Spacelabs Medical Inc.

BlueGiga WT12

(Spacelabs' P/N 010-1927-00)

Report #: SPAC0490

Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – www.nwemc.com

California – Minnesota – Oregon – New York – Washington

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Last Date of Test: March 14, 2012
Spacelabs Medical Inc.
Model: BlueGiga WT12
(Spacelabs' P/N 010-1927-00)

Emissions

Test Description	Specification	Test Method	Pass/Fail
Channel Spacing	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Dwell Time	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Number of Hopping Frequencies	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Occupied Bandwidth	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Output Power	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Band Edge Compliance	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Spurious Conducted Emissions	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Power Spectral Density	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
Spurious Radiated Emissions	FCC 15.247:2012	ANSI C63.10:2009	**Pass**
AC Powerline Conducted Emissions	FCC 15.207:2012	ANSI C63.10:2009	**Pass**

Deviations From Test Standards

None

Approved By:

Tim O'Shea, Operations Manager

NVLAP Lab Code: 200630-0

Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.
22975 NW Evergreen Parkway, Suite 400
Hillsboro, OR 97124
Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834D-2).

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.

Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.

Revision History

Revision Number	Description	Date	Page Number
00	None		

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025. The scope includes radio, ITE, and medical standards from around the world. See: http://www.nwemc.com/accreditations/

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

KCC / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Hong Kong

OFTA – Recognized by OFTA as a CAB for the acceptance of test data.

Vietnam

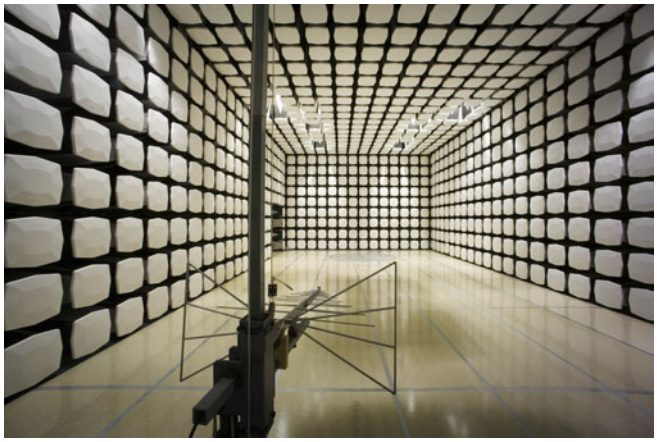
MIC – Recognized by MIC as a CAB for the acceptance of test data.

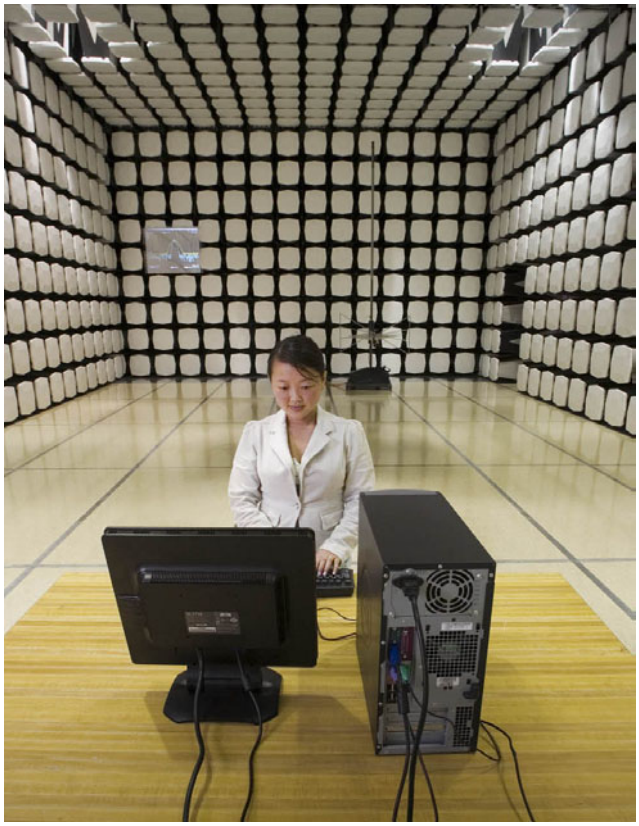
Russia

GOST – Accredited by Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC to perform EMC and Hygienic testing for Information Technology products to GOST standards**.**

Locations

Oregon	California	New York	Minnesota	Washington
Labs EV01-EV12 22975 NW Evergreen Pkwy, #400 Hillsboro, OR 97124 (503) 844-4066	Labs OC01-OC13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs WA01-WA04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Labs MN01-MN08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Labs SU01-SU07 14128 339th Ave. SE Sultan, WA 98294 (360) 793-8675
VCCI				
C-1071, R-1025, G-84, C-2687, T-1658, R-2318	R-1943, G-85, C-2766, T-1659, G-548		R-3125, G-86, G-141, C-3464, T-1634	R-871, G-83, C-3265, T-1511
Industry Canada				
2834D-1, 2834D-*2*	2834B-1, 2834B-2, 2834B-3		2834E-1	2834C-1





Product Description

Client and Equipment Under Test (EUT) Information

Company Name:	Spacelabs Medical Inc.
Address:	5150 220th Ave SE
City, State, Zip:	Issaquah, WA 98027-7018
Test Requested By:	Steve Cantwell
Model:	BlueGiga WT12
First Date of Test:	March 2, 2012
Last Date of Test:	March 14, 2012
Receipt Date of Samples:	March 2, 2012
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
Bluetooth EDR radio module

Testing Objective:
To demonstrate compliance to FCC 15.247 requirements

Configurations

Configuration 1 SPAC0490

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bluetooth Radio	BlueGiga Technologies, Inc.	WT12	None

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Evaluation Kit	BlueGiga Technologies, Inc.	Wrap Thor	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Control PC	Dell	D530	HV6JL3J

Configuration 2 SPAC0490

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bluetooth Radio	BlueGiga Technologies, Inc.	WT12	None

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Evaluation Kit	BlueGiga Technologies, Inc.	Wrap Thor	None
Linear Power Supply	CUI Stack	DV-51AAT	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Control PC	Dell	D530	HV6JL3J

Modifications

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	3/2/2012	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	3/5/2012	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	3/14/2012	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	3/14/2012	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	3/14/2012	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	3/14/2012	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	3/14/2012	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
8	3/14/2012	Channel Spacing	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
9	3/14/2012	Dwell Time	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
10	3/14/2012	Number of Hopping Frequencies	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Channel Spacing

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The channel carrier frequencies in the 2400-2483.5MHz band must be separated by 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Or, if the output power is less than 125 mW, the channel separation can be 25 kHz or 2/3 of the 20dB bandwidth. The EUT was operated in pseudorandom hopping mode. The spectrum was scanned across two adjacent peaks. The separation between the peaks of these channels was measured.

Channel Spacing

EUT:	**BlueGiga WT12**			**Work Order:**	**SPAC0490**
Serial Number:	**None**			**Date:**	**03/14/12**
Customer:	**Spacelabs Medical Inc.**			**Temperature:**	**22°C**
Attendees:	**None**			**Humidity:**	**33%**
Project:	**None**			**Barometric Pres.:**	**1009.3**
Tested by:	**Rod Peloquin**	**Power:**	**5 VDC**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

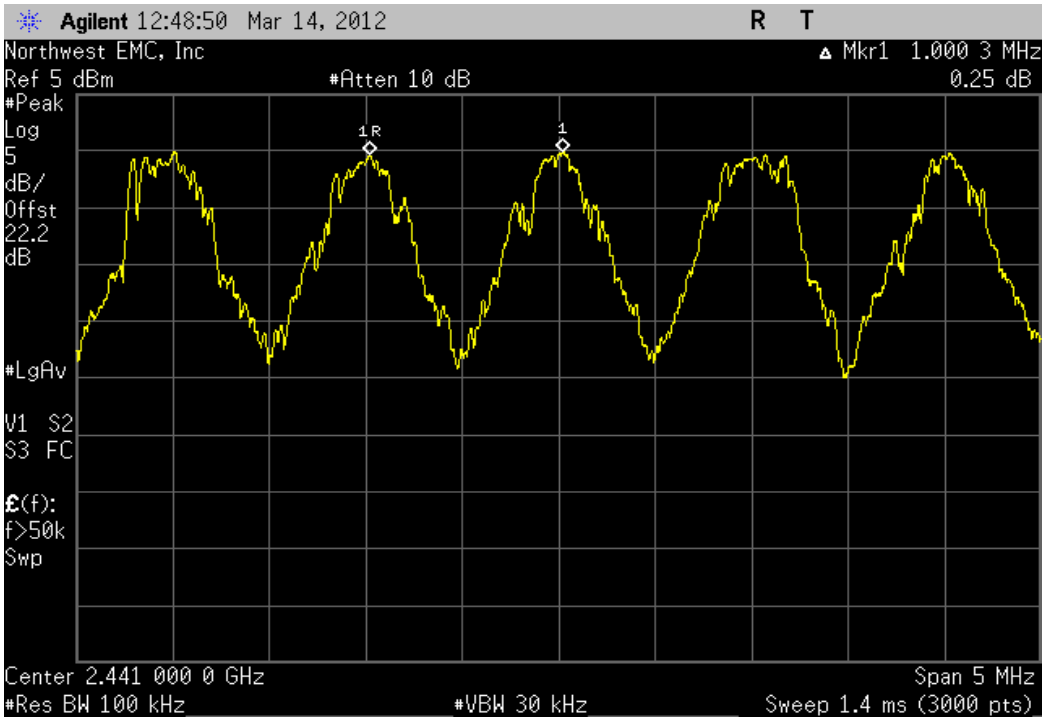
No deviations.

Configuration #	**1**	*Signature*

	Value	**Limit**	**Result**
Hopping Mode	1.0 MHz	≥ 1 MHz	Pass

Channel Spacing

Hopping Mode						
				Value	Limit	Result
				1.0 MHz	≥ 1 MHz	Pass



Dwell Time

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The average dwell time per hopping channel was measured at one hopping channel in the middle of the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

Dwell Time

EUT:	BlueGiga WT12			Work Order:	SPAC0490
Serial Number:	None			Date:	03/14/12
Customer:	Spacelabs Medical Inc.			Temperature:	22°C
Attendees:	None			Humidity:	33%
Project:	None			Barometric Pres.:	1009.3
Tested by:	Rod Peloquin	Power:	5 VDC	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

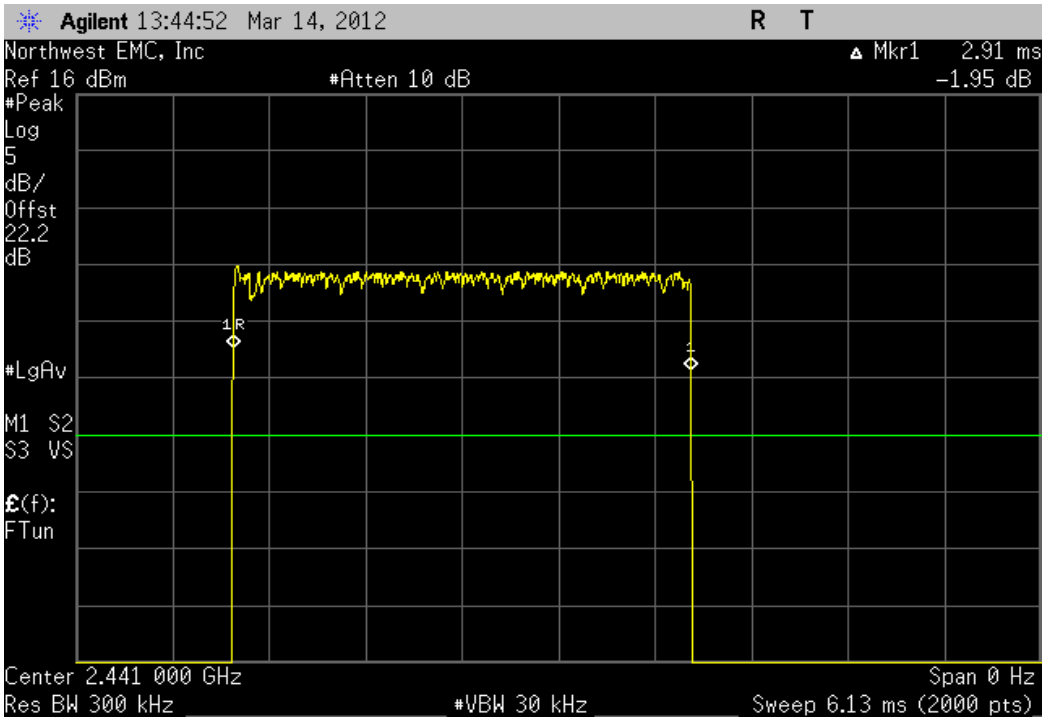
No deviations.

Configuration #	1	Signature

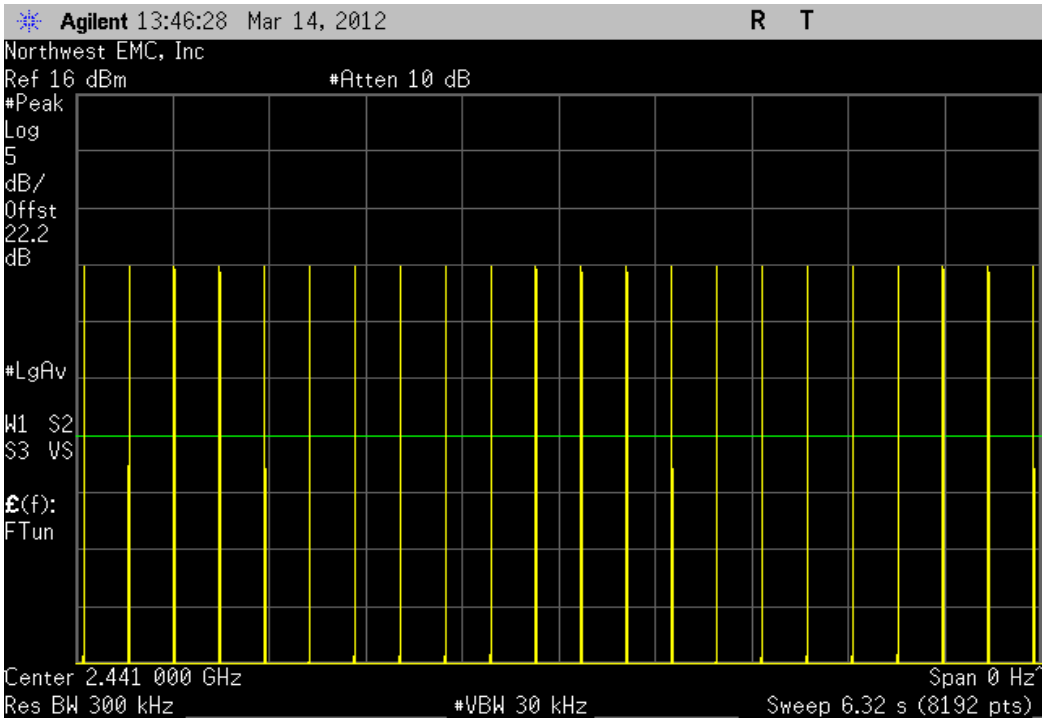
	Pulse Width (mS)	Number of Pulses	Worst Case High Time (mS)	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
DH5, GFSK							
Mid Channel	2.91	1	N/A	N/A	2.91	400	Pass
Mid Channel	2.91	22	64.02	5	320.1	400	Pass

Dwell Time

DH5, GFSK, Mid Channel						
Pulse Width (mS)	Number of Pulses	Worst Case High Time (mS)	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.91	1	N/A	N/A	2.91	400	Pass



DH5, GFSK, Mid Channel						
Pulse Width (mS)	Number of Pulses	Worst Case High Time (mS)	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.91	22	64.02	5	320.1	400	Pass



Number of Hopping Frequencies

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The number of hopping frequencies was measured across the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

Number of Hopping Frequencies

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

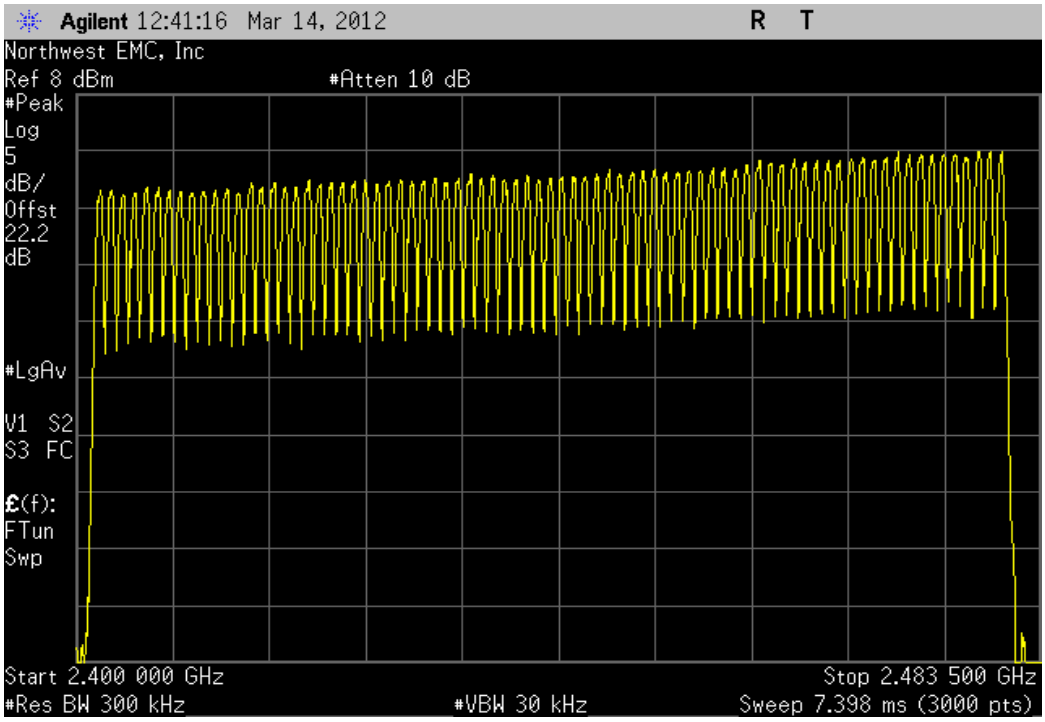
No deviations.

Configuration #	1	Signature

	Number of Channels	Limit	Result
Hopping Mode	79	≥ 15	Pass

Number of Hopping Frequencies

Hopping Mode							
					Number of Channels	Limit	Result
					79	≥ 15	Pass



Occupied Bandwidth

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The 20 dB occupied bandwidth was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting in a no hop mode at its maximum data rate for each of the three different modulations available.

Occupied Bandwidth

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

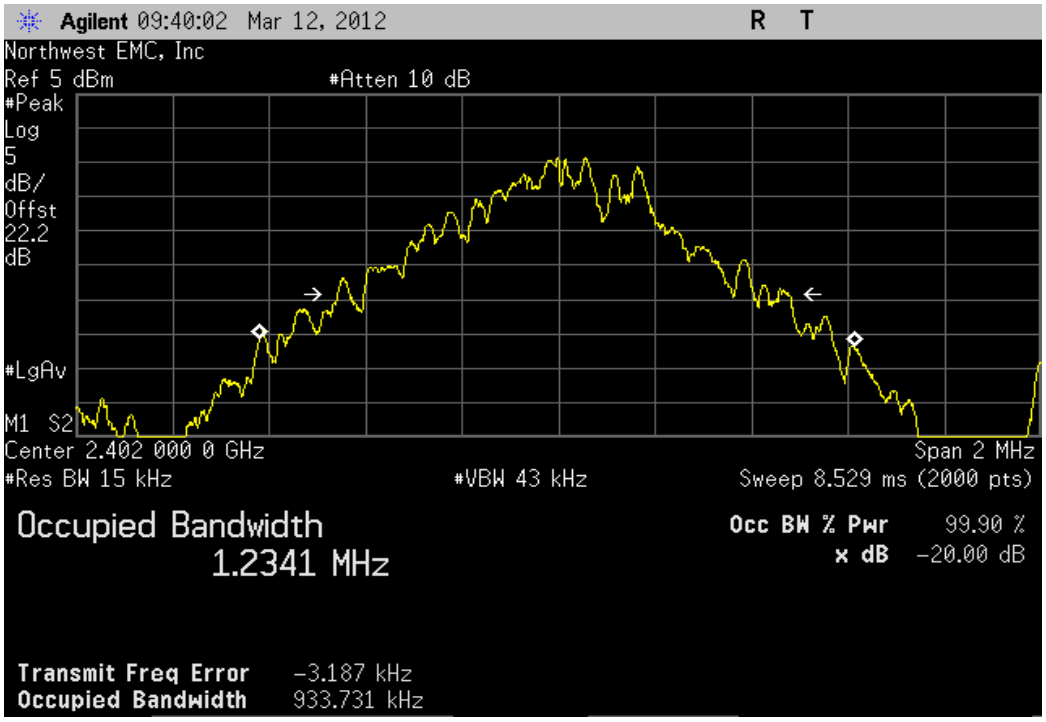
No deviations.

Configuration #	1	Signature

		Value	Limit	Result
DH5, GFSK				
	Low Channel	933.732 kHz	< 1.5 MHz	Pass
	Mid Channel	923.213 kHz	< 1.5 MHz	Pass
	High Channel	925.252 kHz	< 1.5 MHz	Pass
2DH5, 4-DQPSK				
	Low Channel	1.23 MHz	< 1.5 MHz	Pass
	Mid Channel	1.229 MHz	< 1.5 MHz	Pass
	High Channel	1.255 MHz	< 1.5 MHz	Pass
3DH5, 8-DPSK				
	Low Channel	1.307 MHz	< 1.5 MHz	Pass
	Mid Channel	1.253 MHz	< 1.5 MHz	Pass
	High Channel	1.256 MHz	< 1.5 MHz	Pass

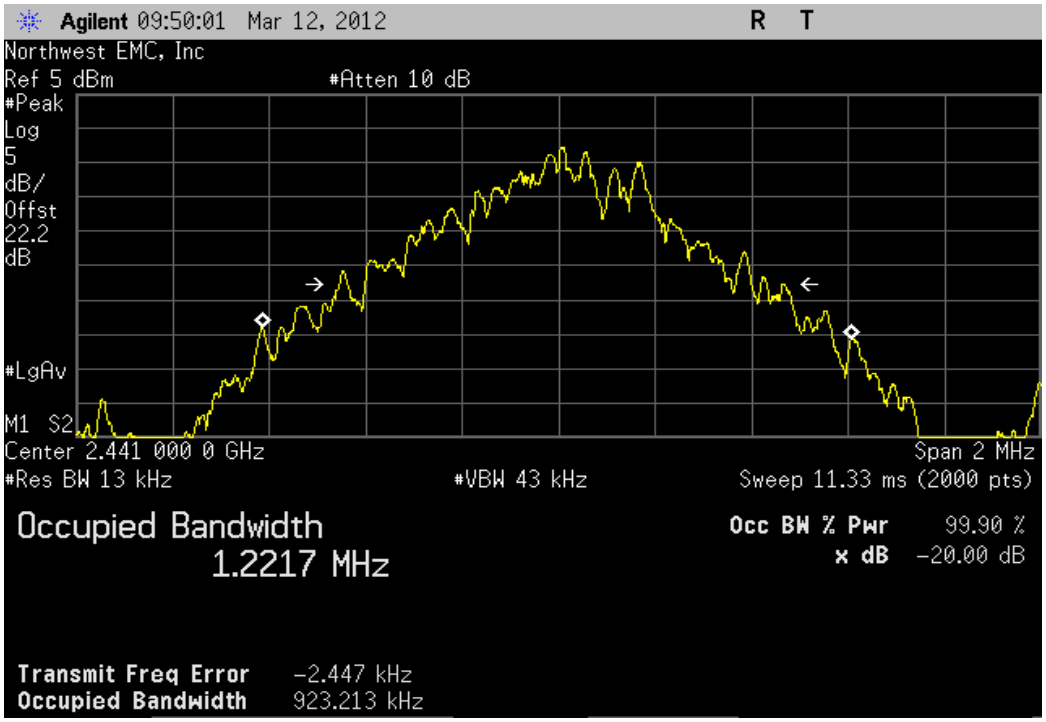
DH5, GFSK, Low Channel

				Value	Limit	Result
				933.732 kHz	< 1.5 MHz	Pass



DH5, GFSK, Mid Channel

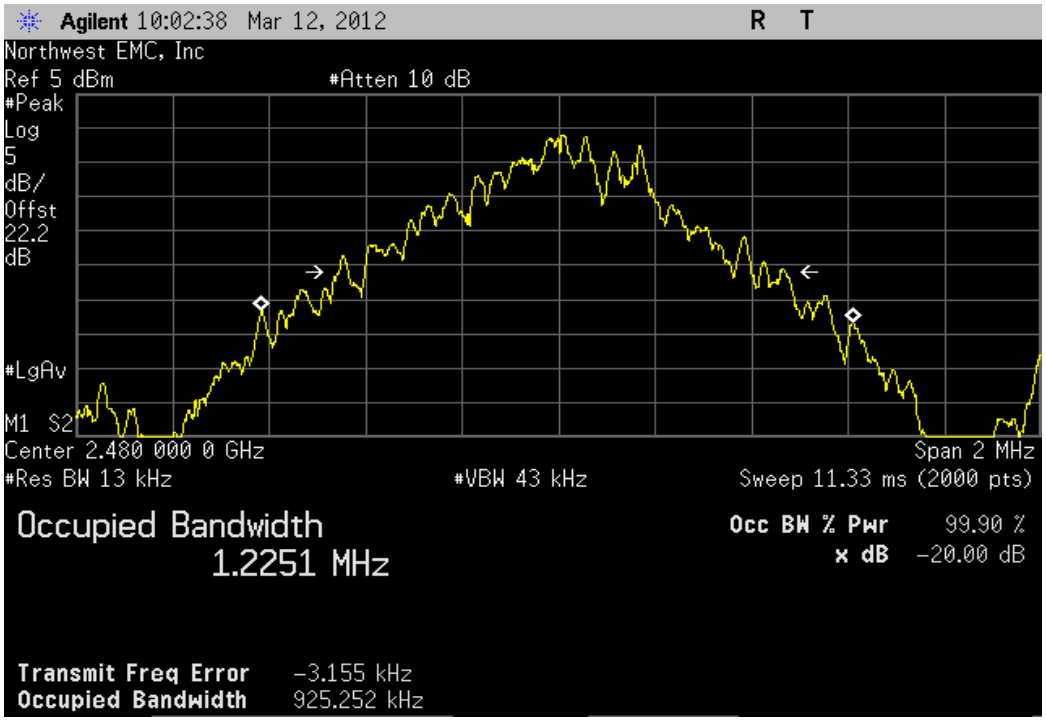
				Value	Limit	Result
				923.213 kHz	< 1.5 MHz	Pass



Occupied Bandwidth

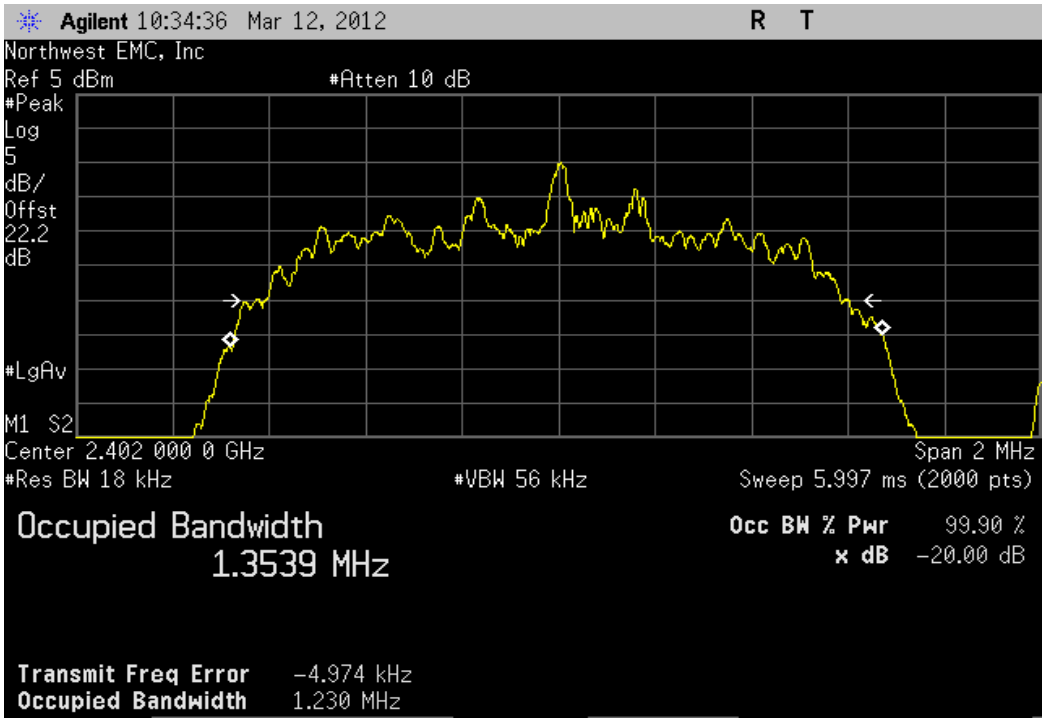
DH5, GFSK, High Channel

				Value	Limit	Result
				925.252 kHz	< 1.5 MHz	Pass



2DH5, 4-DQPSK, Low Channel

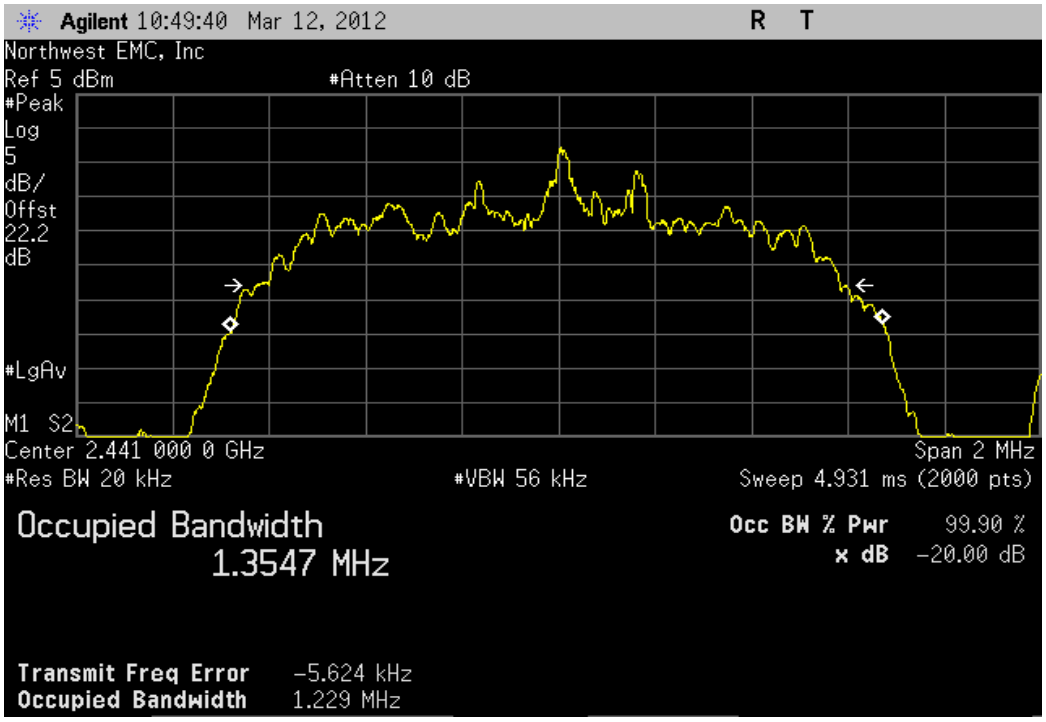
				Value	Limit	Result
				1.23 MHz	< 1.5 MHz	Pass



Occupied Bandwidth

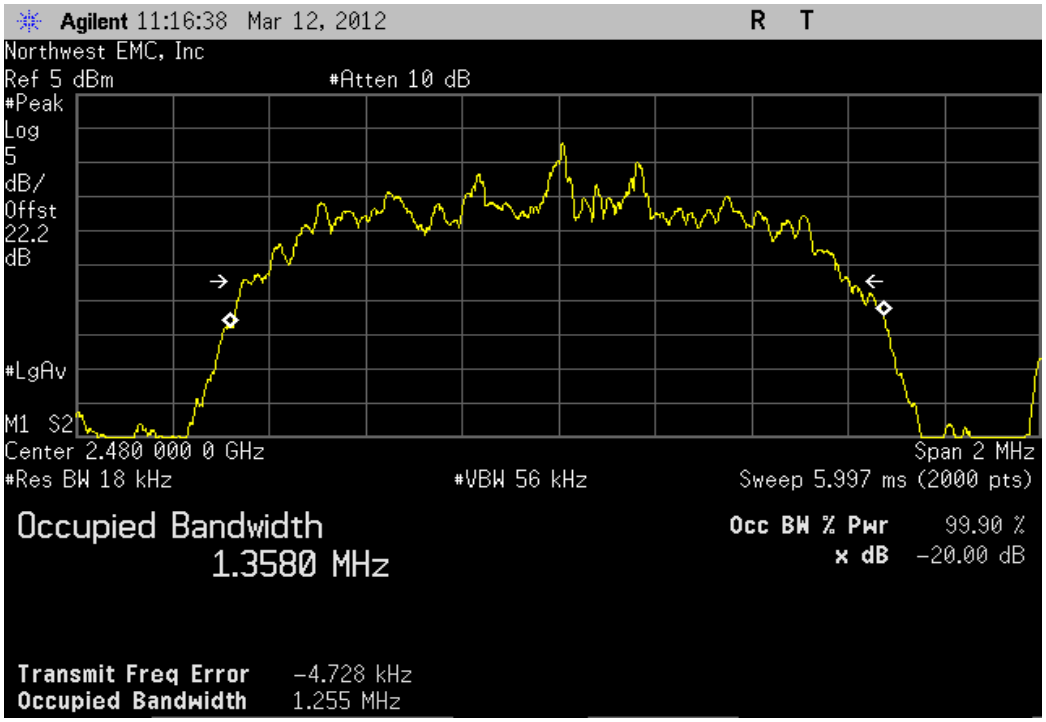
2DH5, 4-DQPSK, Mid Channel

				Value	Limit	Result
				1.229 MHz	< 1.5 MHz	Pass



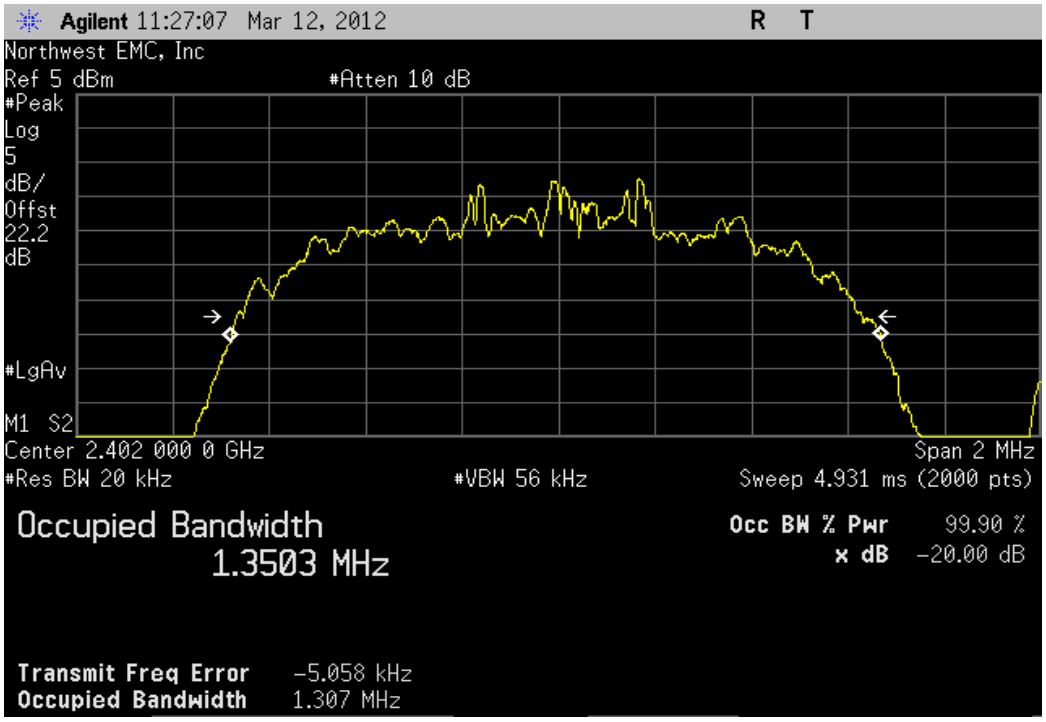
2DH5, 4-DQPSK, High Channel

				Value	Limit	Result
				1.255 MHz	< 1.5 MHz	Pass



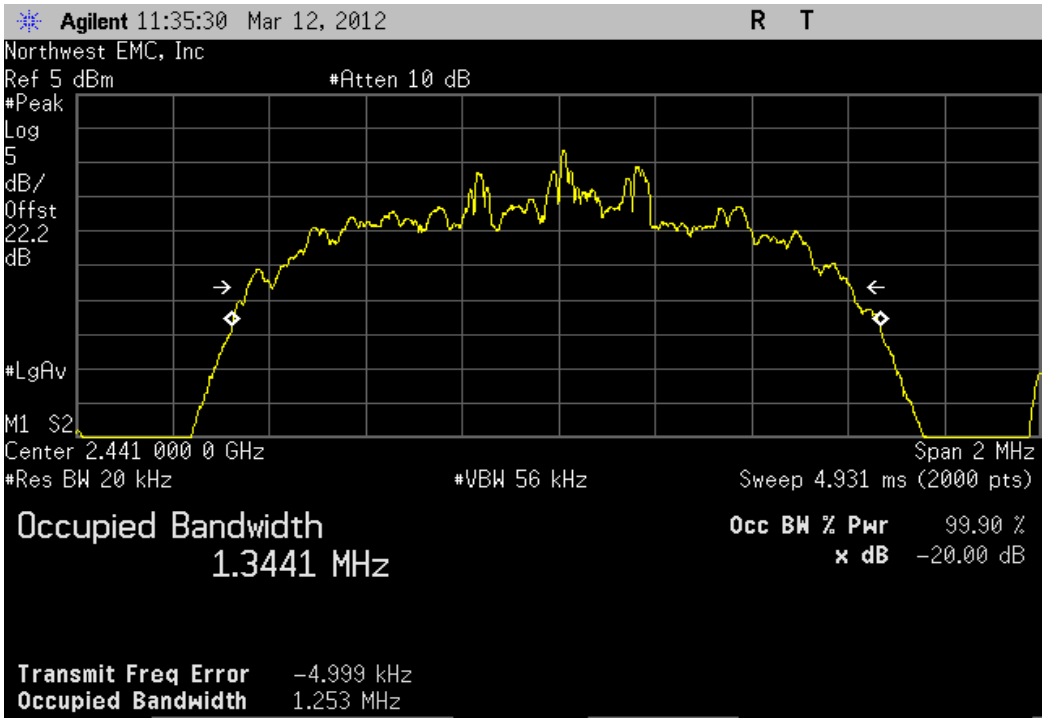
3DH5, 8-DPSK, Low Channel

				Value	Limit	Result
				1.307 MHz	< 1.5 MHz	Pass



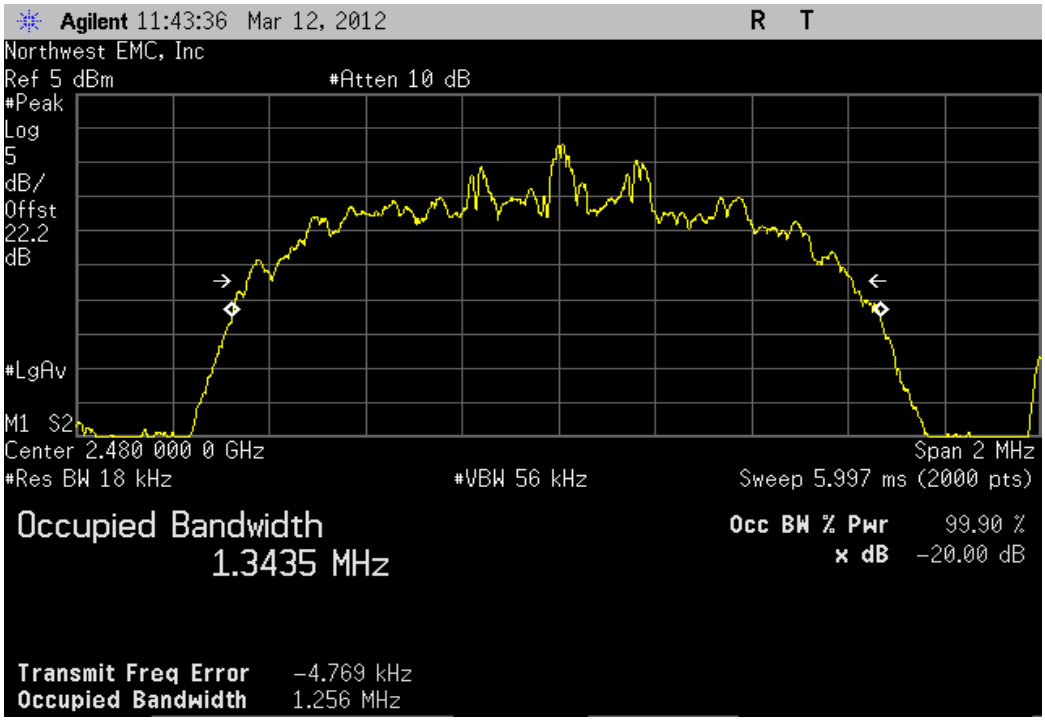
3DH5, 8-DPSK, Mid Channel

				Value	Limit	Result
				1.253 MHz	< 1.5 MHz	Pass



Occupied Bandwidth

3DH5, 8-DPSK, High Channel						
				Value	Limit	Result
				1.256 MHz	< 1.5 MHz	Pass



Output Power

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	1/9/2012	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	24
MXG Vector Signal Generator	Agilent	N5182A	TIF	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	5/5/2011	12

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The EUT was transmitting in a no hop mode at its maximum data rate for each of the three different modulations available.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36dBm.

Output Power

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

DEVIATIONS FROM TEST STANDARD

No deviations.

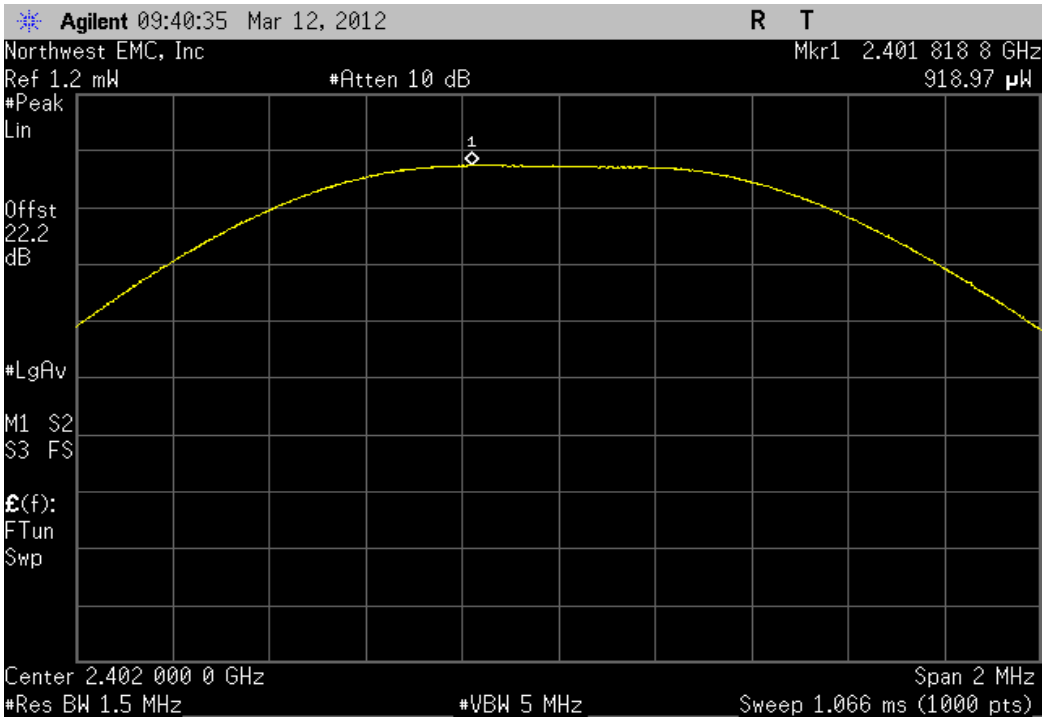
Configuration #	1	Signature

		Value	Limit	Result
DH5, GFSK				
	Low Channel	918.967 uW	< 125 mW	Pass
	Mid Channel	1.282 mW	< 125 mW	Pass
	High Channel	2.099 mW	< 125 mW	Pass
2DH5, 4-DQPSK				
	Low Channel	597.585 uW	< 125 mW	Pass
	Mid Channel	832.53 uW	< 125 mW	Pass
	High Channel	1.286 mW	< 125 mW	Pass
3DH5, 8-DPSK				
	Low Channel	632.557 uW	< 125 mW	Pass
	Mid Channel	883.283 uW	< 125 mW	Pass
	High Channel	1.366 mW	< 125 mW	Pass

Output Power

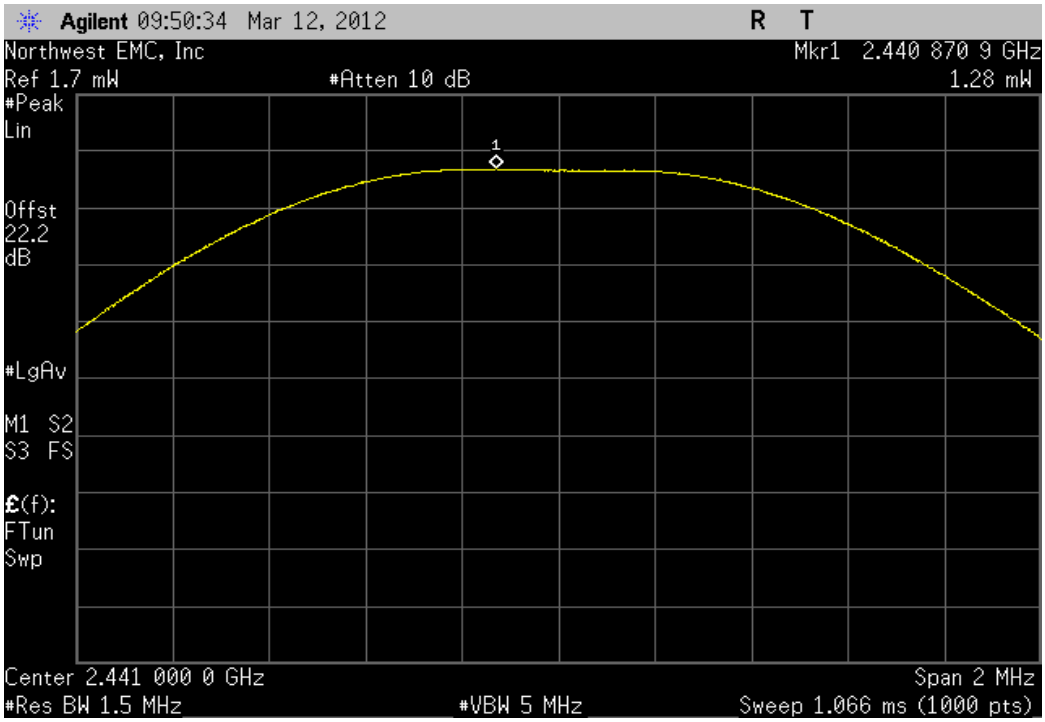
DH5, GFSK, Low Channel

				Value	Limit	Result
				918.967 uW	< 125 mW	Pass



DH5, GFSK, Mid Channel

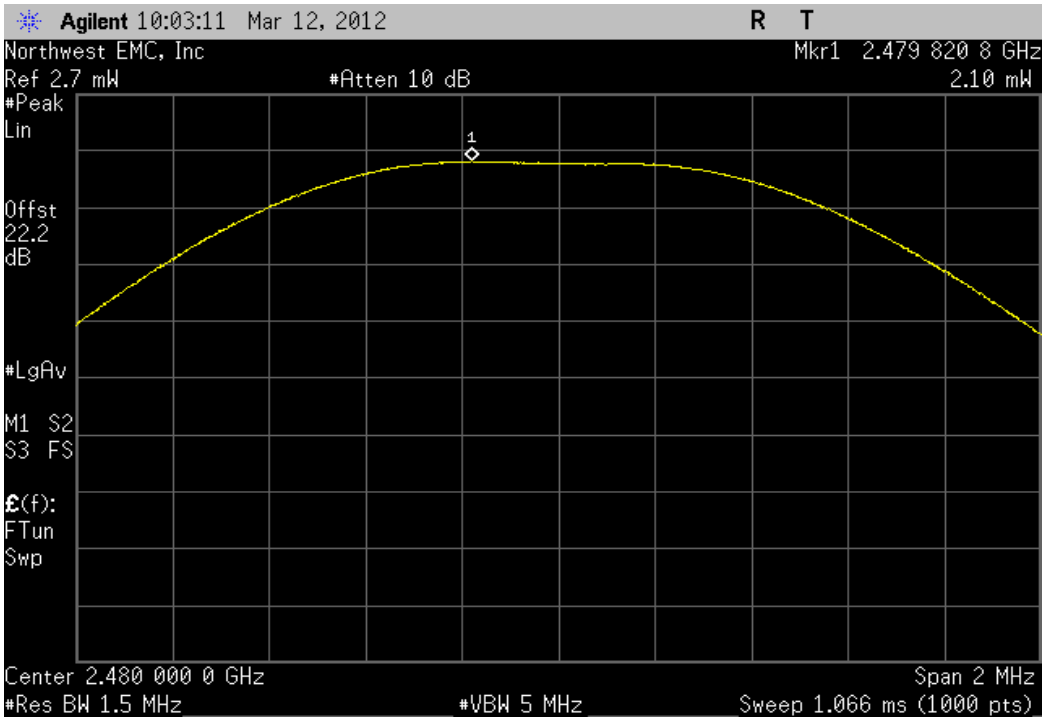
				Value	Limit	Result
				1.282 mW	< 125 mW	Pass



Output Power

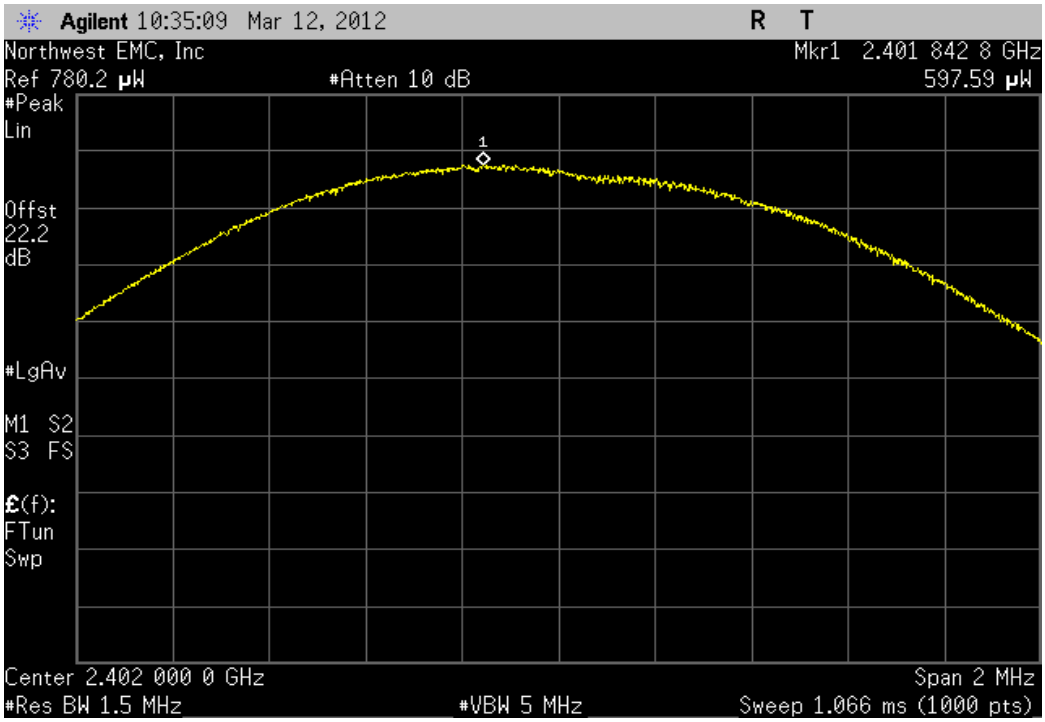
DH5, GFSK, High Channel

				Value	Limit	Result
				2.099 mW	< 125 mW	Pass



2DH5, 4-DQPSK, Low Channel

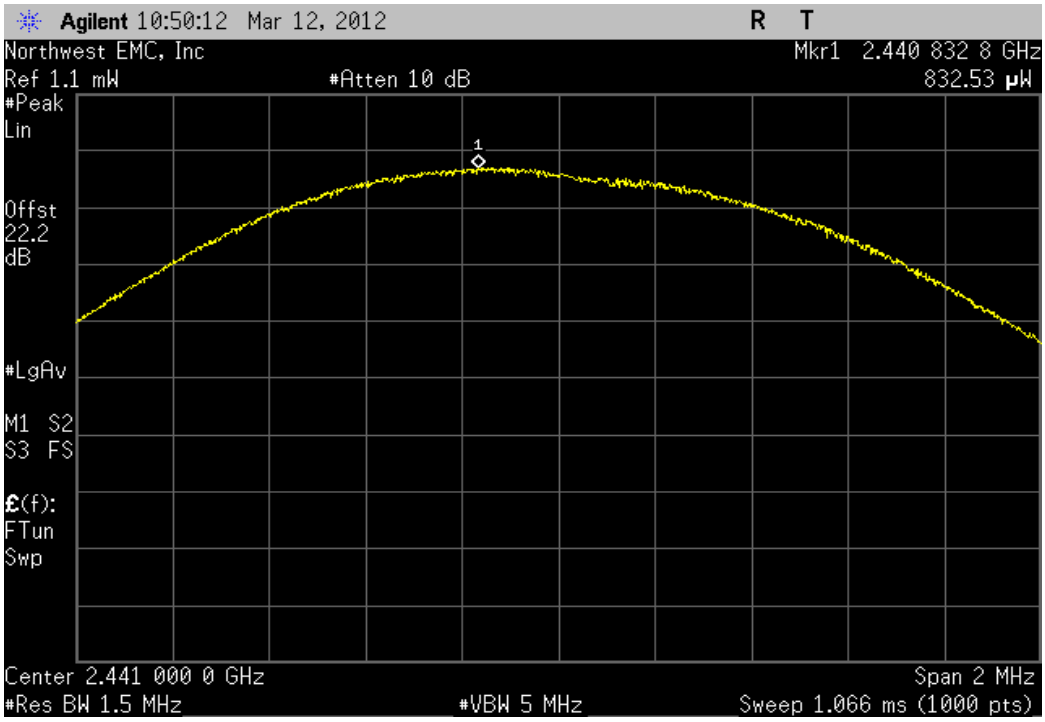
				Value	Limit	Result
				597.585 uW	< 125 mW	Pass



Output Power

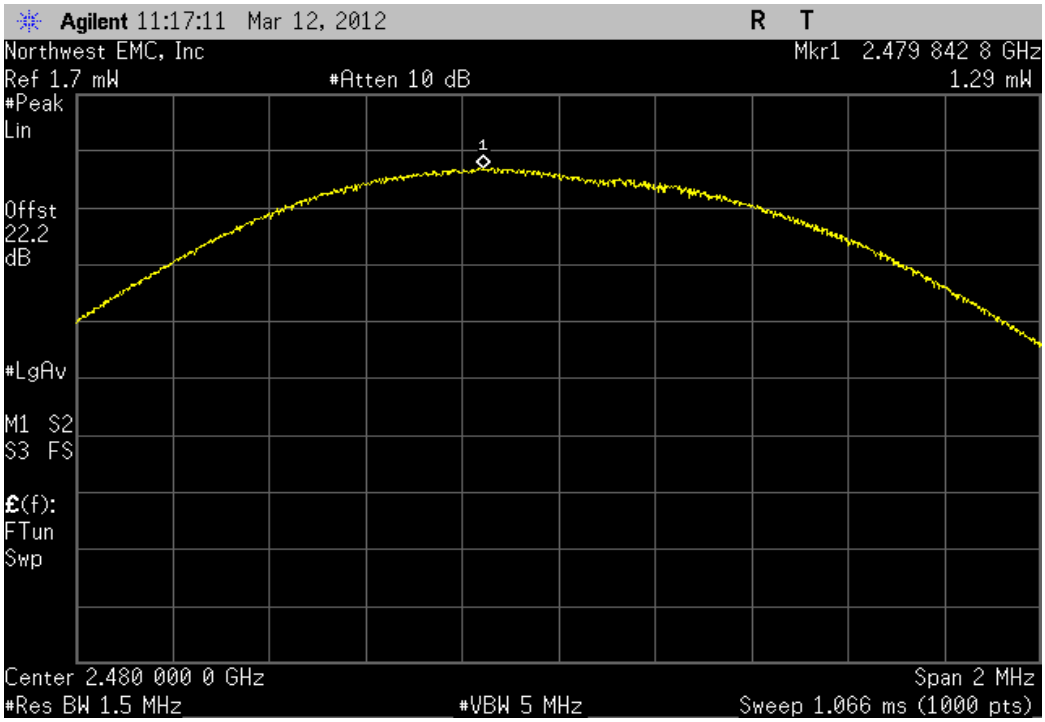
2DH5, 4-DQPSK, Mid Channel

				Value	Limit	Result
				832.53 uW	< 125 mW	Pass



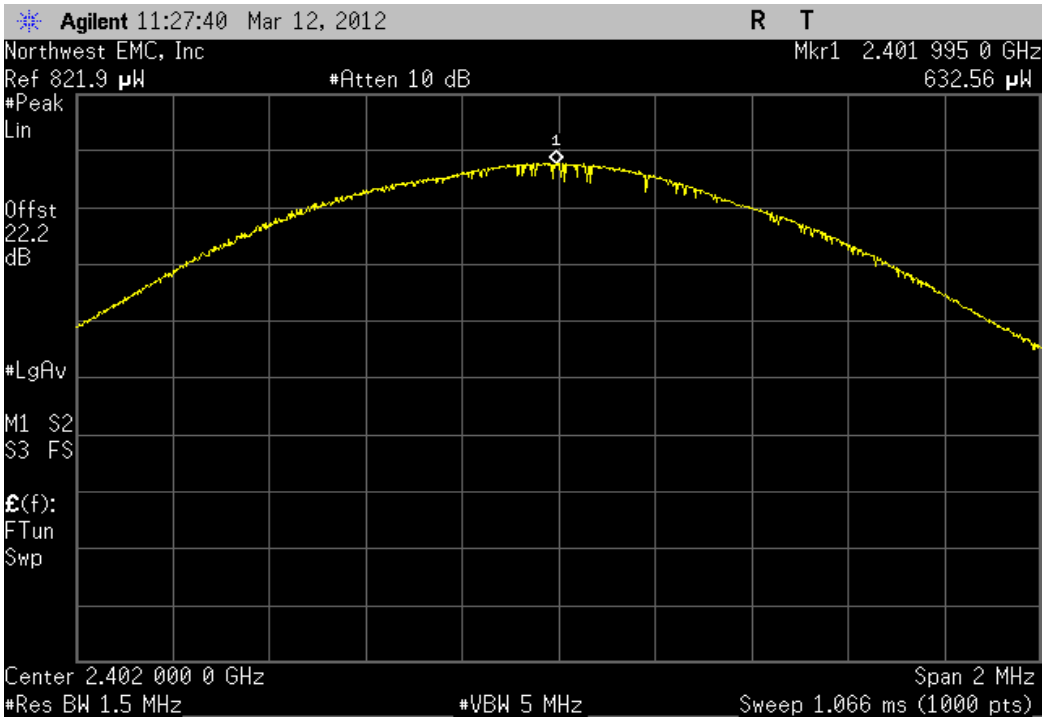
2DH5, 4-DQPSK, High Channel

				Value	Limit	Result
				1.286 mW	< 125 mW	Pass

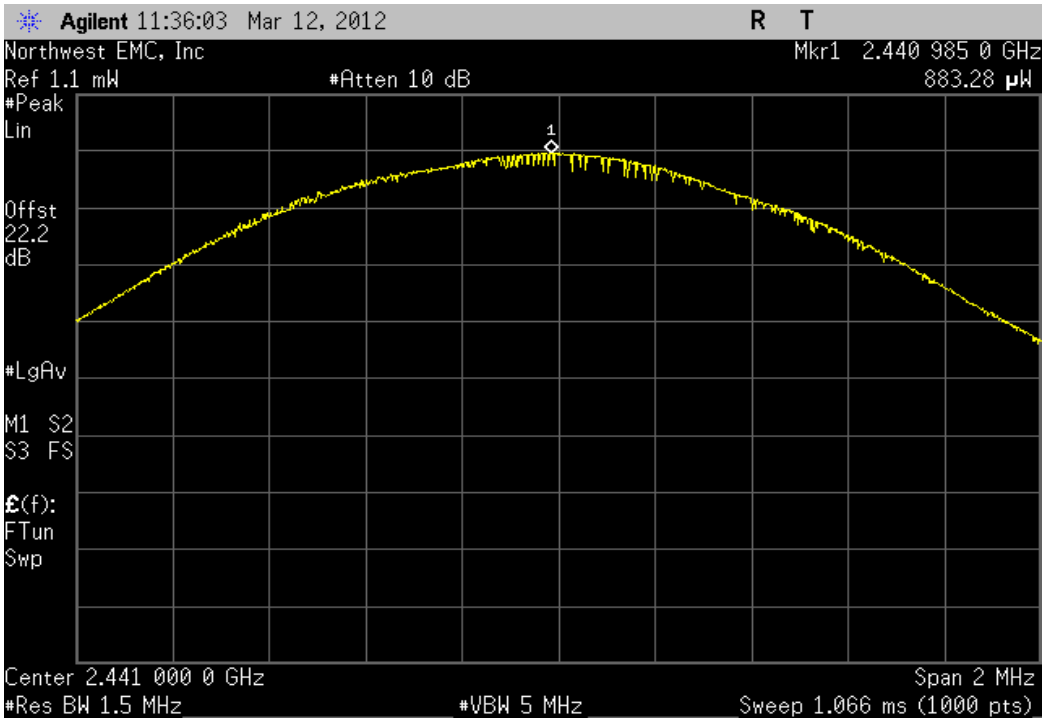


Output Power

3DH5, 8-DPSK, Low Channel							
					Value	Limit	Result
					632.557 uW	< 125 mW	Pass

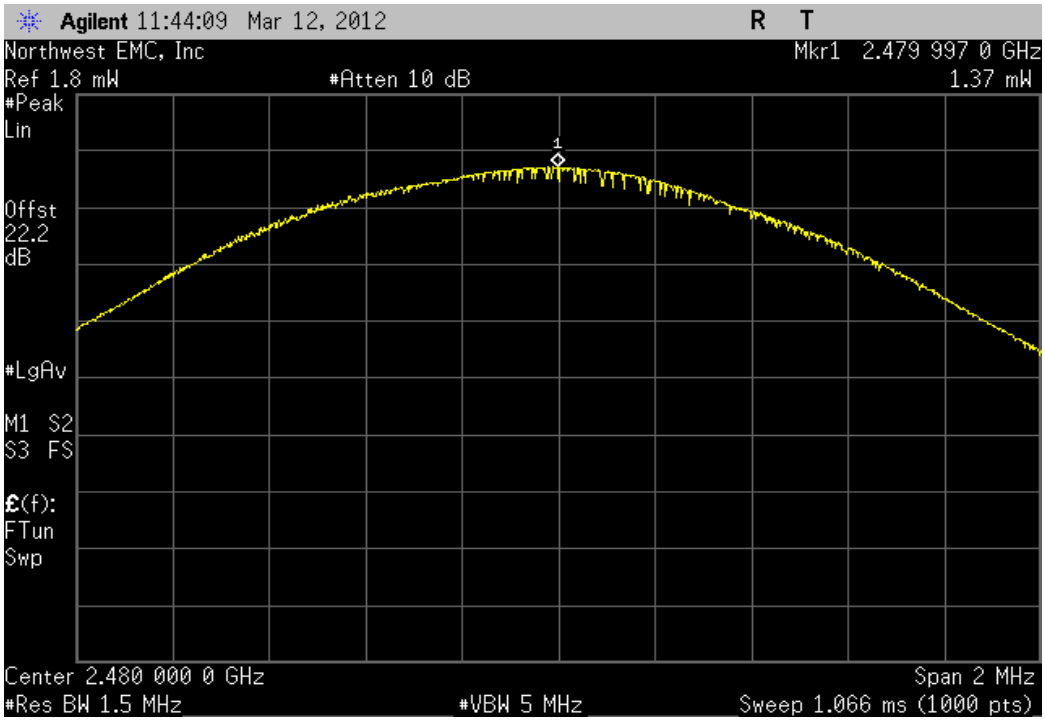


3DH5, 8-DPSK, Mid Channel							
					Value	Limit	Result
					883.283 uW	< 125 mW	Pass



Output Power

3DH5, 8-DPSK, High Channel							
					Value	Limit	Result
					1.366 mW	< 125 mW	Pass



Band Edge Compliance, Hopping

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The requirements of FCC 15.247(d) for emissions at least 20dB below the carrier in any 100kHz bandwidth outside the allowable band was measured with the EUT hopping through all its frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The spectrum was scanned across each band edge from 5 MHz below the band edge to 5 MHz above the band edge.

The EUT was transmitting at its maximum data rate using all three types of modulations available in Bluetooth EDR.

Band Edge Compliance, Hopping

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

Frequency Hopping mode.

DEVIATIONS FROM TEST STANDARD

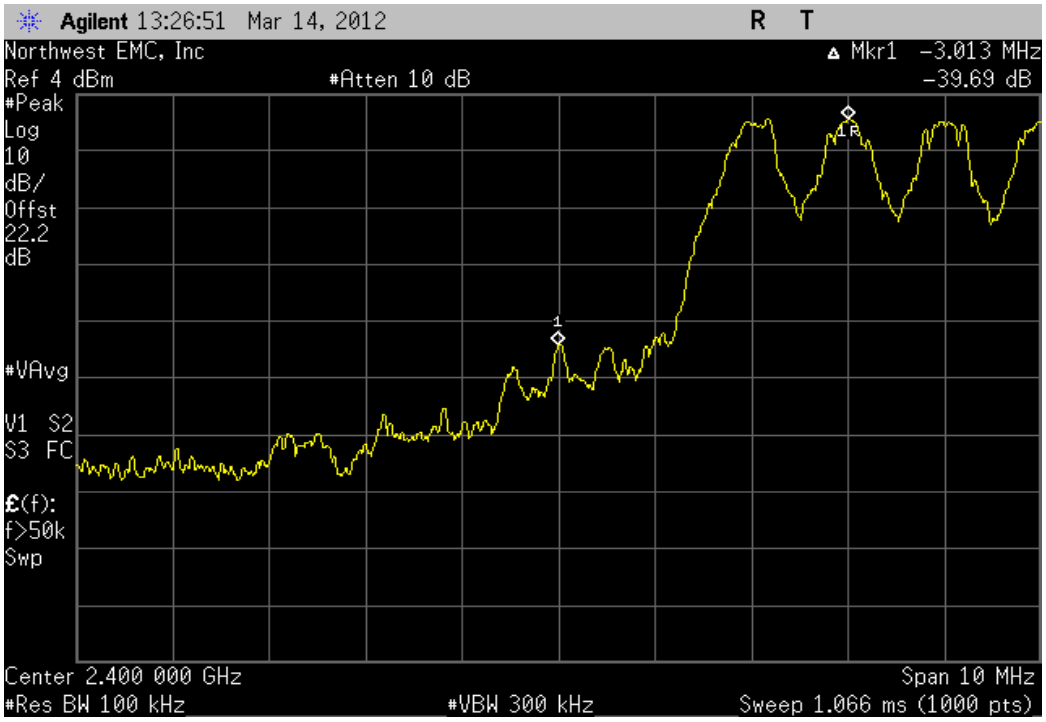
No deviations.

Configuration #	1	Signature

		Value	Limit	Result
DH5, GFSK				
	Low Channel	-39.69 dBc	≤ -20 dBc	Pass
	High Channel	-48.13 dBc	≤ -20 dBc	Pass
2DH5, 4-DQPSK				
	Low Channel	-48.34 dBc	≤ -20 dBc	Pass
	High Channel	-45.94 dBc	≤ -20 dBc	Pass
3DH5, 8-DPSK				
	Low Channel	-48.94 dBc	≤ -20 dBc	Pass
	High Channel	-45.42 dBc	≤ -20 dBc	Pass

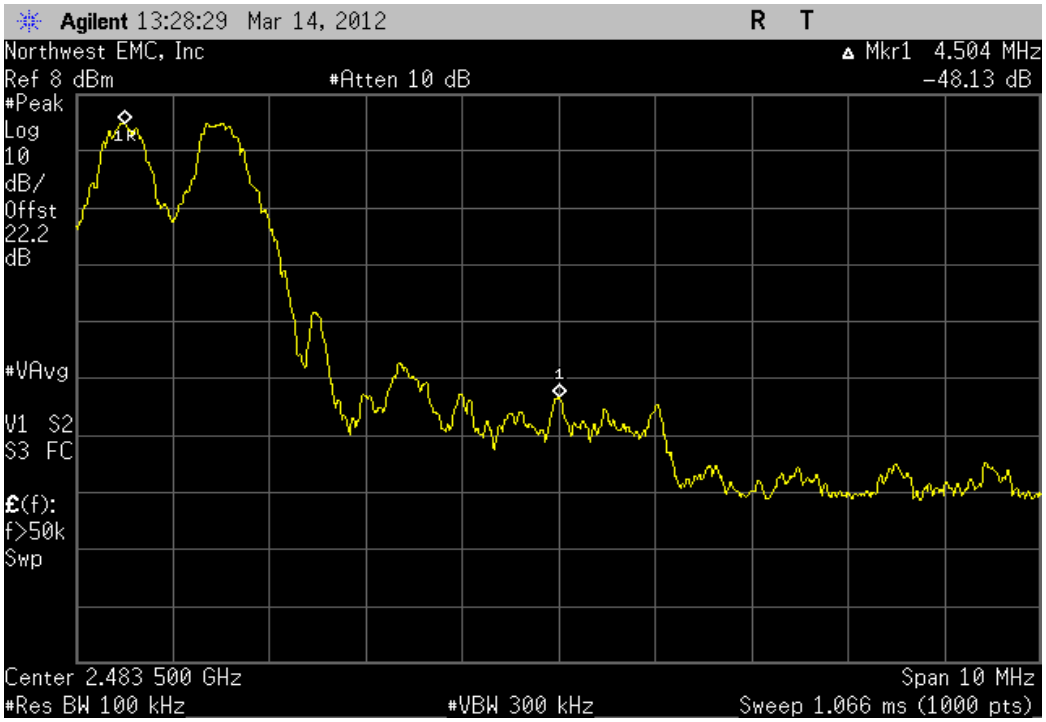
DH5, GFSK, Low Channel

				Value	Limit	Result
				-39.69 dBc	≤ -20 dBc	Pass



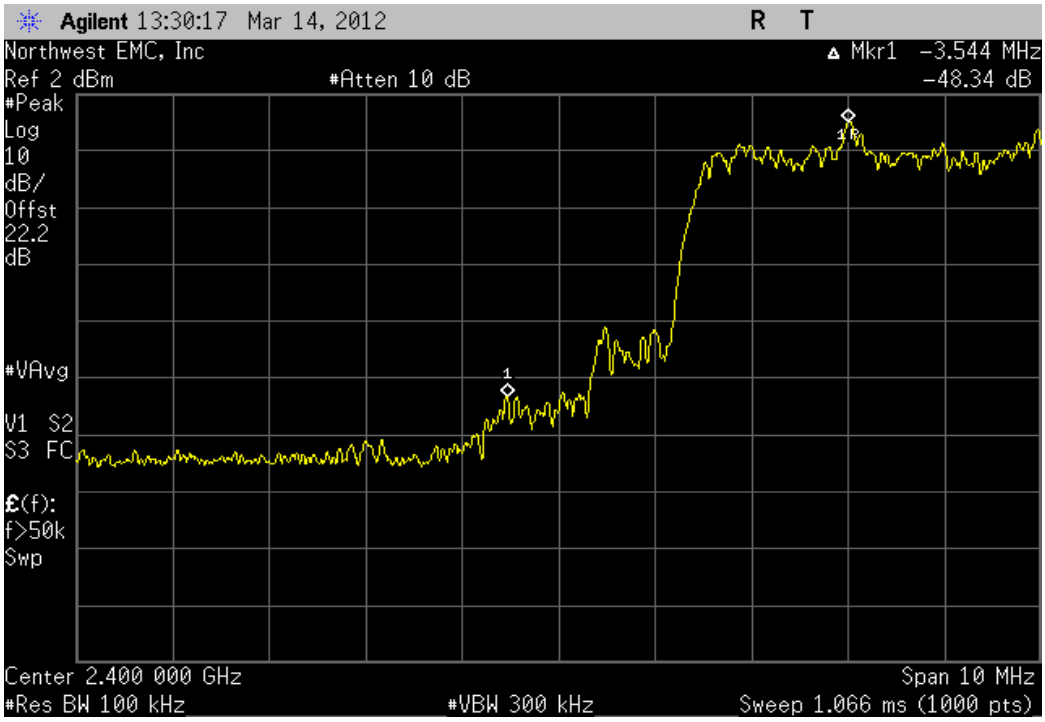
DH5, GFSK, High Channel

				Value	Limit	Result
				-48.13 dBc	≤ -20 dBc	Pass



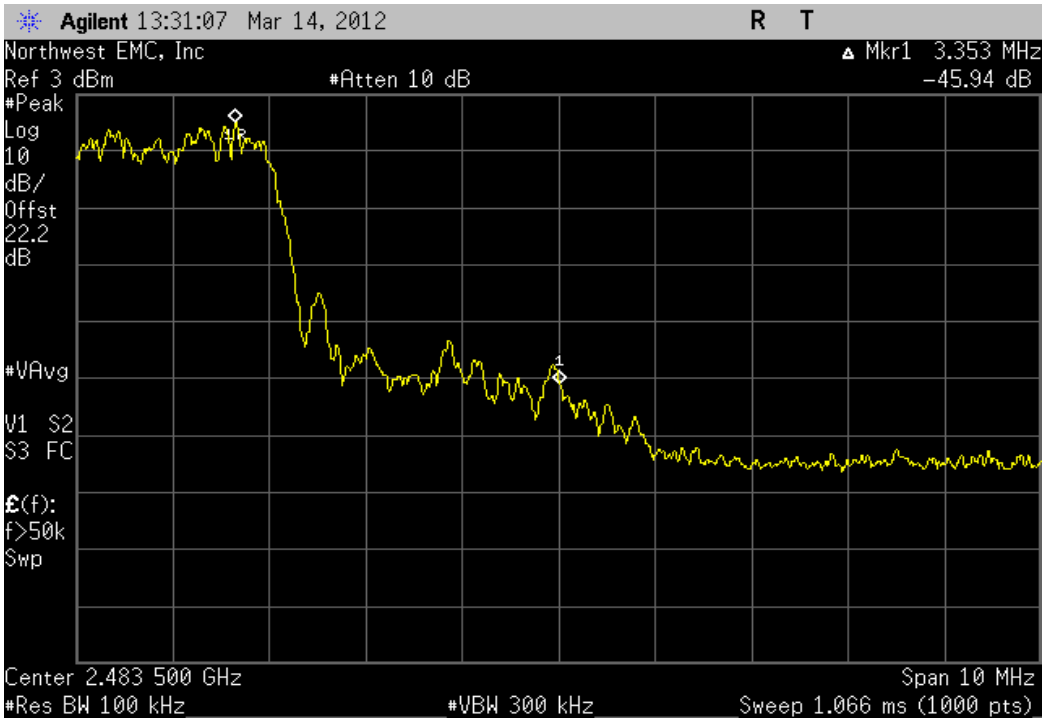
2DH5, 4-DQPSK, Low Channel

				Value	Limit	Result
				-48.34 dBc	≤ -20 dBc	Pass



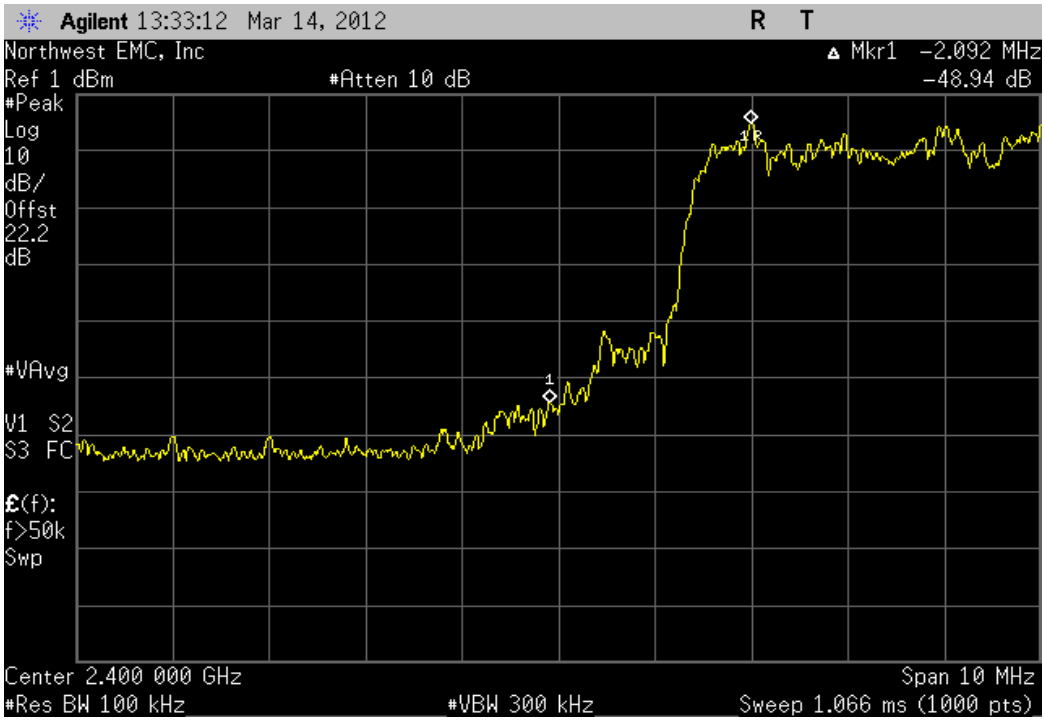
2DH5, 4-DQPSK, High Channel

				Value	Limit	Result
				-45.94 dBc	≤ -20 dBc	Pass



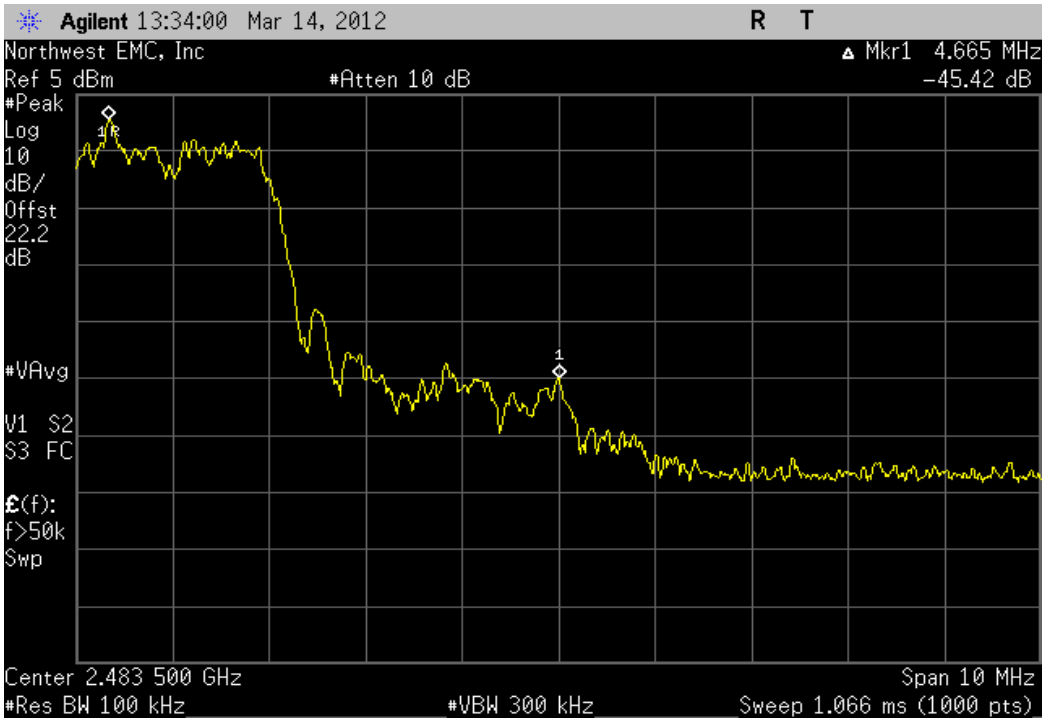
3DH5, 8-DPSK, Low Channel

				Value	Limit	Result
				-48.94 dBc	≤ -20 dBc	Pass



3DH5, 8-DPSK, High Channel

				Value	Limit	Result
				-45.42 dBc	≤ -20 dBc	Pass



Band Edge Compliance, Single Channel Mode

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The requirements of FCC 15.247(d) for emissions at least 20dB below the carrier in any 100kHz bandwidth outside the allowable band was measured with the EUT set to low and high transmit frequencies in a no-hop mode. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The channels closest to the band edges were selected. The spectrum was scanned across each band edge from 5 MHz below the band edge to 5 MHz above the band edge.

The EUT was transmitting at its maximum data rate using all three types of modulations available in Bluetooth EDR.

Band Edge Compliance, Single Channel Mode

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

No-Hop mode

DEVIATIONS FROM TEST STANDARD

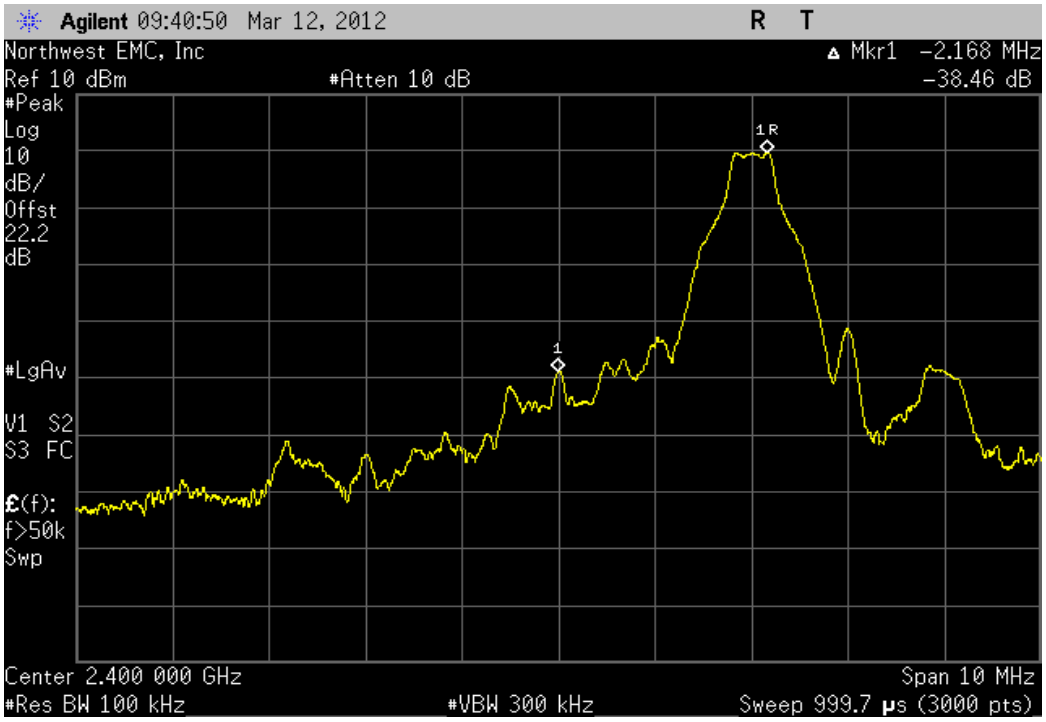
No deviations.

Configuration #	1	Signature

		Value	Limit	Result
DH5, GFSK				
	Low Channel	-38.46 dBc	≤ -20 dBc	Pass
	High Channel	-46.94 dBc	≤ -20 dBc	Pass
2DH5, 4-DQPSK				
	Low Channel	-44.73 dBc	≤ -20 dBc	Pass
	High Channel	-42.7 dBc	≤ -20 dBc	Pass
3DH5, 8-DPSK				
	Low Channel	-42.86 dBc	≤ -20 dBc	Pass
	High Channel	-44.24 dBc	≤ -20 dBc	Pass

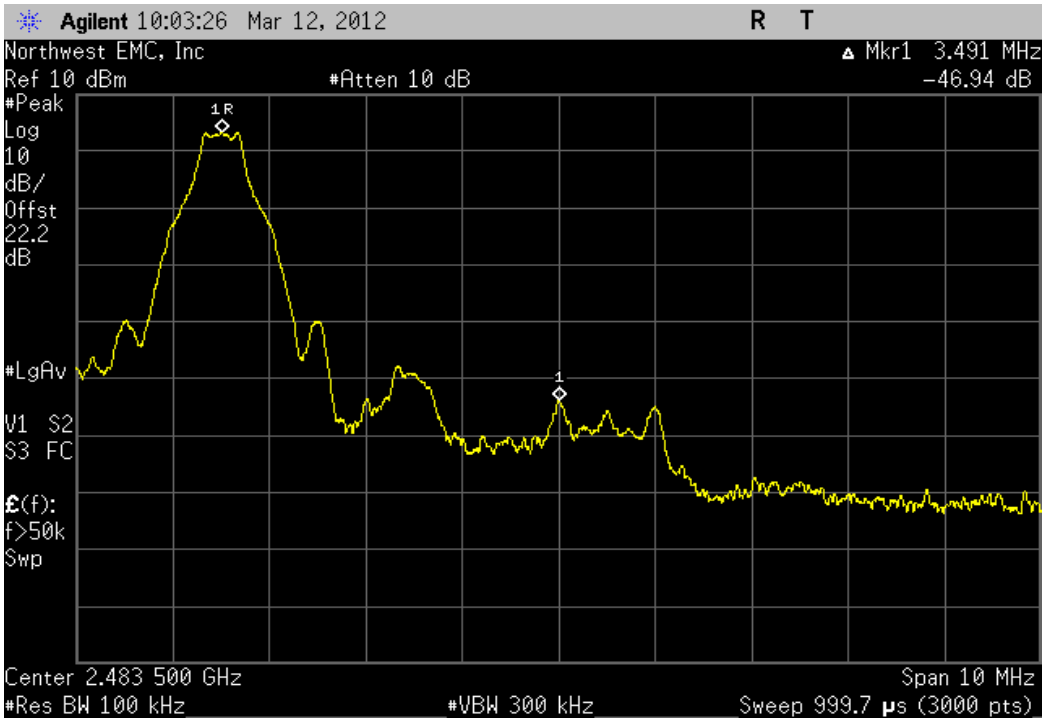
DH5, GFSK, Low Channel

Value	Limit	Result
-38.46 dBc	≤ -20 dBc	Pass



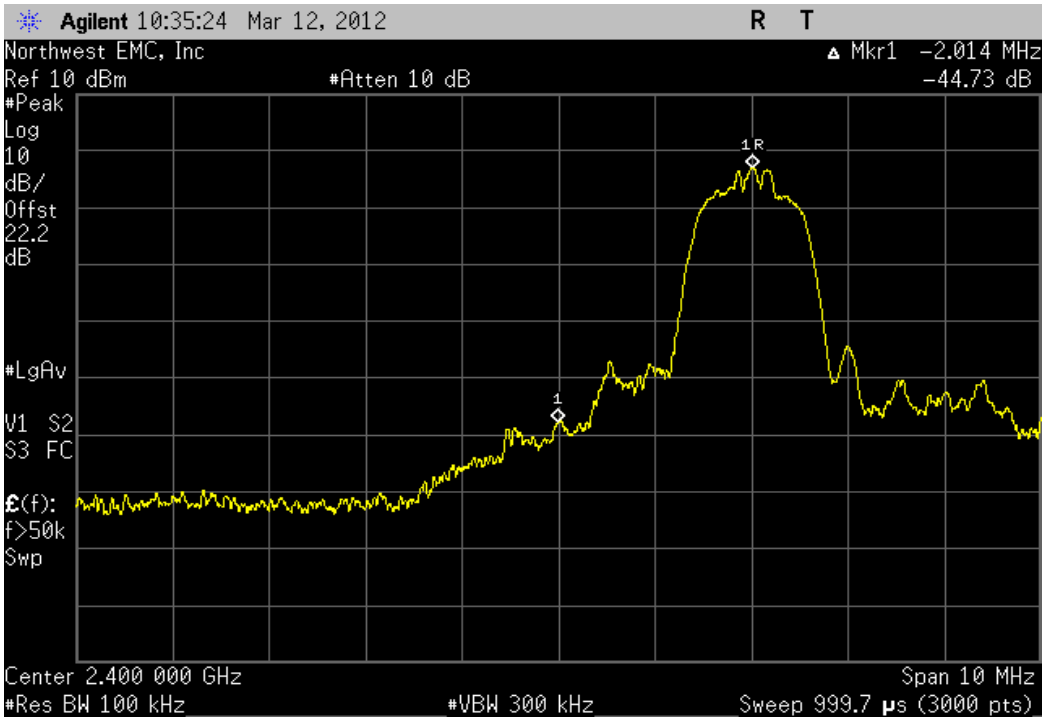
DH5, GFSK, High Channel

Value	Limit	Result
-46.94 dBc	≤ -20 dBc	Pass



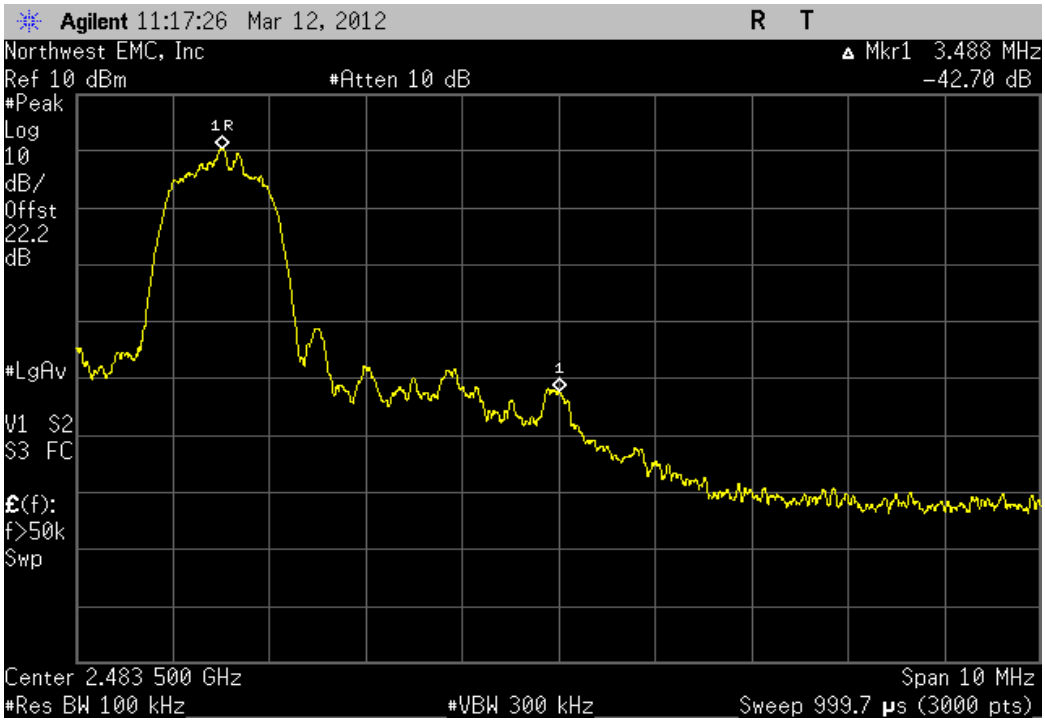
2DH5, 4-DQPSK, Low Channel

				Value	Limit	Result
				-44.73 dBc	≤ -20 dBc	Pass



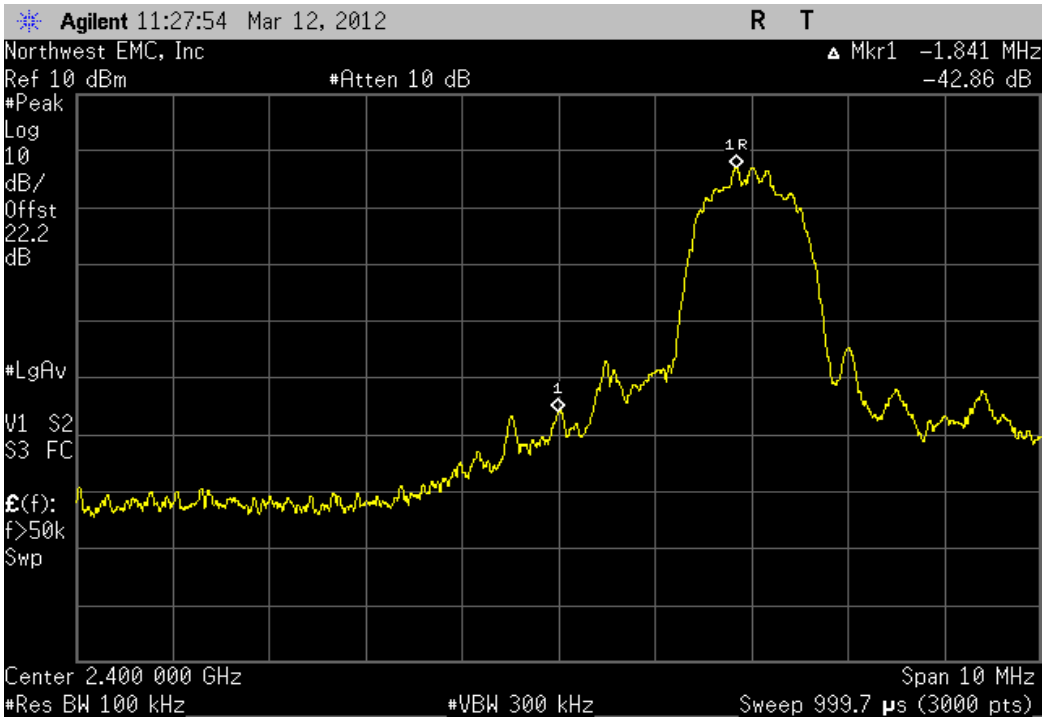
2DH5, 4-DQPSK, High Channel

				Value	Limit	Result
				-42.7 dBc	≤ -20 dBc	Pass

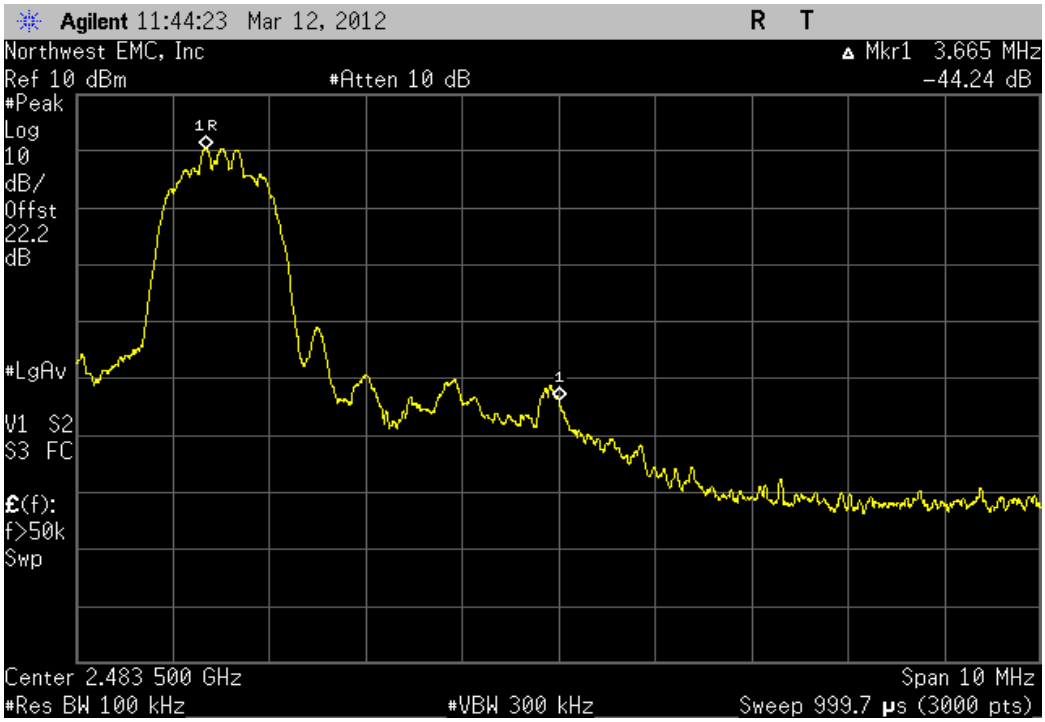


Band Edge Compliance, Single Channel Mode

3DH5, 8-DPSK, Low Channel							
					Value	Limit	Result
					-42.86 dBc	≤ -20 dBc	Pass



3DH5, 8-DPSK, High Channel							
					Value	Limit	Result
					-44.24 dBc	≤ -20 dBc	Pass



Spurious Conducted Emissions

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium, and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate in a no hop mode. For each transmit frequency, the spectrum was scanned throughout the specified frequency.

Spurious Conducted Emissions

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

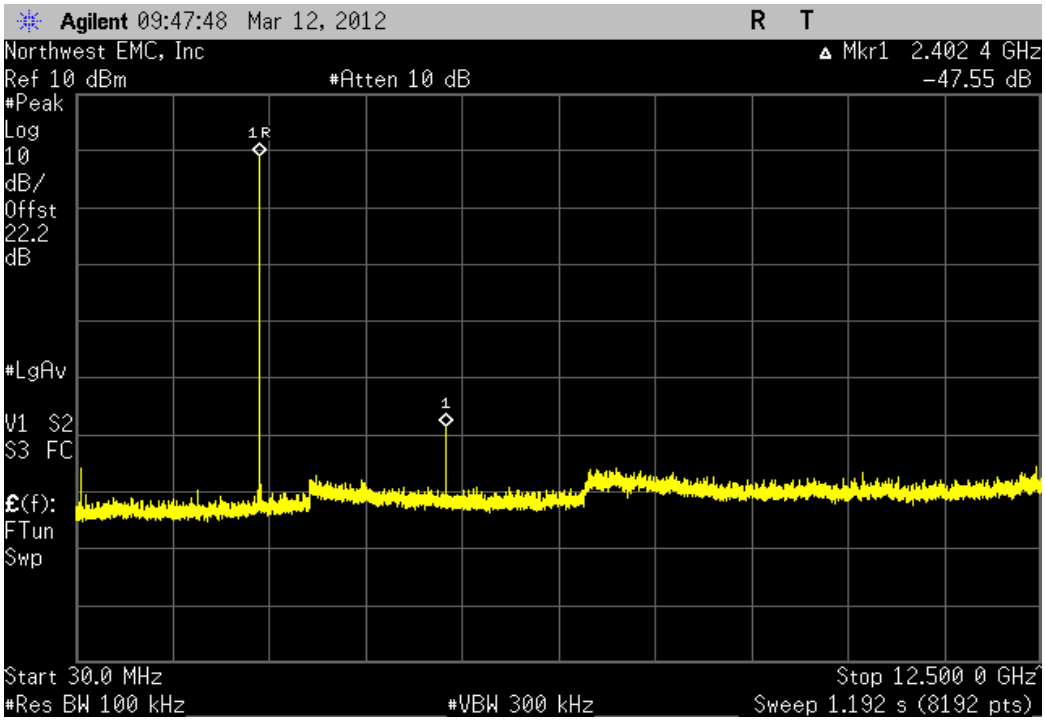
DEVIATIONS FROM TEST STANDARD

No deviations.

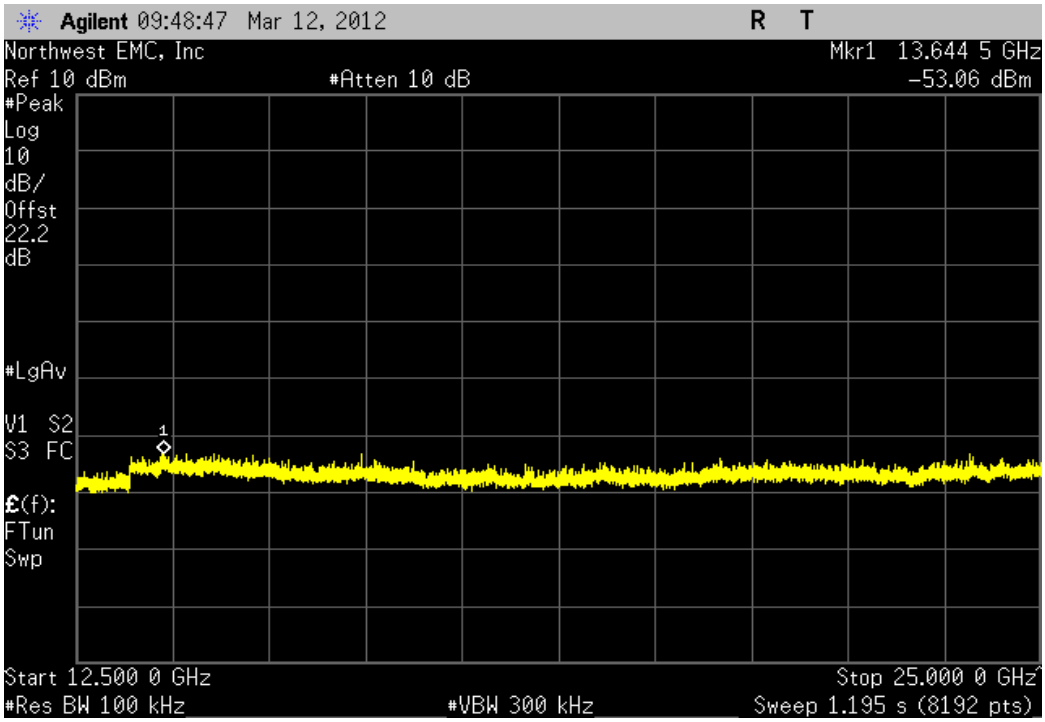
Configuration #	1	Signature

		Frequency Range	Value	Limit	Result
DH5, GFSK					
	Low Channel	30 MHz - 12.5 GHz	-47.55 dBc	≤ -20 dBc	Pass
	Low Channel	12.5 GHz - 25 GHz	-52.13 dBc	≤ -20 dBc	Pass
	Mid Channel	30 MHz - 12.5 GHz	-45.8 dBc	≤ -20 dBc	Pass
	Mid Channel	12.5 GHz - 25 GHz	-52.51 dBc	≤ -20 dBc	Pass
	High Channel	30 MHz - 12.5 GHz	-51.78 dBc	≤ -20 dBc	Pass
	High Channel	12.5 GHz - 25 GHz	-55.74 dBc	≤ -20 dBc	Pass
2DH5, 4-DQPSK					
	Low Channel	30 MHz - 12.5 GHz	-43.52 dBc	≤ -20 dBc	Pass
	Low Channel	12.5 GHz - 25 GHz	-48.43 dBc	≤ -20 dBc	Pass
	Mid Channel	30 MHz - 12.5 GHz	-54.8 dBc	≤ -20 dBc	Pass
	Mid Channel	12.5 GHz - 25 GHz	-51.26 dBc	≤ -20 dBc	Pass
	High Channel	30 MHz - 12.5 GHz	-52.72 dBc	≤ -20 dBc	Pass
	High Channel	12.5 GHz - 25 GHz	-49.65 dBc	≤ -20 dBc	Pass
3DH5, 8-DPSK					
	Low Channel	30 MHz - 12.5 GHz	-50.52 dBc	≤ -20 dBc	Pass
	Low Channel	12.5 GHz - 25 GHz	-49.75 dBc	≤ -20 dBc	Pass
	Mid Channel	30 MHz - 12.5 GHz	-50.55 dBc	≤ -20 dBc	Pass
	Mid Channel	12.5 GHz - 25 GHz	-49.72 dBc	≤ -20 dBc	Pass
	High Channel	30 MHz - 12.5 GHz	-52.8 dBc	≤ -20 dBc	Pass
	High Channel	12.5 GHz - 25 GHz	-49.8 dBc	≤ -20 dBc	Pass

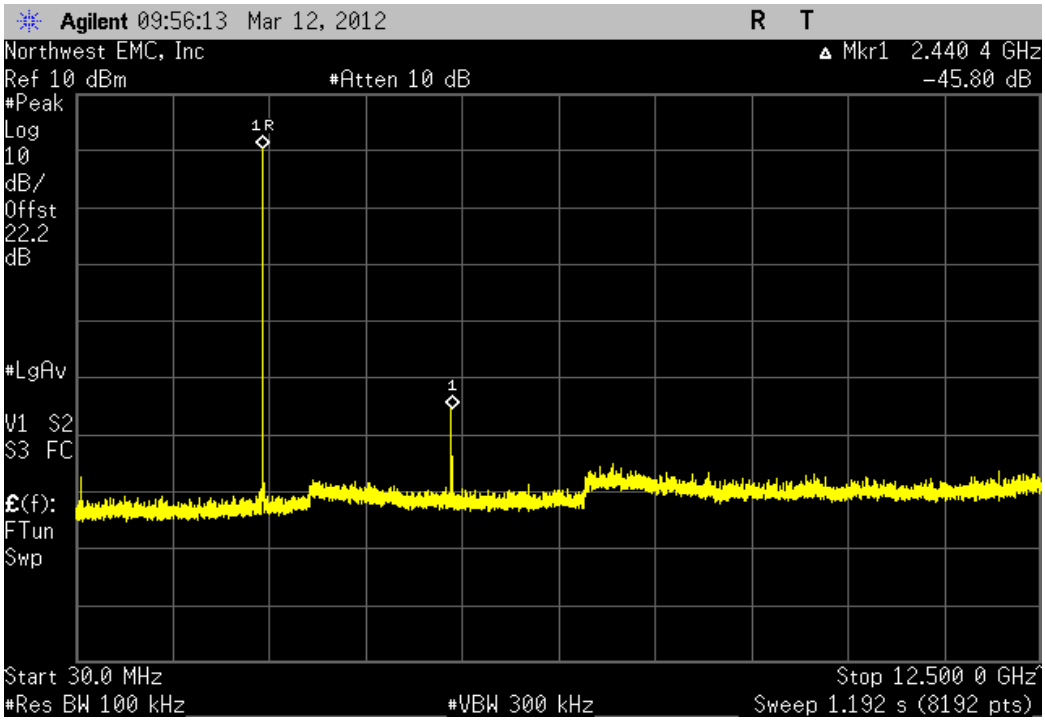
DH5, GFSK, Low Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-47.55 dBc	≤ -20 dBc	Pass



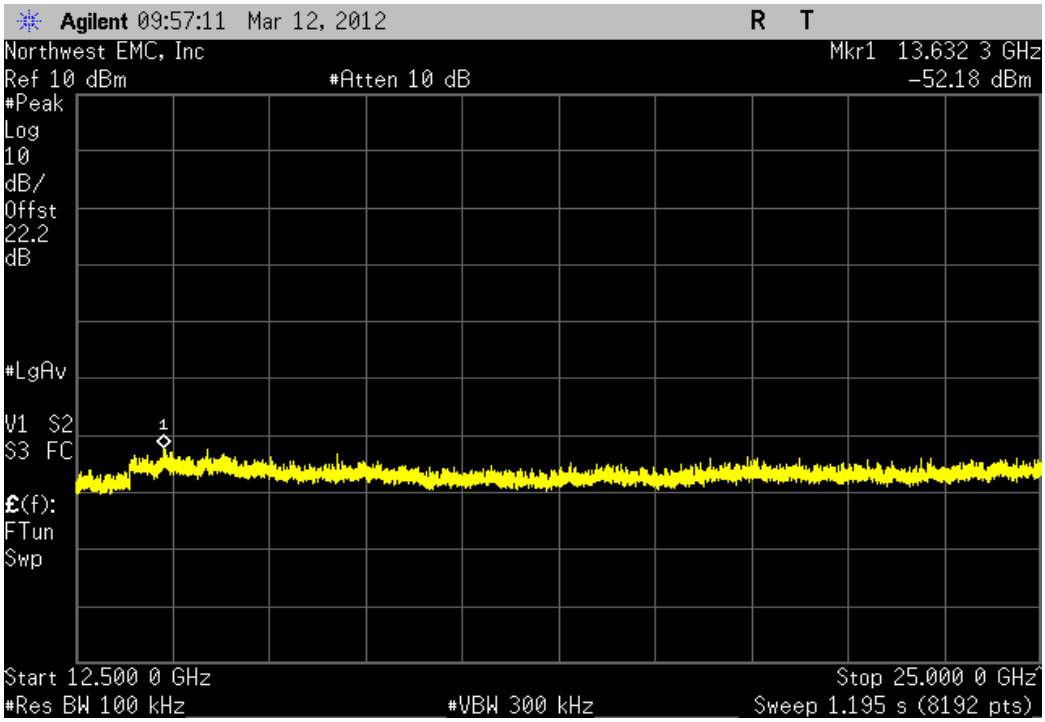
DH5, GFSK, Low Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-52.13 dBc	≤ -20 dBc	Pass



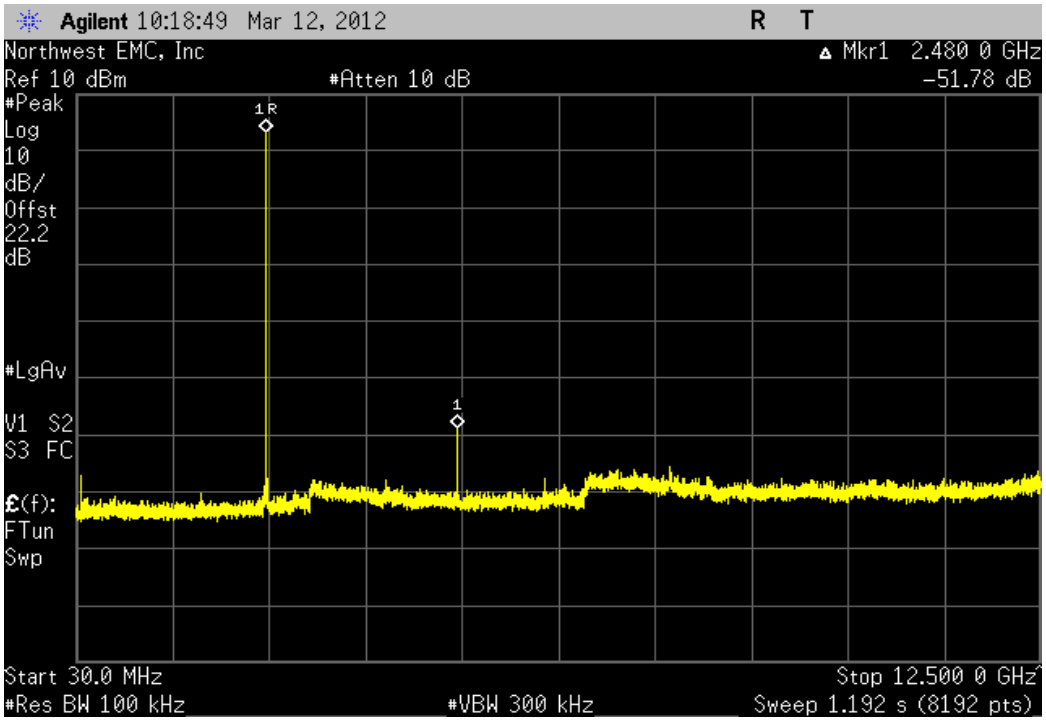
DH5, GFSK, Mid Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-45.8 dBc	≤ -20 dBc	Pass



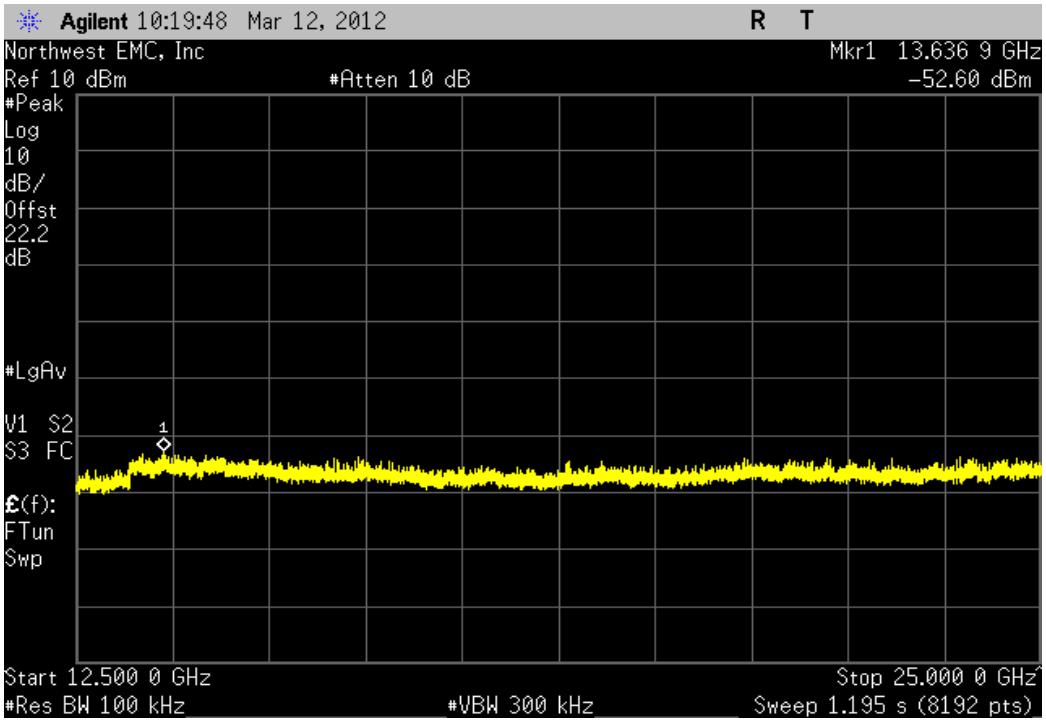
DH5, GFSK, Mid Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-52.51 dBc	≤ -20 dBc	Pass



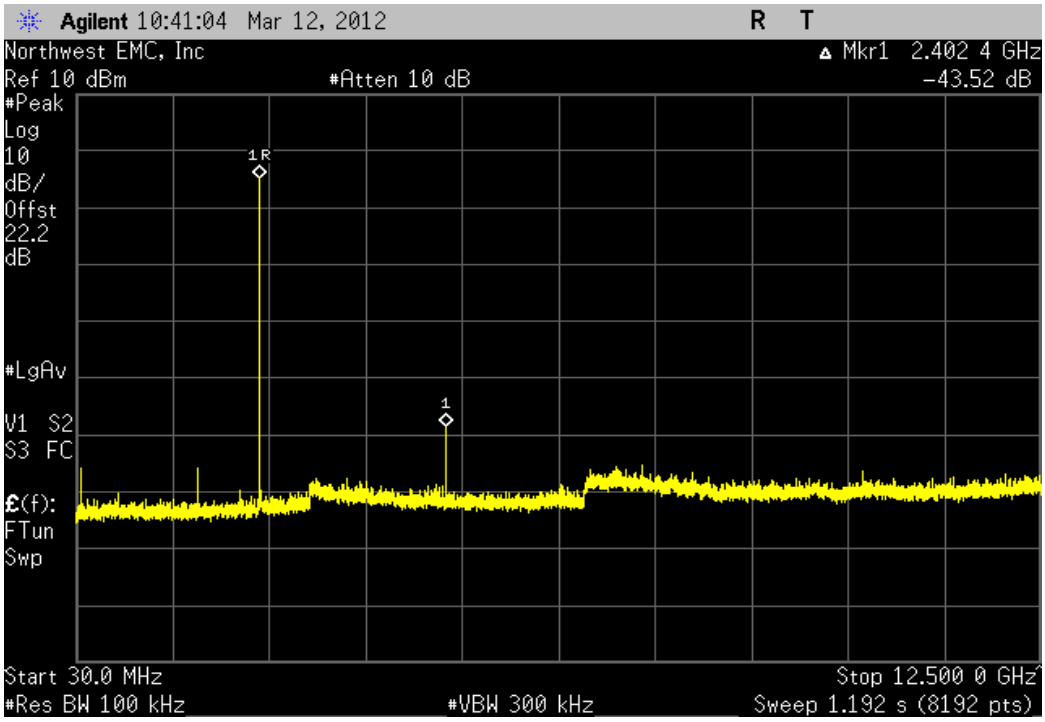
DH5, GFSK, High Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-51.78 dBc	≤ -20 dBc	Pass



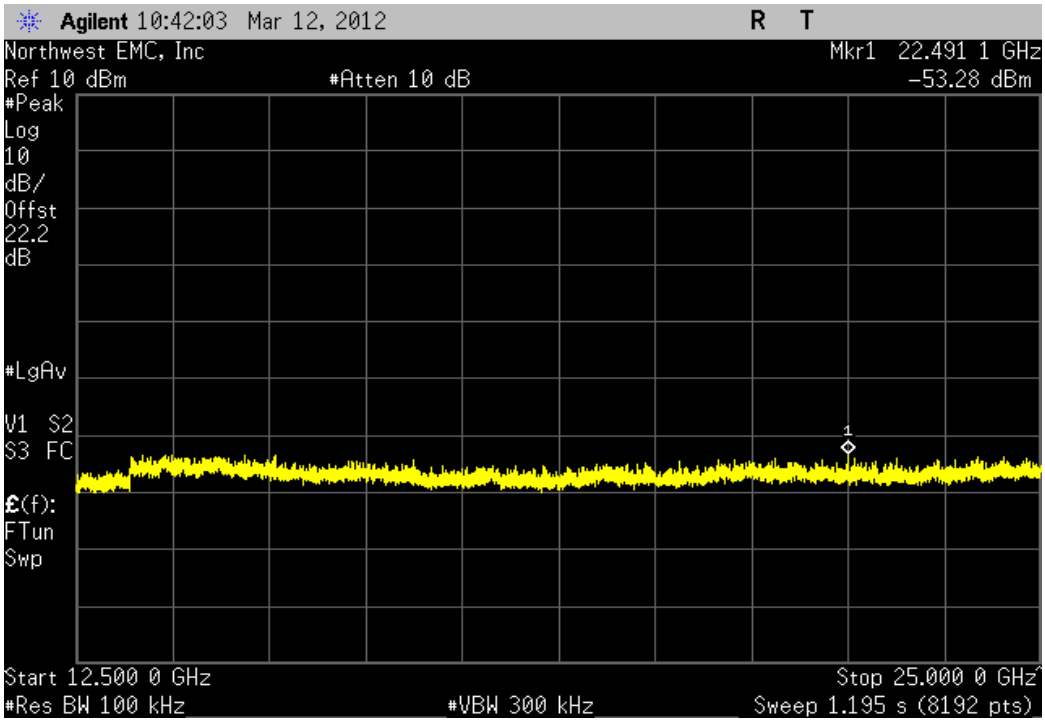
DH5, GFSK, High Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-55.74 dBc	≤ -20 dBc	Pass



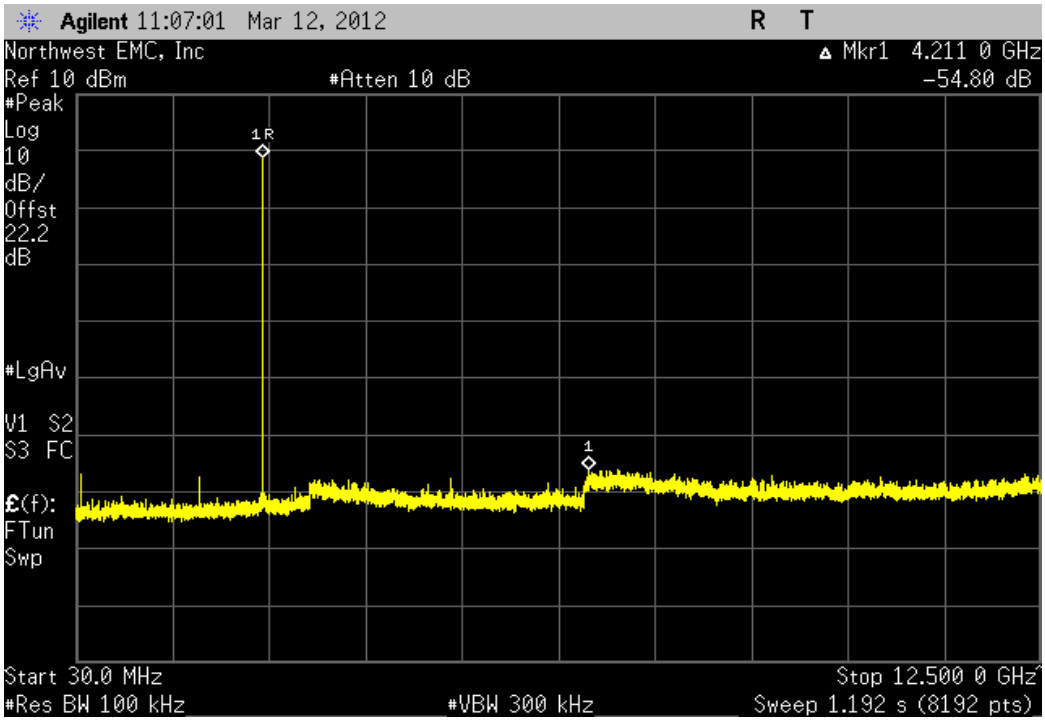
2DH5, 4-DQPSK, Low Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-43.52 dBc	≤ -20 dBc	Pass



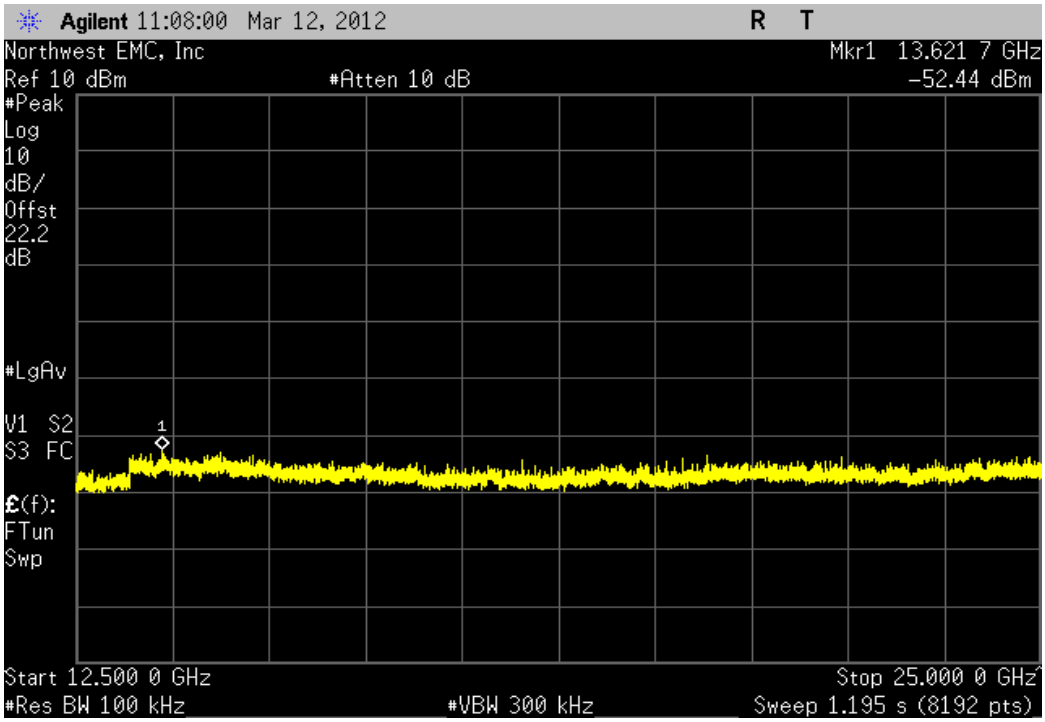
2DH5, 4-DQPSK, Low Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-48.43 dBc	≤ -20 dBc	Pass



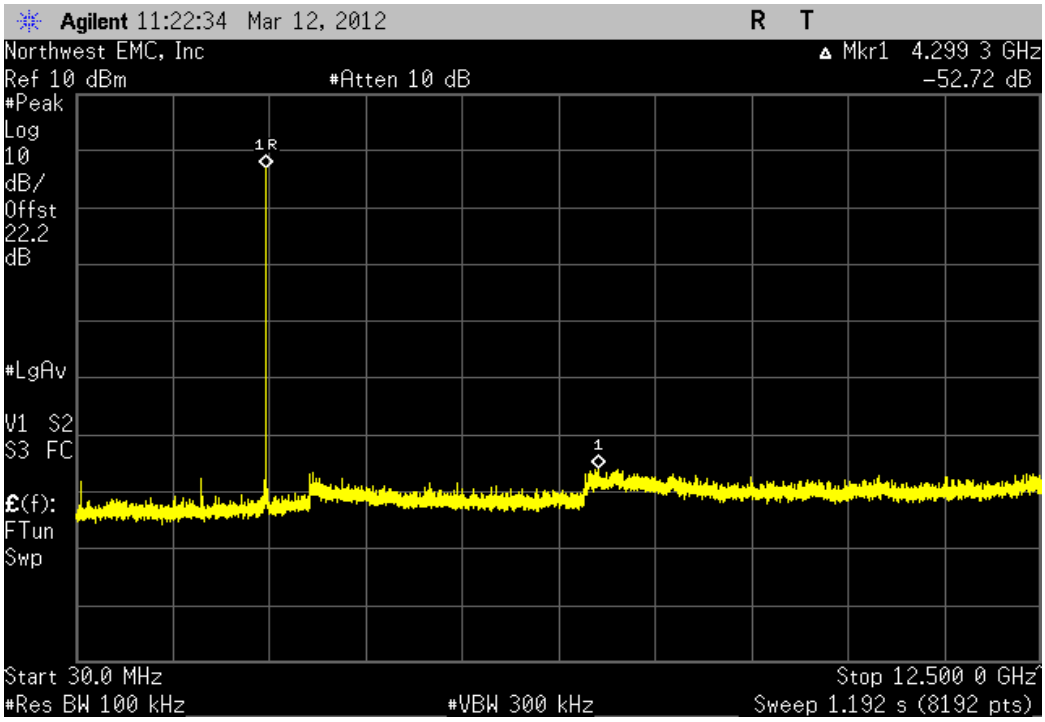
2DH5, 4-DQPSK, Mid Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-54.8 dBc	≤ -20 dBc	Pass



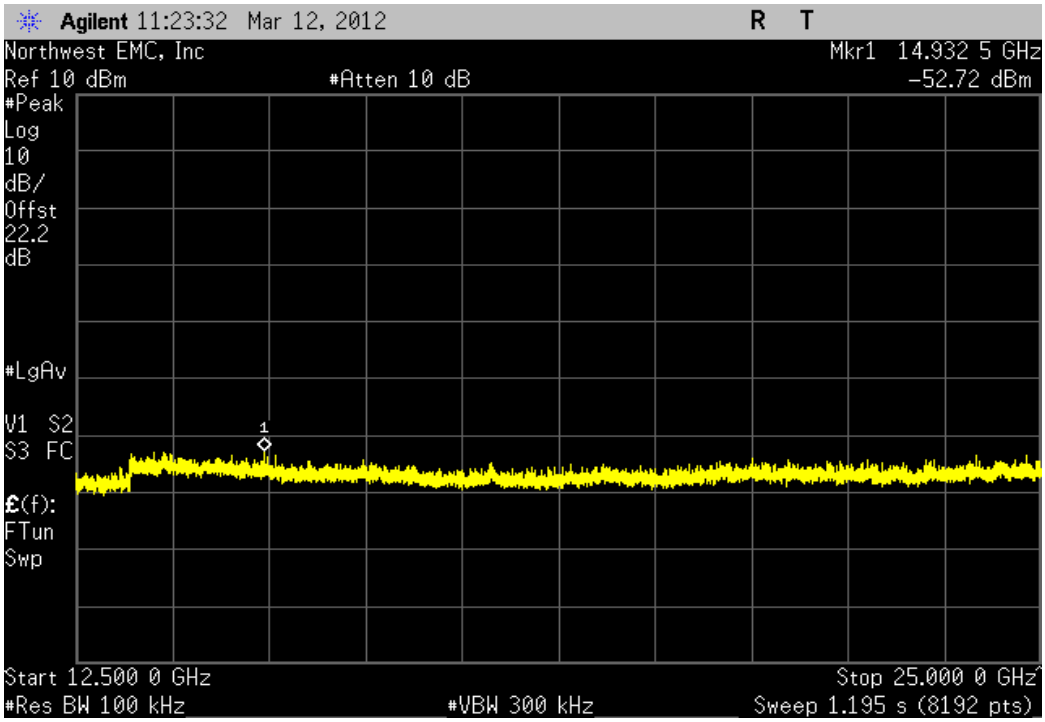
2DH5, 4-DQPSK, Mid Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-51.26 dBc	≤ -20 dBc	Pass



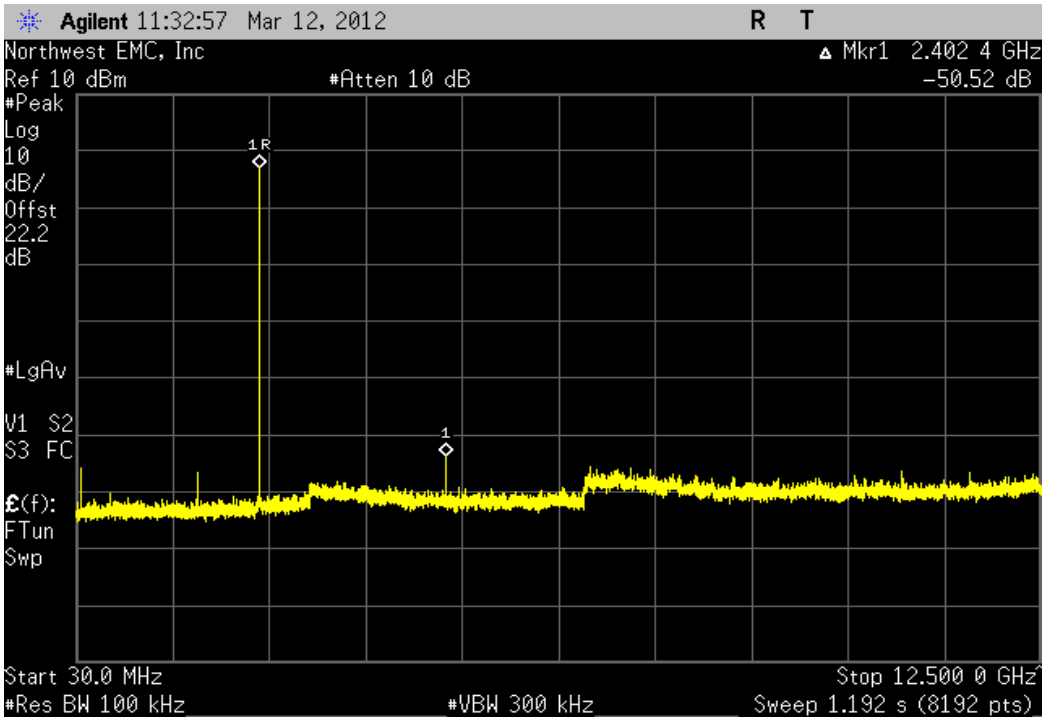
2DH5, 4-DQPSK, High Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-52.72 dBc	≤ -20 dBc	Pass



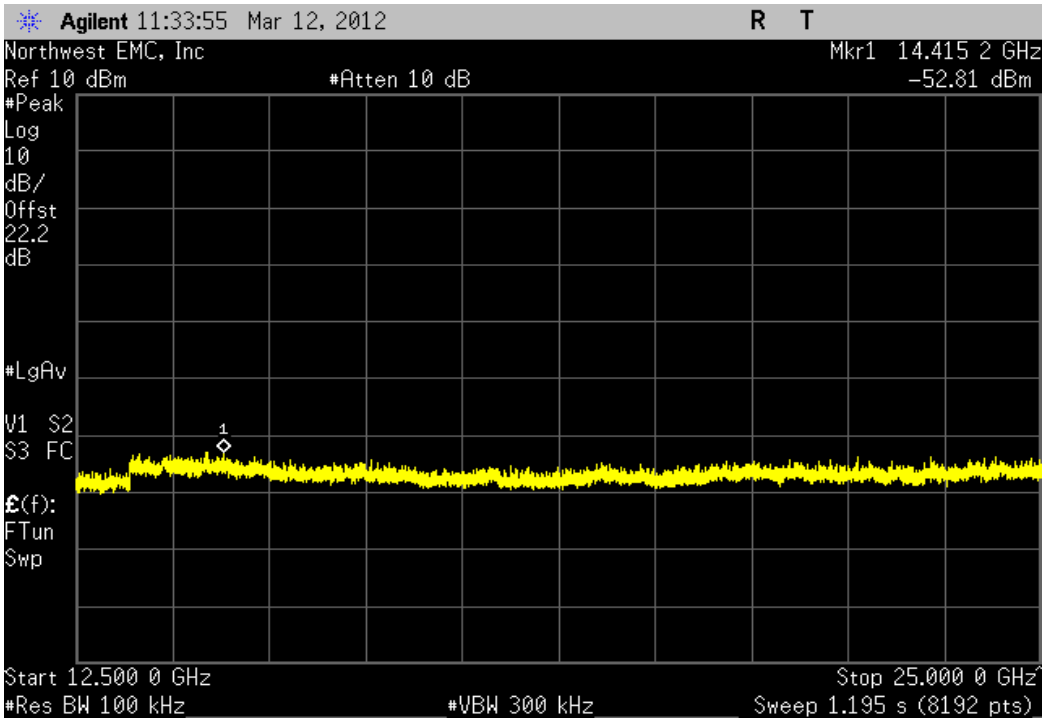
2DH5, 4-DQPSK, High Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-49.65 dBc	≤ -20 dBc	Pass



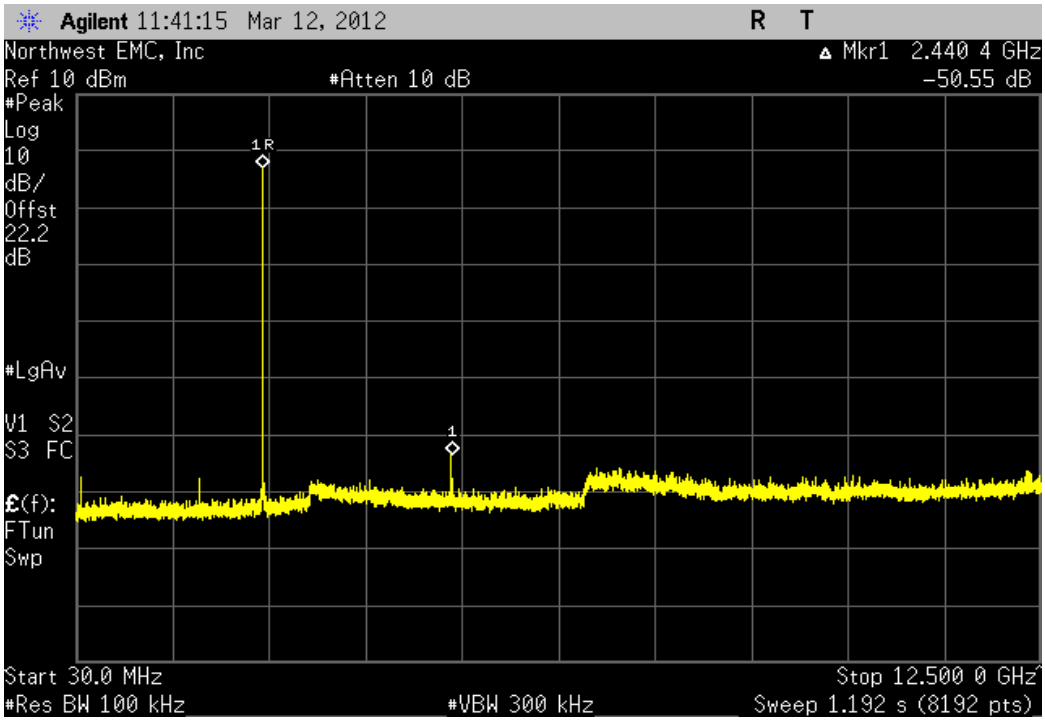
3DH5, 8-DPSK, Low Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-50.52 dBc	≤ -20 dBc	Pass



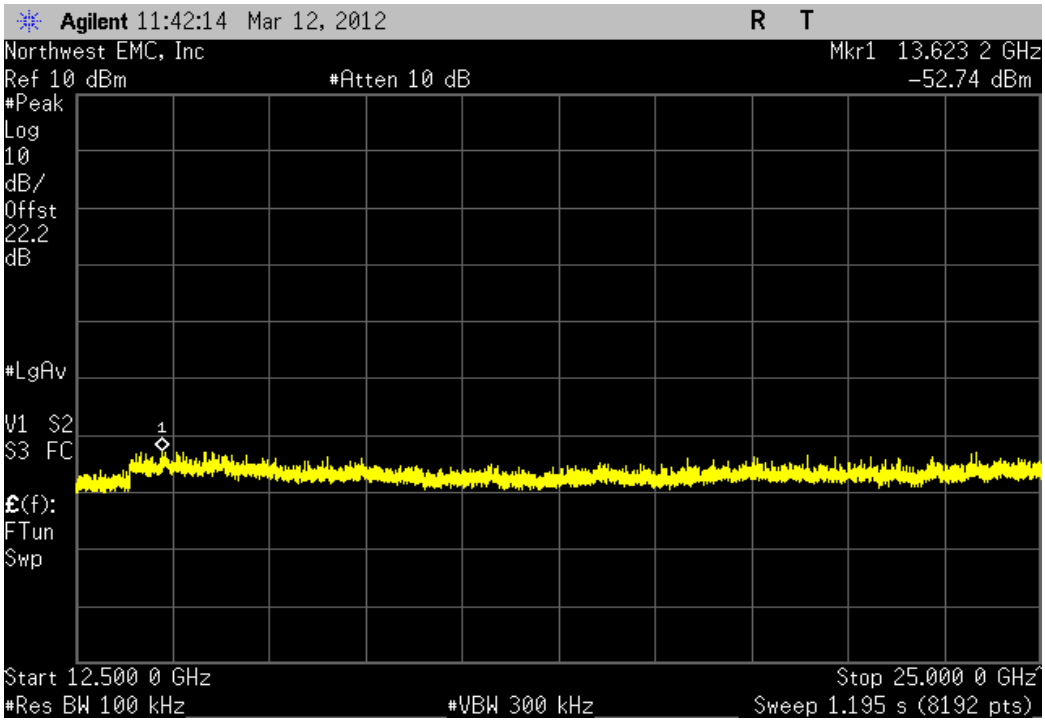
3DH5, 8-DPSK, Low Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-49.75 dBc	≤ -20 dBc	Pass



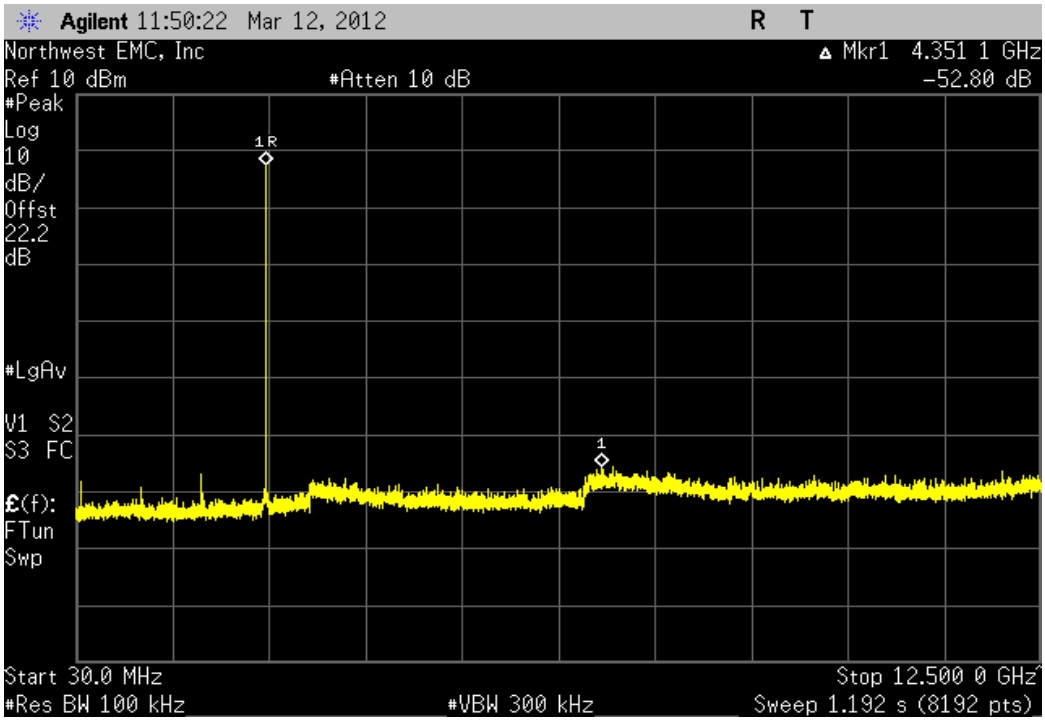
3DH5, 8-DPSK, Mid Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-50.55 dBc	≤ -20 dBc	Pass



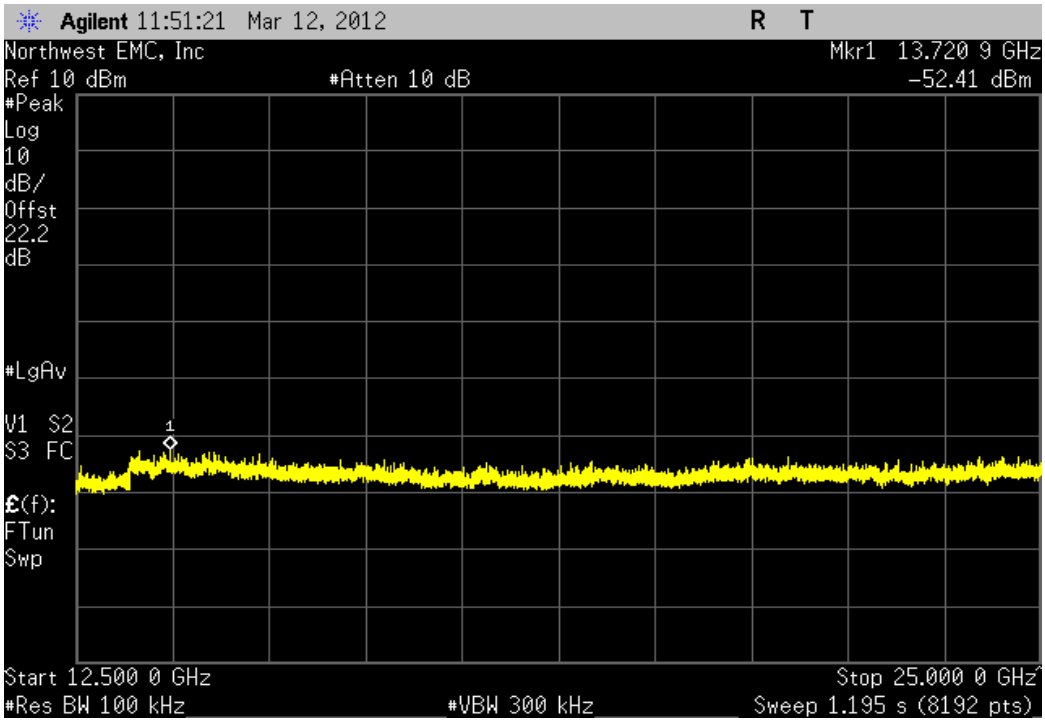
3DH5, 8-DPSK, Mid Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-49.72 dBc	≤ -20 dBc	Pass



3DH5, 8-DPSK, High Channel				
Frequency Range		**Value**	**Limit**	**Result**
30 MHz - 12.5 GHz		-52.8 dBc	≤ -20 dBc	Pass



3DH5, 8-DPSK, High Channel				
Frequency Range		**Value**	**Limit**	**Result**
12.5 GHz - 25 GHz		-49.8 dBc	≤ -20 dBc	Pass



Power Spectral Density

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2011	12
40GHz DC Block	Miteq	DCB4000	AMD	8/12/2011	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	8/2/2011	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	1/9/2012	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	24
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	5/5/2011	12
MXG Vector Signal Generator	Agilent	N5182A	TIF	NCR	0

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate for each modulation type available. ANSI C63.10:2009, Section 6.11.2.3 was followed. The spectrum analyzer was set as follows:

The emission peak was located and zoomed in on within the passband.

a) RBW = 3 kHz

b) VBW = 10 kHz

c) Span = 300 kHz

d) Sweep time = 100s

e) Trace set to MAX

f) The 1 hz Marker Noise function on the analyzer was used. The data was corrected to 3 kHz by adding 34.8 dB to the reading.

Power Spectral Density

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/14/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

None

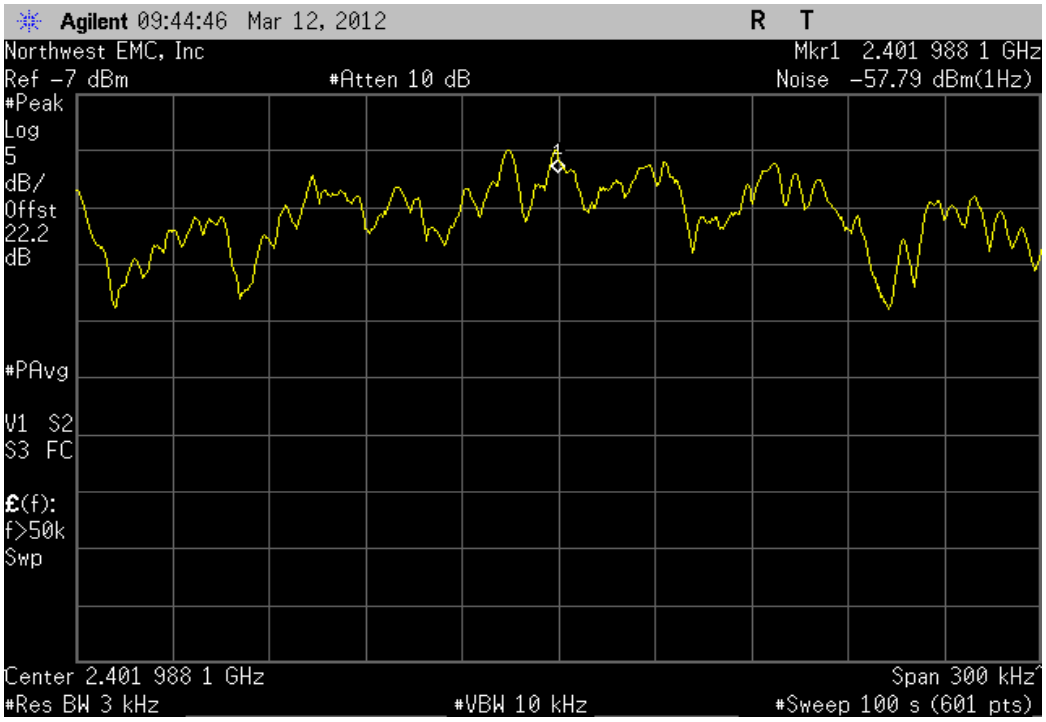
DEVIATIONS FROM TEST STANDARD

No deviations.

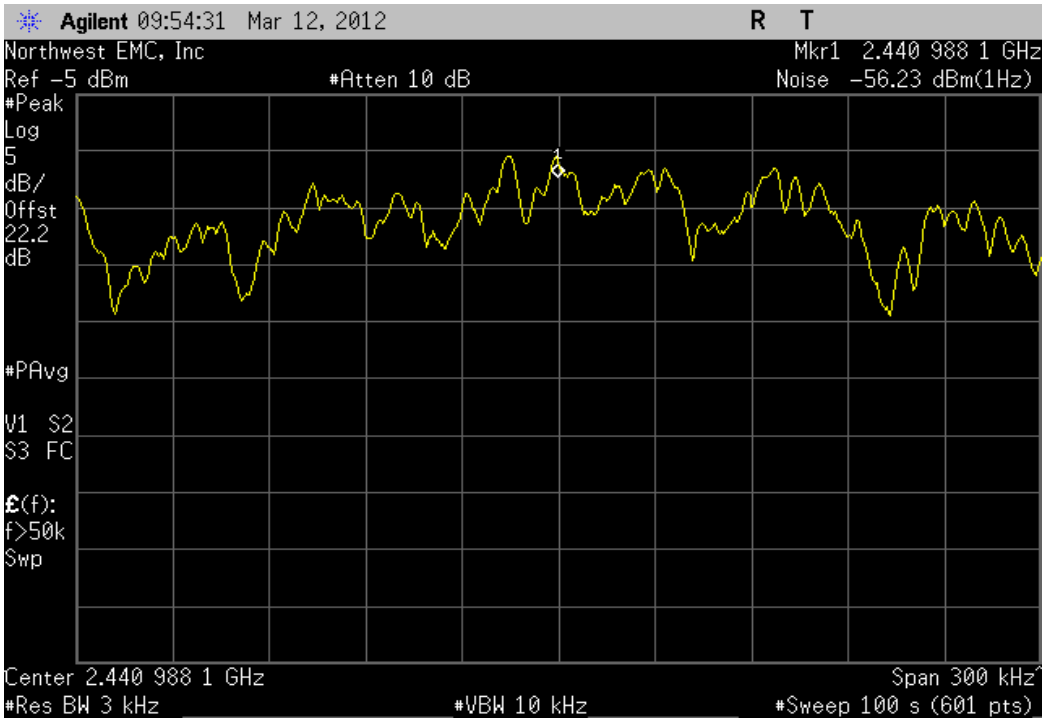
Configuration #	1	Signature

		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
DH5, GFSK						
	Low Channel	-57.793	34.8	-22.993	8	Pass
	Mid Channel	-56.232	34.8	-21.432	8	Pass
	High Channel	-53.795	34.8	-18.995	8	Pass
2DH5, 4-DQPSK						
	Low Channel	-61.497	34.8	-26.697	8	Pass
	Mid Channel	-59.907	34.8	-25.107	8	Pass
	High Channel	-58.278	34.8	-23.478	8	Pass
3DH5, 8-DPSK						
	Low Channel	-61.526	34.8	-26.726	8	Pass
	Mid Channel	-59.894	34.8	-25.094	8	Pass
	High Channel	-58.105	34.8	-23.305	8	Pass

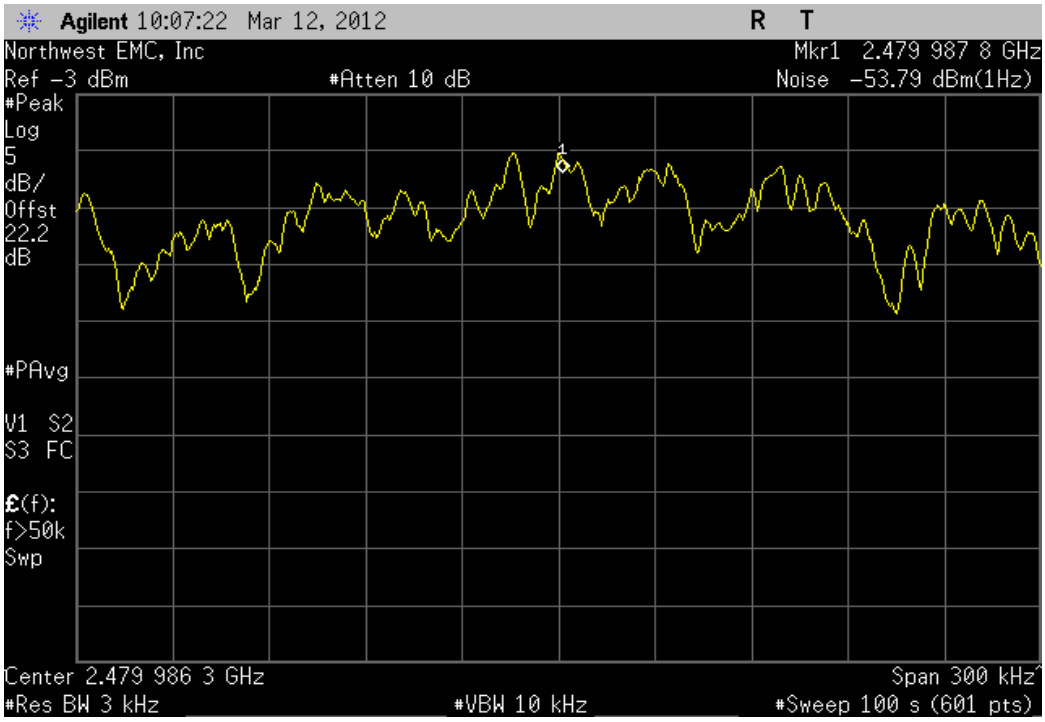
DH5, GFSK, Low Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-57.793	34.8	-22.993	8	Pass



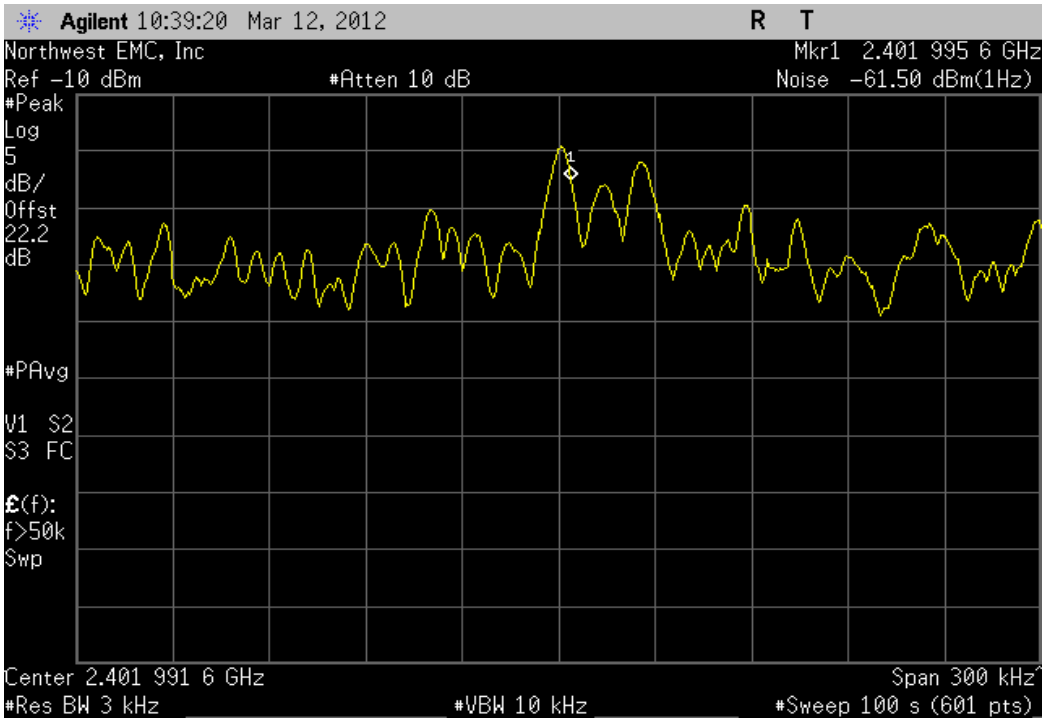
DH5, GFSK, Mid Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-56.232	34.8	-21.432	8	Pass



DH5, GFSK, High Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-53.795	34.8	-18.995	8	Pass

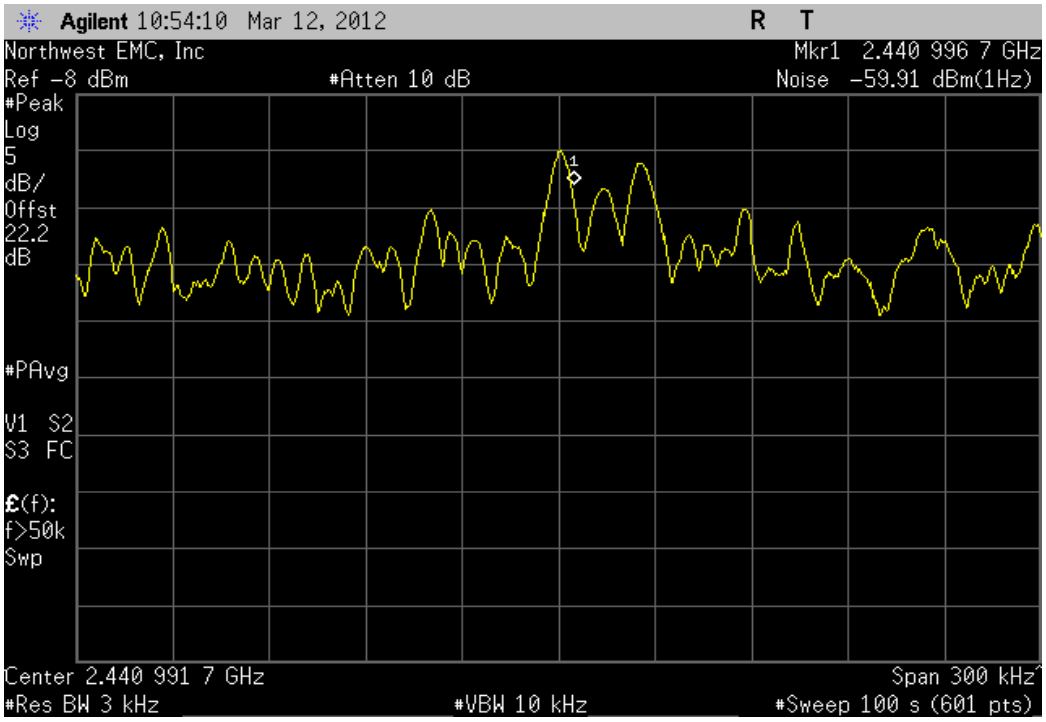


2DH5, 4-DQPSK, Low Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-61.497	34.8	-26.697	8	Pass

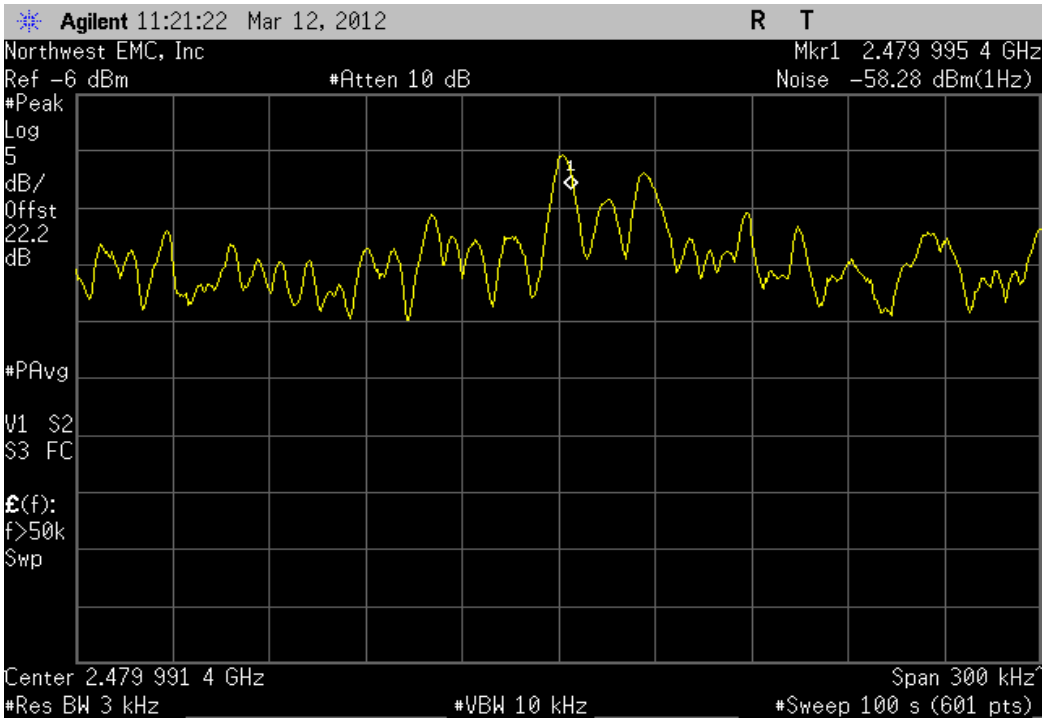


Power Spectral Density

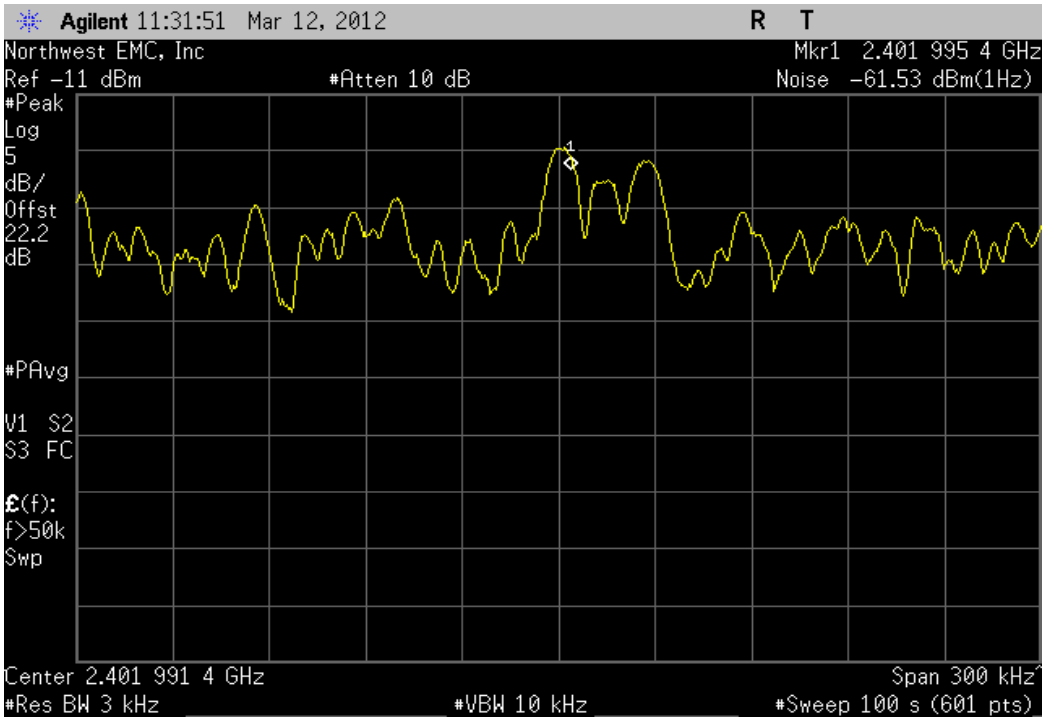
2DH5, 4-DQPSK, Mid Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-59.907	34.8	-25.107	8	Pass



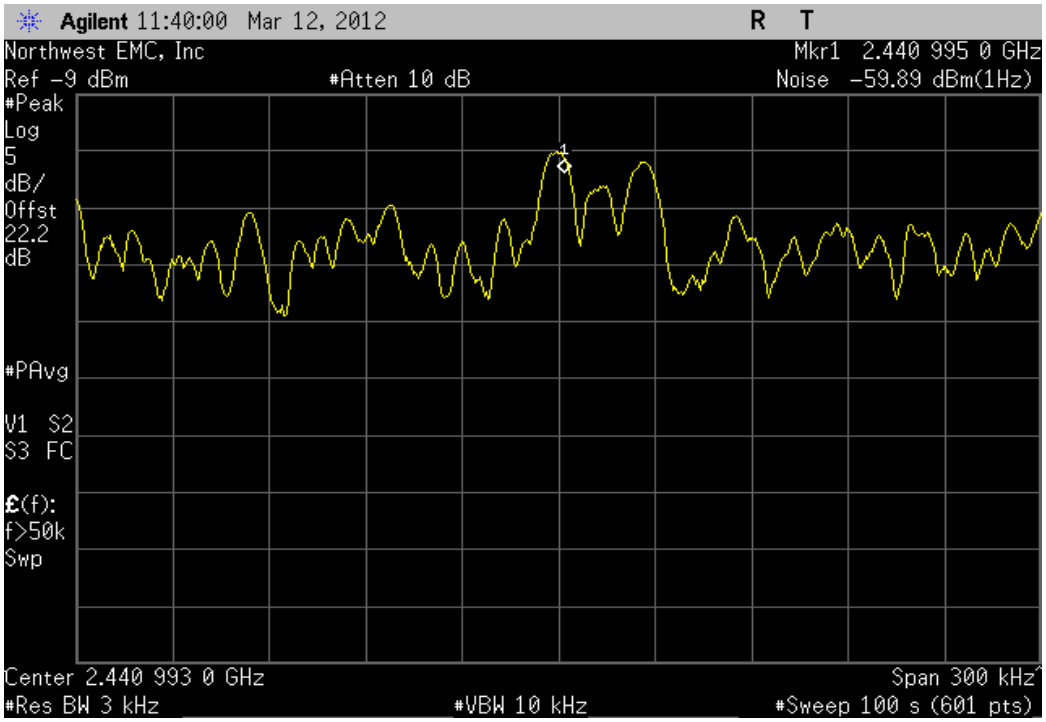
2DH5, 4-DQPSK, High Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-58.278	34.8	-23.478	8	Pass



3DH5, 8-DPSK, Low Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-61.526	34.8	-26.726	8	Pass

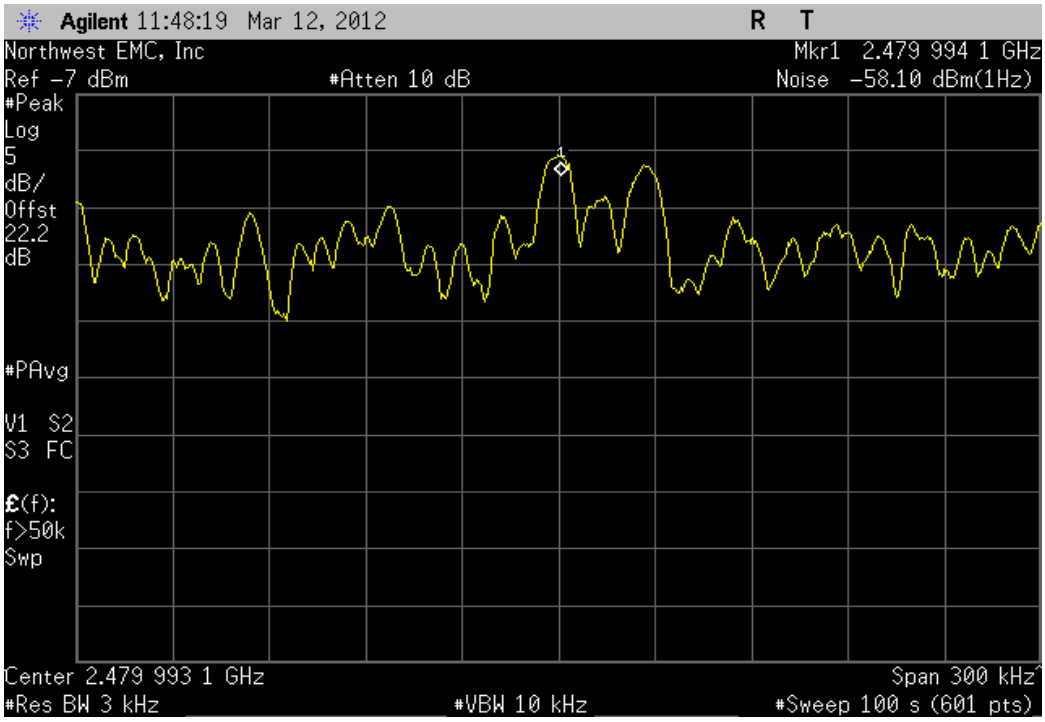


3DH5, 8-DPSK, Mid Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-59.894	34.8	-25.094	8	Pass



Power Spectral Density

3DH5, 8-DPSK, High Channel						
		Value (dBm / Hz)	(dBm / Hz) To (dBm / 3 kHz)	Value (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
		-58.105	34.8	-23.305	8	Pass



SPURIOUS RADIATED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Transmitting Bluetooth, GFSK modulation, DH5 data rate
Transmitting Bluetooth, Pi / 4-DQPSK modulation, 2DH5 data rate
Transmitting Bluetooth, 8-DPSK modulation, 3DH5 data rate

CHANNELS TESTED

Low channel, 2402 MHz
Mid channel, 2441 MHz
High channel, 2480 MHz

POWER SETTINGS INVESTIGATED

5 VDC

CONFIGURATIONS INVESTIGATED

SPAC0490 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	25 GHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440	AFE	1/23/2012	12
High Pass Filter	Micro-Tronics	50111	HGE	7/14/2010	24
Attenuator	Pasternack	PE7005-20	AUN	7/5/2011	12
Pre-Amplifier	Miteq	AM-1616-1000	AVM	6/20/2011	12
EV12 Cables	N/A	Bilog Cables	EVS	6/20/2011	12
Antenna, Biconilog	EMCO	3141	AXG	3/15/2010	24
Pre-Amplifier	Miteq	AMF-3D00100800-32-13P	AVF	6/20/2011	12
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	10/6/2011	12
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVH	6/20/2011	12
Antenna, Horn	ETS	3160.07	AHZ	9/8/2010	24
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVI	7/5/2011	12
Antenna, Horn	ETS	3160-08	AIA	NCR	0
EV12 Cables	N/A	Standard Gain Horn Cables	EVU	6/20/2011	12
Spectrum Analyzer	Agilent	E4446A	AAQ	2/7/2012	12
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	9/12/2011	12
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Cable	ESM Cable Corp.	KMKM-72	EVY	9/12/2011	12

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

The frequency hopping duty cycle correction factor applied to the average detector measurements is based on the hopping mode of a Bluetooth radio as operated with the provided test software. The duty cycle correction factor is based on the formula of 20 * LOG (2.9/100) where the transmitter on time is 2.9 ms during the period of 100 ms. The value is -30.8 dB.

SPURIOUS RADIATED EMISSIONS

EUT:	BlueGiga WT12			Work Order:	SPAC0490
Serial Number:	None			Date:	03/02/12
Customer:	Spacelabs Medical Inc.			Temperature:	23
Attendees:	None			Humidity:	38%
Project:	None			Barometric Pres.:	30.05
Tested by:	Rod Peloquin	Power:	5 VDC	Job Site:	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS

The frequency hopping duty cycle correction factor applied below to the average detector measurements is based on the hopping mode of a Bluetooth radio as operated with the provided test software.

EUT OPERATING MODES

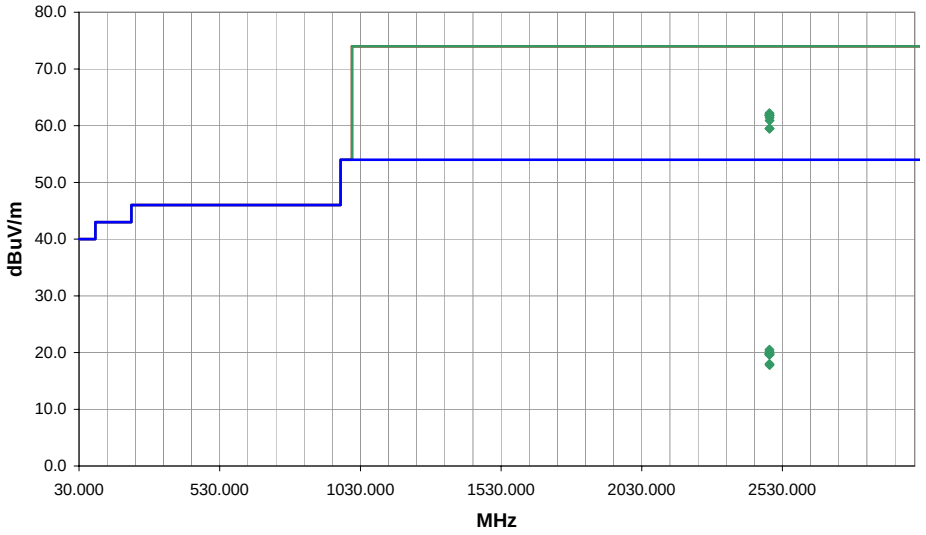
Transmitting High Channel

DEVIATIONS FROM TEST STANDARD

None

Run #	5
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Duty Cycle Correction Factor	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
2483.625	43.4	-1.2	128.0	1.0	0.0	20.0	H-Horn	PK	0.0	62.2	74.0	-11.8	High Channel, DH5, EUT on end
2483.583	43.1	-1.2	128.0	1.0	0.0	20.0	H-Horn	PK	0.0	61.9	74.0	-12.1	High Channel, 3-DH5, EUT on end
2483.605	43.1	-1.2	117.0	1.2	0.0	20.0	V-Horn	PK	0.0	61.9	74.0	-12.1	High Channel, 2-DH5, EUT on side
2483.550	43.0	-1.2	128.0	1.0	0.0	20.0	H-Horn	PK	0.0	61.8	74.0	-12.2	High Channel, 2-DH5, EUT on end
2483.622	43.0	-1.2	117.0	1.2	0.0	20.0	V-Horn	PK	0.0	61.8	74.0	-12.2	High Channel, 3-DH5, EUT on side
2484.507	42.6	-1.2	117.0	1.2	0.0	20.0	V-Horn	PK	0.0	61.4	74.0	-12.6	High Channel, DH5, EUT on side
2484.023	42.1	-1.2	67.0	1.2	0.0	20.0	H-Horn	PK	0.0	60.9	74.0	-13.1	High Channel, DH5, EUT horizontal
2483.908	40.7	-1.2	91.0	1.0	0.0	20.0	H-Horn	PK	0.0	59.5	74.0	-14.5	High Channel, DH5, EUT on side
2484.247	40.7	-1.2	93.0	2.1	0.0	20.0	V-Horn	PK	0.0	59.5	74.0	-14.5	High Channel, DH5, EUT horizontal
2483.515	32.5	-1.2	128.0	1.0	30.8	20.0	H-Horn	AV	0.0	20.5	54.0	-33.5	High Channel, 2-DH5, EUT on end
2483.537	32.2	-1.2	128.0	1.0	30.8	20.0	H-Horn	AV	0.0	20.2	54.0	-33.8	High Channel, 3-DH5, EUT on end
2483.500	31.9	-1.2	128.0	1.0	30.8	20.0	V-Horn	AV	0.0	19.9	54.0	-34.1	High Channel, DH5, EUT on end
2483.500	31.8	-1.2	67.0	1.2	30.8	20.0	H-Horn	AV	0.0	19.8	54.0	-34.2	High Channel, DH5, EUT horizontal
2483.500	31.7	-1.2	117.0	1.2	30.8	20.0	V-Horn	AV	0.0	19.7	54.0	-34.3	High Channel, DH5, EUT on side
2483.548	31.7	-1.2	117.0	1.2	30.8	20.0	V-Horn	AV	0.0	19.7	54.0	-34.3	High Channel, 2-DH5, EUT on side
2483.508	31.6	-1.2	117.0	1.2	30.8	20.0	V-Horn	AV	0.0	19.6	54.0	-34.4	High Channel, 3-DH5, EUT on side
2483.500	30.0	-1.2	93.0	2.1	30.8	20.0	V-Horn	AV	0.0	18.0	54.0	-36.0	High Channel, DH5, EUT horizontal
2484.000	29.8	-1.2	90.0	1.0	30.8	20.0	H-Horn	AV	0.0	17.8	54.0	-36.2	High Channel, DH5, EUT on side

SPURIOUS RADIATED EMISSIONS

EUT:	BlueGiga WT12			Work Order:	SPAC0490
Serial Number:	None			Date:	03/02/12
Customer:	Spacelabs Medical Inc.			Temperature:	23
Attendees:	None			Humidity:	38%
Project:	None			Barometric Pres.:	30.05
Tested by:	Rod Peloquin	Power:	5 VDC	Job Site:	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS

The frequency hopping duty cycle correction factor applied below to the average detector measurements is based on the hopping mode of a Bluetooth radio as operated with the provided test software.

EUT OPERATING MODES

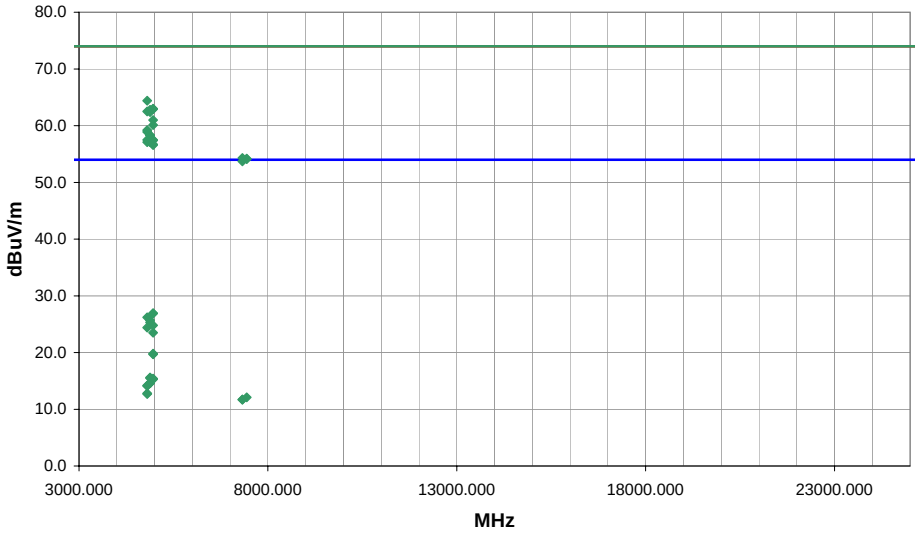
Transmitting

DEVIATIONS FROM TEST STANDARD

None

Run #	4
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Duty Cycle Correction Factor	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4804.033	55.6	8.8	286.0	1.7	0.0	0.0	H-Horn	PK	0.0	64.4	74.0	-9.6	Low Channel, DH5, EUT on side
4960.058	53.6	9.4	24.0	1.9	0.0	0.0	V-Horn	PK	0.0	63.0	74.0	-11.0	High Channel, DH5, EUT on end
4960.138	53.5	9.4	64.0	1.3	0.0	0.0	H-Horn	PK	0.0	62.9	74.0	-11.1	High Channel, DH5, EUT on side
4881.875	53.6	9.2	255.0	1.6	0.0	0.0	H-Horn	PK	0.0	62.8	74.0	-11.2	Mid Channel, DH5, EUT on side
4803.992	53.7	8.8	11.0	2.3	0.0	0.0	V-Horn	PK	0.0	62.5	74.0	-11.5	Low Channel, DH5, EUT on end
4882.004	53.2	9.2	18.0	2.1	0.0	0.0	V-Horn	PK	0.0	62.4	74.0	-11.6	Mid Channel, DH5, EUT on end
4960.125	51.6	9.4	317.0	2.2	0.0	0.0	H-Horn	PK	0.0	61.0	74.0	-13.0	High Channel, DH5, EUT on end
4959.988	50.7	9.4	354.0	1.4	0.0	0.0	V-Horn	PK	0.0	60.1	74.0	-13.9	High Channel, DH5, EUT horizontal
4804.100	50.4	8.8	286.0	1.7	0.0	0.0	H-Horn	PK	0.0	59.2	74.0	-14.8	Low Channel, 3-DH5, EUT on side
4803.958	50.1	8.8	286.0	1.7	0.0	0.0	H-Horn	PK	0.0	58.9	74.0	-15.1	Low Channel, 2-DH5, EUT on side
4881.908	49.1	9.2	255.0	1.6	0.0	0.0	H-Horn	PK	0.0	58.3	74.0	-15.7	Mid Channel, 3-DH5, EUT on side
4881.950	49.1	9.2	255.0	1.6	0.0	0.0	H-Horn	PK	0.0	58.3	74.0	-15.7	Mid Channel, 2-DH5, EUT on side
4804.033	48.7	8.8	11.0	2.3	0.0	0.0	V-Horn	PK	0.0	57.5	74.0	-16.5	Low Channel, 3-DH5, EUT on end
4960.004	48.1	9.4	20.0	1.9	0.0	0.0	V-Horn	PK	0.0	57.5	74.0	-16.5	High Channel, DH5, EUT on end
4959.979	48.0	9.4	20.0	1.9	0.0	0.0	V-Horn	PK	0.0	57.4	74.0	-16.6	High Channel, 2-DH5, EUT on end
4882.138	48.1	9.2	18.0	2.1	0.0	0.0	V-Horn	PK	0.0	57.3	74.0	-16.7	Mid Channel, 2-DH5, EUT on end
4803.933	48.3	8.8	11.0	2.3	0.0	0.0	V-Horn	PK	0.0	57.1	74.0	-16.9	Low Channel, 2-DH5, EUT on end
4881.983	47.9	9.2	18.0	2.1	0.0	0.0	V-Horn	PK	0.0	57.1	74.0	-16.9	Mid Channel, 3-DH5, EUT on end
4960.083	47.3	9.4	209.0	1.4	0.0	0.0	V-Horn	PK	0.0	56.7	74.0	-17.3	High Channel, DH5, EUT on side
4960.117	47.2	9.4	140.0	1.8	0.0	0.0	H-Horn	PK	0.0	56.6	74.0	-17.4	High Channel, DH5, EUT horizontal

DUTY CYCLE

EUT:	BlueGiga WT12			**Work Order:**	SPAC0490
Serial Number:	None			**Date:**	03/16/12
Customer:	Spacelabs Medical Inc.			**Temperature:**	22°C
Attendees:	None			**Humidity:**	33%
Project:	None			**Barometric Pres.:**	1009.3
Tested by:	Rod Peloquin	**Power:**	5 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2012	ANSI C63.10:2009

COMMENTS

Frequency hopping mode

DEVIATIONS FROM TEST STANDARD

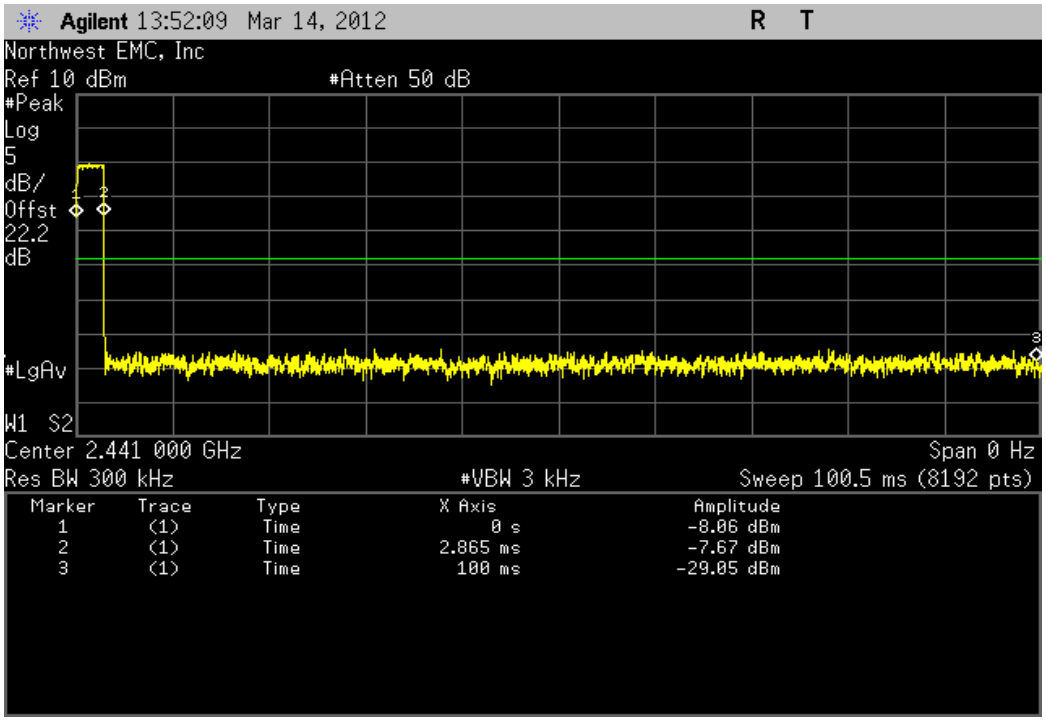
No deviations.

Configuration #	1	Signature

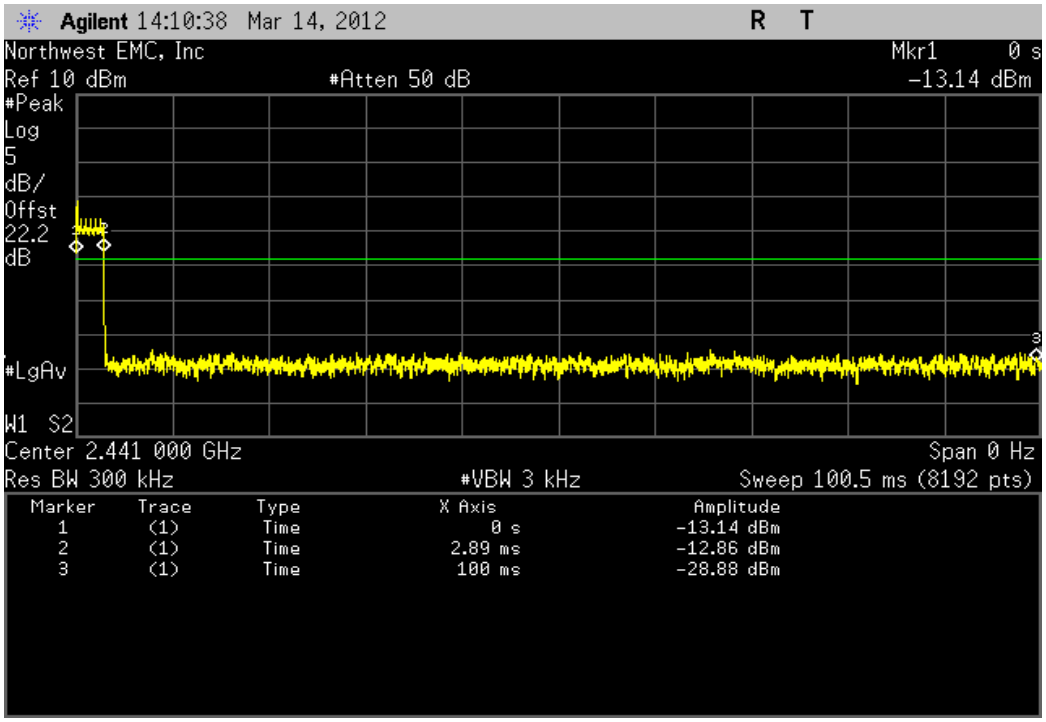
	Tx On time ms	Period ms	Duty Cycle %	Result dB
Bluetooth, GFSK, DH5	2.9	100	2.90%	-30.8
Bluetooth, 4-DQPSK, 2DH5	2.9	100	2.89%	-30.8
Bluetooth, 8-DPSK, 3DH5	2.9	100	2.90%	-30.8

DUTY CYCLE

Bluetooth, GFSK, DH5						
			Tx On time ms	Period ms	Duty Cycle %	Result dB
			2.9	100	2.90%	-30.8

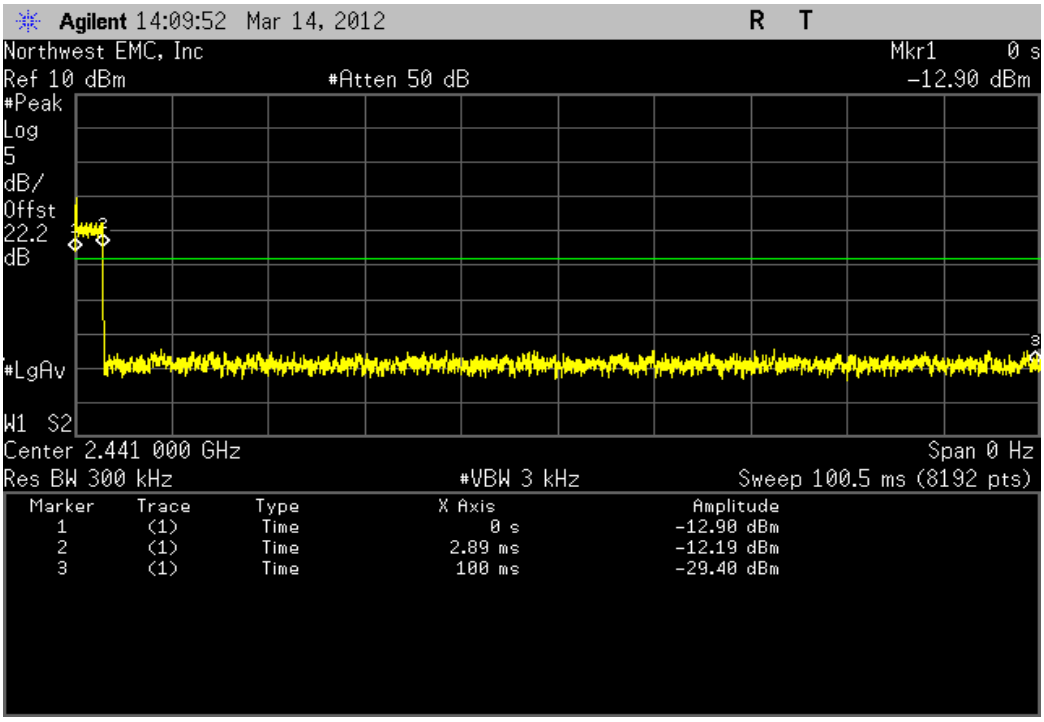


Bluetooth, 4-DQPSK, 2DH5						
			Tx On time ms	Period ms	Duty Cycle %	Result dB
			2.89	100	2.89%	-30.8



DUTY CYCLE

Bluetooth, 8-DPSK, 3DH5						
			Tx On time ms	Period ms	Duty Cycle %	Result dB
			2.9	100	2.90%	-30.8



AC POWERLINE CONDUCTED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Transmitting Bluetooth 3DH5 High (2480 Mhz)
Transmitting Bluetooth 3DH5 Mid (2441 Mhz)
Transmitting Bluetooth 3DH5 Low (2402 Mhz)
Transmitting Bluetooth 2DH5 High (2480 Mhz)
Transmitting Bluetooth 2DH5 Mid (2441 Mhz)
Transmitting Bluetooth 2DH5 Low (2402 Mhz)
Transmitting Bluetooth DH5 High (2480 Mhz)
Transmitting Bluetooth DH5 Mid (2441 Mhz)
Transmitting Bluetooth DH5 Low (2402 Mhz)

POWER SETTINGS INVESTIGATED

5 VDC

CONFIGURATIONS INVESTIGATED

SPAC0490 - 2

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIR	11/4/2011	12 mo
Receiver	Rohde & Schwarz	ESCI	ARH	3/30/2011	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HFX	2/9/2011	24 mo
Attenuator	Coaxicom	66702 2910-20	RBR	8/3/2011	12 mo
EV07 Cables	N/A	Conducted Cables	EVG	6/17/2011	12 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50ohm measuring port is terminated by a 50ohm EMI meter or a 50ohm resistive load. All 50ohm measuring ports of the LISN are terminated by 50ohm.

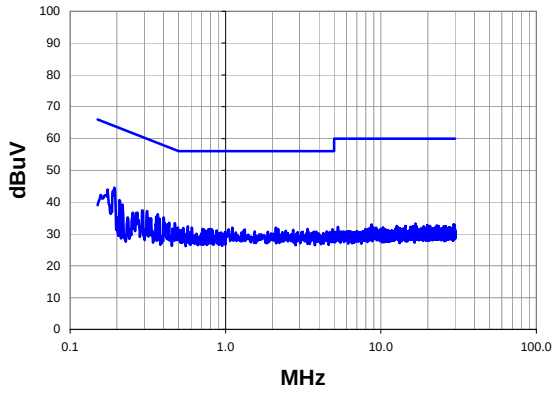
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth DH5 Low (2402 Mhz)				
Deviations:	None				
Comments:	None				

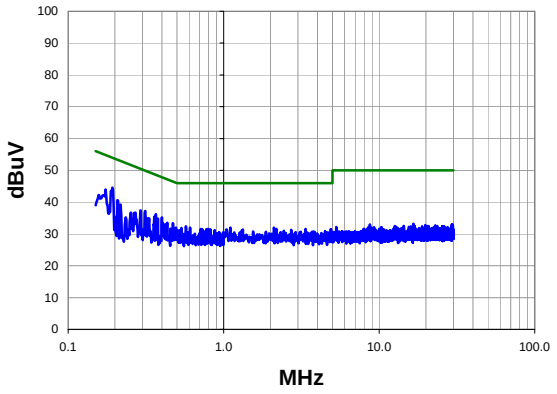
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	4	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.193	24.5	20.1	44.6	63.9	-19.3
0.174	23.9	20.1	44.0	64.8	-20.8
0.366	16.1	20.1	36.2	58.6	-22.4
0.400	15.1	20.1	35.2	57.9	-22.7
0.313	17.1	20.1	37.2	59.9	-22.7
0.208	20.5	20.1	40.6	63.3	-22.7
0.471	13.3	20.1	33.4	56.5	-23.1
0.291	17.3	20.1	37.4	60.5	-23.1
0.357	15.3	20.1	35.4	58.8	-23.4
0.378	14.7	20.1	34.8	58.3	-23.5
0.572	12.3	20.1	32.4	56.0	-23.6
0.218	19.1	20.1	39.2	62.9	-23.7
0.432	13.4	20.1	33.5	57.2	-23.7
0.607	11.9	20.1	32.0	56.0	-24.0
1.104	11.9	20.1	32.0	56.0	-24.0
2.104	11.9	20.1	32.0	56.0	-24.0
0.536	11.8	20.1	31.9	56.0	-24.1
0.493	11.9	20.1	32.0	56.1	-24.1
0.405	13.4	20.1	33.5	57.8	-24.3
0.271	16.6	20.1	36.7	61.1	-24.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.193	24.5	20.1	44.6	53.9	-9.3
0.174	23.9	20.1	44.0	54.8	-10.8
0.366	16.1	20.1	36.2	48.6	-12.4
0.400	15.1	20.1	35.2	47.9	-12.7
0.313	17.1	20.1	37.2	49.9	-12.7
0.208	20.5	20.1	40.6	53.3	-12.7
0.471	13.3	20.1	33.4	46.5	-13.1
0.291	17.3	20.1	37.4	50.5	-13.1
0.357	15.3	20.1	35.4	48.8	-13.4
0.378	14.7	20.1	34.8	48.3	-13.5
0.572	12.3	20.1	32.4	46.0	-13.6
0.218	19.1	20.1	39.2	52.9	-13.7
0.432	13.4	20.1	33.5	47.2	-13.7
0.607	11.9	20.1	32.0	46.0	-14.0
1.104	11.9	20.1	32.0	46.0	-14.0
2.104	11.9	20.1	32.0	46.0	-14.0
0.536	11.8	20.1	31.9	46.0	-14.1
0.493	11.9	20.1	32.0	46.1	-14.1
0.405	13.4	20.1	33.5	47.8	-14.3
0.271	16.6	20.1	36.7	51.1	-14.4

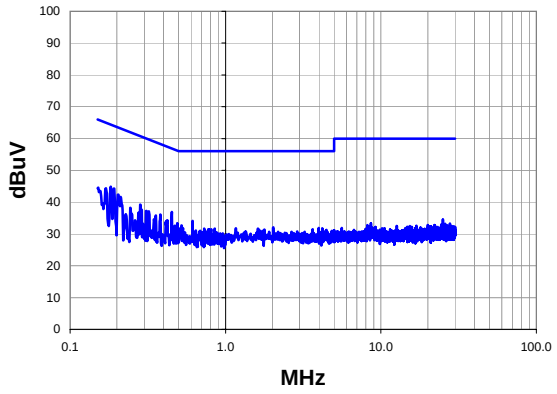
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth DH5 Low (2402 Mhz)				
Deviations:	None				
Comments:	None				

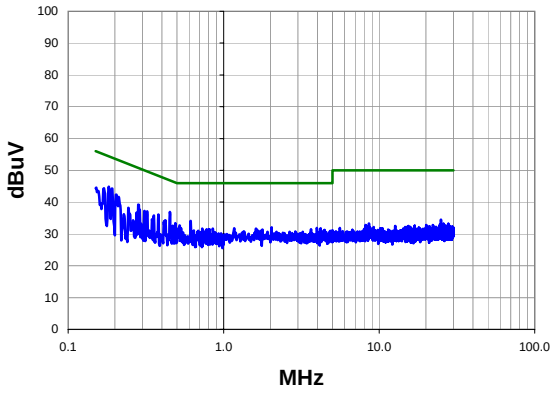
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	4	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.182	24.8	20.1	44.9	64.4	-19.5
0.191	24.2	20.1	44.3	64.0	-19.7
0.451	16.8	20.1	36.9	56.9	-20.0
0.170	24.3	20.1	44.4	64.9	-20.5
0.203	22.3	20.1	42.4	63.5	-21.1
0.152	24.5	20.1	44.6	65.9	-21.3
0.283	19.1	20.1	39.2	60.7	-21.5
0.614	14.0	20.1	34.1	56.0	-21.9
0.381	16.0	20.1	36.1	58.3	-22.2
0.322	17.0	20.1	37.1	59.7	-22.6
0.490	13.3	20.1	33.4	56.2	-22.8
0.308	17.1	20.1	37.2	60.0	-22.8
0.289	17.5	20.1	37.6	60.5	-22.9
0.356	15.7	20.1	35.8	58.8	-23.0
0.422	14.2	20.1	34.3	57.4	-23.1
0.521	12.6	20.1	32.7	56.0	-23.3
0.243	18.1	20.1	38.2	62.0	-23.8
0.471	12.5	20.1	32.6	56.5	-23.9
2.032	12.0	20.1	32.1	56.0	-23.9
3.976	11.8	20.1	31.9	56.0	-24.1

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.182	24.8	20.1	44.9	54.4	-9.5
0.191	24.2	20.1	44.3	54.0	-9.7
0.451	16.8	20.1	36.9	46.9	-10.0
0.170	24.3	20.1	44.4	54.9	-10.5
0.203	22.3	20.1	42.4	53.5	-11.1
0.152	24.5	20.1	44.6	55.9	-11.3
0.283	19.1	20.1	39.2	50.7	-11.5
0.614	14.0	20.1	34.1	46.0	-11.9
0.381	16.0	20.1	36.1	48.3	-12.2
0.322	17.0	20.1	37.1	49.7	-12.6
0.490	13.3	20.1	33.4	46.2	-12.8
0.308	17.1	20.1	37.2	50.0	-12.8
0.289	17.5	20.1	37.6	50.5	-12.9
0.356	15.7	20.1	35.8	48.8	-13.0
0.422	14.2	20.1	34.3	47.4	-13.1
0.521	12.6	20.1	32.7	46.0	-13.3
0.243	18.1	20.1	38.2	52.0	-13.8
0.471	12.5	20.1	32.6	46.5	-13.9
2.032	12.0	20.1	32.1	46.0	-13.9
3.976	11.8	20.1	31.9	46.0	-14.1

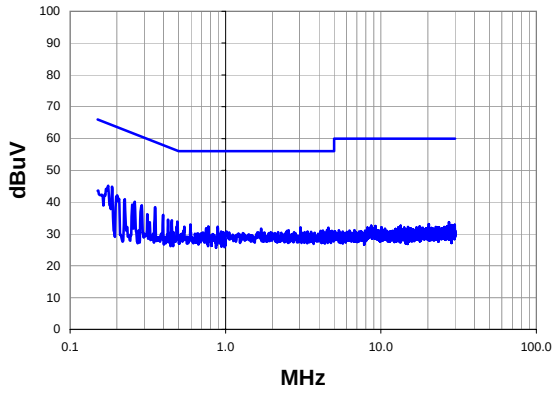
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth DH5 Mid (2441 Mhz)				
Deviations:	None				
Comments:	None				

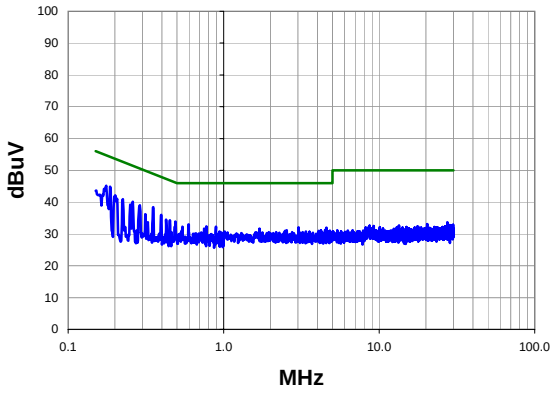
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	5	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.186	24.8	20.1	44.9	64.2	-19.3
0.176	25.1	20.1	45.2	64.7	-19.5
0.352	18.3	20.1	38.4	58.9	-20.5
0.261	20.0	20.1	40.1	61.4	-21.3
0.201	22.1	20.1	42.2	63.6	-21.4
0.289	18.9	20.1	39.0	60.5	-21.5
0.225	20.8	20.1	40.9	62.6	-21.7
0.397	15.9	20.1	36.0	57.9	-21.9
0.152	23.6	20.1	43.7	65.9	-22.2
0.490	13.8	20.1	33.9	56.2	-22.3
0.250	19.1	20.1	39.2	61.7	-22.5
0.451	14.2	20.1	34.3	56.9	-22.6
0.427	14.4	20.1	34.5	57.3	-22.8
0.594	12.9	20.1	33.0	56.0	-23.0
0.776	12.3	20.1	32.4	56.0	-23.6
0.313	16.1	20.1	36.2	59.9	-23.7
0.543	12.2	20.1	32.3	56.0	-23.7
0.891	12.2	20.1	32.3	56.0	-23.7
3.032	12.0	20.1	32.1	56.0	-23.9
4.584	11.8	20.2	32.0	56.0	-24.0

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.186	24.8	20.1	44.9	54.2	-9.3
0.176	25.1	20.1	45.2	54.7	-9.5
0.352	18.3	20.1	38.4	48.9	-10.5
0.261	20.0	20.1	40.1	51.4	-11.3
0.201	22.1	20.1	42.2	53.6	-11.4
0.289	18.9	20.1	39.0	50.5	-11.5
0.225	20.8	20.1	40.9	52.6	-11.7
0.397	15.9	20.1	36.0	47.9	-11.9
0.152	23.6	20.1	43.7	55.9	-12.2
0.490	13.8	20.1	33.9	46.2	-12.3
0.250	19.1	20.1	39.2	51.7	-12.5
0.451	14.2	20.1	34.3	46.9	-12.6
0.427	14.4	20.1	34.5	47.3	-12.8
0.594	12.9	20.1	33.0	46.0	-13.0
0.776	12.3	20.1	32.4	46.0	-13.6
0.313	16.1	20.1	36.2	49.9	-13.7
0.543	12.2	20.1	32.3	46.0	-13.7
0.891	12.2	20.1	32.3	46.0	-13.7
3.032	12.0	20.1	32.1	46.0	-13.9
4.584	11.8	20.2	32.0	46.0	-14.0

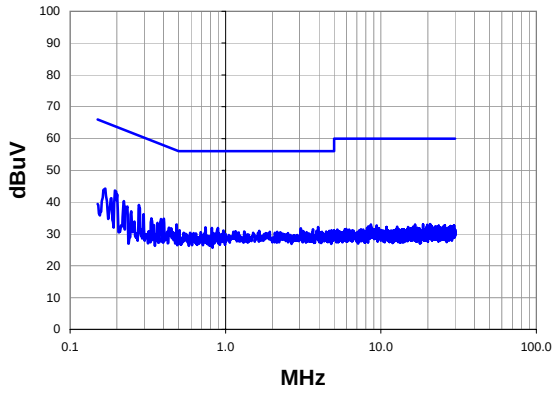
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth DH5 Mid (2441 Mhz)				
Deviations:	None				
Comments:	None				

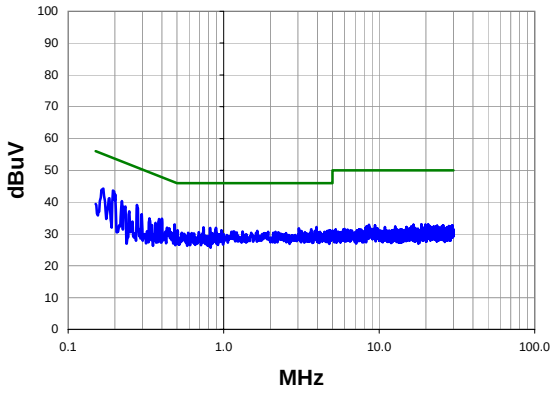
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	6	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.194	23.6	20.1	43.7	63.9	-20.2
0.169	24.2	20.1	44.3	65.0	-20.7
0.278	19.0	20.1	39.1	60.9	-21.8
0.221	20.2	20.1	40.3	62.8	-22.5
0.402	14.7	20.1	34.8	57.8	-23.0
0.184	21.1	20.1	41.2	64.3	-23.1
0.485	12.9	20.1	33.0	56.3	-23.3
0.385	14.6	20.1	34.7	58.2	-23.5
0.233	18.5	20.1	38.6	62.3	-23.7
3.944	12.1	20.1	32.2	56.0	-23.8
0.743	12.0	20.1	32.1	56.0	-23.9
0.818	11.8	20.1	31.9	56.0	-24.1
0.893	11.8	20.1	31.9	56.0	-24.1
0.298	16.1	20.1	36.2	60.3	-24.1
3.048	11.7	20.1	31.8	56.0	-24.2
0.334	14.8	20.1	34.9	59.4	-24.5
3.656	11.4	20.1	31.5	56.0	-24.5
0.247	17.0	20.1	37.1	61.9	-24.8
0.505	11.1	20.1	31.2	56.0	-24.8
4.800	11.0	20.2	31.2	56.0	-24.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.194	23.6	20.1	43.7	53.9	-10.2
0.169	24.2	20.1	44.3	55.0	-10.7
0.278	19.0	20.1	39.1	50.9	-11.8
0.221	20.2	20.1	40.3	52.8	-12.5
0.402	14.7	20.1	34.8	47.8	-13.0
0.184	21.1	20.1	41.2	54.3	-13.1
0.485	12.9	20.1	33.0	46.3	-13.3
0.385	14.6	20.1	34.7	48.2	-13.5
0.233	18.5	20.1	38.6	52.3	-13.7
3.944	12.1	20.1	32.2	46.0	-13.8
0.743	12.0	20.1	32.1	46.0	-13.9
0.818	11.8	20.1	31.9	46.0	-14.1
0.893	11.8	20.1	31.9	46.0	-14.1
0.298	16.1	20.1	36.2	50.3	-14.1
3.048	11.7	20.1	31.8	46.0	-14.2
0.334	14.8	20.1	34.9	49.4	-14.5
3.656	11.4	20.1	31.5	46.0	-14.5
0.247	17.0	20.1	37.1	51.9	-14.8
0.505	11.1	20.1	31.2	46.0	-14.8
4.800	11.0	20.2	31.2	46.0	-14.8

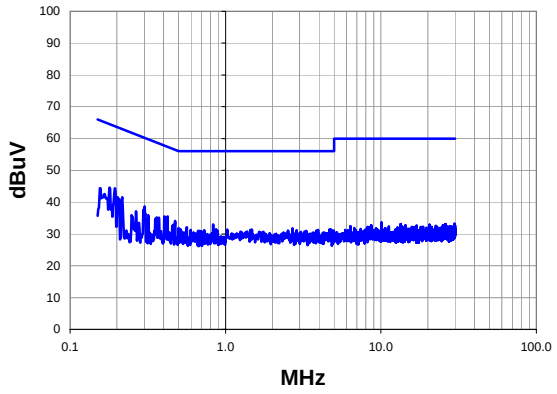
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth DH5 High (2480 Mhz)				
Deviations:	None				
Comments:	None				

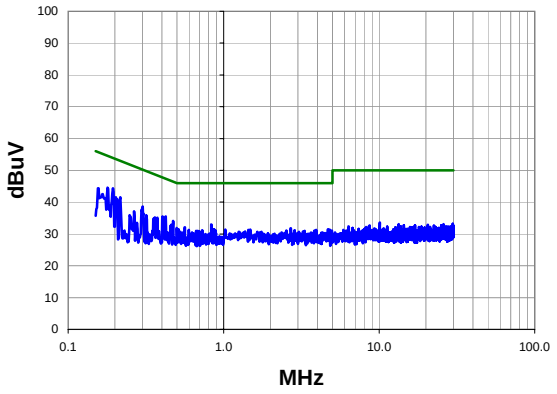
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	7	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.194	24.3	20.1	44.4	63.9	-19.5
0.179	24.5	20.1	44.6	64.5	-19.9
0.155	24.3	20.1	44.4	65.7	-21.3
0.216	21.4	20.1	41.5	63.0	-21.5
0.301	18.5	20.1	38.6	60.2	-21.6
0.424	15.4	20.1	35.5	57.4	-21.9
0.203	21.4	20.1	41.5	63.5	-22.0
0.405	15.4	20.1	35.5	57.8	-22.3
0.473	14.0	20.1	34.1	56.5	-22.4
0.832	12.9	20.1	33.0	56.0	-23.0
0.374	15.0	20.1	35.1	58.4	-23.3
0.412	14.1	20.1	34.2	57.6	-23.4
0.361	15.1	20.1	35.2	58.7	-23.5
0.459	12.8	20.1	32.9	56.7	-23.8
0.318	15.8	20.1	35.9	59.8	-23.9
0.561	12.0	20.1	32.1	56.0	-23.9
0.499	11.8	20.1	31.9	56.0	-24.1
0.266	17.0	20.1	37.1	61.3	-24.2
2.696	11.7	20.1	31.8	56.0	-24.2
0.512	11.4	20.1	31.5	56.0	-24.5

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.194	24.3	20.1	44.4	53.9	-9.5
0.179	24.5	20.1	44.6	54.5	-9.9
0.155	24.3	20.1	44.4	55.7	-11.3
0.216	21.4	20.1	41.5	53.0	-11.5
0.301	18.5	20.1	38.6	50.2	-11.6
0.424	15.4	20.1	35.5	47.4	-11.9
0.203	21.4	20.1	41.5	53.5	-12.0
0.405	15.4	20.1	35.5	47.8	-12.3
0.473	14.0	20.1	34.1	46.5	-12.4
0.832	12.9	20.1	33.0	46.0	-13.0
0.374	15.0	20.1	35.1	48.4	-13.3
0.412	14.1	20.1	34.2	47.6	-13.4
0.361	15.1	20.1	35.2	48.7	-13.5
0.459	12.8	20.1	32.9	46.7	-13.8
0.318	15.8	20.1	35.9	49.8	-13.9
0.561	12.0	20.1	32.1	46.0	-13.9
0.499	11.8	20.1	31.9	46.0	-14.1
0.266	17.0	20.1	37.1	51.3	-14.2
2.696	11.7	20.1	31.8	46.0	-14.2
0.512	11.4	20.1	31.5	46.0	-14.5

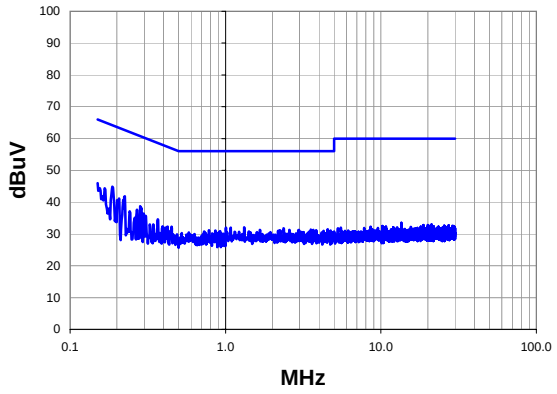
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth DH5 High (2480 Mhz)				
Deviations:	None				
Comments:	None				

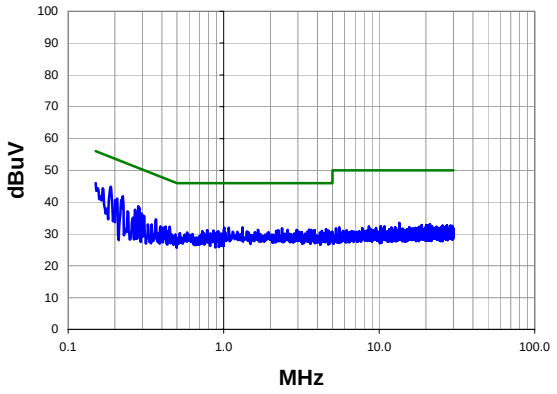
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	8	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.187	24.8	20.1	44.9	64.2	-19.3
0.150	25.9	20.1	46.0	66.0	-20.0
0.167	24.3	20.1	44.4	65.1	-20.7
0.225	21.8	20.1	41.9	62.6	-20.7
0.283	18.6	20.1	38.7	60.7	-22.0
0.206	21.0	20.1	41.1	63.4	-22.3
0.269	17.5	20.1	37.6	61.1	-23.5
1.320	12.0	20.1	32.1	56.0	-23.9
0.298	16.3	20.1	36.4	60.3	-23.9
0.366	14.5	20.1	34.6	58.6	-24.0
1.008	11.9	20.1	32.0	56.0	-24.0
1.080	11.9	20.1	32.0	56.0	-24.0
2.368	11.7	20.1	31.8	56.0	-24.2
0.306	15.6	20.1	35.7	60.1	-24.4
4.552	11.3	20.2	31.5	56.0	-24.5
0.449	12.2	20.1	32.3	56.9	-24.6
3.536	11.3	20.1	31.4	56.0	-24.6
1.664	11.2	20.1	31.3	56.0	-24.7
2.576	11.2	20.1	31.3	56.0	-24.7
2.960	11.2	20.1	31.3	56.0	-24.7

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.187	24.8	20.1	44.9	54.2	-9.3
0.150	25.9	20.1	46.0	56.0	-10.0
0.167	24.3	20.1	44.4	55.1	-10.7
0.225	21.8	20.1	41.9	52.6	-10.7
0.283	18.6	20.1	38.7	50.7	-12.0
0.206	21.0	20.1	41.1	53.4	-12.3
0.269	17.5	20.1	37.6	51.1	-13.5
1.320	12.0	20.1	32.1	46.0	-13.9
0.298	16.3	20.1	36.4	50.3	-13.9
0.366	14.5	20.1	34.6	48.6	-14.0
1.008	11.9	20.1	32.0	46.0	-14.0
1.080	11.9	20.1	32.0	46.0	-14.0
2.368	11.7	20.1	31.8	46.0	-14.2
0.306	15.6	20.1	35.7	50.1	-14.4
4.552	11.3	20.2	31.5	46.0	-14.5
0.449	12.2	20.1	32.3	46.9	-14.6
3.536	11.3	20.1	31.4	46.0	-14.6
1.664	11.2	20.1	31.3	46.0	-14.7
2.576	11.2	20.1	31.3	46.0	-14.7
2.960	11.2	20.1	31.3	46.0	-14.7

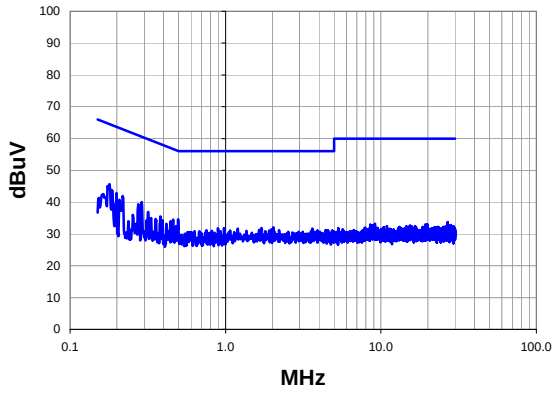
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 2DH5 Low (2402 Mhz)				
Deviations:	None				
Comments:	None				

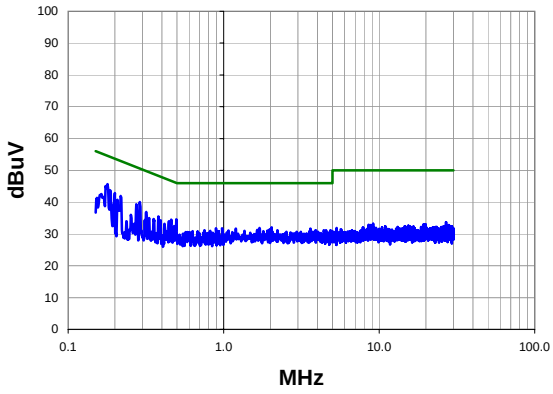
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	9	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.179	25.6	20.1	45.7	64.5	-18.8
0.186	23.7	20.1	43.8	64.2	-20.4
0.289	19.9	20.1	40.0	60.5	-20.5
0.199	22.8	20.1	42.9	63.6	-20.7
0.218	21.9	20.1	42.0	62.9	-20.9
0.497	14.5	20.1	34.6	56.1	-21.5
0.274	19.2	20.1	39.3	61.0	-21.7
0.459	14.4	20.1	34.5	56.7	-22.2
0.208	20.6	20.1	40.7	63.3	-22.6
0.164	22.5	20.1	42.6	65.3	-22.7
0.381	15.4	20.1	35.5	58.3	-22.8
0.318	16.8	20.1	36.9	59.8	-22.9
0.444	13.9	20.1	34.0	57.0	-23.0
0.393	14.2	20.1	34.3	58.0	-23.7
0.480	12.4	20.1	32.5	56.3	-23.8
2.032	12.0	20.1	32.1	56.0	-23.9
1.704	11.8	20.1	31.9	56.0	-24.1
0.354	14.6	20.1	34.7	58.9	-24.2
0.895	11.7	20.1	31.8	56.0	-24.2
0.978	11.7	20.1	31.8	56.0	-24.2

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.179	25.6	20.1	45.7	54.5	-8.8
0.186	23.7	20.1	43.8	54.2	-10.4
0.289	19.9	20.1	40.0	50.5	-10.5
0.199	22.8	20.1	42.9	53.6	-10.7
0.218	21.9	20.1	42.0	52.9	-10.9
0.497	14.5	20.1	34.6	46.1	-11.5
0.274	19.2	20.1	39.3	51.0	-11.7
0.459	14.4	20.1	34.5	46.7	-12.2
0.208	20.6	20.1	40.7	53.3	-12.6
0.164	22.5	20.1	42.6	55.3	-12.7
0.381	15.4	20.1	35.5	48.3	-12.8
0.318	16.8	20.1	36.9	49.8	-12.9
0.444	13.9	20.1	34.0	47.0	-13.0
0.393	14.2	20.1	34.3	48.0	-13.7
0.480	12.4	20.1	32.5	46.3	-13.8
2.032	12.0	20.1	32.1	46.0	-13.9
1.704	11.8	20.1	31.9	46.0	-14.1
0.354	14.6	20.1	34.7	48.9	-14.2
0.895	11.7	20.1	31.8	46.0	-14.2
0.978	11.7	20.1	31.8	46.0	-14.2

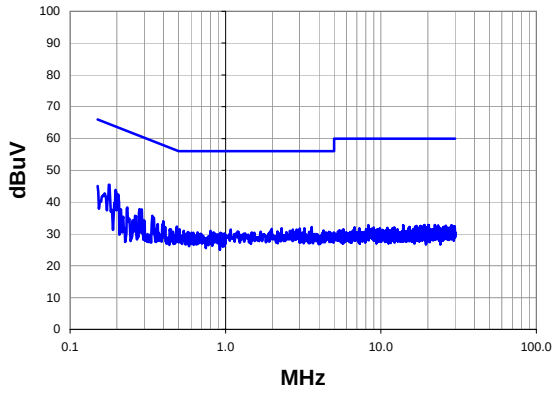
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 2DH5 Low (2402 Mhz)				
Deviations:	None				
Comments:	None				

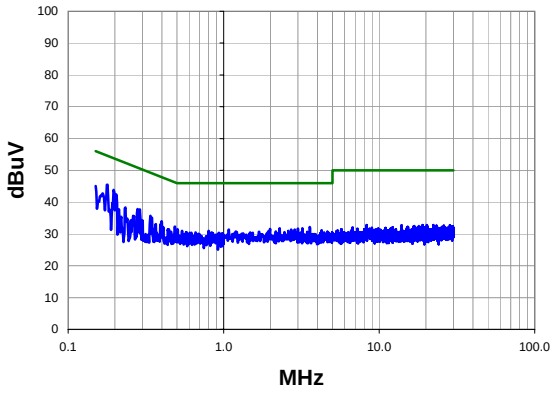
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	10	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.177	25.4	20.1	45.5	64.6	-19.1
0.196	23.8	20.1	43.9	63.8	-19.9
0.150	25.0	20.1	45.1	66.0	-20.9
0.201	22.5	20.1	42.6	63.6	-21.0
0.167	22.7	20.1	42.8	65.1	-22.3
0.289	17.6	20.1	37.7	60.5	-22.8
0.279	17.7	20.1	37.8	60.8	-23.0
0.339	15.6	20.1	35.7	59.2	-23.5
3.584	12.1	20.1	32.2	56.0	-23.8
0.398	13.9	20.1	34.0	57.9	-23.9
0.485	12.2	20.1	32.3	56.3	-24.0
0.346	15.0	20.1	35.1	59.1	-24.0
0.233	18.2	20.1	38.3	62.3	-24.0
2.296	11.7	20.1	31.8	56.0	-24.2
3.208	11.7	20.1	31.8	56.0	-24.2
3.008	11.6	20.1	31.7	56.0	-24.3
1.984	11.5	20.1	31.6	56.0	-24.4
0.505	11.4	20.1	31.5	56.0	-24.5
1.080	11.3	20.1	31.4	56.0	-24.6
2.712	11.3	20.1	31.4	56.0	-24.6

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.177	25.4	20.1	45.5	54.6	-9.1
0.196	23.8	20.1	43.9	53.8	-9.9
0.150	25.0	20.1	45.1	56.0	-10.9
0.201	22.5	20.1	42.6	53.6	-11.0
0.167	22.7	20.1	42.8	55.1	-12.3
0.289	17.6	20.1	37.7	50.5	-12.8
0.279	17.7	20.1	37.8	50.8	-13.0
0.339	15.6	20.1	35.7	49.2	-13.5
3.584	12.1	20.1	32.2	46.0	-13.8
0.398	13.9	20.1	34.0	47.9	-13.9
0.485	12.2	20.1	32.3	46.3	-14.0
0.346	15.0	20.1	35.1	49.1	-14.0
0.233	18.2	20.1	38.3	52.3	-14.0
2.296	11.7	20.1	31.8	46.0	-14.2
3.208	11.7	20.1	31.8	46.0	-14.2
3.008	11.6	20.1	31.7	46.0	-14.3
1.984	11.5	20.1	31.6	46.0	-14.4
0.505	11.4	20.1	31.5	46.0	-14.5
1.080	11.3	20.1	31.4	46.0	-14.6
2.712	11.3	20.1	31.4	46.0	-14.6

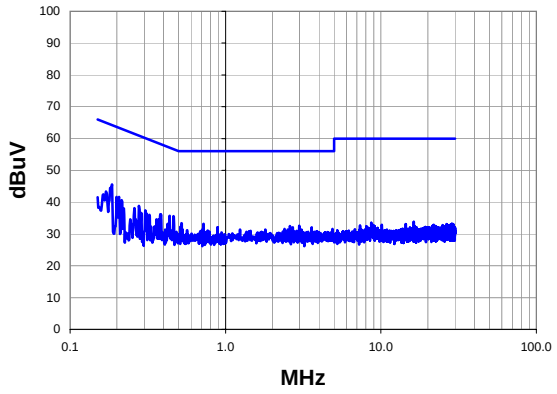
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 2DH5 Mid (2441 Mhz)				
Deviations:	None				
Comments:	None				

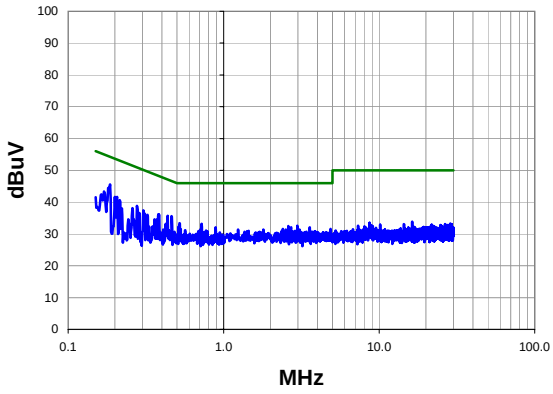
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	11	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.186	25.5	20.1	45.6	64.2	-18.6
0.463	15.5	20.1	35.6	56.6	-21.0
0.437	15.6	20.1	35.7	57.1	-21.4
0.170	23.3	20.1	43.4	64.9	-21.5
0.206	21.5	20.1	41.6	63.4	-21.8
0.199	21.6	20.1	41.7	63.6	-21.9
0.381	16.1	20.1	36.2	58.3	-22.1
0.278	18.7	20.1	38.8	60.9	-22.1
0.215	20.5	20.1	40.6	63.0	-22.4
0.521	13.3	20.1	33.4	56.0	-22.6
0.305	17.3	20.1	37.4	60.1	-22.7
0.721	13.1	20.1	33.2	56.0	-22.8
0.259	18.0	20.1	38.1	61.5	-23.4
2.976	12.5	20.1	32.6	56.0	-23.4
2.600	12.4	20.1	32.5	56.0	-23.5
0.310	16.3	20.1	36.4	60.0	-23.6
0.323	15.9	20.1	36.0	59.6	-23.6
0.512	12.2	20.1	32.3	56.0	-23.7
0.373	14.5	20.1	34.6	58.4	-23.8
0.889	12.0	20.1	32.1	56.0	-23.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.186	25.5	20.1	45.6	54.2	-8.6
0.463	15.5	20.1	35.6	46.6	-11.0
0.437	15.6	20.1	35.7	47.1	-11.4
0.170	23.3	20.1	43.4	54.9	-11.5
0.206	21.5	20.1	41.6	53.4	-11.8
0.199	21.6	20.1	41.7	53.6	-11.9
0.381	16.1	20.1	36.2	48.3	-12.1
0.278	18.7	20.1	38.8	50.9	-12.1
0.215	20.5	20.1	40.6	53.0	-12.4
0.521	13.3	20.1	33.4	46.0	-12.6
0.305	17.3	20.1	37.4	50.1	-12.7
0.721	13.1	20.1	33.2	46.0	-12.8
0.259	18.0	20.1	38.1	51.5	-13.4
2.976	12.5	20.1	32.6	46.0	-13.4
2.600	12.4	20.1	32.5	46.0	-13.5
0.310	16.3	20.1	36.4	50.0	-13.6
0.323	15.9	20.1	36.0	49.6	-13.6
0.512	12.2	20.1	32.3	46.0	-13.7
0.373	14.5	20.1	34.6	48.4	-13.8
0.889	12.0	20.1	32.1	46.0	-13.9

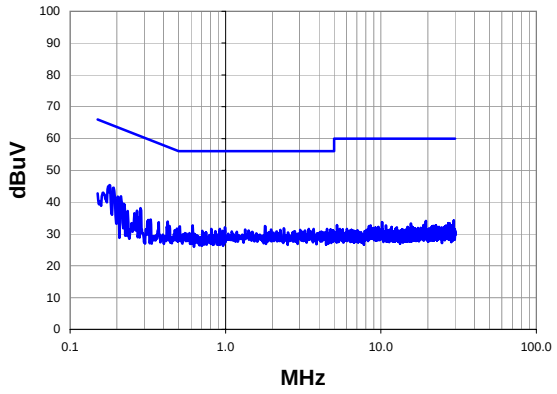
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 2DH5 Mid (2441 Mhz)				
Deviations:	None				
Comments:	None				

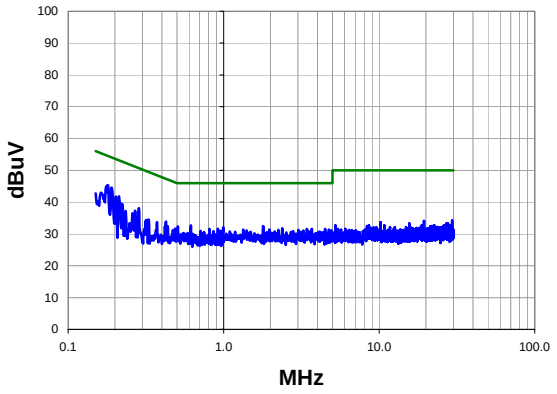
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	12	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.179	25.3	20.1	45.4	64.5	-19.1
0.191	24.5	20.1	44.6	64.0	-19.4
0.213	21.8	20.1	41.9	63.1	-21.2
0.203	21.7	20.1	41.8	63.5	-21.7
0.162	22.9	20.1	43.0	65.4	-22.4
0.284	18.0	20.1	38.1	60.7	-22.6
0.150	22.7	20.1	42.8	66.0	-23.2
0.616	12.6	20.1	32.7	56.0	-23.3
0.223	19.3	20.1	39.4	62.7	-23.3
0.425	13.8	20.1	33.9	57.3	-23.4
1.792	12.4	20.1	32.5	56.0	-23.5
0.509	12.3	20.1	32.4	56.0	-23.6
0.269	17.2	20.1	37.3	61.1	-23.8
0.993	12.0	20.1	32.1	56.0	-23.9
2.376	11.7	20.1	31.8	56.0	-24.2
0.810	11.5	20.1	31.6	56.0	-24.4
0.918	11.5	20.1	31.6	56.0	-24.4
3.432	11.5	20.1	31.6	56.0	-24.4
3.688	11.5	20.1	31.6	56.0	-24.4
4.496	11.4	20.2	31.6	56.0	-24.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.179	25.3	20.1	45.4	54.5	-9.1
0.191	24.5	20.1	44.6	54.0	-9.4
0.213	21.8	20.1	41.9	53.1	-11.2
0.203	21.7	20.1	41.8	53.5	-11.7
0.162	22.9	20.1	43.0	55.4	-12.4
0.284	18.0	20.1	38.1	50.7	-12.6
0.150	22.7	20.1	42.8	56.0	-13.2
0.616	12.6	20.1	32.7	46.0	-13.3
0.223	19.3	20.1	39.4	52.7	-13.3
0.425	13.8	20.1	33.9	47.3	-13.4
1.792	12.4	20.1	32.5	46.0	-13.5
0.509	12.3	20.1	32.4	46.0	-13.6
0.269	17.2	20.1	37.3	51.1	-13.8
0.993	12.0	20.1	32.1	46.0	-13.9
2.376	11.7	20.1	31.8	46.0	-14.2
0.810	11.5	20.1	31.6	46.0	-14.4
0.918	11.5	20.1	31.6	46.0	-14.4
3.432	11.5	20.1	31.6	46.0	-14.4
3.688	11.5	20.1	31.6	46.0	-14.4
4.496	11.4	20.2	31.6	46.0	-14.4

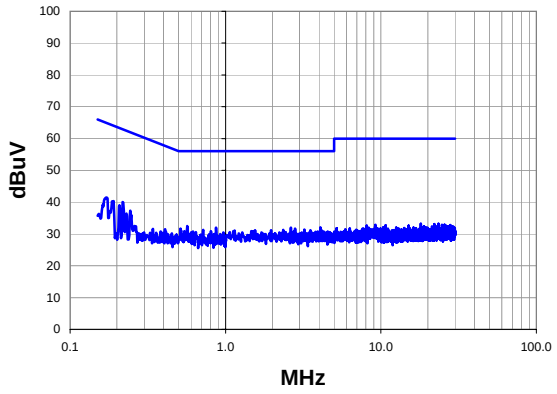
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 2DH5 High (2480 Mhz)				
Deviations:	None				
Comments:	None				

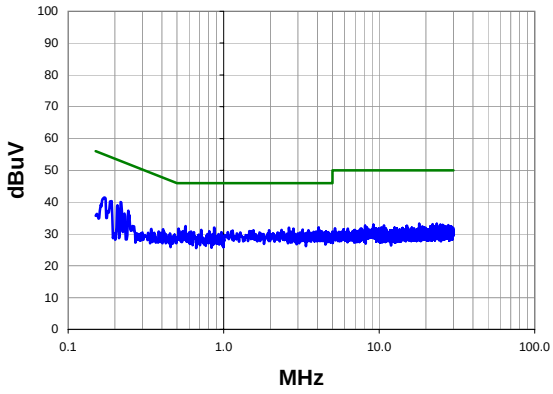
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	13	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.218	19.9	20.1	40.0	62.9	-22.9
0.568	12.4	20.1	32.5	56.0	-23.5
0.170	21.3	20.1	41.4	64.9	-23.5
0.191	20.2	20.1	40.3	64.0	-23.7
4.080	12.0	20.1	32.1	56.0	-23.9
0.869	11.9	20.1	32.0	56.0	-24.0
2.632	11.9	20.1	32.0	56.0	-24.0
0.208	18.9	20.1	39.0	63.3	-24.3
0.514	11.6	20.1	31.7	56.0	-24.3
2.808	11.6	20.1	31.7	56.0	-24.3
3.216	11.3	20.1	31.4	56.0	-24.6
0.243	17.2	20.1	37.3	62.0	-24.7
4.128	11.2	20.1	31.3	56.0	-24.7
0.718	11.2	20.1	31.3	56.0	-24.7
2.352	11.2	20.1	31.3	56.0	-24.7
1.552	11.1	20.1	31.2	56.0	-24.8
1.960	11.1	20.1	31.2	56.0	-24.8
3.512	11.1	20.1	31.2	56.0	-24.8
1.144	11.0	20.1	31.1	56.0	-24.9
0.806	10.8	20.1	30.9	56.0	-25.1

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.218	19.9	20.1	40.0	52.9	-12.9
0.568	12.4	20.1	32.5	46.0	-13.5
0.170	21.3	20.1	41.4	54.9	-13.5
0.191	20.2	20.1	40.3	54.0	-13.7
4.080	12.0	20.1	32.1	46.0	-13.9
0.869	11.9	20.1	32.0	46.0	-14.0
2.632	11.9	20.1	32.0	46.0	-14.0
0.208	18.9	20.1	39.0	53.3	-14.3
0.514	11.6	20.1	31.7	46.0	-14.3
2.808	11.6	20.1	31.7	46.0	-14.3
3.216	11.3	20.1	31.4	46.0	-14.6
0.243	17.2	20.1	37.3	52.0	-14.7
4.128	11.2	20.1	31.3	46.0	-14.7
0.718	11.2	20.1	31.3	46.0	-14.7
2.352	11.2	20.1	31.3	46.0	-14.7
1.552	11.1	20.1	31.2	46.0	-14.8
1.960	11.1	20.1	31.2	46.0	-14.8
3.512	11.1	20.1	31.2	46.0	-14.8
1.144	11.0	20.1	31.1	46.0	-14.9
0.806	10.8	20.1	30.9	46.0	-15.1

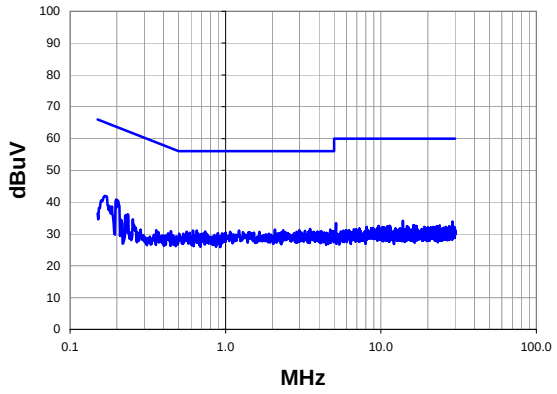
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 2DH5 High (2480 Mhz)				
Deviations:	None				
Comments:	None				

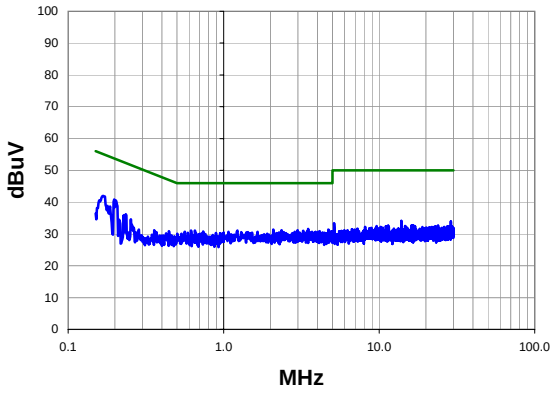
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	14	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.198	20.7	20.1	40.8	63.7	-22.9
0.167	21.9	20.1	42.0	65.1	-23.1
3.496	11.5	20.1	31.6	56.0	-24.4
2.080	11.3	20.1	31.4	56.0	-24.6
4.712	11.2	20.2	31.4	56.0	-24.6
2.352	11.1	20.1	31.2	56.0	-24.8
2.984	11.1	20.1	31.2	56.0	-24.8
0.618	11.0	20.1	31.1	56.0	-24.9
0.653	11.0	20.1	31.1	56.0	-24.9
1.224	11.0	20.1	31.1	56.0	-24.9
3.240	10.9	20.1	31.0	56.0	-25.0
4.136	10.8	20.1	30.9	56.0	-25.1
3.456	10.8	20.1	30.9	56.0	-25.1
4.768	10.7	20.2	30.9	56.0	-25.1
0.740	10.7	20.1	30.8	56.0	-25.2
0.561	10.6	20.1	30.7	56.0	-25.3
1.072	10.6	20.1	30.7	56.0	-25.3
1.656	10.6	20.1	30.7	56.0	-25.3
2.864	10.6	20.1	30.7	56.0	-25.3
3.904	10.6	20.1	30.7	56.0	-25.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.198	20.7	20.1	40.8	53.7	-12.9
0.167	21.9	20.1	42.0	55.1	-13.1
3.496	11.5	20.1	31.6	46.0	-14.4
2.080	11.3	20.1	31.4	46.0	-14.6
4.712	11.2	20.2	31.4	46.0	-14.6
2.352	11.1	20.1	31.2	46.0	-14.8
2.984	11.1	20.1	31.2	46.0	-14.8
0.618	11.0	20.1	31.1	46.0	-14.9
0.653	11.0	20.1	31.1	46.0	-14.9
1.224	11.0	20.1	31.1	46.0	-14.9
3.240	10.9	20.1	31.0	46.0	-15.0
4.136	10.8	20.1	30.9	46.0	-15.1
3.456	10.8	20.1	30.9	46.0	-15.1
4.768	10.7	20.2	30.9	46.0	-15.1
0.740	10.7	20.1	30.8	46.0	-15.2
0.561	10.6	20.1	30.7	46.0	-15.3
1.072	10.6	20.1	30.7	46.0	-15.3
1.656	10.6	20.1	30.7	46.0	-15.3
2.864	10.6	20.1	30.7	46.0	-15.3
3.904	10.6	20.1	30.7	46.0	-15.3

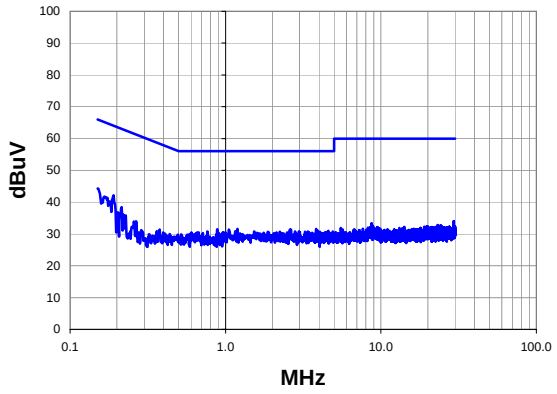
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 3DH5 Low (2402 Mhz)				
Deviations:	None				
Comments:	None				

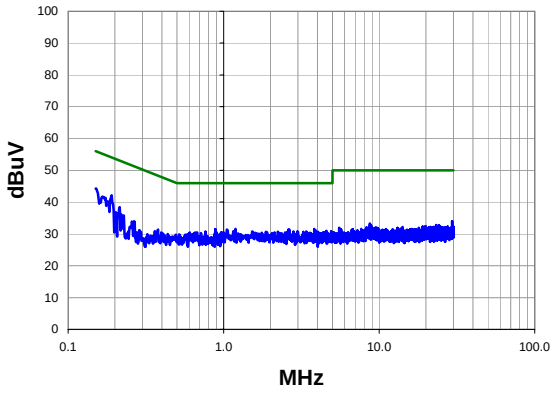
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	15	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	24.2	20.1	44.3	66.0	-21.7
0.191	22.1	20.1	42.2	64.0	-21.8
1.192	11.5	20.1	31.6	56.0	-24.4
3.824	11.5	20.1	31.6	56.0	-24.4
0.884	11.4	20.1	31.5	56.0	-24.5
1.048	11.3	20.1	31.4	56.0	-24.6
2.600	11.3	20.1	31.4	56.0	-24.6
0.215	18.3	20.1	38.4	63.0	-24.6
3.912	11.0	20.1	31.1	56.0	-24.9
4.584	10.8	20.2	31.0	56.0	-25.0
0.764	10.7	20.1	30.8	56.0	-25.2
1.528	10.7	20.1	30.8	56.0	-25.2
2.808	10.7	20.1	30.8	56.0	-25.2
2.968	10.7	20.1	30.8	56.0	-25.2
3.392	10.7	20.1	30.8	56.0	-25.2
4.912	10.6	20.2	30.8	56.0	-25.2
2.232	10.6	20.1	30.7	56.0	-25.3
3.248	10.6	20.1	30.7	56.0	-25.3
4.048	10.6	20.1	30.7	56.0	-25.3
4.528	10.5	20.2	30.7	56.0	-25.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	24.2	20.1	44.3	56.0	-11.7
0.191	22.1	20.1	42.2	54.0	-11.8
1.192	11.5	20.1	31.6	46.0	-14.4
3.824	11.5	20.1	31.6	46.0	-14.4
0.884	11.4	20.1	31.5	46.0	-14.5
1.048	11.3	20.1	31.4	46.0	-14.6
2.600	11.3	20.1	31.4	46.0	-14.6
0.215	18.3	20.1	38.4	53.0	-14.6
3.912	11.0	20.1	31.1	46.0	-14.9
4.584	10.8	20.2	31.0	46.0	-15.0
0.764	10.7	20.1	30.8	46.0	-15.2
1.528	10.7	20.1	30.8	46.0	-15.2
2.808	10.7	20.1	30.8	46.0	-15.2
2.968	10.7	20.1	30.8	46.0	-15.2
3.392	10.7	20.1	30.8	46.0	-15.2
4.912	10.6	20.2	30.8	46.0	-15.2
2.232	10.6	20.1	30.7	46.0	-15.3
3.248	10.6	20.1	30.7	46.0	-15.3
4.048	10.6	20.1	30.7	46.0	-15.3
4.528	10.5	20.2	30.7	46.0	-15.3

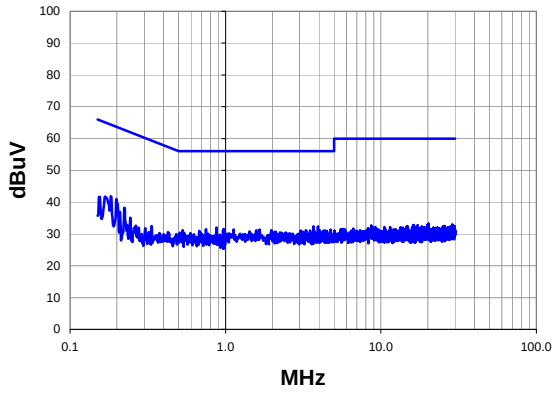
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 3DH5 Low (2402 Mhz)				
Deviations:	None				
Comments:	None				

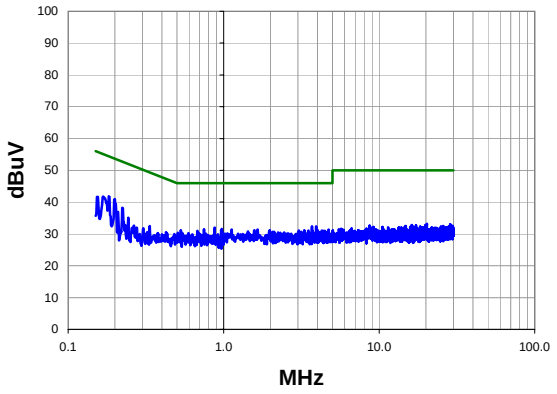
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	16	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.182	21.8	20.1	41.9	64.4	-22.5
0.199	20.8	20.1	40.9	63.6	-22.7
0.169	21.7	20.1	41.8	65.0	-23.2
3.696	12.3	20.1	32.4	56.0	-23.6
3.936	12.3	20.1	32.4	56.0	-23.6
0.874	11.9	20.1	32.0	56.0	-24.0
0.155	21.6	20.1	41.7	65.7	-24.0
0.973	11.5	20.1	31.6	56.0	-24.4
0.748	11.4	20.1	31.5	56.0	-24.5
0.223	18.1	20.1	38.2	62.7	-24.5
1.128	11.3	20.1	31.4	56.0	-24.6
1.656	11.3	20.1	31.4	56.0	-24.6
4.736	11.2	20.2	31.4	56.0	-24.6
0.531	11.1	20.1	31.2	56.0	-24.8
0.964	11.1	20.1	31.2	56.0	-24.8
1.976	11.1	20.1	31.2	56.0	-24.8
3.296	11.1	20.1	31.2	56.0	-24.8
4.032	11.1	20.1	31.2	56.0	-24.8
3.048	11.0	20.1	31.1	56.0	-24.9
3.504	11.0	20.1	31.1	56.0	-24.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.182	21.8	20.1	41.9	54.4	-12.5
0.199	20.8	20.1	40.9	53.6	-12.7
0.169	21.7	20.1	41.8	55.0	-13.2
3.696	12.3	20.1	32.4	46.0	-13.6
3.936	12.3	20.1	32.4	46.0	-13.6
0.874	11.9	20.1	32.0	46.0	-14.0
0.155	21.6	20.1	41.7	55.7	-14.0
0.973	11.5	20.1	31.6	46.0	-14.4
0.748	11.4	20.1	31.5	46.0	-14.5
0.223	18.1	20.1	38.2	52.7	-14.5
1.128	11.3	20.1	31.4	46.0	-14.6
1.656	11.3	20.1	31.4	46.0	-14.6
4.736	11.2	20.2	31.4	46.0	-14.6
0.531	11.1	20.1	31.2	46.0	-14.8
0.964	11.1	20.1	31.2	46.0	-14.8
1.976	11.1	20.1	31.2	46.0	-14.8
3.296	11.1	20.1	31.2	46.0	-14.8
4.032	11.1	20.1	31.2	46.0	-14.8
3.048	11.0	20.1	31.1	46.0	-14.9
3.504	11.0	20.1	31.1	46.0	-14.9

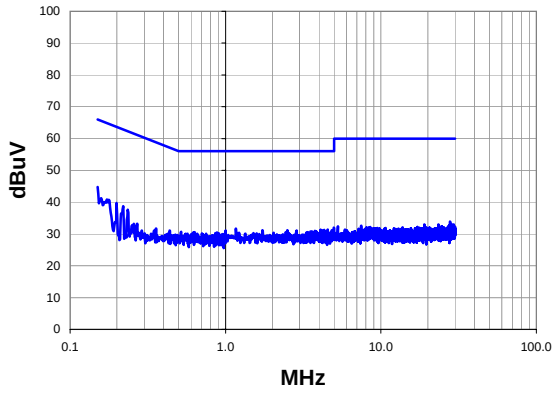
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 3DH5 Mid (2441 Mhz)				
Deviations:	None				
Comments:	None				

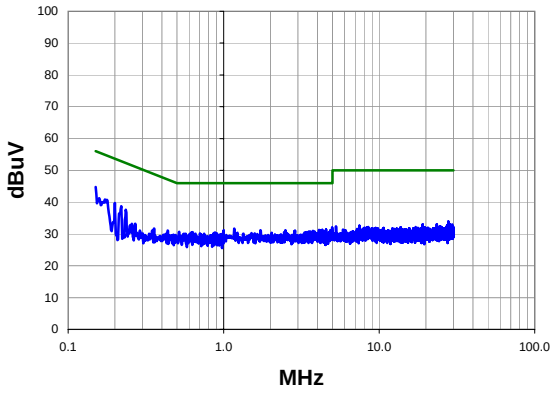
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	17	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	24.7	20.1	44.8	66.0	-21.2
0.199	19.6	20.1	39.7	63.6	-23.9
4.984	11.8	20.2	32.0	56.0	-24.0
0.220	18.6	20.1	38.7	62.8	-24.1
1.168	11.6	20.1	31.7	56.0	-24.3
4.552	11.2	20.2	31.4	56.0	-24.6
0.235	17.5	20.1	37.6	62.3	-24.7
4.096	11.2	20.1	31.3	56.0	-24.7
4.304	11.1	20.1	31.2	56.0	-24.8
4.168	11.1	20.1	31.2	56.0	-24.8
1.728	11.1	20.1	31.2	56.0	-24.8
2.496	11.1	20.1	31.2	56.0	-24.8
1.000	11.0	20.1	31.1	56.0	-24.9
2.872	11.0	20.1	31.1	56.0	-24.9
3.752	10.9	20.1	31.0	56.0	-25.0
3.520	10.7	20.1	30.8	56.0	-25.2
3.608	10.7	20.1	30.8	56.0	-25.2
4.488	10.6	20.2	30.8	56.0	-25.2
0.517	10.6	20.1	30.7	56.0	-25.3
0.633	10.5	20.1	30.6	56.0	-25.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	24.7	20.1	44.8	56.0	-11.2
0.199	19.6	20.1	39.7	53.6	-13.9
4.984	11.8	20.2	32.0	46.0	-14.0
0.220	18.6	20.1	38.7	52.8	-14.1
1.168	11.6	20.1	31.7	46.0	-14.3
4.552	11.2	20.2	31.4	46.0	-14.6
0.235	17.5	20.1	37.6	52.3	-14.7
4.096	11.2	20.1	31.3	46.0	-14.7
4.304	11.1	20.1	31.2	46.0	-14.8
4.168	11.1	20.1	31.2	46.0	-14.8
1.728	11.1	20.1	31.2	46.0	-14.8
2.496	11.1	20.1	31.2	46.0	-14.8
1.000	11.0	20.1	31.1	46.0	-14.9
2.872	11.0	20.1	31.1	46.0	-14.9
3.752	10.9	20.1	31.0	46.0	-15.0
3.520	10.7	20.1	30.8	46.0	-15.2
3.608	10.7	20.1	30.8	46.0	-15.2
4.488	10.6	20.2	30.8	46.0	-15.2
0.517	10.6	20.1	30.7	46.0	-15.3
0.633	10.5	20.1	30.6	46.0	-15.4

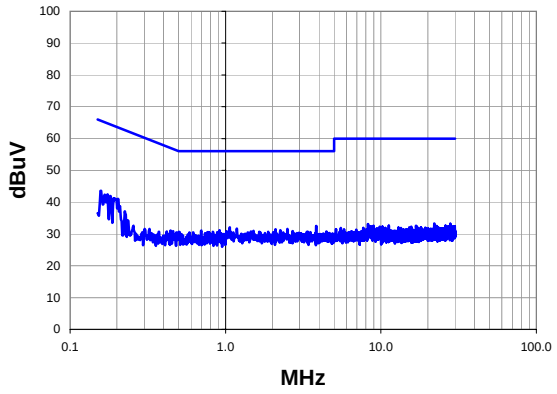
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 3DH5 Mid (2441 Mhz)				
Deviations:	None				
Comments:	None				

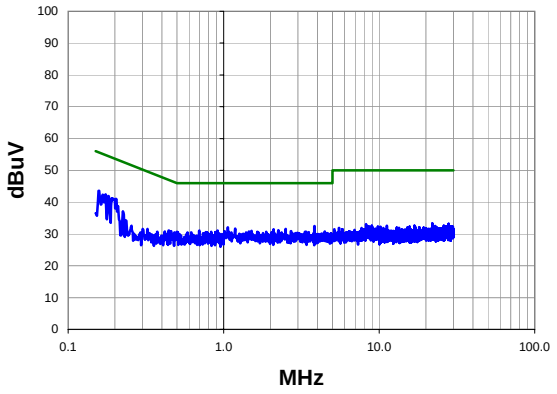
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	18	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.157	23.5	20.1	43.6	65.6	-22.0
0.174	22.4	20.1	42.5	64.8	-22.3
0.181	21.9	20.1	42.0	64.5	-22.5
0.191	21.1	20.1	41.2	64.0	-22.8
3.832	12.4	20.1	32.5	56.0	-23.5
1.064	12.0	20.1	32.1	56.0	-23.9
1.184	11.6	20.1	31.7	56.0	-24.3
2.504	11.5	20.1	31.6	56.0	-24.4
2.096	11.4	20.1	31.5	56.0	-24.5
2.248	11.1	20.1	31.2	56.0	-24.8
0.697	11.0	20.1	31.1	56.0	-24.9
0.915	11.0	20.1	31.1	56.0	-24.9
1.512	10.9	20.1	31.0	56.0	-25.0
2.704	10.8	20.1	30.9	56.0	-25.1
4.464	10.6	20.2	30.8	56.0	-25.2
0.500	10.6	20.1	30.7	56.0	-25.3
0.830	10.6	20.1	30.7	56.0	-25.3
1.880	10.6	20.1	30.7	56.0	-25.3
3.336	10.6	20.1	30.7	56.0	-25.3
3.384	10.6	20.1	30.7	56.0	-25.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.157	23.5	20.1	43.6	55.6	-12.0
0.174	22.4	20.1	42.5	54.8	-12.3
0.181	21.9	20.1	42.0	54.5	-12.5
0.191	21.1	20.1	41.2	54.0	-12.8
3.832	12.4	20.1	32.5	46.0	-13.5
1.064	12.0	20.1	32.1	46.0	-13.9
1.184	11.6	20.1	31.7	46.0	-14.3
2.504	11.5	20.1	31.6	46.0	-14.4
2.096	11.4	20.1	31.5	46.0	-14.5
2.248	11.1	20.1	31.2	46.0	-14.8
0.697	11.0	20.1	31.1	46.0	-14.9
0.915	11.0	20.1	31.1	46.0	-14.9
1.512	10.9	20.1	31.0	46.0	-15.0
2.704	10.8	20.1	30.9	46.0	-15.1
4.464	10.6	20.2	30.8	46.0	-15.2
0.500	10.6	20.1	30.7	46.0	-15.3
0.830	10.6	20.1	30.7	46.0	-15.3
1.880	10.6	20.1	30.7	46.0	-15.3
3.336	10.6	20.1	30.7	46.0	-15.3
3.384	10.6	20.1	30.7	46.0	-15.3

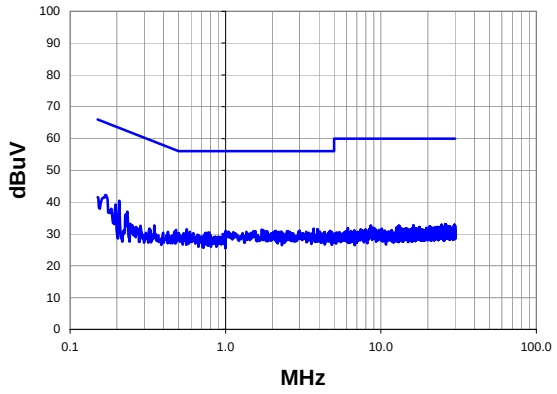
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 3DH5 High (2480 Mhz)				
Deviations:	None				
Comments:	None				

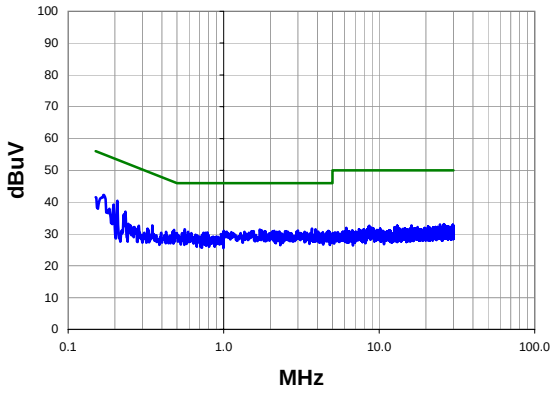
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	19	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.169	22.2	20.1	42.3	65.0	-22.7
0.208	20.3	20.1	40.4	63.3	-22.9
3.696	11.6	20.1	31.7	56.0	-24.3
0.150	21.4	20.1	41.5	66.0	-24.5
0.561	11.4	20.1	31.5	56.0	-24.5
3.904	11.4	20.1	31.5	56.0	-24.5
0.196	19.1	20.1	39.2	63.8	-24.6
1.712	11.3	20.1	31.4	56.0	-24.6
1.752	11.1	20.1	31.2	56.0	-24.8
3.000	11.0	20.1	31.1	56.0	-24.9
1.000	10.9	20.1	31.0	56.0	-25.0
2.112	10.9	20.1	31.0	56.0	-25.0
4.704	10.8	20.2	31.0	56.0	-25.0
0.480	11.2	20.1	31.3	56.3	-25.0
1.512	10.8	20.1	30.9	56.0	-25.1
1.832	10.8	20.1	30.9	56.0	-25.1
2.064	10.8	20.1	30.9	56.0	-25.1
2.488	10.8	20.1	30.9	56.0	-25.1
2.280	10.7	20.1	30.8	56.0	-25.2
4.784	10.6	20.2	30.8	56.0	-25.2

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.169	22.2	20.1	42.3	55.0	-12.7
0.208	20.3	20.1	40.4	53.3	-12.9
3.696	11.6	20.1	31.7	46.0	-14.3
0.150	21.4	20.1	41.5	56.0	-14.5
0.561	11.4	20.1	31.5	46.0	-14.5
3.904	11.4	20.1	31.5	46.0	-14.5
0.196	19.1	20.1	39.2	53.8	-14.6
1.712	11.3	20.1	31.4	46.0	-14.6
1.752	11.1	20.1	31.2	46.0	-14.8
3.000	11.0	20.1	31.1	46.0	-14.9
1.000	10.9	20.1	31.0	46.0	-15.0
2.112	10.9	20.1	31.0	46.0	-15.0
4.704	10.8	20.2	31.0	46.0	-15.0
0.480	11.2	20.1	31.3	46.3	-15.0
1.512	10.8	20.1	30.9	46.0	-15.1
1.832	10.8	20.1	30.9	46.0	-15.1
2.064	10.8	20.1	30.9	46.0	-15.1
2.488	10.8	20.1	30.9	46.0	-15.1
2.280	10.7	20.1	30.8	46.0	-15.2
4.784	10.6	20.2	30.8	46.0	-15.2

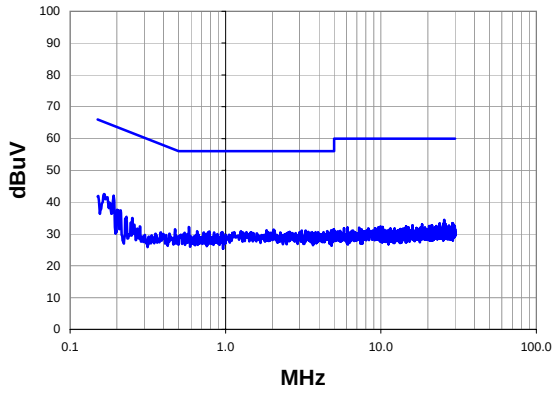
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	SPAC0490	**Date:**	03/05/12		
Project:	None	**Temperature:**	23.3 °C		
Job Site:	EV07	**Humidity:**	35% RH		
Serial Number:	None	**Barometric Pres.:**	1010.5 mbar	**Tested by:**	Carl Engholm
EUT:	BlueGiga WT12				
Configuration:	2				
Customer:	Spacelabs Medical Inc.				
Attendees:	None				
EUT Power:	5 VDC				
Operating Mode:	Transmitting Bluetooth 3DH5 High (2480 Mhz)				
Deviations:	None				
Comments:	None				

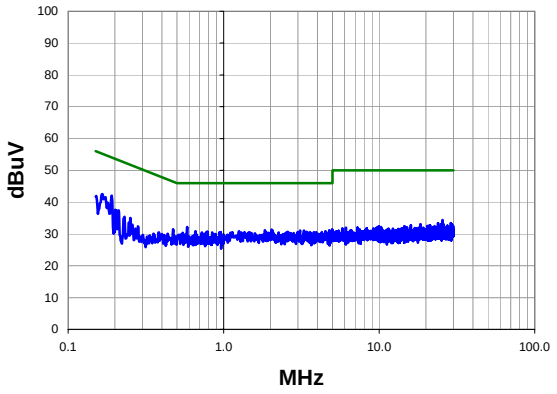
Test Specifications	**Test Method**
FCC 15.207:2012	ANSI C63.10:2009

Run #	20	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.191	22.0	20.1	42.1	64.0	-21.9
0.165	22.5	20.1	42.6	65.2	-22.6
0.582	12.1	20.1	32.2	56.0	-23.8
0.152	21.9	20.1	42.0	65.9	-23.9
4.976	11.3	20.2	31.5	56.0	-24.5
2.040	11.3	20.1	31.4	56.0	-24.6
1.840	11.1	20.1	31.2	56.0	-24.8
4.784	11.0	20.2	31.2	56.0	-24.8
3.096	11.0	20.1	31.1	56.0	-24.9
3.280	11.0	20.1	31.1	56.0	-24.9
0.473	11.4	20.1	31.5	56.5	-25.0
0.658	10.8	20.1	30.9	56.0	-25.1
1.256	10.8	20.1	30.9	56.0	-25.1
4.520	10.7	20.2	30.9	56.0	-25.1
0.786	10.7	20.1	30.8	56.0	-25.2
2.584	10.6	20.1	30.7	56.0	-25.3
0.954	10.5	20.1	30.6	56.0	-25.4
3.600	10.5	20.1	30.6	56.0	-25.4
3.800	10.5	20.1	30.6	56.0	-25.4
3.936	10.5	20.1	30.6	56.0	-25.4

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.191	22.0	20.1	42.1	54.0	-11.9
0.165	22.5	20.1	42.6	55.2	-12.6
0.582	12.1	20.1	32.2	46.0	-13.8
0.152	21.9	20.1	42.0	55.9	-13.9
4.976	11.3	20.2	31.5	46.0	-14.5
2.040	11.3	20.1	31.4	46.0	-14.6
1.840	11.1	20.1	31.2	46.0	-14.8
4.784	11.0	20.2	31.2	46.0	-14.8
3.096	11.0	20.1	31.1	46.0	-14.9
3.280	11.0	20.1	31.1	46.0	-14.9
0.473	11.4	20.1	31.5	46.5	-15.0
0.658	10.8	20.1	30.9	46.0	-15.1
1.256	10.8	20.1	30.9	46.0	-15.1
4.520	10.7	20.2	30.9	46.0	-15.1
0.786	10.7	20.1	30.8	46.0	-15.2
2.584	10.6	20.1	30.7	46.0	-15.3
0.954	10.5	20.1	30.6	46.0	-15.4
3.600	10.5	20.1	30.6	46.0	-15.4
3.800	10.5	20.1	30.6	46.0	-15.4
3.936	10.5	20.1	30.6	46.0	-15.4