

# FCC PART 15C TEST REPORT No. 2013EEB00584-BT(BLE)

For

Shenzhen Sang Fei Consumer Communications Co., Ltd.

WCDMA digital mobile phone

Model Name: Philips W8555

Marketing Name: Philips W8555

With

Hardware Version: W8555 V01

Software Version: Philips\_W8555\_V01

FCC ID: VQRCTW8555

Issued Date: Dec 13th, 2013

**Test Laboratory:** 

FCC 2.948 Listed: No.310359 IC O.A.T.S listed: No.6629C-1

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

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# 1. Test Laboratory

# 1.1. Testing Location

Company Name:

TMC Shenzhen, Telecommunication Metrology Center of MIIT

Address:

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518048

Telephone:

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# 1.2. Testing Environment

Normal Temperature:

15℃-30℃

Extreme Temperature:

-20°C/+55°C

Relative Humidity:

30%-60%

#### 1.3. Project data

Project Leader:

Zhang Bojun

Test Engineer:

Tang Weisheng

Testing Start Date:

Dec 5<sup>th</sup>, 2013

Testing End Date:

Dec 11th, 2013

# 1.4. Signature

**Tang Weisheng** 

(Prepared this test report)

**Zhang Bojun** 

(Reviewed this test report)

Lu Minniu

Director of the laboratory

(Approved this test report)



# 2. Client Information

# 2.1. Applicant Information

Company Name: Shenzhen Sang Fei Consumer Communications Co., Ltd.

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#### 2.2. Manufacturer Information

Company Name: Shenzhen Sang Fei Consumer Communications Co., Ltd.

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Address /Post:

Nanshan District, Shenzhen, PRC

City: Shenzhen Country: China

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Fax:



# 3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

# 3.1. About EUT

Description WCDMA digital mobile phone

Model Name Philips W8555
Market Name Philips W8555

Frequency Band ISM 2400MHz~2483.5MHz

Type of Modulation GFSK

FCC ID VQRCTW8555

Note: Photographs of EUT are shown in ANNEX A of this test report.

# 3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	W8555_V01	Philips_W8555_V01

# 3.3. Internal Identification of AE used during the test

AE ID*	Description	Туре	SN
AE1	Li-ion Battery	AB3300BWMC	/
AE2	Travel Charger	A31-500650	1
AE3	Travel Charger	3208SF	

<sup>\*</sup>AE ID: is used to identify the test accessory in the lab internally.



# 4. Reference Documents

# 4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

# 4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15, Subpart C:	Oct, 2012
	15.205 Restricted bands of operation;	Edition
	15.209 Radiated emission limits, general requirements;	
	15.247 Operation within the bands 902-928MHz, 2400-2483.5	
	MHz, and 5725–5850 MHz.	
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from	2009
	Low-Voltage Electrical and Electronic Equipment in the Range	
	of 9 kHz to 40 GHz	
KDB558074	Measurement of Digital Transmission Systems	April,
	Operating under Section 15.247	2013



# 5. Laboratory Environment

**Half-anechoic chamber** (11.20 meters×6.10 meters×5.60 meters) did not exceed following limits:

Temperature	Min. = 15 $^{\circ}$ C, Max. = 30 $^{\circ}$ C		
Relative humidity Min. = 30 %, Max. = 60 %			
Shielding effectiveness	> 110 dB		
Electrical insulation	> 2M Ω		
Ground system resistance	< 0.5 Ω		
Normalized Site Attenuation (NSA)	< ±3.5dB, with 3m of Measuring distance, 30MHz 1000MHz		
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz		

# **Fully-anechoic chamber** (11.20 meters×6.10 meters×6.60 meters) did not exceed following limits:

Temperature	Min. = 15 °C, Max. = 30 °C		
Relative humidity	Min. = 30 %, Max. = 60 %		
Shielding effectiveness	> 110 dB		
Electrical insulation	> 2M Ω		
Ground system resistance	< 0.5 Ω		
VSWR	Between 0 and 6 dB, from 30MHz to 18 000 MHz		

# Conduction Lab did not exceed following limits:

•			
Temperature	Min.=15 °C, Max.=30 °C		
Relative humidity	Min.=30 %, Max.= 60 %		
Shielding effectiveness	> 80 dB		
Electrical insulation	> 2M Ω		
Ground system resistance	< 0.5 Ω		



# 6. Summary of Test Results

# 6.1. Summary of Test Results

No	Test cases	Sub-clause of Part15C	Verdict
0	Antenna Requirement	15.203	Р
1	Maximum Peak Output Power	15.247 (a)	Р
2	Peak Power Spectral Density	15.247 (e)	Р
3	Occupied 6dB Bandwidth	15.247 (a)	Р
4	Band Edges Compliance	15.247 (d)	Р
5	Transmitter Spurious Emission - Conducted	15.247 (d)	Р
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	Р
7	AC Powerline Conducted Emission	15.207	Р

#### 6.2. Statements

TMC has evaluated the test cases requested by the applicant/manufacturer as listed in section 6.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

#### 6.3. Terms used in the result table

Terms used in Verdict column

Р	Pass
NA	Not Available
F	Fail

#### Abbreviations

AC	Alternating Current	
AFH	Adaptive Frequency Hopping	
BW	Band Width	
E.I.R.P.	equivalent isotropical radiated power	
ISM	SM Industrial, Scientific and Medical	
R&TTE Radio and Telecommunications Terminal Equipment		
RF	Radio Frequency	
Tx	Transmitter	



# 7. Test Equipments Utilized

# **Conducted test system**

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2014-04-23	1 year

#### Radiated emission test system

	Natiated emission test system					l .
No.	Equipment	Model	Serial	Manufacturer	Calibration	Calibration
NO.	Equipment	Model	Number	Wanulacturer	Due date	Period
1	Chamber	FACT5-2.0	4166	ETS-Lindgren	2016-05-29	3 years
2	Test Receiver	ESCI	100701	Rohde & Schwarz	2014-07-31	1 year
3	Spectrum Analyzer	FSP40	100378	Rohde & Schwarz	2013-12-21	1 year
4	BiLog Antenna	VULB9163	9163-330	Schwarzbeck	2014-02-24	3 years
5	Dual-Ridge Waveguide	2404.05	00005704	CTC Linderson	2014 02 17	2
5	Horn Antenna	3164-05	00085724	ETS-Lindgren	2014-02-17	3 years
6	Test Receiver	ESCI	100702	Rohde & Schwarz	2014-07-31	1 year
7	LISN	ESH2-Z5	100196	Rohde & Schwarz	2014-01-23	1 year
8	Signal Generator	SMR40	100541	Rohde & Schwarz	2014-01-10	1 year
0	Dual-Ridge Waveguide	2447	00066577	CTC Lindaran	2016 04 01	2 40000
9	Horn Antenna	3117	00066577	ETS-Lindgren	2016-04-01	3 years
10	Loop Antenna	HLA6120	35779	TESEQ	2016-02-25	3 years
11	EMI Antenna	3160-09	00118383	ETS-Lindgren	2015-09-05	3 years

# **Anechoic chamber**

Fully anechoic chamber by ETS-Lindgren.



# **ANNEX A: EUT photograph**



Pic A-1 Mobile phone



Pic A-2 Mobile phone





Pic A-3 Battery



Pic A-4 Charger





Pic A-5 Charger



# **ANNEX B: MEASUREMENT RESULTS**

# **B.0** Antenna requirement

#### **Measurement Limit:**

Standard	Requirement			
	An intentional radiator shall be designed to ensure that no antenna other than that			
	furnished by the responsible party shall be used with the device. The use of a			
	permanently attached antenna or of an antenna that uses a unique coupling to the			
	intentional radiator shall be considered sufficient to comply with the provisions of			
	this section. The manufacturer may design the unit so that a broken antenna can			
	be replaced by the user, but the use of a standard antenna jack or electrical			
FCC CRF Part	connector is prohibited. This requirement does not apply to carrier current devices			
15.203	or to devices operated under the provisions of §15.211, §15.213, §15.217,			
	§15.219, or §15.221. Further, this requirement does not apply to intentional			
	radiators that must be professionally installed, such as perimeter protection			
	systems and some field disturbance sensors, or to other intentional radiators			
	which, in accordance with §15.31(d), must be measured at the installation site.			
	However, the installer shall be responsible for ensuring that the proper antenna is			
	employed so that the limits in this part are not exceeded.			

Conclusion: The Directional gains of antenna used for transmitting is 3.0 dBi.

The RF transmitter uses an integrate antenna without connector.



# **B.1 Maximum Peak Output Power**

#### **Measurement Limit and Method:**

Standard	Limit (dBm)	
FCC CRF Part 15.247(b)(1)	< 30	

#### **Test Condition:**

Hopping Mode	RBW	VBW	SPAN	Sweeptime
Hopping off	3MHz	3MHz	10MHz	Auto

#### **Measurement Results:**

Mode	Channel	Maximum Peak Output Power (dBm)	Conclusion
	0	1.95	Р
GFSK	19	1.57	Р
	39	1.72	Р

See ANNEX C for test graphs.

**Conclusion: Pass** 

# **B.2 Peak Power Spectral Density**

#### **Measurement Limit:**

Standard	Limit
FCC CRF Part 15.247(d)	< 8 dBm/3 kHz

#### **Measurement Results:**

Mode	Channel	Peak Power Spectral Density (dBm)		Conclusion
	0	Fig.1	-16.48	Р
GFSK	19	Fig.2	-16.67	Р
	39	Fig.3	-16.78	Р

See ANNEX C for test graphs.



# **B.3 Occupied 6dB Bandwidth**

#### **Measurement Limit:**

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

#### **Measurement Result:**

Mode	Channel	Test Resu	ults ( kHz)	conclusion
	0	Fig.4	694.6	Р
GFSK	19	Fig.5	694.6	Р
	39	Fig.6	694.6	Р

See ANNEX C for test graphs.

**Conclusion: Pass** 

# **B.4 Band Edges Compliance**

#### **Measurement Limit:**

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

#### **Measurement Result:**

Mode	Channel	Test Results	Conclusion
GFSK	0	Fig.7	Р
	39	Fig.8	Р

See ANNEX C for test graphs.



# **B.5 Transmitter Spurious Emission**

# **B.5.1 Transmitter Spurious Emission - Conducted**

# **Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz
	bandwidth

#### **Measurement Results:**

MODE	Channel	Frequency Range	Test Results	Conclusion	
		2.402 GHz	Fig.9	Р	
	0	30 MHz-3 GHz	Fig.10	Р	
		3GHz-18GHz	Fig.11	Р	
		2.440 GHz		Fig.12	Р
GFSK	19	30 MHz-3 GHz	Fig.13	Р	
GFSK		3GHz-18GHz	Fig.14	Р	
		2.480 GHz	Fig.15	Р	
	39	30 MHz-3 GHz	Fig.16	Р	
		3GHz-18GHz	Fig.17	Р	
	All channels	18GHz-26GHz	Fig.18	Р	

See ANNEX C for test graphs.



# **B.5.2 Transmitter Spurious Emission - Radiated Measurement Limit:**

Standard	Limit	
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power	

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

#### Limit in restricted band:

Frequency of emission	Field strength(μV/m)	Measurement
(MHz)	i leid strengtri(µv/iii)	distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

#### **Test Condition**

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission	RBW/VBW	Sweep Time(s)	
(MHz)			
30-1000	100KHz/300KHz	5	
1000-4000	1MHz/1MHz	15	
4000-18000	1MHz/1MHz	40	
18000-26500	1MHz/1MHz	20	

#### Note:

According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band from 9kHz to 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic.

The measurement results include the horizontal polarization and vertical polarization measurements.



# **Measurement Results:**

Mode	Channel	Frequency Range	Test Results	Conclusion
		30 MHz ~1 GHz	Fig.19	Р
	0	1 GHz ~ 3 GHz	Fig.20	Р
		3 GHz ~ 18 GHz	Fig.21	Р
	GFSK 19	30 MHz ~1 GHz	Fig.22	Р
GFSK		1 GHz ~ 3 GHz	Fig.23	Р
		3 GHz ~ 18 GHz	Fig.24	Р
		30 MHz ~1 GHz	Fig.25	Р
	39	1 GHz ~ 3 GHz	Fig.26	Р
		3 GHz ~ 18 GHz	Fig.27	Р
1	All channels	18 GHz~ 26.5 GHz	Fig.28	Р

# GFSK CH0 (1-18GHz)

Frequency (MHz)	Peak (dBµV/m)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2357.000000	37.1	V	90.0	1.7	16.8	53.9
5177.000000	34.5	Н	90.0	6.2	19.4	53.9
7554.375000	36.8	V	90.0	6.9	17.1	53.9
10031.000000	39.1	V	90.0	9.4	14.8	53.9
12151.000000	41.5	V	0.0	10.9	12.4	53.9
16779.000000	47.1	V	0.0	14.3	6.8	53.9

#### **GFSK CH39 (1-18GHz)**

51 511 51155 (1 15 511 <u>2)</u>						
Frequency (MHz)	Peak (dBµV/m)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2357.000000	37.1	V	0.0	1.7	16.8	53.9
5664.375000	34.6	Н	0.0	6.8	19.3	53.9
7557.875000	36.5	V	0.0	6.9	17.4	53.9
10045.000000	39.1	V	90.0	9.5	14.8	53.9
13170.000000	41.2	Н	0.0	11.5	12.7	53.9
16766.000000	46.8	V	0.0	14.3	7.1	53.9



# **GFSK CH78 (1-18GHz)**

Frequency (MHz)	Peak (dBµV/m)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2357.000000	36.7	V	0.0	1.7	17.2	53.9
3239.750000	34.6	Н	0.0	3.3	19.3	53.9
7557.000000	36.5	Н	90.0	6.9	17.4	53.9
10027.000000	39.1	V	90.0	9.4	14.8	53.9
12107.000000	41.1	Н	90.0	10.9	12.8	53.9
16782.000000	47.0	V	0.0	14.3	6.9	53.9

See ANNEX C for test graphs.

**Conclusion: Pass** 

#### Note:

A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

 $\ensuremath{P_{\text{Mea}}}$  is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{Mea}$ + $A_{Rpl}$ =  $P_{Mea}$ +Cable Loss+Antenna Factor



#### **B.6 AC Powerline Conducted Emission**

#### **Test Condition:**

Voltage (V)	Frequency (Hz)
120	60

#### Measurement Result and limit:

BLE (Quasi-peak Limit)-AE2

Frequency range	Quasi-peak	Result (dBμV)		Conclusion
(MHz)	Limit (dBμV)	Traffic	ldle	Conclusion
0.15 to 0.5	66 to 56			
0.5 to 5	56	Fig.29	Fig.30	Р
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15\,\mathrm{MHz}$  to  $0.5\,\mathrm{MHz}$ .

#### BLE (Average Limit)-AE2

Frequency range	Average-peak	Result	Conclusion	
(MHz)	Limit (dBμV)	Traffic Idle		Conclusion
0.15 to 0.5	56 to 46			
0.5 to 5	46	Fig.29	Fig.30	Р
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15\,\mathrm{MHz}$  to  $0.5\,\mathrm{MHz}$ .

# BLE (Quasi-peak Limit)-AE3

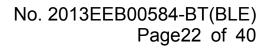
Frequency range	Quasi-peak	Result	Conclusion	
(MHz)	Limit (dBμV)	Traffic Idle		Conclusion
0.15 to 0.5	67 to 56			
0.5 to 5	56	Fig.31	Fig.32	Р
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15\,\mathrm{MHz}$  to  $0.5\,\mathrm{MHz}$ .

#### BLE (Average Limit)-AE3

Frequency range	Average-peak	Result (dBμV)		Conclusion	
(MHz)	Limit (dBμV)	Traffic Idle		Conclusion	
0.15 to 0.5	56 to 46				
0.5 to 5	46	Fig.31	Fig.32	Р	
5 to 30	50				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15\,\mathrm{MHz}$  to  $0.5\,\mathrm{MHz}$ .





Note: The measurement results include the L1 and N measurements.

See ANNEX C for test graphs.



# **ANNEX C: TEST FIGURE LIST**

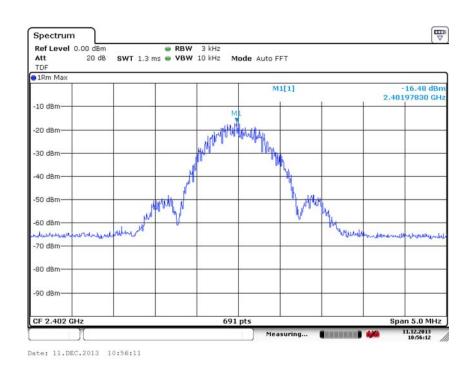


Fig. 1 Power Spectral Density (Ch 0)

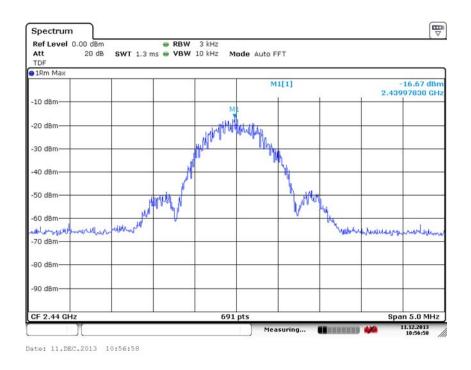


Fig. 2 Power Spectral Density (Ch 19)



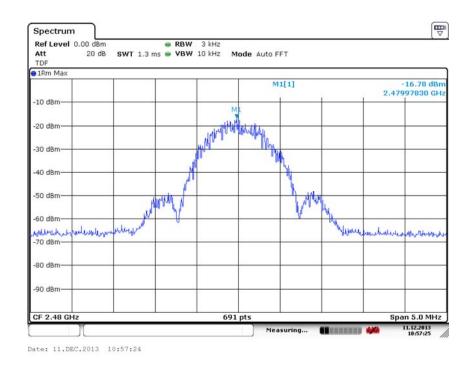


Fig. 3 Power Spectral Density (Ch 39)

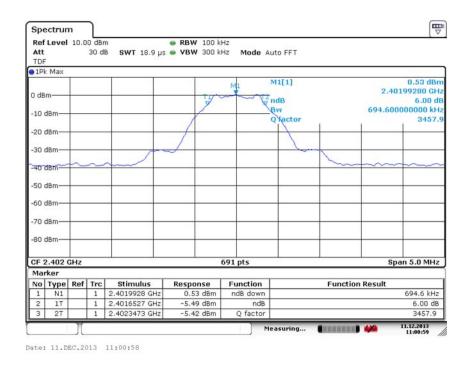


Fig. 4 Occupied 6dB Bandwidth (Ch 0)



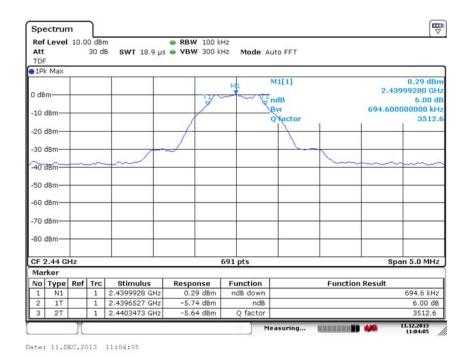


Fig. 5 Occupied 6dB Bandwidth (Ch 19)

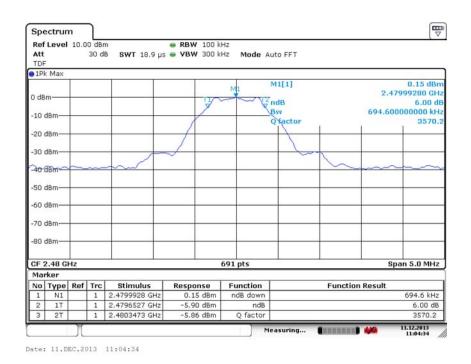


Fig. 6 Occupied 6dB Bandwidth (Ch 39)



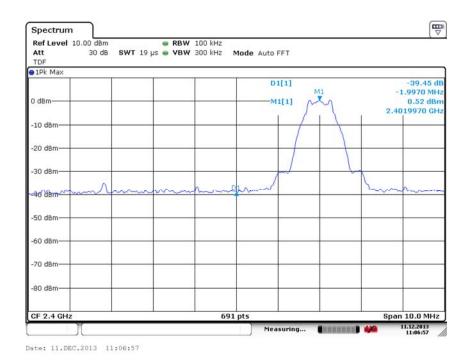


Fig. 7 Band Edges (Ch 0)

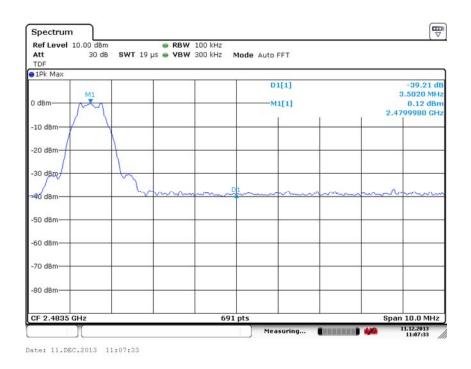


Fig. 8 Band Edges (Ch 39)



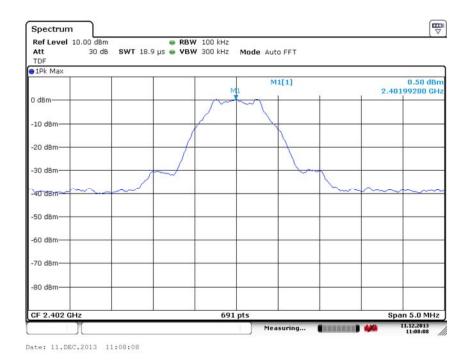


Fig. 9 Conducted Spurious Emission (Ch0, Center Frequency)

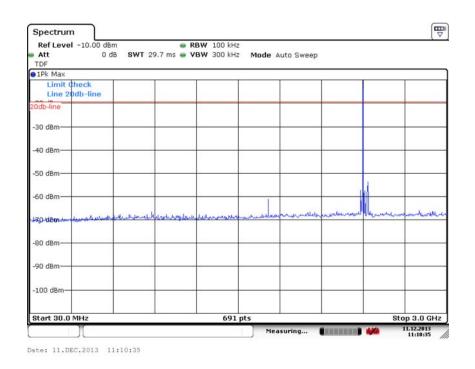


Fig. 10 Conducted Spurious Emission (Ch0, 30 MHz-3 GHz)



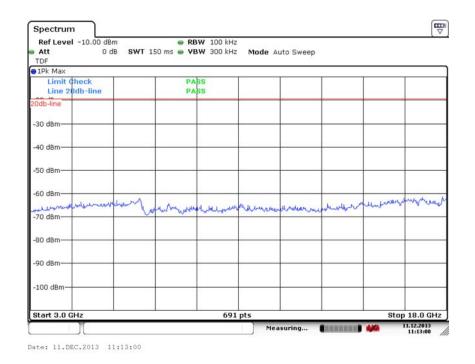


Fig. 11 Conducted Spurious Emission (Ch0, 3 GHz-18 GHz)

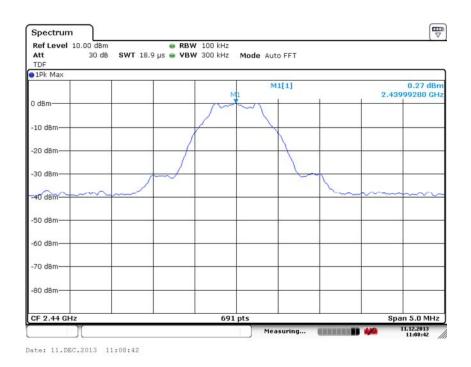


Fig. 12 Conducted Spurious Emission (Ch19, Center Frequency)



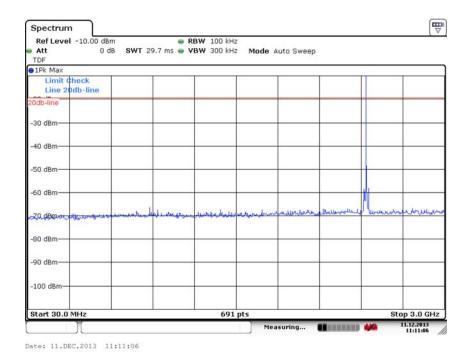


Fig. 13 Conducted Spurious Emission (Ch19, 30 MHz-3 GHz)

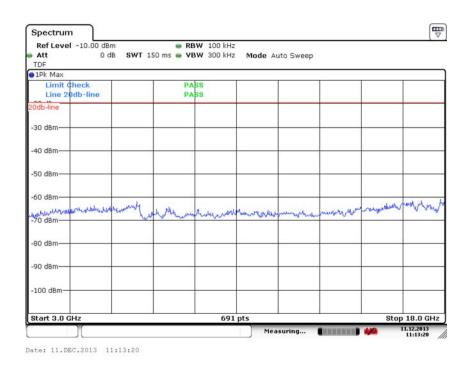


Fig. 14 Conducted Spurious Emission (Ch19, 3 GHz-18 GHz)





Fig. 15 Conducted Spurious Emission (Ch39, Center Frequency)

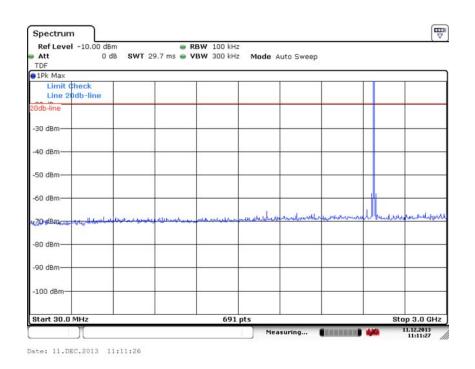


Fig. 16 Conducted Spurious Emission (Ch39, 30 MHz-3 GHz)



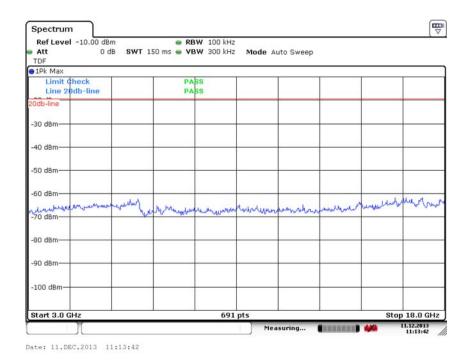


Fig. 17 Conducted Spurious Emission (Ch39, 3 GHz-18 GHz)

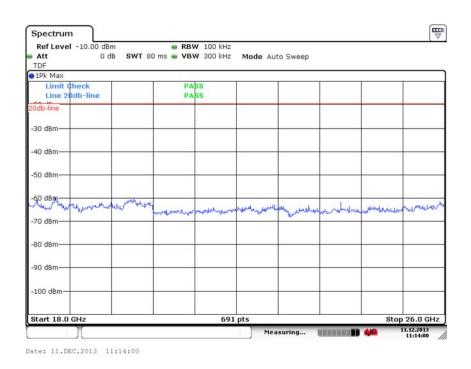


Fig. 18 Conducted Spurious Emission (All channels, 18 GHz-26 GHz)



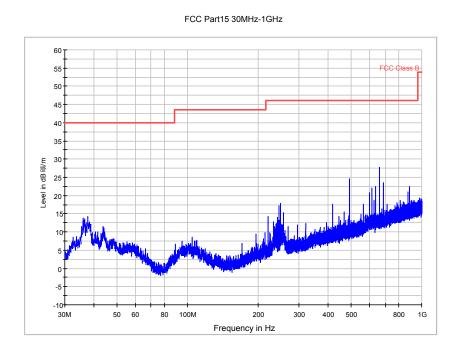


Fig. 19 Radiated Spurious Emission (Ch0, 30 MHz-1 GHz)

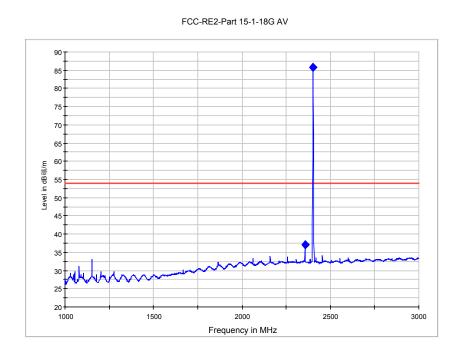


Fig. 20 Radiated Spurious Emission (Ch0, 1 GHz-3 GHz)



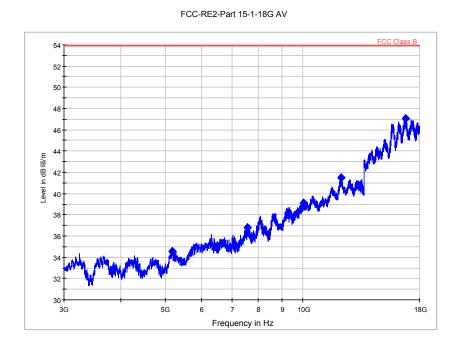


Fig. 21 Radiated Spurious Emission (Ch0, 3 GHz-18 GHz)

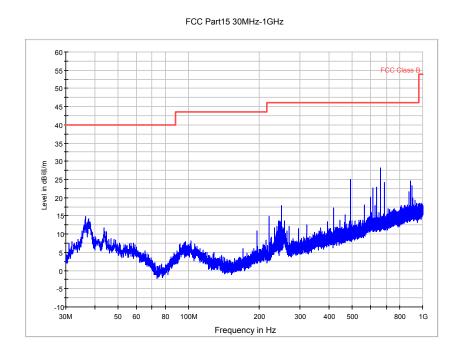


Fig. 22 Radiated Spurious Emission (Ch19, 30 MHz-1 GHz)



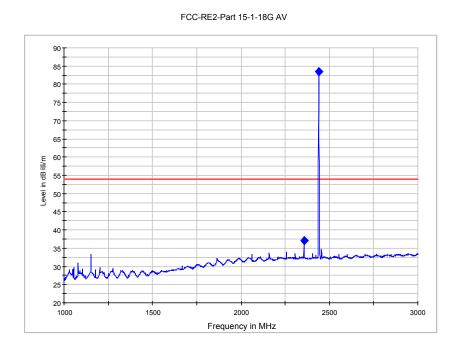


Fig. 23 Radiated Spurious Emission (Ch19, 1 GHz-3 GHz)

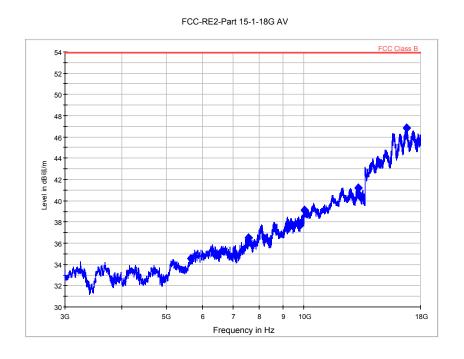


Fig. 24 Radiated Spurious Emission (Ch19, 3 GHz-18 GHz)



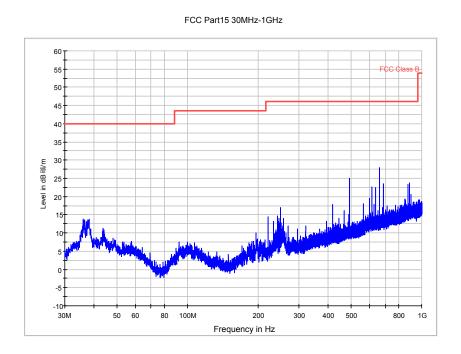


Fig. 25 Radiated Spurious Emission (Ch39, 30 MHz-1 GHz)

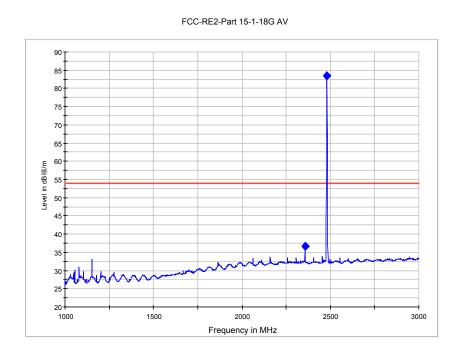


Fig. 26 Radiated Spurious Emission (Ch39, 1 GHz-3 GHz)



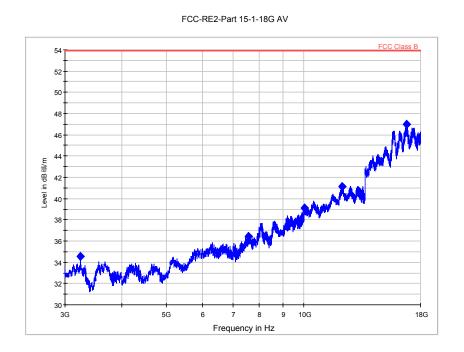


Fig. 27 Radiated Spurious Emission (Ch39, 3 GHz-18 GHz)

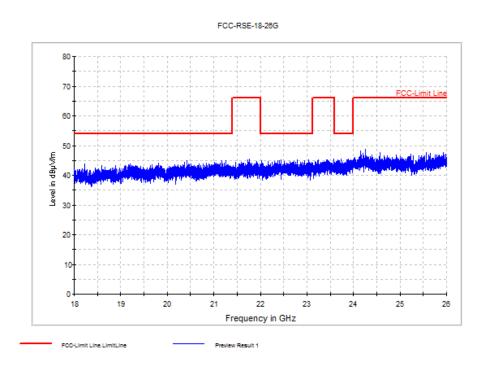


Fig. 28 Radiated emission: 18 GHz - 26 GHz



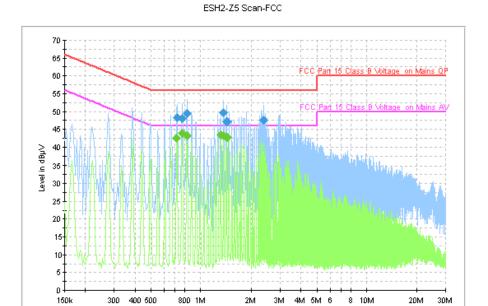


Fig. 29 AC Powerline Conducted Emission (Traffic, AE2)

Frequency in Hz

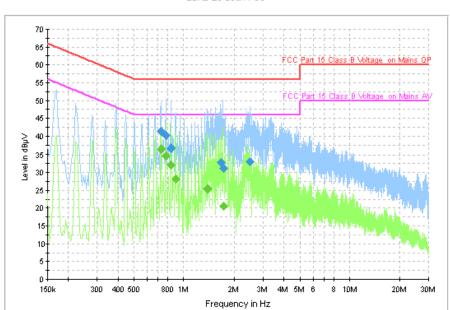
# MEASUREMENT RESULT: " QuasiPeak "

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.718000	48.2	FLO	Ν	10.0	7.8	56.0
0.774000	48.0	FLO	N	10.1	8.0	56.0
0.826000	49.5	FLO	N	10.0	6.5	56.0
1.378000	49.6	FLO	N	10.1	6.4	56.0
1.430000	47.1	FLO	N	10.1	8.9	56.0
2.370000	47.6	FLO	N	10.2	8.4	56.0

# MEASUREMENT RESULT: " Average "

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.714000	42.6	FLO	L1	10.0	3.4	46.0
0.770000	43.8	FLO	L1	10.1	2.2	46.0
0.826000	43.1	FLO	L1	10.0	2.9	46.0
1.322000	43.3	FLO	L1	10.1	2.7	46.0
1.378000	43.2	FLO	L1	10.1	2.8	46.0
1.430000	42.8	FLO	L1	10.1	3.2	46.0





#### ESH2-Z5 Scan-FCC

Fig. 30 AC Power line Conducted Emission (Idle, AE2)

# MEASUREMENT RESULT: " QuasiPeak "

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.726000	41.4	FLO	L1	10.0	14.6	56.0
0.782000	40.2	FLO	L1	10.1	15.8	56.0
0.838000	36.8	FLO	L1	10.0	19.2	56.0
1.674000	32.8	FLO	L1	10.1	23.2	56.0
1.730000	31.1	FLO	L1	10.1	24.9	56.0
2.478000	33.0	FLO	N	10.2	23.0	56.0

# MEASUREMENT RESULT: " Average "

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.726000	36.5	FLO	L1	10.0	9.5	46.0
0.782000	34.7	FLO	L1	10.1	11.4	46.0
0.838000	32.0	FLO	L1	10.0	14.0	46.0
0.894000	28.1	FLO	L1	10.1	17.9	46.0
1.394000	25.4	FLO	L1	10.1	20.6	46.0
1.730000	20.5	FLO	L1	10.1	25.5	46.0





#### ESH2-Z5 Scan-FCC

Fig. 31 AC Power line Conducted Emission (Traffic, AE3)

3M

2M Frequency in Hz 4M 5M 6

8 10M

20M

800 1M

# MEASUREMENT RESULT: " QuasiPeak "

300 400 500

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.554000	37.4	FLO	N	10.1	18.6	56.0
0.594000	41.7	FLO	N	10.1	14.3	56.0
0.670000	37.4	FLO	N	10.0	18.6	56.0
0.710000	37.2	FLO	N	10.0	18.8	56.0
0.790000	37.6	FLO	L1	10.1	18.4	56.0
1.142000	37.3	FLO	L1	10.1	18.7	56.0

#### MEASUREMENT RESULT: " Average "

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.554000	35.0	FLO	L1	10.1	11.0	46.0
0.594000	39.3	FLO	L1	10.1	6.7	46.0
0.670000	35.0	FLO	L1	10.0	11.0	46.0
0.710000	34.1	FLO	L1	10.0	11.9	46.0
0.750000	31.9	FLO	L1	10.0	14.1	46.0
0.790000	33.0	FLO	L1	10.1	13.0	46.0





ESH2-Z5 Scan-FCC

Fig. 32 AC Power line Conducted Emission (Idle, AE3)

3M

Frequency in Hz

4M 5M 6

8 10M

20M

800 1M

# MEASUREMENT RESULT: " QuasiPeak "

300 400 500

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	32.1	FLO	N	10.1	33.9	66.0
0.178000	21.0	FLO	N	10.1	43.6	64.6
0.186000	21.8	FLO	N	10.1	42.4	64.2
0.194000	37.8	FLO	N	10.1	26.1	63.9
0.218000	18.2	FLO	N	10.0	44.7	62.9
0.598000	43.0	FLO	L1	10.1	13.0	56.0

#### MEASUREMENT RESULT: " Average "

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.558000	31.9	FLO	L1	10.1	14.1	46.0
0.598000	37.4	FLO	L1	10.1	8.6	46.0
0.638000	28.2	FLO	L1	10.0	17.8	46.0
0.678000	32.4	FLO	L1	10.0	13.6	46.0
0.718000	30.0	FLO	L1	10.0	16.0	46.0
0.758000	27.7	FLO	L1	10.1	18.3	46.0

# \*\*\* END OF REPORT BODY \*\*\*