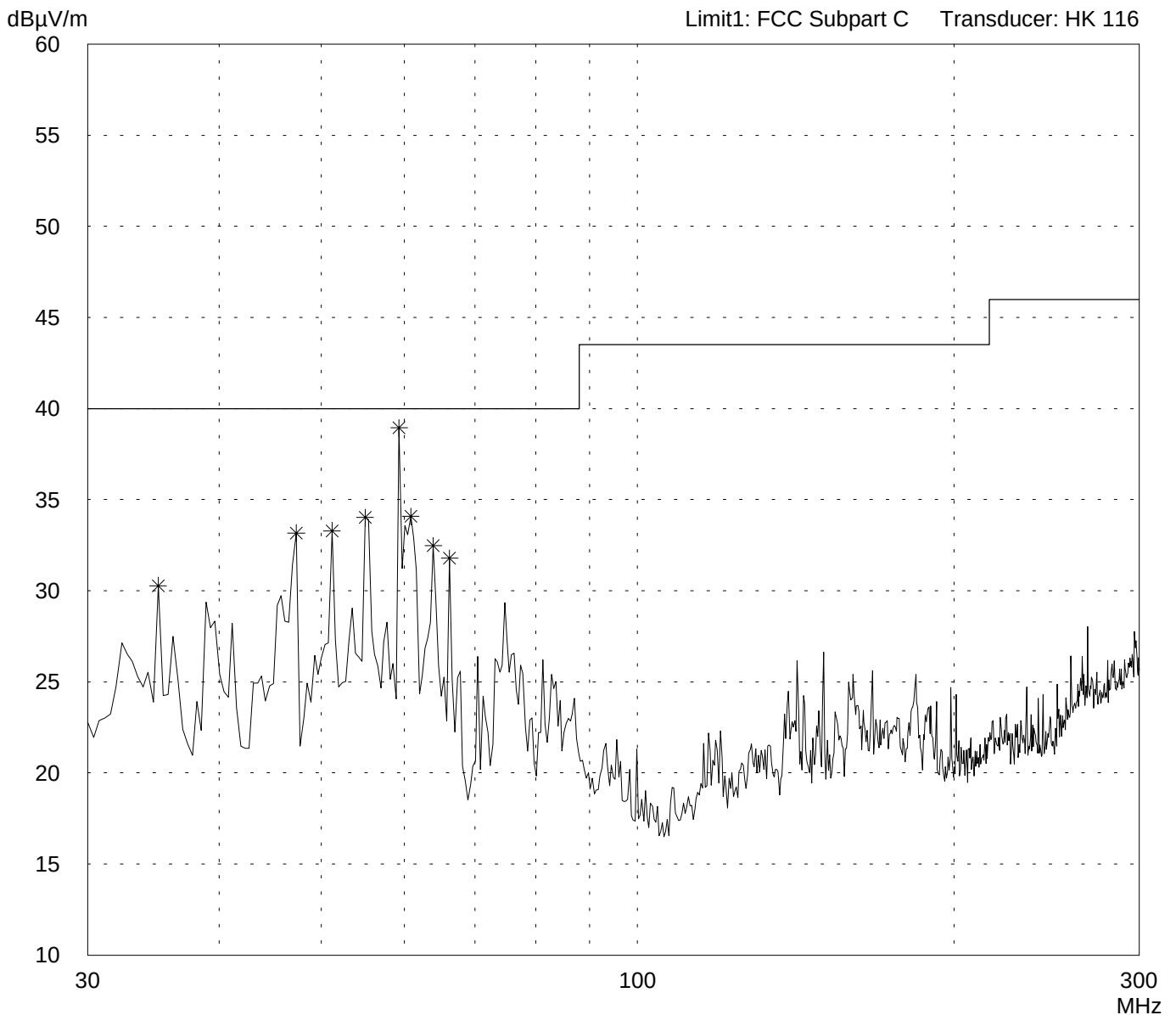
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Peak

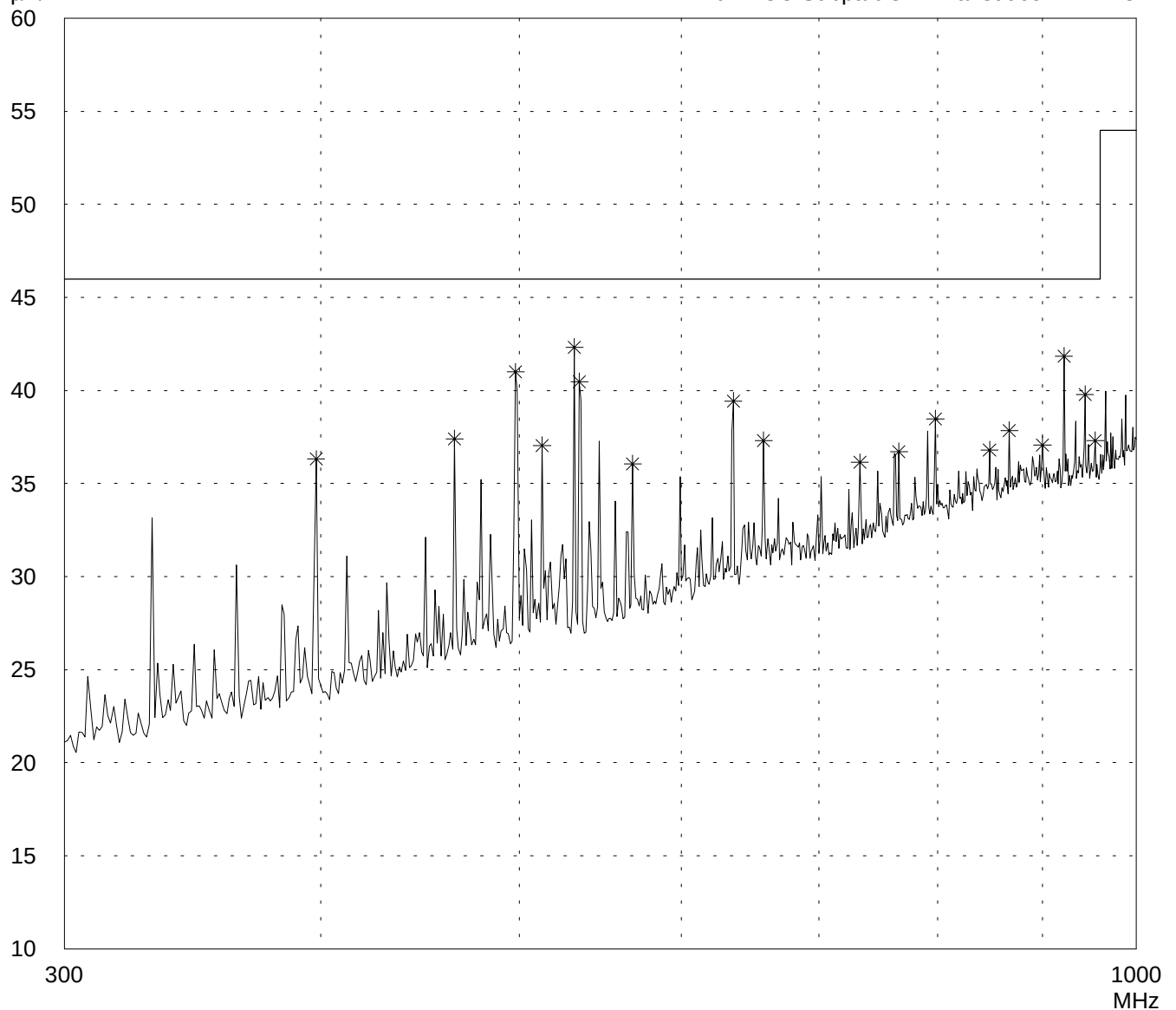
List of values:

10 dB Margin

50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

Test performed: by hand      File name:

Mode:

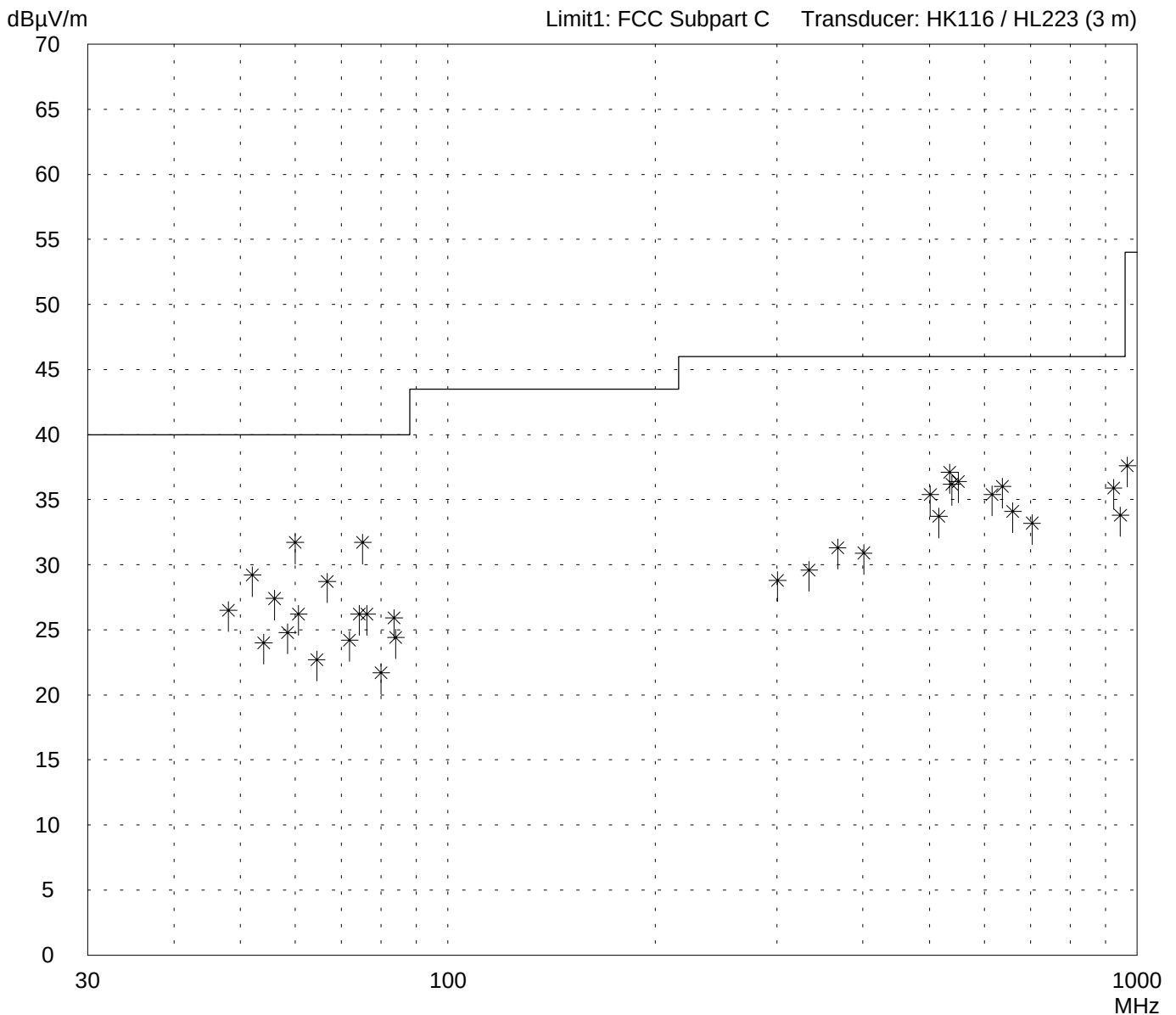
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

Test performed: by hand      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| Frequency<br>MHz | Reading<br>dB $\mu$ V | Correction factor<br>dB | Value<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Limit<br>exceeded |
|------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------|
| 48.0             | 15.5                  | 11.0                    | 26.5                  | 40.0                  |                   |
| 52.0             | 18.5                  | 10.7                    | 29.2                  | 40.0                  |                   |
| 54.0             | 13.5                  | 10.5                    | 24.0                  | 40.0                  |                   |
| 56.0             | 17.0                  | 10.4                    | 27.4                  | 40.0                  |                   |
| 58.5             | 14.5                  | 10.3                    | 24.8                  | 40.0                  |                   |
| 60.0             | 21.5                  | 10.2                    | 31.7                  | 40.0                  |                   |
| 60.7             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.5             | 12.5                  | 10.2                    | 22.7                  | 40.0                  |                   |
| 66.8             | 18.5                  | 10.2                    | 28.7                  | 40.0                  |                   |
| 72.0             | 14.0                  | 10.2                    | 24.2                  | 40.0                  |                   |
| 74.3             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 75.2             | 21.5                  | 10.2                    | 31.7                  | 40.0                  |                   |
| 76.3             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 80.0             | 11.5                  | 10.2                    | 21.7                  | 40.0                  |                   |
| 83.5             | 15.5                  | 10.4                    | 25.9                  | 40.0                  |                   |
| 84.0             | 14.0                  | 10.4                    | 24.4                  | 40.0                  |                   |
| 300.7            | 12.0                  | 16.8                    | 28.8                  | 46.0                  |                   |
| 334.1            | 11.5                  | 18.1                    | 29.6                  | 46.0                  |                   |
| 367.5            | 12.0                  | 19.3                    | 31.3                  | 46.0                  |                   |
| 400.9            | 10.5                  | 20.4                    | 30.9                  | 46.0                  |                   |
| 501.2            | 12.5                  | 22.9                    | 35.4                  | 46.0                  |                   |
| 515.5            | 10.5                  | 23.2                    | 33.7                  | 46.0                  |                   |
| 534.6            | 13.5                  | 23.6                    | 37.1                  | 46.0                  |                   |
| 538.1            | 12.5                  | 23.7                    | 36.2                  | 46.0                  |                   |
| 550.0            | 12.5                  | 23.9                    | 36.4                  | 46.0                  |                   |
| 616.0            | 10.0                  | 25.4                    | 35.4                  | 46.0                  |                   |
| 638.0            | 10.0                  | 26.0                    | 36.0                  | 46.0                  |                   |
| 660.0            | 7.5                   | 26.6                    | 34.1                  | 46.0                  |                   |
| 704.0            | 5.5                   | 27.7                    | 33.2                  | 46.0                  |                   |
| 924.0            | 5.0                   | 30.9                    | 35.9                  | 46.0                  |                   |
| 946.0            | 2.5                   | 31.3                    | 33.8                  | 46.0                  |                   |
| 968.0            | 6.0                   | 31.6                    | 37.6                  | 54.0                  |                   |

Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999  
Operator: R. Heller

Test performed: by hand  
File name:

Mode:

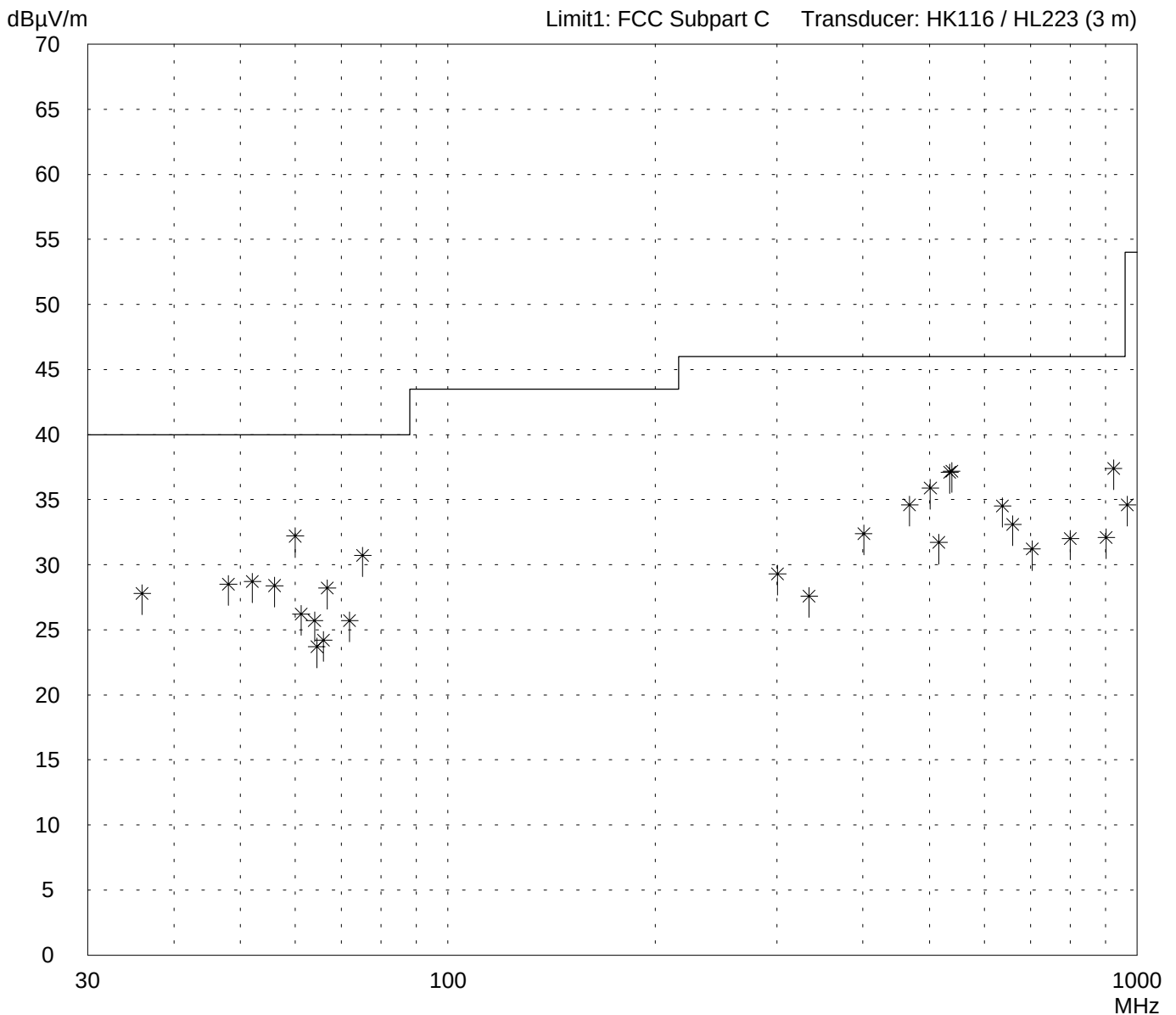
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999      Operator: R. Heller

Test performed: by hand      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| Frequency<br>MHz | Reading<br>dB $\mu$ V | Correction factor<br>dB | Value<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Limit<br>exceeded |
|------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------|
| 36.0             | 14.5                  | 13.3                    | 27.8                  | 40.0                  |                   |
| 48.0             | 17.5                  | 11.0                    | 28.5                  | 40.0                  |                   |
| 52.0             | 18.0                  | 10.7                    | 28.7                  | 40.0                  |                   |
| 56.0             | 18.0                  | 10.4                    | 28.4                  | 40.0                  |                   |
| 60.0             | 22.0                  | 10.2                    | 32.2                  | 40.0                  |                   |
| 61.2             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.0             | 15.5                  | 10.2                    | 25.7                  | 40.0                  |                   |
| 64.5             | 13.5                  | 10.2                    | 23.7                  | 40.0                  |                   |
| 66.0             | 14.0                  | 10.2                    | 24.2                  | 40.0                  |                   |
| 66.8             | 18.0                  | 10.2                    | 28.2                  | 40.0                  |                   |
| 72.0             | 15.5                  | 10.2                    | 25.7                  | 40.0                  |                   |
| 75.2             | 20.5                  | 10.2                    | 30.7                  | 40.0                  |                   |
| 300.7            | 12.5                  | 16.8                    | 29.3                  | 46.0                  |                   |
| 334.1            | 9.5                   | 18.1                    | 27.6                  | 46.0                  |                   |
| 400.9            | 12.0                  | 20.4                    | 32.4                  | 46.0                  |                   |
| 467.7            | 12.5                  | 22.1                    | 34.6                  | 46.0                  |                   |
| 501.2            | 13.0                  | 22.9                    | 35.9                  | 46.0                  |                   |
| 515.5            | 8.5                   | 23.2                    | 31.7                  | 46.0                  |                   |
| 534.6            | 13.5                  | 23.6                    | 37.1                  | 46.0                  |                   |
| 538.1            | 13.5                  | 23.7                    | 37.2                  | 46.0                  |                   |
| 638.0            | 8.5                   | 26.0                    | 34.5                  | 46.0                  |                   |
| 660.0            | 6.5                   | 26.6                    | 33.1                  | 46.0                  |                   |
| 704.0            | 3.5                   | 27.7                    | 31.2                  | 46.0                  |                   |
| 800.0            | 3.5                   | 28.5                    | 32.0                  | 46.0                  |                   |
| 902.0            | 1.5                   | 30.6                    | 32.1                  | 46.0                  |                   |
| 924.0            | 6.5                   | 30.9                    | 37.4                  | 46.0                  |                   |
| 968.0            | 3.0                   | 31.6                    | 34.6                  | 54.0                  |                   |

Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

Detector:  
Peak

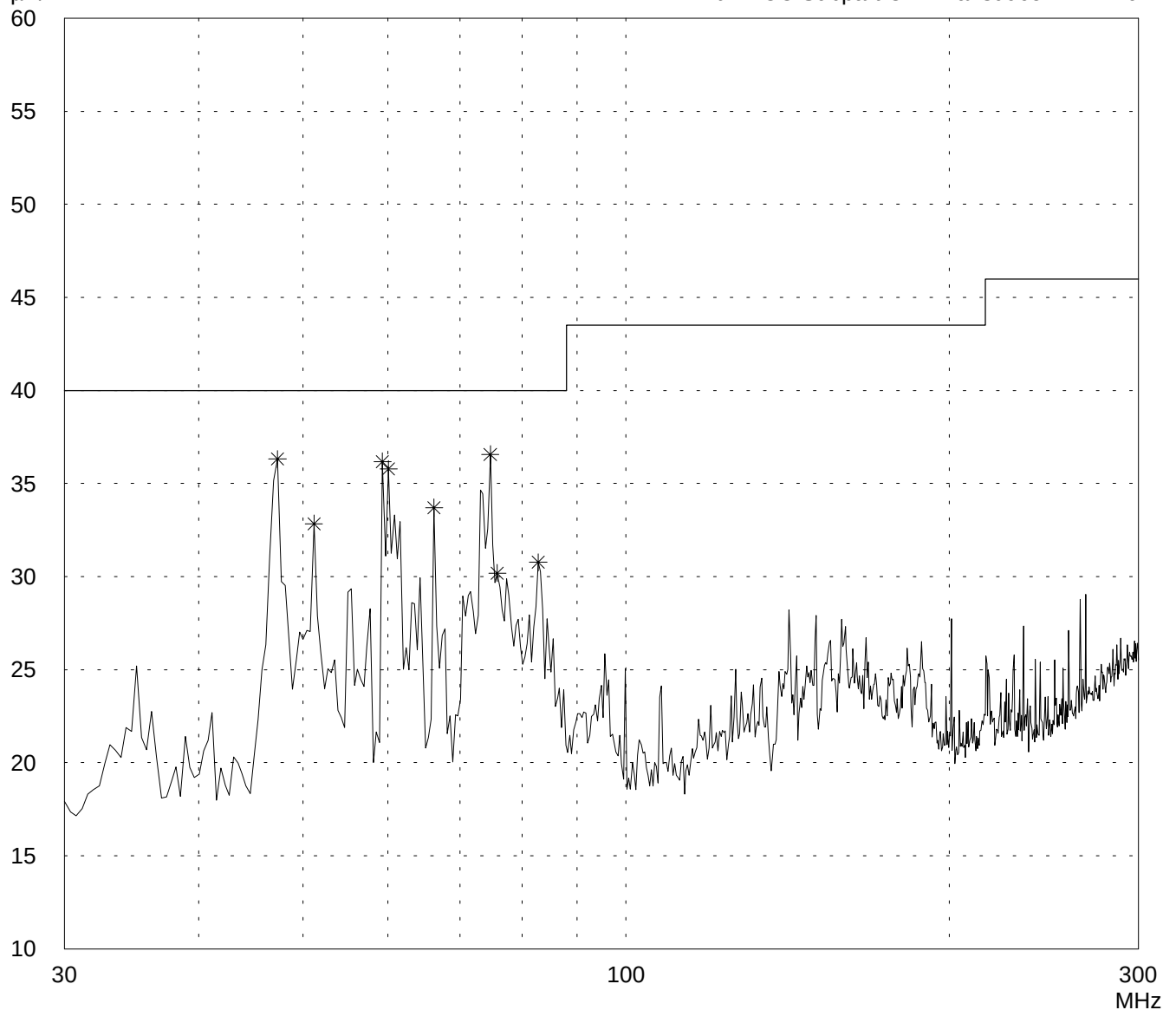
List of values:

10 dB Margin

50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HK 116



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

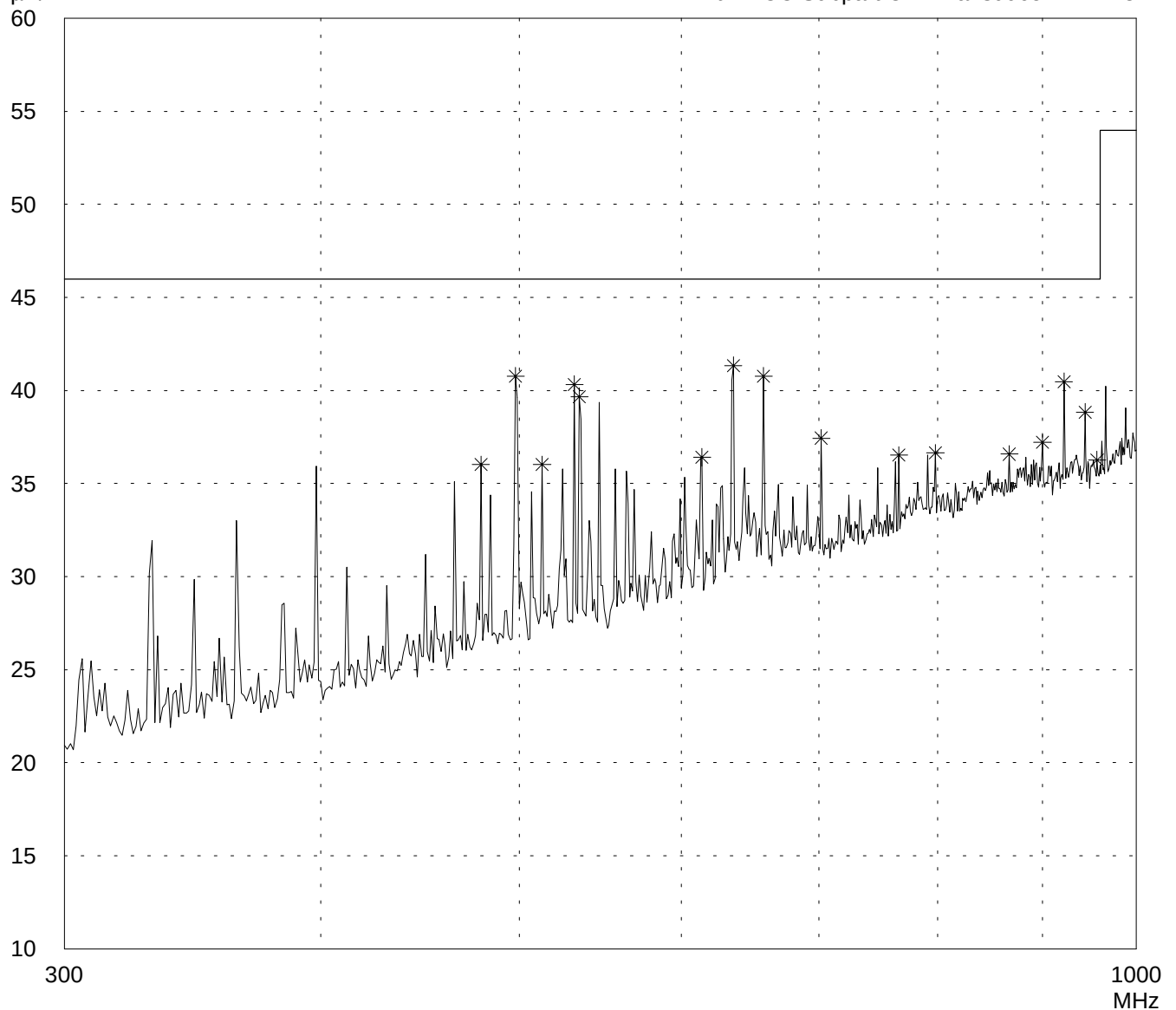
- TX mode with  $f = 2.442$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

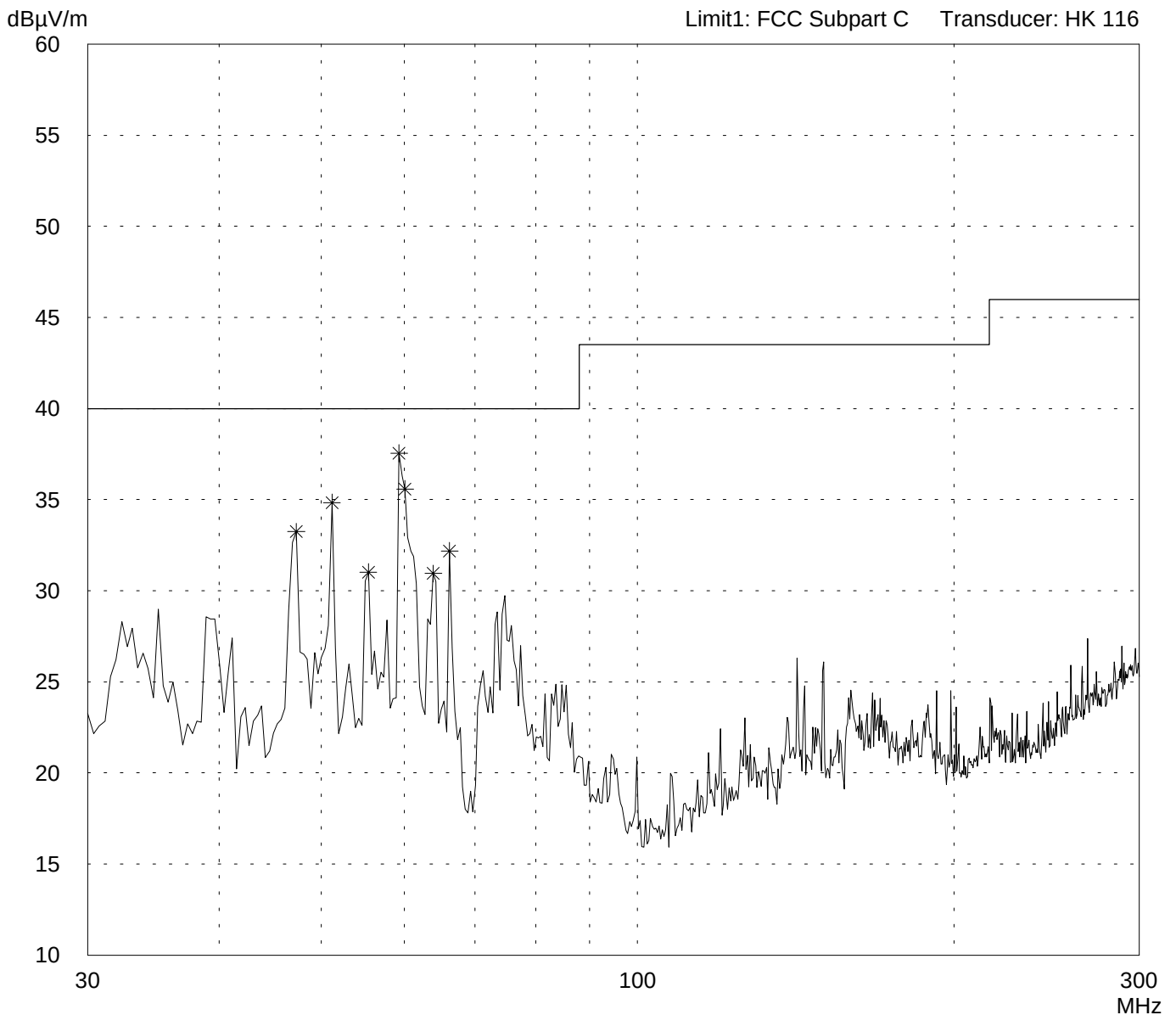
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

Detector:  
Peak

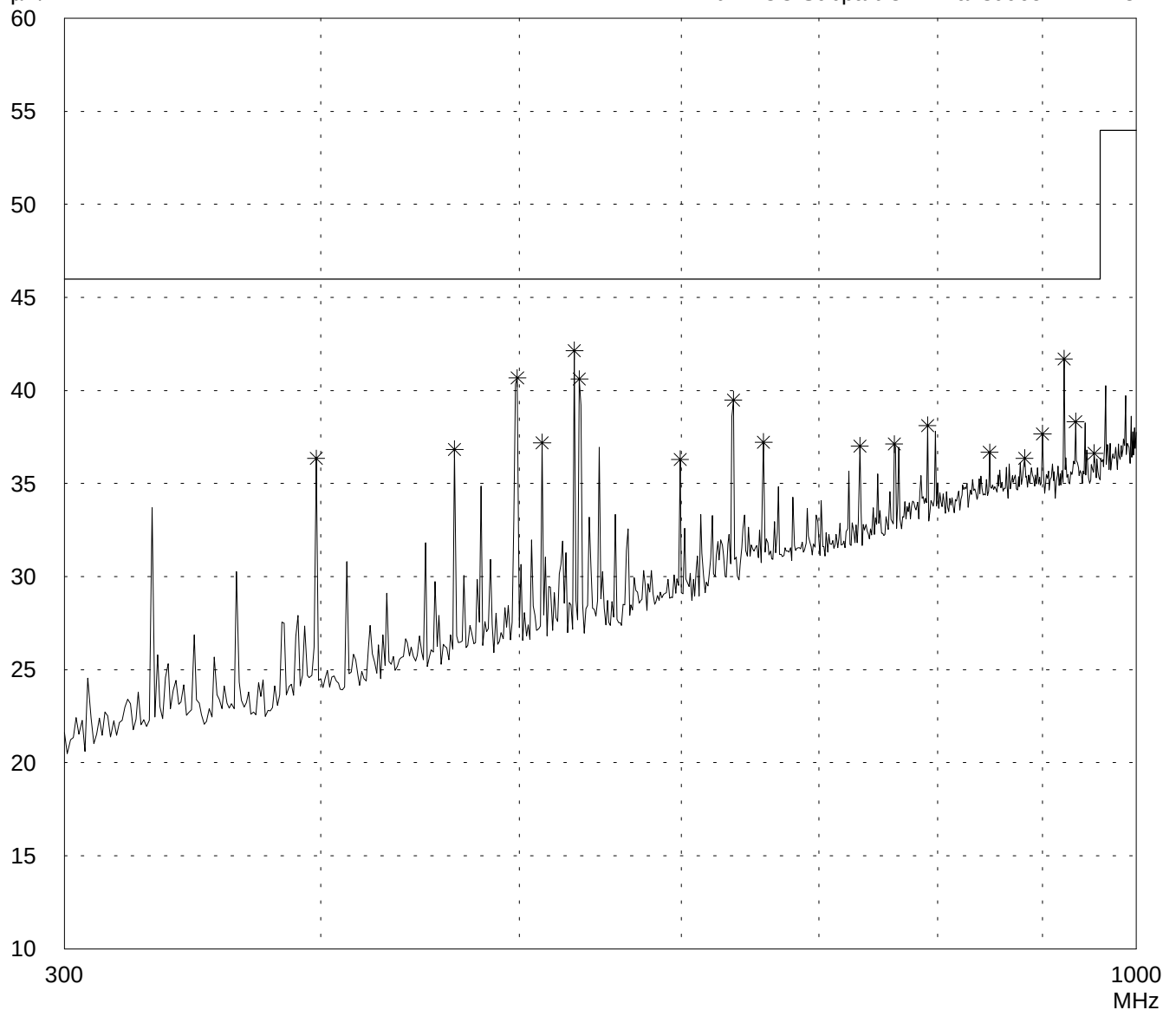
List of values:

10 dB Margin

50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

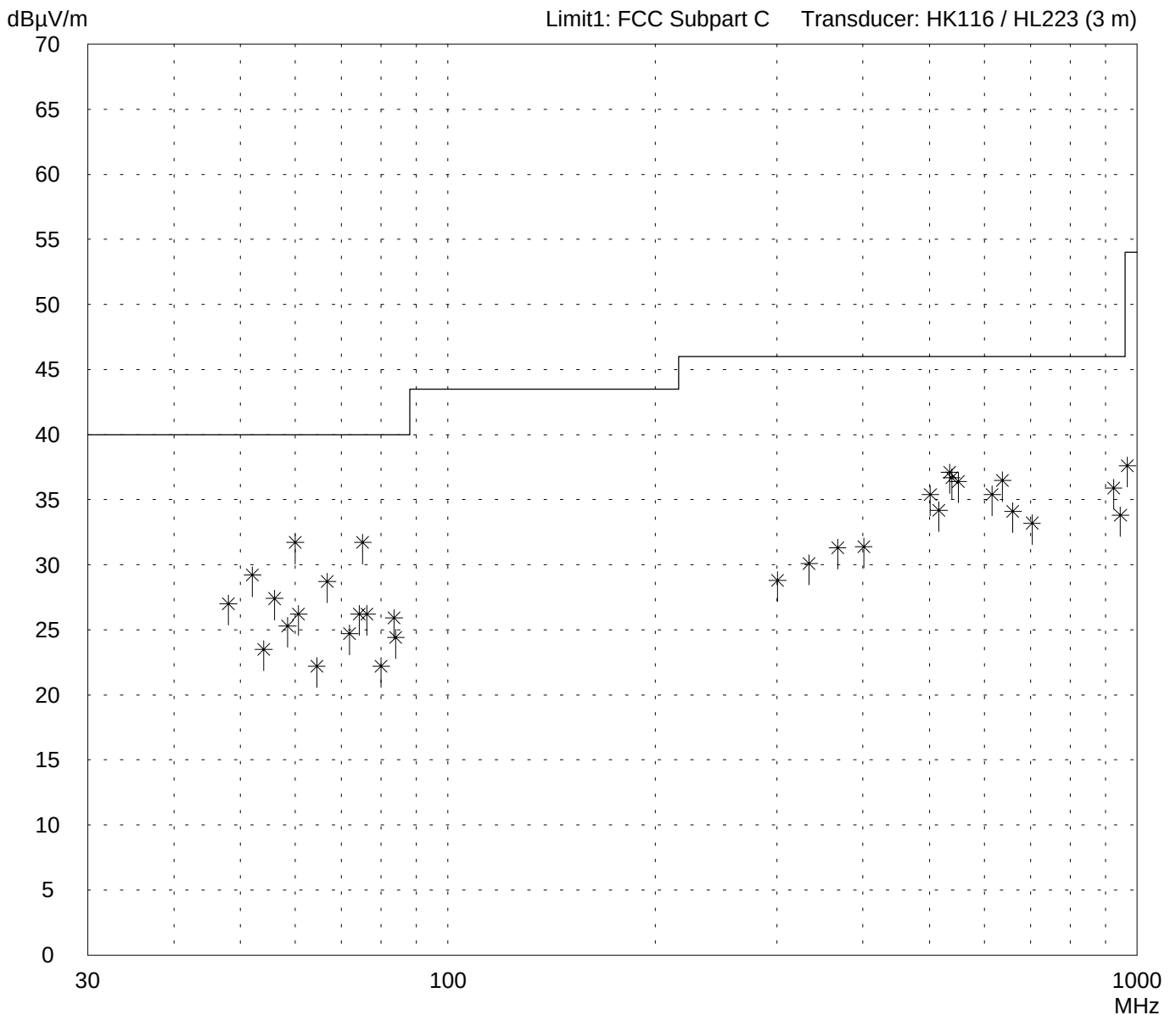
Test performed: by hand      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable
- operating with bit rate 11 Mbps
- TX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

Test performed: by hand      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| Frequency<br>MHz | Reading<br>dB $\mu$ V | Correction factor<br>dB | Value<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Limit<br>exceeded |
|------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------|
| 48.0             | 16.0                  | 11.0                    | 27.0                  | 40.0                  |                   |
| 52.0             | 18.5                  | 10.7                    | 29.2                  | 40.0                  |                   |
| 54.0             | 13.0                  | 10.5                    | 23.5                  | 40.0                  |                   |
| 56.0             | 17.0                  | 10.4                    | 27.4                  | 40.0                  |                   |
| 58.5             | 15.0                  | 10.3                    | 25.3                  | 40.0                  |                   |
| 60.0             | 21.5                  | 10.2                    | 31.7                  | 40.0                  |                   |
| 60.7             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.5             | 12.0                  | 10.2                    | 22.2                  | 40.0                  |                   |
| 66.8             | 18.5                  | 10.2                    | 28.7                  | 40.0                  |                   |
| 72.0             | 14.5                  | 10.2                    | 24.7                  | 40.0                  |                   |
| 74.3             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 75.2             | 21.5                  | 10.2                    | 31.7                  | 40.0                  |                   |
| 76.3             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 80.0             | 12.0                  | 10.2                    | 22.2                  | 40.0                  |                   |
| 83.5             | 15.5                  | 10.4                    | 25.9                  | 40.0                  |                   |
| 84.0             | 14.0                  | 10.4                    | 24.4                  | 40.0                  |                   |
| 300.7            | 12.0                  | 16.8                    | 28.8                  | 46.0                  |                   |
| 334.1            | 12.0                  | 18.1                    | 30.1                  | 46.0                  |                   |
| 367.5            | 12.0                  | 19.3                    | 31.3                  | 46.0                  |                   |
| 400.9            | 11.0                  | 20.4                    | 31.4                  | 46.0                  |                   |
| 501.2            | 12.5                  | 22.9                    | 35.4                  | 46.0                  |                   |
| 515.5            | 11.0                  | 23.2                    | 34.2                  | 46.0                  |                   |
| 534.6            | 13.5                  | 23.6                    | 37.1                  | 46.0                  |                   |
| 538.1            | 13.0                  | 23.7                    | 36.7                  | 46.0                  |                   |
| 550.0            | 12.5                  | 23.9                    | 36.4                  | 46.0                  |                   |
| 616.0            | 10.0                  | 25.4                    | 35.4                  | 46.0                  |                   |
| 638.0            | 10.5                  | 26.0                    | 36.5                  | 46.0                  |                   |
| 660.0            | 7.5                   | 26.6                    | 34.1                  | 46.0                  |                   |
| 704.0            | 5.5                   | 27.7                    | 33.2                  | 46.0                  |                   |
| 924.0            | 5.0                   | 30.9                    | 35.9                  | 46.0                  |                   |
| 946.0            | 2.5                   | 31.3                    | 33.8                  | 46.0                  |                   |
| 968.0            | 6.0                   | 31.6                    | 37.6                  | 54.0                  |                   |

Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999  
Operator: R. Heller

Test performed: by hand  
File name:

Mode:

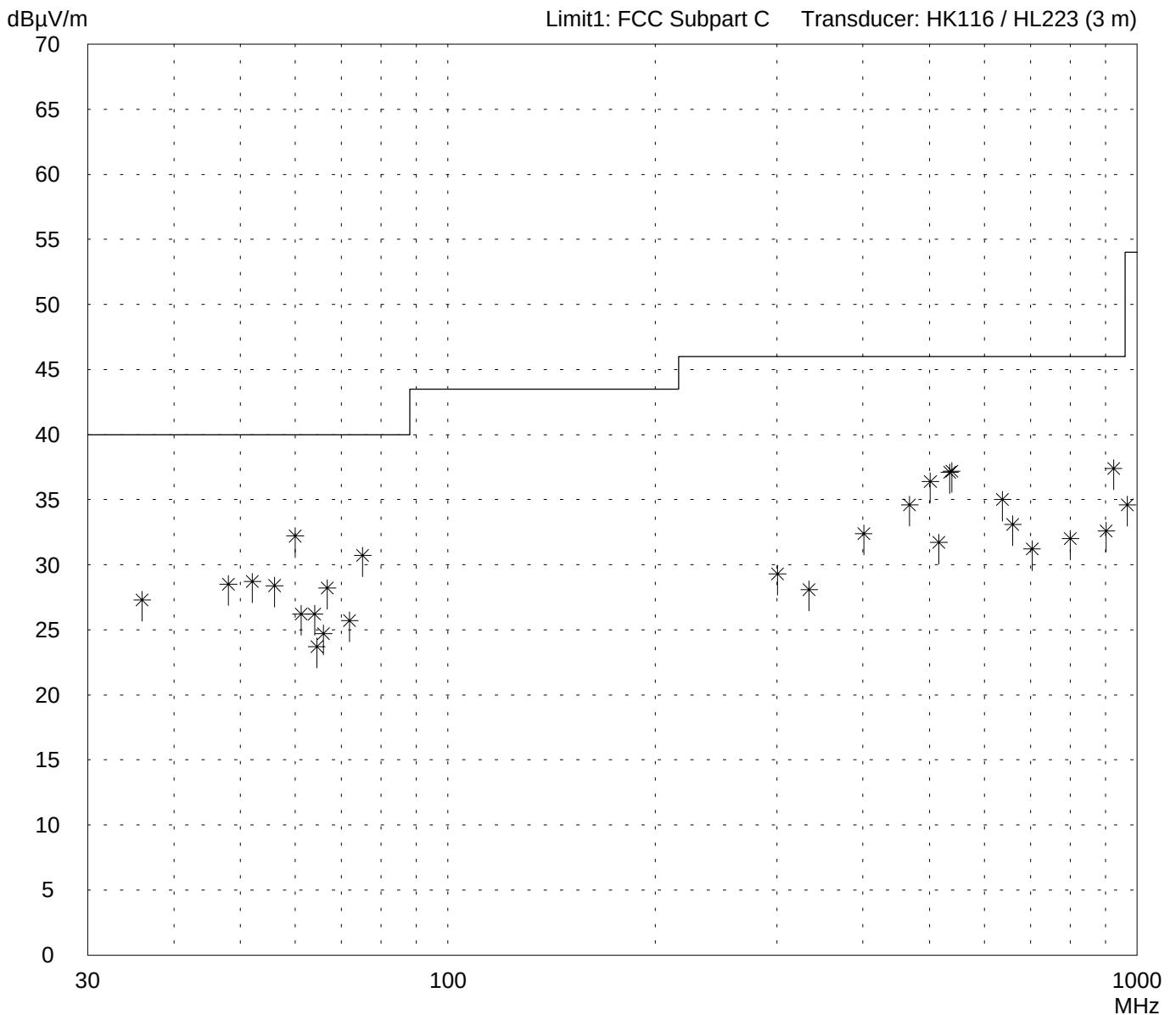
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999  
Operator: R. Heller

Test performed: by hand  
File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| Frequency<br>MHz | Reading<br>dB $\mu$ V | Correction factor<br>dB | Value<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Limit<br>exceeded |
|------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------|
| 36.0             | 14.0                  | 13.3                    | 27.3                  | 40.0                  |                   |
| 48.0             | 17.5                  | 11.0                    | 28.5                  | 40.0                  |                   |
| 52.0             | 18.0                  | 10.7                    | 28.7                  | 40.0                  |                   |
| 56.0             | 18.0                  | 10.4                    | 28.4                  | 40.0                  |                   |
| 60.0             | 22.0                  | 10.2                    | 32.2                  | 40.0                  |                   |
| 61.2             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.0             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.5             | 13.5                  | 10.2                    | 23.7                  | 40.0                  |                   |
| 66.0             | 14.5                  | 10.2                    | 24.7                  | 40.0                  |                   |
| 66.8             | 18.0                  | 10.2                    | 28.2                  | 40.0                  |                   |
| 72.0             | 15.5                  | 10.2                    | 25.7                  | 40.0                  |                   |
| 75.2             | 20.5                  | 10.2                    | 30.7                  | 40.0                  |                   |
| 300.7            | 12.5                  | 16.8                    | 29.3                  | 46.0                  |                   |
| 334.1            | 10.0                  | 18.1                    | 28.1                  | 46.0                  |                   |
| 400.9            | 12.0                  | 20.4                    | 32.4                  | 46.0                  |                   |
| 467.7            | 12.5                  | 22.1                    | 34.6                  | 46.0                  |                   |
| 501.2            | 13.5                  | 22.9                    | 36.4                  | 46.0                  |                   |
| 515.5            | 8.5                   | 23.2                    | 31.7                  | 46.0                  |                   |
| 534.6            | 13.5                  | 23.6                    | 37.1                  | 46.0                  |                   |
| 538.1            | 13.5                  | 23.7                    | 37.2                  | 46.0                  |                   |
| 638.0            | 9.0                   | 26.0                    | 35.0                  | 46.0                  |                   |
| 660.0            | 6.5                   | 26.6                    | 33.1                  | 46.0                  |                   |
| 704.0            | 3.5                   | 27.7                    | 31.2                  | 46.0                  |                   |
| 800.0            | 3.5                   | 28.5                    | 32.0                  | 46.0                  |                   |
| 902.0            | 2.0                   | 30.6                    | 32.6                  | 46.0                  |                   |
| 924.0            | 6.5                   | 30.9                    | 37.4                  | 46.0                  |                   |
| 968.0            | 3.0                   | 31.6                    | 34.6                  | 54.0                  |                   |

Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

Detector:  
Peak

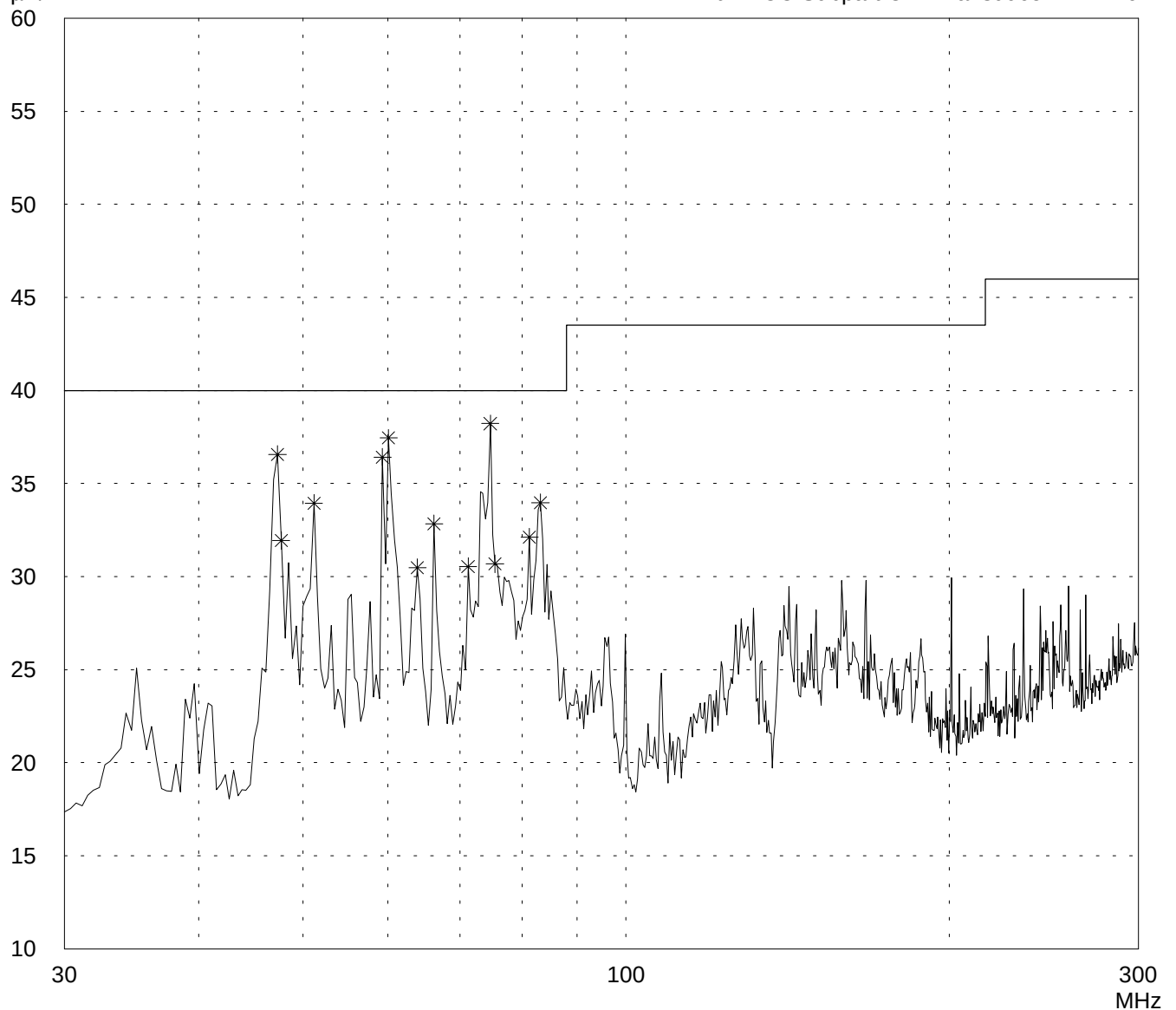
List of values:

10 dB Margin

50 Subranges

$\text{dB}\mu\text{V/m}$

Limit1: FCC Subpart C      Transducer: HK 116



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

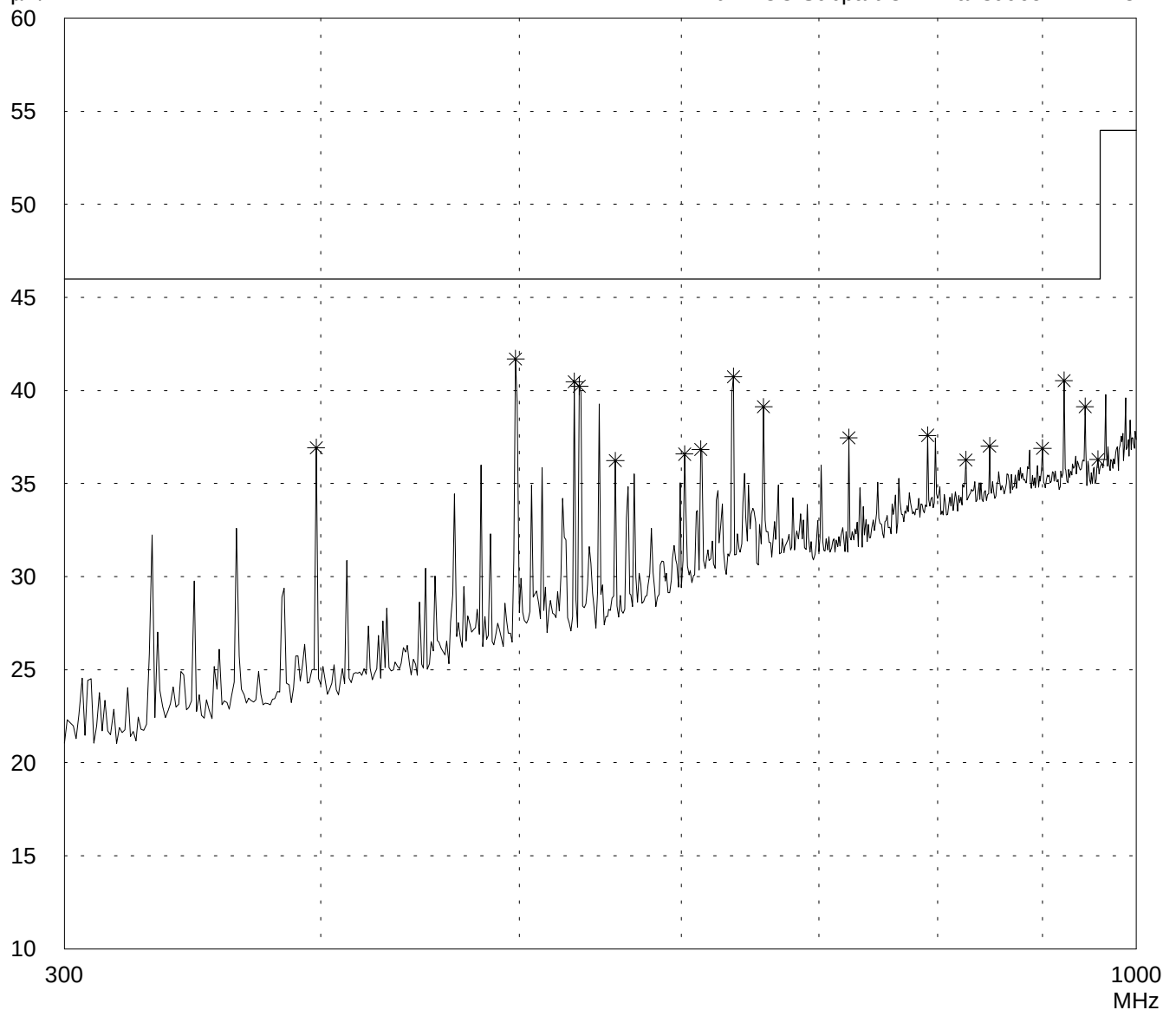
- TX mode with  $f = 2.462$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

Detector:  
Peak

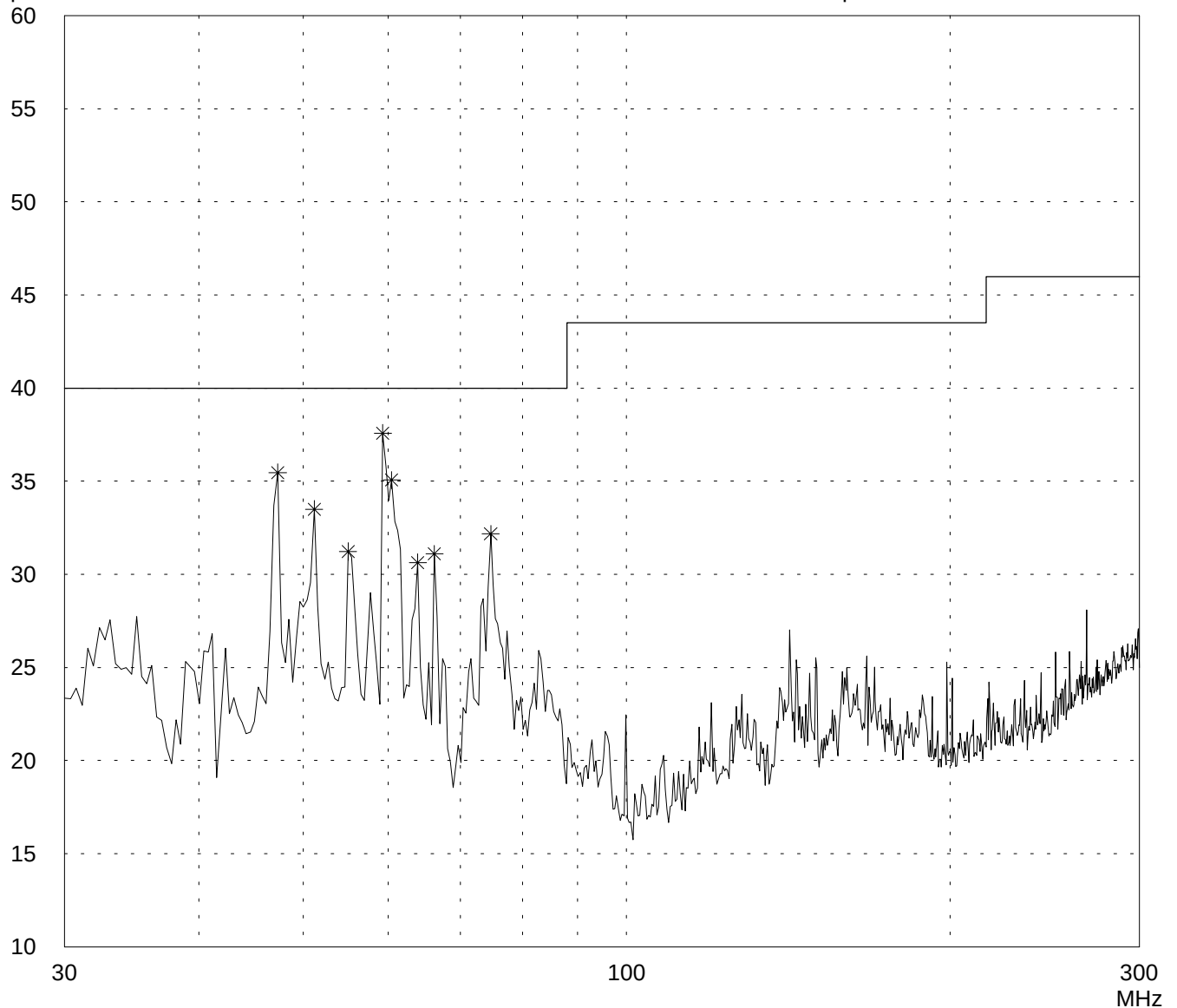
List of values:

10 dB Margin

50 Subranges

$\text{dB}\mu\text{V/m}$

Limit1: FCC Subpart C      Transducer: HK 116



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

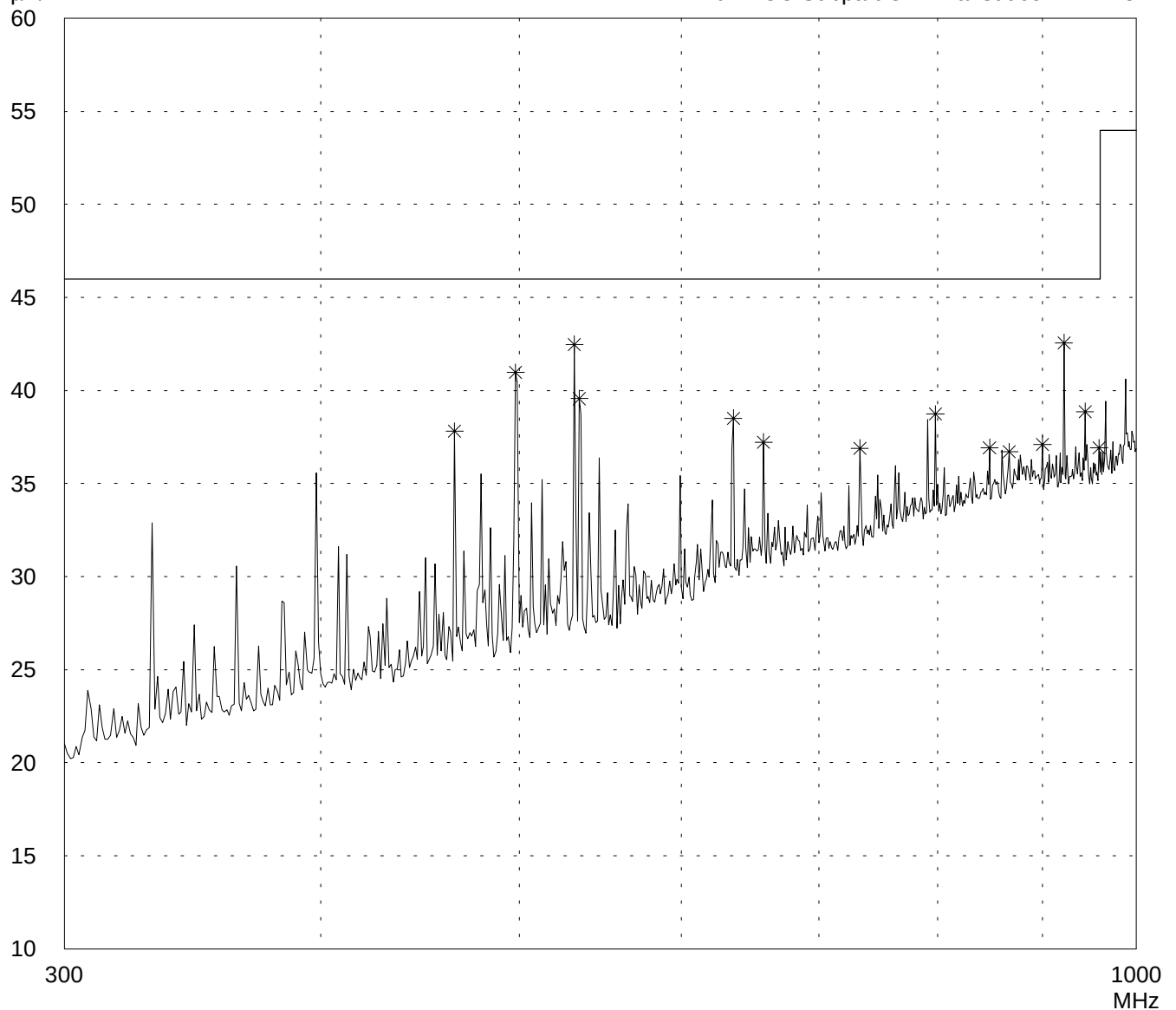
- TX mode with  $f = 2.462$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999  
Operator: R. Heller

Test performed: by hand  
File name:

Mode:

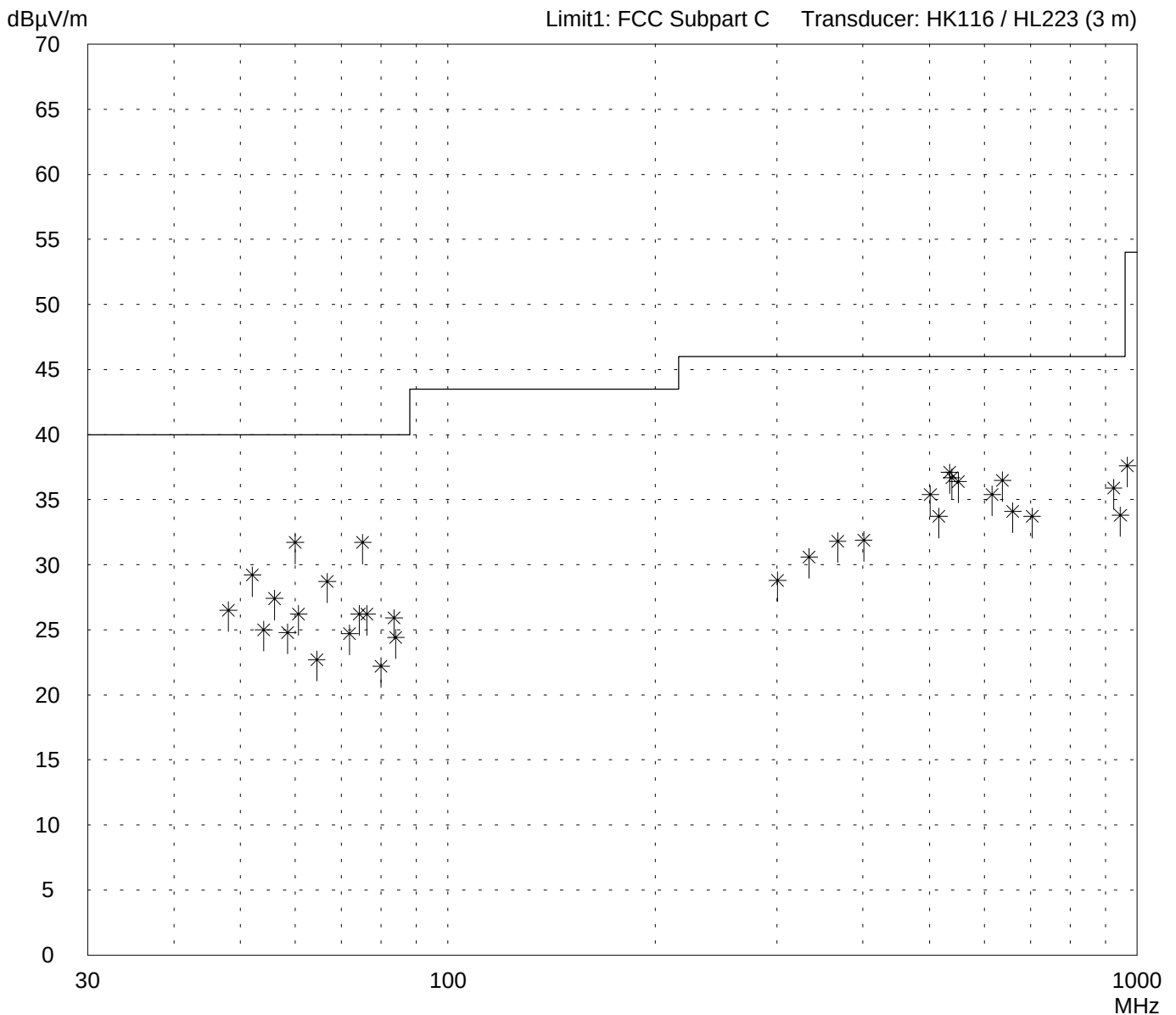
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator: R. Heller

Test performed: by hand      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| Frequency<br>MHz | Reading<br>dB $\mu$ V | Correction factor<br>dB | Value<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Limit<br>exceeded |
|------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------|
| 48.0             | 15.5                  | 11.0                    | 26.5                  | 40.0                  |                   |
| 52.0             | 18.5                  | 10.7                    | 29.2                  | 40.0                  |                   |
| 54.0             | 14.5                  | 10.5                    | 25.0                  | 40.0                  |                   |
| 56.0             | 17.0                  | 10.4                    | 27.4                  | 40.0                  |                   |
| 58.5             | 14.5                  | 10.3                    | 24.8                  | 40.0                  |                   |
| 60.0             | 21.5                  | 10.2                    | 31.7                  | 40.0                  |                   |
| 60.7             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.5             | 12.5                  | 10.2                    | 22.7                  | 40.0                  |                   |
| 66.8             | 18.5                  | 10.2                    | 28.7                  | 40.0                  |                   |
| 72.0             | 14.5                  | 10.2                    | 24.7                  | 40.0                  |                   |
| 74.3             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 75.2             | 21.5                  | 10.2                    | 31.7                  | 40.0                  |                   |
| 76.3             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 80.0             | 12.0                  | 10.2                    | 22.2                  | 40.0                  |                   |
| 83.5             | 15.5                  | 10.4                    | 25.9                  | 40.0                  |                   |
| 84.0             | 14.0                  | 10.4                    | 24.4                  | 40.0                  |                   |
| 300.7            | 12.0                  | 16.8                    | 28.8                  | 46.0                  |                   |
| 334.1            | 12.5                  | 18.1                    | 30.6                  | 46.0                  |                   |
| 367.5            | 12.5                  | 19.3                    | 31.8                  | 46.0                  |                   |
| 400.9            | 11.5                  | 20.4                    | 31.9                  | 46.0                  |                   |
| 501.2            | 12.5                  | 22.9                    | 35.4                  | 46.0                  |                   |
| 515.5            | 10.5                  | 23.2                    | 33.7                  | 46.0                  |                   |
| 534.6            | 13.5                  | 23.6                    | 37.1                  | 46.0                  |                   |
| 538.1            | 13.0                  | 23.7                    | 36.7                  | 46.0                  |                   |
| 550.0            | 12.5                  | 23.9                    | 36.4                  | 46.0                  |                   |
| 616.0            | 10.0                  | 25.4                    | 35.4                  | 46.0                  |                   |
| 638.0            | 10.5                  | 26.0                    | 36.5                  | 46.0                  |                   |
| 660.0            | 7.5                   | 26.6                    | 34.1                  | 46.0                  |                   |
| 704.0            | 6.0                   | 27.7                    | 33.7                  | 46.0                  |                   |
| 924.0            | 5.0                   | 30.9                    | 35.9                  | 46.0                  |                   |
| 946.0            | 2.5                   | 31.3                    | 33.8                  | 46.0                  |                   |
| 968.0            | 6.0                   | 31.6                    | 37.6                  | 54.0                  |                   |

Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999  
Operator: R. Heller

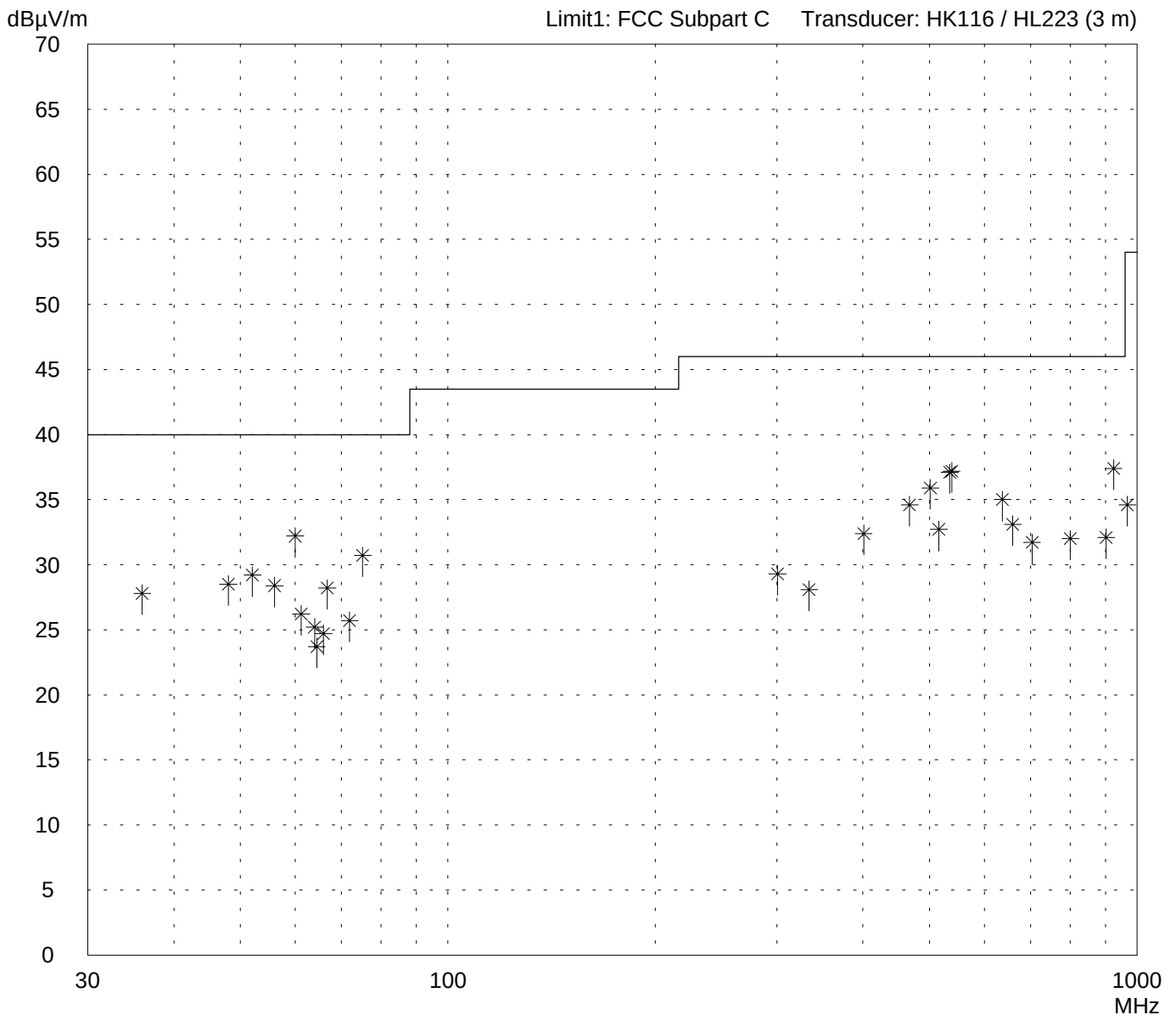
Test performed: by hand  
File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable
- operating with bit rate 11 Mbps
- TX mode with  $f = 2.462$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999  
Operator: R. Heller

Test performed: by hand  
File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| Frequency<br>MHz | Reading<br>dB $\mu$ V | Correction factor<br>dB | Value<br>dB $\mu$ V/m | Limit<br>dB $\mu$ V/m | Limit<br>exceeded |
|------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------|
| 36.0             | 14.5                  | 13.3                    | 27.8                  | 40.0                  |                   |
| 48.0             | 17.5                  | 11.0                    | 28.5                  | 40.0                  |                   |
| 52.0             | 18.5                  | 10.7                    | 29.2                  | 40.0                  |                   |
| 56.0             | 18.0                  | 10.4                    | 28.4                  | 40.0                  |                   |
| 60.0             | 22.0                  | 10.2                    | 32.2                  | 40.0                  |                   |
| 61.2             | 16.0                  | 10.2                    | 26.2                  | 40.0                  |                   |
| 64.0             | 15.0                  | 10.2                    | 25.2                  | 40.0                  |                   |
| 64.5             | 13.5                  | 10.2                    | 23.7                  | 40.0                  |                   |
| 66.0             | 14.5                  | 10.2                    | 24.7                  | 40.0                  |                   |
| 66.8             | 18.0                  | 10.2                    | 28.2                  | 40.0                  |                   |
| 72.0             | 15.5                  | 10.2                    | 25.7                  | 40.0                  |                   |
| 75.2             | 20.5                  | 10.2                    | 30.7                  | 40.0                  |                   |
| 300.7            | 12.5                  | 16.8                    | 29.3                  | 46.0                  |                   |
| 334.1            | 10.0                  | 18.1                    | 28.1                  | 46.0                  |                   |
| 400.9            | 12.0                  | 20.4                    | 32.4                  | 46.0                  |                   |
| 467.7            | 12.5                  | 22.1                    | 34.6                  | 46.0                  |                   |
| 501.2            | 13.0                  | 22.9                    | 35.9                  | 46.0                  |                   |
| 515.5            | 9.5                   | 23.2                    | 32.7                  | 46.0                  |                   |
| 534.6            | 13.5                  | 23.6                    | 37.1                  | 46.0                  |                   |
| 538.1            | 13.5                  | 23.7                    | 37.2                  | 46.0                  |                   |
| 638.0            | 9.0                   | 26.0                    | 35.0                  | 46.0                  |                   |
| 660.0            | 6.5                   | 26.6                    | 33.1                  | 46.0                  |                   |
| 704.0            | 4.0                   | 27.7                    | 31.7                  | 46.0                  |                   |
| 800.0            | 3.5                   | 28.5                    | 32.0                  | 46.0                  |                   |
| 902.0            | 1.5                   | 30.6                    | 32.1                  | 46.0                  |                   |
| 924.0            | 6.5                   | 30.9                    | 37.4                  | 46.0                  |                   |
| 968.0            | 3.0                   | 31.6                    | 34.6                  | 54.0                  |                   |

Result:  
Limit kept

Project file:  
56305-90204-3

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## Radiated Emission 1 GHz - 25 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
Type: RF-modem for wireless LAN  
Serial No.: 90990005  
Applicant: Lucent Technologies Nederland B.V.  
Test-site: Semi anechoic room  
Test distance: 3 meters  
Date of test: 04/26/1999  
Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- operating with bit rate 11 Mbps  
  
- TX mode with  $f = 2.412$  GHz

Detector: Peak

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dBμV] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dBμV/m] | Limit<br>[dBμV/m] |
|--------------------|--------------|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------|-------------------|
| 2.3900             | vertical     | 60.3                           |                              | 0.6                   | 20.7                           | 60.3                      | 74                |
| 2.3943             | vertical     | 73.8                           |                              | 0.6                   | 20.7                           | 73.8                      | NRB               |
| 2.3980             | vertical     | 79.7                           |                              | 0.6                   | 20.7                           | 79.7                      | NRB               |
| 2.4000             | vertical     | 76.9                           |                              | 0.6                   | 20.7                           | 76.9                      | NRB               |
| 2.4117             | vertical     | 111.1                          |                              | 0.6                   | 20.7                           | 111.1                     | OB                |
| 2.4310             | vertical     | 73.8                           |                              | 0.6                   | 20.7                           | 73.8                      | OB                |
| 4.8303             | vertical     | 40.7                           | -93.9                        |                       | 27.3                           | 40.4                      | 74                |
| 7.2412             | vertical     | 39.3                           | -96.4                        |                       | 29.9                           | 40.5                      | NRB               |
| 9.6467             | horizontal   | 42.5                           | -97.0                        |                       | 33.4                           | 43.4                      | NRB               |

**Note:** OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).  
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 111.1 dBμV/m.

**Result:** The limits are kept

# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

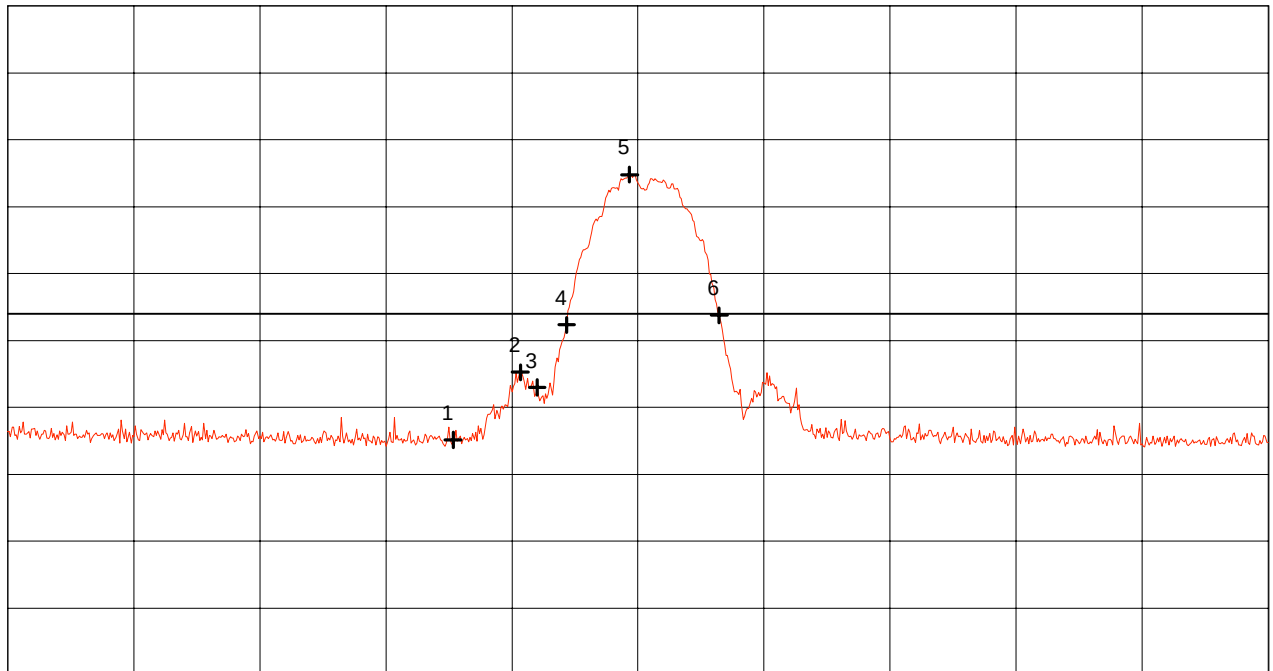
Test distance: 3 meters

Channel A (red) = horizontal polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.337 GHz  
RBW 1 MHz

VBW 1 MHz

Stop 2.487 GHz  
SWP 20 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.390000 GHz | 55.13 dB $\mu$ V/m |
| Nr.2 | 2.398000 GHz | 65.26 dB $\mu$ V/m |
| Nr.3 | 2.400000 GHz | 62.97 dB $\mu$ V/m |
| Nr.4 | 2.403500 GHz | 72.34 dB $\mu$ V/m |
| Nr.5 | 2.411000 GHz | 94.79 dB $\mu$ V/m |
| Nr.6 | 2.421667 GHz | 73.77 dB $\mu$ V/m |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

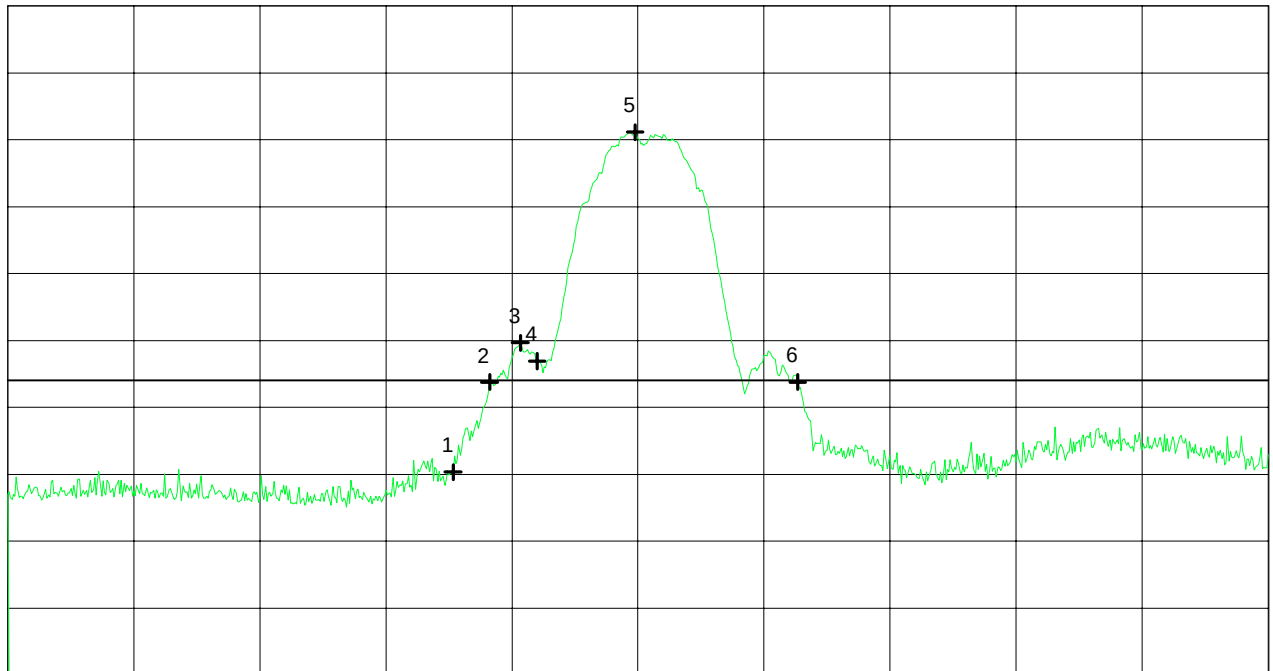
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 130 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.337 GHz  
RBW 1 MHz

VBW 1 MHz

Stop 2.487 GHz  
SWP 20 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                     |
|------|--------------|---------------------|
| Nr.1 | 2.390000 GHz | 60.33 dB $\mu$ V/m  |
| Nr.2 | 2.394333 GHz | 73.77 dB $\mu$ V/m  |
| Nr.3 | 2.398000 GHz | 79.66 dB $\mu$ V/m  |
| Nr.4 | 2.400000 GHz | 76.91 dB $\mu$ V/m  |
| Nr.5 | 2.411667 GHz | 111.12 dB $\mu$ V/m |
| Nr.6 | 2.431000 GHz | 73.79 dB $\mu$ V/m  |
| Nr.7 |              |                     |
| Nr.8 |              |                     |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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## Radiated Emission 1 GHz - 25 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
Type: RF-modem for wireless LAN  
Serial No.: 90990005  
Applicant: Lucent Technologies Nederland B.V.  
Test-site: Semi anechoic room  
Test distance: 3 meters  
Date of test: 04/26/1999  
Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- operating with bit rate 11 Mbps  
  
- TX mode with  $f = 2.412$  GHz

Detector: Average

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dB $\mu$ V] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dB $\mu$ V/m] | Limit<br>[dB $\mu$ V/m] |
|--------------------|--------------|--------------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------------|-------------------------|
| 2.3862             | vertical     | 52.6                                 |                              | 0.6                   | 20.7                           | 52.6                            | 54                      |
| 2.3876             | vertical     | 52.3                                 |                              | 0.6                   | 20.7                           | 52.3                            | 54                      |
| 2.3900             | vertical     | 51.8                                 |                              | 0.6                   | 20.7                           | 51.8                            | 54                      |
| 2.3902             | vertical     | 54.0                                 |                              | 0.6                   | 20.7                           | 54.0                            | NRB                     |
| 2.3985             | vertical     | 76.4                                 |                              | 0.6                   | 20.7                           | 76.4                            | NRB                     |
| 2.4000             | vertical     | 71.8                                 |                              | 0.6                   | 20.7                           | 71.8                            | NRB                     |
| 2.4113             | vertical     | 108.1                                |                              | 0.6                   | 20.7                           | 108.1                           | OB                      |
| 2.4388             | vertical     | 53.4                                 |                              | 0.6                   | 20.7                           | 53.4                            | OB                      |

**Note:** OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).  
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 108.1 dB $\mu$ V/m.

**Result:** The limits are kept

# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

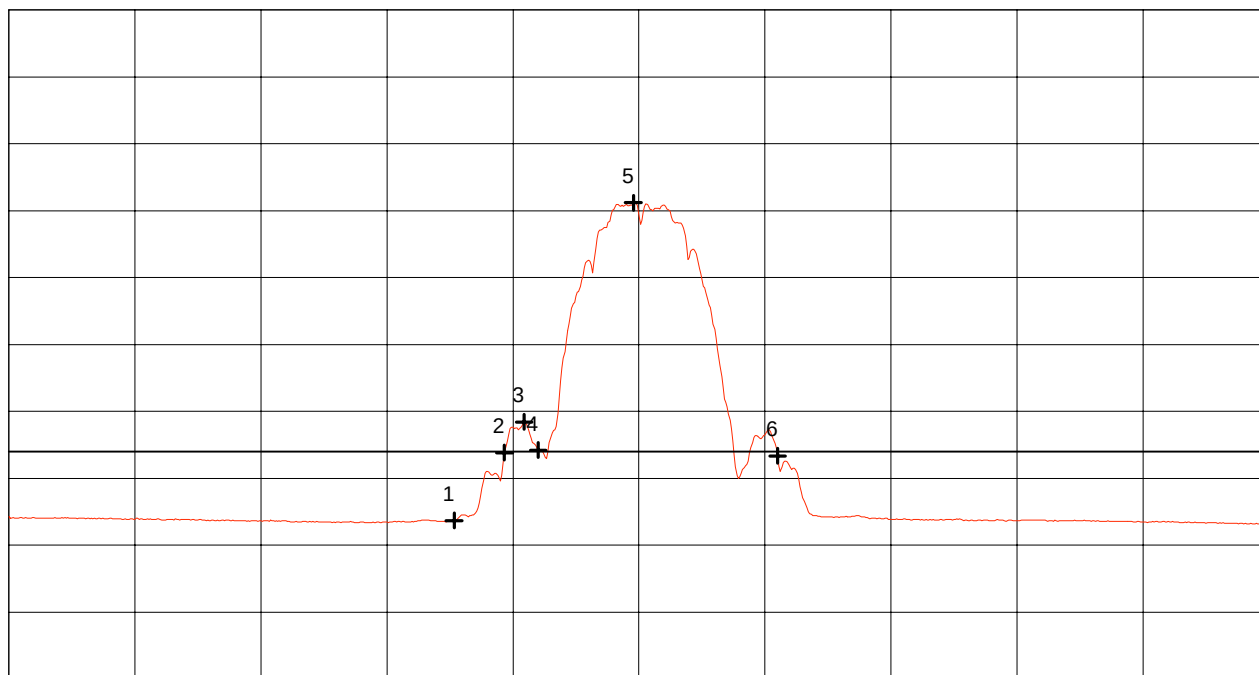
Test distance: 3 meters

Channel A (red) = horizontal polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.337 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.487 GHz  
SWP 4.60 s

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.390000 GHz | 43.67 dB $\mu$ V/m |
| Nr.2 | 2.396000 GHz | 53.83 dB $\mu$ V/m |
| Nr.3 | 2.398333 GHz | 58.43 dB $\mu$ V/m |
| Nr.4 | 2.400000 GHz | 54.19 dB $\mu$ V/m |
| Nr.5 | 2.411333 GHz | 91.19 dB $\mu$ V/m |
| Nr.6 | 2.428500 GHz | 53.35 dB $\mu$ V/m |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

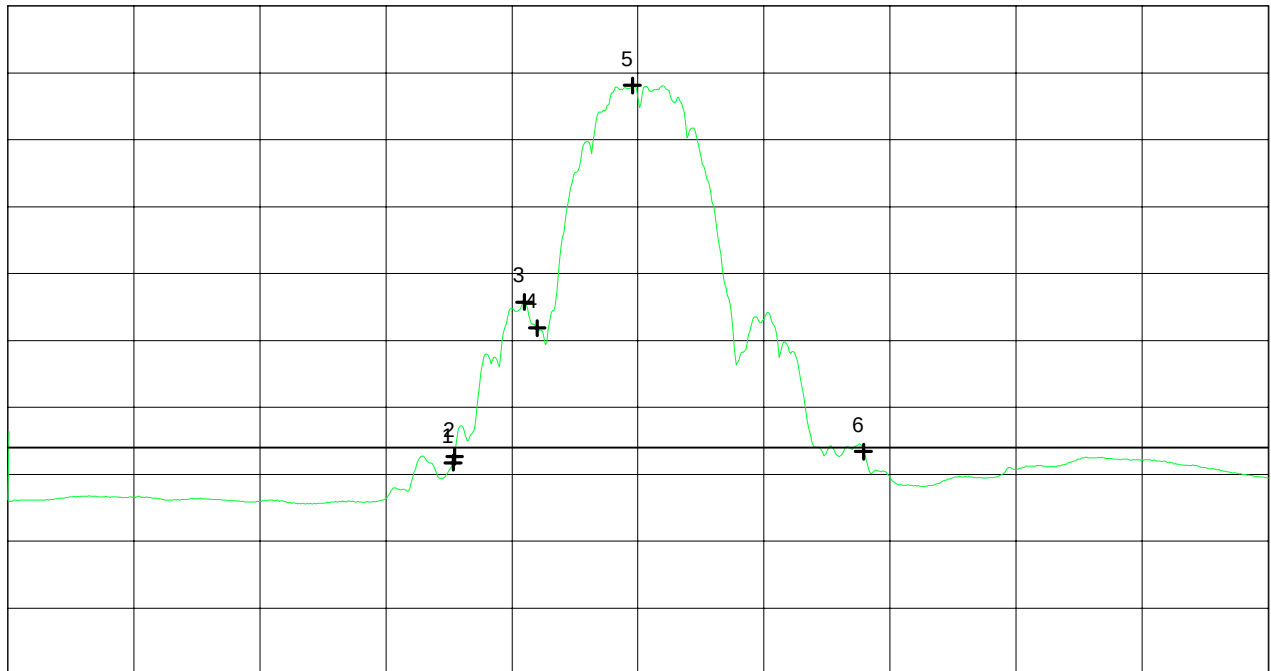
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.337 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.487 GHz  
SWP 4.60 s

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                     |
|------|--------------|---------------------|
| Nr.1 | 2.390000 GHz | 51.72 dB $\mu$ V/m  |
| Nr.2 | 2.390167 GHz | 52.64 dB $\mu$ V/m  |
| Nr.3 | 2.398500 GHz | 75.75 dB $\mu$ V/m  |
| Nr.4 | 2.400000 GHz | 71.84 dB $\mu$ V/m  |
| Nr.5 | 2.411333 GHz | 108.10 dB $\mu$ V/m |
| Nr.6 | 2.438833 GHz | 53.37 dB $\mu$ V/m  |
| Nr.7 |              |                     |
| Nr.8 |              |                     |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.412$  GHz

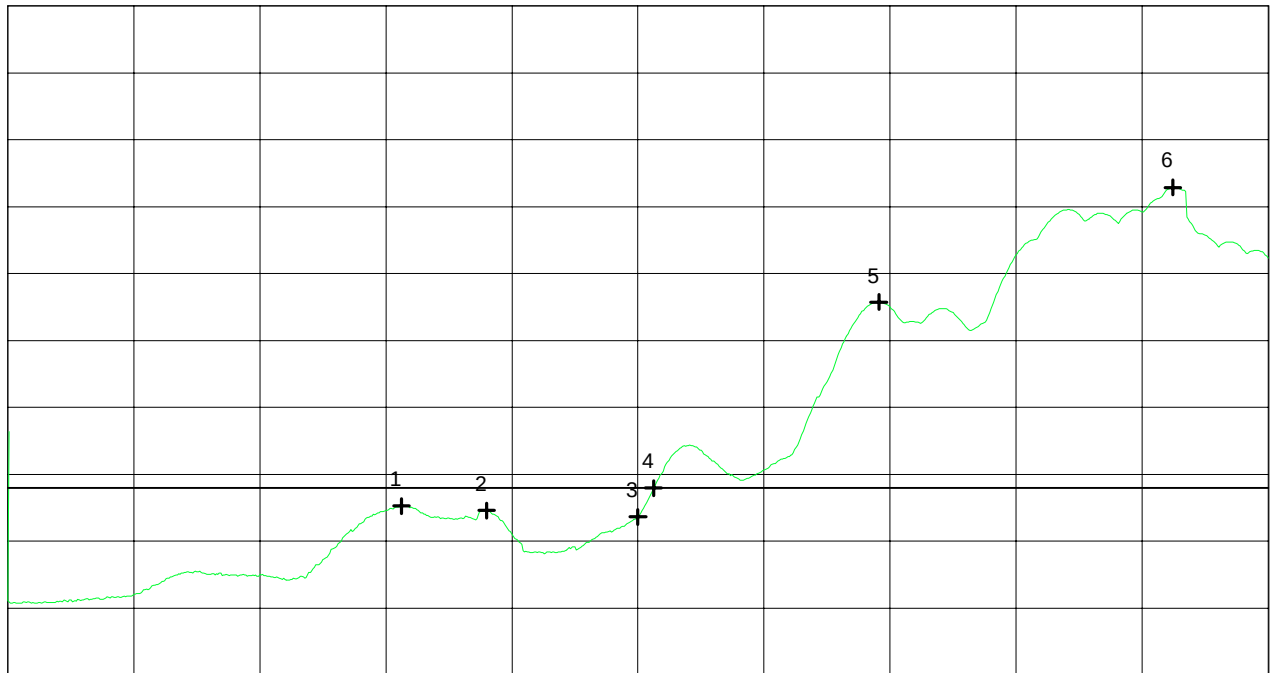
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 90 dB $\mu$ V/m  
5 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.380 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.400 GHz  
SWP 1.50 s

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.386244 GHz | 52.62 dB $\mu$ V/m |
| Nr.2 | 2.387600 GHz | 52.29 dB $\mu$ V/m |
| Nr.3 | 2.390000 GHz | 51.81 dB $\mu$ V/m |
| Nr.4 | 2.390244 GHz | 53.97 dB $\mu$ V/m |
| Nr.5 | 2.393822 GHz | 67.86 dB $\mu$ V/m |
| Nr.6 | 2.398489 GHz | 76.44 dB $\mu$ V/m |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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## Radiated Emission 1 GHz - 25 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
Type: RF-modem for wireless LAN  
Serial No.: 90990005  
Applicant: Lucent Technologies Nederland B.V.  
Test-site: Semi anechoic room  
Test distance: 3 meters  
Date of test: 04/26/1999  
Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- operating with bit rate 11 Mbps  
  
- TX mode with  $f = 2.442$  GHz

Detector: Peak

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dBμV] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dBμV/m] | Limit<br>[dBμV/m] |
|--------------------|--------------|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------|-------------------|
| 2.4273             | vertical     | 73.9                           |                              | 0.6                   | 20.7                           | 73.9                      | OB                |
| 2.4442             | vertical     | 111.4                          |                              | 0.6                   | 20.7                           | 111.4                     | OB                |
| 2.4538             | vertical     | 73.6                           |                              | 0.6                   | 20.7                           | 73.6                      | OB                |
| 4.8894             | vertical     | 40.5                           | -93.9                        |                       | 27.3                           | 40.4                      | 74                |
| 7.3331             | horizontal   | 40.4                           | -96.3                        |                       | 29.9                           | 40.6                      | 74                |
| 9.7680             | horizontal   | 43.0                           | -97.0                        |                       | 33.4                           | 43.4                      | NRB               |

**Note:** OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).  
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 111.4 dBμV/m.

**Result:** The limits are kept

# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

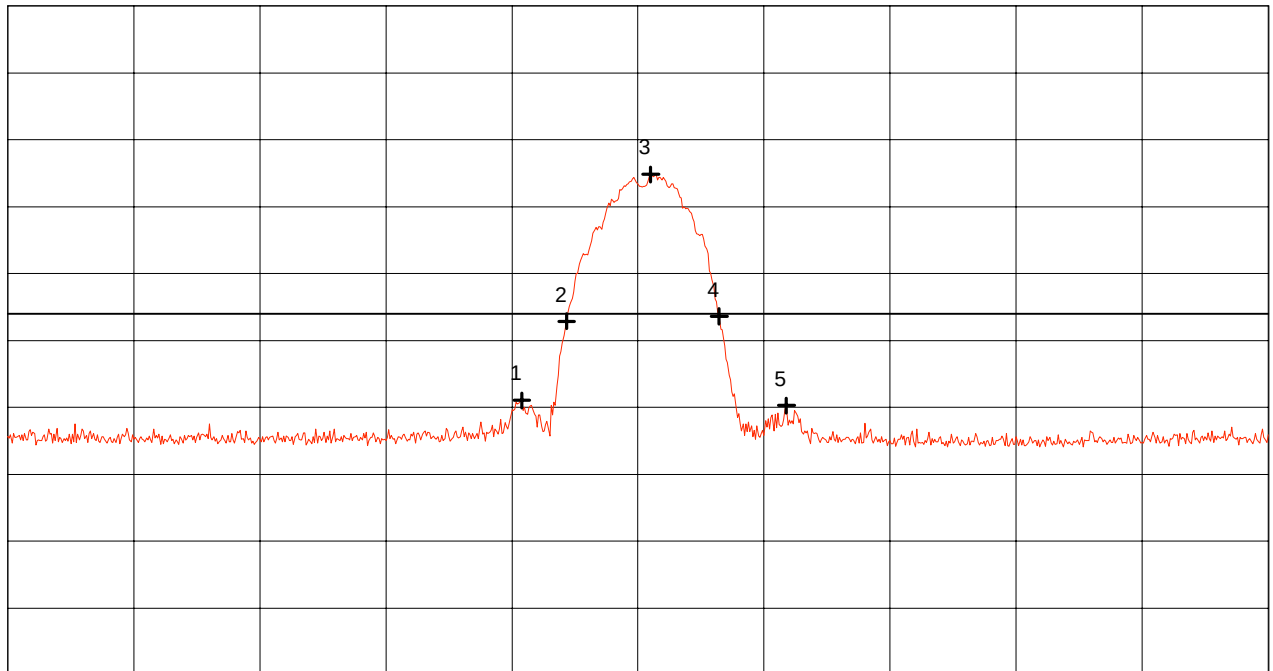
Test distance: 3 meters

Channel A (red) = horizontal polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.367 GHz  
RBW 1 MHz

VBW 1 MHz

Stop 2.517 GHz  
SWP 20 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.428167 GHz | 61.04 dB $\mu$ V/m |
| Nr.2 | 2.433500 GHz | 72.85 dB $\mu$ V/m |
| Nr.3 | 2.443500 GHz | 94.82 dB $\mu$ V/m |
| Nr.4 | 2.451667 GHz | 73.61 dB $\mu$ V/m |
| Nr.5 | 2.459667 GHz | 60.26 dB $\mu$ V/m |
| Nr.6 |              |                    |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

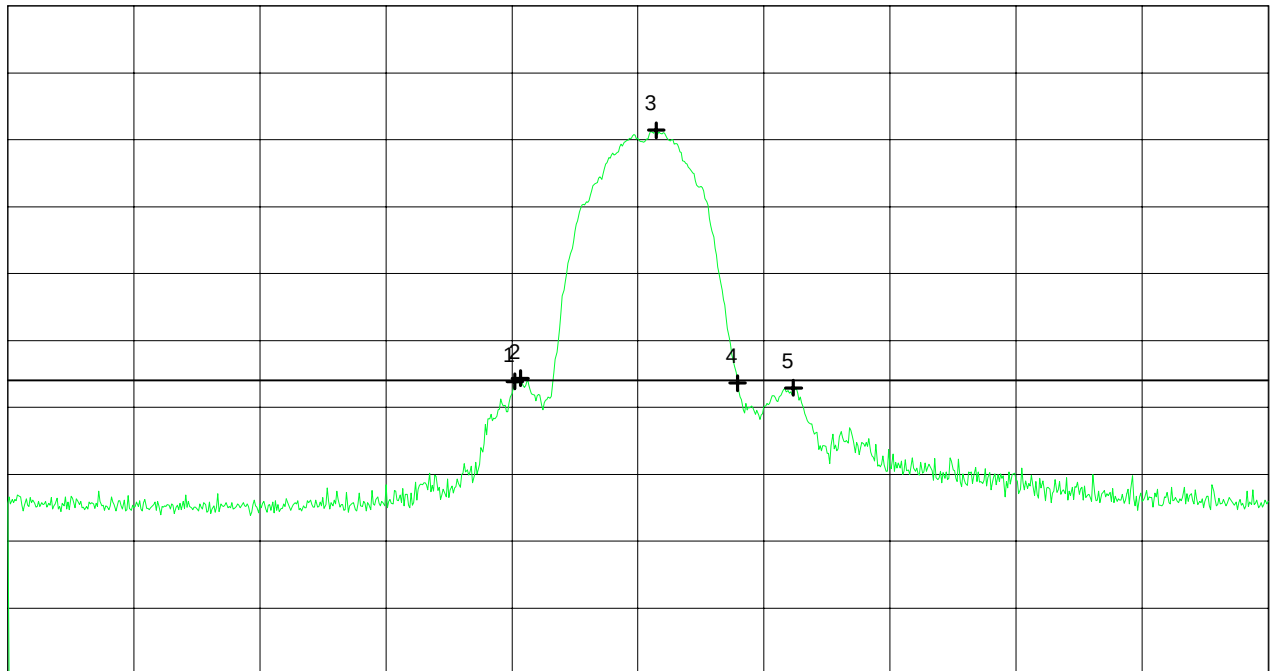
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 130 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.367 GHz  
RBW 1 MHz

VBW 1 MHz

Stop 2.517 GHz  
SWP 20 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                     |
|------|--------------|---------------------|
| Nr.1 | 2.427333 GHz | 73.87 dB $\mu$ V/m  |
| Nr.2 | 2.428000 GHz | 74.35 dB $\mu$ V/m  |
| Nr.3 | 2.444167 GHz | 111.42 dB $\mu$ V/m |
| Nr.4 | 2.453833 GHz | 73.64 dB $\mu$ V/m  |
| Nr.5 | 2.460500 GHz | 72.90 dB $\mu$ V/m  |
| Nr.6 |              |                     |
| Nr.7 |              |                     |
| Nr.8 |              |                     |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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## Radiated Emission 1 GHz - 25 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
Type: RF-modem for wireless LAN  
Serial No.: 90990005  
Applicant: Lucent Technologies Nederland B.V.  
Test-site: Semi anechoic room  
Test distance: 3 meters  
Date of test: 04/26/1999  
Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- operating with bit rate 11 Mbps  
  
- TX mode with  $f = 2.442$  GHz

Detector: Average

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dB $\mu$ V] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dB $\mu$ V/m] | Limit<br>[dB $\mu$ V/m] |
|--------------------|--------------|--------------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------------|-------------------------|
| 2.4228             | vertical     | 53.2                                 |                              | 0.6                   | 20.7                           | 53.2                            | OB                      |
| 2.4428             | vertical     | 108.6                                |                              | 0.6                   | 20.7                           | 108.6                           | OB                      |
| 2.4670             | vertical     | 54.0                                 |                              | 0.6                   | 20.7                           | 54.0                            | OB                      |

**Note:** OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).  
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 108.6 dB $\mu$ V/m.

**Result:** The limits are kept

# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

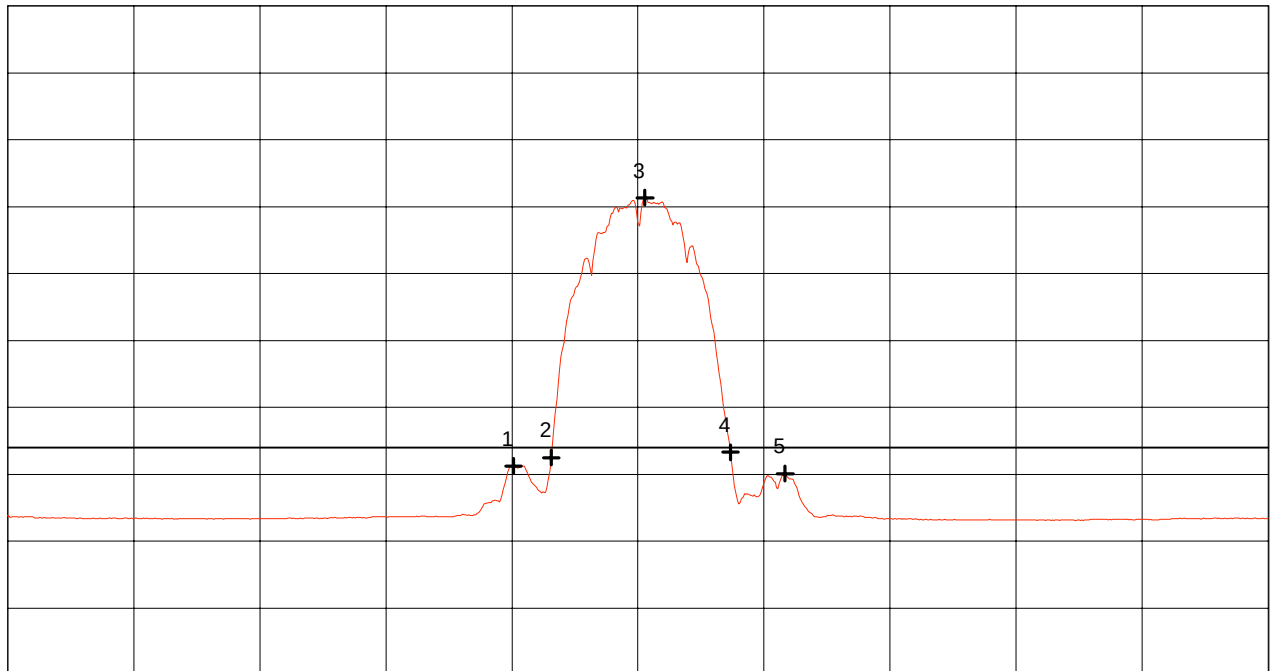
Test distance: 3 meters

Channel A (red) = horizontal polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.367 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.517 GHz  
SWP 4.60 s

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.427167 GHz | 51.24 dB $\mu$ V/m |
| Nr.2 | 2.431667 GHz | 52.51 dB $\mu$ V/m |
| Nr.3 | 2.442833 GHz | 91.34 dB $\mu$ V/m |
| Nr.4 | 2.453000 GHz | 53.30 dB $\mu$ V/m |
| Nr.5 | 2.459500 GHz | 50.10 dB $\mu$ V/m |
| Nr.6 |              |                    |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.442$  GHz

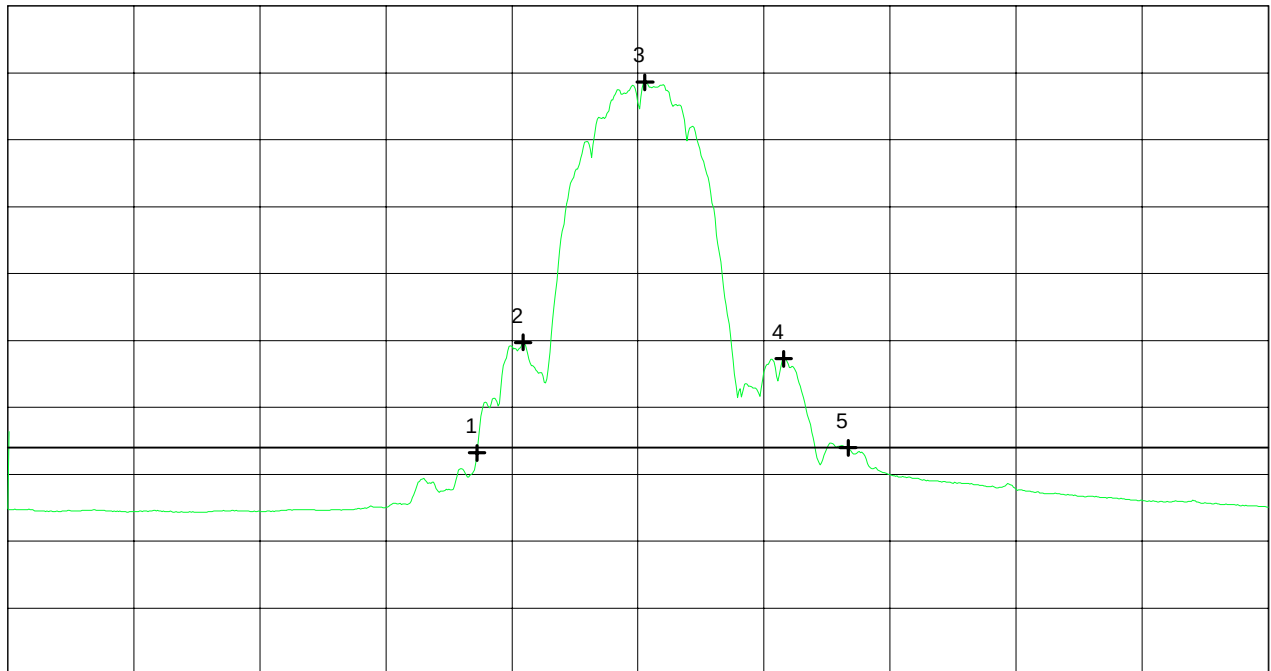
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.367 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.517 GHz  
SWP 4.60 s

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                     |
|------|--------------|---------------------|
| Nr.1 | 2.422833 GHz | 53.17 dB $\mu$ V/m  |
| Nr.2 | 2.428333 GHz | 69.70 dB $\mu$ V/m  |
| Nr.3 | 2.442833 GHz | 108.61 dB $\mu$ V/m |
| Nr.4 | 2.459333 GHz | 67.27 dB $\mu$ V/m  |
| Nr.5 | 2.467000 GHz | 53.96 dB $\mu$ V/m  |
| Nr.6 |              |                     |
| Nr.7 |              |                     |
| Nr.8 |              |                     |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
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## Radiated Emission 1 GHz - 25 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
Type: RF-modem for wireless LAN  
Serial No.: 90990005  
Applicant: Lucent Technologies Nederland B.V.  
Test-site: Semi anechoic room  
Test distance: 3 meters  
Date of test: 04/26/1999  
Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- operating with bit rate 11 Mbps  
  
- TX mode with  $f = 2.462$  GHz

Detector: Peak

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dBμV] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dBμV/m] | Limit<br>[dBμV/m] |
|--------------------|--------------|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------|-------------------|
| 2.4520             | vertical     | 72.8                           |                              | 0.6                   | 20.7                           | 72.8                      | OB                |
| 2.4652             | vertical     | 112.4                          |                              | 0.6                   | 20.7                           | 112.4                     | OB                |
| 2.4757             | vertical     | 73.9                           |                              | 0.6                   | 20.7                           | 73.9                      | OB                |
| 2.4835             | vertical     | 61.7                           |                              | 0.6                   | 20.7                           | 61.7                      | 74                |
| 2.4860             | vertical     | 62.4                           |                              | 0.6                   | 20.7                           | 62.4                      | 74                |
| 2.5000             | vertical     | 55.6                           |                              | 0.6                   | 20.7                           | 55.6                      | 74                |
| 4.9296             | vertical     | 45.1                           | -89.3                        |                       | 27.3                           | 45.0                      | 74                |
| 7.3932             | vertical     | 40.1                           | -96.1                        |                       | 30.0                           | 40.9                      | 74                |
| 9.8473             | horizontal   | 44.0                           | -95.7                        |                       | 33.4                           | 44.7                      | NRB               |

**Note:** OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).  
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 112.4 dBμV/m.

**Result:** The limits are kept

# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

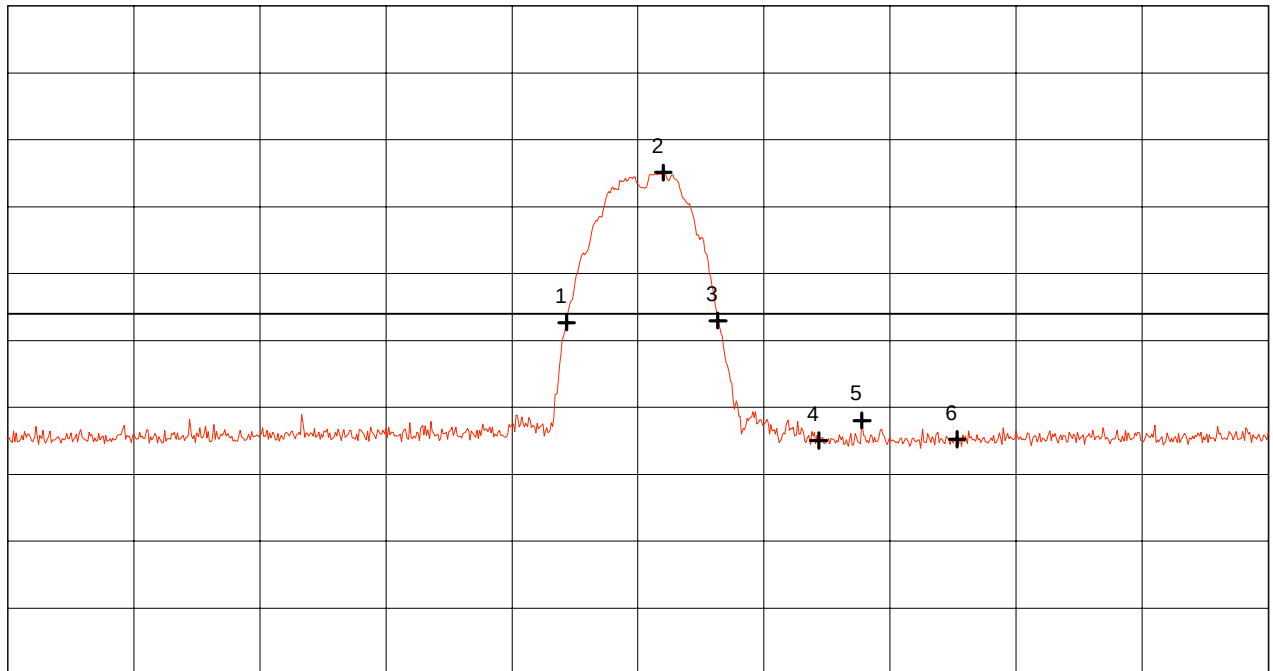
Test distance: 3 meters

Channel A (red) = horizontal polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.387 GHz  
RBW 1 MHz

VBW 1 MHz

Stop 2.537 GHz  
SWP 20 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.453500 GHz | 72.67 dB $\mu$ V/m |
| Nr.2 | 2.465000 GHz | 95.10 dB $\mu$ V/m |
| Nr.3 | 2.471500 GHz | 72.95 dB $\mu$ V/m |
| Nr.4 | 2.483500 GHz | 55.05 dB $\mu$ V/m |
| Nr.5 | 2.488667 GHz | 58.05 dB $\mu$ V/m |
| Nr.6 | 2.500000 GHz | 55.23 dB $\mu$ V/m |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

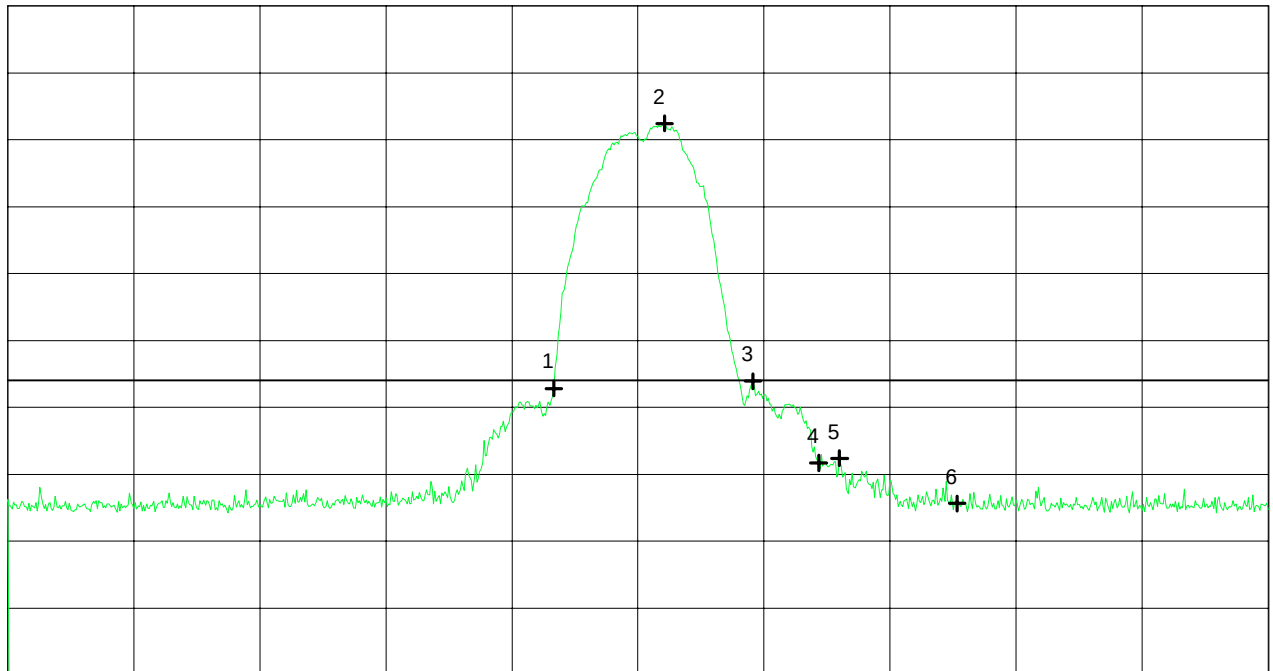
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 130 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.387 GHz  
RBW 1 MHz

VBW 1 MHz

Stop 2.537 GHz  
SWP 20 ms

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                     |
|------|--------------|---------------------|
| Nr.1 | 2.452000 GHz | 72.83 dB $\mu$ V/m  |
| Nr.2 | 2.465167 GHz | 112.44 dB $\mu$ V/m |
| Nr.3 | 2.475667 GHz | 73.92 dB $\mu$ V/m  |
| Nr.4 | 2.483500 GHz | 61.68 dB $\mu$ V/m  |
| Nr.5 | 2.486000 GHz | 62.39 dB $\mu$ V/m  |
| Nr.6 | 2.500000 GHz | 55.63 dB $\mu$ V/m  |
| Nr.7 |              |                     |
| Nr.8 |              |                     |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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## Radiated Emission 1 GHz - 25 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
Type: RF-modem for wireless LAN  
Serial No.: 90990005  
Applicant: Lucent Technologies Nederland B.V.  
Test-site: Semi anechoic room  
Test distance: 3 meters  
Date of test: 04/26/1999  
Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- operating with bit rate 11 Mbps  
  
- TX mode with  $f = 2.462$  GHz

Detector: Average

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dBμV] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dBμV/m] | Limit<br>[dBμV/m] |
|--------------------|--------------|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------|-------------------|
| 2.4432             | vertical     | 53.7                           |                              | 0.6                   | 20.7                           | 53.7                      | OB                |
| 2.4648             | vertical     | 109.7                          |                              | 0.6                   | 20.7                           | 109.7                     | OB                |
| 2.4824             | vertical     | 54.0                           |                              | 0.6                   | 20.7                           | 54.0                      | OB                |
| 2.4835             | vertical     | 49.8                           |                              | 0.6                   | 20.7                           | 49.8                      | 54                |
| 2.4848             | vertical     | 51.9                           |                              | 0.6                   | 20.7                           | 51.9                      | 54                |
| 2.4884             | vertical     | 49.0                           |                              | 0.6                   | 20.7                           | 49.0                      | 54                |
| 2.5000             | vertical     | 45.1                           |                              | 0.6                   | 20.7                           | 45.1                      | 54                |
| 4.9241             | vertical     | 42.6                           | -91.6                        |                       | 27.3                           | 42.7                      | 54                |
| 9.8480             | horizontal   | 42.8                           | -96.7                        |                       | 33.4                           | 43.7                      | NRB               |

**Note:** OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).  
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 109.7 dBμV/m.

**Result:** The limits are kept

# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

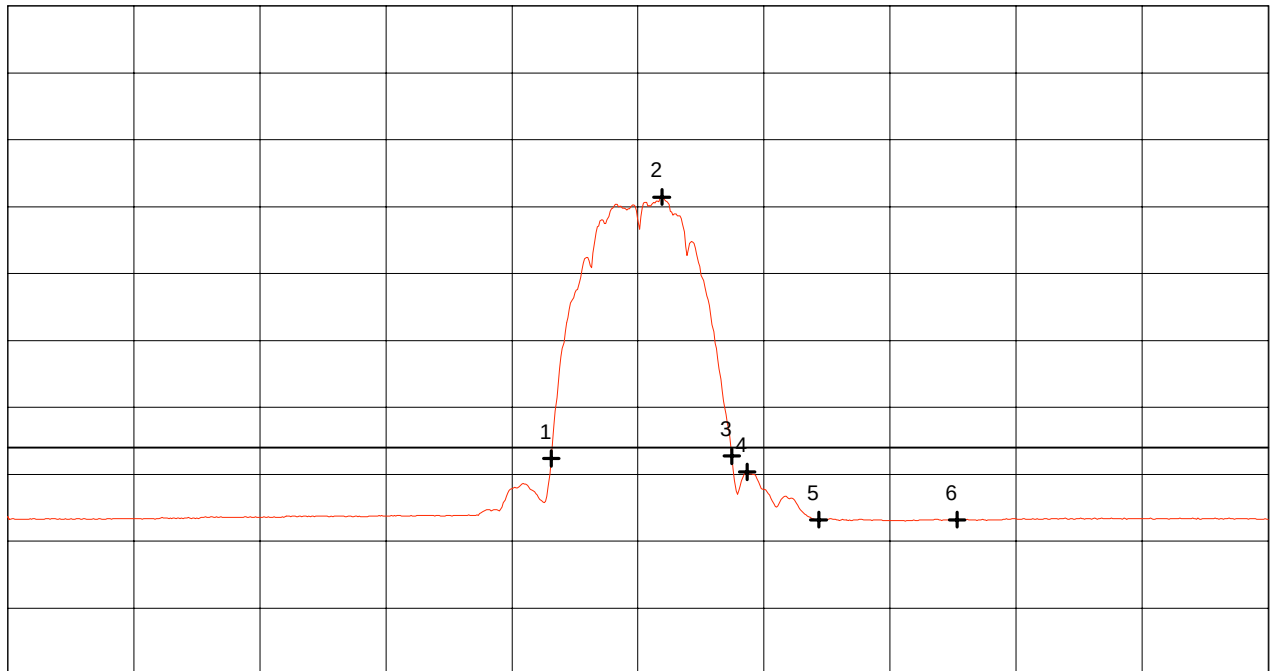
Test distance: 3 meters

Channel A (red) = horizontal polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.387 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.537 GHz  
SWP 4.60 s

## \*\*\*\* Multi Marker \*\*\*\*

|      |              |                    |
|------|--------------|--------------------|
| Nr.1 | 2.451667 GHz | 52.36 dB $\mu$ V/m |
| Nr.2 | 2.464833 GHz | 91.44 dB $\mu$ V/m |
| Nr.3 | 2.473167 GHz | 52.71 dB $\mu$ V/m |
| Nr.4 | 2.475000 GHz | 50.35 dB $\mu$ V/m |
| Nr.5 | 2.483500 GHz | 43.19 dB $\mu$ V/m |
| Nr.6 | 2.500000 GHz | 43.22 dB $\mu$ V/m |
| Nr.7 |              |                    |
| Nr.8 |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

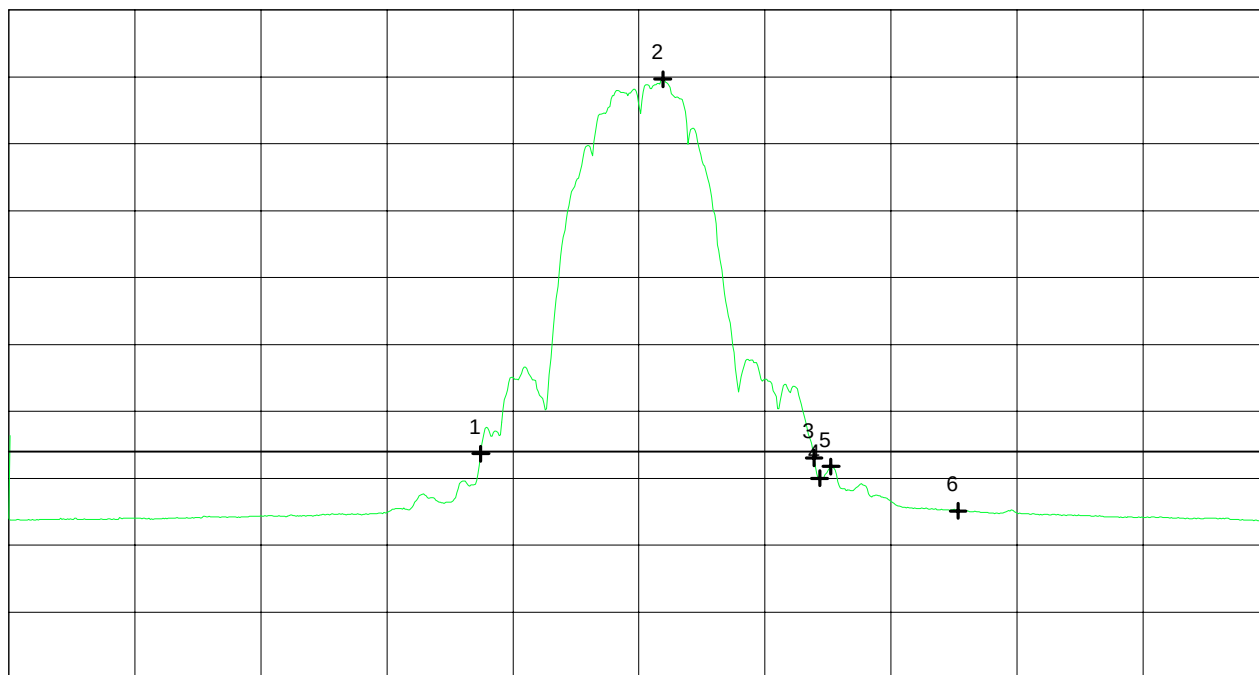
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 120 dB $\mu$ V/m  
10 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.387 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.537 GHz  
SWP 4.60 s

\*\*\*\* Multi Marker \*\*\*\*

|      |              |                     |
|------|--------------|---------------------|
| Nr.1 | 2.443167 GHz | 53.65 dB $\mu$ V/m  |
| Nr.2 | 2.464833 GHz | 109.65 dB $\mu$ V/m |
| Nr.3 | 2.482833 GHz | 53.02 dB $\mu$ V/m  |
| Nr.4 | 2.483500 GHz | 50.00 dB $\mu$ V/m  |
| Nr.5 | 2.484833 GHz | 51.75 dB $\mu$ V/m  |
| Nr.6 | 2.500000 GHz | 45.12 dB $\mu$ V/m  |
| Nr.7 |              |                     |
| Nr.8 |              |                     |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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# Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial No.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- operating with bit rate 11 Mbps

- TX mode with  $f = 2.462$  GHz

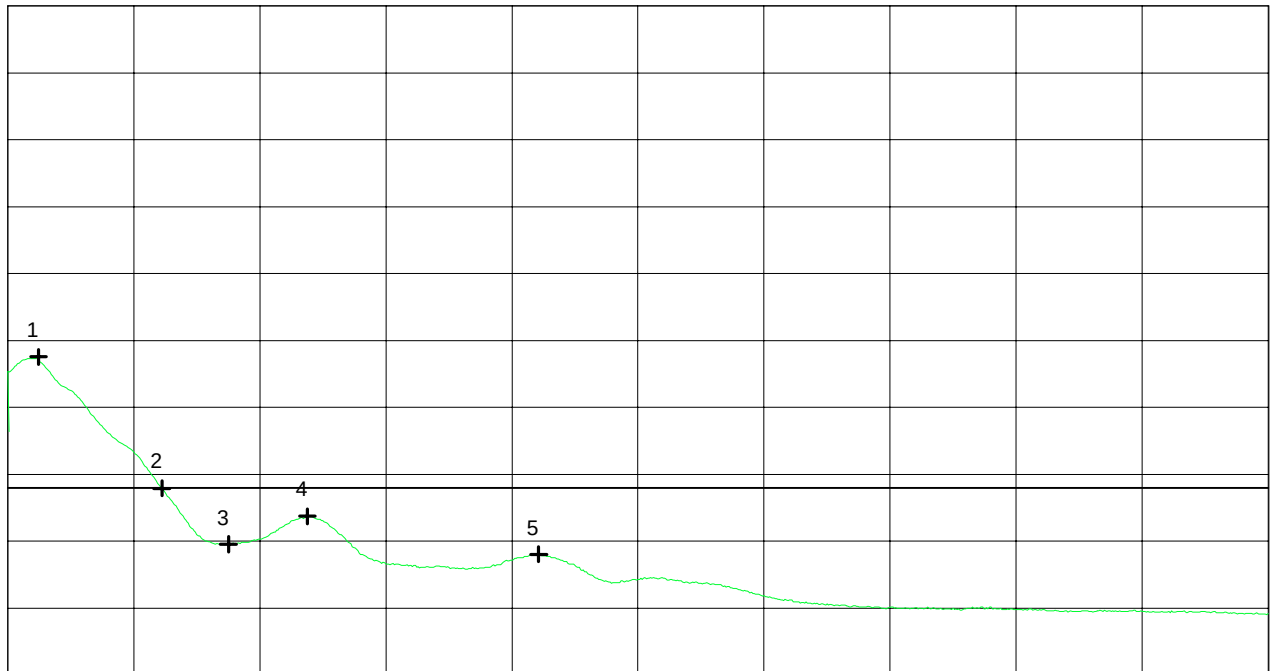
Test distance: 3 meters

Channel B (green) = vertical polarization

Ref.Level 90 dB $\mu$ V/m  
5 dB dB/Div.

ATT 10 dB

Ref. Offset 21.3 dB



Start 2.480 GHz  
RBW 1 MHz

VBW 100 Hz

Stop 2.500 GHz  
SWP 1.50 s

\*\*\*\* Multi Marker \*\*\*\*

| ----- |              |                    |
|-------|--------------|--------------------|
| Nr.1  | 2.480489 GHz | 63.77 dB $\mu$ V/m |
| Nr.2  | 2.482444 GHz | 53.95 dB $\mu$ V/m |
| Nr.3  | 2.483500 GHz | 49.76 dB $\mu$ V/m |
| Nr.4  | 2.484756 GHz | 51.86 dB $\mu$ V/m |
| Nr.5  | 2.488422 GHz | 49.02 dB $\mu$ V/m |
| Nr.6  |              |                    |
| Nr.7  |              |                    |
| Nr.8  |              |                    |

Tested by:  
Rainer Heller

Date:  
04/26/1999

Project-No.:  
56305-90204-3

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**Test results for**  
**Receive (RX) mode**

# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999  
Operator: R. Heller

Test performed: automatically  
File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

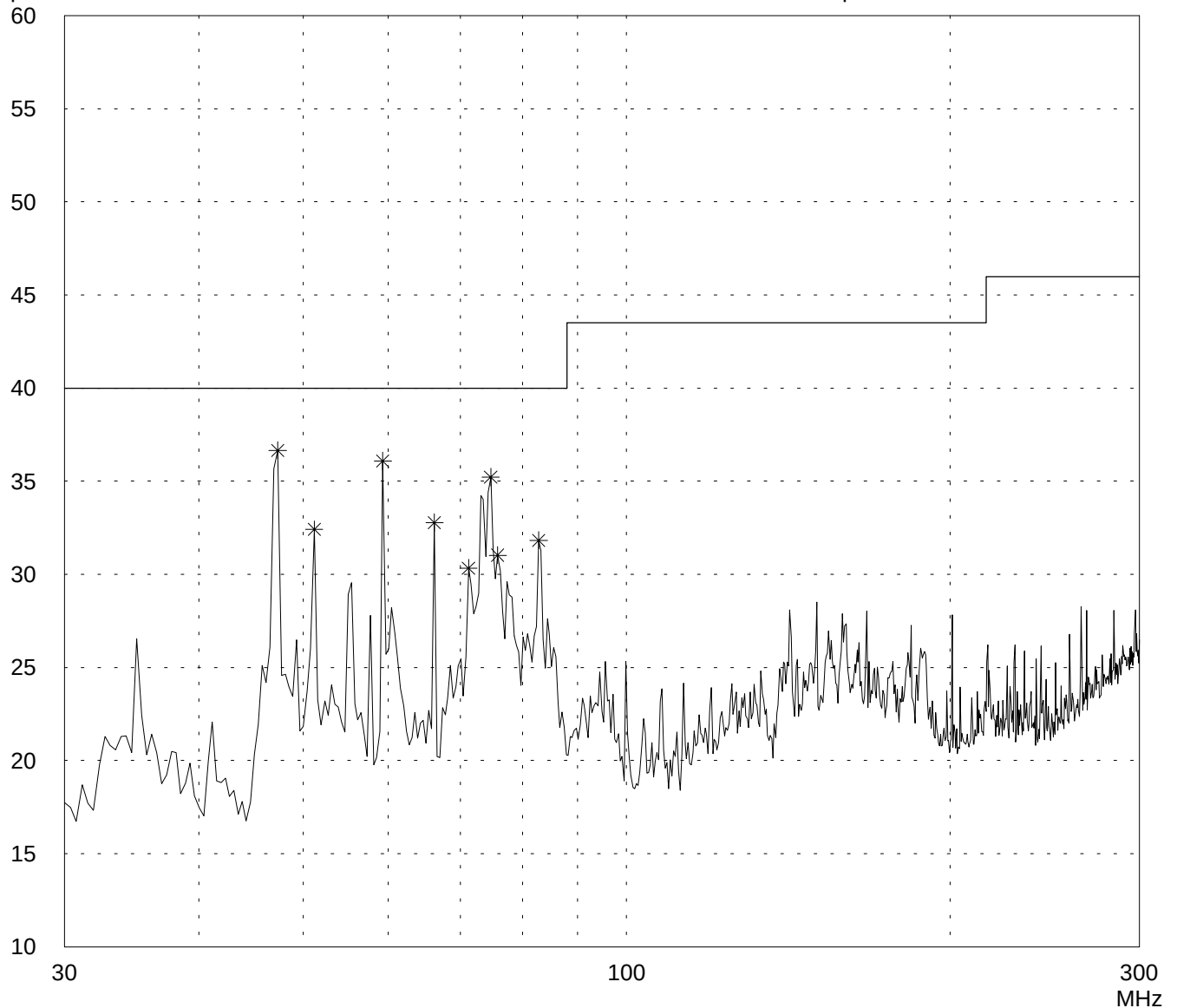
- RX mode with  $f = 2.442$  GHz

Detector:  
Peak

List of values:  
10 dB Margin 50 Subranges

$\text{dB}\mu\text{V/m}$

Limit1: FCC Subpart C Transducer: HK 116



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

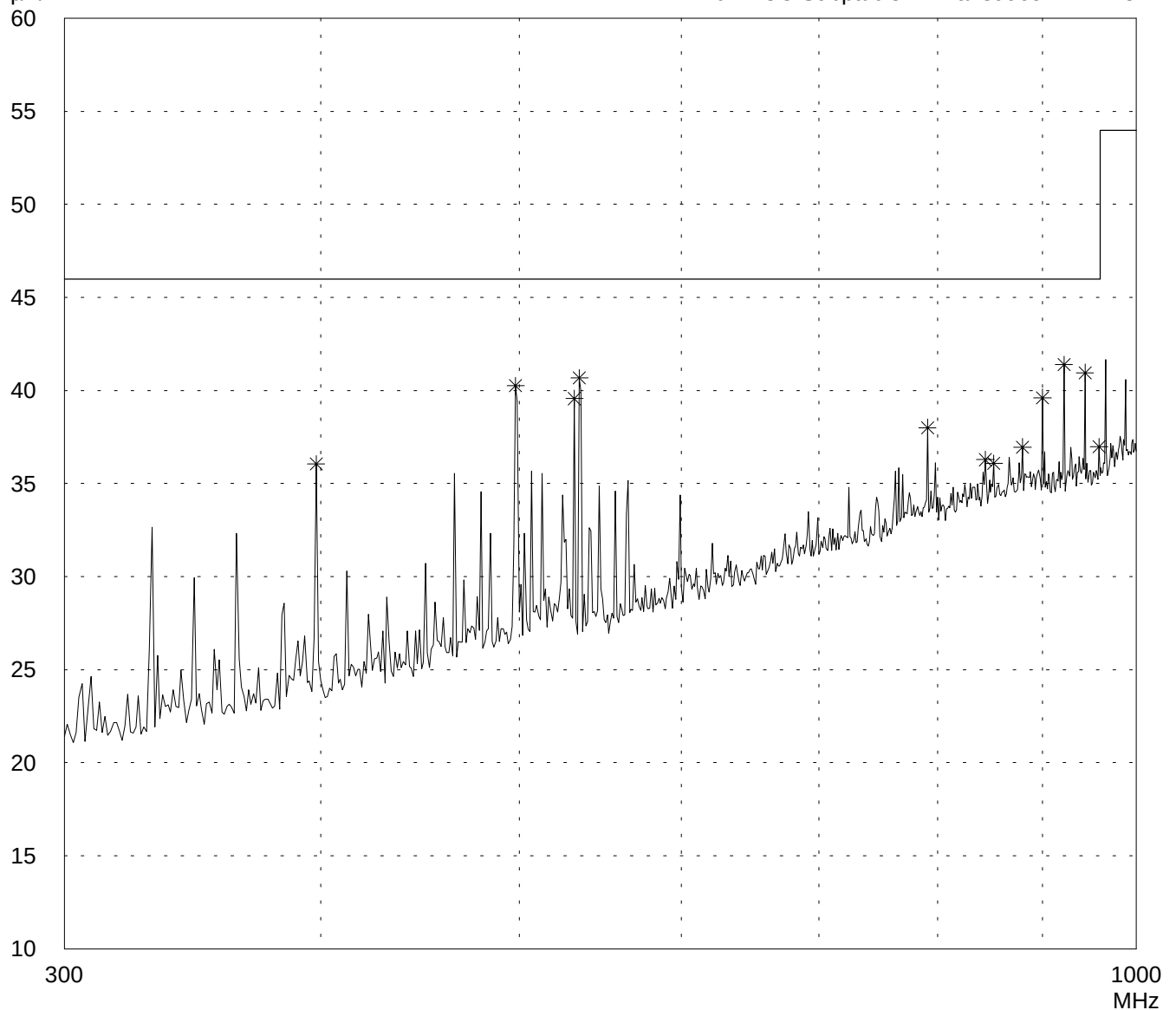
- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable
  
- RX mode with  $f = 2.442$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges

dB $\mu$ V/m

Limit1: FCC Subpart C      Transducer: HL 223



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- RX mode with  $f = 2.442 \text{ GHz}$

Detector:  
Peak

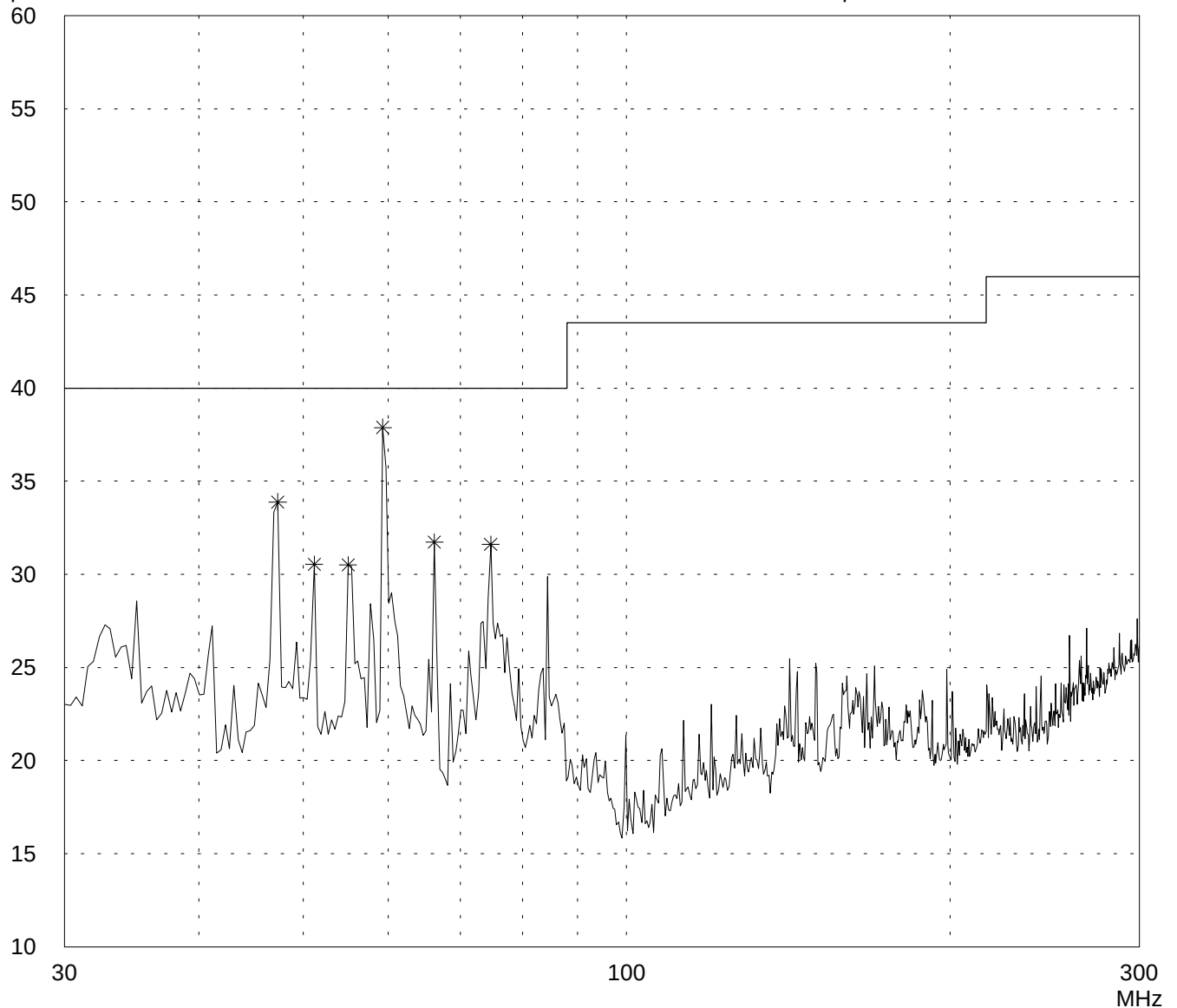
List of values:

10 dB Margin

50 Subranges

$\text{dB}\mu\text{V/m}$

Limit1: FCC Subpart C      Transducer: HK 116



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Semi anechoic room, cabin no. 3

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/16/1999      Operator: R. Heller

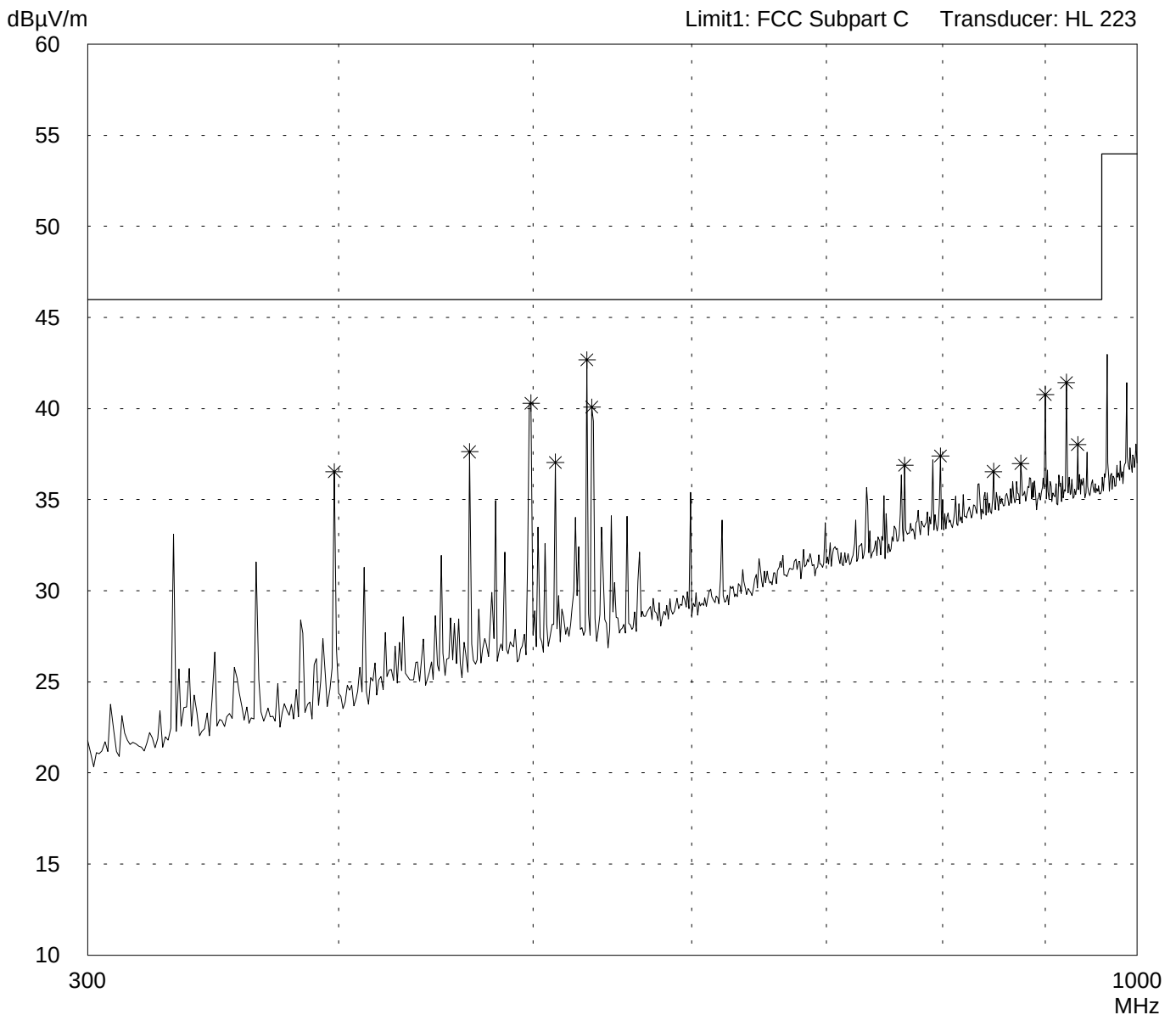
Test performed: automatically      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable
  
- RX mode with  $f = 2.442$  GHz

Detector:  
Peak

List of values:  
10 dB Margin      50 Subranges



Result:  
Prescan

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

Test performed: by hand      File name:

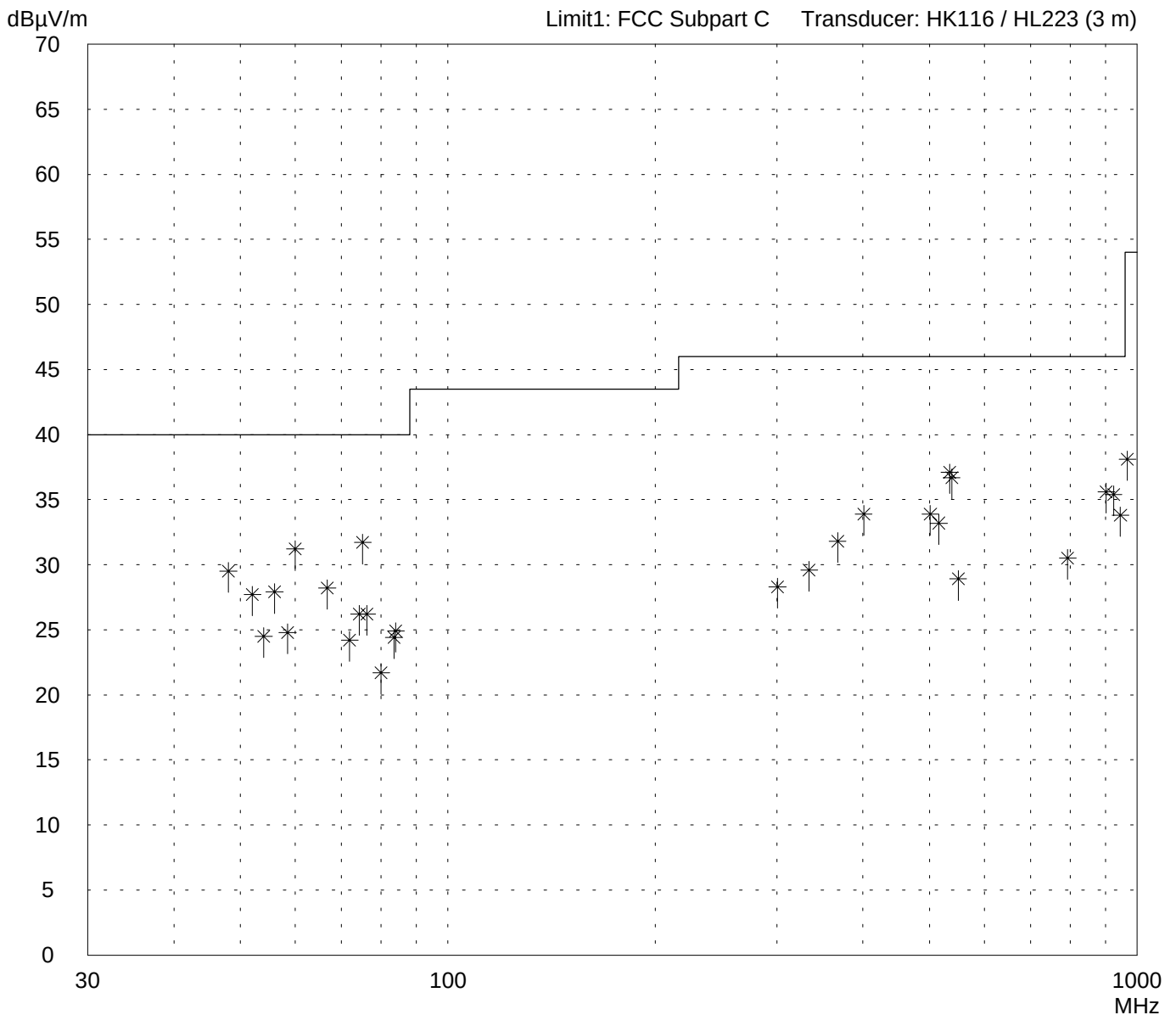
Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- RX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Horizontal Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

Test performed: by hand      File name:

Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- RX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| <i>Frequency<br/>MHz</i> | <i>Reading<br/>dB<math>\mu</math>V</i> | <i>Correction factor<br/>dB</i> | <i>Value<br/>dB<math>\mu</math>V/m</i> | <i>Limit<br/>dB<math>\mu</math>V/m</i> | <i>Limit<br/>exceeded</i> |
|--------------------------|----------------------------------------|---------------------------------|----------------------------------------|----------------------------------------|---------------------------|
| 48.0                     | 18.5                                   | 11.0                            | 29.5                                   | 40.0                                   |                           |
| 52.0                     | 17.0                                   | 10.7                            | 27.7                                   | 40.0                                   |                           |
| 54.0                     | 14.0                                   | 10.5                            | 24.5                                   | 40.0                                   |                           |
| 56.0                     | 17.5                                   | 10.4                            | 27.9                                   | 40.0                                   |                           |
| 58.5                     | 14.5                                   | 10.3                            | 24.8                                   | 40.0                                   |                           |
| 60.0                     | 21.0                                   | 10.2                            | 31.2                                   | 40.0                                   |                           |
| 66.8                     | 18.0                                   | 10.2                            | 28.2                                   | 40.0                                   |                           |
| 72.0                     | 14.0                                   | 10.2                            | 24.2                                   | 40.0                                   |                           |
| 74.3                     | 16.0                                   | 10.2                            | 26.2                                   | 40.0                                   |                           |
| 75.2                     | 21.5                                   | 10.2                            | 31.7                                   | 40.0                                   |                           |
| 76.3                     | 16.0                                   | 10.2                            | 26.2                                   | 40.0                                   |                           |
| 80.0                     | 11.5                                   | 10.2                            | 21.7                                   | 40.0                                   |                           |
| 83.5                     | 14.0                                   | 10.4                            | 24.4                                   | 40.0                                   |                           |
| 84.0                     | 14.5                                   | 10.4                            | 24.9                                   | 40.0                                   |                           |
| 300.7                    | 11.5                                   | 16.8                            | 28.3                                   | 46.0                                   |                           |
| 334.1                    | 11.5                                   | 18.1                            | 29.6                                   | 46.0                                   |                           |
| 367.5                    | 12.5                                   | 19.3                            | 31.8                                   | 46.0                                   |                           |
| 400.9                    | 13.5                                   | 20.4                            | 33.9                                   | 46.0                                   |                           |
| 501.2                    | 11.0                                   | 22.9                            | 33.9                                   | 46.0                                   |                           |
| 515.5                    | 10.0                                   | 23.2                            | 33.2                                   | 46.0                                   |                           |
| 534.6                    | 13.5                                   | 23.6                            | 37.1                                   | 46.0                                   |                           |
| 538.1                    | 13.0                                   | 23.7                            | 36.7                                   | 46.0                                   |                           |
| 550.0                    | 5.0                                    | 23.9                            | 28.9                                   | 46.0                                   |                           |
| 793.0                    | 2.0                                    | 28.5                            | 30.5                                   | 46.0                                   |                           |
| 902.0                    | 5.0                                    | 30.6                            | 35.6                                   | 46.0                                   |                           |
| 924.0                    | 4.5                                    | 30.9                            | 35.4                                   | 46.0                                   |                           |
| 946.0                    | 2.5                                    | 31.3                            | 33.8                                   | 46.0                                   |                           |
| 968.0                    | 6.5                                    | 31.6                            | 38.1                                   | 54.0                                   |                           |

Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999  
Operator: R. Heller

Test performed: by hand  
File name:

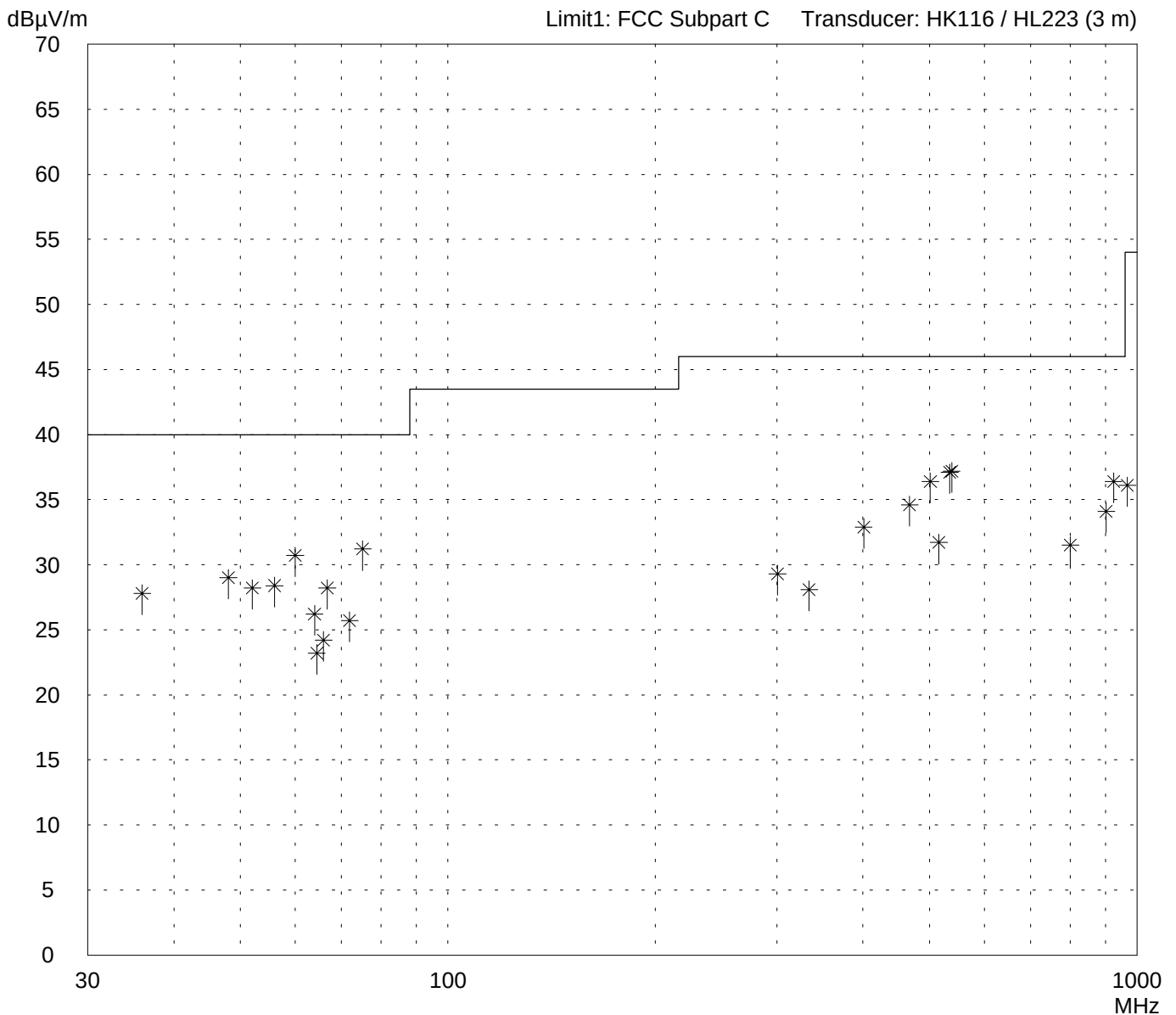
Mode:

- RF-modem PC24E-H-FC mounted in AT & T Globalyst 550 via ISA card ISAPC-B0 (#B2-8)
- FCC test setup
- supply voltage 115 V AC
- with external antenna AOU24-YA-1414 (Telex)
- with 50 ft antenna cable

- RX mode with  $f = 2.442$  GHz

Detector:  
Quasi-Peak

List of values:  
Selected by hand



Result:  
Limit kept

Project file:  
56305-90204-3

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# Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 15 Subpart C

Model:  
LUC PC24E-H-FC

Serial no.:  
90990005

Applicant:  
Lucent Technologies Nederland B.V.

Test site:  
Open area test-site I

Tested on:  
Test distance 3 meters  
Vertical Polarization

Date of test: 04/19/1999      Operator:  
R. Heller

Test performed: by hand      File name:

Mode:  
- RF-modem PC24E-H-FC mounted in AT & T  
Globalyst 550 via ISA card ISAPC-B0 (#B2-8)  
- FCC test setup  
- supply voltage 115 V AC  
- with external antenna AOU24-YA-1414 (Telex)  
- with 50 ft antenna cable  
  
- RX mode with  $f = 2.442 \text{ GHz}$

Detector:  
Quasi-Peak

List of values:  
Selected by hand

| <i>Frequency<br/>MHz</i> | <i>Reading<br/>dB<math>\mu</math>V</i> | <i>Correction factor<br/>dB</i> | <i>Value<br/>dB<math>\mu</math>V/m</i> | <i>Limit<br/>dB<math>\mu</math>V/m</i> | <i>Limit<br/>exceeded</i> |
|--------------------------|----------------------------------------|---------------------------------|----------------------------------------|----------------------------------------|---------------------------|
| 36.0                     | 14.5                                   | 13.3                            | 27.8                                   | 40.0                                   |                           |
| 48.0                     | 18.0                                   | 11.0                            | 29.0                                   | 40.0                                   |                           |
| 52.0                     | 17.5                                   | 10.7                            | 28.2                                   | 40.0                                   |                           |
| 56.0                     | 18.0                                   | 10.4                            | 28.4                                   | 40.0                                   |                           |
| 60.0                     | 20.5                                   | 10.2                            | 30.7                                   | 40.0                                   |                           |
| 64.0                     | 16.0                                   | 10.2                            | 26.2                                   | 40.0                                   |                           |
| 64.5                     | 13.0                                   | 10.2                            | 23.2                                   | 40.0                                   |                           |
| 66.0                     | 14.0                                   | 10.2                            | 24.2                                   | 40.0                                   |                           |
| 66.8                     | 18.0                                   | 10.2                            | 28.2                                   | 40.0                                   |                           |
| 72.0                     | 15.5                                   | 10.2                            | 25.7                                   | 40.0                                   |                           |
| 75.2                     | 21.0                                   | 10.2                            | 31.2                                   | 40.0                                   |                           |
| 300.7                    | 12.5                                   | 16.8                            | 29.3                                   | 46.0                                   |                           |
| 334.1                    | 10.0                                   | 18.1                            | 28.1                                   | 46.0                                   |                           |
| 400.9                    | 12.5                                   | 20.4                            | 32.9                                   | 46.0                                   |                           |
| 467.7                    | 12.5                                   | 22.1                            | 34.6                                   | 46.0                                   |                           |
| 501.2                    | 13.5                                   | 22.9                            | 36.4                                   | 46.0                                   |                           |
| 515.5                    | 8.5                                    | 23.2                            | 31.7                                   | 46.0                                   |                           |
| 534.6                    | 13.5                                   | 23.6                            | 37.1                                   | 46.0                                   |                           |
| 538.1                    | 13.5                                   | 23.7                            | 37.2                                   | 46.0                                   |                           |
| 800.0                    | 3.0                                    | 28.5                            | 31.5                                   | 46.0                                   |                           |
| 902.0                    | 3.5                                    | 30.6                            | 34.1                                   | 46.0                                   |                           |
| 924.0                    | 5.5                                    | 30.9                            | 36.4                                   | 46.0                                   |                           |
| 968.0                    | 4.5                                    | 31.6                            | 36.1                                   | 54.0                                   |                           |

Result:  
Limit kept

Project file:  
56305-90204-3

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## Radiated Emission 1 GHz - 12.5 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
 Type: RF-modem for wireless LAN  
 Serial No.: 90990005  
 Applicant: Lucent Technologies Nederland B.V.  
 Test-site: Semi anechoic room  
 Test distance: 3 meters  
 Date of test: 04/26/1999  
 Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
         via ISA card ISAPC-B0 (#B2-8)  
       - FCC test setup  
       - supply voltage 115 V AC  
       - with external antenna AOU24-YA-1414 (Telex)  
       - with 50 ft antenna cable  
  
       - RX mode with  $f = 2.442$  GHz

Detector: Peak

| Frequency<br>[GHz] | Polarization | Analyzer-<br>reading<br>[dB $\mu$ V] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dB $\mu$ V/m] | Limit<br>[dB $\mu$ V/m] |
|--------------------|--------------|--------------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------------|-------------------------|
| 2.0953             | horizontal   | 39.8                                 | -97.6                        |                       | 29.4                           | 38.8                            | 74                      |

**Result:** The limits are kept

## Radiated Emission 1 GHz - 12.5 GHz according to FCC Part 15 Subpart C

Model: LUC PC24E-H-FC  
 Type: RF-modem for wireless LAN  
 Serial No.: 90990005  
 Applicant: Lucent Technologies Nederland B.V.  
 Test-site: Semi anechoic room  
 Test distance: 3 meters  
 Date of test: 04/26/1999  
 Operator: R. Heller

Mode: - RF-modem PC24E-H-FC mounted in AT & T Globalyst 550  
           via ISA card ISAPC-B0 (#B2-8)  
       - FCC test setup  
       - supply voltage 115 V AC  
       - with external antenna AOU24-YA-1414 (Telex)  
       - with 50 ft antenna cable  
  
       - RX mode with  $f = 2.442$  GHz

Detector: Average

| Frequency<br>[GHz] | Polarization                                      | Analyzer-<br>reading<br>[dBμV] | Generator-<br>level<br>[dBm] | Cable<br>loss<br>[dB] | Antenna-<br>correction<br>[dB] | Fieldstrength<br>[dBμV/m] | Limit<br>[dBμV/m] |
|--------------------|---------------------------------------------------|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------------|-------------------|
| 1.000 - 12.400     | Margin of peak values to average limit > 10 dB    |                                |                              |                       |                                |                           | 54                |
| 12.400 - 12.500    | Margin of average values to average limit > 15 dB |                                |                              |                       |                                |                           | 54                |

**Result:** The limits are kept