

Prüfbericht-Nr.: <i>Test Report No.:</i>	16070926 001	Auftrags-Nr.: <i>Order No.:</i>	174039650	Seite 1 von 24 <i>Page 1 of 24</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	621884	Auftragsdatum: <i>Order date.:</i>	12 Oct, 2015	
Auftraggeber: <i>Client:</i>	SCALAR CORPORATION Shinjuku San-Ei Bldg., 1-22-2, Nishi-Shinjuku, Shinjuku-ku, TOKYO, JAPAN			
Prüfgegenstand: <i>Test item:</i>	Wireless Video Transmitter	FCC ID: <i>FCC ID:</i>	YIJVT200RGB	
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	VT-200RGB			
Auftrags-Inhalt: <i>Order content:</i>	TUV Rheinland - EMC service			
Prüfgrundlage: <i>Test specification:</i>	FCC Part 15: 2015-10 Subpart C section 15.207, 15.209 and 15.247 ANSI C63.10: 2013			
Wareneingangsdatum: <i>Date of receipt:</i>	12 Oct, 2015			
Prüfmuster-Nr.: <i>Test sample No.:</i>	174039650-001			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 2.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
 22 Jan, 2016 Storm Shu / Assistant Project Manager		 25 Jan, 2016 Max Y. C. Yao / Department Manager		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specifications(s) F(ail) = failed a.m. test specifications(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Passed

5.1.2 PEAK OUTPUT POWER

RESULT: Passed

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Passed

5.1.4 6dB BANDWIDTH

RESULT: Passed

5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Passed

5.1.6 SPURIOUS EMISSION

RESULT: Passed

5.1.7 CONDUCTED EMISSIONS

RESULT: Passed

6.1.1 ELECTROMAGNETIC FIELDS

RESULT: Passed

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES.....	5
2.1	TEST FACILITIES.....	5
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	TRACEABILITY	7
2.4	CALIBRATION.....	7
2.5	MEASUREMENT UNCERTAINTY	7
2.6	LOCATION OF ORIGINAL DATA.....	7
2.7	STATUS OF FACILITY USED FOR TESTING.....	7
3	GENERAL PRODUCT INFORMATION	8
3.1	PRODUCT FUNCTION AND INTENDED USE	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	INDEPENDENT OPERATION MODES.....	10
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS	10
3.5	SUBMITTED DOCUMENTS	10
4	TEST SET-UP AND OPERATION MODES.....	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION.....	11
4.2	TEST OPERATION AND TEST SOFTWARE	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT.....	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE	11
4.5	TEST SET-UP.....	12
5	TEST RESULTS	12
5.1	TRANSMITTER REQUIREMENT & TEST SUITES.....	12
5.1.1	<i>Antenna Requirement.....</i>	<i>14</i>
5.1.2	<i>Peak Output Power</i>	<i>15</i>
5.1.3	<i>Conducted Power Spectral Density</i>	<i>17</i>
5.1.4	<i>6dB Bandwidth.....</i>	<i>18</i>
5.1.5	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth</i>	<i>19</i>
5.1.6	<i>Spurious Emission.....</i>	<i>20</i>
5.1.7	<i>Conducted Emissions</i>	<i>21</i>
6	SAFETY HUMAN EXPOSURE	22
6.1	RADIO FREQUENCY EXPOSURE COMPLIANCE	22
6.1.1	<i>Electromagnetic Fields</i>	<i>22</i>

7	PHOTOGRAPHS OF THE TEST SET-UP.....	23
8	LIST OF TABLES	24
9	LIST OF PHOTOGRAPHS	24

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

GUANGZHOU GRG METEROLOGY & TEST TECHNOLOGY CO.,LTD

163 Ping Yun Rd, West of HuangPu Ave, Guangzhou, Guangdong, P.R.China

FCC Registration No. 688188

The tests at these test sites have been conducted under the supervision of a TÜV Rheinland engineer.

Prüfbericht - Nr.: 16070926 001
Test Report No.

Seite 6 von 24
Page 6 of 24

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Maximum peak output power/ Bandwidth /100kHz bandwidth of frequency band edge/ Spurious Emissions at Antenna Port/ Restricted Bands/ Power Spectral Density				
Spectrum analyzer	R&S	FSV30	103246	2016-03-09
Conducted Emissions				
EMI Receiver	R&S	ESCI	100529	2016-03-24
L.I.S.N	SCHWARZBECK	NSLK 8127	8127450	2016-07-20
Radiated Spurious Emissions				
Receiver	R&S	ESU26	100526	2016-03-08
Loop antenna	R&S	HFH2-Z2	881058/58	2016-04-17
Biconical Log-periodic Antenna	ETS.LINDGREN	3142C	00075971	2016-04-17
Horn antenna	SCHWARZBECK	BBHA9120D	D752	2017-03-03
Horn antenna	SCHWARZBECK	BBHA9170	411	2016-12-21
Per-Amplifier	Amideon	9742	332	2016-09-14
Per-Amplifier	Compliance Directions systems Inc.	PAP-0126	25002	2016-01-03

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, 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.

2.5 Measurement Uncertainty

Parameter	Uncertainty
Uncertainty for Conduction emission test	2.40dB
Uncertainty for spurious emissions test (30MHz-1GHz)	4.40 dB
Uncertainty for spurious emissions test (1GHz to 18GHz)	4.40 dB
Uncertainty for radio frequency	6.4×10 ⁻⁹
Uncertainty for conducted RF Power	0.50dB
Uncertainty for radio frequency	± 0.2 °C

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 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 TÜV Rheinland (Guangdong) file for certification follow-up purposes.

2.7 Status of facility used for testing

GUANGZHOU GRG METEROLOGY & TEST TECHNOLOGY CO.,LTD
163 Ping Yun Rd, West of HuangPu Ave, Guangzhou, Guangdong, P.R.China
FCC Registration No. 688188

3 General Product Information

3.1 Product Function and Intended Use

The tested sample is a "Video Transmitter" with model number as shown in the cover page of test report for new approval.

The test sample has RGB connector at the front part of the mainbody and it can transmit video information when it's connected to PC. The AC-DC Adaptor, F5V-1C-1U, was supplied by test lab for testing only and is not sold together with the EUT.

Port Included:

Micro USB Port (connect to the external power only),
LAN Connector (It is for maintenance)

For more details refer to the Technical Documentation or User manual.

3.2 Ratings and System Details

Table 2: Rating of EUT

Kind of Equipment	Wireless Video Transmitter
Type Designation	VT-200RGB
FCC ID	YIJVT200RGB

Table 3: Technical Specification of 2.4GHz WIFI

Technical Specification	Value
Operating Frequency band	2412 – 2462 MHz
WIFI Version	802.11n(HT20)
Channel separation	5MHz
Extreme Temperature Range	0°C to +35°C
Operation Voltage	DC5V
Modulation	64QAM,16QAM,QPSK,BPSK,DBPSK,DQPSK
Antenna Type	Internal Antenna, Non-User Replaceable
Antenna Gain	-1.55 dBi
RF Output Power	0.11967W (20.78 dBm)

Table 4: RF channel and frequency of Wi-Fi

RF Channel	Frequency (MHz)
1	2412.00
2	2417.00
3	2422.00
4	2427.00
5	2432.00
6	2437.00
7	2442.00
8	2447.00
9	2452.00
10	2457.00
11	2462.00

3.3 Independent Operation Modes

The basic operation modes are:

A. WIFI on

1. Transmitting on low channel
2. Transmitting on middle channel
3. Transmitting on high channel

B. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

1. Block Diagram
2. Circuit Diagram
3. Operation Description
4. PCB Layout
5. BOM
6. FCC label and location
7. User Manual
8. Internal Photos
9. External Photos
10. Application form

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level.
The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5.
All testing were performed according to the procedures in ANSI C63.10: 2013.

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.

5 Test Results

5.1 Test set-up

Diagram of Measurement Configuration for Radiation Test

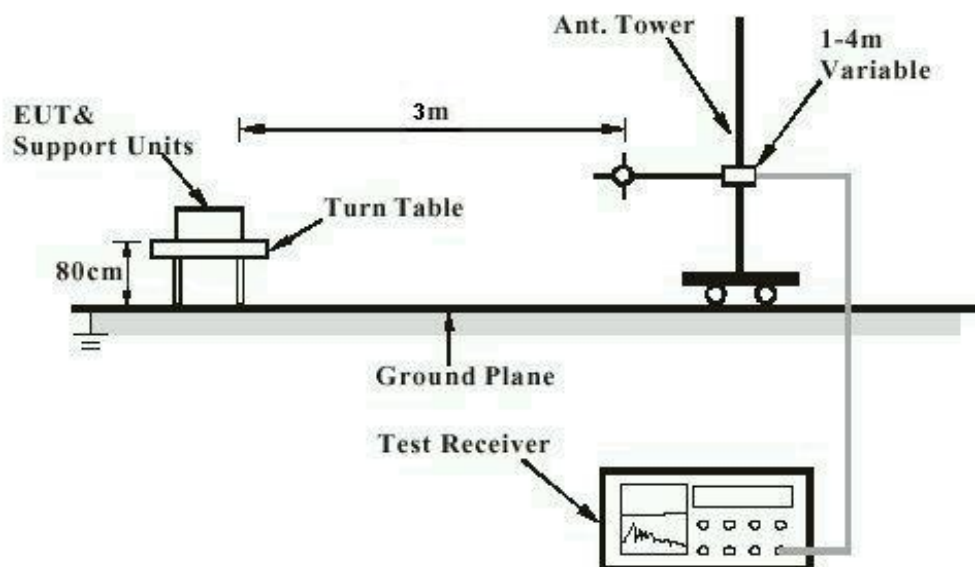


Diagram of Measurement Configuration for Mains Conduction Measurement

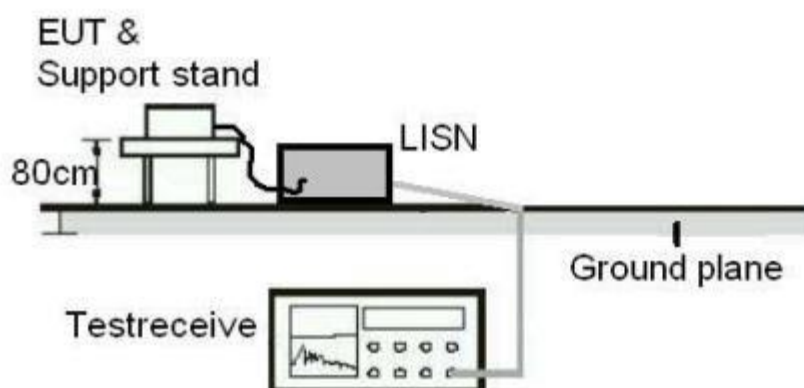
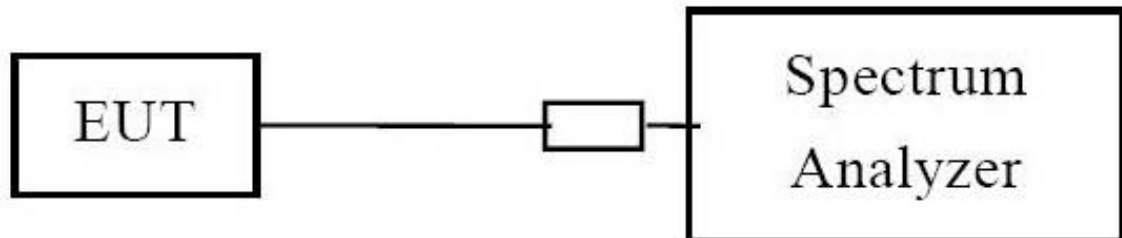


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5.2 Transmitter Requirement & Test Suites

5.2.1 Antenna Requirement

RESULT:

Passed

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203
Limits : the use of antennas with directional gains that
do not exceed 6 dBi

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is -1.55 dBi.

Therefore the EUT is considered sufficient to comply with the provision.

For more details, refer to EUT photo.

5.2.2 Peak Output Power

RESULT:

Passed

Test Specification

Test standard	: FCC Part 15.247(b)(1) & (b)(3)
Basic standard	: ANSI C63.10: 2013
Limits	: 1 Watt
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 10 Nov, 2015
Power supply	: DC 5V
Operation mode	: A (See 3.3)
Test channel	: Low / Middle / High
Ambient temperature	: 23.9 °C
Relative Humidity	: 57 %
Atmospheric pressure	: 101 kPa

Prüfbericht - Nr.: 16070926 001
Test Report No.

Seite 16 von 24
Page 16 of 24

Table 5: Test result of Peak Output Power

Channel	Channel Frequency (MHz)	Peak Output Power		Limit
		(dBm)	(W)	(W)
Low Channel	2412	20.39	0.10940	< 1.0
Middle Channel	2437	20.78	0.11967	< 1.0
High Channel	2462	20.48	0.11169	< 1.0

5.2.3 Conducted Power Spectral Density

RESULT:

Passed

Test Specification

Test standard : FCC Part 15.247(e)
Basic standard : ANSI C63.10: 2013
Limits : 8 dBm/3kHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 10 Nov, 2015
Power supply : DC 5V
Operation mode : A (See 3.3)
Test channel : Low / Middle / High
Ambient temperature : 23.9 °C
Relative Humidity : 57 %
Atmospheric pressure : 101 kPa

Table 6: Test result of Power Spectral Density

Channel	Channel Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
Low Channel	2412	-12.37	< 8
Middle Channel	2437	-11.57	< 8
High Channel	2462	-11.95	< 8

5.2.4 6dB Bandwidth

RESULT:

Passed

Test Specification

Test standard : FCC Part 15.247(a)(2)
Basic standard : ANSI C63.10: 2013
Limits : More than 500 KHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 10 Nov, 2015
Power supply : DC 5V
Operation mode : A (See 3.3)
Test channel : Low / Middle / High
Ambient temperature : 23.9 °C
Relative Humidity : 57 %
Atmospheric pressure : 101 kPa

Table 7: Test result of 6dB of 802.11n (20M)

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
Low Channel	2412	17.66	> 500	Pass
Mid Channel	2437	17.66	> 500	Pass
High Channel	2462	17.66	> 500	Pass

5.2.5 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Passed

Test Specification

Test standard : FCC Part 15.247(d)
Basic standard : ANSI C63.10: 2013
Limits : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);

In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)

Kind of test site : Shielded Room

Test Setup

Date of testing : 10 Nov, 2015
Power supply : DC 5V
Operation mode : A (See 3.3)
Test channel : Low / Middle / High
Ambient temperature : 23.9 °C
Relative Humidity : 57 %
Atmospheric pressure : 101 kPa

All emissions are more than 20dB below fundamental, compliance is achieved as well.

For the measurement records, refer to the appendix 1.

5.2.6 Spurious Emission

RESULT:

Passed

Test Specification

Test standard	: FCC Part 15.247(d), FCC Part 15.205
Basic standard	: ANSI C63.4: 2014
Limits	: Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	: 3m Semi-anechoic chamber

Test Setup

Date of testing	: Refer to the appendix 1.
Power supply	: DC 5V
Operation mode	: A (See 3.3)
Test channel	: Low / Middle / High
Ambient temperature	: Refer to the appendix 1.
Relative Humidity	: Refer to the appendix 1.
Atmospheric pressure	: Refer to the appendix 1.

Remark:

During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test setup photos.

Testing was carried out within frequency range 9kHz to the tenth harmonics.

For the measurement records, refer to the appendix 1.

5.2.7 Conducted Emissions

RESULT:

Passed

Test Specification

Test standard	:	FCC part 15.207
Basic standard	:	ANSI C63.10: 2013
Frequency range	:	0.15 – 30MHz
Limits	:	FCC Part 15.207(a)
Kind of test site	:	Shielded Room

Test setup

Input Voltage	:	DC 5V(with adapter, AC 120V, 60Hz)
Operation Mode	:	A (See 3.3)
Earthing	:	Not Connected
Ambient temperature	:	23.5°C
Relative humidity	:	54%
Atmospheric pressure	:	101kPa

For details refer to test plot in Appendix 1.

6 Safety Human exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:

Passed

Test Specification

Test standard

: FCC Part 2 section 2.1091
 : KDB Publication 447498 D01r06
 : KDB Publication 447498 D03r01
 :

MPE Calculation Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

E=Electric Field (V/m)

P=Peak RF output Power (W)

G=EUT Antenna numeric gain (numeric)

d= Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = (30 \cdot P \cdot G) / (377 \cdot d^2)$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

Frequency (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2412	-1.55	20.39	109.396	0.01523	1	Complies
2437	-1.55	20.78	119.674	0.01666	1	Complies
2462	-1.55	20.48	111.686	0.01555	1	Complies

7 Photographs of the Test Set-Up

Photograph 1: Set-up for Spurious Emissions (9kHz - 30MHz)

Refer to set-up photo documents for details.

Photograph 2: Set-up for Spurious Emissions (30MHz-1GHz)

Refer to set-up photo documents for details.

Photograph 3: Set-up for Spurious Emissions (above 1GHz)

Refer to set-up photo documents for details.

Photograph 4: Set-up for Conducted Emissions

Refer to set-up photo documents for details.

8 List of Tables

Table 1: List of Test and Measurement Equipment	6
Table 2: Rating of EUT	8
Table 3: Technical Specification of 2.4GHz WIFI	9
Table 4: RF channel and frequency of Wi-Fi	9
Table 5: Test result of Peak Output Power	16
Table 6: Test result of Power Spectral Density	17
Table 7: Test result of 6dB of 802.11n (20M)	18

9 List of Photographs

Photograph 1: Set-up for Spurious Emissions (9kHz - 30MHz)	23
Photograph 2: Set-up for Spurious Emissions (30MHz-1GHz)	23
Photograph 3: Set-up for Spurious Emissions (above 1GHz)	23
Photograph 4: Set-up for Conducted Emissions	23

Prüfbericht - Nr.:

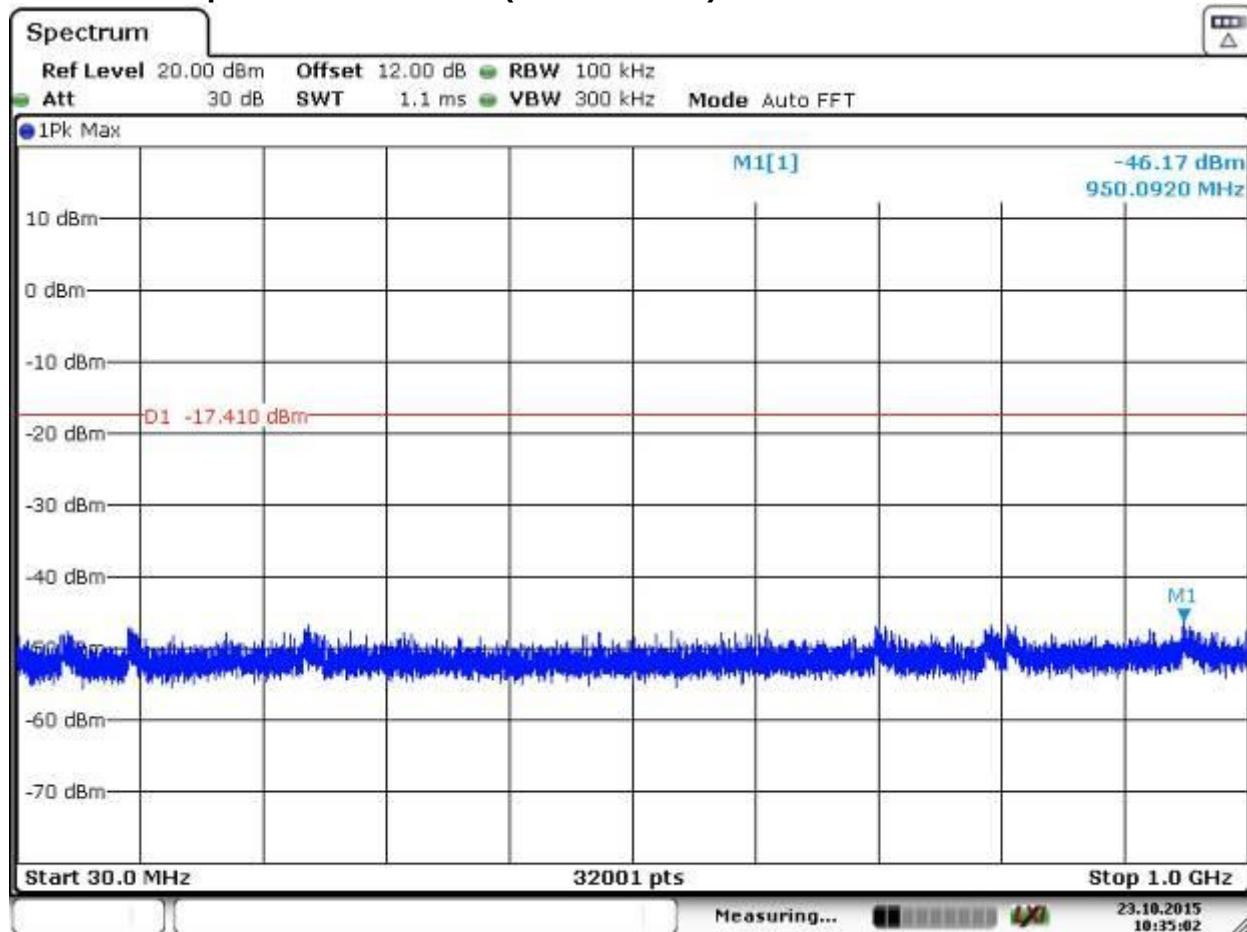
16070926 001

Test Report No.

Seite 1 von 27

Page 1 of 27

Conducted Spurious Emissions (30MHz-1GHz) Low Channel



Date: 23.OCT.2015 10:35:03

Prüfbericht - Nr.:

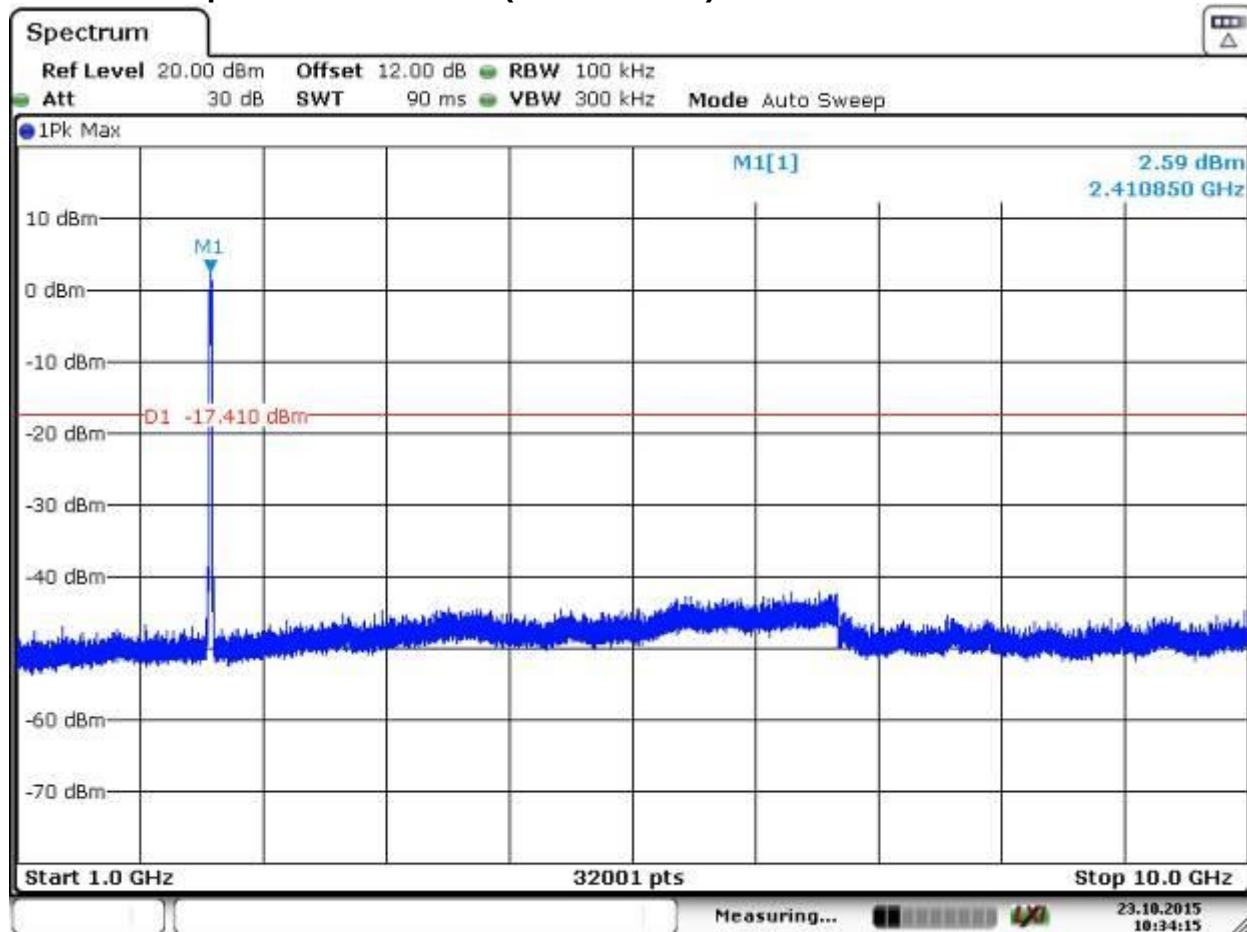
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Test Report No.

Seite 2 von 27

Page 2 of 27

Conducted Spurious Emissions (1GHz-10GHz) Low Channel



Date: 23.OCT.2015 10:34:15

Prüfbericht - Nr.:

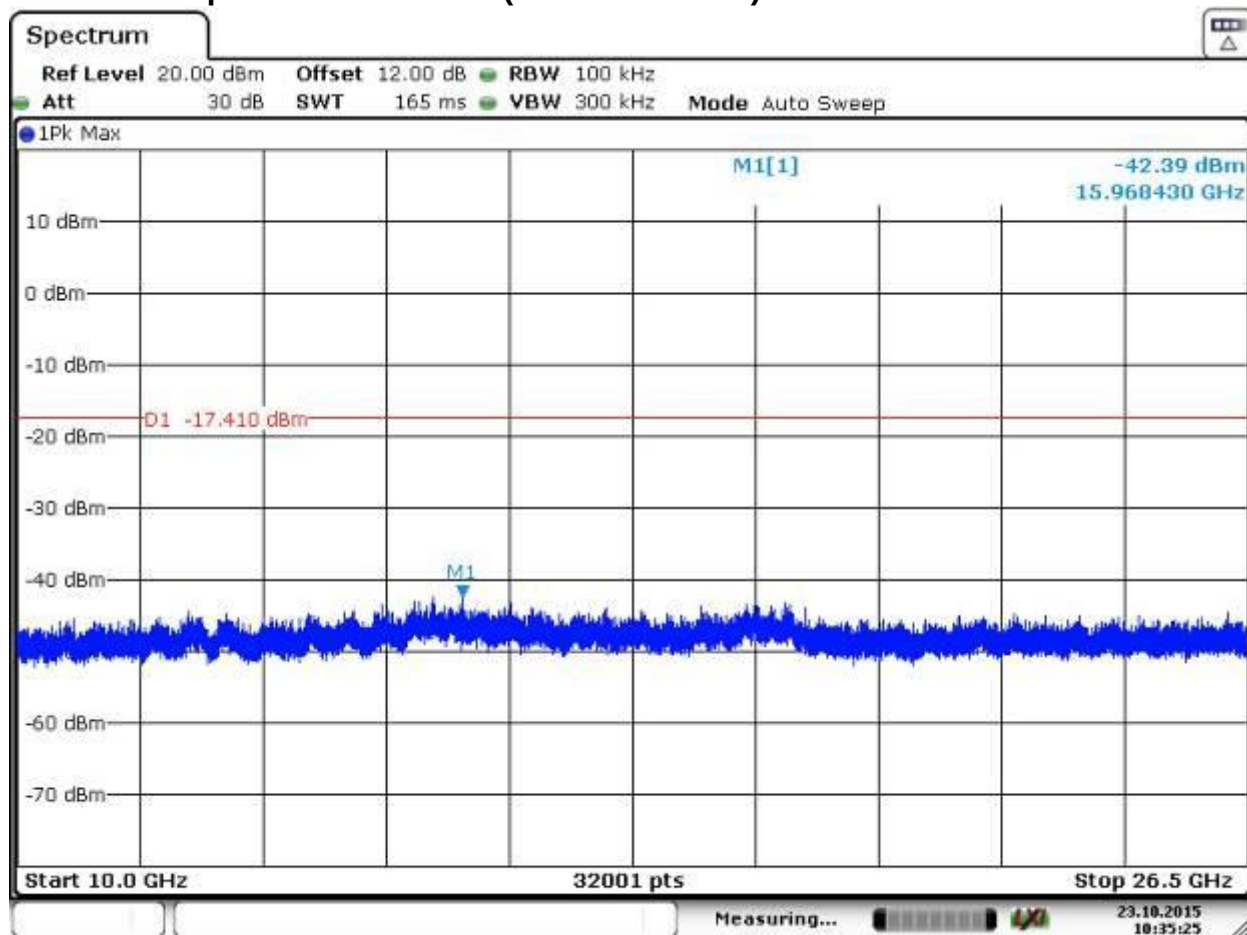
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Test Report No.

Seite 3 von 27

Page 3 of 27

Conducted Spurious Emissions (10GHz-26.5GHz) Low Channel



Date: 23.OCT.2015 10:35:25

Prüfbericht - Nr.:

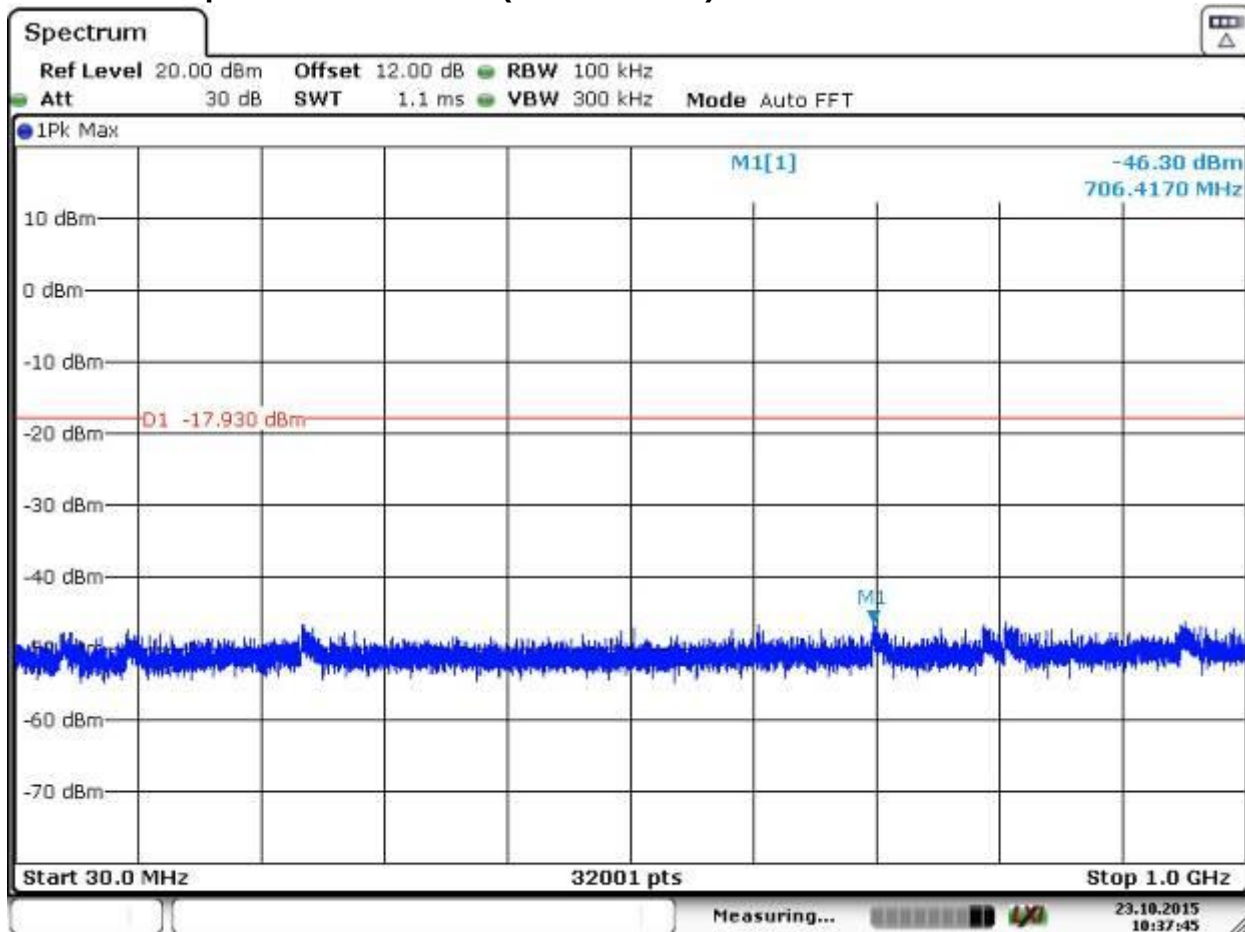
16070926 001

Test Report No.

Seite 4 von 27

Page 4 of 27

Conducted Spurious Emissions (30MHz-1GHz) Middle Channel



Date: 23.OCT.2015 10:37:46

Prüfbericht - Nr.:

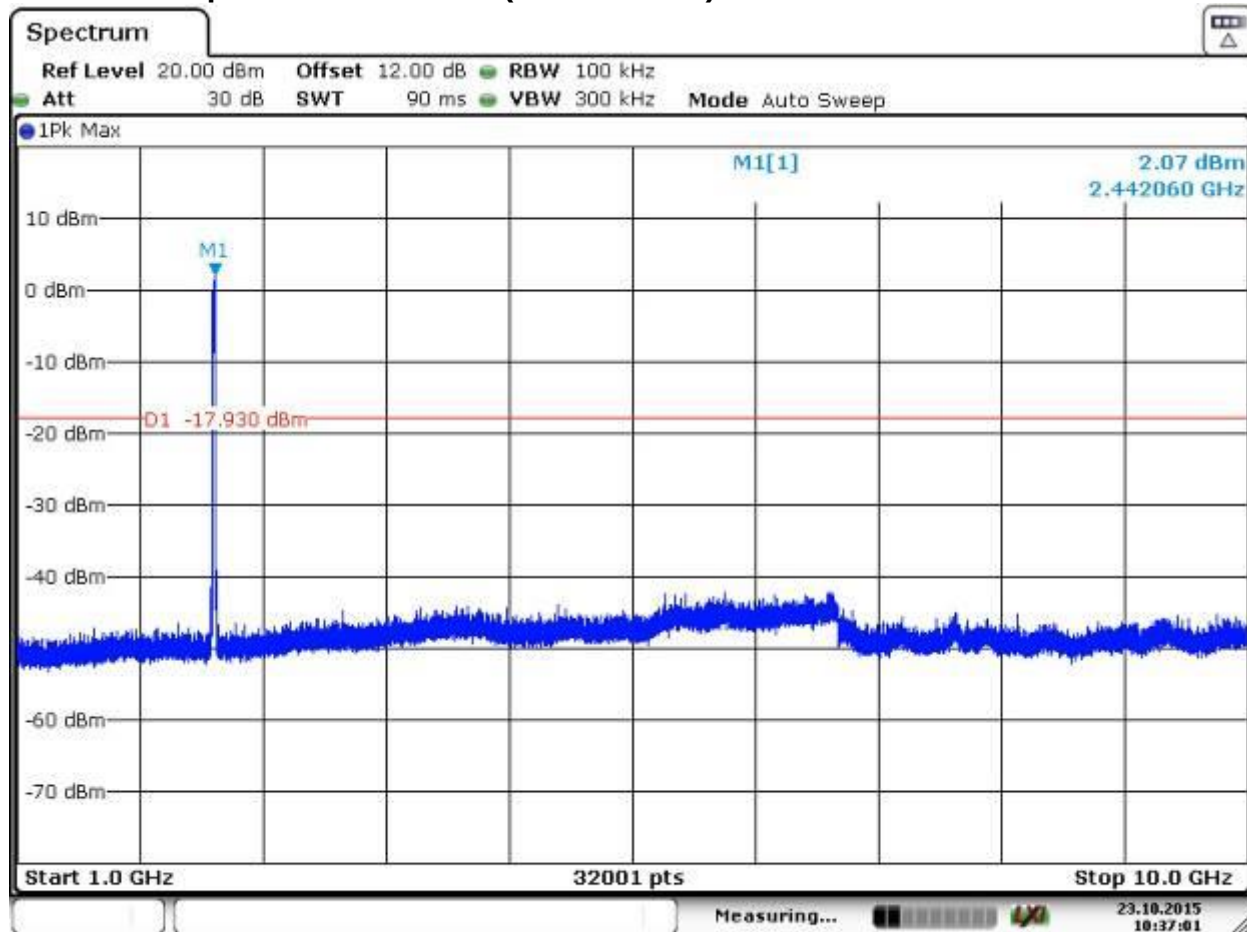
16070926 001

Test Report No.

Seite 5 von 27

Page 5 of 27

Conducted Spurious Emissions (1GHz-10GHz) Middle Channel



Date: 23.OCT.2015 10:37:01

Prüfbericht - Nr.:

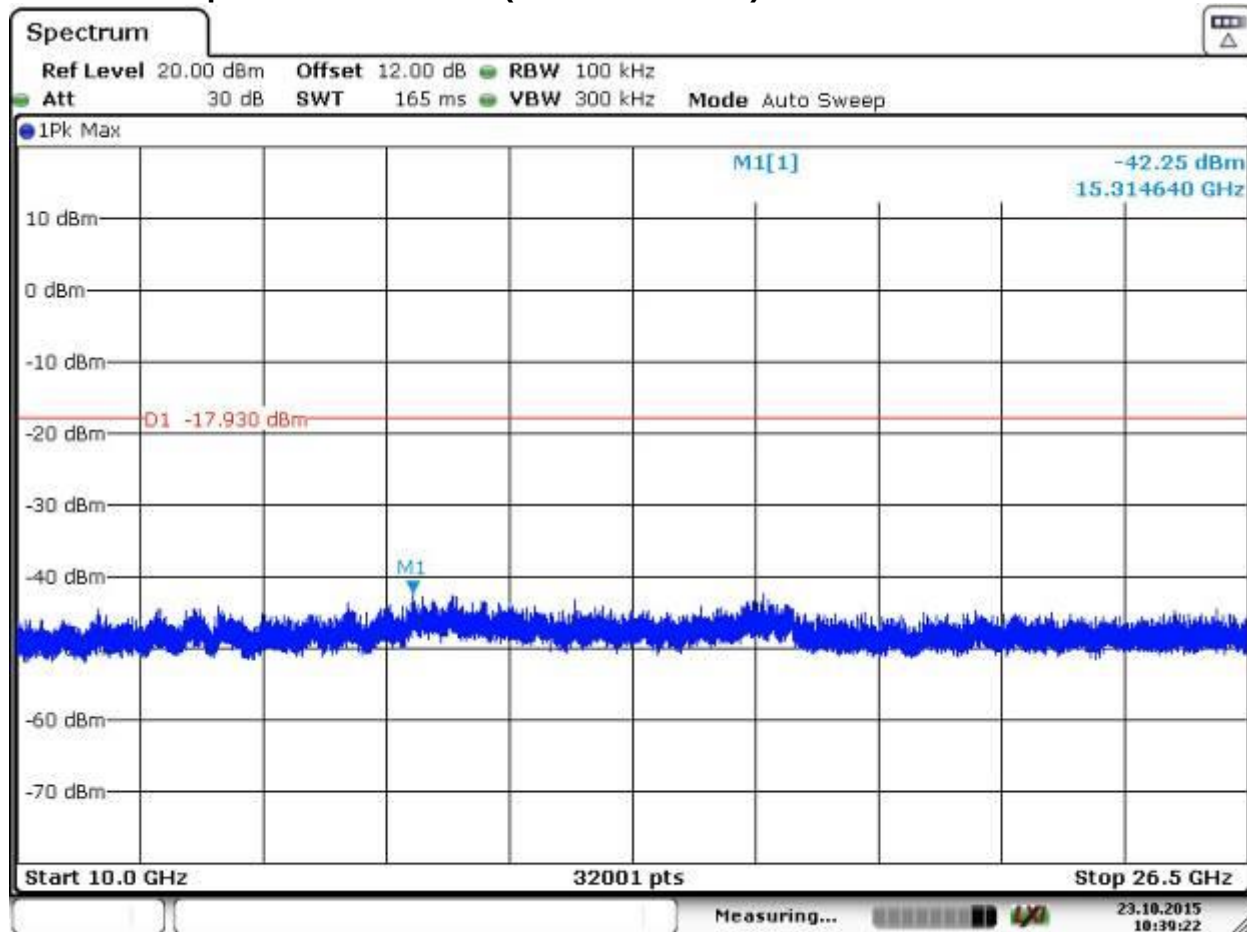
16070926 001

Test Report No.

Seite 6 von 27

Page 6 of 27

Conducted Spurious Emissions (10GHz-26.5GHz) Middle Channel



Date: 23.OCT.2015 10:39:21

Prüfbericht - Nr.:

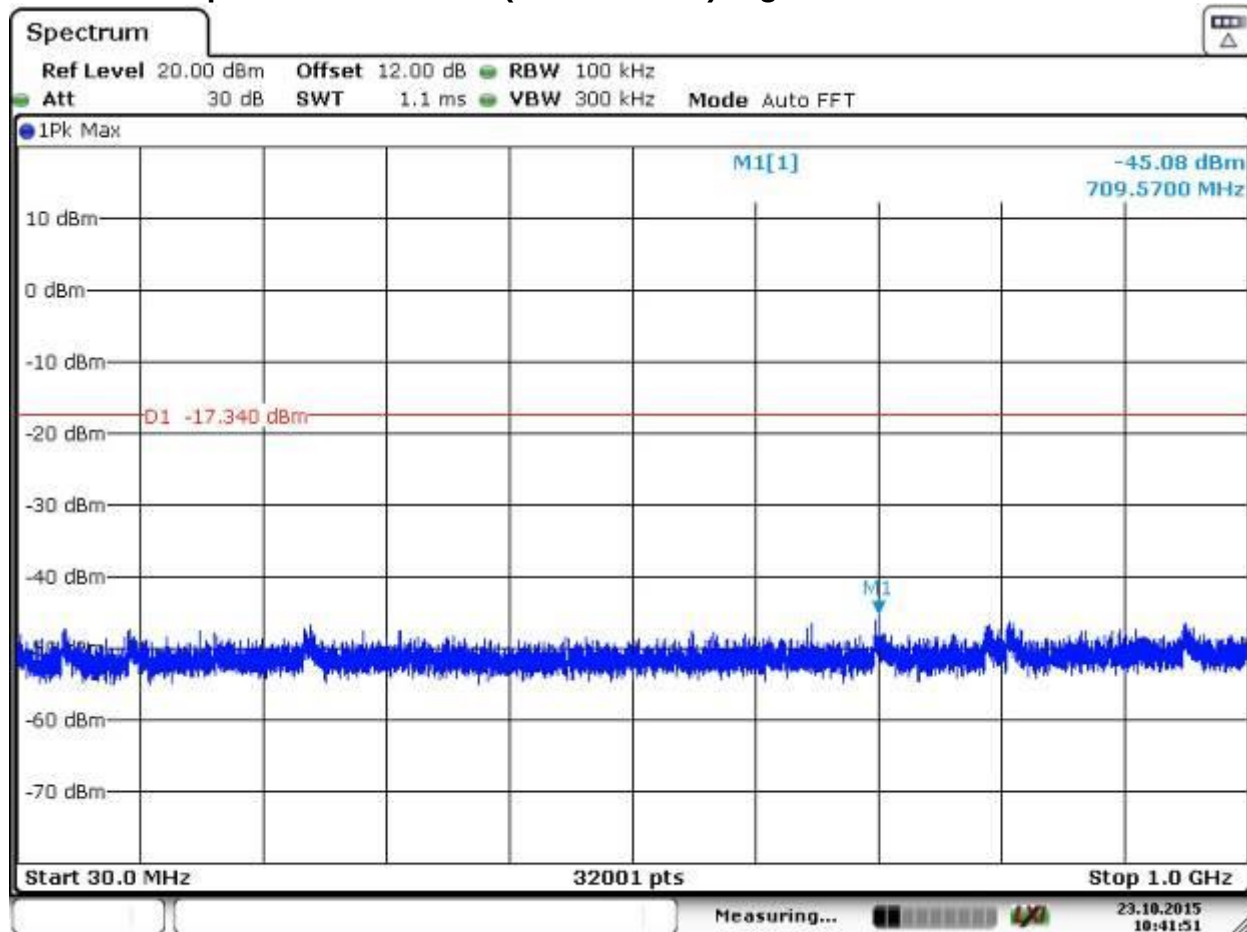
16070926 001

Test Report No.

Seite 7 von 27

Page 7 of 27

Conducted Spurious Emissions (30MHz-1GHz) High Channel



Date: 23.OCT.2015 10:41:51

Prüfbericht - Nr.:

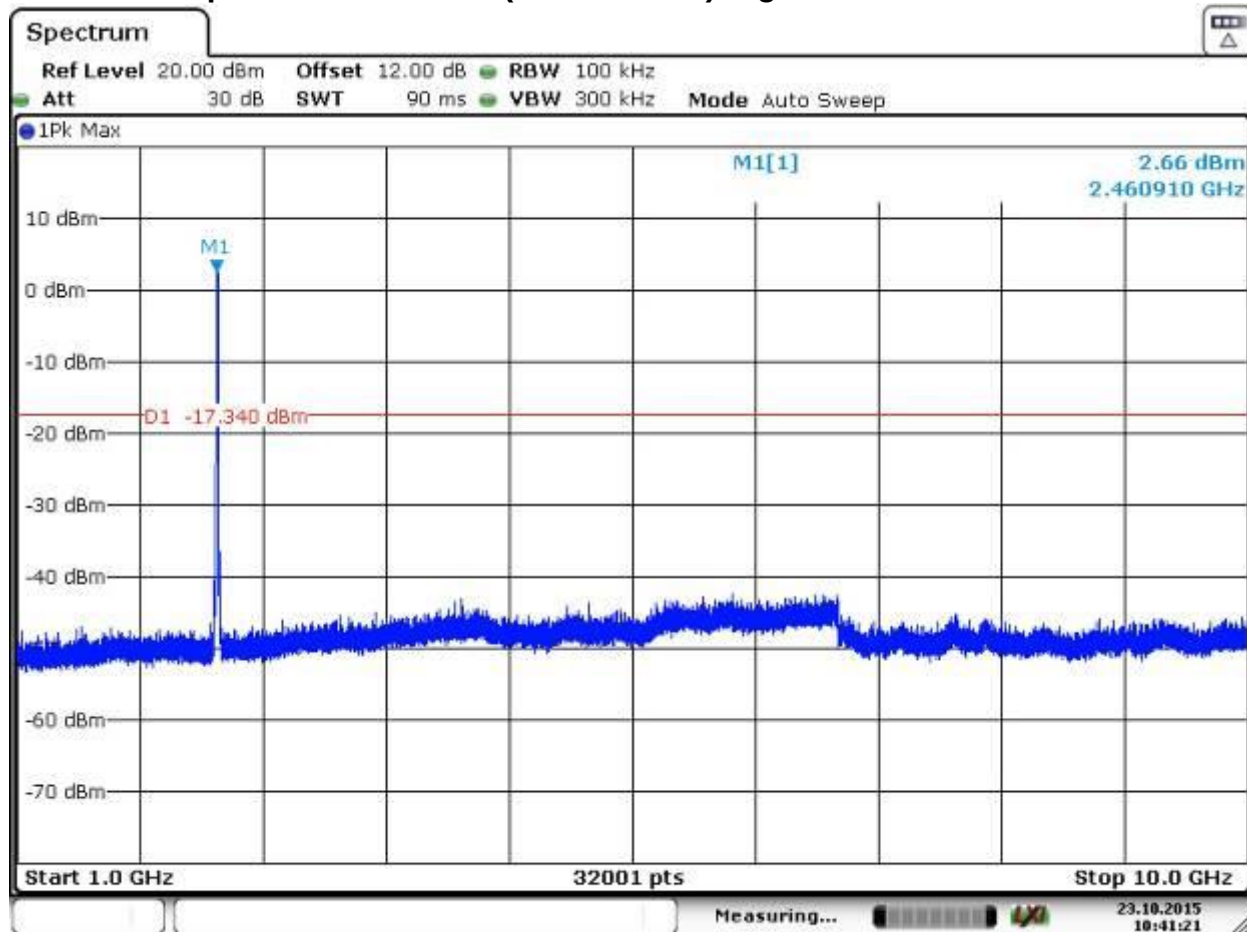
16070926 001

Test Report No.

Seite 8 von 27

Page 8 of 27

Conducted Spurious Emissions (1GHz-10GHz) High Channel



Date: 23.OCT.2015 10:41:22

Prüfbericht - Nr.:

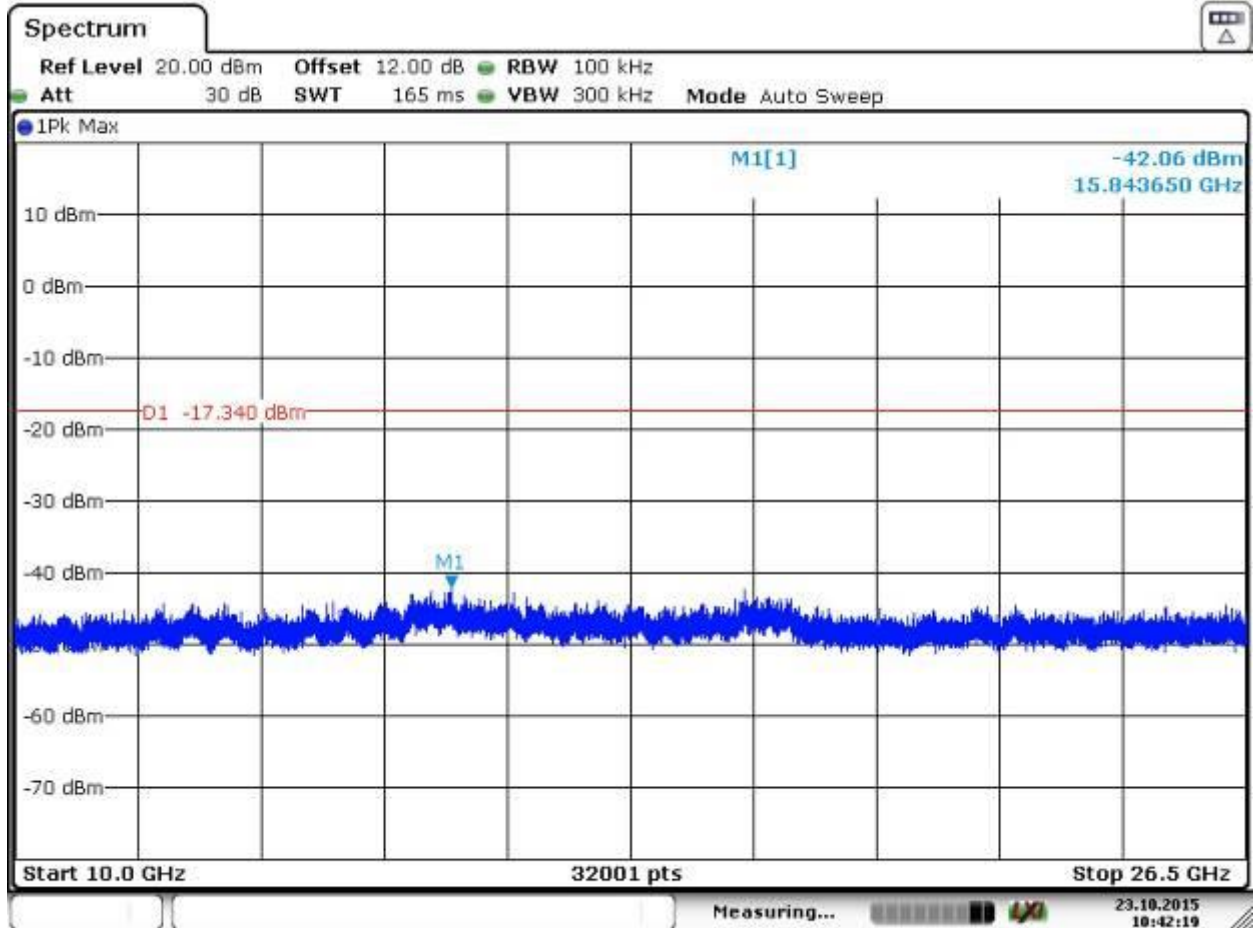
16070926 001

Test Report No.

Seite 9 von 27

Page 9 of 27

Conducted Spurious Emissions (10GHz-26.5GHz) High Channel



Date: 23.OCT.2015 10:42:20

Prüfbericht - Nr.:

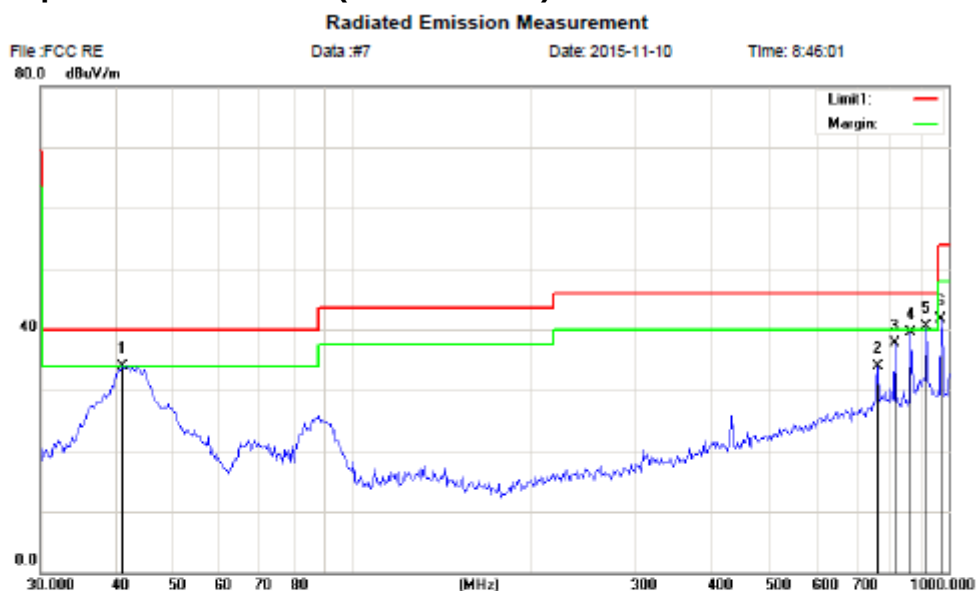
16070926 001

Test Report No.

Seite 10 von 27

Page 10 of 27

Radiated Spurious Emissions (30MHz-1GHz)



Site: Chamber #1

Polarization: **Vertical**

Temperature: 23.9

Limit: (RE)FCC PART 15 class B 3m

Power: DC 5V

Humidity: 57 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2437

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		41.0951	20.05	13.90	33.95	40.00	-6.05	peak		
2		759.3027	10.59	23.23	33.82	46.00	-12.18	peak		
3		812.2713	13.59	24.10	37.69	46.00	-8.31	peak		
4		864.0656	15.70	23.84	39.54	46.00	-6.46	peak		
5	*	919.1626	13.60	27.00	40.60	46.00	-5.40	QP		
6		972.2936	16.93	24.78	41.71	54.00	-12.29	peak		

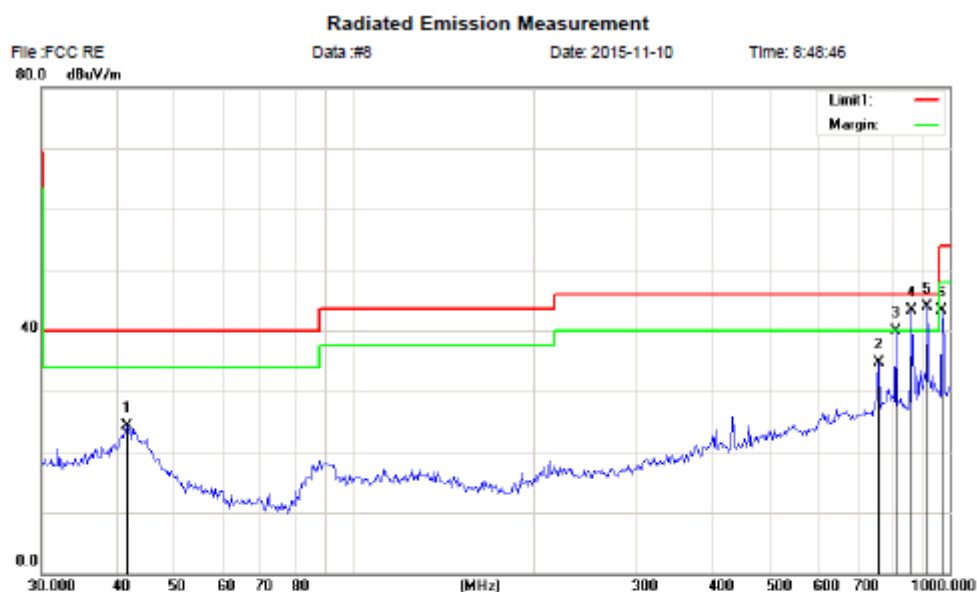
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 11 von 27

Page 11 of 27



Site: Chamber #1

Polarization: *Horizontal*

Temperature: 23.9

Limit: (RE)FCC PART 15 class B 3m

Power: DC 5V

Humidity: 57 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2437

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		41.7938	10.42	13.85	24.27	40.00	-15.73	peak		
2		759.3027	11.40	23.23	34.63	48.00	-11.37	peak		
3		812.2713	15.88	24.10	39.98	48.00	-8.02	peak		
4	!	864.0656	19.46	23.84	43.30	48.00	-2.70	QP		
5	*	919.1626	16.90	27.00	43.90	48.00	-2.10	QP		
6		972.2936	18.46	24.78	43.24	54.00	-10.76	peak		

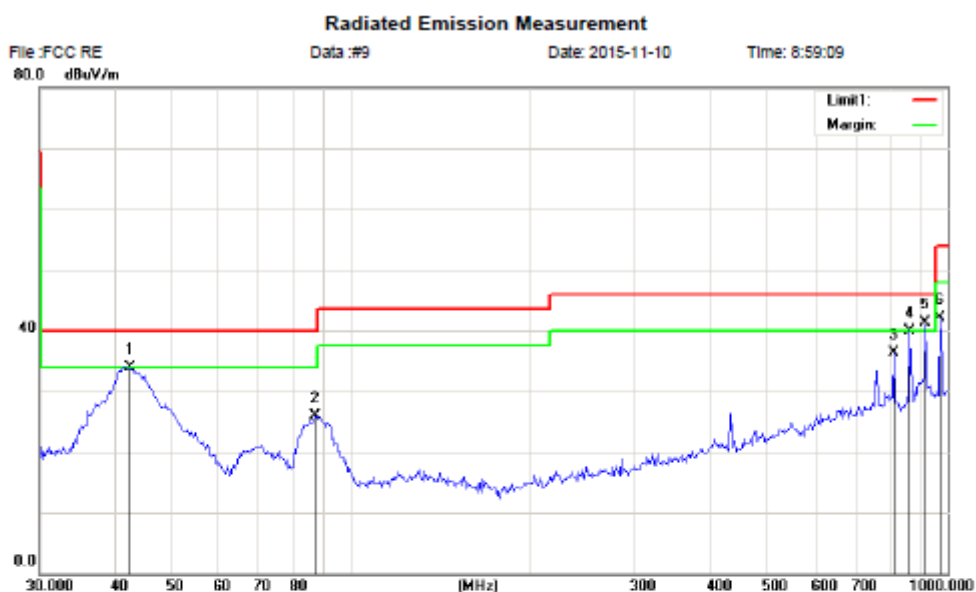
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 12 von 27

Page 12 of 27



Site Chamber #1

Polarization: Vertical

Temperature: 23.9

Limit: (RE)FCC PART 15 class B 3m

Power: DC 5V

Humidity: 57 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n40 2437

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dBm	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		42.5042	20.09	13.76	33.85	40.00	-6.15	peak		
2		86.7716	17.79	8.17	25.96	40.00	-14.04	peak		
3		812.2712	12.21	24.10	36.31	46.00	-9.69	peak		
4		864.0656	15.99	23.84	39.83	46.00	-6.17	peak		
5	*	919.1625	14.40	27.00	41.40	46.00	-4.60	QP		
6		972.2935	17.33	24.78	42.11	54.00	-11.89	peak		

Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 13 von 27

Page 13 of 27

Radiated Spurious Emissions (1GHz -18GHz)

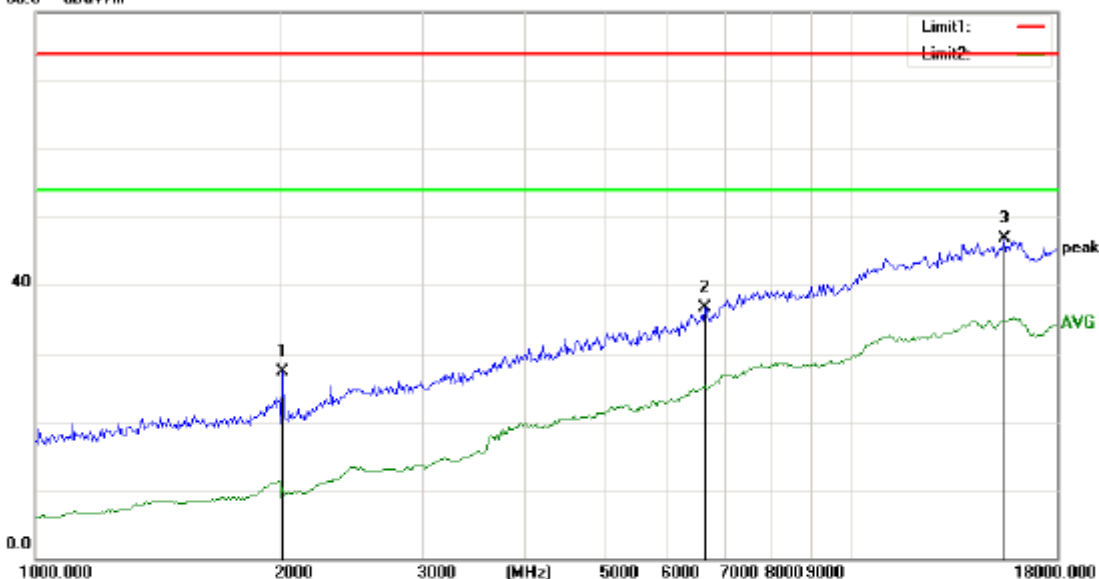
Radiated Emission Measurement

File :FCC RSE
80.0 dBuV/m

Data :#77

Date: 2015-11-5

Time: 20:15:24



Site Chamber #1

Polarization: *Vertical*

Temperature: 22.4

Limit: (RE)FCC PART 15 class B 3m_PEAK

Power: DC 5V

Humidity: 59 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2412

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		2012.611	27.49	-0.26	27.23	74.00	-46.77	peak		
2		6649.159	25.02	11.72	36.74	74.00	-37.26	peak		
3	*	15520.28	26.56	20.42	46.98	74.00	-27.02	peak		

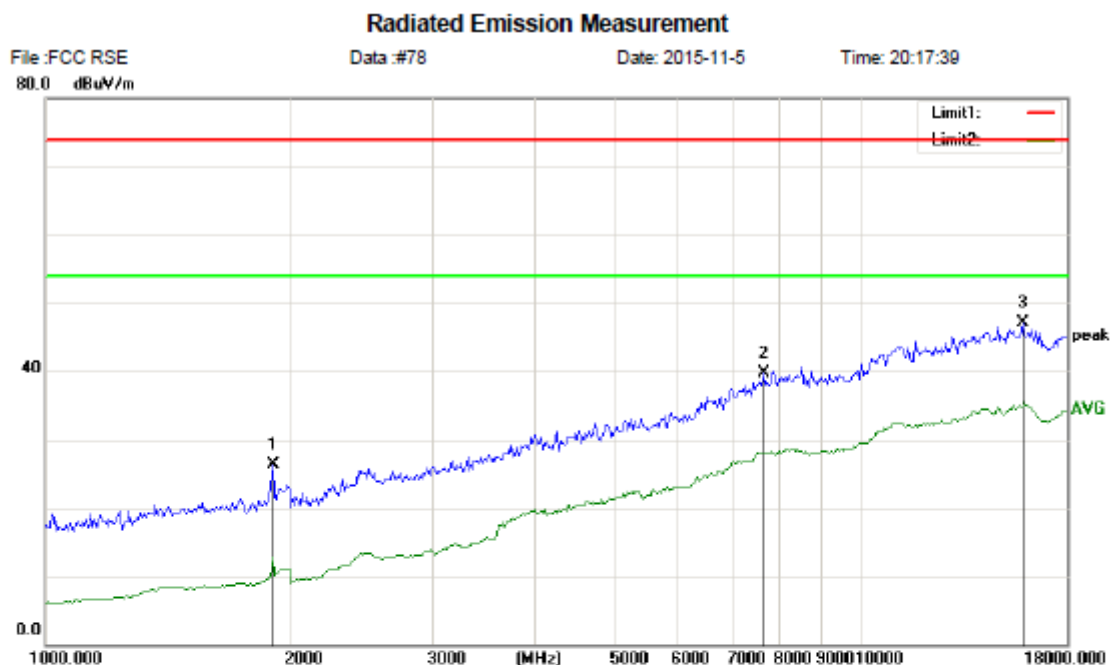
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 14 von 27

Page 14 of 27



Site Chamber #1

Polarization: *Horizontal*

Temperature: 22.4

Limit: (RE)FCC PART 15 class B 3m_PEAK

Power: DC 5V

Humidity: 59 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2412

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		1903.794	27.05	-0.77	26.28	74.00	-47.72	peak			
2		7640.405	25.55	14.21	39.76	74.00	-34.24	peak			
3	*	15883.92	25.75	21.41	47.16	74.00	-26.84	peak			

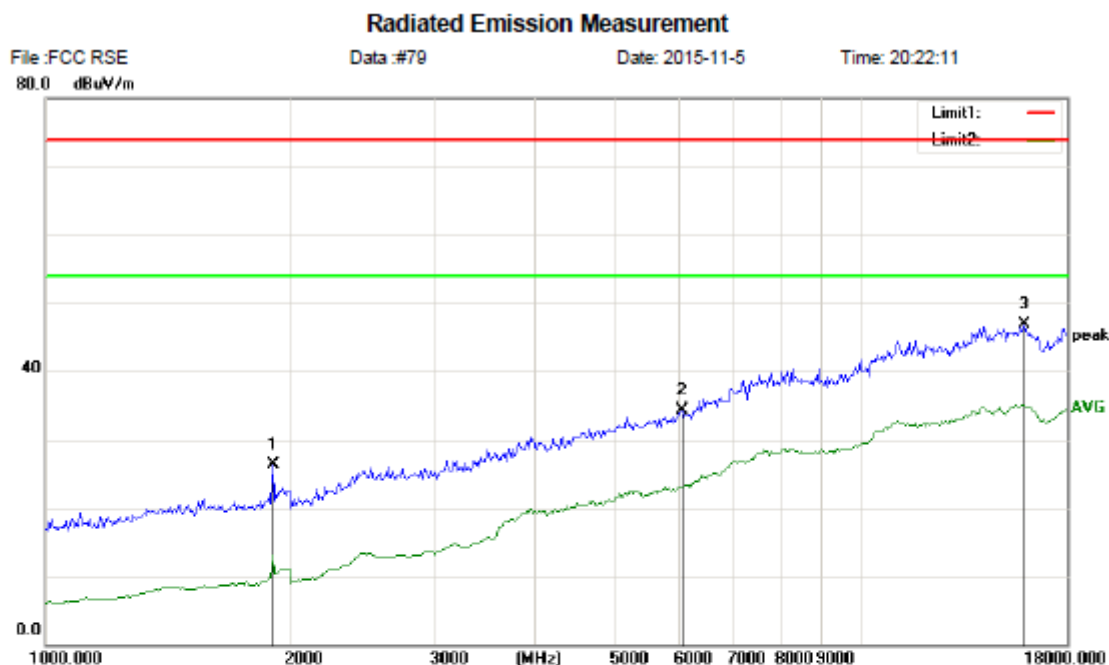
Prüfbericht - Nr.:

16070926 001

Seite 15 von 27

Test Report No.

Page 15 of 27



Site: Chamber #1

Polarization: **Vertical**

Temperature: 22.4

Limit: (RE)FCC PART 15 class B 3m_PEAK

Power: DC 5V

Humidity: 59 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2437

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		1903.794	27.17	-0.77	26.40	74.00	-47.60	peak			
2		6060.852	24.53	9.83	34.36	74.00	-39.64	peak			
3	*	15957.67	25.26	21.61	46.87	74.00	-27.13	peak			

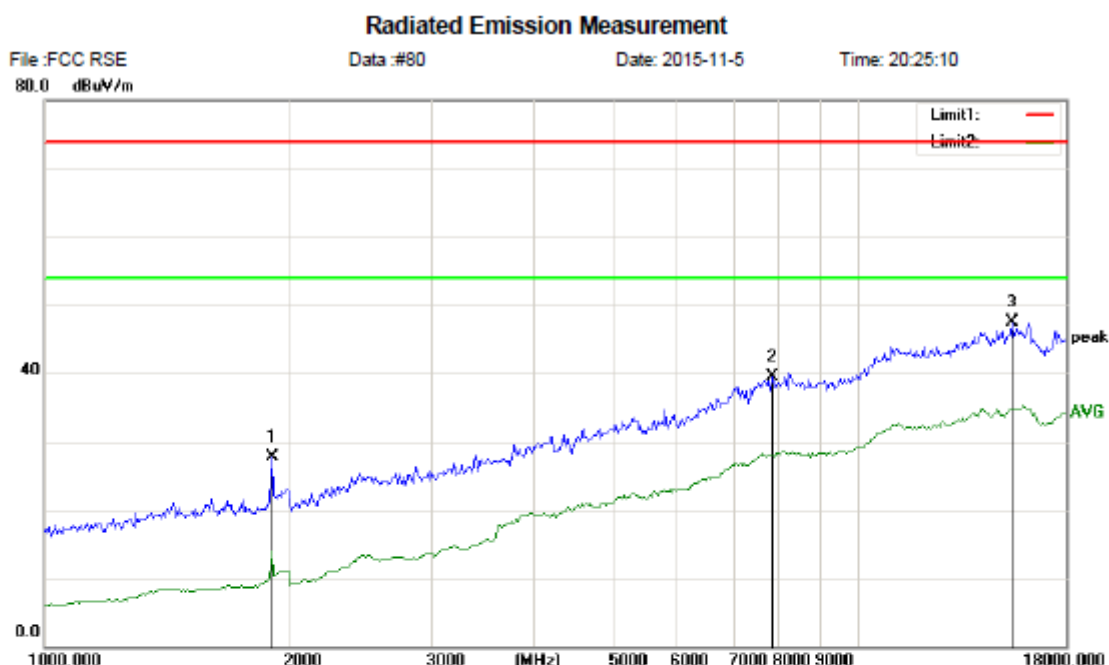
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 16 von 27

Page 16 of 27



Site Chamber #1

Limit: (RE)FCC PART 15 class B 3m_PEAK

EUT: Video Transmitter

M/N: VT-200RGB

Mode: n20 2437

Note:

Polarization: *Horizontal*

Power: DC 5V

Distance: 3m

Temperature: 22.4

Humidity: 59 %

Test Result: Pass

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1903.794	28.55	-0.77	27.78	74.00	-46.22	peak		
2		7855.726	24.78	14.67	39.45	74.00	-34.55	peak		
3	*	15448.55	27.05	20.40	47.45	74.00	-26.55	peak		

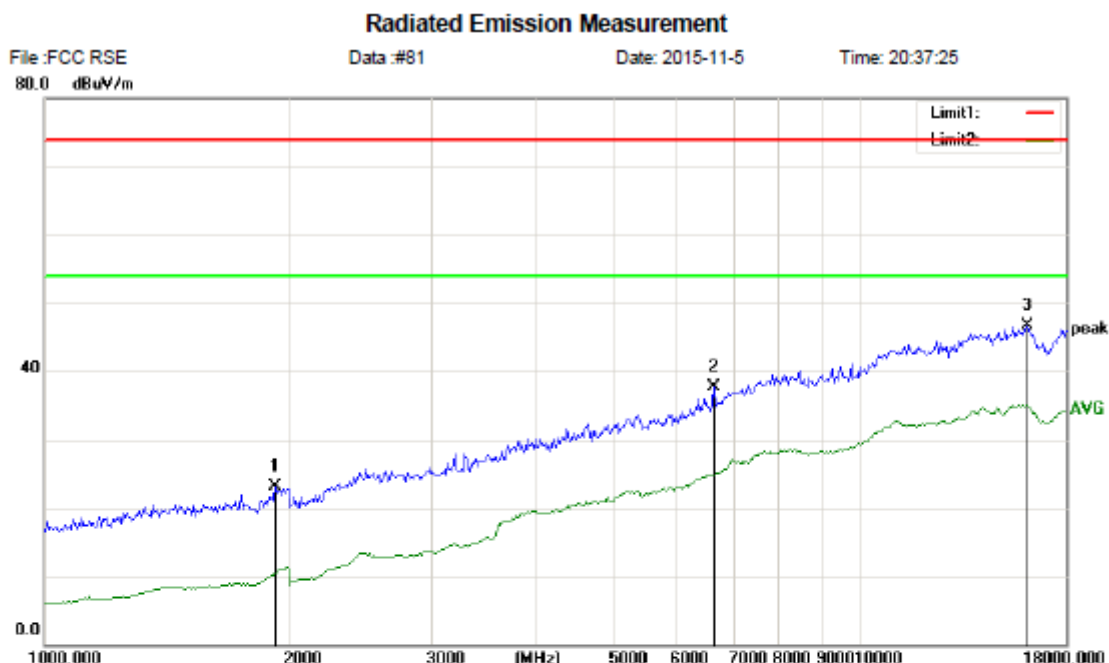
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 17 von 27

Page 17 of 27



Site: Chamber #1

Polarization: **Vertical**

Temperature: 22.4

Limit: (RE)FCC PART 15 class B 3m_PEAK

Power: DC 5V

Humidity: 59 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2462

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1		1921.513	23.78	-0.68	23.10	74.00	-50.90			peak	
2		6649.159	26.06	11.72	37.78	74.00	-36.22			peak	
3	*	16106.18	25.29	21.43	46.72	74.00	-27.28			peak	

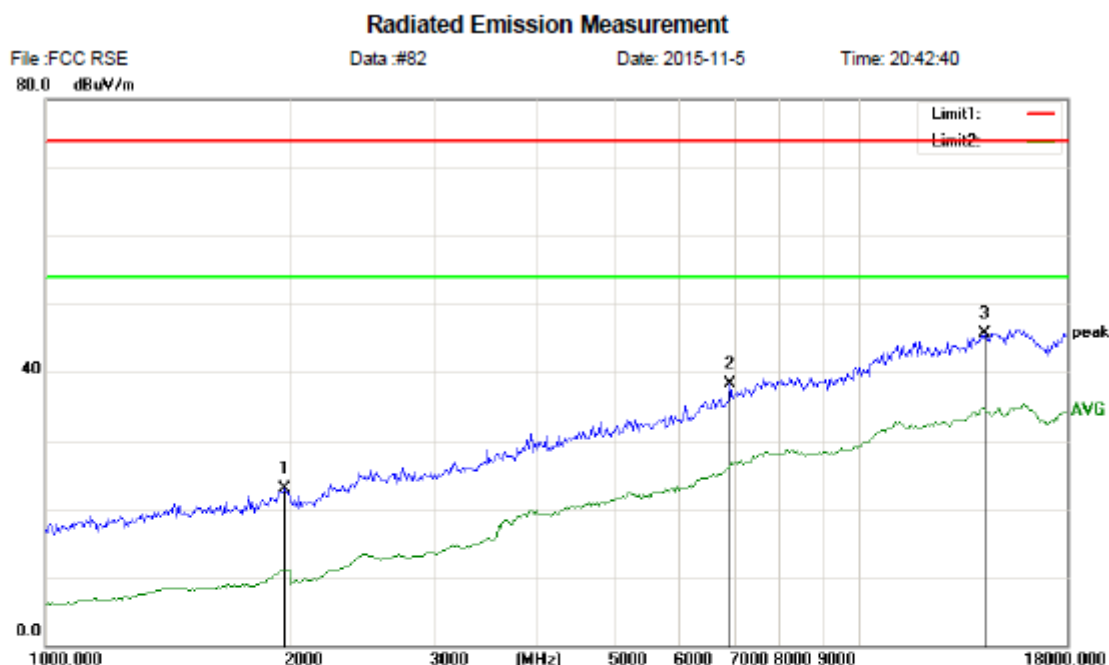
Prüfbericht - Nr.:

16070926 001

Seite 18 von 27

Test Report No.

Page 18 of 27



Site Chamber #1

Limit: (RE)FCC PART 15 class B 3m_PEAK

EUT: Video Transmitter

M/N: VT-200RGB

Mode: n20 2462

Note:

Polarization: *Horizontal*

Power: DC 5V

Distance: 3m

Temperature: 22.4

Humidity: 59 %

Test Result: Pass

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1966.534	23.32	-0.47	22.85	74.00	-51.15	peak		
2		6932.209	25.70	12.64	38.34	74.00	-35.66	peak		
3	*	14278.73	25.06	20.68	45.74	74.00	-28.26	peak		

Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 19 von 27

Page 19 of 27

Radiated Spurious Emissions (18GHz-26GHz)

Radiated Emission Measurement

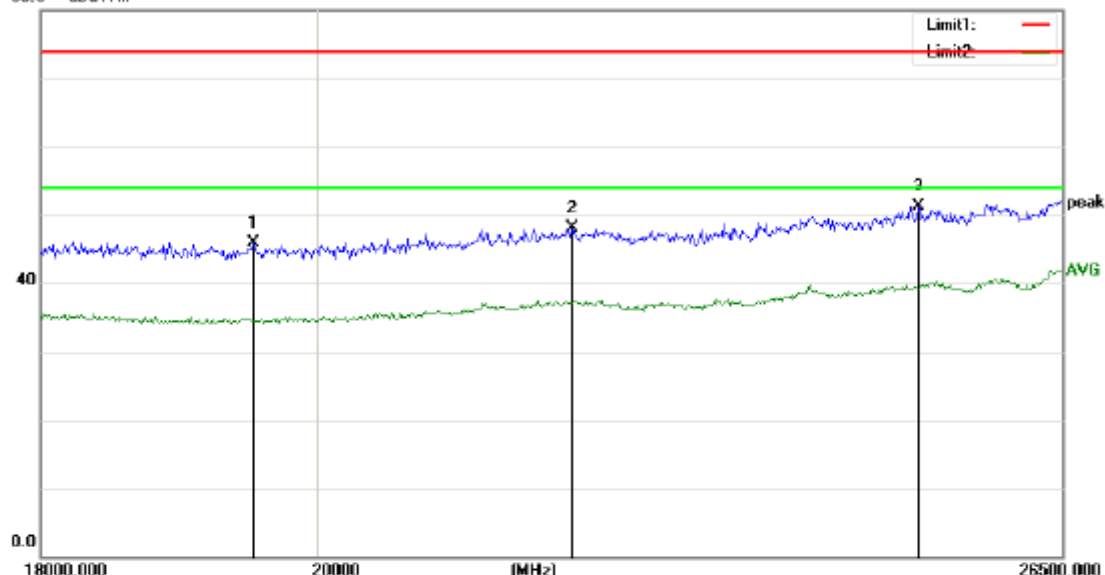
File : FCC RSE

Data : #101

Date: 2015-10-24

Time: 20:16:43

80.0 dBuV/m



Site Chamber #1

Limit: (RE)FCC PART 15 class B 3m_PEAK

EUT: Video Transmitter

M/N: VT-200RGB

Mode: n20 2412

Note:

Polarization: *Vertical*

Power: DC 5V

Distance: 3m

Temperature: 22.4

Humidity: 59 %

Test Result: Pass

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		19510.43	26.04	19.80	45.84	74.00	-28.16	peak		
2		22017.02	26.95	21.11	48.06	74.00	-25.94	peak		
3	*	25093.27	28.23	23.08	51.31	74.00	-22.69	peak		

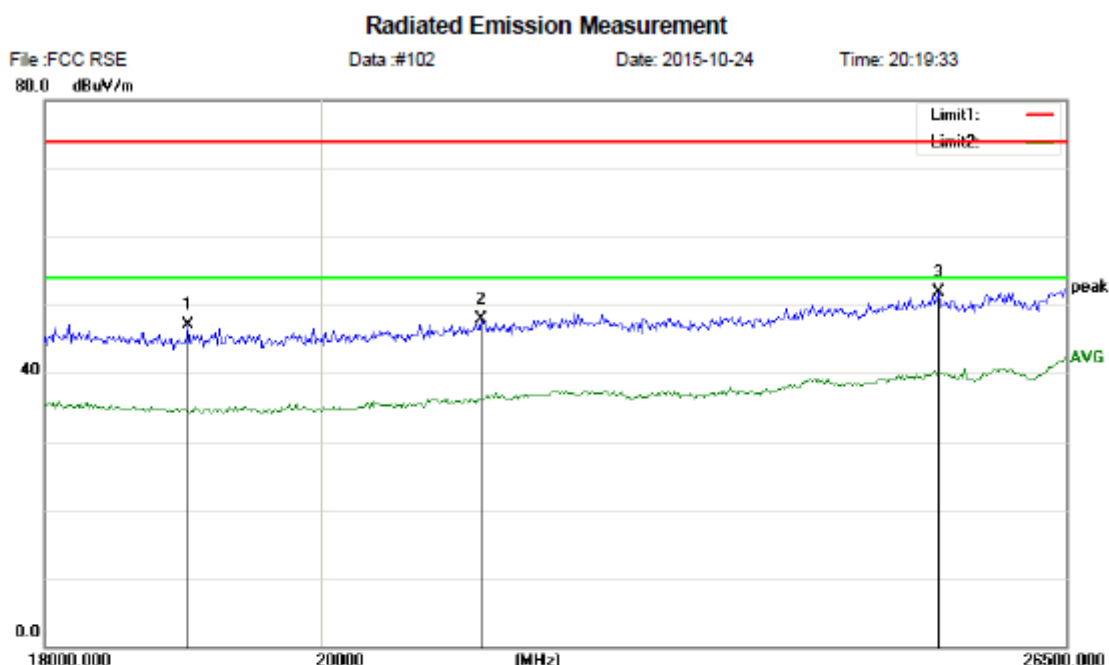
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 20 von 27

Page 20 of 27



Site Chamber #1

Limit: (RE)FCC PART 15 class B 3m_PEAK

EUT: Video Transmitter

M/N: VT-200RGB

Mode: n20 2412

Note:

Polarization: *Horizontal*

Power: DC 5V

Distance: 3m

Temperature: 22.4

Humidity: 59 %

Test Result: Pass

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		19009.07	27.44	19.69	47.13	74.00	-26.87	peak		
2		21239.57	26.88	20.99	47.87	74.00	-26.13	peak		
3	*	25249.29	28.85	23.11	51.96	74.00	-22.04	peak		

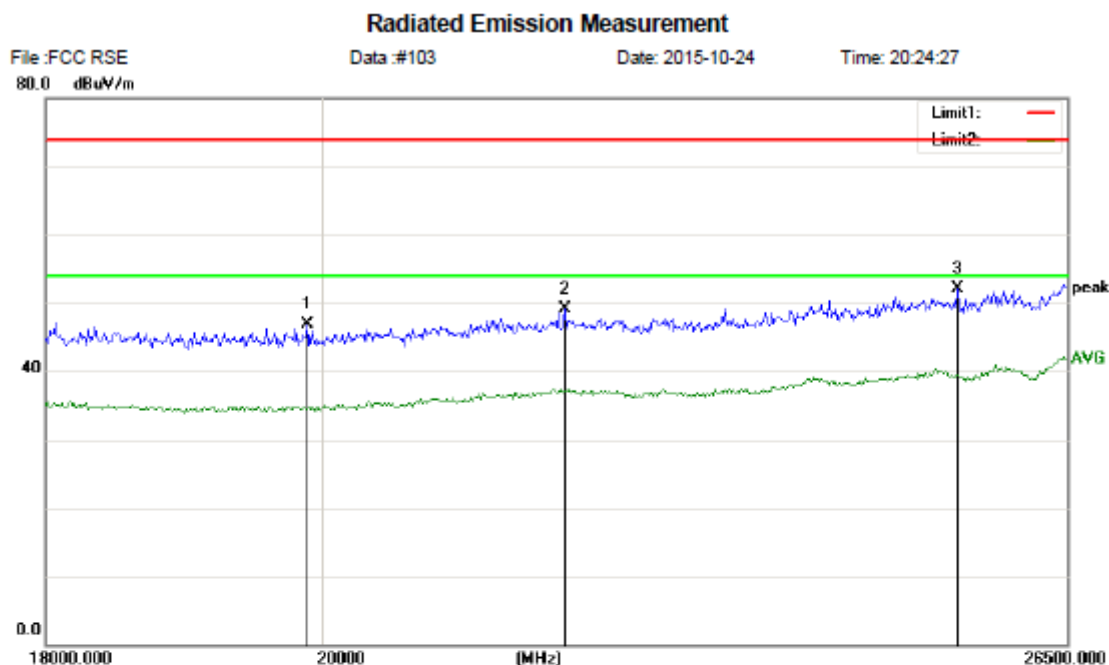
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 21 von 27

Page 21 of 27



Site Chamber #1

Polarization: **Vertical**

Temperature: 22.4

Limit: (RE)FCC PART 15 class B 3m_PEAK

Power: DC 5V

Humidity: 59 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2437

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		19876.62	27.00	19.89	46.89	74.00	-27.11	peak		
2		21908.12	27.93	21.08	49.01	74.00	-24.99	peak		
3	*	25422.03	29.02	23.15	52.17	74.00	-21.83	peak		

Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 22 von 27

Page 22 of 27

Radiated Emission Measurement

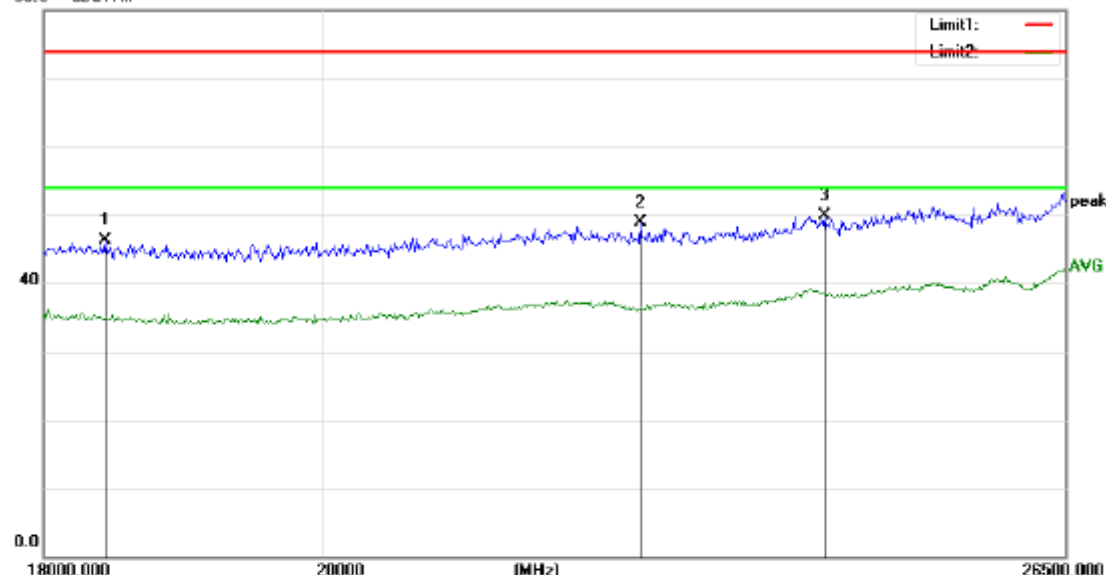
File :FCC RSE

Data :#104

Date: 2015-10-24

Time: 20:28:21

80.0 dBuV/m



Site Chamber #1

Limit: (RE)FCC PART 15 class B 3m_PEAK

EUT: Video Transmitter

M/N: VT-200RGB

Mode: n20 2437

Note:

Polarization: *Horizontal*

Power: DC 5V

Distance: 3m

Temperature: 22.4

Humidity: 59 %

Test Result: Pass

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		18428.99	26.10	20.15	46.25	74.00	-27.75	peak		
2		22569.71	27.47	21.47	48.94	74.00	-25.06	peak		
3	*	24192.19	27.28	22.61	49.89	74.00	-24.11	peak		

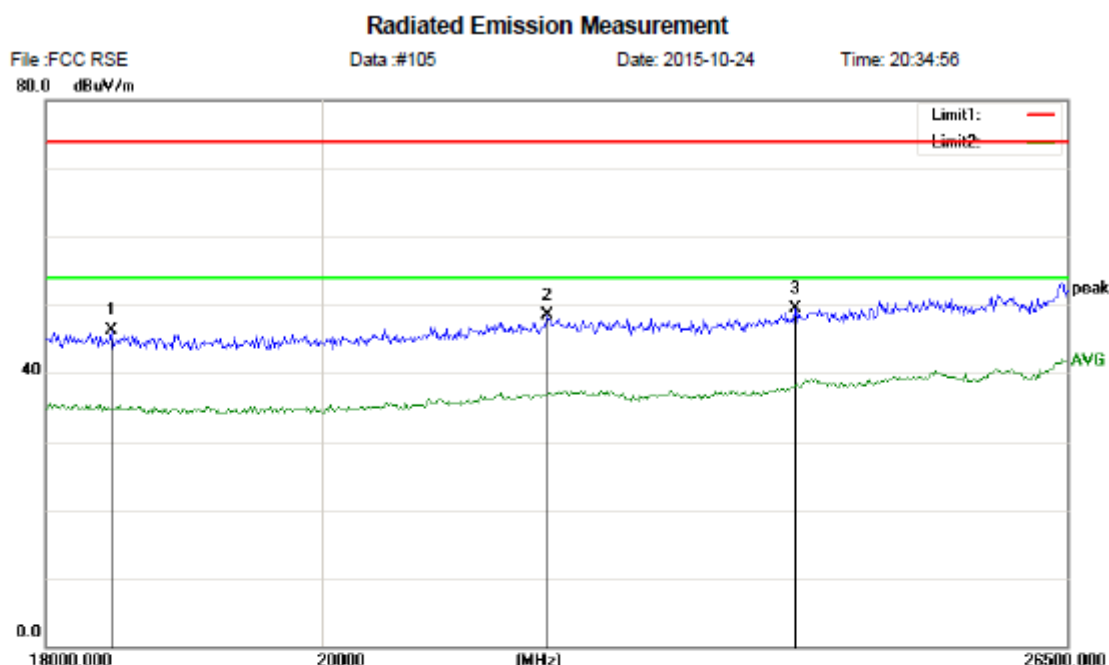
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 23 von 27

Page 23 of 27



Site Chamber #1

Limit: (RE)FCC PART 15 class B 3m_PEAK

EUT: Video Transmitter

M/N: VT-200RGB

Mode: n20 2462

Note:

Polarization: *Vertical*

Power: DC 5V

Distance: 3m

Temperature: 22.4

Humidity: 59 %

Test Result: Pass

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1		18451.85	26.18	20.13	46.31	74.00	-27.69			peak	
2		21772.74	27.48	21.06	48.54	74.00	-25.46			peak	
3	*	23908.95	27.08	22.43	49.51	74.00	-24.49			peak	

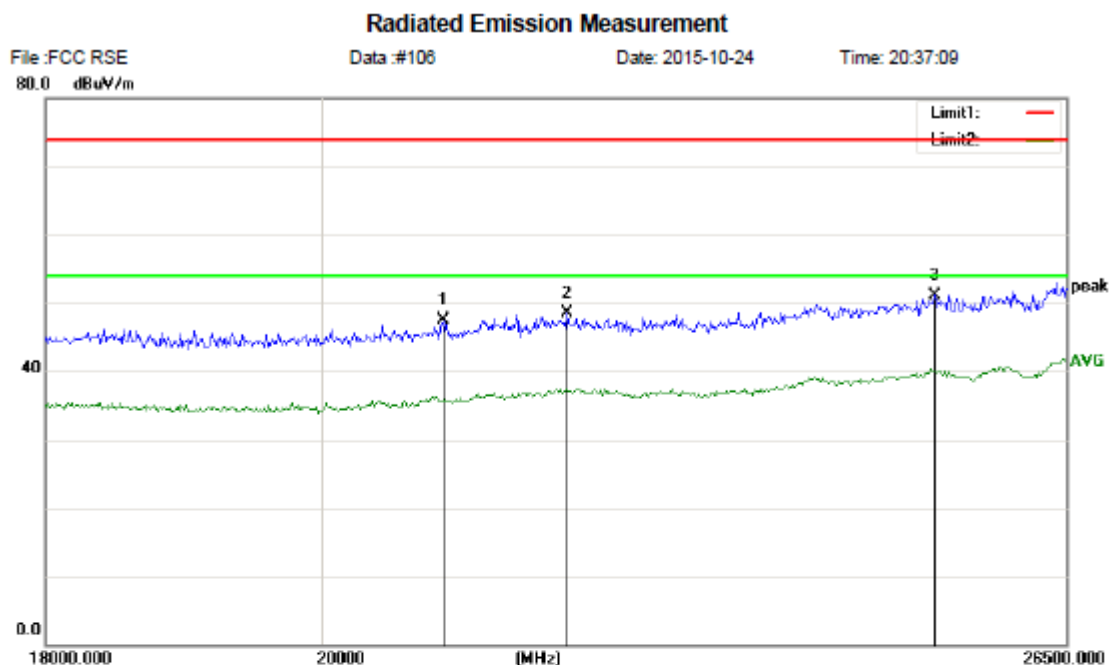
Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 24 von 27

Page 24 of 27



Site Chamber #1

Polarization: *Horizontal*

Temperature: 22.4

Limit: (RE)FCC PART 15 class B 3m_PEAK

Power: DC 5V

Humidity: 59 %

EUT: Video Transmitter

Distance: 3m

Test Result: Pass

M/N: VT-200RGB

Mode: n20 2462

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		20925.95	26.60	20.87	47.47	74.00	-26.53	peak		
2		21935.29	27.46	21.09	48.55	74.00	-25.45	peak		
3	*	25218.01	28.09	23.11	51.20	74.00	-22.80	peak		

Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 25 von 27

Page 25 of 27

Band Edge

Radiated Emission Measurement

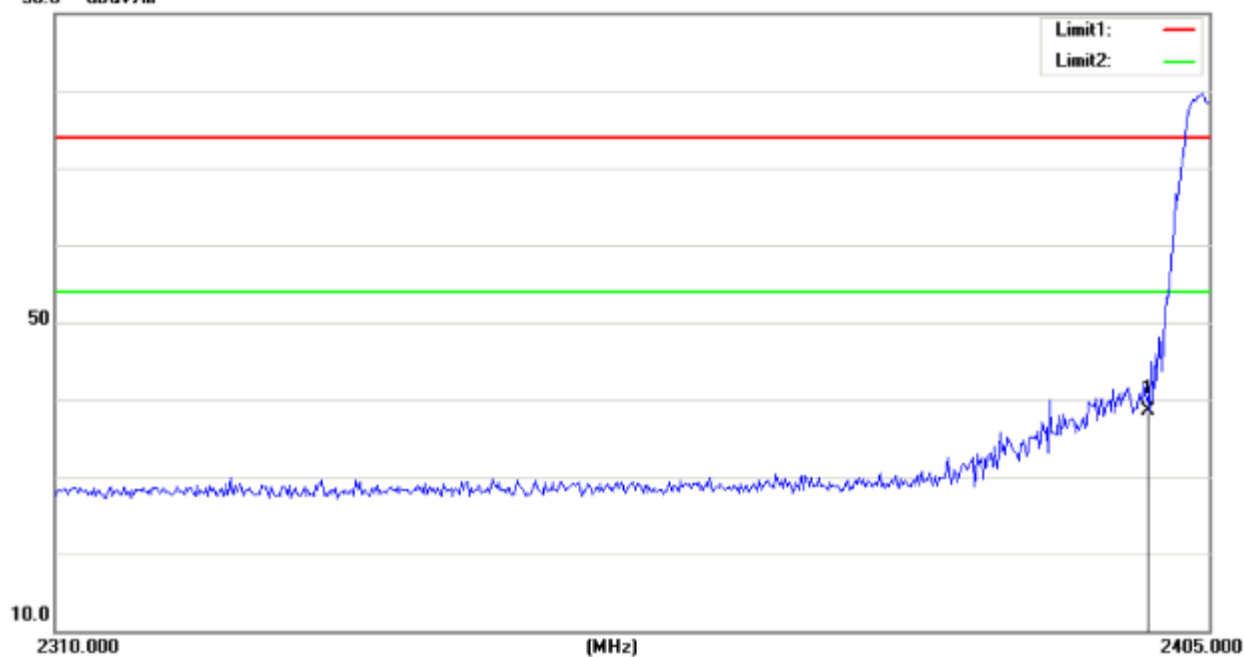
File :FCC RSE

Data :#132

Date: 2015-11-6

Time: 13:53:04

90.0 dBuV/m



Radiated Emission Measurement

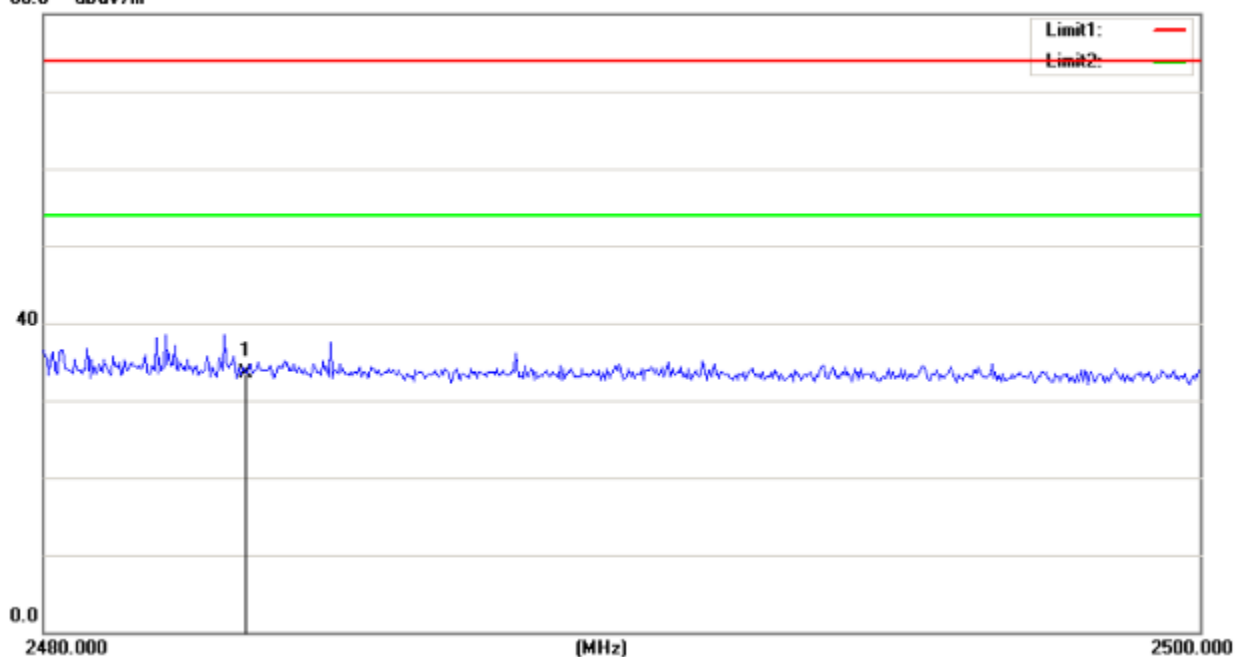
File :FCC RSE

Data :#133

Date: 2015-11-6

Time: 13:56:21

80.0 dBuV/m



Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 26 von 27

Page 26 of 27



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Tel (86)020-38699960

Http://www.grgtest.com

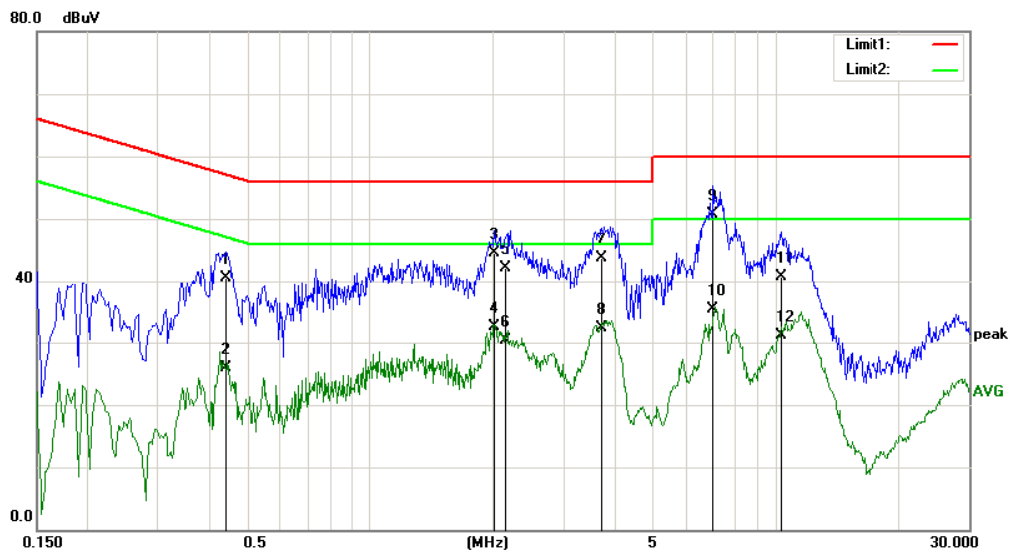
Conducted Emission Measurement

File :20151020 喜马拉雅

Data :#14

Date: 2015-10-20

Time: 17:01:30



Site Chamber #1

Phase: N

Temperature: 23.5

Limit: (CE)FCC PART 15 class B_QP

Power: DC 5V

Humidity: 54 %

EUT: Video Transmitter

Test Result: Pass

M/N: VT-200RGB

Mode: A

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.4420	34.09	6.51	40.60	57.02	-16.42	QP	
2		0.4420	19.39	6.51	25.90	47.02	-21.12	AVG	
3		2.0180	37.91	6.59	44.50	56.00	-11.50	QP	
4		2.0180	25.91	6.59	32.50	46.00	-13.50	AVG	
5		2.1478	35.56	6.59	42.15	56.00	-13.85	QP	
6		2.1478	23.79	6.59	30.38	46.00	-15.62	AVG	
7		3.7313	37.10	6.68	43.78	56.00	-12.22	QP	
8		3.7313	25.71	6.68	32.39	46.00	-13.61	AVG	
9	*	6.9979	43.93	6.87	50.80	60.00	-9.20	QP	
10		6.9979	28.53	6.87	35.40	50.00	-14.60	AVG	
11		10.2926	33.91	6.75	40.66	60.00	-19.34	QP	
12		10.2926	24.26	6.75	31.01	50.00	-18.99	AVG	

*:Maximum data x:Over limit l:over margin

Prüfbericht - Nr.:

16070926 001

Test Report No.

Seite 27 von 27

Page 27 of 27



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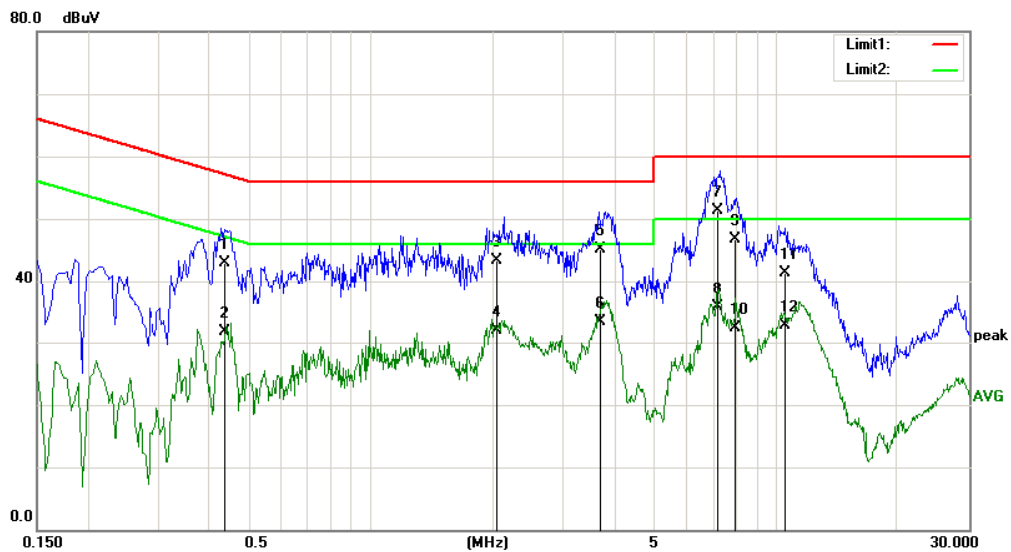
Conducted Emission Measurement

File :20151020 喜马拉雅

Data :#15

Date: 2015-10-20

Time: 16:52:34



Site Chamber #1

Phase: L1

Temperature: 23.5

Limit: (CE)FCC PART 15 class B_QP

Power: DC 5V

Humidity: 54 %

EUT: Video Transmitter

Test Result: Pass

M/N: VT-200RGB

Mode: A

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.4380	36.39	6.51	42.90	57.10	-14.20	QP	
2		0.4380	25.29	6.51	31.80	47.10	-15.30	AVG	
3		2.0523	36.63	6.59	43.22	56.00	-12.78	QP	
4		2.0523	25.22	6.59	31.81	46.00	-14.19	AVG	
5		3.6986	38.36	6.70	45.06	56.00	-10.94	QP	
6		3.6986	26.54	6.70	33.24	46.00	-12.76	AVG	
7	*	7.1898	44.48	6.86	51.34	60.00	-8.66	QP	
8		7.1898	28.94	6.86	35.80	50.00	-14.20	AVG	
9		7.9572	39.92	6.83	46.75	60.00	-13.25	QP	
10		7.9572	25.52	6.83	32.35	50.00	-17.65	AVG	
11		10.4928	34.55	6.70	41.25	60.00	-18.75	QP	
12		10.4928	26.02	6.70	32.72	50.00	-17.28	AVG	

*:Maximum data x:Over limit l:over margin