

Recognized by the
Federal Communications Commission
Anechoic chamber registration no.: 90462 (FCC)
Anechoic chamber registration no.: IC 3463A-1
TCB ID: DE 0001



Accredited by the
German Accreditation Council
DAR-Registration Number
DAT-P-176/94-D1



Accredited Bluetooth® Test Facility (BQTF)

Test Report No.: 1-0595-01-03/08
FCC Part 74.861 / CANADA RSS-123
AC 3200
FCC ID : DMOAC3200
IC : 2099A-AC3200

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1 General Information

1.1 Administrative data of the test facility


1.1.1 Identification of the testing laboratory

Company name:	Cetecom ICT Services GmbH
Address:	Untertürkheimerstr. 6-10 D-66117 Saarbruecken Germany
Laboratory accreditation:	DAR-Registration No. DAT-P-176/94-D1 Bluetooth Qualification Test Facility (BQTF) Federal Communications Commission (FCC) Identification/Registration No : 90462
Responsible for testing laboratory:	Phone: +49 681 598 0 Fax: +49 681 598 9075 email: info@ict.cetecom.de


1.2. 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 generalizations 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.

Test Laboratory Manager:

2008-09-03	Berg M.	
Date	Name	Signature

Technical Responsibility for Area of Testing:

2008-09-03	Bös S.	
Date	Name	Signature

1.3 Details of Applicant

Name	Sennheiser electronic GmbH & Co. KG
Street	: Am Labor 1
Town	: D-30900 Wedemark
Country	: Germany
Telephone	: +49 (0) 5130 6 00 -0
Telefax	: +49 (0) 5130 600-324
Contact	: Mr. Volker Bartsch
Telephone	: +49 (0) 5130 600 465
Telefax	: +49 (0) 5130 600 330
Email	: Volker.Bartsch@Sennheiser.com

1.4 Application Details

Date of receipt of application	2008-06-16
Date of receipt of test item	2008-06-16
Date(s) of test	2008-07-18 to 2008-07-22
Person(s) who have been present during the test	-/-

1.5 TEST ITEM

Type of equipment : Transmitter (antenna) combiner 8 in 1
Type designation : AC 3200
Manufacturer : Sennheiser electronic GmbH & Co. KG
Street : Am Labor 1
City : D-30900 Wedemark
Country : Germany
Serial number : 0148000008
Additional information :
Frequency USA : 500-608 MHz and 614-698 MHz
Frequency Canada : 500-608 MHz and 614-806 MHz
Type of modulation : -
Number of Antenna inputs : 8
Antenna : BNC connector
Power supply : 100 – 230V AC
Output power : Max 90 mW
Field strength : -
Emission Designator : F3E
Transmitter spurious : -31.0 dBm / 0.0008 mW
Receiver spurious : -
Temperature range : -30°C - +50°C
FCC ID : DMOAC3200
IC : 2099A-AC3200
Open Area Test Site IC No.: IC 3463A-1
IC Standards : RSS123, Issue 1, Rev.2

DECLARATION OF COMPLIANCE: I declare that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned Industry Canada standard(s); and that the equipment identified in this application has been subjected to all the applicable test conditions specified in the Industry Canada standards and all of the requirements of the standard have been met.

Signature: _____ 

Date: 2008-07-22 Michael Berg ; Test management
NAME AND TITLE (Please print or type):

1.6 Test Standards

FCC:	FCC Part 74 Subpart H (October 2006)
IC:	EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES
	CANADA RSS-123 Issue 1, Rev. 2 (November 6, 1999)
	Low Power Licensed Radiocommunication Devices

2 Statement of Compliance

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

2.1 Summary of Measurement Results

Section in this Report	Test Name	Verdict
3.1.1	RF Power Output	pass
3.1.2	Frequency Stability	Not applicable
3.1.3	Radiated Emissions	pass
3.1.4	Receiver Radiated Emissions	Not applicable
3.1.5	Conducted Spurious Emissions	pass
3.1.7	Occupied Bandwidth	pass

2.2 Test Procedure

1. All tests were done in accordance with the EIA/TIA 603.

The substitution method (TIA/EIA 603) was used.

2. This products fulfils also the requirements for CANADA RSS-123

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

Final verdict : PASS

3 Measurements and results

3.1 OUTPUT POWER (conducted) FCC Rule Part 74.861 (e)(1)(ii)

Method of measurement

The EUT was connected to a resistive coaxial attenuator of normal load impedance, and the un-modulated output power was measured by means of a RF power Meter.

Results:

Carrier input level : 100 mW / 20 dBm

TEST CONDITIONS		CARRIER POWER (mW)					
		518.000	644.300	758.000	804.000		
Frequencies (MHz)							
T _{nom} (23)°C	V _{nom} (230)V	89.9	73.0	81.9	74.3		
	System Gain	-0.5	-1.4	-0.9	-1.3		
Measurement uncertainty		< ± 2 dB					

LIMIT

FCC Rule Part 74.861

Frequency range MHz	Power level conducted mW
54-72, 76-88, 174-216	50
470-608, 614-806	250

3.2 AFC FREQ ERROR vs. VOLTAGE

FCC Rule Part 74.861

Method of measurement:

The EUT was fixed in test fixture to a resistive coaxial attenuator of normal load impedance, and the un-modulated carrier was measured by means of a spectrum analyzer .

The input voltage was varied in an range $\pm 15\%$ of the nominal voltage and the maximum change in frequency was noted within one minute.

The temperature tests were performed for each frequency range on one channel

LIMIT

FCC Rule Part 74.861(4)

The frequency tolerance of the transmitter shall be 0.005 percent

NOTE:

This test is not required , because the AC 3200 Antenna combiner is an amplifier which does not generate a fundamental frequency.

3.3 AFC FREQ ERROR vs. TEMPERATURE

Method of measurement:

The EUT was connected to a resistive coaxial attenuator of normal load impedance, and the un-modulated carrier was measured by means of a spectrum analyzer .

With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours . Power was applied and the maximum change in frequency was noted within one minute.

With power OFF , the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency error was noted within one minute .

The temperature tests were performed for each frequency range on one channel

LIMIT

FCC Rule Part 74.861

The frequency tolerance of the transmitter shall be 0.005 percent
--

NOTE:

This test is not required , because the AC 3200 Antenna combiner is an amplifier which does not generate a fundamental frequency.

3.4 CHARACTERISTICS OF THE AUDIO MODULATION CIRCUITRY FCC Rule Part 74 .861 (e)(3)

Method of measurement :

The audio frequency responds was measured in accordance with EIA/TIA 603.
The plots shows 10 curves with different modulation levels. starting from 0.02mV to 2000 mV (30%+20 dB Modulation). the frequency is varied from 10 Hz to 25 kHz .

Limit : max Deviation \pm 75 kHz

NOTE:

This test is not required , because the AC 3200 Antenna combiner is an amplifier which does not generate a fundamental frequency.

3.5 OCCUPIED BANDWIDTH FCC Rule Part 74.861(e)(3), (5)/ Sec. 2.1049

Test method :

The audio frequency responds was measured in accordance with EIA/TIA 603.

Data in the plots show that all sidebands between 50 & 100% for the authorized bandwidth are attenuated by at least 25dB. From 100 to 250% of the authorized bandwidth they are attenuated by at least 35dB and beyond 250% 43 log(Po) dB. The plot shows the transmitter modulated with 15000 Hz (the highest modulation frequency), adjusted for 50% modulation plus 16 dB. The spectrum analyzer was set with the un-modulated carrier at the top of the screen. The test procedure diagram and occupied bandwidth plots follow.

TEST CONDITIONS		OCCUPIED BANDWIDTH (kHz)					
		518.2	758	806			
Frequency (MHz)							
T _{nom} (23) °C	V _{nom} (115.0)V	146.292	146.292	143.287			
max. Deviation (FM)		50 kHz					
Measurement uncertainty		±0.5%					

Limits

FCC Rule Part 74.861(e)(5)

The operating bandwidth shall not exceed 200 kHz

Carson's Rule: (Section 2.202(g))

B_n = 2M + 2DK, K = 1

M = 18 kHz

D = 47 kHz

B_n = 2(15) + 2(50)(1) = 130 kHz

B_n = Bandwidth

M = Maximum Modulating Frequency

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

OCCUPIED BANDWIDTH

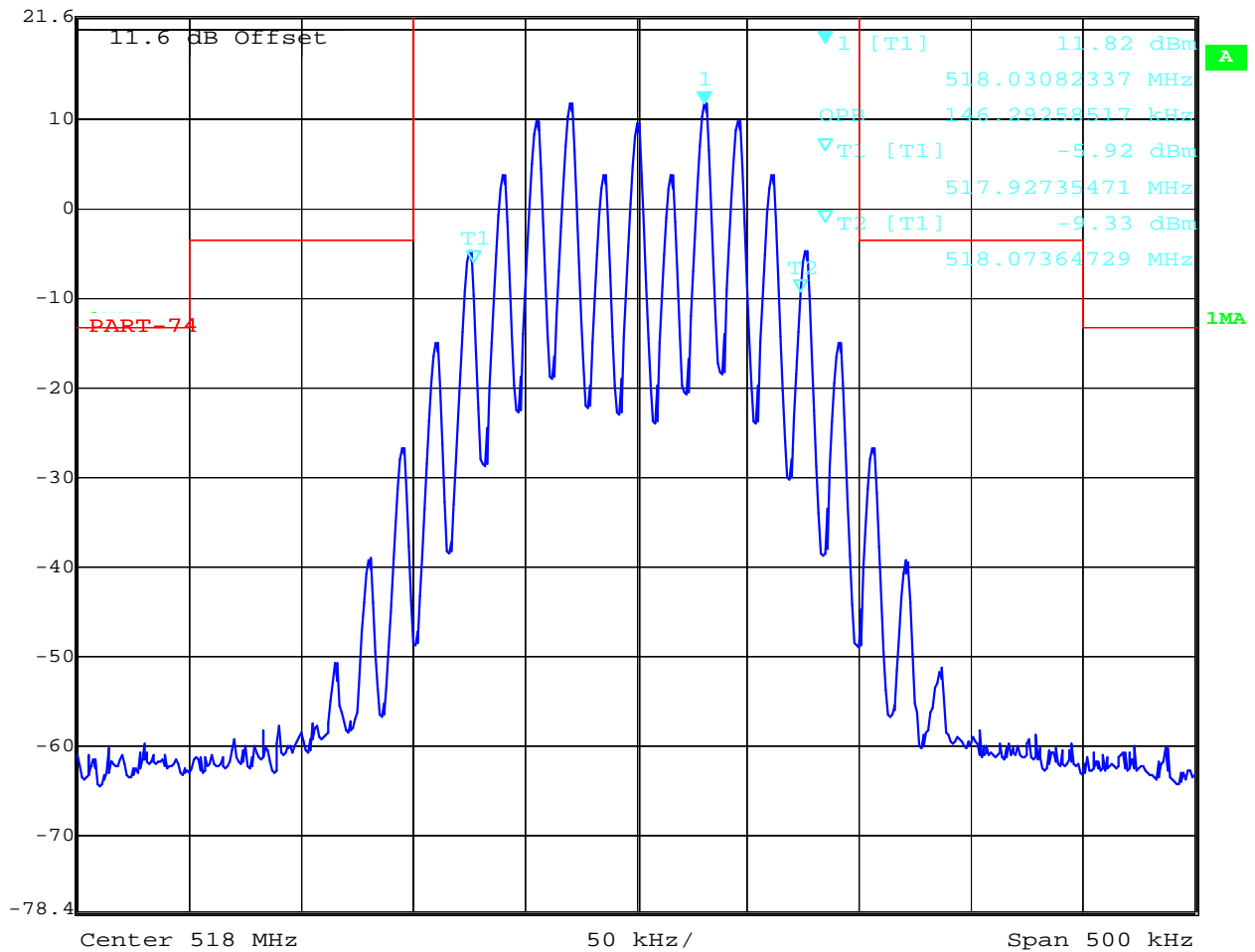
FCC Rule Part 74.861(e)(3). (5)/ Sec. 2.989

Emission mask

FCC 74 861(e)(6)

Frequency: 518.200 MHz / max. deviation : ± 50 kHz (Limit ± 75 kHz)

	Marker 1 [T1]	RBW	3 kHz	RF Att	30 dB
	Ref Lvl	11.82 dBm	VBW	3 kHz	
	21.6 dBm	518.03082337 MHz	SWT	140 ms	Unit dBm



Date: 22.JUL.2008 13:21:13

Limits

FCC Rule Part 74.861(e)(6)

$f \pm 100 \text{ kHz to } f \pm 200 \text{ kHz}$	$f \pm 200 \text{ kHz to } f \pm 500 \text{ kHz}$	$f \pm 500 \text{ kHz}$
25 dBc	35 dBc	-43 + 10 log ₁₀ (mean output power in watts) dB below the mean output power

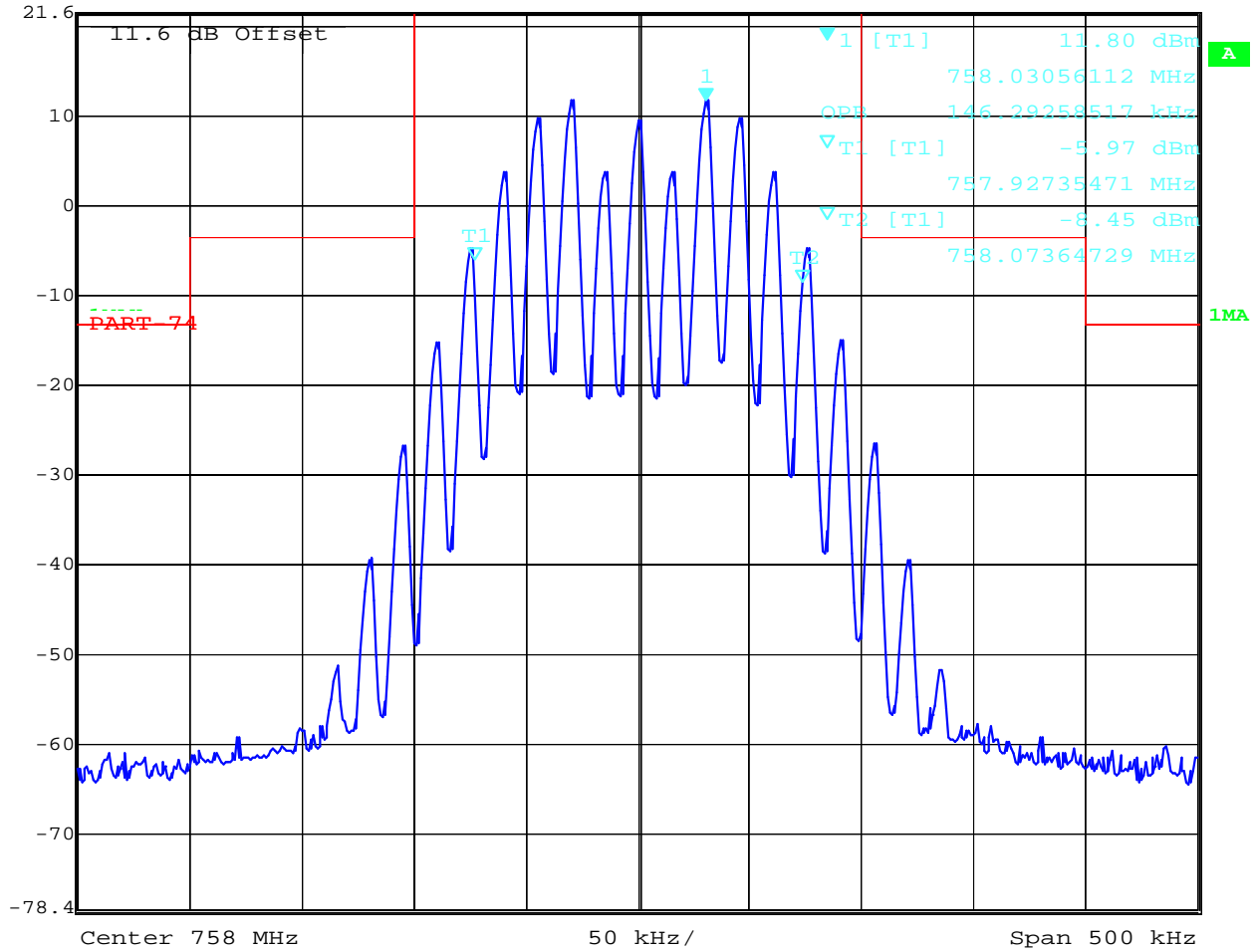
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

**OCCUPIED BANDWIDTH
EMISSION MASK**

**FCC Rule Part 74.861(e)(3). (5)/ Sec. 2.1049
FCC 74 861(e)(6)**

Frequency: 758.00 MHz / max. deviation : ± 50 kHz (Limit ± 75 kHz)

	Ref Lvl	11.80 dBm	RBW	3 kHz	RF Att	30 dB
	21.6 dBm	758.03056112 MHz	VBW	3 kHz		
			SWT	140 ms	Unit	dBm



Date: 22.JUL.2008 13:25:47

Limits

FCC Rule Part 74.861(e)(6)

f ± 100 kHz to f ± 200 kHz	f ± 200 kHz to f ± 500 kHz	f ± 500 kHz
25 dBc	35 dBc	-43 +10 log₁₀(mean output power in watts) dB below the mean output power

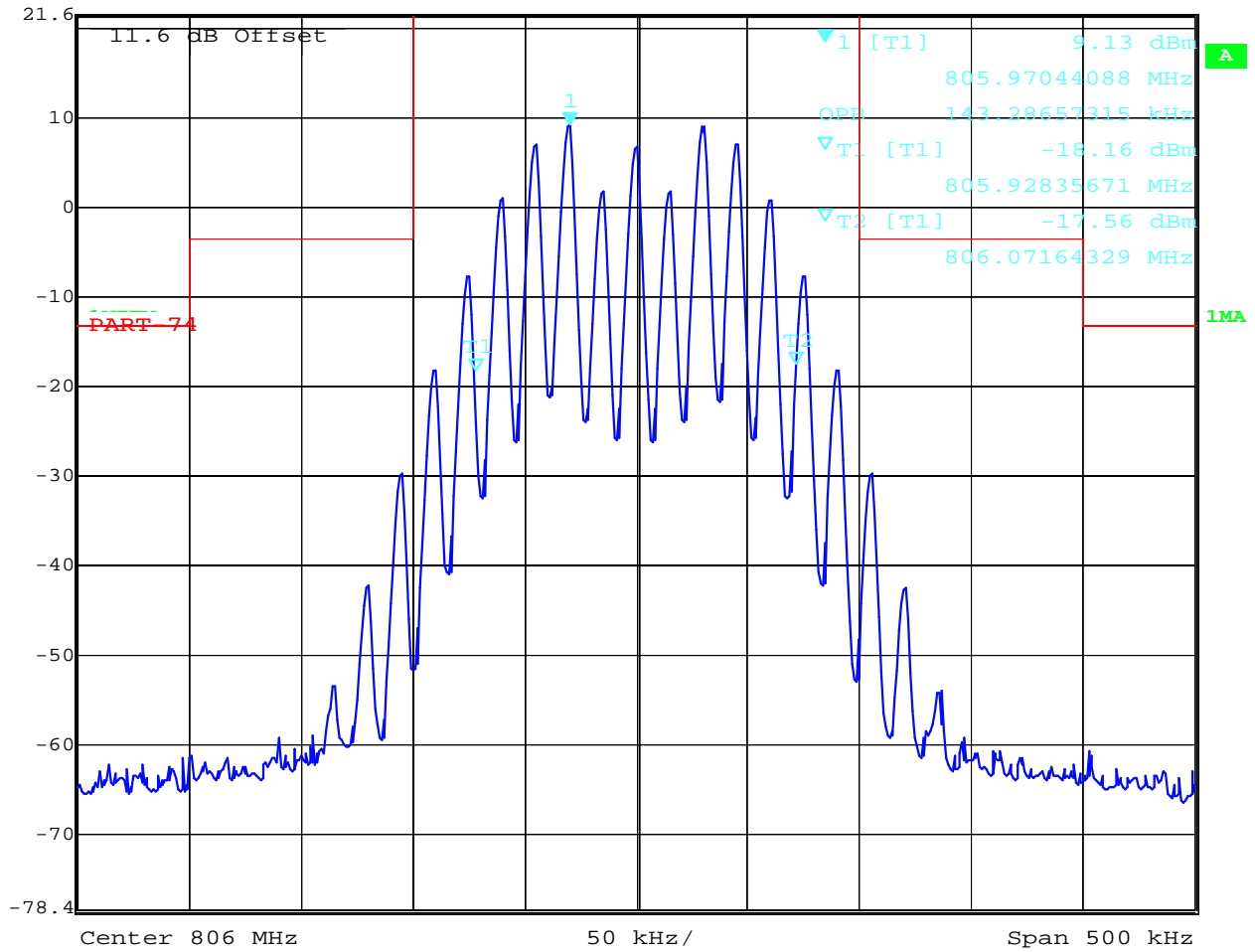
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

**OCCUPIED BANDWIDTH
EMISSION MASK**

**FCC Rule Part 74.861(e)(3). (5)/ Sec. 2.1049
FCC 74 861(e)(6)**

Frequency: 806.000 MHz / max. deviation : ± 50 kHz (Limit ± 75 kHz)

RS
Marker 1 [T1]
RBW 3 kHz
RF Att 30 dB
Ref Lvl 9.13 dBm
VBW 3 kHz
21.6 dBm
805.97044088 MHz
SWT 140 ms
Unit dBm



Date: 22.JUL.2008 13:30:57

Limits

FCC Rule Part 74.861(e)(6)

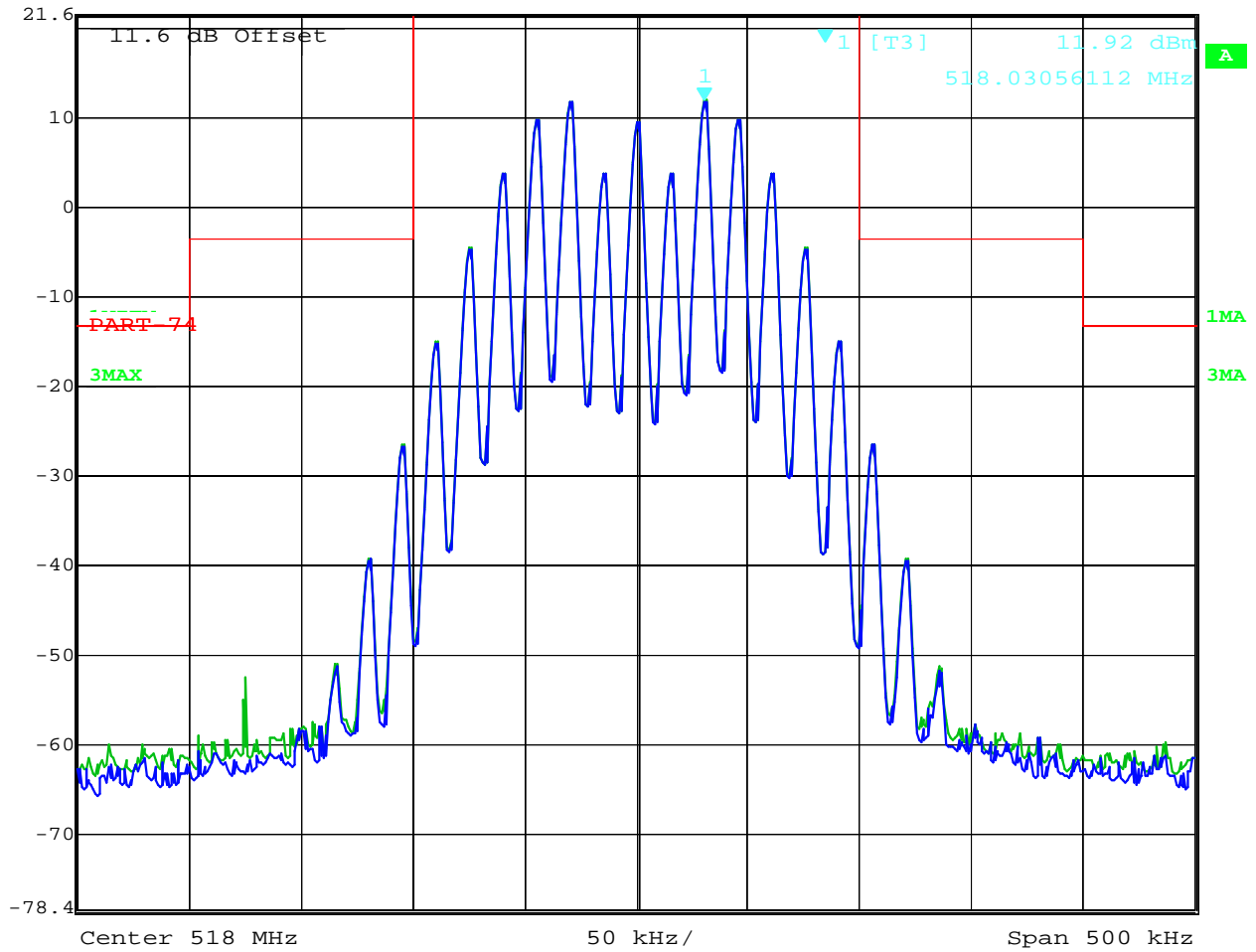
$f \pm 100 \text{ kHz to } f \pm 200 \text{ kHz}$	$f \pm 200 \text{ kHz to } f \pm 500 \text{ kHz}$	$f \pm 500 \text{ kHz}$
25 dBc	35 dBc	-43 + 10 log ₁₀ (mean output power in watts) dB below the mean output power

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

3.6 SIGNAL IN VERSUS SIGNAL OUT

518.20 MHz

	Marker 1 [T3]	RBW	3 kHz	RF Att	30 dB
	Ref Lvl	11.92 dBm	VBW	3 kHz	
	21.6 dBm	518.03056112 MHz	SWT	140 ms	Unit dBm



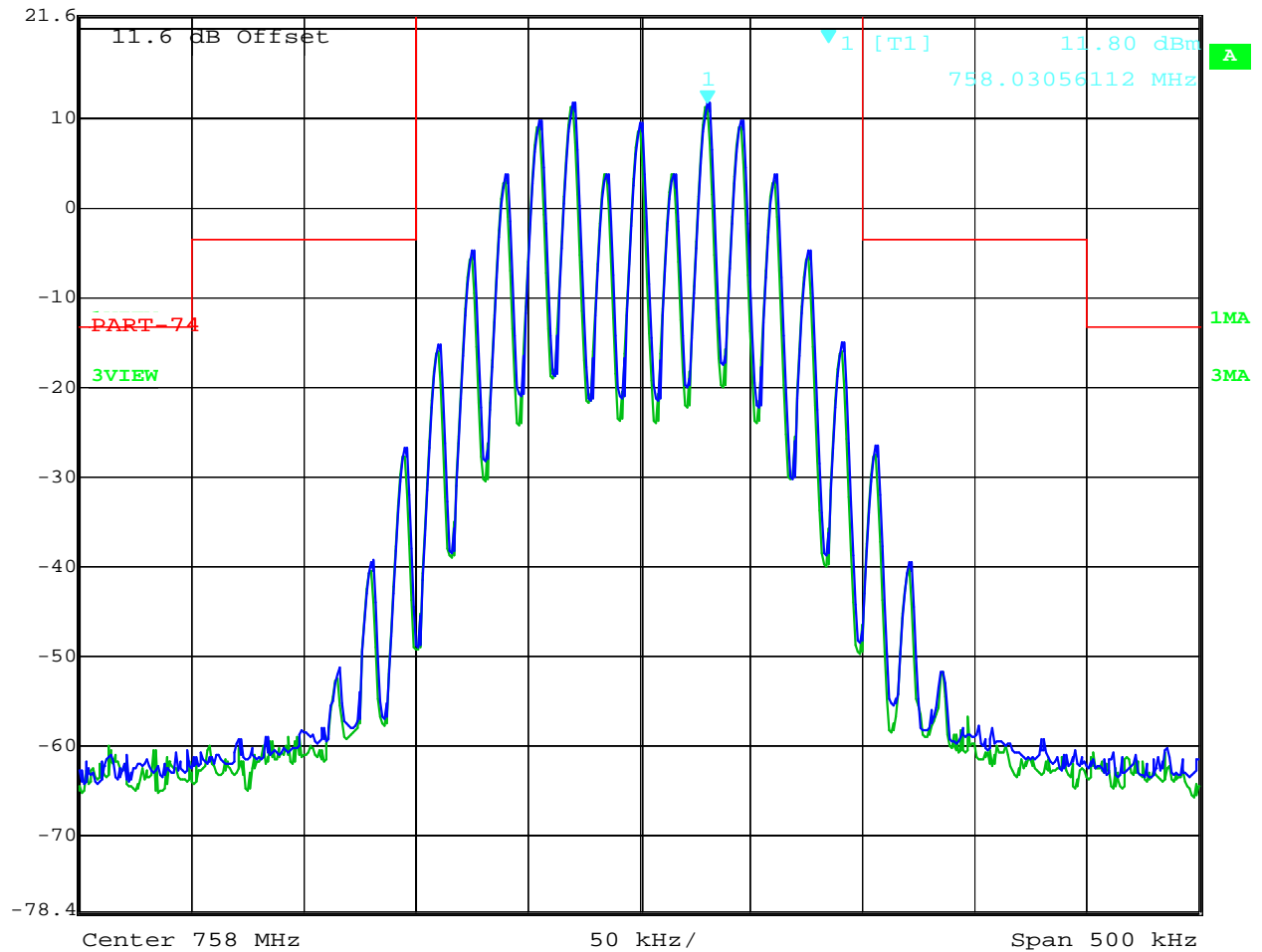
Date: 22.JUL.2008 13:24:03

Green = Input
Blue = Output

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

SIGNAL IN VERSUS SIGNAL OUT 758.00 MHz

	Marker 1 [T1]	RBW	3 kHz	RF Att	30 dB
	Ref Lvl	11.80 dBm	VBW	3 kHz	
	21.6 dBm	758.03056112 MHz	SWT	140 ms	Unit dBm



Date: 22.JUL.2008 13:28:32

Green = Input
Blue = Output

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

3.7 CONDUCTED EMISSIONS FCC 74 861(e)(6)

EMISSION LIMITATIONS					
f (MHz)		amplitude of emission (dBm)	limit max. allowed emission power (dBm)	actual attenuation below frequency of operation (dBc)	results
518.0 MHz					
518.2		20	-13.0 (26.9 dBc)		carrier
no	peak	found			complies
758.0 MHz					
758.0		20	-13.0 (26.4 dBc)		carrier
no	peak	found			complies
864.0 MHz					
864		20	-13.0 (24.3 dBc)		carrier
no	peak	found			complies
Measurement uncertainty		± 0.5dB			

Limits FCC Rule Part 74.861(e)(6)

(6) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

- (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
- (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
- (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least 43+10log10 (mean output power in watts) dB.

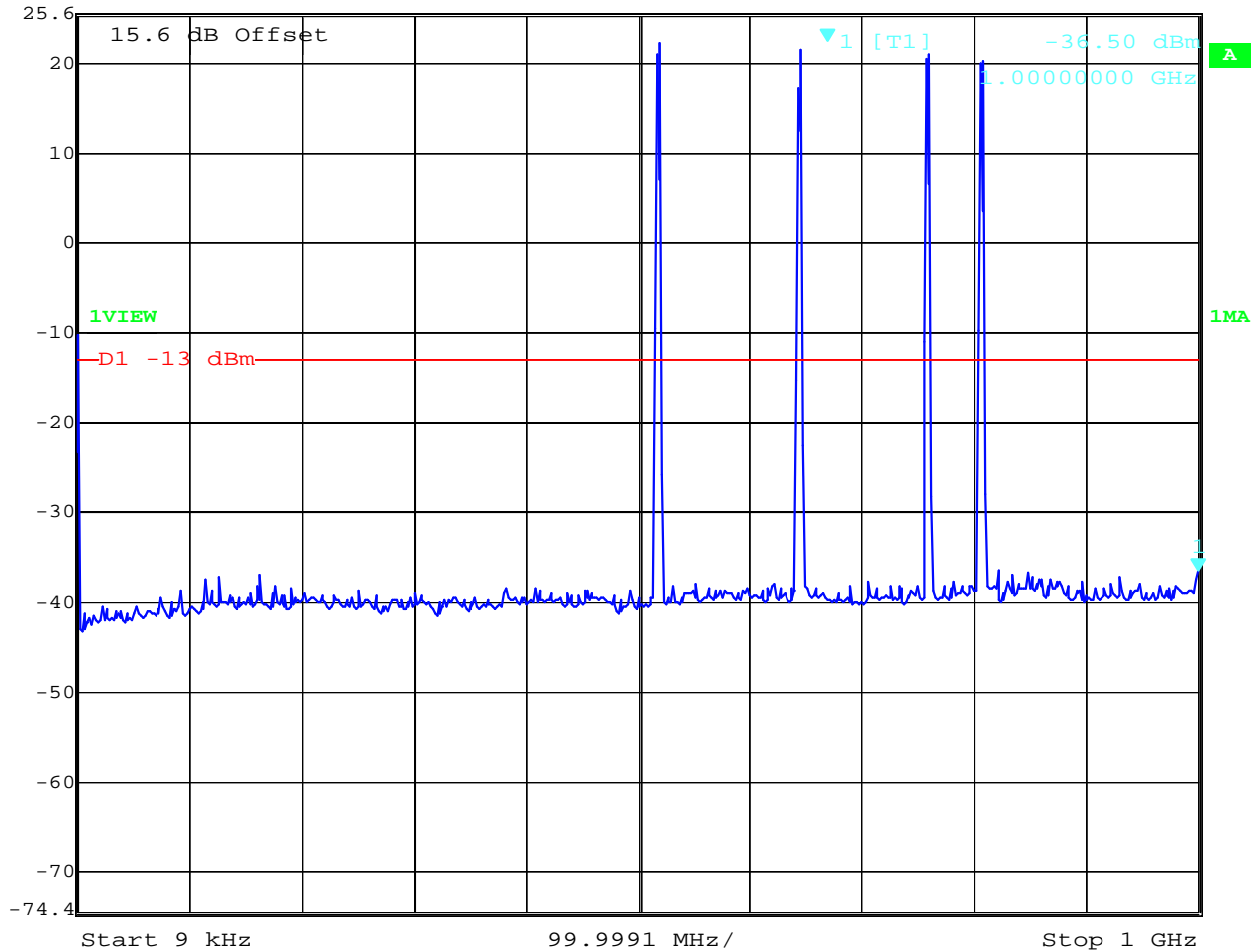
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

CONDUCTED EMISSIONS

FCC 74 861(e)(6)

Frequency range 9 kHz - 1 GHz

	Marker 1 [T1]	RBW	1 MHz	RF Att	30 dB
Ref Lvl	-36.50 dBm	VBW	1 MHz		
25.6 dBm	1.00000000 GHz	SWT	5 ms	Unit	dBm



Date: 22.JUL.2008 13:47:23

Limits


FCC Rule Part 74.861(e)(6)

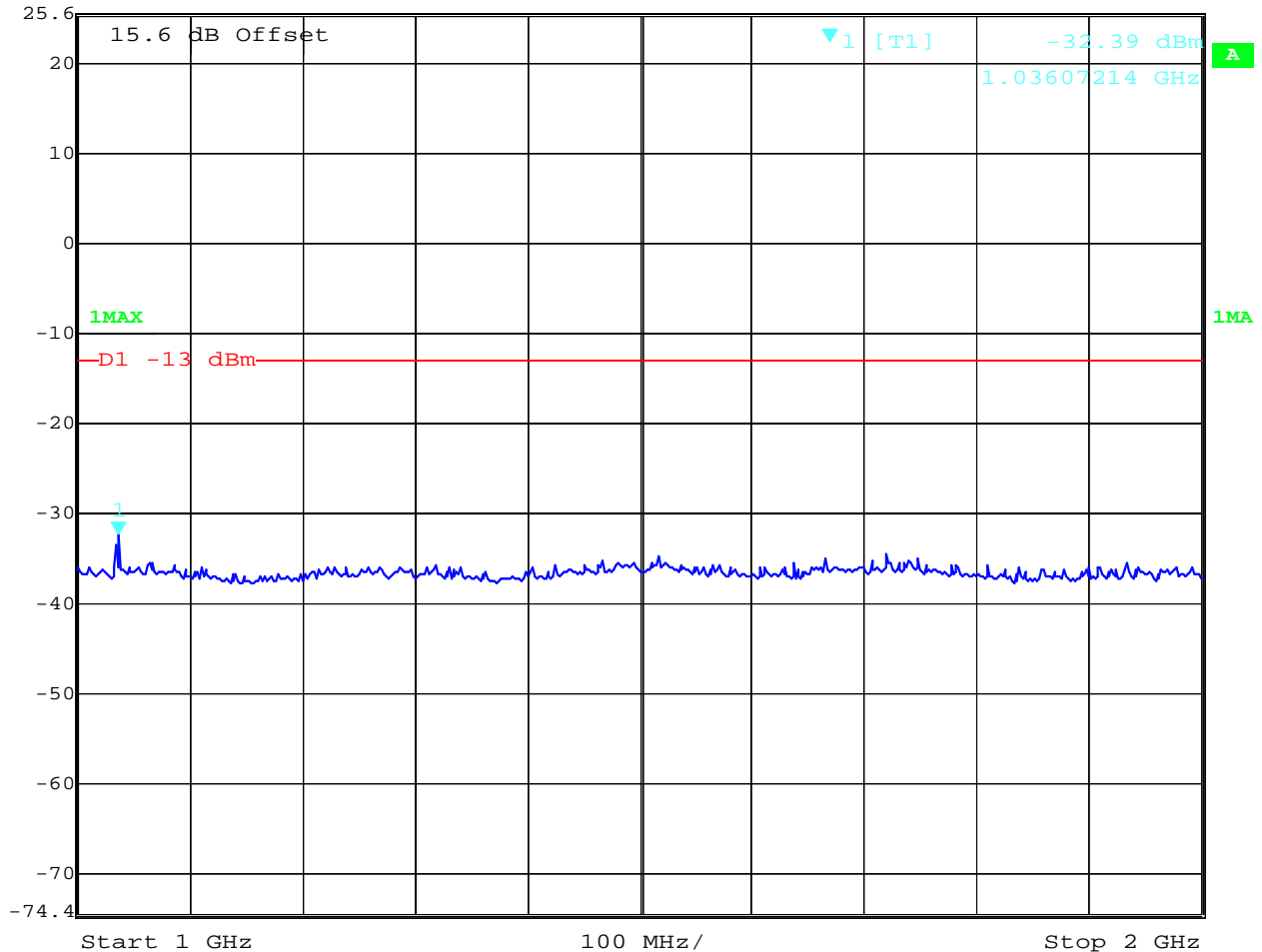
- (6) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:
- (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
 - (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
 - (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least 43+10log10 (mean output power in watts) dB.

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

CONDUCTED EMISSIONS Frequency range 1 – 2 GHz

FCC 74.861(e)(6)

	Marker 1 [T1]	RBW	1 MHz	RF Att	30 dB
Ref Lvl	-32.39 dBm	VBW	1 MHz		
25.6 dBm	1.03607214 GHz	SWT	5 ms	Unit	dBm



Date: 22.JUL.2008 13:47:02

Limits

FCC Rule Part 74.861(e)(6)

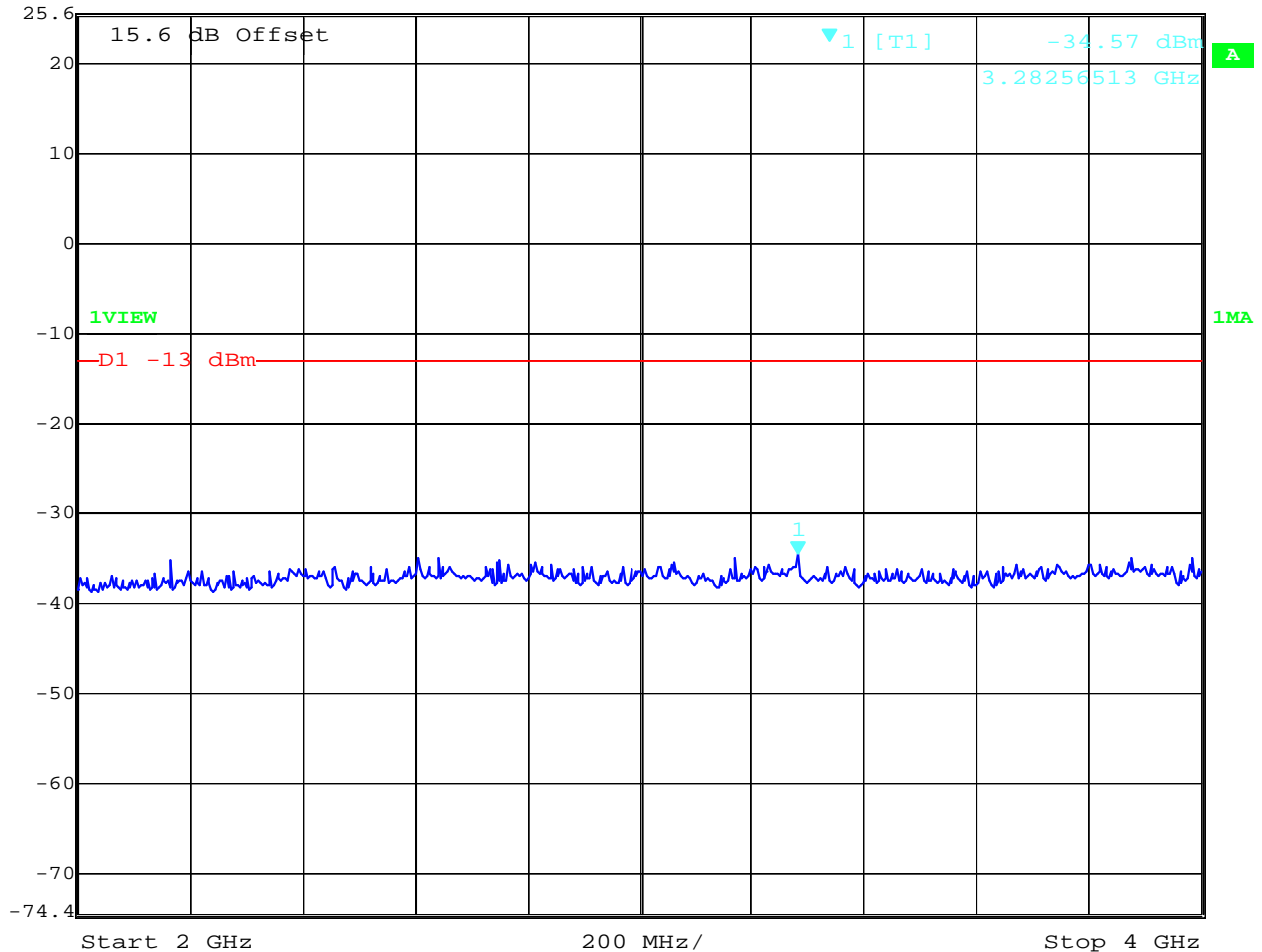
- (6) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:
- (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
 - (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
 - (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least $43+10\log_{10}$ (mean output power in watts) dB.

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

CONDUCTED EMISSIONS Frequency range 2 – 4 GHz

FCC 74 861(e)(6)

	Ref Lvl	Marker 1 [T1]	RBW	1 MHz	RF Att	30 dB
	25.6 dBm	-34.57 dBm	VBW	1 MHz		
		3.28256513 GHz	SWT	5 ms	Unit	dBm



Date: 22.JUL.2008 13:47:41

Limits

FCC Rule Part 74.861(e)(6)

- (6) The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:
- (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
 - (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
 - (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least $43+10\log_{10}$ (mean output power in watts) dB.

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

3.8 Intermodulation Tests

Reference

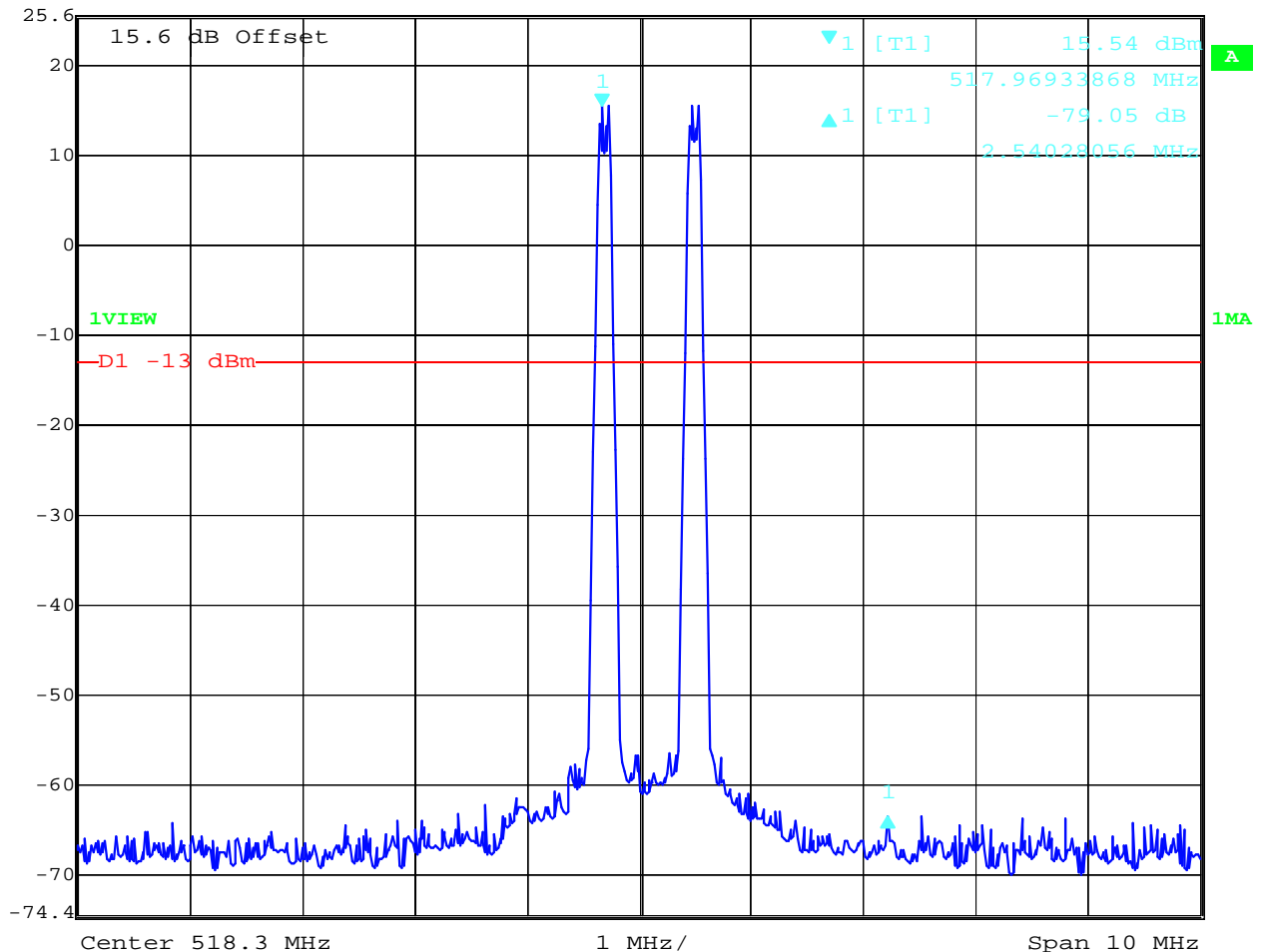
FCC:	FCC § 2.1051, CFR Part §22.917 22.917
IC:	IC RSS-131 §6.3

Method of Measurement:

Two RF signals set as inputs. The frequencies of both RF signals shall be within the combiners operating band. The spacing between both RF signals shall be the minimum possible spacing applied in a network. The level of both RF input signals shall be increased, until the maximum rated output power per channel, as declared by the manufacturer, is reached.

Lower Band Edge

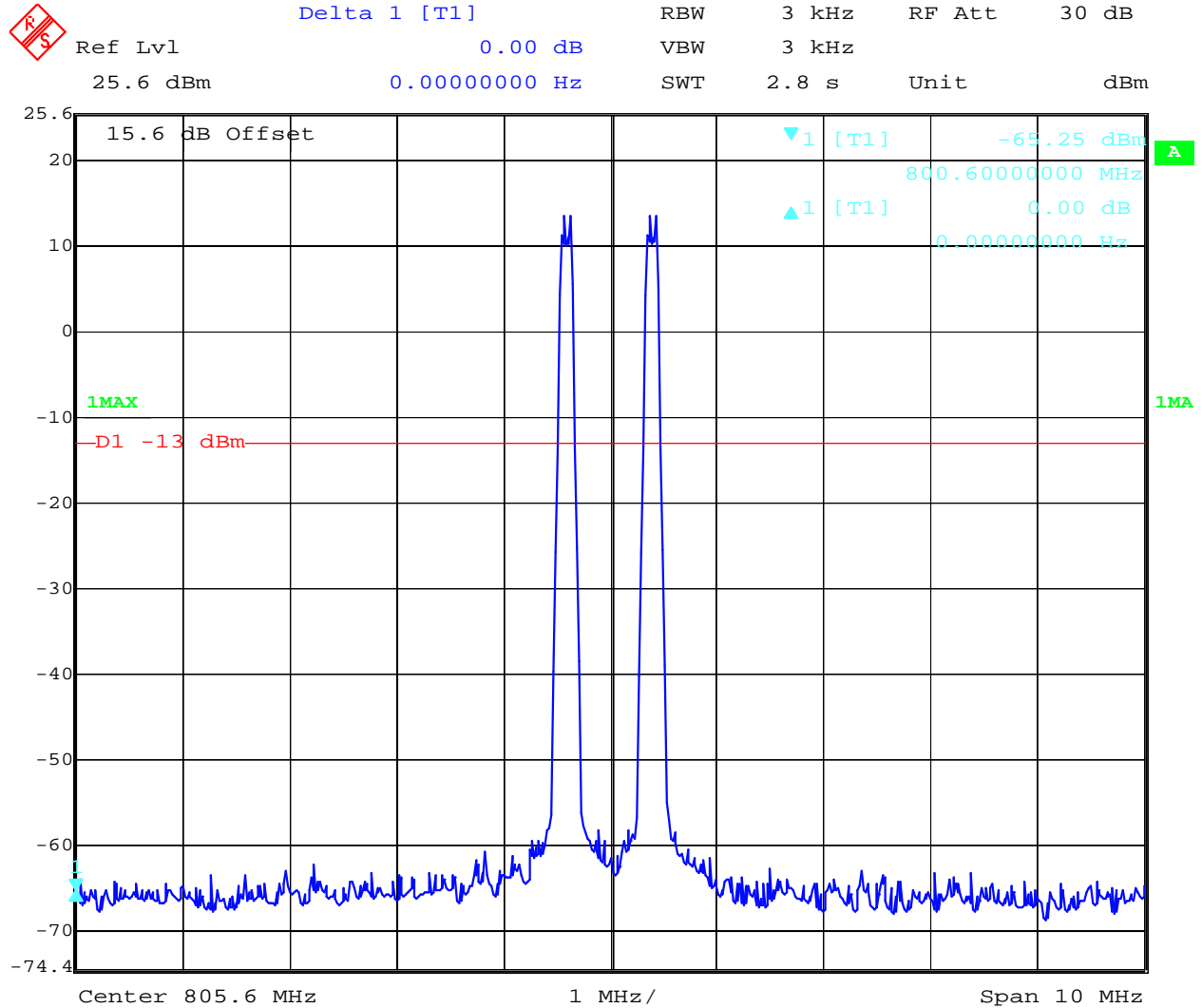
	Delta 1 [T1]	RBW	3 kHz	RF Att	30 dB
Ref Lvl	-79.05 dB	VBW	3 kHz		
25.6 dBm	2.54028056 MHz	SWT	2.8 s	Unit	dBm



Date: 22.JUL.2008 13:51:02

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

Higher Band Edge



Date: 22.JUL.2008 13:51:47

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

3.9 RADIATED EMISSIONS (enclosure) FCC Rule Part 74 subpart H

Test procedure

- 1). On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.
- 2). The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the frequency of the transmitter.
- 3). The output of the test antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- 4). The transmitter shall be switched on, if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- 5). The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 6). The transmitter shall than be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- 7). The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- 8). The maximum signal level detected by the measuring receiver shall be noted.
- 9). The transmitter shall be replaced by a substitution antenna (tuned dipole for f less than 1GHz and horn for frequency higher than 1GHz).
- 10). The substitution antenna shall be oriented for vertical polarization and the length (if a dipole antenna is used) of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- 11). The substitution antenna shall be connected to a calibrated signal generator.
- 12). If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- 13). The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- 14). The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- 15). The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- 16). The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.
- 17). The measure of the effective radiated power is the larger of the two levels recorded, at the input to the substitution antenna, corrected for the gain of the substitution antenna if necessary.
- 18). Repeat above substitution measurement procedure for fundamental and all harmonica emissions.

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

SPURIOUS EMISSION LEVEL (dbm)								
F	BW	p	F	BW	p	F	BW	p
1516 MHz	1 MHz	-31.0						
All other peaks > 20 dB below limit								
Measurement uncertainty : ± 3dB								

Limits

FCC Rule Part 74.861(e)(6)

$f \pm 100 \text{ kHz to } f \pm 200 \text{ kHz}$	$f \pm 200 \text{ kHz to } f \pm 500 \text{ kHz}$	$f \pm 500 \text{ kHz}$
25 dBc	35 dBc	-43 +10 log ₁₀ (mean output power in watts) dB below the mean output power (-13 dBm)

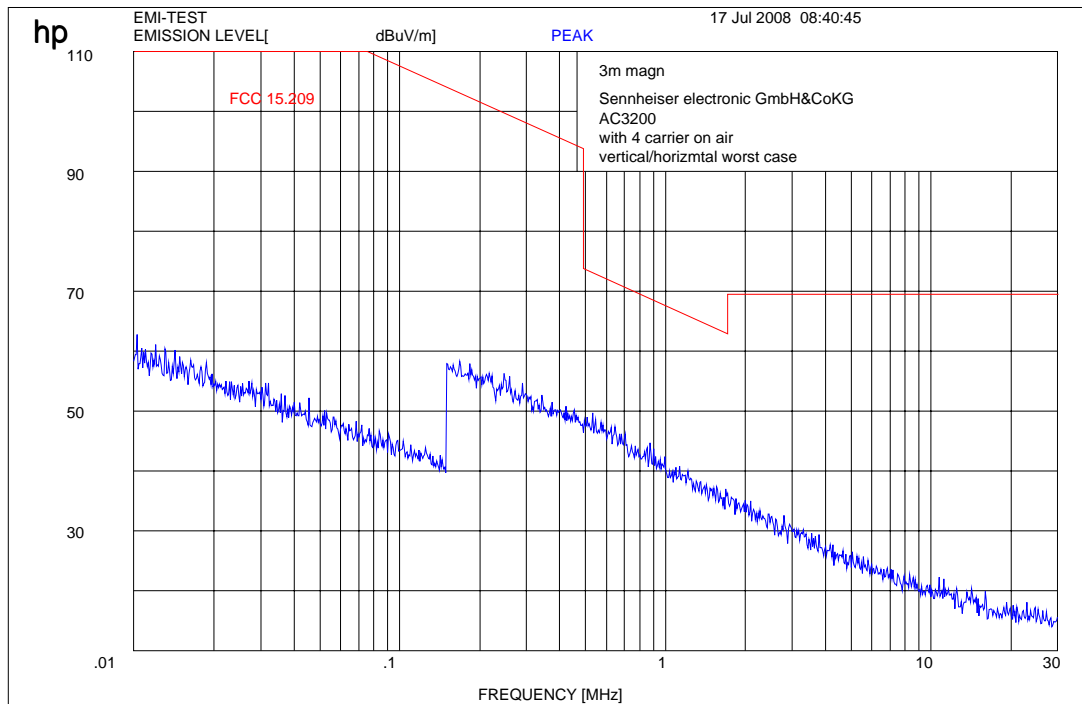
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
 (for reference numbers see test equipment listing)

RADIATED EMISSIONS FCC Rule Part 74 subpart H for all measurements the carrier suppressed with a rejection filter

(this plot is valid for all channels)

Part 15.209 Magnetics

EUT: AC 3200
Manufacturer: Sennheiser electronic GmbH & Co. KG
Operating Condition: Antenna combiner AC 3200 with 3 SR 3255 (4 Carrier)
Test Site: Cetecom, Room 6
Operator: Berg M.
Test Specification:
Comment: 115V / 60 Hz

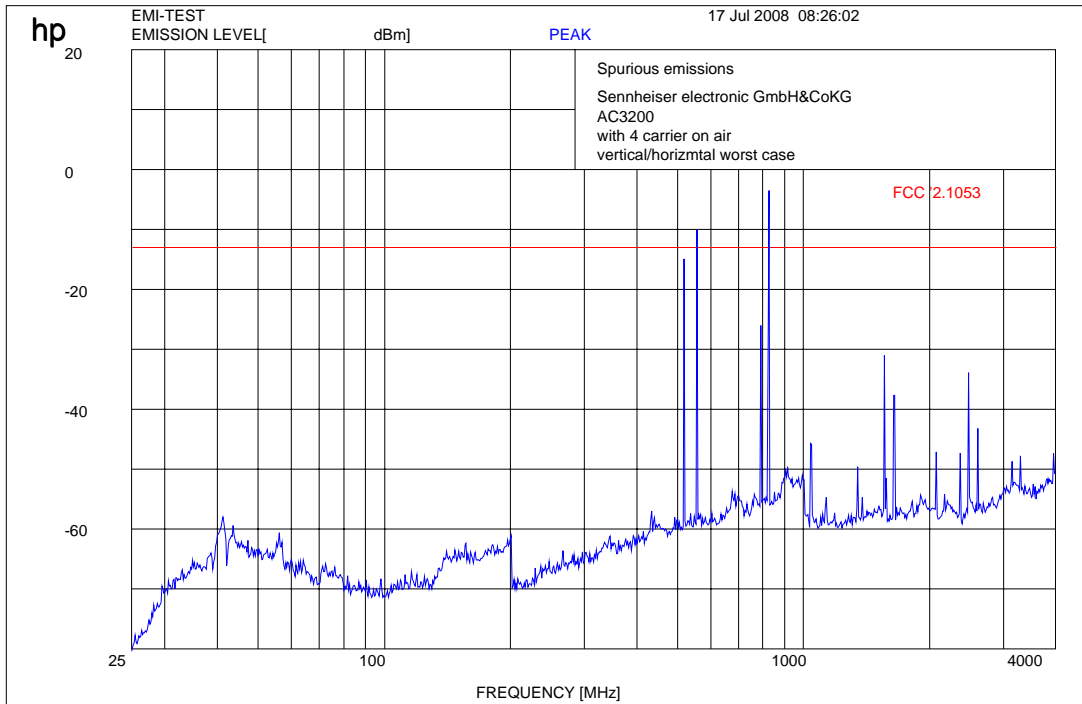


REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

RADIATED EMISSIONS

FCC Rule Part 74 subpart H

Up to 4 GHz



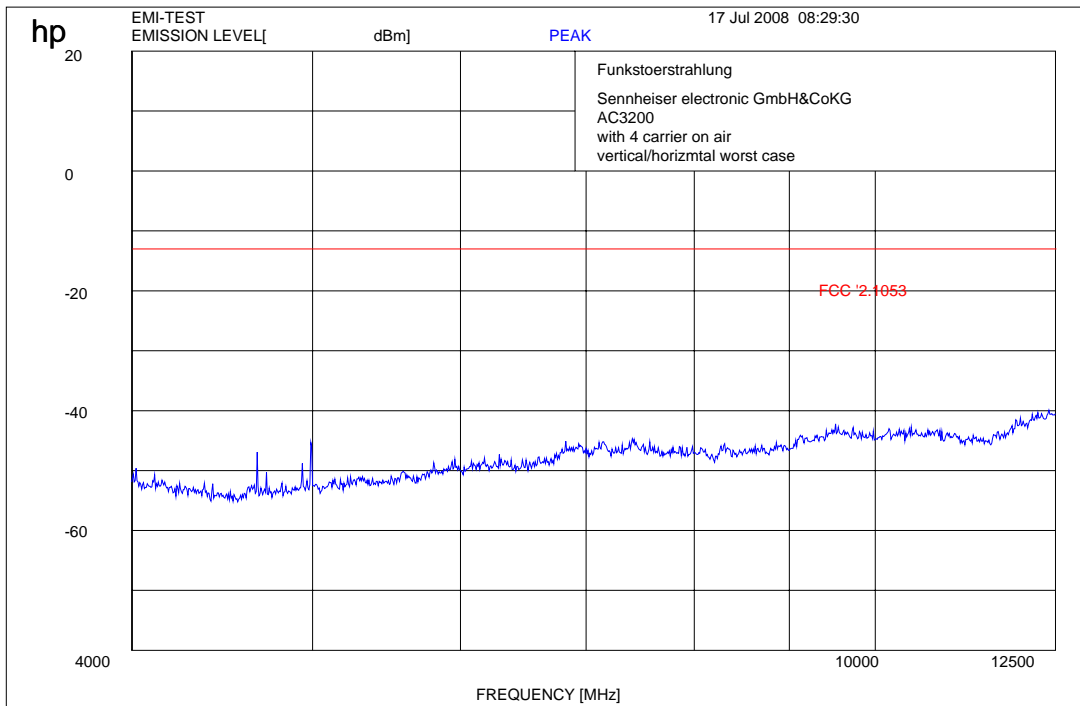
Measured with 4 Input signals (SR 32550 (FCC ID: DMOSREK3K))

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

RADIATED EMISSIONS

FCC Rule Part 74 subpart H

Up to 12 GHz



Measured with 4 Input signals (SR 3255 (FCC ID: DMOSREK3K))

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

3.10 Conducted emissions

§ 15.107/207

CISPR 22
Neutral line floating
Project ID: 1-0595-01-03_08

Senn-AC3200.TIL
08:52:32 AM, Thursday, July 17, 2008

Frequency MHz	QuasiPeak dB μ V	Margin QP dB μ V	Average dB μ V	Margin AV dB μ V
926.1 KHz	38.643	-17.357	38.051	-7.949
1.0664 MHz	38.260	-17.740	36.638	-9.362
1.2843 MHz	35.749	-20.251	33.977	-12.023
11.389 MHz	43.769	-16.231	40.610	-9.390
11.457 MHz	43.557	-16.443	39.909	-10.091
11.532 MHz	43.554	-16.446	39.870	-10.130

Project ID - 1-0595-01-03_08
EUT - Sennheiser AC3200
Serial Number - -/-
Operating Mode - Antenna combiner with 4 channels on air

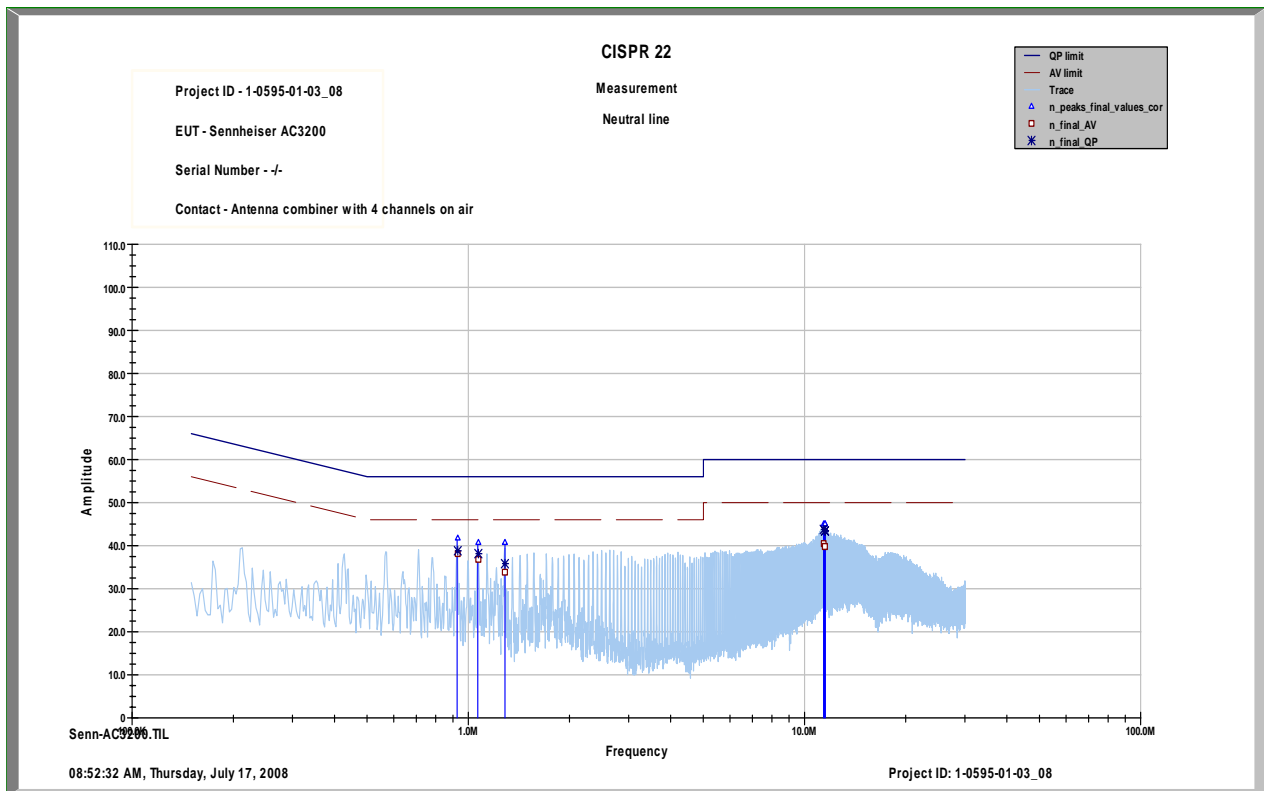
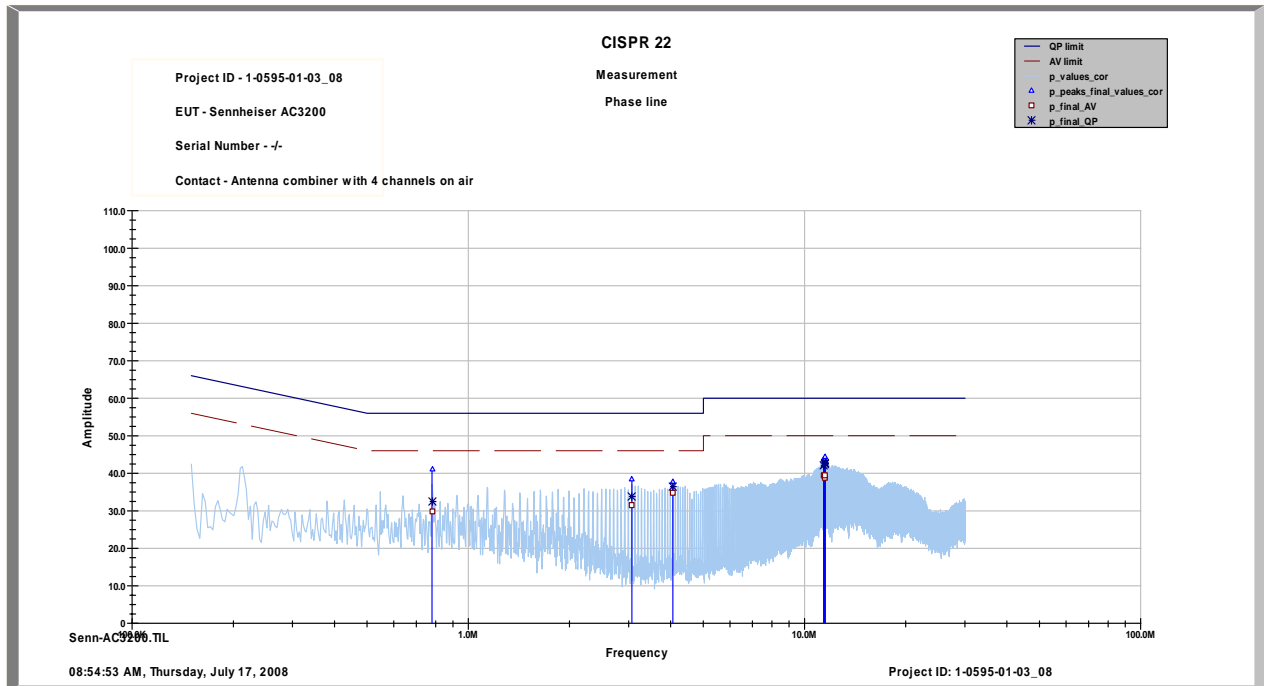
CISPR 22
Phase line floating
Project ID: 1-0595-01-03_08

Senn-AC3200.TIL
08:84:53 AM, Thursday, July 17, 2008

Frequency MHz	QuasiPeak dB μ V	Margin QP dB μ V	Average dB μ V	Margin AV dB μ V
779.835	32.364	-22.636	23.817	-16.183
3.063	33.883	-22.117	31.460	-14.540
4.057	36.333	-19.667	34.840	-11.160
11.389 MHz	42.097	-17.903	39.384	-10.616
11.457 MHz	42.491	-17.509	38.925	-11.175
11.532 MHz	42.803	-17.197	39.388	-10.612

Project ID - 1-0595-01-03_08
EUT - Sennheiser AC3200
Serial Number - -/-
Operating Mode - Antenna combiner with 4 channels on air

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



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

SRD Laboratory Room 002:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
1	System Controller PSM 12	R&S	835259/007	3000002681- 00xx	n.a.		
2	Memory Extension PSM-K10	R&S	To 1	3000002681	n.a.		
3	Operating Software PSM-B2	R&S	To 1	3000002681	n.a.		
4	19" Monitor		22759020- ED	3000002681	n.a.		
5	Mouse		LZE 0095/6639	3000002681	n.a.		
6	Keyboard		G00013834 L461	3000002681	n.a.		
7	Spectrum Analyser FSIQ 26	R&S	835540/01 8	3000002681- 0005	01.08.2006	24	01.08.2008
8	Tracking Generator FSIQ-B10	R&S	835107/01 5	3000002681	s.No.7		
10	RF-Generator SMIQ03 (B1 Signal)	R&S	835541/05 6	3000002681- 0002	01.08.2006	36	01.08.2009
11	Modulation Coder SMIQ-B20	R&S	To 10	3000002681	s.No.10		
12	Data Generator SMIQ- B11	R&S	To 10	3000002681	s.No.10		
13	RF Rear Connection SMIQ-B19	R&S	To 10	3000002681	s.No.10		
14	Fast CPU SM-B50	R&S	To 10	3000002681	s.No.10		
15	FM Modulator SM-B5	R&S	835676/03 3	3000002681	s.No.10		
16	RF-Generator SMIQ03 (B2 Signal)	R&S	835541/05 5	3000002681- 0001	01.08.2006	36	01.08.2009
17	Modulation Coder SMIQ-B20	R&S	To 16	3000002681	s.No.16		
18	Data Generator SMIQ- B11	R&S	To 16	3000002681	s.No.16		
19	RF Rear Connection SMIQ-B19	R&S	To 16	3000002681	s.No.16		
20	Fast CPU SM-B50	R&S	To 16	3000002681	s.No.16		
21	FM Modulator SM-B5	R&S	836061/02 2	3000002681	s.No.16		
22	RF-Generator SMP03 (B3 Signal)	R&S	835133/01 1	3000002681- 0003	01.08.2006	36	01.08.2009
23	Attenuator SMP-B15	R&S	835136/01 4	3000002681	S.No.22		
24	RF Rear Connection SMP-B19	R&S	834745/00 7	3000002681	S.No.22		
25	Power Meter NRVD	R&S	835430/04 4	3000002681- 0004	01.08.2006	24	01.08.2008
26	Power Sensor NRVD- Z1	R&S	833894/01 2	3000002681- 0013	01.08.2006	24	01.08.2008
27	Power Sensor NRVD- Z1	R&S	833894/01 1	3000002681- 0010	01.08.2006	24	01.08.2008
28	Rubidium Standard RUB	R&S		3000002681- 0009	01.08.2006	24	01.08.2008
29	Switching and Signal Conditioning Unit SSCU	R&S	338864/00 3	3000002681- 0006	01.08.2006	24	01.08.2008

30	Laser Printer HP Deskjet 2100	HP	N/A	3000002681-0011	n.a.		
31	19" Rack	R&S	11138363000004	3000002681	n.a.		
32	RF-cable set	R&S	N/A	3000002681	n.a.		
33	IEEE-cables	R&S	N/A	3000002681	n.a.		
34	Sampling System FSIQ-B70	R&S	835355/009	3000002681	s.No.7		
35	RSP programmable attenuator	R&S	834500/010	3000002681-0007	01.08.2006	24	01.08.2008
36	Signalling Unit	R&S	838312/011	3000002681	n.a.		
37	NGPE programmable Power Supply for EUT	R&S	192.033.41	3000002681			
38	Climatic box VT 4002	Heraeus Vötsch	58566046820010	300003019	11.05.2007	24	11.05.2009
39	Signaling Unit CMU200	R&S	832221/0055	300002862	12.01.2006	24	12.01.2009
40	Power Splitter 6005-3	Inmet Corp.	none	300002841	23.12.2006	24	23.12.2008
41	SMA Cables SPS-1151-985-SPS	Insulated Wire	different	different	n.a.		
42	CBT32 with EDR Signaling Unit	R&S					
43	Coupling unit	Narda	N/A	--	n.a.		
44	2xSwitch Matrix PSU	R&S	872584/021	300001329	n.a.		
45	RF-cable set	R&S	N/A	different	n.a.		
46	IEEE-cables	R&S	N/A	--	n.a.		

Anmerkung: 3000002681-00xx als Systeme inventarisiert

5 Test setup
Radiated Emissions
AC 3200



Test site
Radiated Emissions



Test site
Conducted emissions



6 Photographs of the equipment

AC 3000

Photograph no.: 1



Photographs of the equipment

AC 3000

Photograph no.: 2



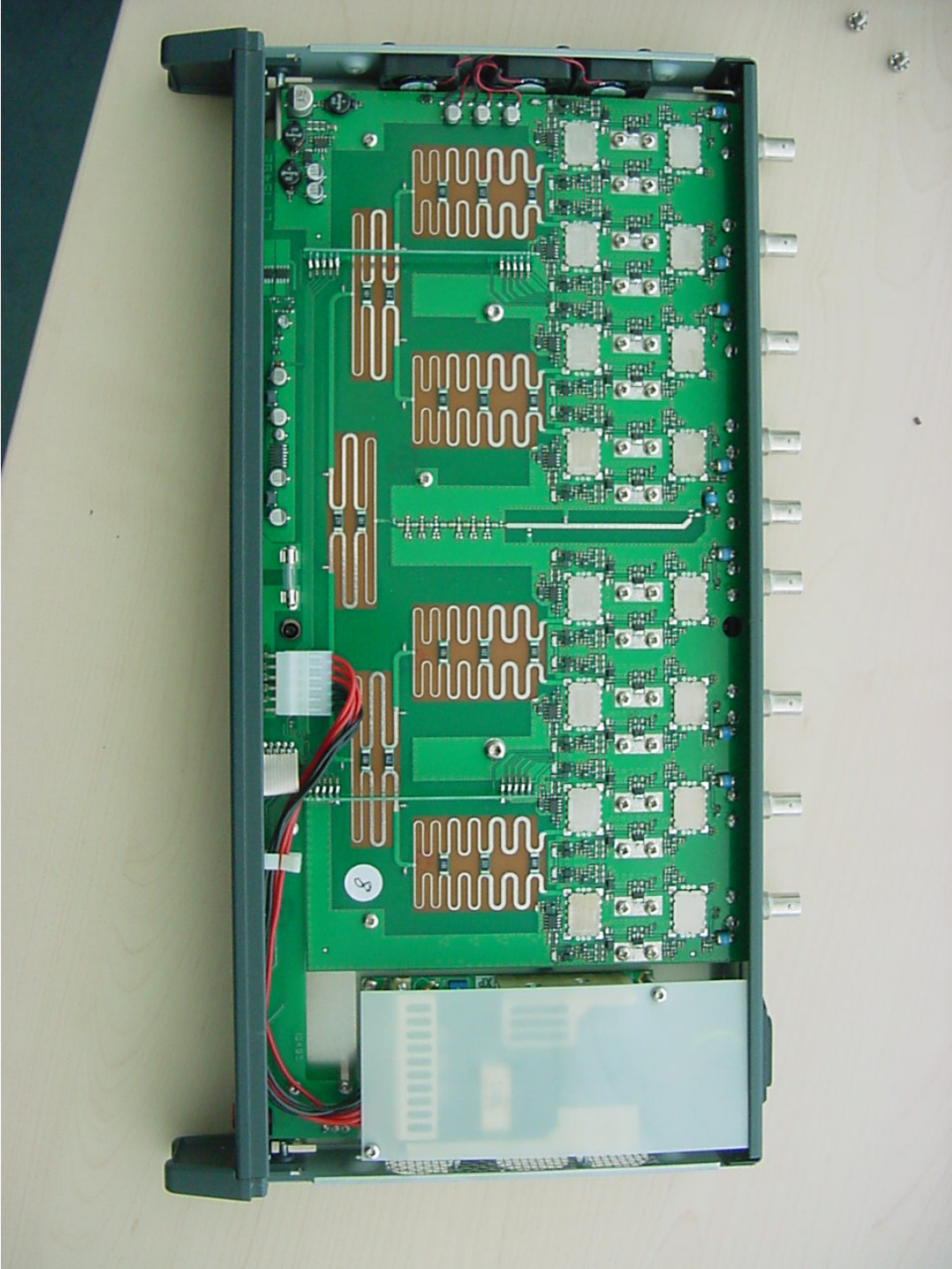
Photographs of the equipment

AC 3000
Photograph no.: 3



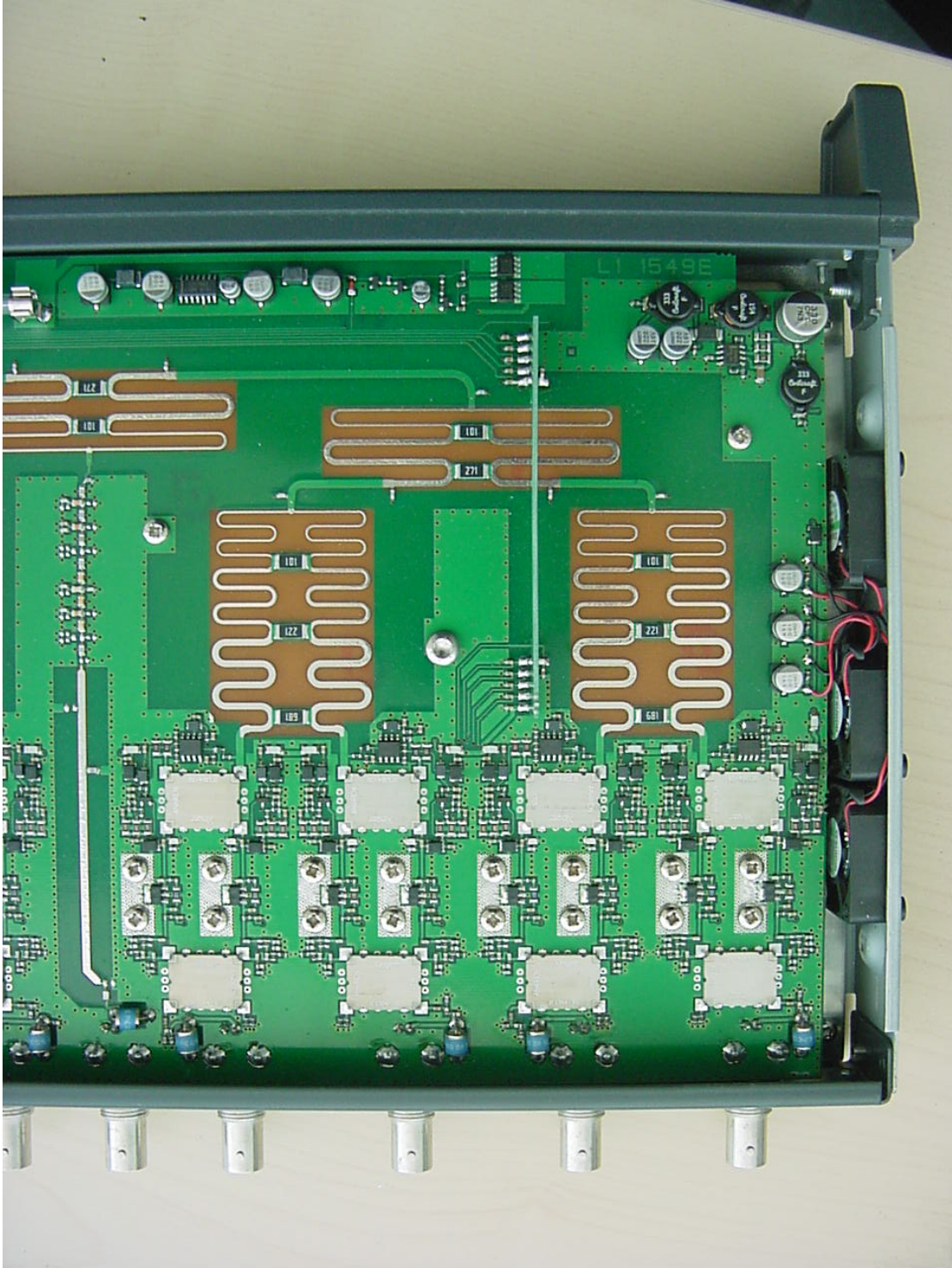
Photographs of the equipment

AC 3000
Photograph no.: 4



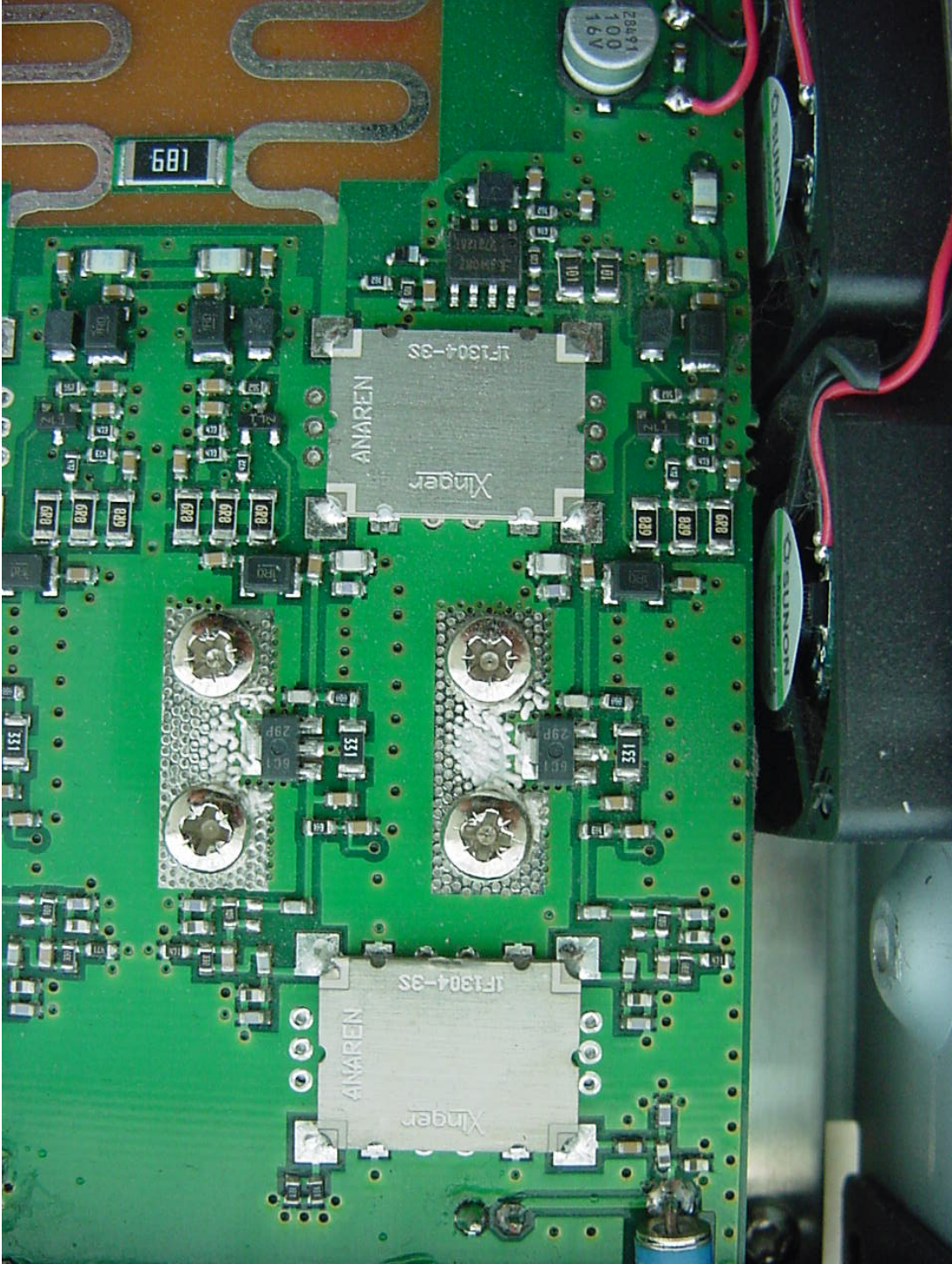
Photographs of the equipment

AC 3000
Photograph no.: 5



Photographs of the equipment

AC 3000
Photograph no.: 6



Photographs of the equipment

AC 3200
Photograph no.: 7

