TTI-P-G166/98

Accredited Bluetooth™ Test Facility (BQTF)

Test report no.: 5_3807-01-02/01
FCC Part 2, 74
Voyager Lite(1990-2110 MHz)

CETECOM – ICT Services GmbH
Untertürkheimerstr. 6-10
66117 Saarbrücken, Germany

Telephone: + 49 (0) 681 / 598-0
Fax: + 49 (0) 681 / 9075

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1 General information

1.1 Notes

The test results of this test report relate exclusively to the test item specified in 1.5. The CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM ICT Services GmbH.

1.2 Testing laboratory

CETECOM ICT Services GmbH
Untertürkheimer Straße 6 - 10
66117 Saarbrücken
Germany
Telefone : + 49 681 598 - 9100
Telefax : + 49 681 598 - 9075
E-mail : Michael.Berg@ict.cetecom.de
Internet : www.cetecom.de

Accredited testing laboratory:
The Test laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025.
DAR registration number: TTI-P-G-166/98
Accredited Bluetooth™ Test Facility (BQTF)

1.3 Details of applicant

Name : Tandberg Television
Street : Schwalbacher Strasse 11
City : D-65321 Heidenrod Kemel
Country : Germany
Telephone : +49 61 2472 3910
Telefax : +49 61 2472 3929
Contact : Mr. Kühn
Telephone : +49 61 2472 3922

1.4 Application details

Date of receipt of application : 2001-11-26
Date of receipt of test item : 2002-05-21
Date of test : 2002-05-21/22

1.5 Test item

Type of equipment	:	**Digital Audio/Video Transmitter**
Type designation	:	**Voyager Lite**
Manufacturer	:	applicant
Street	:	
City	:	
Country	:	
Serial number	:	P/N 11 1106 119
Additional information	**:**	
Frequency range	:	1990 - 2110 MHz
Type of modulation	:	8M00G7D (OFDM)
Number of channels	:	7
Antenna	:	none
Power supply	:	14.4V DC, Lithium rechargeable battery pack Typ: Endura 50S (choosen for test) or Litium rechargeable battery pack Typ: Sony BP-L90A
Output power	:	0.182 W (peak conducted)
Type of equipment	:	
Temperature range	:	-30°C - +50°C

1.6 Test standards: FCC Part 2, 74

2 Technical test

Rx:

The radiated measurements were performed vertical and horizontal over the whole frequency range. We start at 1 m high with vertical receiving antenna and rotate the dish continuously. During rotation we use the antenna lift system to vary the hight from 1 to 4 m. So thus we find maximum radiation output. At this points we do manual remeasurements. After this we do the same measurements in horizontal position of the receiving antenna. This (horizontal and vertical) is made for all the three planes of the test sample. We use the maximum received results.

The detector function and selection of bandwidth are according ANSI C63.2-1996 item 8.2.1 and ANSI C63.4-1992 Item 4.2.

Antennas are conform with ANSI C63.2-1996 item 15.

150 kHz - 30 MHz: Quasi Peak measurement, 9kHz Bandwidth, passive loop antenna.

30 MHz - 200 MHz: Quasi Peak measurement, 120KHz Bandwidth, biconical antenna

200MHz - 1GHz: Quasi Peak measurement, 120KHz Bandwidth, log periodic antenna

1GHz: Average, RBW 1MHz, VBW 10 MHz, wave guide horn

Tx: All measurements was done based on ANSI C63.4.

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

Final verdict : PASS

Technical responsibility for area of testing :

20.06.02	RSC 8411	Berg M.	
Date	**Section**	**Name**	**Signature**

Technical responsibility for area of testing :

20.06.02	RSC8414	Ames H.	
Date	**Section**	**Name**	**Signature**

2.2 Testreport

TEST REPORT

Test report no. : 5_3807-01-02/01

TEST REPORT REFERENCE

LIST OF MEASUREMENTS

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RF Power Vs. DC Power Input SUBCLAUSE § 2.993

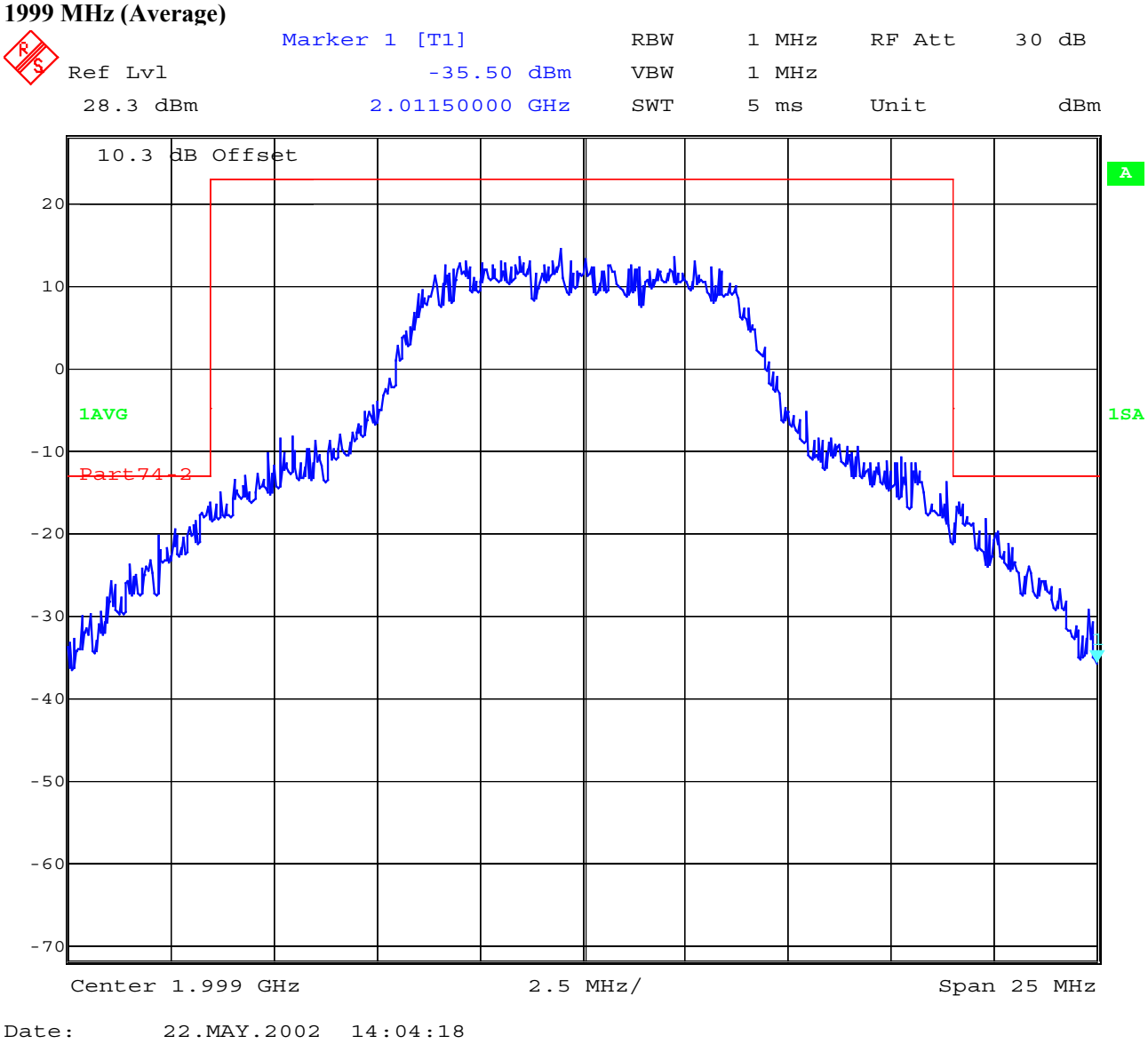
Power (W)					
Frequency	1999 MHz	2050.5 MHz	2101.5 MHz		
	46.65	46.62	46.64		
Measurement uncertainty	± 3 %				

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
05

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

Emissions and Emission limitations §74.637 (b)

1999 MHz (Average)



measured with normal Test modulation : Pseudo random data stream max. 8Mbit/s

LIMITS **SUBCLAUSE § 74.637**

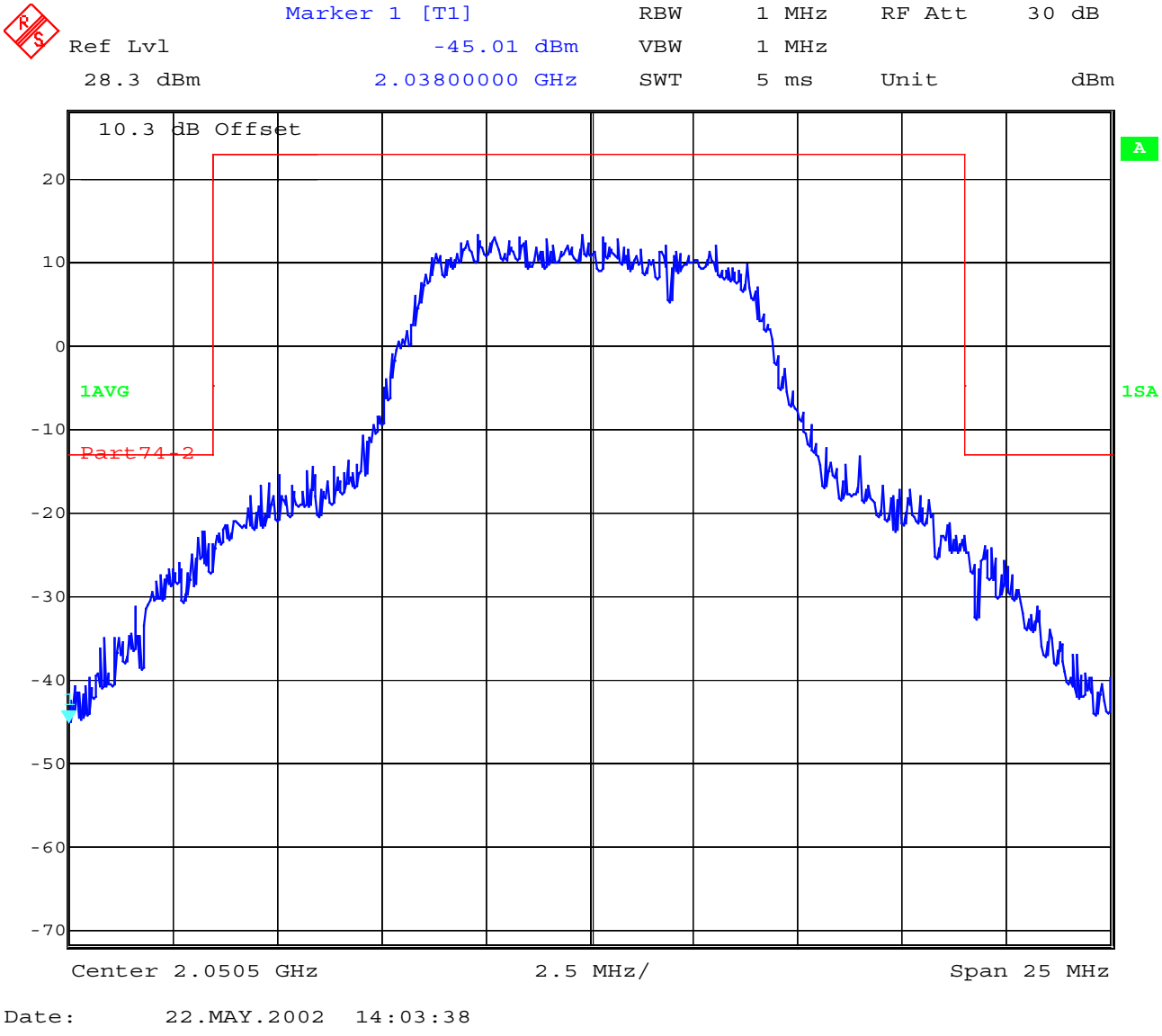
to cease or modify operation in the
(b) For all emissions except frequency modulation, the peak power of emissions shall be attenuated below the peak envelope transmitter power (P) in accordance with the following schedule:
(1) On any frequency 500 Hz inside the channel edge up to and including 2500 Hz outside the same edge, the following formula will apply:
Attenuation = 29 Log $(25/11(D+2.5-W/2)^2)$ dB
or 50 dB whichever is the lesser attenuation. Where: D is the displacement frequency (kHz) from the center of the authorized bandwidth; and W is the channel bandwidth (kHz). (
2) On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

Emissions and Emission limitations §74.637 (b)

2050.5 MHz (Average)



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LIMITS SUBCLAUSE § 74.637

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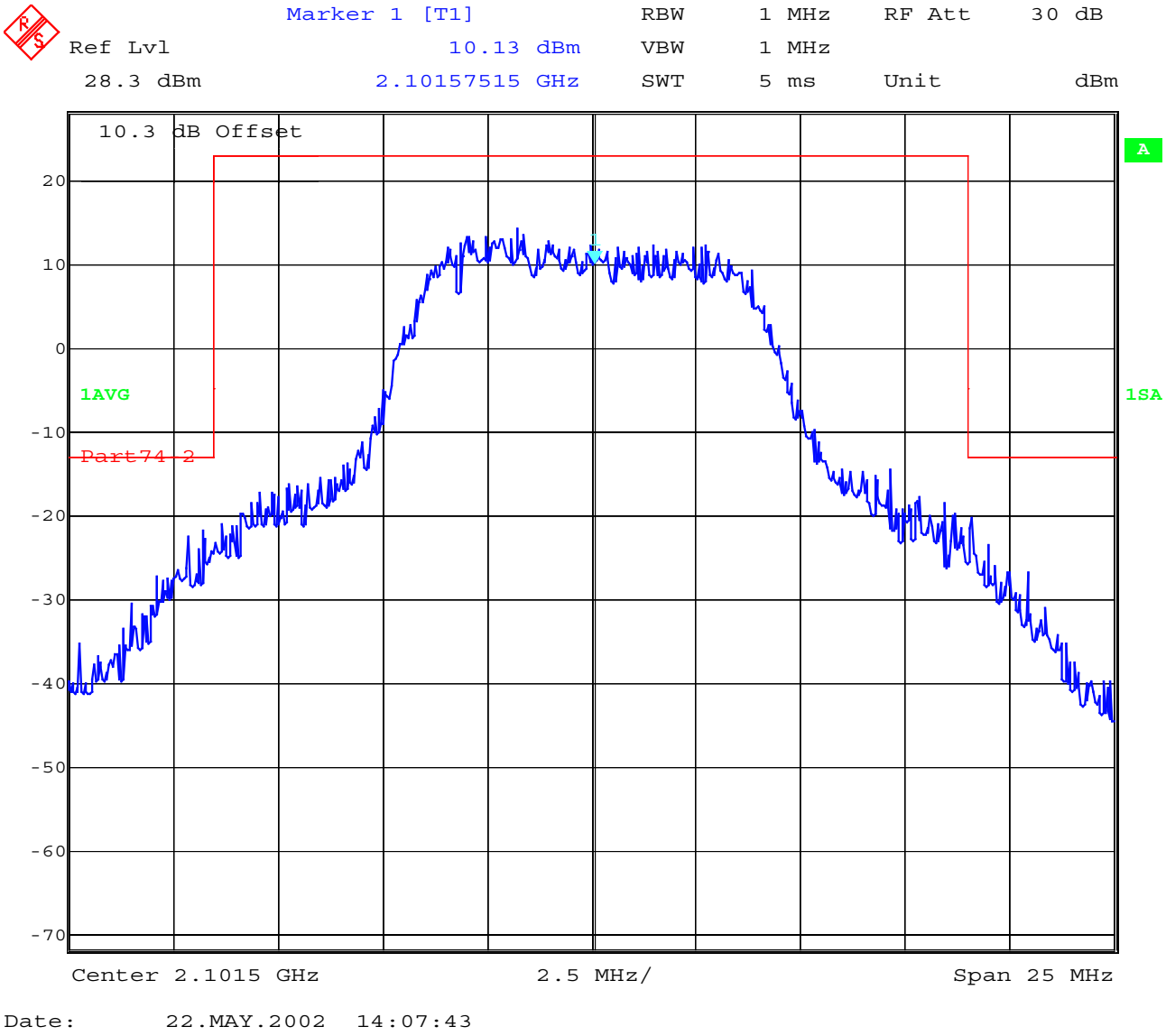
Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

Emissions and Enissions limitations §74.637 (b)

2101.5 MHz (Average)



measured with normal Test modulation : Pseudo random data stream max. 8Mbit/s

LIMITS SUBCLAUSE § 74.637

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REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
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Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

POWER LIMITATIONS SUBCLAUSE § 74.636
(conducted)

TEST CONDITIONS			MAXIMUM PEAK OUTPUT POWER (W)				
Frequency (MHz)			1999	2050.5	2105.5		
T_{nom}(23)°C	V_{nom}(14.4)V						
		Max	0.182	0.178	0.178		
Maximum deviation from output power under extreme test conditions (dBc)			not applicable	not applicable	not applicable		
Measurement uncertainty			±0.5dB				

Measured with a power meter

LIMITS **SUBCLAUSE § 74.636**

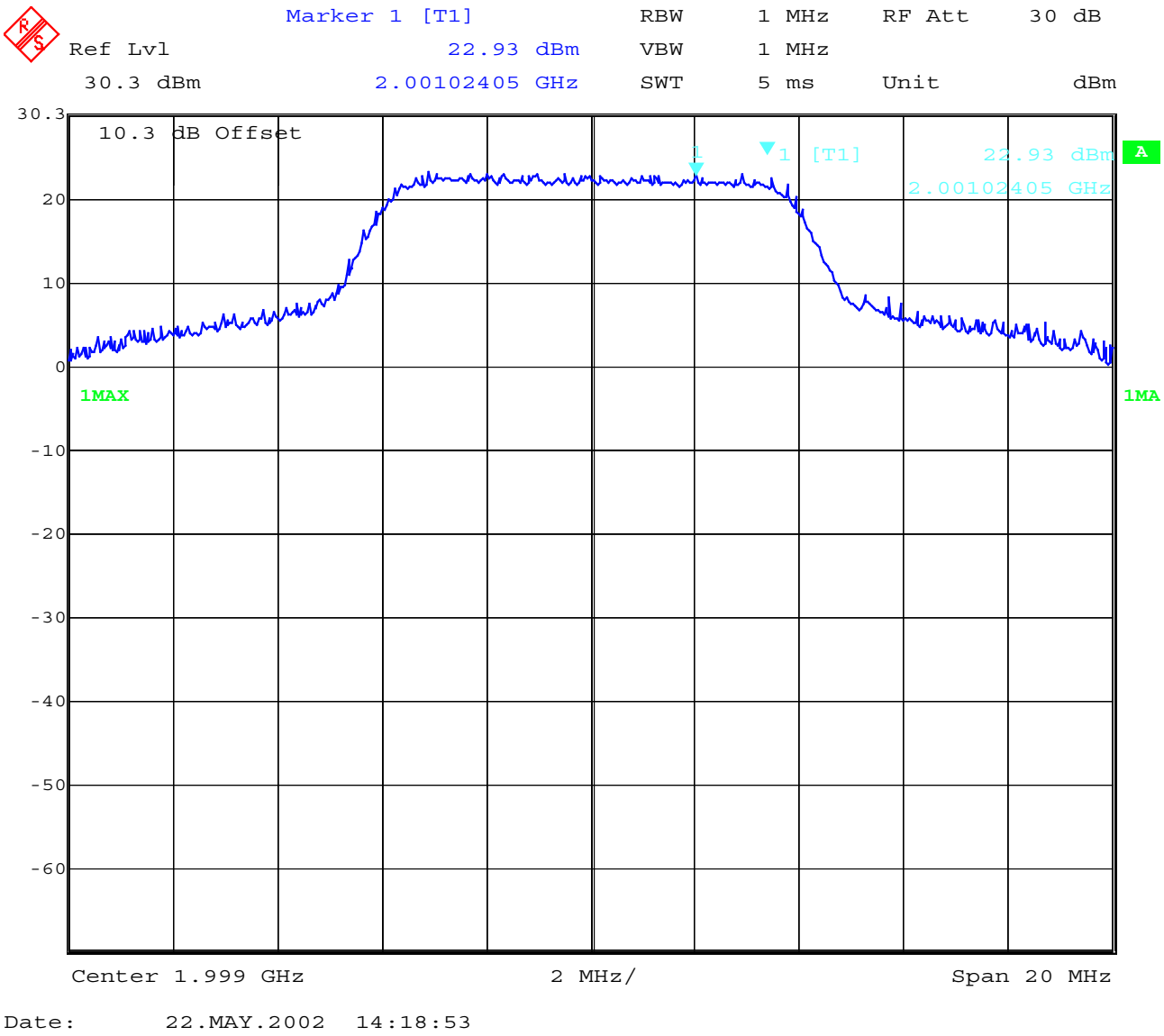
	Max. allowable transmitter power	
Frequency band (MHz)	Fixed (W)	Mobil (W)
1990 to 2110	20.0	12.0
2450 to 2500	20.0	12.0

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

Output power (conducted)

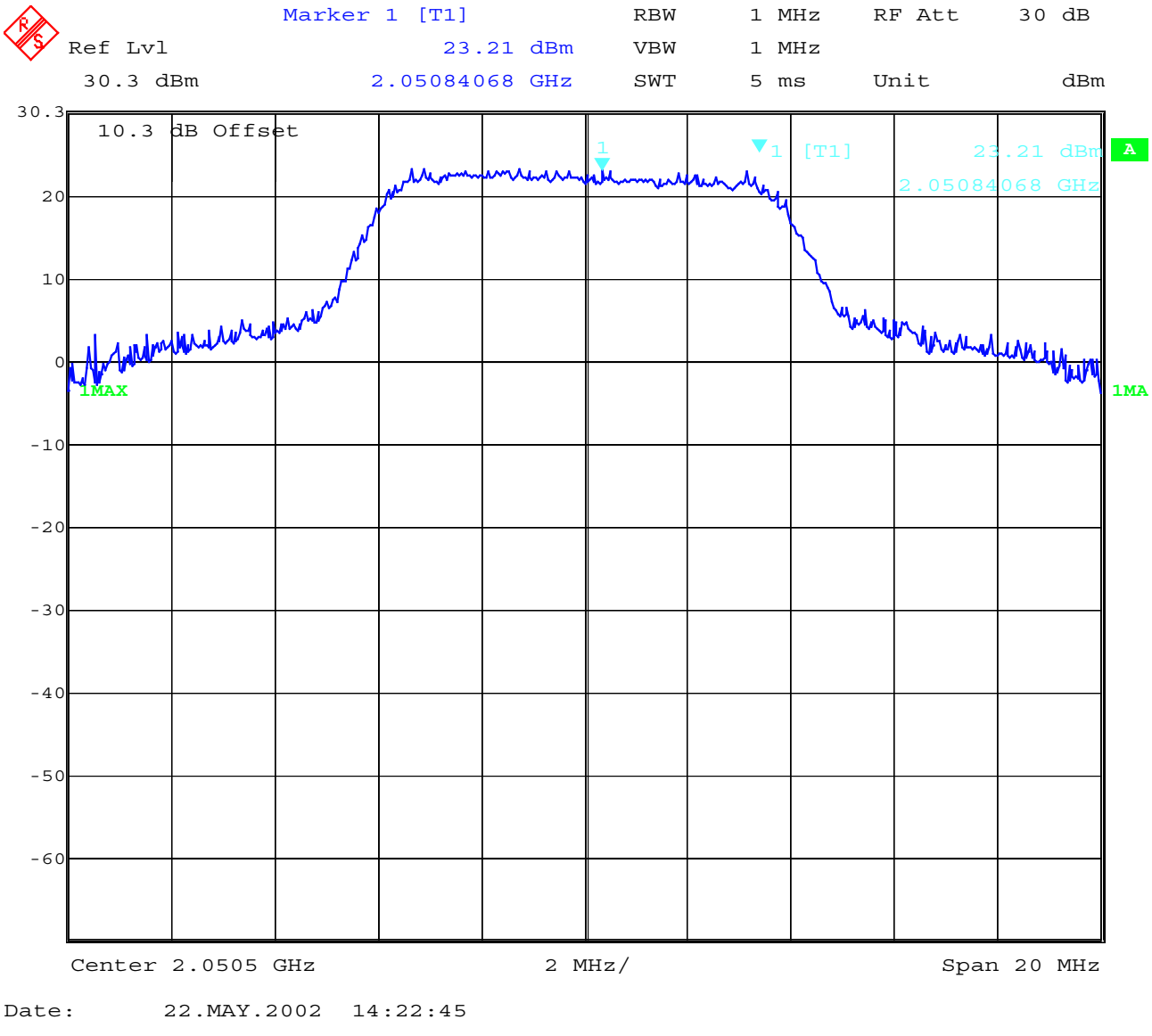
1999 MHz



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

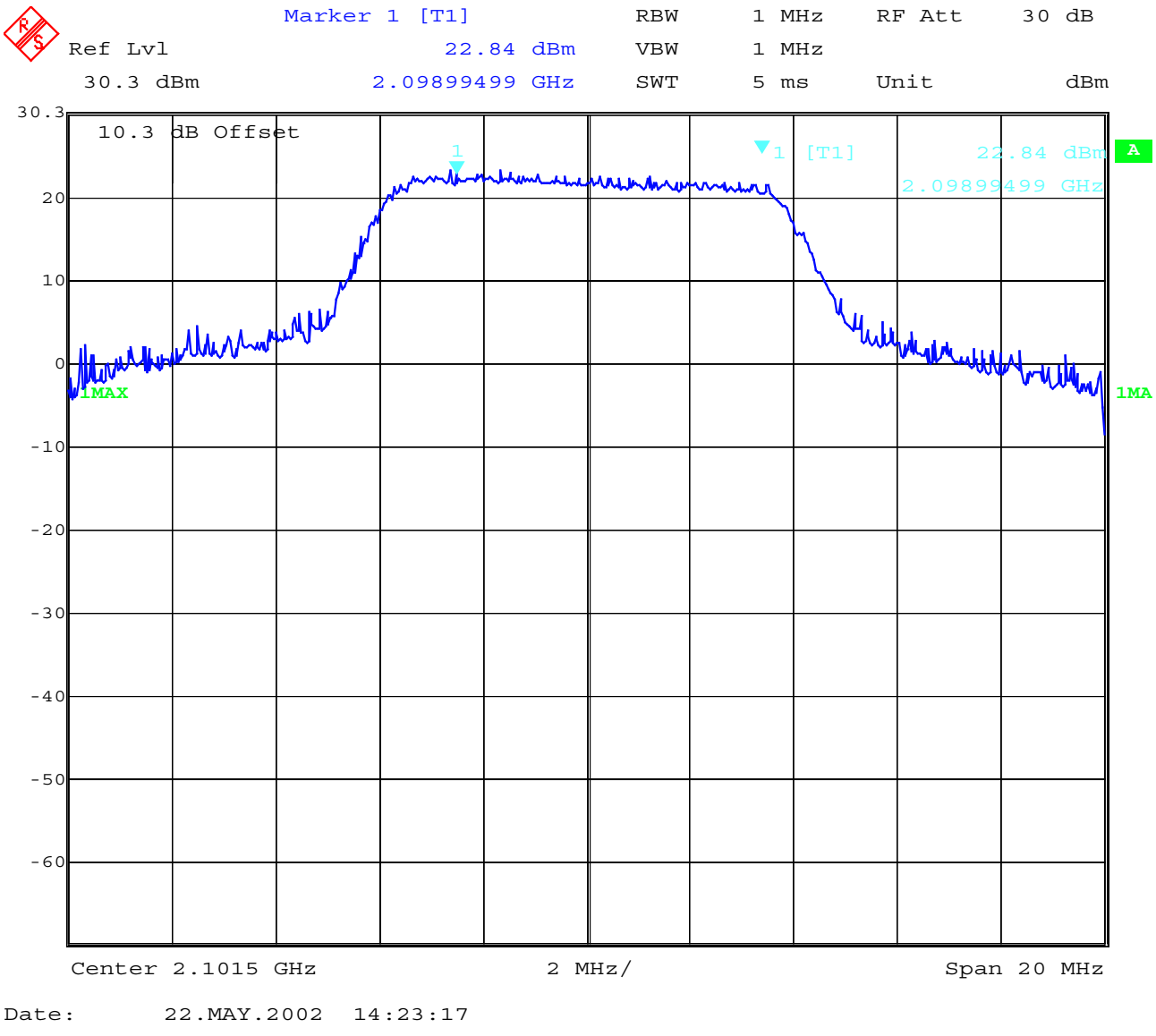
Output power (conducted)
2050.5 MHz



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

Output power (conducted)
2105.5 MHz



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

CONDUCTED SPURIOUS EMISSIONS § 74.637 (b)(2)

EMISSION LIMITATIONS					
f (MHz)		amplitude of emission (dBm)	limit max. allowed emmision power	actual attenuation below frequency of operation (dB)	results
All peaks >20 dB below the specification					
Measurement uncertainty		± 3dB			

RBW : 1MHz VBW: 1 MHz

LIMITS SUBCLAUSE § 74.637 (b)(2)

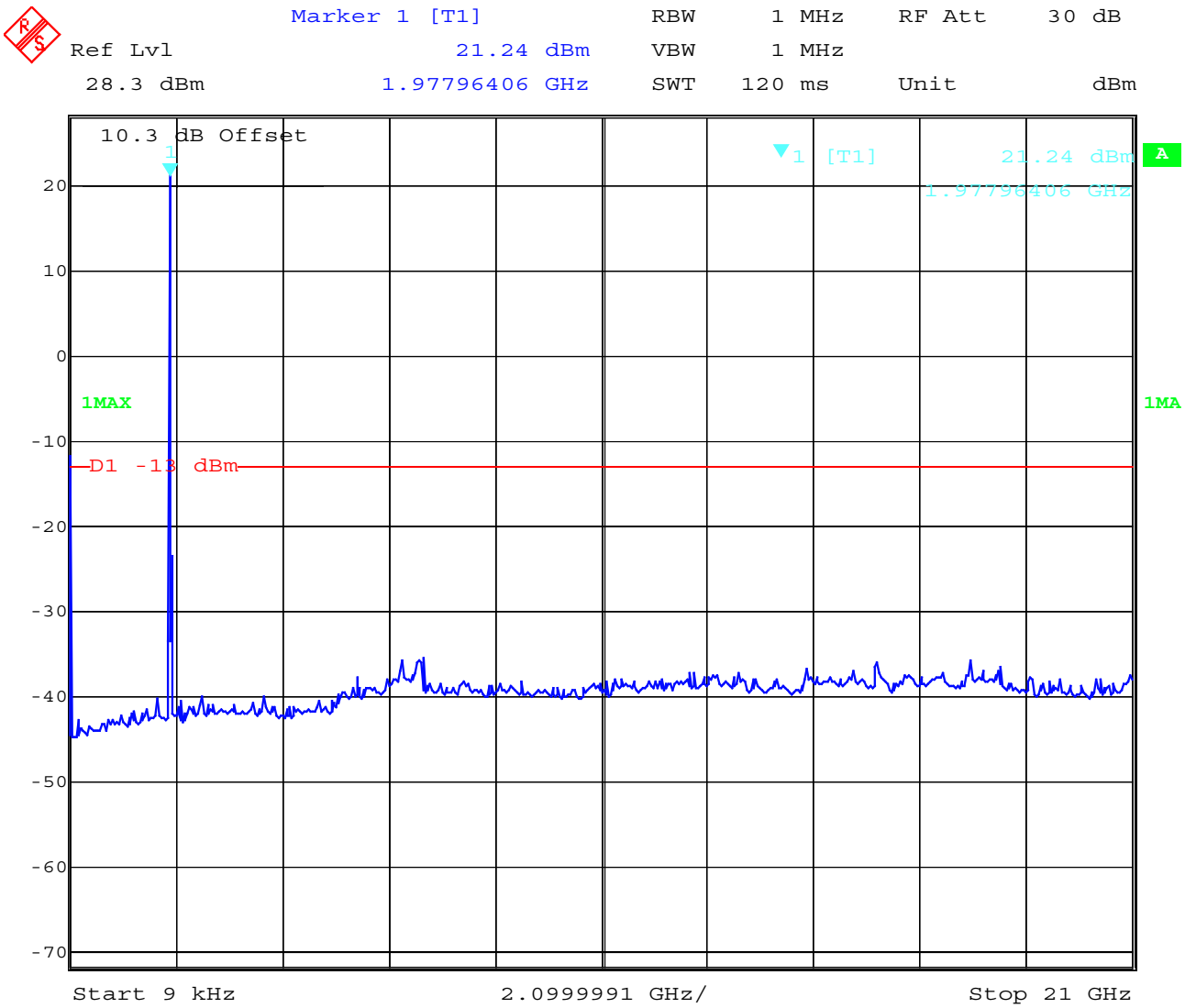
On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation
Limit = -13 dBm

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

CONDUCTED SPURIOUS EMISSIONS § 2.991

1999 MHz

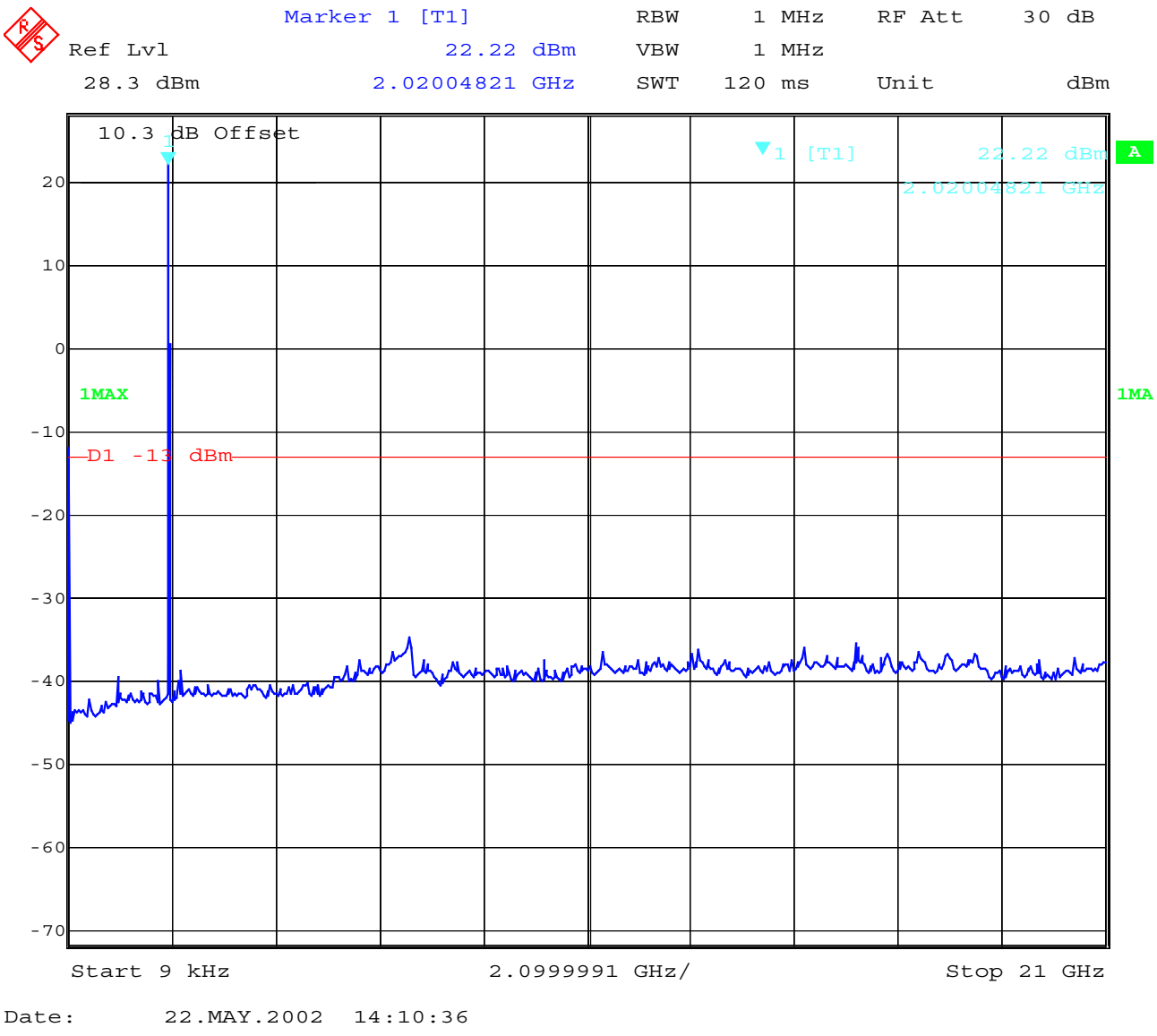


REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

CONDUCTED SPURIOUS EMISSIONS § 2.991

2050.5 MHz

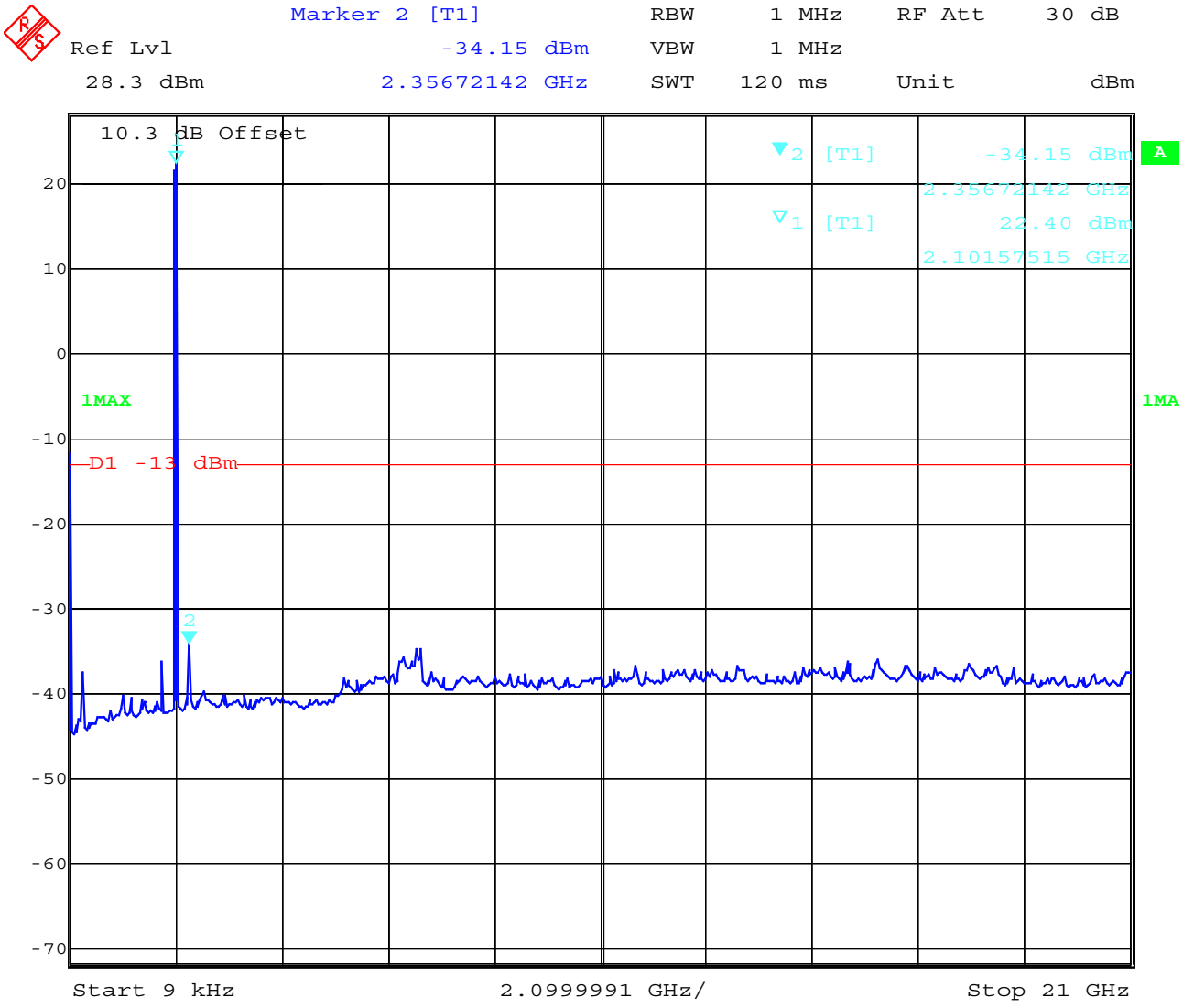


REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

CONDUCTED SPURIOUS EMISSIONS § 2.991

2105.5 MHz



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REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSION §2.1053

EMISSION LIMITATIONS					
f (MHz)	Polari-zation	amplitude of emission (dBm)	limit max. allowed emmision power	actual attenuation below frequency of operation (dB)	results
1999 MHz					
all	peaks	>20 dB	below	Limit	
2050.5 MHz					
all	peaks	>20 dB	below	Limit	
2105.5 MHz					
all	peaks	>20 dB	below	Limit	
Measurement uncertainty		± 3dB			

The test setups for transmitter spurious radiated measurements are according ANSI C63.4 Clause 11

The antenna connector on the EUT was terminated with the impedance (50 OHM).

LIMITS SUBCLAUSE § 74.637 (b)(2)

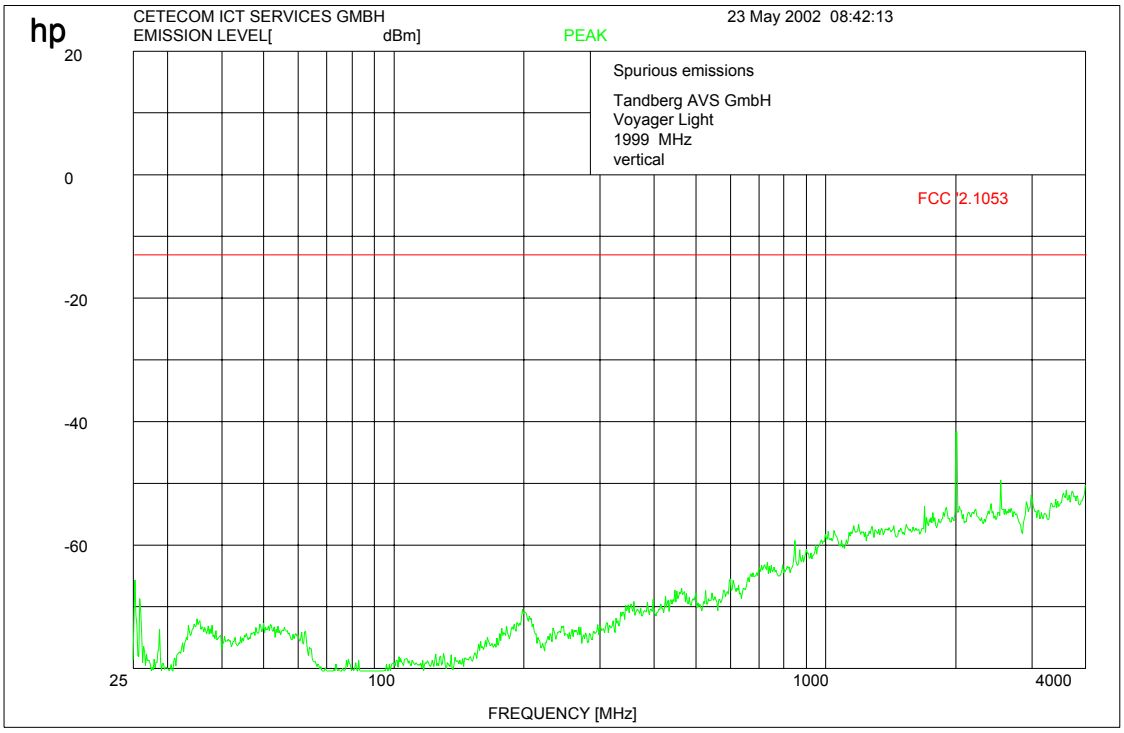
On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation Limit = -13 dBm

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

1999 MHz vertical



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

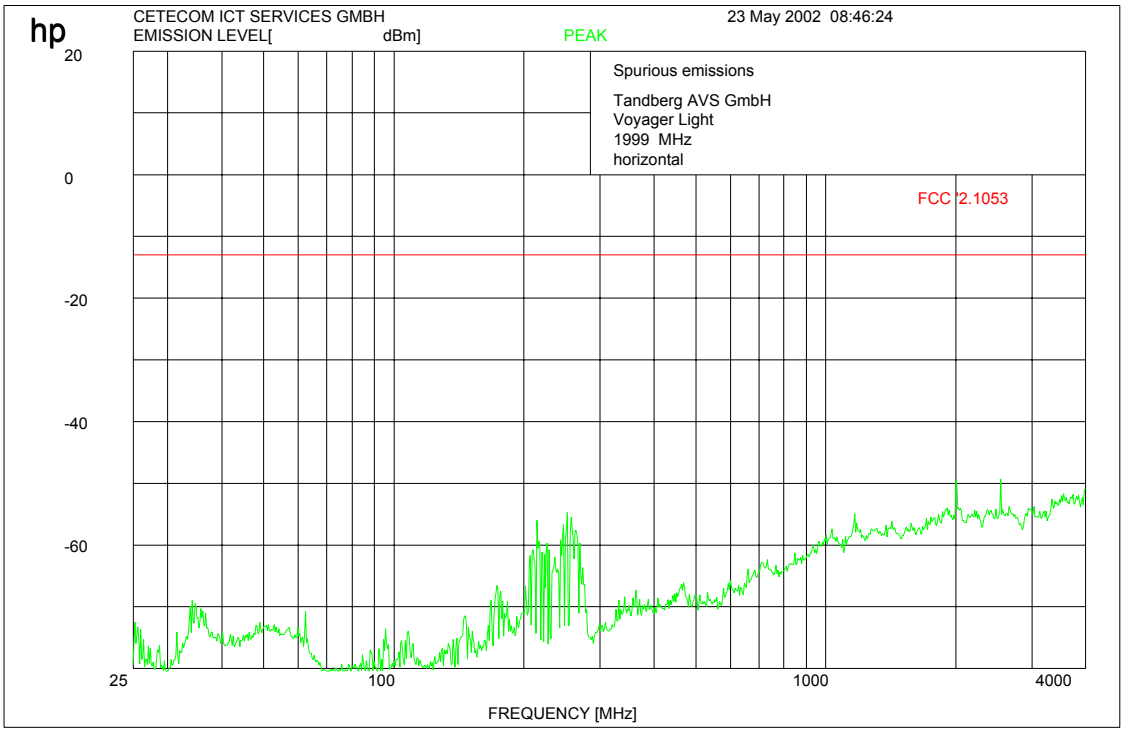
On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

1999 MHz horizontal



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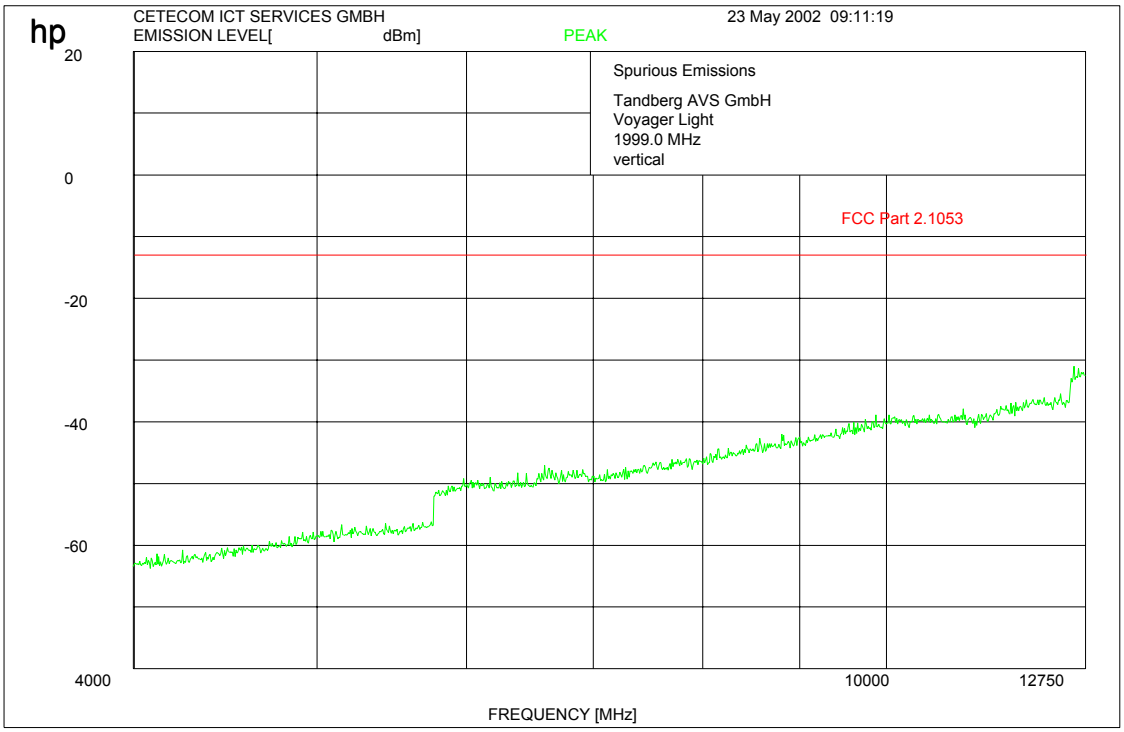
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

1999 MHz



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LIMITS **SUBCLAUSE § 74.637 (b)(2)**

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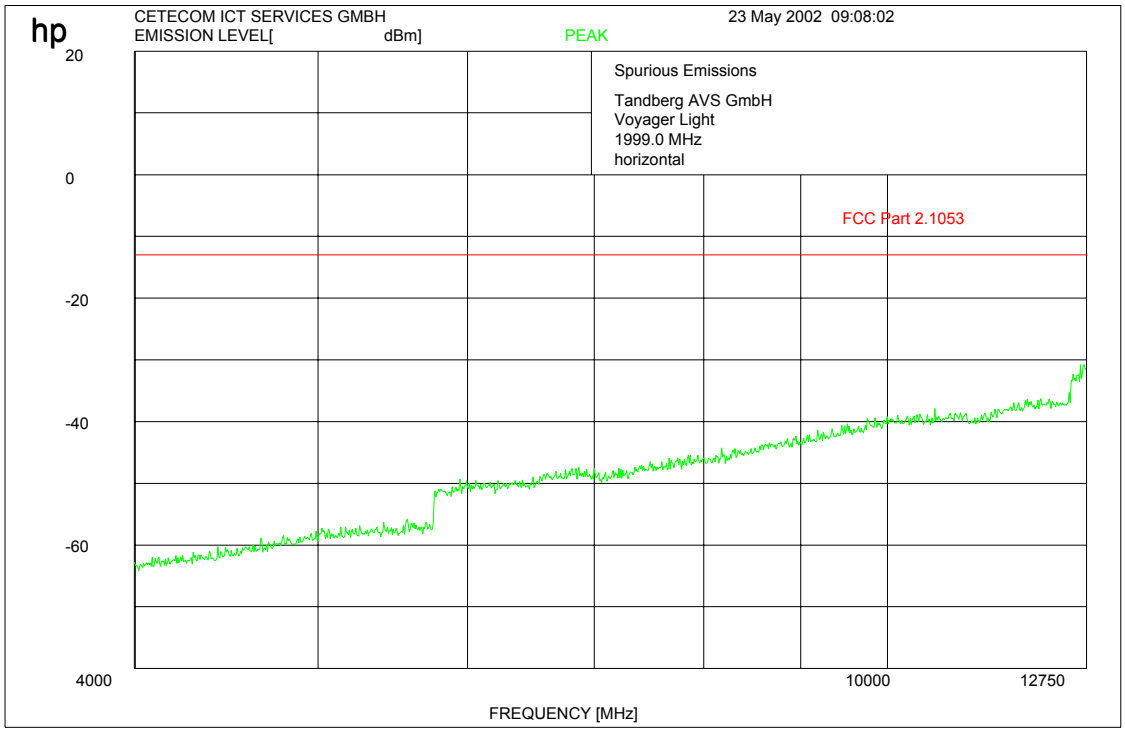
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

1999 MHz horizontal



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

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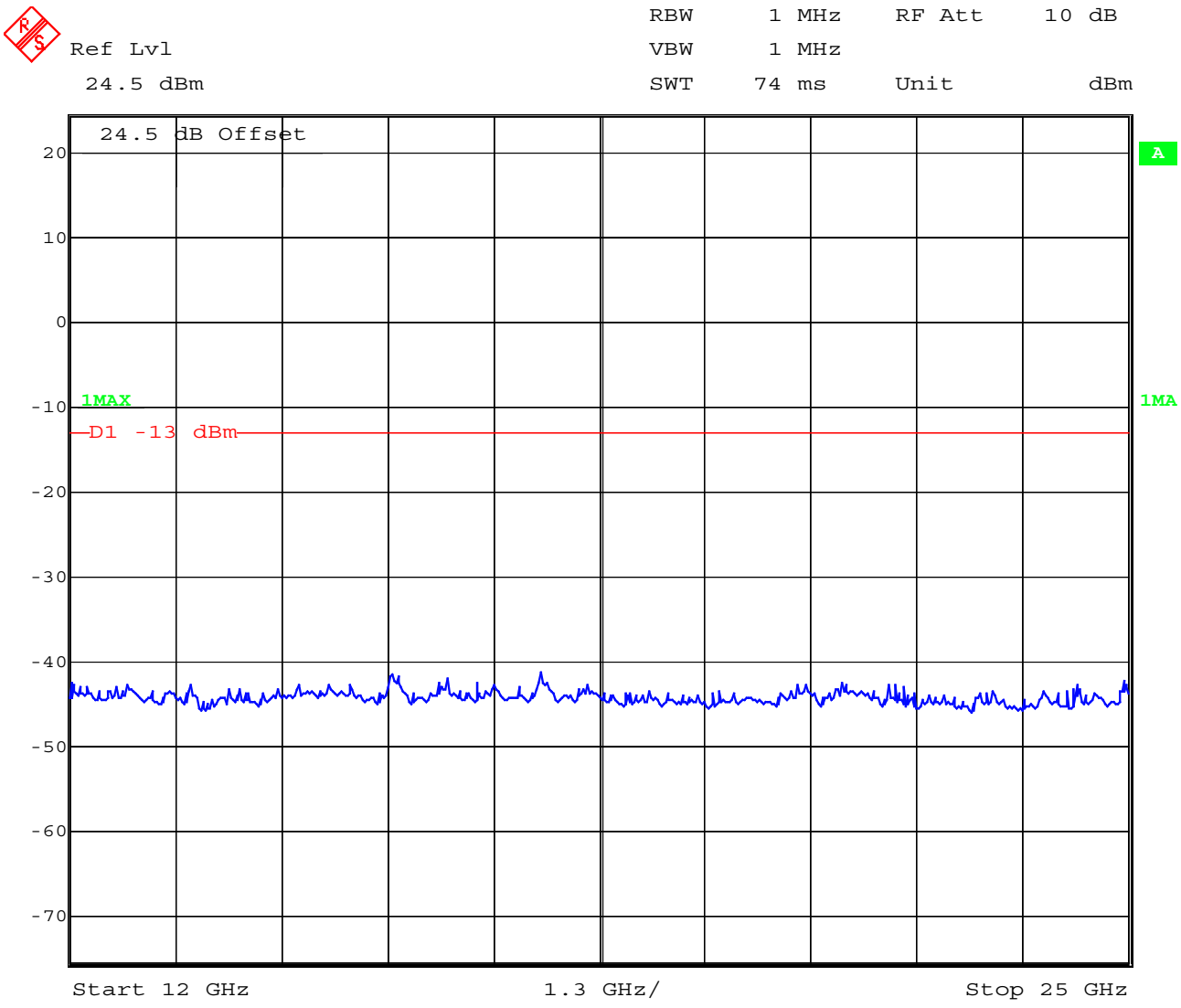
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

1999 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

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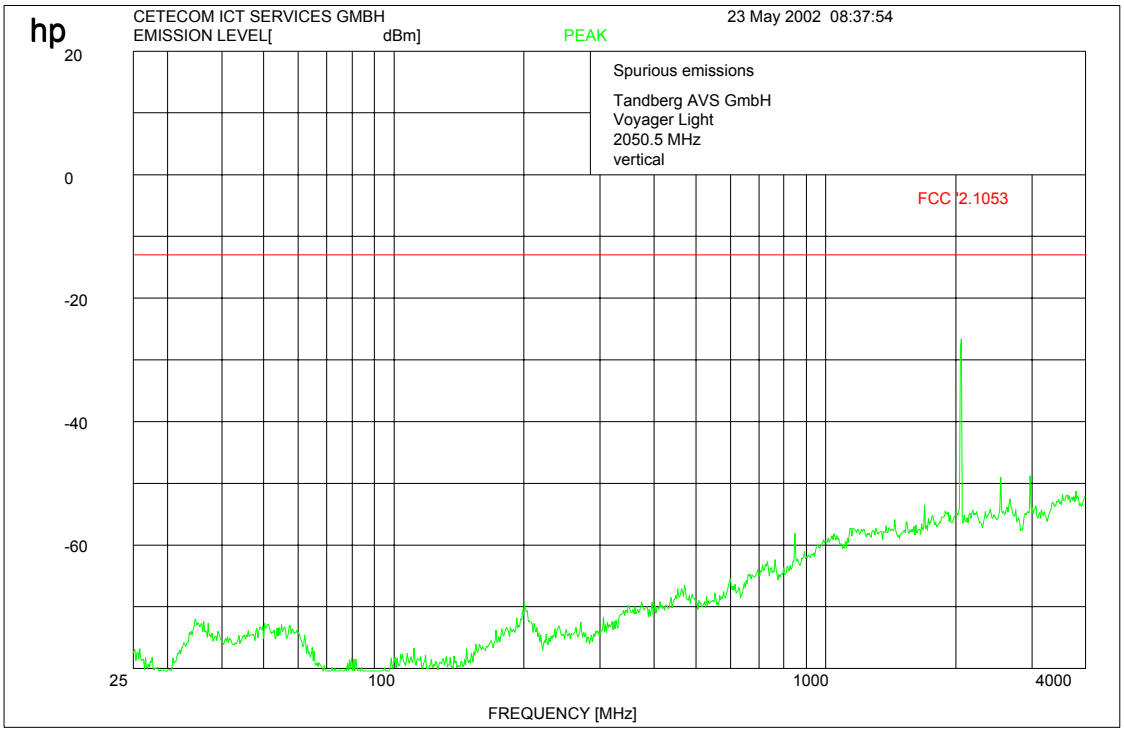
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24, 64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

2050.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

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REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 - 24

Equipment under test : Voyager Lite
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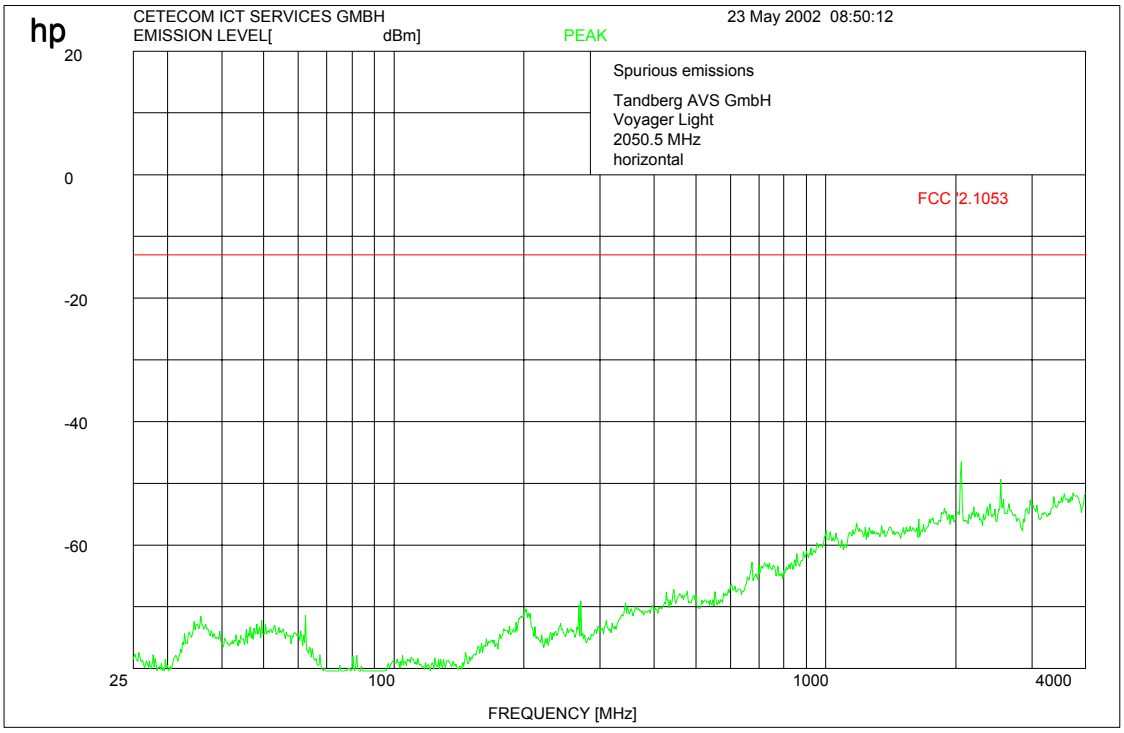
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

2050.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

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17 - 24

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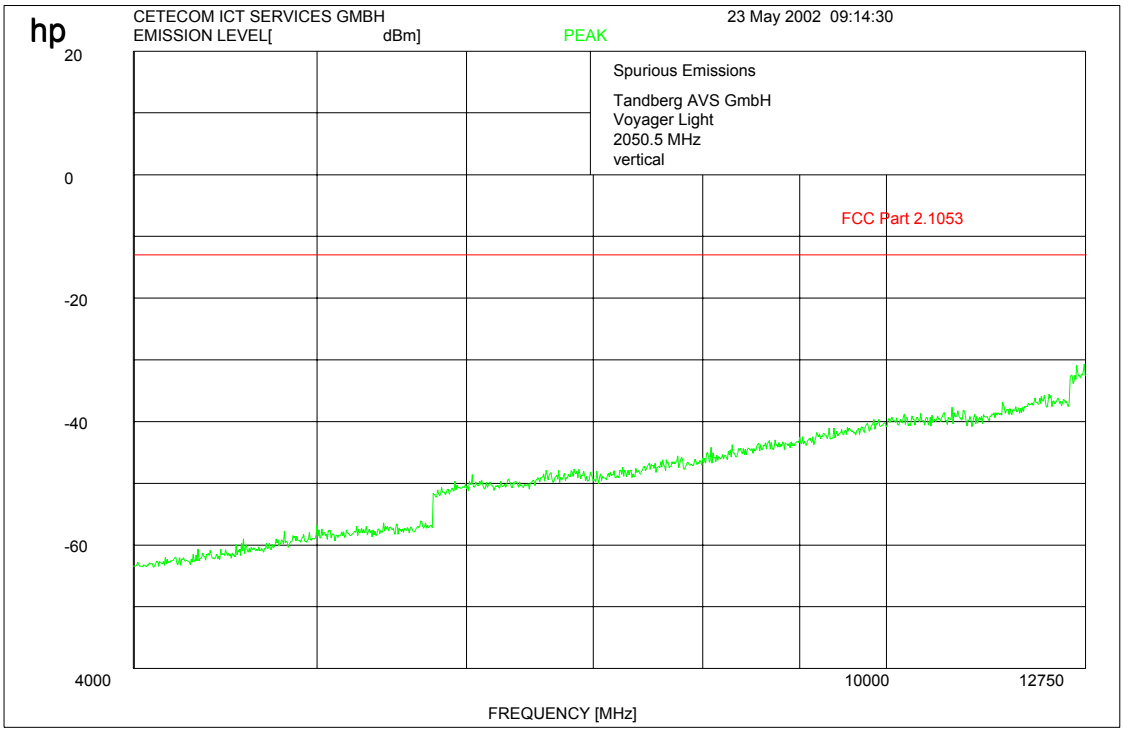
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

2050.5 MHz



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LIMITS **SUBCLAUSE § 74.637 (b)(2)**

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17 - 24

Equipment under test : Voyager Lite
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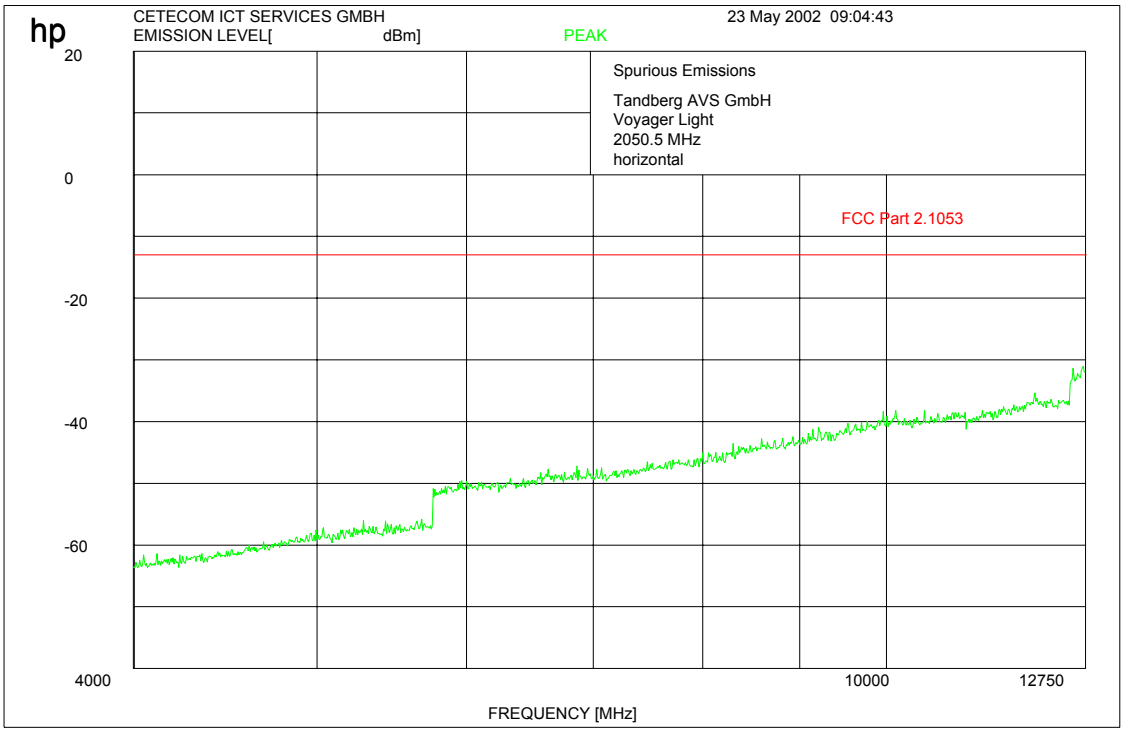
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

2050.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

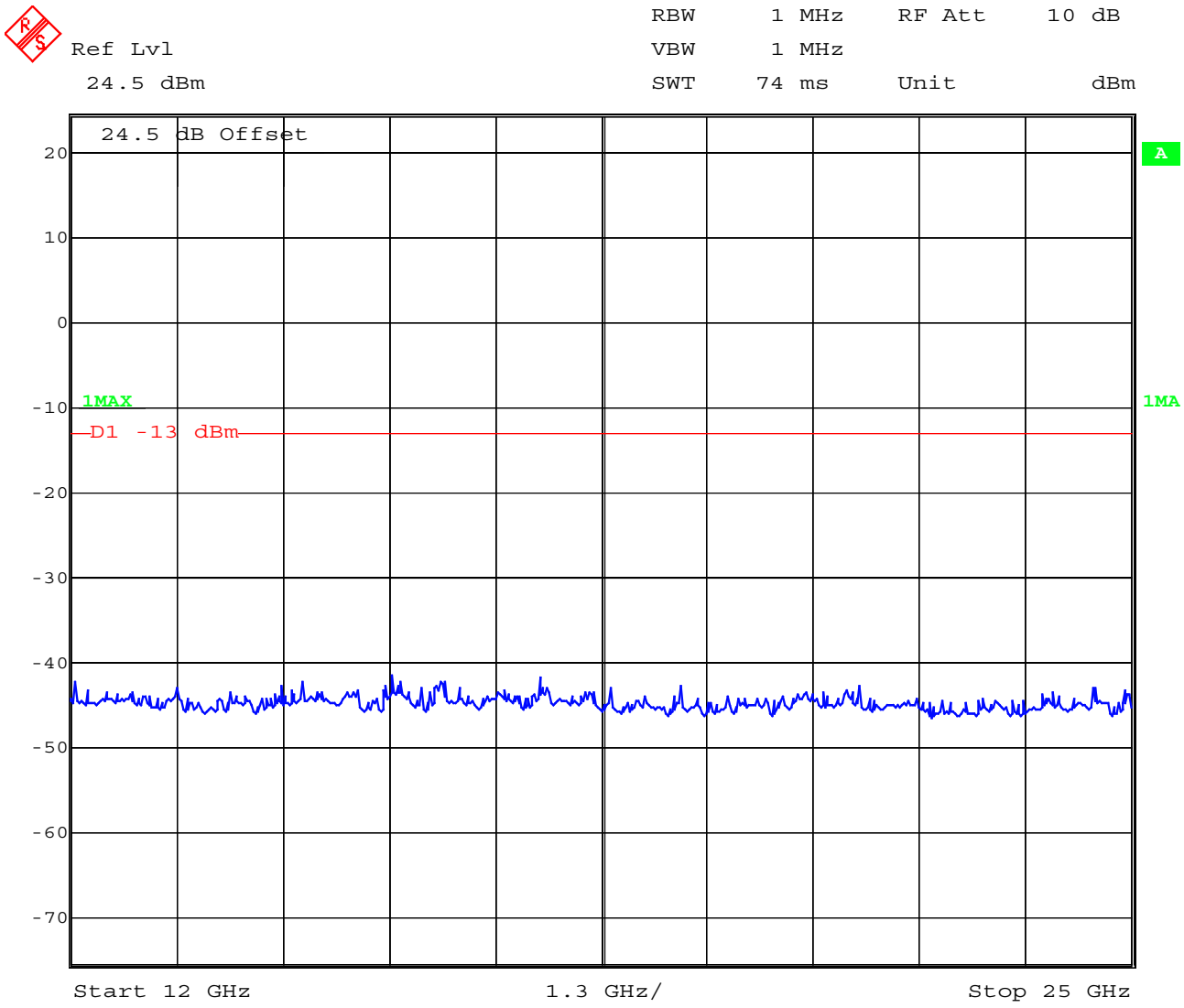
On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 - 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS

2050.5 MHz



Date: 31.MAY.2002 11:20:43

f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

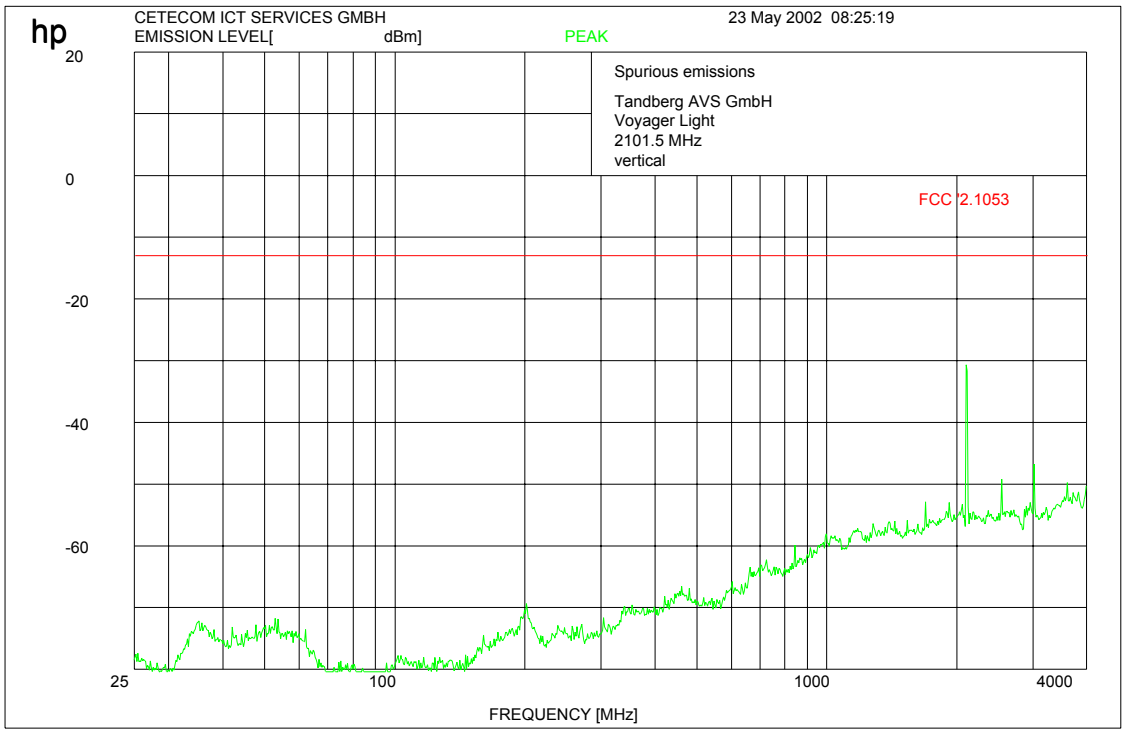
LIMITS **SUBCLAUSE § 74.637 (b)(2)**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24, 64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS
2101.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 2.1053**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
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Equipment under test : Voyager Lite
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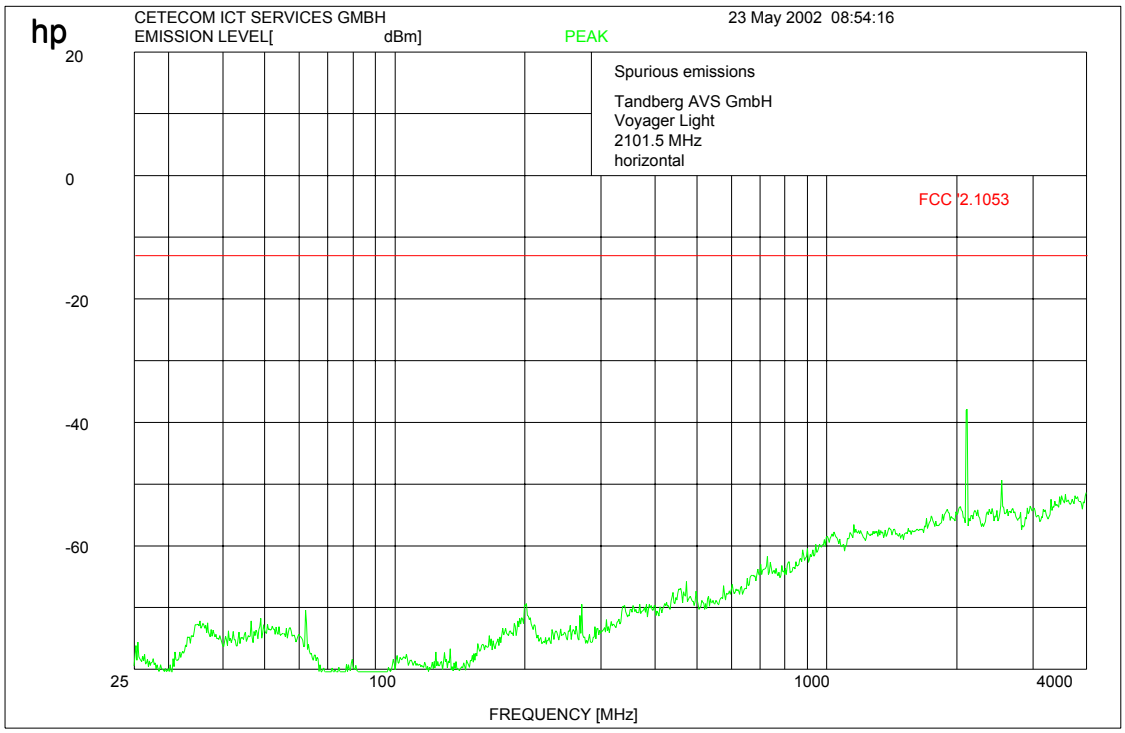
RADIATED SPURIOUS EMISSIONS
2101.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

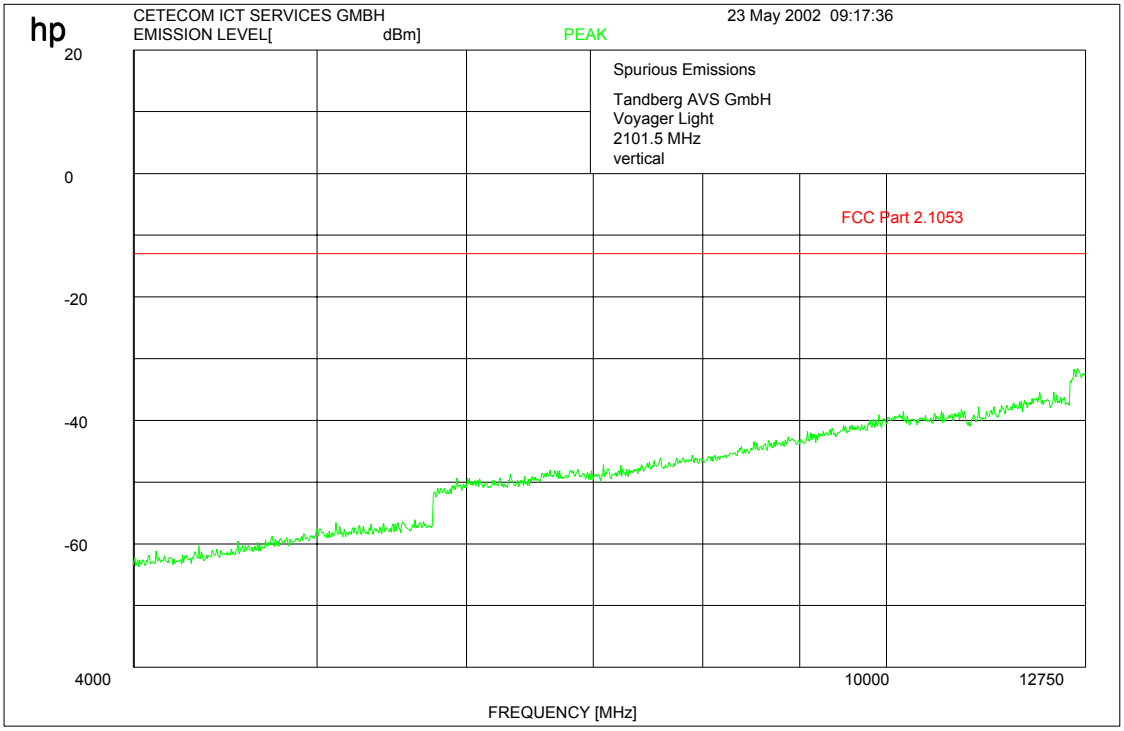
LIMITS **SUBCLAUSE § 2.1053**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS
2101.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

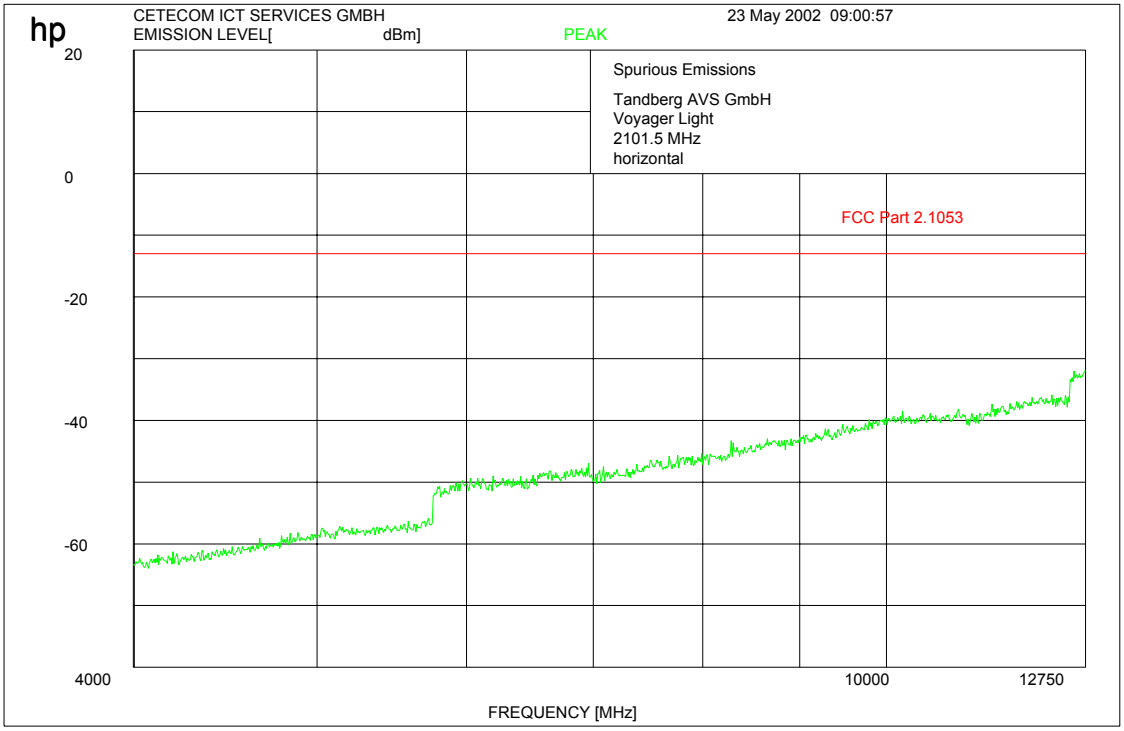
LIMITS **SUBCLAUSE § 2.1053**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS
2101.5 MHz



f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

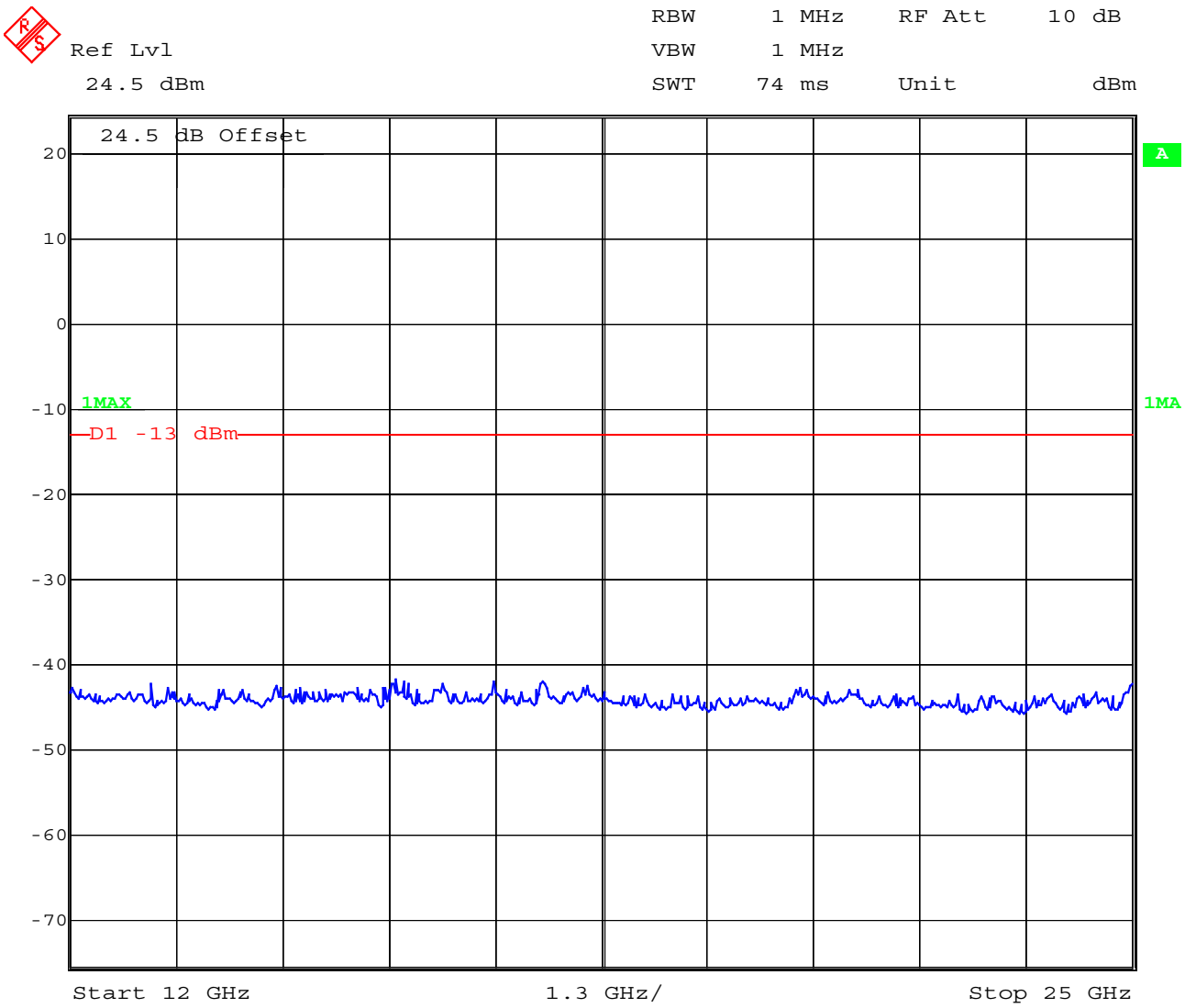
LIMITS **SUBCLAUSE § 2.1053**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

RADIATED SPURIOUS EMISSIONS
2101.5 MHz



Date: 31.MAY.2002 11:21:13

f < 1 GHz : RBW/VBW: 100 kHz **f ≥ 1GHz : RBW/VBW: 1 MHz**

LIMITS **SUBCLAUSE § 74.637 (b)(2)**

On any frequency removed from the channel edge by more than 2500 Hz: At least 43+10 Log (P) dB. watts) dB, or 80 dB, whichever is the lesser attenuation

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
17 – 24, 64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%

FREQUENCY STABILITY Vs. TEMPERATURE § 74.661

Teperature [° C]	Frequency error [Hz]	Frequency [MHz]	Error in %	Error in ppm
-30°	-2481	2.050,500	-0,00012099	-1,2099
-20°	-2125	2.050,500	-0,00010363	-1,0363
-10°	-251	2.050,500	-0,00001224	-0,1224
0,0°	517	2.050,500	0,00002521	0,2521
+10°	416	2.050,500	0,00002029	0,2029
+20°	0	2.050,500	0,00000000	0,0000
+30°	-518	2.050,500	-0,00002526	-0,2526
+40°	-768	2.050,500	-0,00003745	-0,3745
+50°	-1504	2.050,500	-0,00007335	-0,7335
+60°	-1725	2.050,500	-0,00008413	-0,8413

FREQUENCY STABILITY Vs. VOLTAGE § 74.661

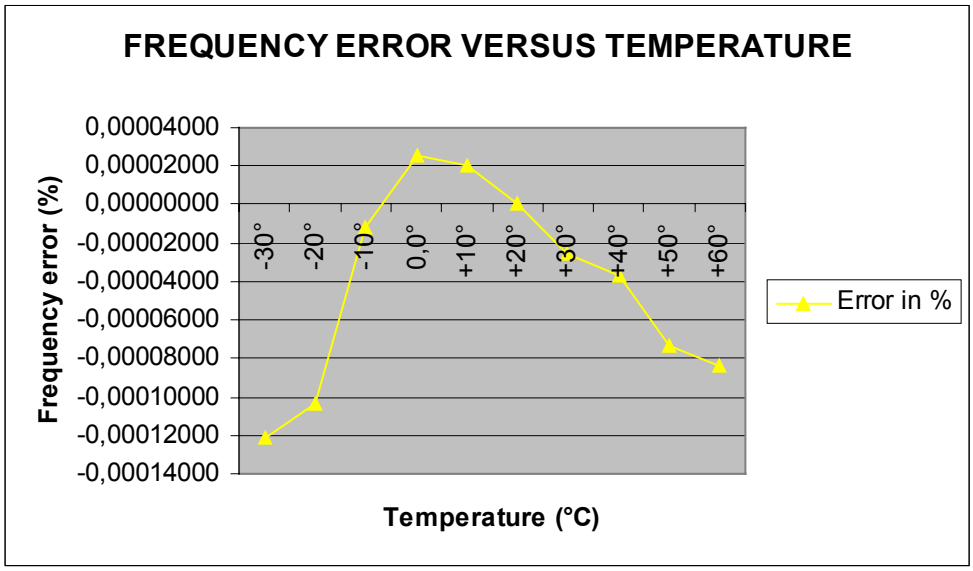
Voltage [V]	Frequency error [Hz]	Frequency [MHz]	Error in %	Error in ppm
12,24	0	2050,5	0,00000000	0,0000
12,53	0	2050,5	0,00000000	0,0000
12,96	0	2050,5	0,00000000	0,0000
13,25	0	2050,5	0,00000000	0,0000
13,68	0	2050,5	0,00000000	0,0000
13,97	0	2050,5	0,00000000	0,0000
14,40	0	2050,5	0,00000000	0,0000
14,69	0	2050,5	0,00000000	0,0000
15,12	0	2050,5	0,00000000	0,0000
15,41	0	2050,5	0,00000000	0,0000
15,84	0	2050,5	0,00000000	0,0000
16,13	0	2050,5	0,00000000	0,0000
16,56	0	2050,5	0,00000000	0,0000

LIMITS **SUBCLAUSE § 74.661**

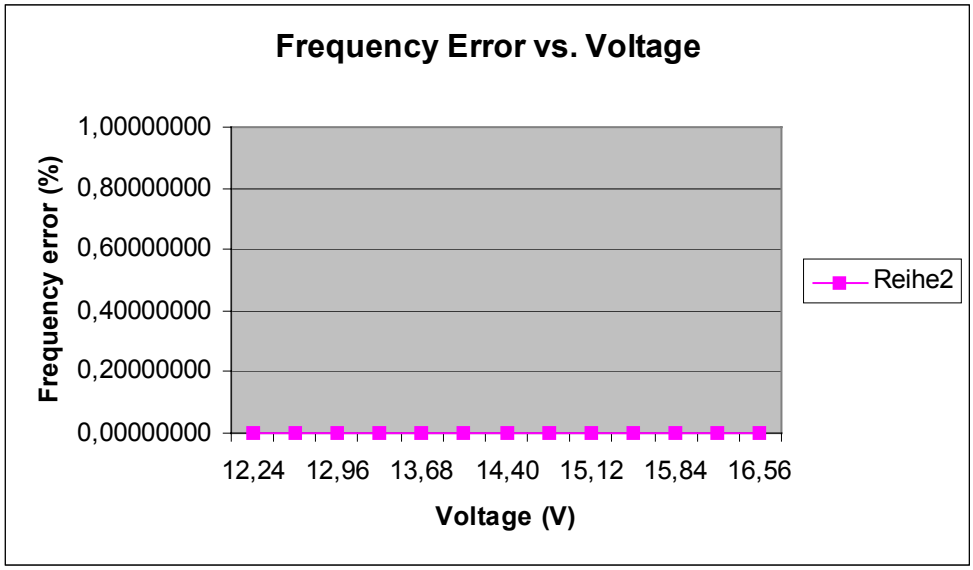
Power Supply Voltage – Frequency Stability of 0.02 from 12.24V to 16.556 of nominal voltage

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

Equipment under test : Voyager Lite
Ambient temperature : 23°C
Relative humidity : 42%
FREQUENCY STABILITY Vs. TEMPERATURE § 74.661
2050.5 MHz



FREQUENCY STABILITY Vs. VOLTAGE § 74.661



LIMITS **SUBCLAUSE § 74.661**

Power Supply Voltage – Frequency Stability of 0.02 from 12.24V to 16.556 of nominal voltage

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
64

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	8566 A	Hewlett-Packard	1925A00257
02	Analyzer Display	8566 A	Hewlett-Packard	1925A00860
03	Oscilloscope	7633	Tektronix	230054
04	Radio Analyzer	CMTA 54	Rohde & Schwarz	894 043/010
05	System Power Supply	6038 A	Hewlett-Packard	2848A07027
06	Signal Generator	8111 A	Hewlett-Packard	2215G00867
07	Signal Generator	8662 A	Hewlett-Packard	2224A01012
08	Funktionsgenerator	AFGU	Rohde & Schwarz	862 480/032
09	Regeltrenntrafo	MPL	Erfi	91350
10	Netznachbildung	NNLA 8120	Schwarzbeck	8120331
11	Relais-Matrix	PSU	Rohde & Schwarz	893 285/020
12	Power-Meter	436 A	Hewlett-Packard	2101A12378
13	Power-Sensor	8484 A	Hewlett-Packard	2237A10156
14	Power-Sensor	8482 A	Hewlett-Packard	2237A00616
15	Modulationsmeter	9008	Racal-Dana	2647
16	Frequenzzähler	5340 A	Hewlett-Packard	1532A03899
17	Absorber Schirmkabine	---	MWB	87400/002
18	Spectrum Analyzer	85660 B	Hewlett-Packard	2747A05306
19	Analyzer Display	85662 A	Hewlett-Packard	2816A16541
20	Quasi Peak Adapter	85650 A	Hewlett-Packard	2811A01131
21	RF-Preselector	85685 A	Hewlett-Packard	2833A00768
22	Biconical Antenne	3104	Emco	3758
23	Log. Per. Antenne	3146	Emco	2130
24	Double Ridge Horn	3115	Emco	3088
25	EMI-Testreceiver	ESAI	Rohde & Schwarz	863 180/013
26	EMI-Analyzer-Display	ESAI-D	Rohde & Schwarz	862 771/008
27	Biconical Antenne	HK 116	Rohde & Schwarz	888 945/013
28	Log. Per. Antenne	HL 223	Rohde & Schwarz	825 584/002
29	Relais-Switch-Unit	RSU	Rohde & Schwarz	375 339/002
30	Highpass	HM985955	FSY Microwave	001
31	Amplifier	P42-GA29	Tron-Tech	B 23602
32	Absorber Schirmkabine		Frankonia	
33	Steuerrechner	PSM 7	Rohde & Schwarz	834 621/004
34	EMI Test Reciever	ESMI	Rohde & Schwarz	827 063/010
35	EMI Test Receiver	Display	Rohde & Schwarz	829 808/010

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
36	Controler	HD 100	Deisel	100/322/93
37	Relais Matrix	PSN	Rohde & Schwarz	829 065/003
38	Control Unit	GB 016 A2	Rohde & Schwarz	344 122/008
39	Relais Switch Unit	RSU	Rohde & Schwarz	316 790/001
40	Power Supply	6032A	Hewlett Packard	2846A04063
41	Spektrum Monitor	EZM	Rohde & Schwarz	883 720/006
42	Meßempfänger	ESH 3	Rohde & Schwarz	890 174/002
43	Meßempfänger	ESVP	Rohde & Schwarz	891 752/005
44	Biconi Ant. 20-300MHz	HK 116	Rohde & Schwarz	833 162/011
45	Logper Ant. 0.3-1 GHz	HL 223	Rohde & Schwarz	832 914/010
46	Amplifier 0.1-4 GHz	AFS4	Miteq Inc.	206461
47	Logper Ant. 1-18 GHz	HL 024 A2	Rohde & Schwarz	342 662/002
48	Polarisationsnetzwerk	HL 024 Z1	Rohde & Schwarz	341 570/002
49	Double Ridge G Horn Antenne 1-26.5 GHz	3115	EMCO	9107-3696
50	Microw. Sys. Amplifier 0.5- 26.5 GHz	8317A	Hewlett Packard	3123A00105
51	Audio Analyzer	UPD	Rohde & Schwarz	1030.7500.04
52	Steuerrechner	PSM 7	Rohde & Schwarz	883 086/026
53	DC V-Netzwerk	ESH3-Z6	Rohde & Schwarz	861 406/005
54	DC V-Netzwerk	ESH3-Z6	Rohde & Schwarz	893 689/012
55	AC 2 Phasen V-Netzwerk	ESH3-Z5	Rohde & Schwarz	861 189/014
56	AC 2 Phasen V-Netzwerk	ESH3-Z5	Rohde & Schwarz	894 981/019
57	AC-3 Phasen V-Netzwerk	ESH2-Z5	Rohde & Schwarz	882 394/007
58	Stromversorgung	6032A	Rohde & Schwarz	2933A05441
59	HF-Test Empfänger	ESVP.52	Rohde & Schwarz	881 487/021
60	Spectrum Monitor	EZM	Rohde & Schwarz	883 086/026
61	HF-Test Empfänger	ESH3	Rohde & Schwarz	881 515/002
62	Relais Matrix	PSU	Rohde & Schwarz	882 943/029
63	Relais Matrix	PSU	Rohde & Schwarz	828 628/007
64	Spectrum Analyzer	FSIQ 26	Rohde & Schwarz	119.6001.27
65	Spectrum Analyzer	HP 8565E	Hewlett Packard	3473A00773
66	Bidirektionalkoppler	DC 3010	Amplifier res.	12306
67	Oscilloscope	54502A	HP	2934A01917
68	Radiocommunic.Analyz.	4040	Schlumberger	1725117