SENTON

■ EMV-Prüfzentrum ■ EMI/EMC-Testcenter ■

Straubing, July 27, 2000

T E S T - R E P O R T

No. 56305-00323-1

for

MPCI3A-20

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

Table of Contents

1. Administrative Data

Equipment Under Test (EUT):	MPCI3A-20
Serial number(s):	00UT28300000 (RF-modem) Sample no. 4 (external antenna)
Type of equipment:	RF-modem using DSSS technology for wireless connection for e.g. portable and mobile computers which have a Mini-PCI-bus.
Parts/accessories:	see "Configuration of EUT and Peripheral Devices" on page 7
FCC-ID:	--- (EUT will be integrated into computers of OEM partners using their own FCC IDs)

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

Receipt of EUT:	July 10, 2000
Date of test:	July 11 to 19, 2000
Note:	During testing EUT was called "OriNOCO MiniPCI Card"

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

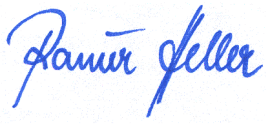
2. Identification of Test Laboratory

Test Laboratory: (full address):	Senton GmbH EMI/EMC Test Center Aeussere Fruehlingstrasse 45 D-94315 Straubing Germany	
Contact person:	Mr. Johann Roidt	
Communication:	Telephone Fax eMail:	(+49) 0 94 21 / 55 22-0 (+49) 0 94 21 / 55 22-99 Office@senton.de
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 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 v01.21 (Oct 11 1999). According to applicant three different kinds of modulation are used for transmission specified by the appropriate bit rate:

Transmit mode (TX):

Operating frequency [GHz]	Rated output power (conducted) [dBm]			Test performed [1]
	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 [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	

[1] Full testing with bit rate 11 Mbps only

5. Configuration of EUT and Peripheral Devices

RF-modem module MPCI3A-20 was tested operating with external antenna AIN24-OD-0202 (SMA) connected via 32 cm antenna cable mounted in PC-card slot of notebook IBM ThinkPad 1171-370 via (empty) PC-card. The PC-card was used to connect the shield of the antenna cable to ground. The total antenna gain including antenna cable is 2.5 dBi.
During testing RF-modem module was mounted in MiniPCI slot of notebook IBM ThinkPad 1171-370.

Table 1 shows EUT and used accessories (with Lucent part numbers).

Item	Model or part no.	Serial no.	Designation	Manufacturer
RF-modem	012931/B	00UT28300000	MPCI3A-20	Lucent
External omni-directional antenna	010096	Sample no. 4	AIN24-OD-0202 (with SMA connector and 32 cm antenna cable mounted in (empty) PC-card) Total antenna gain: 2.5 dBi	Lucent
Notebook	1171-370	AA-FP4CZ 00/04	ThinkPad 1171-370	IBM
AC adapter	02K6543	2M04T79991F	AC adapter 02K6543	IBM

Table 1: EUT and accessories

6. Setup of Host

Configuration of cables of host

- Non-shielded power lines for AC-power supply of notebook, Well Shin, 300 cm
- Shielded video cable connected to external monitor port of notebook, Senton (Inmac), 180 cm
- Shielded USB cable connected to USB port of notebook (close to PC-card slot), Space Shuttle, 200 cm
- Shielded USB cable connected to USB port of notebook (close to audio ports), Copartner, 180 cm
- Non-shielded stereo audio cable connected to microphone port of notebook, 150 cm
- Non-shielded stereo audio cable connected to phones port of notebook, Vivanco, 300 cm
- Shielded Ethernet cable connected to Ethernet port of notebook, Cable Master, 290 cm
- Non-shielded phone cable connected to phone port of notebook, 210 cm
- Shielded data cable connected to parallel interface of personal computer, Inmac, 150 cm, Senton inv.-no. 1387

Configuration of host and peripheral devices

• Notebook IBM ThinkPad 1171-370: Serial no.: AA-FP4CZ 00/04 with IBM AC adapter 02K6543 Serial no.: 2M04T79991F	DoC:	For Home Or Office Use
• PS/2-mouse HP C1413A: Serial no.: 3227M01197	FCC-ID:	B94C1413X
• Parallel printer HP ThinkJet 2225C+: Serial no.: 3006S68236 with power supply Hayes 52-00008 Serial no.: 9028A	FCC-ID:	DSI6XU2225

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

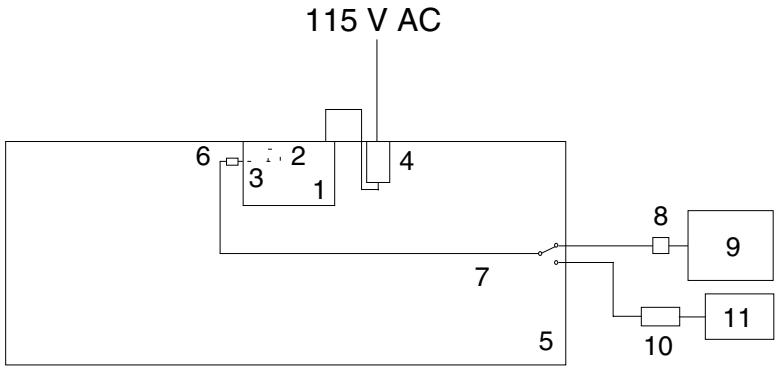


Figure 1: Measurement setup for testing on antenna connector

1 Notebook (host)
2 RF-modem
3 Antenna cable mounted in PC-card
4 AC adapter for notebook
5 Wooden table
6 DC-block
7 Test cable
8 Attenuator
9 Spectrum analyzer
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. Conducted Emission 0.45 MHz - 30 MHz (§15.207)

Conducted emissions were measured in the frequency range 0.45 MHz to 30 MHz. The bandwidth of the EMI-Receiver was set to 9 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 performed on phase and neutral lines of the power-cords of the tested system. Preliminary scans were taken with the detector-function of the EMI-receiver set to peak to determine the conducted EMI-profile of the EUT. At the final test the cables and equipment were placed and moved within the range of positions likely to find their maximum emissions.
See figure 2 for the measurement setup.

Test equipment used (see equipment list for details):
04, 22, 23, 60, 63

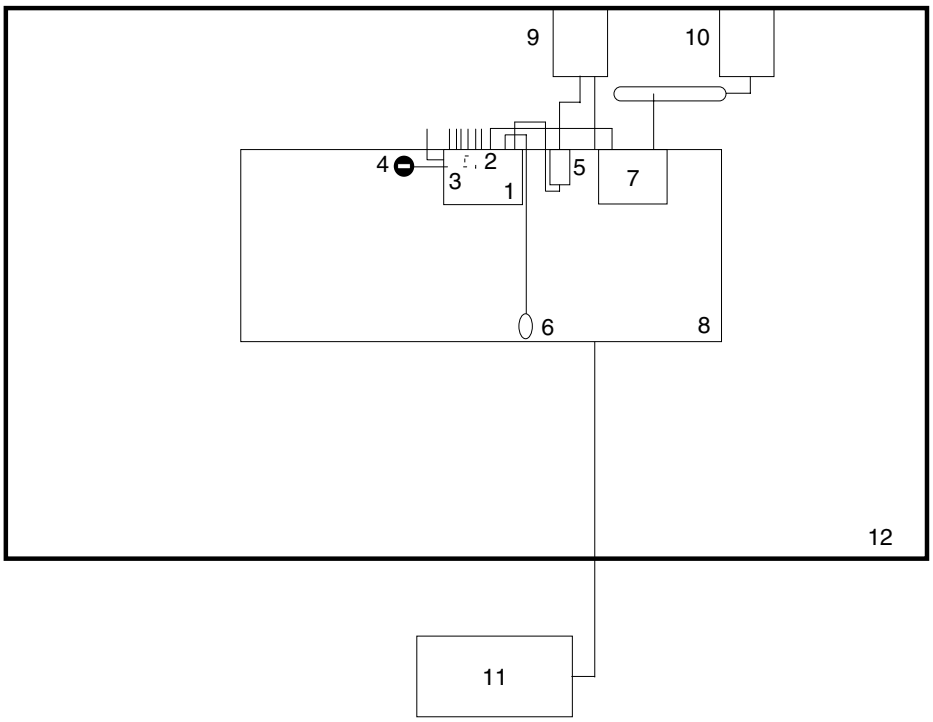


Figure 2: Measurement setup for conducted emission test

1 Notebook (host)
2 RF-modem
3 Antenna cable mounted in PC-card
4 External antenna
5 AC adapter for notebook
6 Mouse
7 Parallel Printer
8 Wooden table
9 LISN for EUT
10 LISN for peripheral device(s)
11 Test receiver
12 Shielded room

7.5. 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 3 for the measurement setup.

Test equipment used (see equipment list for details):
01, 06, 12, 38, 39, 40, 41, 58, 61, 64, 66

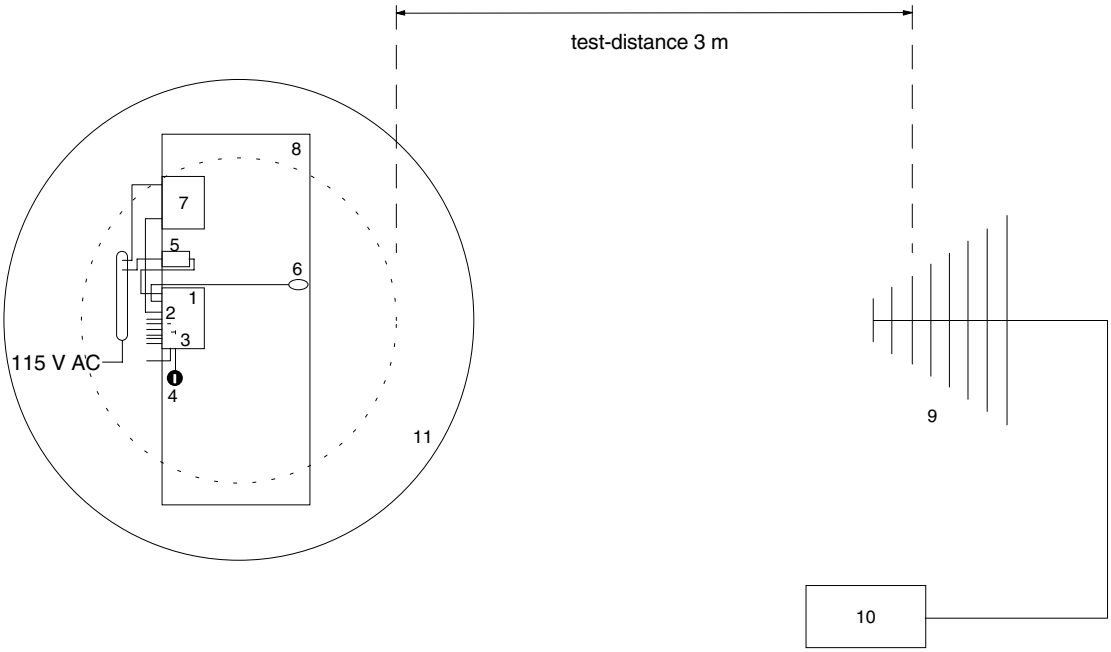


Figure 3: Measurement setup for radiated emission test below 1 GHz

1 Notebook (host)
2 RF-modem
3 Antenna cable mounted in PC-card
4 External antenna
5 AC adapter for notebook
6 Mouse
7 Parallel Printer
8 Wooden table
9 Measurement antenna
10 Test receiver
11 Turn table

7.6. 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 1 kHz (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 dBµV/m and adding the antenna correction factor.

See figures 4 and 5 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

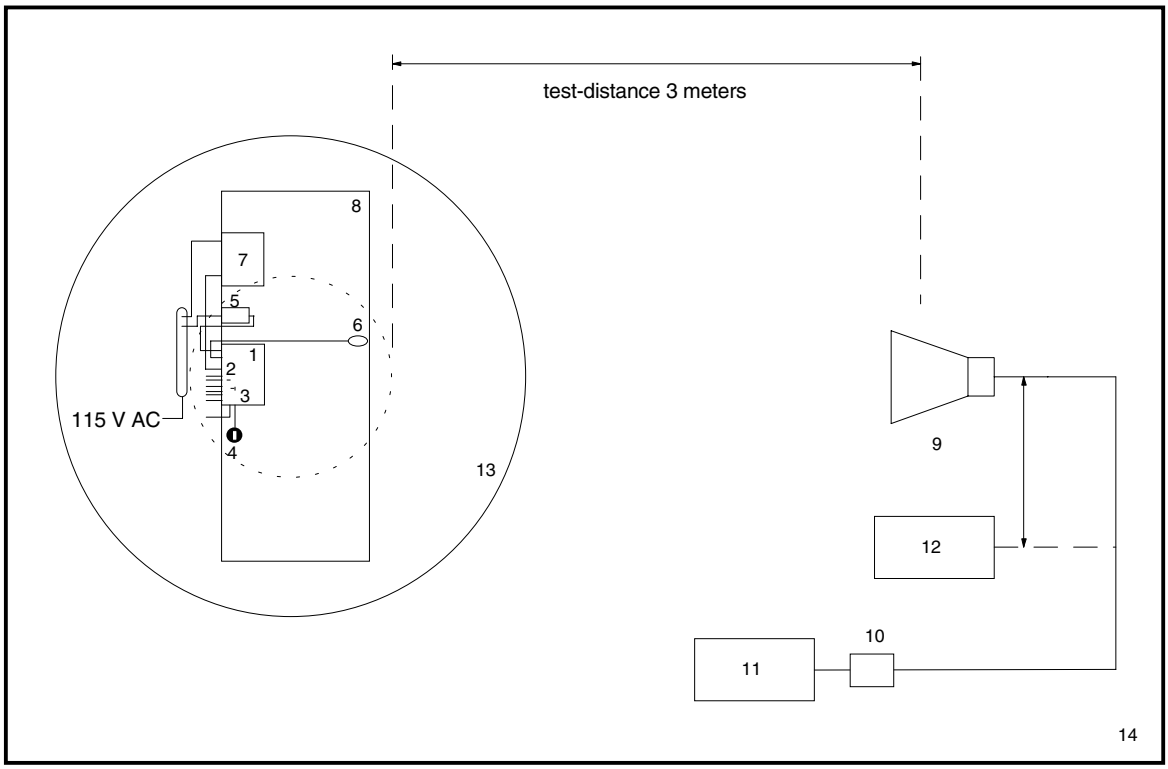


Figure 4: Measurement setup for radiated emission test 1 GHz to 18 GHz

1 Notebook (host)
2 RF-modem
3 Antenna cable mounted in PC-card
4 External antenna
5 AC adapter for notebook
6 Mouse
7 Parallel Printer
8 Wooden table
9 Measurement antenna
10 Preamplifier (if applicable)
11 Spectrum analyzer
12 Signal generator
13 Turn table
14 Semi-anechoic room

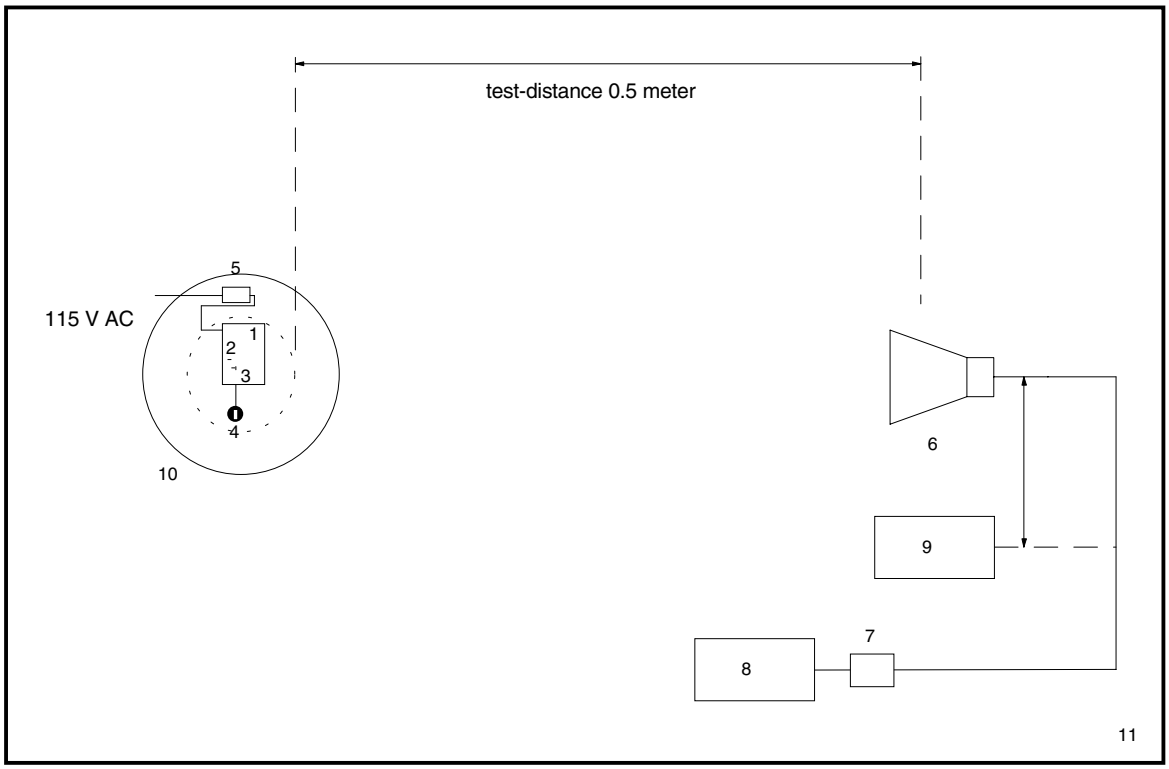


Figure 5: Measurement setup for radiated emission test above 18 GHz

1 Notebook (host)
2 RF-modem
3 Antenna cable mounted in PC-card
4 External antenna
5 AC adapter for notebook
6 Measurement antenna
7 Preamplifier (if applicable)
8 Spectrum analyzer
9 Signal generator
10 Turn table
11 Semi-anechoic room

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 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

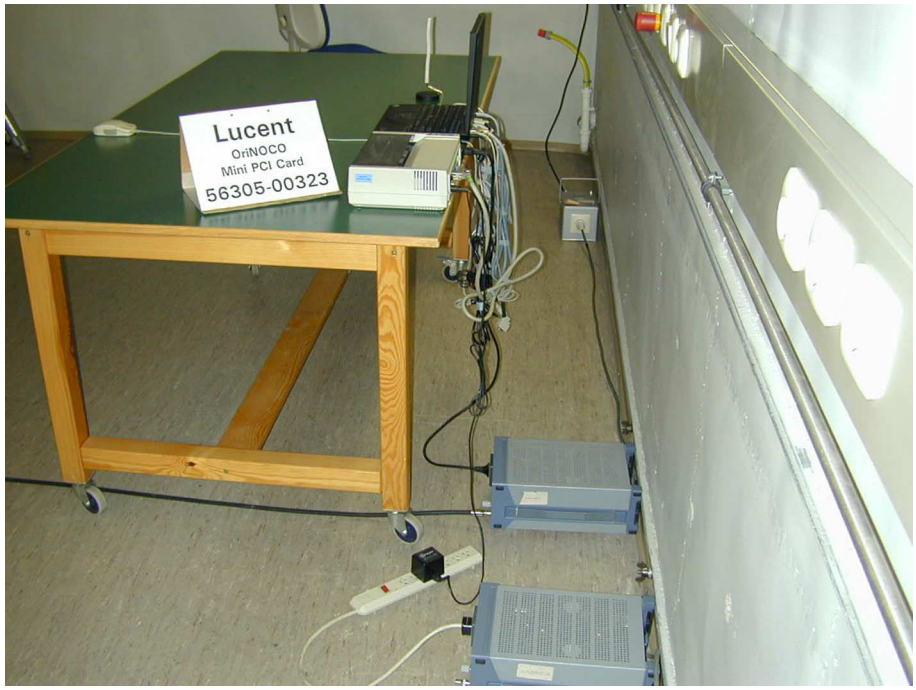
9. Photographs Taken During Testing

Photo No. 9.1

Test setup for conducted emission test 450 kHz - 30 MHz

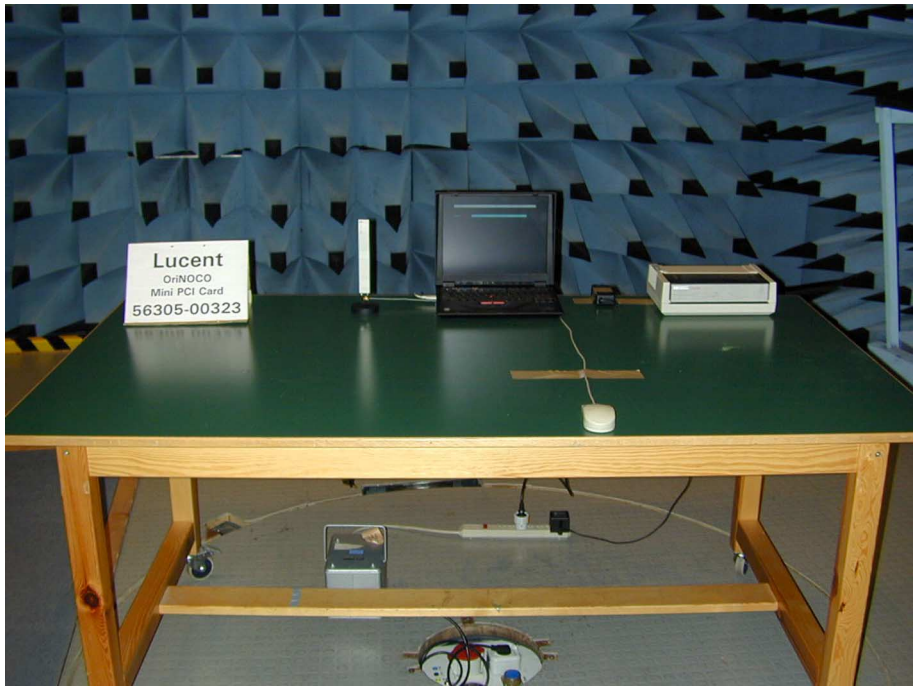
Photos No. 9.2 - 9.3

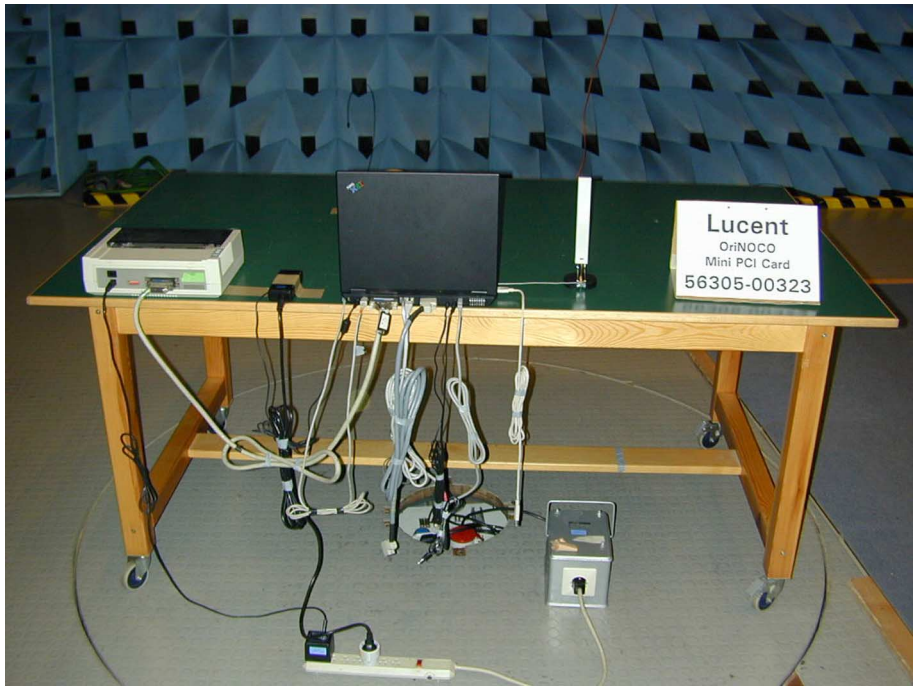
Test setup for conducted emission test 450 kHz - 30 MHz (continued)



Photos No. 9.4 - 9.5

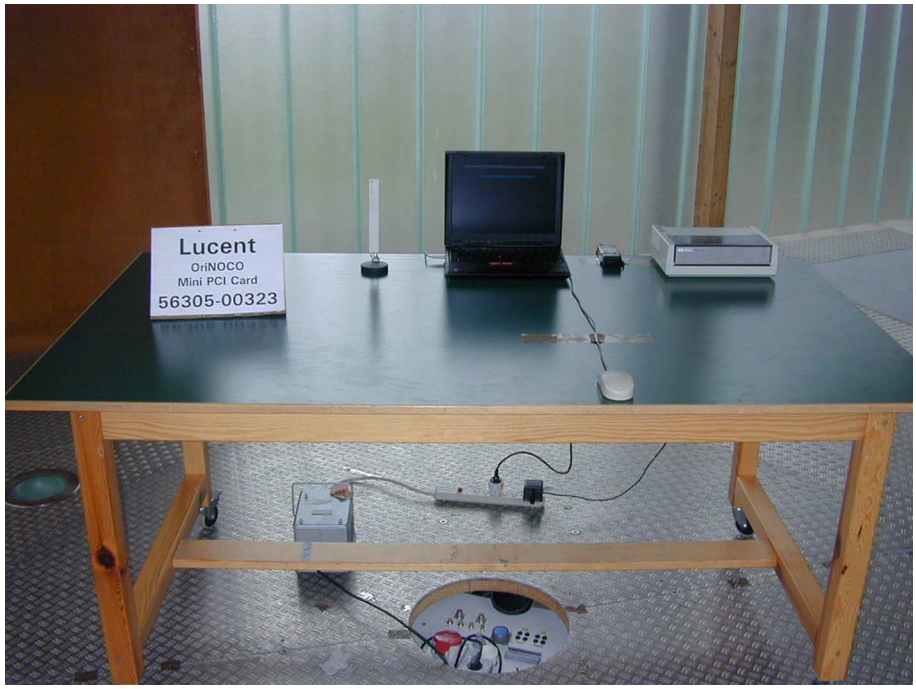
Test setup for radiated emission pre-test 30 MHz - 1 GHz (semi anechoic room)

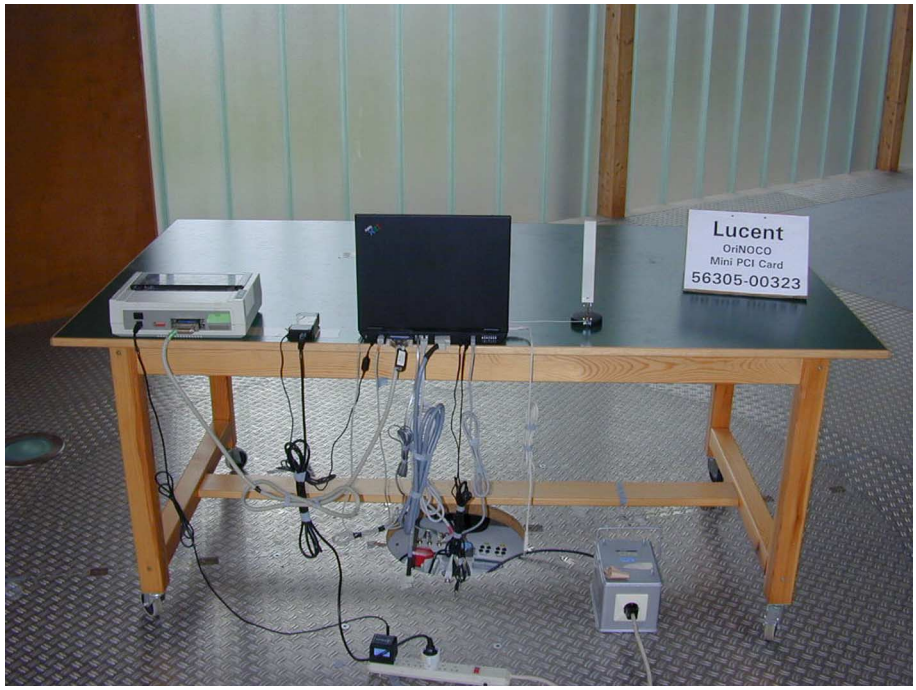




Photos No. 9.6 - 9.7

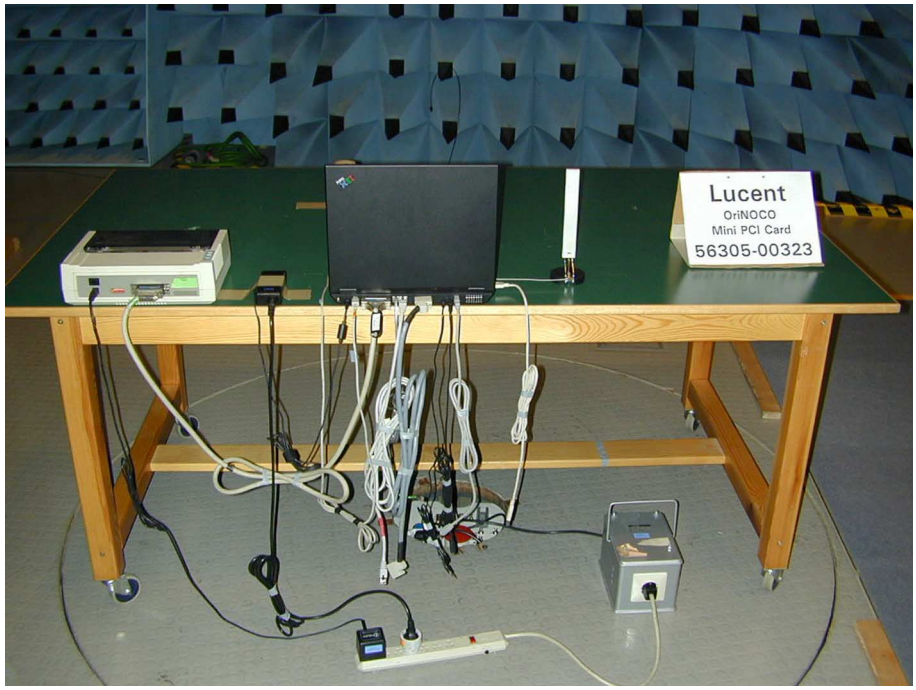
Test setup for radiated emission final test 30 MHz - 1 GHz (open area test site)





Photos No. 9.8 - 9.9

Test setup for radiated emission test above 1 GHz (semi anechoic room)



10. List of Measurements

FCC Part 15 Subpart C			
Section(s):	**Test**	**Page**	**Result**
	Transmit mode (TX):	29	
§15.247.a2	Minimum 6 dB bandwidth	30	passed
§15.247.b	Maximum peak output power	39	passed
§15.247.d	Peak power density	49	passed
	Frequency range (conducted)	67	for information only
§15.247.e	Processing gain	---	test performed by applicant
§15.207	Conducted emission test 450 kHz - 30 MHz	79	passed
§15.247.c **§15.209** **§15.205.a,b**	Radiated emission test 9 kHz - 30 MHz	---	not applicable (acc. to §15.33)
§15.247.c **§15.209** **§15.205.a,b**	Radiated emission test 30 MHz - 1 GHz	103	passed
§15.247.c **§15.209** **§15.205.a,b**	Radiated emission test 1 GHz - 25 GHz	127	passed
	Receive mode (RX):	163	
§15.207	Conducted emission test 450 kHz - 30 MHz	164	passed
§15.209	Radiated emission test 9 kHz - 30 MHz	---	not applicable (acc. to §15.33)
§15.209	Radiated emission test 30 MHz - 1 GHz	172	passed
§15.209	Radiated emission test 1 GHz - 12.5 GHz	180	passed

Note: Conducted and radiated emission tests in transmit mode were performed with bit rate set to 11 Mbps only (standard operation mode; lower bit rates are selected as fall back if environmental conditions do not allow higher rates).
Based on conducted emission tests performed on antenna connector called "frequency range" comparing shapes of TX signal with bit rate set to either 5.5 Mbps or 11 Mbps no additional tests were performed with bit rate 5.5 Mbps. However, special care was taken to observe the difference especially in average results of TX fundamental and (even) harmonics when selecting 11 (or 5.5) Mbps on the one hand, and 2 Mbps on the other hand. Therefore additional emission tests at band edges and TX harmonics were performed with 2 Mbps. Having less significant differences in peak results than in average levels only critical harmonics observed with 11 Mbps (i.e. with less than 10 dB margin of peak levels to average limit) had to be retested with bit rate set to 2 Mbps.

11. Test Results

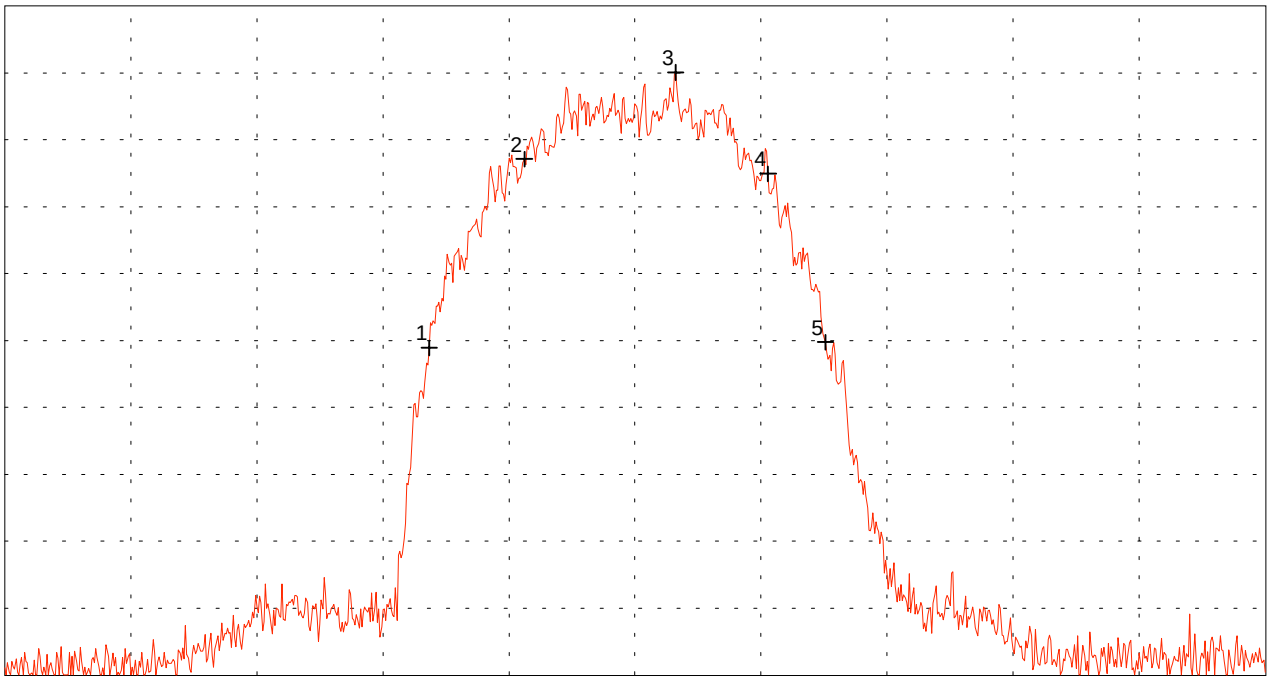
Test results for

Transmit (TX) mode

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 9.66 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.387 GHz Stop 2.437 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

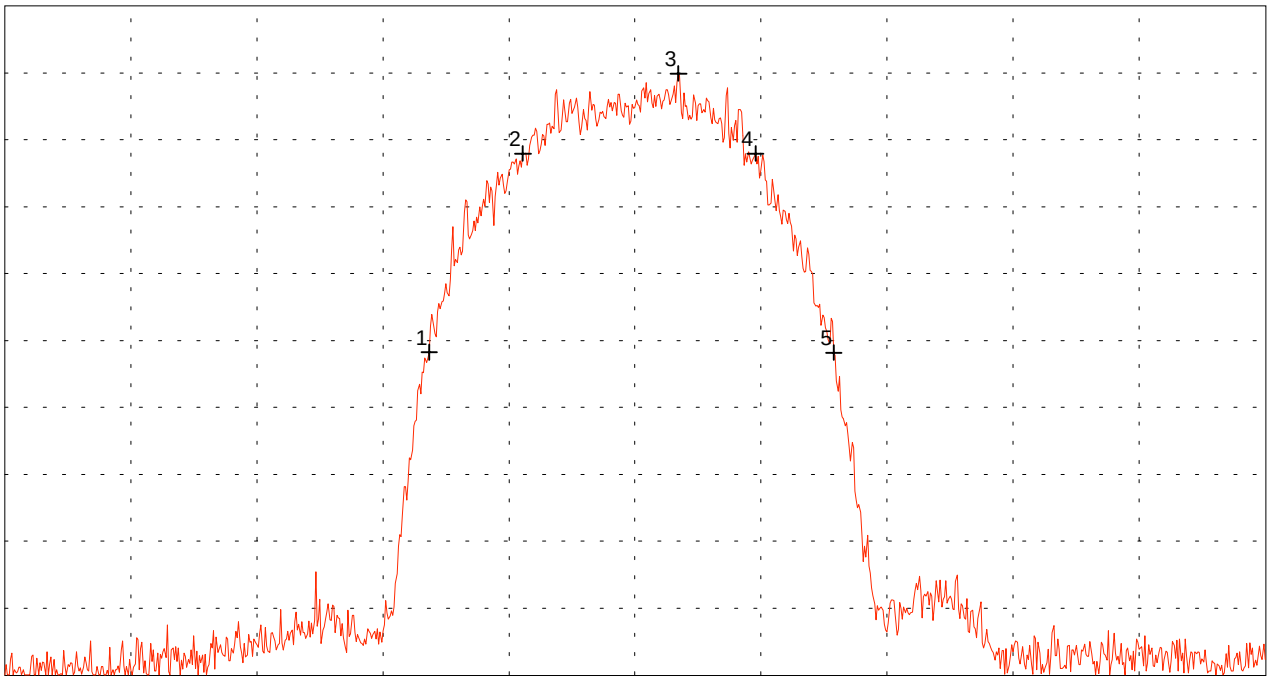
No. 1	2.403833 GHz	-15.55 dBm
No. 2	2.407611 GHz	-1.45 dBm
No. 3	2.413611 GHz	5.03 dBm
No. 4	2.417278 GHz	-2.53 dBm
No. 5	2.419556 GHz	-15.13 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 9.22 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.387 GHz Stop 2.437 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

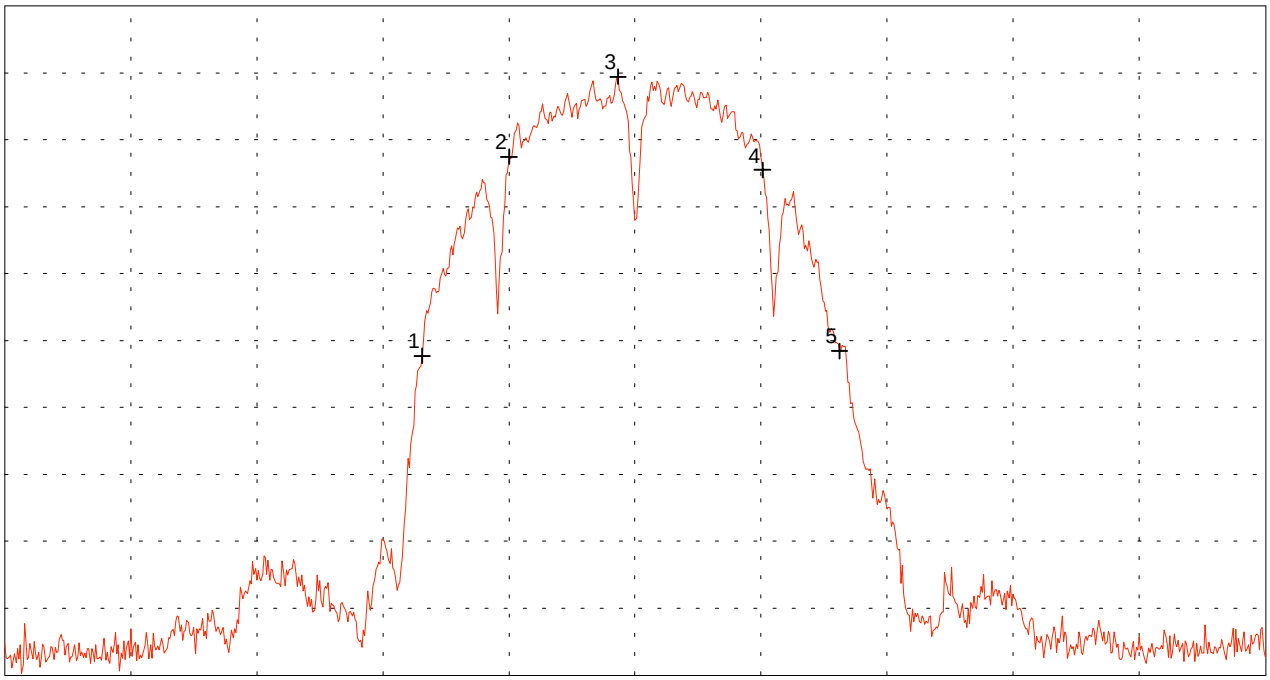
No. 1	2.403833 GHz	-15.88 dBm
No. 2	2.407556 GHz	-1.02 dBm
No. 3	2.413722 GHz	4.96 dBm
No. 4	2.416778 GHz	-1.03 dBm
No. 5	2.419889 GHz	-15.90 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 10.05 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.387 GHz Stop 2.437 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

No. 1	2.403556 GHz	-16.14 dBm
No. 2	2.407000 GHz	-1.27 dBm
No. 3	2.411333 GHz	4.71 dBm
No. 4	2.417056 GHz	-2.26 dBm
No. 5	2.420111 GHz	-15.79 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

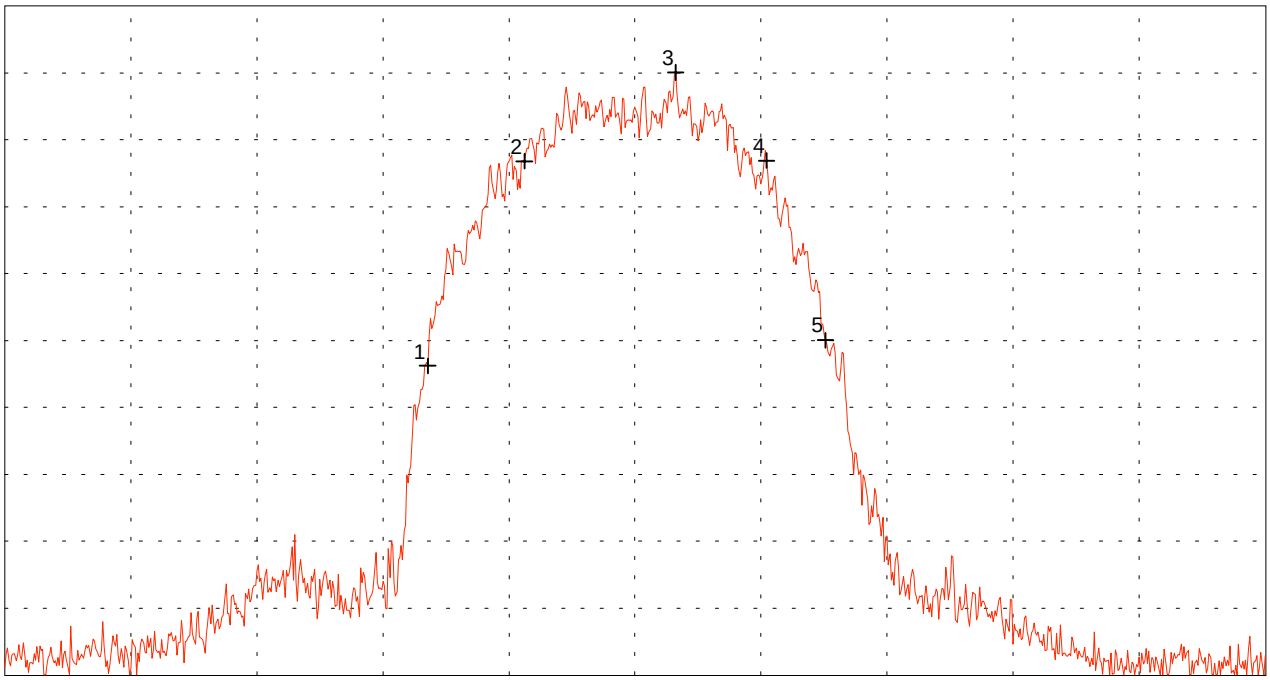
Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 9.61 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm
5 dB/Div.

ATT 35 dB

Ref. Offset 21.7 dB



Start 2.417 GHz
RBW 100 kHz

VBW 100 kHz

Stop 2.467 GHz
SWP 20 ms

Multi Marker List

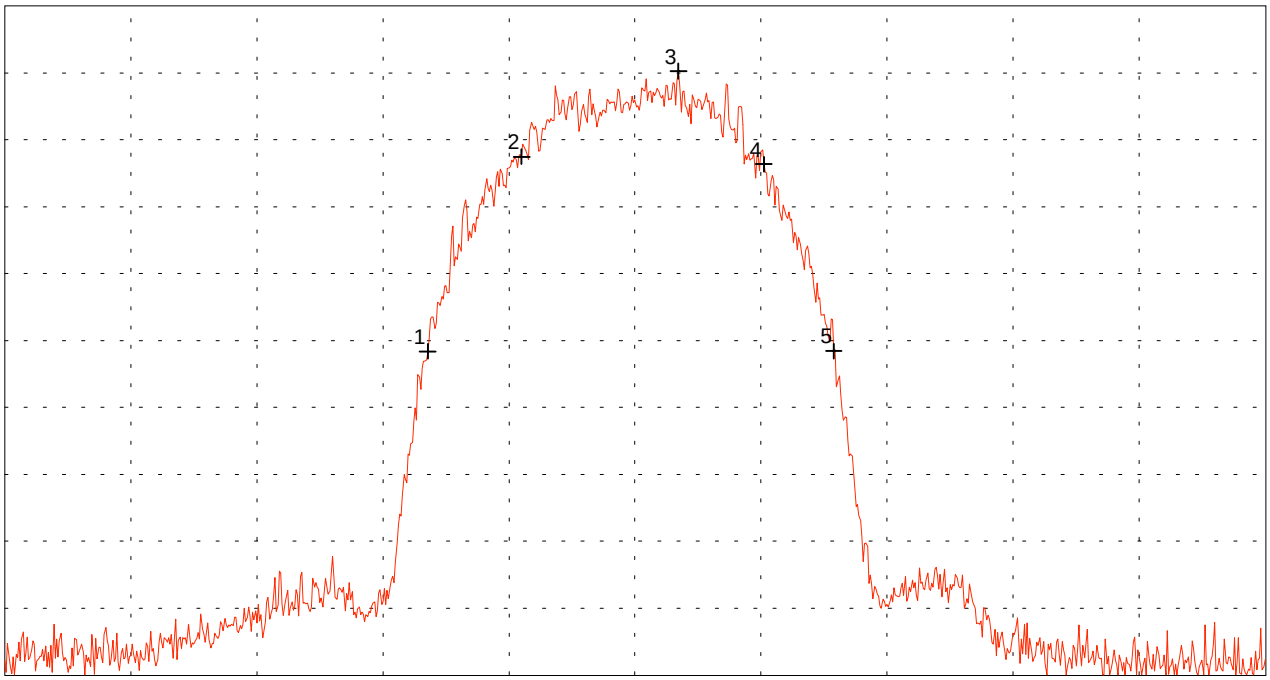
No. 1	2.433778 GHz	-16.89 dBm
No. 2	2.437611 GHz	-1.61 dBm
No. 3	2.443611 GHz	5.03 dBm
No. 4	2.447222 GHz	-1.55 dBm
No. 5	2.449556 GHz	-14.97 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 9.61 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.417 GHz Stop 2.467 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

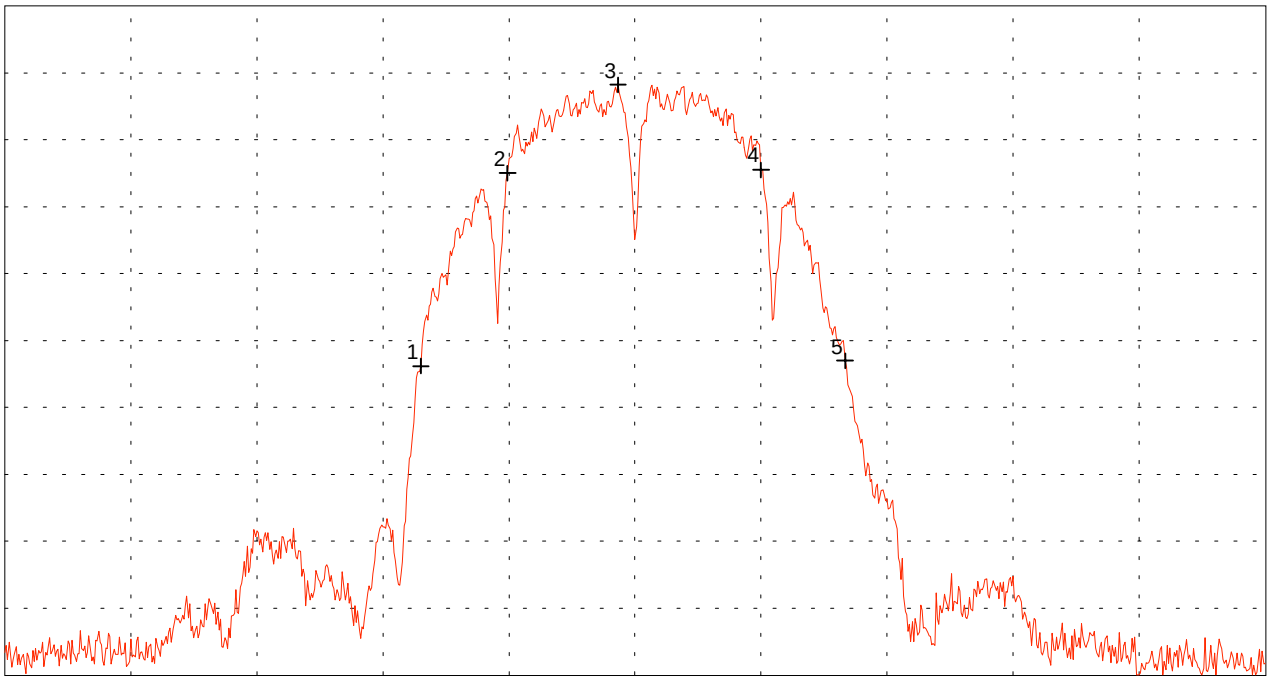
No. 1	2.433778 GHz	-15.82 dBm
No. 2	2.437500 GHz	-1.27 dBm
No. 3	2.443722 GHz	5.13 dBm
No. 4	2.447111 GHz	-1.82 dBm
No. 5	2.449889 GHz	-15.79 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 10.05 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.417 GHz Stop 2.467 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

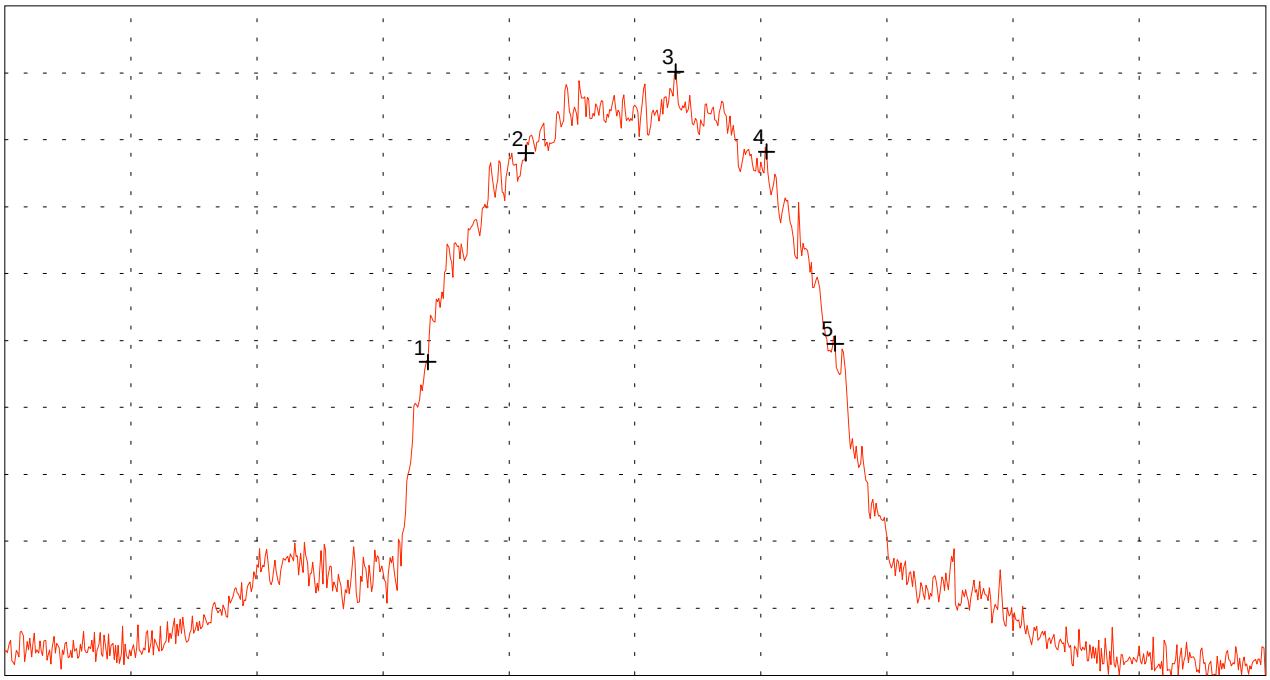
No. 1	2.433500 GHz	-16.91 dBm
No. 2	2.436944 GHz	-2.50 dBm
No. 3	2.441333 GHz	4.10 dBm
No. 4	2.447000 GHz	-2.25 dBm
No. 5	2.450333 GHz	-16.51 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 9.55 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.437 GHz Stop 2.487 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

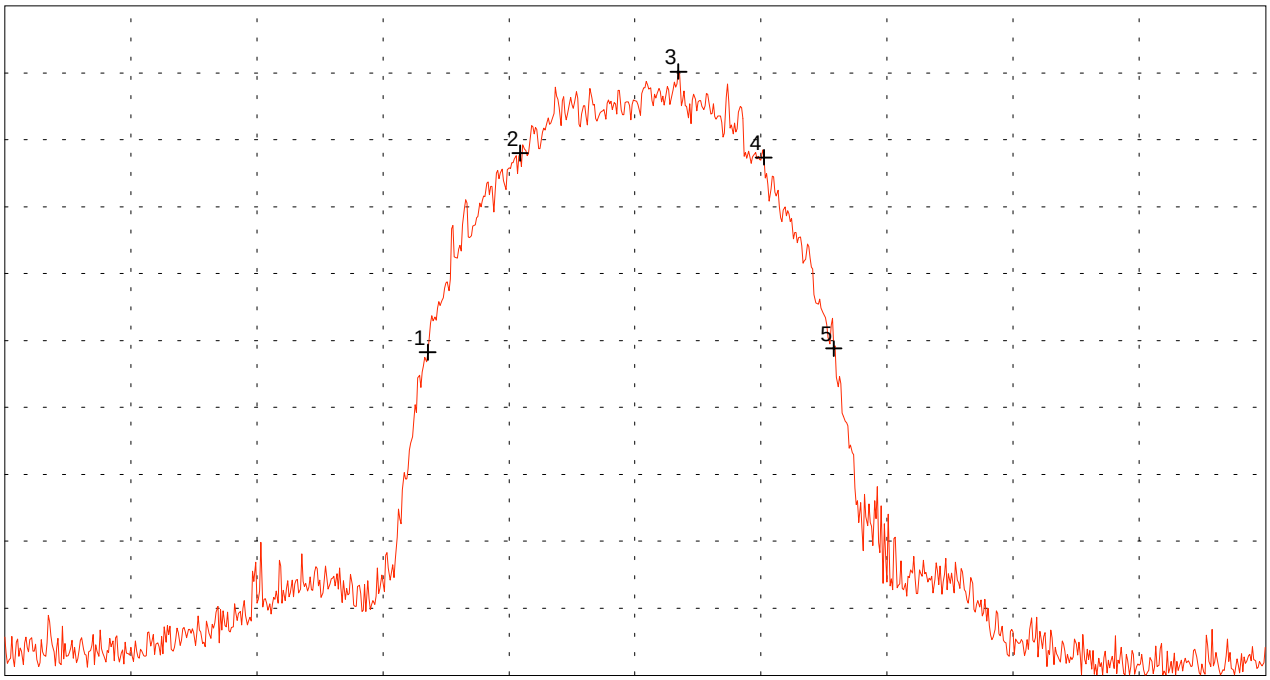
No. 1	2.453778 GHz	-16.61 dBm
No. 2	2.457667 GHz	-1.00 dBm
No. 3	2.463611 GHz	5.10 dBm
No. 4	2.467222 GHz	-0.88 dBm
No. 5	2.469944 GHz	-15.24 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 9.66 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.437 GHz Stop 2.487 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

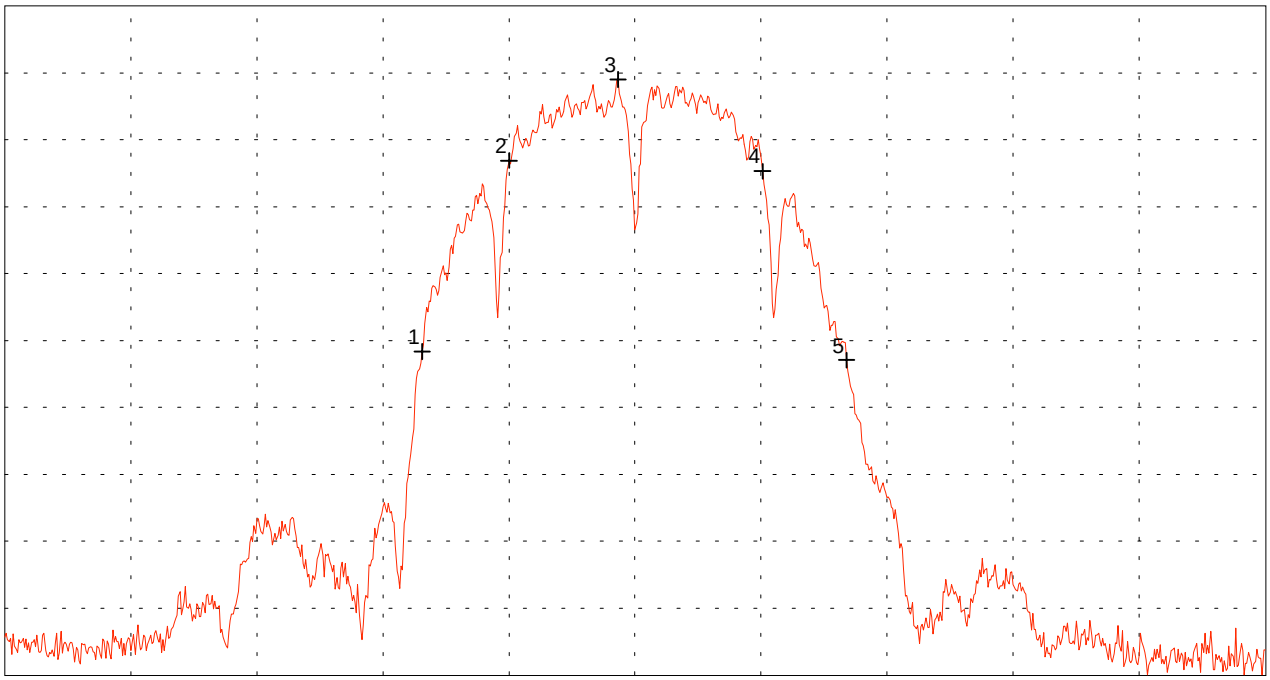
No. 1	2.453778 GHz	-15.88 dBm
No. 2	2.457444 GHz	-0.99 dBm
No. 3	2.463722 GHz	5.09 dBm
No. 4	2.467111 GHz	-1.31 dBm
No. 5	2.469889 GHz	-15.60 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Minimum bandwidth (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Delta f (-6 dB points) = 10.05 MHz Result: Test passed Note: -20 dB points for information only!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 10 dBm ATT 35 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.437 GHz Stop 2.487 GHz
RBW 100 kHz VBW 100 kHz SWP 20 ms

Multi Marker List

No. 1	2.453556 GHz	-15.83 dBm
No. 2	2.457000 GHz	-1.56 dBm
No. 3	2.461333 GHz	4.51 dBm
No. 4	2.467056 GHz	-2.34 dBm
No. 5	2.470389 GHz	-16.46 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Date of test: 07/19/2000
Operator: R. Heller

Mode: - RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC

- TX mode

Tested on: Antenna connector

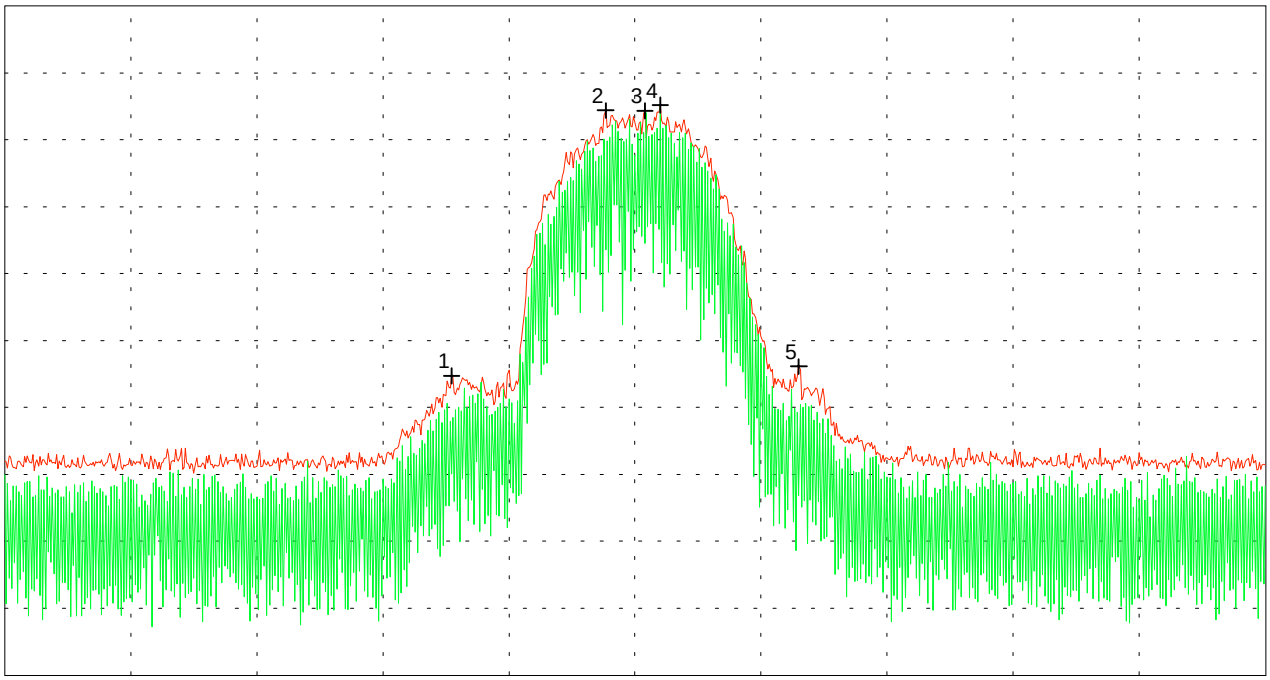
Selected bit rate	Operating frequency [GHz]	Power meter reading [dBm]	Correction-factor [dB]	Output power [dBm]	Limit [dBm]
11 Mbps	2.412	14.6	0.3	14.9	30
	2.442	14.5	0.3	14.8	30
	2.462	14.5	0.3	14.8	30
5.5 Mbps	2.412	14.7	0.3	15.0	30
	2.442	14.5	0.3	14.8	30
	2.462	14.6	0.3	14.9	30
2 Mbps	2.412	14.5	0.3	14.8	30
	2.442	14.4	0.3	14.7	30
	2.462	14.4	0.3	14.7	30

Result: The limit is kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.362 GHz Stop 2.462 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

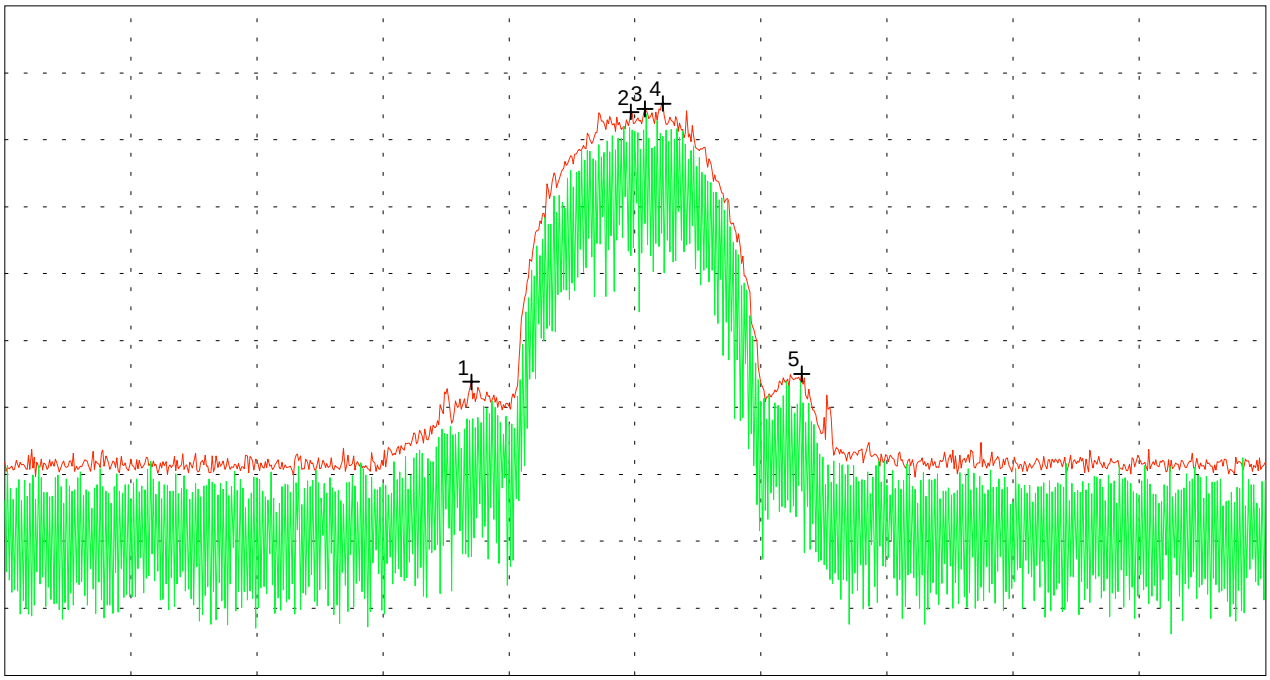
No. 1	2.397444 GHz	-35.30 dBm
No. 2	2.409667 GHz	4.39 dBm
No. 3	2.412778 GHz	4.34 dBm
No. 4	2.414000 GHz	5.18 dBm
No. 5	2.425000 GHz	-33.91 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 40 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.362 GHz Stop 2.462 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

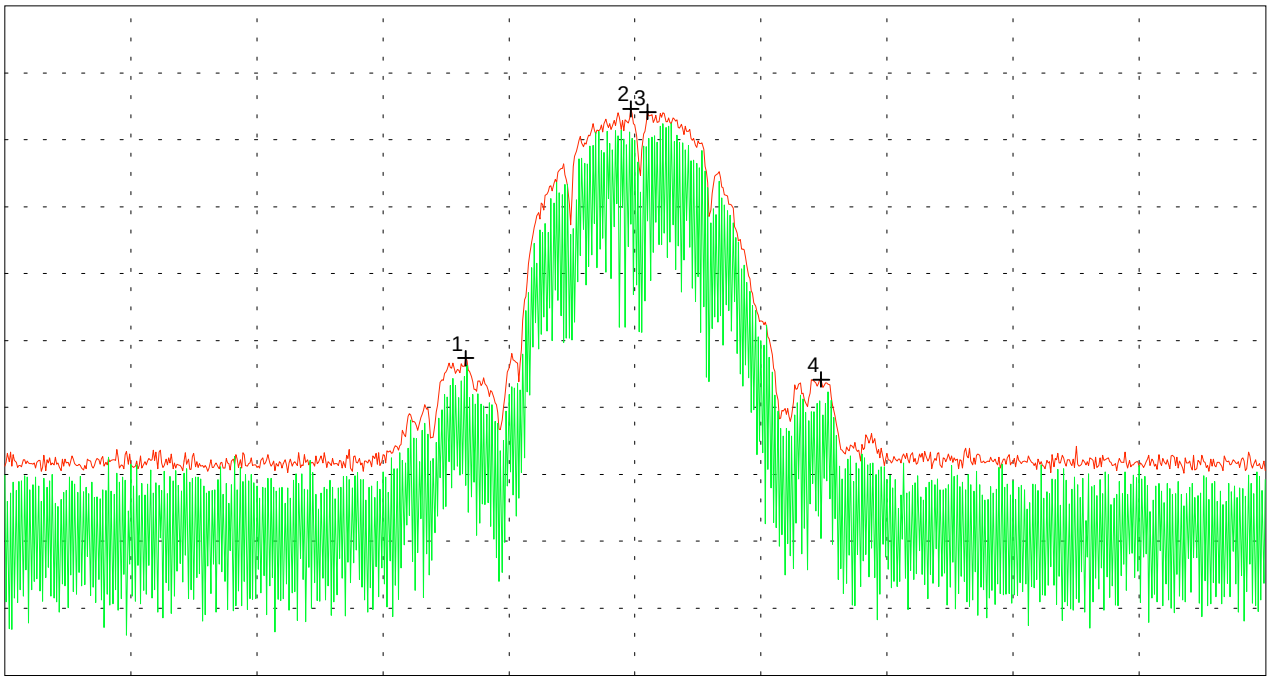
No. 1	2.399000 GHz	-36.19 dBm
No. 2	2.411667 GHz	4.18 dBm
No. 3	2.412778 GHz	4.62 dBm
No. 4	2.414222 GHz	5.38 dBm
No. 5	2.425222 GHz	-35.00 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 41 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.362 GHz Stop 2.462 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

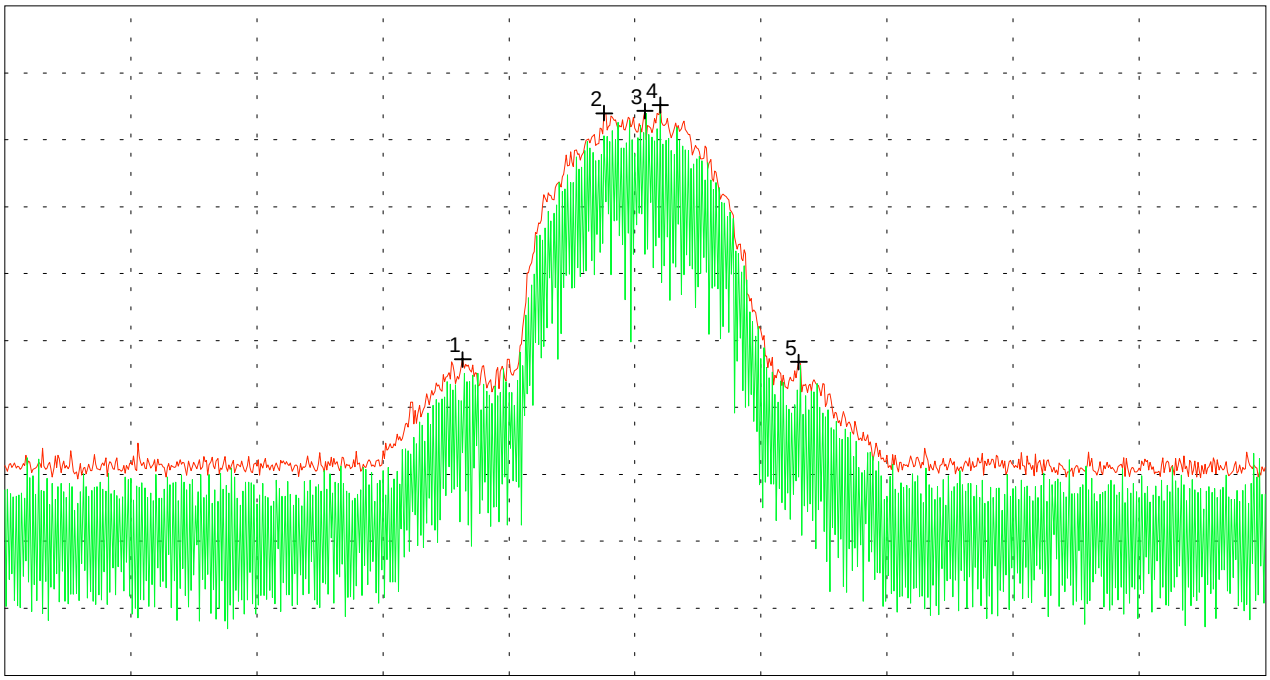
No. 1	2.398556 GHz	-32.64 dBm
No. 2	2.411667 GHz	4.62 dBm
No. 3	2.413000 GHz	4.16 dBm
No. 4	2.426778 GHz	-35.84 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 42 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.392 GHz Stop 2.492 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

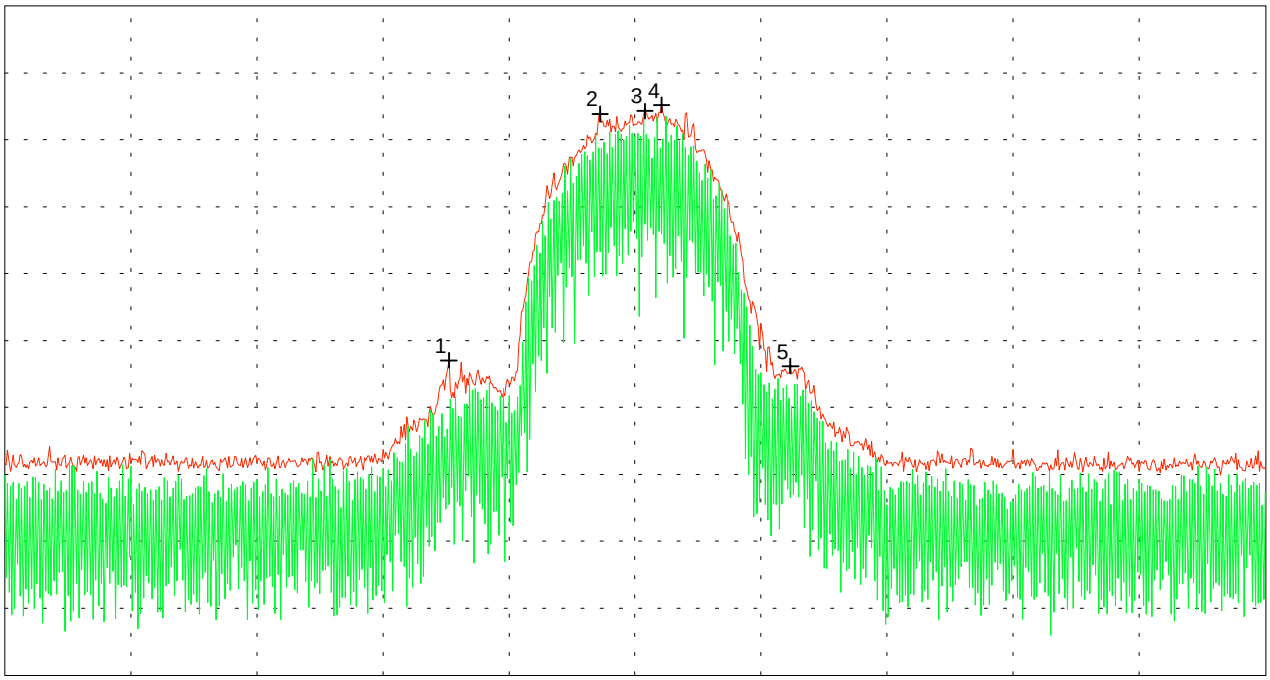
No. 1	2.428333 GHz	-32.81 dBm
No. 2	2.439556 GHz	3.98 dBm
No. 3	2.442778 GHz	4.29 dBm
No. 4	2.444000 GHz	5.18 dBm
No. 5	2.455000 GHz	-33.22 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.392 GHz Stop 2.492 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

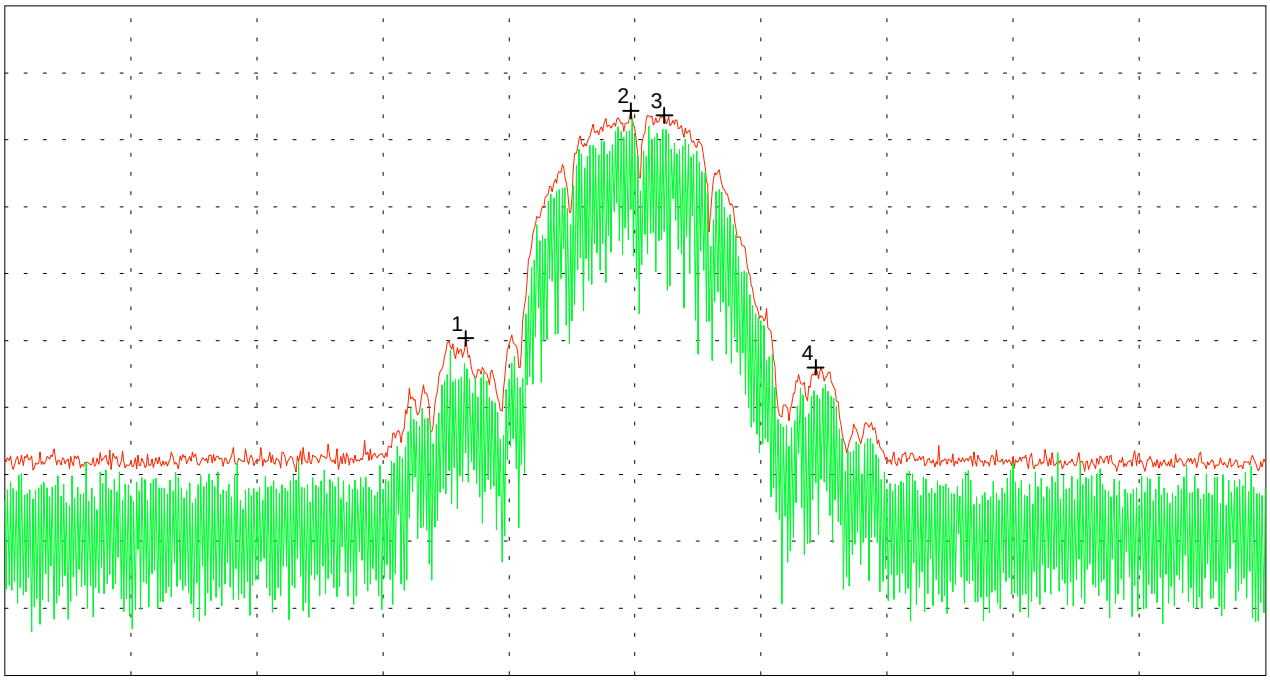
No. 1	2.427222 GHz	-32.97 dBm
No. 2	2.439222 GHz	3.85 dBm
No. 3	2.442778 GHz	4.31 dBm
No. 4	2.444111 GHz	5.20 dBm
No. 5	2.454333 GHz	-33.83 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.392 GHz Stop 2.492 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

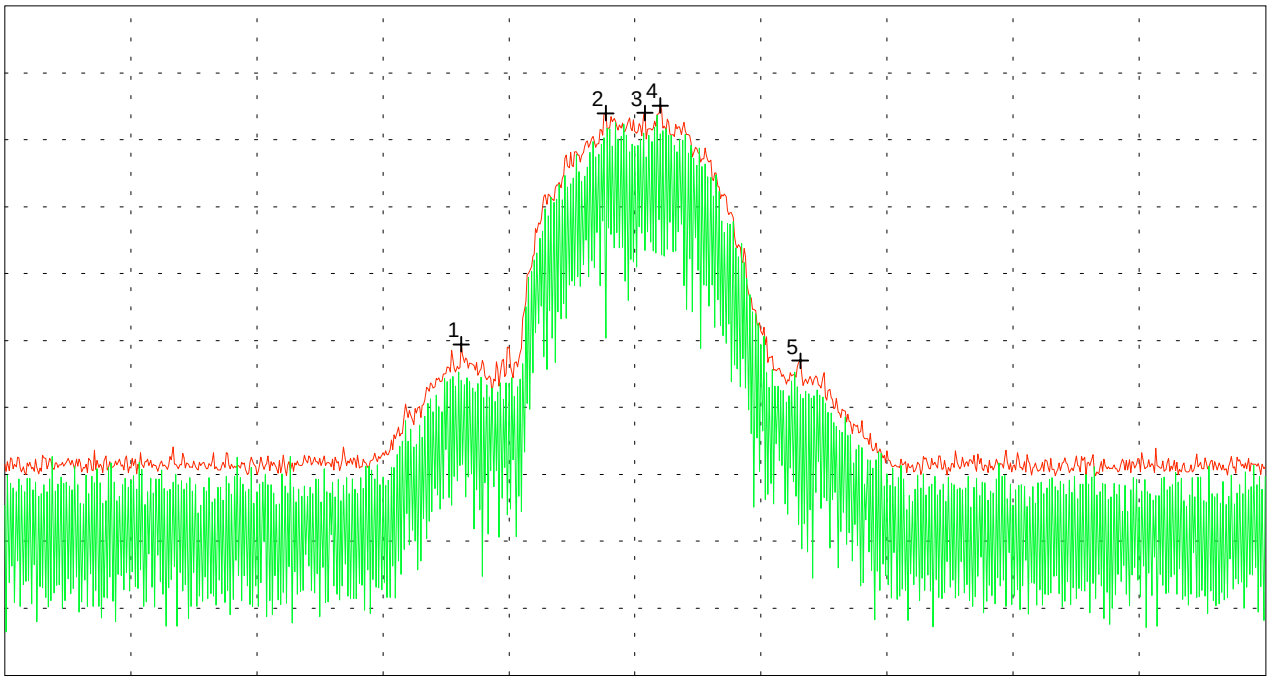
No. 1	2.428556 GHz	-29.66 dBm
No. 2	2.441667 GHz	4.34 dBm
No. 3	2.444333 GHz	3.65 dBm
No. 4	2.456333 GHz	-34.03 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 45 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.412 GHz Stop 2.512 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

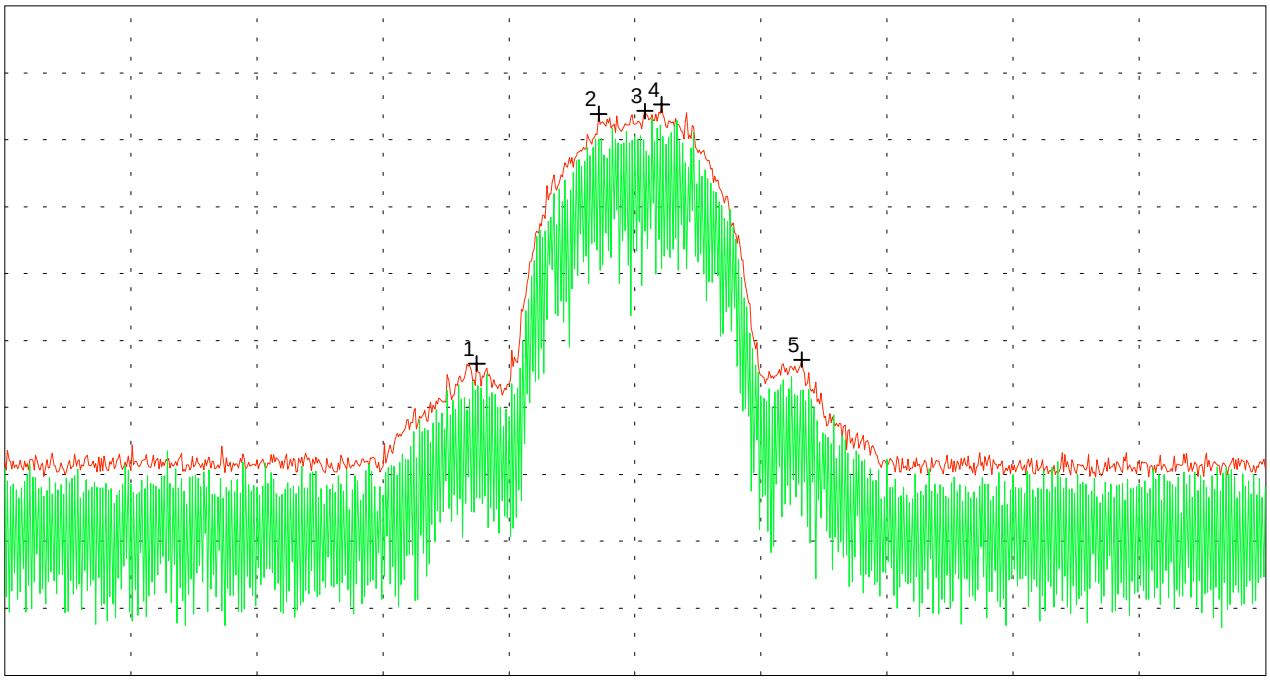
No. 1	2.448222 GHz	-30.58 dBm
No. 2	2.459667 GHz	3.96 dBm
No. 3	2.462778 GHz	4.01 dBm
No. 4	2.464000 GHz	5.12 dBm
No. 5	2.475111 GHz	-33.02 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 46 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.412 GHz Stop 2.512 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

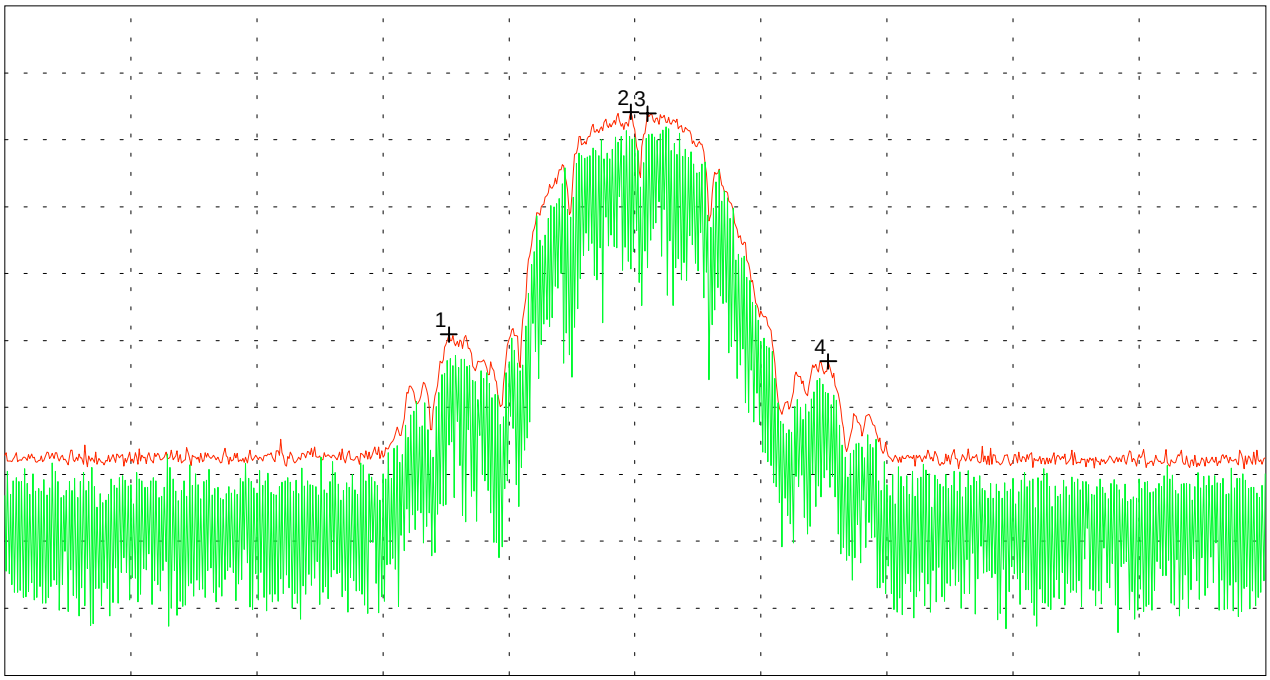
No. 1	2.449444 GHz	-33.45 dBm
No. 2	2.459111 GHz	3.88 dBm
No. 3	2.462778 GHz	4.31 dBm
No. 4	2.464111 GHz	5.28 dBm
No. 5	2.475222 GHz	-32.89 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 47 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
10 dB/Div.



Start 2.412 GHz Stop 2.512 GHz
RBW 100 kHz VBW 100 kHz SWP 40 ms

Multi Marker List

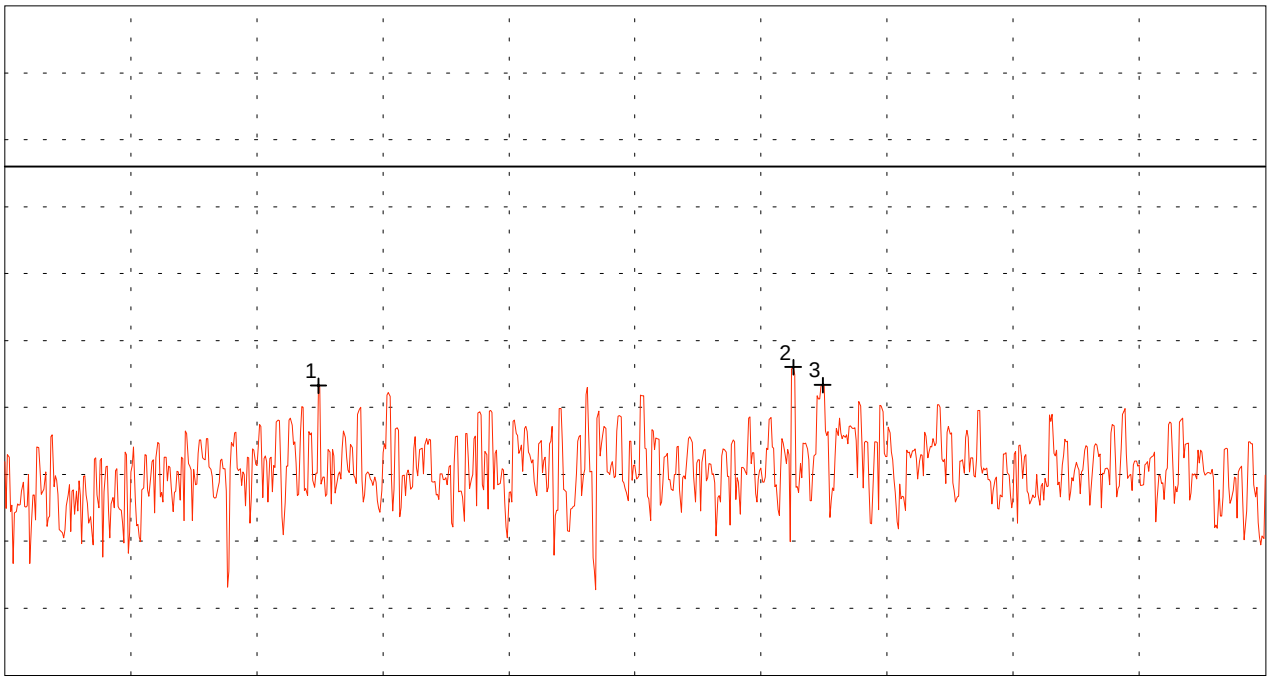
No. 1	2.447222 GHz	-29.11 dBm
No. 2	2.461667 GHz	4.18 dBm
No. 3	2.463000 GHz	3.93 dBm
No. 4	2.477333 GHz	-33.12 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 48 of 181 Pages

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.408 GHz Stop 2.416 GHz
RBW 3 kHz VBW 100 kHz SWP 2.80 s

Multi Marker List

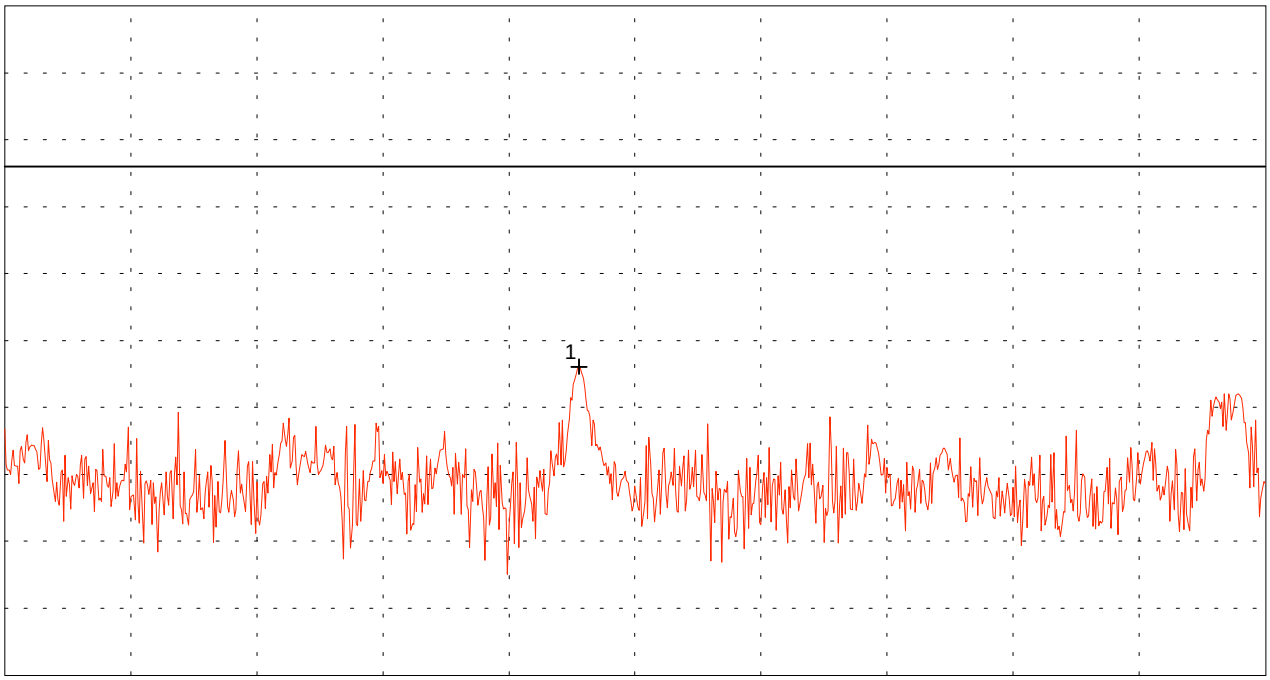
No. 1	2.409991 GHz	-8.37 dBm
No. 2	2.413004 GHz	-7.00 dBm
No. 3	2.413191 GHz	-8.32 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.41286 GHz Stop 2.41316 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

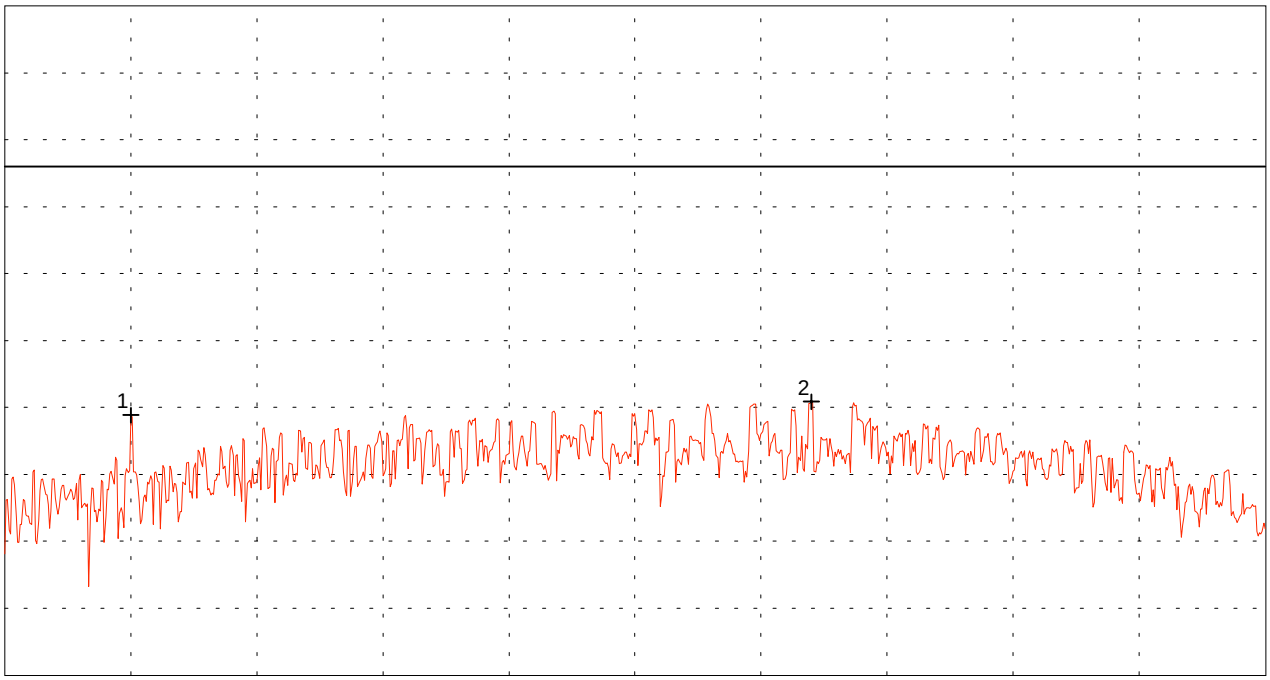
No. 1 2.412997 GHz -6.96 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.407 GHz Stop 2.417 GHz
RBW 3 kHz VBW 100 kHz SWP 3.40 s

Multi Marker List

No. 1	2.408000 GHz	-10.59 dBm
No. 2	2.413400 GHz	-9.57 dBm

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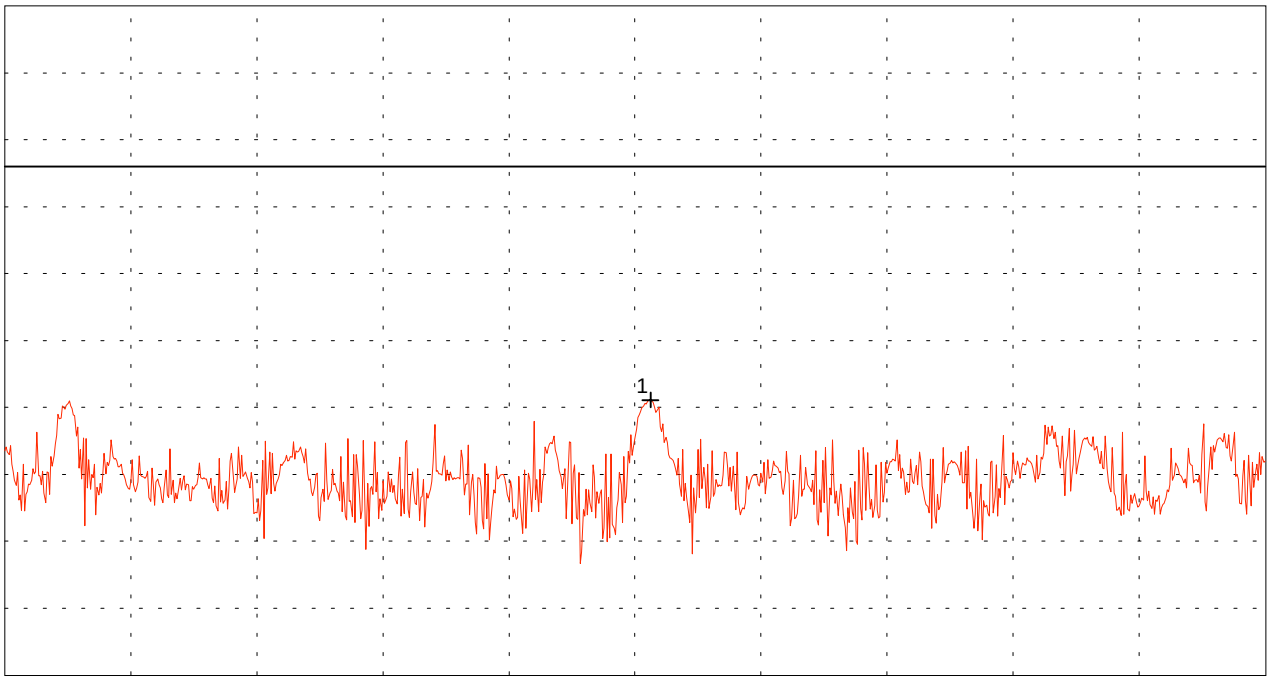
Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.41324 GHz Stop 2.41354 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

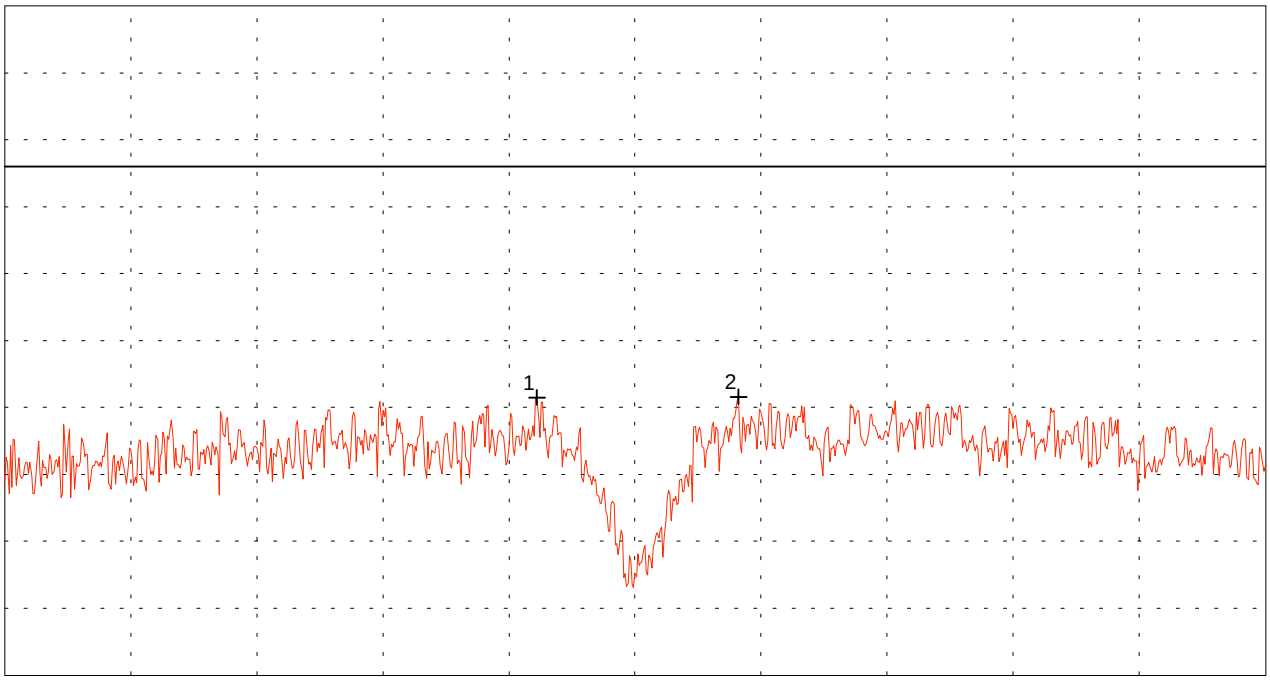
No. 1 2.413394 GHz -9.44 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.408 GHz Stop 2.416 GHz
RBW 3 kHz VBW 100 kHz SWP 2.80 s

Multi Marker List

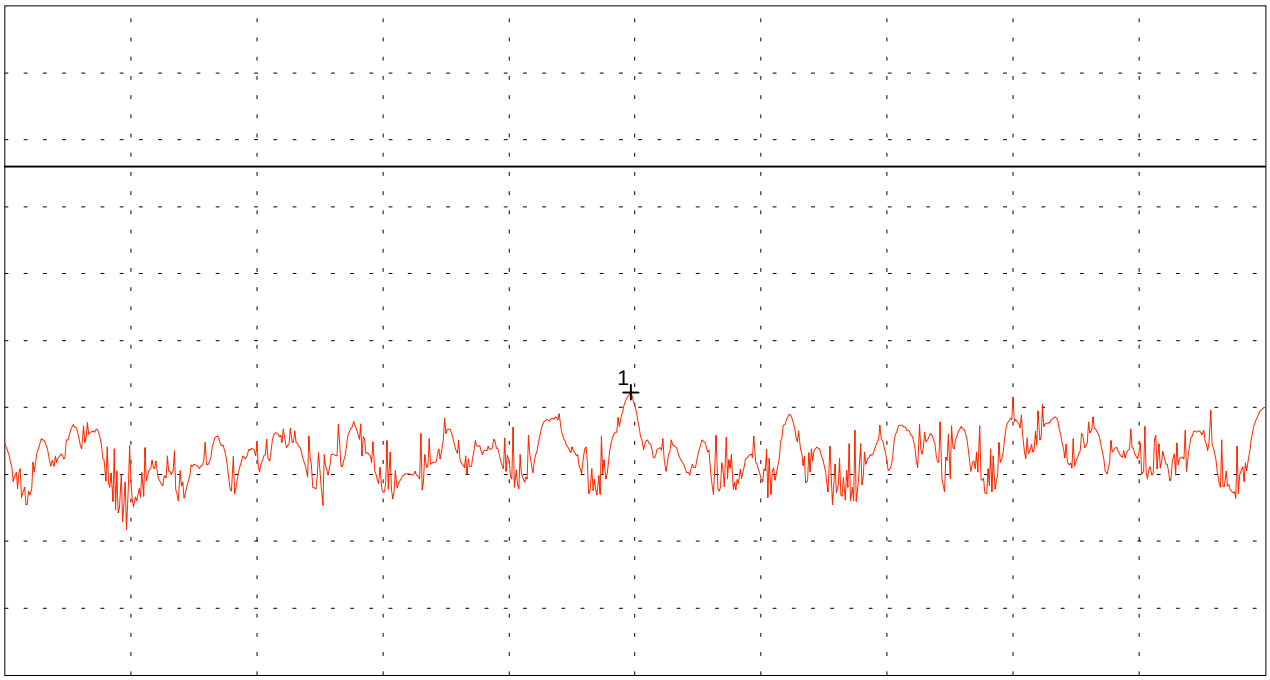
No. 1	2.411378 GHz	-9.25 dBm
No. 2	2.412658 GHz	-9.21 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.412498 GHz Stop 2.412798 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

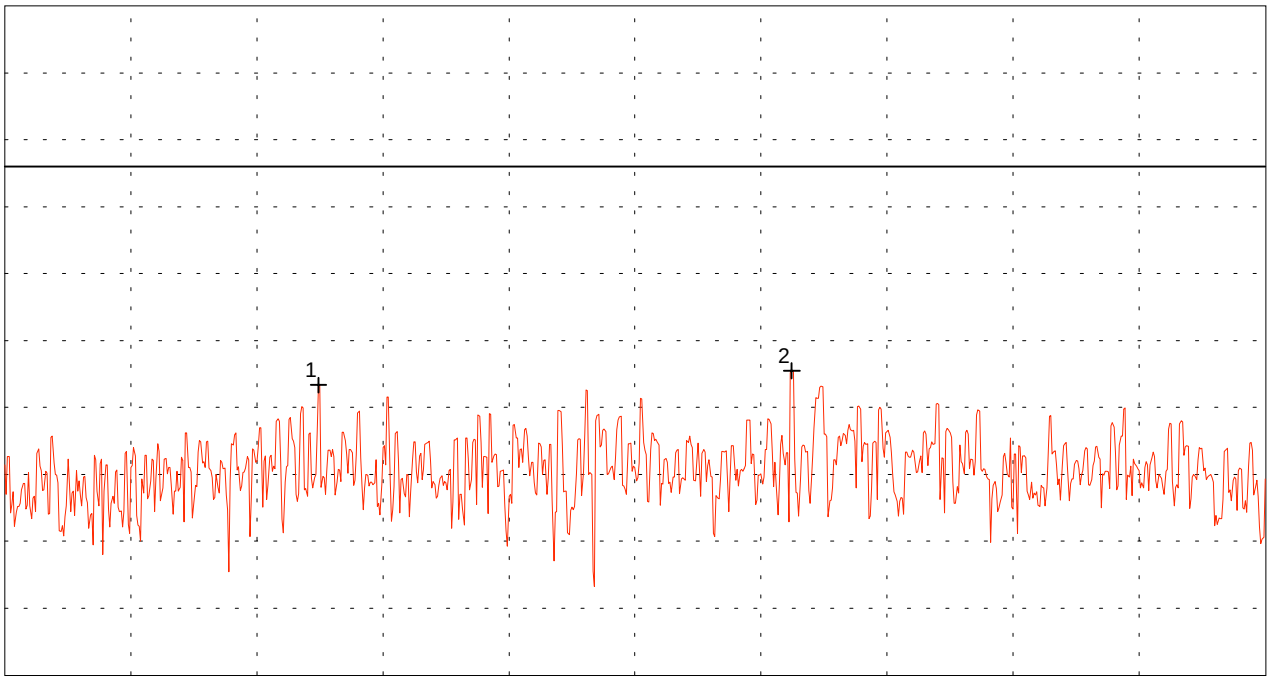
No. 1 2.412647 GHz -8.88 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.438 GHz Stop 2.446 GHz
RBW 3 kHz VBW 100 kHz SWP 2.80 s

Multi Marker List

No. 1	2.439991 GHz	-8.32 dBm
No. 2	2.442996 GHz	-7.26 dBm

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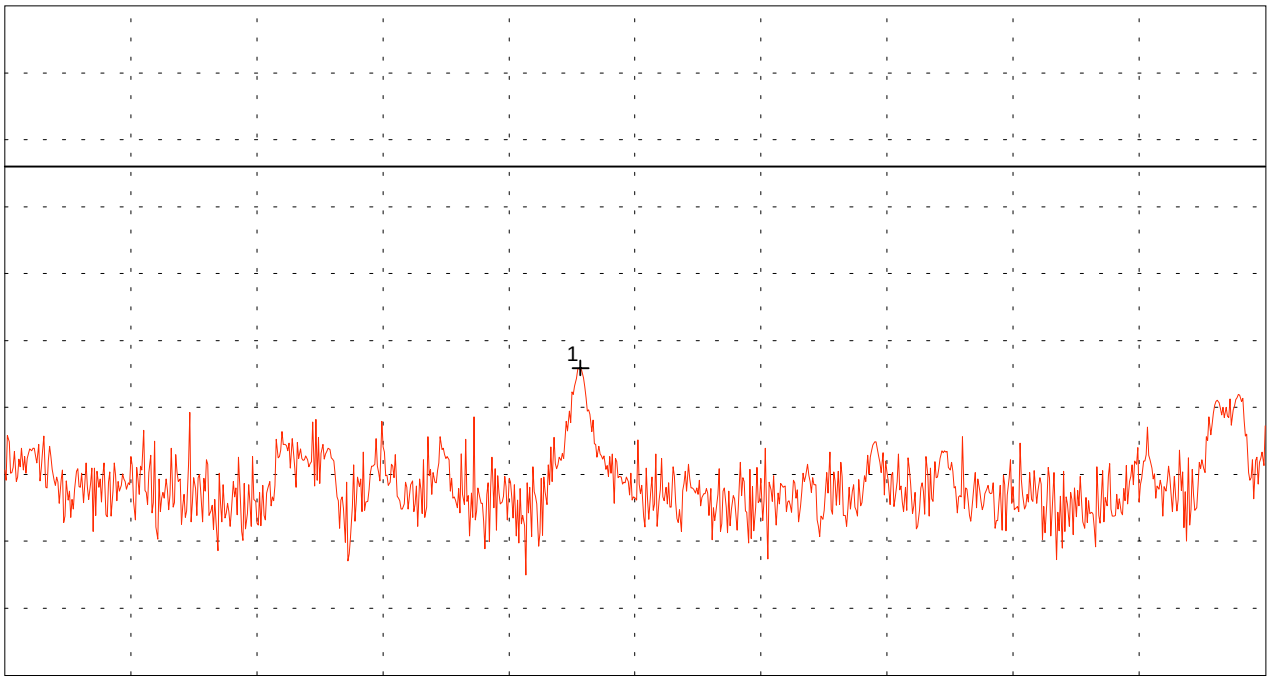
Date: 07/19/2000	Page 55 of 181 Pages

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.44286 GHz Stop 2.44316 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

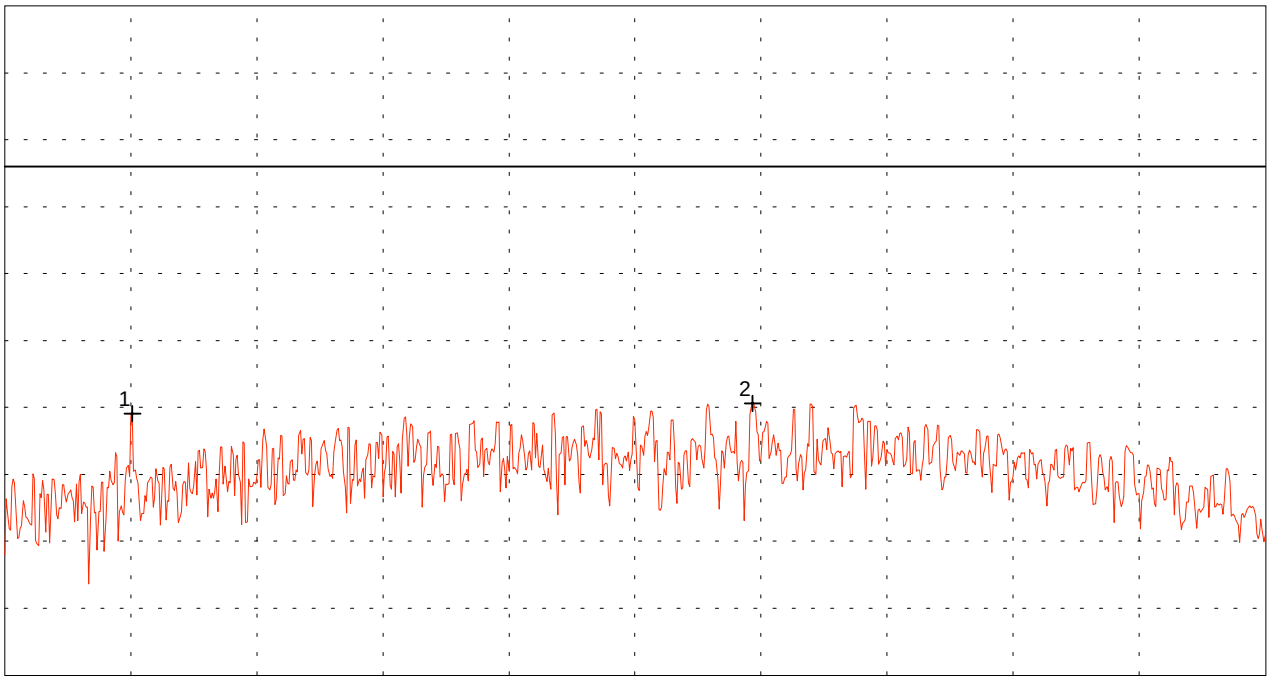
No. 1 2.442997 GHz -7.05 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.437 GHz Stop 2.447 GHz
RBW 3 kHz VBW 100 kHz SWP 3.40 s

Multi Marker List

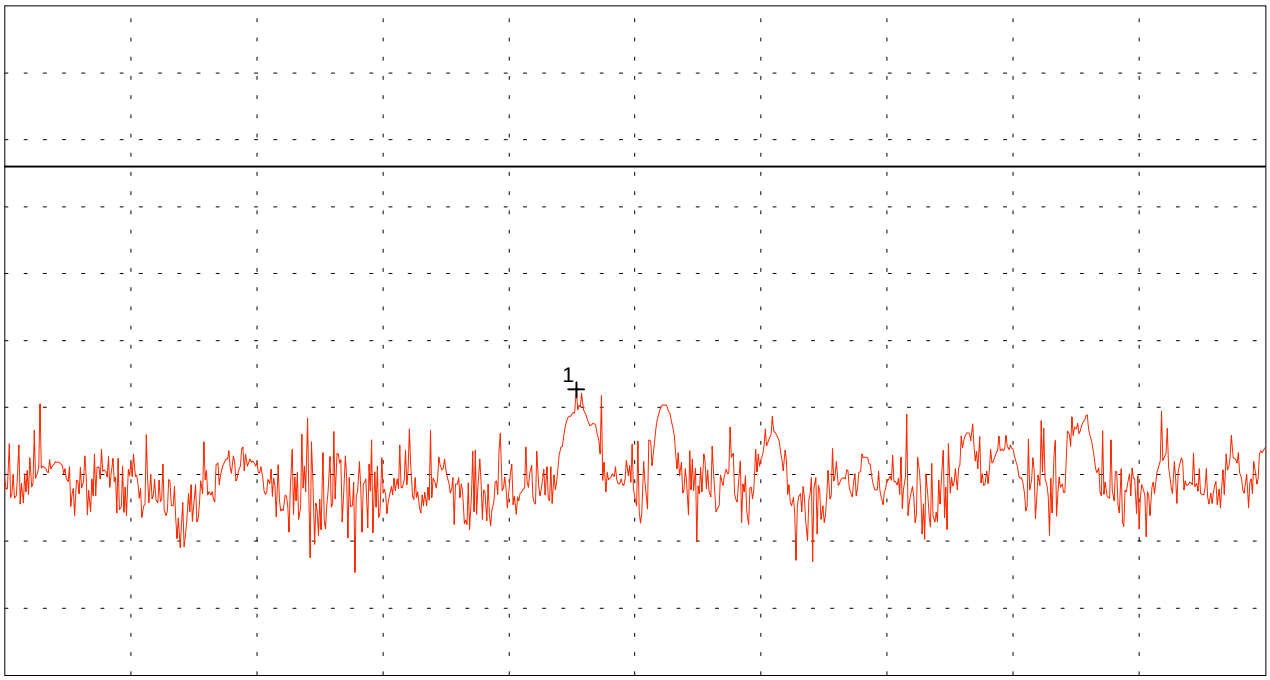
No. 1	2.438011 GHz	-10.47 dBm
No. 2	2.442933 GHz	-9.71 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 57 of 181 Pages

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.442783 GHz Stop 2.443083 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

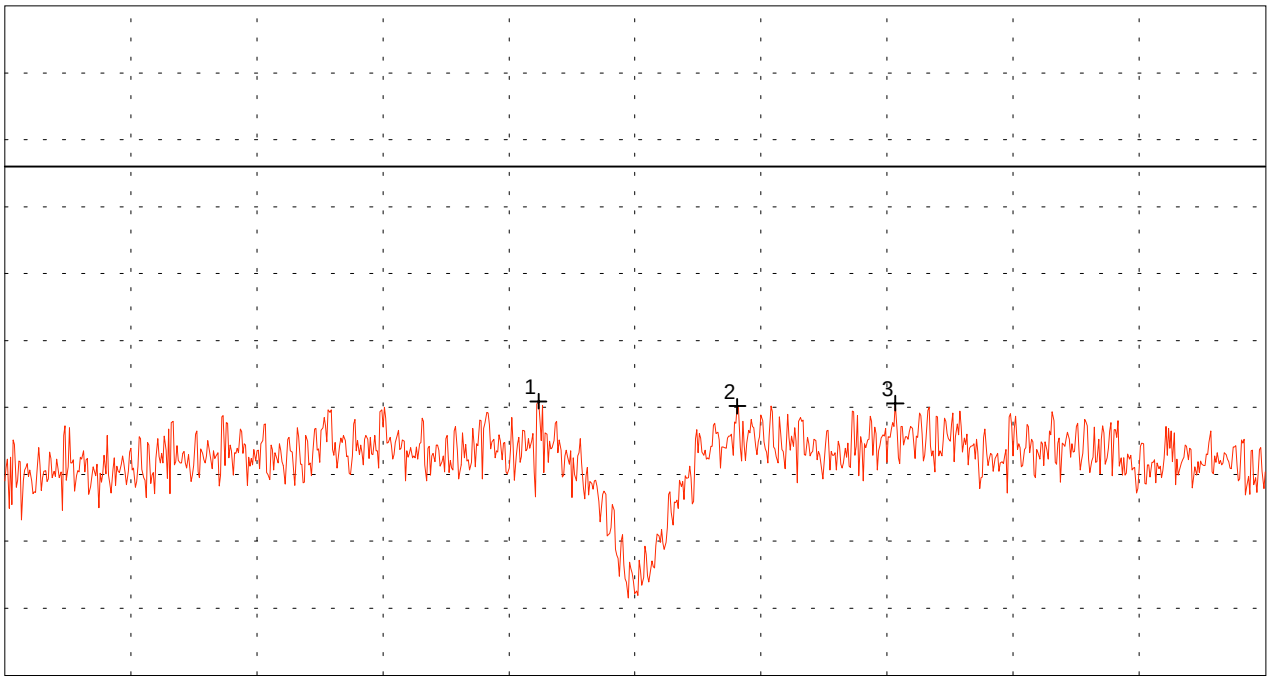
No. 1 2.442919 GHz -8.68 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.438 GHz Stop 2.446 GHz
RBW 3 kHz VBW 100 kHz SWP 2.80 s

Multi Marker List

No. 1	2.441387 GHz	-9.55 dBm
No. 2	2.442649 GHz	-9.91 dBm
No. 3	2.443653 GHz	-9.69 dBm

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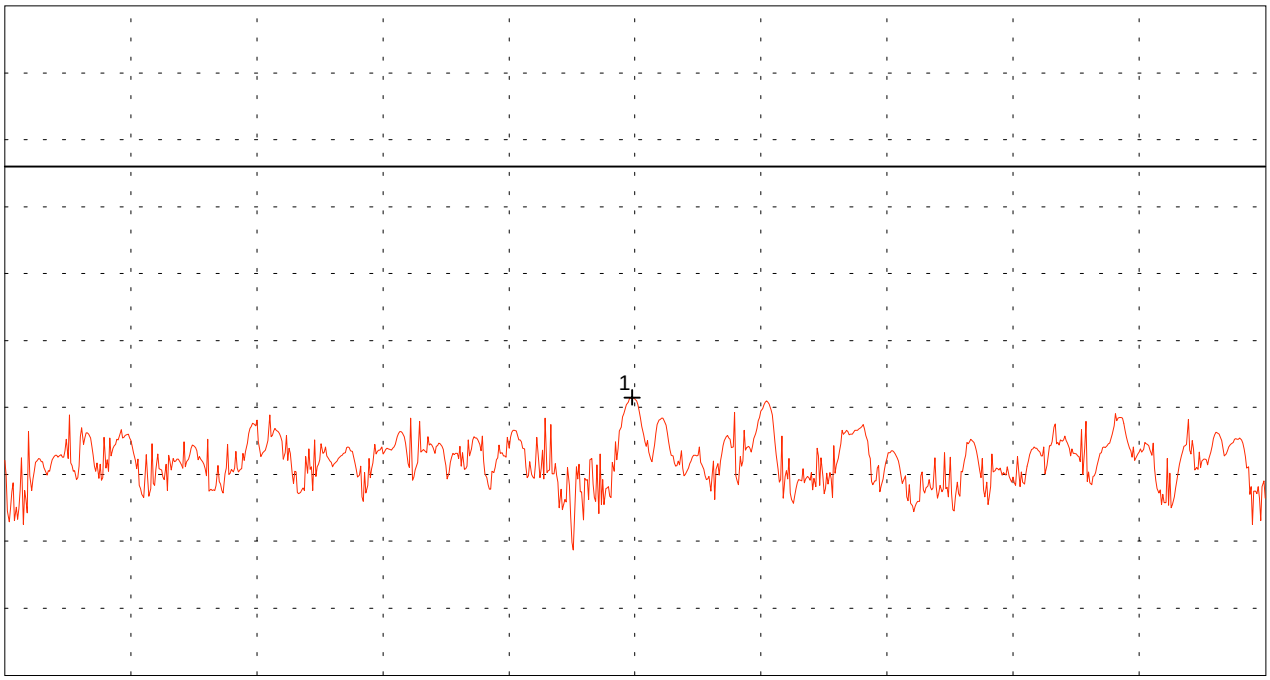
Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.441226 GHz Stop 2.441526 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

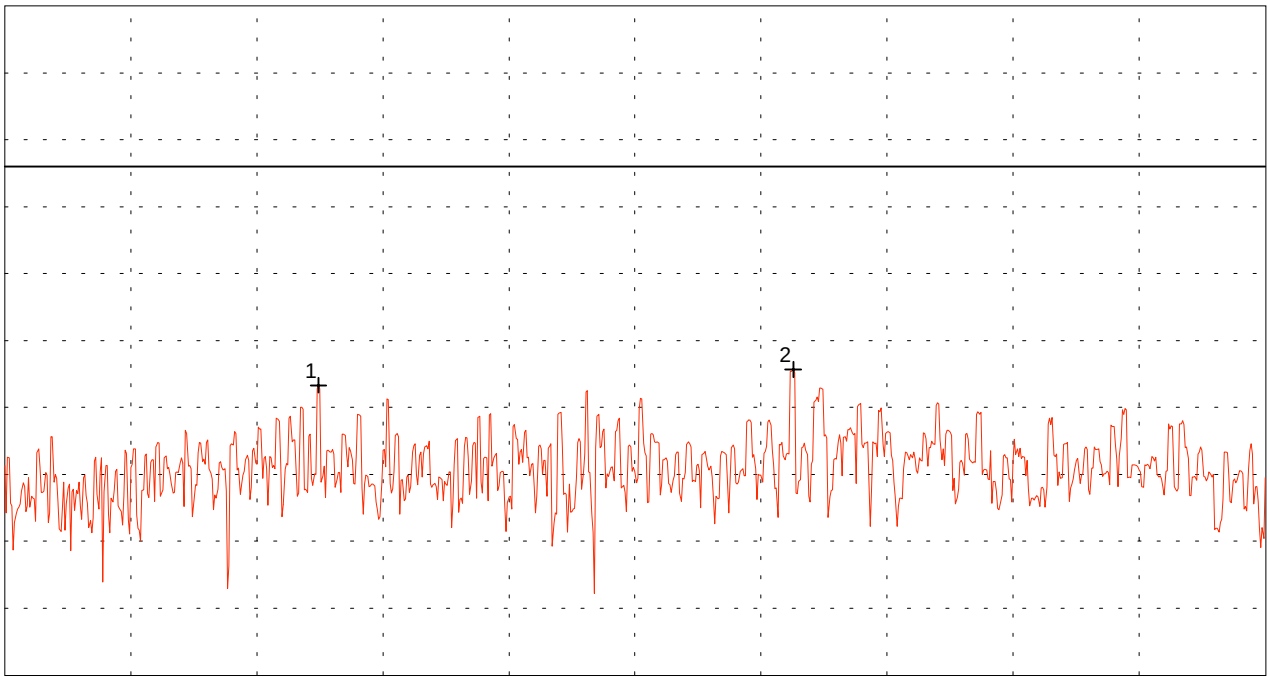
No. 1 2.441375 GHz -9.25 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.458 GHz Stop 2.466 GHz
RBW 3 kHz VBW 100 kHz SWP 2.80 s

Multi Marker List

No. 1	2.459991 GHz	-8.35 dBm
No. 2	2.463004 GHz	-7.17 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
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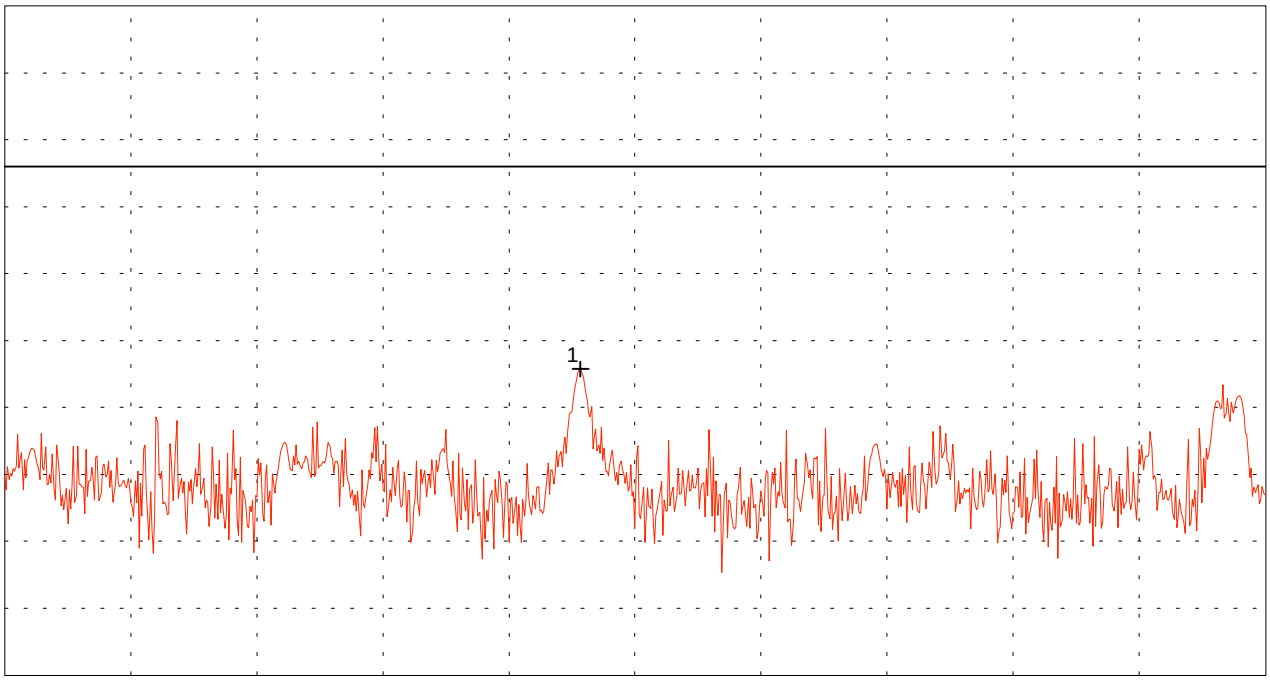
Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.46286 GHz Stop 2.46316 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

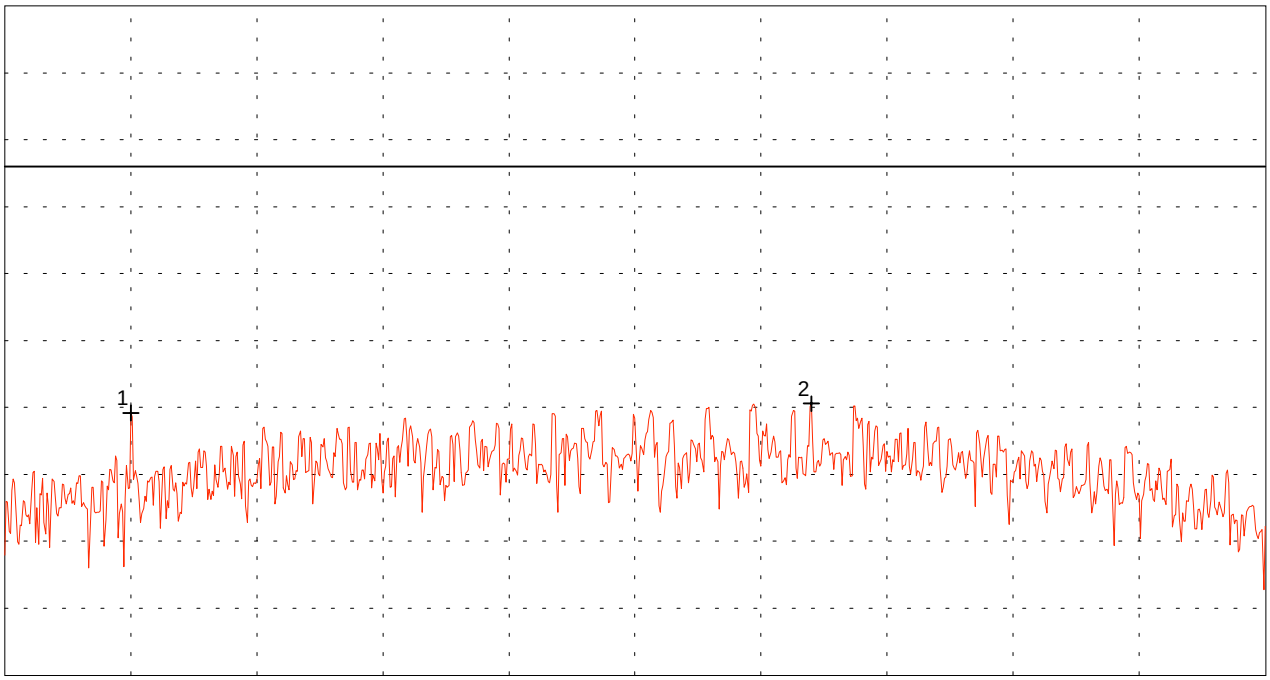
No. 1 2.462997 GHz -7.14 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.457 GHz Stop 2.467 GHz
RBW 3 kHz VBW 100 kHz SWP 3.40 s

Multi Marker List

No. 1	2.458000 GHz	-10.42 dBm
No. 2	2.463400 GHz	-9.72 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
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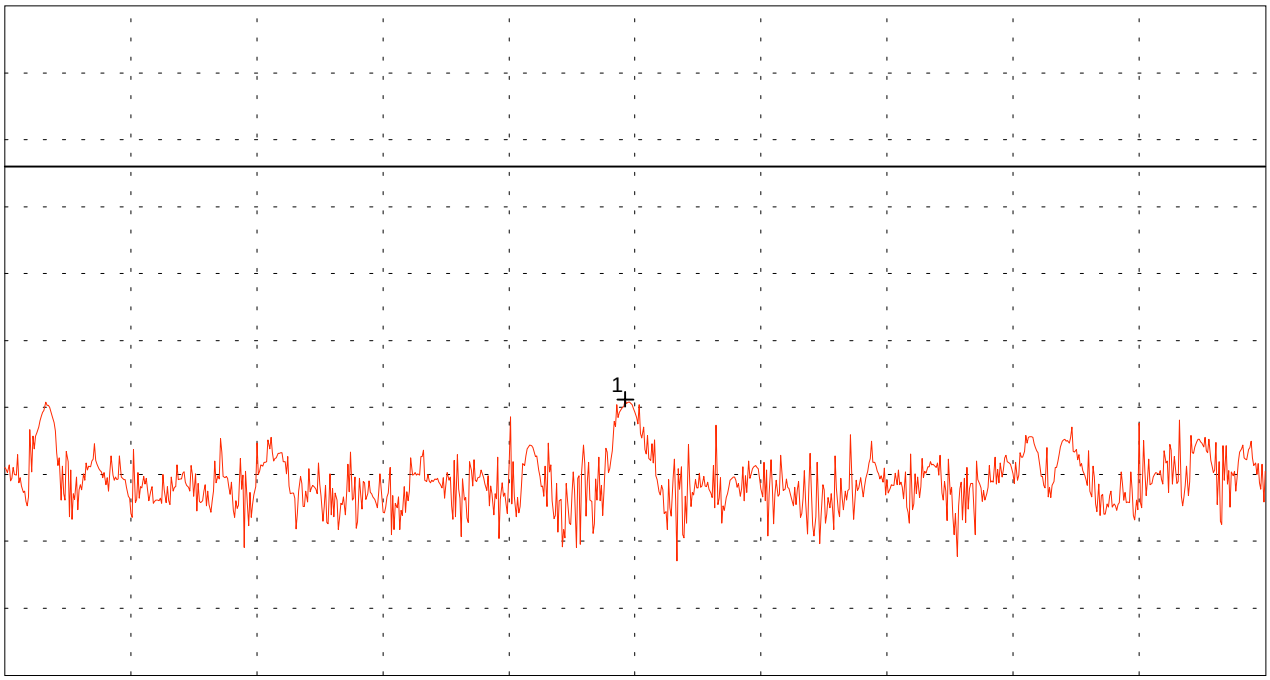
Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.463245 GHz Stop 2.463545 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

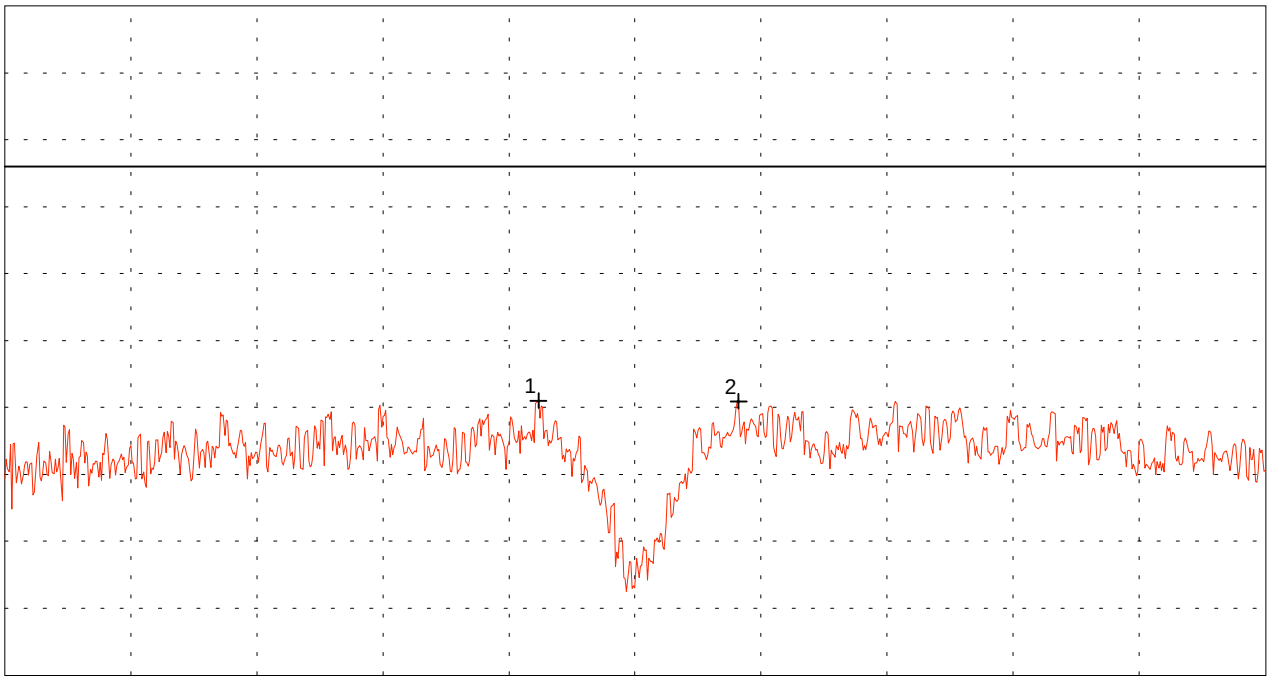
No. 1 2.463393 GHz -9.40 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Note: Prescan for zooming into maximum!
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.458 GHz Stop 2.466 GHz
RBW 3 kHz VBW 100 kHz SWP 2.80 s

Multi Marker List

No. 1	2.461387 GHz	-9.49 dBm
No. 2	2.462658 GHz	-9.55 dBm

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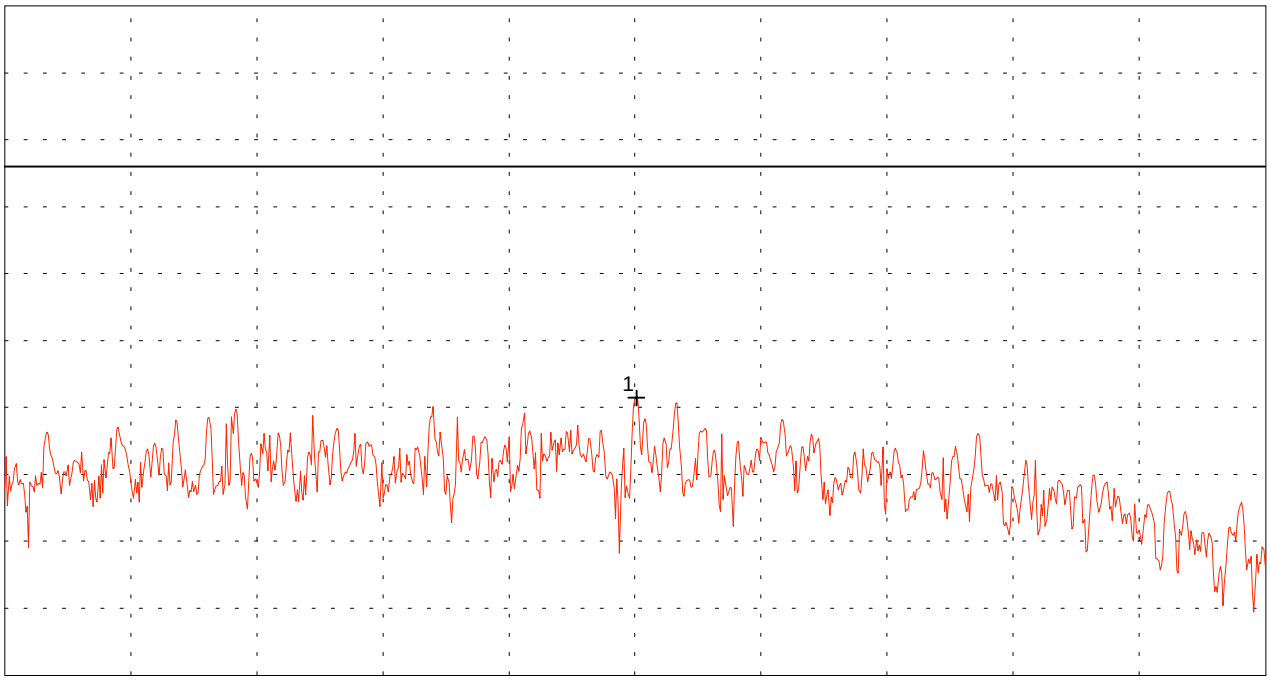
Peak power density (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - 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 Result: Test passed
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 20 dBm ATT 20 dB Ref. Offset 21.7 dB
5 dB/Div.



Start 2.460874 GHz Stop 2.461874 GHz
RBW 3 kHz VBW 100 kHz SWP 100 s

Multi Marker List

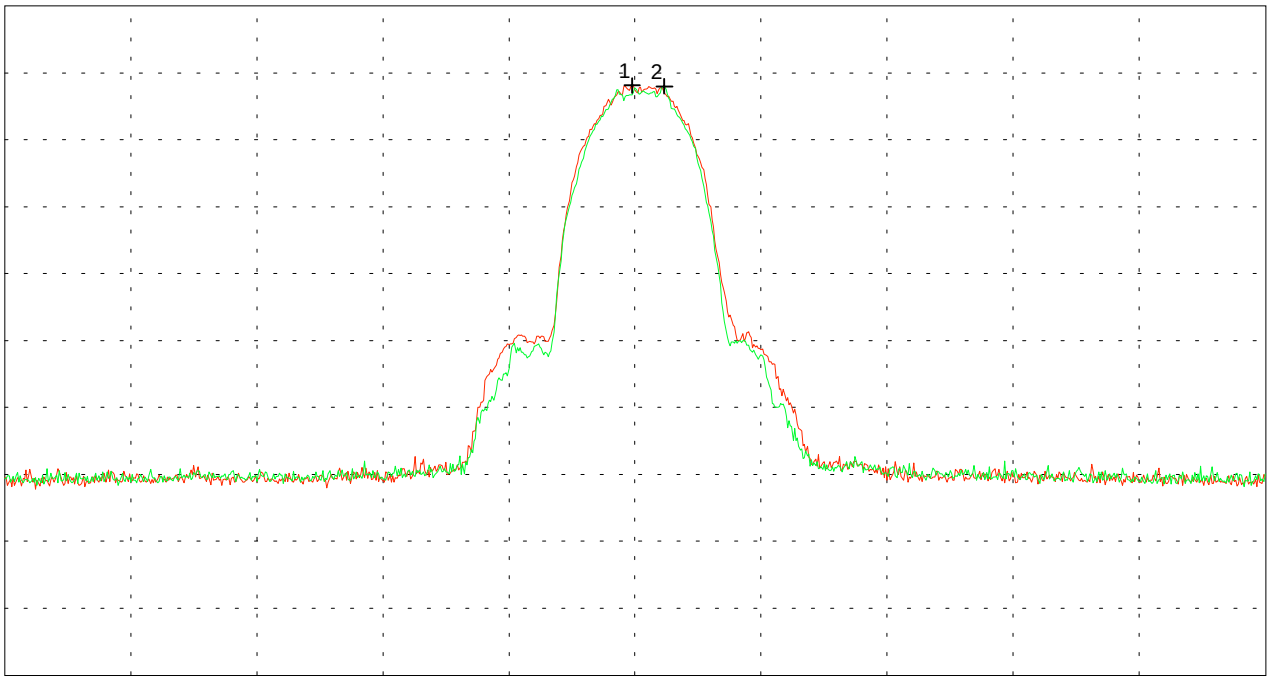
No. 1 2.461375 GHz -9.29 dBm

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.412 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 5.5 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV ATT 15 dB Ref. Offset 11.7 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

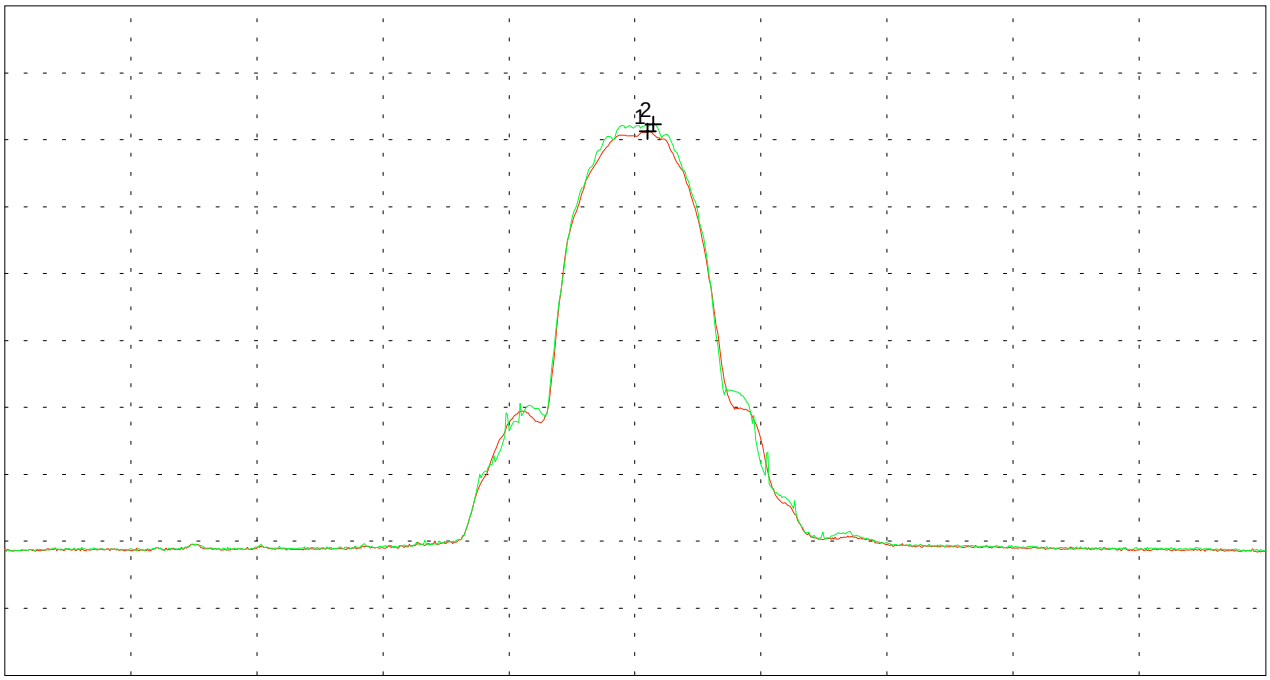
No. 1	2.411667 GHz	118.13 dBµV	(A)
No. 2	2.415500 GHz	118.00 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.412 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 5.5 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV ATT 15 dB Ref. Offset 11.7 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.413500 GHz	111.25 dBµV	(A)
No. 2	2.414167 GHz	112.34 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
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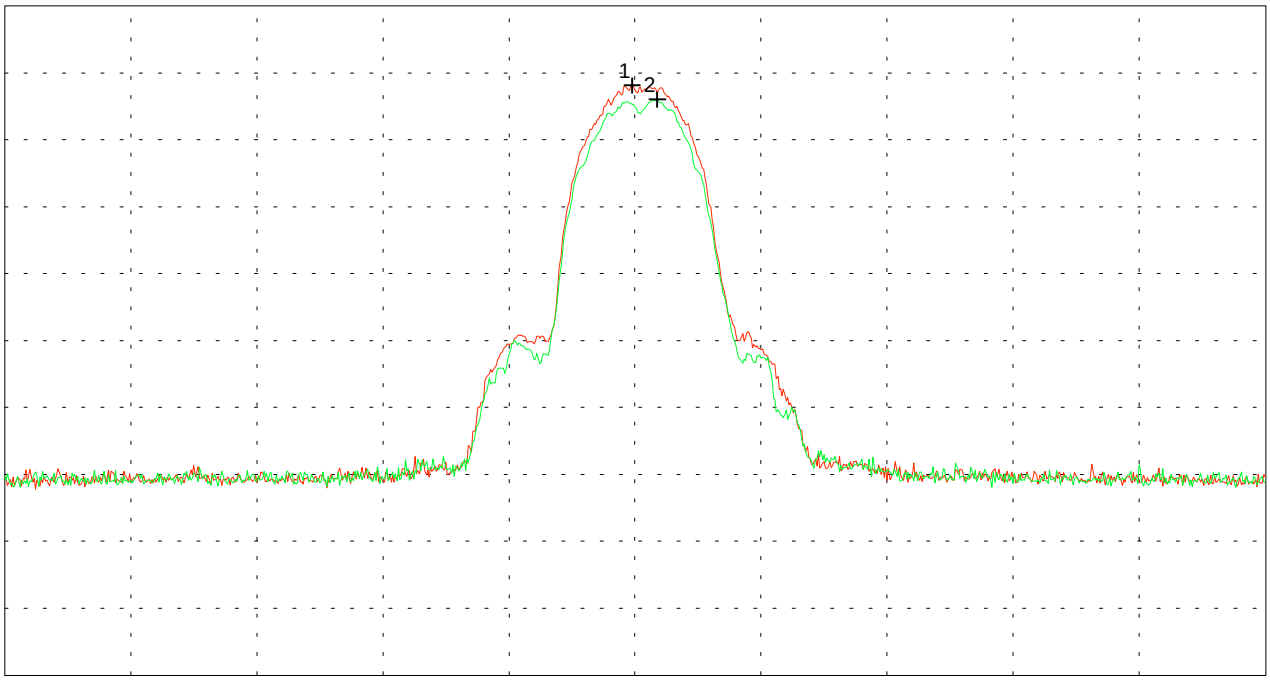
Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.412 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 2 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV ATT 15 dB Ref. Offset 11.7 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

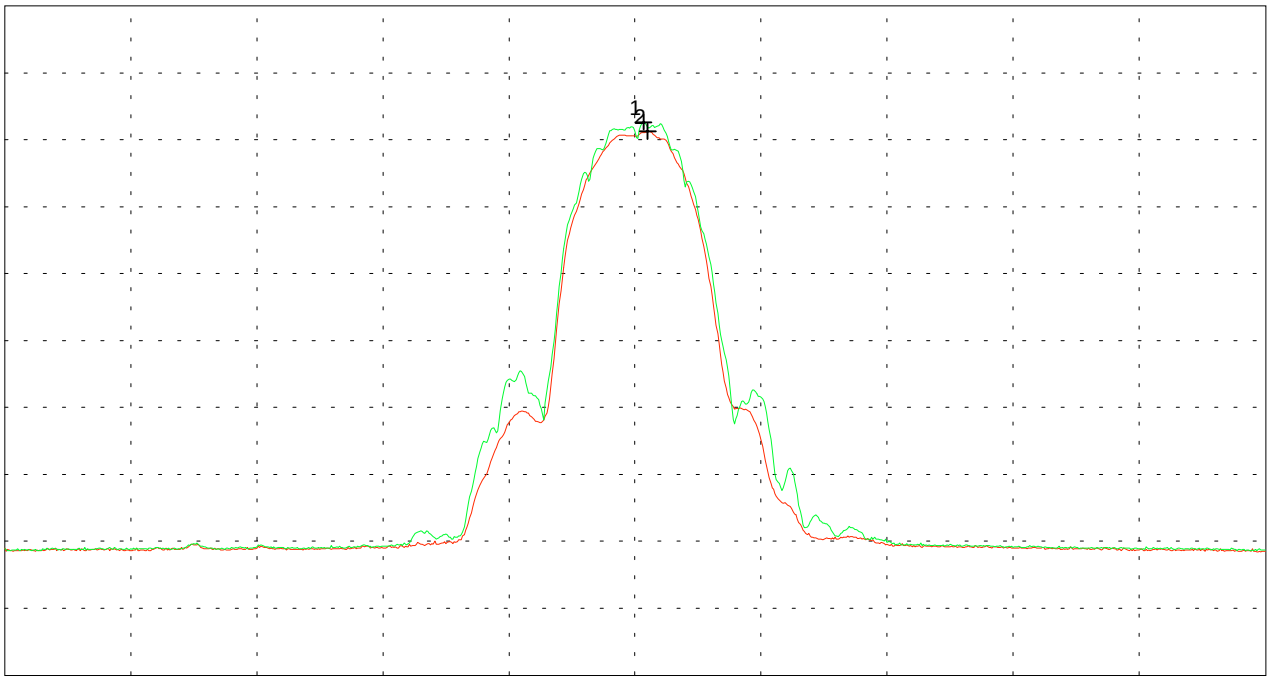
No. 1	2.411667 GHz	118.13 dBµV	(A)
No. 2	2.414667 GHz	116.02 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.412 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 2 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV
10 dB/Div.
ATT 15 dB
Ref. Offset 11.7 dB



Start 2.337 GHz
RBW 1 MHz
VBW 1 kHz
Stop 2.487 GHz
SWP 460 ms

Multi Marker List

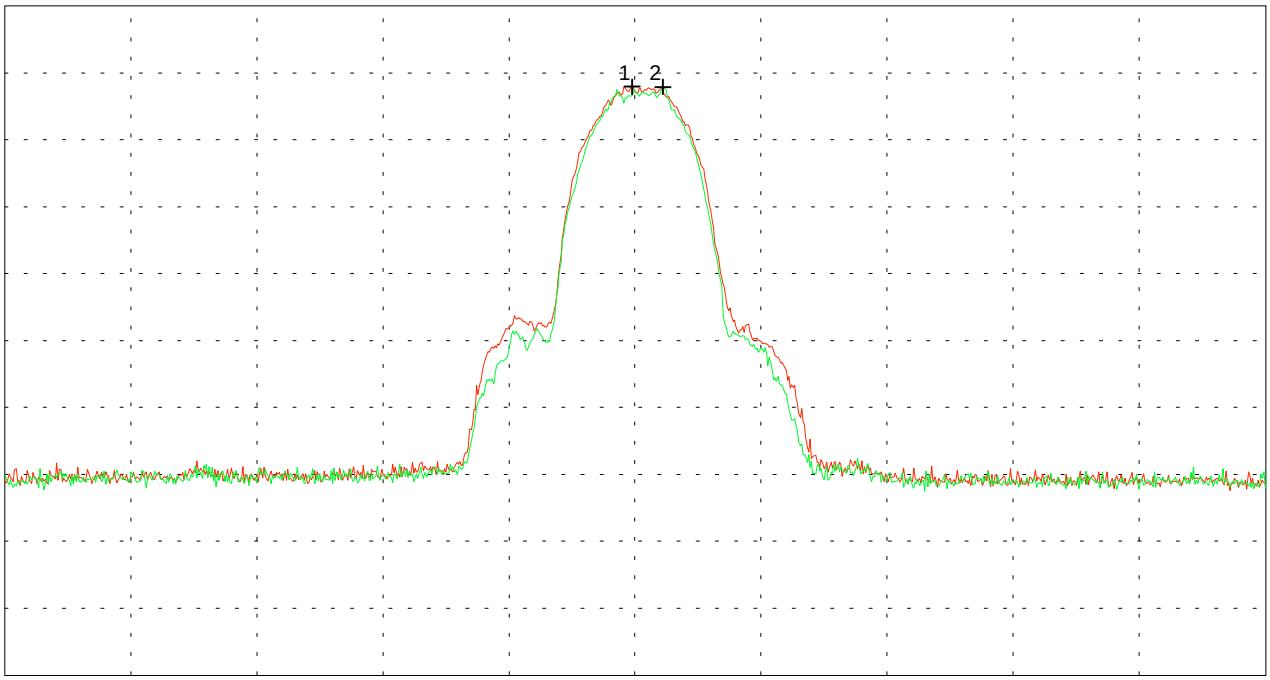
No. 1	2.413000 GHz	112.64 dBµV	(B)
No. 2	2.413500 GHz	111.25 dBµV	(A)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.442 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 5.5 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV
10 dB/Div.
ATT 15 dB
Ref. Offset 11.7 dB



Start 2.367 GHz
RBW 1 MHz
VBW 1 MHz
Stop 2.517 GHz
SWP 20 ms

Multi Marker List

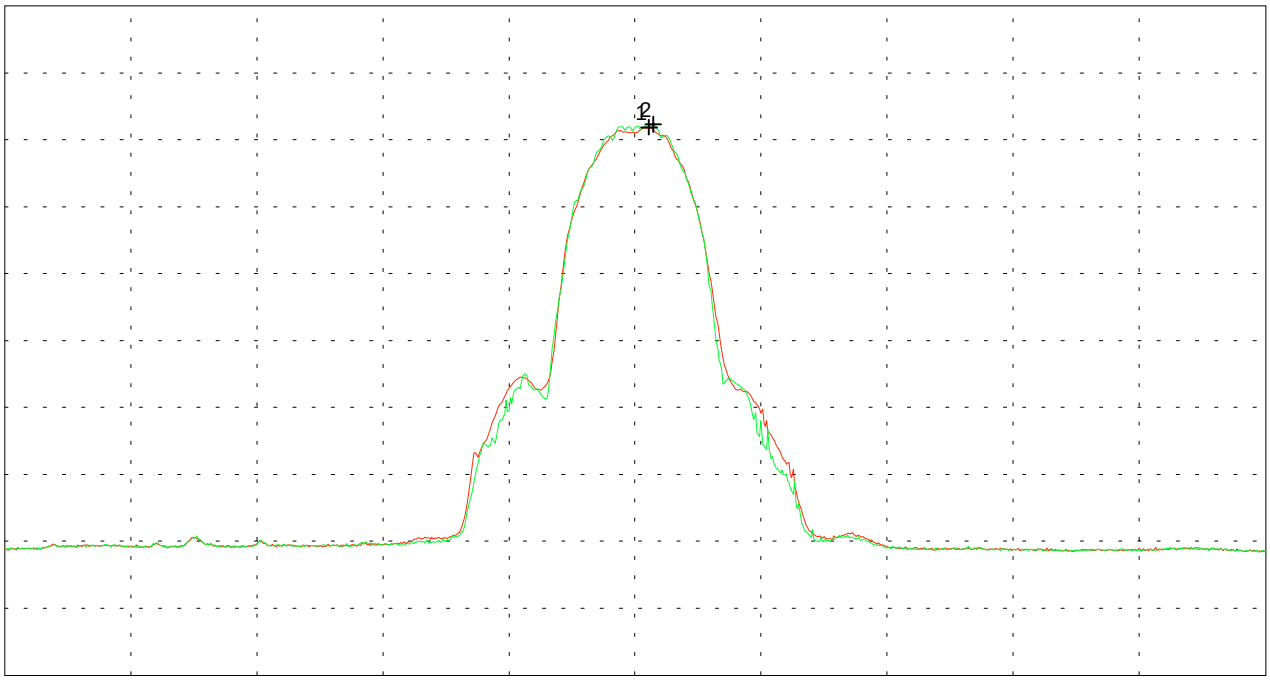
No. 1	2.441667 GHz	117.93 dBµV	(A)
No. 2	2.445333 GHz	117.90 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.442 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 5.5 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV ATT 15 dB Ref. Offset 11.7 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.443667 GHz	111.86 dBµV	(A)
No. 2	2.444167 GHz	112.31 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

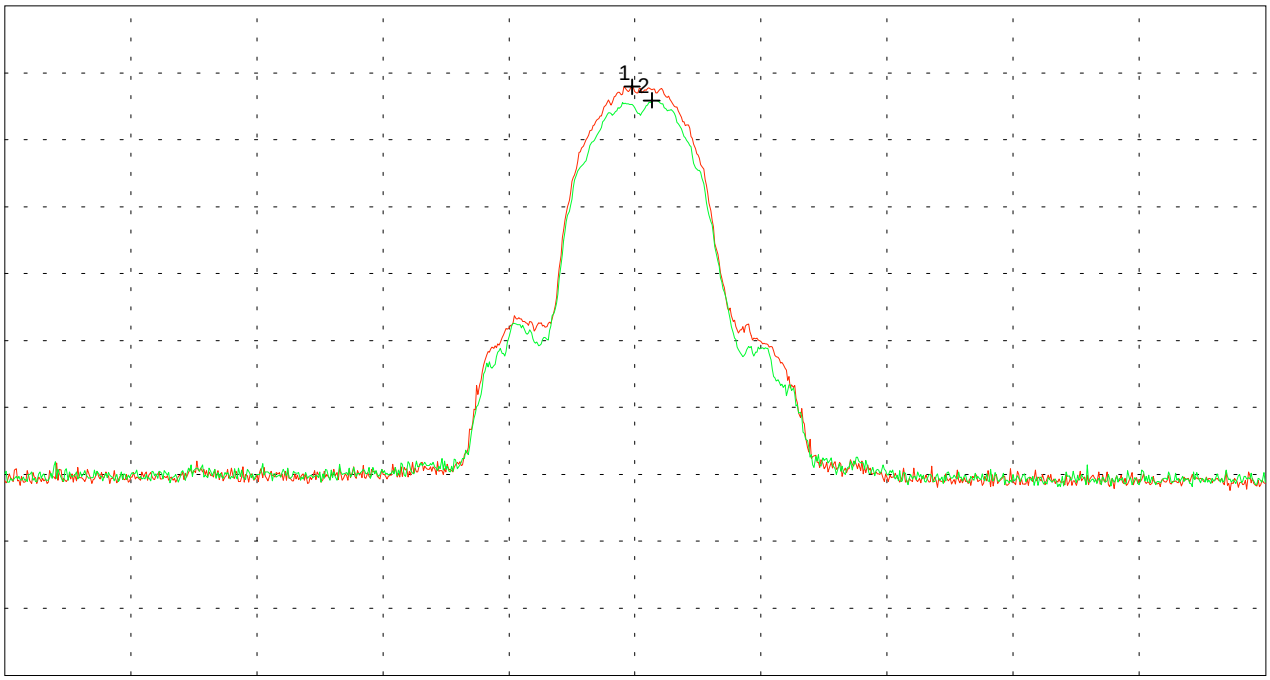
Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.442 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 2 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV
10 dB/Div.

ATT 15 dB

Ref. Offset 11.7 dB



Start 2.367 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.517 GHz
SWP 20 ms

Multi Marker List

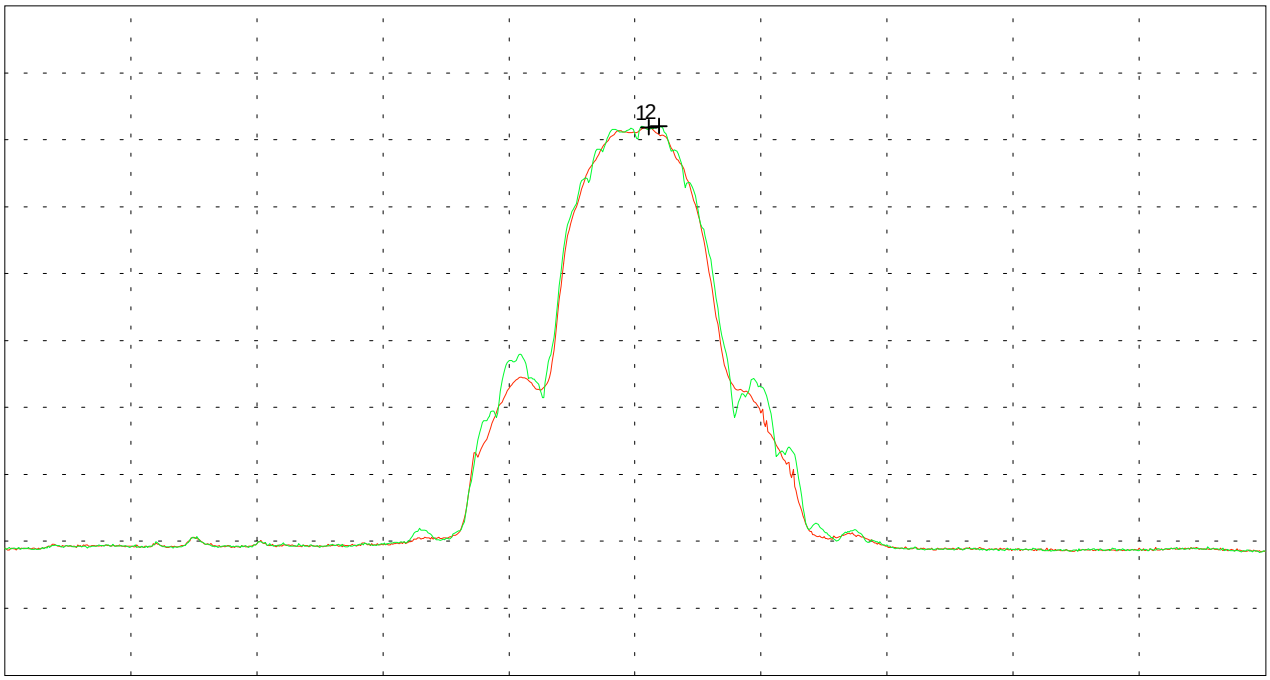
No. 1	2.441667 GHz	117.93 dBµV	(A)
No. 2	2.444000 GHz	115.89 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.442 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 2 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV ATT 15 dB Ref. Offset 11.7 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.443667 GHz	111.86 dBµV	(A)
No. 2	2.444833 GHz	112.03 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

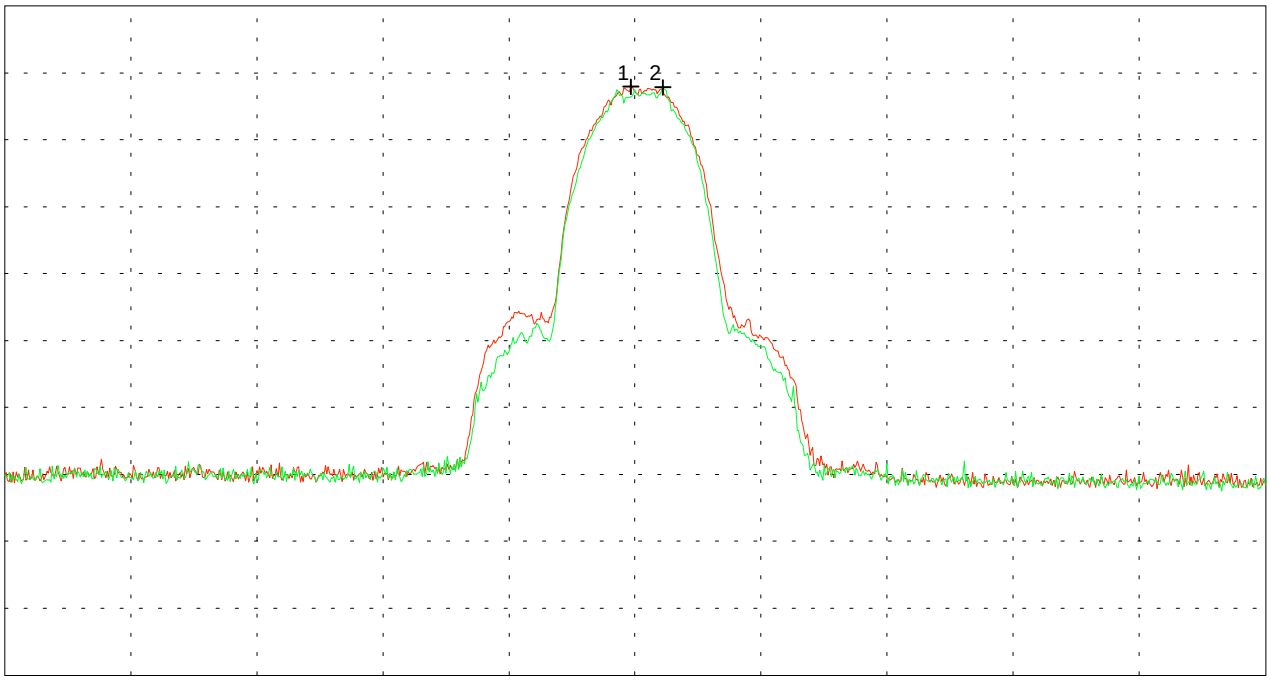
Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.462 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 5.5 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV
10 dB/Div.

ATT 15 dB

Ref. Offset 11.7 dB



Start 2.387 GHz
RBW 1 MHz

VBW 1 MHz

Stop 2.537 GHz
SWP 20 ms

Multi Marker List

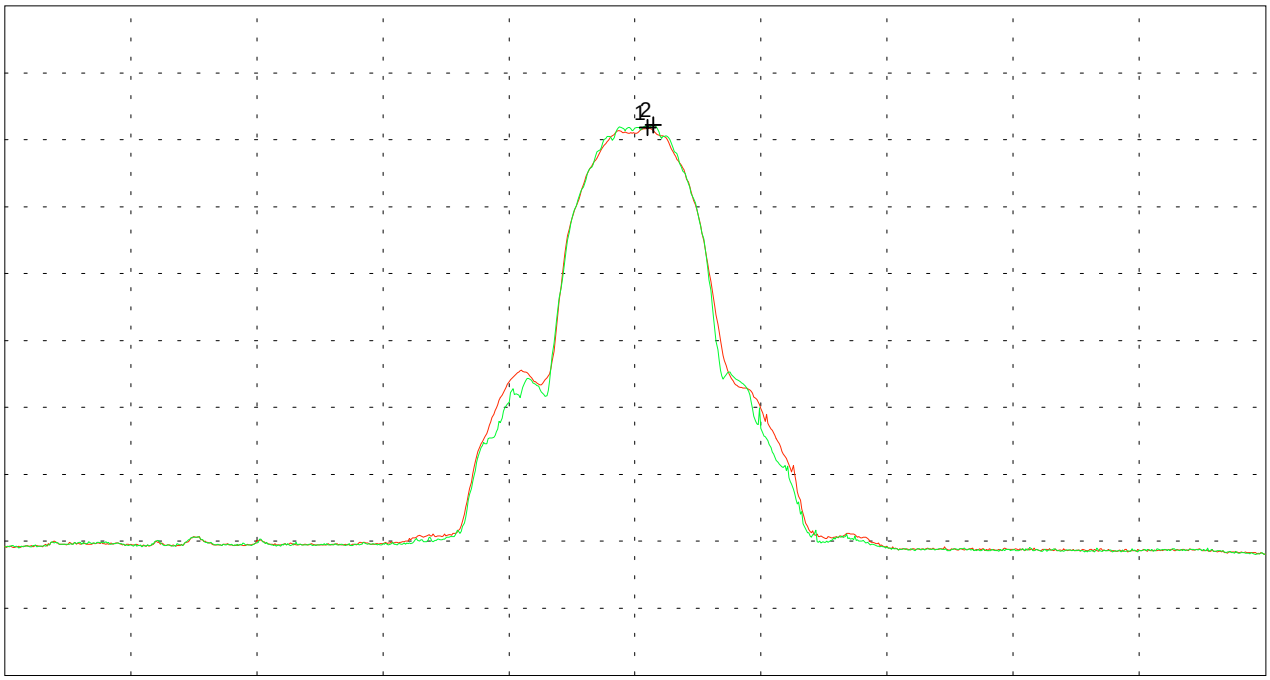
No. 1	2.461500 GHz	117.93 dBµV	(A)
No. 2	2.465333 GHz	117.82 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.462 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 5.5 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV
10 dB/Div.
ATT 15 dB
Ref. Offset 11.7 dB



Start 2.387 GHz
RBW 1 MHz
VBW 1 kHz
Stop 2.537 GHz
SWP 460 ms

Multi Marker List

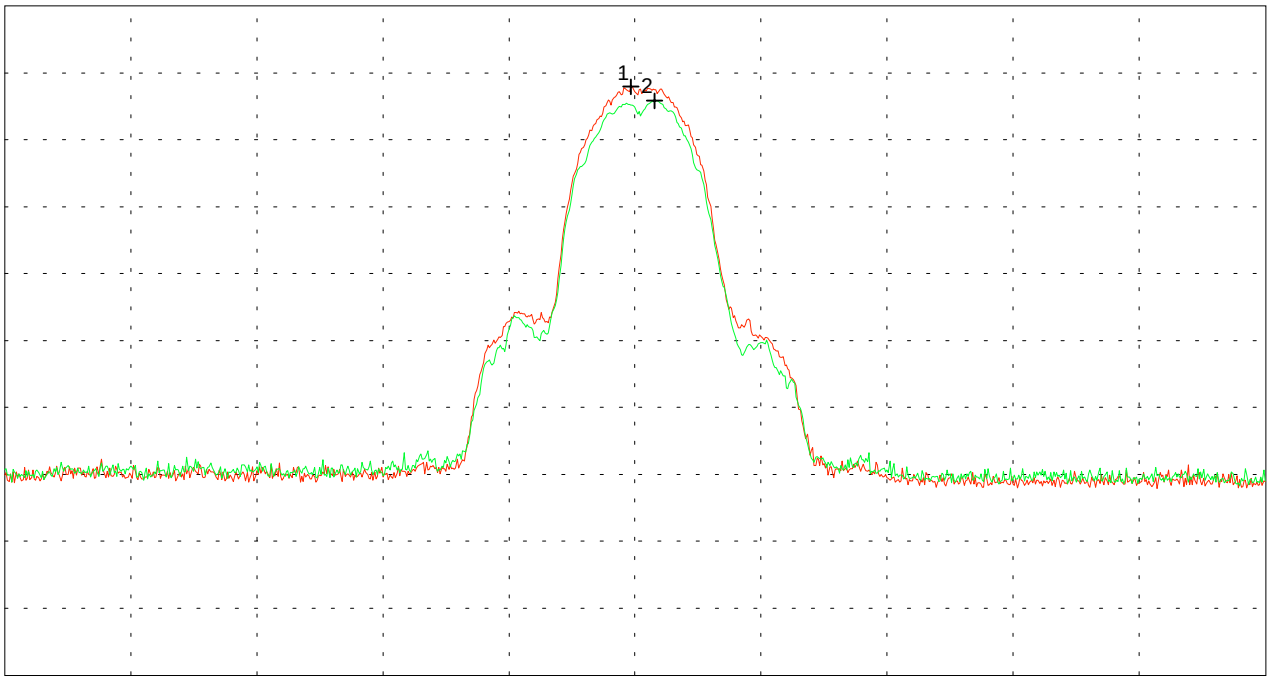
No. 1	2.463500 GHz	111.83 dBµV	(A)
No. 2	2.464167 GHz	112.21 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	Page 76 of 181 Pages

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.462 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 2 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV
10 dB/Div.
ATT 15 dB
Ref. Offset 11.7 dB



Start 2.387 GHz
RBW 1 MHz
VBW 1 MHz
Stop 2.537 GHz
SWP 20 ms

Multi Marker List

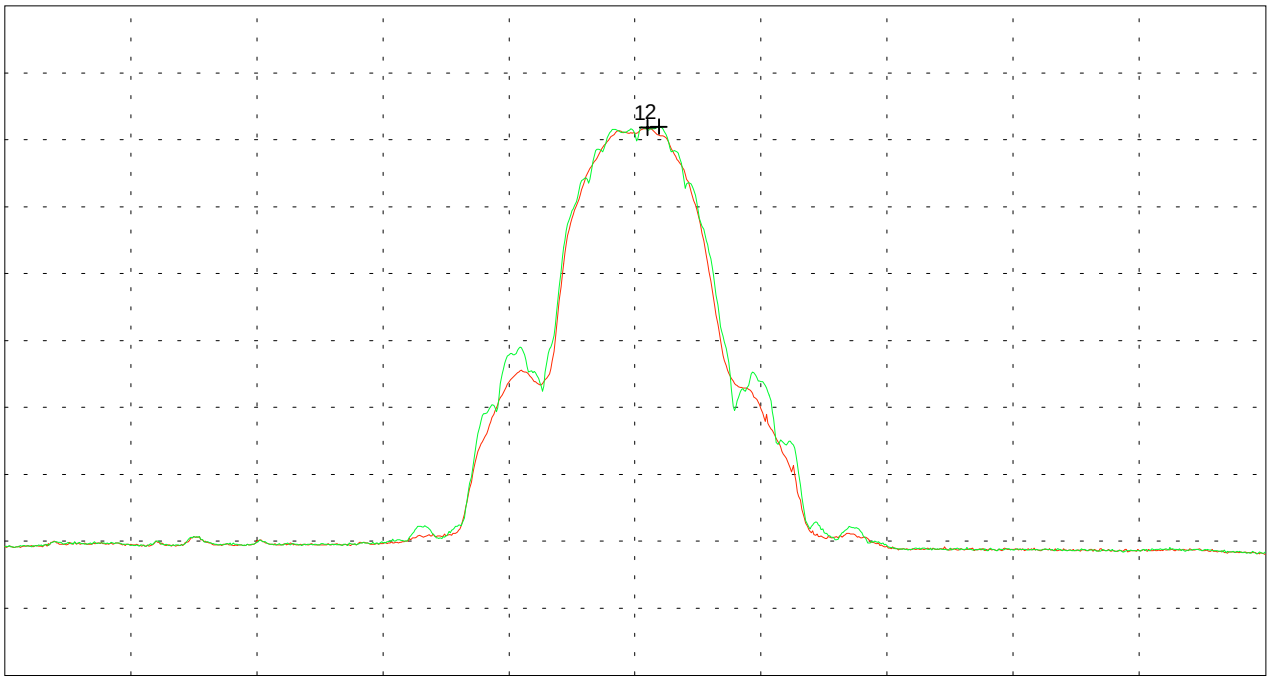
No. 1	2.461500 GHz	117.93 dBµV	(A)
No. 2	2.464333 GHz	115.84 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Frequency range (conducted) acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - TX mode with f = 2.462 GHz Tested on: Antenna connector Channel A (red) = operating with bit rate 11 Mbps Channel B (green) = operating with bit rate 2 Mbps Note: Prescan (conducted) for selection of worst case bit rate for radiated emission at band edges
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV ATT 15 dB Ref. Offset 11.7 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

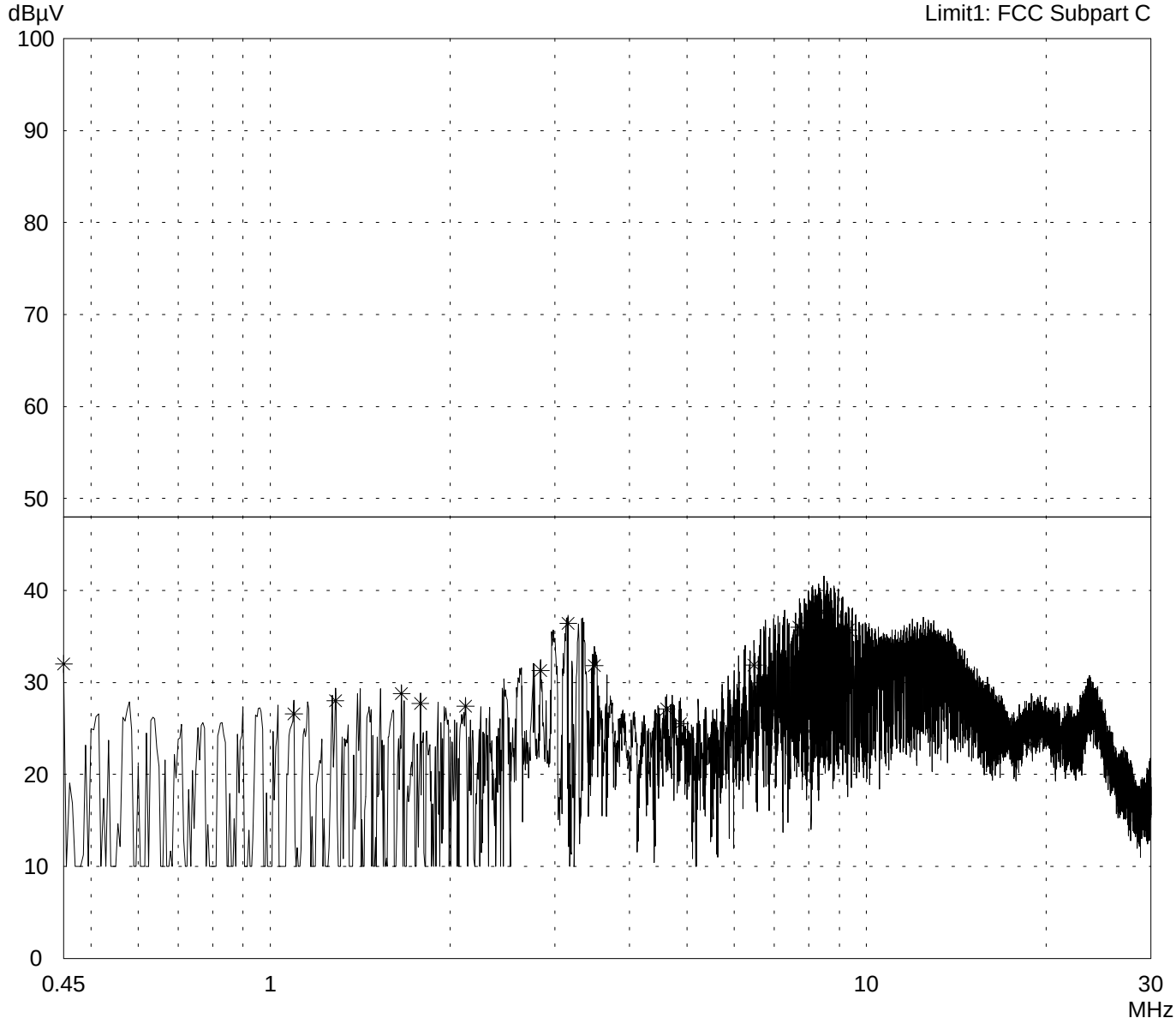
No. 1	2.463500 GHz	111.83 dBµV	(A)
No. 2	2.464833 GHz	111.96 dBµV	(B)

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/19/2000	

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 79 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase L1

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.412 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.450	32.0		32.0	48.0	
1.095	26.6		26.6	48.0	
1.285	28.0		28.0	48.0	
1.660	28.8		28.8	48.0	
1.785	27.7		27.7	48.0	
2.125	27.4		27.4	48.0	
2.840	31.3		31.3	48.0	
3.160	36.4		36.4	48.0	
3.495	31.8		31.8	48.0	
4.620	27.1		27.1	48.0	
4.870	25.5		25.5	48.0	
6.475	31.9		31.9	48.0	
7.704	36.0		36.0	48.0	
8.485	37.7		37.7	48.0	
9.320	35.7		35.7	48.0	
12.455	31.7		31.7	48.0	
12.960	31.0		31.0	48.0	
15.440	26.2		26.2	48.0	
18.910	23.3		23.3	48.0	
23.640	25.2		25.2	48.0	

Result:
Limit kept

Project file:
56305-00323-1

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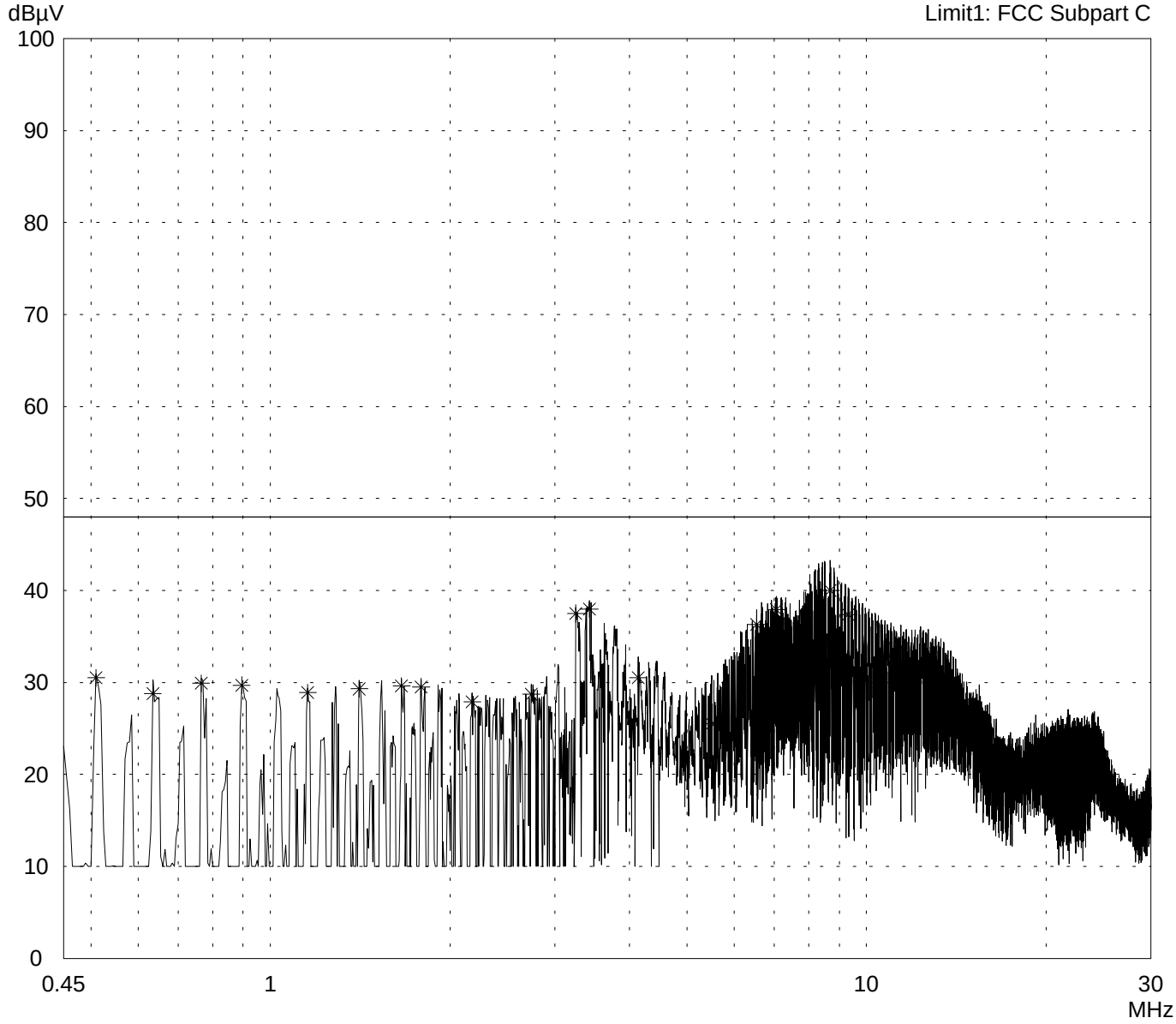
Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 81 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase N

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.412 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.510	30.5		30.5	48.0	
0.635	28.8		28.8	48.0	
0.765	29.9		29.9	48.0	
0.895	29.7		29.7	48.0	
1.155	28.9		28.9	48.0	
1.410	29.3		29.3	48.0	
1.660	29.6		29.6	48.0	
1.790	29.5		29.5	48.0	
2.180	27.9		27.9	48.0	
2.740	28.7		28.7	48.0	
3.255	37.5		37.5	48.0	
3.430	38.0		38.0	48.0	
4.140	30.5		30.5	48.0	
5.495	25.5		25.5	48.0	
6.540	36.3		36.3	48.0	
7.060	37.9		37.9	48.0	
8.695	40.0		40.0	48.0	
9.325	37.4		37.4	48.0	
10.985	32.9		32.9	48.0	
13.080	30.9		30.9	48.0	
15.450	24.1		24.1	48.0	

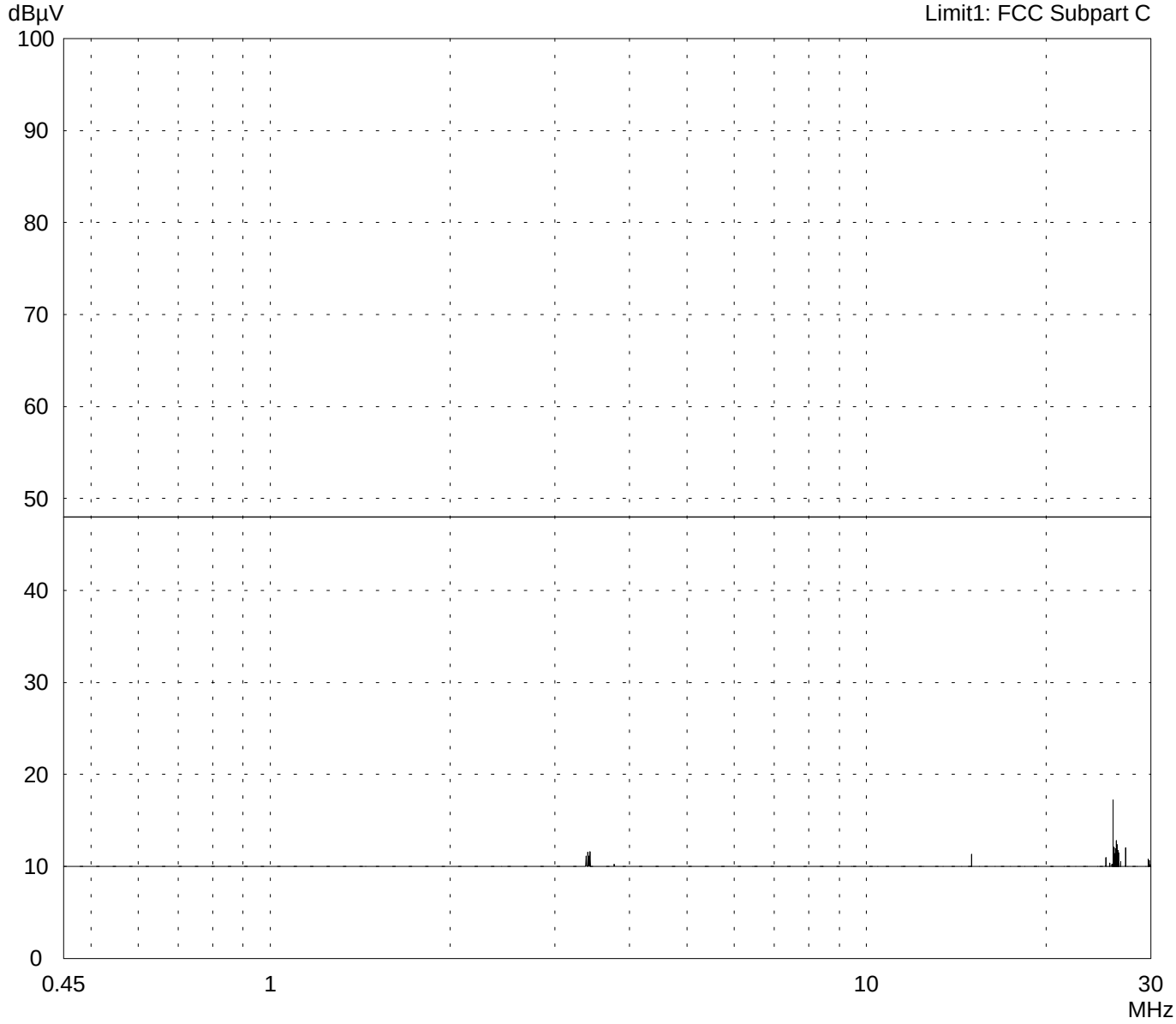
Result:
Limit kept

Project file:
56305-00323-1

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 83 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

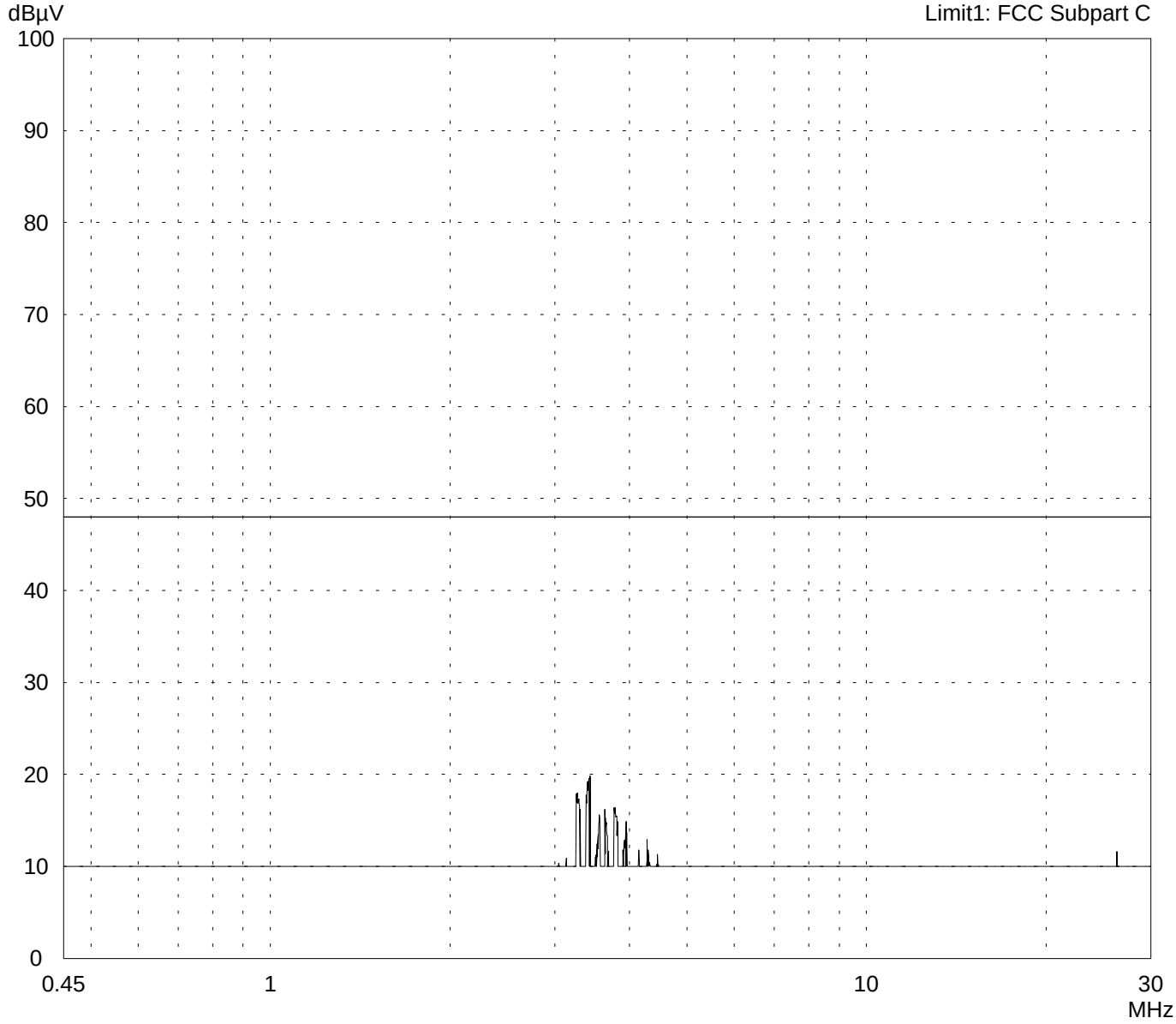
Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

Result: Limit kept	Project file: 56305-00323-1

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 85 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 — Operator: R. Heller	
Test performed: automatically — File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin — 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

Result: Limit kept	Project file: 56305-00323-1

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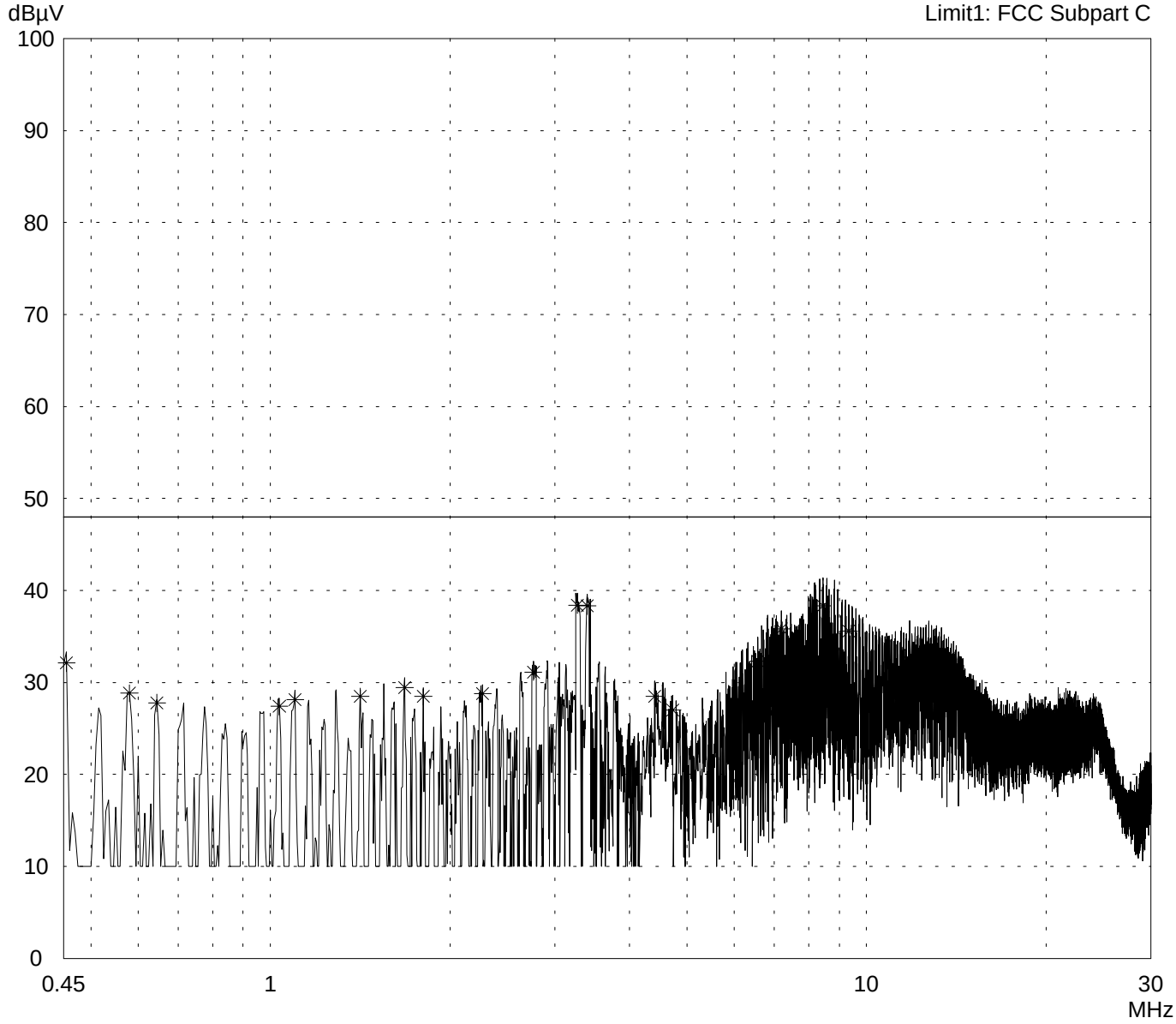
Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 87 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase L1

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.442 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.455	32.1		32.1	48.0	
0.580	28.8		28.8	48.0	
0.645	27.8		27.8	48.0	
1.035	27.4		27.4	48.0	
1.100	28.1		28.1	48.0	
1.415	28.5		28.5	48.0	
1.680	29.4		29.4	48.0	
1.805	28.5		28.5	48.0	
2.270	28.8		28.8	48.0	
2.760	31.1		31.1	48.0	
3.270	38.4		38.4	48.0	
3.400	38.3		38.3	48.0	
4.410	28.5		28.5	48.0	
4.730	27.0		27.0	48.0	
6.575	32.3		32.3	48.0	
7.200	35.9		35.9	48.0	
8.450	38.3		38.3	48.0	
9.340	35.6		35.6	48.0	
11.825	32.2		32.2	48.0	
13.115	31.5		31.5	48.0	
15.620	26.2		26.2	48.0	
20.955	23.6		23.6	48.0	
21.605	23.5		23.5	48.0	

Result:
Limit kept

Project file:
56305-00323-1

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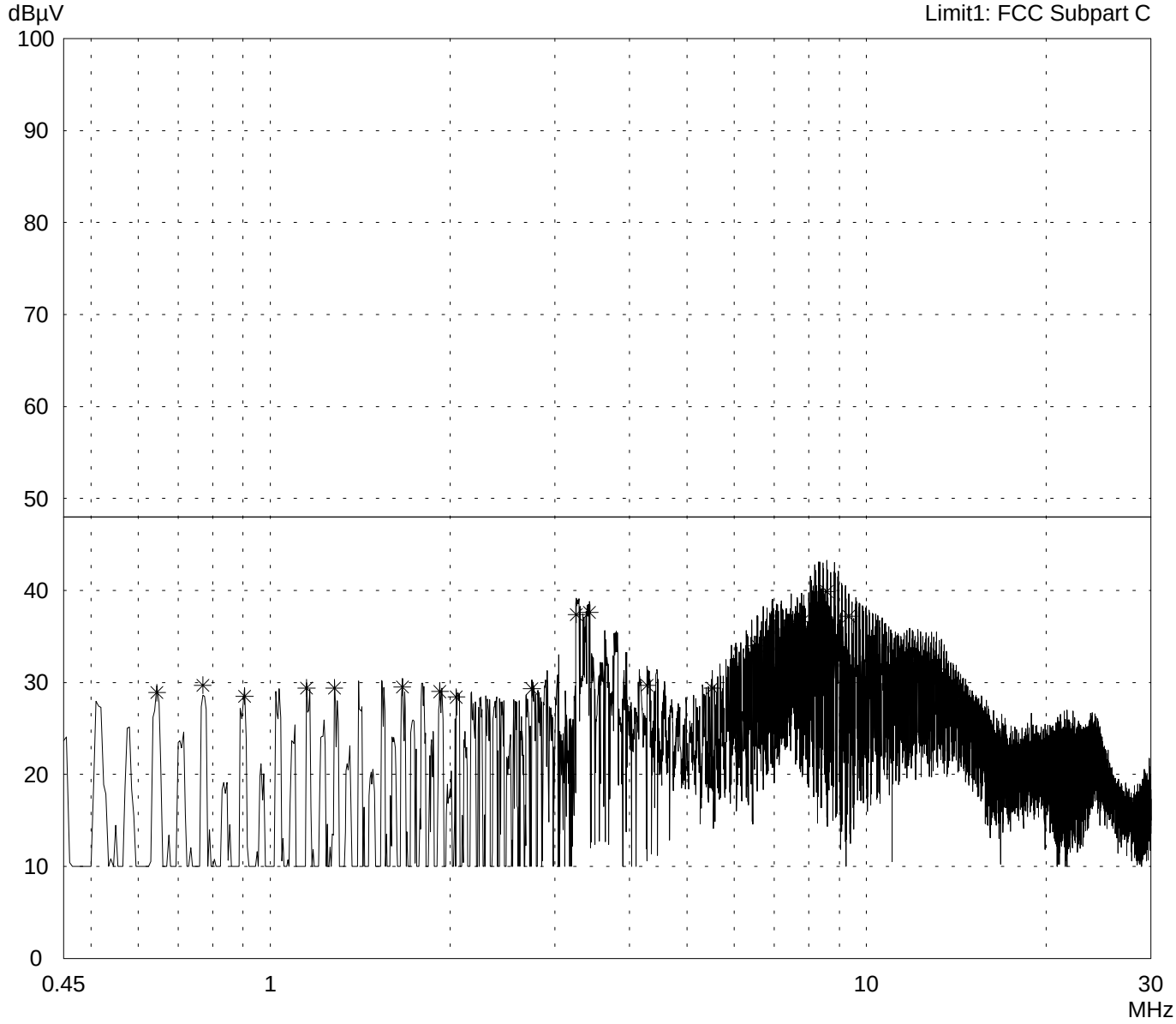
Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 89 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase N

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.442 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.645	28.9		28.9	48.0	
0.770	29.7		29.7	48.0	
0.905	28.5		28.5	48.0	
1.150	29.4		29.4	48.0	
1.280	29.4		29.4	48.0	
1.665	29.5		29.5	48.0	
1.925	29.0		29.0	48.0	
2.050	28.4		28.4	48.0	
2.745	29.3		29.3	48.0	
3.260	37.4		37.4	48.0	
3.430	37.6		37.6	48.0	
4.285	29.7		29.7	48.0	
5.515	29.4		29.4	48.0	
6.555	34.0		34.0	48.0	
7.790	36.6		36.6	48.0	
8.575	39.9		39.9	48.0	
9.345	37.2		37.2	48.0	
11.820	32.0		32.0	48.0	
13.110	30.8		30.8	48.0	
15.580	24.5		24.5	48.0	

Result:
Limit kept

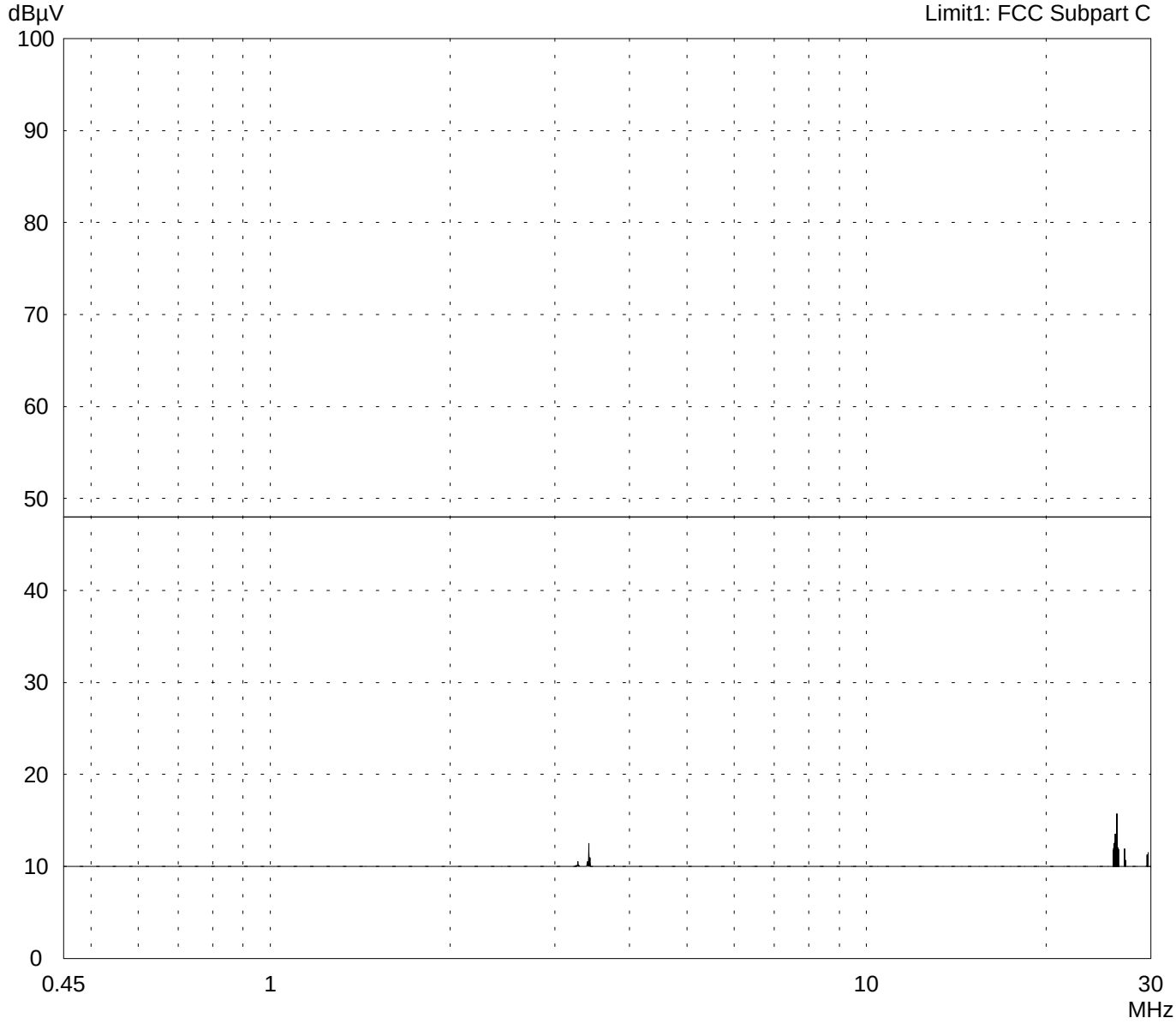
Project file:
56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 91 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

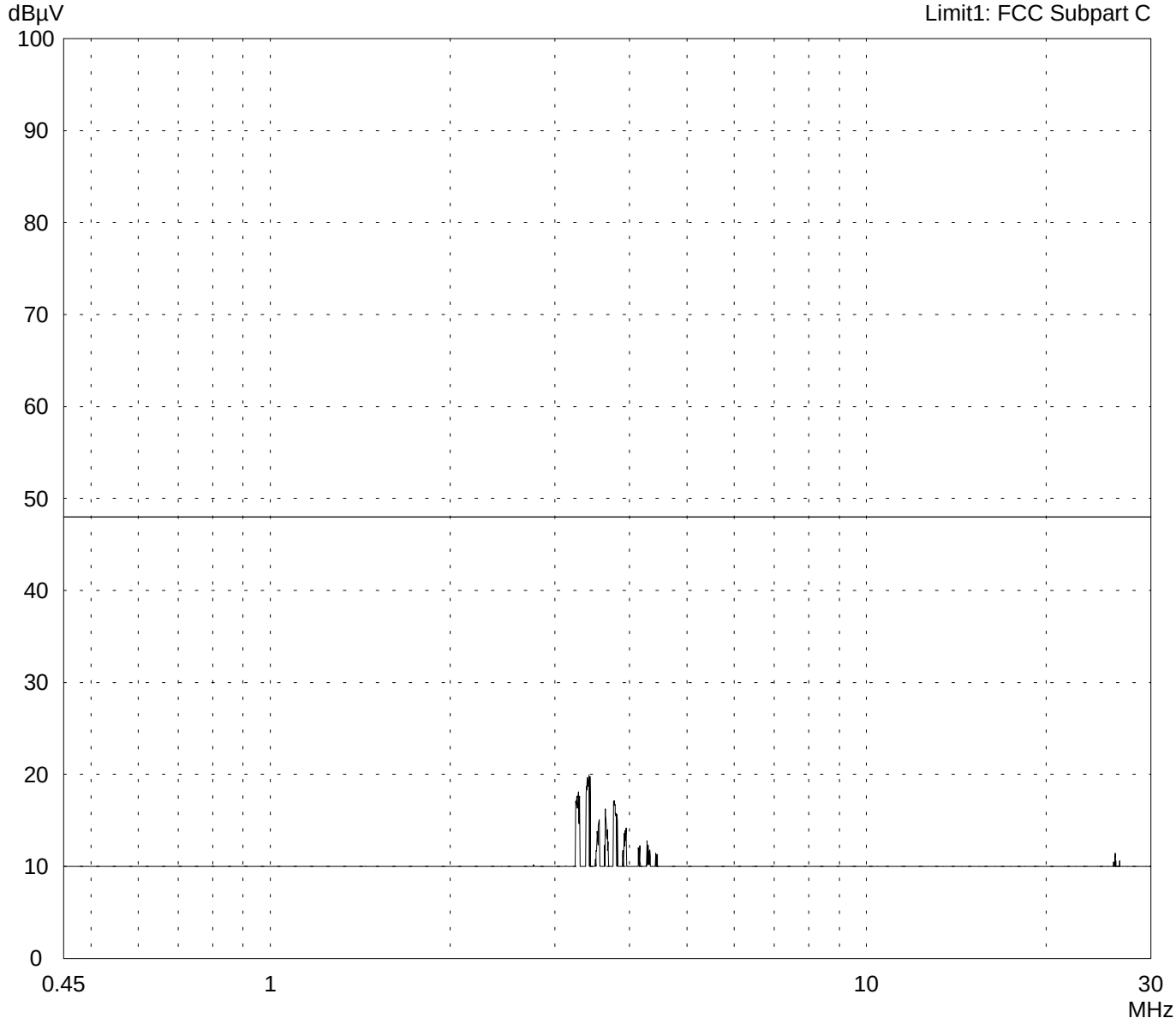
Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

Result: Limit kept	Project file: 56305-00323-1

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 93 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

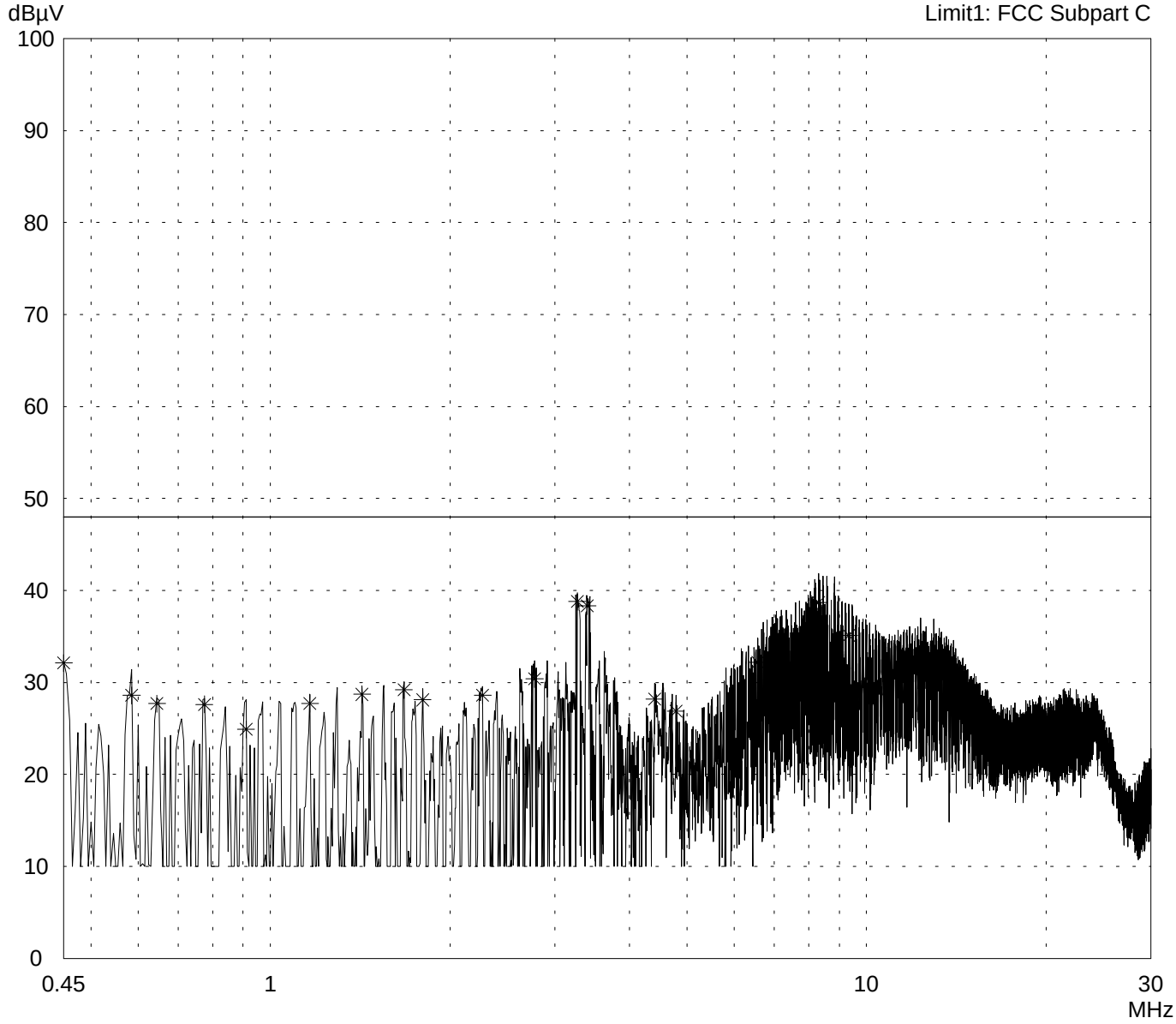
Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase L1	
Date of test: 07/12/2000 — Operator: R. Heller	
Test performed: automatically — File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin — 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 — Page 95 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase L1

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.462 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.450	32.1		32.1	48.0	
0.585	28.6		28.6	48.0	
0.645	27.7		27.7	48.0	
0.775	27.6		27.6	48.0	
0.910	24.9		24.9	48.0	
1.165	27.7		27.7	48.0	
1.425	28.7		28.7	48.0	
1.675	29.2		29.2	48.0	
1.800	28.1		28.1	48.0	
2.270	28.6		28.6	48.0	
2.775	30.4		30.4	48.0	
3.270	38.8		38.8	48.0	
3.403	38.3		38.3	48.0	
4.410	28.2		28.2	48.0	
4.790	26.9		26.9	48.0	
6.570	32.2		32.2	48.0	
7.725	35.2		35.2	48.0	
8.320	38.7		38.7	48.0	
9.340	35.1		35.1	48.0	
12.335	32.2		32.2	48.0	
12.980	32.1		32.1	48.0	
15.490	26.0		26.0	48.0	
21.385	23.5		23.5	48.0	
21.950	23.6		23.6	48.0	

Result:
Limit kept

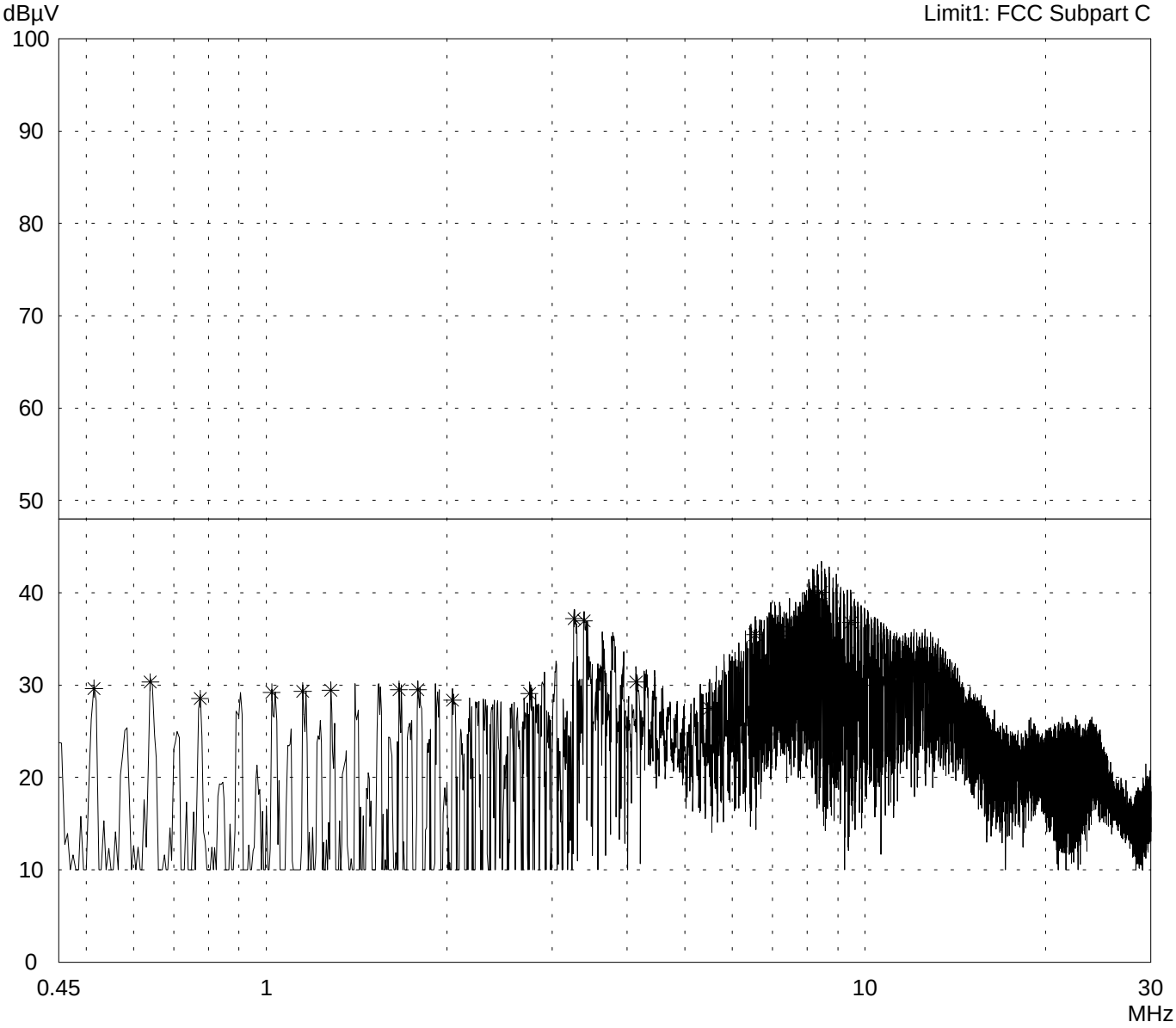
Project file:
56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 97 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase N

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.462 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.515	29.6		29.6	48.0	
0.640	30.3		30.3	48.0	
0.775	28.5		28.5	48.0	
1.020	29.2		29.2	48.0	
1.150	29.3		29.3	48.0	
1.280	29.4		29.4	48.0	
1.665	29.5		29.5	48.0	
1.790	29.5		29.5	48.0	
2.045	28.4		28.4	48.0	
2.750	29.1		29.1	48.0	
3.265	37.2		37.2	48.0	
3.390	36.9		36.9	48.0	
4.145	30.4		30.4	48.0	
5.505	27.5		27.5	48.0	
6.550	35.5		35.5	48.0	
7.470	35.9		35.9	48.0	
8.450	40.0		40.0	48.0	
9.465	36.8		36.8	48.0	
12.080	31.9		31.9	48.0	
12.970	31.1		31.1	48.0	
15.615	24.1		24.1	48.0	

Result:
Limit kept

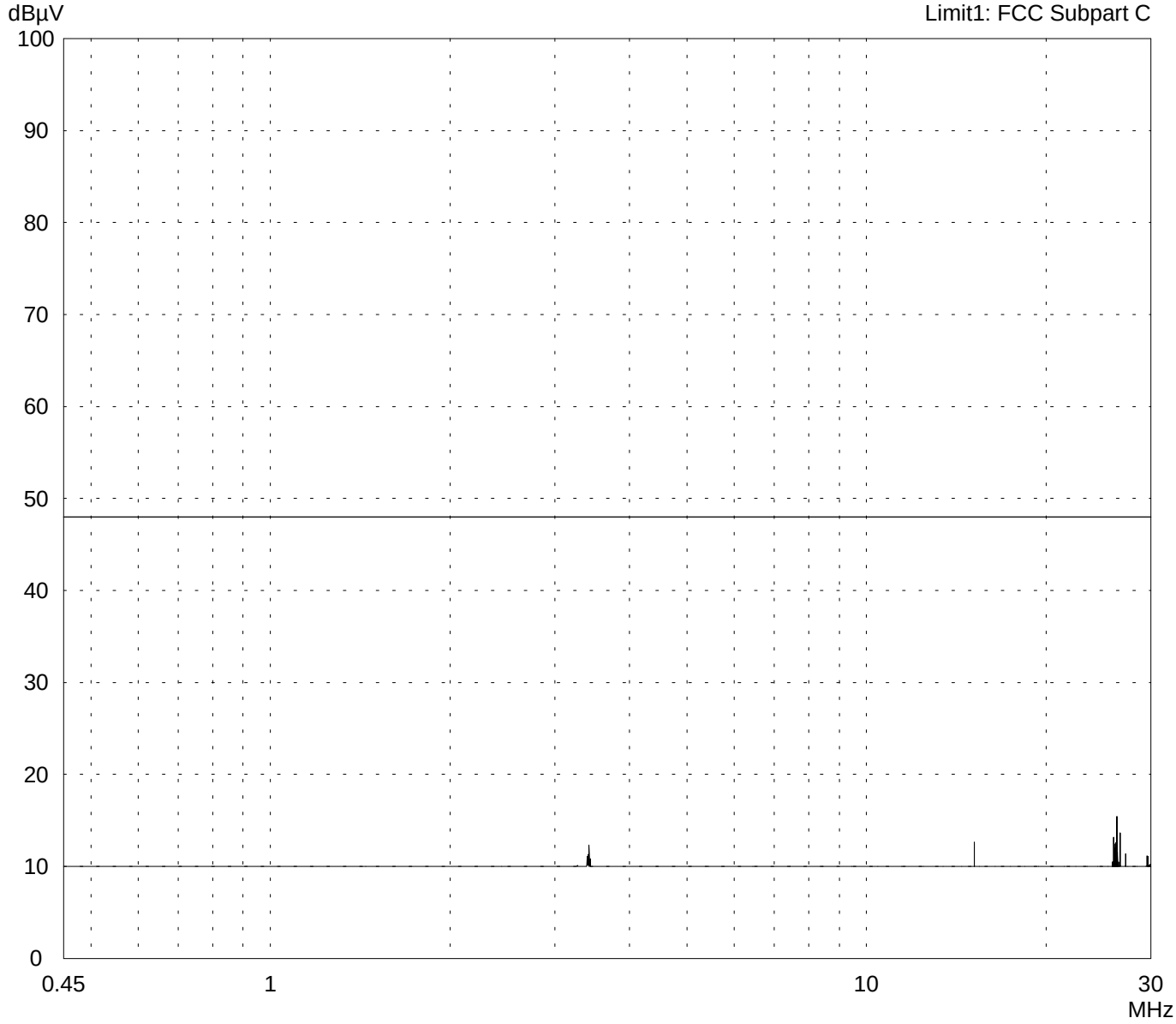
Project file:
56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 99 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

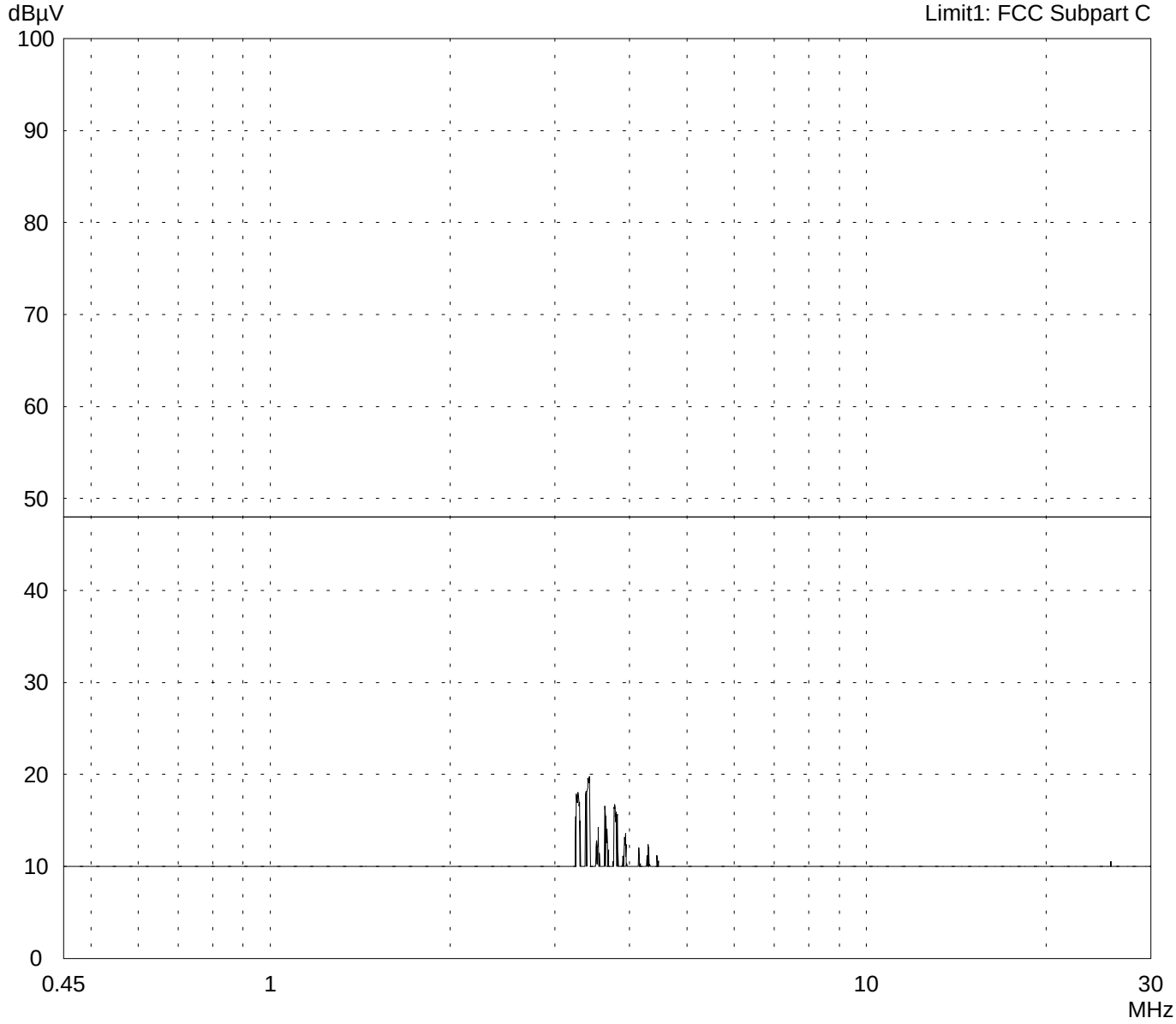
Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

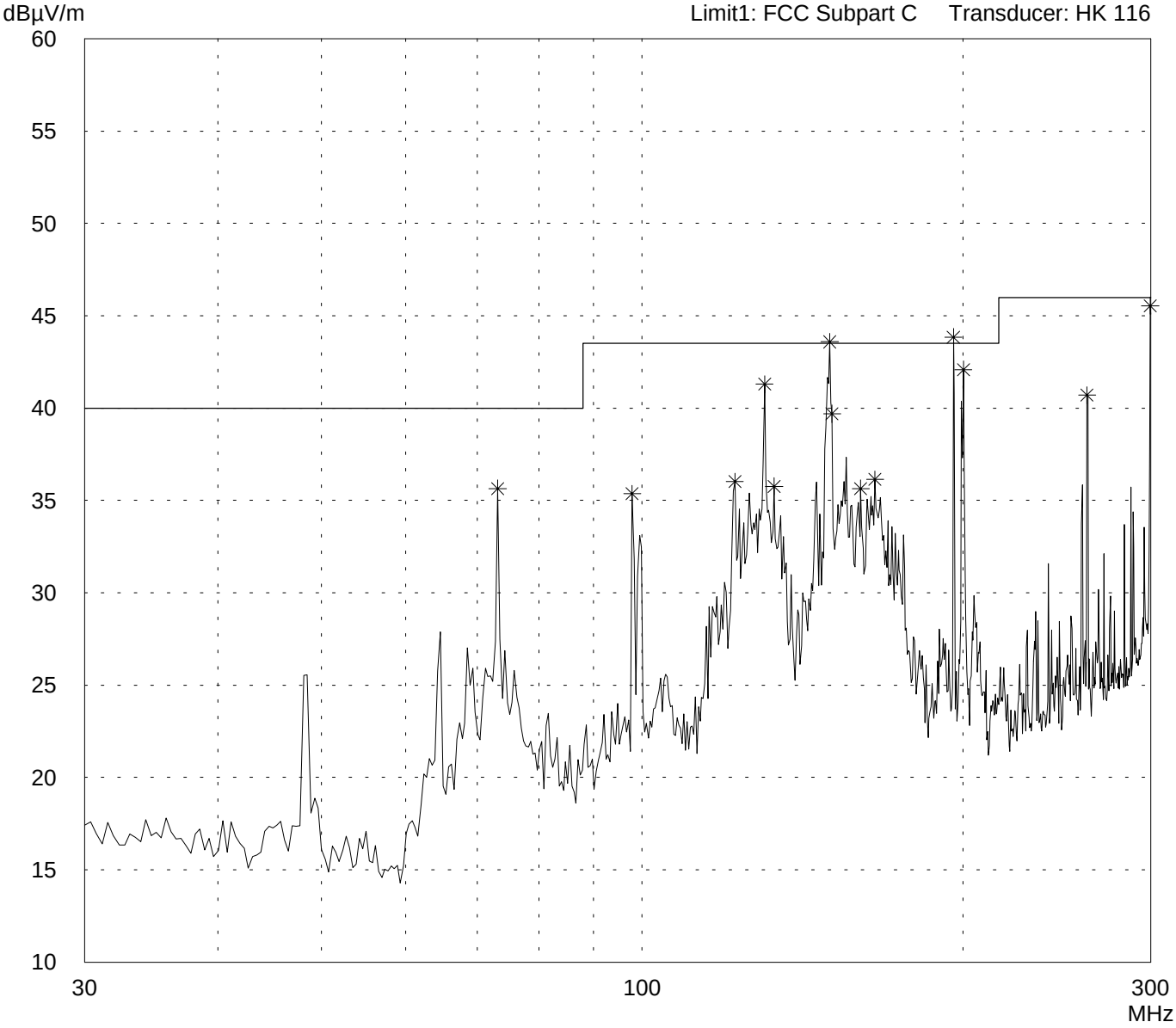
Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

Result: Limit kept	Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



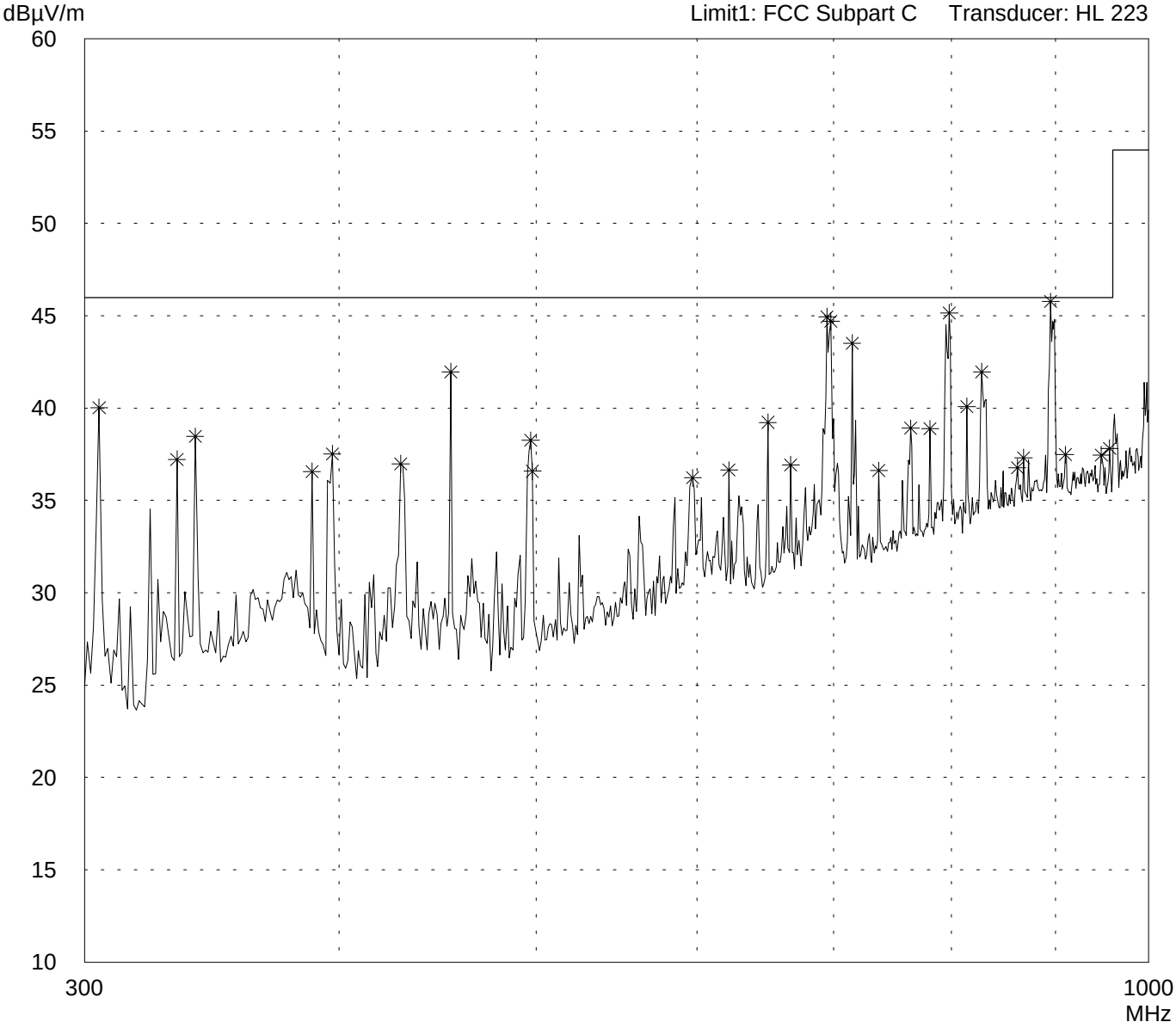
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



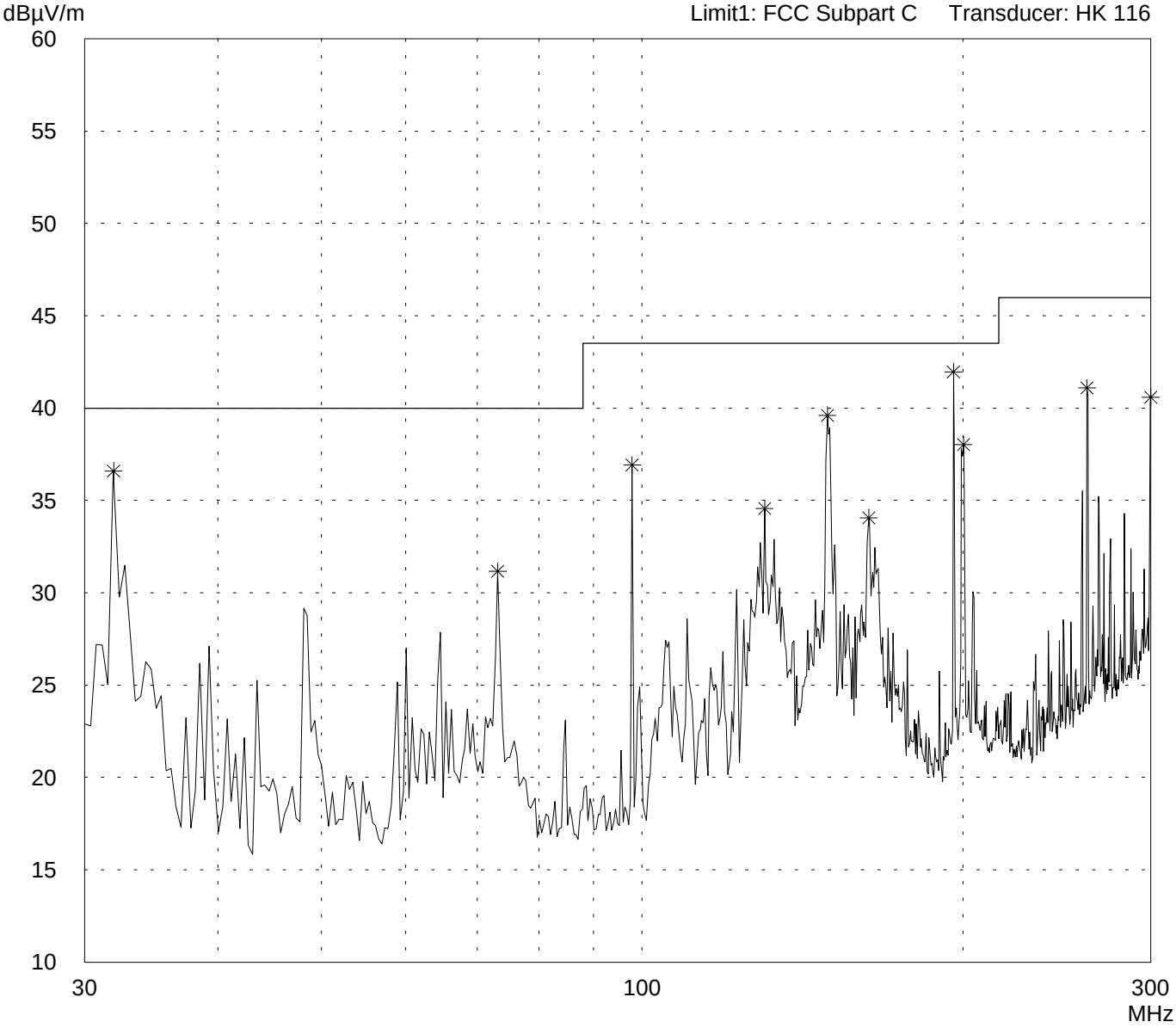
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



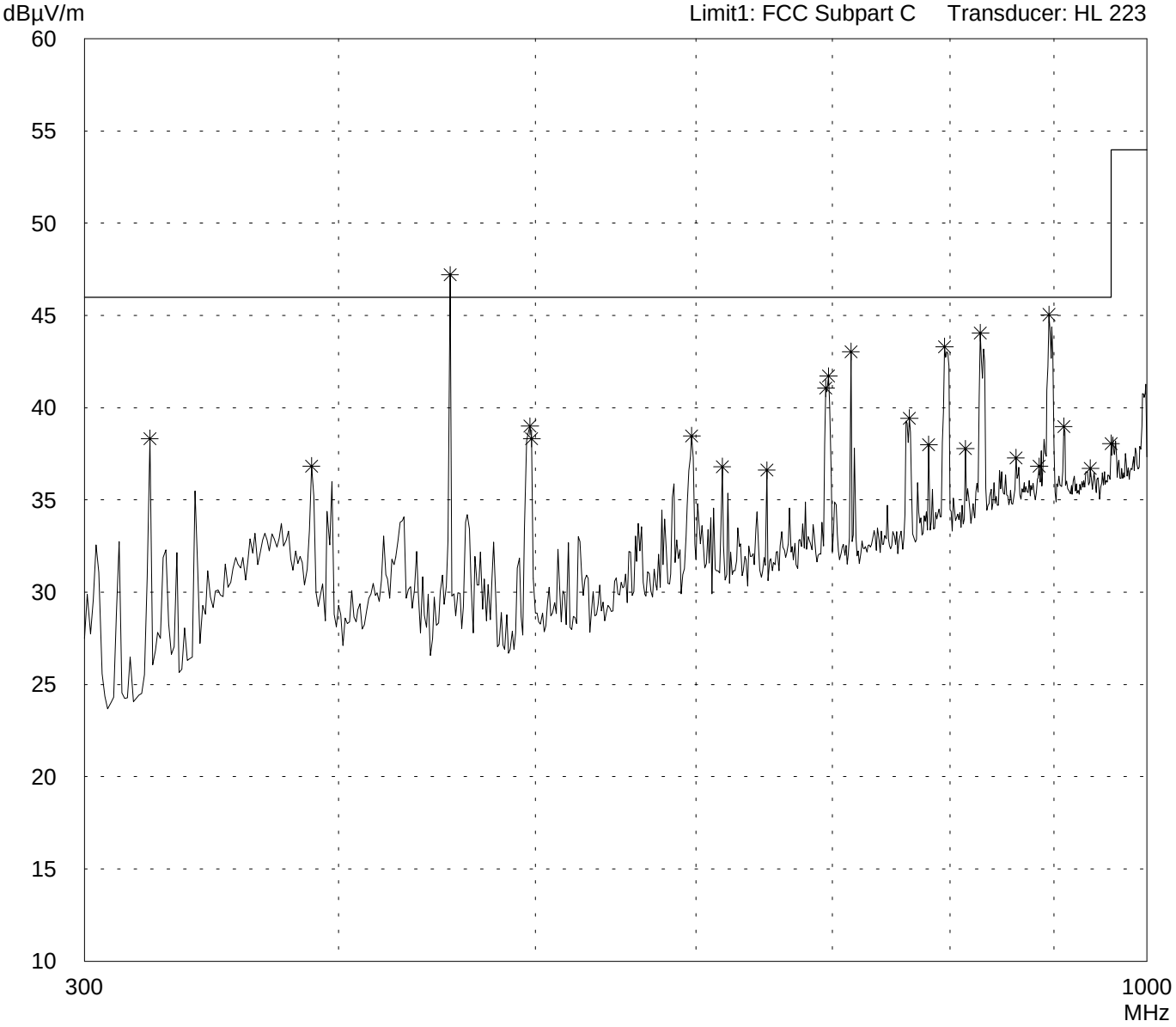
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges

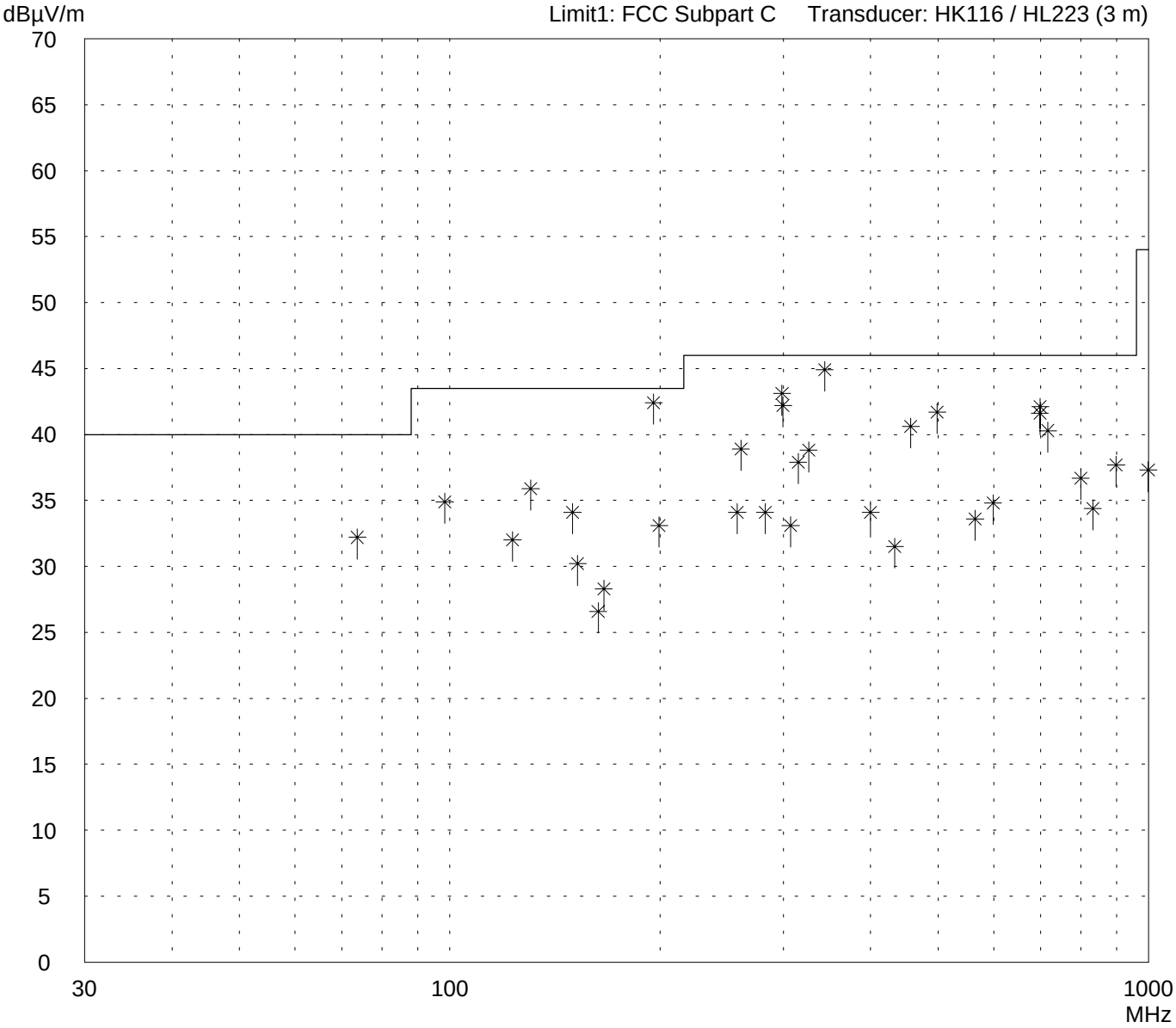


Result: Prescan	Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Horizontal Polarization

Date of test: 07/12/2000

Operator: R. Heller

Test performed: by hand

File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.412 GHz

Detector: Quasi-Peak

List of values: Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	23.0	11.9	34.9	43.5	
122.9	17.5	14.5	32.0	43.5	
130.5	21.0	14.9	35.9	43.5	
149.8	18.0	16.1	34.1	43.5	
152.3	14.0	16.2	30.2	43.5	
163.0	10.0	16.6	26.6	43.5	
166.0	11.5	16.8	28.3	43.5	
195.7	24.0	18.4	42.4	43.5	
199.2	14.5	18.6	33.1	43.5	
257.7	13.0	21.1	34.1	46.0	
260.9	17.5	21.4	38.9	46.0	
282.6	10.5	23.6	34.1	46.0	
298.8	18.0	25.1	43.1	46.0	
299.7	17.0	25.2	42.2	46.0	
307.2	14.0	19.1	33.1	46.0	
315.0	18.5	19.4	37.9	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	24.5	20.4	44.9	46.0	
400.0	12.0	22.1	34.1	46.0	
433.3	8.5	23.0	31.5	46.0	
456.6	17.0	23.6	40.6	46.0	
498.4	17.0	24.7	41.7	46.0	
564.3	7.5	26.1	33.6	46.0	
599.1	8.0	26.8	34.8	46.0	
698.7	11.5	30.1	41.6	46.0	
699.5	12.0	30.1	42.1	46.0	
717.5	10.0	30.3	40.3	46.0	
799.1	5.5	31.2	36.7	46.0	
831.9	2.5	31.9	34.4	46.0	
898.3	4.5	33.2	37.7	46.0	
998.8	2.5	34.8	37.3	54.0	

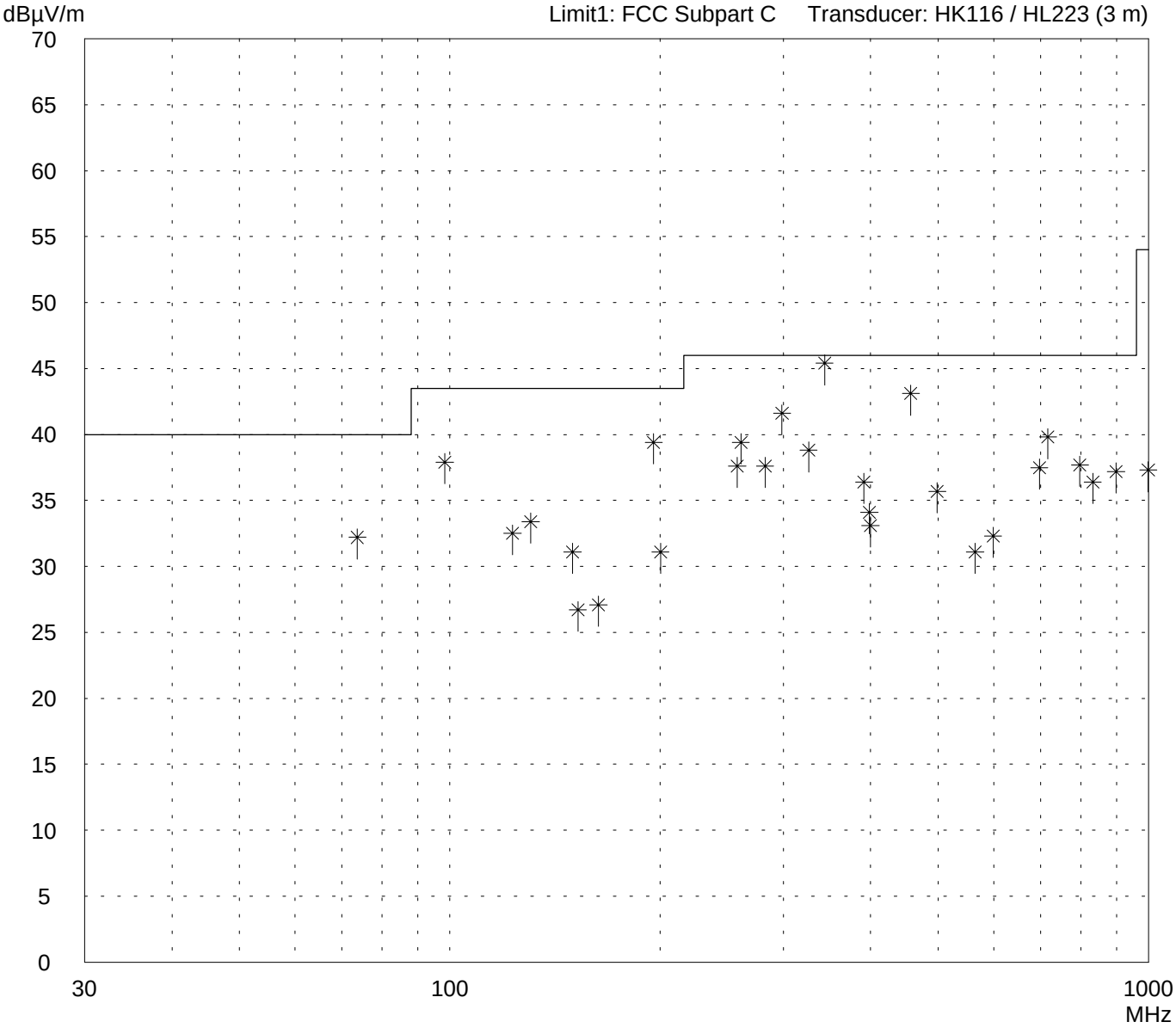
Result: Limit kept

Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Vertical Polarization

Date of test: 07/12/2000
Operator: R. Heller

Test performed: by hand
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.412 GHz

Detector:
Quasi-Peak

List of values:
Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	26.0	11.9	37.9	43.5	
122.9	18.0	14.5	32.5	43.5	
130.5	18.5	14.9	33.4	43.5	
149.8	15.0	16.1	31.1	43.5	
152.4	10.5	16.2	26.7	43.5	
163.1	10.5	16.6	27.1	43.5	
195.7	21.0	18.4	39.4	43.5	
200.2	12.5	18.6	31.1	43.5	
257.7	16.5	21.1	37.6	46.0	
260.9	18.0	21.4	39.4	46.0	
282.6	14.0	23.6	37.6	46.0	
298.8	16.5	25.1	41.6	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	25.0	20.4	45.4	46.0	
391.4	14.5	21.9	36.4	46.0	
398.4	12.0	22.1	34.1	46.0	
399.9	11.0	22.1	33.1	46.0	
456.6	19.5	23.6	43.1	46.0	
498.4	11.0	24.7	35.7	46.0	
564.3	5.0	26.1	31.1	46.0	
599.1	5.5	26.8	32.3	46.0	
697.4	7.5	30.0	37.5	46.0	
717.5	9.5	30.3	39.8	46.0	
797.4	6.5	31.2	37.7	46.0	
831.9	4.5	31.9	36.4	46.0	
898.3	4.0	33.2	37.2	46.0	
998.8	2.5	34.8	37.3	54.0	

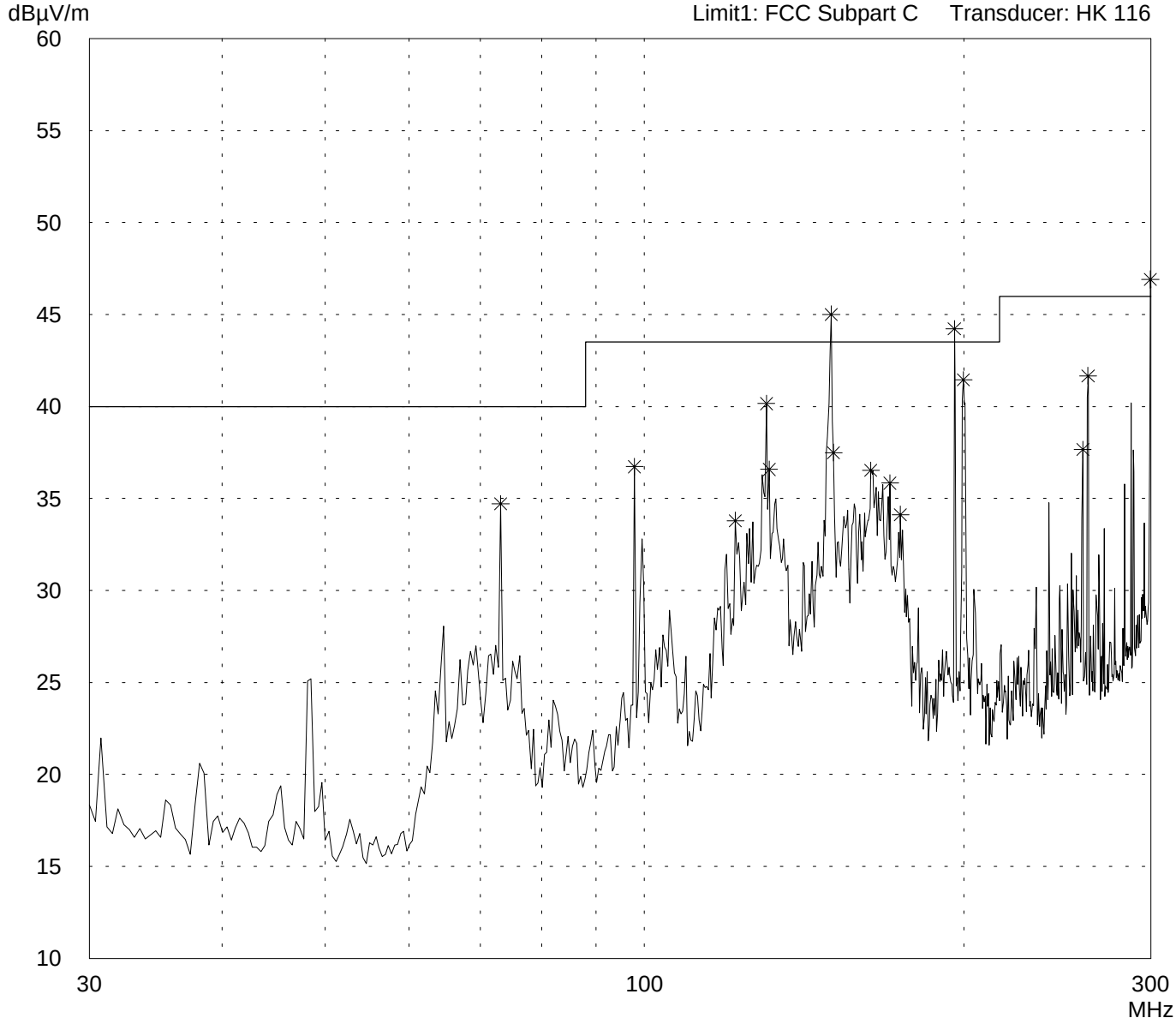
Result:
Limit kept

Project file:
56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges

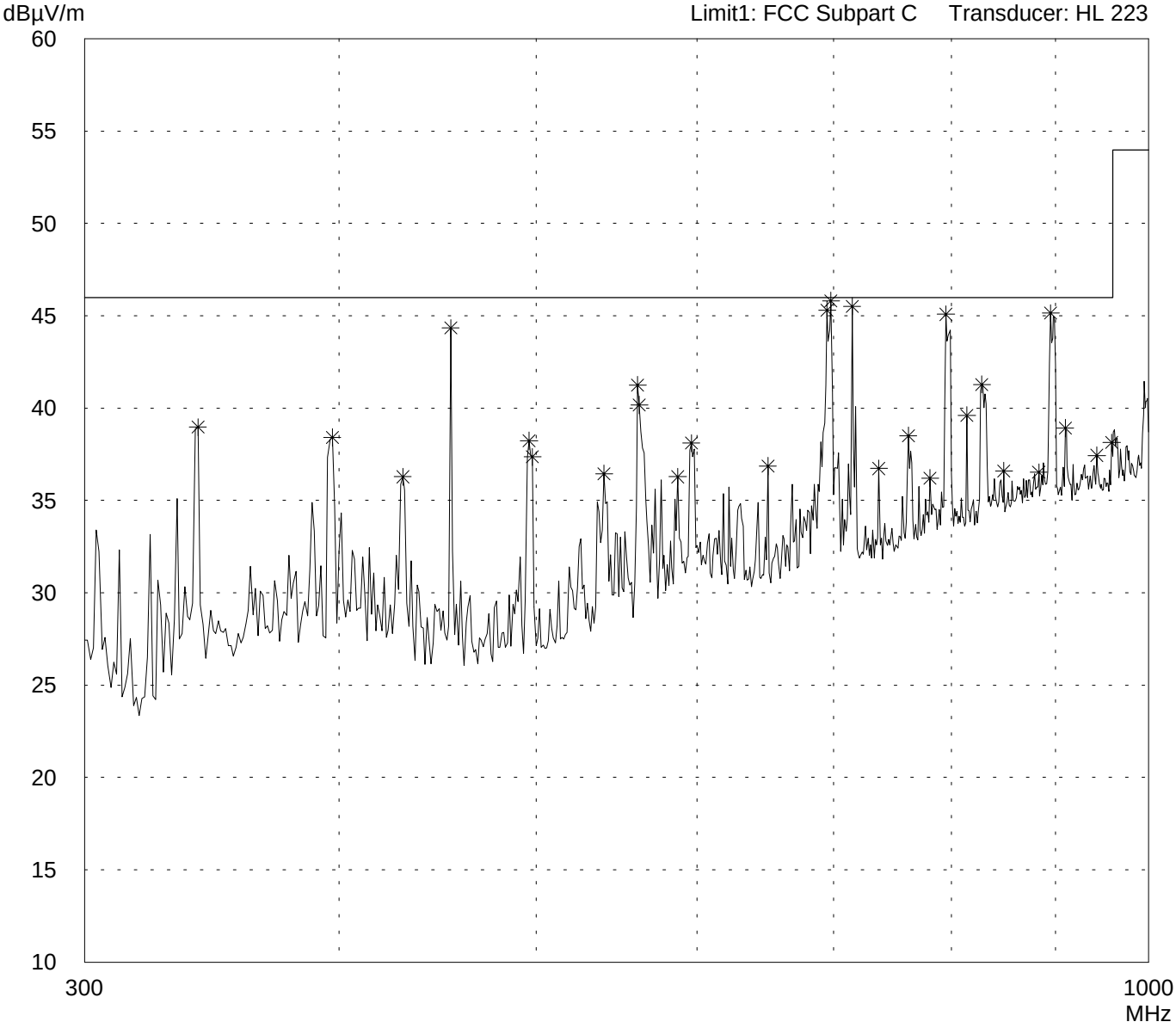


Result: Prescan	Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges

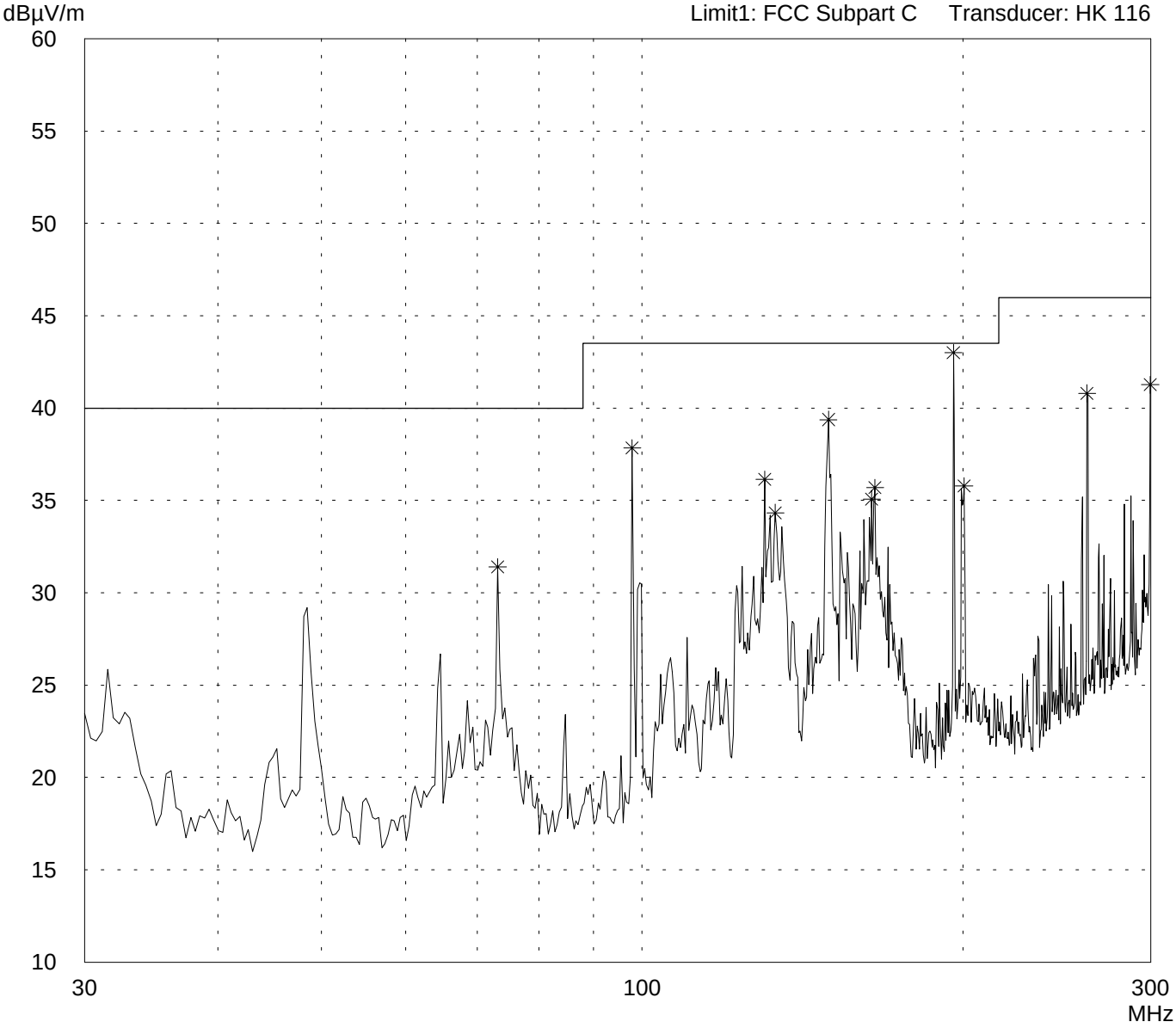


Result: Prescan	Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370
Applicant: Lucent Technologies Nederland B.V.	- FCC test setup
Test site: Semi anechoic room, cabin no. 3	- supply voltage 115 V AC
Tested on: Test distance 3 meters Vertical Polarization	- with external antenna AIN24-OD-0202
Date of test: 07/11/2000 / Operator: R. Heller	- antenna cable mounted in PCMCIA card
Test performed: automatically / File name:	- 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: 56305-00323-1

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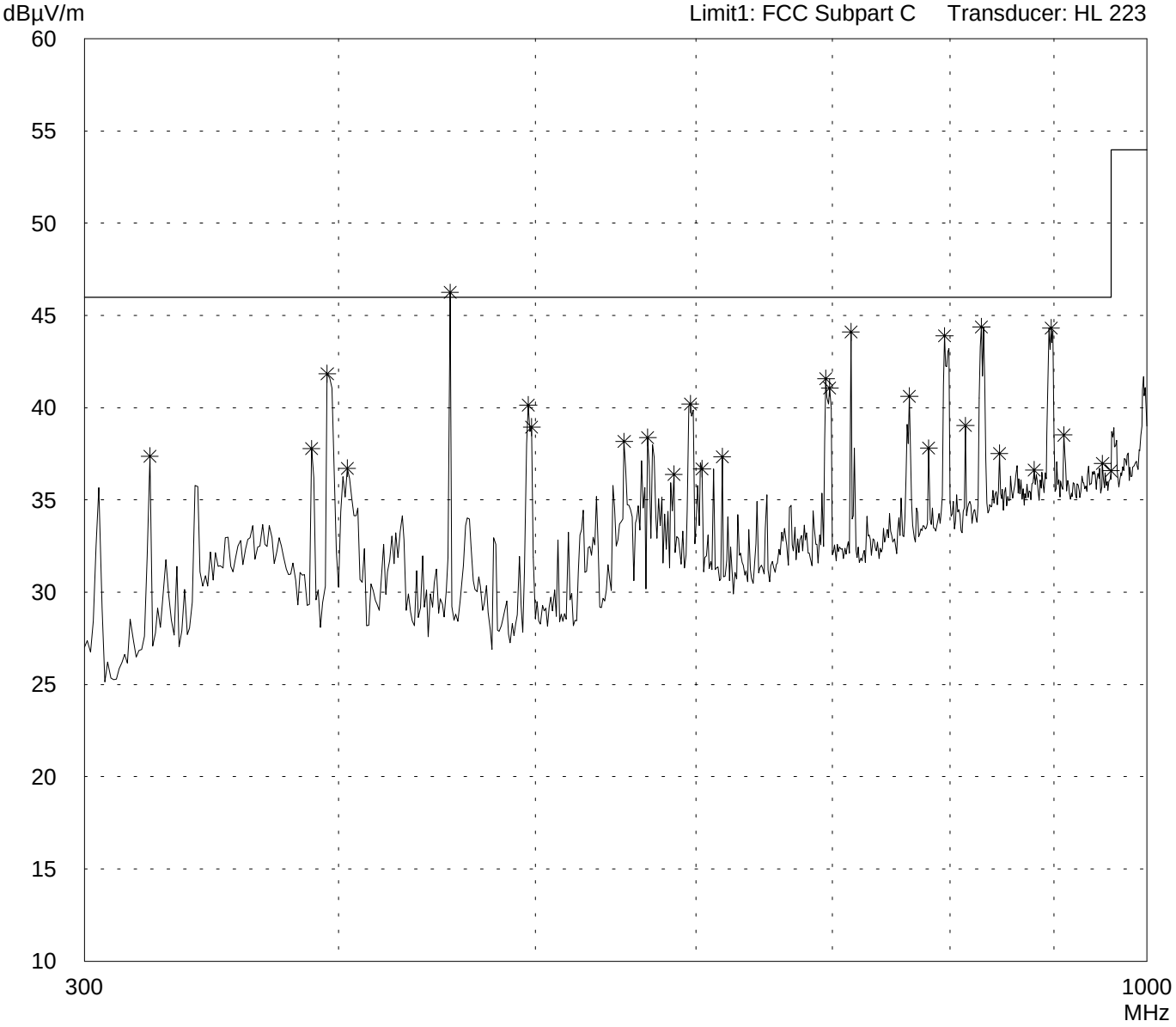
Radiated Emission Test 300 MHz - 1 GHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges



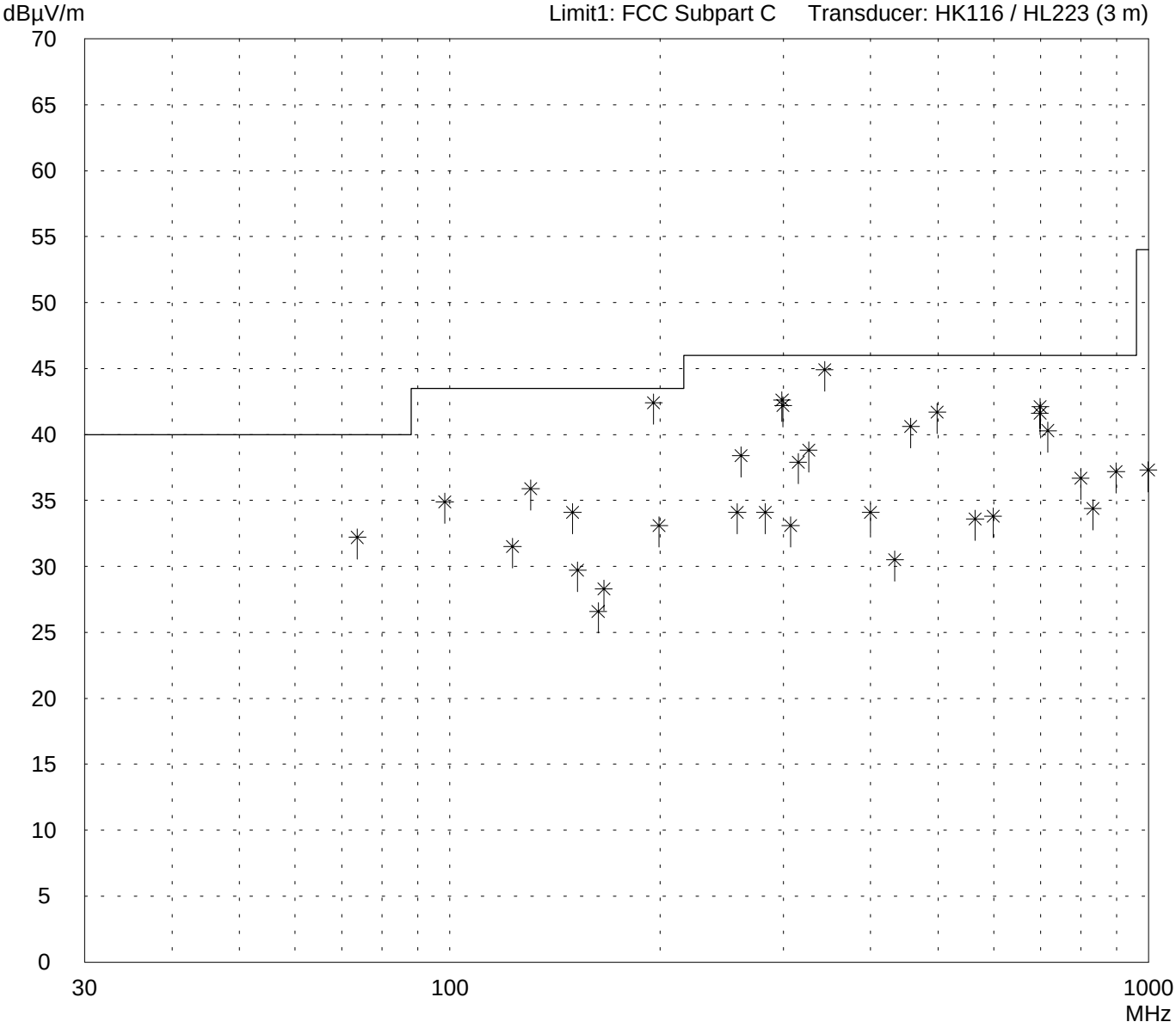
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Horizontal Polarization

Date of test: 07/12/2000

Operator: R. Heller

Test performed: by hand

File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.442 GHz

Detector: Quasi-Peak

List of values: Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	23.0	11.9	34.9	43.5	
122.9	17.0	14.5	31.5	43.5	
130.5	21.0	14.9	35.9	43.5	
149.8	18.0	16.1	34.1	43.5	
152.3	13.5	16.2	29.7	43.5	
163.0	10.0	16.6	26.6	43.5	
166.0	11.5	16.8	28.3	43.5	
195.7	24.0	18.4	42.4	43.5	
199.2	14.5	18.6	33.1	43.5	
257.7	13.0	21.1	34.1	46.0	
260.9	17.0	21.4	38.4	46.0	
282.6	10.5	23.6	34.1	46.0	
298.8	17.5	25.1	42.6	46.0	
299.7	17.0	25.2	42.2	46.0	
307.2	14.0	19.1	33.1	46.0	
315.0	18.5	19.4	37.9	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	24.5	20.4	44.9	46.0	
400.0	12.0	22.1	34.1	46.0	
433.3	7.5	23.0	30.5	46.0	
456.6	17.0	23.6	40.6	46.0	
498.4	17.0	24.7	41.7	46.0	
564.3	7.5	26.1	33.6	46.0	
599.1	7.0	26.8	33.8	46.0	
698.7	11.5	30.1	41.6	46.0	
699.5	12.0	30.1	42.1	46.0	
717.5	10.0	30.3	40.3	46.0	
799.1	5.5	31.2	36.7	46.0	
831.9	2.5	31.9	34.4	46.0	
898.3	4.0	33.2	37.2	46.0	
998.8	2.5	34.8	37.3	54.0	

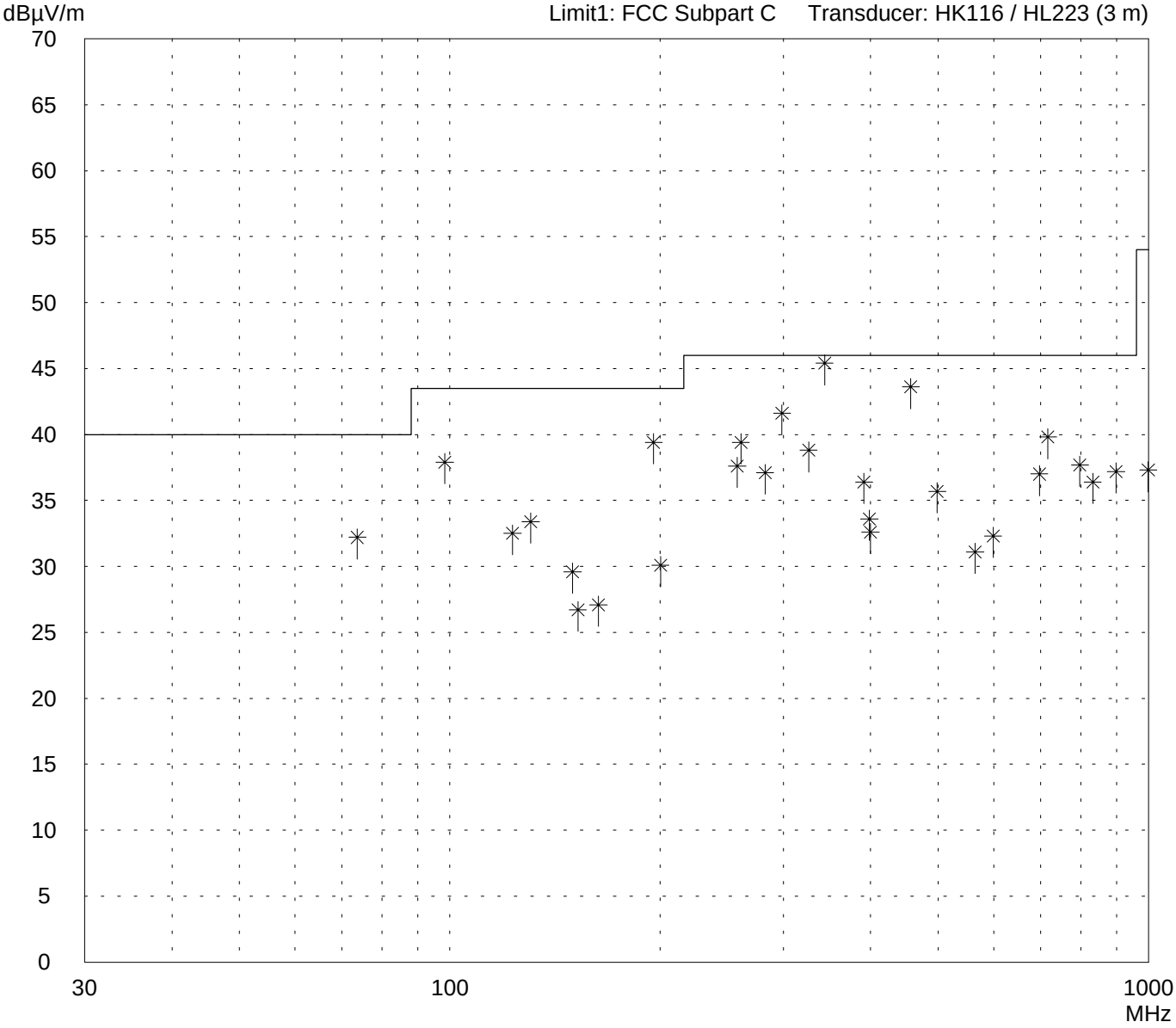
Result: Limit kept

Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Vertical Polarization

Date of test: 07/12/2000

Operator: R. Heller

Test performed: by hand

File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.442 GHz

Detector: Quasi-Peak

List of values: Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	26.0	11.9	37.9	43.5	
122.9	18.0	14.5	32.5	43.5	
130.5	18.5	14.9	33.4	43.5	
149.8	13.5	16.1	29.6	43.5	
152.4	10.5	16.2	26.7	43.5	
163.1	10.5	16.6	27.1	43.5	
195.7	21.0	18.4	39.4	43.5	
200.2	11.5	18.6	30.1	43.5	
257.7	16.5	21.1	37.6	46.0	
260.9	18.0	21.4	39.4	46.0	
282.6	13.5	23.6	37.1	46.0	
298.8	16.5	25.1	41.6	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	25.0	20.4	45.4	46.0	
391.4	14.5	21.9	36.4	46.0	
398.4	11.5	22.1	33.6	46.0	
399.9	10.5	22.1	32.6	46.0	
456.6	20.0	23.6	43.6	46.0	
498.4	11.0	24.7	35.7	46.0	
564.3	5.0	26.1	31.1	46.0	
599.1	5.5	26.8	32.3	46.0	
697.4	7.0	30.0	37.0	46.0	
717.5	9.5	30.3	39.8	46.0	
797.4	6.5	31.2	37.7	46.0	
831.9	4.5	31.9	36.4	46.0	
898.3	4.0	33.2	37.2	46.0	
998.8	2.5	34.8	37.3	54.0	

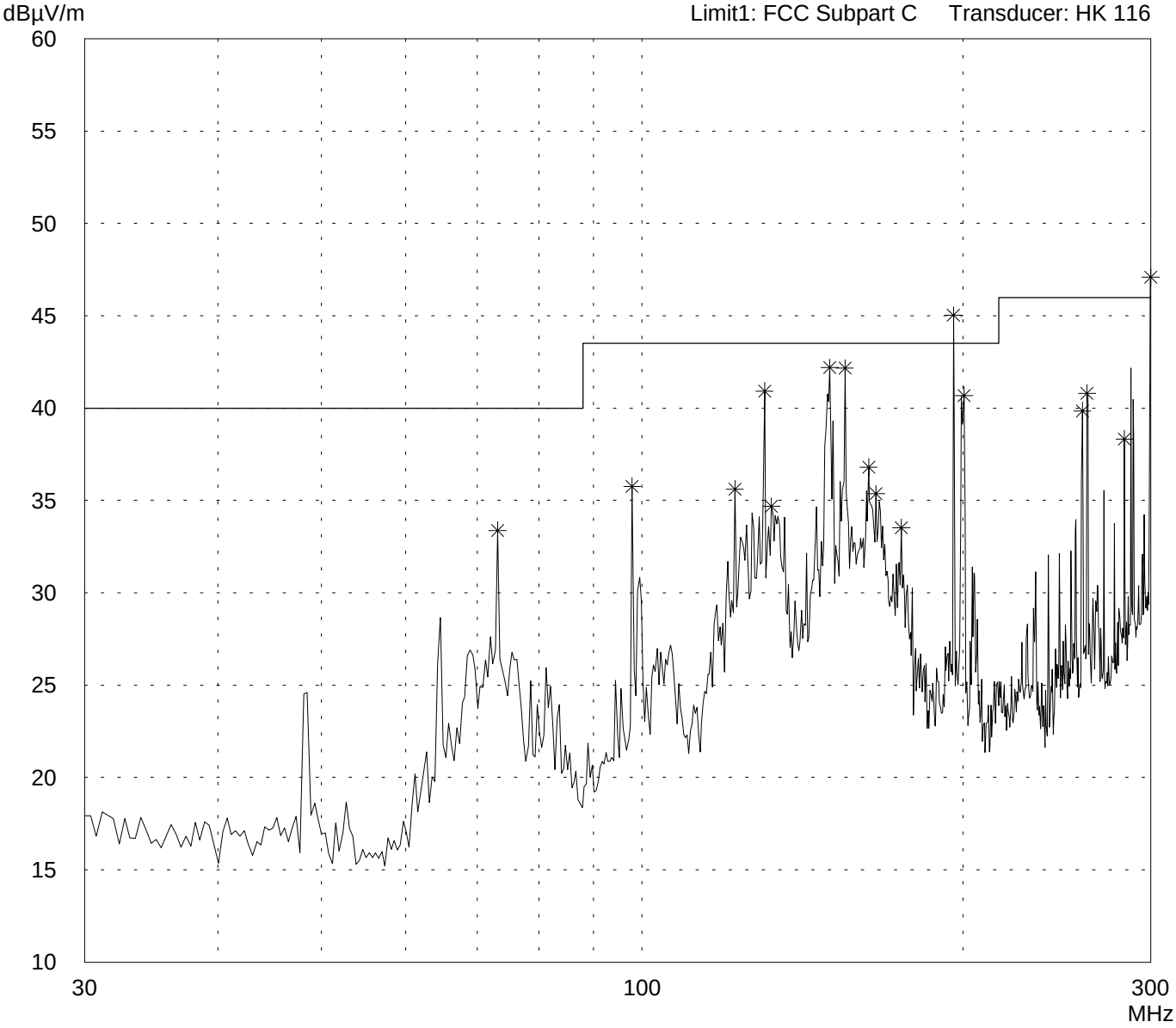
Result: Limit kept

Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



Result: Prescan	Project file: 56305-00323-1

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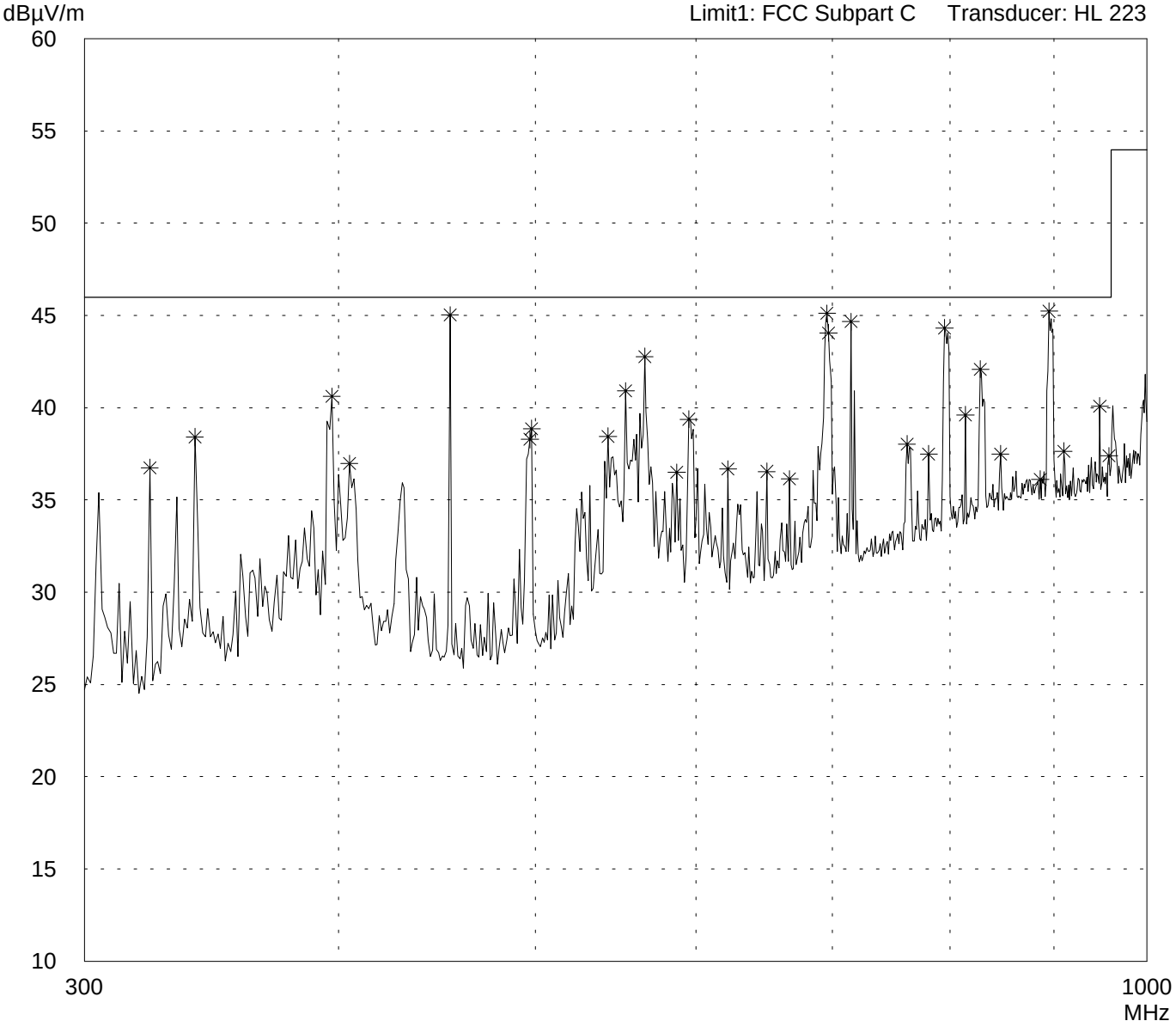
Radiated Emission Test 300 MHz - 1 GHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



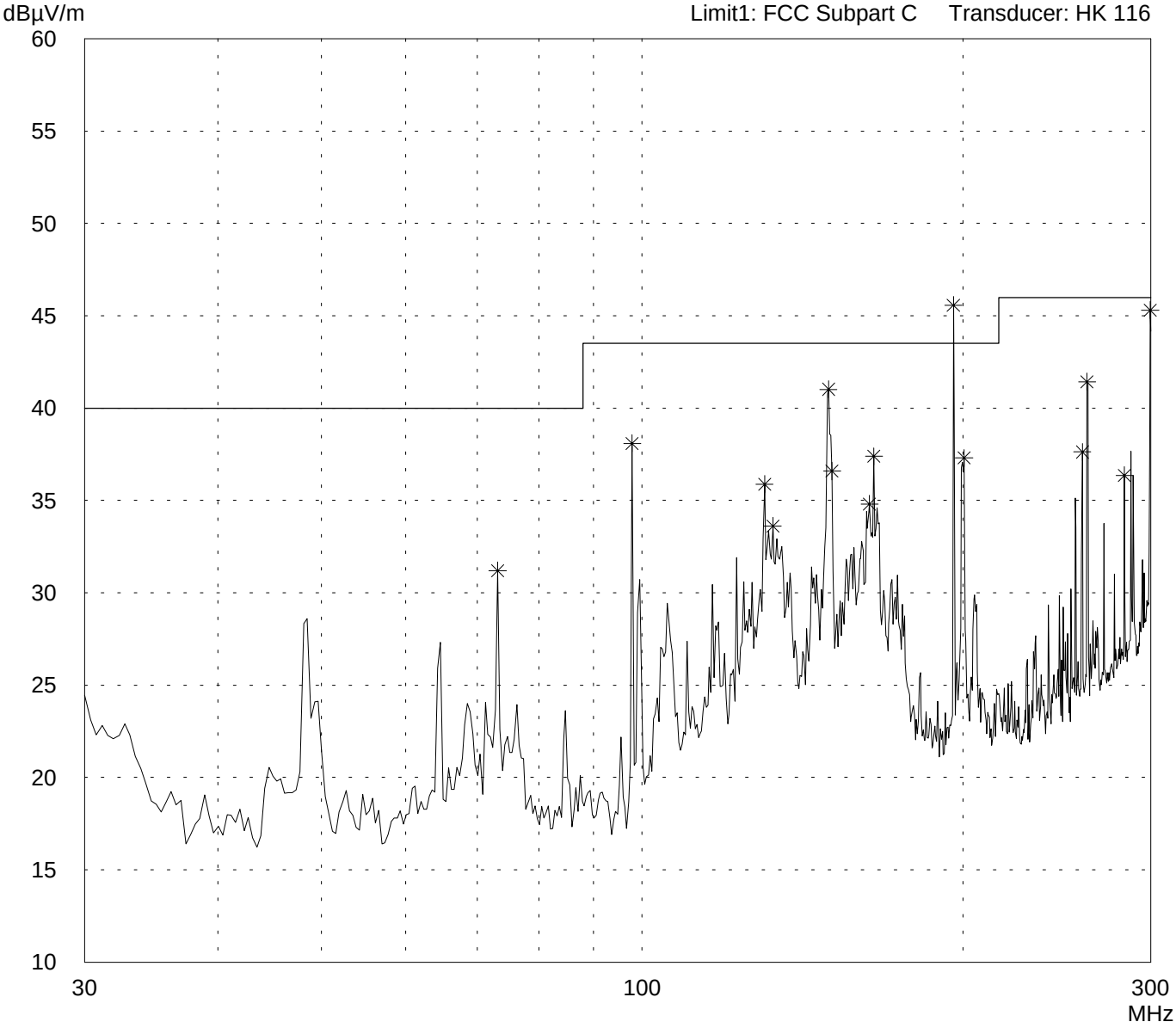
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin / 50 Subranges



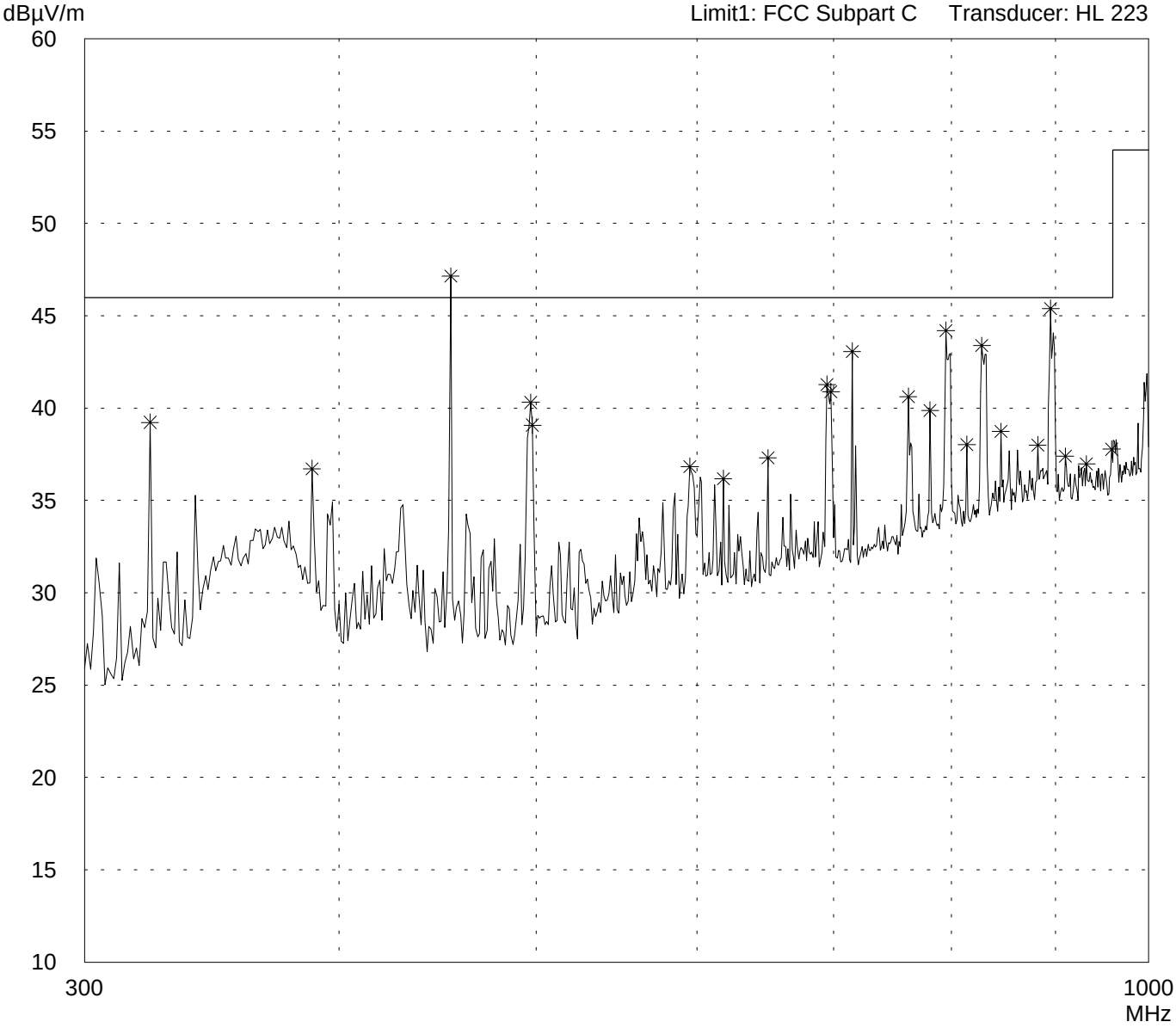
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges



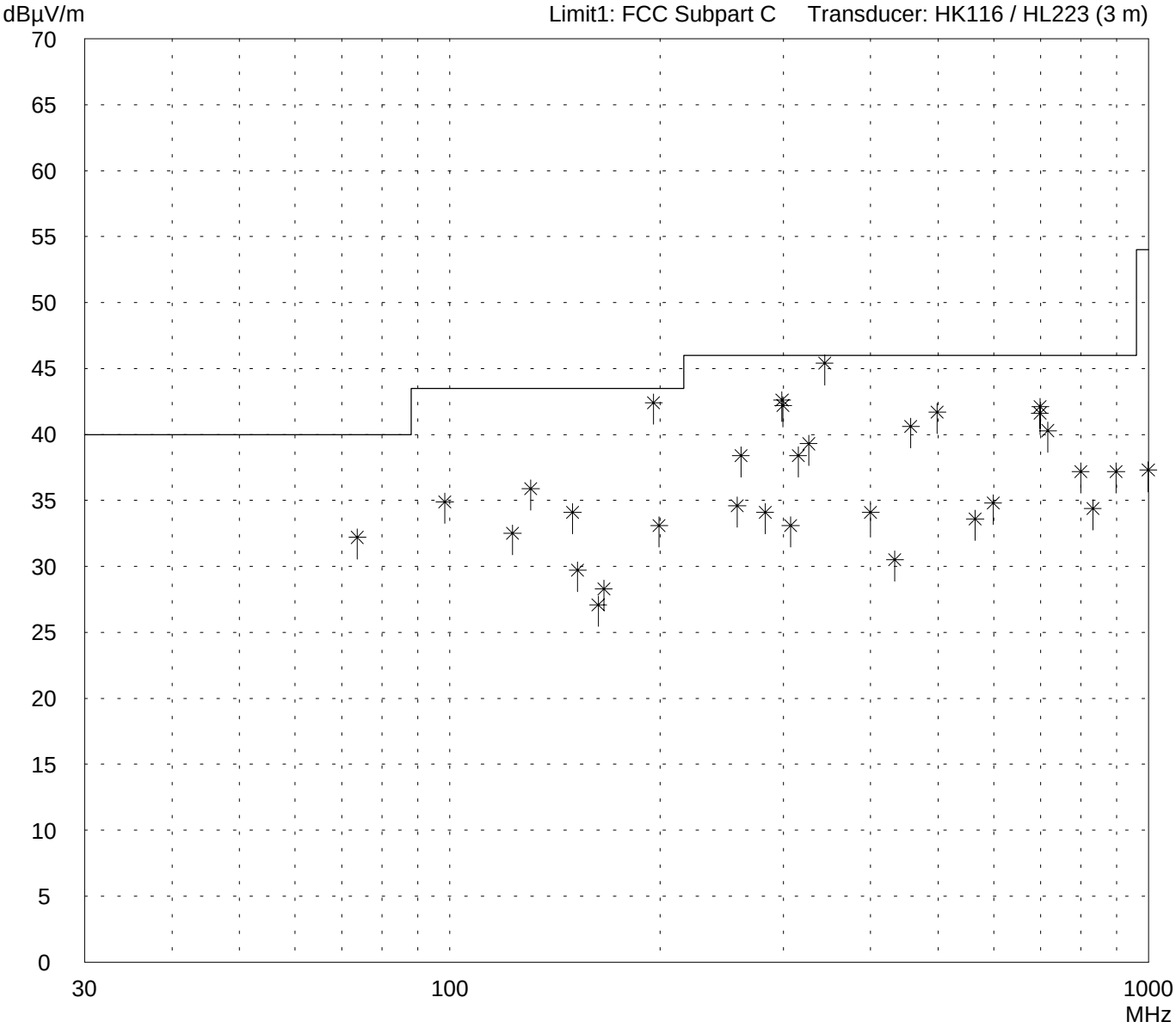
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Horizontal Polarization

Date of test: 07/12/2000

Operator: R. Heller

Test performed: by hand

File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.462 GHz

Detector: Quasi-Peak

List of values: Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	23.0	11.9	34.9	43.5	
122.9	18.0	14.5	32.5	43.5	
130.5	21.0	14.9	35.9	43.5	
149.8	18.0	16.1	34.1	43.5	
152.3	13.5	16.2	29.7	43.5	
163.0	10.5	16.6	27.1	43.5	
166.0	11.5	16.8	28.3	43.5	
195.7	24.0	18.4	42.4	43.5	
199.2	14.5	18.6	33.1	43.5	
257.7	13.5	21.1	34.6	46.0	
260.9	17.0	21.4	38.4	46.0	
282.6	10.5	23.6	34.1	46.0	
298.8	17.5	25.1	42.6	46.0	
299.7	17.0	25.2	42.2	46.0	
307.2	14.0	19.1	33.1	46.0	
315.0	19.0	19.4	38.4	46.0	
326.1	19.5	19.8	39.3	46.0	
343.6	25.0	20.4	45.4	46.0	
400.0	12.0	22.1	34.1	46.0	
433.3	7.5	23.0	30.5	46.0	
456.6	17.0	23.6	40.6	46.0	
498.4	17.0	24.7	41.7	46.0	
564.3	7.5	26.1	33.6	46.0	
599.1	8.0	26.8	34.8	46.0	
698.7	11.5	30.1	41.6	46.0	
699.5	12.0	30.1	42.1	46.0	
717.5	10.0	30.3	40.3	46.0	
799.1	6.0	31.2	37.2	46.0	
831.9	2.5	31.9	34.4	46.0	
898.3	4.0	33.2	37.2	46.0	
998.8	2.5	34.8	37.3	54.0	

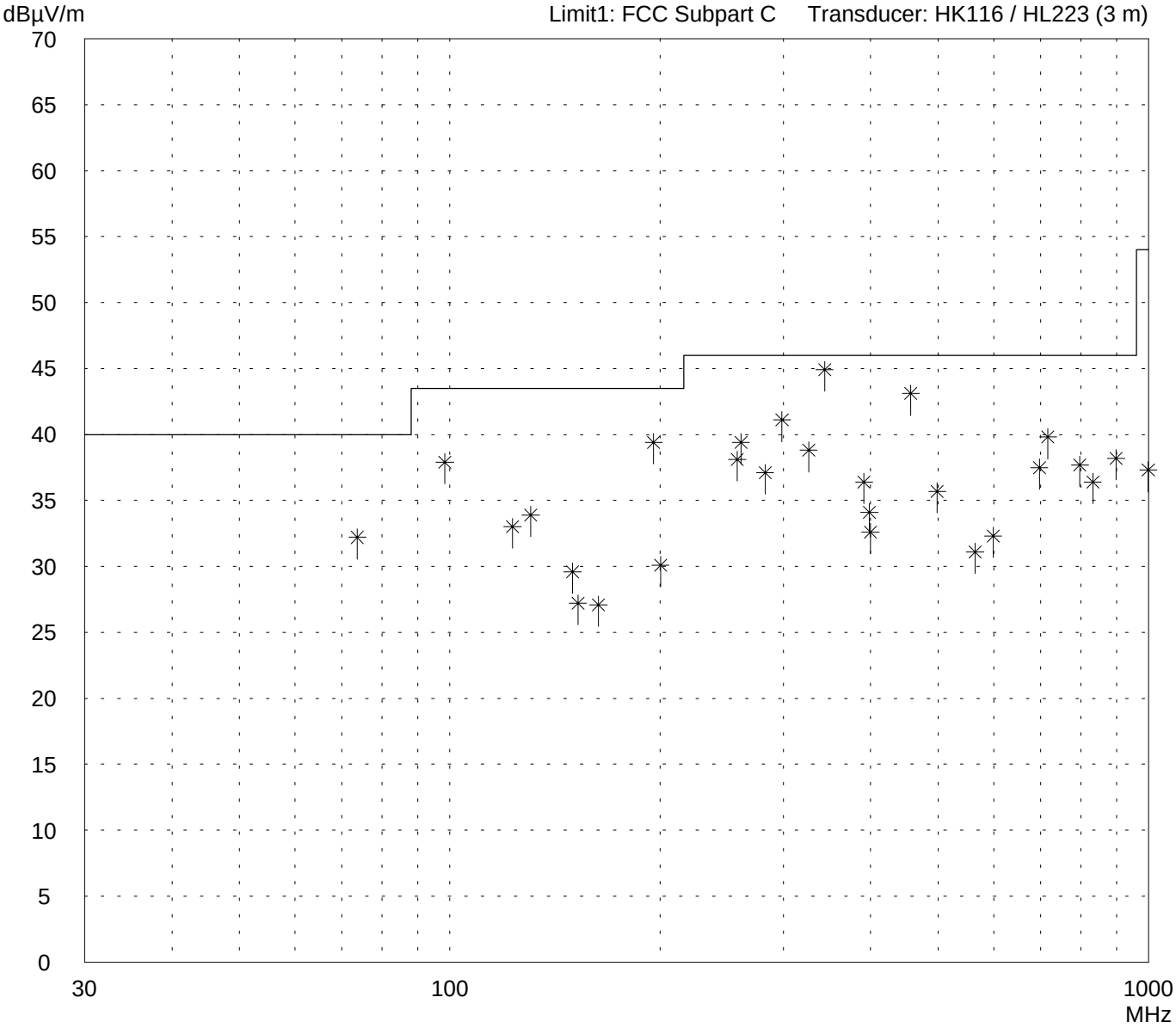
Result: Limit kept

Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Vertical Polarization

Date of test: 07/12/2000
Operator: R. Heller

Test performed: by hand
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.462 GHz

Detector:
Quasi-Peak

List of values:
Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	26.0	11.9	37.9	43.5	
122.9	18.5	14.5	33.0	43.5	
130.5	19.0	14.9	33.9	43.5	
149.8	13.5	16.1	29.6	43.5	
152.4	11.0	16.2	27.2	43.5	
163.1	10.5	16.6	27.1	43.5	
195.7	21.0	18.4	39.4	43.5	
200.2	11.5	18.6	30.1	43.5	
257.7	17.0	21.1	38.1	46.0	
260.9	18.0	21.4	39.4	46.0	
282.6	13.5	23.6	37.1	46.0	
298.8	16.0	25.1	41.1	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	24.5	20.4	44.9	46.0	
391.4	14.5	21.9	36.4	46.0	
398.4	12.0	22.1	34.1	46.0	
399.9	10.5	22.1	32.6	46.0	
456.6	19.5	23.6	43.1	46.0	
498.4	11.0	24.7	35.7	46.0	
564.3	5.0	26.1	31.1	46.0	
599.1	5.5	26.8	32.3	46.0	
697.4	7.5	30.0	37.5	46.0	
717.5	9.5	30.3	39.8	46.0	
797.4	6.5	31.2	37.7	46.0	
831.9	4.5	31.9	36.4	46.0	
898.3	5.0	33.2	38.2	46.0	
998.8	2.5	34.8	37.3	54.0	

Result:
Limit kept

Project file:
56305-00323-1

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.412 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.0957	vertical	55.4		0.5	26.1	55.4	74
2.3900	vertical	58.5		0.6	20.7	58.5	74
2.3970	vertical	73.0		0.6	20.7	73.0	NRB
2.3985	vertical	75.1		0.6	20.7	75.1	NRB
2.4000	vertical	74.4		0.6	20.7	74.4	OB
2.4137	vertical	110.4		0.6	20.7	110.4	OB
2.4258	vertical	73.9		0.6	20.7	73.9	OB
4.3870	vertical	42.8	-91.7		27.2	42.6	74
4.8239		< 40.0	< -94.6		27.3	< 40.0	74

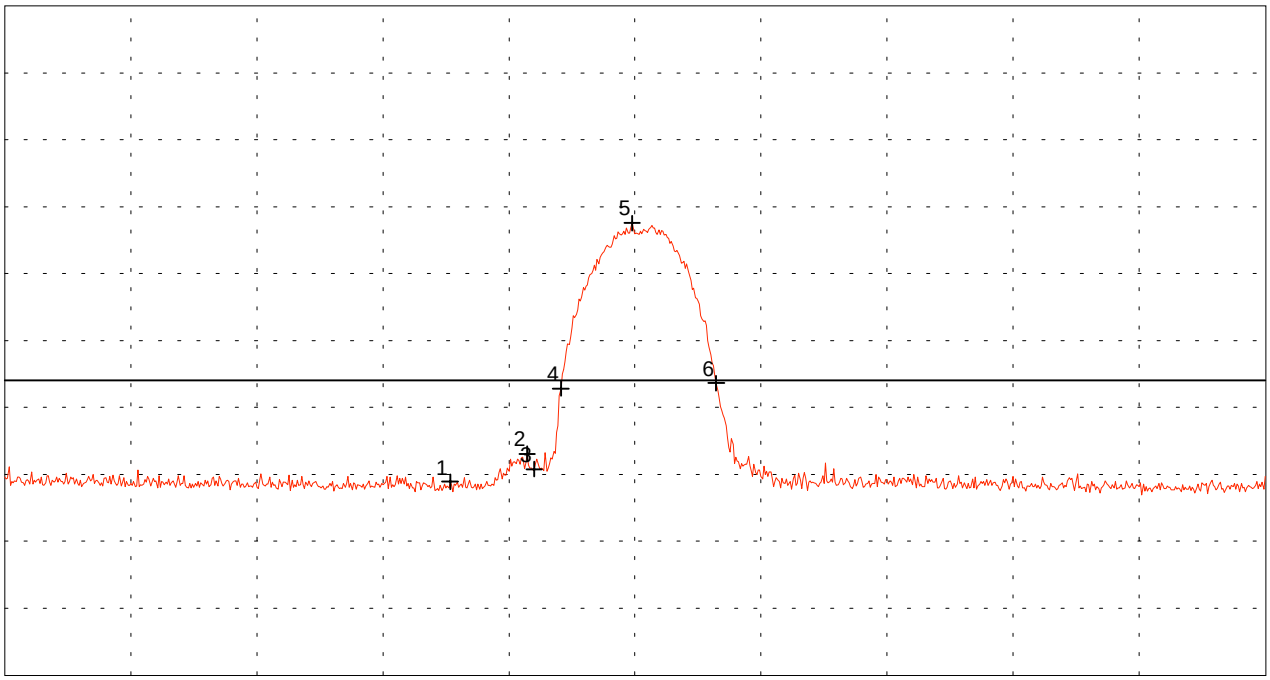
Note: OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 110.4 dBµV/m.

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

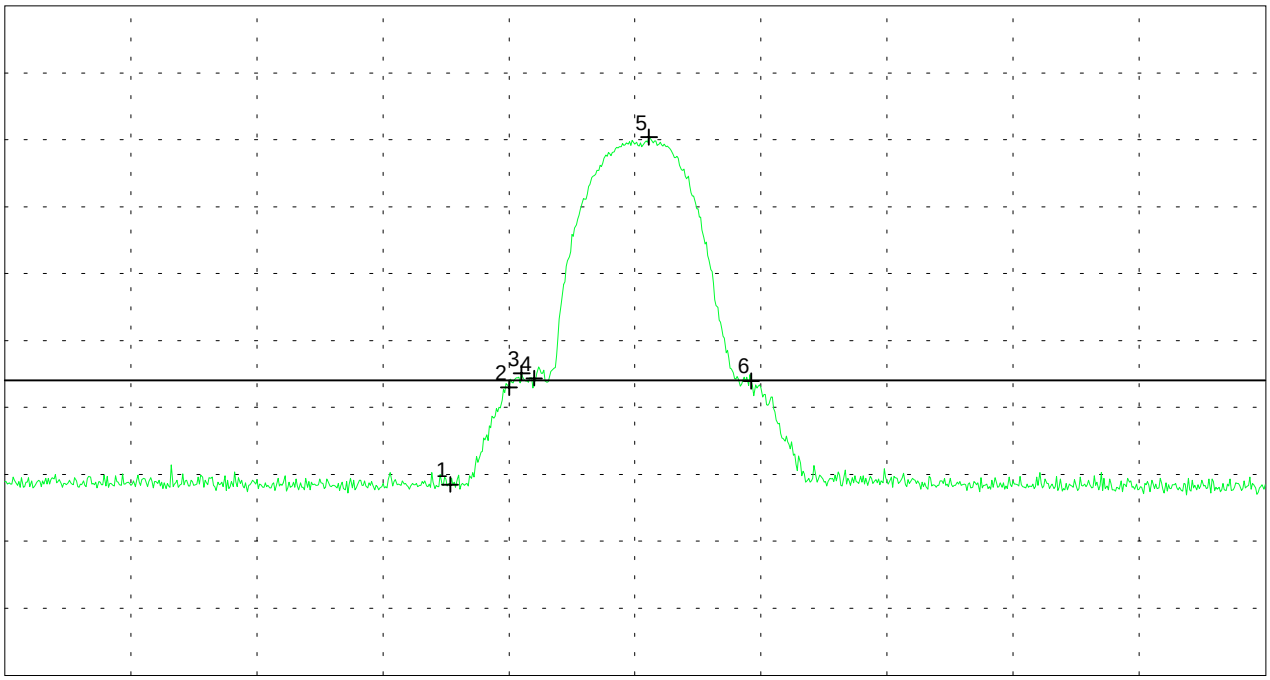
No. 1	2.390000 GHz	58.88 dBµV/m
No. 2	2.399167 GHz	63.05 dBµV/m
No. 3	2.400000 GHz	60.76 dBµV/m
No. 4	2.403167 GHz	72.80 dBµV/m
No. 5	2.411667 GHz	97.56 dBµV/m
No. 6	2.421667 GHz	73.61 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

No. 1	2.390000 GHz	58.48 dBµV/m
No. 2	2.397000 GHz	72.95 dBµV/m
No. 3	2.398500 GHz	75.13 dBµV/m
No. 4	2.400000 GHz	74.37 dBµV/m
No. 5	2.413667 GHz	110.41 dBµV/m
No. 6	2.425833 GHz	73.94 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.412 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.0976	vertical	42.4		0.5	26.1	42.4	54
2.3900	vertical	42.8		0.6	20.7	42.8	54
2.3933	vertical	53.2		0.6	20.7	53.2	NRB
2.3992	vertical	66.4		0.6	20.7	66.4	NRB
2.4000	vertical	64.0		0.6	20.7	64.0	NRB
2.4135	vertical	104.3		0.6	20.7	104.3	OB
2.4297	vertical	53.5		0.6	20.7	53.5	OB
4.8239	vertical	31.8	-102.6		27.3	31.7	54

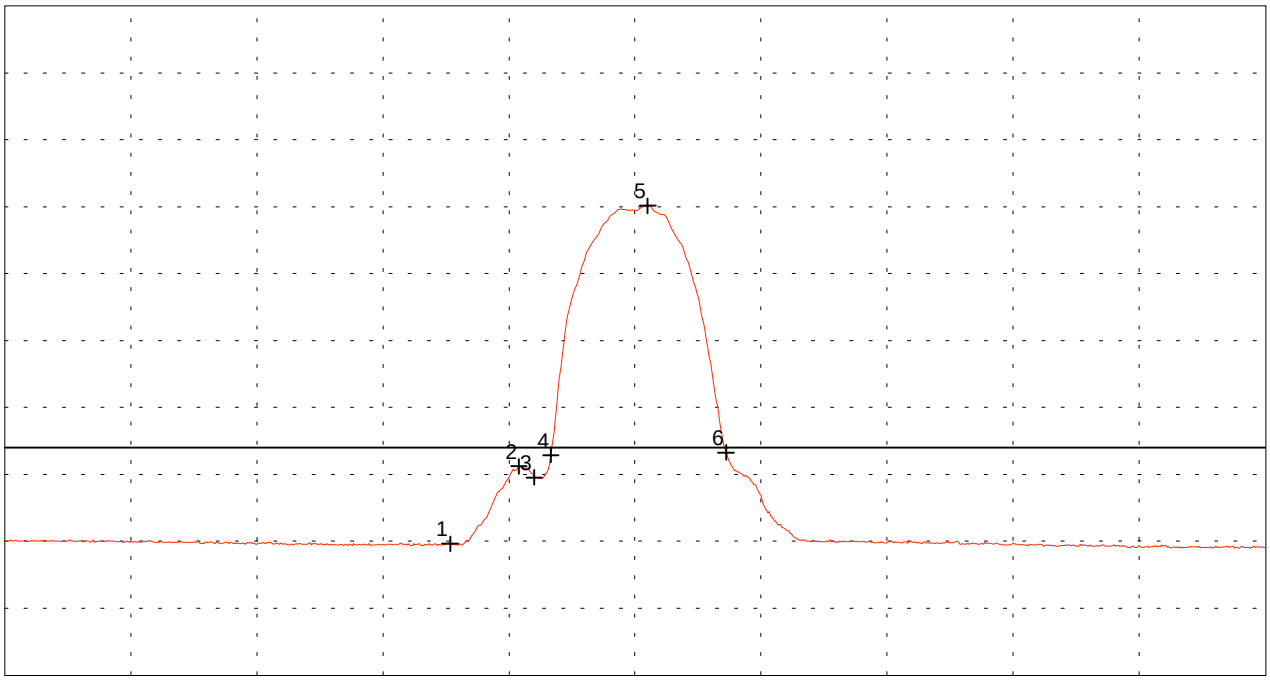
Note: OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 104.3 dBµV/m.

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

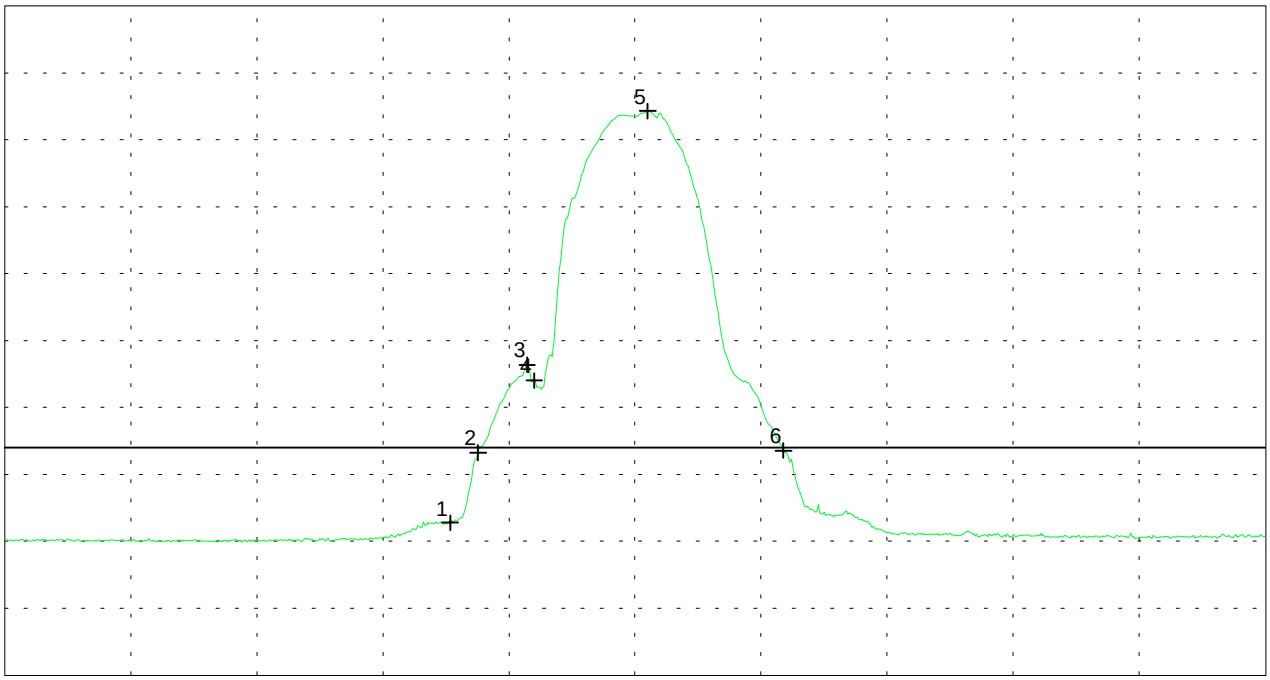
No. 1	2.390000 GHz	39.61 dBµV/m
No. 2	2.398167 GHz	51.19 dBµV/m
No. 3	2.400000 GHz	49.52 dBµV/m
No. 4	2.402000 GHz	52.87 dBµV/m
No. 5	2.413500 GHz	90.15 dBµV/m
No. 6	2.422833 GHz	53.25 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	Page 131 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.390000 GHz	42.76 dBµV/m
No. 2	2.393333 GHz	53.22 dBµV/m
No. 3	2.399167 GHz	66.35 dBµV/m
No. 4	2.400000 GHz	64.02 dBµV/m
No. 5	2.413500 GHz	104.29 dBµV/m
No. 6	2.429667 GHz	53.53 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

Radiated Emission 1 GHz - 25 GHz (Additional Test Results) according to FCC Part 15 Subpart C

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 2 Mbps

- TX mode with f = 2.412 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
2.3900	vertical	57.9		0.6	20.7	57.9	74
2.3977	vertical	73.7		0.6	20.7	73.7	NRB
2.4000	vertical	71.5		0.6	20.7	71.5	NRB
2.4018	vertical	72.8		0.6	20.7	72.8	NRB
2.4143	vertical	108.6		0.6	20.7	108.6	OB
2.4238	vertical	73.9		0.6	20.7	73.9	OB
4.8243	vertical	40.2	-94.4		27.3	39.9	74

Note 1: 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 dBµV/m.

Note 2: Extent of testing harmonics with 2 Mbps selected according to results of radiated emission with 11 Mbps (peak)

Result: The limits are kept

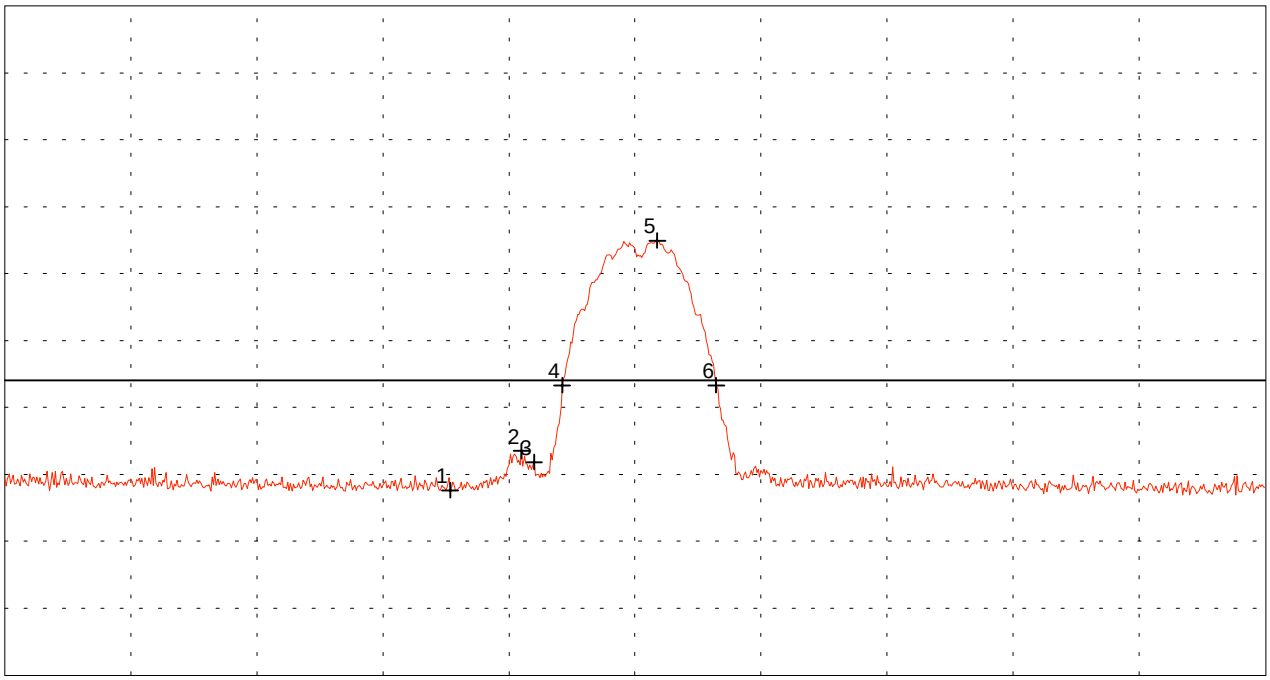
Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m
10 dB/Div.

ATT 5 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 List

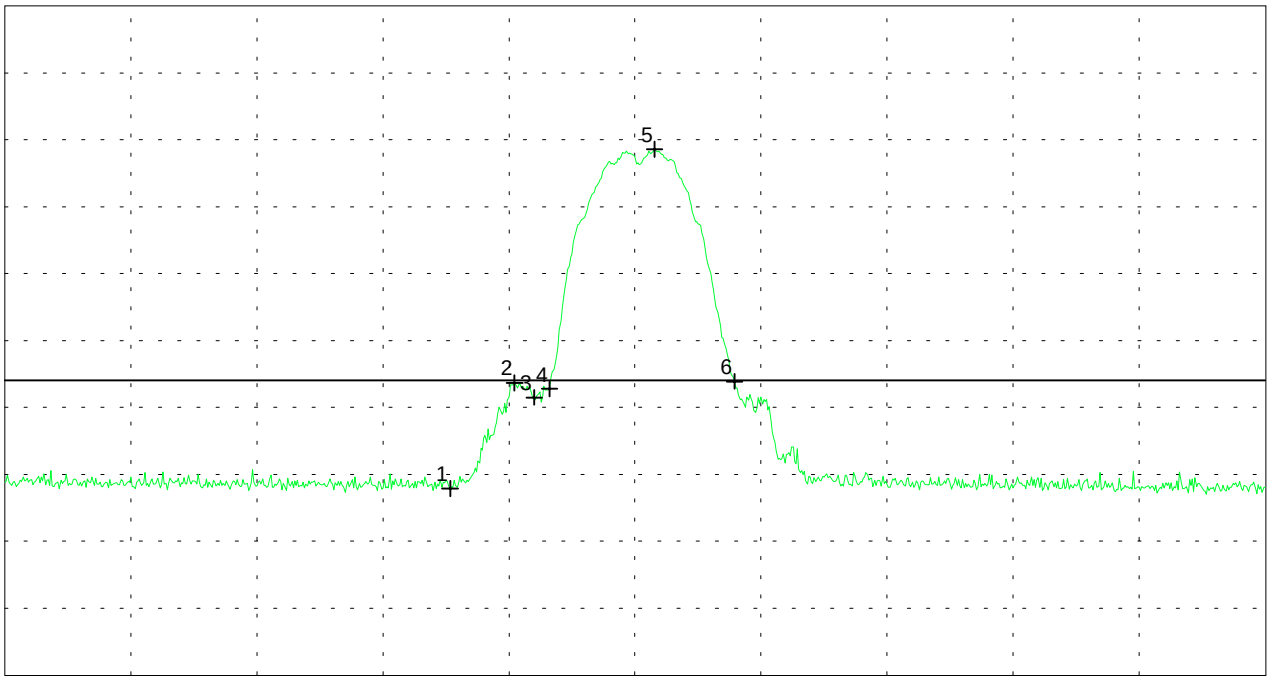
No. 1	2.390000 GHz	57.61 dBµV/m
No. 2	2.398500 GHz	63.48 dBµV/m
No. 3	2.400000 GHz	61.80 dBµV/m
No. 4	2.403333 GHz	73.31 dBµV/m
No. 5	2.414667 GHz	94.94 dBµV/m
No. 6	2.421667 GHz	73.28 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

No. 1	2.390000 GHz	57.87 dBµV/m
No. 2	2.397667 GHz	73.66 dBµV/m
No. 3	2.400000 GHz	71.48 dBµV/m
No. 4	2.401833 GHz	72.77 dBµV/m
No. 5	2.414333 GHz	108.60 dBµV/m
No. 6	2.423833 GHz	73.89 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

Radiated Emission 1 GHz - 25 GHz (Additional Test Results) according to FCC Part 15 Subpart C

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 2 Mbps

- TX mode with f = 2.412 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
2.3900	vertical	43.4		0.6	20.7	43.4	54
2.3930	vertical	53.7		0.6	20.7	53.7	NRB
2.3985	vertical	68.6		0.6	20.7	68.6	NRB
2.4000	vertical	65.4		0.6	20.7	65.4	NRB
2.4128	vertical	104.5		0.6	20.7	104.5	OB
2.4308	vertical	53.2		0.6	20.7	53.2	OB
4.8239	vertical	34.4	-100.0		27.3	34.3	54

Note 1: 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 104.5 dBµV/m.

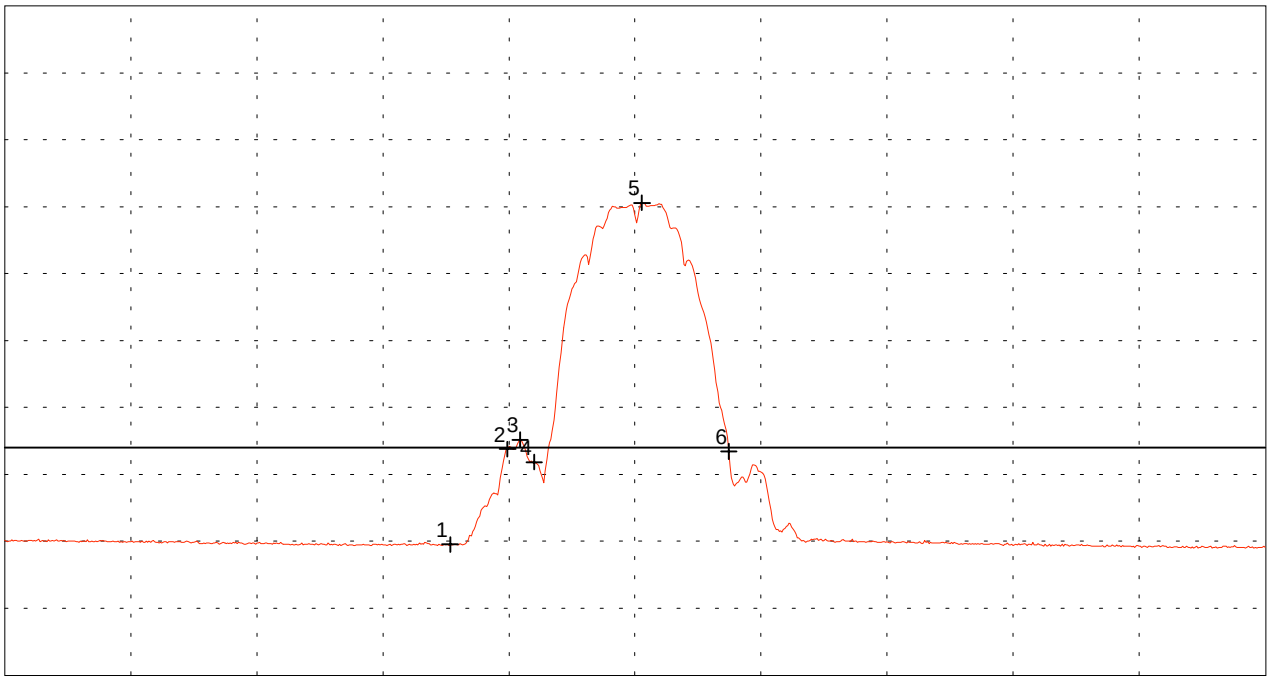
Note 2: Extent of testing harmonics with 2 Mbps selected according to results of radiated emission with 11 Mbps (peak)

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

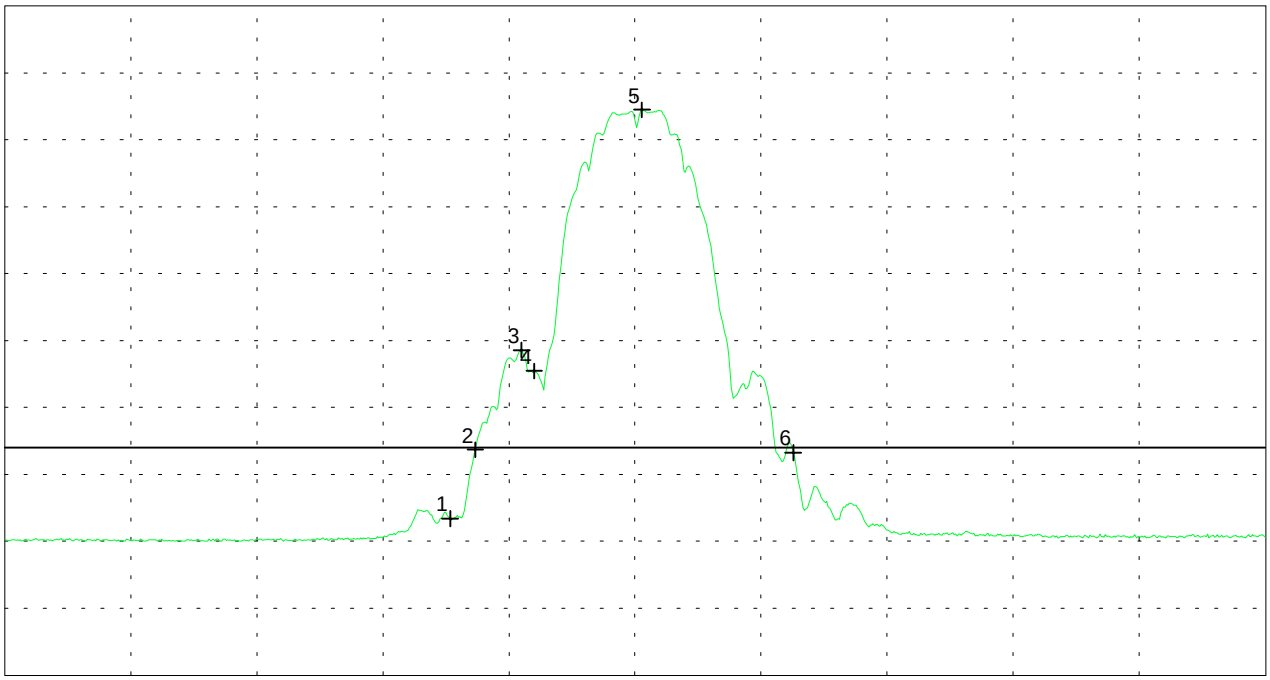
No. 1	2.390000 GHz	39.51 dBµV/m
No. 2	2.396833 GHz	53.76 dBµV/m
No. 3	2.398333 GHz	55.18 dBµV/m
No. 4	2.400000 GHz	51.83 dBµV/m
No. 5	2.412833 GHz	90.55 dBµV/m
No. 6	2.423167 GHz	53.40 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.412 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.337 GHz Stop 2.487 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.390000 GHz	43.35 dBµV/m
No. 2	2.393000 GHz	53.66 dBµV/m
No. 3	2.398500 GHz	68.56 dBµV/m
No. 4	2.400000 GHz	65.44 dBµV/m
No. 5	2.412833 GHz	104.47 dBµV/m
No. 6	2.430833 GHz	53.22 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.442 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.1019	vertical	55.6		0.5	26.1	55.6	74
2.4255	vertical	73.1		0.6	20.7	73.1	OB
2.4410	vertical	110.5		0.6	20.7	110.5	OB
2.4585	vertical	72.8		0.6	20.7	72.8	OB
4.4018	vertical	42.8	-91.7		27.2	42.6	74
4.8846		< 40.0	< -94.4		27.3	< 40.0	74

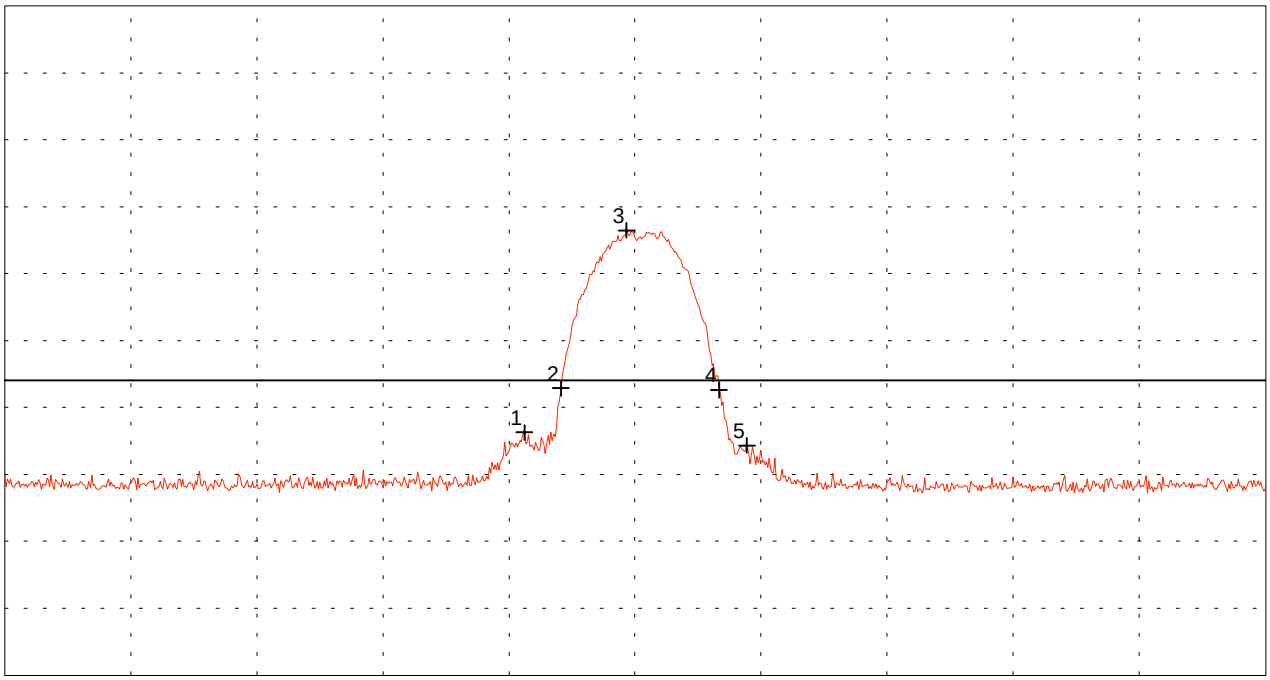
Note: OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 110.5 dBµV/m.

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

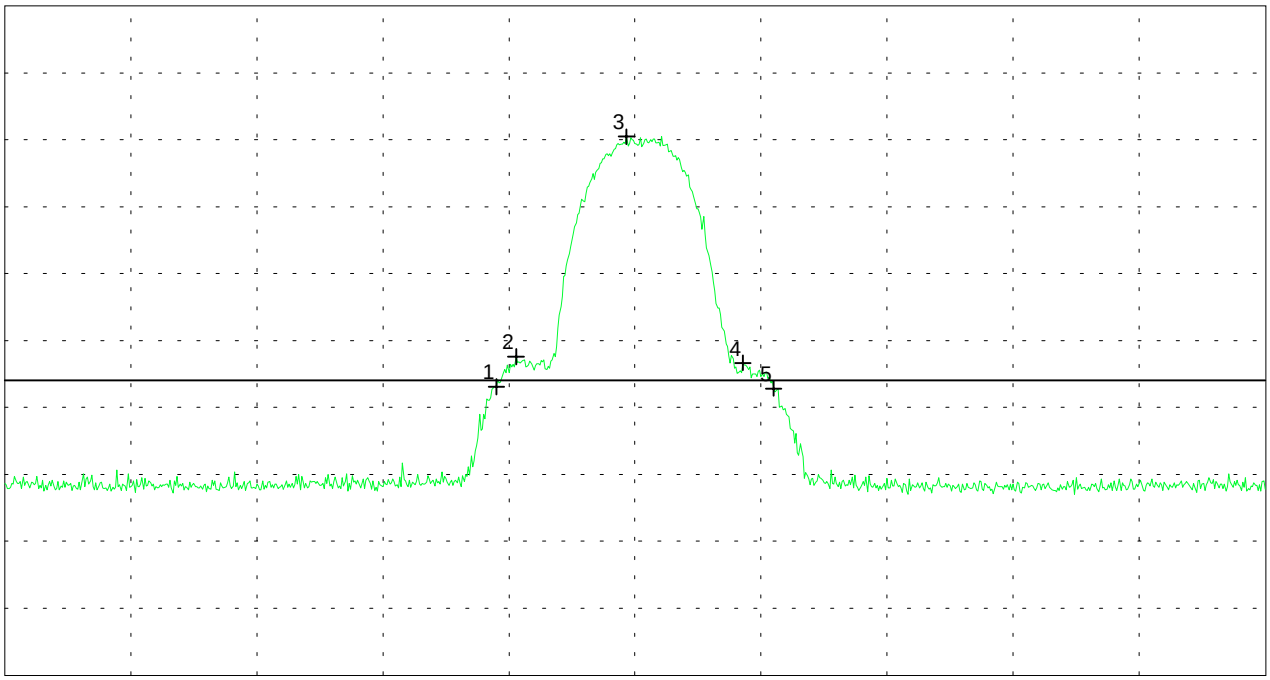
No. 1	2.428833 GHz	66.25 dBµV/m
No. 2	2.433167 GHz	72.87 dBµV/m
No. 3	2.441000 GHz	96.44 dBµV/m
No. 4	2.452000 GHz	72.60 dBµV/m
No. 5	2.455333 GHz	64.29 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

No. 1	2.425500 GHz	73.08 dBµV/m
No. 2	2.427833 GHz	77.57 dBµV/m
No. 3	2.441000 GHz	110.48 dBµV/m
No. 4	2.454833 GHz	76.63 dBµV/m
No. 5	2.458500 GHz	72.80 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.442 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.0973	horizontal	42.6		0.5	26.1	42.6	54
2.4225	vertical	53.0		0.6	20.7	53.0	OB
2.4457	vertical	104.5		0.6	20.7	104.5	OB
2.4608	vertical	53.4		0.6	20.7	53.4	OB
4.8846	vertical	27.6	-106.6		27.3	27.7	54

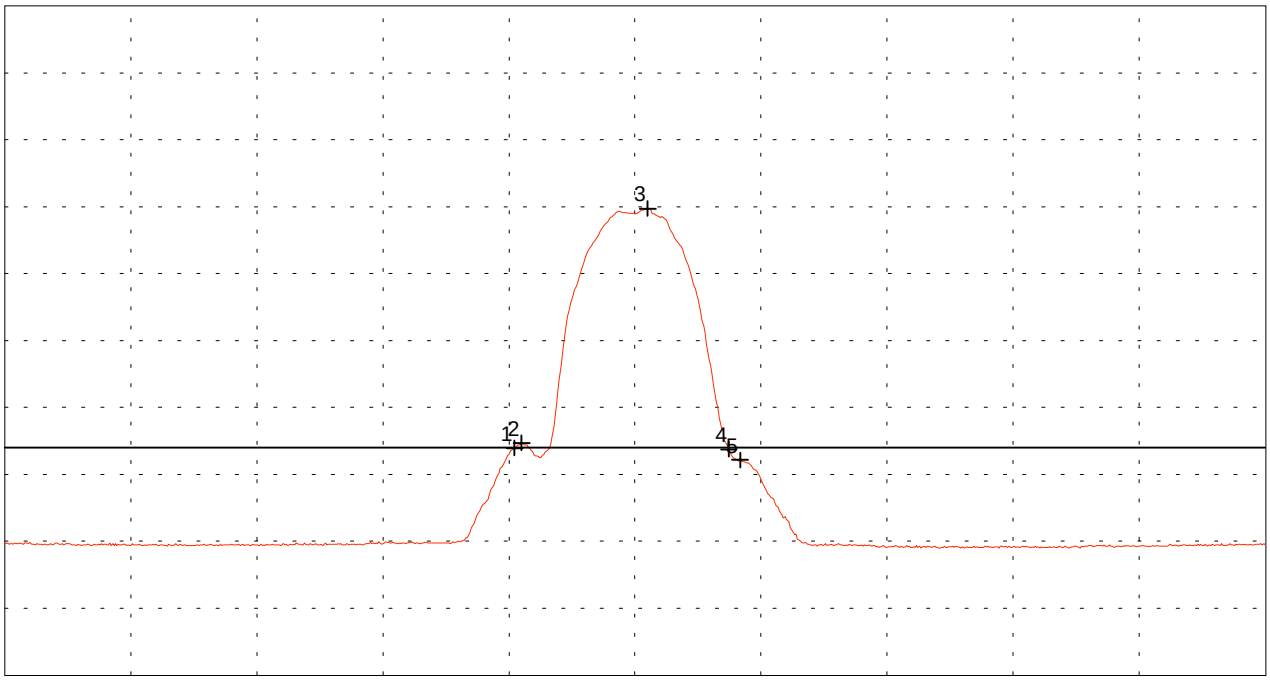
Note: OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 104.5 dBµV/m.

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

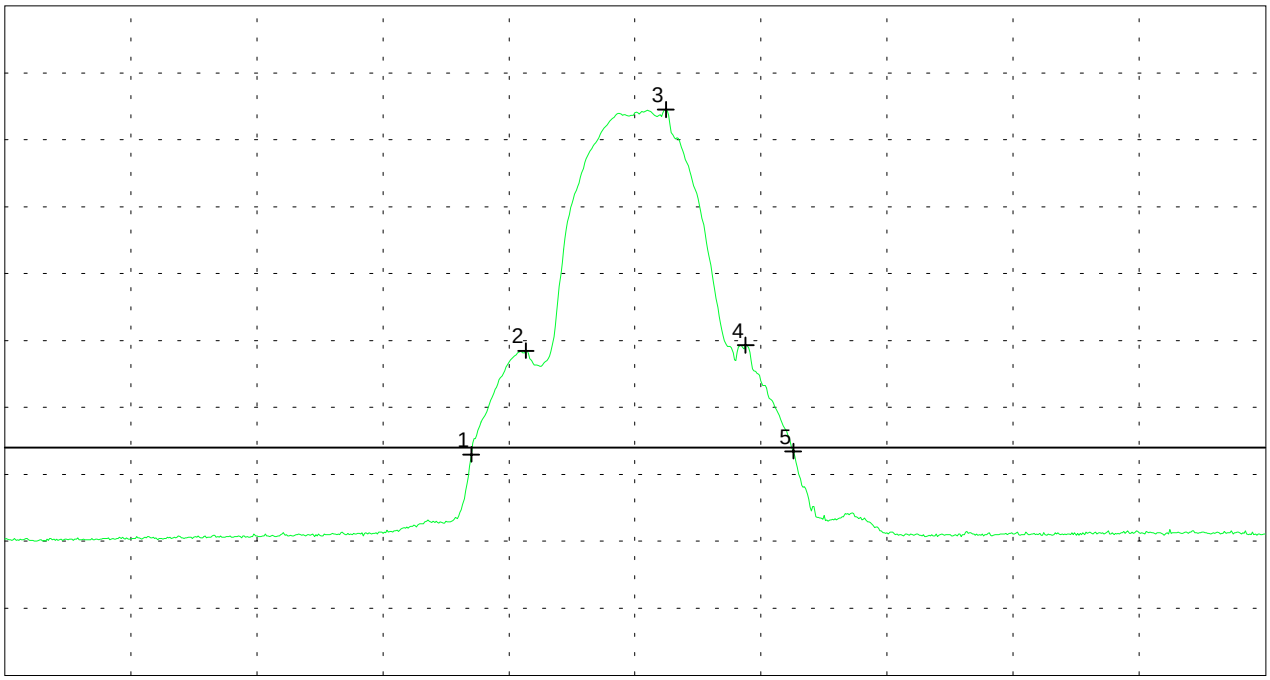
No. 1	2.427667 GHz	53.94 dBµV/m
No. 2	2.428500 GHz	54.70 dBµV/m
No. 3	2.443500 GHz	89.69 dBµV/m
No. 4	2.453167 GHz	53.71 dBµV/m
No. 5	2.454500 GHz	52.13 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.422500 GHz	52.95 dBµV/m
No. 2	2.429000 GHz	68.46 dBµV/m
No. 3	2.445667 GHz	104.52 dBµV/m
No. 4	2.455167 GHz	69.30 dBµV/m
No. 5	2.460833 GHz	53.43 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

Radiated Emission 1 GHz - 25 GHz (Additional Test Results) according to FCC Part 15 Subpart C

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 2 Mbps

- TX mode with f = 2.442 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
2.4267	vertical	72.7		0.6	20.7	72.7	OB
2.4445	vertical	108.8		0.6	20.7	108.8	OB
2.4578	vertical	73.5		0.6	20.7	73.5	OB
4.8838	vertical	38.2	-96.2		27.3	38.1	74

Note 1: 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 108.8 dBµV/m.

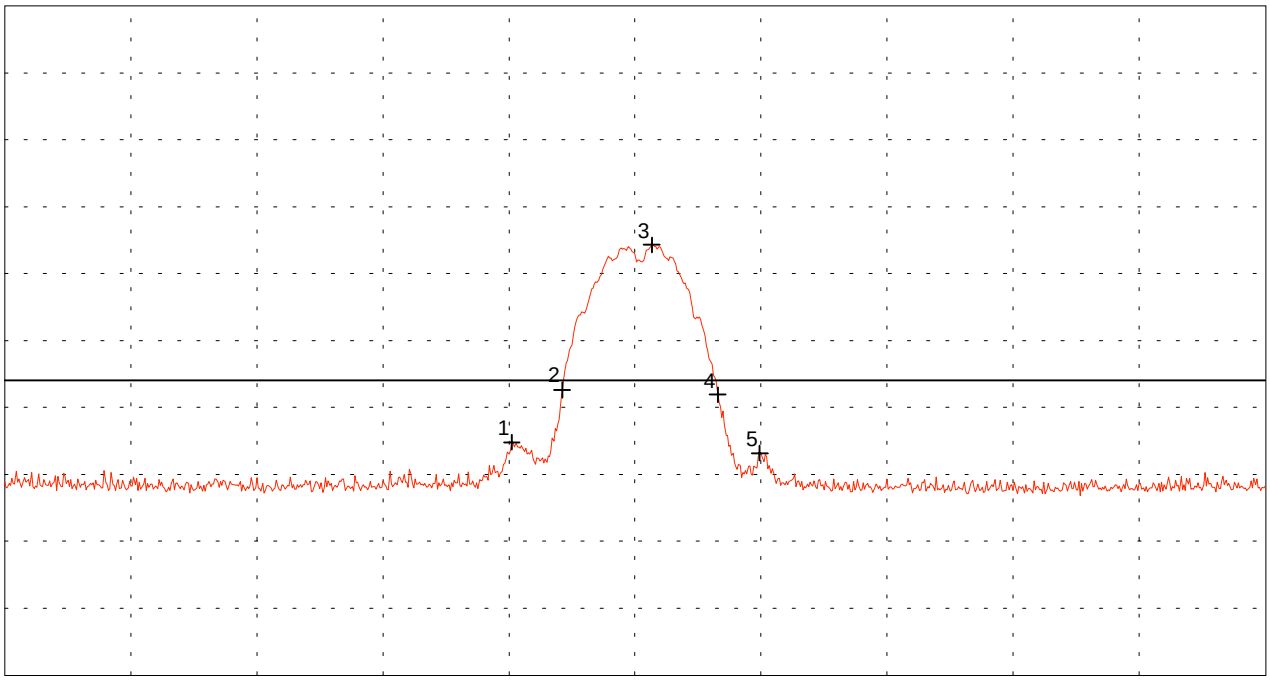
Note 2: Extent of testing harmonics with 2 Mbps selected according to results of radiated emission with 11 Mbps (peak)

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

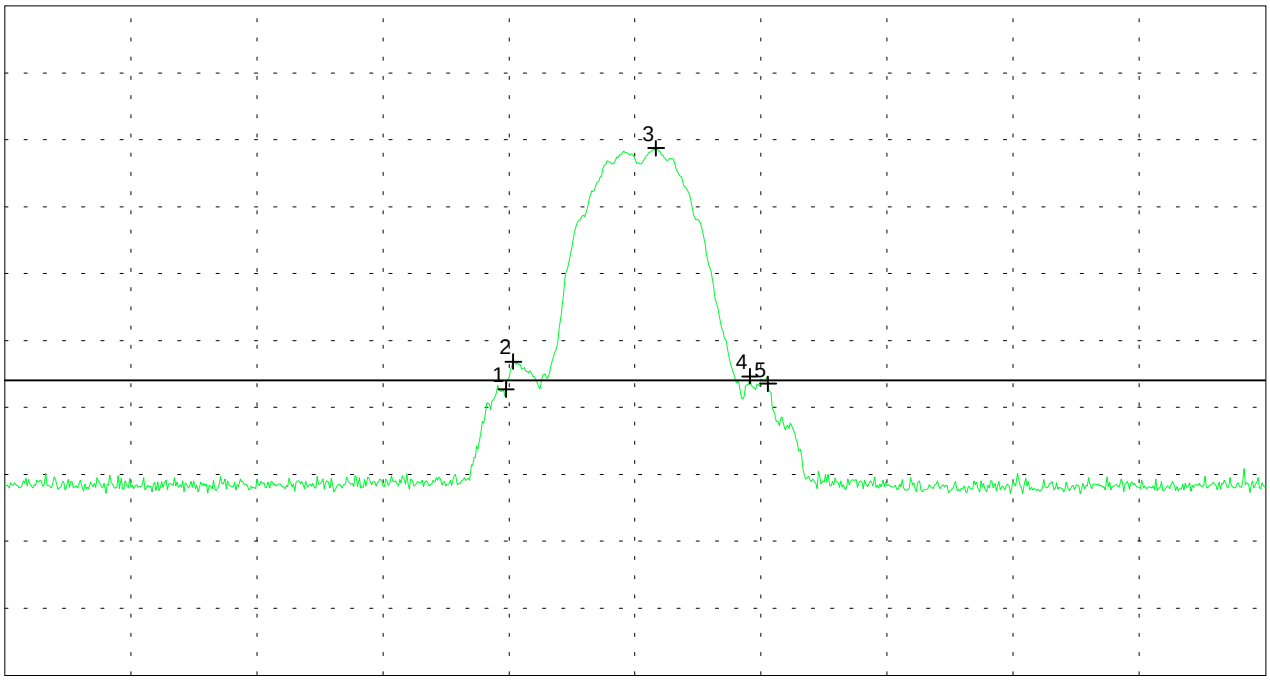
No. 1	2.427333 GHz	64.80 dBµV/m
No. 2	2.433333 GHz	72.60 dBµV/m
No. 3	2.444000 GHz	94.28 dBµV/m
No. 4	2.451833 GHz	71.91 dBµV/m
No. 5	2.456833 GHz	63.15 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	Page 146 of 181 Pages

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

No. 1	2.426667 GHz	72.70 dBµV/m
No. 2	2.427500 GHz	76.84 dBµV/m
No. 3	2.444500 GHz	108.76 dBµV/m
No. 4	2.455667 GHz	74.65 dBµV/m
No. 5	2.457833 GHz	73.53 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

Radiated Emission 1 GHz - 25 GHz (Additional Test Results) according to FCC Part 15 Subpart C

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 2 Mbps

- TX mode with f = 2.442 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
2.4225	vertical	53.0		0.6	20.7	53.0	OB
2.4448	vertical	104.6		0.6	20.7	104.6	OB
2.4615	vertical	53.3		0.6	20.7	53.3	OB
4.8843	vertical	30.1	-104.1		27.3	30.2	54

Note 1: 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 104.6 dBµV/m.

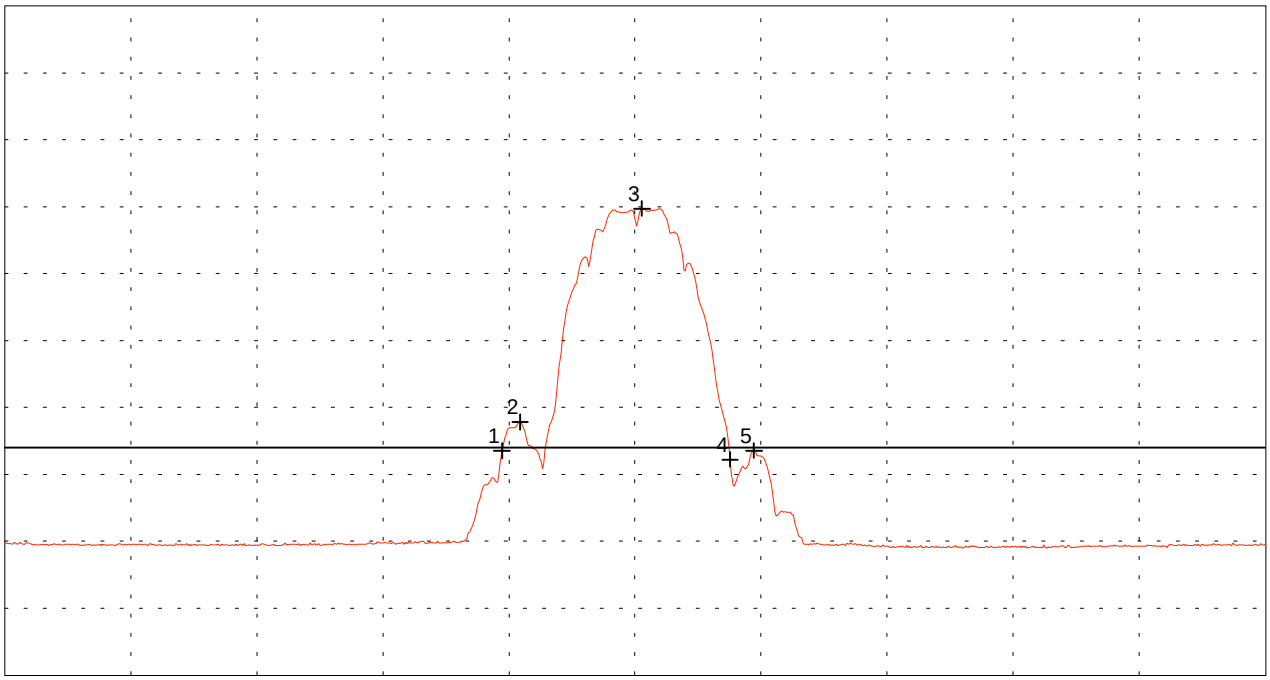
Note 2: Extent of testing harmonics with 2 Mbps selected according to results of radiated emission with 11 Mbps (peak)

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

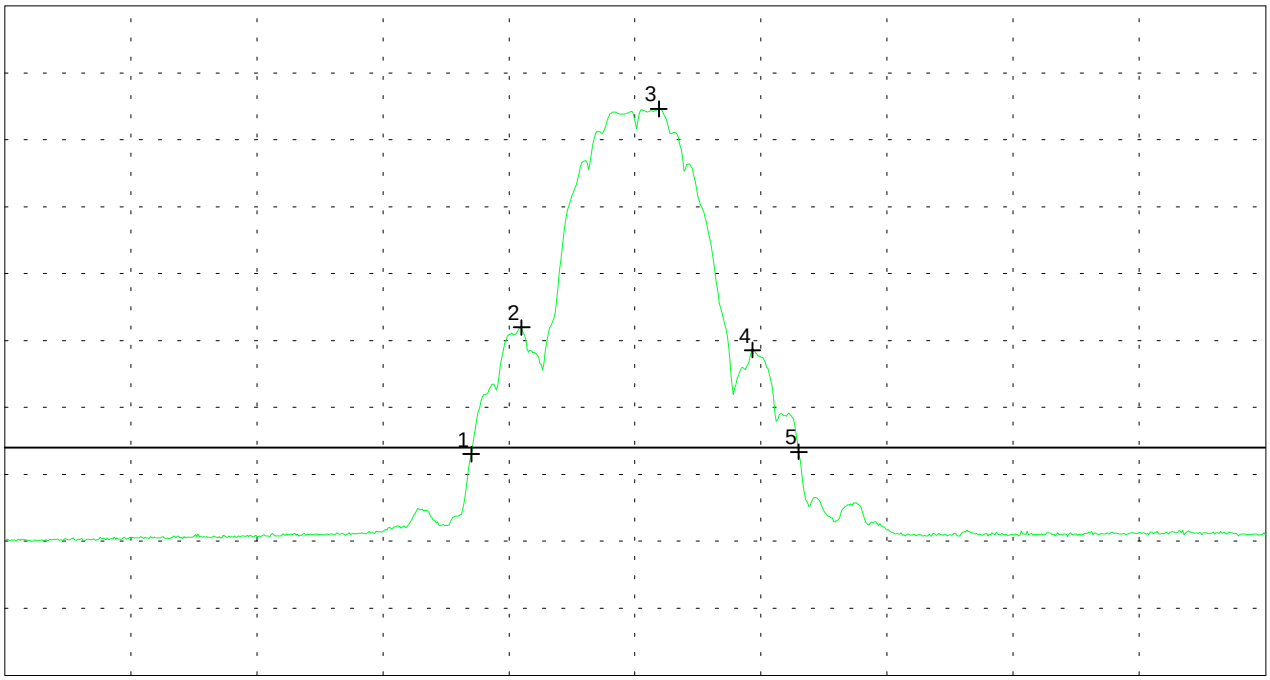
No. 1	2.426167 GHz	53.50 dBµV/m
No. 2	2.428333 GHz	57.82 dBµV/m
No. 3	2.442833 GHz	89.69 dBµV/m
No. 4	2.453333 GHz	52.21 dBµV/m
No. 5	2.456167 GHz	53.53 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.442 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.367 GHz Stop 2.517 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.422500 GHz	53.00 dBµV/m
No. 2	2.428500 GHz	71.97 dBµV/m
No. 3	2.444833 GHz	104.62 dBµV/m
No. 4	2.456000 GHz	68.56 dBµV/m
No. 5	2.461500 GHz	53.33 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.462 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.0972	vertical	54.0		0.5	26.1	54.0	74
2.4453	vertical	73.8		0.6	20.7	73.8	OB
2.4617	vertical	110.5		0.6	20.7	110.5	OB
2.4785	vertical	73.2		0.6	20.7	73.2	OB
2.4835	vertical	58.3		0.6	20.7	58.3	74
2.4902	vertical	60.4		0.6	20.7	60.4	74
2.5000	vertical	58.6		0.6	20.7	58.6	74
4.3976	vertical	42.8	-91.7		27.2	42.6	74
4.9247		< 40.0	< -94.4		27.3	< 40.0	74

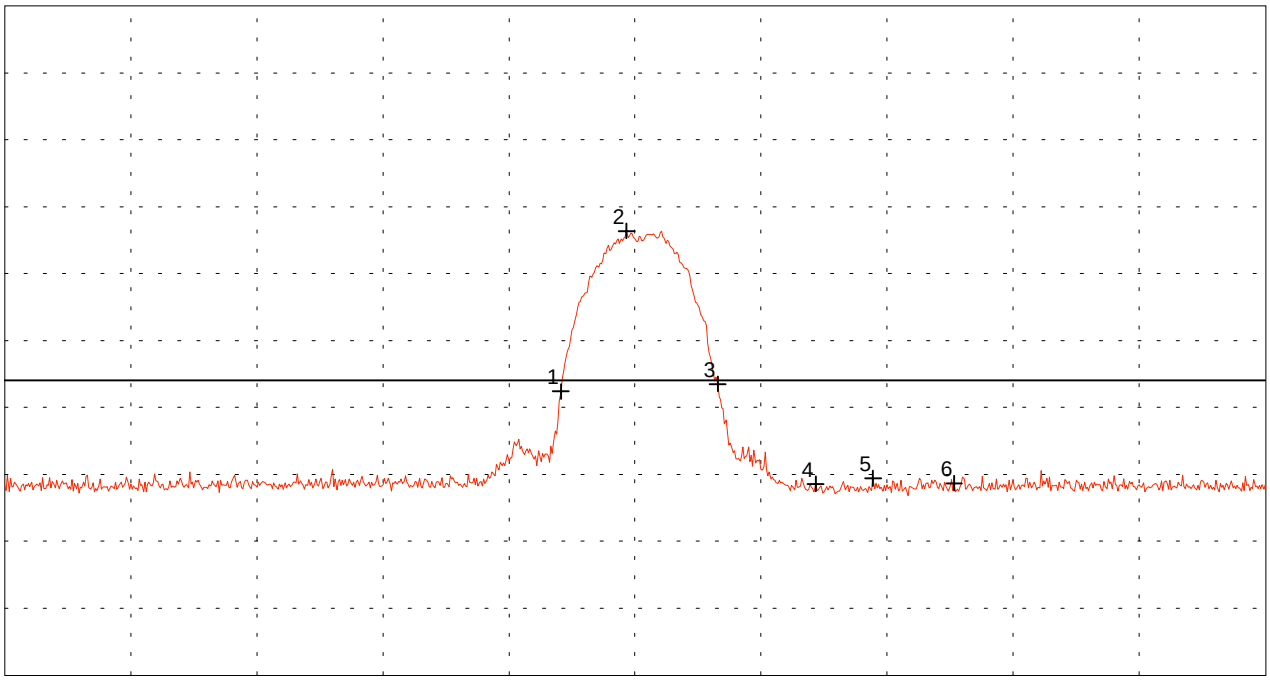
Note: OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 110.5 dBµV/m.

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

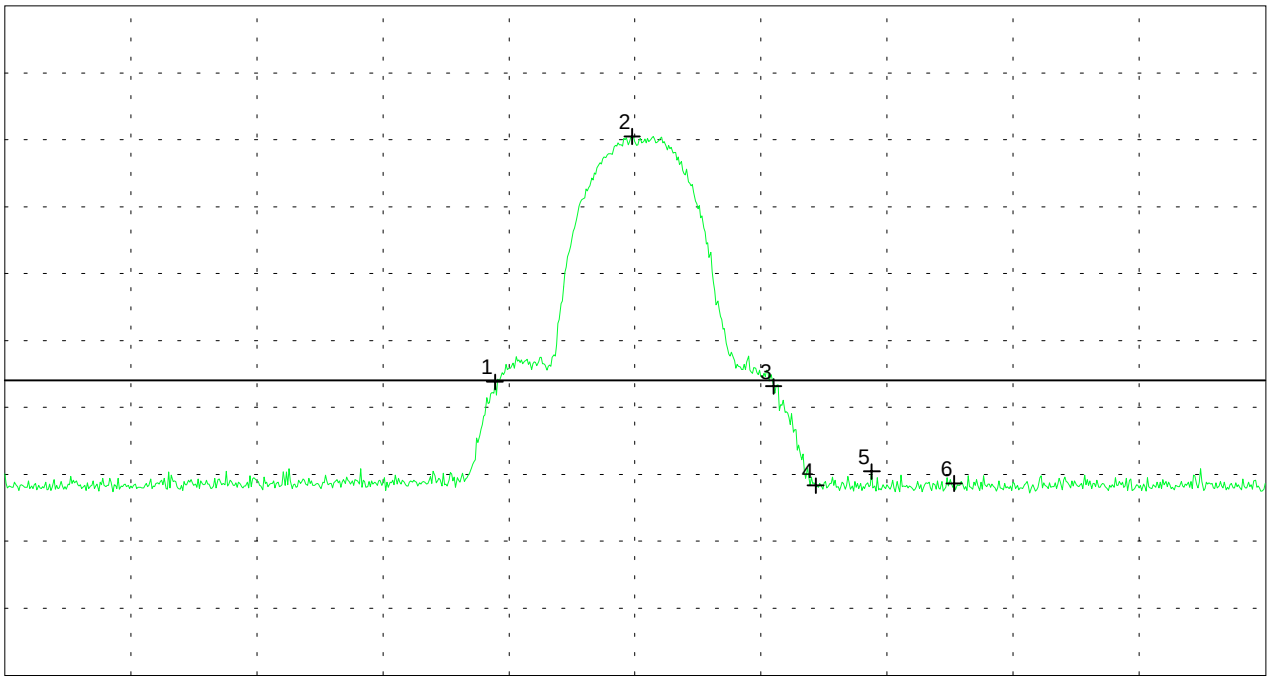
No. 1	2.453167 GHz	72.39 dBµV/m
No. 2	2.461000 GHz	96.34 dBµV/m
No. 3	2.471833 GHz	73.51 dBµV/m
No. 4	2.483500 GHz	58.55 dBµV/m
No. 5	2.490333 GHz	59.39 dBµV/m
No. 6	2.500000 GHz	58.65 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

No. 1	2.445333 GHz	73.84 dBµV/m
No. 2	2.461667 GHz	110.51 dBµV/m
No. 3	2.478500 GHz	73.15 dBµV/m
No. 4	2.483500 GHz	58.30 dBµV/m
No. 5	2.490167 GHz	60.41 dBµV/m
No. 6	2.500000 GHz	58.63 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	Page 153 of 181 Pages

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- TX mode with f = 2.462 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.0974	vertical	42.0		0.5	26.1	42.0	54
2.4425	vertical	53.1		0.6	20.7	53.1	OB
2.4635	vertical	104.6		0.6	20.7	104.6	OB
2.4808	vertical	53.9		0.6	20.7	53.9	OB
2.4835	vertical	44.1		0.6	20.7	44.1	54
2.4875	vertical	44.6		0.6	20.7	44.6	54
2.5000	vertical	41.3		0.6	20.7	41.3	54
4.9247	vertical	28.3	-105.9		27.3	28.4	54

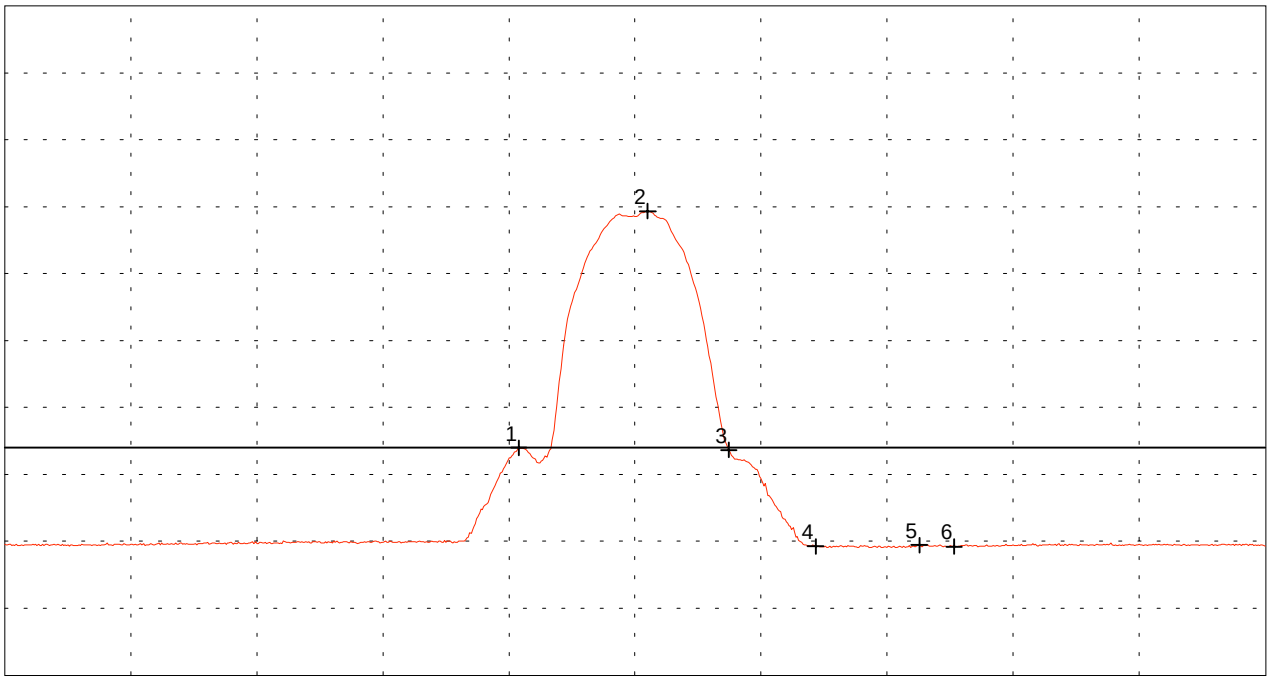
Note: OB means "operation band" (2400 - 2483.5 MHz); in this case limit is 1 W (measured conducted with power meter).
NRB means "non restricted band"; in this case limit is 20 dB below maximum in-band-power equivalent to 104.6 dBµV/m.

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

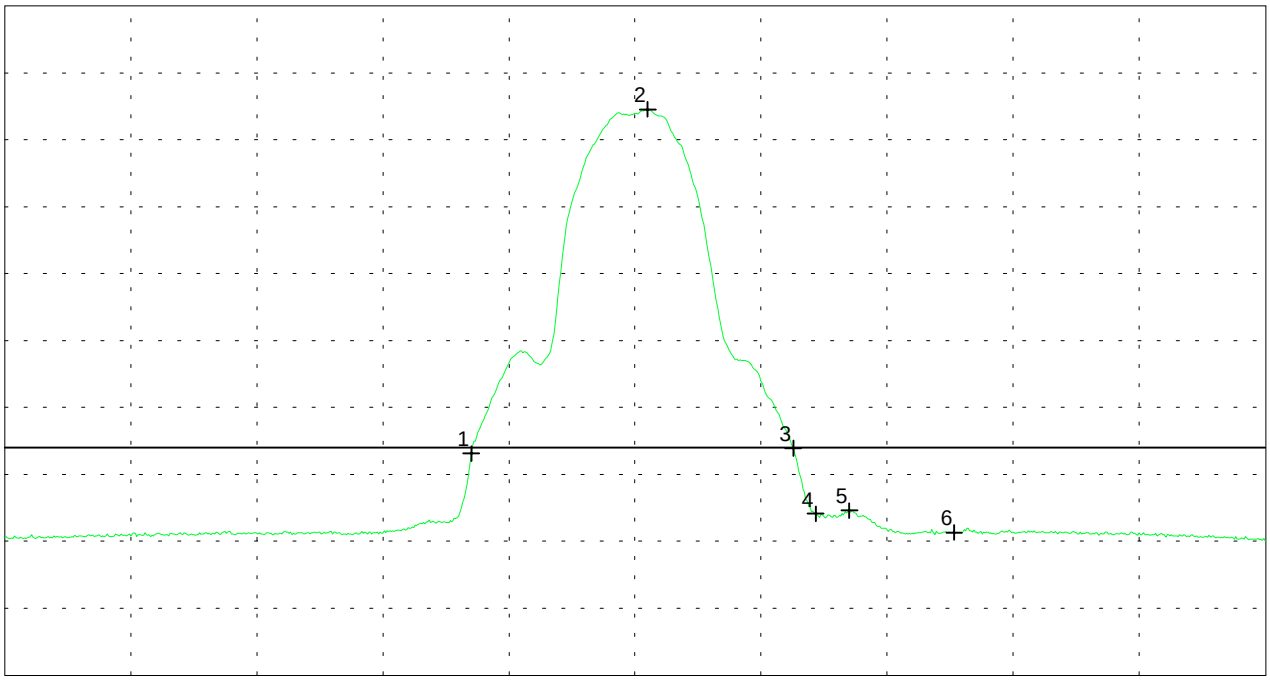
No. 1	2.448167 GHz	53.96 dBµV/m
No. 2	2.463500 GHz	89.33 dBµV/m
No. 3	2.473167 GHz	53.63 dBµV/m
No. 4	2.483500 GHz	39.21 dBµV/m
No. 5	2.495833 GHz	39.41 dBµV/m
No. 6	2.500000 GHz	39.18 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.442500 GHz	53.10 dBµV/m
No. 2	2.463500 GHz	104.55 dBµV/m
No. 3	2.480833 GHz	53.89 dBµV/m
No. 4	2.483500 GHz	44.11 dBµV/m
No. 5	2.487500 GHz	44.59 dBµV/m
No. 6	2.500000 GHz	41.29 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

Radiated Emission 1 GHz - 25 GHz (Additional Test Results) according to FCC Part 15 Subpart C

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 2 Mbps

- TX mode with f = 2.462 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
2.4468	vertical	73.7		0.6	20.7	73.7	OB
2.4645	vertical	108.9		0.6	20.7	108.9	OB
2.4777	vertical	73.8		0.6	20.7	73.8	OB
2.4835	vertical	58.4		0.6	20.7	58.4	74
2.4838	vertical	60.4		0.6	20.7	60.4	74
2.5000	vertical	58.4		0.6	20.7	58.4	74
4.9240	vertical	39.9	-94.6		27.3	39.7	74

Note 1: 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 108.9 dBµV/m.

Note 2: Extent of testing harmonics with 2 Mbps selected according to results of radiated emission with 11 Mbps (peak)

Result: The limits are kept

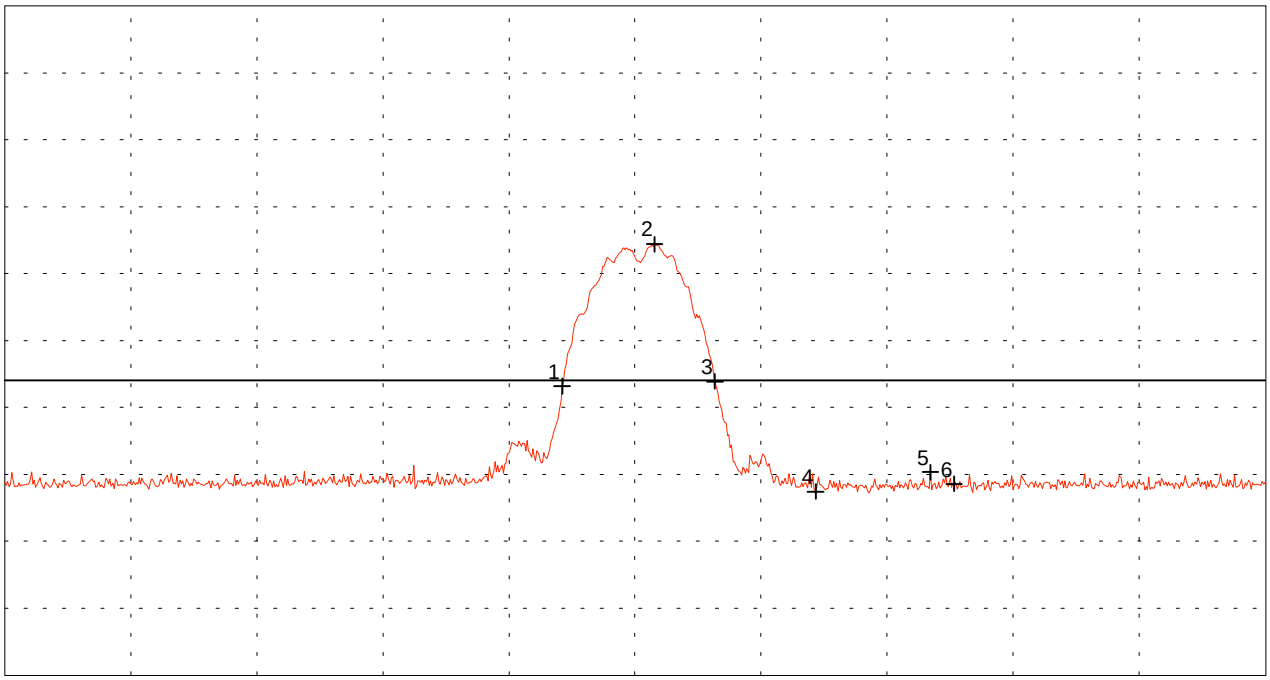
Radiated emission 1 GHz - 25 GHz acc. to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m
10 dB/Div.

ATT 5 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 List

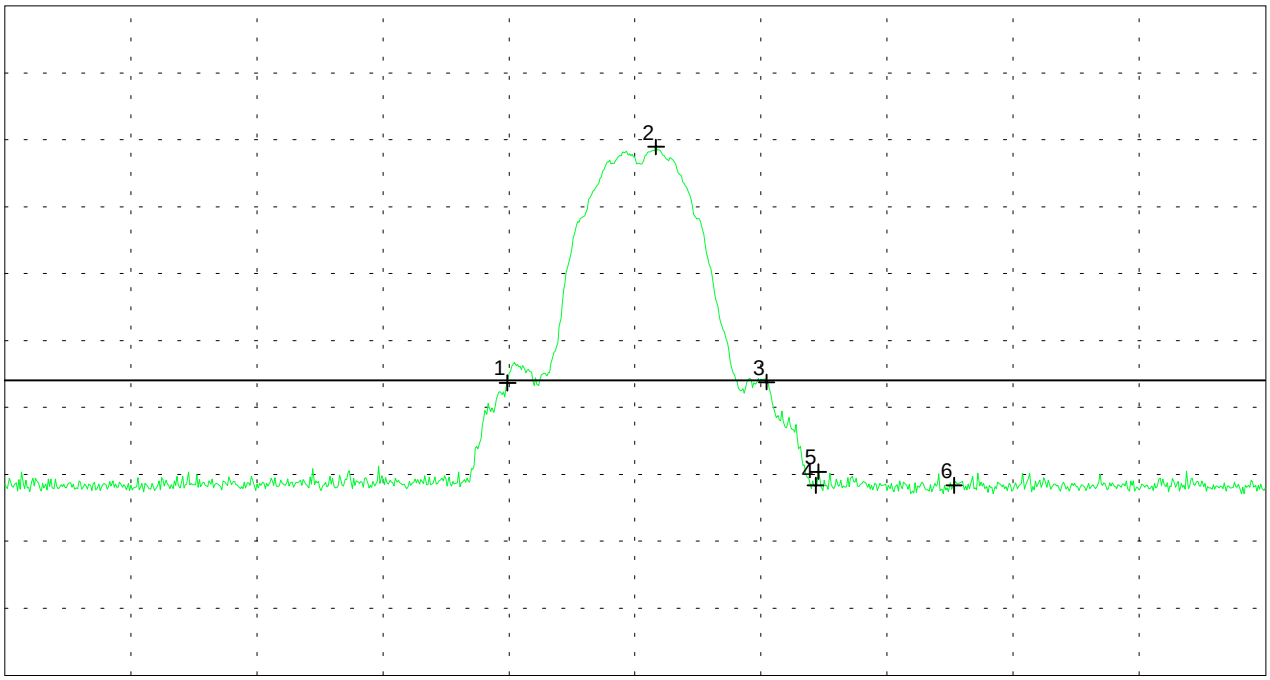
No. 1	2.453333 GHz	73.18 dBµV/m
No. 2	2.464333 GHz	94.41 dBµV/m
No. 3	2.471500 GHz	73.86 dBµV/m
No. 4	2.483500 GHz	57.41 dBµV/m
No. 5	2.497167 GHz	60.33 dBµV/m
No. 6	2.500000 GHz	58.55 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 130 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 MHz SWP 20 ms

Multi Marker List

No. 1	2.446833 GHz	73.66 dBµV/m
No. 2	2.464500 GHz	108.93 dBµV/m
No. 3	2.477667 GHz	73.79 dBµV/m
No. 4	2.483500 GHz	58.35 dBµV/m
No. 5	2.483833 GHz	60.38 dBµV/m
No. 6	2.500000 GHz	58.35 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

Radiated Emission 1 GHz - 25 GHz (Additional Test Results) according to FCC Part 15 Subpart C

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 2 Mbps

- TX mode with f = 2.462 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
2.4427	vertical	53.6		0.6	20.7	53.6	OB
2.4648	vertical	104.7		0.6	20.7	104.7	OB
2.4815	vertical	54.0		0.6	20.7	54.0	OB
2.4835	vertical	45.8		0.6	20.7	45.8	54
2.4883	vertical	45.6		0.6	20.7	45.6	54
2.5000	vertical	41.4		0.6	20.7	41.4	54
4.9243	vertical	32.2	-102.1		27.3	32.2	54

Note 1: 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 104.7 dBµV/m.

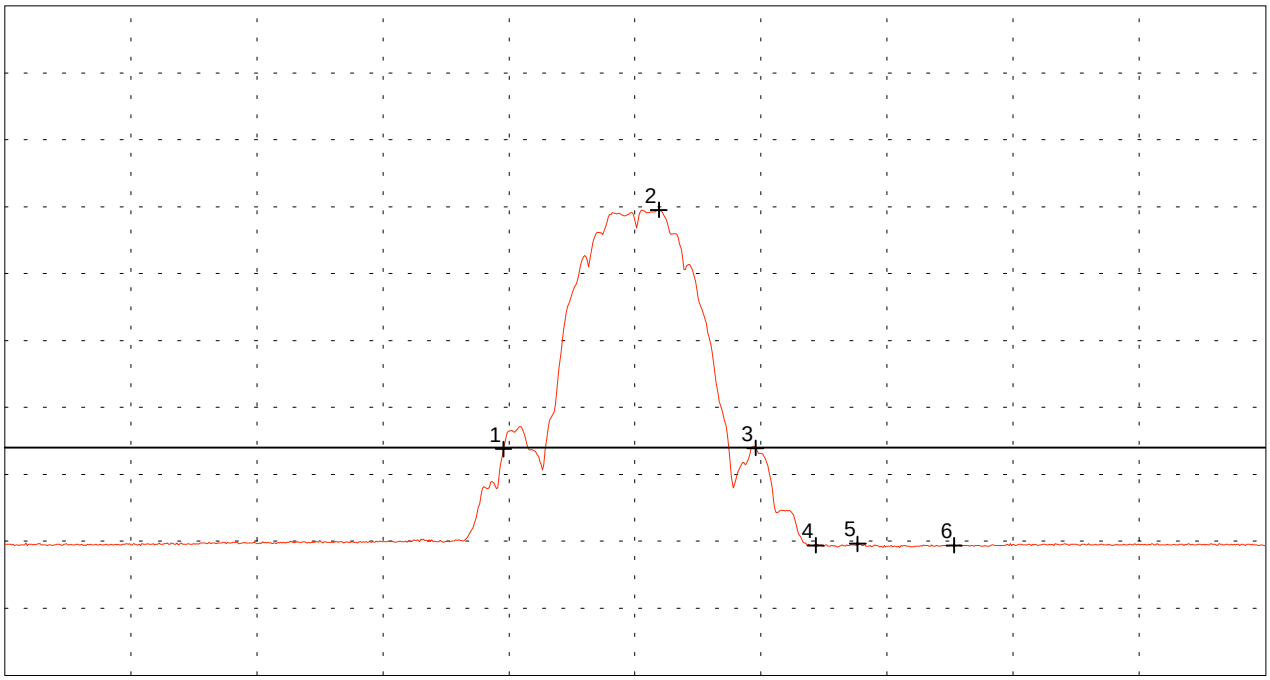
Note 2: Extent of testing harmonics with 2 Mbps selected according to results of radiated emission with 11 Mbps (peak)

Result: The limits are kept

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel A (red) = horizontal polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

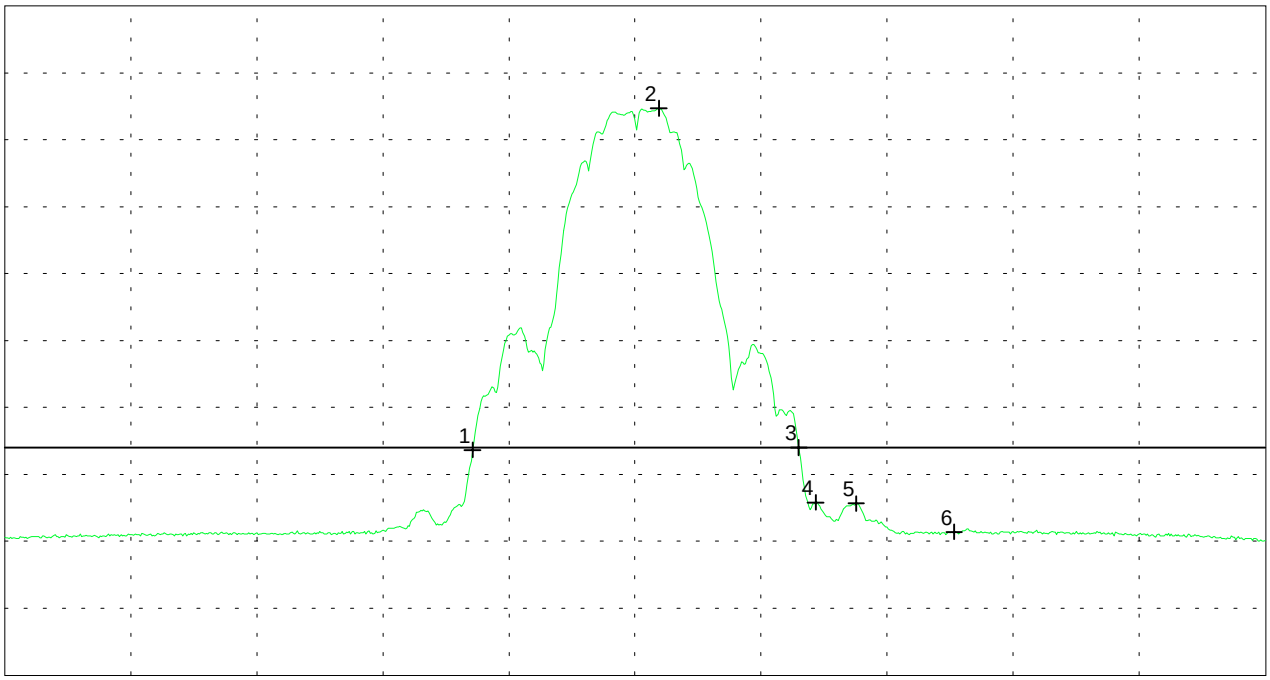
No. 1	2.446333 GHz	53.76 dBµV/m
No. 2	2.464833 GHz	89.51 dBµV/m
No. 3	2.476333 GHz	53.91 dBµV/m
No. 4	2.483500 GHz	39.39 dBµV/m
No. 5	2.488500 GHz	39.61 dBµV/m
No. 6	2.500000 GHz	39.39 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

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

Model: MPCI3A-20	Mode: - RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 2 Mbps - TX mode with f = 2.462 GHz Test distance: 3 meters Channel B (green) = vertical polarization
Serial No.: 00UT28300000	
Applicant: Lucent Technologies Nederland B.V.	

Ref.Level 120 dBµV/m ATT 5 dB Ref. Offset 21.3 dB
10 dB/Div.



Start 2.387 GHz Stop 2.537 GHz
RBW 1 MHz VBW 1 kHz SWP 460 ms

Multi Marker List

No. 1	2.442667 GHz	53.63 dBµV/m
No. 2	2.464833 GHz	104.70 dBµV/m
No. 3	2.481500 GHz	53.99 dBµV/m
No. 4	2.483500 GHz	45.78 dBµV/m
No. 5	2.488333 GHz	45.63 dBµV/m
No. 6	2.500000 GHz	41.37 dBµV/m

Tested by: Rainer Heller	Project-No.: 56305-00323-1
Date: 07/13/2000	

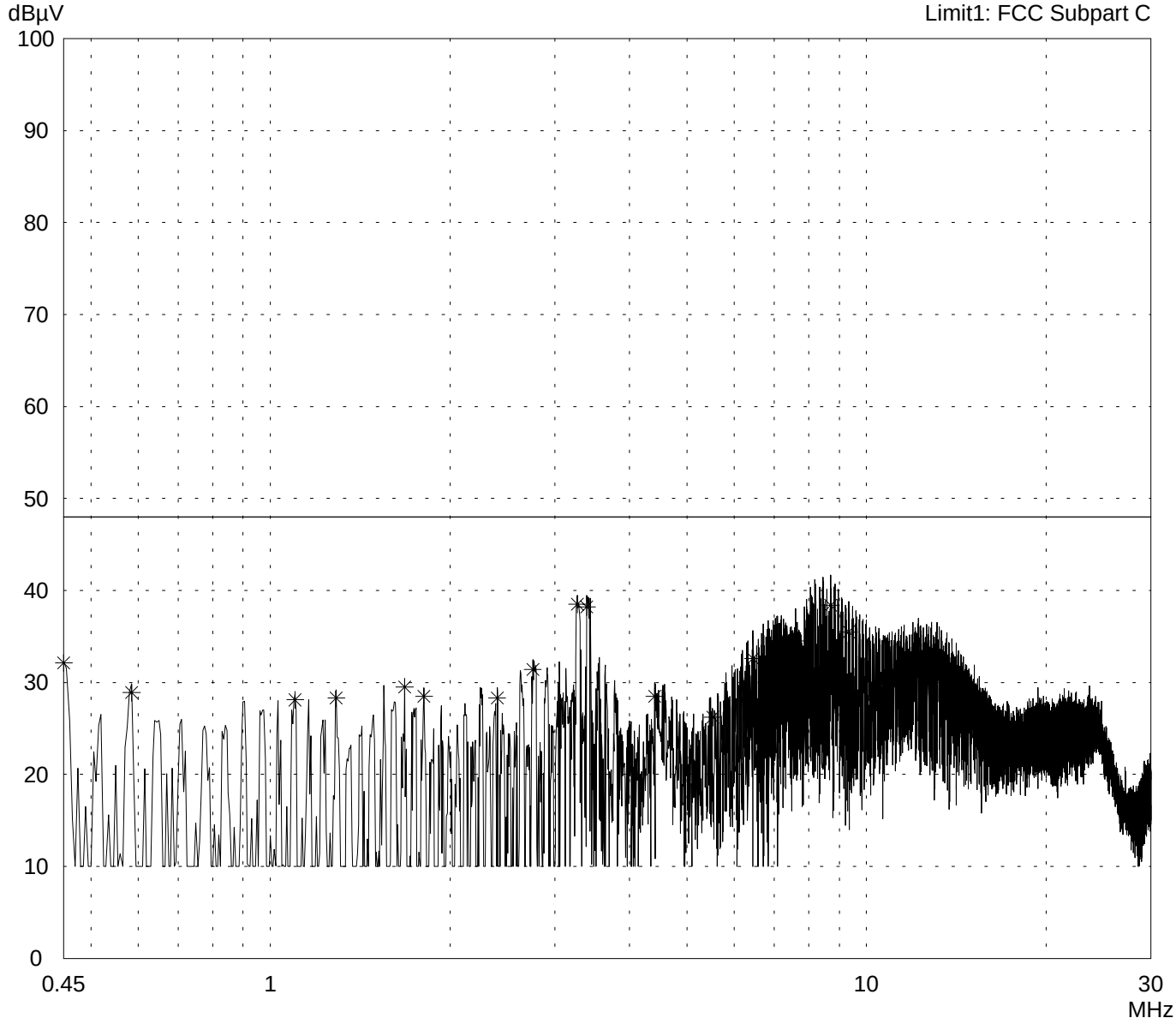
Test results for

Receive (RX) mode

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 164 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase L1

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- RX mode with f = 2.442 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.450	32.1		32.1	48.0	
0.585	28.9		28.9	48.0	
1.100	28.1		28.1	48.0	
1.290	28.3		28.3	48.0	
1.680	29.5		29.5	48.0	
1.810	28.5		28.5	48.0	
2.400	28.3		28.3	48.0	
2.755	31.4		31.4	48.0	
3.270	38.5		38.5	48.0	
3.395	38.2		38.2	48.0	
4.410	28.5		28.5	48.0	
5.520	26.2		26.2	48.0	
6.450	32.6		32.6	48.0	
7.600	34.5		34.5	48.0	
8.705	38.4		38.4	48.0	
9.345	35.5		35.5	48.0	
12.220	32.1		32.1	48.0	
13.120	31.7		31.7	48.0	
15.450	26.2		26.2	48.0	
19.410	23.6		23.6	48.0	
23.670	23.2		23.2	48.0	

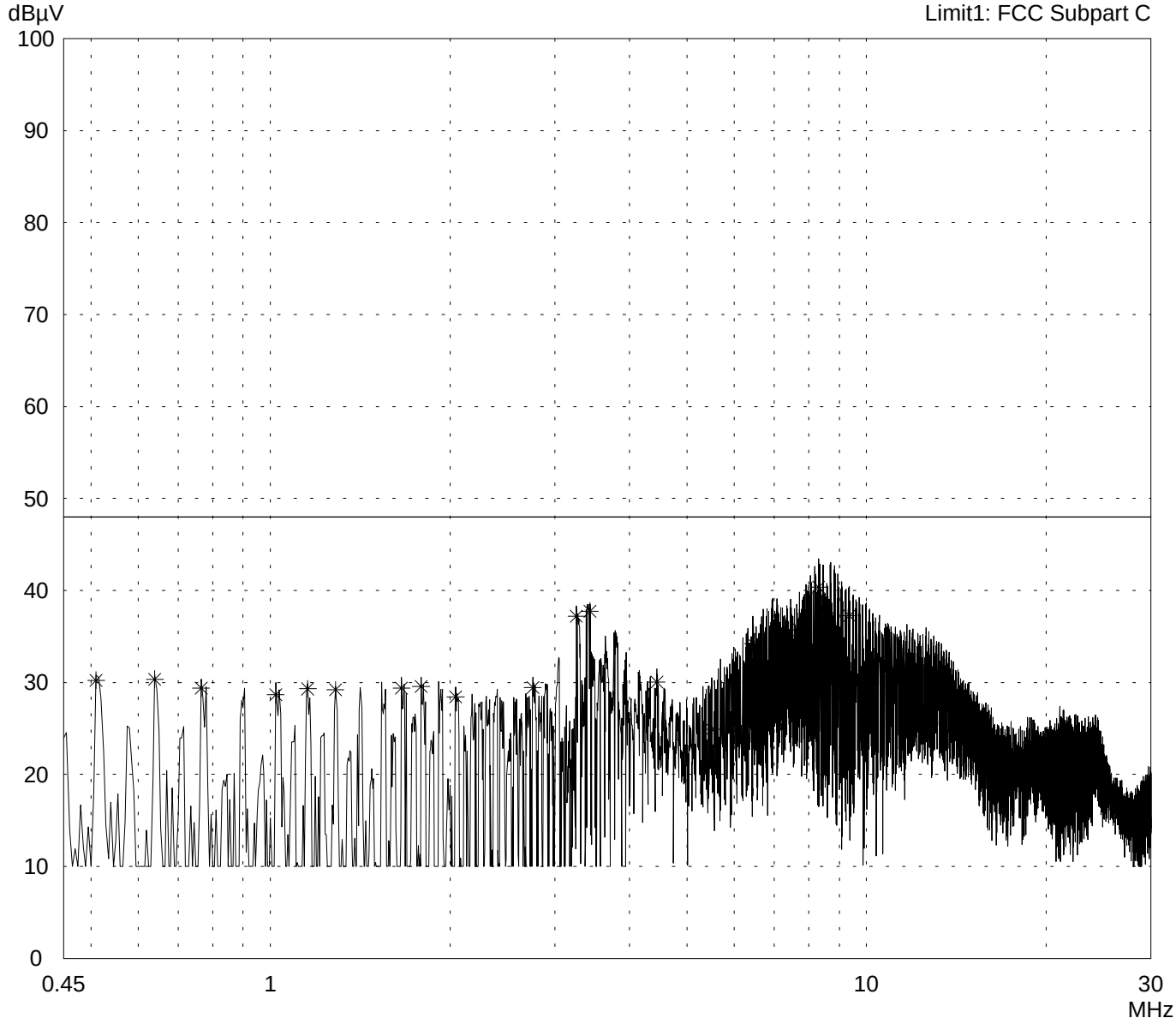
Result:
Limit kept

Project file:
56305-00323-1

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord notebook (EUT) Phase N	
Date of test: 07/12/2000 — Operator: R. Heller	
Test performed: automatically — File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin — 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 — Page 166 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Shielded room, cabin no. 2

Tested on:
Linecord notebook (EUT)
Phase N

Date of test: 07/12/2000
Operator: R. Heller

Test performed: automatically
File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- RX mode with f = 2.442 GHz

Detector:
Peak / Final Results: QP

Final results:
20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
0.510	30.2		30.2	48.0	
0.640	30.3		30.3	48.0	
0.765	29.4		29.4	48.0	
1.020	28.7		28.7	48.0	
1.155	29.3		29.3	48.0	
1.285	29.2		29.2	48.0	
1.660	29.4		29.4	48.0	
1.790	29.6		29.6	48.0	
2.045	28.4		28.4	48.0	
2.755	29.4		29.4	48.0	
3.260	37.2		37.2	48.0	
3.435	37.8		37.8	48.0	
4.445	30.0		30.0	48.0	
5.505	24.9		24.9	48.0	
6.450	34.2		34.2	48.0	
7.725	35.7		35.7	48.0	
8.320	40.3		40.3	48.0	
9.350	37.3		37.3	48.0	
11.690	31.9		31.9	48.0	
12.970	30.8		30.8	48.0	
15.360	24.3		24.3	48.0	

Result:
Limit kept

Project file:
56305-00323-1

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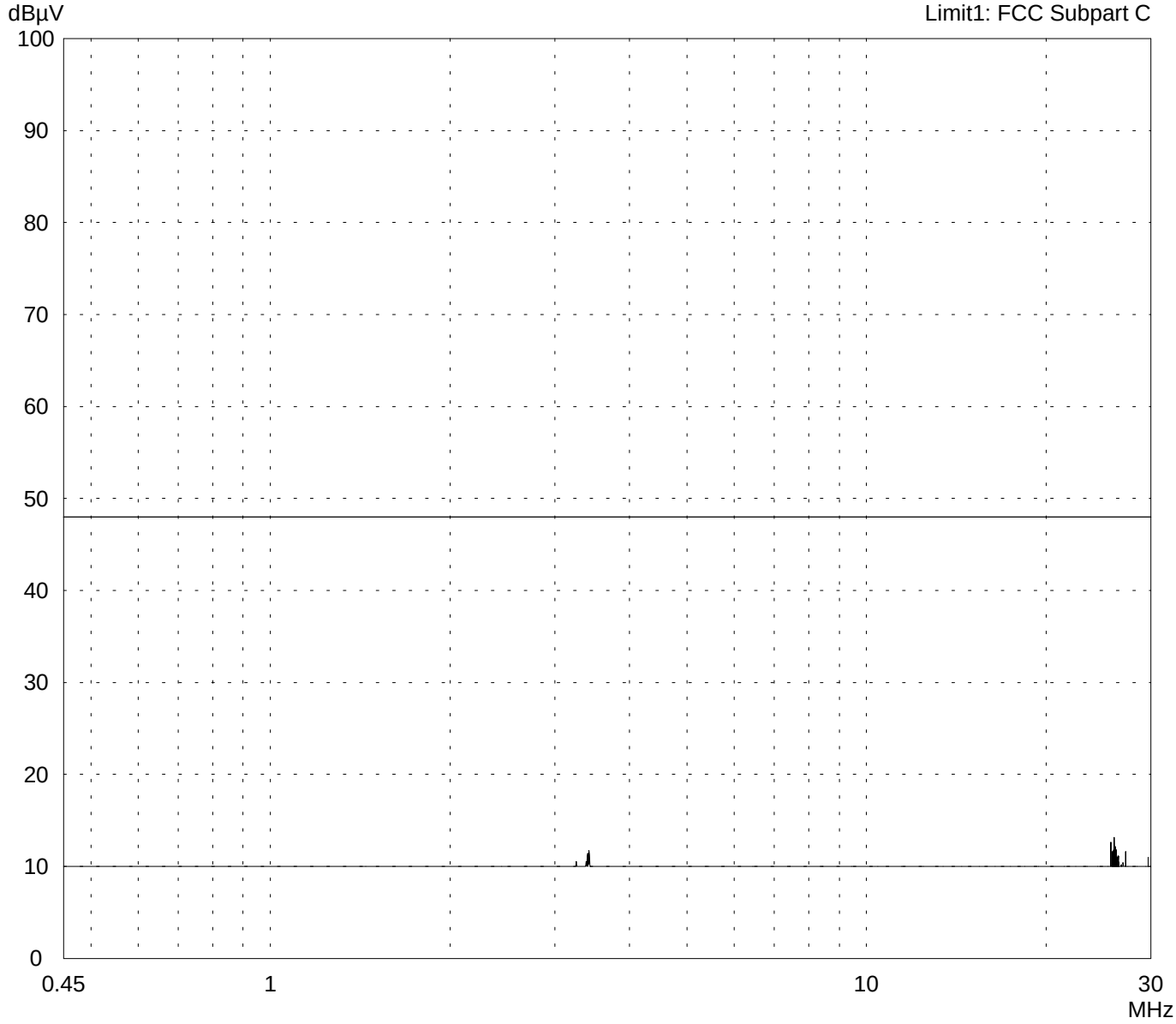
Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1

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Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase L1	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

Result: Limit kept	Project file: 56305-00323-1

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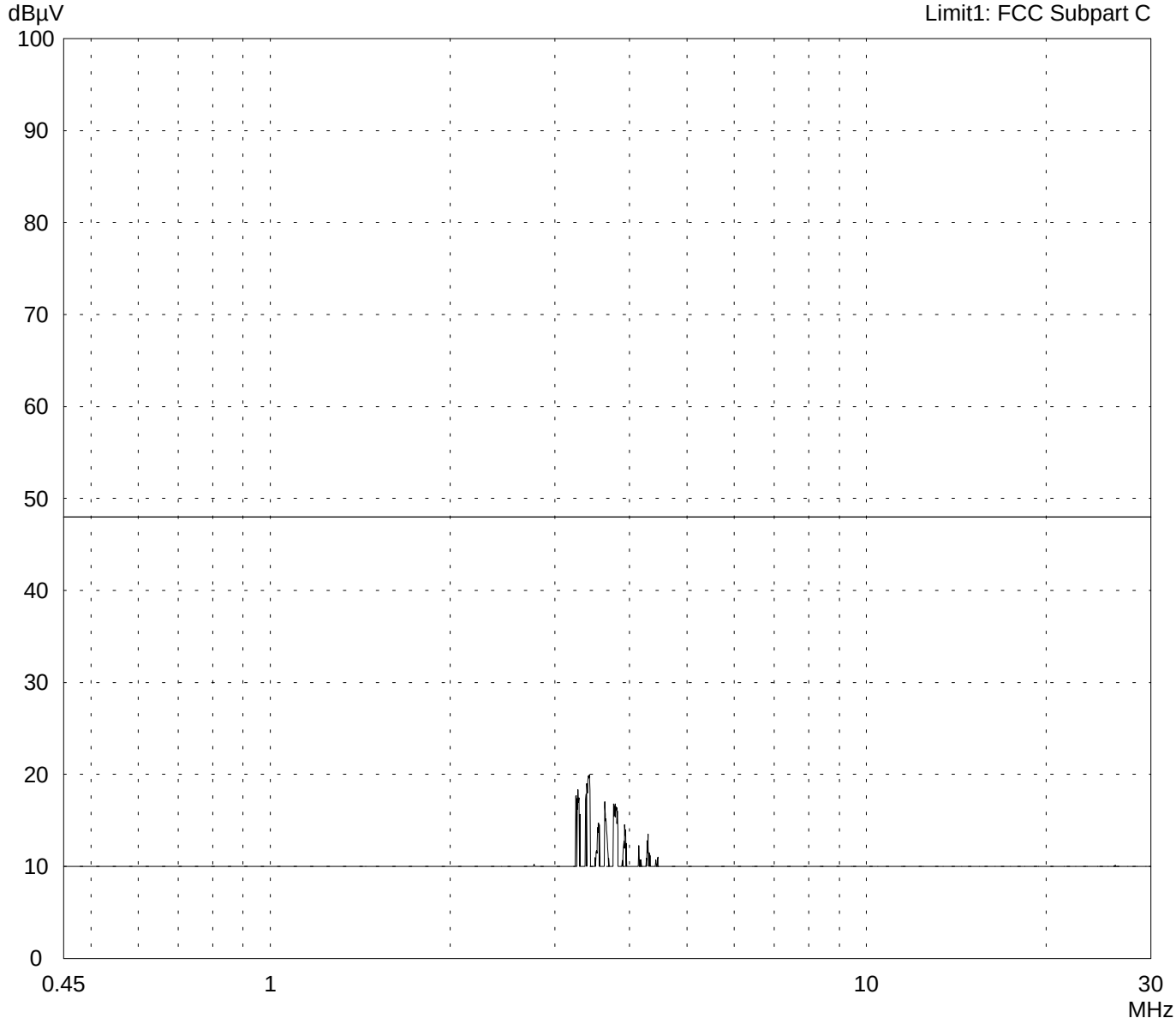
Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges



Result: Limit kept	Project file: 56305-00323-1 Page 170 of 181 Pages

Conducted Emission Test 450 kHz - 30 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Shielded room, cabin no. 2	
Tested on: Linecord peripheral devices Phase N	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak / Final Results: QP	Final results: 20 dB Margin 25 Subranges

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV*	*Limit dBµV*	*Limit exceeded*
no results					

Result: Limit kept	Project file: 56305-00323-1

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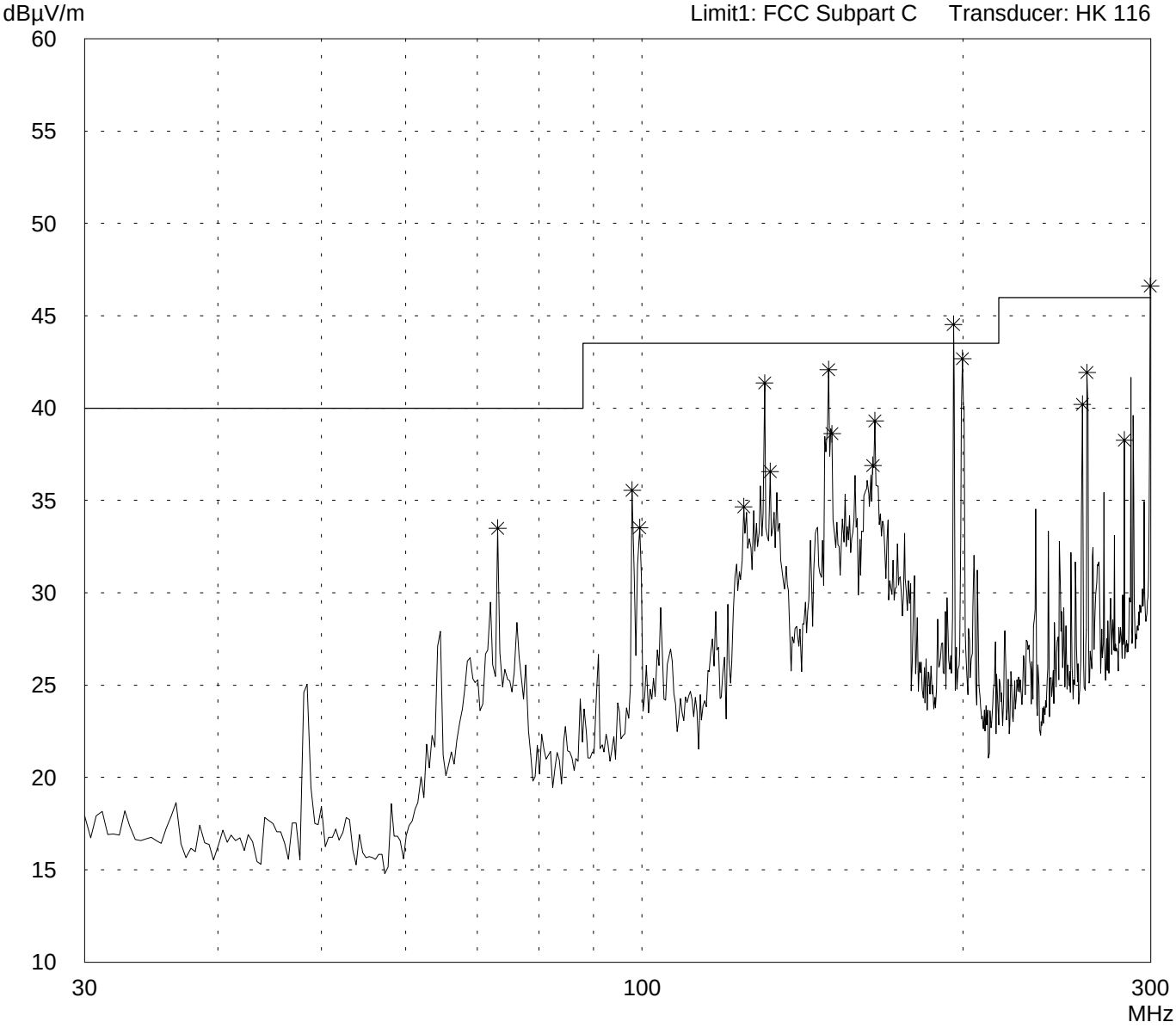
Radiated Emission Test 30 MHz - 300 MHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges



Result: Prescan	Project file: 56305-00323-1

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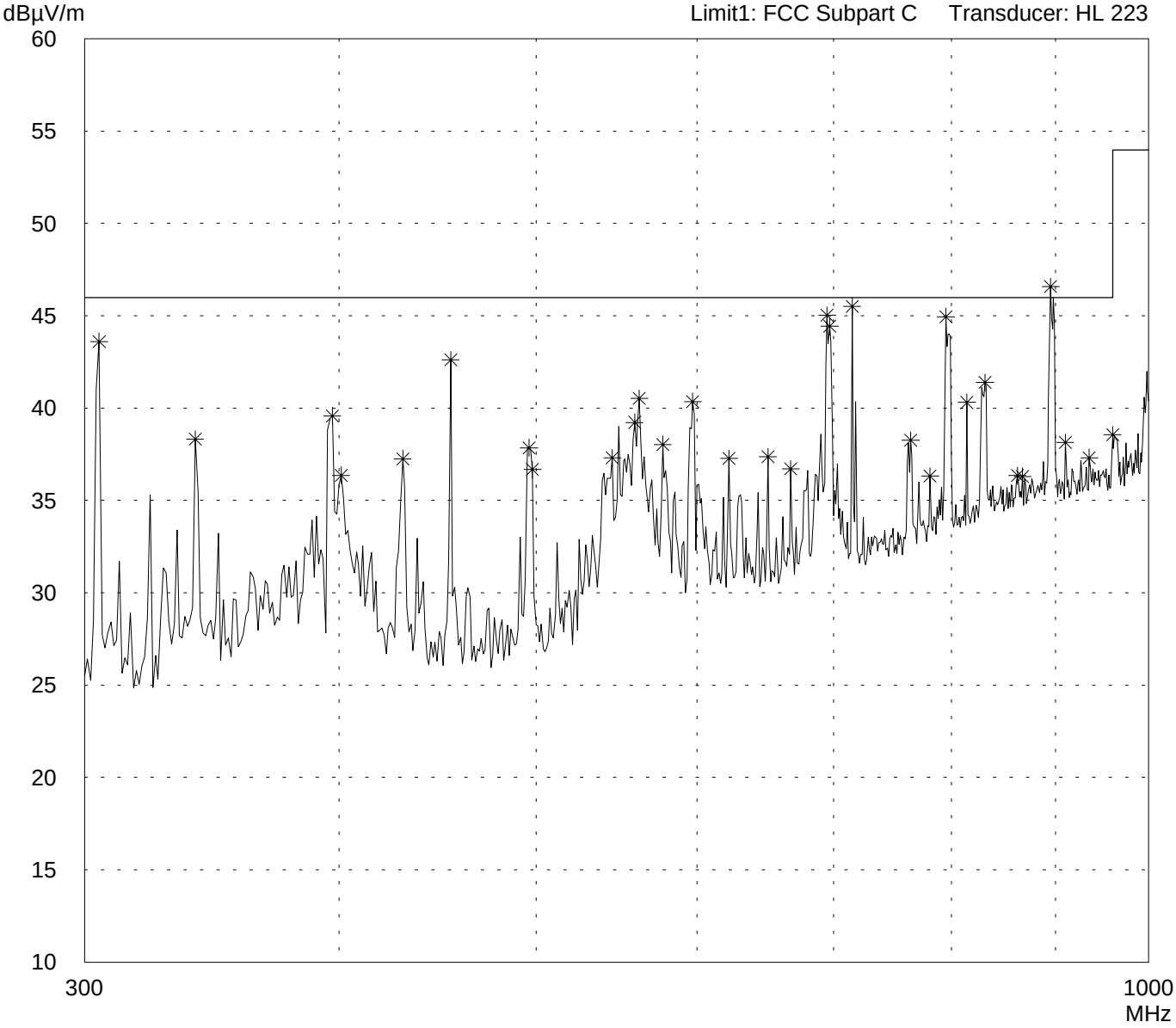
Radiated Emission Test 300 MHz - 1 GHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges



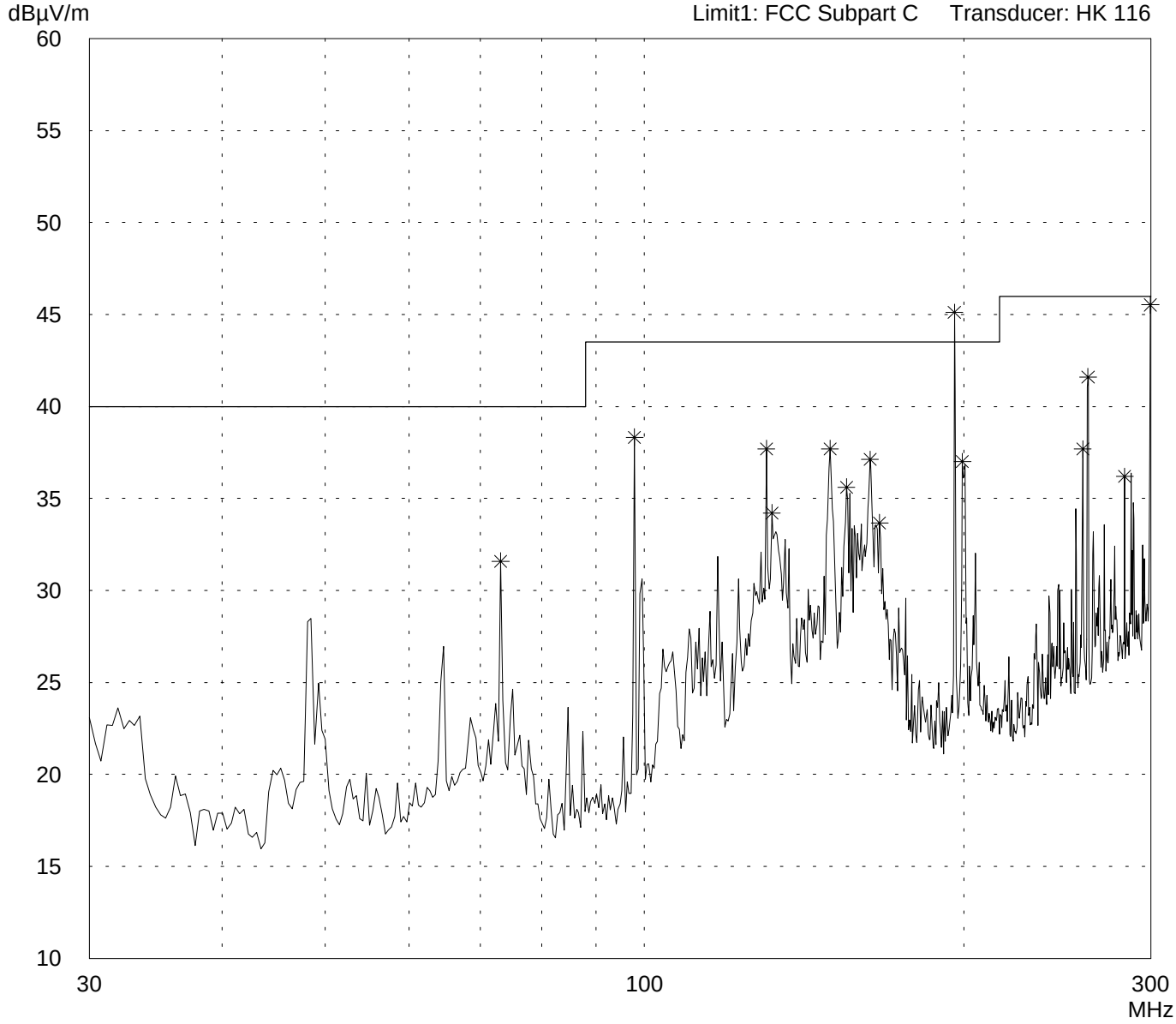
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges



Result: Prescan	Project file: 56305-00323-1

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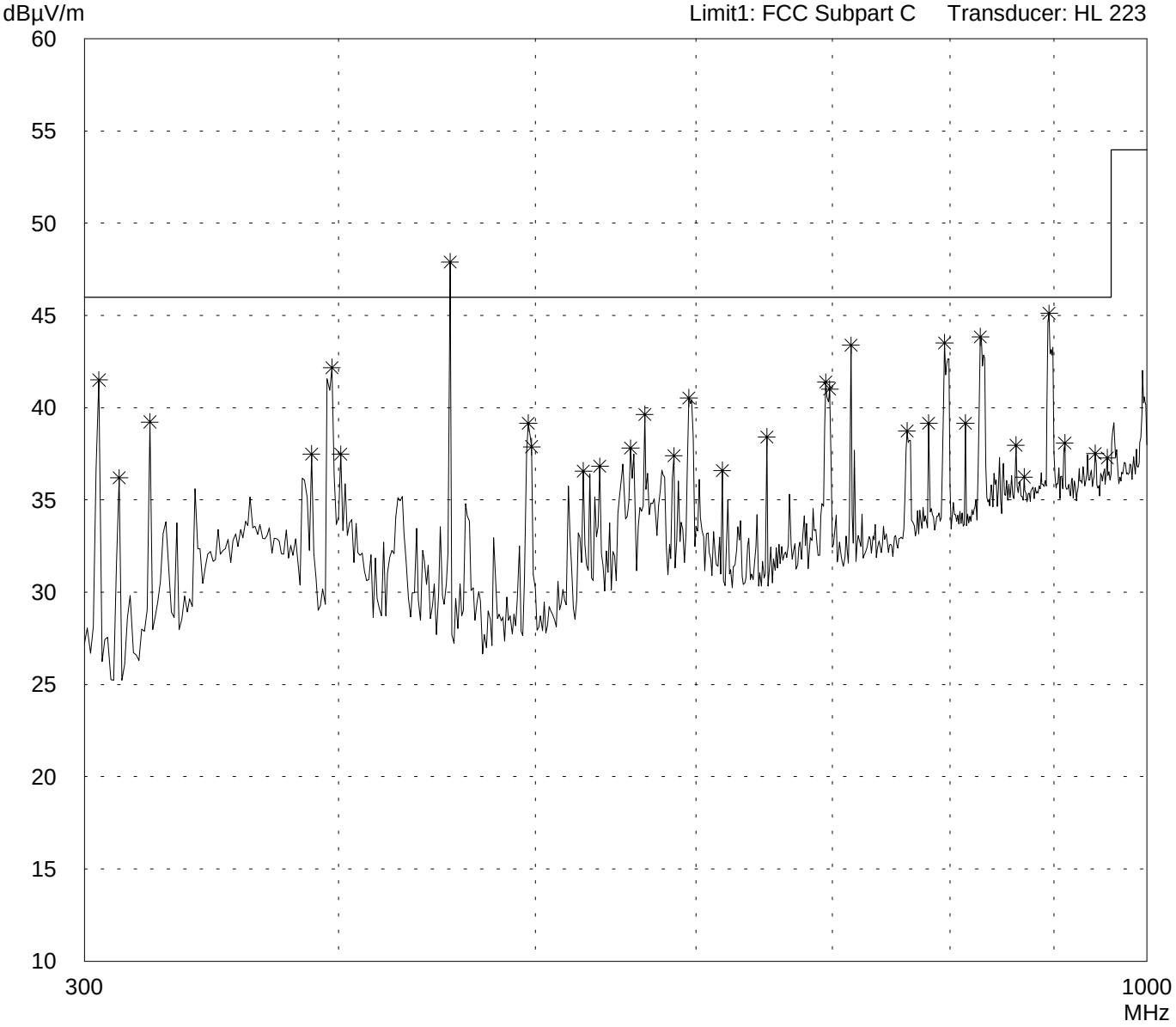
Radiated Emission Test 300 MHz - 1 GHz
according to FCC Part 15 Subpart C

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
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: 07/11/2000 / Operator: R. Heller	
Test performed: automatically / File name:	

Detector: Peak	List of values: 10 dB Margin 50 Subranges



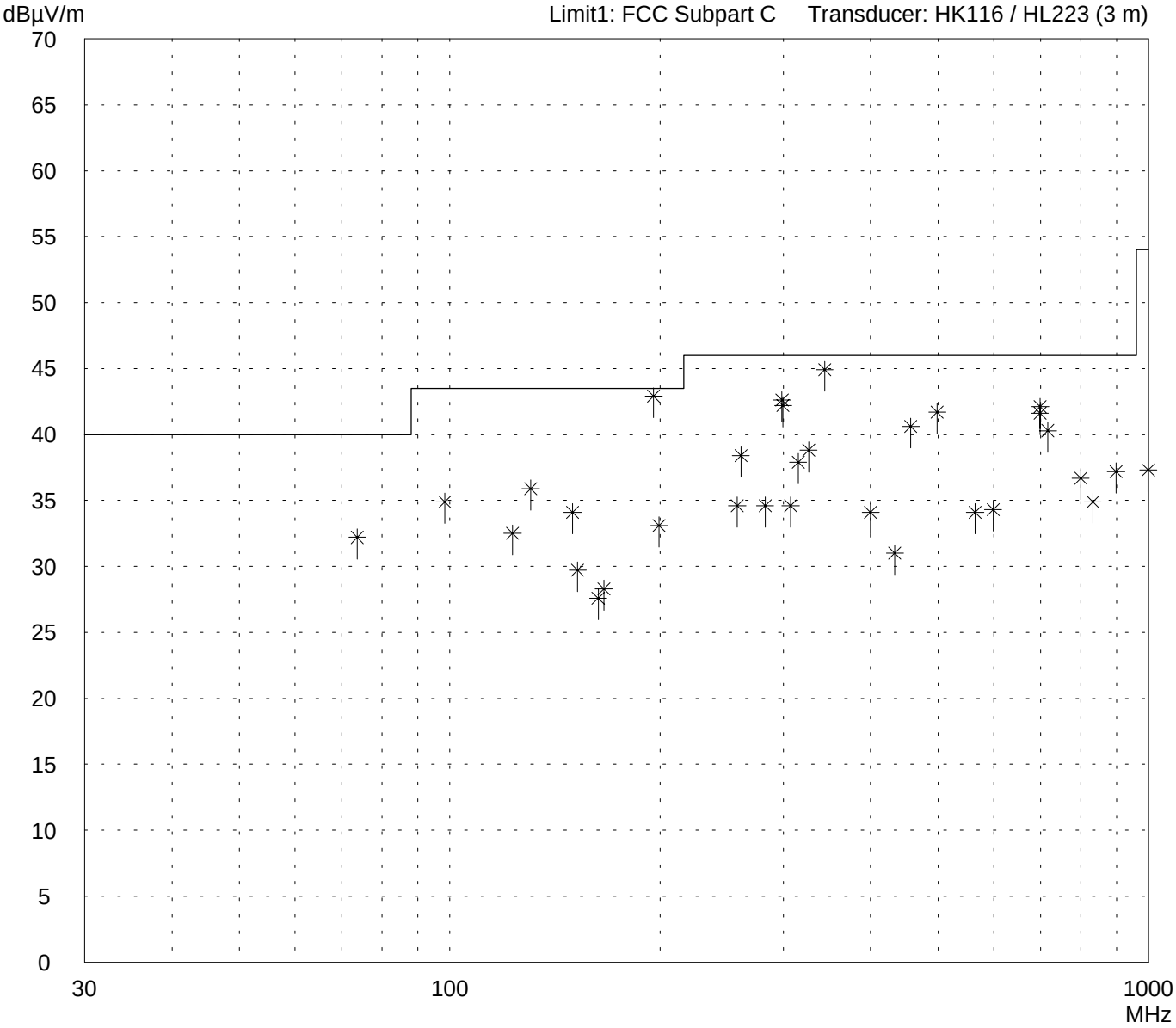
Result: Prescan	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Horizontal Polarization

Date of test: 07/12/2000

Operator: R. Heller

Test performed: by hand

File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- RX mode with f = 2.442 GHz

Detector: Quasi-Peak

List of values: Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	21.5	10.7	32.2	40.0	
98.3	23.0	11.9	34.9	43.5	
122.9	18.0	14.5	32.5	43.5	
130.5	21.0	14.9	35.9	43.5	
149.8	18.0	16.1	34.1	43.5	
152.3	13.5	16.2	29.7	43.5	
163.0	11.0	16.6	27.6	43.5	
166.0	11.5	16.8	28.3	43.5	
195.7	24.5	18.4	42.9	43.5	
199.2	14.5	18.6	33.1	43.5	
257.7	13.5	21.1	34.6	46.0	
260.9	17.0	21.4	38.4	46.0	
282.6	11.0	23.6	34.6	46.0	
298.8	17.5	25.1	42.6	46.0	
299.7	17.0	25.2	42.2	46.0	
307.2	15.5	19.1	34.6	46.0	
315.0	18.5	19.4	37.9	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	24.5	20.4	44.9	46.0	
400.0	12.0	22.1	34.1	46.0	
433.3	8.0	23.0	31.0	46.0	
456.6	17.0	23.6	40.6	46.0	
498.4	17.0	24.7	41.7	46.0	
564.3	8.0	26.1	34.1	46.0	
599.1	7.5	26.8	34.3	46.0	
698.7	11.5	30.1	41.6	46.0	
699.5	12.0	30.1	42.1	46.0	
717.5	10.0	30.3	40.3	46.0	
799.1	5.5	31.2	36.7	46.0	
831.9	3.0	31.9	34.9	46.0	
898.3	4.0	33.2	37.2	46.0	
998.8	2.5	34.8	37.3	54.0	

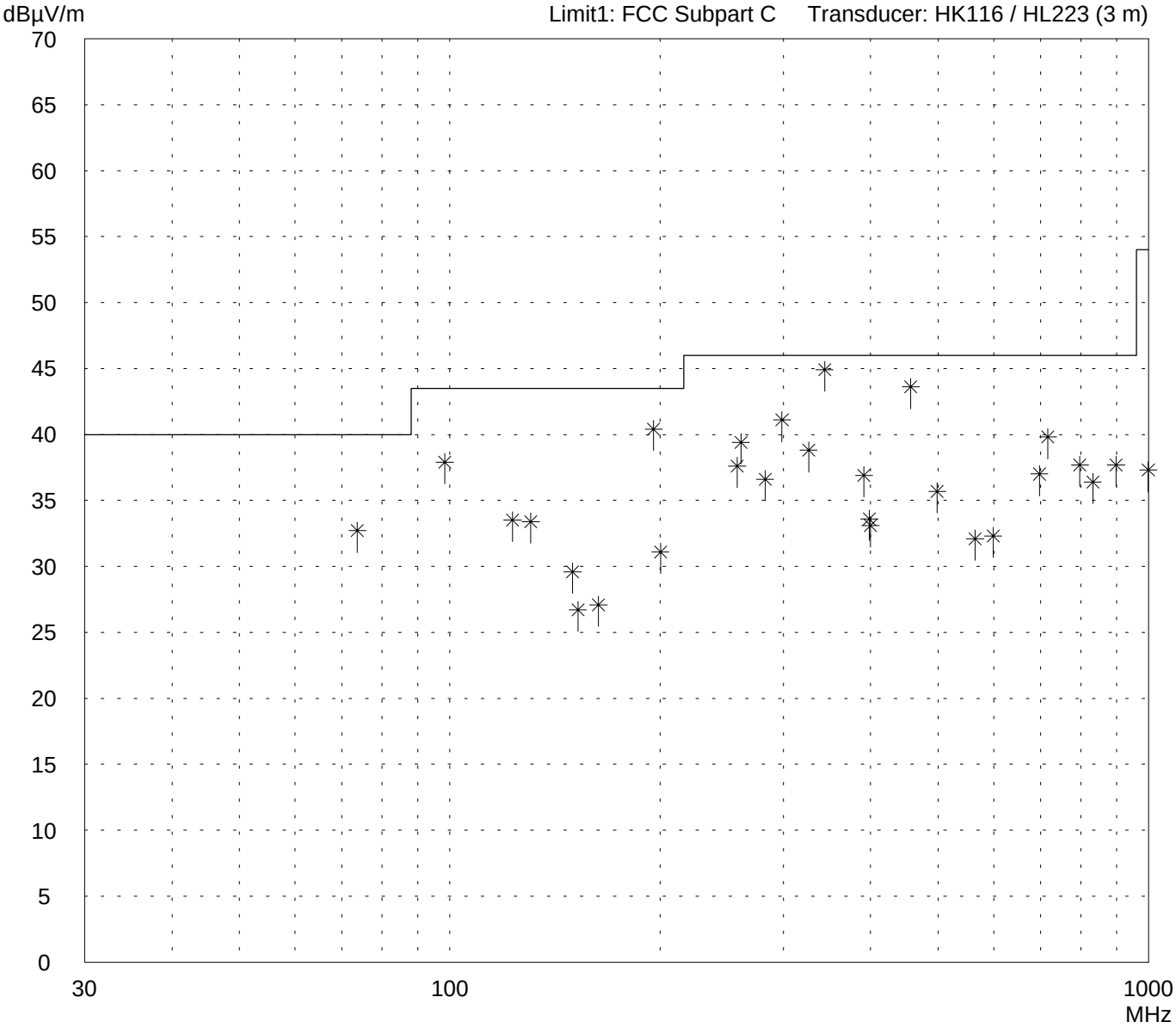
Result: Limit kept

Project file: 56305-00323-1

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

Model: MPCI3A-20	Mode:
Serial no.: 00UT28300000	- RF-modem mounted in IBM ThinkPad 1171-370 - FCC test setup - supply voltage 115 V AC - with external antenna AIN24-OD-0202 - antenna cable mounted in PCMCIA card - operating with bit rate 11 Mbps - RX mode with f = 2.442 GHz
Applicant: Lucent Technologies Nederland B.V.	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 07/12/2000 / Operator: R. Heller	
Test performed: by hand / File name:	

Detector: Quasi-Peak	List of values: Selected by hand



Result: Limit kept	Project file: 56305-00323-1

Senton GmbH / EMI/EMC Laboratories / Aeussere Fruehlingsstrasse 45 / D-94315 Straubing / Tel. +49 9421 55220

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

Model:
MPCI3A-20

Serial no.:
00UT28300000

Applicant:
Lucent Technologies Nederland B.V.

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Vertical Polarization

Date of test: 07/12/2000

Operator: R. Heller

Test performed: by hand

File name:

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-0202

- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- RX mode with f = 2.442 GHz

Detector: Quasi-Peak

List of values: Selected by hand

Frequency MHz	*Reading dBµV*	*Correction factor dB*	*Value dBµV/m*	*Limit dBµV/m*	*Limit exceeded*
73.7	22.0	10.7	32.7	40.0	
98.3	26.0	11.9	37.9	43.5	
122.9	19.0	14.5	33.5	43.5	
130.5	18.5	14.9	33.4	43.5	
149.8	13.5	16.1	29.6	43.5	
152.4	10.5	16.2	26.7	43.5	
163.1	10.5	16.6	27.1	43.5	
195.7	22.0	18.4	40.4	43.5	
200.2	12.5	18.6	31.1	43.5	
257.7	16.5	21.1	37.6	46.0	
260.9	18.0	21.4	39.4	46.0	
282.6	13.0	23.6	36.6	46.0	
298.8	16.0	25.1	41.1	46.0	
326.1	19.0	19.8	38.8	46.0	
343.6	24.5	20.4	44.9	46.0	
391.4	15.0	21.9	36.9	46.0	
398.4	11.5	22.1	33.6	46.0	
399.9	11.0	22.1	33.1	46.0	
456.6	20.0	23.6	43.6	46.0	
498.4	11.0	24.7	35.7	46.0	
564.3	6.0	26.1	32.1	46.0	
599.1	5.5	26.8	32.3	46.0	
697.4	7.0	30.0	37.0	46.0	
717.5	9.5	30.3	39.8	46.0	
797.4	6.5	31.2	37.7	46.0	
831.9	4.5	31.9	36.4	46.0	
898.3	4.5	33.2	37.7	46.0	
998.8	2.5	34.8	37.3	54.0	

Result: Limit kept

Project file: 56305-00323-1

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- RX mode with f = 2.442 GHz

Detector: Peak

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.1031	horizontal	47.1	-86.1		26.1	47.0	74
1.2027	vertical	43.8	-89.4		26.3	43.9	74
1.2987	vertical	44.3	-88.9		26.4	44.5	74
2.1004	horizontal	45.0	-83.1		20.6	44.6	74
2.2000	vertical	43.4	-84.7		20.6	43.0	74
2.4062	vertical	43.1	-85.2		20.7	42.6	74
3.3020	vertical	39.7	-90.8		23.7	39.9	74
4.3933	vertical	41.3	-93.2		27.2	41.0	74

Result: The limits are kept

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

Model: MPCI3A-20
Type: RF-modem for wireless LAN
Serial No.: 00UT28300000
Applicant: Lucent Technologies Nederland B.V.
Test-site: Semi anechoic room
Test distance: 3 meters
Date of test: 07/13/2000
Operator: R. Heller

Mode:
- RF-modem mounted in IBM ThinkPad 1171-370
- FCC test setup
- supply voltage 115 V AC
- with external antenna AIN24-OD-202
- antenna cable mounted in PCMCIA card

- operating with bit rate 11 Mbps

- RX mode with f = 2.442 GHz

Detector: Average

Frequency [GHz]	Polarization	Analyzer-reading [dBµV]	Generator-level [dBm]	Cable loss [dB]	Antenna-correction [dB]	Fieldstrength [dBµV/m]	Limit [dBµV/m]
1.0978	horizontal	34.1	-98.9		26.1	34.2	54
1.1042	vertical	32.8	-100.2		26.1	32.9	54

Result: The limits are kept