



Product Service

FCC TEST REPORT

Report Number : **68.760.11.306.01** Date of Issue: 20 October 2011

Model : SCD486, SCD485

Product Type : Baby Monitor(Baby Unit)

Applicant : Philips Consumer Lifestyle.

Address : 600 Summer Street Stamford, CT 06905, United States

Production Facility : Huiyang CCT Telecommunications Products Co., Ltd.

Address : CCT technology Park, San He Economic
Development Zone, Huiyang District, Huizhou City,
Guangdong Province, China

Test Result : **Positive** **Negative**

Total pages including
Appendices : 31

Jiangsu TÜV Product Service Ltd. – Shenzhen Branch is a subcontractor to TÜV SÜD Product Service GmbH according to the principles outlined in ISO 17025.

Jiangsu TÜV Product Service Ltd. – Shenzhen Branch reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations. Jiangsu TÜV Product Service Ltd. – Shenzhen Branch shall have no liability for any deductions, inferences or generalizations drawn by the client or others from Jiangsu TÜV Product Service Ltd. – Shenzhen Branch issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval.



1 Table of Contents

1	Table of Contents.....	2
2	Details about the Test Laboratory.....	3
3	Description of the Equipment Under Test.....	4
4	Summary of Test Standards.....	5
5	Summary of Test Results.....	6
6	General Remarks.....	7
7	Technical Requirements.....	8
7.1	Conducted emissions	8
7.2	Radiated emissions	12
7.3	Band Edges Testing	22
7.3	20dB Bandwidth Testing.....	28
8	System Measurement Uncertainty.....	31



2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: Jiangsu TÜV Product Service Ltd. – Shenzhen Branch
6th Floor, H Hall,
Century Craftwork Culture Square,
No. 4001, Fuqiang Road,
Futian District 518048,
Shenzhen, P.R.C.

Telephone: 86 755 8828 6998
Fax: 86 755 8828 5299

Test Site 2

Company name: Audix Technology (shenzhen) Co., Ltd
Block Shenzhen, Science & Industry Park,
Nantou, Shenzhen,
Guangdong,
China

Telephone: 86 755 2663 9496
Fax: 86 755 2663 2877



3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product: Baby Monitor(Baby Unit)
Model no.: SCD486
Options and accessories: NIL
Rating: Input Rated Voltage: 6VDC (4 AA batteries)
Test with external adaptor:
Adaptor input: 100-240VAC, 50-60Hz, 0.1A;
Adaptor Output: 6.0VDC, 300mA

RF Transmission
Frequency: Channel 1:49.83MHz, Channel 2: 49.85MHz

Description of the EUT: Wireless Device

Remark: NIL

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
----	----	----	----



Product Service

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators



5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C					
Test Condition	Pages	Test Location	Test Result		
			Pass	Fail	N/A
FCC §15.207 Conducted Emission AC Power Port	8	Test site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC §15.209(a) §15.235(a) §15.205 - Radiated Emissions	12	Test site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC §15.235(b) - Band Edges Testing	22	Test site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC §15.215(c) – 20dB Bandwidth Testing	28	Test site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID in below table filing to comply with Section 15.207, 15.209, 15.215, 15.235 of the FCC Part 15, Subpart C Rules.

Model No.	FCC ID
SCD486	BOUSCD486
SCD485	BOUSCD485

The SCD485 and SCD486 are the Baby Unit of Baby monitor, which was identical, except the Model no. and the FCC ID. So full tests were applied on model SCD486 and the test result was recorded in this report, the model SCD 485 is deemed to fulfill relevant requirement without further testing.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: 10 October 2011

Testing Start Date: 20 October 2011

Testing End Date: 20 October 2011

Jiangsu TÜV Product Service Ltd. – Shenzhen Branch -

Reviewed by:

Prepared by:

Tested by:

Paul Yu
Assistant EMC Manager

Phoebe Hu
Senior EMC Project Engineer

Sunny Lu
Test Engineer

7 Technical Requirement

7.1 Conducted Emission

Test Method

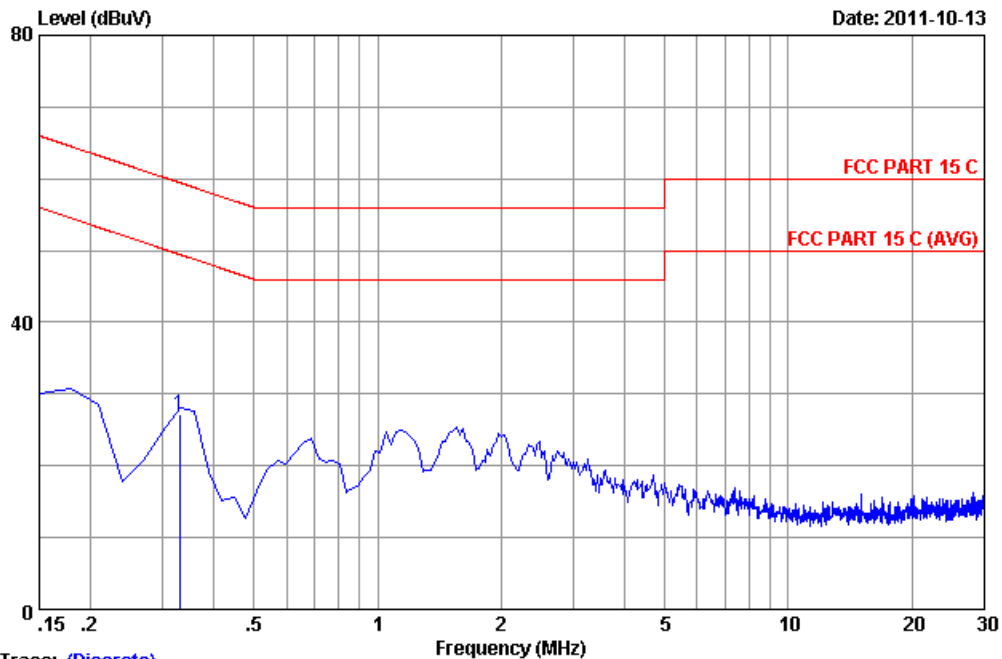
- 1 The EUT was placed on a table, which is 0.8m above ground plane
- 2 The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
- 3 Maximum procedure was performed to ensure EUT compliance
- 4 A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions from both sides of AC line

Limit

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

Conducted Emission



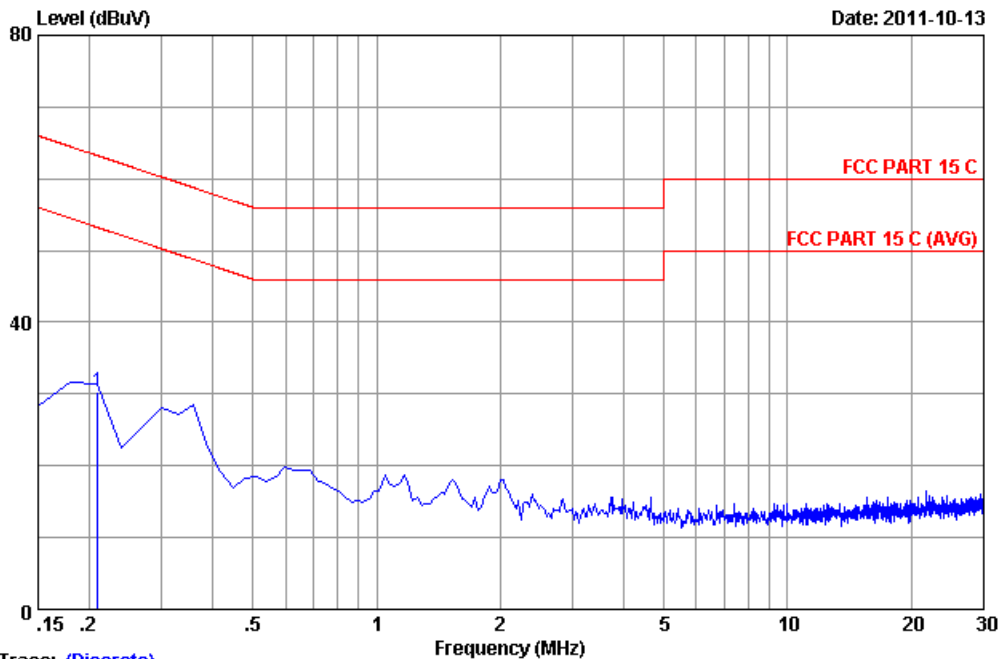
Trace: (Discrete)
 Site no :1#conduction Data No :1
 Dis./Ant. **: 2011 ESH2-25 NEUTRAL
 Limit :FCC PART 15 C
 Env./Ins. :29.5°C/55% Engineer :Restar
 EUT :Baby Unit SCD486
 Power Rating :AC 120V/60Hz
 Test Mode :Tx&Rx On

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.32910	0.22	9.98	16.89	27.09	59.47	32.38	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.

2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Conducted Emission



Trace: (Discrete)

Site no :1#conduction Data No :2
 Dis./Ant. **: 2011 ESH2-Z5 LINE
 Limit :FCC PART 15 C
 Env./Ins. :29.5°C/55% Engineer :Restar
 EUT :Baby Unit SCD486
 Power Rating :AC 120V/60Hz
 Test Mode :Tx&Rx On

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.20970	0.17	9.98	20.26	30.41	63.22	32.81	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.

2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Test Equipment List

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Dec.18, 11
L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	May.30, 12
L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 12
Terminator	Hubersuhner	50Ω	No. 1	May.08, 12
Terminator	Hubersuhner	50Ω	No. 2	May.08, 12
RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 12
Coaxial Switch	Anritsu	MP59B	M55367	May.08, 12
Passive Probe	Rohde & Schwarz	ESH2-Z3	299.7810.52	May.08, 12
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 12

7.2 Radiated Emissions

Test Method

- 1 The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2 The turntable shall be rotated for 360 degrees to determine the position of maximum emission level
- 3 EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4 Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5 Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Limit:

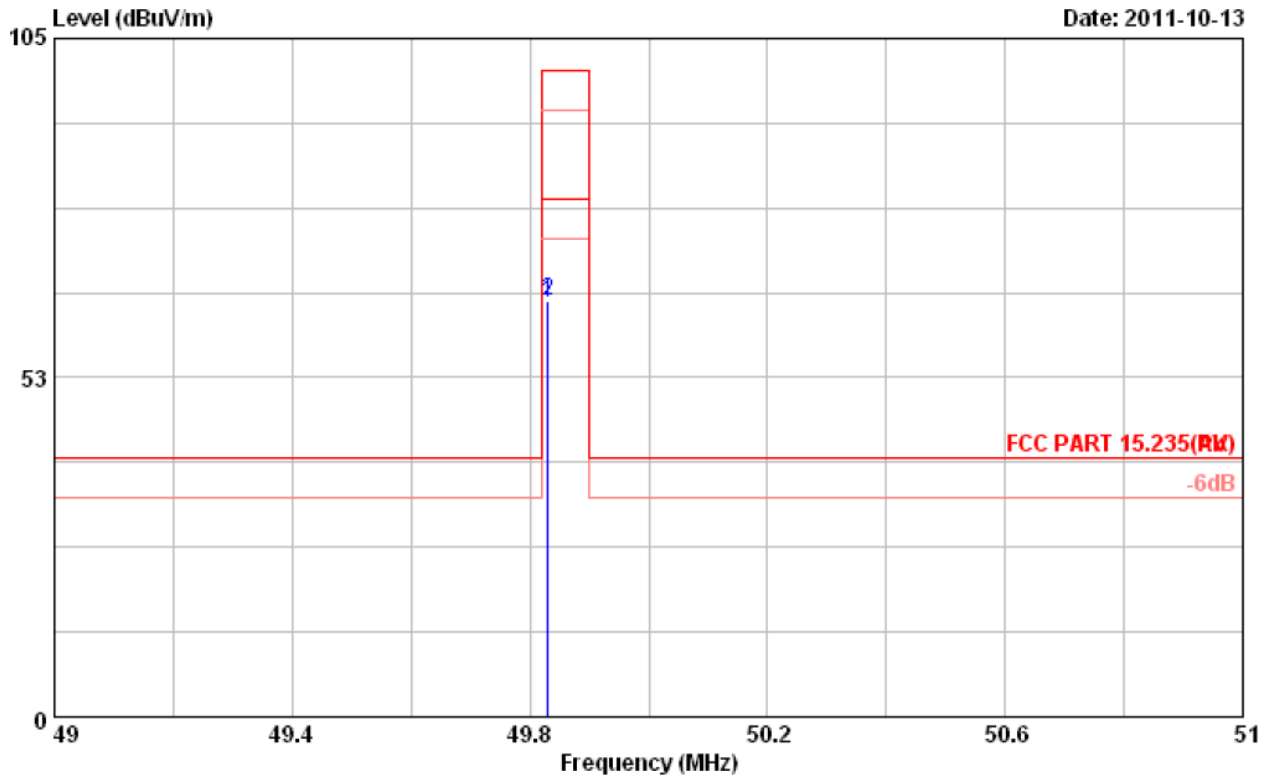
The EUT must comply the limit of FCC15.205, FCC 15.209 and FCC 15.235.

Radiated Emission

Fundamental test data:

Channel 1:

Date: 2011-10-13

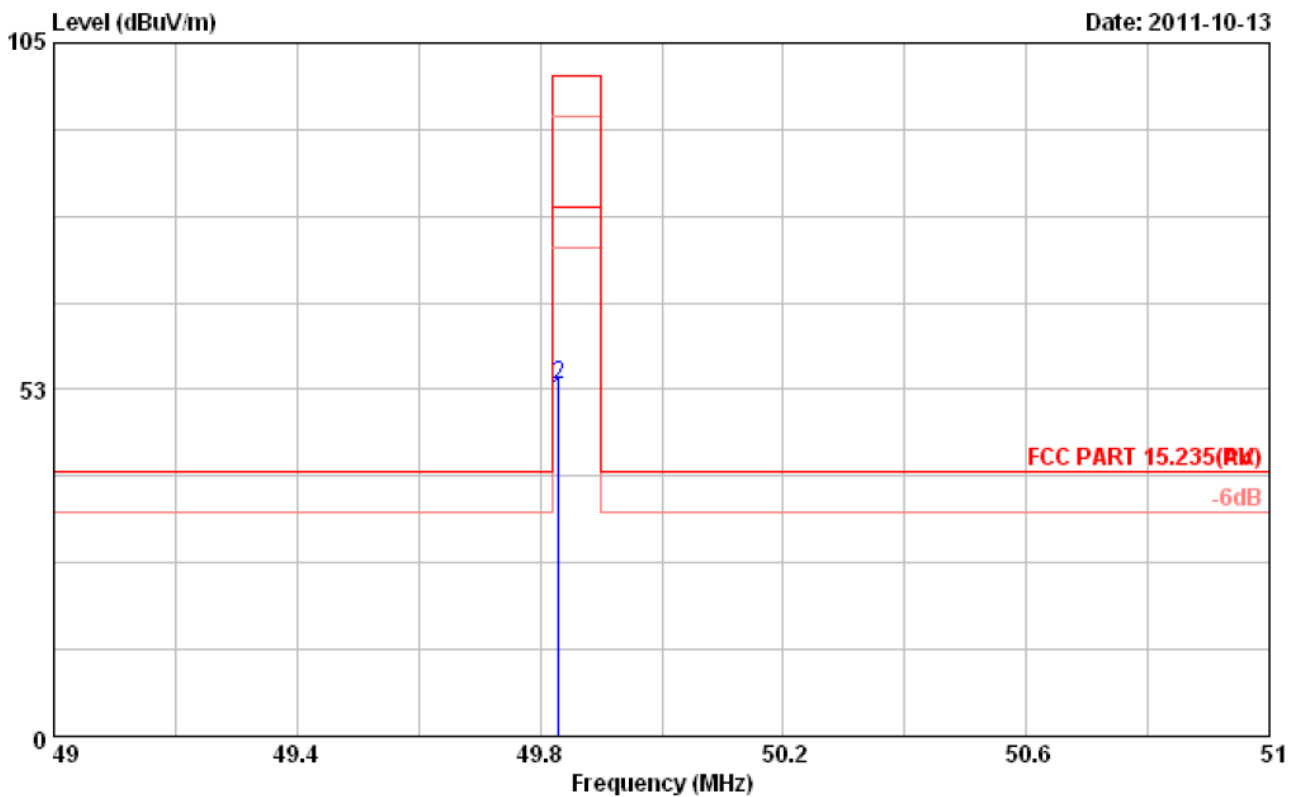


Site no.	: 3m Chamber	Data no.	: 7
Dis. / Ant.	: 3m 2010 CBL6111C 2598	Ant. pol.	: VERTICAL
Limit	: FCC PART 15.235(PK)	Engineer	: Jolly_Xu
Env. / Ins.	: 24°C/56%		
EUT	: Baby Unit SCD486		
Power rating	: AC 120V/60Hz		
Test Mode	: CH1 49.83		

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	49.830	9.72	0.83	80.74	64.03	80.00	15.97	Average
2	49.830	9.72	0.83	81.12	64.41	100.00	35.59	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission



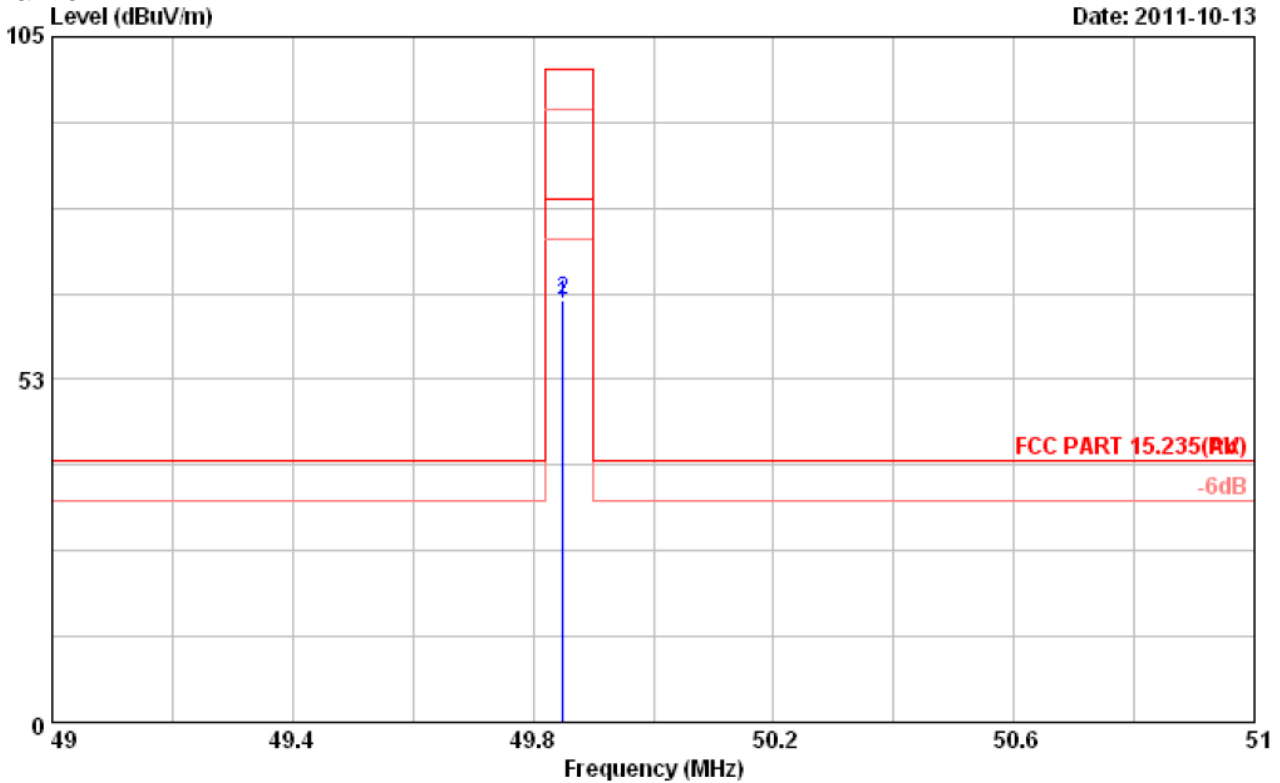
Site no.	: 3m Chamber	Data no.	: 8
Dis. / Ant.	: 3m 2010 CBL6111C 2598	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15.235(PK)		
Env. / Ins.	: 24°C/56%	Engineer	: Jolly_Xu
EUT	: Baby Unit SCD486		
Power rating	: AC 120V/60Hz		
Test Mode	: CH1 49.83		

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission			Margin (dB)	Remark
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)		
1	49.830	9.72	0.83	67.72	51.01	80.00	28.99	Average
2	49.830	9.72	0.83	69.82	53.11	100.00	46.89	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission

Channel 2:



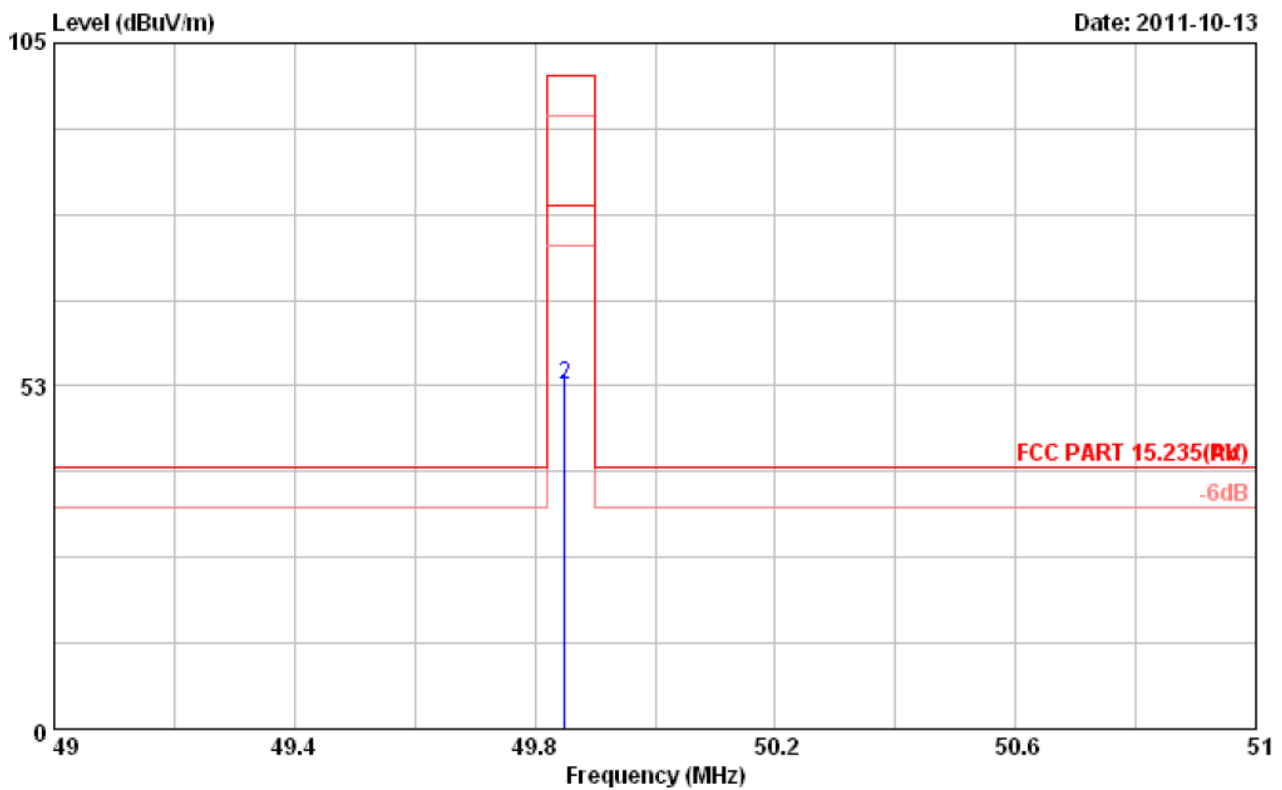
Site no. : 3m Chamber
 Dis. / Ant. : 3m 2010 CBL6111C 2598
 Limit : FCC PART 15.235(PK)
 Env. / Ins. : 24°C/56%
 EUT : Baby Unit SCD486
 Power rating : AC 120V/60Hz
 Test Mode : CH2 49.85

Data no. : 3
 Ant. pol. : VERTICAL
 Engineer : Jolly_Xu

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	49.850	9.72	0.83	80.66	63.95	80.00	16.05	Average
2	49.850	9.72	0.83	81.28	64.57	100.00	35.43	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission



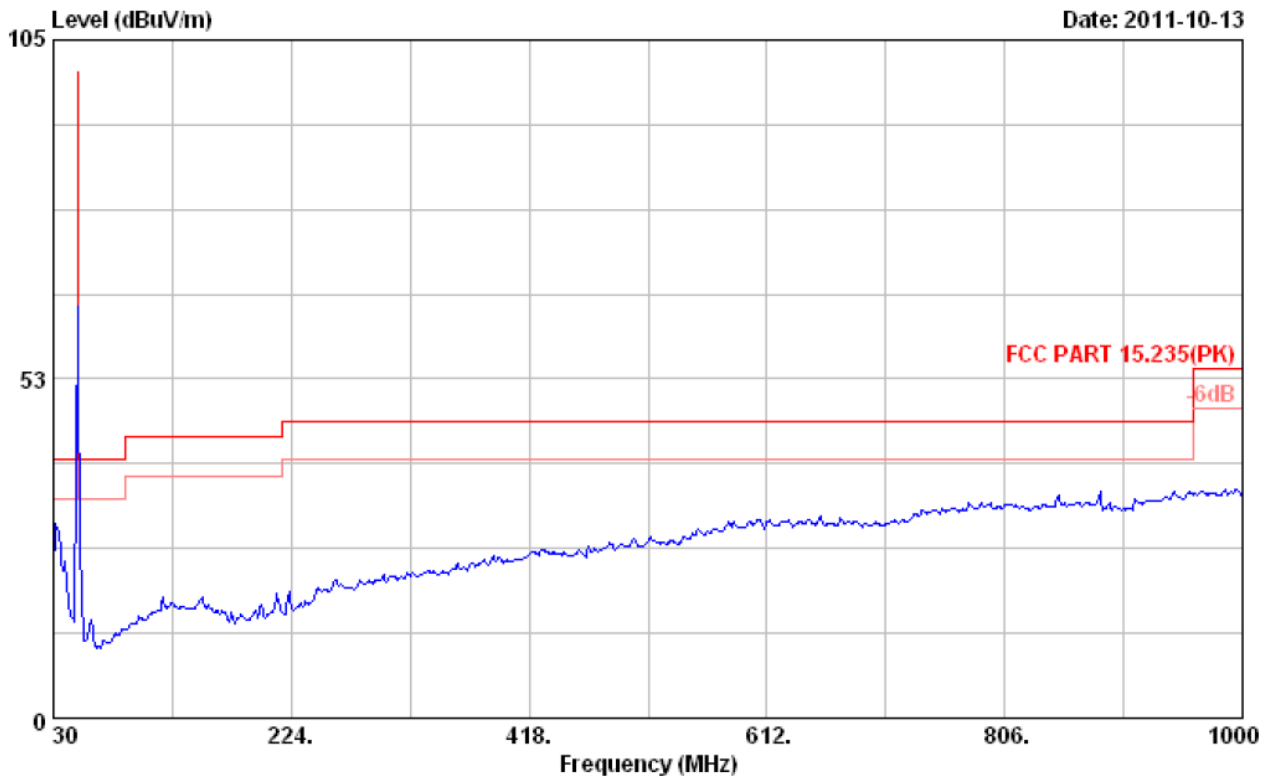
Site no.	: 3m Chamber	Data no.	: 4
Dis. / Ant.	: 3m 2010 CBL6111C 2598	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15.235(PK)	Engineer	: Jolly_Xu
Env. / Ins.	: 24°C/56%		
EUT	: Baby Unit SCD486		
Power rating	: AC 120V/60Hz		
Test Mode	: CH2 49.85		

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	49.850	9.72	0.83	67.52	50.81	80.00	29.19	Average
2	49.850	9.72	0.83	69.22	52.51	100.00	47.49	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

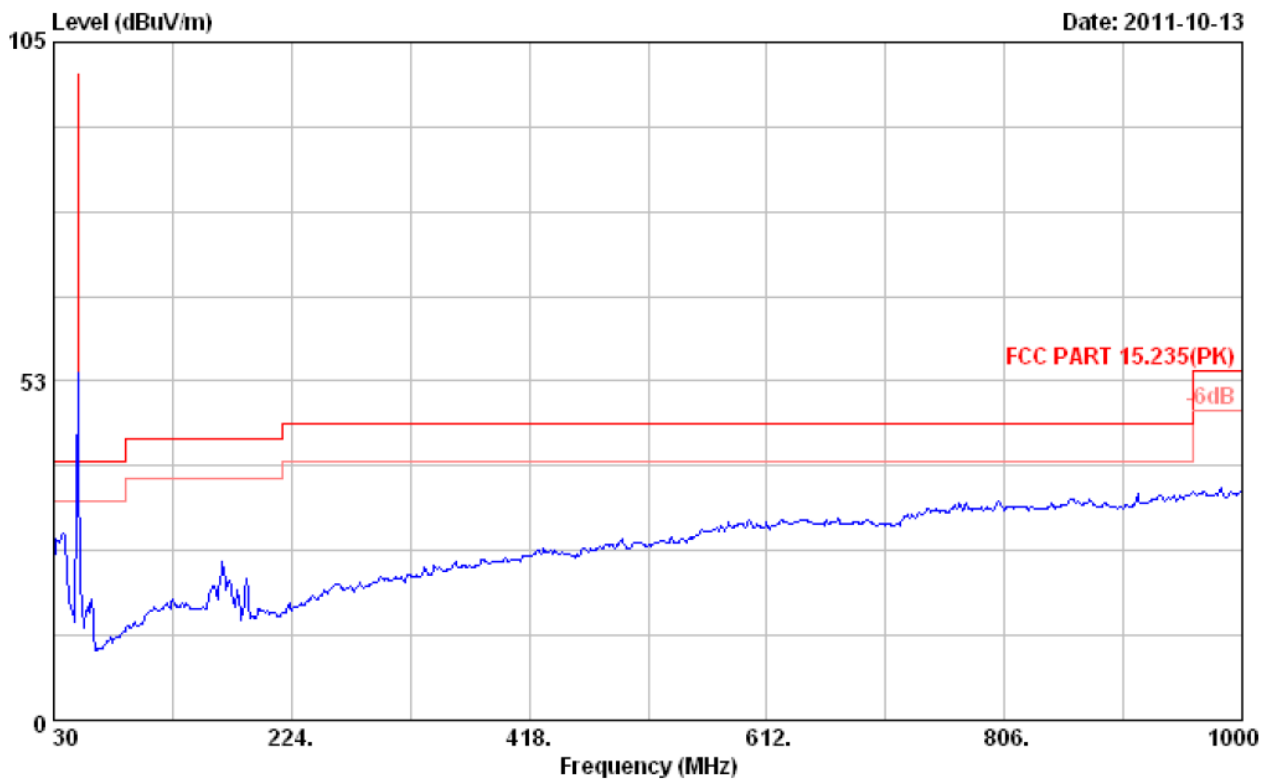
Radiated Emission

Transmitting spurious emission test data:
Channel 1:



Site no.	: 3m Chamber	Data no.	: 6
Dis. / Ant.	: 3m 2010 CBL6111C 2598	Ant. pol.	: VERTICAL
Limit	: FCC PART 15.235(PK)		
Env. / Ins.	: 24°C/56%	Engineer	: Jolly_Xu
EUT	: Baby Unit SCD486		
Power rating	: AC 120V/60Hz		
Test Mode	: CH1 49.83		

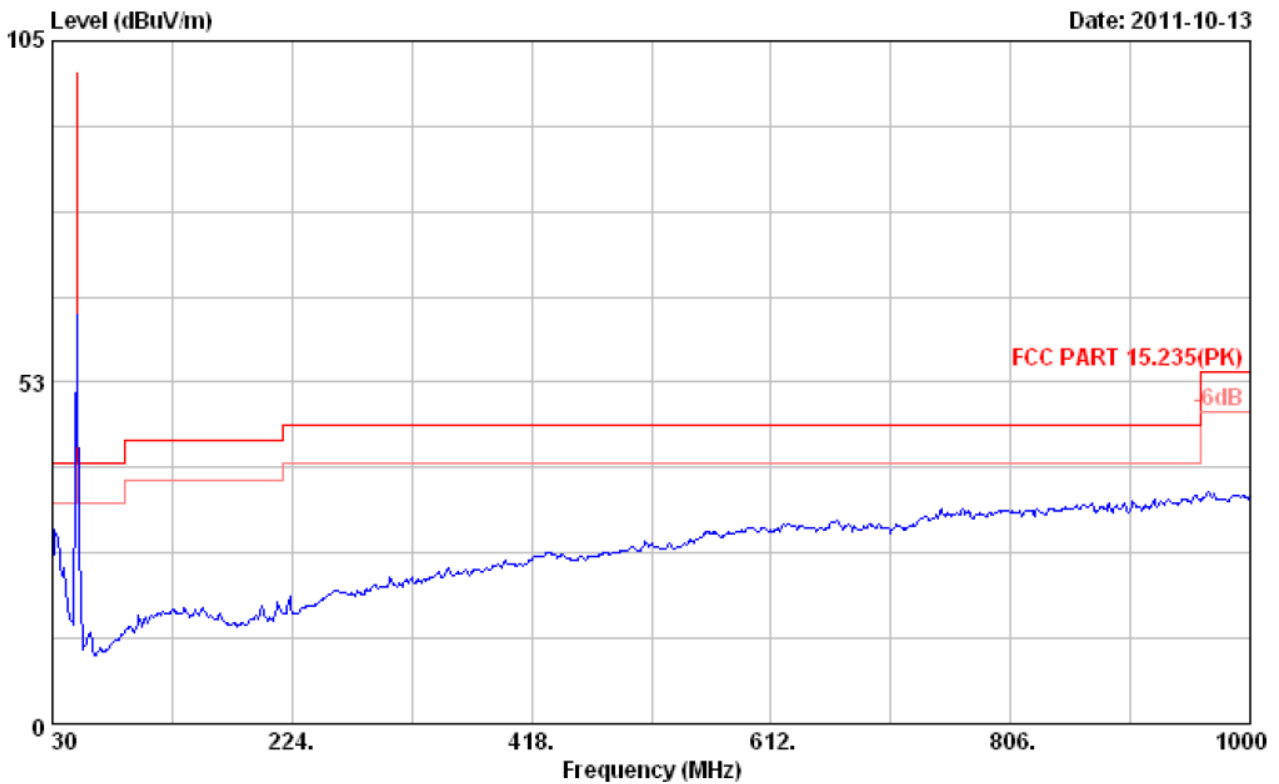
Radiated Emission



Site no.	: 3m Chamber	Data no.	: 5
Dis. / Ant.	: 3m 2010 CBL6111C 2598	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15.235(PK)	Engineer	: Jolly_Xu
Env. / Ins.	: 24°C/56%		
EUT	: Baby Unit SCD486		
Power rating	: AC 120V/60Hz		
Test Mode	: CH1 49.83		

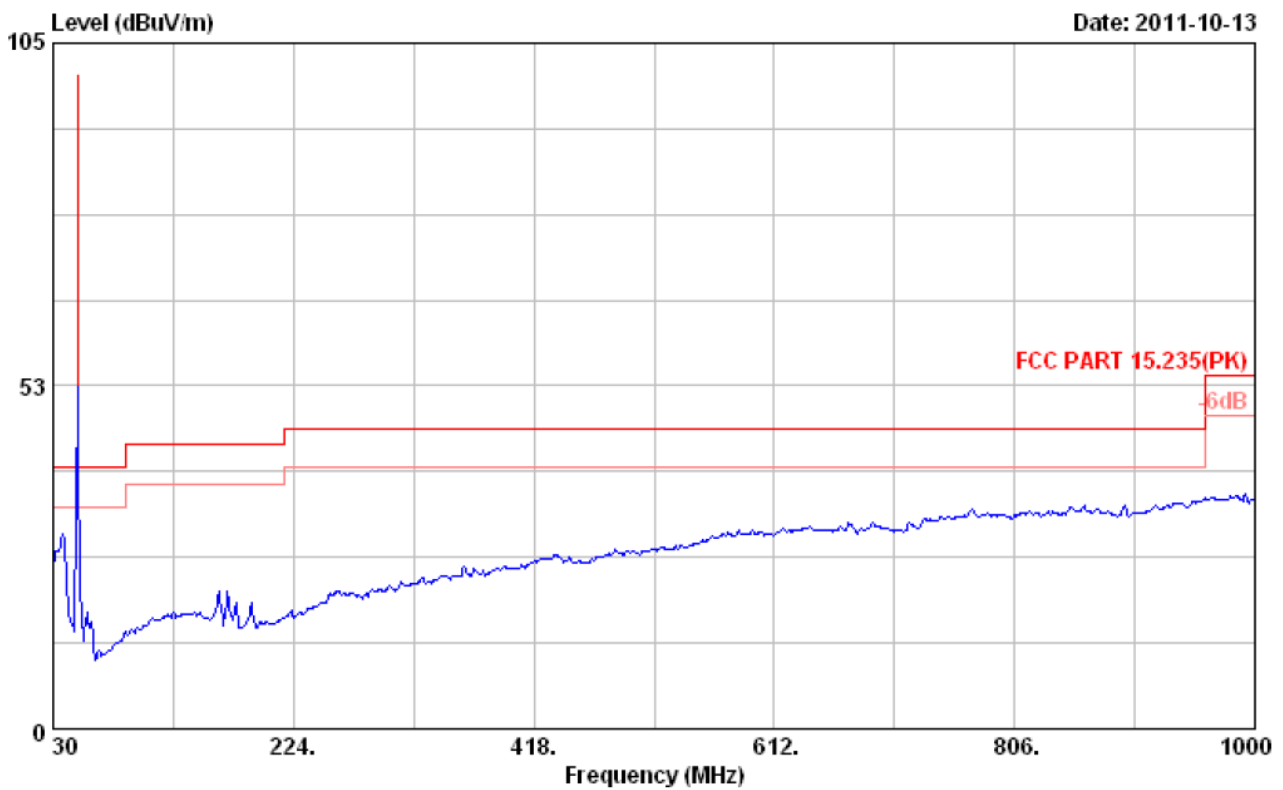
Radiated Emission

Channel 2:



Site no.	: 3m Chamber	Data no.	: 2
Dis. / Ant.	: 3m 2010 CBL6111C 2598	Ant. pol.	: VERTICAL
Limit	: FCC PART 15.235(PK)	Engineer	: Jolly_Xu
Env. / Ins.	: 24°C/56%		
EUT	: Baby Unit SCD486		
Power rating	: AC 120V/60Hz		
Test Mode	: CH2 49.85		

Radiated Emission



Site no. : 3m Chamber	Data no. : 1
Dis. / Ant. : 3m 2010 CBL6111C 2598	Ant. pol. : HORIZONTAL
Limit : FCC PART 15.235(PK)	
Env. / Ins. : 24°C/56%	Engineer : Jolly_Xu
EUT : Baby Unit SCD486	
Power rating : AC 120V/60Hz	
Test Mode : CH2 49.85	



Test Equipment

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
Spectrum	Agilent	E4446A	US44300459	May 08, 2012
Amp	HP	8449B	3008A02495	May 08, 2012
Antenna	EMCO	3115	9607-4877	May 17, 2012
Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 2011
HF Cable	Hubersuhne	Sucoflex104	---	May 08, 2012

7.3 Band Edges Testing

Test Method

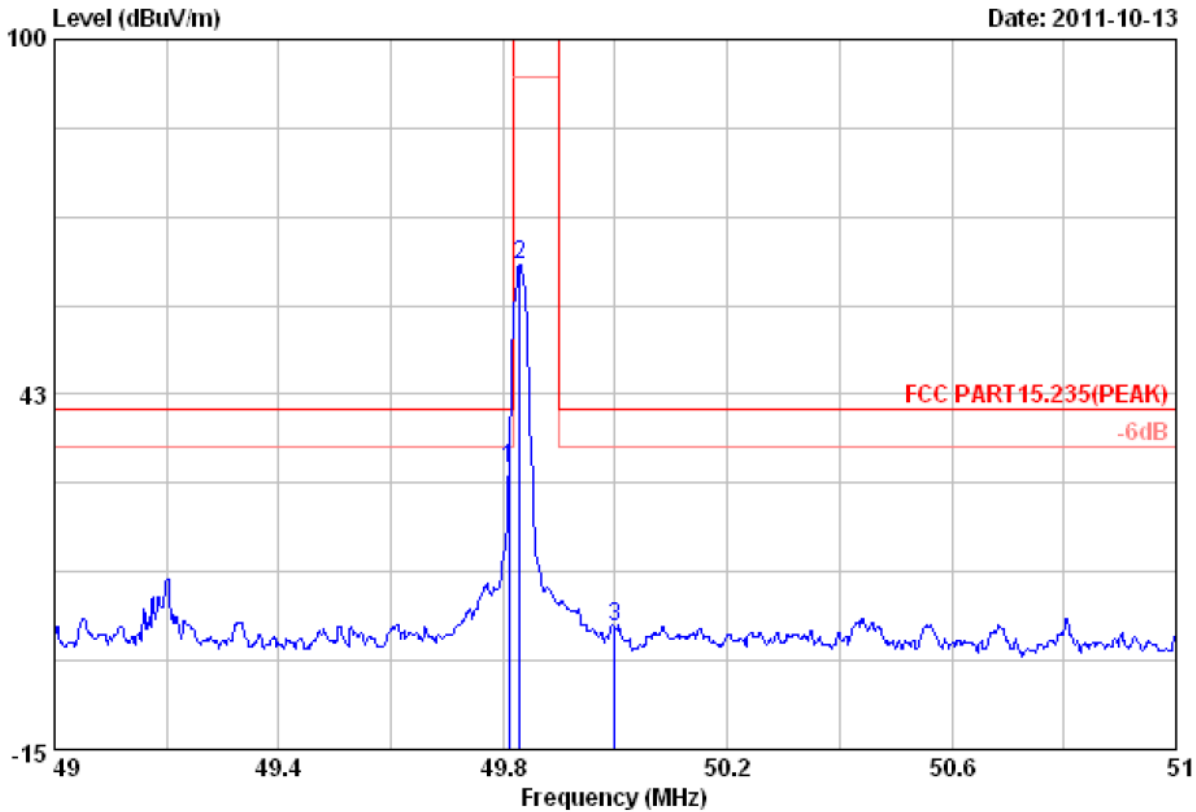
- 1 Place the EUT in the chamber and set it in transmitting mode.
- 2 Set center frequency of spectrum analyzer=operating frequency.
- 3 Set the spectrum analyzer as RBW=10Hz, VBW= \geq RBW
- 4 Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
- 5 Repeat above procedures until all measured frequencies were complete.

Limits:

According to 15.235(b) The field strength of any emissions appearing between the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 26 dB below the level of the unmodulated carrier or to the general limits in §15.209, whichever permits the higher emission levels. The field strength of any emissions removed by more than 10 kHz from the band edges shall not exceed the general radiated emission limits in §15.209. All signals exceeding 20 microvolts/meter at 3 meters shall be reported in the application for certification.

Band Edges Testing

Channel 1 test data:



```

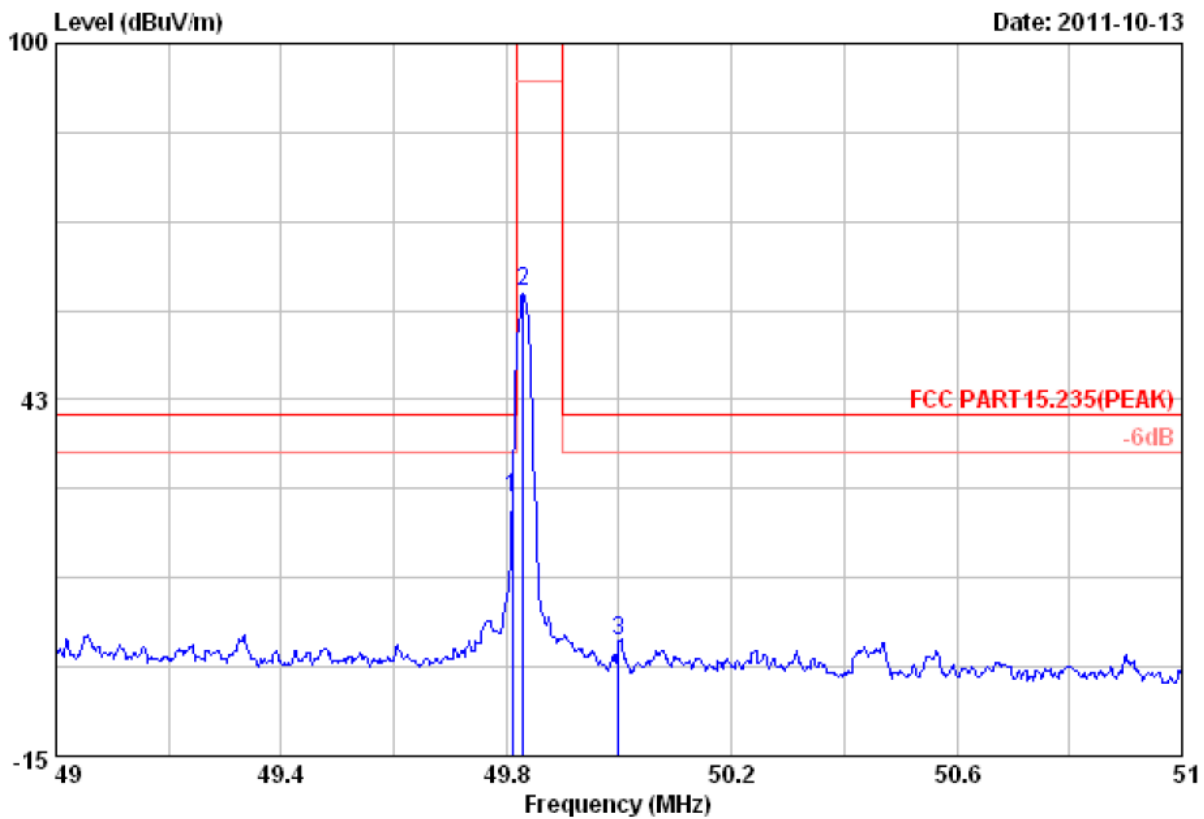
Site no.       : 3m Chamber           Data no. : 3
Dis. / Ant.   : 3m CBL6111C SN 2768 (11Ant. pol. : VERTICAL
Limit         : FCC PART15.235(PEAK)
Env. / Ins.   : 23*C/54%             Engineer  : Leo-Li
EUT          : Baby Unit SCD486
Power        : DC 5V From PC Input AC 120V/60Hz
Test mode    : Tx CH1 49.83MHz
M/N          :
              :
    
```

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	49.810	8.53	0.83	28.09	49.25	30.52	40.00	9.48	Peak
2	49.830	8.53	0.83	28.09	82.22	63.49	100.00	36.51	Peak
3	50.000	8.06	0.83	28.09	24.19	4.99	40.00	35.01	Peak

Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

Band Edges Testing



```

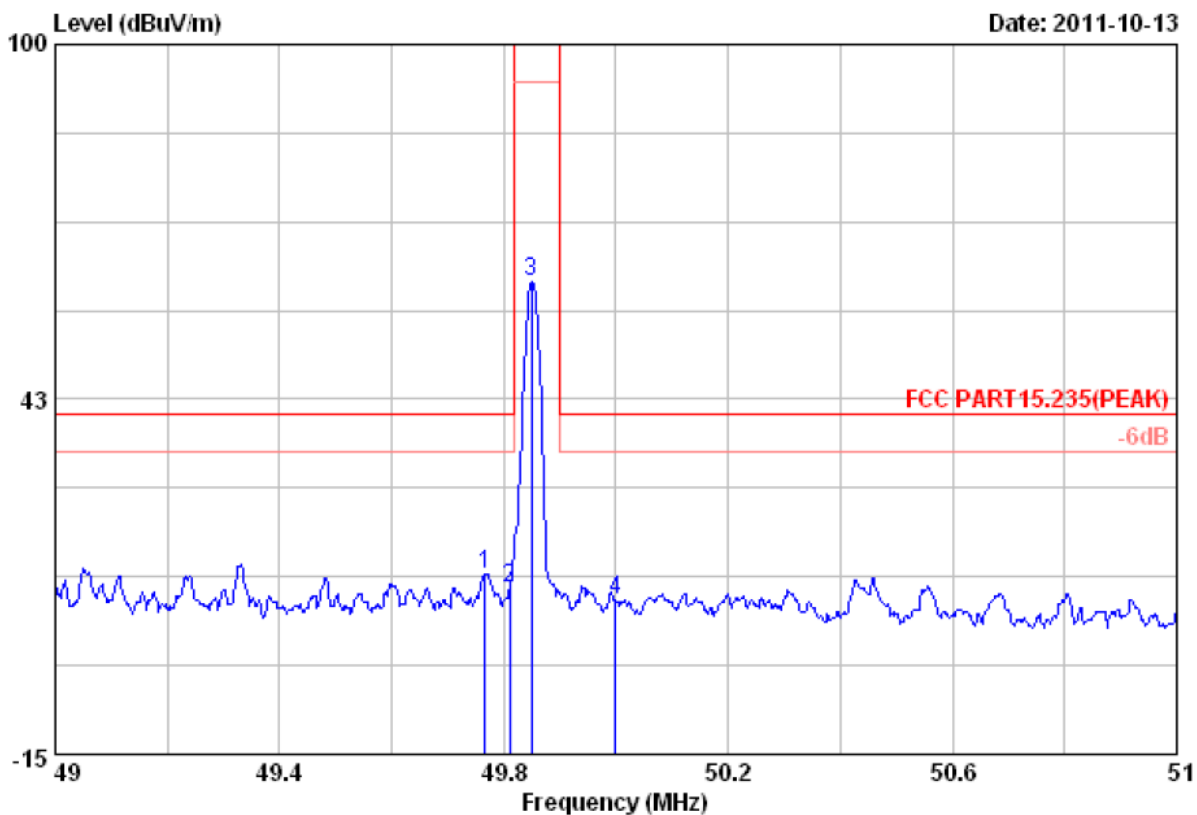
Site no.       : 3m Chamber           Data no. : 1
Dis. / Ant.   : 3m CBL6111C SN 2768 (11Ant. pol. : HORIZONTAL
Limit         : FCC PART15.235(PEAK)
Env. / Ins.   : 23*C/54%             Engineer  : Leo-Li
EUT          : Baby Unit SCD486
Power        : DC 5V From PC Input AC 120V/60Hz
Test mode    : Tx CH1 49.83MHz
M/N         :
  
```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	49.810	8.53	0.83	28.09	45.26	26.53	40.00	13.47	Peak
2	49.830	8.53	0.83	28.09	78.58	59.85	100.00	40.15	Peak
3	50.000	8.06	0.83	28.09	22.78	3.58	40.00	36.42	Peak

Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

Band Edges Testing



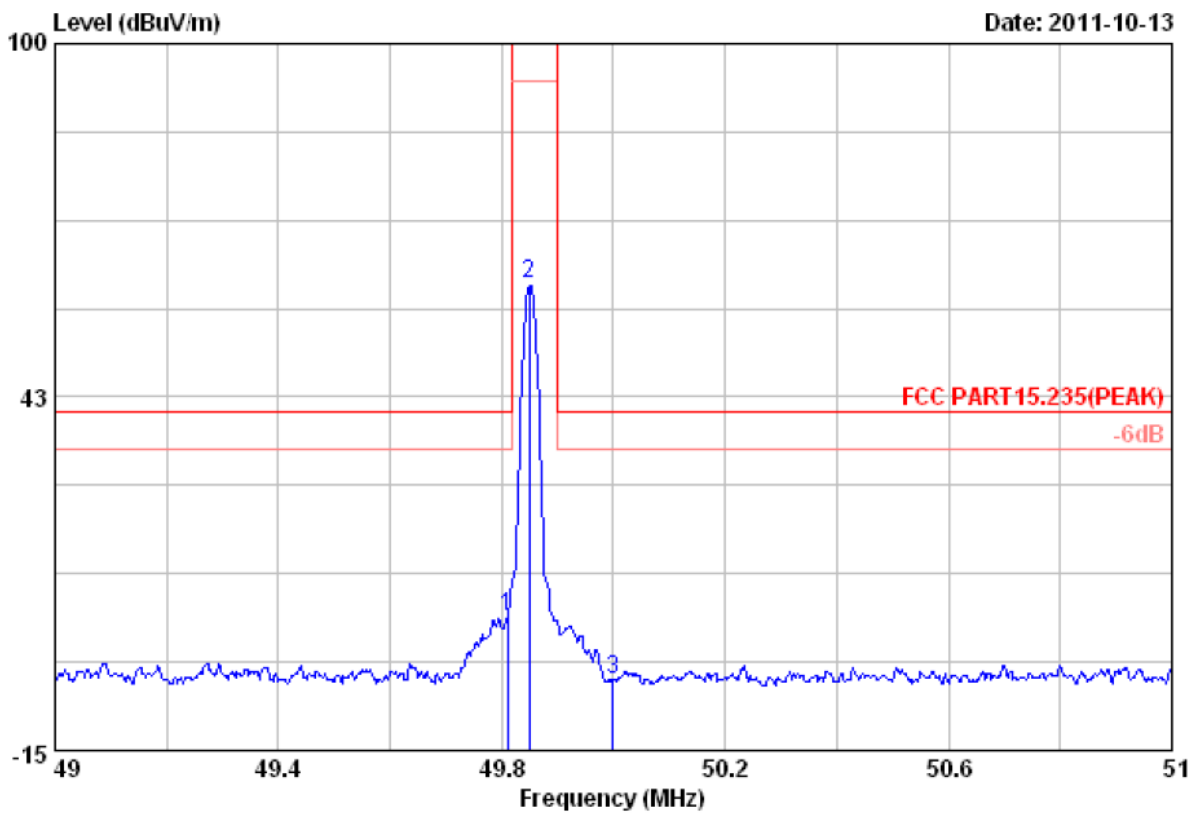
Site no. : 3m Chamber Data no. : 8
 Dis. / Ant. : 3m CBL6111C SN 2768 (11Ant. pol. : VERTICAL
 Limit : FCC PART15.235(PEAK)
 Env. / Ins. : 23*C/54% Engineer : Leo-Li
 EUT : Baby Unit SCD486
 Power : DC 5V From PC Input AC 120V/60Hz
 Test mode : Tx CH2 49.85MHz
 M/N :
 :

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	49.766	8.53	0.83	28.09	33.04	14.31	40.00	25.69	Peak
2	49.810	8.53	0.83	28.09	30.69	11.96	40.00	28.04	Peak
3	49.850	8.53	0.83	28.09	80.22	61.49	100.00	38.51	Peak
4	50.000	8.06	0.83	28.09	29.31	10.11	40.00	29.89	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Band Edges Testing



Site no. : 3m Chamber Data no. : 5
 Dis. / Ant. : 3m CBL6111C SN 2768 (11Ant. pol. : HORIZONTAL
 Limit : FCC PART15.235(PEAK)
 Env. / Ins. : 23*C/54% Engineer : Leo-Li
 EUT : Baby Unit SCD486
 Power : DC 5V From PC Input AC 120V/60Hz
 Test mode : Tx CH2 49.85MHz
 M/N :
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	49.810	8.53	0.83	28.09	25.45	6.72	40.00	33.28	Peak
2	49.850	8.53	0.83	28.09	79.78	61.05	100.00	38.95	Peak
3	50.000	8.06	0.83	28.09	15.82	-3.38	40.00	43.38	Peak

Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.

**Test Equipment**

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
Spectrum	Agilent	E4446A	US44300459	May 08, 2012
Amp	HP	8449B	3008A02495	May 08, 2012
Antenna	EMCO	3115	9607-4877	May 17, 2012
Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 2011
HF Cable	Hubersuhne	Sucoflex104	---	May 08, 2012

7.4 20dB Bandwidth Testing

Test Method

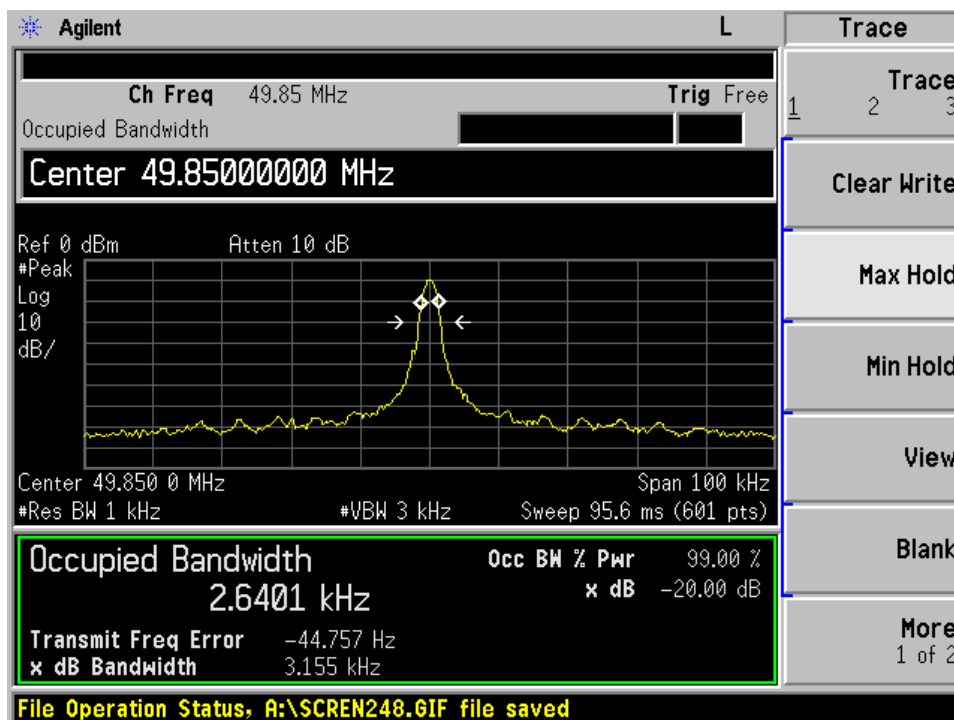
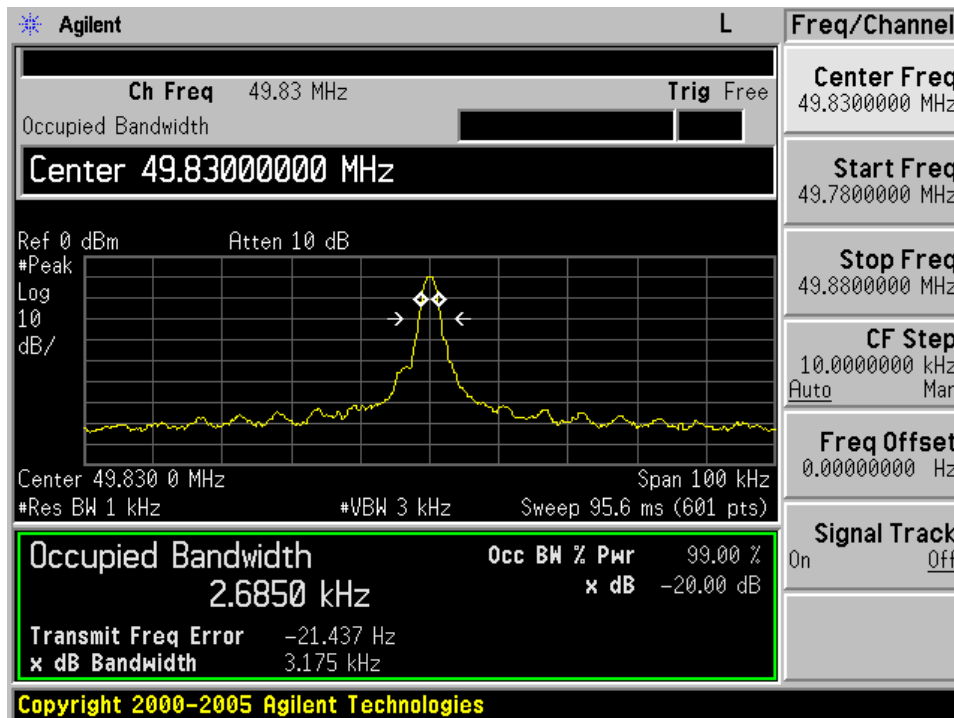
- 1 Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2 Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- 3 Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.

Limits:

Per 15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

20dB Bandwidth Testing

Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)
Channel 1	49.83	3.175
Channel 1	49.85	3.155





Test Equipment

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
Spectrum	Agilent	E4446A	US44300459	May 08, 2012
Amp	HP	8449B	3008A02495	May 08, 2012
Antenna	EMCO	3115	9607-4877	May 17, 2012
Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 2011
HF Cable	Hubersuhne	Sucoflex104	---	May 08, 2012



8 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty

	Items	Extended Uncertainty
RE	Field strength (dB μ V/m)	U=4.32dB (30MHz-25GHz)
CE	Disturbance Voltage (dB μ V)	U=2.4dB