TEST REPORT

Application No.:	SHCR2503000488HS
Applicant:	Ningbo Deye Domestic Electrical Appliance Technology Co., Ltd
Address of Applicant:	No.568, South Rixian Road, Binhai Economic Development Zone, Cixi, Ningbo, Zhejiang, 315300, P.R.China
Manufacturer:	Ningbo Deye Domestic Electrical Appliance Technology Co., Ltd
Address of Manufacturer:	No.568, South Rixian Road, Binhai Economic Development Zone, Cixi, Ningbo, Zhejiang, 315300, P.R.China
Factory:	Ningbo Deye Domestic Electrical Appliance Technology Co., Ltd
Address of Factory:	No.568, South Rixian Road, Binhai Economic Development Zone, Cixi, Ningbo, Zhejiang, 315300, P.R.China
Equipment Under Test (EUT):	
EUT Name:	Split Type Air Conditioner
Model No.:	DW3B1-ACDC-27KR2(EU), DMGA1-ACDC-07KR2(EU) DMGA1-ACDC-09KR2(EU), DMGA1-ACDC-12KR2(EU) DMGA1-ACDC-18KR2(EU)
Trade Mark:	Deye
Standard(s) :	EN 300 328 V2.2.2
Date of Receipt:	2025-03-06
Date of Test:	2025-03-07 to 2025-03-26
Date of Issue:	2025-03-27
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2025-03-27	/

Authorized for issue by:				
Tested By		Wade Zhang **Wade Zhang/Project Engineer**		
Approved By		Parlam Zhan **Parlam Zhan / Reviewer**		

2 Test Summary

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Transmitter unwanted emissions in the spurious domain	EN 300 328 V2.2.2	EN 300 328 V2.2.2 Clause 5.4.9.2	EN 300 328 V2.2.2 Clause 4.3.2.9.3	Pass
Receiver spurious emissions		EN 300 328 V2.2.2 Clause 5.4.10.2	EN 300 328 V2.2.2 Clause 4.3.2.10.3	Pass

Remark: The device using a wireless module WBR3 has been certified. We just fully retest RSE for this product, other test data reference to original module report 4842019325300B & 4842019325301B

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	AC 220-240V 50Hz
Test voltage:	AC230V 50Hz
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	PCB Antenna
Adaptive Type:	LBE under LBT based DAA
Antenna Gain:	2.5 dBi (Provided by manufacturer)
Power Class:	<10mW
Receiver Category:	2

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	LENOVO	L460	-
SecureCRT	VanDyke	V 6.2.0	-
Serial port adapter plate	-	Test Plate 3	-

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty cycle	0.4%
4	Occupied Bandwidth	3%
5	RF conducted power	0.6dB
6	RF power density	2.9dB
7	Conducted Spurious emissions	0.75dB
8	RF Radiated power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious emission test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-6GHz)
		5.4dB (6GHz-18GHz)
10	Temperature test	1°C
11	Humidity test	3%
12	Supply voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678
No tests were sub-contracted.
Note:
1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
3. Sample source: sent by customer.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 6332.01)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

• FCC (Designation Number: CN1301)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

• ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.
Company Number: 8617A

• VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Radiated Test					
EMI test Receiver	R&S	ESU40	SHEM051-1	2024/12/18	2025-12-17
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2024/12/18	2025-12-17
Communication Tester	R&S	CMW500	SHEM268-1	2024-05-23	2025-05-22
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2024/12/18	2025-12-17
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2023-09-03	2025-09-02
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2023-04-17	2025-04-16
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2024-08-05	2026-08-04
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2023-09-03	2025-09-02
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2023-09-03	2025-09-02
Pre-Amplifier	HP	8447D	SHEM236-1	2024/12/18	2025-12-17
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2024/12/18	2025-12-17
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	/	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	/	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	/	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023-05-06	2026-05-05
RE test Cable	/	PT18-NMNM-10M	SHEM217-2	2024/12/18	2025-12-17
Test software	ESE	E3	Version: 6.111221a	/	/

6 Radio Spectrum Matter Test Results

6.1 Transmitter unwanted emissions in the spurious domain

Test Requirement EN 300 328 V2.2.2 Clause 4.3.2.9.3
Test Method: EN 300 328 V2.2.2 Clause 5.4.9.2
Measurement Distance: 3m

Limit:

Table 1: Transmitter limits for spurious emissions

Frequency range	Maximum power, e.r.p. (≤ 1 GHz) e.i.r.p. (> 1 GHz)	Bandwidth
30 MHz to 47 MHz	-36dBm	100 kHz
47 MHz to 74 MHz	-54dBm	100 kHz
74 MHz to 87,5 MHz	-36dBm	100 kHz
87,5 MHz to 118 MHz	-54dBm	100 kHz
118 MHz to 174 MHz	-36dBm	100 kHz
174 MHz to 230 MHz	-54dBm	100 kHz
230 MHz to 470 MHz	-36dBm	100 kHz
470 MHz to 694 MHz	-54dBm	100 kHz
694 MHz to 1 GHz	-36dBm	100 kHz
1 GHz to 12,75 GHz	-30dBm	1MHz

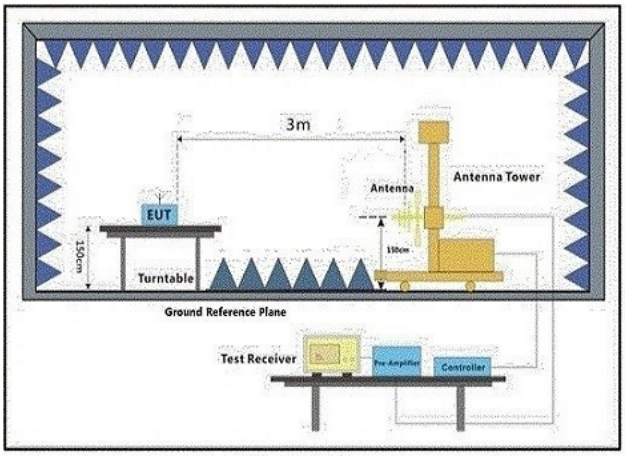
6.1.1 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

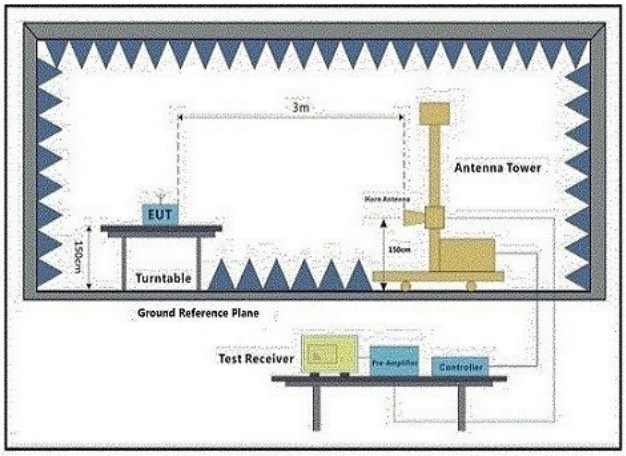
6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation

6.1.3 Test Setup Diagram



30MHz-1GHz



Above 1GHz

6.1.4 Measurement Procedure and Data

1. Using test software to set up the lowest channel, the middle channel and the highest channel.

2. Scan from 30MHz to 12.75GHz, find the maximum radiation frequency to measure. No Standby Mode apply for the EUT.

3. The technique used to find the Spurious Emissions of the transmitter was a pre-calibration method which is measure the path loss from the measurement antenna to the substitution antenna and subtract this from the signal generator level to reach the measurement result. The method was performed to determine the actual ERP/EIRP emission levels of the EUT.

Test procedure as below:

1) The EUT was powered ON and placed on a table in the chamber. The antenna of the transmitter was extended to its maximum length. Receiver mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.

2) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.

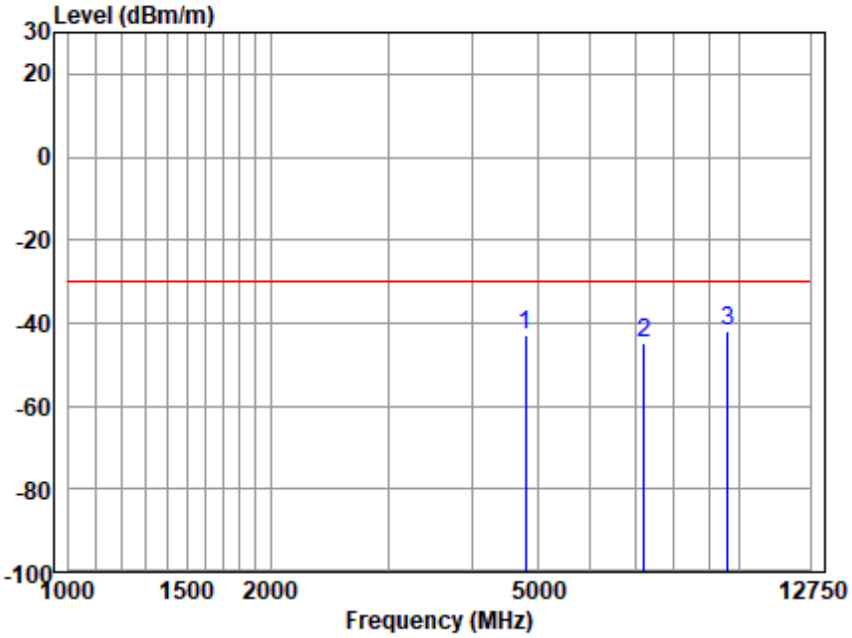
3) The test antenna shall be raised or lowered again, if necessary, through the specified height range until a maximum is obtained. This level shall be recorded.

4) This measurement shall be repeated for horizontal and vertical polarization.

Remark:

The disturbance below 1GHz was very low and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

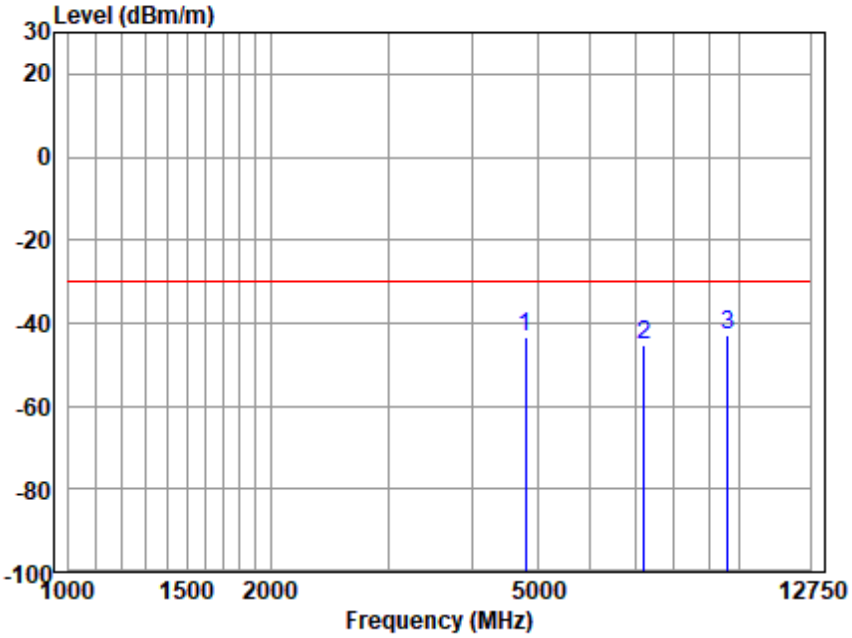
Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; Channel:Low



Antenna Polarity :HORIZONTAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4804.499	-42.84	-30.00	-12.84
2	7209.015	-45.06	-30.00	-15.06
3	9611.663	-41.88	-30.00	-11.88

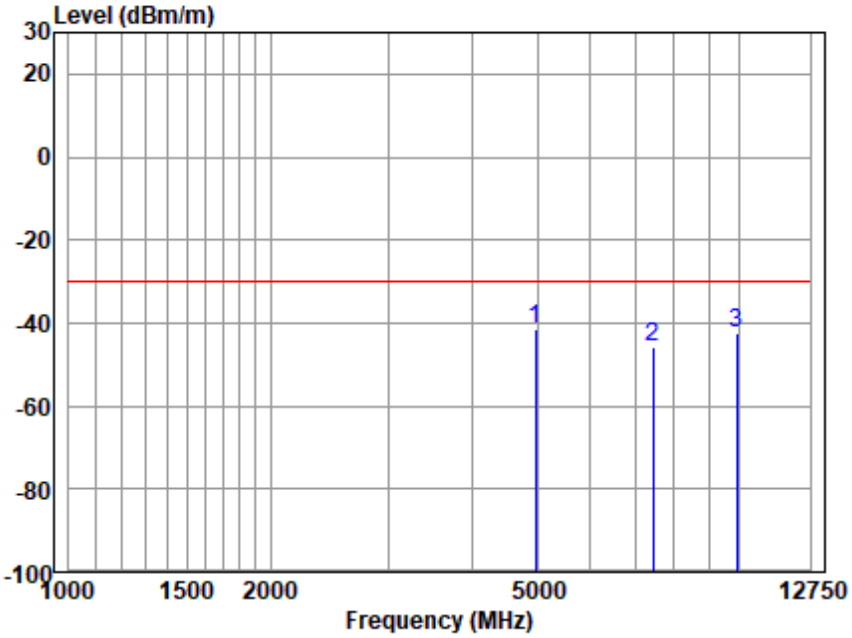
Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:Low



Antenna Polarity :VERTICAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4804.499	-43.43	-30.00	-13.43
2	7209.015	-45.54	-30.00	-15.54
3	9611.663	-43.02	-30.00	-13.02

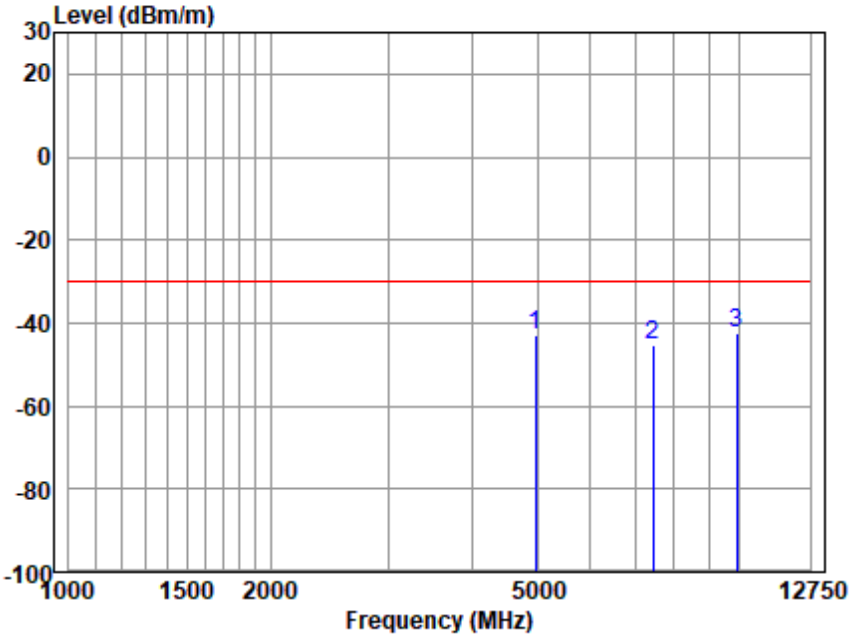
Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; Channel:High



Antenna Polarity :HORIZONTAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4960.678	-41.70	-30.00	-11.70
2	7432.622	-45.90	-30.00	-15.90
3	9909.795	-42.34	-30.00	-12.34

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:High



Antenna Polarity :VERTICAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4960.678	-42.87	-30.00	-12.87
2	7432.622	-45.10	-30.00	-15.10
3	9909.795	-42.40	-30.00	-12.40

6.2 Receiver spurious emissions

Test Requirement EN 300 328 V2.2.2 Clause 4.3.2.10.3
Test Method: EN 300 328 V2.2.2 Clause 5.4.10.2
Measurement Distance: 3m

Limit:

The spurious emissions of the receiver shall not exceed the values in tables in the indicated bands:

Frequency Range	Limit
30 MHz to 1 GHz	2nW(-57dBm)
Above 1GHz	20nW(-47dBm)

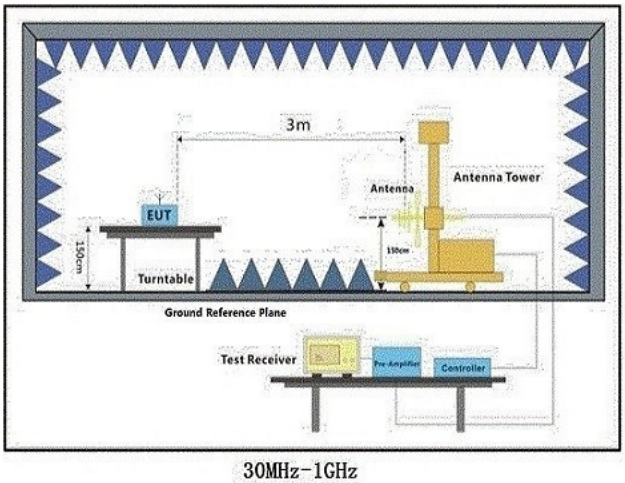
6.2.1 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

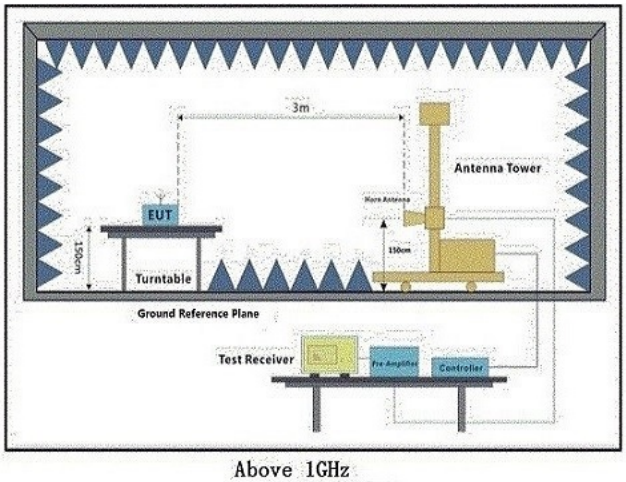
6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	RX_Keep the EUT in receiving mode with GFSK modulation.

6.2.3 Test Setup Diagram



30MHz-1GHz



Above 1GHz

6.2.4 Measurement Procedure and Data

1. Using test software to set up the lowest channel, the middle channel and the highest channel.

2. Scan from 30MHz to 12.75GHz, find the maximum radiation frequency to measure. No Standby Mode apply for the EUT.

3. The technique used to find the Spurious Emissions of the transmitter was a pre-calibration method which is measure the path loss from the measurement antenna to the substitution antenna and subtract this from the signal generator level to reach the measurement result. The method was performed to determine the actual ERP/EIRP emission levels of the EUT.

Test procedure as below:

1) The EUT was powered ON and placed on a table in the chamber. The antenna of the transmitter was extended to its maximum length. Receiver mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.

2) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.

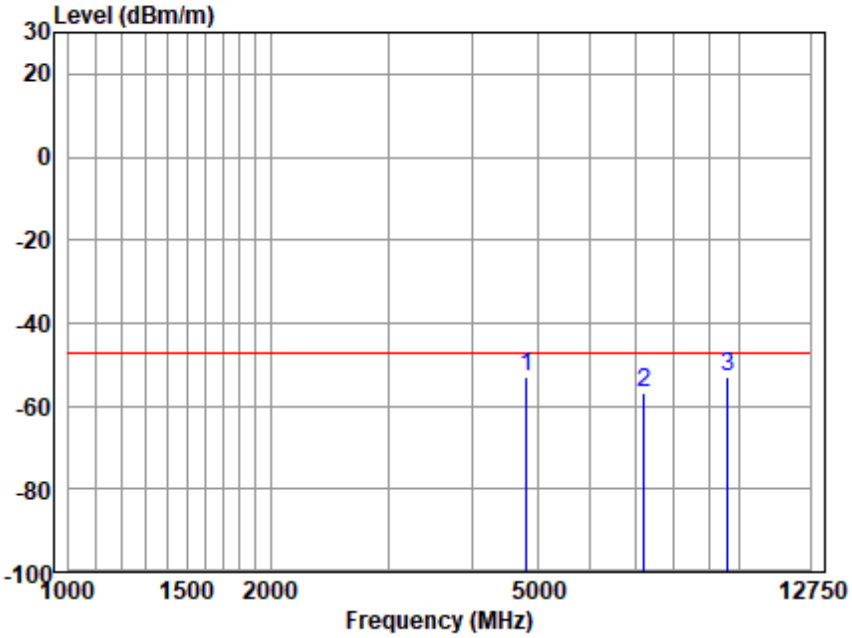
3) The test antenna shall be raised or lowered again, if necessary, through the specified height range until a maximum is obtained. This level shall be recorded.

4) This measurement shall be repeated for horizontal and vertical polarization.

Remark:

The disturbance below 1GHz was very low and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

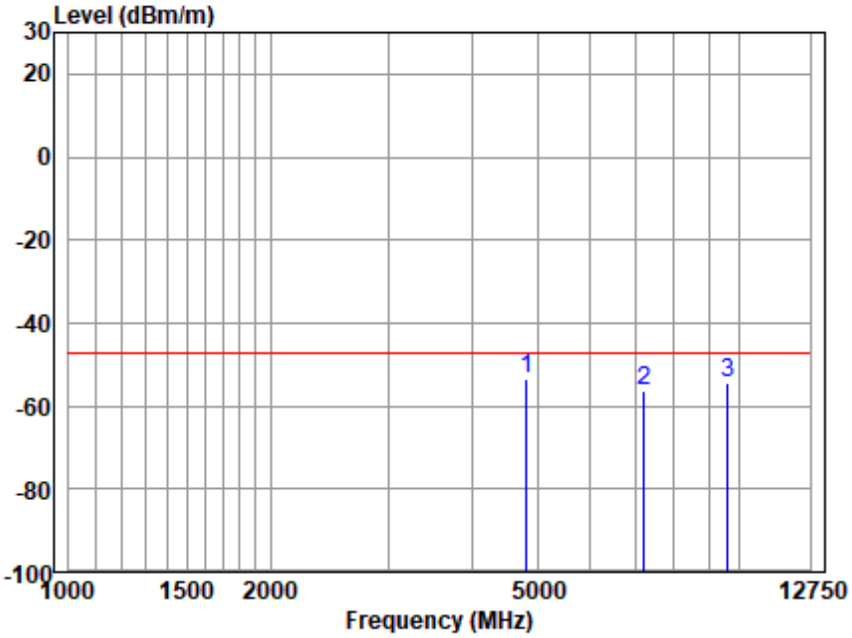
Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; Channel:Low



Antenna Polarity :HORIZONTAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4809.499	-52.96	-47.00	-5.96
2	7209.015	-56.68	-47.00	-9.68
3	9611.663	-52.96	-47.00	-5.96

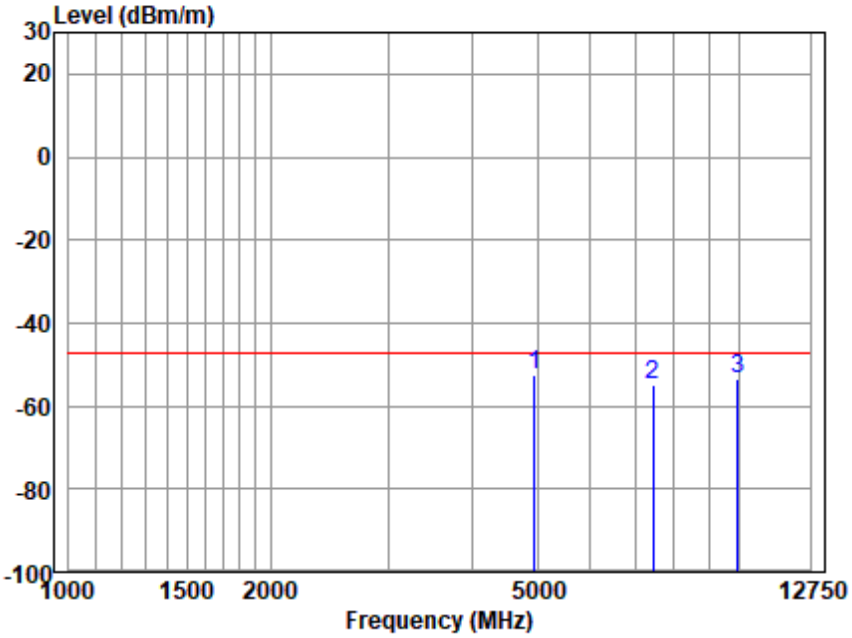
Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:Low



Antenna Polarity :VERTICAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4809.499	-53.36	-47.00	-6.36
2	7209.015	-56.31	-47.00	-9.31
3	9611.663	-54.38	-47.00	-7.38

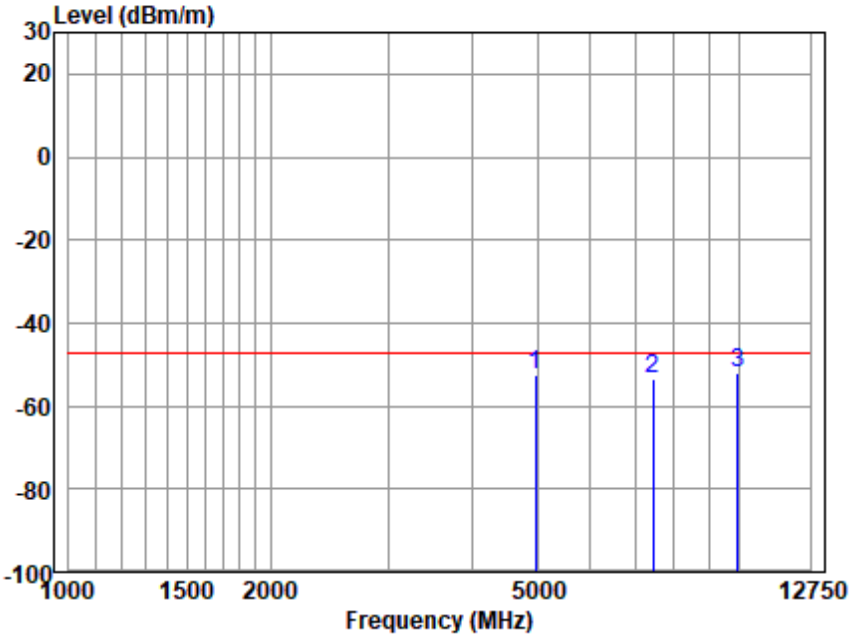
Test Mode: 03; Polarity: Horizontal; Modulation:GFSK; Channel:High



Antenna Polarity :HORIZONTAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4946.072	-52.62	-47.00	-5.62
2	7432.622	-55.07	-47.00	-8.07
3	9935.053	-53.27	-47.00	-6.27

Test Mode: 03; Polarity: Vertical; Modulation:GFSK; Channel:High



Antenna Polarity :VERTICAL
Dut/Project :0488HS

Marker	Freq	Emission Level	Limit Line	Over Limit
	MHz	dB/m	dB/m	dB
1	4958.678	-52.73	-47.00	-5.73
2	7432.622	-53.60	-47.00	-6.60
3	9935.053	-52.17	-47.00	-5.17

7 Test Setup Photo

Radiated Spurious Emissions below 1GHz

Radiated Spurious Emissions above 1GHz

8 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for SHCR2503000488HS

End of the Report -