

Straubing, June 8, 2000

TEST-REPORT

No. 51815-00170

for

F-14

R/C Transmitter

Applicant: robbe Modellsport GmbH

Purpose of testing: To show compliance with

- FCC Code of Federal Regulations, CFR 47, Part 95
- FCC Code of Federal Regulations, CFR 47, Part 2, Subpart J

Note:

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

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1. Administrative Data

Equipment Under Test (EUT): F-14

Serial number(s): ---

Type of equipment: R/C Transmitter

Parts/accessories:

FCC-ID: MPWFP-F14B-75

Applicant: robbe Modellsport GmbH

(full address) Metzloser Straße 36
Grebenhain
D-36355 Germany

Contract identification: ---

Contact person: Mr. Schäfer

Manufacturer: robbe Modellsport GmbH

Receipt of EUT: 07/08/1999

Date(s) of test: 01/25 - 02/09/2000

Note: ---

Responsible for testing: Thomas Eberl

Responsible for test report: Thomas Eberl

2. Identification of Test Laboratory

Test Laboratory: Senton GmbH EMI/EMC Test Center

(full address): Aeussere Fruehlingstrasse 45
D-94315 Straubing
Germany

Contact person: Mr. Johann Roidt

Communication: Telephone (+49) 0 94 21 / 55 22-0
Fax (+49) 0 94 21 / 55 22-99
eMail: Office@senton.de

FCC file number: 31040/SIT 1300F2

Industry Canada file number: IC 3050

3. Summary of Test Results

The tested sample complies with the requirements set forth in the

The Code of Federal Regulations 47, Part 95, Subpart C & E.

The Code of Federal Regulations 47 Part 2, Subpart J.



Johann Roidt
Technical Manager



Thomas Eberl
Test Engineer

4. Operation Mode of EUT

Transmitter operating continuously
With battery supply nominal 12.0 V (8x1.5 AA cel)

5. Configuration of EUT and Peripheral Devices

EUT is configured as stand-alone device

Configuration of cables of EUT

Not applicable

Configuration of peripheral devices connected to EUT

Not applicable

6. Measuring Methods

6.1. Maximum power rating

The carrier power was measured with a spectrum analyzer connected to the output of the transmitter power amplifier (conducted measurement) while EUT was operating in transmit mode at the frequency (75.65 MHz)

The spectrum analyzer was set to max hold with
RBW = 100 kHz, VBW = 300 kHz, span = 5 MHz, sweep = 100 ms
See figure 1 for the measurement setup.

Test equipment used (see equipment list for details):
02, 57, 67

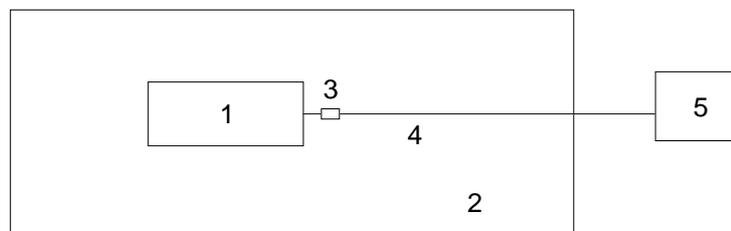


Figure 1: Measurement setup for testing on power amplifier output

- | | |
|---------------------|---------------------|
| 1 Transmitter (EUT) | 3 DC-block |
| 2 Wooden table | 4 Test cable |
| | 5 Spectrum analyzer |

6.2. Frequency stability v.s. temperature

The measurements were performed using a peak-detector with resolution and video bandwidth of the spectrum analyzer set to 30 Hz and center frequency adjusted to operating frequency of the EUT.

See figure 2 for the measurement setup.

Test equipment used (see equipment list for details):

02, 54, 55

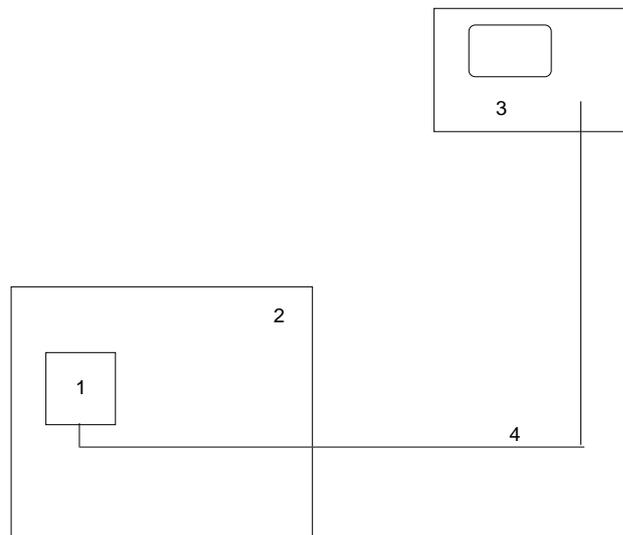


Figure 2: Measurement setup for frequency tolerance

- 1 EUT
- 2 Temperature test chamber
- 3 Spectrum analyzer
- 4 RF cable

6.3. Frequency stability v.s. supply voltage

The carrier power was measured with a spectrum analyzer connected to the output of the transmitter power amplifier (conducted measurement) while EUT was operating in transmit mode at the frequency (75.65 MHz)

The spectrum analyzer was set to max hold with
RBW = 100 kHz, VBW = 300 kHz, span = 5 MHz, sweep = 100 ms
See figure 1 for the measurement setup.

Test equipment used (see equipment list for details):
02, 57, 67

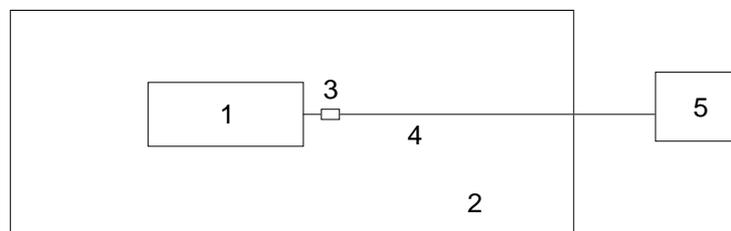


Figure 1: Measurement setup for testing on power amplifier output

- 1 Transmitter (EUT)
- 2 Wooden table

- 3 DC-block
- 4 Test cable
- 5 Spectrum analyzer

6.4. Occupied bandwidth

The Occupied bandwidth is measured with a spectrum analyzer connected to the transmitter output while EUT is operating in transmit mode with modulation at the appropriate frequency. (75.65 MHz)

The spectrum analyzer was set to:

RBW = 300 Hz, VBW = 300 Hz, span = 50 kHz, sweep = 1 s

See figure 3 for the measurement setup.

Test equipment used (see equipment list for details):

02, 55, 67

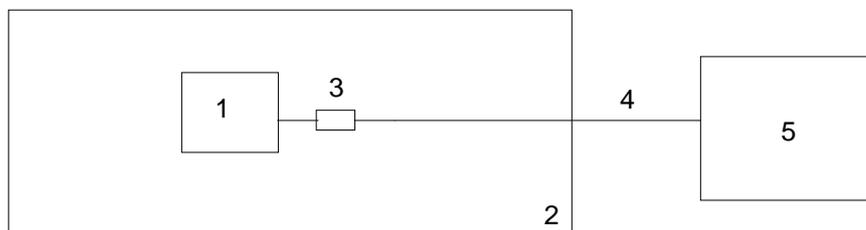


Figure 3: Measurement setup for operating bandwidth test

- 1 Transmitter (EUT)
- 2 Wooden table

- 3 DC-block
- 4 Test cable
- 5 Spectrum analyzer

6.5. Mean power of emissions 30 MHz - 1 GHz

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

The test setup is made in accordance with ANSI C63.4-1992.

Measurements are made in both the horizontal and vertical planes of polarization. Preliminary scans are taken in a semi-anechoic room using a spectrum analyzer with the detector function set to peak. Hand-held or body-worn devices are rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relative to the limit and therefore shall be used for final testing.

All tests are performed at a test-distance of 3 meters.

For final testing a semi-anechoic room with a test-distance of 3 meters is used. During the tests the EUT is rotated all around and the receiving-antenna is raised and lowered from 1 meter to 4 meters to find the maximum levels of emissions. The cables and equipment is placed and moved within the range of position likely to find their maximum emissions.

See figure 5 for the measurement setup.

Test equipment used (see equipment list for details):

01, 02, 05, 12, 38, 39, 40, 41, 58, 61, 64, 66

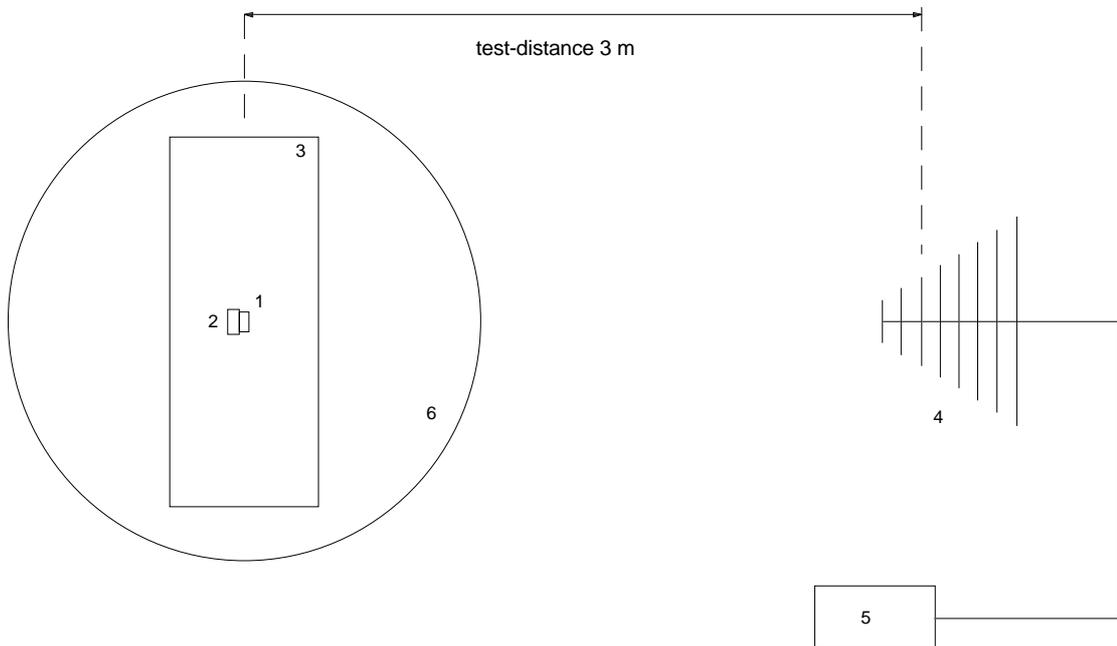


Figure 5: Measurement setup for radiated emission test below 1 GHz

- | | |
|----------------------------------|-----------------------|
| 1 Transmitter (EUT) | 4 Measurement antenna |
| 2 Wooden pedestal (if necessary) | 5 Test receiver |
| 3 Wooden table | 6 Turn table |

7. 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	Test fixture			Senton

8. Photographs Taken During Testing

Photos No. 8.1

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



Photos No. 8.2

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



Photos No. 8.3

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

- continued -



9. List of Measurements

FCC Part 95 Subpart C/E			
Section(s):	Test	Page(s)	Result
	Transmit mode (TX):		
§95.639	Measured carrier power	23 - 25	Passed
§95.623	Frequency tolerance	26 - 45	Passed
§95.633	Occupied bandwidth	46	Passed
§95.635	Emissions 30 MHz - 1 GHz	47-63	Passed

10. Referenced Regulations

All tests were performed with reference to the following regulations and standards:

- | | | | |
|-------------------------------------|----------------------------|--|-------------------|
| <input type="checkbox"/> | FCC Part 15
Subpart A | Code of Regulations Part 15 (Radio Frequency Devices), Subpart A (General) of the Federal Communication Commission (FCC) | October 20, 1997 |
| <input type="checkbox"/> | FCC Part 15
Subpart B | Code of Regulations Part 15 (Radio Frequency Devices), Subpart B (Unintentional Radiators) of the Federal Communication Commission (FCC) | October 20, 1997 |
| <input type="checkbox"/> | FCC Part 15
Subpart C | Code of Regulations Part 15 (Radio Frequency Devices), Subpart C (Intentional Radiators) of the Federal Communication Commission (FCC) | October 20, 1997 |
| <input checked="" type="checkbox"/> | FCC Part 95
Subpart C/E | Code of Regulations Part 95 (Radio Frequency Devices), Subpart C/E (Radio Control(R/C) Radio Service) of the Federal Communication Commission (FCC) | June 01, 1983 |
| <input checked="" type="checkbox"/> | ANSI C63.4 | American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz - 40 GHz | October, 1992 |
| <input type="checkbox"/> | RSS-210 | Radio Standards Specification RSS-210 Issue 2 for Low Power Licence-Exempt Radiocommunication Devices of Industry Canada | February 24, 1996 |

11. Test Results

Antenna terminal RF output acc. FCC Part 95, R/C transmitter

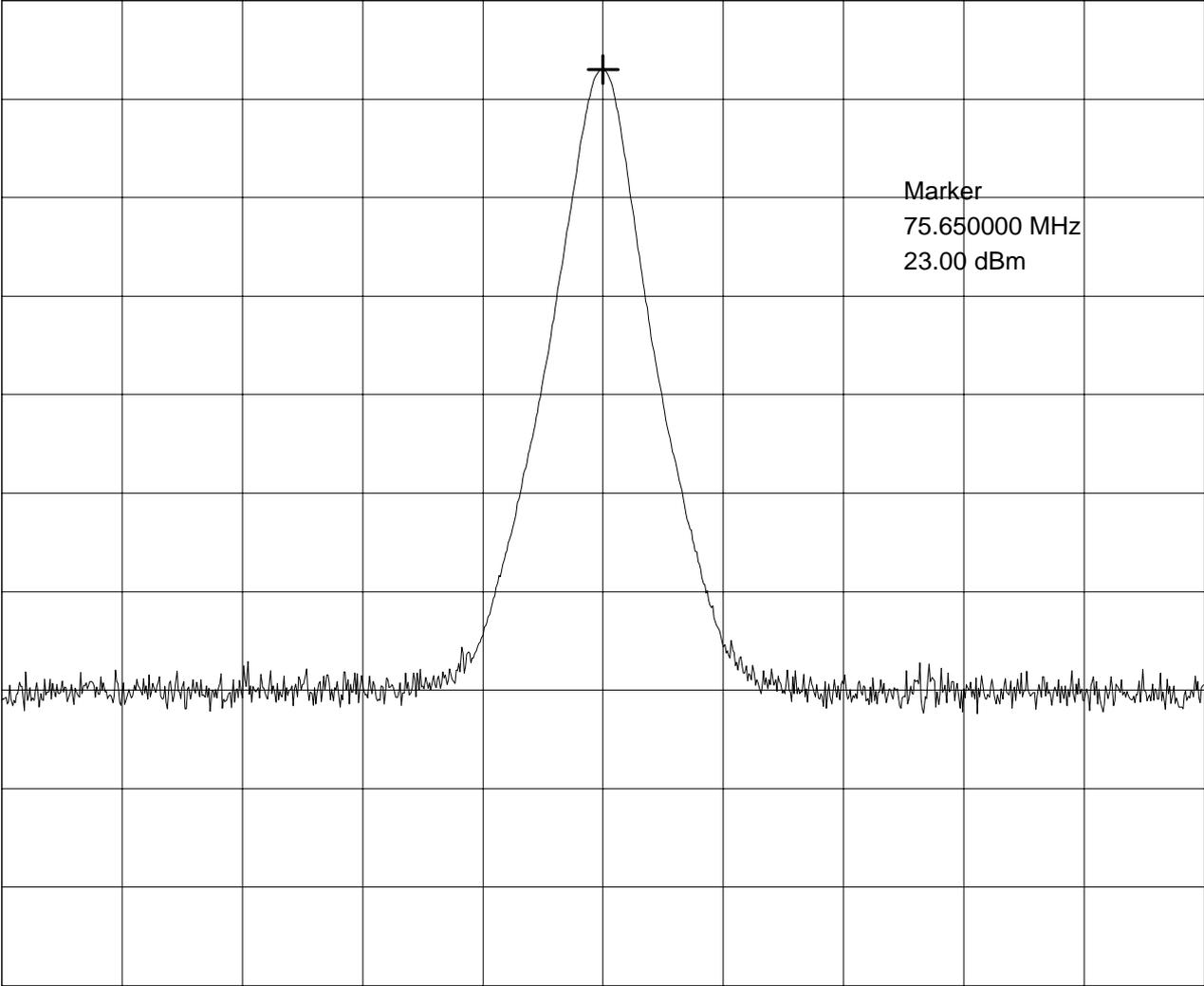
Model: F-14
Serial No.: --
Applicant: robbe Modellsport GmbH

Mode: - Supply voltage 9 V DC external

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 73.150 MHz
RBW 100 kHz

VBW 300 kHz

Stop 78.150 MHz
SWP 20 ms

Tested by: Thomas Eberl
Date: 04/06/2000

Project-No.: 51815-00170
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FREQUENCY STABILITY V.S. SUPPLY VOLTAGE

Model: F-14

Applicant robbe Modellsport GmbH & Co. KG

File: 51815-00170

Regulation FCC Part 95

Mode: TX 75.65 MHz/Unom = 12.0V DC

Input Voltage (V)	Frequency Measured (MHz)	Frequency Deviation (Hz)	Frequency Deviation (%)
10	75.650629	629	0.0008314
10.5	75.650645	645	0.0008526
11	75.650663	663	0.0008764
11.5	75.650679	679	0.0008975
12	75.650701	701	0.0009266
12.5	75.650717	717	0.0009477
13	75.650735	735	0.0009715
13.5	75.650755	755	0.000998
14	75.650767	767	0.0010138

Frequency stability acc. FCC Part 95, R/C transmitter

Model:
F-14

Serial No.:
--

Applicant:
robbe Modellsport GmbH

Mode:

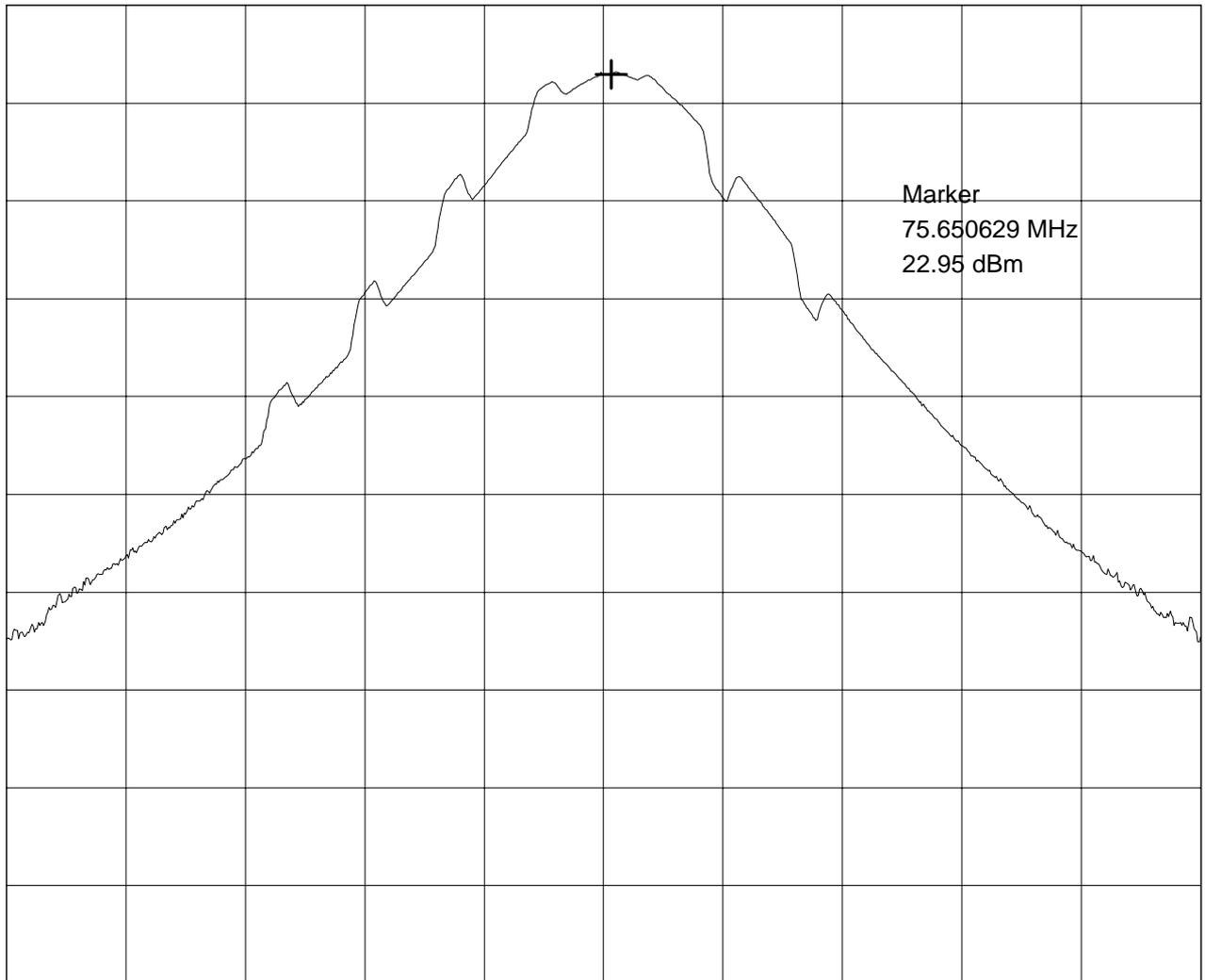
- selected temperature.: 20°C

- selected supply voltage : 10.00 V DC

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Marker
75.650629 MHz
22.95 dBm

Start 75.600 MHz
RBW 10 kHz

VBW 300 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by:
Thomas Eberl

Date:
04/06/2000

Project-No.:
51815-00170

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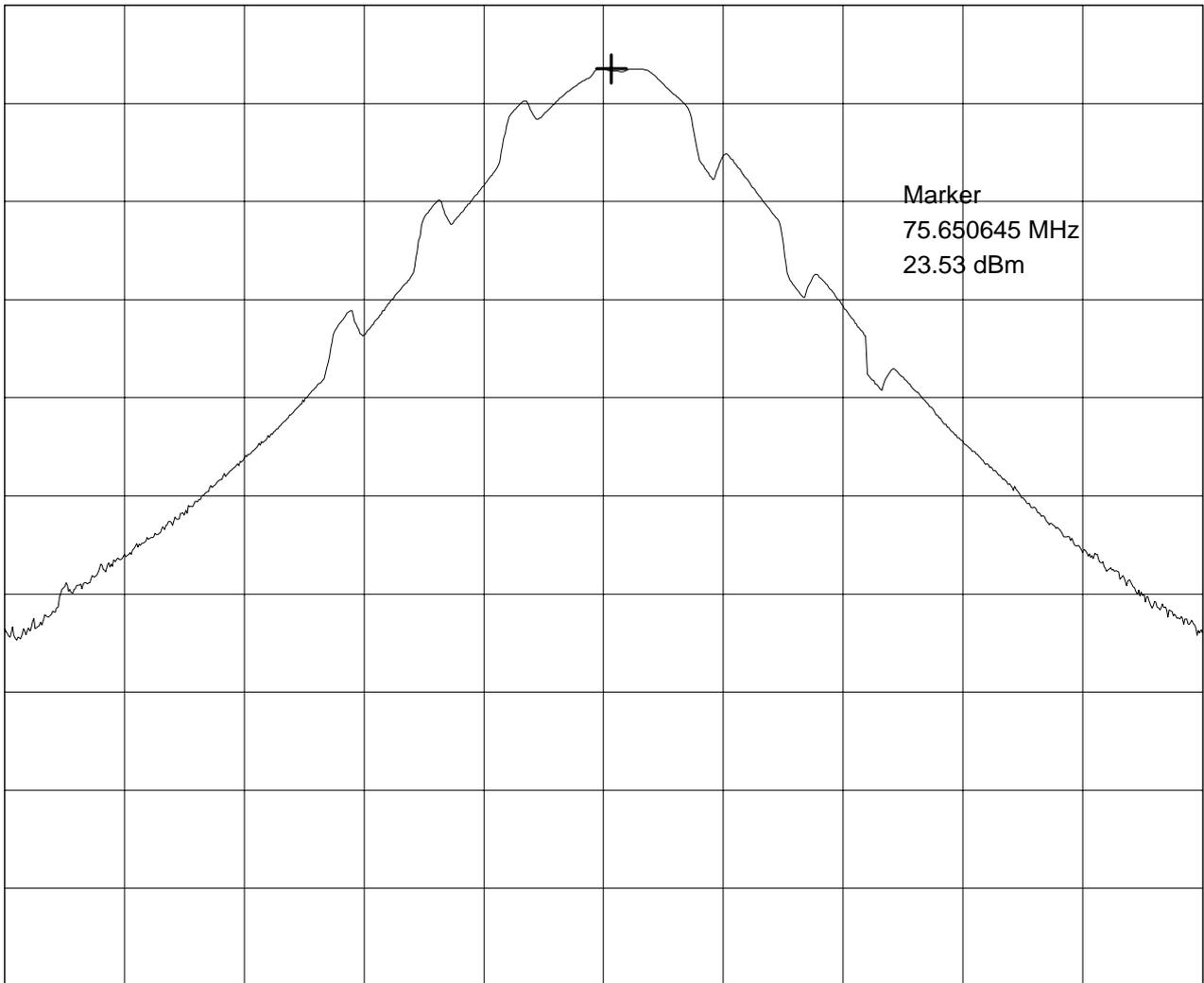
Frequency stability acc. FCC Part 95, R/C transmitter

Model: F-14	Mode: - selected temperature.: 20°C - selected supply voltage : 10.50 V DC
Serial No.: --	
Applicant: robbe Modellsport GmbH	

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by: Thomas Eberl	Project-No.: 51815-00170
Date: 04/06/2000	Page 28 of 63 Pages

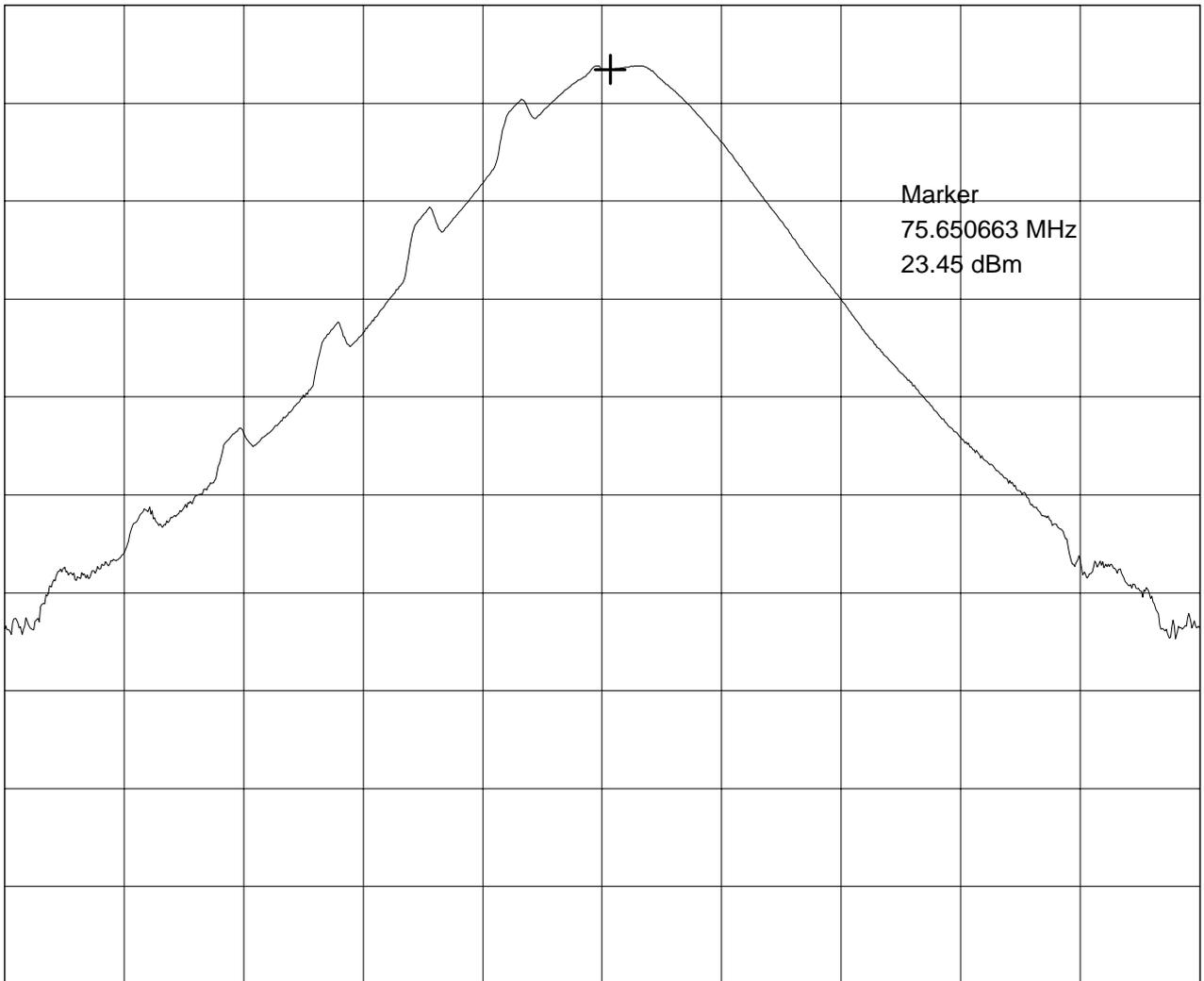
Frequency stability acc. FCC Part 95, R/C transmitter

Model: F-14	Mode: - selected temperature.: 20°C - selected supply voltage : 11.00 V DC
Serial No.: --	
Applicant: robbe Modellsport GmbH	

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by: Thomas Eberl	Project-No.: 51815-00170
Date: 04/06/2000	Page 29 of 63 Pages

Frequency stability acc. FCC Part 95, R/C transmitter

Model:
F-14

Serial No.:
--

Applicant:
robbe Modellsport GmbH

Mode:

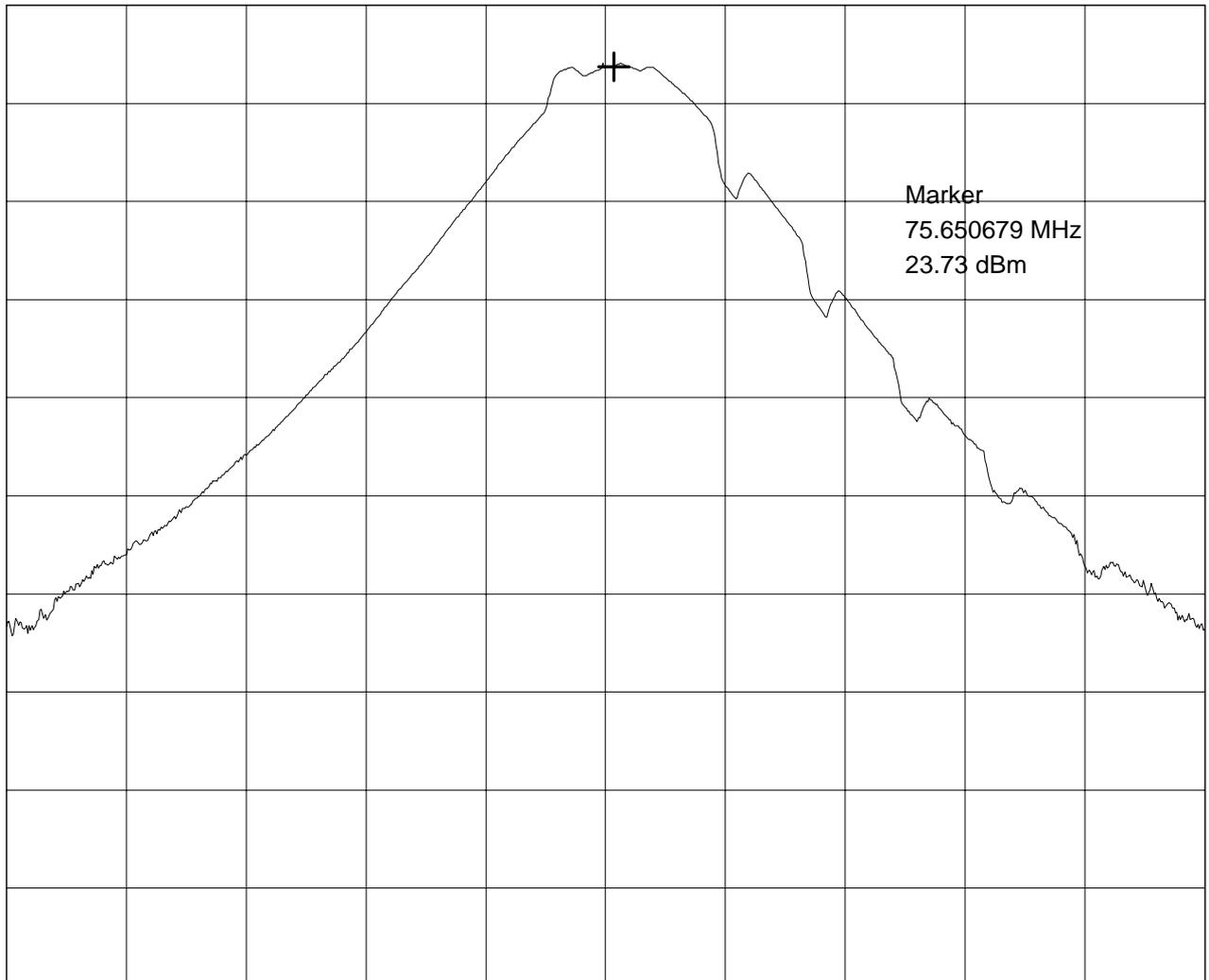
- selected temperature.: 20°C

- selected supply voltage : 11.50 V DC

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by:
Thomas Eberl

Date:
04/06/2000

Project-No.:
51815-00170

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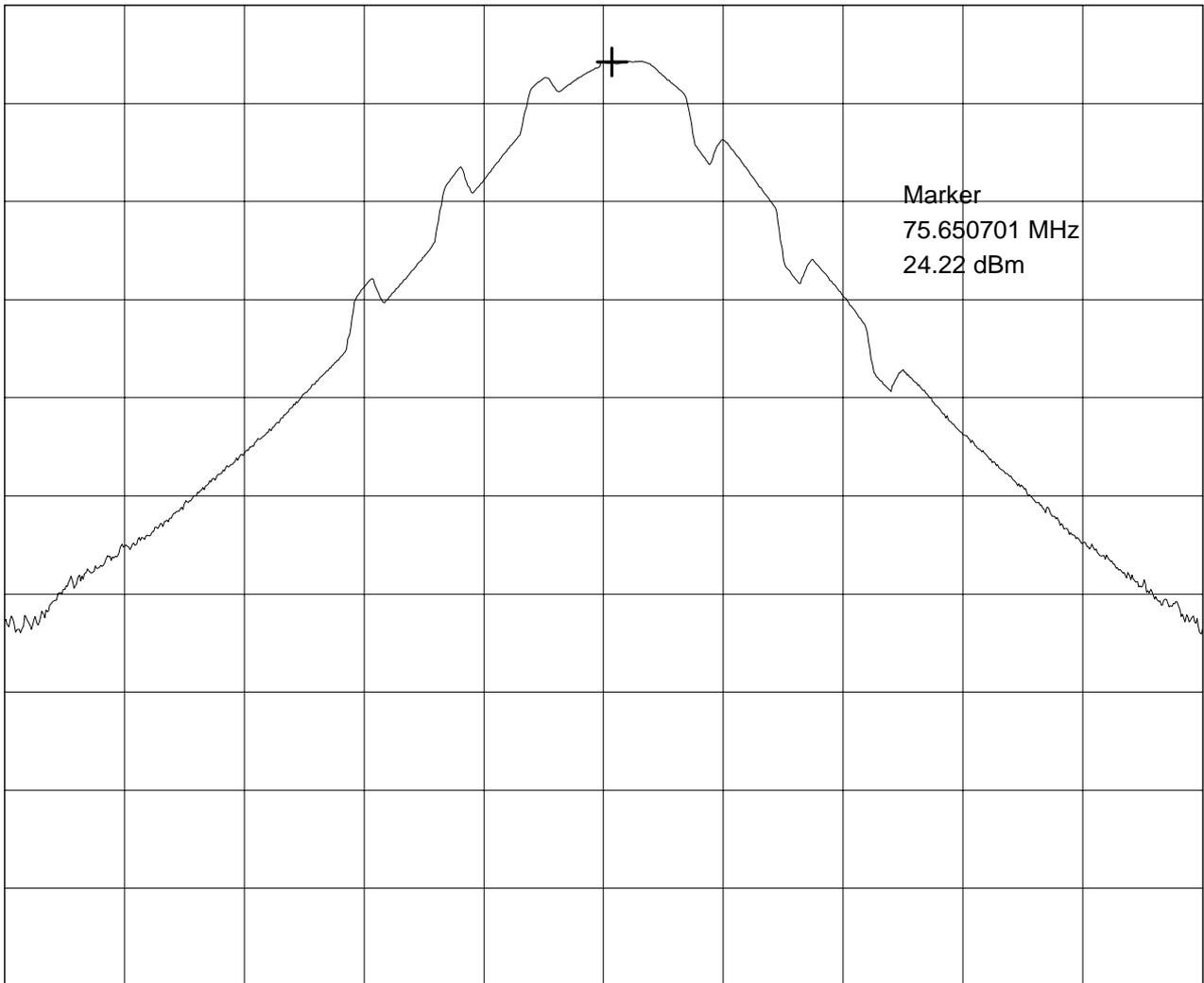
Frequency stability acc. FCC Part 95, R/C transmitter

Model: F-14	Mode: - selected temperature.: 20°C - selected supply voltage : 12.00 V DC
Serial No.: --	
Applicant: robbe Modellsport GmbH	

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by: Thomas Eberl	Project-No.: 51815-00170
Date: 04/06/2000	Page 31 of 63 Pages

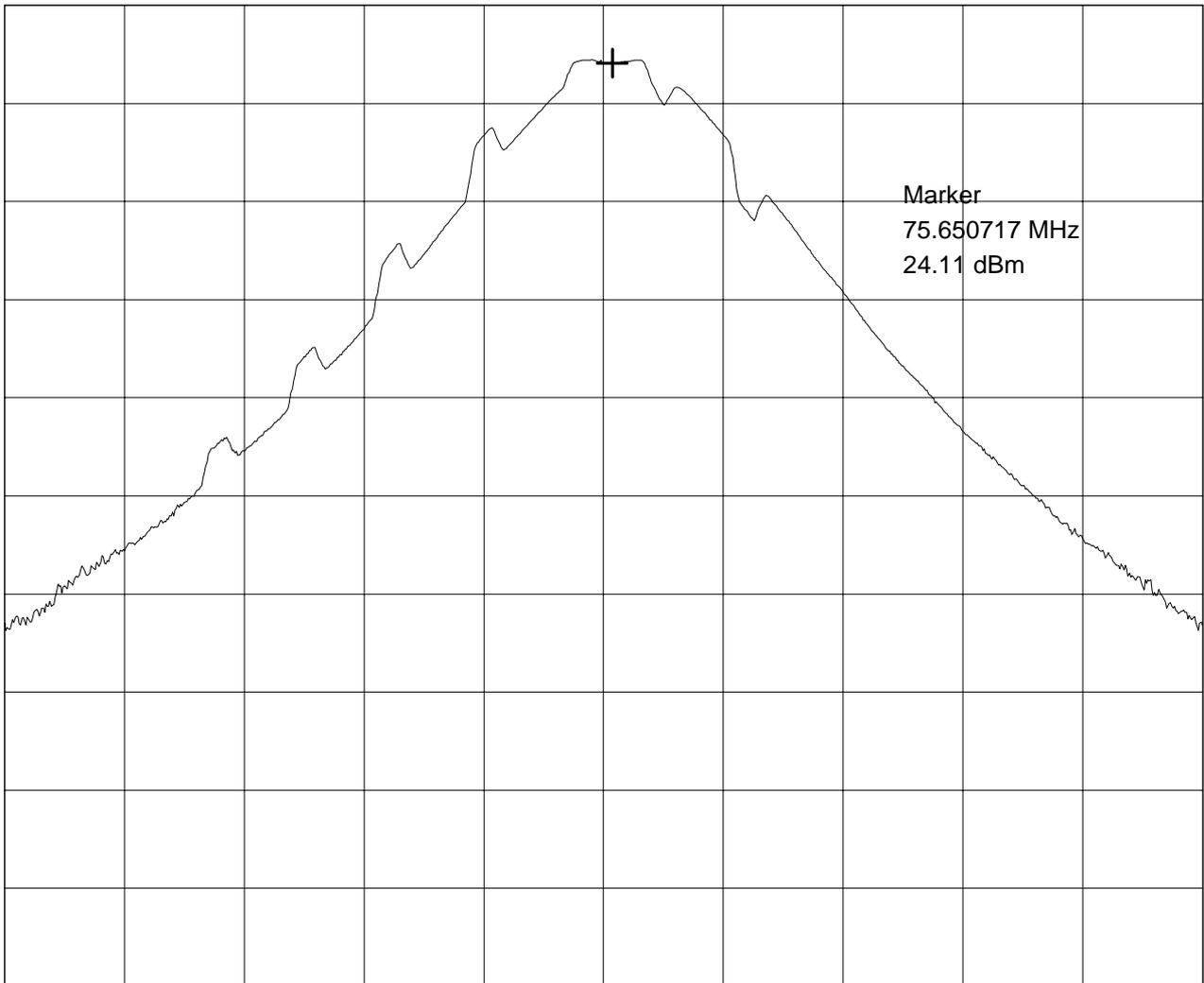
Frequency stability acc. FCC Part 95, R/C transmitter

<p>Model: F-14</p> <hr/> <p>Serial No.: --</p> <hr/> <p>Applicant: robbe Modellsport GmbH</p> <hr/> <hr/> <hr/> <hr/>	<p>Mode:</p> <ul style="list-style-type: none"> - selected temperature.: 20°C - selected supply voltage : 12.50 V DC
---	--

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

<p>Tested by: Thomas Eberl</p>
<p>Date: 04/06/2000</p>

<p>Project-No.: 51815-00170</p>
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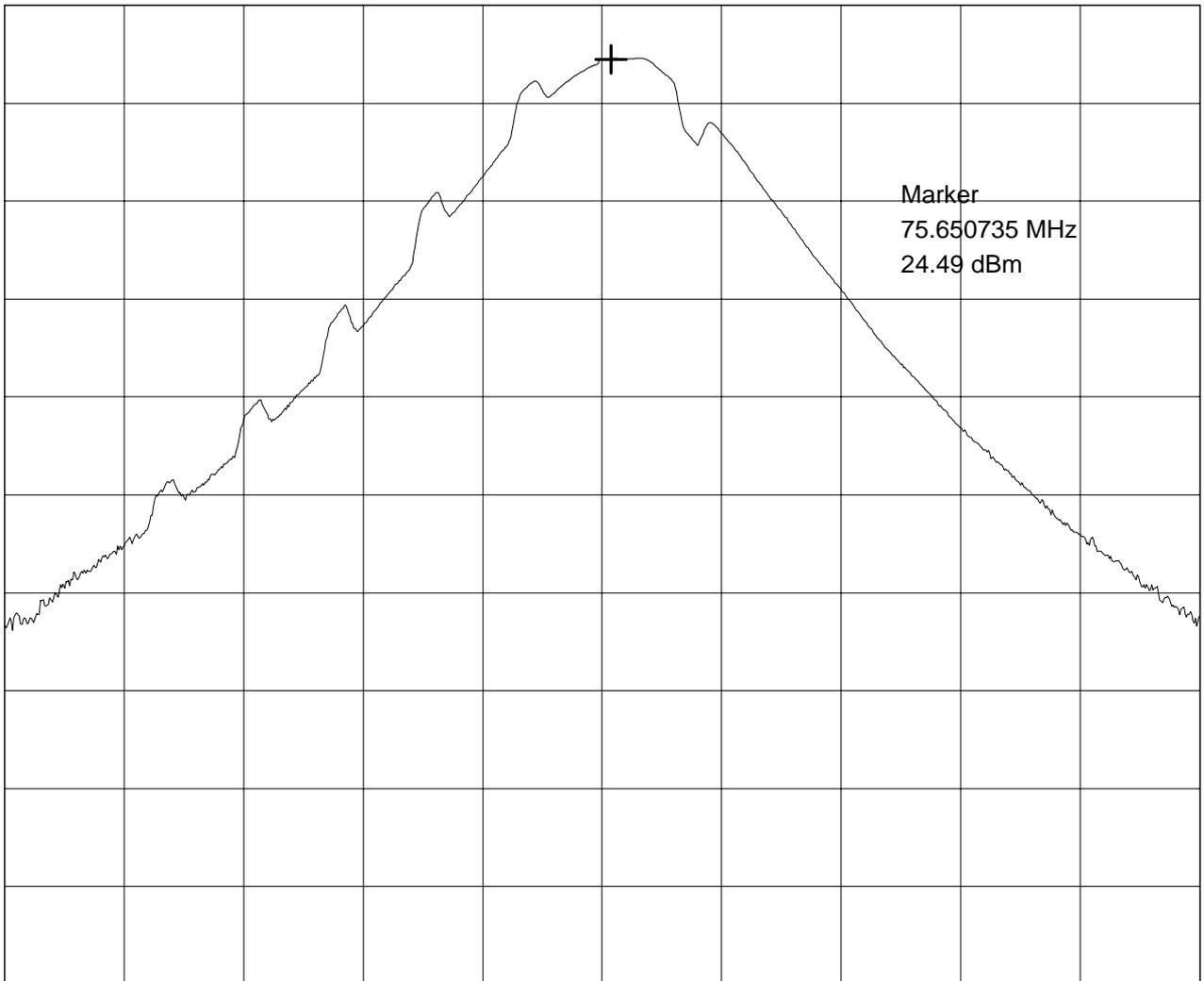
Frequency stability acc. FCC Part 95, R/C transmitter

Model: F-14	Mode: - selected temperature.: 20°C - selected supply voltage : 13.00 V DC
Serial No.: --	
Applicant: robbe Modellsport GmbH	

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by: Thomas Eberl
Date: 04/06/2000

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Frequency stability acc. FCC Part 95, R/C transmitter

Model:
F-14

Serial No.:
--

Applicant:
robbe Modellsport GmbH

Mode:

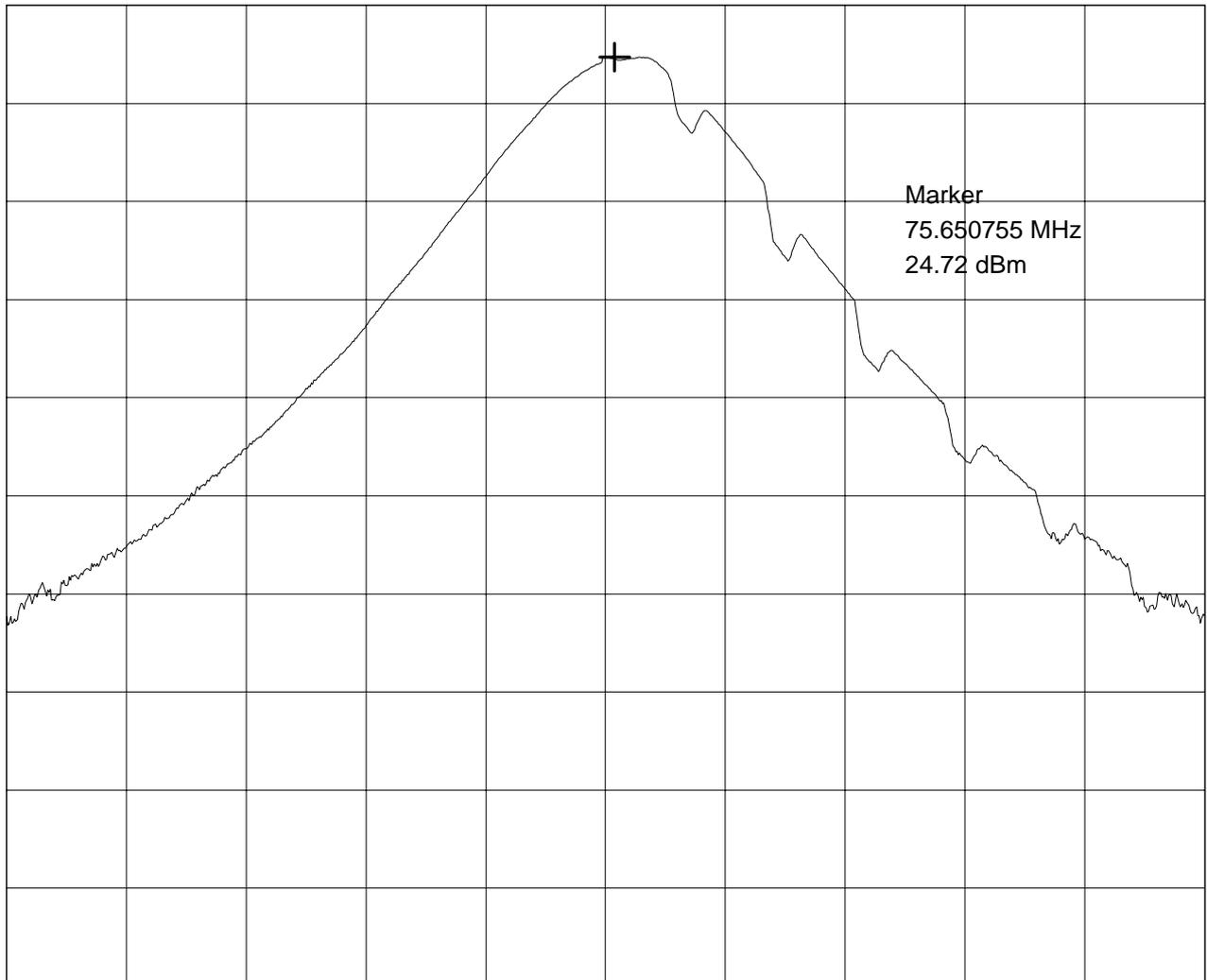
- selected temperature.: 20°C

- selected supply voltage : 13.50 V DC

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by:
Thomas Eberl

Date:
04/06/2000

Project-No.:
51815-00170

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Frequency stability acc. FCC Part 95, R/C transmitter

Model:
F-14

Serial No.:
--

Applicant:
robbe Modellsport GmbH

Mode:

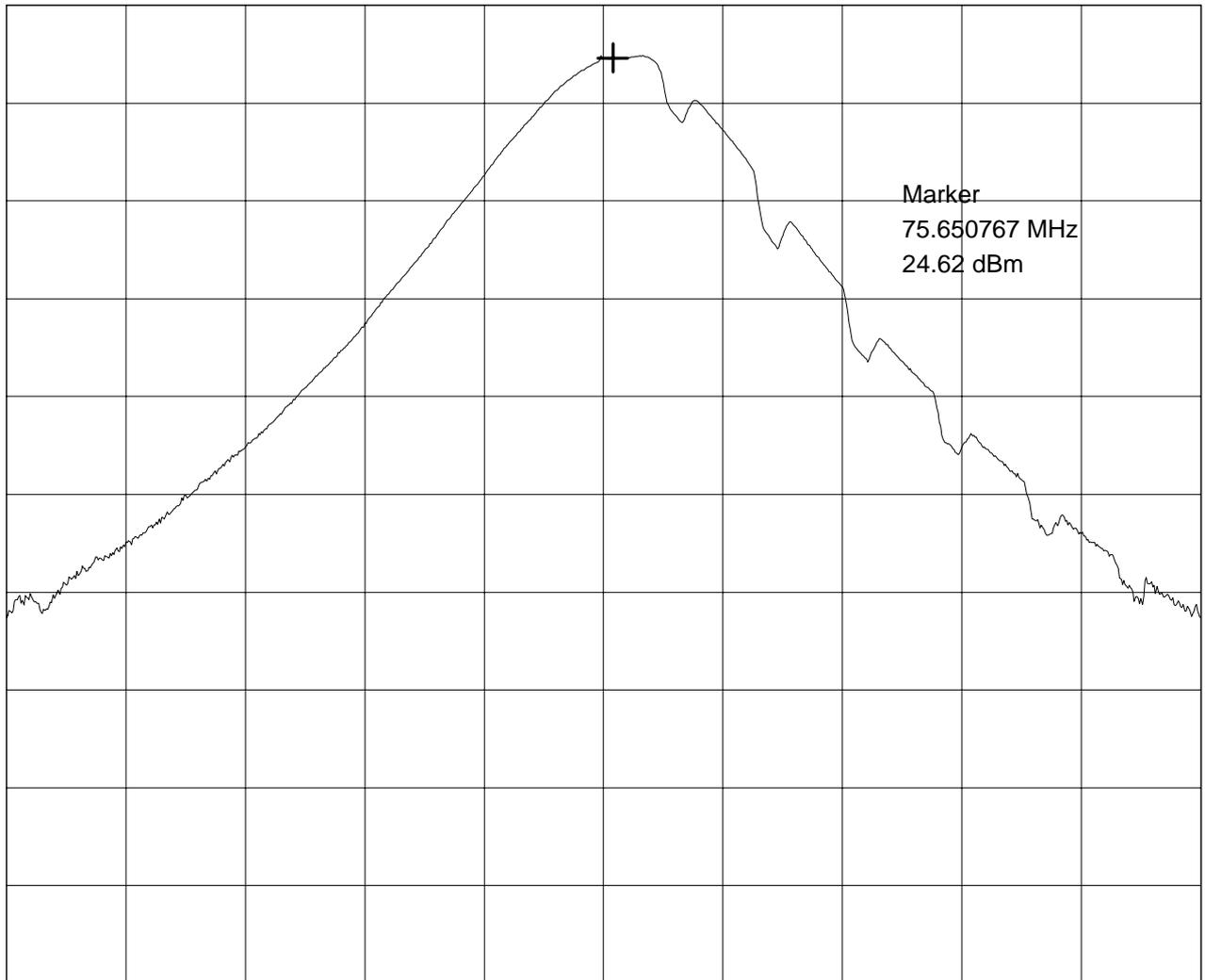
- selected temperature.: 20°C

- selected supply voltage : 14.00 V DC

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by:
Thomas Eberl

Date:
04/06/2000

Project-No.:
51815-00170

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FREQUENCY STABILITY V.S. TEMPERATURE

Model: F-14

Applicant robbe Modellsport GmbH & Co. KG

File: 51815-00170

Regulation FCC Part 95

Mode: TX 75.65 MHz/Unom = 12.0V DC

Operating Temperature (°C)	Frequency Measured (MHz)	Frequency Deviation (Hz)	Frequency Deviation (%)
-30	75.650709	709	0.0009372
-20	75.650997	997	0.0013179
-10	75.651137	1137	0.0015030
0	75.651089	1089	0.0014395
10	75.650925	925	0.0012227
20	75.650769	769	0.0010165
30	75.650541	541	0.0007151
40	75.650379	379	0.0005010
50	75.650275	275	0.0003635

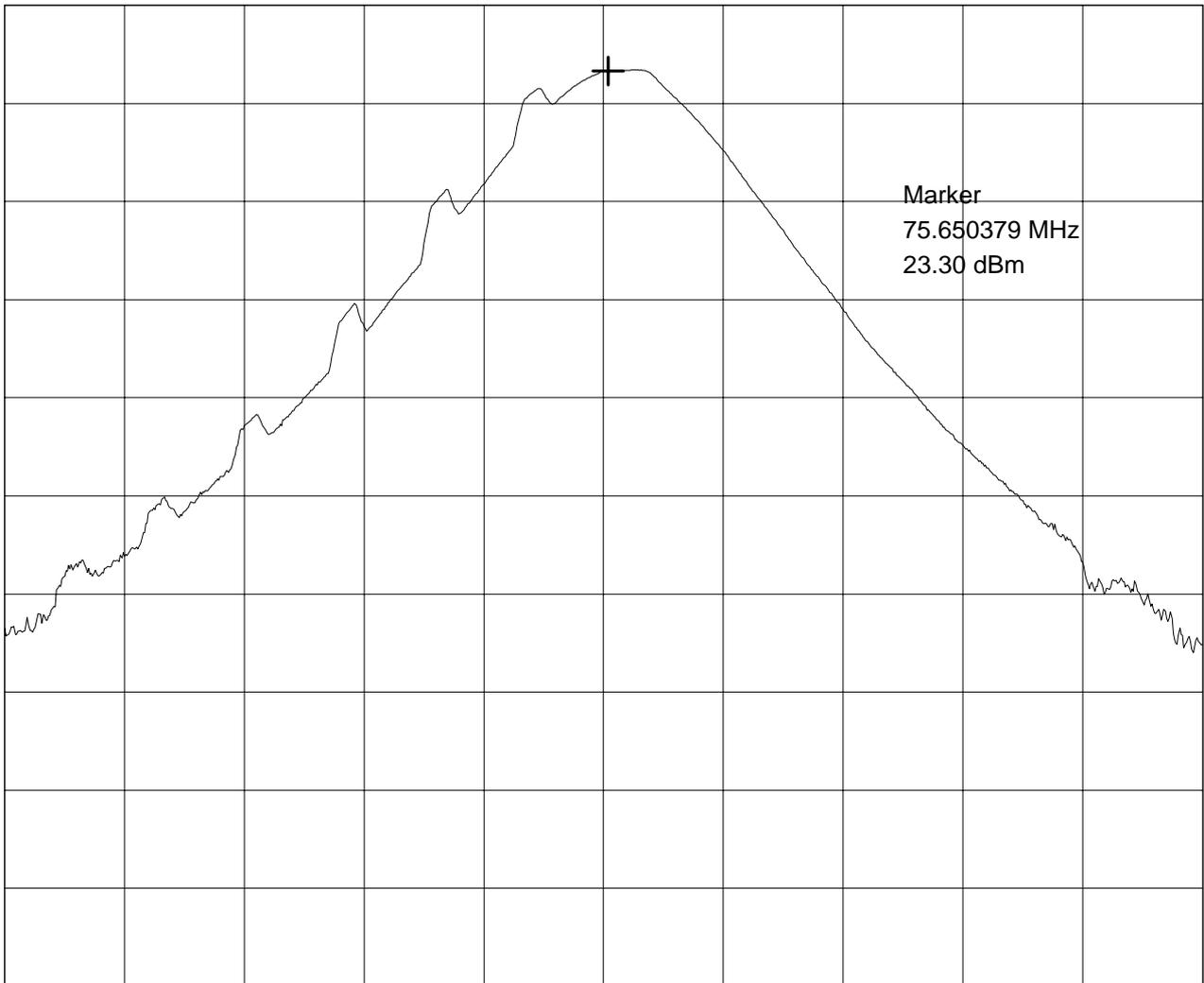
Frequency stability acc. FCC Part 95, R/C transmitter

Model: F-14	Mode: - selected temperature.: +40°C - selected supply voltage : 12.00 V DC
Serial No.: --	
Applicant: robbe Modellsport GmbH	

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by: Thomas Eberl	Project-No.: 51815-00170
Date: 04/06/2000	Page 41 of 63 Pages

Frequency stability acc. FCC Part 95, R/C transmitter

Model:
F-14

Serial No.:
--

Applicant:
robbe Modellsport GmbH

Mode:

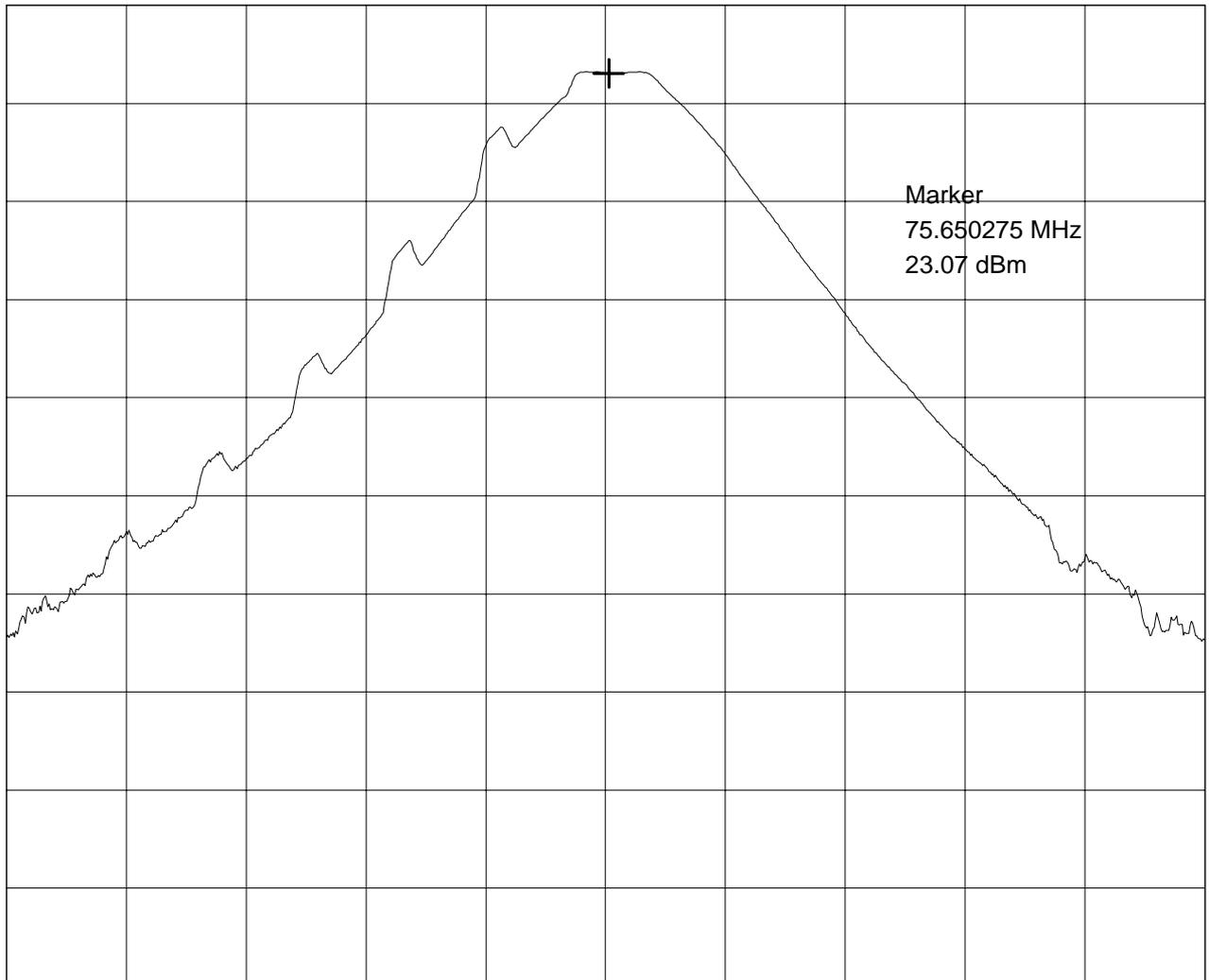
- selected temperature.: +50°C

- selected supply voltage : 12.00 V DC

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by:
Thomas Eberl

Date:
04/06/2000

Project-No.:
51815-00170

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Frequency stability acc. FCC Part 95, R/C transmitter

Model:
F-14

Serial No.:
--

Applicant:
robbe Modellsport GmbH

Mode:

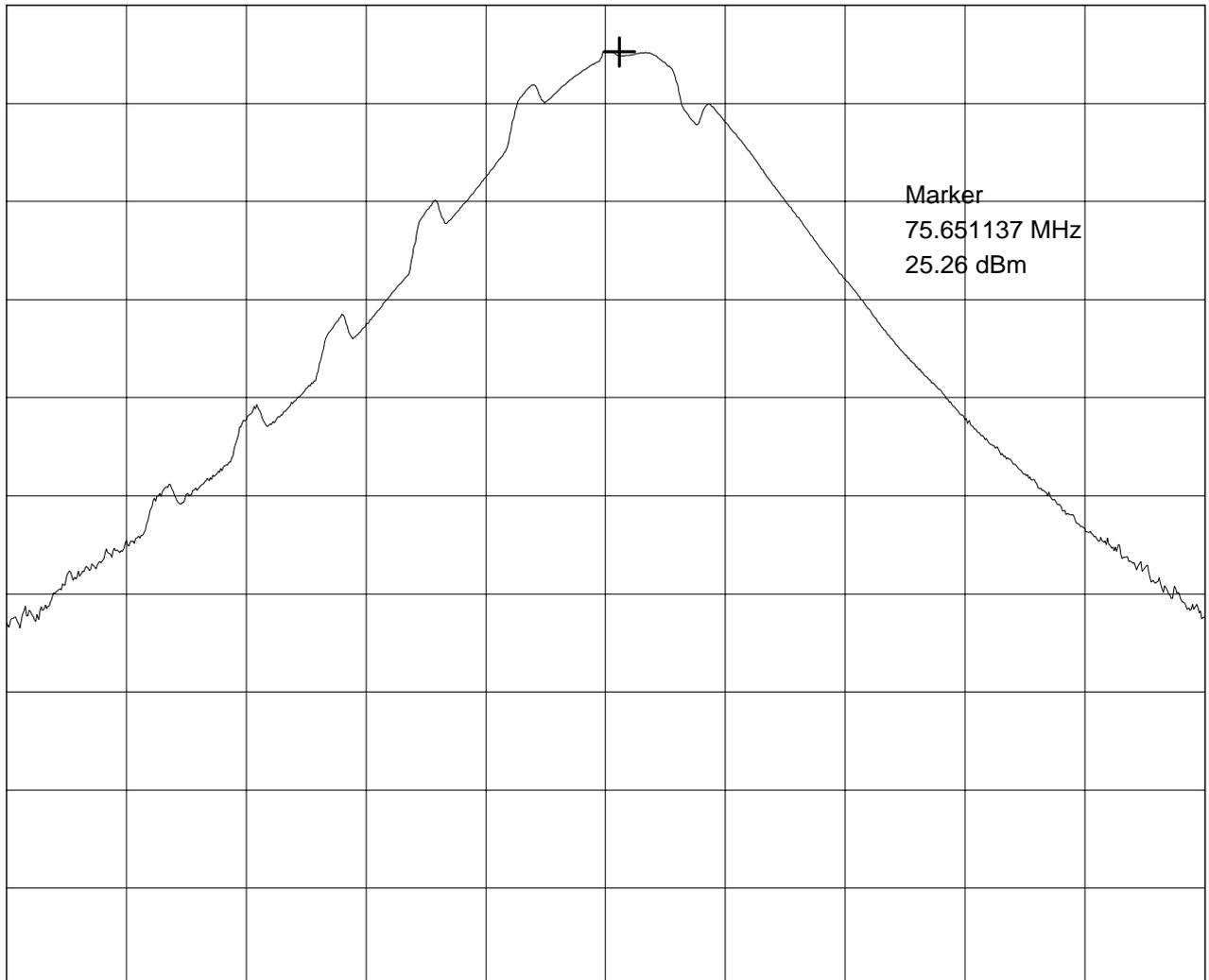
- selected temperature.: -10°C

- selected supply voltage : 12.00 V DC

Ref.Level 30 dBm
10 dB dB/Div.

ATT 30 dB

Ref. Offset 16 dB



Marker
75.651137 MHz
25.26 dBm

Start 75.600 MHz
RBW 10 kHz

VBW 100 kHz

Stop 75.700 MHz
SWP 20 ms

Tested by:
Thomas Eberl

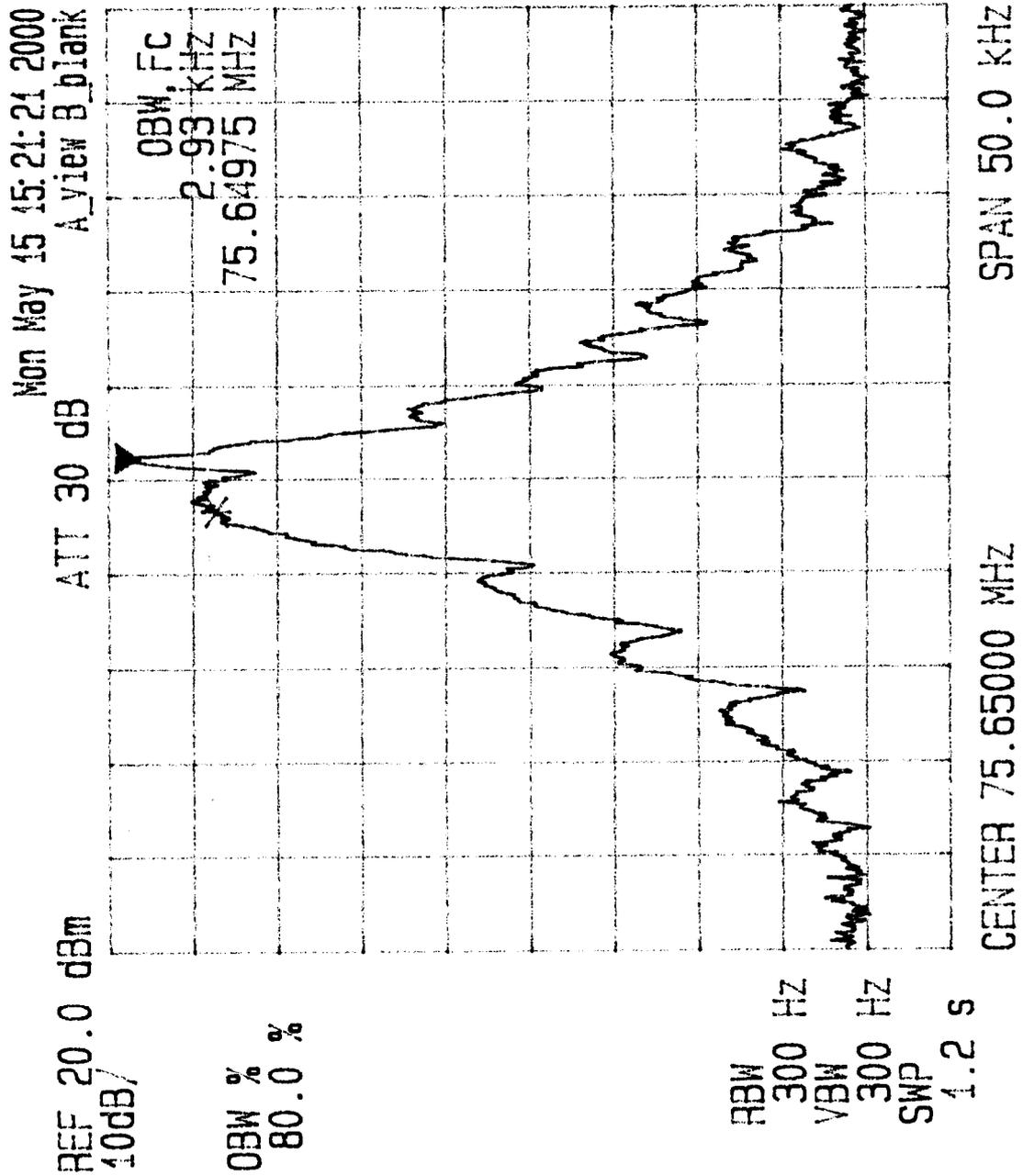
Date:
04/06/2000

Project-No.:
51815-00170

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Occupied bandwidth according FCC Part 95

Model: F-14
Serial No.: ---
Applicant: robbe Modellsport GmbH
Mode: TX 75.65 MHz/Unom = 12.0V DC
Tested by: Thomas Eberl
Date: 04/06/2000
Project-No.: 51815-00170



RADIATED EMISSION 30 - 1000 MHZ

Model: F-14 Distance: 3m
 Applicant: robbe Modellsport GmbH & Co. KG Limit: 118.9 -(56+10log 0.273)
 File: 51815-00170
 Regulation: FCC CFR 47 Part 95
 Mode: TX 75.65 MHz/Unom = 12.0V DC

Frequency (MHZ)	Reading (dBµV)	correction factor (dB)	Value (dBµV/m)	Calculated Limit (dBµV/m)	Distance to Carrier
75.65	108.2	10.7	118.9	68.5	-
151.3	36	16.1	52.1	68.5	66.8
226.95	35	19.6	54.6	68.5	64.3
302.6	25.5	18.9	44.4	68.5	74.1
378.25	23.5	21.5	45	68.5	73.9
453.9	24	23.6	47.6	68.5	71.3
529.5	30	25.4	55.4	68.5	64.5
605.2	30	27	57	68.5	62.9
680.85	25	29.5	54.5	68.5	64.4
756.5	20	30.7	50.7	68.5	68.2
832.15	20	31.9	51.9	68.5	67
907.8	26	33.3	59.3	68.5	59.6
983.4	20.5	34.5	55	68.5	63.9

Note: Limit kept

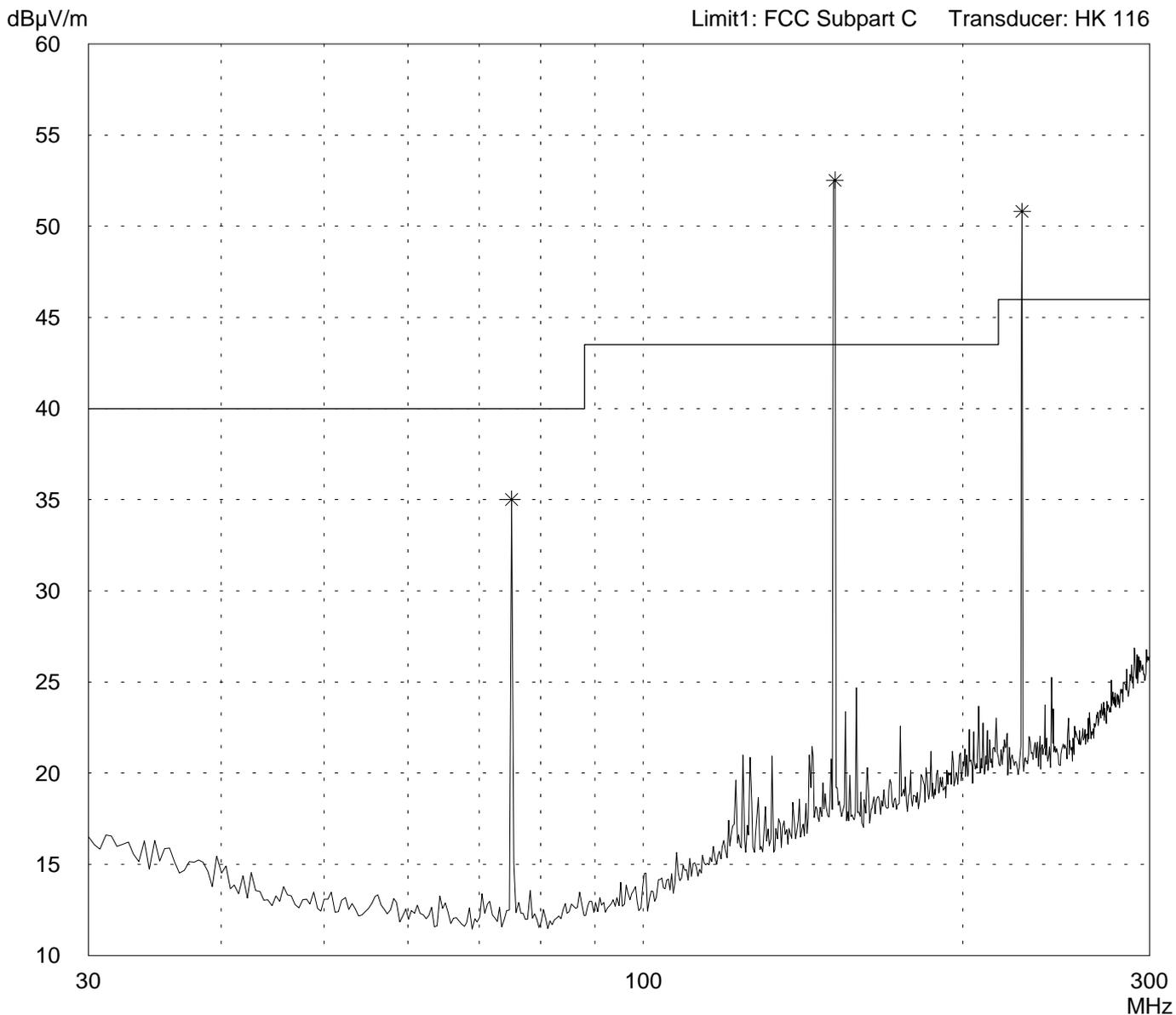
Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode	
- Supply voltage 12 V	
- EUT in vertical position - antenna to the top	

Detector: Peak

List of values: 10 dB Margin	50 Subranges
--	---------------------



Result: Prescan

Project file: 51815-00170	Page 48 of 63 Pages
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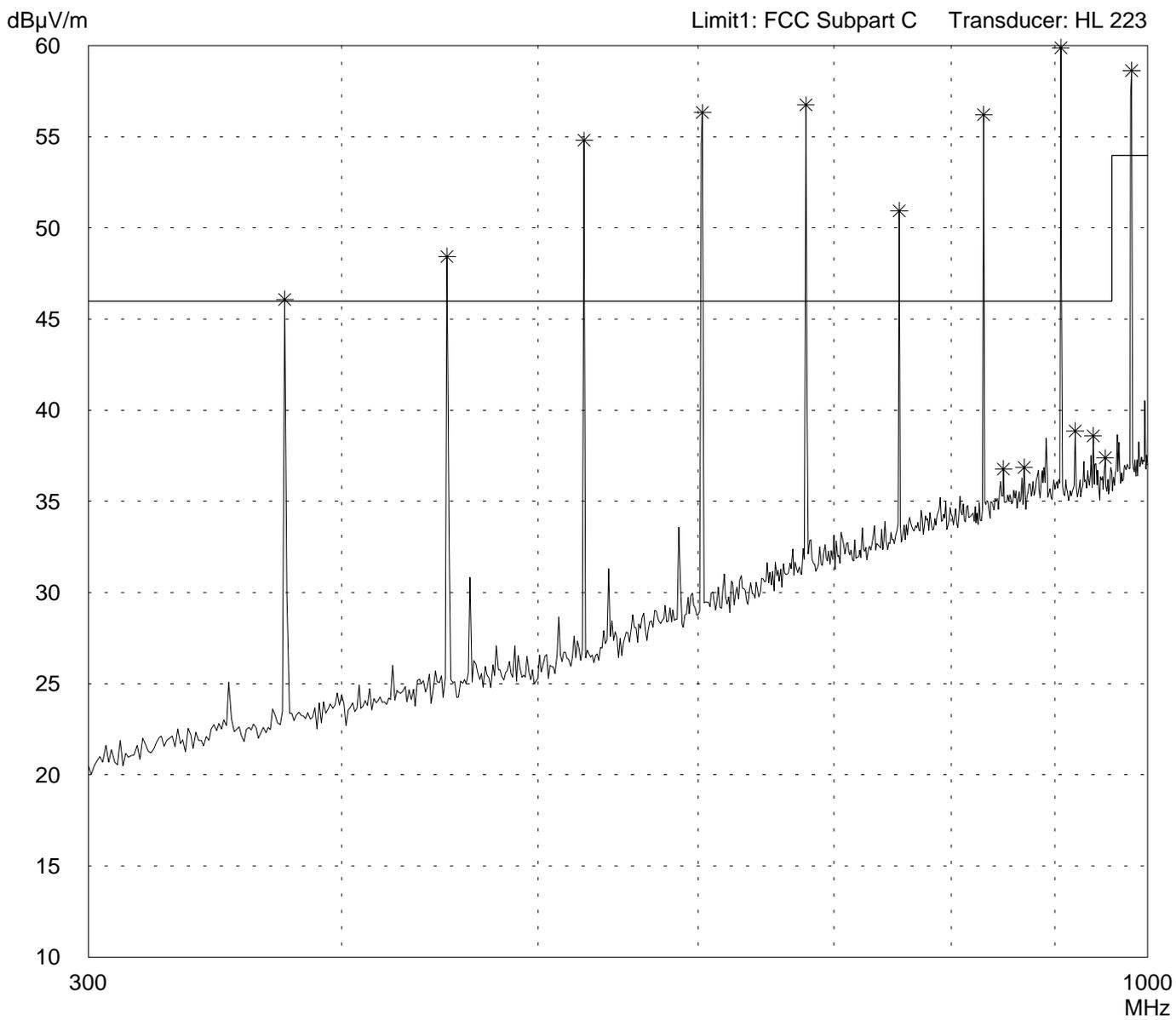
Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode	
- Supply voltage 12 V	
- EUT in vertical position - antenna to the top	

Detector: Peak

List of values: 10 dB Margin	50 Subranges
--	---------------------



Result: Prescan

Project file: 51815-00170	Page 49 of 63 Pages
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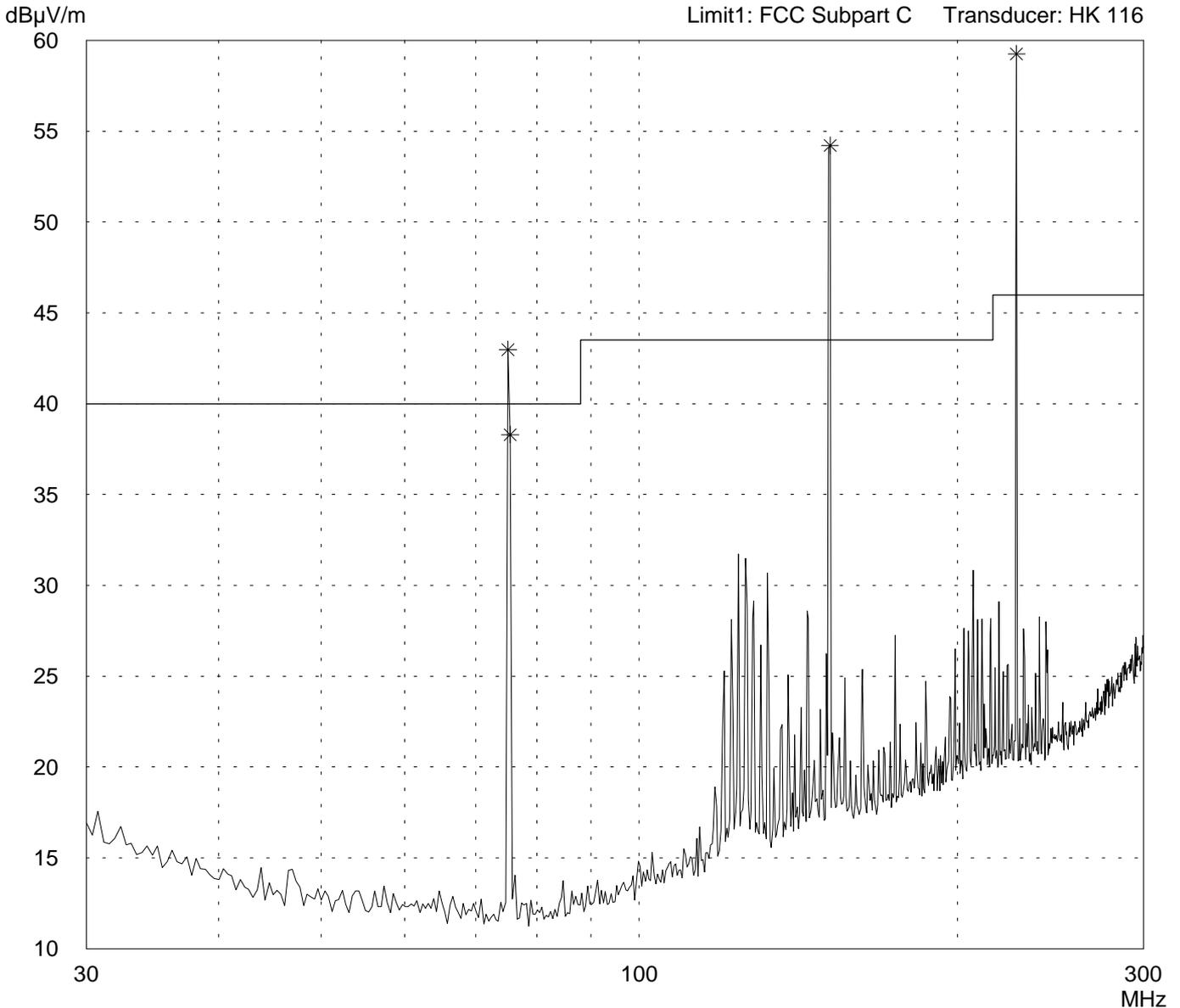
Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode	
- Supply voltage 12 V	
- EUT in vertical position - antenna to the top	

Detector: Peak

List of values: 10 dB Margin	50 Subranges
---------------------------------	--------------



Result: Prescan

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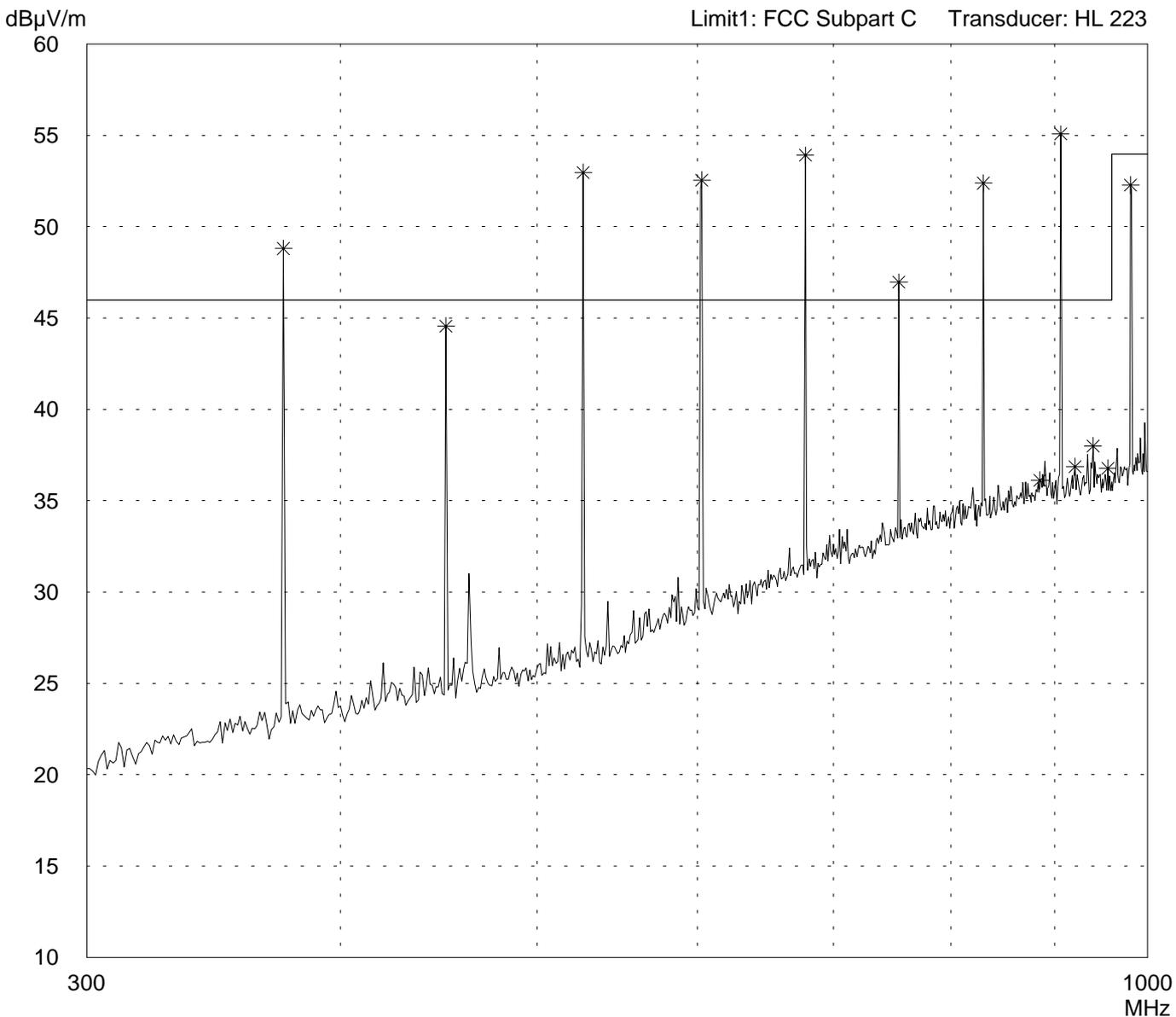
Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode
- Supply voltage 12 V
- EUT in vertical position - antenna to the top

Detector: Peak

List of values: 10 dB Margin	50 Subranges
--	---------------------



Result: Prescan

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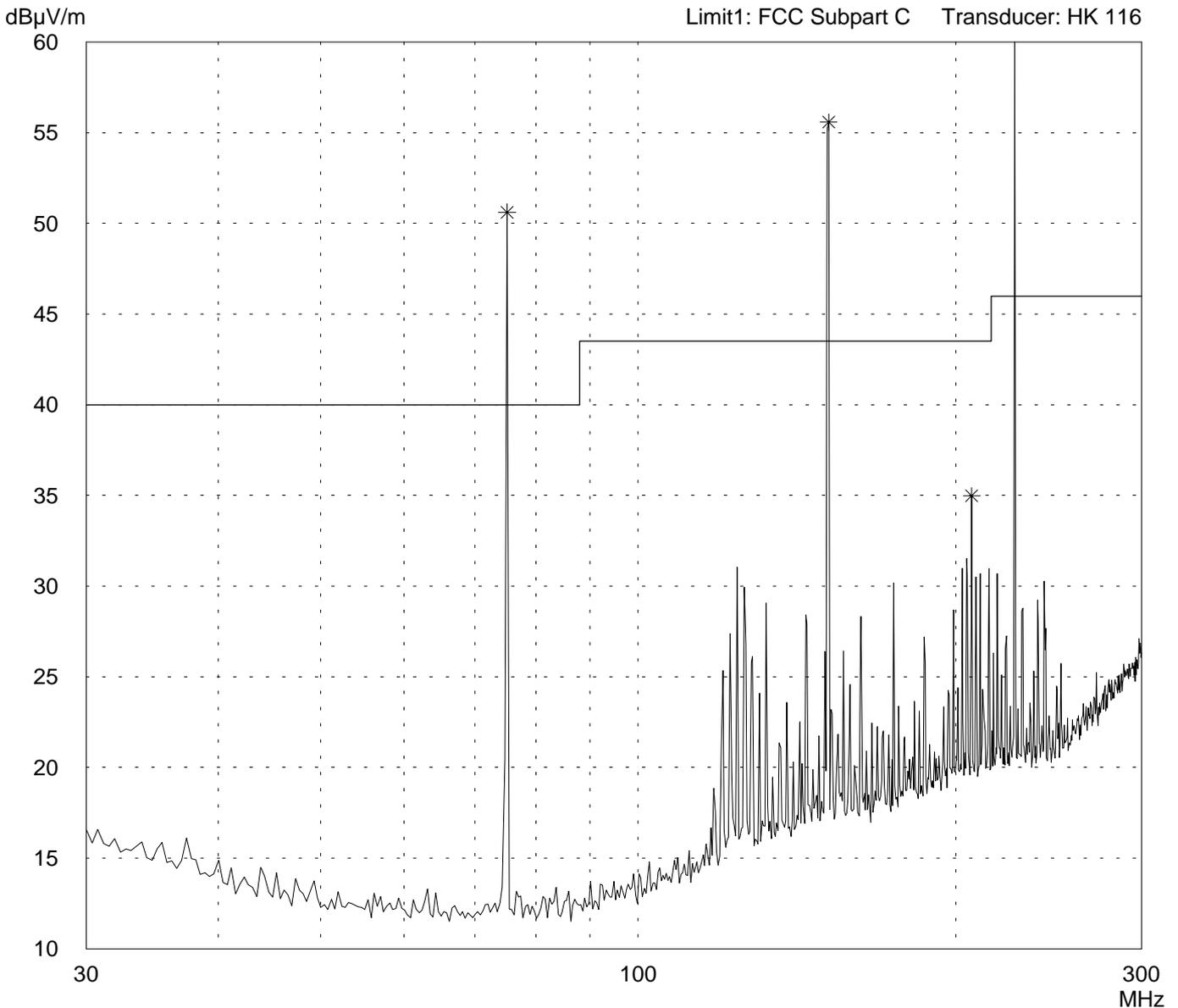
Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode	
- Supply voltage 12 V	
- EUT in horizontal position -bottom side on table	

Detector: Peak

List of values: 10 dB Margin	50 Subranges
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Result: Prescan

Project file: 51815-00170	Page 52 of 63 Pages
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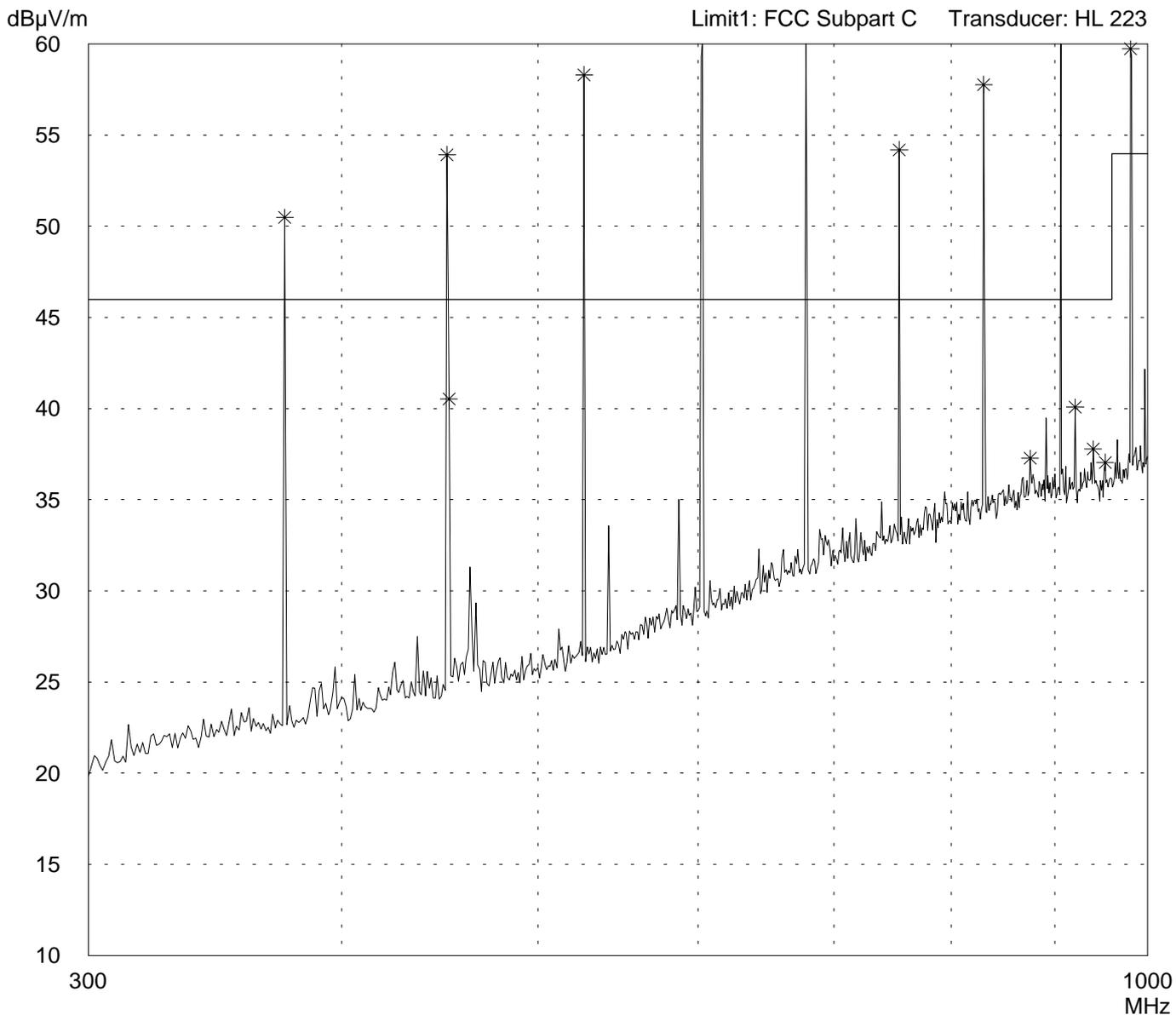
Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode
- Supply voltage 12 V
- EUT in horizontal position -bottom side on table

Detector: Peak

List of values: 10 dB Margin	50 Subranges
---------------------------------	--------------



Result: Prescan

Project file: 51815-00170	Page 53 of 63 Pages
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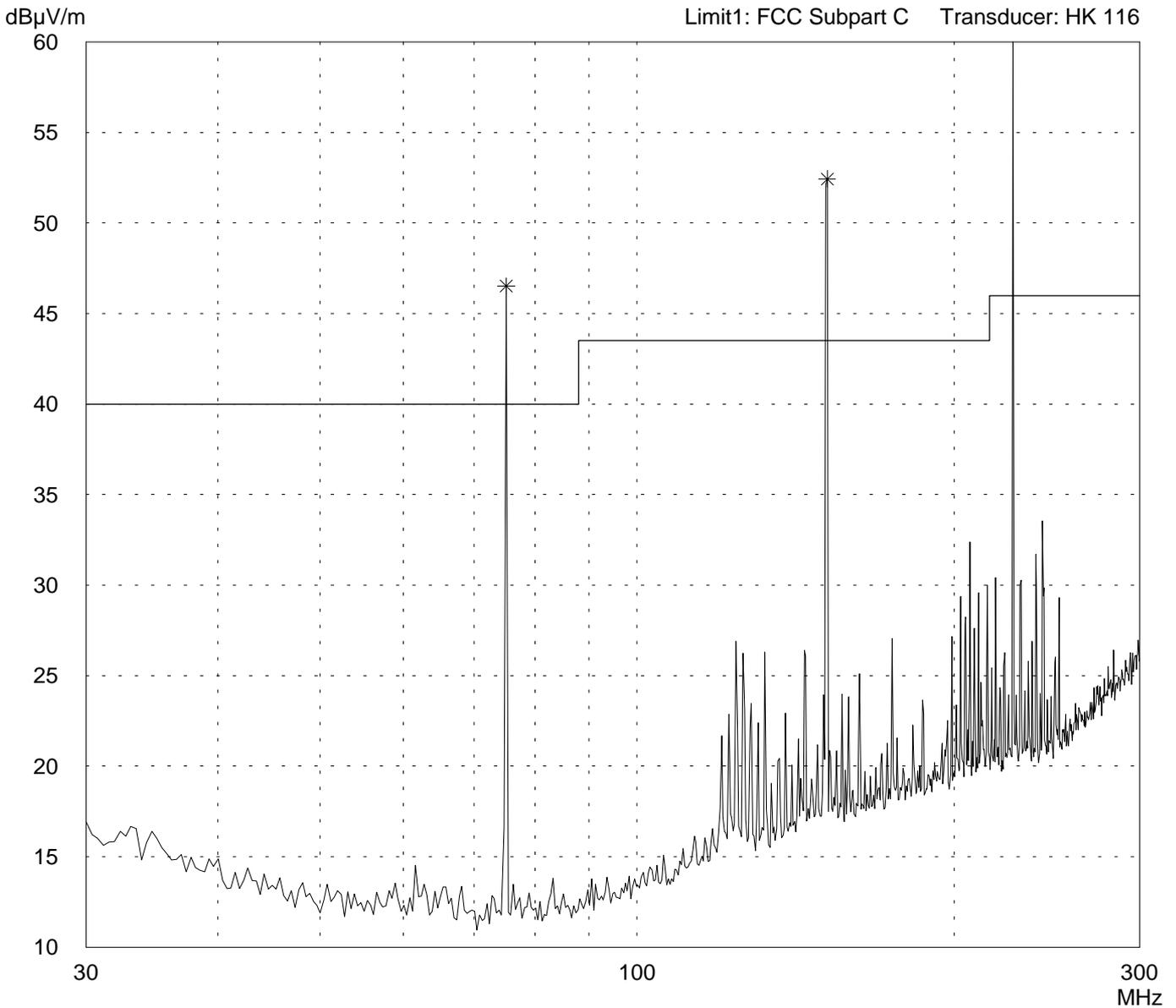
Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode	
- Supply voltage 12 V	
- EUT in horizontal position -bottom side on table	

Detector: Peak

List of values: 10 dB Margin	50 Subranges
--	---------------------



Result: Prescan

Project file: 51815-00170	Page 54 of 63 Pages
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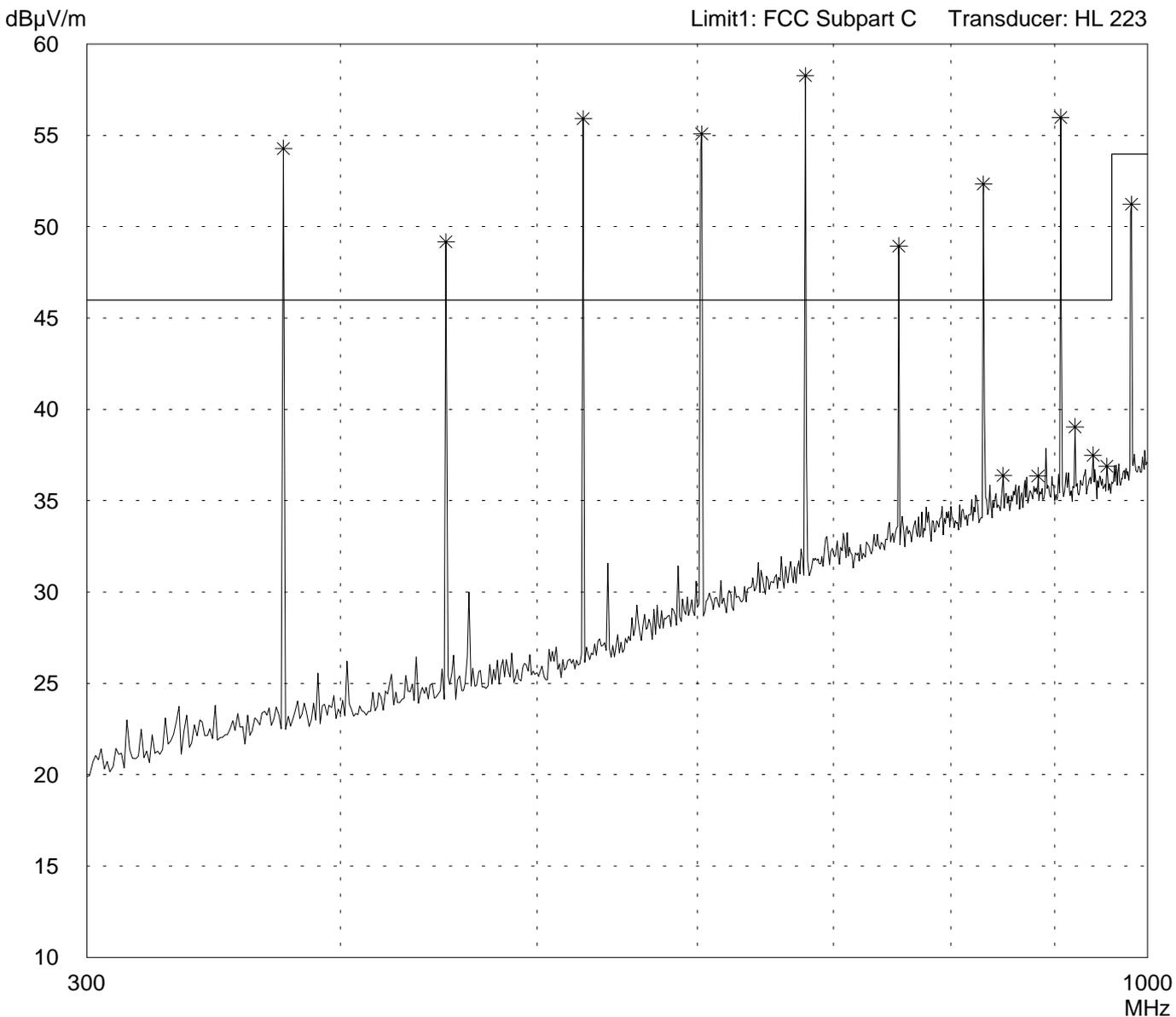
Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode
- Supply voltage 12 V
- EUT in horizontal position -bottom side on table

Detector: Peak

List of values: 10 dB Margin	50 Subranges
---------------------------------	--------------



Result: Prescan

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Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 95

Model:
F14 (FM75MHz)

Serial no.:
--

Applicant:
robbe Modellsport GmbH & Co. KG

Test site:
Semi anechoic room, cabin no. 3

Tested on:
**Test distance 3 meters
Horizontal Polarization**

Date of test: **03/31/2000** Operator: **T. Eberl**

Test performed: **automatically** File name:

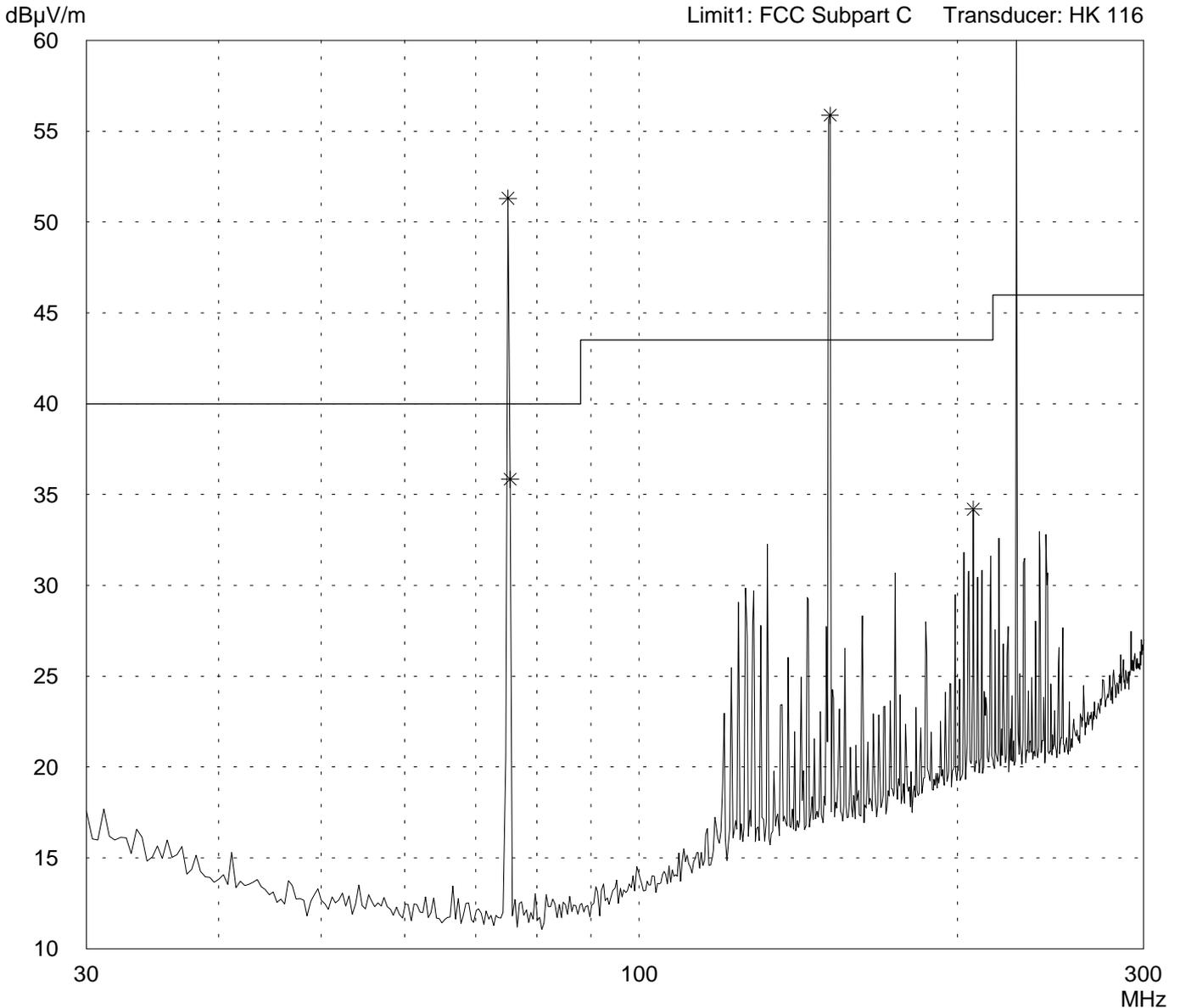
Mode:
-TX mode

- Supply voltage 12 V

- EUT in horizontal position -right side on table

Detector:
Peak

List of values:
10 dB Margin **50 Subranges**



Result:
Prescan

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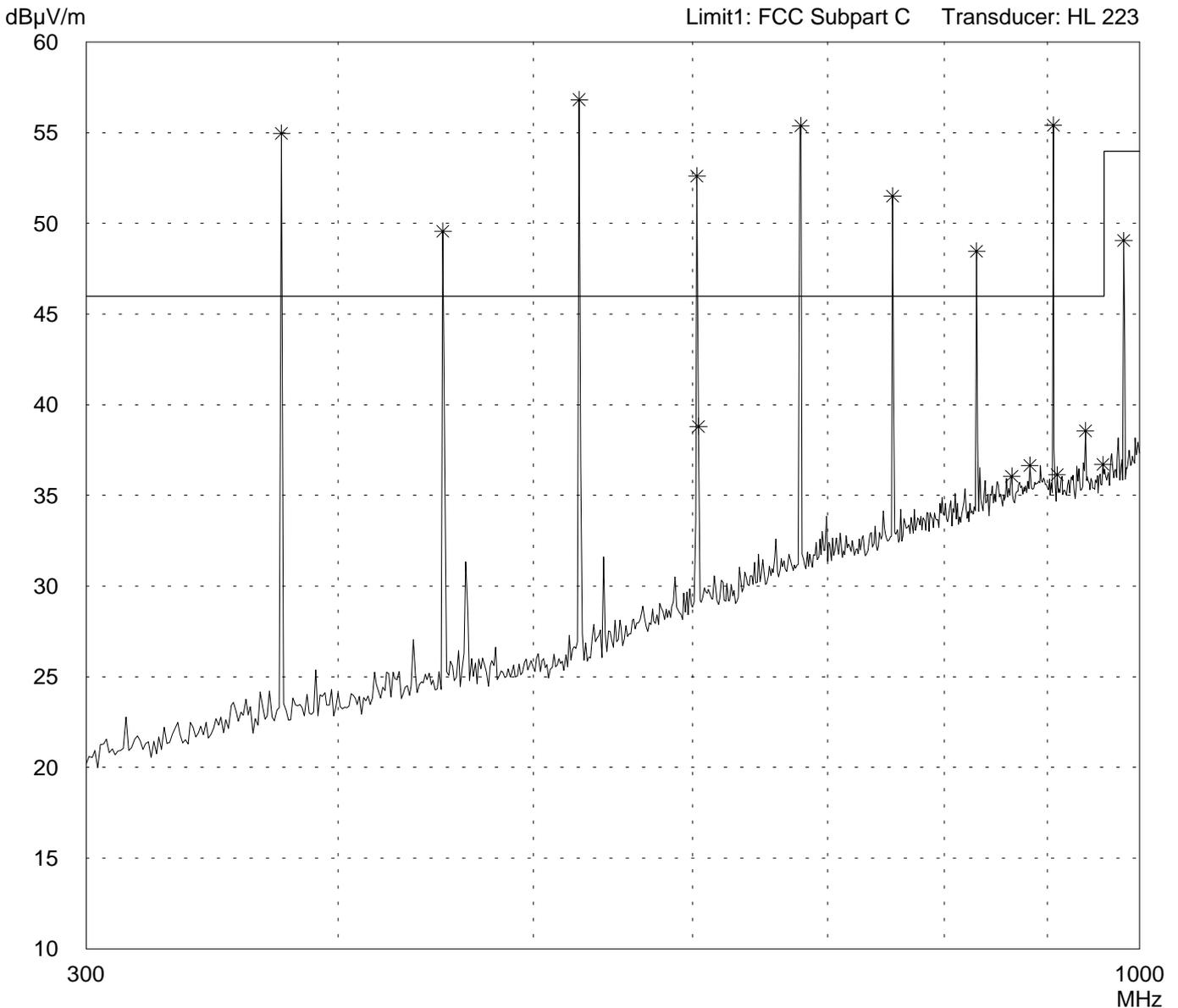
Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode
- Supply voltage 12 V
- EUT in horizontal position -right side on table

Detector: Peak

List of values: 10 dB Margin	50 Subranges
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Result: Prescan

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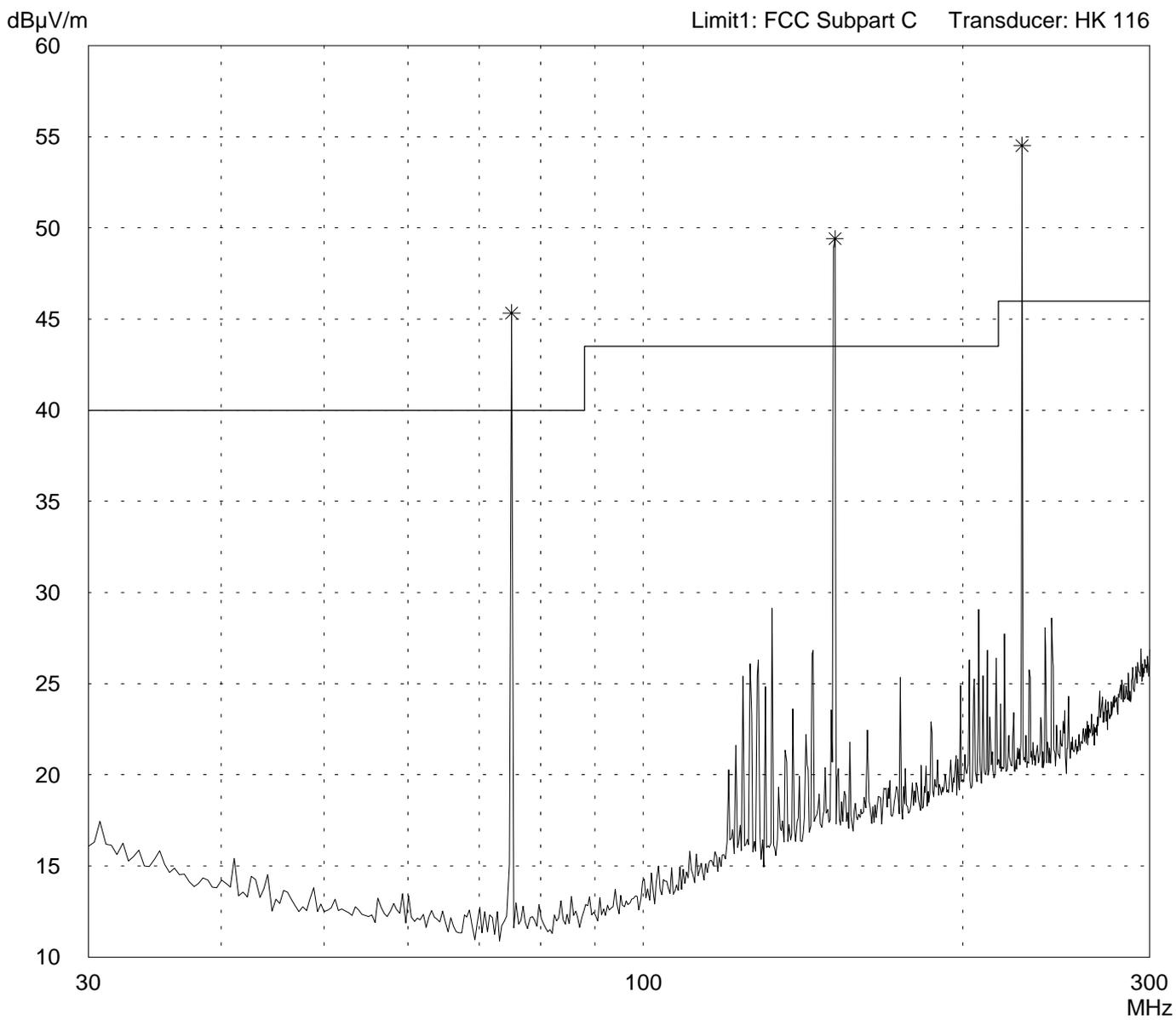
Radiated Emission Test 30 MHz - 300 MHz according to FCC Part 95

Model: F14 (FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: -TX mode	
- Supply voltage 12 V	
- EUT in horizontal position -right side on table	

Detector: Peak

List of values: 10 dB Margin	50 Subranges
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Result: Prescan

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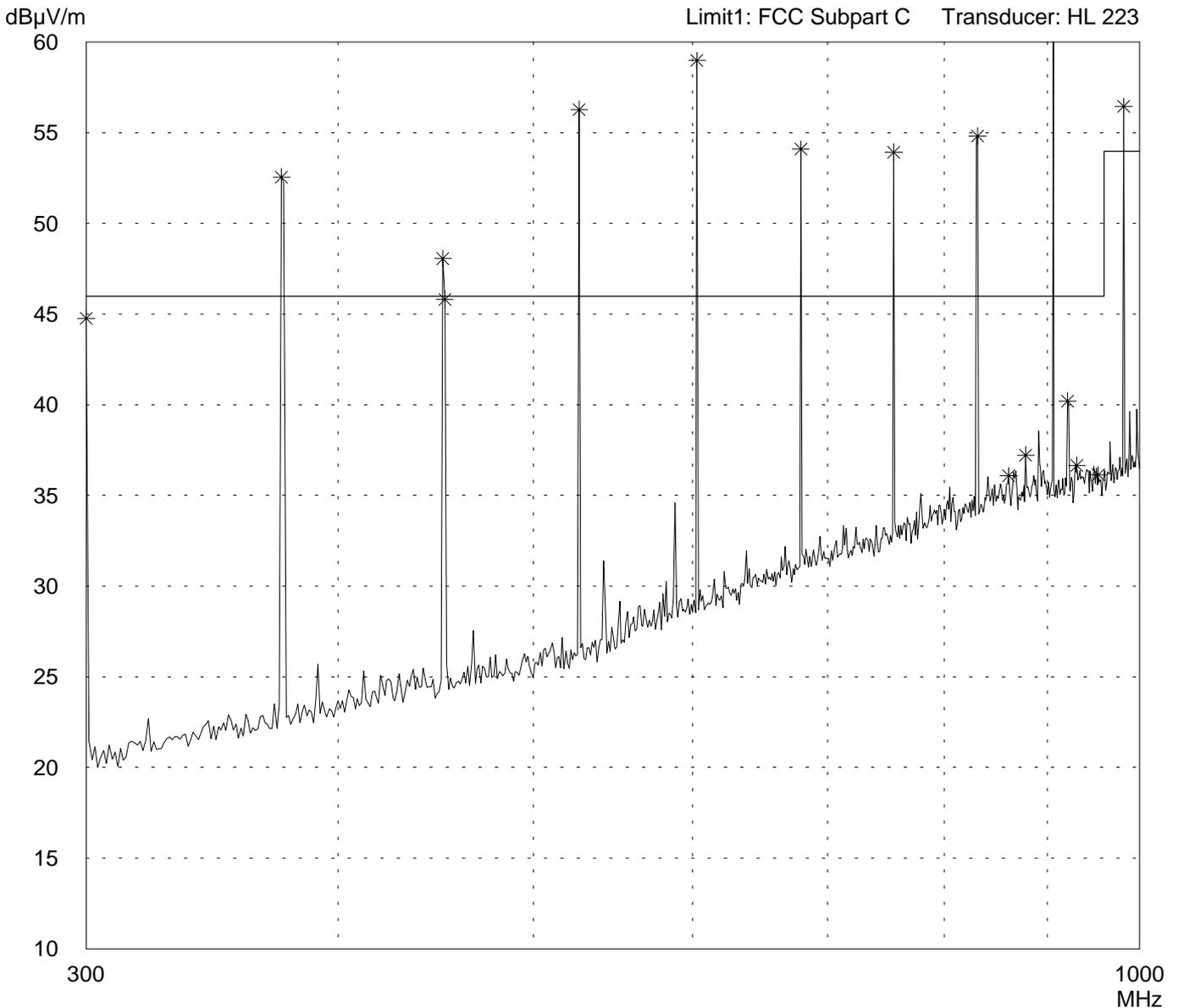
Radiated Emission Test 300 MHz - 1 GHz according to FCC Part 95

Model: F14(FM75MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Semi anechoic room, cabin no. 3	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: automatically	File name:

Mode: - TX mode - Supply voltage 12 V - EUT in horizontal position-right side on table

Detector: Peak

List of values: 10 dB Margin	50 Subranges
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Result: Prescan

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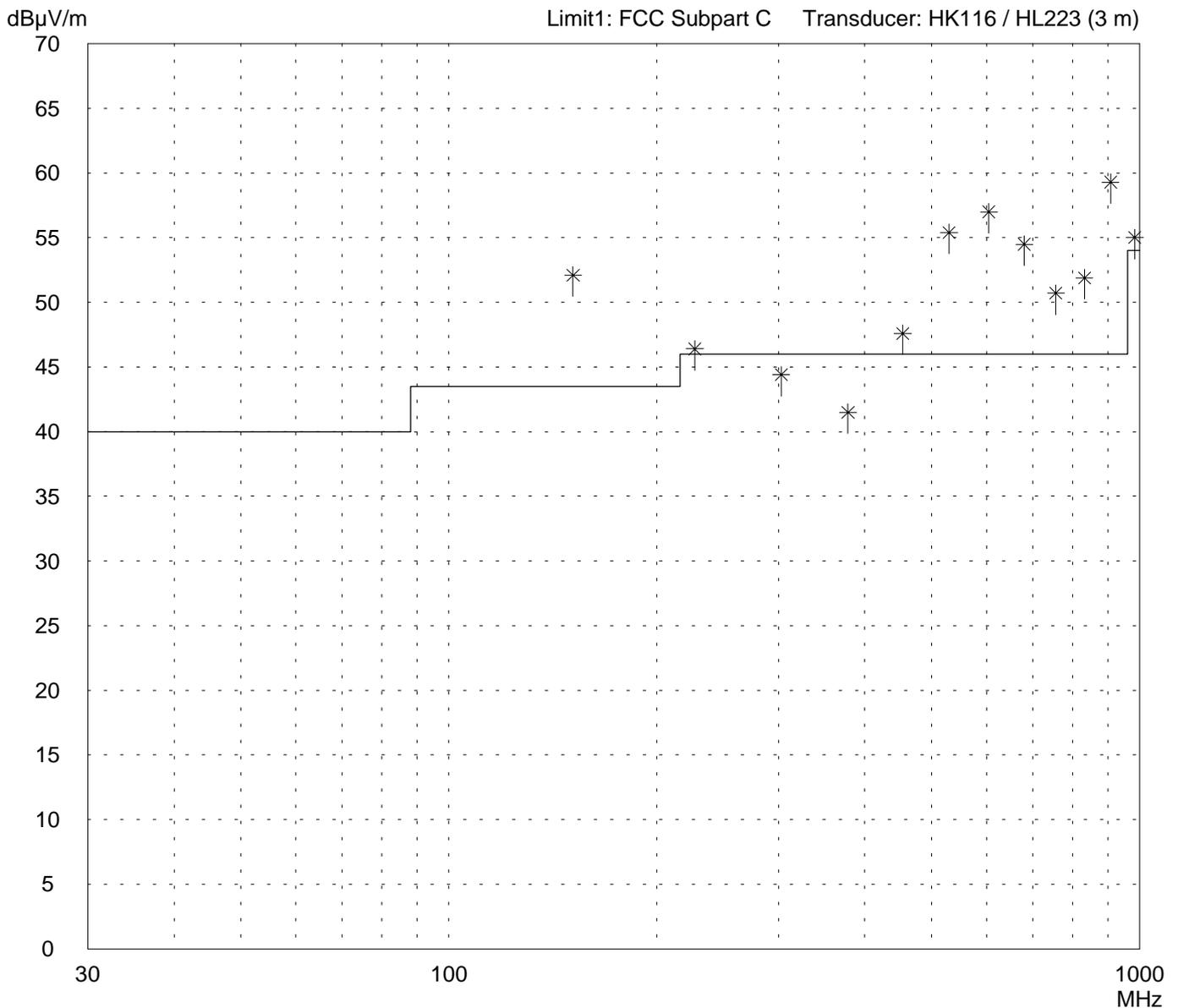
Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 95

Model: F-14 (FM 75 MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Horizontal Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: by hand	File name:

Mode: - TX mode - Supply voltage 12V - EUT in vertical position antenna to the top

Detector: Quasi-Peak

List of values: Selected by hand



Result: Limit kept (acc.part95)

Project file: 51815-00170	Page 60 of 63 Pages
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Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 95

Model:
F-14 (FM 75 MHz)

Serial no.:
--

Applicant:
robbe Modellsport GmbH & Co. KG

Test site:
Open area test-site I

Tested on:
Test distance 3 meters
Horizontal Polarization

Date of test: 03/31/2000 Operator: T. Eberl

Test performed: by hand File name:

Mode:
- TX mode

- Supply voltage 12V

- EUT in vertical position antenna to the top

Detector:
Quasi-Peak

List of values:
Selected by hand

<i>Frequency MHz</i>	<i>Reading dBµV</i>	<i>Correction factor dB</i>	<i>Value dBµV/m</i>	<i>Limit dBµV/m</i>	<i>Limit exceeded</i>
75.65	91.5	10.7	102.2	40.0	*
151.30	36.0	16.1	52.1	43.5	*
226.95	26.8	19.6	46.4	46.0	*
302.60	25.5	18.9	44.4	46.0	
378.25	20.0	21.5	41.5	46.0	
453.90	24.0	23.6	47.6	46.0	*
529.55	30.0	25.4	55.4	46.0	*
605.20	30.0	27.0	57.0	46.0	*
680.80	25.0	29.5	54.5	46.0	*
756.50	20.0	30.7	50.7	46.0	*
832.15	20.0	31.9	51.9	46.0	*
907.80	26.0	33.3	59.3	46.0	*
983.40	20.5	34.5	55.0	54.0	*

Result:
Limit kept (acc.part95)

Project file:
51815-00170

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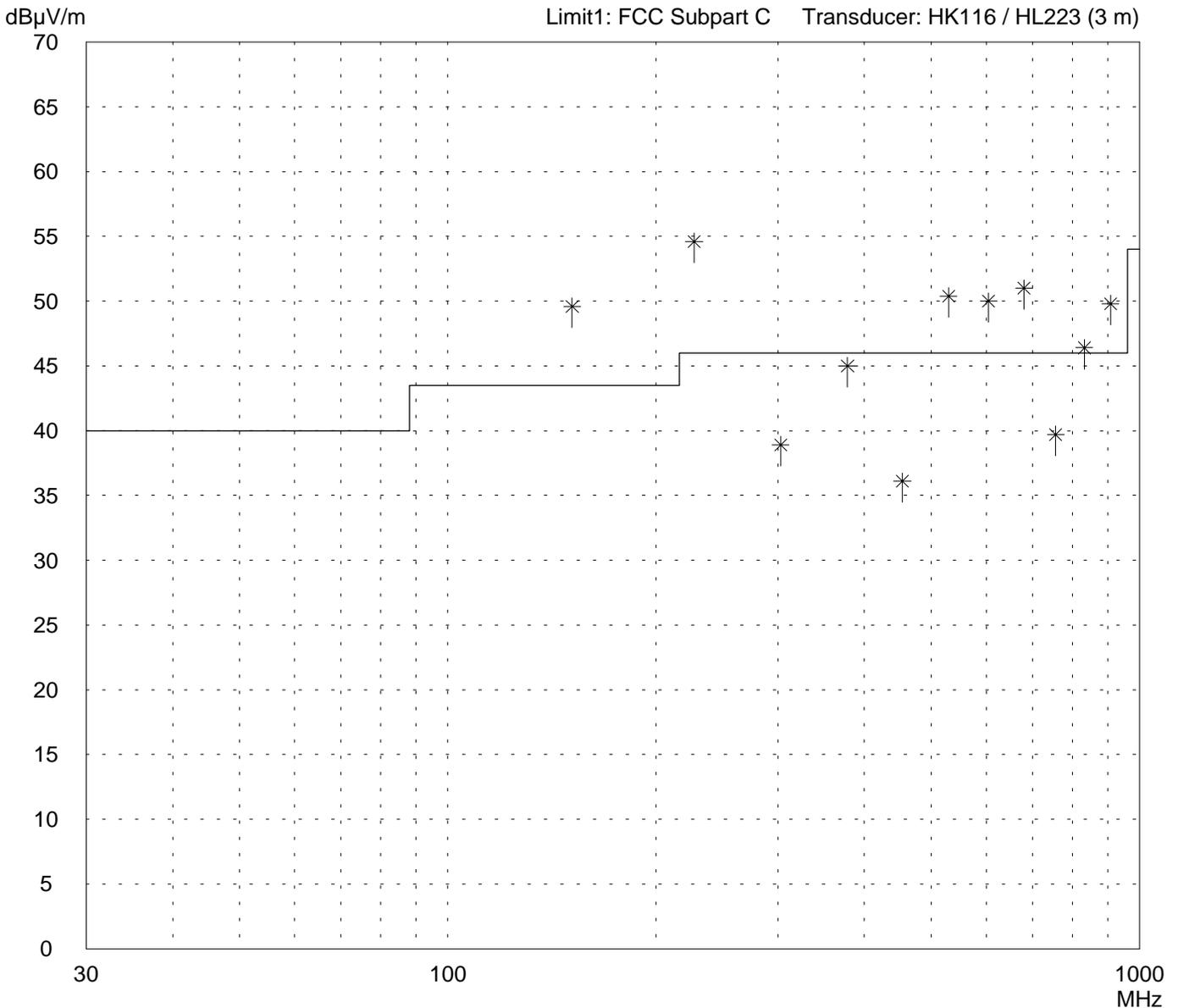
Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 95

Model: F-14 (FM 75 MHz)	
Serial no.: --	
Applicant: robbe Modellsport GmbH & Co. KG	
Test site: Open area test-site I	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: by hand	File name:

Mode: - TX mode - Supply voltage 12V - EUT in vertical position antenna to the top

Detector: Quasi-Peak

List of values: Selected by hand



Result: Limit kept (acc.part95)

Project file: 51815-00170	Page 62 of 63 Pages
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Radiated Emission Test 30 MHz - 1 GHz according to FCC Part 95

Model: F-14 (FM 75 MHz)	Mode: - TX mode
Serial no.: --	- Supply voltage 12V
Applicant: robbe Modellsport GmbH & Co. KG	- EUT in vertical position antenna to the top
Test site: Open area test-site I	
Tested on: Test distance 3 meters Vertical Polarization	
Date of test: 03/31/2000	Operator: T. Eberl
Test performed: by hand	File name:

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

<i>Frequency MHz</i>	<i>Reading dBμV</i>	<i>Correction factor dB</i>	<i>Value dBμV/m</i>	<i>Limit dBμV/m</i>	<i>Limit exceeded</i>
75.65	108.2	10.7	118.9	40.0	*
151.30	33.5	16.1	49.6	43.5	*
226.95	35.0	19.6	54.6	46.0	*
302.60	20.0	18.9	38.9	46.0	
378.25	23.5	21.5	45.0	46.0	
453.90	12.5	23.6	36.1	46.0	
529.50	25.0	25.4	50.4	46.0	*
605.20	23.0	27.0	50.0	46.0	*
680.85	21.5	29.5	51.0	46.0	*
756.50	9.0	30.7	39.7	46.0	
832.10	14.5	31.9	46.4	46.0	*
907.80	16.5	33.3	49.8	46.0	*

Result: Limit kept (acc.part95)	Project file: 51815-00170
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