



Intel Corporation

Intel 8-inch Tablet

Model: GQ110

FCC 15.207:2014

FCC 15.247:2014

Bluetooth BDR/EDR

Report #: INTE5431.3



Report Prepared By Northwest EMC Inc.

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

California – Minnesota – Oregon – New York – Washington

CERTIFICATE OF TEST

Last Date of Test: April 1, 2014
Intel Corporation
Model: GQ110

Emissions

Test Description	Specification	Test Method	Pass/Fail
Duty Cycle	FCC 15.247:2014	ANSI C63.10:2009	Pass
Occupied Bandwidth	FCC 15.247:2014	ANSI C63.10:2009	Pass
Output Power	FCC 15.247:2014	ANSI C63.10:2009	Pass
Spurious Conducted Emissions	FCC 15.247:2014	ANSI C63.10:2009	Pass
Band Edge Compliance	FCC 15.247:2014	ANSI C63.10:2009	Pass
Band Edge Compliance- Hopping	FCC 15.247:2014	ANSI C63.10:2009	Pass
Channel Separation	FCC 15.247:2014	ANSI C63.10:2009	Pass
Number of Hopping Frequencies	FCC 15.247:2014	ANSI C63.10:2009	Pass
Dwell Time	FCC 15.247:2014	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.247:2014	ANSI C63.10:2009	Pass
AC Powerline Conducted Emissions	FCC 15.207:2014	ANSI C63.10:2009	Pass

Deviations From Test Standards

None

Approved By:



Kyle Holgate, Operations Manager



NVLAP Lab Code: 200630-0
200629-0

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		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

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

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.

SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

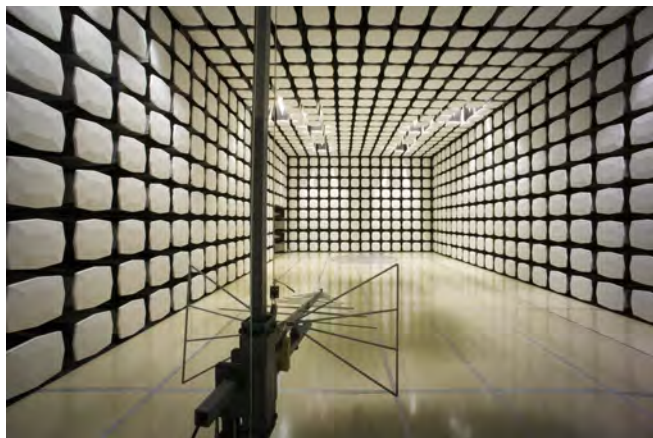
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is listed below. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-1 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.12	-0.01
Amplitude Accuracy (dB)	0.49	-0.49
Conducted Power (dB)	0.41	-0.41
Radiated Power via Substitution (dB)	0.69	-0.68
Temperature (degrees C)	0.81	-0.81
Humidity (% RH)	2.89	-2.89
Field Strength (dB)	3.80	-3.80
AC Powerline Conducted Emissions (dB)	2.94	-2.94



Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Minnesota Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Washington Labs NC01-05, SU02, SU07 19201 120 th Ave. NE Bothell, WA 98011 (425) 984-6600
VCCI				
A-0108	A-0029		A-0109	A-0110
Industry Canada				
2834D-1, 2834D-2	2834B-1, 2834B-2, 2834B-3		2834E-1	2834F-1
NVLAP				
NVLAP Lab Code: 200630-0	NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200629-0



Client and Equipment Under Test (EUT) Information

Company Name:	Intel Corporation
Address:	5200 NE Elam Young Pkwy
City, State, Zip:	Hillsboro, OR 97124
Test Requested By:	Aaron Cohen
Model:	GQ110
First Date of Test:	March 26, 2014
Last Date of Test:	April 1, 2014
Receipt Date of Samples:	March 26, 2014
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
Tablet with 802.11bgn 20 MHz bandwidth, SISO, with Bluetooth 4.0 and GPS
Testing Objective:
To demonstrate compliance of the Bluetooth radio to FCC 15.247 requirements.

Configuration INTE5431- 1

Software/Firmware Running during test	
Description	Version
Android OS	4.4.2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Intel 8-inch Tablet	Intel Corporation	GQ110	EZF83450005Z

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC/DC Adapter	Salcomp	S11A02	131100233060

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
USB Cable	Yes	.3m	No	Intel 8-inch Tablet	AC/DC Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Configuration INTE5431- 4

Software/Firmware Running during test	
Description	Version
Android OS	4.4.2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Intel 8-inch Tablet	Intel Corporation	GQ110	EZF8344000UK

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC/DC Adapter	Salcomp	S11A02	131100233060

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
USB Cable	Yes	.3m	No	Intel 8-inch Tablet	AC/DC Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Configuration INTE5431- 6

Software/Firmware Running during test	
Description	Version
Android OS	4.4.2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Intel 8-inch Tablet	Intel Corporation	GQ110	EZF8344000UK

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
AC/DC Adapter	Salcomp	S11A02	131100233060
Headphones(ear buds)	None	None	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
USB Cable	Yes	.3m	No	Intel 8-inch Tablet	AC/DC Adapter
HDMI Cable	Yes	3m	No	Intel 8-inch Tablet	Unterminated

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	3/26/2014	Duty Cycle	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	3/26/2014	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.
3	3/26/2014	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.
4	3/26/2014	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.
5	3/26/2014	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.
6	3/26/2014	Band Edge Compliance-Hopping	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	3/26/2014	Channel Separation	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	3/26/2014	Number of Hopping Frequencies	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	3/26/2014	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	3/28/2014	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.
11	4/1/2014	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

DUTY CYCLE

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
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

TEST DESCRIPTION

The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used.

The duty cycle was calculated by dividing the transmission pulse duration (T) by the total period of a single on and total off time.

If the transmit duty cycle < 98 percent, burst gating was used during some of the other tests in this report to only measure during the burst duration.

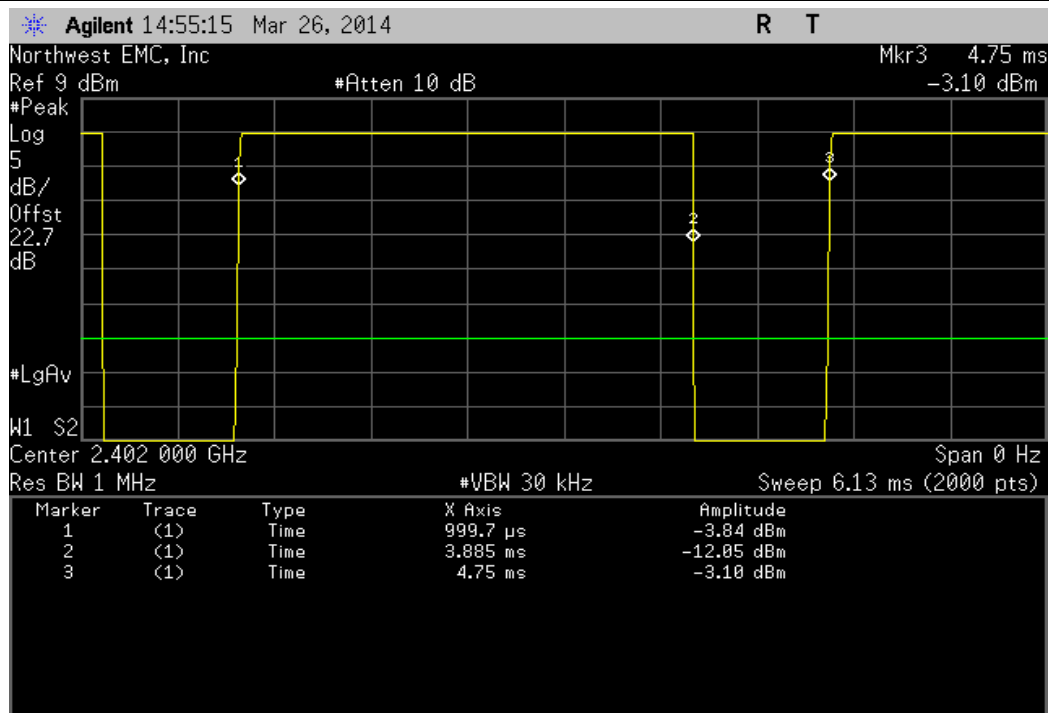


DUTY CYCLE

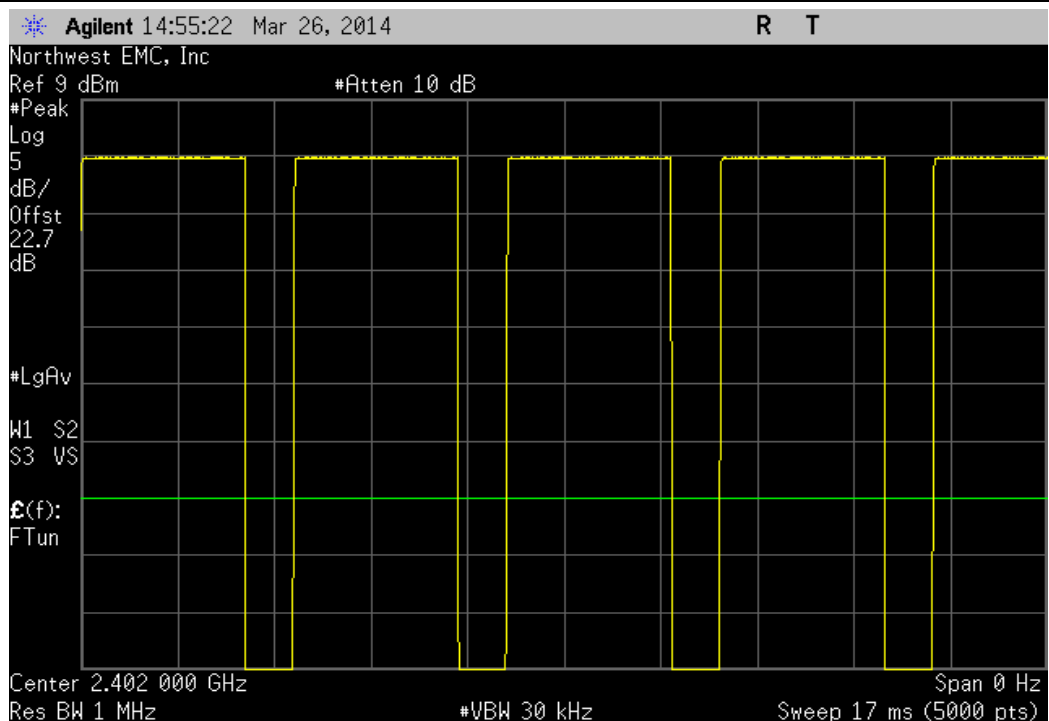
XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431					
Serial Number: EZF83450005Z		Date: 03/26/14					
Customer: Intel Corporation		Temperature: 21.7°C					
Attendees: None		Humidity: 39%					
Project: GQ110		Barometric Pres.: 1001.8					
Tested by: Jared Ison		Power: 110VAC/60Hz					
		Job Site: EV06					
TEST SPECIFICATIONS		Test Method					
FCC 15.247:2014		ANSI C63.10:2009					
COMMENTS							
Mode of operation tested were client provided.							
DEVIATIONS FROM TEST STANDARD							
None							
Configuration #	1	Signature 					
		Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
DH5, GFSK							
	Low Channel	2.886 mS	3.751 mS	1	76.9	N/A	N/A
	Low Channel	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel	2.886 mS	3.751 mS	1	76.9	N/A	N/A
	Mid Channel	N/A	N/A	5	N/A	N/A	N/A
	High Channel	2.886 mS	3.751 mS	1	76.9	N/A	N/A
	High Channel	N/A	N/A	5	N/A	N/A	N/A
2DH5, pi/4-DQPSK							
	Low Channel	2.889 mS	3.751 mS	1	77	N/A	N/A
	Low Channel	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel	2.889 mS	3.751 mS	1	77	N/A	N/A
	Mid Channel	N/A	N/A	5	N/A	N/A	N/A
	High Channel	2.889 mS	3.751 mS	1	77	N/A	N/A
	High Channel	N/A	N/A	5	N/A	N/A	N/A
3DH5, 8-DPSK							
	Low Channel	2.889 mS	3.748 mS	1	77.1	N/A	N/A
	Low Channel	N/A	N/A	5	N/A	N/A	N/A
	Mid Channel	2.892 mS	3.751 mS	1	77.1	N/A	N/A
	Mid Channel	N/A	N/A	5	N/A	N/A	N/A
	High Channel	2.889 mS	3.751 mS	1	77	N/A	N/A
	High Channel	N/A	N/A	5	N/A	N/A	N/A

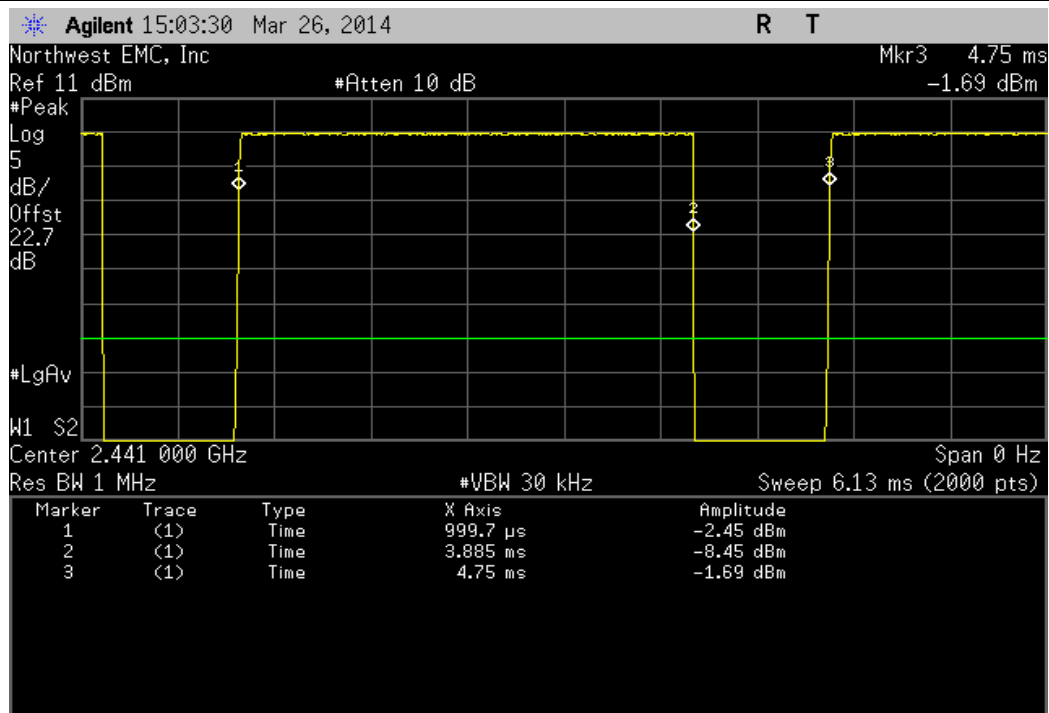
DH5, GFSK, Low Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.886 mS	3.751 mS	1	76.9	N/A	N/A



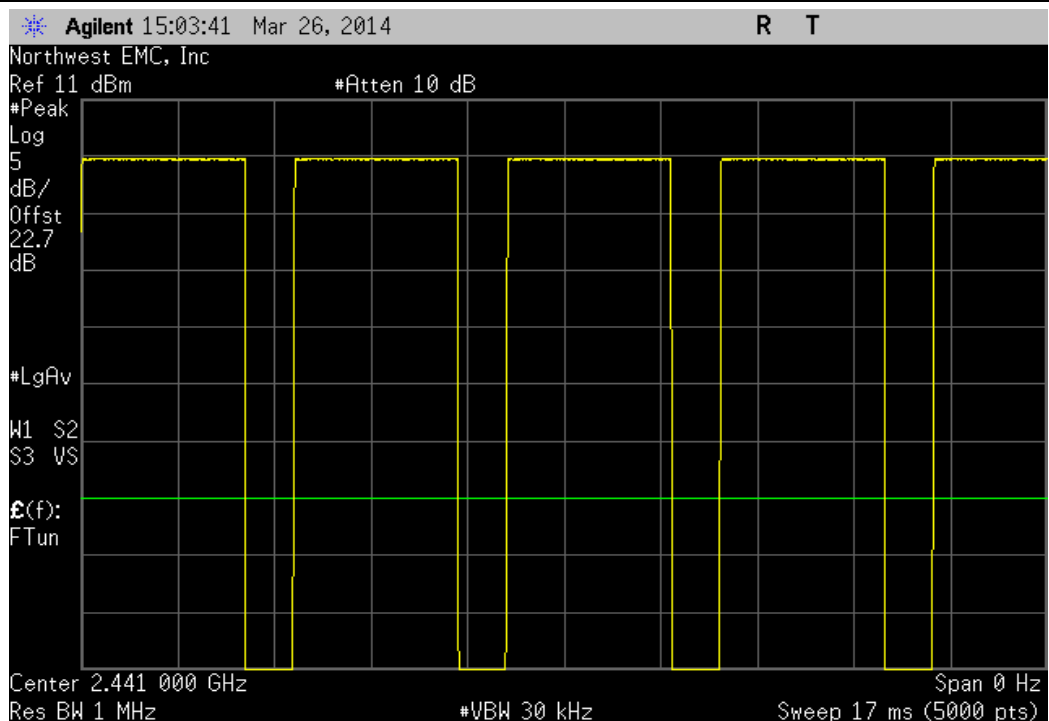
DH5, GFSK, Low Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



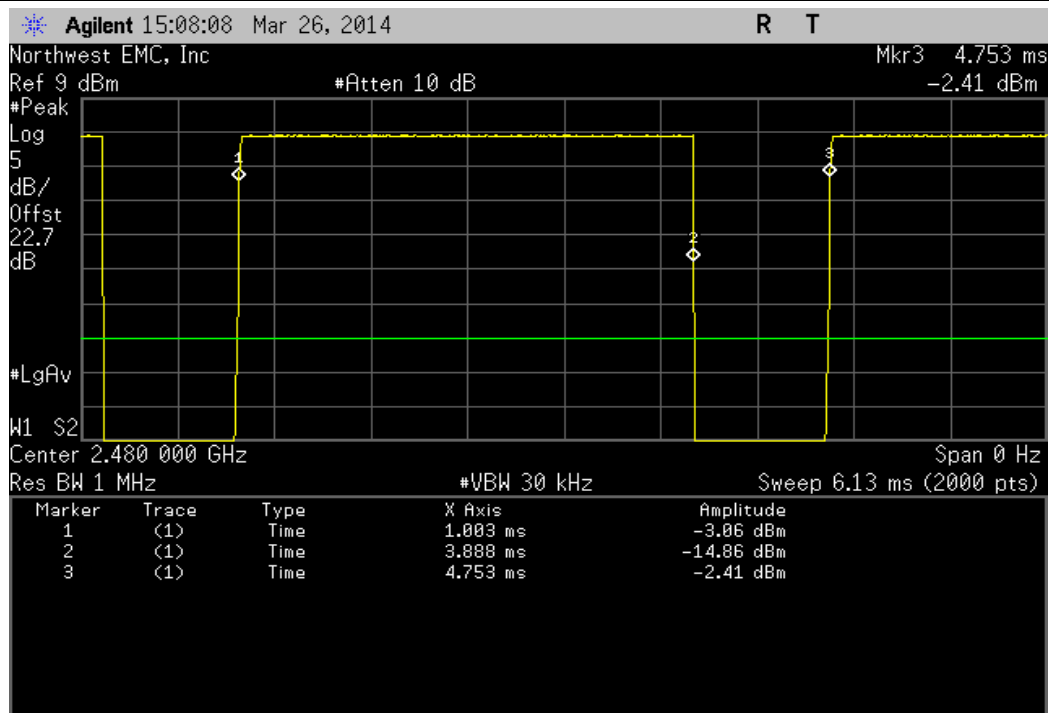
DH5, GFSK, Mid Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.886 mS	3.751 mS	1	76.9	N/A	N/A



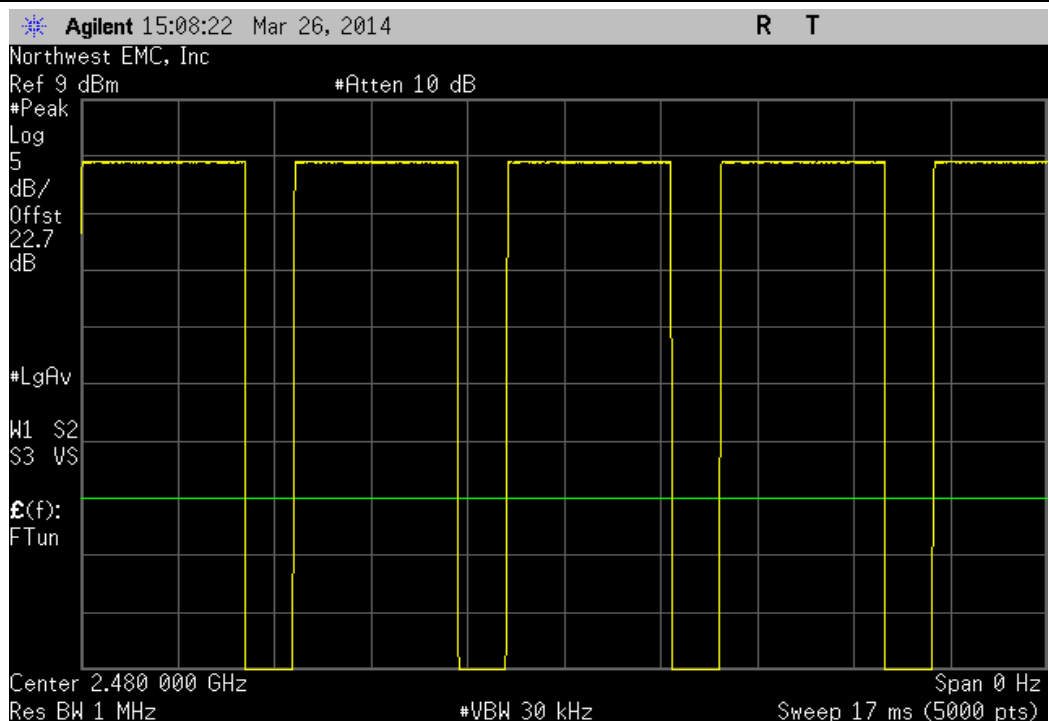
DH5, GFSK, Mid Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



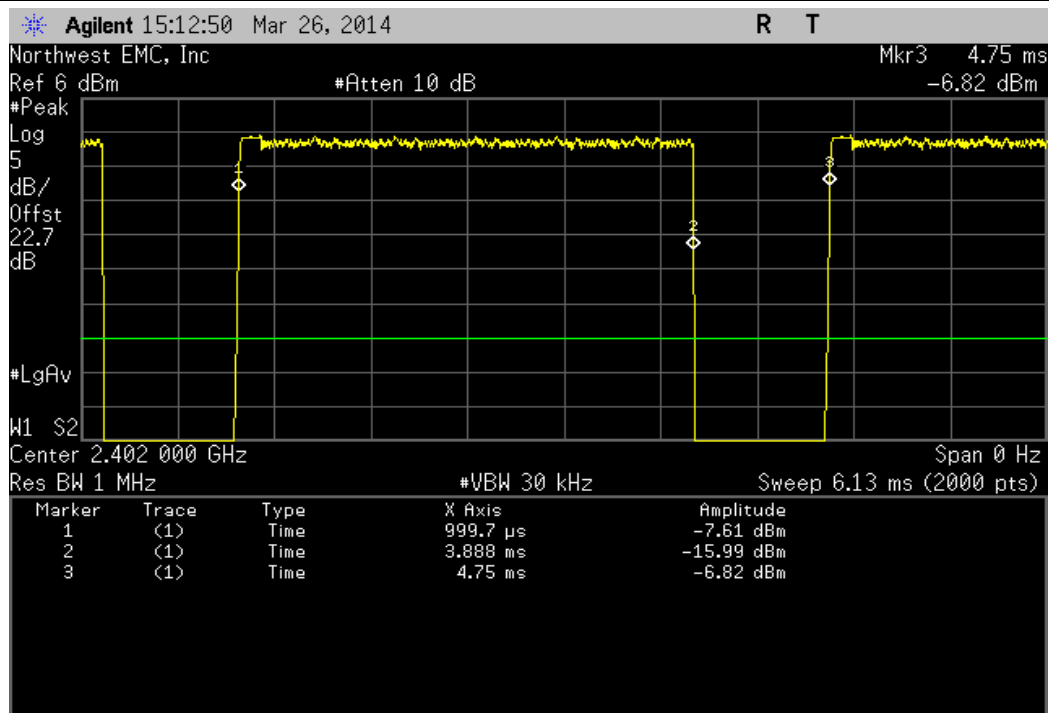
DH5, GFSK, High Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.886 mS	3.751 mS	1	76.9	N/A	N/A



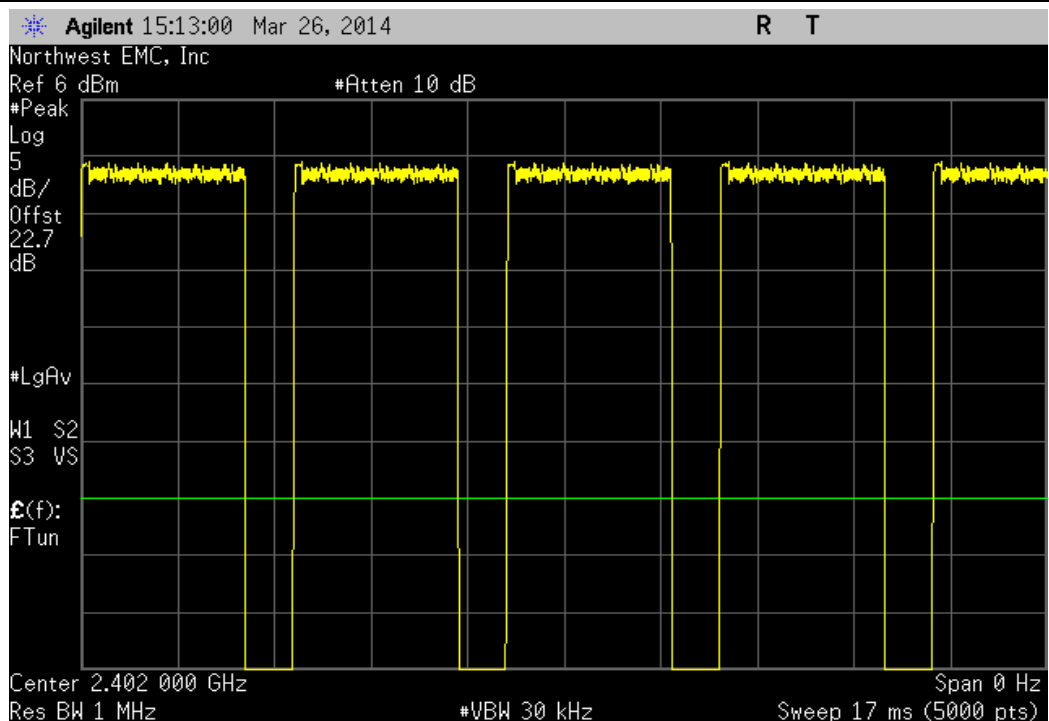
DH5, GFSK, High Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



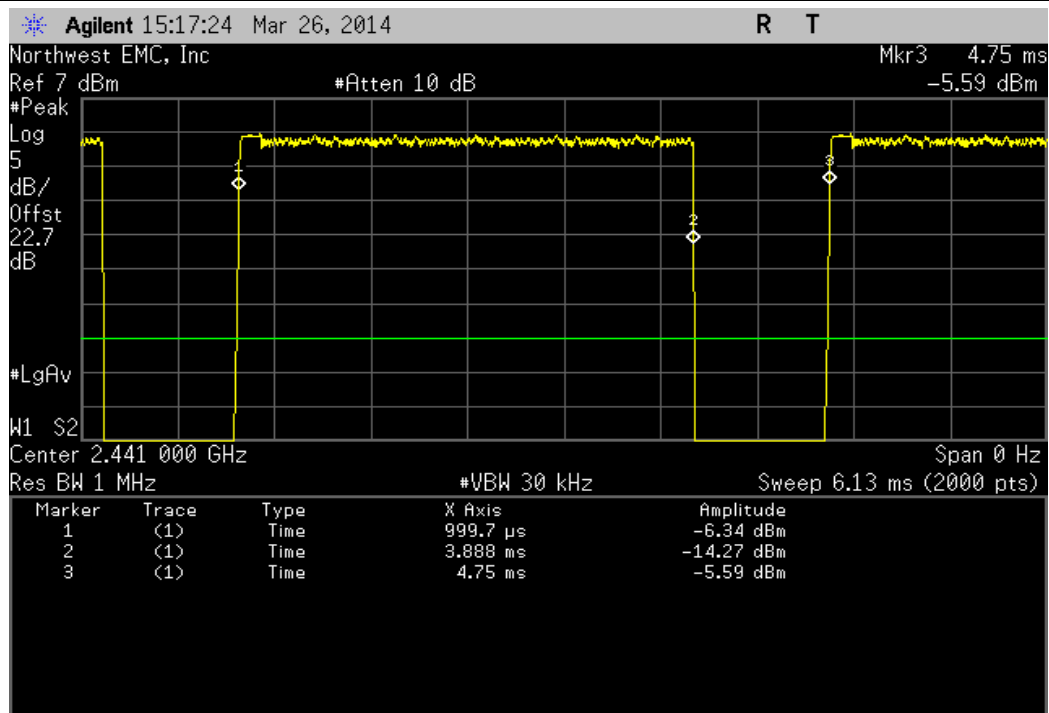
2DH5, pi/4-DQPSK, Low Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.889 mS	3.751 mS	1	77	N/A	N/A



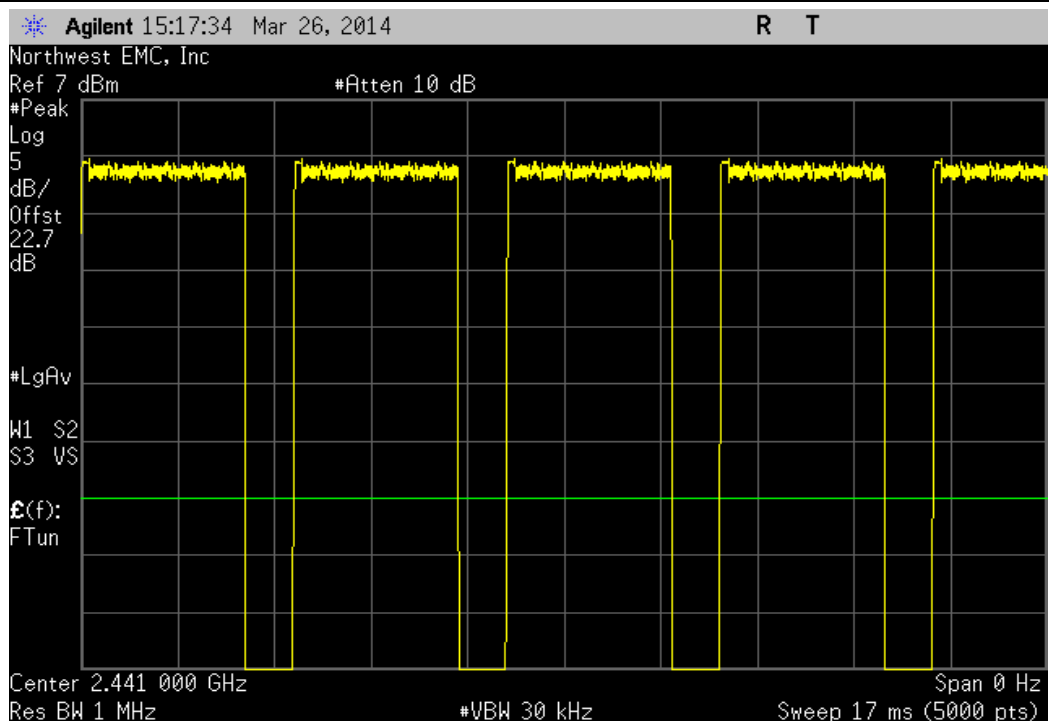
2DH5, pi/4-DQPSK, Low Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



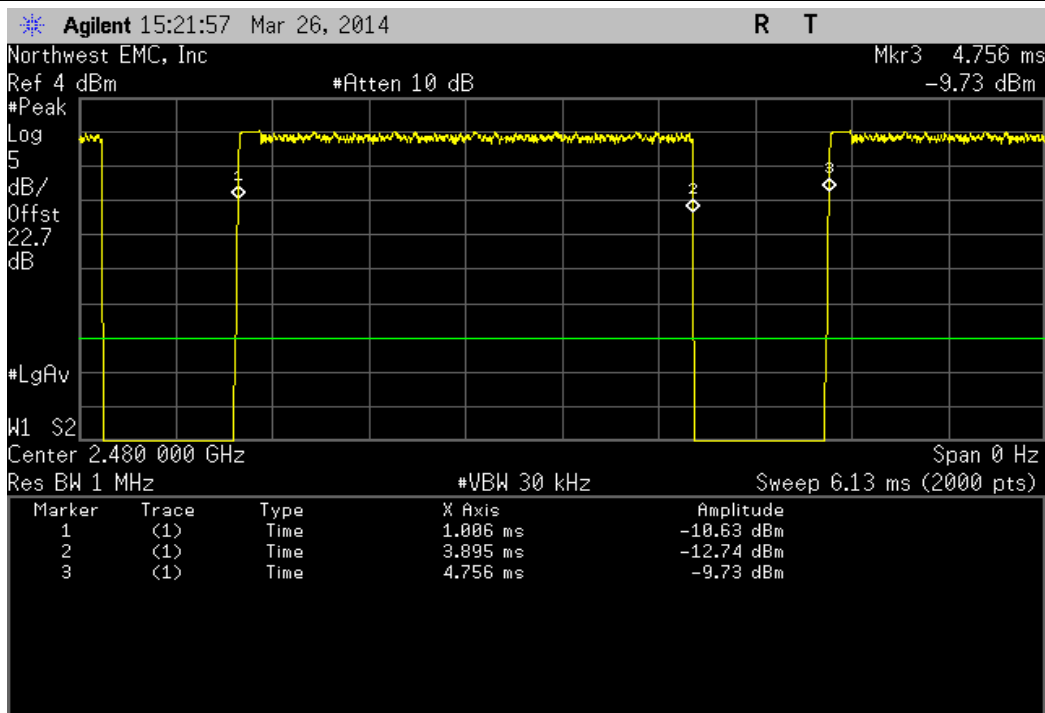
2DH5, pi/4-DQPSK, Mid Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.889 mS	3.751 mS	1	77	N/A	N/A



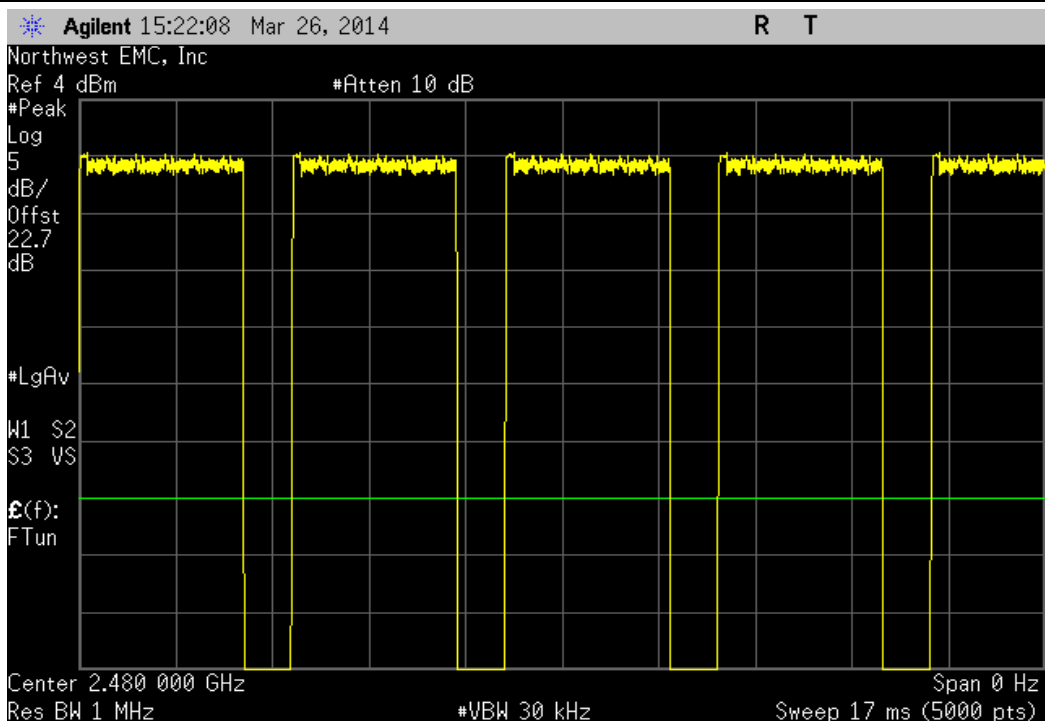
2DH5, pi/4-DQPSK, Mid Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



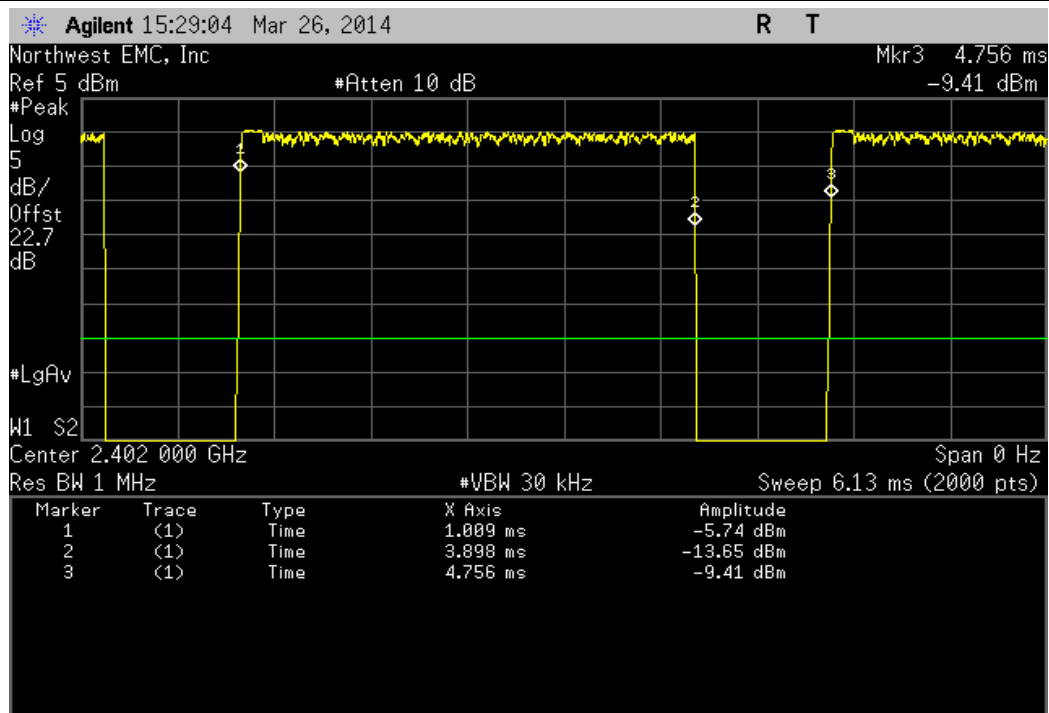
2DH5, pi/4-DQPSK, High Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.889 mS	3.751 mS	1	77	N/A	N/A



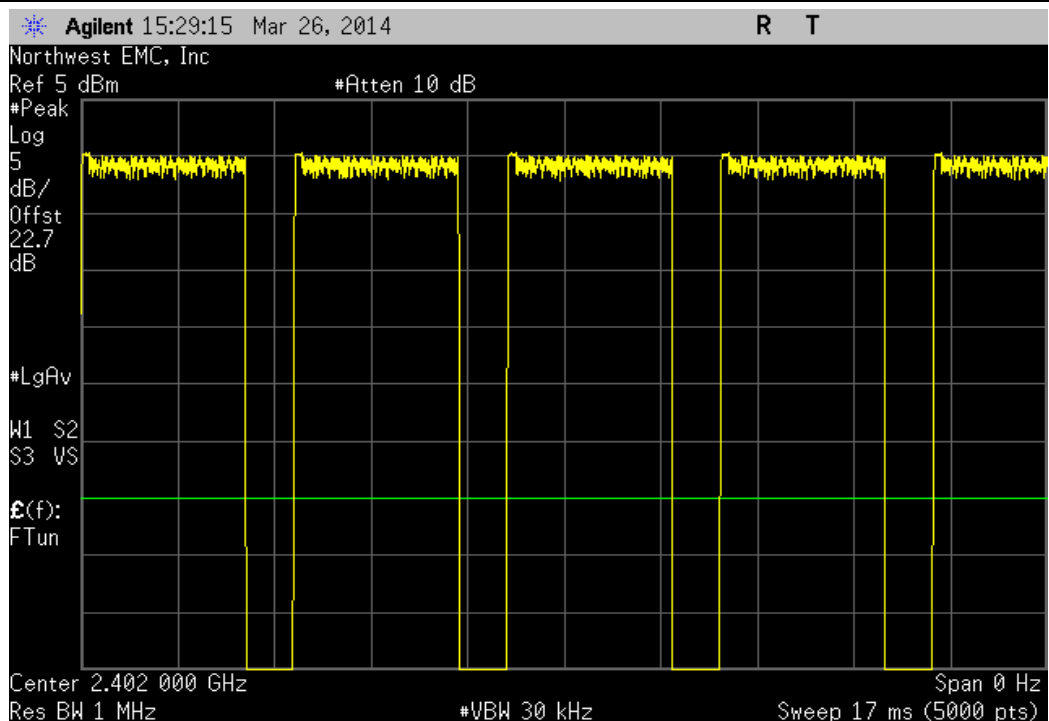
2DH5, pi/4-DQPSK, High Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A

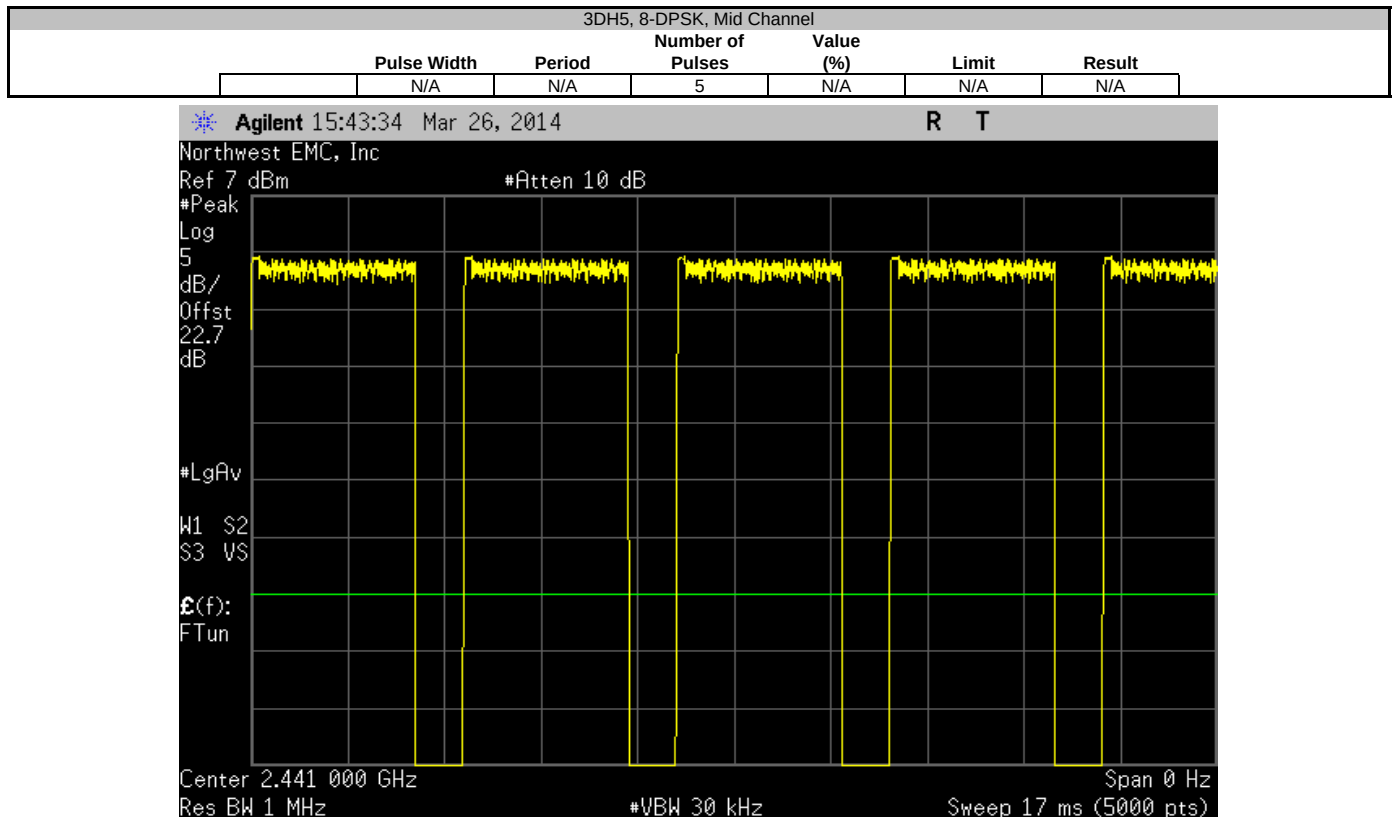
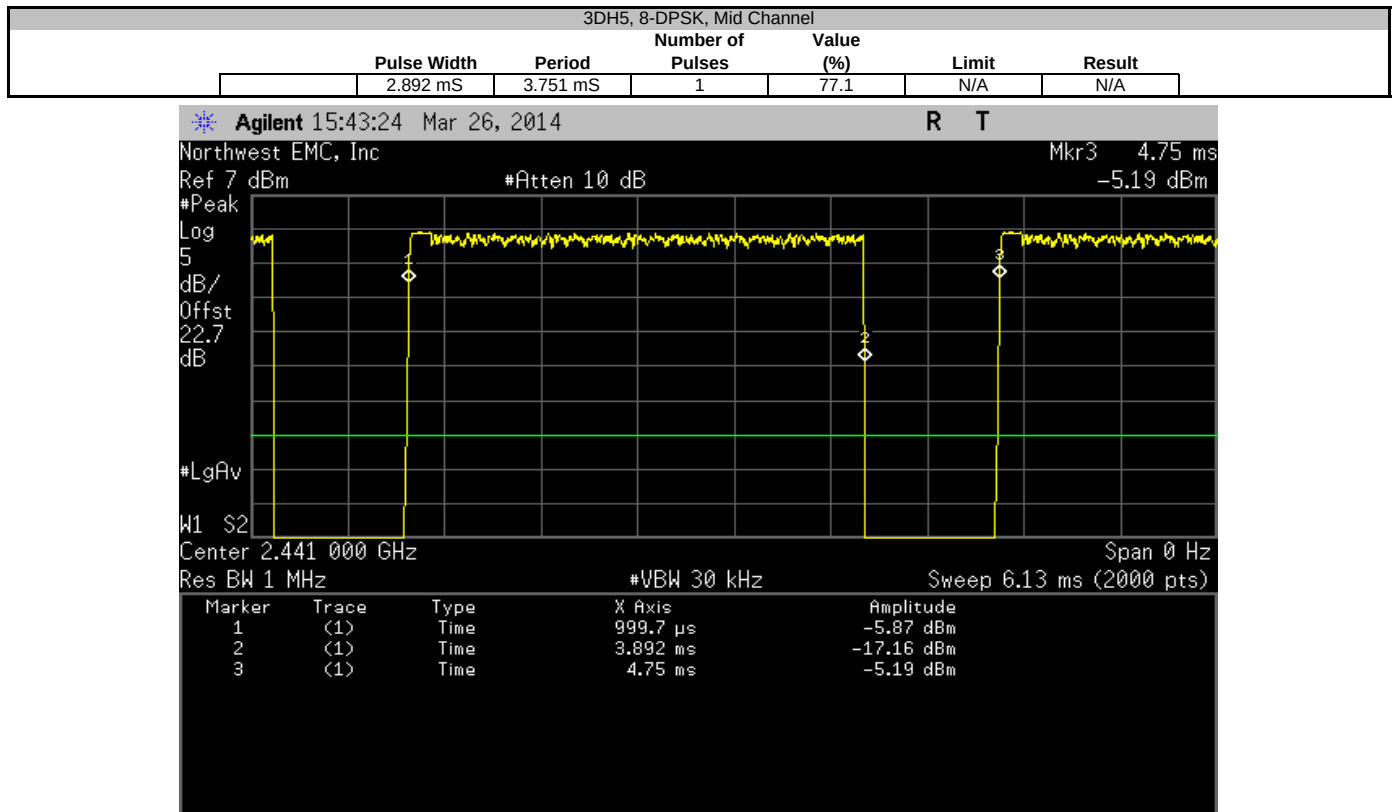


3DH5, 8-DPSK, Low Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.889 mS	3.748 mS	1	77.1	N/A	N/A

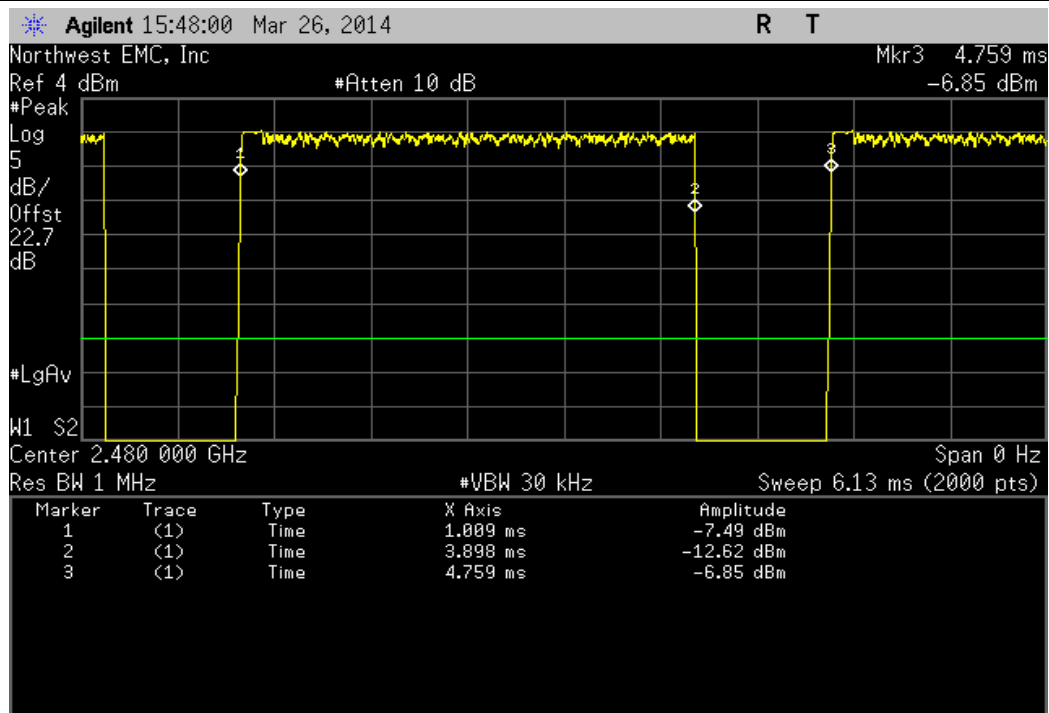


3DH5, 8-DPSK, Low Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A

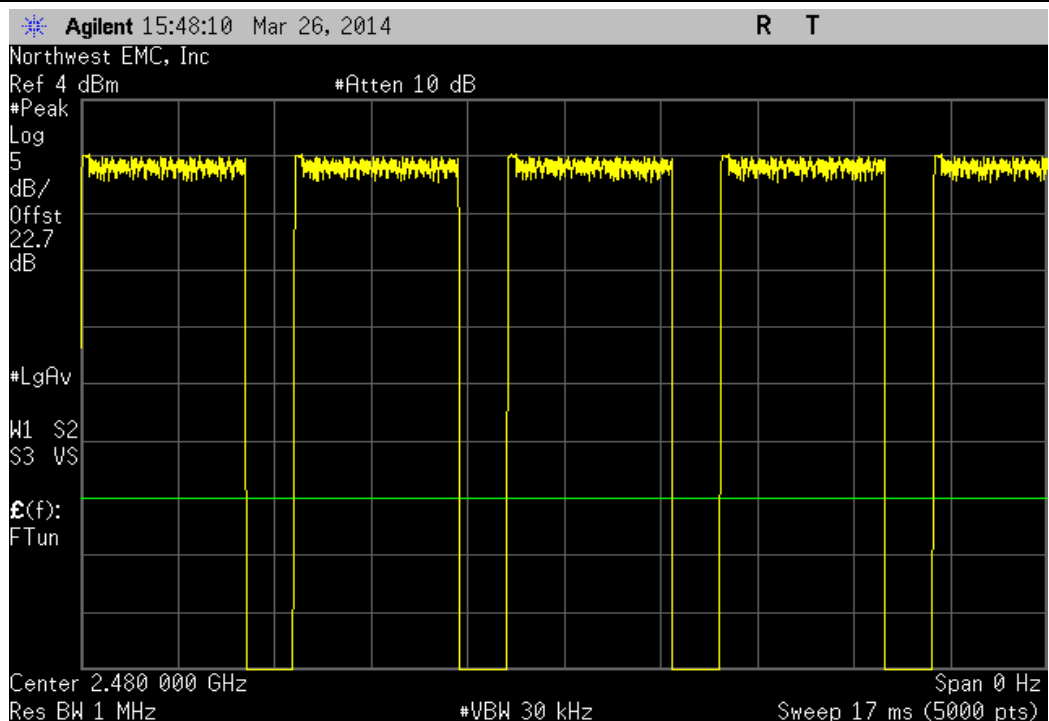




3DH5, 8-DPSK, High Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	2.889 mS	3.751 mS	1	77	N/A	N/A



3DH5, 8-DPSK, High Channel						
	Pulse Width	Period	Number of Pulses	Value (%)	Limit	Result
	N/A	N/A	5	N/A	N/A	N/A



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
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

TEST DESCRIPTION

The 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 at the data rate(s) listed in the datasheet in a no-hop mode.



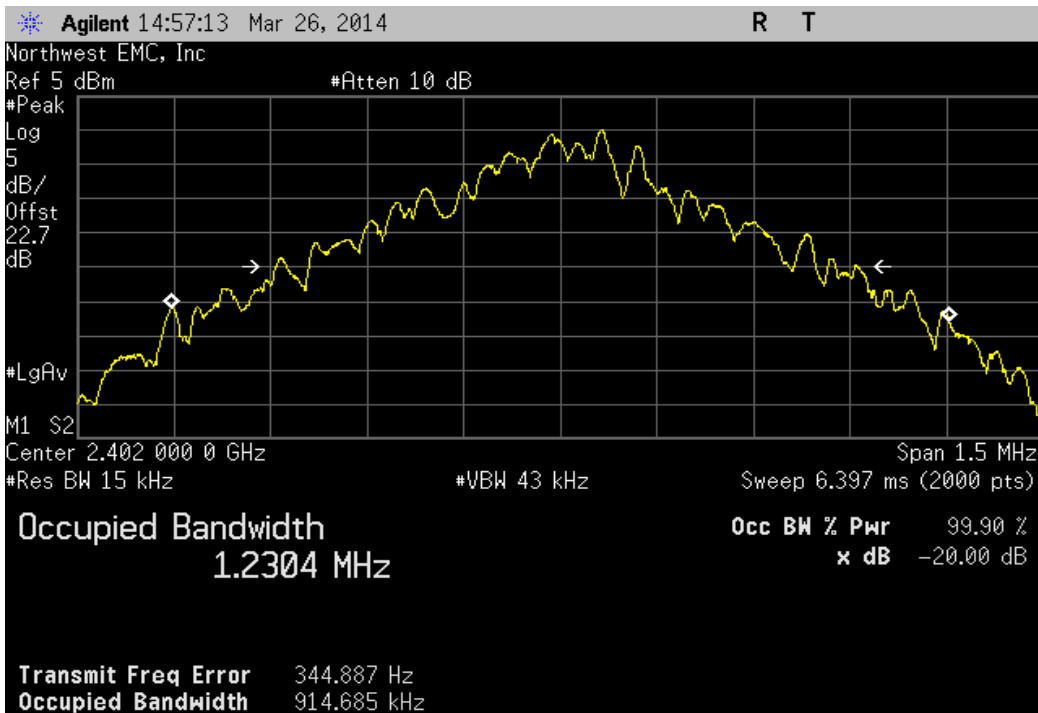
OCCUPIED BANDWIDTH

XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431	
Serial Number: EZF83450005Z		Date: 03/26/14	
Customer: Intel Corporation		Temperature: 21.7°C	
Attendees: None		Humidity: 39%	
Project: GQ110		Barometric Pres.: 1001.8	
Tested by: Jared Ison		Power: 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
Mode of operation tested were client provided.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit
			Result
DH5, GFSK			
Low Channel		914.685 kHz	< 1.5 MHz
Mid Channel		908.299 kHz	< 1.5 MHz
High Channel		887.833 kHz	< 1.5 MHz
2DH5, pi/4-DQPSK			
Low Channel		1.341 MHz	< 1.5 MHz
Mid Channel		1.348 MHz	< 1.5 MHz
High Channel		1.347 MHz	< 1.5 MHz
3DH5, 8-DPSK			
Low Channel		1.317 MHz	< 1.5 MHz
Mid Channel		1.335 MHz	< 1.5 MHz
High Channel		1.322 MHz	< 1.5 MHz

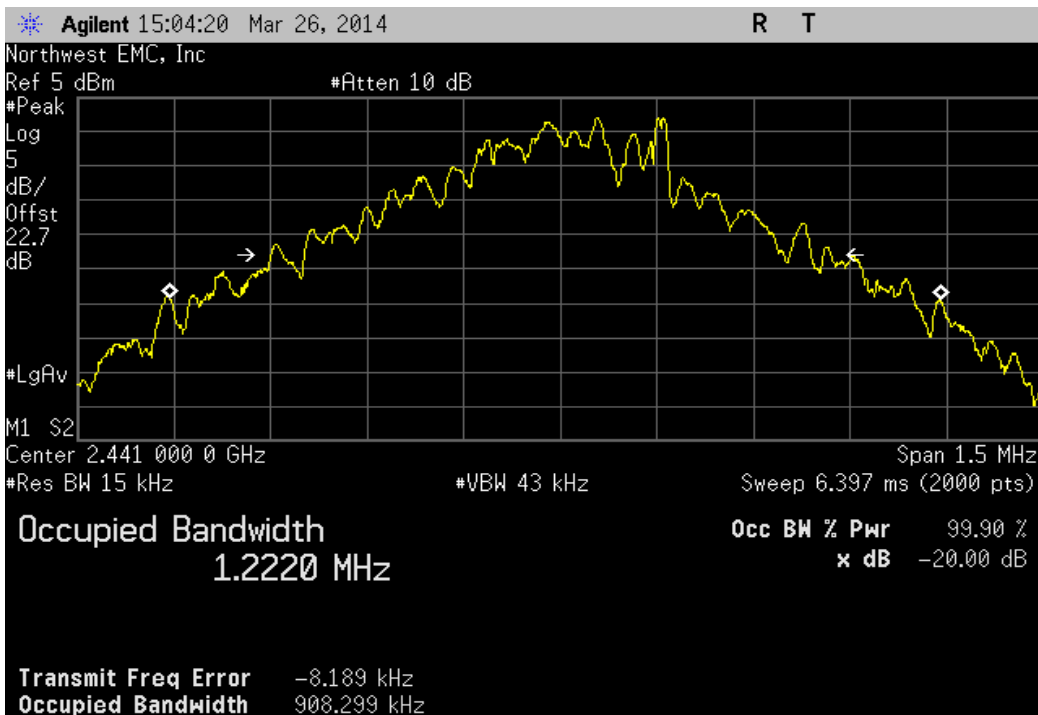
DH5, GFSK, Low Channel

			Value	Limit	Result
			914.685 kHz	< 1.5 MHz	Pass



DH5, GFSK, Mid Channel

			Value	Limit	Result
			908.299 kHz	< 1.5 MHz	Pass



DH5, GFSK, High Channel

Value	Limit	Result
887.833 kHz	< 1.5 MHz	Pass

Agilent 15:09:03 Mar 26, 2014

R T

Northwest EMC, Inc

Ref 5 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

22.7

dB

#LgAv

M1 S2

Center 2.480 000 0 GHz

#Res BW 15 kHz

#VBW 43 kHz

Span 1.5 MHz
Sweep 6.397 ms (2000 pts)

Occupied Bandwidth

1.2186 MHz

Occ BW % Pwr 99.90 %
x dB -20.00 dB

Transmit Freq Error

5.134 kHz

Occupied Bandwidth

887.833 kHz

2DH5, pi/4-DQPSK, Low Channel

Value	Limit	Result
1.341 MHz	< 1.5 MHz	Pass

Agilent 15:13:37 Mar 26, 2014

R T

Northwest EMC, Inc

Ref 5 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

22.7

dB

#LgAv

M1 S2

Center 2.402 000 0 GHz

#Res BW 24 kHz

#VBW 75 kHz

Span 2 MHz
Sweep 3.332 ms (2000 pts)

Occupied Bandwidth

1.3622 MHz

Occ BW % Pwr 99.90 %
x dB -20.00 dB

Transmit Freq Error

8.025 kHz

Occupied Bandwidth

1.341 MHz

2DH5, pi/4-DQPSK, Mid Channel

Value	Limit	Result
1.348 MHz	< 1.5 MHz	Pass

Agilent 15:18:12 Mar 26, 2014

R T

Northwest EMC, Inc

Ref 5 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

22.7

dB

#LgAv

M1 S2

Center 2.441 000 0 GHz

#Res BW 24 kHz

#VBW 75 kHz

Span 2 MHz
Sweep 3.332 ms (2000 pts)

Occupied Bandwidth

1.3653 MHz

Occ BW % Pwr 99.90 %
x dB -20.00 dB

Transmit Freq Error 1.122 kHz

Occupied Bandwidth 1.348 MHz

2DH5, pi/4-DQPSK, High Channel

Value	Limit	Result
1.347 MHz	< 1.5 MHz	Pass

Agilent 15:23:12 Mar 26, 2014

R T

Northwest EMC, Inc

Ref 5 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

22.7

dB

#LgAv

M1 S2

Center 2.480 000 0 GHz

#Res BW 24 kHz

#VBW 75 kHz

Span 2 MHz
Sweep 3.332 ms (2000 pts)

Occupied Bandwidth

1.3647 MHz

Occ BW % Pwr 99.90 %
x dB -20.00 dB

Transmit Freq Error -6.930 kHz

Occupied Bandwidth 1.347 MHz

3DH5, 8-DPSK, Low Channel

Value	Limit	Result
1.317 MHz	< 1.5 MHz	Pass

Agilent 15:30:48 Mar 26, 2014

R T

Northwest EMC, Inc

Ref 5 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

22.7

dB

#LgAv

M1 S2

Center 2.402 000 0 GHz

#Res BW 24 kHz

#VBW 75 kHz

Span 2 MHz
Sweep 3.332 ms (2000 pts)

Occupied Bandwidth

1.3648 MHz

Occ BW % Pwr 99.90 %
x dB -20.00 dB

Transmit Freq Error 9.072 kHz

Occupied Bandwidth 1.317 MHz

3DH5, 8-DPSK, Mid Channel

Value	Limit	Result
1.335 MHz	< 1.5 MHz	Pass

Agilent 15:44:17 Mar 26, 2014

R T

Northwest EMC, Inc

Ref 5 dBm

#Atten 10 dB

#Peak

Log

5

dB/

Offst

22.7

dB

#LgAv

M1 S2

Center 2.441 000 0 GHz

#Res BW 24 kHz

#VBW 75 kHz

Span 2 MHz
Sweep 3.332 ms (2000 pts)

Occupied Bandwidth

1.3650 MHz

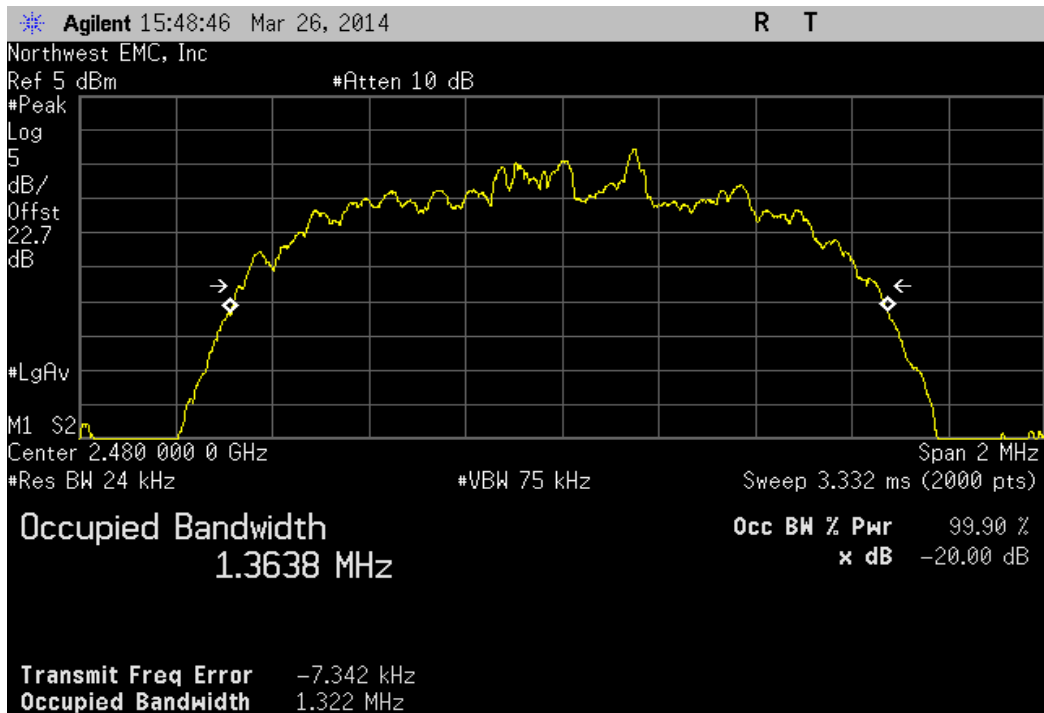
Occ BW % Pwr 99.90 %
x dB -20.00 dB

Transmit Freq Error 2.498 kHz

Occupied Bandwidth 1.335 MHz

3DH5, 8-DPSK, High Channel

Value	Limit	Result
1.322 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
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

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 the data rate(s) listed in the datasheet.

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



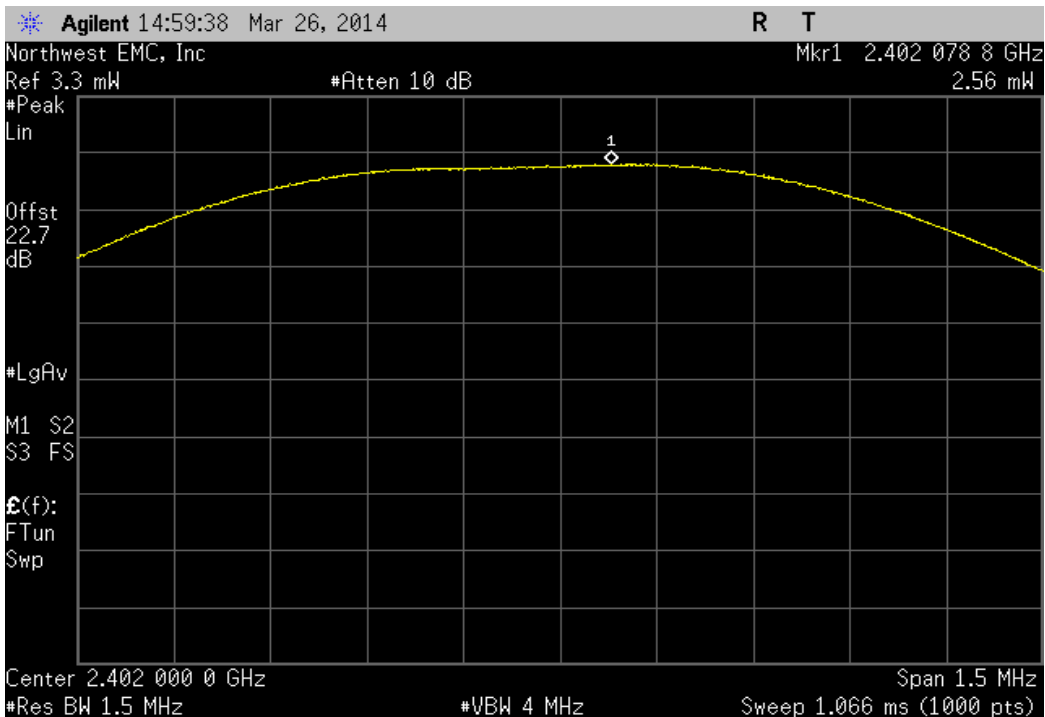
OUTPUT POWER

XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431	
Serial Number: EZF83450005Z		Date: 03/26/14	
Customer: Intel Corporation		Temperature: 21.7°C	
Attendees: None		Humidity: 39%	
Project: GQ110		Barometric Pres.: 1001.8	
Tested by: Jared Ison		Power: 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS			
FCC 15.249:2014		Test Method	
		ANSI C63.10:2009	
COMMENTS			
Mode of operation tested were client provided.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit
			Result
DH5, GFSK			
Low Channel		2.556 mW	< 125 mW
Mid Channel		4.017 mW	< 125 mW
High Channel		2.414 mW	< 125 mW
2DH5, pi/4-DQPSK			
Low Channel		1.989 mW	< 125 mW
Mid Channel		2.615 mW	< 125 mW
High Channel		1.509 mW	< 125 mW
3DH5, 8-DPSK			
Low Channel		2.183 mW	< 125 mW
Mid Channel		2.928 mW	< 125 mW
High Channel		1.66 mW	< 125 mW

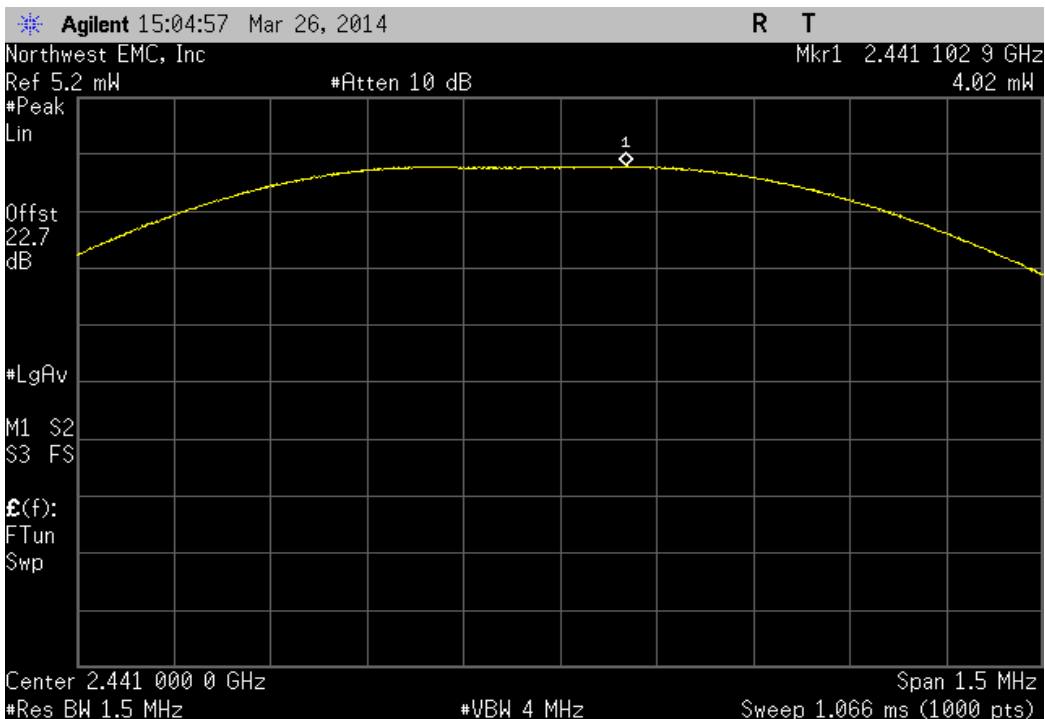
DH5, GFSK, Low Channel

	Value	Limit	Result
	2.556 mW	< 125 mW	Pass



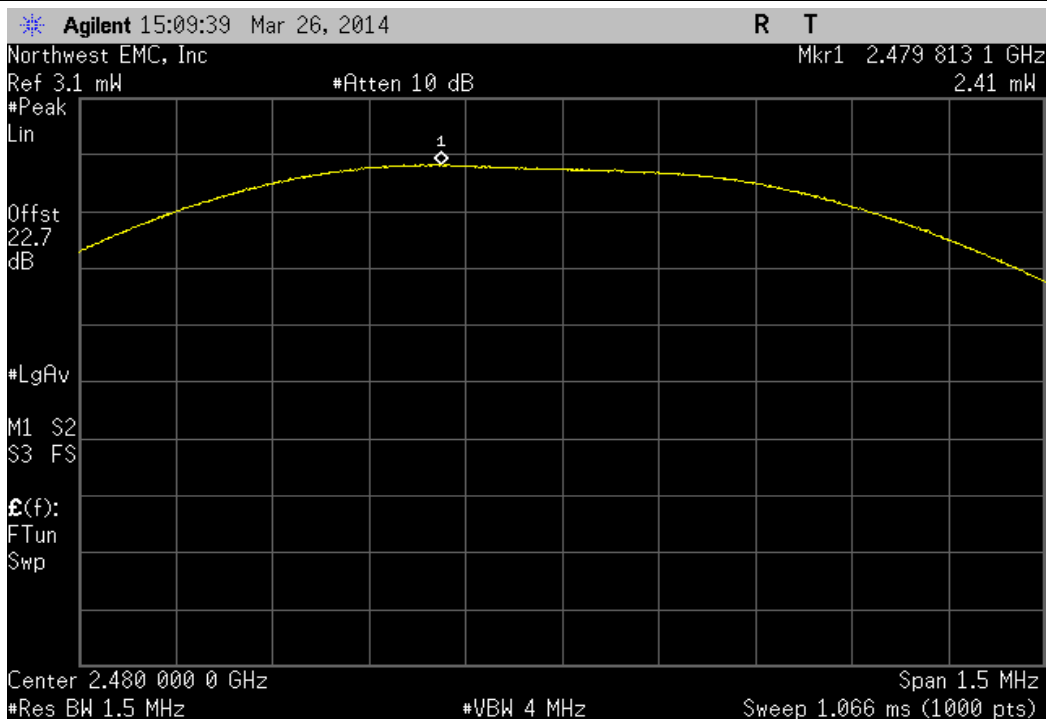
DH5, GFSK, Mid Channel

	Value	Limit	Result
	4.017 mW	< 125 mW	Pass



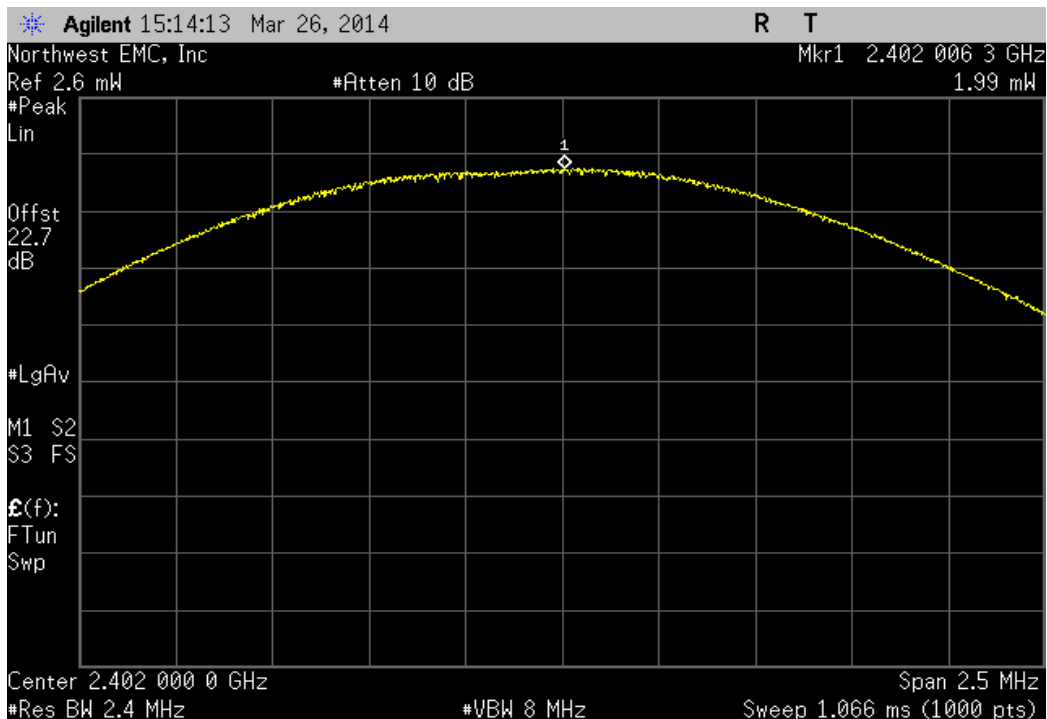
DH5, GFSK, High Channel

	Value	Limit	Result
	2.414 mW	< 125 mW	Pass

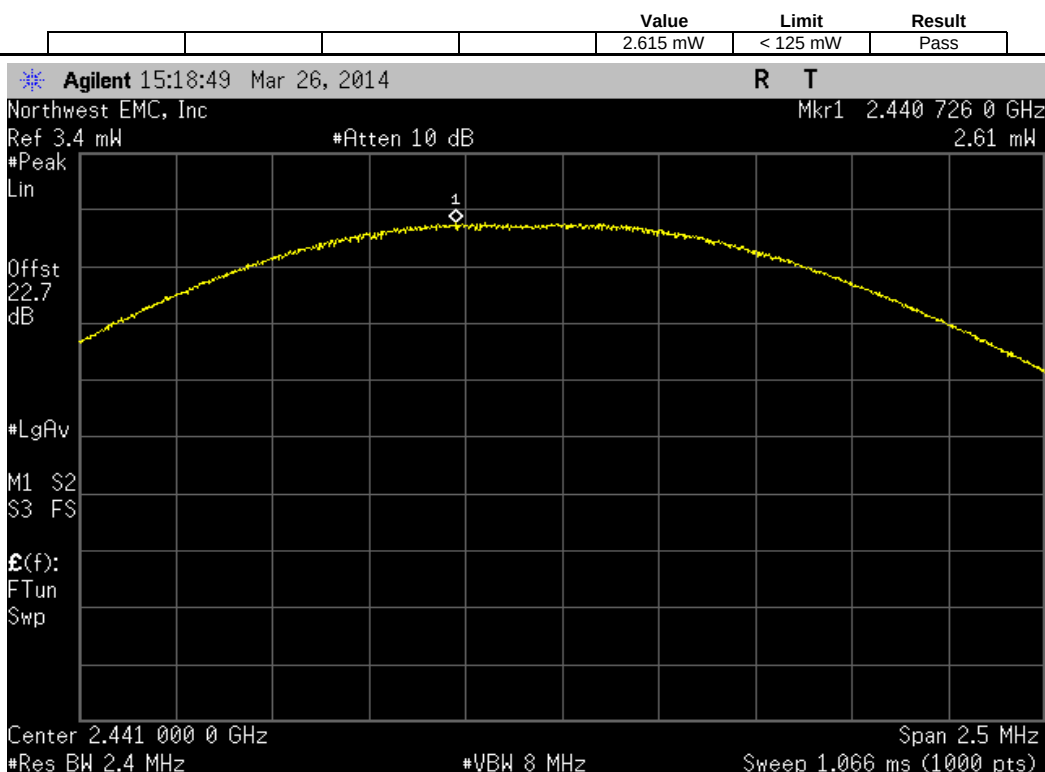


2DH5, pi/4-DQPSK, Low Channel

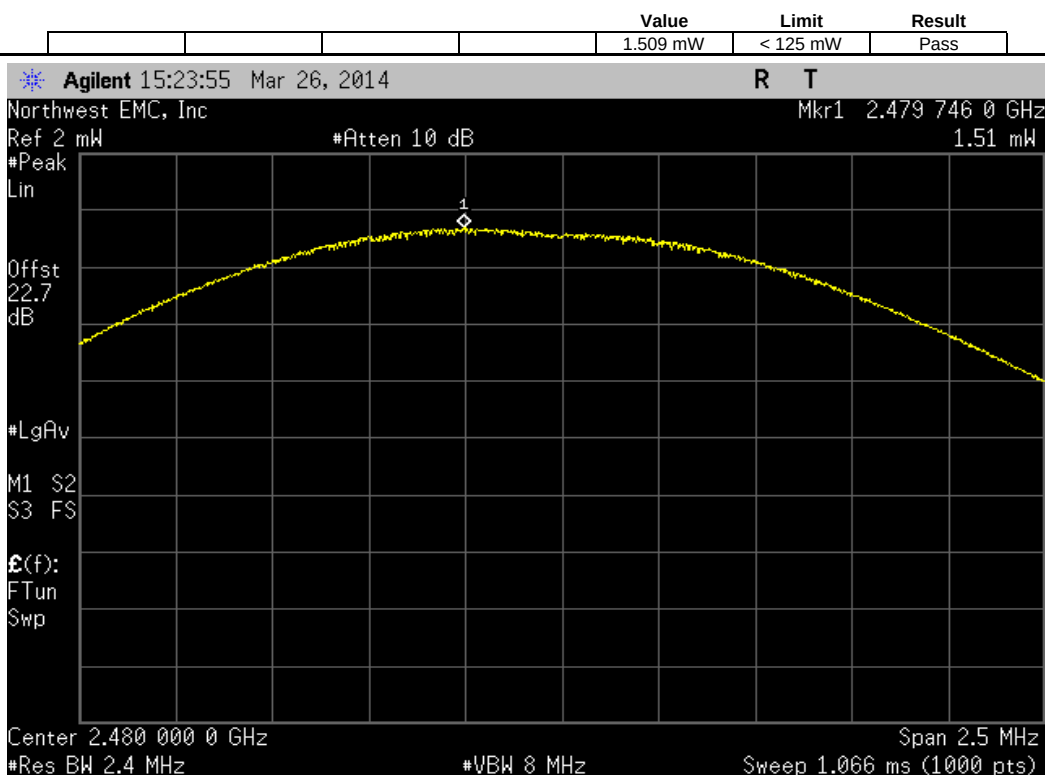
	Value	Limit	Result
	1.989 mW	< 125 mW	Pass



2DH5, pi/4-DQPSK, Mid Channel

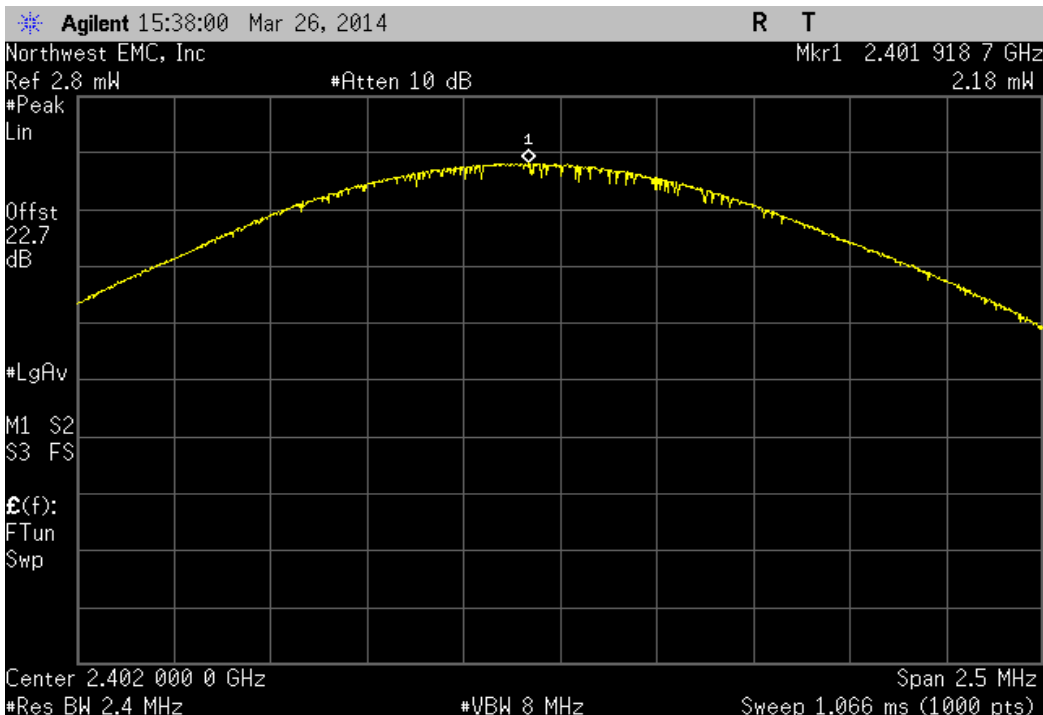


2DH5, pi/4-DQPSK, High Channel



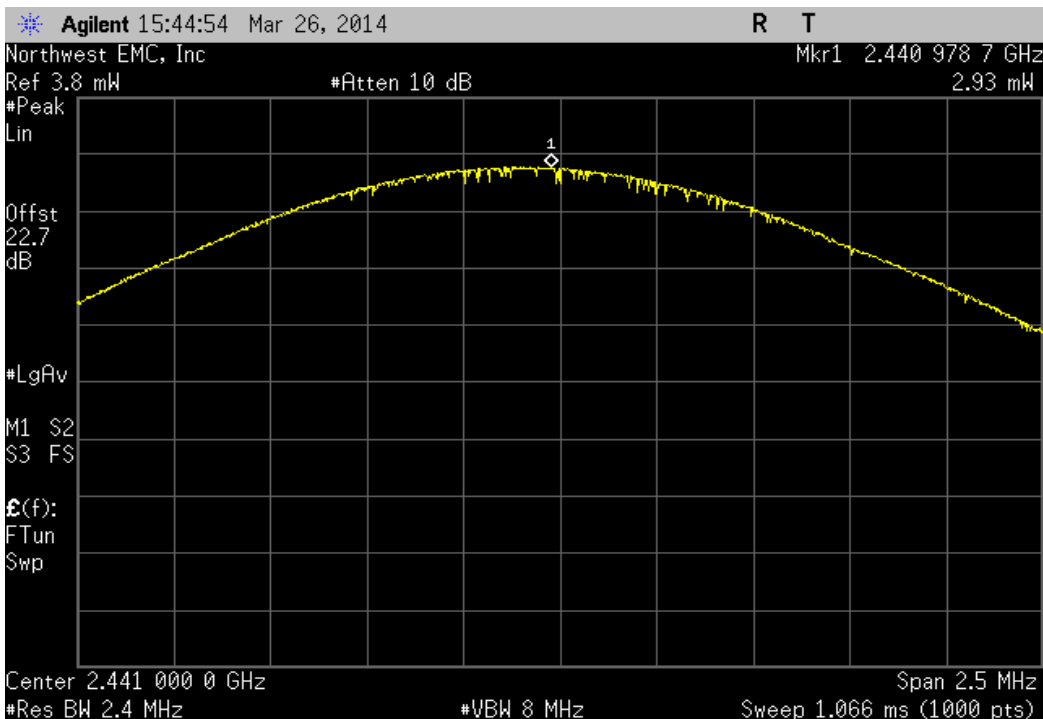
3DH5, 8-DPSK, Low Channel

	Value	Limit	Result
	2.183 mW	< 125 mW	Pass



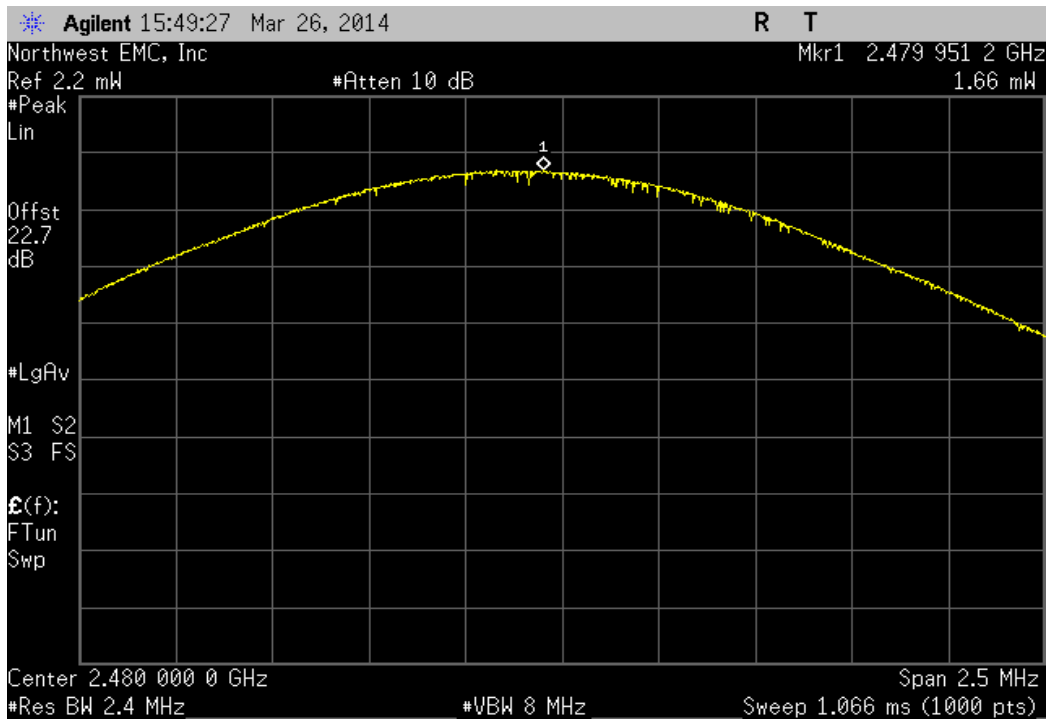
3DH5, 8-DPSK, Mid Channel

	Value	Limit	Result
	2.928 mW	< 125 mW	Pass



3DH5, 8-DPSK, High Channel

Value	Limit	Result
1.66 mW	< 125 mW	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
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

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 the data rate(s) listed in the datasheet in a no-hop mode. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

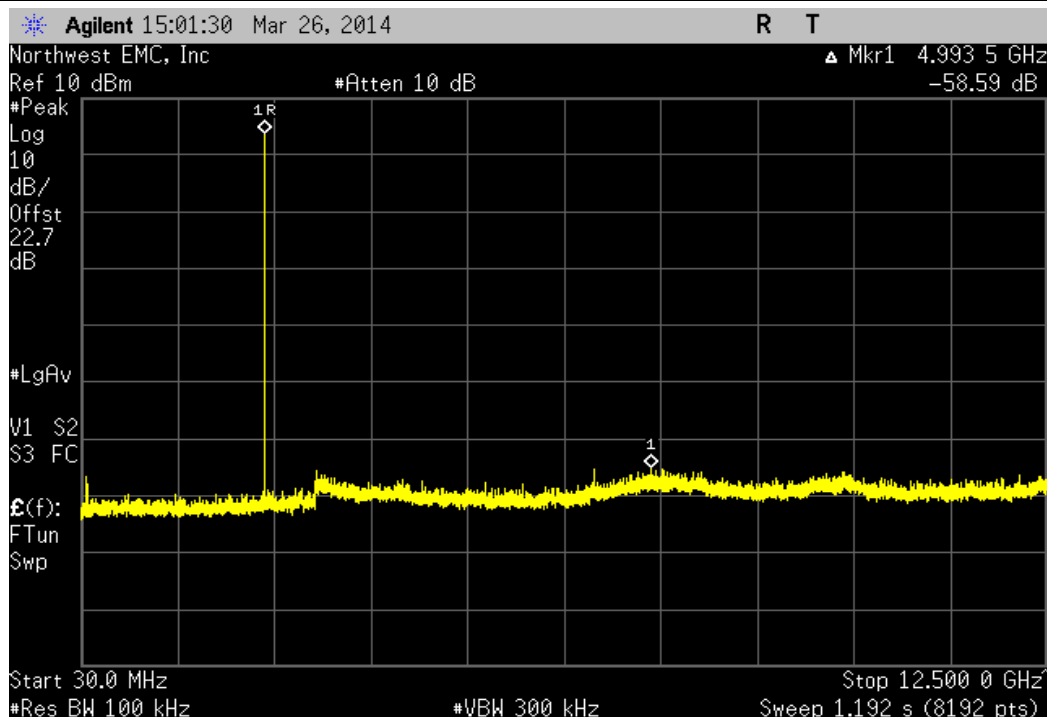


SPURIOUS CONDUCTED EMISSIONS

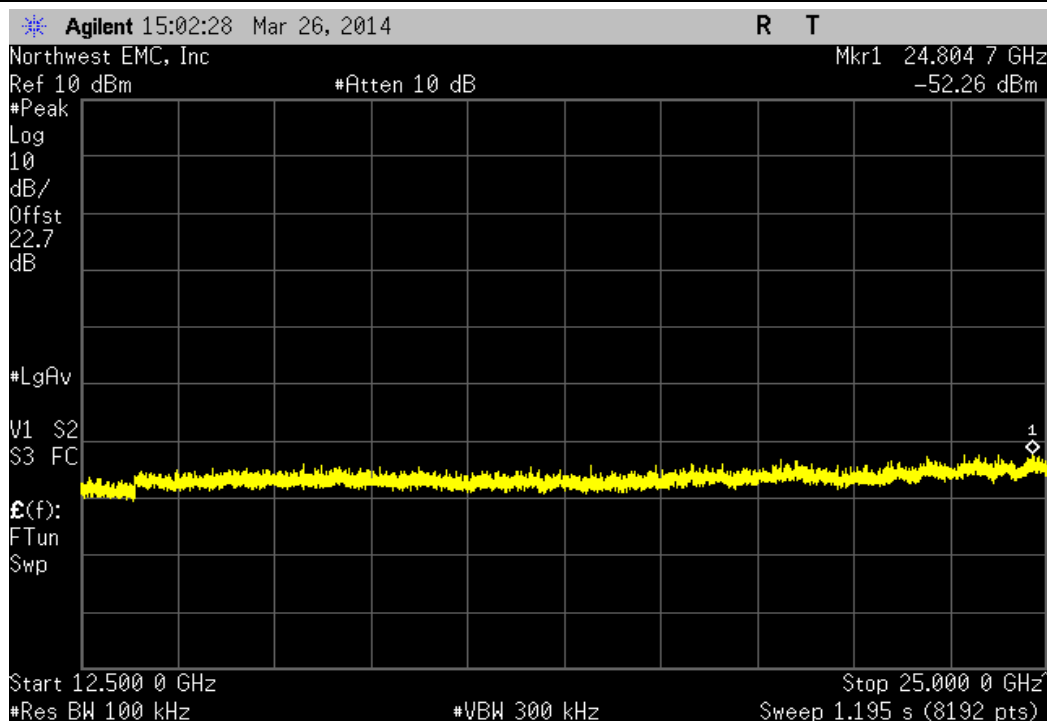
XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431			
Serial Number: EZF83450005Z		Date: 03/26/14			
Customer: Intel Corporation		Temperature: 21.7°C			
Attendees: None		Humidity: 39%			
Project: GQ110		Barometric Pres.: 1001.8			
Tested by: Jared Ison		Power: 110VAC/60Hz			
		Job Site: EV06			
TEST SPECIFICATIONS		Test Method			
FCC 15.247:2014		ANSI C63.10:2009			
COMMENTS					
Mode of operation tested were client provided.					
DEVIATIONS FROM TEST STANDARD					
None					
Configuration #	1	Signature 			
		Frequency Range	Value	Limit	Result
DH5, GFSK					
	Low Channel	30 MHz - 12.5 GHz	-58.59 dBc	≤ -20 dBc	Pass
	Low Channel	12.5 GHz - 25 GHz	-55.9 dBc	≤ -20 dBc	Pass
	Mid Channel	30 MHz - 12.5 GHz	-61.2 dBc	≤ -20 dBc	Pass
	Mid Channel	12.5 GHz - 25 GHz	-57.91 dBc	≤ -20 dBc	Pass
	High Channel	30 MHz - 12.5 GHz	-56.75 dBc	≤ -20 dBc	Pass
	High Channel	12.5 GHz - 25 GHz	-54.23 dBc	≤ -20 dBc	Pass
2DH5, pi/4-DQPSK					
	Low Channel	30 MHz - 12.5 GHz	-54.72 dBc	≤ -20 dBc	Pass
	Low Channel	12.5 GHz - 25 GHz	-51.82 dBc	≤ -20 dBc	Pass
	Mid Channel	30 MHz - 12.5 GHz	-55.34 dBc	≤ -20 dBc	Pass
	Mid Channel	12.5 GHz - 25 GHz	-52.26 dBc	≤ -20 dBc	Pass
	High Channel	30 MHz - 12.5 GHz	-54.58 dBc	≤ -20 dBc	Pass
	High Channel	12.5 GHz - 25 GHz	-51.03 dBc	≤ -20 dBc	Pass
3DH5, 8-DPSK					
	Low Channel	30 MHz - 12.5 GHz	-54.55 dBc	≤ -20 dBc	Pass
	Low Channel	12.5 GHz - 25 GHz	-51.79 dBc	≤ -20 dBc	Pass
	Mid Channel	30 MHz - 12.5 GHz	-56.85 dBc	≤ -20 dBc	Pass
	Mid Channel	12.5 GHz - 25 GHz	-53.64 dBc	≤ -20 dBc	Pass
	High Channel	30 MHz - 12.5 GHz	-53.92 dBc	≤ -20 dBc	Pass
	High Channel	12.5 GHz - 25 GHz	-51.27 dBc	≤ -20 dBc	Pass

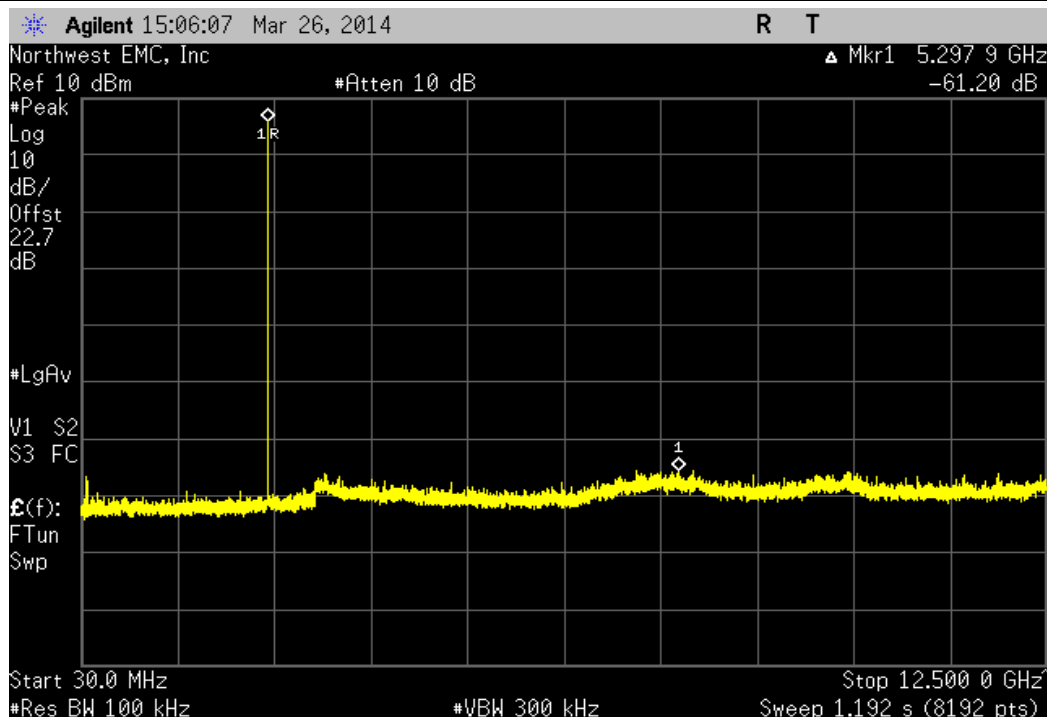
DH5, GFSK, Low Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-58.59 dBc	≤ -20 dBc	Pass	



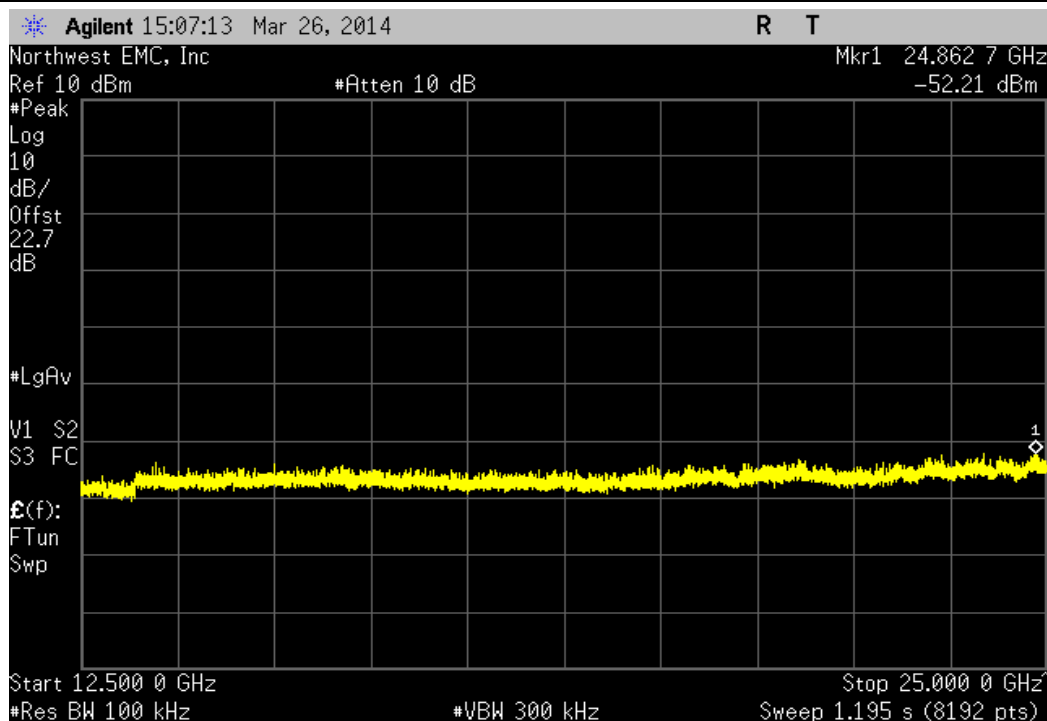
DH5, GFSK, Low Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-55.9 dBc	≤ -20 dBc	Pass	



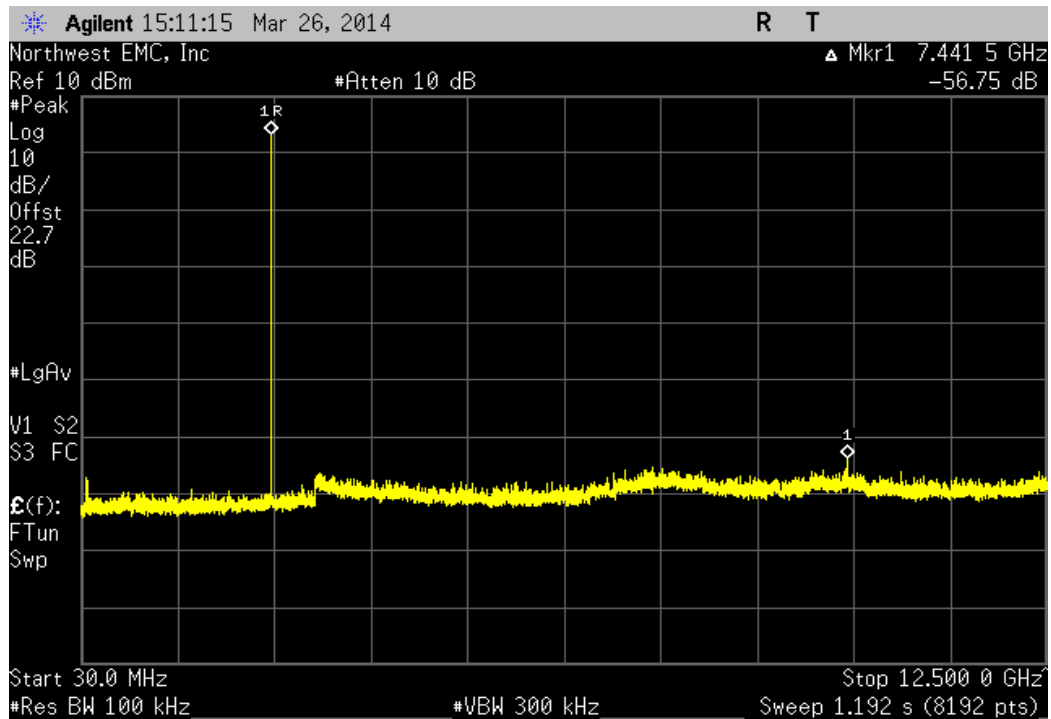
DH5, GFSK, Mid Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-61.2 dBc	≤ -20 dBc	Pass	



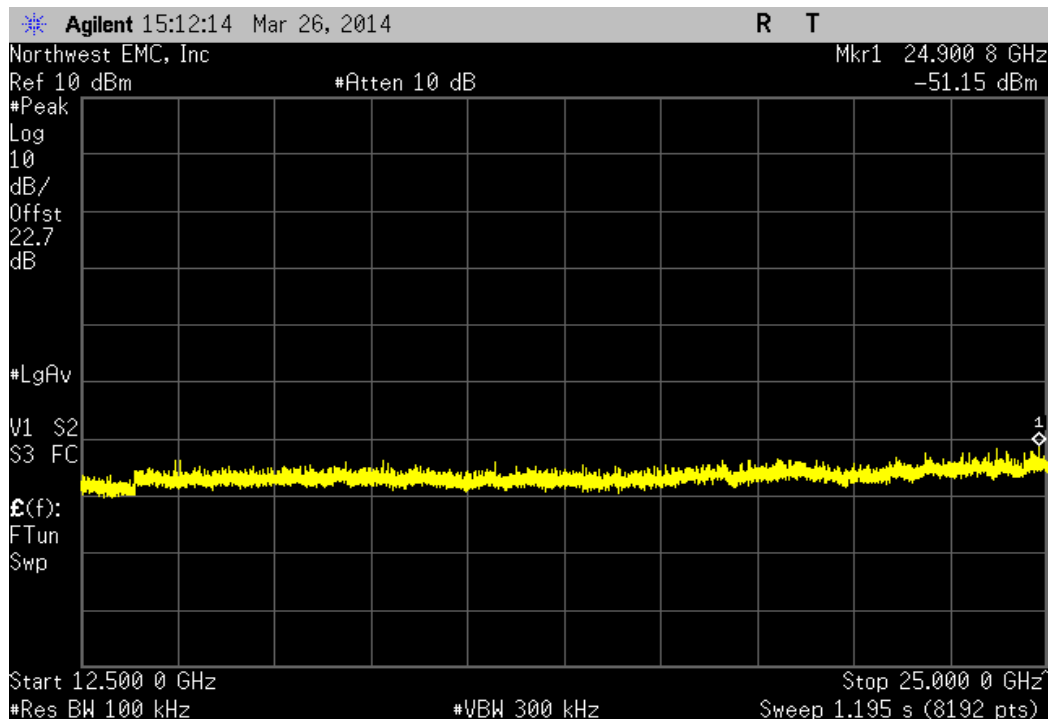
DH5, GFSK, Mid Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-57.91 dBc	≤ -20 dBc	Pass	



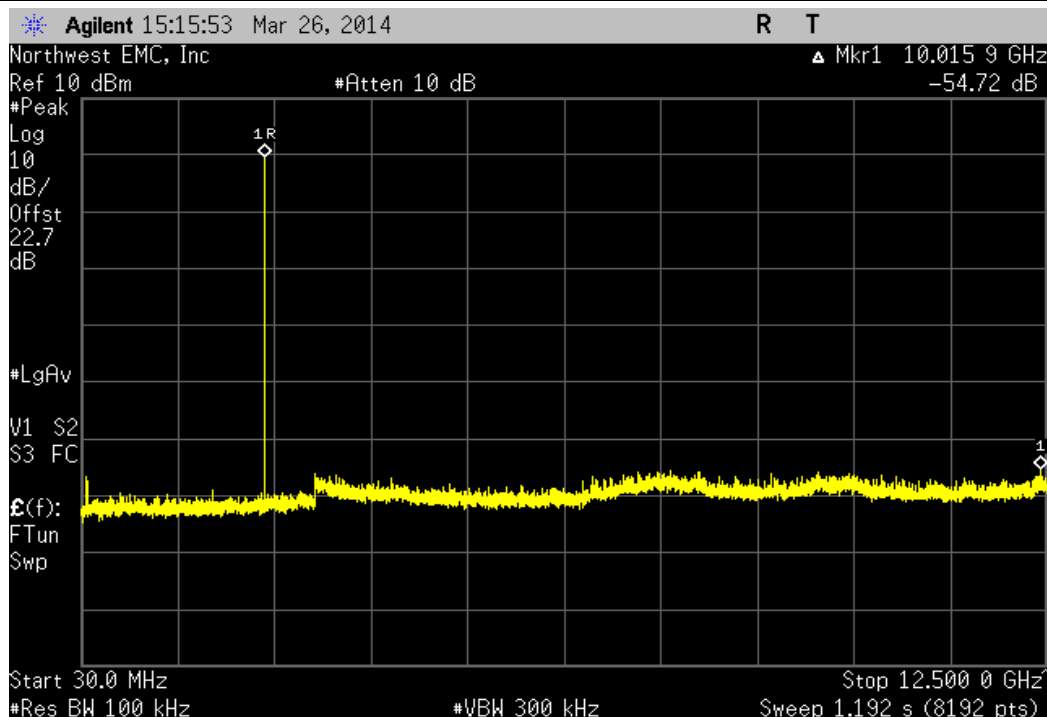
DH5, GFSK, High Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-56.75 dBc	≤ -20 dBc	Pass	



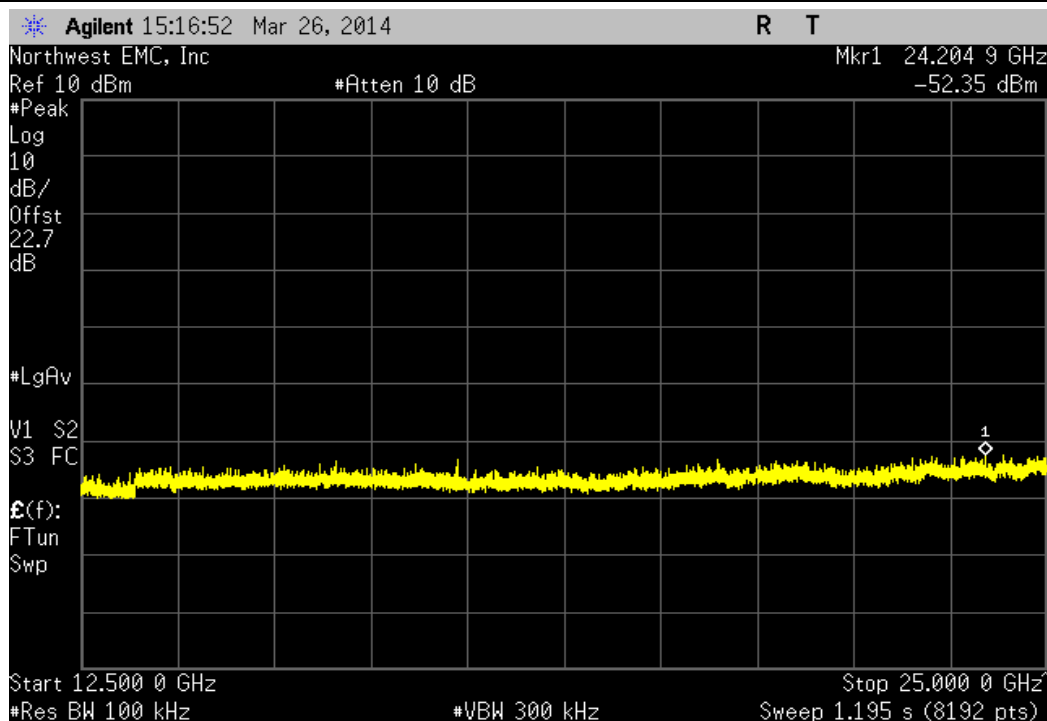
DH5, GFSK, High Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-54.23 dBc	≤ -20 dBc	Pass	



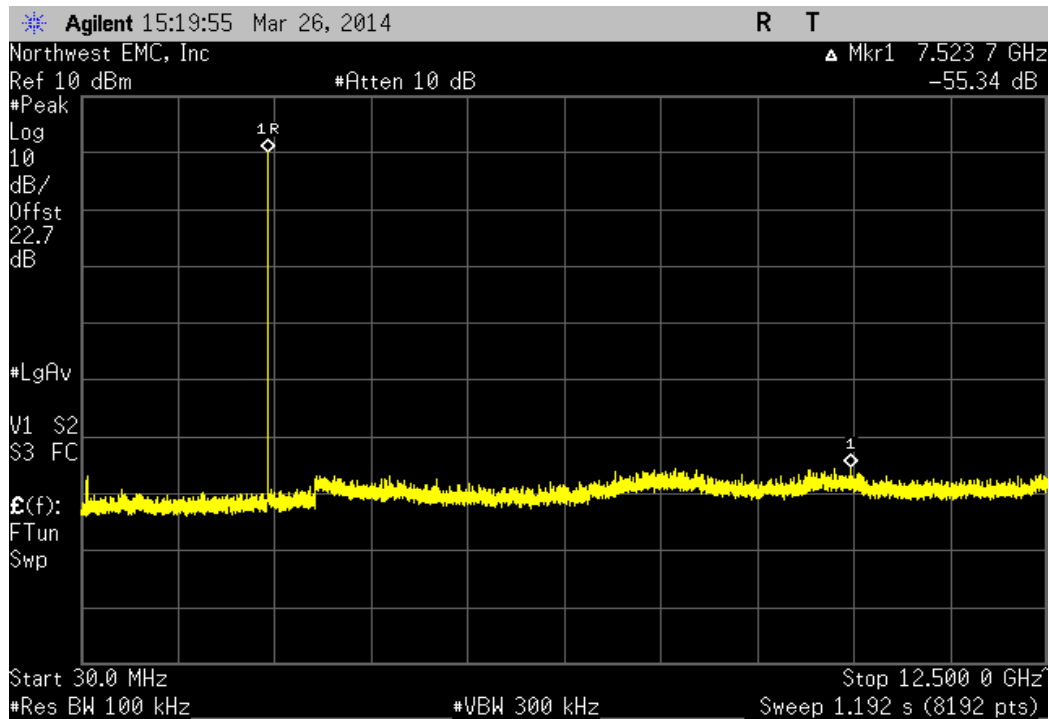
2DH5, pi/4-DQPSK, Low Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-54.72 dBc	≤ -20 dBc	Pass	



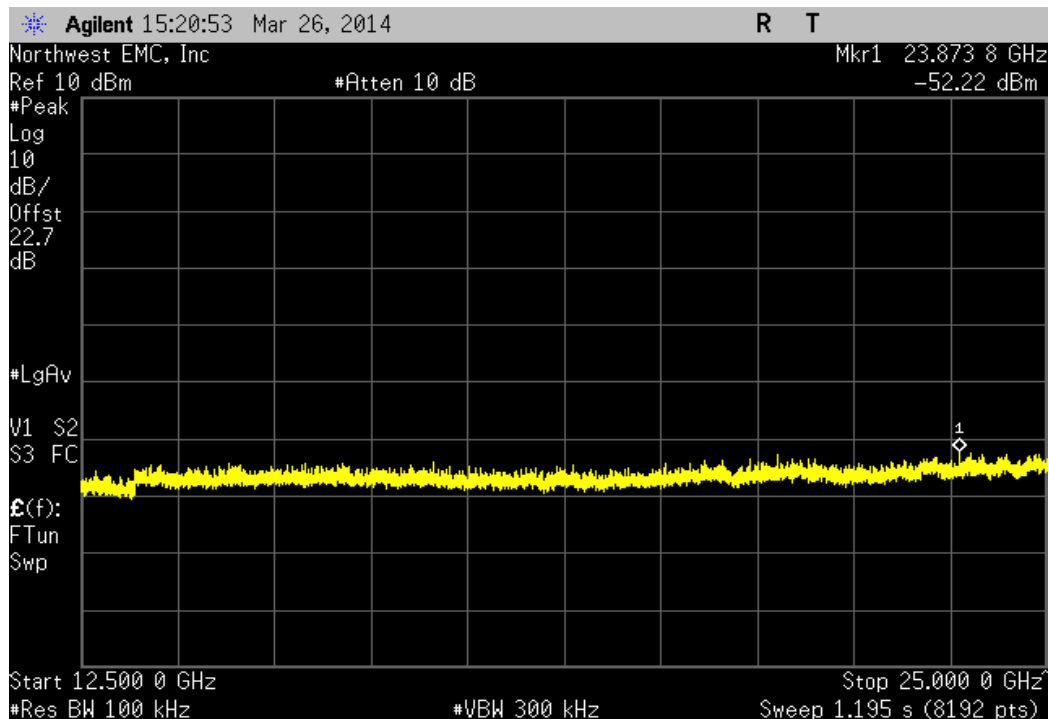
2DH5, pi/4-DQPSK, Low Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-51.82 dBc	≤ -20 dBc	Pass	



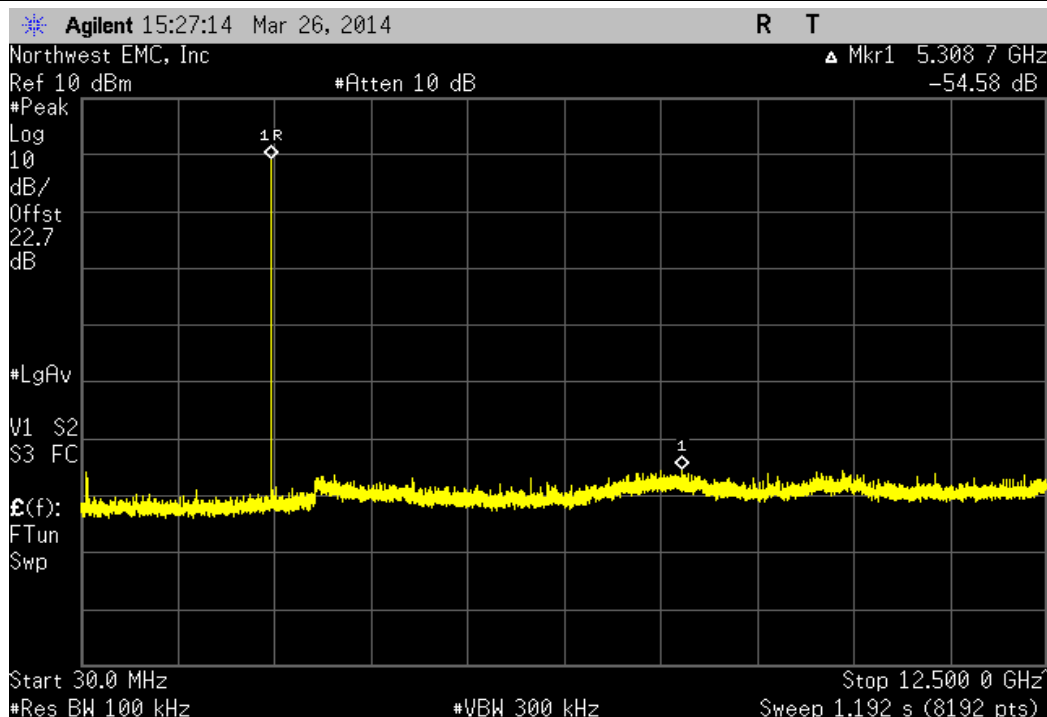
2DH5, pi/4-DQPSK, Mid Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-55.34 dBc	≤ -20 dBc	Pass	



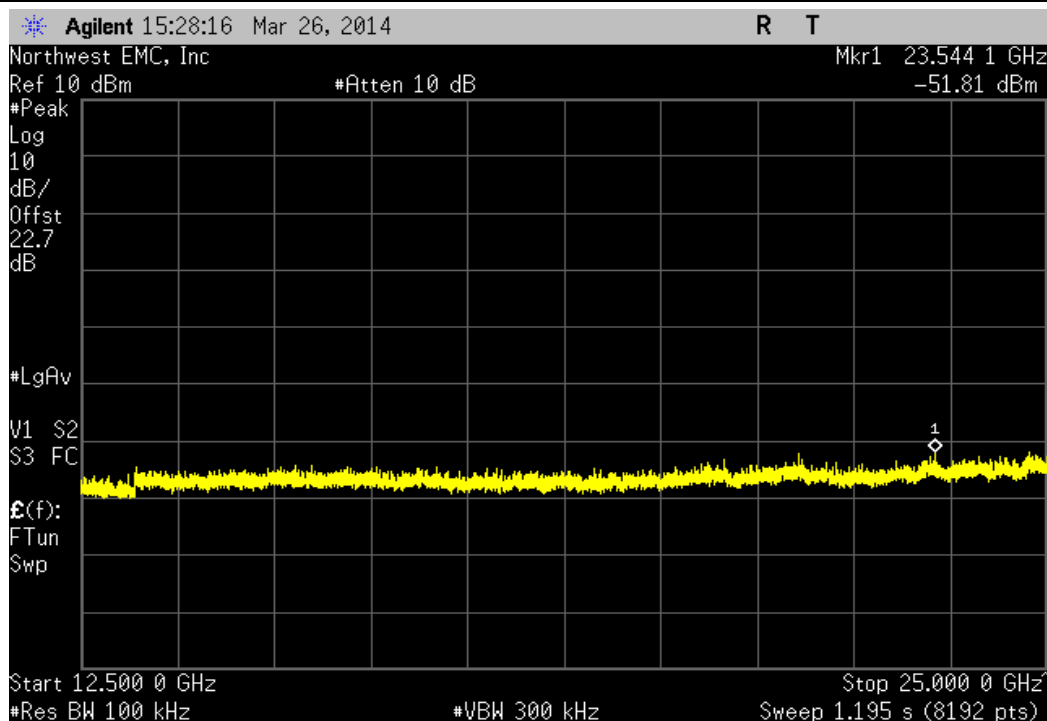
2DH5, pi/4-DQPSK, Mid Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-52.26 dBc	≤ -20 dBc	Pass	



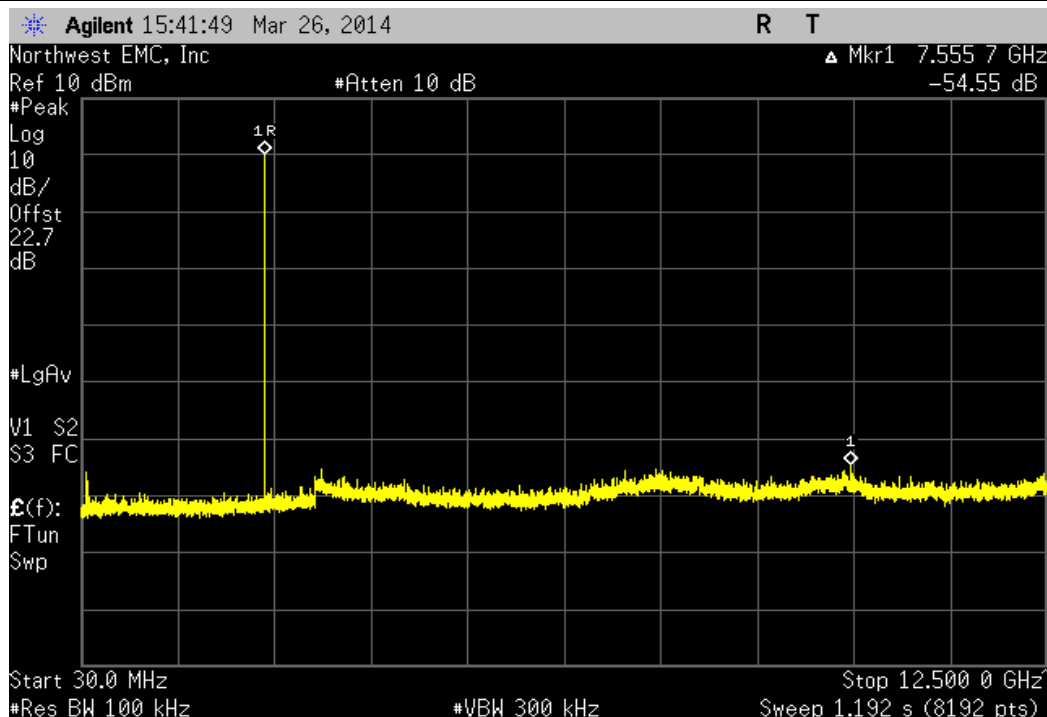
2DH5, pi/4-DQPSK, High Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-54.58 dBc	≤ -20 dBc	Pass	



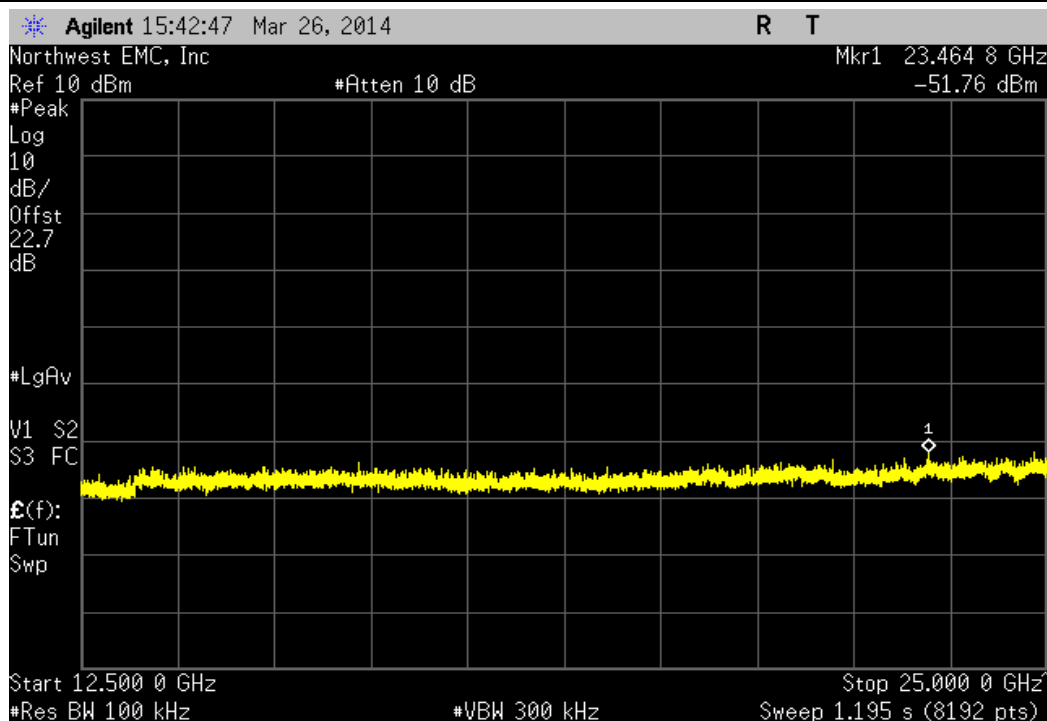
2DH5, pi/4-DQPSK, High Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-51.03 dBc	≤ -20 dBc	Pass	



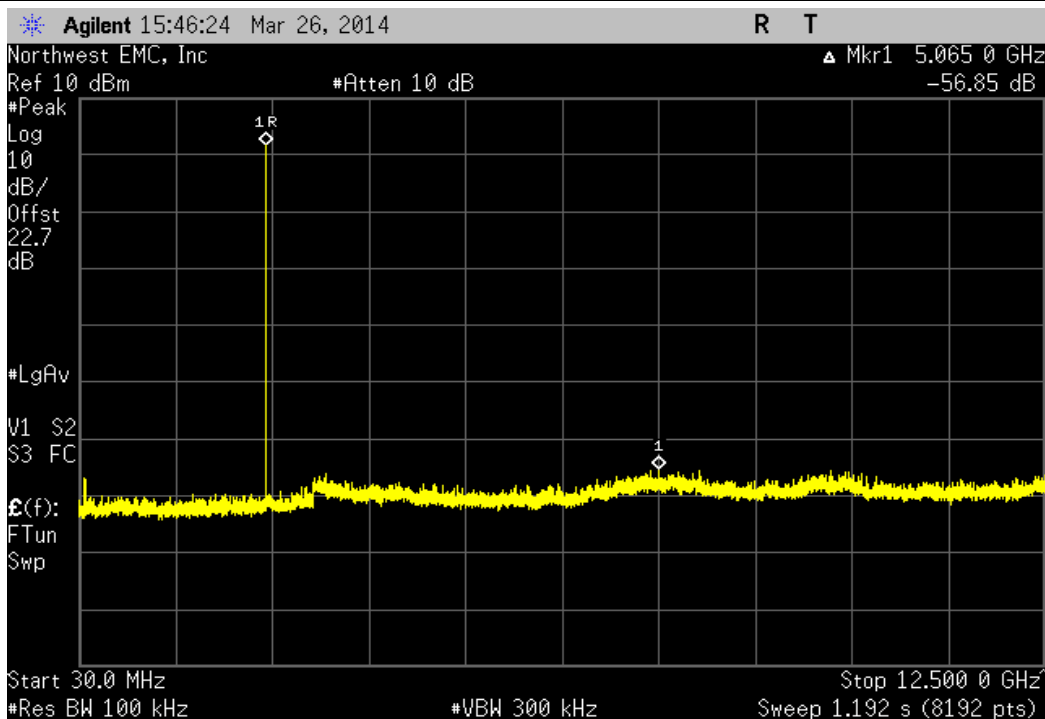
3DH5, 8-DPSK, Low Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-54.55 dBc	≤ -20 dBc	Pass	



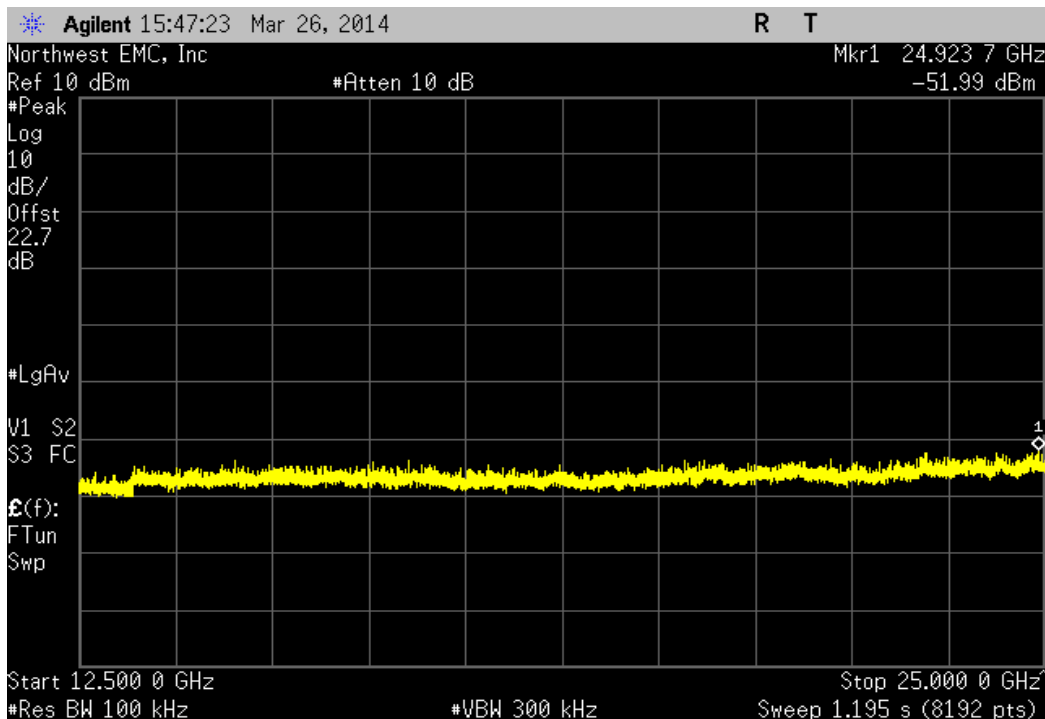
3DH5, 8-DPSK, Low Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-51.79 dBc	≤ -20 dBc	Pass	



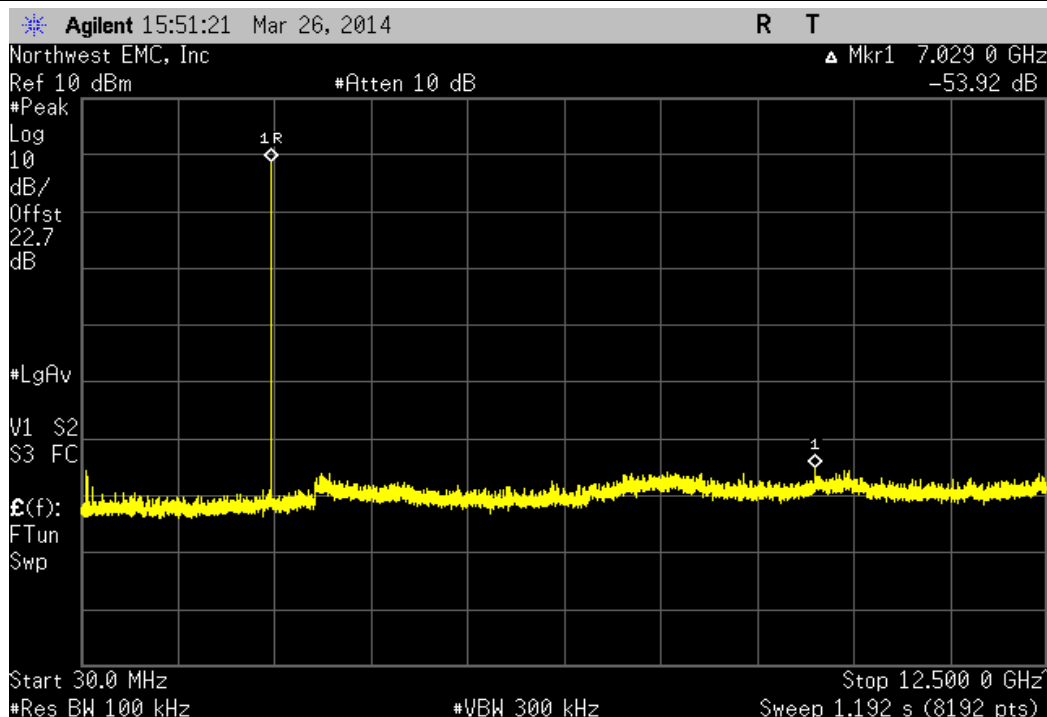
3DH5, 8-DPSK, Mid Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-56.85 dBc	≤ -20 dBc	Pass	



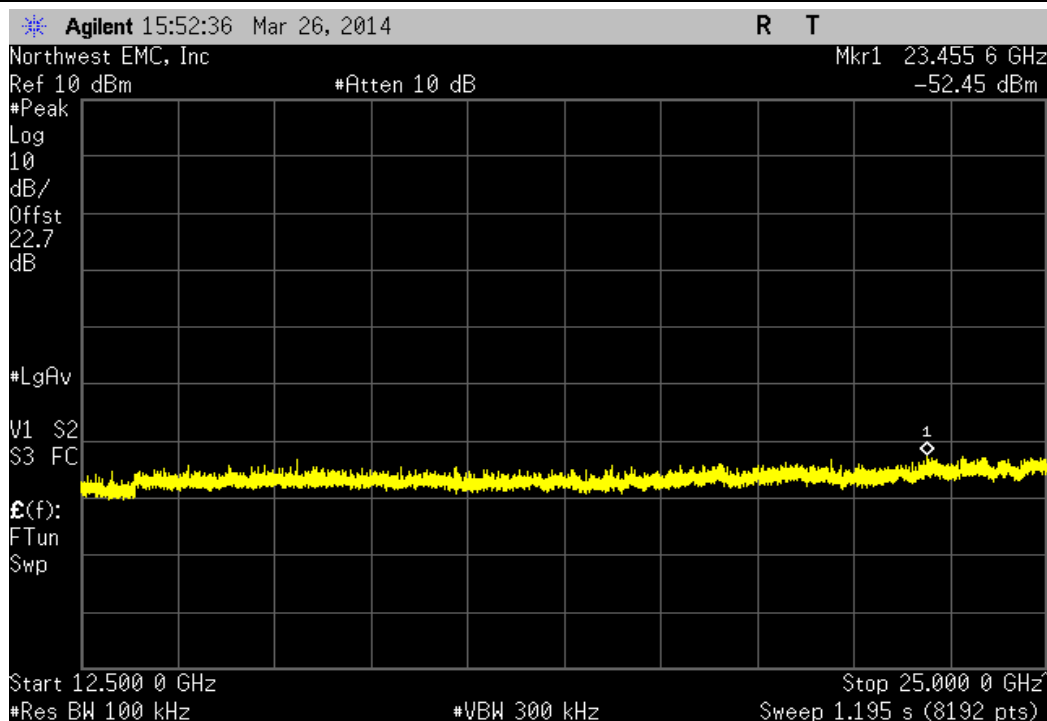
3DH5, 8-DPSK, Mid Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-53.64 dBc	≤ -20 dBc	Pass	



3DH5, 8-DPSK, High Channel				
Frequency Range	Value	Limit	Result	
30 MHz - 12.5 GHz	-53.92 dBc	≤ -20 dBc	Pass	



3DH5, 8-DPSK, High Channel				
Frequency Range	Value	Limit	Result	
12.5 GHz - 25 GHz	-51.27 dBc	≤ -20 dBc	Pass	



BAND EDGE COMPLIANCE

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
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to low 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 the data rate(s) listed in the datasheet in a no hop mode. The channels closest to the band edges were selected.

The spectrum was scanned below the lower band edge and above the higher band edge.



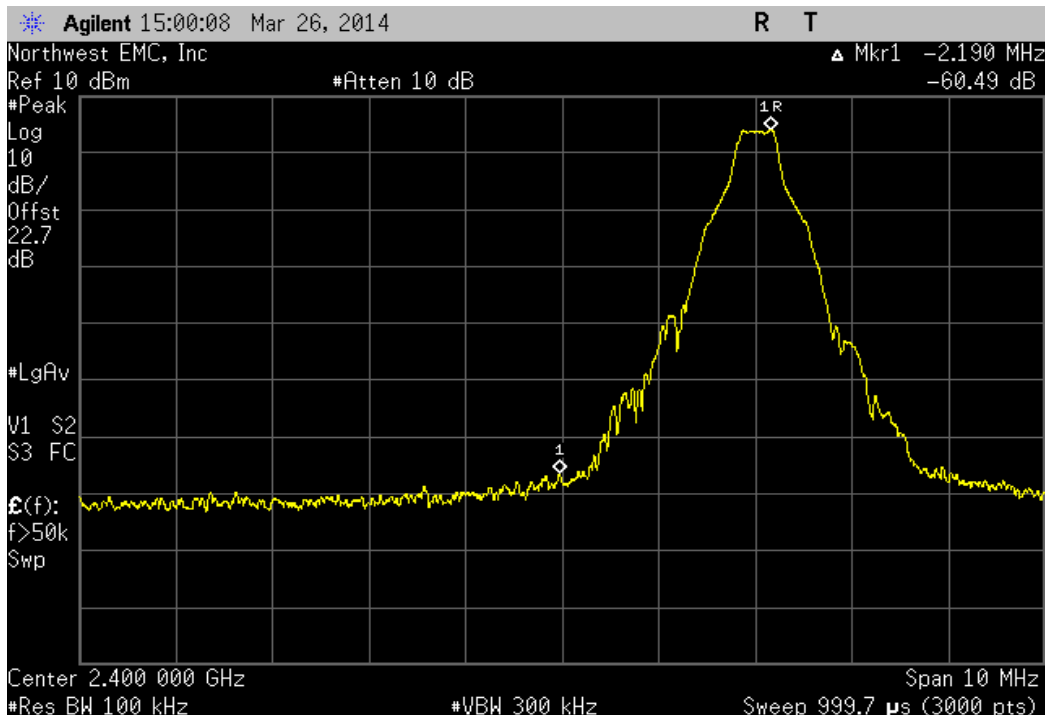
BAND EDGE COMPLIANCE

XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431	
Serial Number: EZF83450005Z		Date: 03/26/14	
Customer: Intel Corporation		Temperature: 21.7°C	
Attendees: None		Humidity: 39%	
Project: GQ110		Barometric Pres.: 1001.8	
Tested by: Jared Ison		Power: 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS			
FCC 15.247:2014		Test Method	
		ANSI C63.10:2009	
COMMENTS			
Mode of operation tested were client provided.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit
DH5, GFSK			Result
Low Channel		-60.49 dBc	≤ -20 dBc
High Channel		-61.91 dBc	≤ -20 dBc
2DH5, pi/4-DQPSK			Result
Low Channel		-57.34 dBc	≤ -20 dBc
High Channel		-57.95 dBc	≤ -20 dBc
3DH5, 8-DPSK			Result
Low Channel		-58.1 dBc	≤ -20 dBc
High Channel		-57.88 dBc	≤ -20 dBc

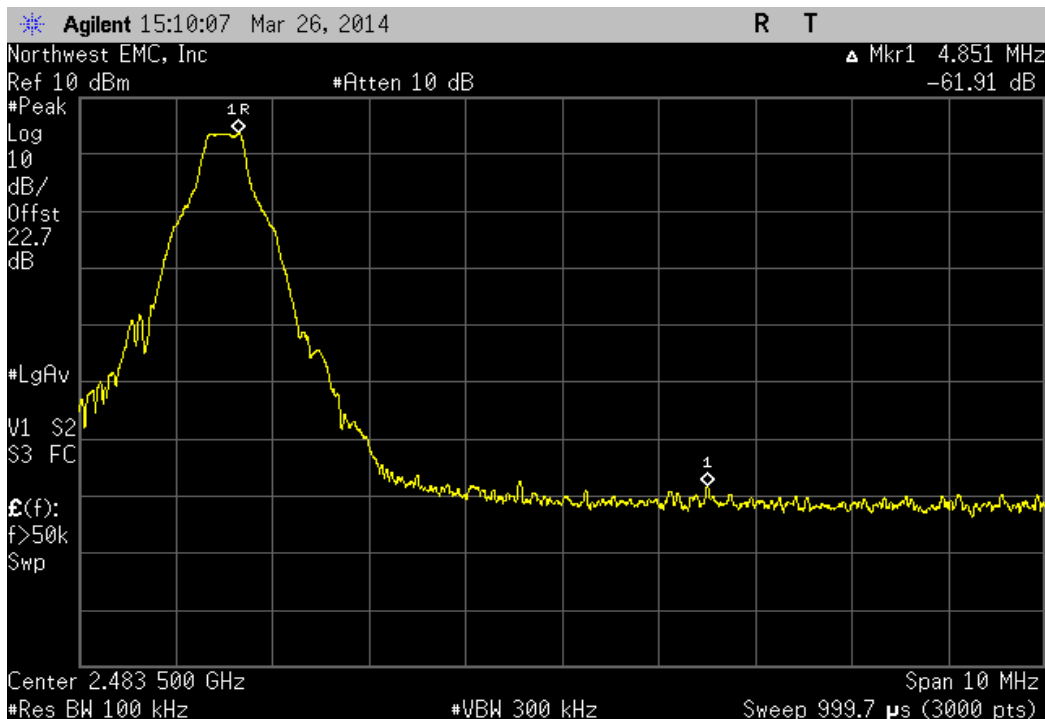
DH5, GFSK, Low Channel

	Value	Limit	Result
	-60.49 dBc	≤ -20 dBc	Pass



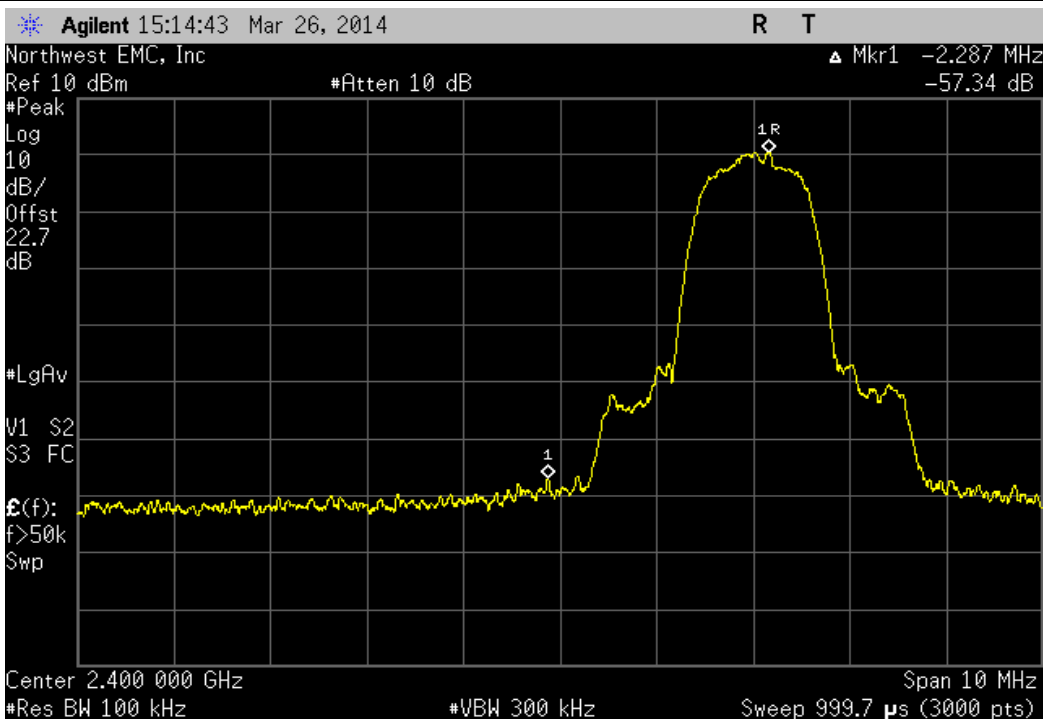
DH5, GFSK, High Channel

	Value	Limit	Result
	-61.91 dBc	≤ -20 dBc	Pass



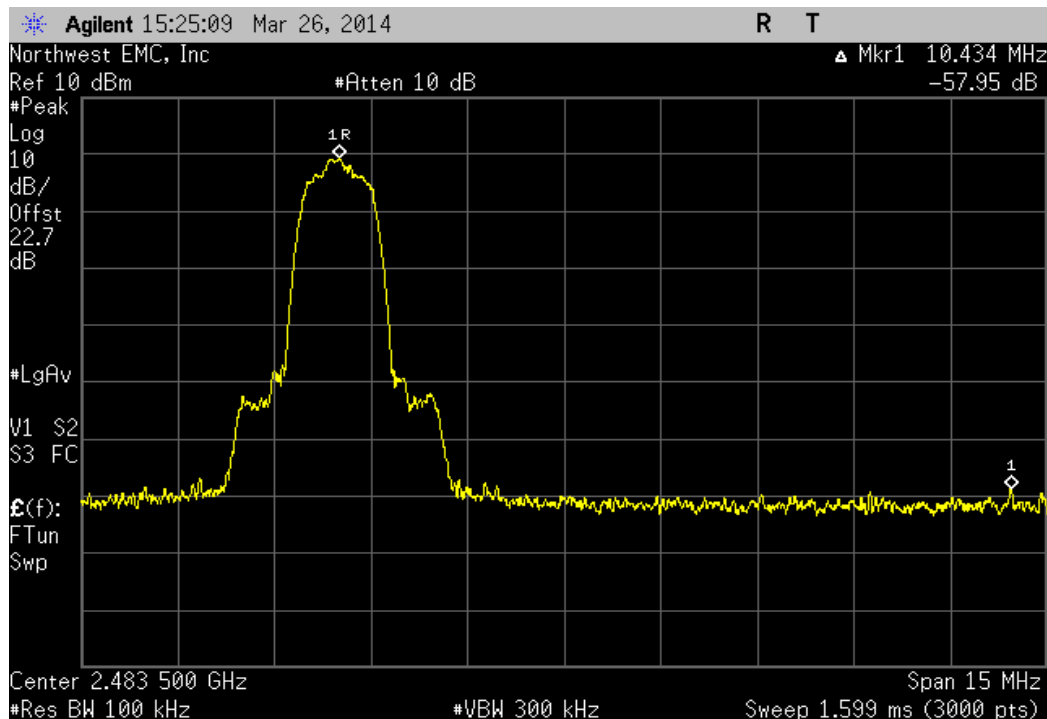
2DH5, pi/4-DQPSK, Low Channel

Value	Limit	Result
-57.34 dBc	≤ -20 dBc	Pass



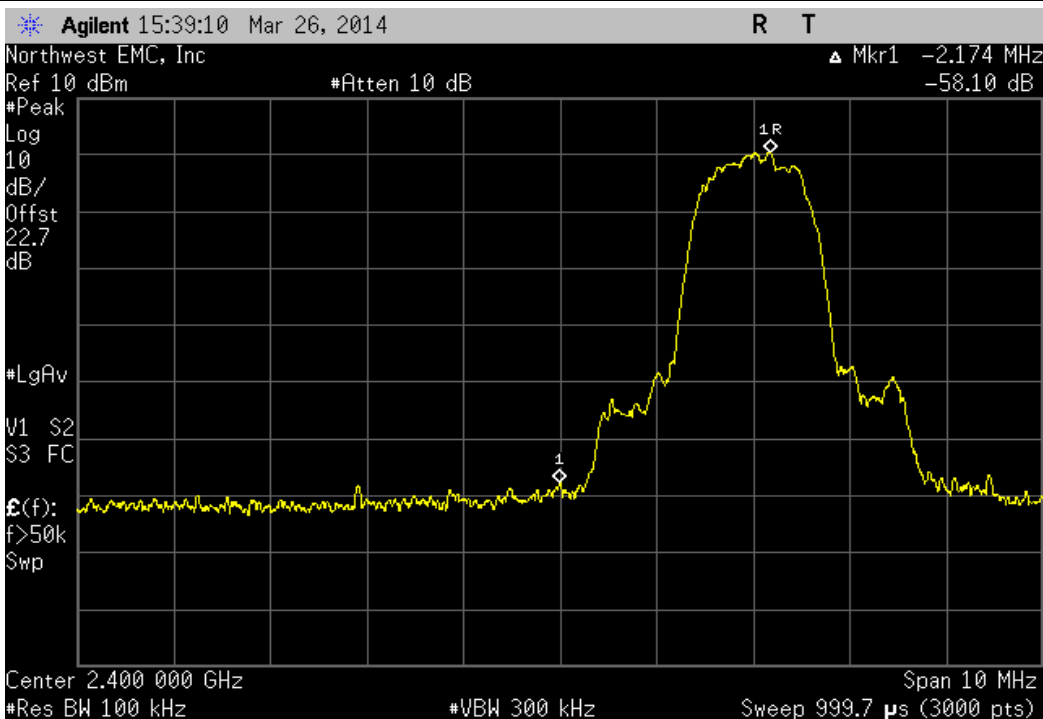
2DH5, pi/4-DQPSK, High Channel

Value	Limit	Result
-57.95 dBc	≤ -20 dBc	Pass



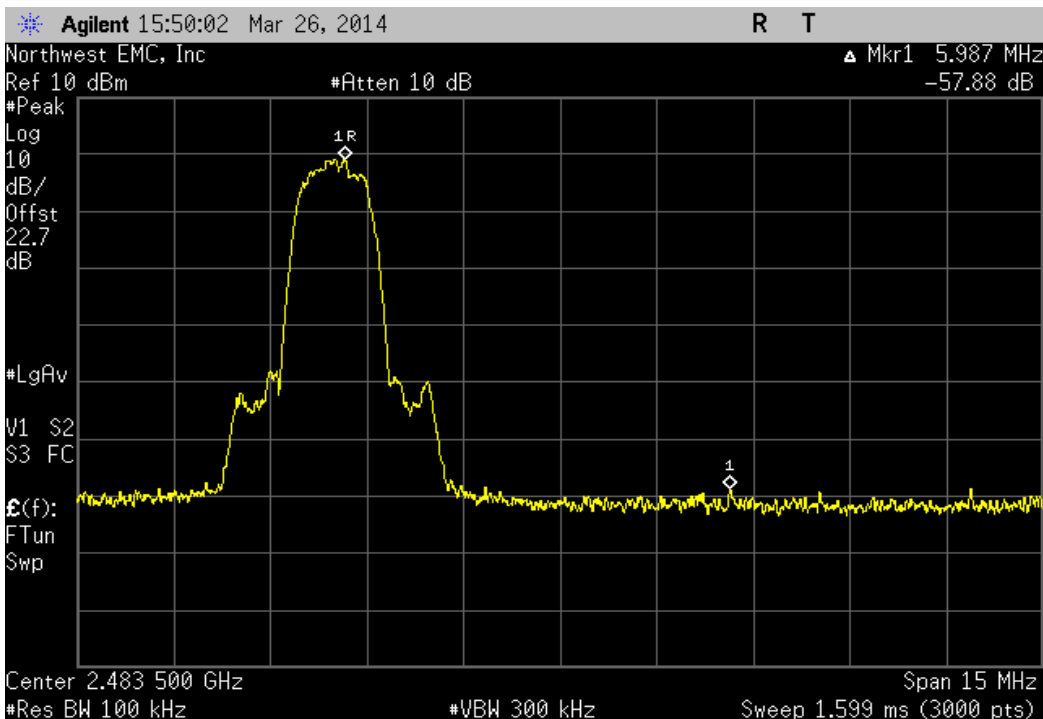
3DH5, 8-DPSK, Low Channel

	Value	Limit	Result
	-58.1 dBc	≤ -20 dBc	Pass



3DH5, 8-DPSK, High Channel

	Value	Limit	Result
	-57.88 dBc	≤ -20 dBc	Pass



BAND EDGE COMPLIANCE

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
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to its normal pseudo-random hopping sequence. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.



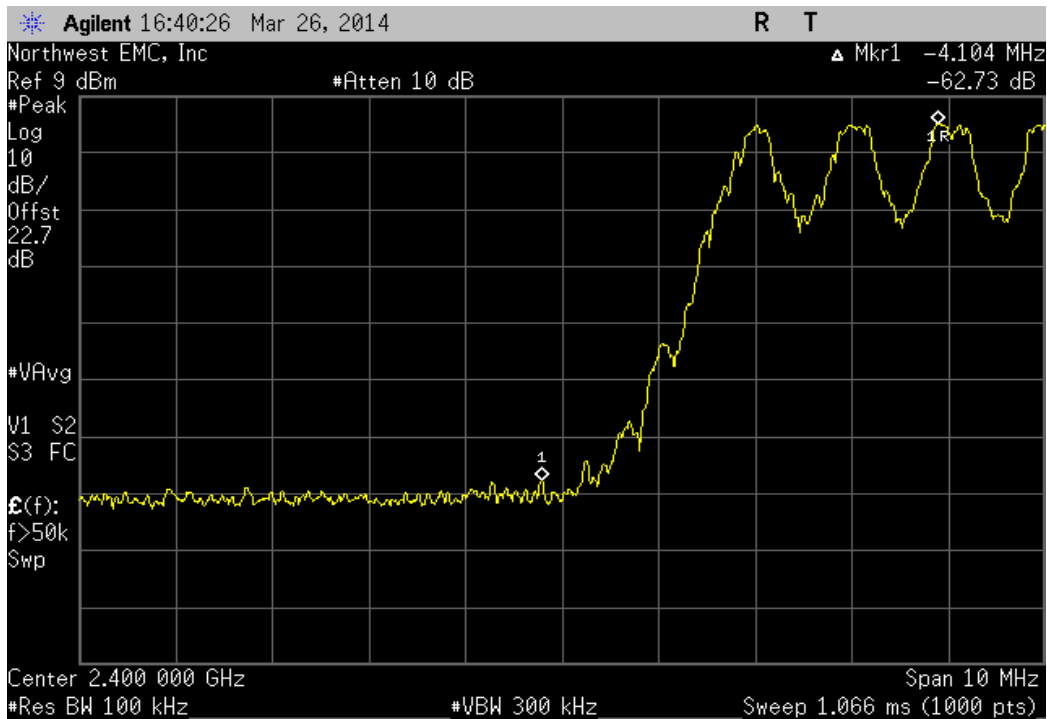
BAND EDGE COMPLIANCE

XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431	
Serial Number: EZF83450005Z		Date: 03/26/14	
Customer: Intel Corporation		Temperature: 21.7°C	
Attendees: None		Humidity: 39%	
Project: GQ110		Barometric Pres.: 1001.8	
Tested by: Jared Ison		Power: 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
EUT was set in hopping mode.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit
Hopping Mode			Result
DH5, GFSK			
Low Channel, 2402 MHz		-62.73 dBc	≤ -20 dBc
High Channel, 2480 MHz		-63.93 dBc	≤ -20 dBc
2DH5, pi/4-DQPSK			
Low Channel, 2402 MHz		-59.43 dBc	≤ -20 dBc
High Channel, 2480 MHz		-58.96 dBc	≤ -20 dBc
3DH5, 8-DPSK			
Low Channel, 2402 MHz		-58.96 dBc	≤ -20 dBc
High Channel, 2480 MHz		-58.02 dBc	≤ -20 dBc

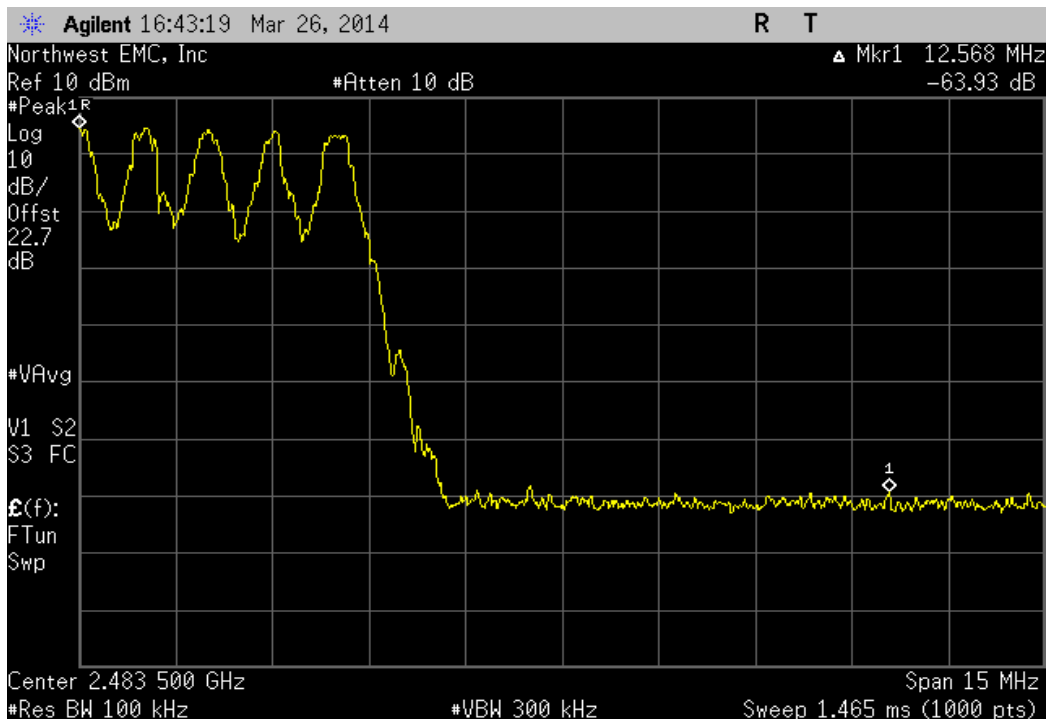
Hopping Mode, DH5, GFSK, Low Channel, 2402 MHz

Value	Limit	Result
-62.73 dBc	≤ -20 dBc	Pass



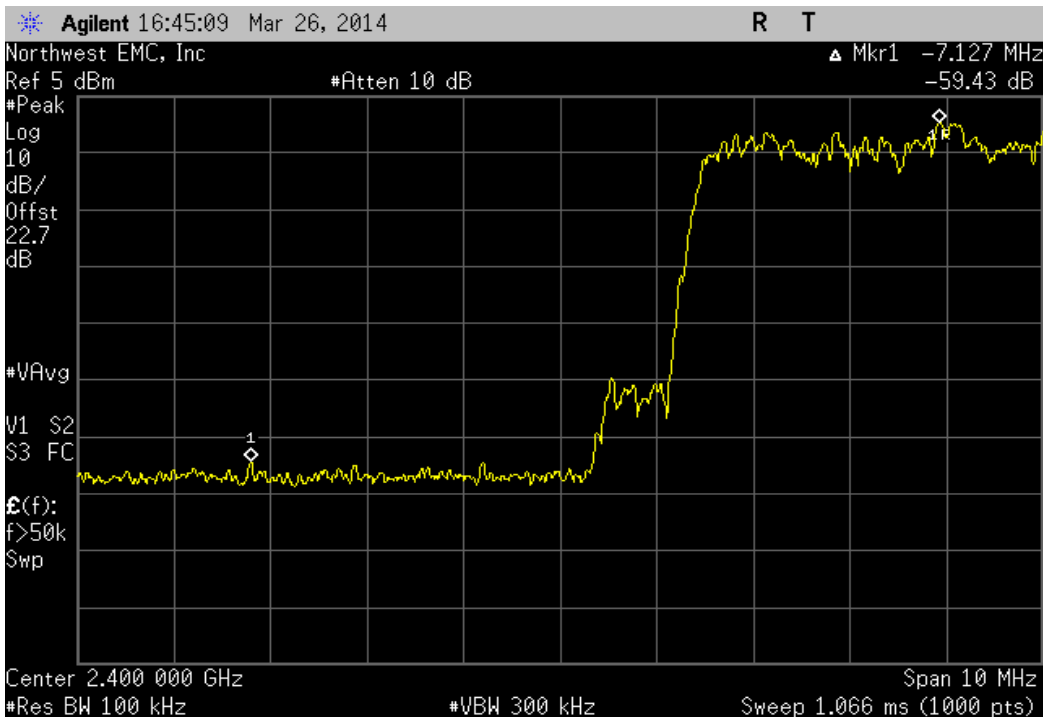
Hopping Mode, DH5, GFSK, High Channel, 2480 MHz

Value	Limit	Result
-63.93 dBc	≤ -20 dBc	Pass



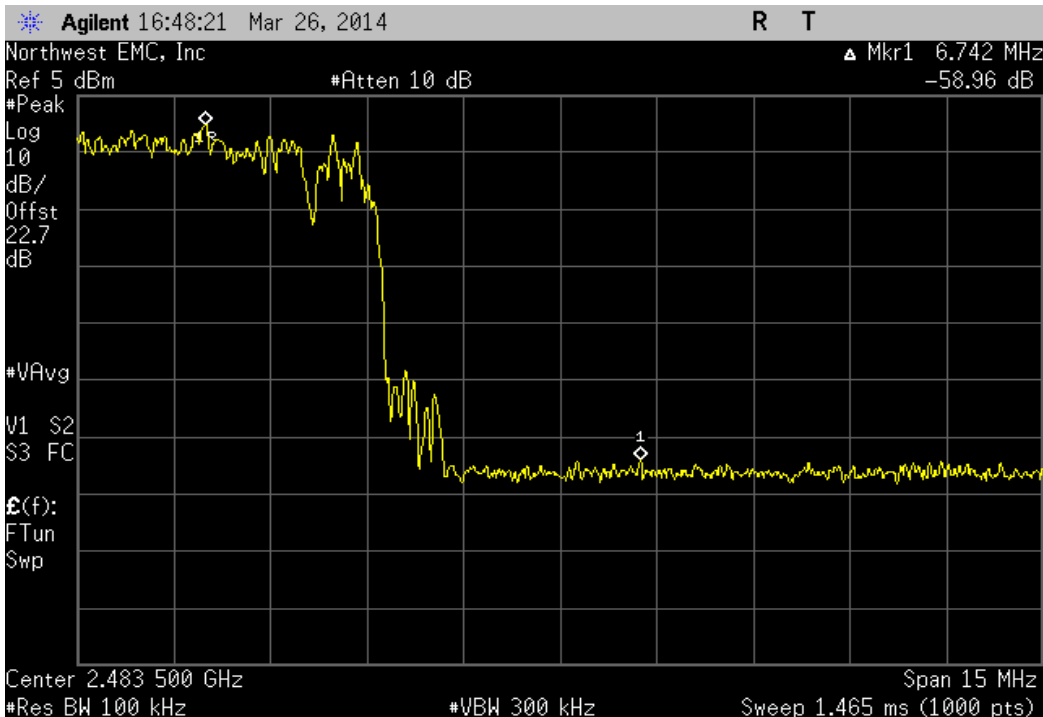
Hopping Mode, 2DH5, pi/4-DQPSK, Low Channel, 2402 MHz

Value	Limit	Result
-59.43 dBc	≤ -20 dBc	Pass



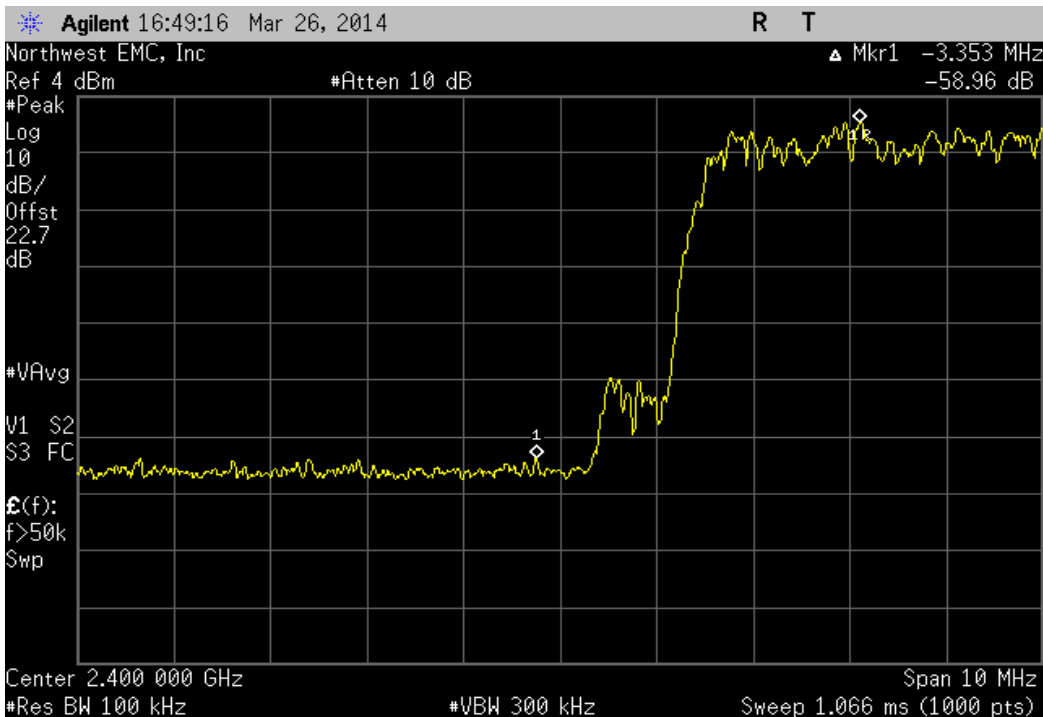
Hopping Mode, 2DH5, pi/4-DQPSK, High Channel, 2480 MHz

Value	Limit	Result
-58.96 dBc	≤ -20 dBc	Pass



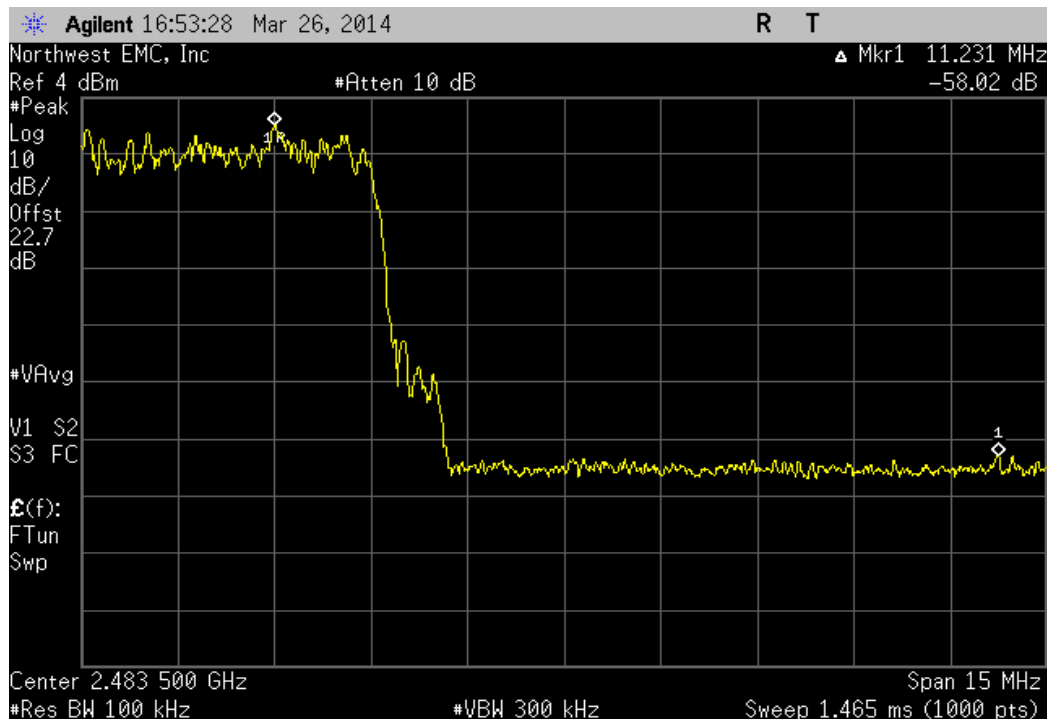
Hopping Mode, 3DH5, 8-DPSK, Low Channel, 2402 MHz

Value	Limit	Result
-58.96 dBc	≤ -20 dBc	Pass



Hopping Mode, 3DH5, 8-DPSK, High Channel, 2480 MHz

Value	Limit	Result
-58.02 dBc	≤ -20 dBc	Pass



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
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

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.



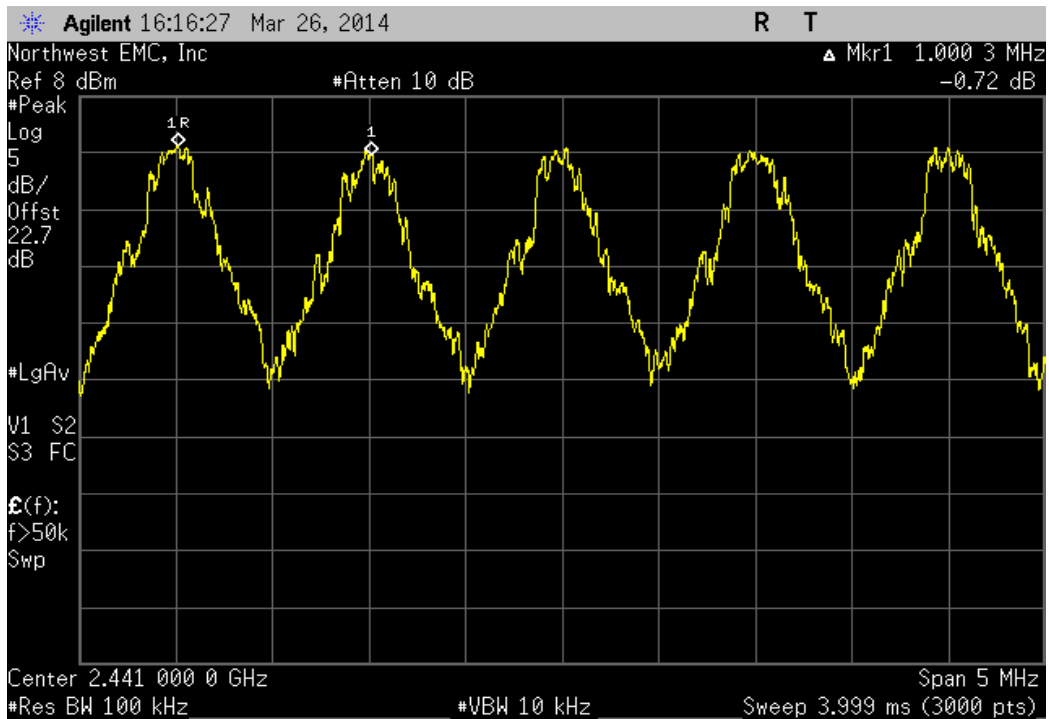
CHANNEL SPACING

XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431	
Serial Number: EZF83450005Z		Date: 03/26/14	
Customer: Intel Corporation		Temperature: 21.7°C	
Attendees: None		Humidity: 39%	
Project: GQ110		Barometric Pres.: 1001.8	
Tested by: Jared Ison		Power: 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS			
FCC 15.247:2014		Test Method	
		ANSI C63.10:2009	
COMMENTS			
EUT was set in hopping mode.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit
Hopping Mode			Result
DH5, GFSK			
Mid Channel, 2441 MHz		1.0 MHz	≥ 1 MHz
			Pass

Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz

Value	Limit	Result
1.0 MHz	≥ 1 MHz	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
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

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.

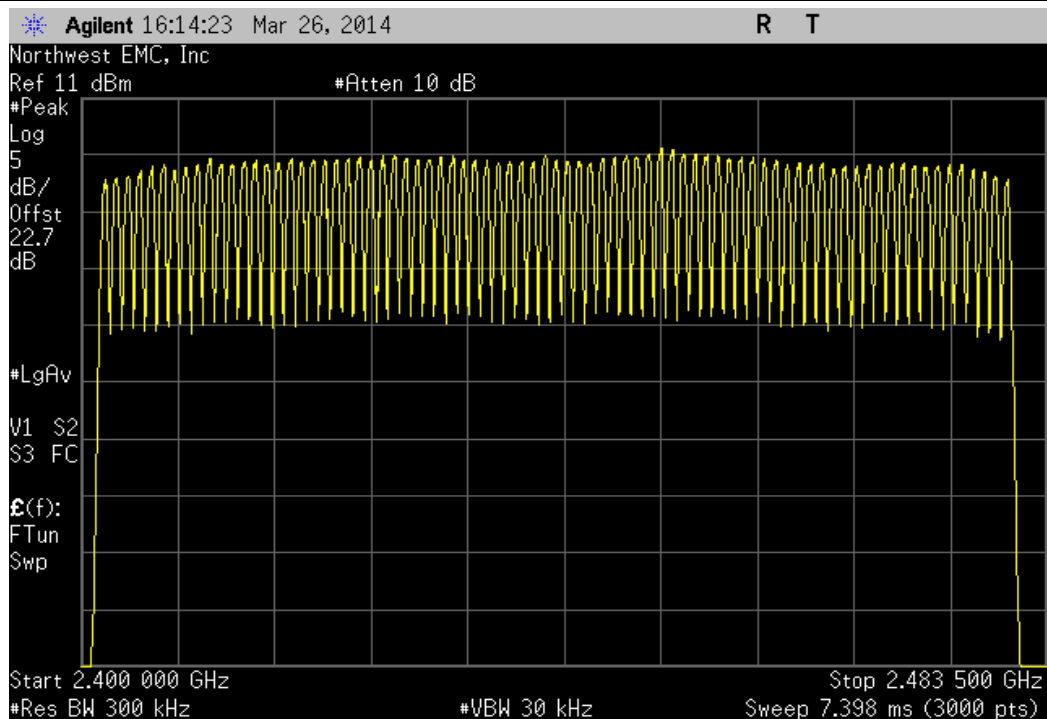


NUMBER OF HOPPING FREQUENCIES

XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431	
Serial Number: EZF83450005Z		Date: 03/26/14	
Customer: Intel Corporation		Temperature: 21.7°C	
Attendees: None		Humidity: 39%	
Project: GQ110		Barometric Pres.: 1001.8	
Tested by: Jared Ison		Power: 110VAC/60Hz	
		Job Site: EV06	
TEST SPECIFICATIONS		Test Method	
FCC 15.247:2014		ANSI C63.10:2009	
COMMENTS			
EUT was set in hopping mode.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Number of Channels	Limit
Hopping Mode			Result
DH5, GFSK			
Mid Channel, 2441 MHz		79	≥ 15
			Pass

Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
				Number of Channels	Limit	Result
				79	≥ 15	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
40GHz DC Block	Miteq	DCB4000	AMD	5/16/2013	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/30/2013	12
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6dB	S.M. Electronics	18N-06	AWN	2/3/2014	12
RF Vector Signal Generator	Agilent	V2920A	TIH	NCR	0
Power Meter	Gigatronics	8651A	SPM	11/26/2013	24
Power Sensor	Gigatronics	80701A	SPL	7/8/2011	36
Spectrum Analyzer	Agilent	E4440	AFE	11/4/2013	24

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.

The dwell time limit is based on the Number of Hopping Channels * 400 mS. For Bluetooth this would be 79 Channels * 400mS = 31.6 Sec.

On Time During 31.6 Sec = Pulse Width * Average Number of Pulses * Scale Factor

➤ Average Number of Pulses is based on 4 samples.

➤ Scale Factor = 31.6 Sec / Screen Capture Sweep Time = 31.6 Sec / 6.32 Sec = 5

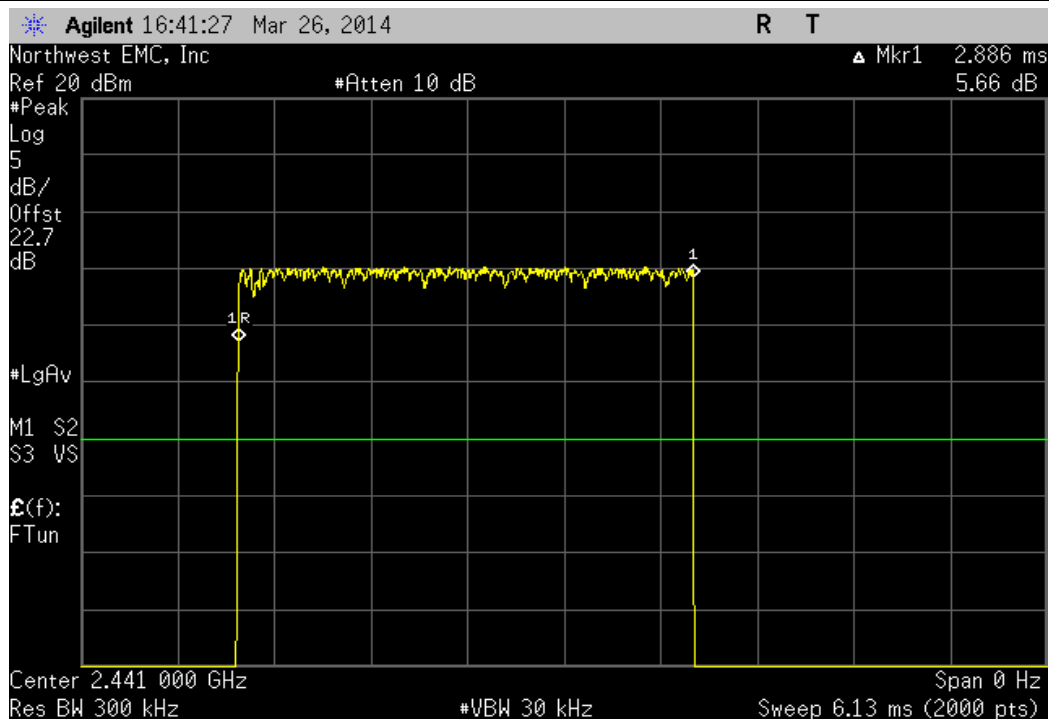


DWELL TIME

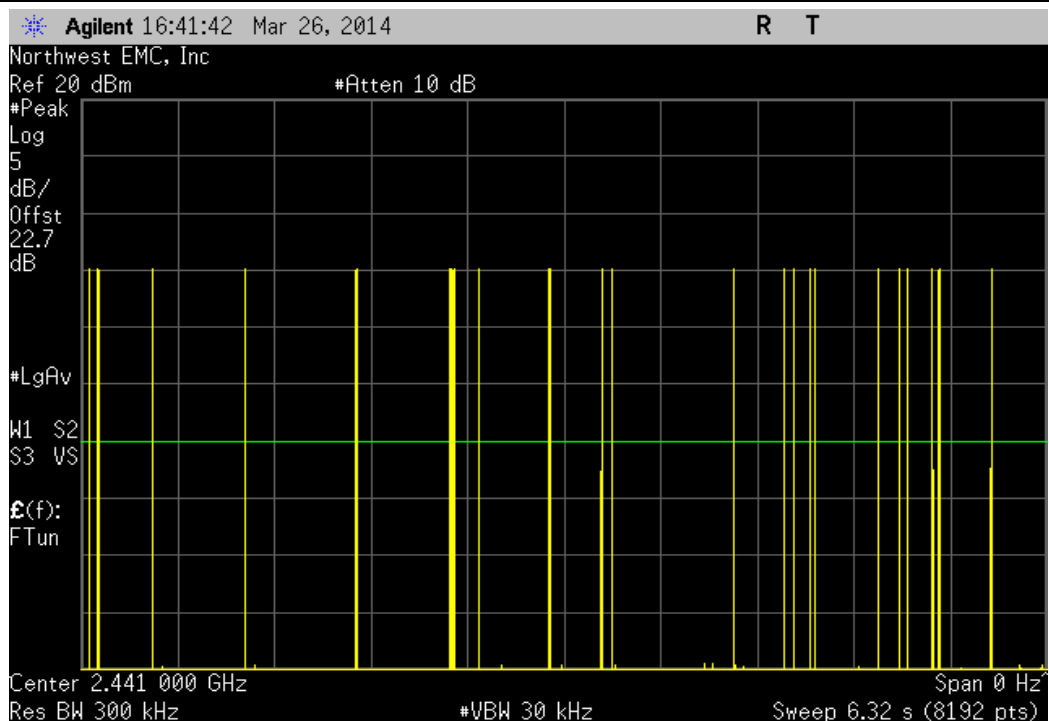
XMit 2013.08.15
PsaTx 2013.10.23

EUT: GQ110		Work Order: INTE5431						
Serial Number: EZF83450005Z		Date: 03/26/14						
Customer: Intel Corporation		Temperature: 21.7°C						
Attendees: None		Humidity: 39%						
Project: GQ110		Barometric Pres.: 1001.8						
Tested by: Jared Ison		Power: 110VAC/60Hz						
		Job Site: EV06						
TEST SPECIFICATIONS		Test Method						
FCC 15.247:2014		ANSI C63.10:2009						
COMMENTS								
EUT was set in hopping mode.								
DEVIATIONS FROM TEST STANDARD								
None								
Configuration #	1	Signature 						
		Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
Hopping Mode								
DH5, GFSK								
	Mid Channel, 2441 MHz	2.886	N/A	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	22	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	15	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	26	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	27	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	2.886	N/A	22.5	5	324.68	400	Pass
2DH5, pi/4-DQPSK								
	Mid Channel, 2441 MHz	2.889	N/A	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	21	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	23	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	21	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	27	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	2.889	N/A	23	5	332.23	400	Pass
3DH5, 8-DPSK								
	Mid Channel, 2441 MHz	2.889	N/A	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	14	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	23	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	22	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	N/A	26	N/A	N/A	N/A	N/A	N/A
	Mid Channel, 2441 MHz	2.889	N/A	21.25	5	306.96	400	Pass

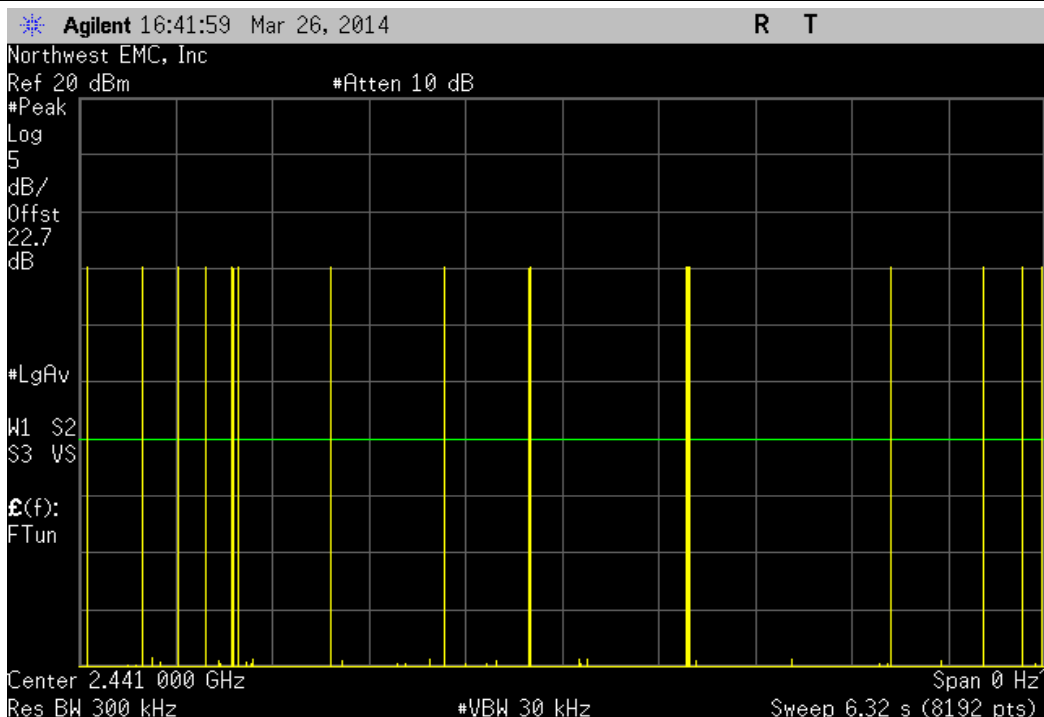
Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.886	N/A	N/A	N/A	N/A	N/A	N/A



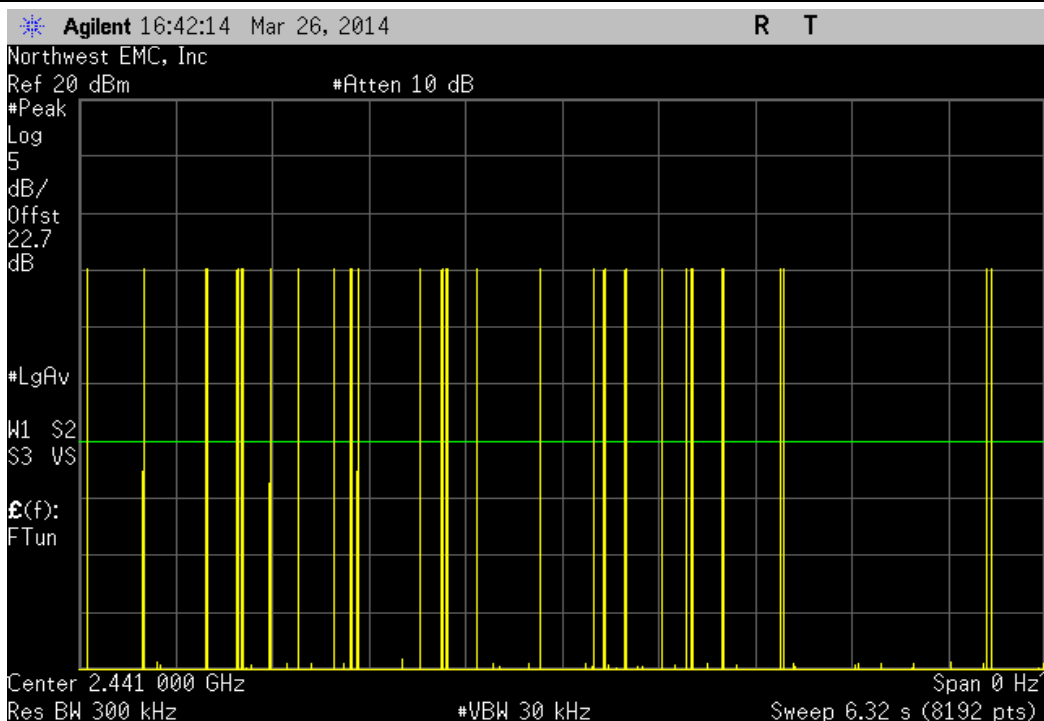
Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	22	N/A	N/A	N/A	N/A	N/A



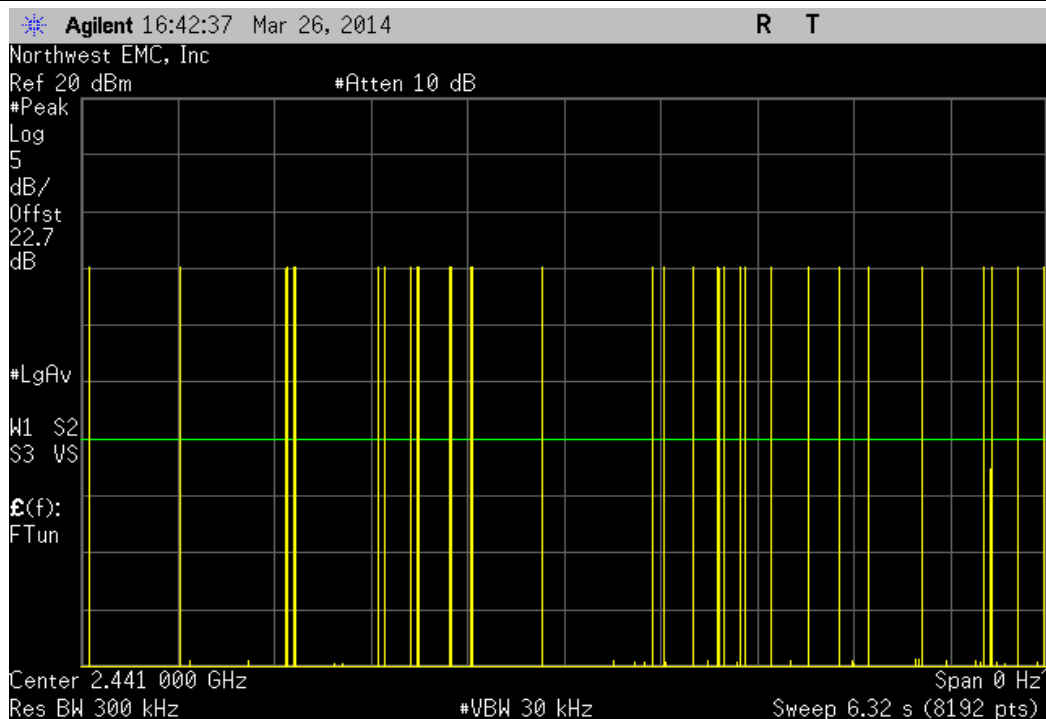
Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	15	N/A	N/A	N/A	N/A	N/A



Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	26	N/A	N/A	N/A	N/A	N/A



Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	27	N/A	N/A	N/A	N/A	N/A

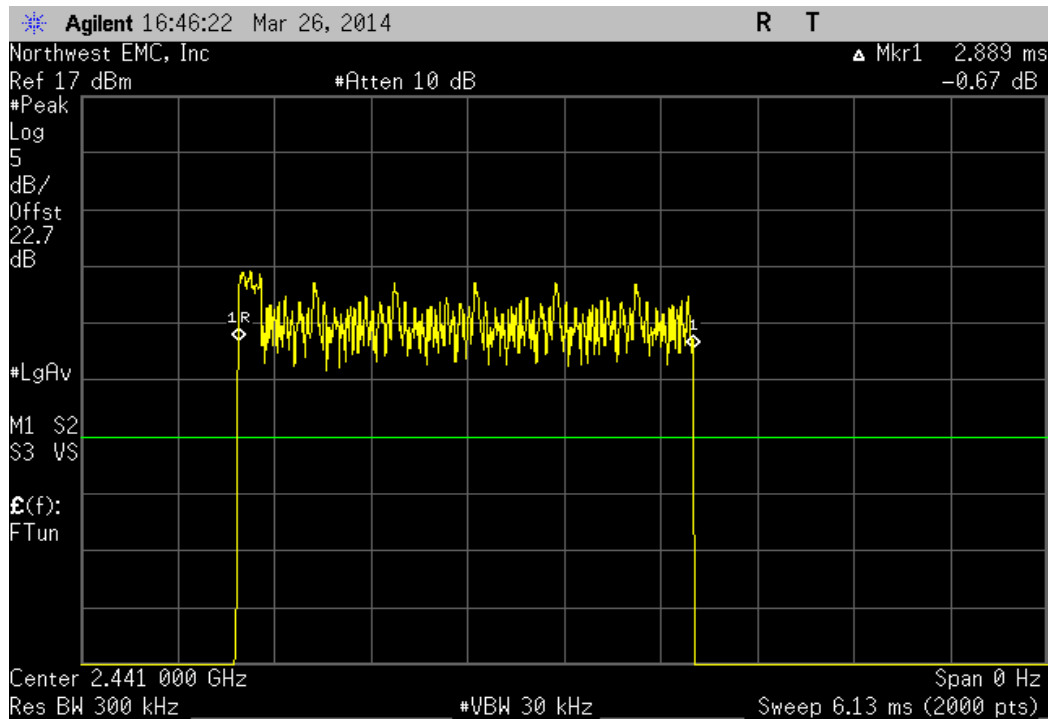


Hopping Mode, DH5, GFSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.886	N/A	22.5	5	324.68	400	Pass

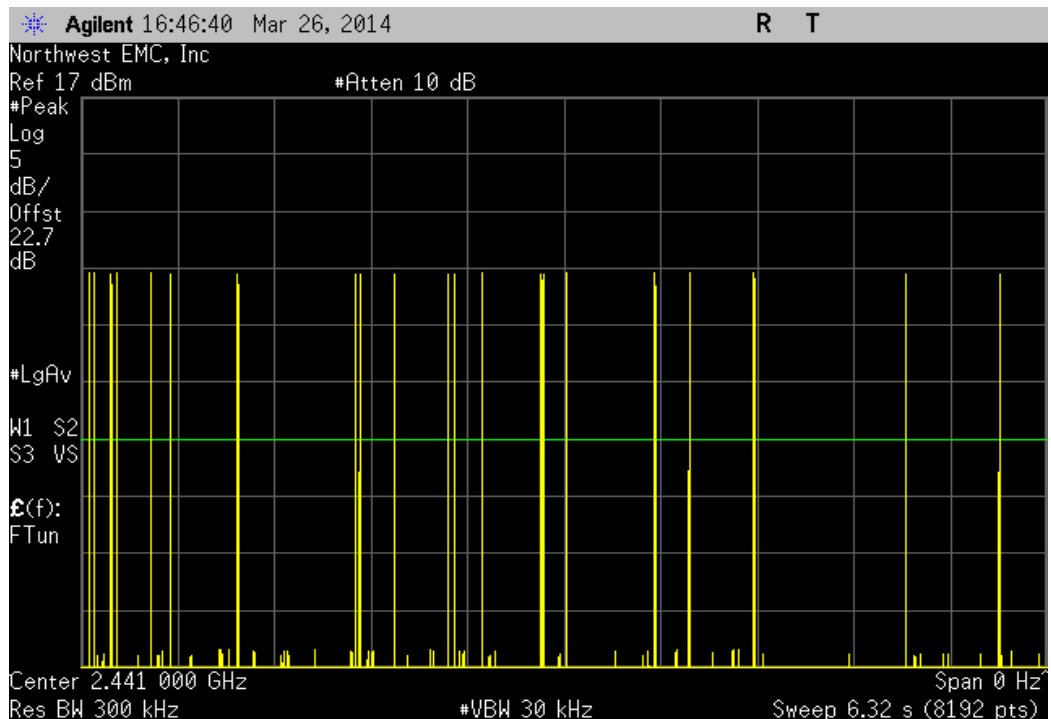
Calculation Only

No Screen Capture Required

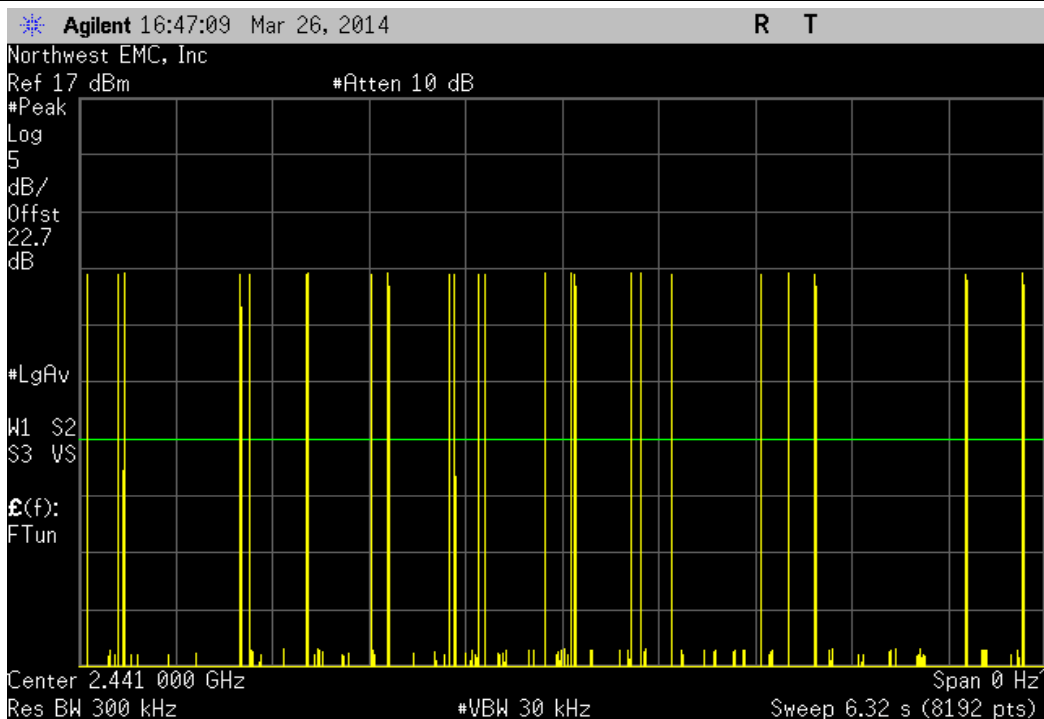
Hopping Mode, 2DH5, pi/4-DQPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.889	N/A	N/A	N/A	N/A	N/A	N/A



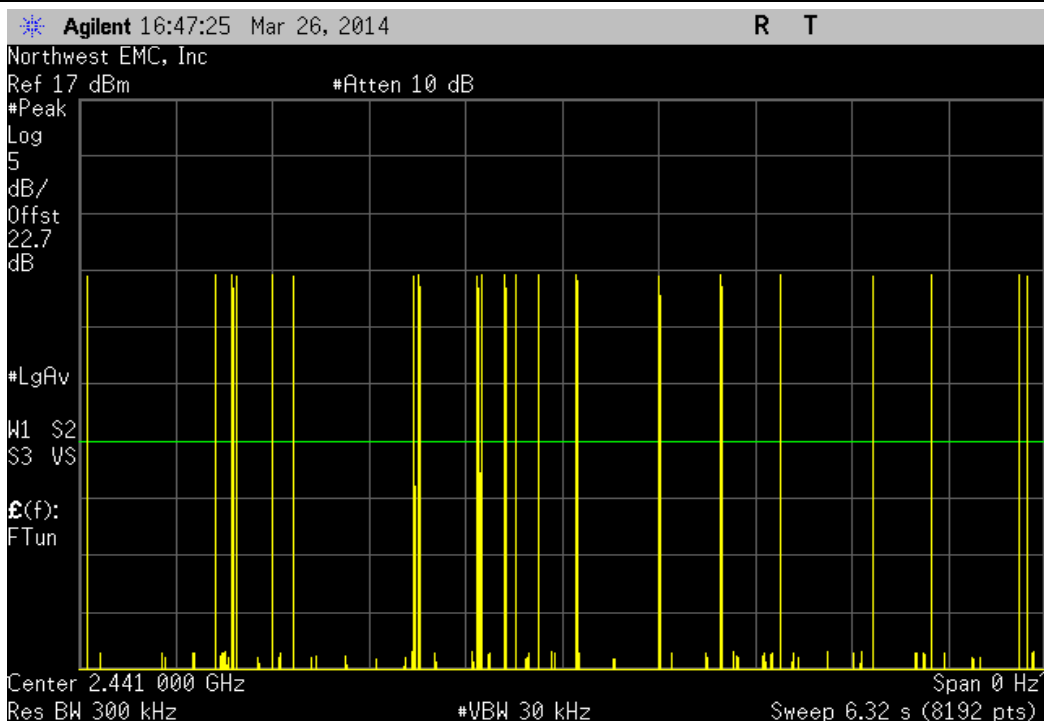
Hopping Mode, 2DH5, pi/4-DQPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	21	N/A	N/A	N/A	N/A	N/A



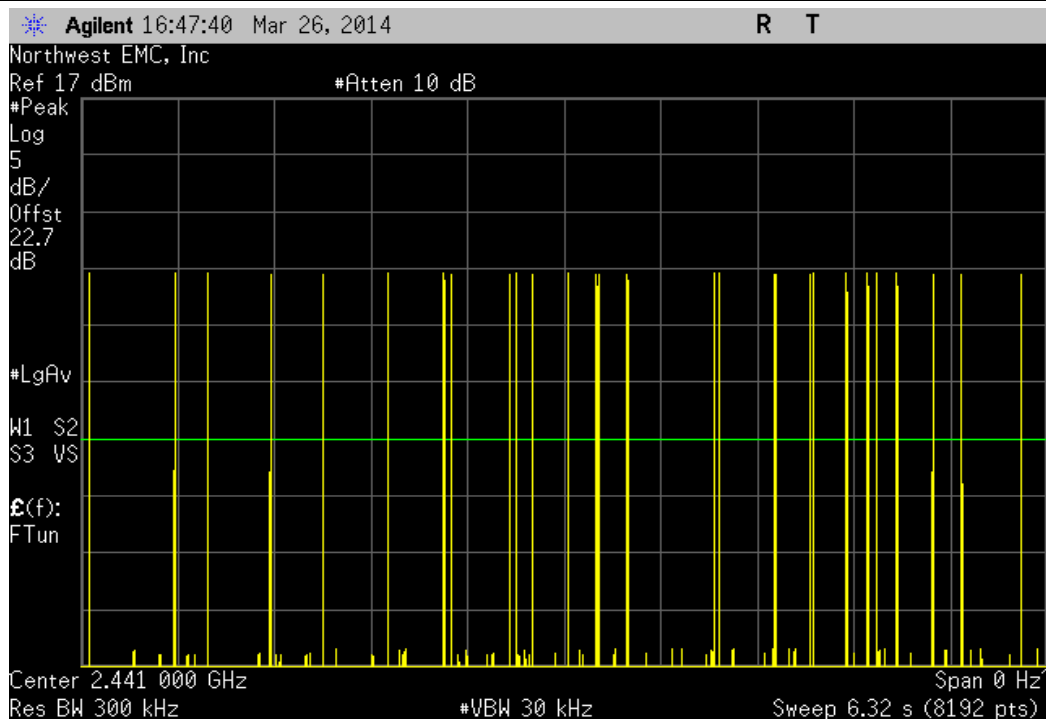
Hopping Mode, 2DH5, pi/4-DQPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	23	N/A	N/A	N/A	N/A	N/A



Hopping Mode, 2DH5, pi/4-DQPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	21	N/A	N/A	N/A	N/A	N/A



Hopping Mode, 2DH5, pi/4-DQPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	27	N/A	N/A	N/A	N/A	N/A

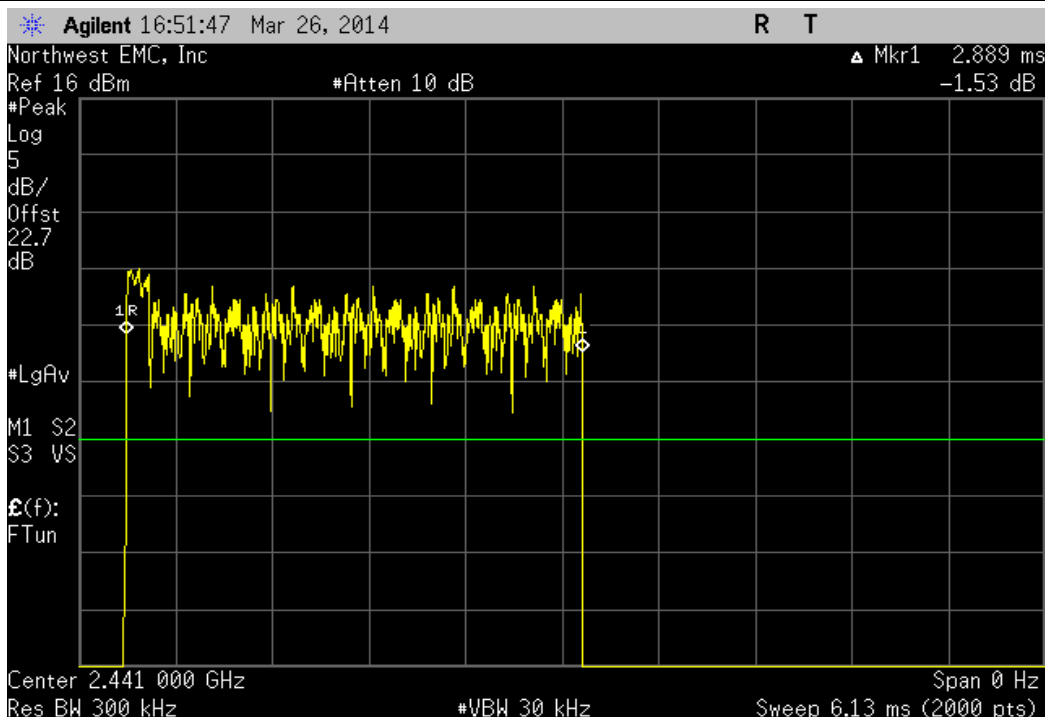


Hopping Mode, 2DH5, pi/4-DQPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.889	N/A	23	5	332.23	400	Pass

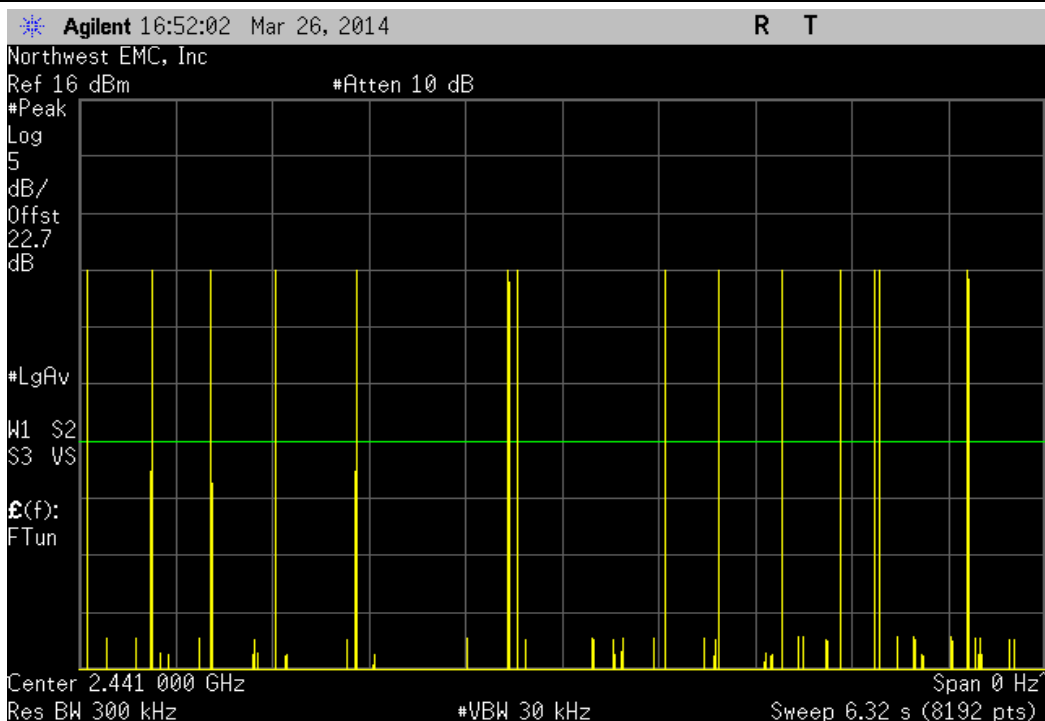
Calculation Only

No Screen Capture Required

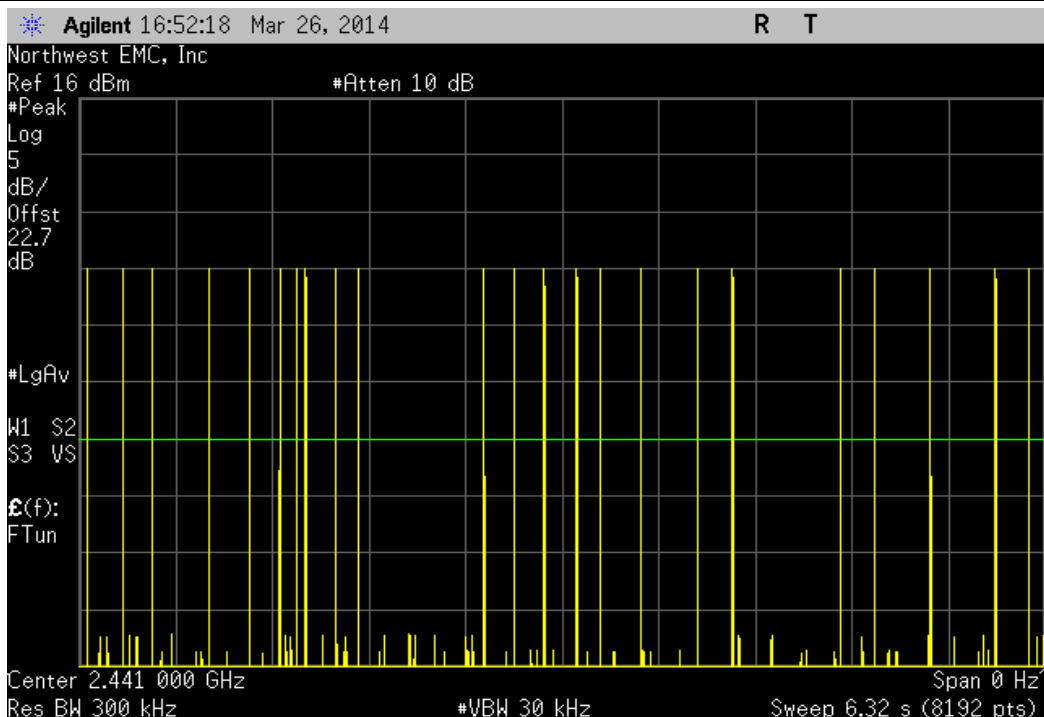
Hopping Mode, 3DH5, 8-DPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.889	N/A	N/A	N/A	N/A	N/A	N/A



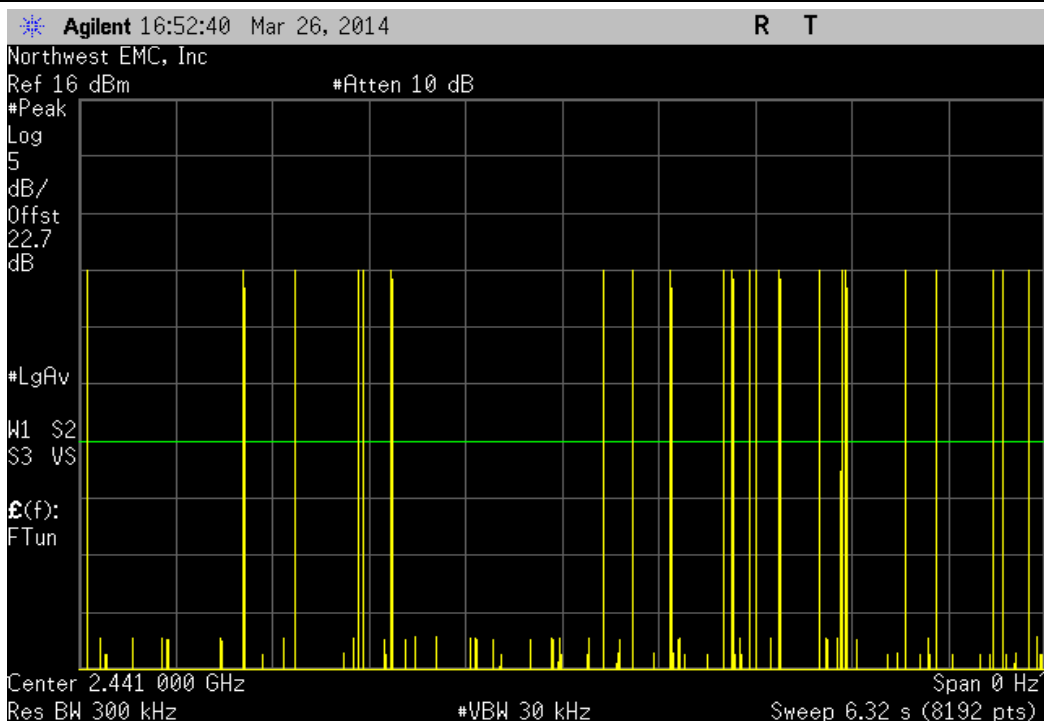
Hopping Mode, 3DH5, 8-DPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	14	N/A	N/A	N/A	N/A	N/A



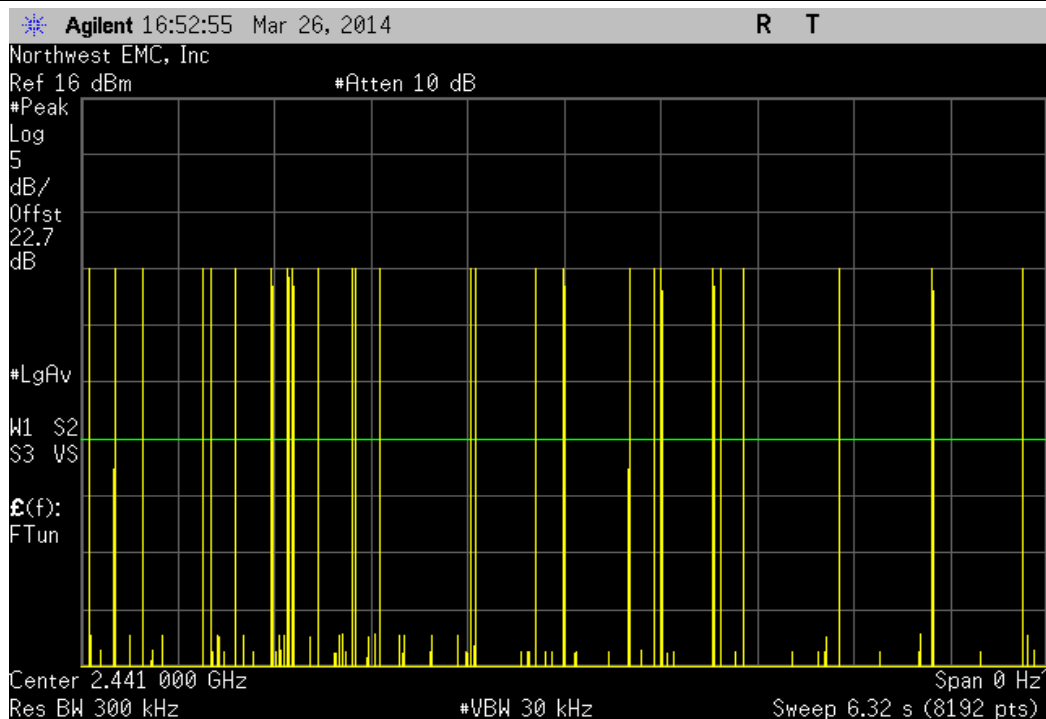
Hopping Mode, 3DH5, 8-DPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	23	N/A	N/A	N/A	N/A	N/A



Hopping Mode, 3DH5, 8-DPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	22	N/A	N/A	N/A	N/A	N/A



Hopping Mode, 3DH5, 8-DPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
N/A	26	N/A	N/A	N/A	N/A	N/A



Hopping Mode, 3DH5, 8-DPSK, Mid Channel, 2441 MHz						
Pulse Width (mS)	Number of Pulses	Average No. of Pulses	Scale Factor	On Time (mS) During 31.6 S	Limit (mS)	Result
2.889	N/A	21.25	5	306.96	400	Pass

Calculation Only

No Screen Capture Required

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 EDR, DH5

Transmitting Bluetooth EDR, 2DH5

Transmitting Bluetooth EDR, 3DH5

CHANNELS TESTED

Low Channel, 2402 MHz

Mid Channel, 2441 MHz

High Channel, 2480 MHz

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

INTE5431 - 6

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 26000 MHz

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
OC Cable	ESM Cable Corp.	KMKM-72	OCV	6/24/2013	12 mo
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVR	6/24/2013	12 mo
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0 mo
Cable	ESM Cable Corp.	KMKM-72	EVY	9/10/2013	12 mo
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	9/10/2013	12 mo
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0 mo
EV01 Cables	N/A	Standard Gain Horns Cables	EVF	2/18/2014	12 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	2/18/2014	12 mo
Antenna, Horn	ETS	3160-08	AHV	NCR	0 mo
HP Filter	Micro-Tronics	HPM50111	HFO	7/6/2013	24 mo
Attenuator - 20dB, HF (1000MHz - 18000MHz)	Coaxicom	3910-20	AXZ	6/20/2013	12 mo
EV01 Cables	N/A	Double Ridge Horn Cables	EVB	2/18/2014	12 mo
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	2/18/2014	12 mo
Antenna, Horn	ETS	3115	AIZ	1/27/2014	36 mo
Spectrum Analyzer	Agilent	E4440A	AFD	7/5/2012	24 mo
LP Filter	Micro-Tronics	LPM50004	LFD	7/6/2012	24 mo
EV01 Cables	N/A	Bilog Cables	EVA	2/18/2014	12 mo
Pre-Amplifier	Miteq	AM-1616-1000	AOL	2/18/2014	12 mo
Antenna, Biconilog	EMCO	3141	AXG	4/10/2012	36 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

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. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

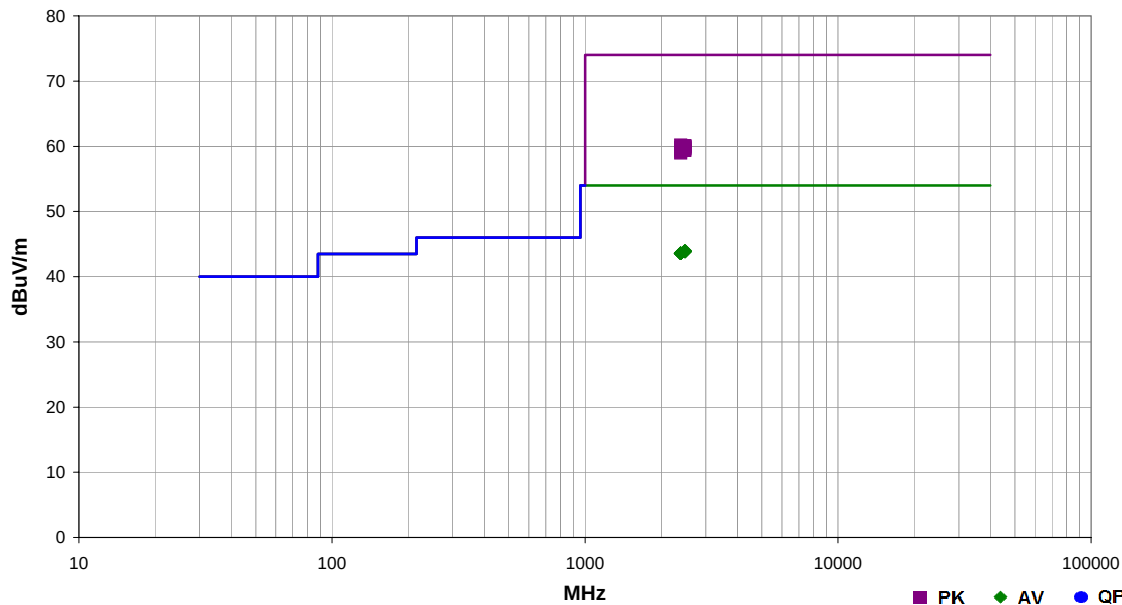


SPURIOUS RADIATED EMISSIONS

Work Order:	INTE5431	Date:	04/01/14	
Project:	GQ110	Temperature:	22 °C	
Job Site:	EV01	Humidity:	38% RH	
Serial Number:	EZF8344000UK	Barometric Pres.:	1009 mbar	
Tested by: Richard Mellroth				
EUT:	GQ110			
Configuration:	6			
Customer:	Intel Corporation			
Attendees:	Sahithi Kandula			
EUT Power:	110VAC/60Hz			
Operating Mode:	Transmitting Bluetooth EDR, See comments next to data points for EUT channel, orientation and data rate info.			
Deviations:	None.			
Comments:	None.			

Test Specifications	Test Method
FCC 15.247:2014	ANSI C63.10:2009

Run #	23-24	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
-------	-------	-------------------	---	-------------------	------	---------	------



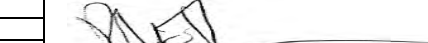
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2485.120	21.3	2.7	1.3	302.0	3.0	20.0	Horz	AV	0.0	44.0	54.0	-10.0	High Ch, 2480 MHz, DH5, EUT Flat
2483.963	21.3	2.7	2.6	8.0	3.0	20.0	Horz	AV	0.0	44.0	54.0	-10.0	High Ch, 2480 MHz, DH5, EUT Horz
2485.353	21.2	2.7	1.3	183.0	3.0	20.0	Vert	AV	0.0	43.9	54.0	-10.1	High Ch, 2480 MHz, DH5, EUT Flat
2484.980	21.2	2.7	1.3	90.0	3.0	20.0	Horz	AV	0.0	43.9	54.0	-10.1	High Ch, 2480 MHz, DH5, EUT Vert
2484.917	21.2	2.7	1.3	92.0	3.0	20.0	Horz	AV	0.0	43.9	54.0	-10.1	High Ch, 2480 MHz, 3DH5, EUT Flat
2484.420	21.2	2.7	1.3	50.0	3.0	20.0	Vert	AV	0.0	43.9	54.0	-10.1	High Ch, 2480 MHz, DH5, EUT Horz
2483.637	21.2	2.7	1.3	215.0	3.0	20.0	Vert	AV	0.0	43.9	54.0	-10.1	High Ch, 2480 MHz, DH5, EUT Vert
2483.520	21.2	2.7	1.3	156.0	3.0	20.0	Horz	AV	0.0	43.9	54.0	-10.1	High Ch, 2480 MHz, 2DH5, EUT Flat
2388.717	21.3	2.3	1.3	84.0	3.0	20.0	Vert	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, DH5, EUT Flat
2388.025	21.3	2.3	3.8	322.0	3.0	20.0	Horz	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, DH5, EUT Flat
2388.053	21.3	2.3	1.3	49.0	3.0	20.0	Vert	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, DH5, EUT Horz
2388.093	21.3	2.3	1.3	355.0	3.0	20.0	Vert	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, DH5, EUT Vert
2388.163	21.3	2.3	1.3	267.0	3.0	20.0	Horz	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, DH5, EUT Horz
2388.217	21.3	2.3	1.3	94.0	3.0	20.0	Vert	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, 3DH5, EUT Flat
2388.313	21.3	2.3	1.3	310.0	3.0	20.0	Vert	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, 2DH5, EUT Flat
2388.493	21.3	2.3	1.3	254.0	3.0	20.0	Horz	AV	0.0	43.6	54.0	-10.4	Low Ch, 2402 MHz, DH5, EUT Vert
2389.173	37.9	2.3	1.3	355.0	3.0	20.0	Vert	PK	0.0	60.2	74.0	-13.8	Low Ch, 2402 MHz, DH5, EUT Vert
2484.923	37.4	2.7	1.3	215.0	3.0	20.0	Vert	PK	0.0	60.1	74.0	-13.9	High Ch, 2480 MHz, DH5, EUT Vert
2485.243	37.3	2.7	1.3	183.0	3.0	20.0	Vert	PK	0.0	60.0	74.0	-14.0	High Ch, 2480 MHz, DH5, EUT Flat
2484.837	37.3	2.7	1.3	50.0	3.0	20.0	Vert	PK	0.0	60.0	74.0	-14.0	High Ch, 2480 MHz, DH5, EUT Horz
2485.353	37.2	2.7	1.3	90.0	3.0	20.0	Horz	PK	0.0	59.9	74.0	-14.1	High Ch, 2480 MHz, DH5, EUT Vert
2389.863	37.5	2.3	1.3	254.0	3.0	20.0	Horz	PK	0.0	59.8	74.0	-14.2	Low Ch, 2402 MHz, DH5, EUT Vert
2389.492	37.5	2.3	3.8	322.0	3.0	20.0	Horz	PK	0.0	59.8	74.0	-14.2	Low Ch, 2402 MHz, DH5, EUT Flat
2485.063	37.1	2.7	1.3	156.0	3.0	20.0	Horz	PK	0.0	59.8	74.0	-14.2	High Ch, 2480 MHz, 2DH5, EUT Flat
2484.470	37.0	2.7	2.6	8.0	3.0	20.0	Horz	PK	0.0	59.7	74.0	-14.3	High Ch, 2480 MHz, DH5, EUT Horz
2389.567	37.3	2.3	1.3	84.0	3.0	20.0	Vert	PK	0.0	59.6	74.0	-14.4	Low Ch, 2402 MHz, DH5, EUT Flat
2484.990	36.9	2.7	1.3	302.0	3.0	20.0	Horz	PK	0.0	59.6	74.0	-14.4	High Ch, 2480 MHz, DH5, EUT Flat

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2388.630	37.2	2.3	1.3	267.0	3.0	20.0	Horz	PK	0.0	59.5	74.0	-14.5	Low Ch, 2402 MHz, DH5, EUT Horz
2389.960	37.1	2.3	1.3	49.0	3.0	20.0	Vert	PK	0.0	59.4	74.0	-14.6	Low Ch, 2402 MHz, DH5, EUT Horz
2483.633	36.7	2.7	1.3	92.0	3.0	20.0	Horz	PK	0.0	59.4	74.0	-14.6	High Ch, 2480 MHz, 3DH5, EUT Flat
2389.580	37.0	2.3	1.3	310.0	3.0	20.0	Vert	PK	0.0	59.3	74.0	-14.7	Low Ch, 2402 MHz, 2DH5, EUT Flat
2389.477	36.7	2.3	1.3	94.0	3.0	20.0	Vert	PK	0.0	59.0	74.0	-15.0	Low Ch, 2402 MHz, 3DH5, EUT Flat



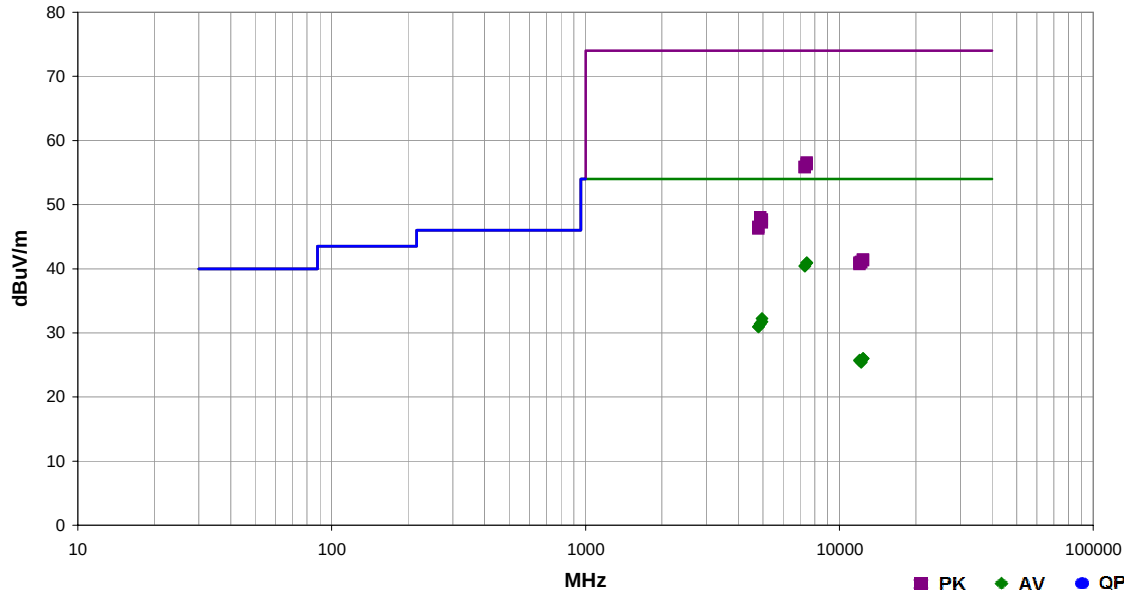
SPURIOUS RADIATED EMISSIONS

PSA-ESCI 2014.02.19
EmiRS 2014.02.04

Work Order:	INTE5431	Date:	04/01/14	
Project:	GQ110	Temperature:	22 °C	
Job Site:	EV01	Humidity:	38% RH	
Serial Number:	EZF8344000UK	Barometric Pres.:	1009 mbar	
EUT: GQ110				
Configuration:	6			
Customer:	Intel Corporation			
Attendees:	Sahithi Kandula			
EUT Power:	110VAC/60Hz			
Operating Mode:	Transmitting Bluetooth EDR, See comments next to data points for EUT channel, orientation and data rate info.			
Deviations:	None.			
Comments:	None.			

Test Specifications	Test Method
FCC 15.247:2014	ANSI C63.10:2009

Run #	25-26	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
-------	-------	-------------------	---	-------------------	------	---------	------



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7439.720	20.8	20.1	1.9	213.0	3.0	0.0	Horz	AV	0.0	40.9	54.0	-13.1	High Ch, 2480 MHz, DH5, EUT Flat
7439.165	20.8	20.1	1.3	82.0	3.0	0.0	Vert	AV	0.0	40.9	54.0	-13.1	High Ch, 2480 MHz, DH5, EUT Flat
7319.880	21.0	19.4	3.5	160.0	3.0	0.0	Horz	AV	0.0	40.4	54.0	-13.6	Mid Ch, 2441 MHz, DH5, EUT Flat
7318.770	21.0	19.4	1.3	273.0	3.0	0.0	Vert	AV	0.0	40.4	54.0	-13.6	Mid Ch, 2441 MHz, DH5, EUT Flat
7441.160	36.4	20.1	1.9	213.0	3.0	0.0	Horz	PK	0.0	56.5	74.0	-17.5	High Ch, 2480 MHz, DH5, EUT Flat
7439.240	36.2	20.1	1.3	82.0	3.0	0.0	Vert	PK	0.0	56.3	74.0	-17.7	High Ch, 2480 MHz, DH5, EUT Flat
7320.140	36.4	19.4	3.5	160.0	3.0	0.0	Horz	PK	0.0	55.8	74.0	-18.2	Mid Ch, 2441 MHz, DH5, EUT Flat
7320.035	36.4	19.4	1.3	273.0	3.0	0.0	Vert	PK	0.0	55.8	74.0	-18.2	Mid Ch, 2441 MHz, DH5, EUT Flat
4959.900	20.7	11.5	1.3	266.0	3.0	0.0	Horz	AV	0.0	32.2	54.0	-21.8	High Ch, 2480 MHz, DH5, EUT Flat
4958.860	20.2	11.5	2.1	233.0	3.0	0.0	Vert	AV	0.0	31.7	54.0	-22.3	High Ch, 2480 MHz, DH5, EUT Flat
4879.290	20.4	11.0	1.3	53.0	3.0	0.0	Vert	AV	0.0	31.4	54.0	-22.6	Mid Ch, 2441 MHz, DH5, EUT Flat
4878.650	20.4	11.0	2.8	357.0	3.0	0.0	Horz	AV	0.0	31.4	54.0	-22.6	Mid Ch, 2441 MHz, DH5, EUT Flat
4805.375	20.4	10.6	3.8	249.0	3.0	0.0	Horz	AV	0.0	31.0	54.0	-23.0	Low Ch, 2402 MHz, DH5, EUT Flat
4804.485	20.4	10.5	1.3	224.0	3.0	0.0	Vert	AV	0.0	30.9	54.0	-23.1	Low Ch, 2402 MHz, DH5, EUT Flat
4879.695	37.0	11.0	2.8	357.0	3.0	0.0	Horz	PK	0.0	48.0	74.0	-26.0	Mid Ch, 2441 MHz, DH5, EUT Flat
4961.110	36.1	11.5	1.3	266.0	3.0	0.0	Horz	PK	0.0	47.6	74.0	-26.4	High Ch, 2480 MHz, DH5, EUT Flat
4880.975	36.5	11.0	1.3	53.0	3.0	0.0	Vert	PK	0.0	47.5	74.0	-26.5	Mid Ch, 2441 MHz, DH5, EUT Flat
4960.860	35.7	11.5	2.1	233.0	3.0	0.0	Vert	PK	0.0	47.2	74.0	-26.8	High Ch, 2480 MHz, DH5, EUT Flat
4802.825	36.0	10.5	1.3	224.0	3.0	0.0	Vert	PK	0.0	46.5	74.0	-27.5	Low Ch, 2402 MHz, DH5, EUT Flat
4804.270	35.7	10.5	3.8	249.0	3.0	0.0	Horz	PK	0.0	46.2	74.0	-27.8	Low Ch, 2402 MHz, DH5, EUT Flat
12399.290	26.9	-0.9	1.0	72.0	3.0	0.0	Horz	AV	0.0	26.0	54.0	-28.0	High Ch, 2480 MHz, DH5, EUT Flat
12399.640	26.9	-0.9	1.0	87.0	3.0	0.0	Vert	AV	0.0	26.0	54.0	-28.0	High Ch, 2480 MHz, DH5, EUT Flat
12011.160	27.9	-2.2	1.0	360.0	3.0	0.0	Vert	AV	0.0	25.7	54.0	-28.3	Low Ch, 2402 MHz, DH5, EUT Flat
12011.120	27.8	-2.2	1.4	328.0	3.0	0.0	Horz	AV	0.0	25.6	54.0	-28.4	Low Ch, 2402 MHz, DH5, EUT Flat
12199.550	26.6	-1.1	1.0	28.0	3.0	0.0	Horz	AV	0.0	25.5	54.0	-28.5	Mid Ch, 2441 MHz, DH5, EUT Flat
12200.140	26.5	-1.1	1.0	213.0	3.0	0.0	Vert	AV	0.0	25.4	54.0	-28.6	Mid Ch, 2441 MHz, DH5, EUT Flat
12397.350	42.3	-0.9	1.0	87.0	3.0	0.0	Vert	PK	0.0	41.4	74.0	-32.6	High Ch, 2480 MHz, DH5, EUT Flat
12397.430	42.2	-0.9	1.0	72.0	3.0	0.0	Horz	PK	0.0	41.3	74.0	-32.7	High Ch, 2480 MHz, DH5, EUT Flat

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
12200.840	42.1	-1.1	1.0	213.0	3.0	0.0	Vert	PK	0.0	41.0	74.0	-33.0	Mid Ch, 2441 MHz, DH5, EUT Flat
12199.540	42.1	-1.1	1.0	28.0	3.0	0.0	Horz	PK	0.0	41.0	74.0	-33.0	Mid Ch, 2441 MHz, DH5, EUT Flat
12010.400	43.1	-2.2	1.0	360.0	3.0	0.0	Vert	PK	0.0	40.9	74.0	-33.1	Low Ch, 2402 MHz, DH5, EUT Flat
12009.520	42.9	-2.2	1.4	328.0	3.0	0.0	Horz	PK	0.0	40.7	74.0	-33.3	Low Ch, 2402 MHz, DH5, EUT Flat

AC POWERLINE CONDUCTED EMISSIONS

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 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
EV07 Cables	N/A	Conducted Cables	EVG	03/07/2014	12 mo
Attenuator	Fairview Microwave	SA6B10W-20	RKA	10/24/2013	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HHD	01/22/2014	12 mo
Receiver	Rohde & Schwarz	ESCI	ARH	02/05/2014	12 mo
LISN	Solar	9252-50-R-24-BNC	LIP	02/16/2014	12 mo
LISN	Solar	9252-50-R-24-BNC	LIN	02/03/2014	12 mo

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.94 dB	-2.94 dB

CONFIGURATIONS INVESTIGATED

INTE5431-4

MODES INVESTIGATED

EUT powered on. Tx, BT Low Ch. 2402MHz, DH5
 EUT powered on. Tx, BT Mid Ch. 2441MHz, DH5
 EUT powered on. Tx, BT High Ch. 2480MHz, DH5

AC POWERLINE CONDUCTED EMISSIONS

EUT:	GQ110	Work Order:	INTE5431
Serial Number:	EZF8344000UK	Date:	03/28/2014
Customer:	Intel Corporation	Temperature:	20.2°C
Attendees:	Sahithi Kandula	Relative Humidity:	42.7%
Customer Project:	GQ110	Bar. Pressure:	1009.1 mb
Tested By:	Jared Ison	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	INTE5431-4

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2014	ANSI C63.10:2009

TEST PARAMETERS

Run #:	8	Line:	Neutral	Ext. Attenuation (dB):	20
--------	---	-------	---------	------------------------	----

COMMENTS

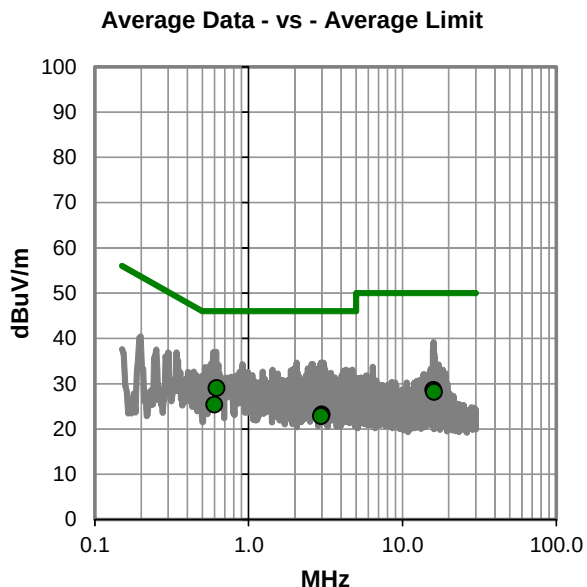
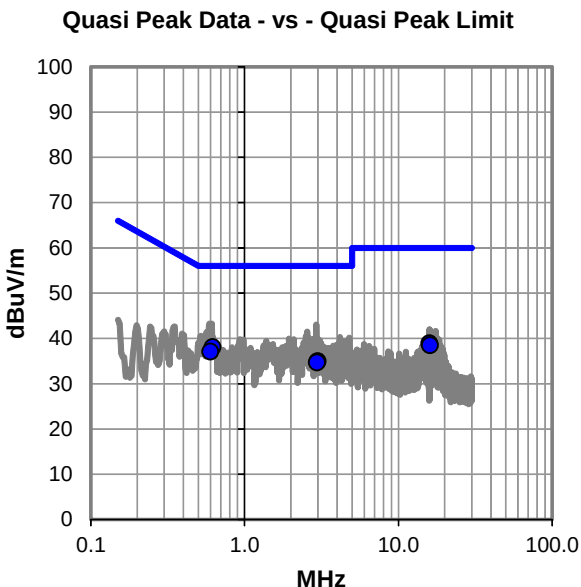
None.

EUT OPERATING MODES

EUT powered on. Tx, BT Low Ch. 2402MHz, DH5

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #8

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.621	18.3	19.8	38.1	56.0	-17.9
0.599	17.3	19.8	37.1	56.0	-18.9
2.990	15.4	19.6	35.0	56.0	-21.0
15.938	19.3	19.6	38.9	60.0	-21.1
2.954	15.1	19.6	34.7	56.0	-21.3
16.039	18.9	19.6	38.5	60.0	-21.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.621	9.3	19.8	29.1	46.0	-16.9
0.599	5.6	19.8	25.4	46.0	-20.6
15.938	9.0	19.6	28.6	50.0	-21.4
16.039	8.6	19.6	28.2	50.0	-21.8
2.990	3.6	19.6	23.2	46.0	-22.8
2.954	3.3	19.6	22.9	46.0	-23.1

CONCLUSION

Pass



Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	GQ110	Work Order:	INTE5431
Serial Number:	EZF8344000UK	Date:	03/28/2014
Customer:	Intel Corporation	Temperature:	20.2°C
Attendees:	Sahithi Kandula	Relative Humidity:	42.7%
Customer Project:	GQ110	Bar. Pressure:	1009.1 mb
Tested By:	Jared Ison	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	INTE5431-4

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2014	ANSI C63.10:2009

TEST PARAMETERS

Run #:	9	Line:	High Line	Ext. Attenuation (dB):	20
--------	---	-------	-----------	------------------------	----

COMMENTS

None

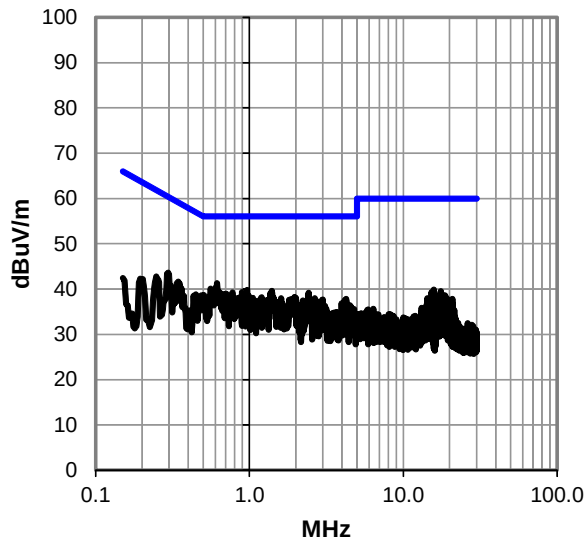
EUT OPERATING MODES

EUT powered on. Tx, BT Low Ch. 2402MHz, DH5

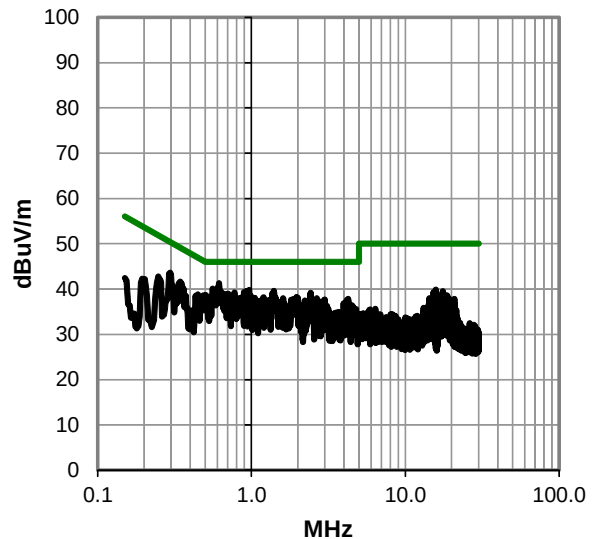
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #9

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.616	21.5	19.8	41.3	56.0	-14.7
0.560	20.3	19.8	40.1	56.0	-15.9
0.967	20.1	19.7	39.8	56.0	-16.2
1.396	19.9	19.7	39.6	56.0	-16.4
0.896	19.6	19.7	39.3	56.0	-16.7
0.773	19.5	19.7	39.2	56.0	-16.8
0.296	23.8	19.8	43.6	60.4	-16.8
2.426	19.6	19.6	39.2	56.0	-16.8
0.702	19.2	19.8	39.0	56.0	-17.0
0.672	19.1	19.8	38.9	56.0	-17.1
2.403	19.2	19.6	38.8	56.0	-17.2
0.504	18.9	19.8	38.7	56.0	-17.3
0.989	18.8	19.7	38.5	56.0	-17.5
0.344	21.8	19.8	41.6	59.1	-17.5
0.878	18.6	19.7	38.3	56.0	-17.7
1.963	18.6	19.6	38.2	56.0	-17.8
1.198	18.5	19.7	38.2	56.0	-17.8
2.004	18.4	19.6	38.0	56.0	-18.0
1.053	18.3	19.7	38.0	56.0	-18.0
2.653	18.4	19.6	38.0	56.0	-18.0
1.605	18.3	19.6	37.9	56.0	-18.1
1.922	18.3	19.6	37.9	56.0	-18.1
0.448	19.0	19.8	38.8	56.9	-18.1
4.246	18.2	19.6	37.8	56.0	-18.2
1.862	18.1	19.6	37.7	56.0	-18.3
2.993	18.1	19.6	37.7	56.0	-18.3

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.616	21.5	19.8	41.3	46.0	-4.7
0.560	20.3	19.8	40.1	46.0	-5.9
0.967	20.1	19.7	39.8	46.0	-6.2
1.396	19.9	19.7	39.6	46.0	-6.4
0.896	19.6	19.7	39.3	46.0	-6.7
0.773	19.5	19.7	39.2	46.0	-6.8
0.296	23.8	19.8	43.6	50.4	-6.8
2.426	19.6	19.6	39.2	46.0	-6.8
0.702	19.2	19.8	39.0	46.0	-7.0
0.672	19.1	19.8	38.9	46.0	-7.1
2.403	19.2	19.6	38.8	46.0	-7.2
0.504	18.9	19.8	38.7	46.0	-7.3
0.989	18.8	19.7	38.5	46.0	-7.5
0.344	21.8	19.8	41.6	49.1	-7.5
0.878	18.6	19.7	38.3	46.0	-7.7
1.963	18.6	19.6	38.2	46.0	-7.8
1.198	18.5	19.7	38.2	46.0	-7.8
2.004	18.4	19.6	38.0	46.0	-8.0
1.053	18.3	19.7	38.0	46.0	-8.0
2.653	18.4	19.6	38.0	46.0	-8.0
1.605	18.3	19.6	37.9	46.0	-8.1
1.922	18.3	19.6	37.9	46.0	-8.1
0.448	19.0	19.8	38.8	46.9	-8.1
4.246	18.2	19.6	37.8	46.0	-8.2
1.862	18.1	19.6	37.7	46.0	-8.3
2.993	18.1	19.6	37.7	46.0	-8.3

CONCLUSION

Pass



Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	GQ110	Work Order:	INTE5431
Serial Number:	EZF8344000UK	Date:	03/28/2014
Customer:	Intel Corporation	Temperature:	20.2°C
Attendees:	Sahithi Kandula	Relative Humidity:	42.7%
Customer Project:	GQ110	Bar. Pressure:	1009.1 mb
Tested By:	Jared Ison	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	INTE5431-4

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2014	ANSI C63.10:2009

TEST PARAMETERS

Run #:	10	Line:	Neutral	Ext. Attenuation (dB):	20
--------	----	-------	---------	------------------------	----

COMMENTS

None.

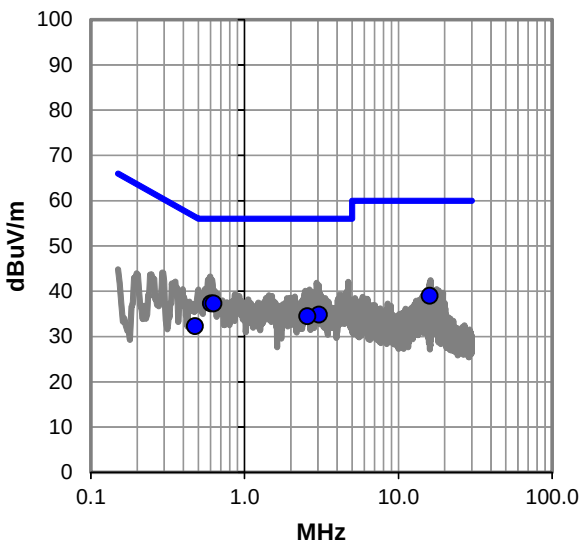
EUT OPERATING MODES

EUT powered on. Tx, BT Mid Ch. 2441MHz, DH5

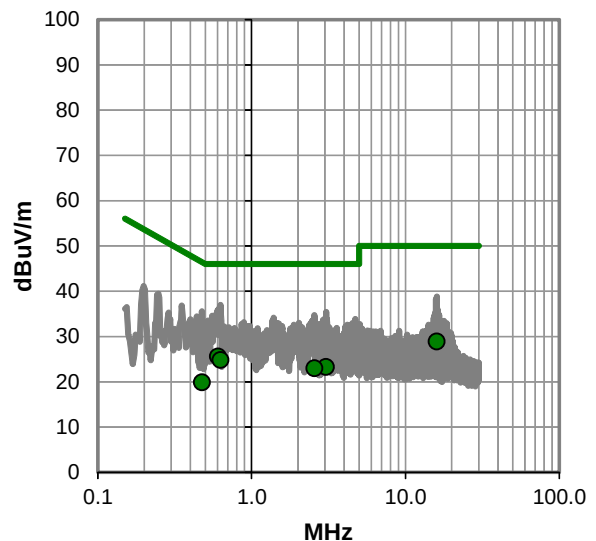
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #10

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.606	17.5	19.8	37.3	56.0	-18.7
0.629	17.5	19.8	37.3	56.0	-18.7
16.002	19.4	19.6	39.0	60.0	-21.0
3.045	15.3	19.6	34.9	56.0	-21.1
2.559	14.9	19.6	34.5	56.0	-21.5
0.476	12.5	19.8	32.3	56.4	-24.1

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.606	5.8	19.8	25.6	46.0	-20.4
16.002	9.3	19.6	28.9	50.0	-21.1
0.629	5.0	19.8	24.8	46.0	-21.2
3.045	3.7	19.6	23.3	46.0	-22.7
2.559	3.4	19.6	23.0	46.0	-23.0
0.476	0.1	19.8	19.9	46.4	-26.5

CONCLUSION

Pass



Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	GQ110	Work Order:	INTE5431
Serial Number:	EZF8344000UK	Date:	03/28/2014
Customer:	Intel Corporation	Temperature:	20.2°C
Attendees:	Sahithi Kandula	Relative Humidity:	42.7%
Customer Project:	GQ110	Bar. Pressure:	1009.1 mb
Tested By:	Jared Ison	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	INTE5431-4

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2014	ANSI C63.10:2009

TEST PARAMETERS

Run #:	11	Line:	High Line	Ext. Attenuation (dB):	20
--------	----	-------	-----------	------------------------	----

COMMENTS

None.

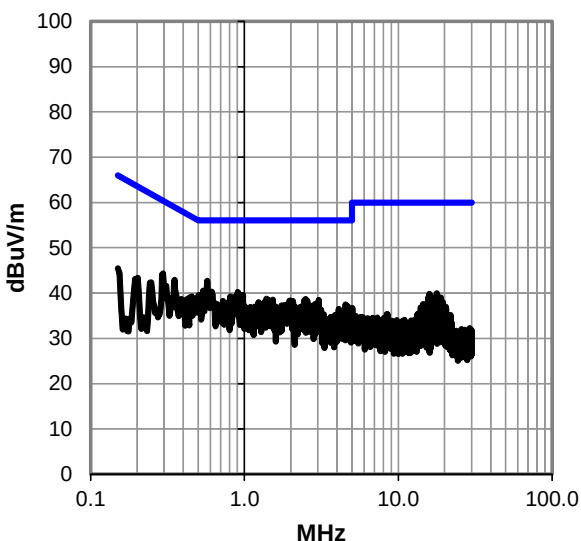
EUT OPERATING MODES

EUT powered on. Tx, BT Mid Ch. 2441MHz, DH5

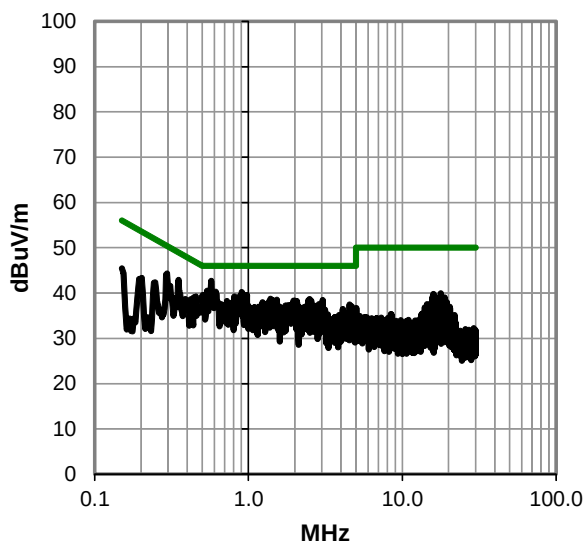
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #11

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.572	22.9	19.8	42.7	56.0	-13.3
0.538	20.7	19.8	40.5	56.0	-15.5
0.613	20.5	19.8	40.3	56.0	-15.7
0.904	20.5	19.7	40.2	56.0	-15.8
0.351	23.1	19.8	42.9	58.9	-16.0
0.296	24.5	19.8	44.3	60.4	-16.1
0.504	19.8	19.8	39.6	56.0	-16.4
0.978	19.8	19.7	39.5	56.0	-16.5
0.810	19.5	19.7	39.2	56.0	-16.8
1.389	19.1	19.7	38.8	56.0	-17.2
2.493	19.1	19.6	38.7	56.0	-17.3
1.527	18.9	19.7	38.6	56.0	-17.4
0.945	18.8	19.7	38.5	56.0	-17.5
1.418	18.8	19.7	38.5	56.0	-17.5
1.441	18.8	19.7	38.5	56.0	-17.5
3.041	18.9	19.6	38.5	56.0	-17.5
0.456	19.4	19.8	39.2	56.8	-17.6
2.448	18.8	19.6	38.4	56.0	-17.6
1.959	18.7	19.6	38.3	56.0	-17.7
2.000	18.7	19.6	38.3	56.0	-17.7
2.512	18.7	19.6	38.3	56.0	-17.7
2.560	18.7	19.6	38.3	56.0	-17.7
0.725	18.5	19.8	38.3	56.0	-17.7
2.060	18.6	19.6	38.2	56.0	-17.8
1.359	18.4	19.7	38.1	56.0	-17.9
1.232	18.3	19.7	38.0	56.0	-18.0

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.572	22.9	19.8	42.7	46.0	-3.3
0.538	20.7	19.8	40.5	46.0	-5.5
0.613	20.5	19.8	40.3	46.0	-5.7
0.904	20.5	19.7	40.2	46.0	-5.8
0.351	23.1	19.8	42.9	48.9	-6.0
0.296	24.5	19.8	44.3	50.4	-6.1
0.504	19.8	19.8	39.6	46.0	-6.4
0.978	19.8	19.7	39.5	46.0	-6.5
0.810	19.5	19.7	39.2	46.0	-6.8
1.389	19.1	19.7	38.8	46.0	-7.2
2.493	19.1	19.6	38.7	46.0	-7.3
1.527	18.9	19.7	38.6	46.0	-7.4
0.945	18.8	19.7	38.5	46.0	-7.5
1.418	18.8	19.7	38.5	46.0	-7.5
1.441	18.8	19.7	38.5	46.0	-7.5
3.041	18.9	19.6	38.5	46.0	-7.5
0.456	19.4	19.8	39.2	46.8	-7.6
2.448	18.8	19.6	38.4	46.0	-7.6
1.959	18.7	19.6	38.3	46.0	-7.7
2.000	18.7	19.6	38.3	46.0	-7.7
2.512	18.7	19.6	38.3	46.0	-7.7
2.560	18.7	19.6	38.3	46.0	-7.7
0.725	18.5	19.8	38.3	46.0	-7.7
2.060	18.6	19.6	38.2	46.0	-7.8
1.359	18.4	19.7	38.1	46.0	-7.9
1.232	18.3	19.7	38.0	46.0	-8.0

CONCLUSION

Pass


Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	GQ110	Work Order:	INTE5431
Serial Number:	EZF8344000UK	Date:	03/28/2014
Customer:	Intel Corporation	Temperature:	20.2°C
Attendees:	Sahithi Kandula	Relative Humidity:	42.7%
Customer Project:	GQ110	Bar. Pressure:	1009.1 mb
Tested By:	Jared Ison	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	INTE5431-4

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2014	ANSI C63.10:2009

TEST PARAMETERS

Run #:	12	Line:	Neutral	Ext. Attenuation (dB):	20
--------	----	-------	---------	------------------------	----

COMMENTS

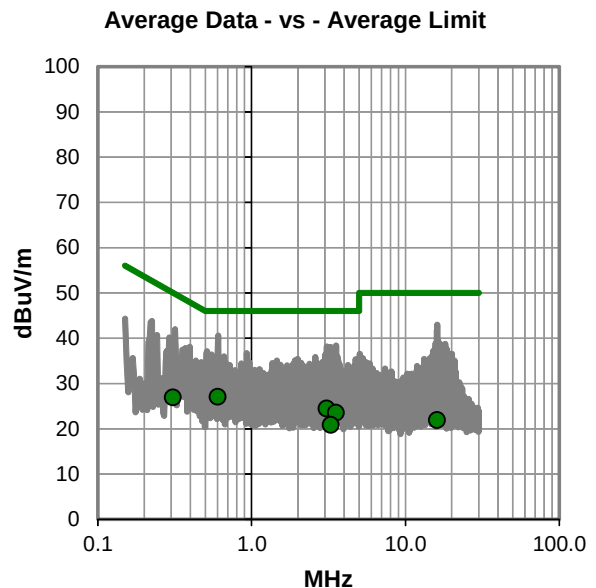
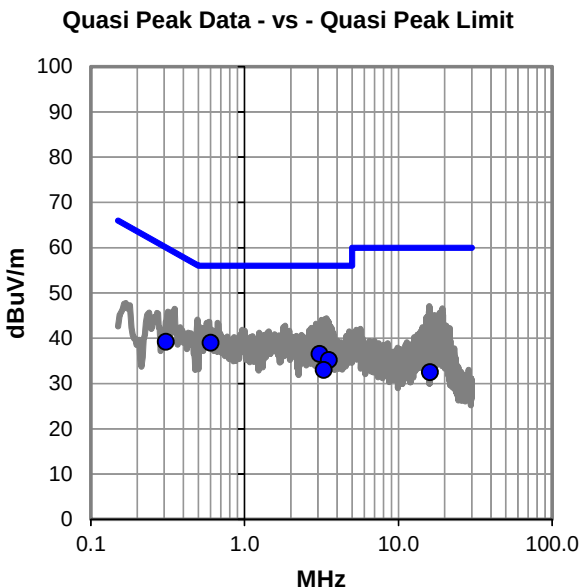
None.

EUT OPERATING MODES

EUT powered on. Tx, BT High Ch. 2480MHz, DH5

DEVIATIONS FROM TEST STANDARD

None



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #12

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.602	19.2	19.8	39.0	56.0	-17.0
3.076	17.0	19.5	36.5	56.0	-19.5
3.528	15.6	19.6	35.2	56.0	-20.8
0.308	19.4	19.8	39.2	60.0	-20.8
3.275	13.4	19.6	33.0	56.0	-23.0
16.100	12.9	19.6	32.5	60.0	-27.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.602	7.3	19.8	27.1	46.0	-18.9
3.076	4.9	19.5	24.4	46.0	-21.6
3.528	3.9	19.6	23.5	46.0	-22.5
0.308	7.1	19.8	26.9	50.0	-23.1
3.275	1.3	19.6	20.9	46.0	-25.1
16.100	2.3	19.6	21.9	50.0	-28.1

CONCLUSION

Pass



Tested By

AC POWERLINE CONDUCTED EMISSIONS

EUT:	GQ110	Work Order:	INTE5431
Serial Number:	EZF8344000UK	Date:	03/28/2014
Customer:	Intel Corporation	Temperature:	20.2°C
Attendees:	Sahithi Kandula	Relative Humidity:	42.7%
Customer Project:	GQ110	Bar. Pressure:	1009.1 mb
Tested By:	Jared Ison	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	INTE5431-4

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2014	ANSI C63.10:2009

TEST PARAMETERS

Run #:	13	Line:	High Line	Ext. Attenuation (dB):	20
--------	----	-------	-----------	------------------------	----

COMMENTS

None.

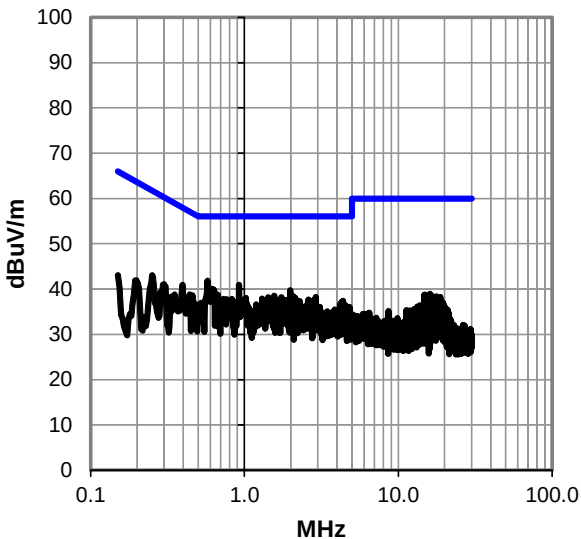
EUT OPERATING MODES

EUT powered on. Tx, BT High Ch. 2480MHz, DH5

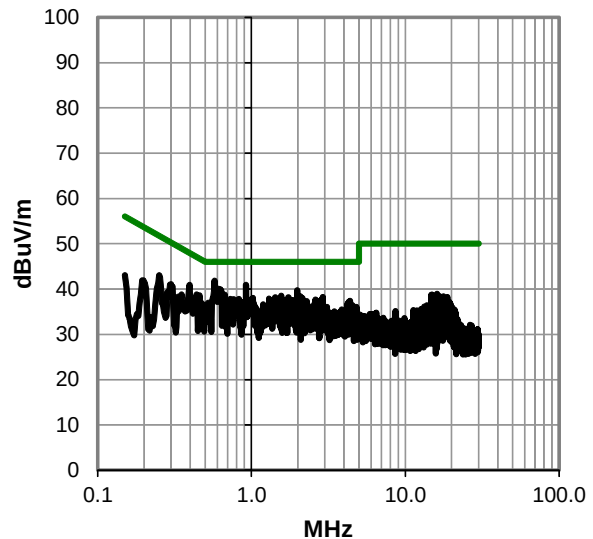
DEVIATIONS FROM TEST STANDARD

None

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

RESULTS - Run #13

Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.575	22.1	19.8	41.9	56.0	-14.1
0.922	21.2	19.7	40.9	56.0	-15.1
1.982	20.1	19.6	39.7	56.0	-16.3
0.396	21.1	19.8	40.9	57.9	-17.0
0.672	19.0	19.8	38.8	56.0	-17.2
1.557	18.9	19.6	38.5	56.0	-17.5
2.075	18.8	19.6	38.4	56.0	-17.6
2.911	18.7	19.6	38.3	56.0	-17.7
1.426	18.5	19.7	38.2	56.0	-17.8
1.736	18.5	19.6	38.1	56.0	-17.9
1.023	18.3	19.7	38.0	56.0	-18.0
2.142	18.4	19.6	38.0	56.0	-18.0
0.460	18.8	19.8	38.6	56.7	-18.1
1.303	18.2	19.7	37.9	56.0	-18.1
0.728	18.1	19.8	37.9	56.0	-18.1
0.829	18.1	19.7	37.8	56.0	-18.2
1.448	18.1	19.7	37.8	56.0	-18.2
0.441	19.0	19.8	38.8	57.0	-18.2
0.762	18.0	19.7	37.7	56.0	-18.3
2.605	18.1	19.6	37.7	56.0	-18.3
1.404	18.0	19.7	37.7	56.0	-18.3
2.855	18.1	19.6	37.7	56.0	-18.3
1.504	17.9	19.7	37.6	56.0	-18.4
1.609	17.9	19.6	37.5	56.0	-18.5
1.821	17.9	19.6	37.5	56.0	-18.5
1.881	17.9	19.6	37.5	56.0	-18.5

Peak Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Margin (dB)
0.575	22.1	19.8	41.9	46.0	-4.1
0.922	21.2	19.7	40.9	46.0	-5.1
1.982	20.1	19.6	39.7	46.0	-6.3
0.396	21.1	19.8	40.9	47.9	-7.0
0.672	19.0	19.8	38.8	46.0	-7.2
1.557	18.9	19.6	38.5	46.0	-7.5
2.075	18.8	19.6	38.4	46.0	-7.6
2.911	18.7	19.6	38.3	46.0	-7.7
1.426	18.5	19.7	38.2	46.0	-7.8
1.736	18.5	19.6	38.1	46.0	-7.9
1.023	18.3	19.7	38.0	46.0	-8.0
2.142	18.4	19.6	38.0	46.0	-8.0
0.460	18.8	19.8	38.6	46.7	-8.1
1.303	18.2	19.7	37.9	46.0	-8.1
0.728	18.1	19.8	37.9	46.0	-8.1
0.829	18.1	19.7	37.8	46.0	-8.2
1.448	18.1	19.7	37.8	46.0	-8.2
0.441	19.0	19.8	38.8	47.0	-8.2
0.762	18.0	19.7	37.7	46.0	-8.3
2.605	18.1	19.6	37.7	46.0	-8.3
1.404	18.0	19.7	37.7	46.0	-8.3
2.855	18.1	19.6	37.7	46.0	-8.3
1.504	17.9	19.7	37.6	46.0	-8.4
1.609	17.9	19.6	37.5	46.0	-8.5
1.821	17.9	19.6	37.5	46.0	-8.5
1.881	17.9	19.6	37.5	46.0	-8.5

CONCLUSION

Pass



Tested By