Prüfbericht - Nr.: <i>Test Report No.:</i>	16009181	001	Seite 1 von 26 Page 1 of 26
Auftraggeber: Client:	Seikaku Technical Grou Offshore Chambers, P.C	-	
Gegenstand der Prüfung: <i>Test item:</i>	Wireless Microphone		
Bezeichnung: Identification:	UB-8H	FCC ID: FCC ID	H38UB-8H
Wareneingangs-Nr.: Receipt No.:	173027444	Eingangsdatum: Date of receipt:	28.12.2007
Prüfort: Testing location:	TÜV Rheinland (Guangd Laboratory Guangzhou Auto Market Guangshan Road, Guan P. R. China	, Yuan Gang Section of	Listed test laboratory according to FCC rules section 2.948 for measuring devices under Parts 74
Prüfgrundlage: Test specification:	ANSI C63.4: 2003 FCC "Rules and Regulat Subpart H, Section 74.86	ions", Part 74: 01, Oct., 19 31	997
Prüfergebnis: Test Result:	Der Prüfgegenstand en The test item passed the	tspricht oben genannter l e test specification(s).	Prüfgrundlage(n).
Prüflaboratorium: Testing Laboratory:	TÜV Rheinland (Guang	dong) Ltd.	
geprüft / tested by:	k	ontrolliert/ reviewed by:	
14: Man. 2008 Dave Xie Project Mana Datum Name/Stellu Date Name/Positio Sonstiges/ Other Aspects:	ng Unterschrift	U. Mar, 2008 Ricky Liu Project Mana Datum Name/Stellur Date Name/Position	ng Unterschrift
F(ail) = entsp N/A = nicht	richt Prüfgrundlage richt nicht Prüfgrundlage anwendbar getestet 2b. nur. auf. das. o.g. Prüfmi	F(ail) N/A N/T	= passed = failed = not applicable = not tested bmiguing der Prüfstelle nicht
auszugsweise vervielfältigt we This test report relates to the a.	rden. Dieser Bericht berecht	ti <mark>gt nicht zur Verwendung</mark> ei ission of the test center this te	ines Prüfzeichens. est report is not permitted to be

TÜVRheinland[®]



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TEST SUMMARY

5.1 POWER OUTPUT MEASUREMENT FOR FCC PART 74 PER SECTION 74.861(E)(1) *RESULT: Pass*

5.2 SPURIOUS RADIATION MEASUREMENT FOR FCC PART 74 PER SECTION 74.861(E)(6)(III) *RESULT: Pass*

5.3 MODULATION CHARACTERISTICS MEASUREMENT *RESULT: Pass*

5.4 OCCUPIED BANDWIDTH FOR FCC PART 74 PER SECTION 74.861(E)(3), 74.861(E)(5) AND 74.861(E)(6) *RESULT: Pass*

5.5 FREQUENCY TOLERANCE FOR FCC PART 74 PER SECTION 74.861(E)(4) *RESULT: Pass*



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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test result

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Guangdong) Ltd. EMC Laboratory

Guangzhou Auto Market, Yuan Gang Section of Guangshan Road Guangzhou 510650

P. R. China



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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Туре	Manufacturer	S/N	Calibrated until	Calibrated Interval
EMI Test Receiver	ESCI-3	Rohde & Schwarz	100216	05.Dec.2007	1 year
Spectrum Analyzer	FSP30	Rohde & Schwarz	100286	24.Aug.2008	1 year
Trilog-Broadband Antenna	VULB9168	SCHWARZBECK MESS-ELEKTRONIK	210	08.May.2009	2 year
Double-Ridged Waveguide Horn Antenna	HF906	Rohde & Schwarz	100385	18.Jul.2009	2 year
Double-Ridged Waveguide Horn Antenna	HF906	Rohde & Schwarz	100407	08.May.2009	2 year
Pre-amplifier	AFS42- 00101800- 25-S-42	MITEQ	1101599	31.Jul.2009	2 year
Band Reject Filter	BRM50702	Micro-Tronics	023	15.Feb.2008	2 year
Standard Gain Horn Antenna	3160-09	EMCO	21642	N/A	2 year
Standard Gain Horn Antenna	3160-09	EMCO	21645	N/A	2 year
Pre-amplifier	AFS33- 18002650- 30-8P-44	MITEQ	1108282	31.Jul.2009	2 year
3m Anechoic Chamber	N/A	Albatross Project GmbH	N/A	16.Apr.2008	2 year

2.3 Trace ability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.



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2.5 Measurement Uncertainty

Uncertainty for conducted emissions measurements is ± 2.51 dB. Uncertainty for radiated emissions measurements is ± 4.9 dB (30MHz-1GHz), ± 4.84 dB (>1GHz).

The reported expanded uncertainty is based on a standard uncertainty multiply by a coverage factor k=2, providing a level of confidence of approximately 95%.

2.6 Location of original data

The original copies of all test data taken during actual testing were attached at Appendix 1 of this report and delivered to the applicant. A copy has been retained in the TUV Rheinland (Guangzhou) file for certification follow-up purposes.

2.7 Status of facility used for testing

TÜV Rheinland (Guangdong) Ltd. EMC Laboratory; Guangzhou Auto Market, Yuan Gang Section of Guangshan Road, Guangzhou 510650, P. R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements, the register no. 833845

3 General Product Information

The submitted sample is a wireless microphone, which is a transmitter and operates in the frequency range of 740 MHz to 769 MHz.

All the test are perform on three operation frequencies, which are low channel 740.125 MHz, mid channel 753.125 MHz and high channel 768.725 MHz.

3.1 Product Function and Intended Use

For details, refer to technical document and the user manual.



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3.2 Ratings and System Details

Frequency range	:	740 – 769 MHz
Nominal Operating		Refer to the Frequency List below
frequencies	:	
RF output power	:	0.01398W
Type of antenna	:	Integral antenna
FCC ID:		H3BUB-8H
Power supply	:	DC 3V
		(2 x "AA" type 1.5V battery)
Frequency Response	:	30Hz-15kHz
Frequency Stability	:	0.0014%
Emission designator	:	83K0F3E
Ports	:	N/A
Protection Class	:	III

Frequency List:

	Group1	Group2	Group3	Group4	Group5	Group6	Group7	Group8	Group9	Group10	Group11	Group12
1	740.125	740.325	740.525	740.725	740.925	741.125	741.325	741.525	741.725	741.925	742.125	742.325
2	742.525	742.725	742.925	743.125	743.325	743.525	743.725	743.925	744.125	744.325	744.525	744.725
3	744.925	745.125	745.325	745.525	745.725	745.925	746.125	746.325	746.525	746.725	746.925	747.125
4	747.325	747.525	747.725	747.925	748.125	748.325	748.525	748.725	748.925	749.125	749.325	749.525
5	749.725	749.925	750.125	750.325	750.525	750.725	750.925	751.125	751.325	751.525	751.725	751.925
6	752.125	752.325	752.525	752.725	752.925	753.125	753.325	753.525	753.725	753.925	754.125	754.325
7	754.525	754.725	754.925	755.125	755.325	755.525	755.725	755.925	756.125	756.325	756.525	756.725
8	756.925	757.125	757.325	757.525	757.725	757.925	758.125	758.325	758.525	758.725	758.925	759.125
9	759.325	759.525	759.725	759.925	760.125	760.325	760.525	760.725	760.925	761.125	761.325	761.525
10	761.725	761.925	762.125	762.325	762.525	762.725	762.925	763.125	763.325	763.525	763.725	763.925
11	764.125	764.325	764.525	764.725	764.925	765.125	765.325	765.525	765.725	765.925	766.125	766.325
12	766.525	766.725	766.925	767.125	767.325	767.525	767.725	767.925	768.125	768.325	768.525	768.725

Refer to the technical document for further information.



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3.3 Independent Operation Modes

The basic operation modes are:

Transmitting without modulation Transmitting with modulation

For further information refer to User Manual

3.4 Submitted Documents

Block Diagram Circuit Diagram Components List PCB layout FCC label User Manual Photo document



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4 Test Set-up and Operation Mode

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Refer to Test set-up in chapter 5.

4.3 Special Accessories and Auxiliary Equipment

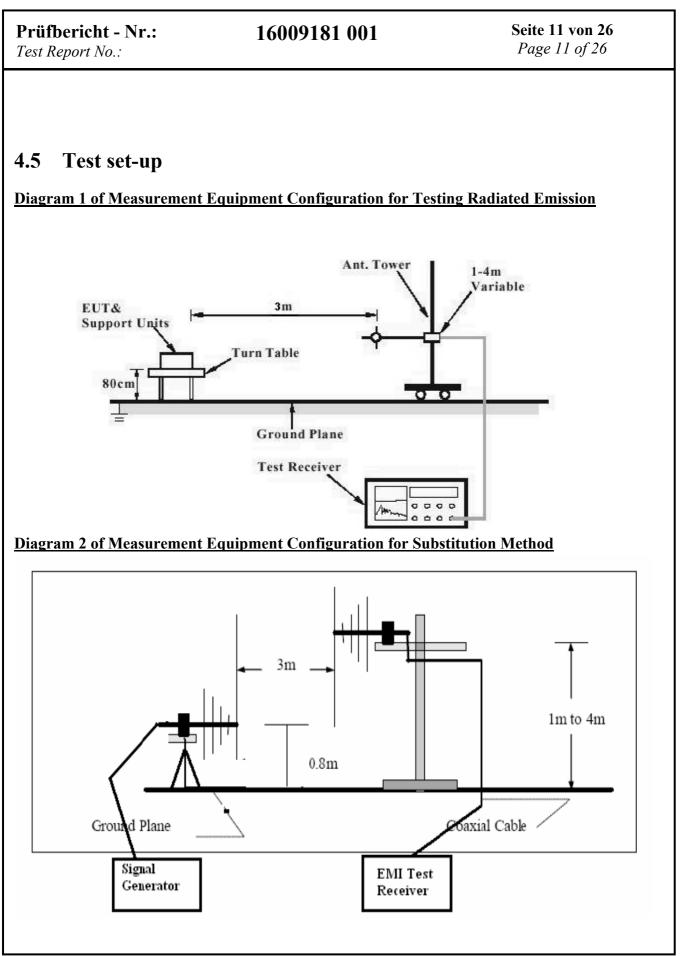
None

4.4 Countermeasures to achieve EMC Compliance

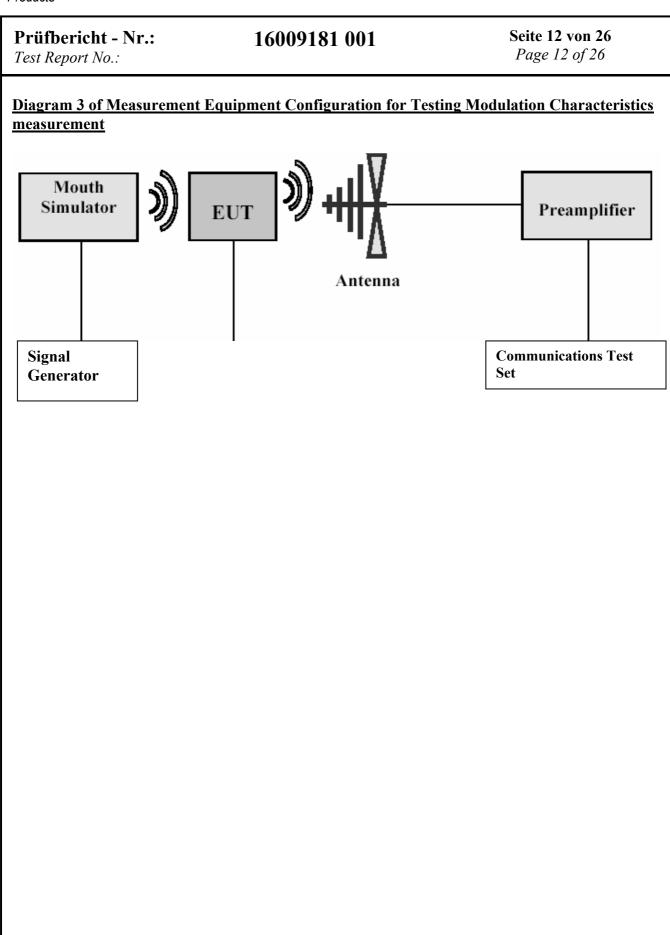
The test sample, which has been tested, contained the noise suppression parts as described in the technical document. No additional measures were employed to achieve compliance.









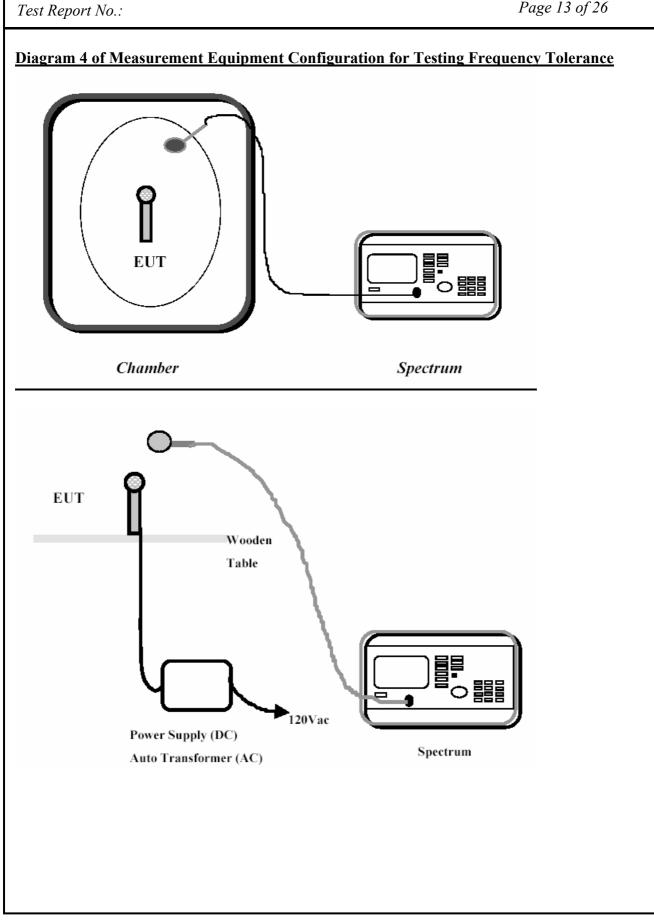




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5 Test Results EMISSION

5.1 Power output measurement for FCC part 74 Per Section 74.861(e)(1)

RESULT:

Pass

Date of testing Test specification Limits Deviations from Standard Test	: : :	29.01.2008 FCC Part 2 Per Section 2.1046(a) FCC Part 74 Per Section 74.861(e)(1)
procedures	:	None
Kind of test site	:	3m Anechoic Chamber
Operation mode	:	Transmitting (unmodulated)
Temperature	:	22°C
Humidity	:	65%

Measurement procedure:

- 1. The EUT was place on an 80cm high turntable in the anechoic chamber.
- 2. For radiated power output of the EUT, the measuring antenna was raised and lowered to obtain a maximum reading on the spectrum analyzer with the test antenna polarized vertically and horizontally. The turntable was rotated 360 to further searching the maximum reading on the spectrum analyzer. Then the max value on spectrum was recorded.
- 3. The EUT was removed and be replaced with a substitute dipole antenna. The length of the antenna was adjusted to a half-wave of transmitting frequency measured. The centre of the dipole antenna was placed approximately at the same location as the centre place of the EUT in step 1 and 2.
- 4. The dipole antenna was connected to a signal generator with a coaxial cable.
- 5. The signal generator is tuned to the transmitting frequency with the substitute antenna polarized both vertically and horizontally, the output level of the signal generator output was then adjusted to get a maximum reading in the spectrum with the same value recorded in the step 2.
- 6. The input RF power in the dipole antenna was calculated from the coaxial cable loss and the signal generator output level obtained in step 5. This value was regarded as final result and recorded in following table 2.



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Note: While in Step 2, the EUT was placed in 3 orthogonal planes to find a maximum reading.

Table 2: Measurement Result of output power on frequencies 740.125MHz, 753.125MHz and768.725MHz

Channel	Freq. (MHz)	Polarization (V/H)	Transmit power (dBm)	Transmit power (mW)	Limit (mW)
Low	740.125	V	-4.346	0.368	250
	740.125	Н	10.577	11.421	250
Mid	753.125	V	-1.919	0.643	250
	753.125	Н	11.455	13.979	250
High	768.725	V	-3.368	0.461	250
	768.725	Н	9.837	9.632	250



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5.2 Spurious Radiation Measurement for FCC Part 74 Per Section 74.861(e)(6)(iii)

RESULT:

Pass

Date of testing Test specification Limits	:	29.01.2008 FCC Part 2 Per Section 2.1053(a) and 2.1057 FCC Part 74 Per Section 74.861(e)(6)(iii)
Deviations from Standard Test		
procedures	:	None
Kind of test site	:	3m Full-Anechoic Chamber
Operation mode	:	Transmitting (unmodulated)
Temperature	:	22°C
Humidity	:	65%

Measurement procedure:

1. The EUT was turned on and placed on the top of a rotatable table 0.8 meters above the ground with 3-orthogonal XYZ direction and be kept close enough to the measurement receiving antenna (especially for the measurement frequency range above 1 GHz). The table was then rotated 360 degrees to detect the suspected emission frequency points. The position of the worst radiation case with both horizontal and vertical receiving antenna polarization was then recorded together with the suspected emission frequency points above-mentioned.

2. The EUT was then set 3 meters away from the receiving antenna, which was mounted on a variable-height antenna tower.

3. For each suspected emission frequency point recorded in step 1, the EUT was arranged to its worst case that the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to read the maximum emission.

4. The EUT was removed and be replaced with substitute antenna correspondent to the suspected frequency point mentioned in Step 3 (if necessary, characteristic frequency of the antenna is adjusted to a half-wave of the suspected frequency point). The substitute antenna was then connected to a signal generator with a coaxial cable and its center is placed approximately at the same location as the centre place of the EUT in Step 3.

5. The signal generator is tuned to the suspected frequency point mentioned in Step 3 with the substitute antenna polarized both vertically and horizontally, the output level of the signal generator output was then adjusted to get a maximum reading in the spectrum with the same value recorded in the step 3.

6. For each suspected frequency point, the input RF power in the substitute antenna was calculated from the coaxial cable loss, antenna factor and the signal generator output level obtained in step 5. This value was regarded as final result and recorded in following table 4, table 5 and table 6.



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To determine the Limit for Spurious Emissions the following method was used:

Maximum output power in watts:

Maximum output power in Watt: 0.01398W (see table 2)

The emission must be reduced by:

43+10*Log(0.01398)= 24.455 dB

Therefore, the Emission Limit equals: 10*Log(0.01398*1000)-24.455dB = -13dBm

While testing, the EUT was placed in 3 orthogonal planes and the maximum reading was recorded in the following tables.

Table 3: Spurious Emission:	EUT operated on Bottom	frequency (740.125MHz)

Freq.	Polarization	Transmit power	Limit
(MHz)	(V/H)	(dBm)	(dBm)
1480.38	Н	- 44.8	-13
2620.50	Н	- 38.9	-13
3501.63	Н	- 27.0	-13
4461.50	Н	- 28.0	-13
5763.50	Н	- 26.1	-13
7384.88	Н	- 22.5	-13
1937.13	V	- 42.7	-13
2755.25	V	- 38.7	-13
3074.63	V	- 27.9	-13
4263.75	V	- 28.3	-13
5753.01	V	- 25.9	-13
6982.38	V	- 24.1	-13



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Table 4: Spurious Emission: EUT operated on Bottom frequency (753.125MHz)

Freq.	Polarization	Transmit power	Limit
(MHz)	(V/H)	(dBm)	(dBm)
2293.25	Н	-39.7	-13
2711.50	Н	-38.4	-13
3061.50	Н	-27.5	-13
5830.88	Н	-25.8	-13
7056.75	Н	-24.1	-13
1720.13	V	-44.1	-13
2074.50	V	-42.5	-13
2776.25	V	-38.8	-13
3585.62	V	-27.1	-13
4960.25	V	-27.1	-13
6212.38	V	-24.7	-13

Table 5: Spurious Emission: EUT operated on Bottom frequency (768.725MHz)

Freq.	Polarization	Transmit power	Limit
(MHz)	(V/H)	(dBm)	(dBm)
2330.87	Н	-39.7	-13
3480.63	Н	-26.7	-13
4031.87	Н	-27.4	-13
4527.12	Н	-27.4	-13
5636.62	Н	-25.3	-13
6956.12	Н	-23.4	-13
1942.37	V	-42.4	-13
2714.12	V	-38.0	-13
3543.62	V	-27.5	-13
5271.75	V	-26.6	-13
6953.50	V	-23.6	-13
7828.50	V	-22.1	-13



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5.3 Modulation Characteristics measurement

RESULT:

Date of testing Test specification Limits Deviations from Standard Test	:	28.01.2008 FCC Part 2 Per Section 2.1047(a) and (b) FCC Part 2 Per Section 2.1047(a) and (b)
procedures	:	None
Operation mode	:	Transmitting
Temperature	:	22°C
Humidity	:	65%

Measurement procedure:

Audio frequency response:

1) Configure the EUT as shown in diagram 3.

2) Adjust the audio input for 20% of rated system deviation at 1 kHz using this level as a reference (0 dB).

3) Vary the Audio frequency from 200 Hz to 20 kHz and record the frequency deviation

Modulation limit:

1). Configure the EUT as shown in diagram 3, adjust the audio input for 60% of rated system deviation at 1kHz using this level as a reference (0dB) and vary the input level from -30db to +20dB. Record the frequency deviation obtained as a function of the input level.

2). Repeat step 1 with input frequency changing to 500Hz, 800Hz, 1kHz, 2.5kHz, 5kHz, 10kHz and 15kHz in sequence.

Refer to appendix for curves.

Pass



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5.4 Occupied Bandwidth for FCC Part 74 Per Section 74.861(e)(3), 74.861(e)(5) and 74.861(e)(6)

RESULT:

Pass

Date of testing Test specification Limits	: : :	28.01.2008 FCC Part 2 Per Section 2.1049(c)1 FCC Part 74 Per Section 74.861(e)(3), 74.861(e)(5) and 74.861(e)(6)
Deviations from Standard Test		
procedures	:	None
Operation mode	:	Transmitting (modulated)
Temperature	:	22°C
Humidity	:	65%

Measurement procedure:

1. Connect the EUT as diagram 3 in Section 4.5.

2. Plot the unmodulated chart shows on spectrum.

3. According to the result of Modulation Characteristics, set the output of the signal generator to 500Hz, 1 kHz, 5 kHz, 10 kHz, increase the amplitude of the signal, until maximum modulation is shown on the spectrum analyzer.

4. The Occupied Bandwidth was measured in appendix of this report



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Table 6: Maximum Deviation

Reading:	36.8kHz
Limit:	± 75kHz

Table 7: Operation Bandwidth (Bn)

Parameter:	М	D				
Reading	10kHz 31.5kHz					
Bn:	83kHz					
Limit:	200kHz					
Emission Designator:	83K0F3E					
Bn=2M+2D*K						
Bn: operation bandwidt	Bn: operation bandwidth					
M: Max. Modulation Frequency						
D: Peak Frequency Deviation						
K=1						

Refer for appendix for measurements.



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5.5 Frequency tolerance for FCC Part 74 Per Section 74.861(e)(4)

RESULT:

Pass

Date of testing Test specification Limits	:	29.01.2008 FCC Part 2 Per Section 2.1055 FCC Part 74 Per Section 74.861(e)(4)
Deviations from Standard Test	•	
procedures	:	None
Test procedure		Procedure specified in ANSI C63.4 were followed
Operation mode	:	Transmitting (unmodulated)
Temperature	:	-30°C to 50°C
Humidity	:	65%

Measurement procedure:

A. Frequency stability versus environmental temperature

1. Setup the configuration as diagram 4 in section 4.5 for frequency measured inside an environment chamber and install new battery in the EUT.

2. Turn on EUT and set spectrum analyzer center frequency to the EUT operating frequency. Set spectrum analyzer Resolution Bandwidth to 1 kHz and Video Resolution Bandwidth to 1 kHz and Frequency Span to 50kHz.Record this frequency as reference frequency.

3. Set the temperature of chamber to 50° C. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.

4. Repeat step 2 with a 10° C decreased per stage until the lowest temperature -30° C is measured, record all measured frequencies on each temperature step.

B. Frequency stability versus input voltage

1. Setup the configuration as diagram 4 for frequencies measurement at temperature range from 15 $^{\circ}$ C to 25 $^{\circ}$ C. Otherwise, an environment chamber set for a temperature of 20 $^{\circ}$ C shall be used.

2. Set spectrum analyzer center frequency to the EUT operating frequency. Set spectrum analyzer Resolution Bandwidth to 1 kHz and Video Resolution Bandwidth to 1 kHz. Record this frequency as reference frequency.

3. Set the supply voltage to the nominal voltage of the EUT.

4. Turn the EUT on and measure the EUT operating frequency

5. Repeat step 4 with decreased supply voltage, record all measured frequencies on each voltage step.

6. Stop the test until the lowest voltage specified by the manufacturer is reached or the EUT case to emission radio signal.



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Table 8: the measurement of Frequency tolerance (temperature)

Test condition	Power supply	Low Frequency	Mid Frequency	High Frequency	
		(MHz)	(MHz)	(MHz)	
		(740.125)	(753.125)	(768.725)	
-30°C	New batteries	740.1272	753.1264	768.7272	
-20°C	New batteries	740.1280	753.1280	768.7276	
-10°C	New batteries	740.1280	753.1280	768.7284	
0°C	New batteries	740.1268	753.1260	768.7268	
10°C	New batteries	740.1248	753.1240	768.7244	
20°C	New batteries	740.1220	753.1220	768.7220	
30°C	New batteries	740.1192	753.1188	768.7188	
40°C	New batteries	740.1180	753.1180	768.7168	
50°C	New batteries	740.1144	753.1144	768.7140	
Frequency Error:		0.0106 0.0106		0.011	
Frequency Error rate:		0.0014% 0.0014% 0.0		0.0014%	
Frequency Tolerance Limit:		0.005%			

Table 9: the measurement of Frequency tolerance (supply voltage)

Temperature: 25°C				
Test condition	Low Frequency	High Frequency		
(Power supply)	(MHz)	(MHz)	(MHz)	
	(740.125)	(753.125)	(768.725)	
3V	740.1204	753.1200	768.7208	
2.8V	740.1204	753.1200	768.7208	
2.6V	740.1204	753.1200	768.7208	
2.4V	740.1204	753.1200	768.7208	
2.2V	740.1204	753.1200	768.7208	
2.0V	740.1204	753.1204	768.7208	
1.8V	740.1204	753.1204	768.7208	
1.6V	740.1200	753.1204	768.7204	
1.4V	740.1200	753.1204	768.7220	
1.2V		753.1200		
Frequency Error:	0.005	0.005	0.0046	
Frequency Error rate:	0.0007%	0.0007%	0.0006%	
Frequency Tolerance Limit:	0.005%			

The equipment remains on channel when the power source was reduced below the lower extreme test voltage limit until zero. The EUT ceases to function below the voltage at DC 1.2V.





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6 Photographs of the Test Set-Up

Photograph 1: Set-up for Radiation Measurement Below 1GHz

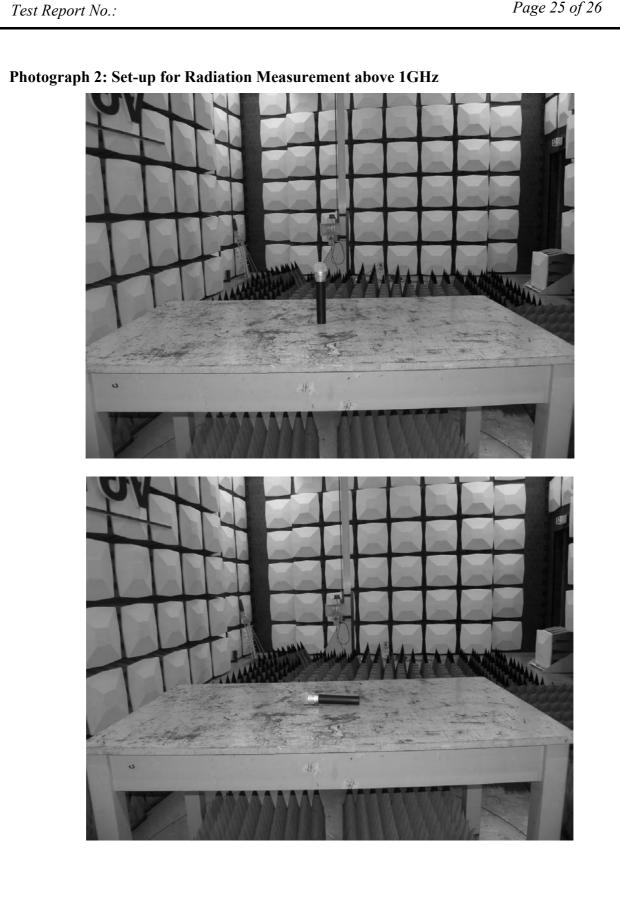






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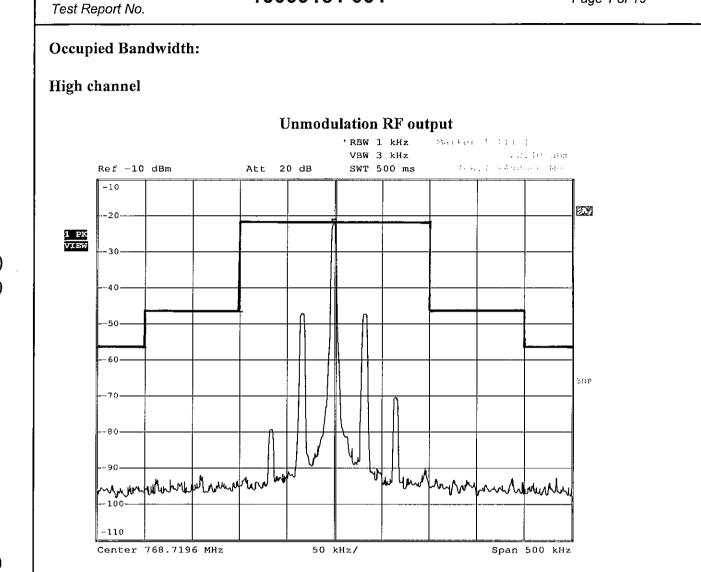






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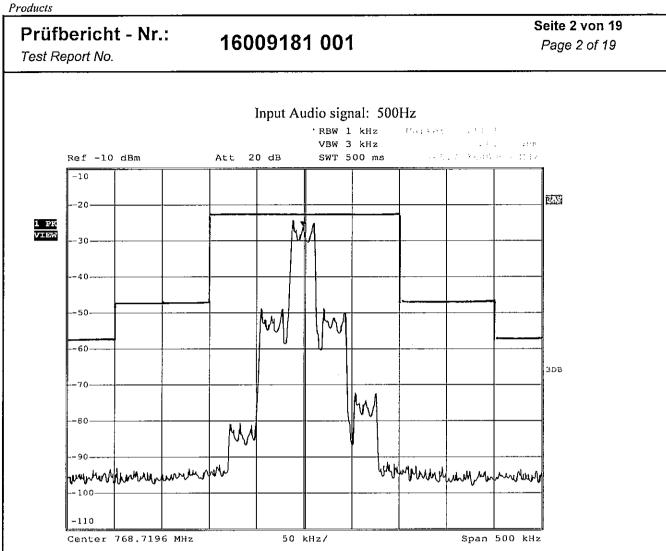


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Date: 22.FEB.2008 14:23:38

Appendix 1





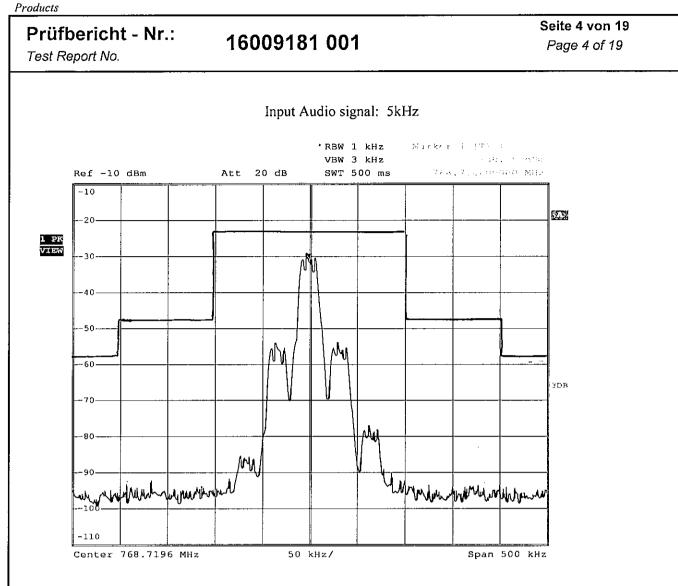
Date: 22.FEB.2008 14:26:38



Products Seite 3 von 19 Prüfbericht - Nr.: 16009181 001 Page 3 of 19 Test Report No. Input Audio signal: 1kHz *RBW 1 kHz Harke Land -23,¹⁷ 336 VBW 3 kHz Ref -10 dBm Att 20 dB SWT 500 ms 768.7 S. COGSE MOR -10 873 -20 1 PK VIEW -30 -40--50-٨N ለሳለ -60зрв -70-Μ -80-90 how my her minter March Went under internetion -100 -110 Center 768.7196 MHz 50 kHz/ Span 500 kHz

Date: 22.FEB.2008 14:27:48





Date: 22.FEB.2008 14:30:47



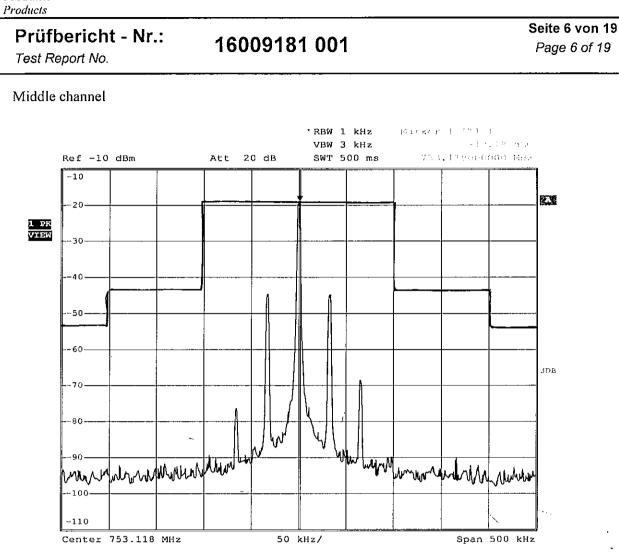
Products Seite 5 von 19 Prüfbericht - Nr.: 16009181 001 Page 5 of 19 Test Report No. Input Audio signal: 10kHz *RBW 1 kHz Marker | [7] -VBW 3 kHz 31.63 366 Ref -10 dBm Att 20 dB 768.215.00000 MH2 SWT 500 ms -10 <u>gr</u>ei -20 1 PK MAXH -30--40--50---60-308 • -70--00-М Į ДΜ -90-unperm MMA -100--110 Center 768.7196 MHz 50 kHz/ Span 500 kHz

Date: 22.FEB.2008 14:31:37



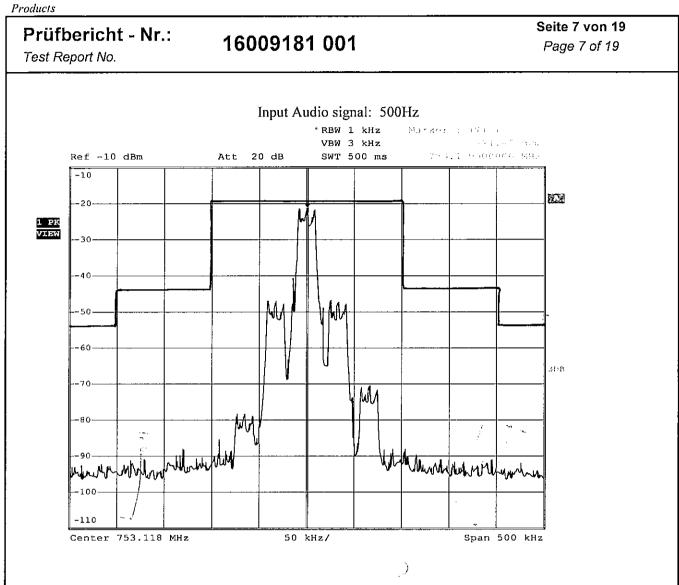


Appendix 1



Date: 22.FEB.2008 14:47:54





Date: 22.FEB.2008 14:51:17





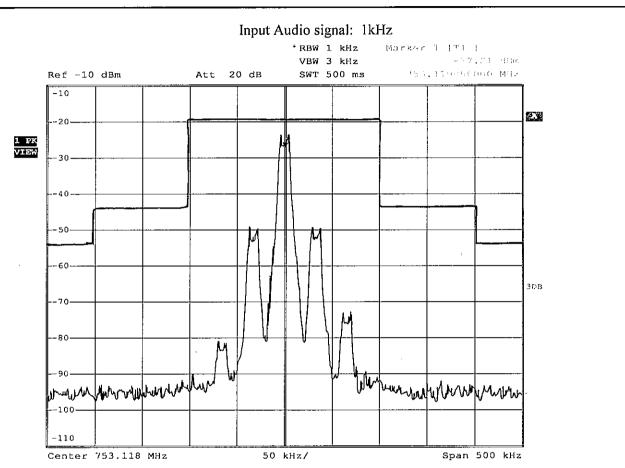
Appendix 1

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Prüfbericht - Nr.:

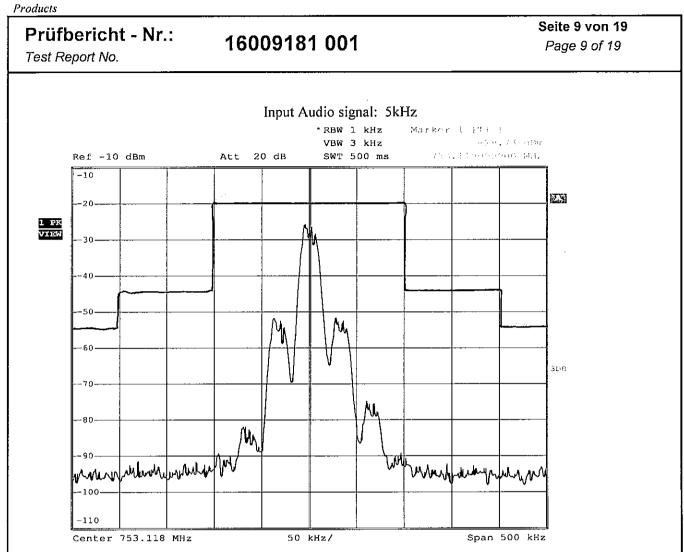


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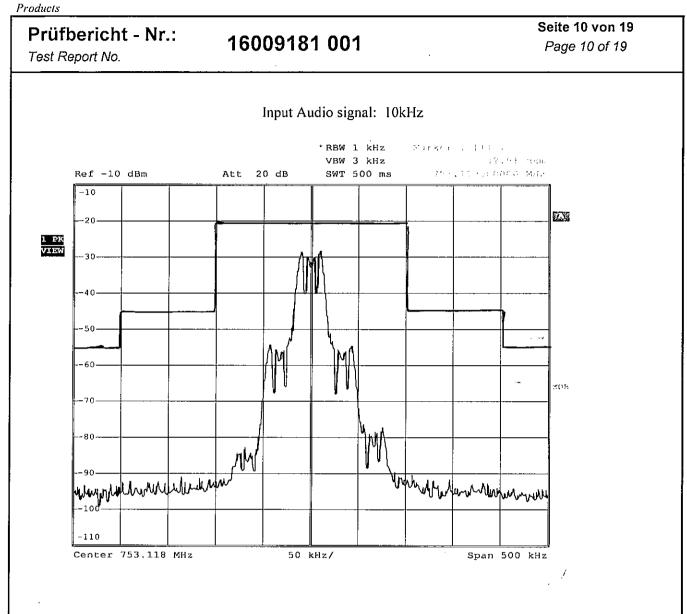
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Appendix 1

Prüfbericht - Nr.: *Test Report No.*

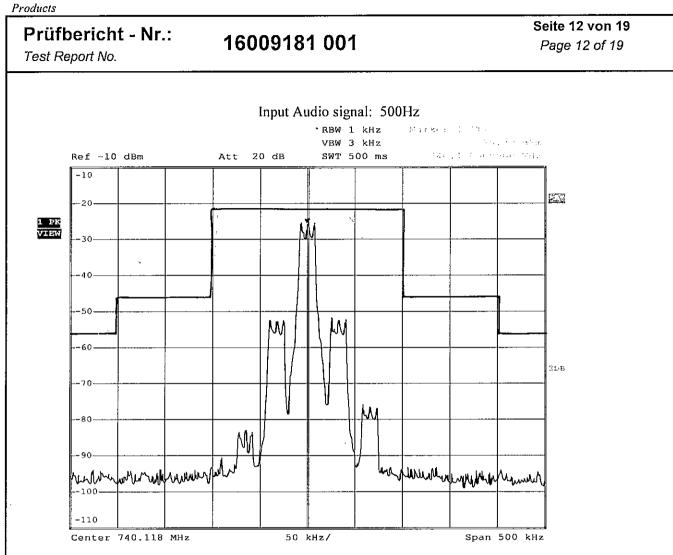
16009181 001

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Low channel *RBW 1 kHz alarker († 19 electric atai VBW 3 kHz Ref -10 dBm Att 20 dB 145. p. see contrate SWT 500 ms -10 175 -20-1 PK VIEW -30--40-. . . . -50--60-308 -70--80-V - 90 M transfer and when the Muhupan approximation M. Air -100--110 Center 740.118 MHz 50 kHz/ Span 500 kHz

Date: 22.FEB.2008 14:42:11





Date: 22.FEB.2008 14:43:08

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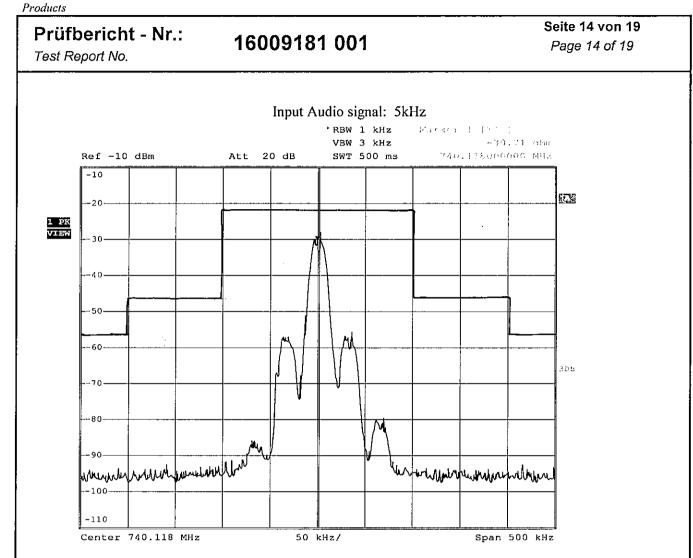


Products Seite 13 von 19 Prüfbericht - Nr.: 16009181 001 Page 13 of 19 Test Report No. Input Audio signal: 1kHz *RBW 1 kHz Marker (T) 1 VBW 3 kHz 1831.96 Back 746.116.pht000.882 Ref -10 dBm Att 20 dB SWT 500 ms -10 2.9 -20 1 PK View -30--40--50-M М -60зрв -- 70 -80 -90 unnerfulling worthoman and with make with du rorant -100 -110 Span 500 kHz Center 740.118 MHz 50 kHz/

Date: 22.FEB.2008 14:43:45

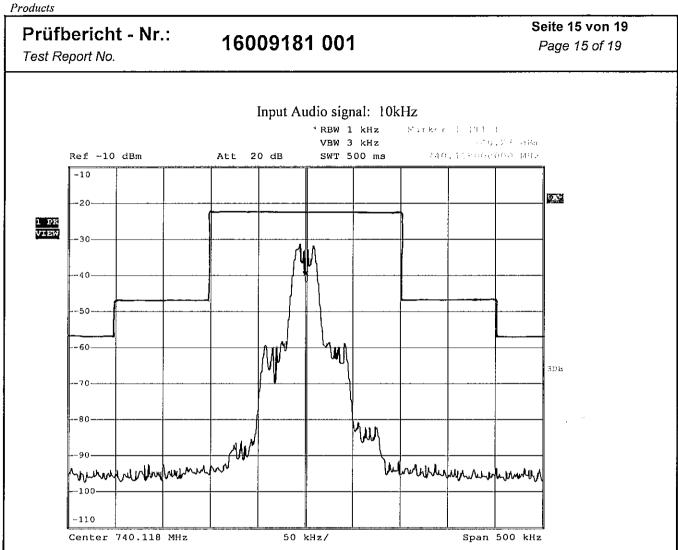
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Date: 22.FEB.2008 14:44:54





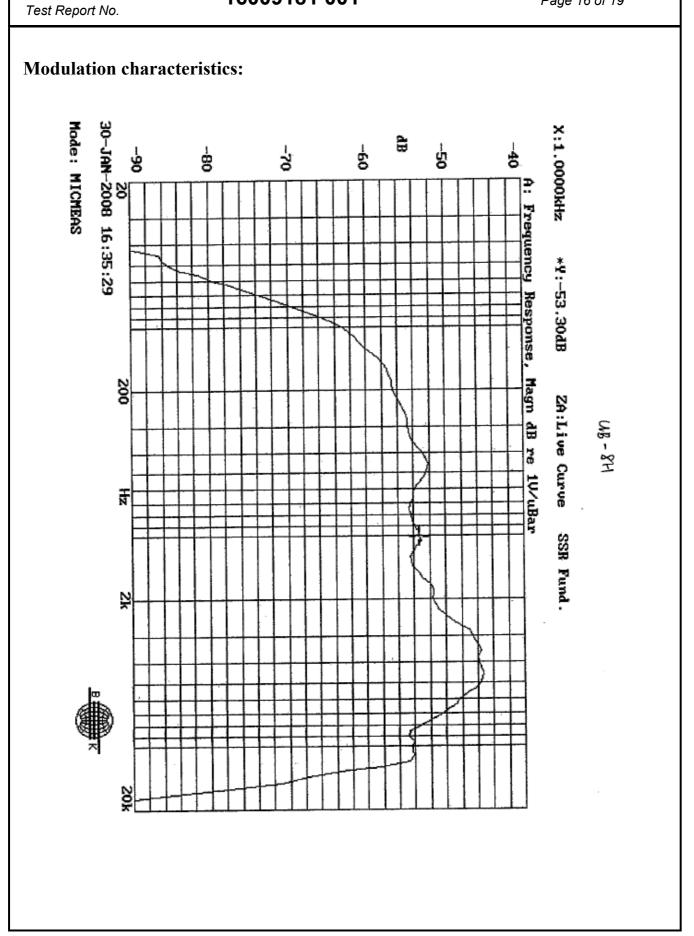
Date: 22.FEB.2008 14:46:05



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Prüfbericht - Nr.:

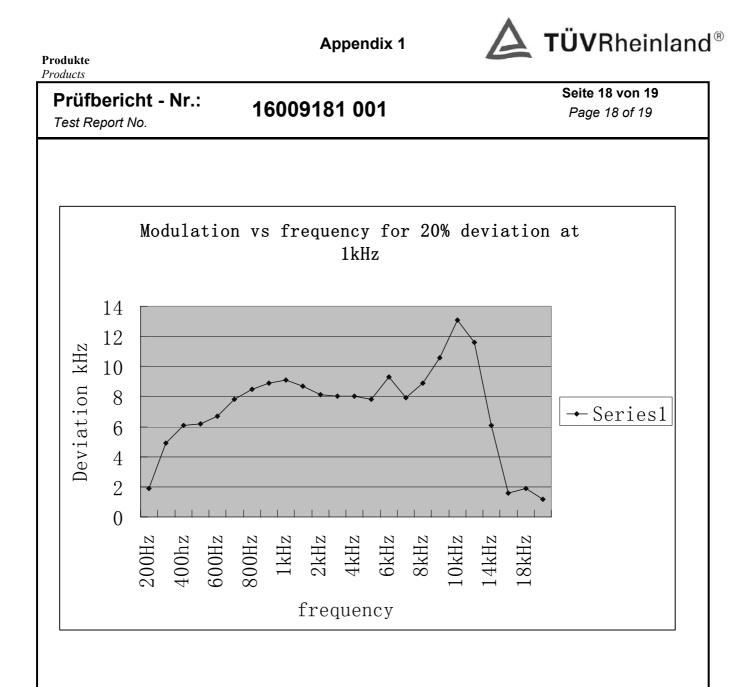
Test Report No.

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Modulation characteristics:

Frequency (Hz)	Deviation (kHz)			
200	1.9			
300	4.9			
400	6.01			
500	6.2			
600	6.7			
700	7.8			
800	8.5			
900	8.9			
1000	9.1			
1500	8.7			
2000	8.1			
3000	8.01			
4000	8.01			
5000	7.8			
6000	9.3			
7000	7.9			
8000	8.9			
9000	10.6			
10000	13.1			
12000	11.6			
14000	6.1			
16000	1.6			
18000	1.9			
20000	1.2			





Appendix 1

Produkte *Products*

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Modulation level(dB)	500Hz	800Hz	1kHz	2.5kHz	5kHz	10kHz	15kHz
20	20.4	30.5	26.2	36.8	25.4	31.2	11.5
15	19.5	28.7	24.3	35.2	22.8	30.1	10.3
10	18.4	21.6	15.1	25.2	14.3	31.5	6.6
0	11.4	12.3	9.1	14.3	7.9	18.4	3.9
-10	6.8	6.7	8.1	8.3	4.7	12.1	2.4
-20	4.3	3.5	2.1	5.2	2.8	6.1	1.4
-30	3.1	1.8	1.3	3.1	1.8	3.5	1.1

