Juniper Systems, Inc.

Allegro MX
BC04 Module

September 11, 2008

Report No. JUNI0005

EMC Test Report

Report Prepared By

NORTHWEST EMC

www.nwemc.com
1-888-EMI-CERT

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Issue Date: September 11, 2008
Juniper Systems, Inc.
Model: Allegro MX BC04 module

Emissions			
Test Description	**Specification**	**Test Method**	**Pass/Fail**
Spurious Radiated Emissions	FCC 15.247(DTS):2007	ANSI C63.4:2003 KDB No. 558074	**Pass**
AC Powerline Conducted Emissions	FCC 15.207:2007	ANSI C63.4:2003	**Pass**

Modifications made to the product
See the Modifications section of this report

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-1).

Approved By:

Don Facteau, IS Manager

NVLAP Lab Code: 200630-0

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 Number	Description	Date	Page Number
00	None		

FCC: Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.

NVLAP: Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.

NVLAP LAB CODE 200629-0
NVLAP LAB CODE 200630-0
NVLAP LAB CODE 200676-0
NVLAP LAB CODE 200761-0

Industry Canada: Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2)*

CAB: Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.

TÜV Product Service: Included in TUV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TUV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TUV's current Listing of CARAT Laboratories, available from TUV. A certificate was issued to represent that this laboratory continues to meet TUV's CARAT Program requirements. Certificate No. USA0604C.

TÜV Rheinland: Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.

NEMKO: Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).

Australia/New Zealand: The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).

VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. *(Registration Numbers. - Hillsboro: C-1071, R-1025, C-2687, T-289, and R-2318, Irvine: R-1943, C-2766, and T-298, Sultan: R-871, C-1784, and T-294).*

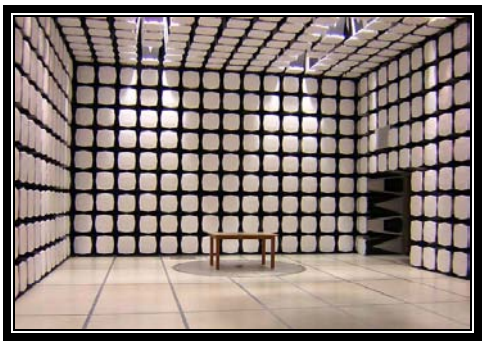
BSMI: Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017). License No.SL2-IN-E-1017.

GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification

MIC: Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (*Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157)*

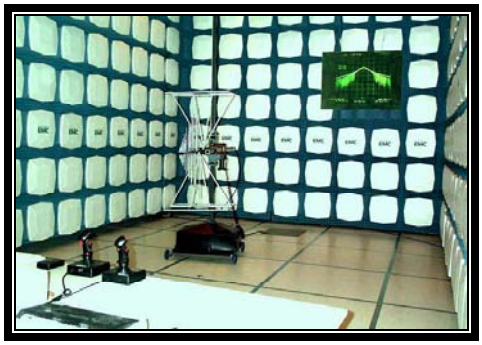
SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/



California – Orange County Facility
Labs OC01 – OC13

41 Tesla Ave. Irvine, CA 92618
(888) 364-2378 Fax: (503) 844-3826



Oregon – Evergreen Facility
Labs EV01 – EV11

22975 NW Evergreen Pkwy. Suite 400 Hillsboro, OR 97124
(503) 844-4066 Fax: (503) 844-3826

Washington – Sultan Facility
Labs SU01 – SU07

14128 339th Ave. SE Sultan, WA 98294
(888) 364-2378

Party Requesting the Test

Company Name:	Juniper Systems, Inc.
Address:	1132 West 1700 North
City, State, Zip:	Logan, UT 84321
Test Requested By:	Kent Campbell
Model:	Allegro MX BC04 Module
First Date of Test:	July 22, 2008
Last Date of Test:	September 4, 2008
Receipt Date of Samples:	July 22, 2008
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

Ultra-rugged Field PC contains the Socket Bluetooth module, BC04

Testing Objective:

To demonstrate compliance of the Bluetooth module to FCC 15.247 radiated and conducted emissions requirements. Other FCC requirements are addressed in separate test reports.

EUT Photo

CONFIGURATION 1 JUNI0005

Software/Firmware Running during test	
Description	**Version**
Bluetest	None
RFUtil	None

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bluetooth radio	Socket	BC04	None
802.11 radio	Socket	Go Wi-Fi!	None
Handheld PC	Juniper Systems, Inc.	Allegro Mx	beta prototype #61

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter 1	Ktec	KSAC1200100W1UV-1	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop	Dell	PP01X	5743258993
Laptop power adapter	Dell	ADP-70EB	TH-0K8302-17971-4B8-KZ0G

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Serial to USB	Yes	3.0m	No	Handheld PC	Laptop
USB	Yes	1.8m	No	Handheld PC	Unterminated
USB	Yes	1.2m	Yes	Handheld PC	Unterminated
DC	No	1.8	Yes	Handheld PC	AC Adapter 1
DC	No	1.3m	Yes	Laptop	Laptop power adapter
AC	No	1.6m	No	Laptop power adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 JUNI0005

Software/Firmware Running during test	
Description	**Version**
Bluetest	None
RFUtil	None

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bluetooth radio	Socket	BC04	None
802.11 radio	Socket	Go Wi-Fi!	None
Handheld PC	Juniper Systems, Inc.	Allegro Mx	beta prototype #61

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter 1	Ktec	KSAC1200100W1UV-1	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop	Dell	PP01X	5743258993
Laptop power adapter	Dell	ADP-70EB	TH-0K8302-17971-4B8-KZ0G

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.8m	No	Handheld PC	Unterminated
USB	Yes	1.2m	Yes	Handheld PC	Unterminated
DC	No	1.8	Yes	Handheld PC	AC Adapter 1
DC	No	1.3m	Yes	Laptop	Laptop power adapter
AC	No	1.6m	No	Laptop power adapter	AC Mains
Serial to USB	Yes	1.8m	No	Handheld PC	Laptop
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 3 JUNI0005

Software/Firmware Running during test	
Description	**Version**
Bluetest	None
RFUtil	None

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Bluetooth radio	Socket	BC04	None
802.11 radio	Socket	Go Wi-Fi!	None
Handheld PC	Juniper Systems, Inc.	Allegro Mx	beta prototype #61

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter 2	Phihong	PSM11R-120(JS)-R MV2	Engineering Sample #3

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop	Dell	PP01X	5743258993
Laptop power adapter	Dell	ADP-70EB	TH-0K8302-17971-4B8-KZ0G

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.8m	No	Handheld PC	Unterminated
USB	Yes	1.2m	Yes	Handheld PC	Unterminated
DC	No	1.8m	No	Handheld PC	AC Adapter 2
DC	No	1.3m	Yes	Laptop	Laptop power adapter
AC	No	1.6m	No	Laptop power adapter	AC Mains
Serial to USB	Yes	1.8m	No	Handheld PC	Laptop
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	7/22/2008	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	9/4/2008	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was complete.

RADIATED SPURIOUS 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
GFSK modulation, DH5 rate
pi/4-QPSK modulation, 2DH5 rate
8-DPSK modulation, 3DH5 rate

CHANNELS TESTED
Low channel, 2402 MHz
Mid channel, 2439 MHz
High channel, 2480 MHz

POWER SETTINGS USED FOR FINAL DATA
120VAC/60Hz

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	E4446A	AAT	12/7/2007	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	5/21/2008	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	5/19/2008	13
Antenna, Biconilog	EMCO	3141	AXE	1/15/2008	24
EV01 Cables		Bilog Cables	EVA	5/19/2008	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	5/19/2008	13
Antenna, Horn	EMCO	3115	AHC	8/12/2008	24
EV01 Cables		Double Ridge Horn Cables	EVB	5/19/2008	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	6/30/2008	13
Antenna, Horn	ETS	3160-07	AHU	NCR	0
EV01 Cables		Standard Gain Horns Cables	EVF	10/23/2007	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	6/30/2008	13
Antenna, Horn	ETS	3160-08	AHV	NCR	0
EV01 Cables		Standard Gain Horns Cables	EVF	10/23/2007	13
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	7/25/2007	16
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 Cables		18-26GHz Standard Gain Horn Cable	EVD	7/25/2007	16

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

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is 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 C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.1.9

EUT:	Allegro MX BC04 Module	Work Order:	JUNI0005
Serial Number:	None	Date:	07/22/08
Customer:	Juniper Systems, Inc.	Temperature:	24
Attendees:	None	Humidity:	36%
Project:	None	Barometric Pres.:	1020.2mb
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

None

EUT OPERATING MODES

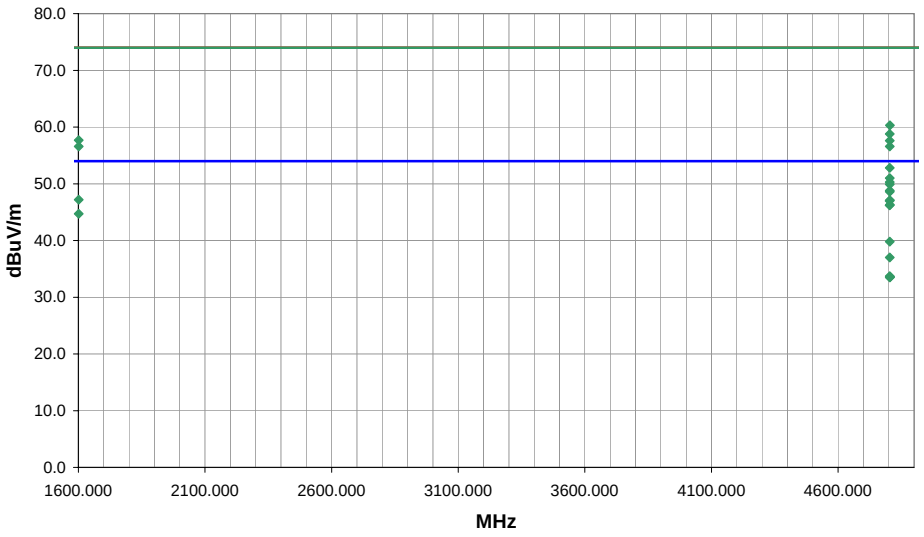
Transmitting Bluetooth, low channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	1
Results	Pass

Signature Holly Ashkannejhad



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4804.047	44.6	8.2	200.0	1.0	3.0	0.0	V-Horn	AV	0.0	52.8	54.0	-1.2	GFSK, DH5, EUT horizontal
4804.037	42.8	8.2	121.0	1.6	3.0	0.0	H-Horn	AV	0.0	51.0	54.0	-3.0	GFSK, DH5, EUT on side
4804.033	42.1	8.2	159.0	1.2	3.0	0.0	V-Horn	AV	0.0	50.3	54.0	-3.7	GFSK, DH5, EUT on side
4804.027	40.4	8.2	153.0	1.4	3.0	0.0	V-Horn	AV	0.0	48.6	54.0	-5.4	GFSK, DH5, EUT vertical
1601.353	31.8	-4.6	66.0	2.1	3.0	20.0	V-Horn	AV	0.0	47.2	54.0	-6.8	GFSK, DH5, EUT horizontal
1601.287	29.3	-4.6	201.0	1.4	3.0	20.0	H-Horn	AV	0.0	44.7	54.0	-9.3	GFSK, DH5, EUT on side
4804.463	52.1	8.2	200.0	1.0	3.0	0.0	V-Horn	PK	0.0	60.3	74.0	-13.7	GFSK, DH5, EUT horizontal
4803.990	31.6	8.2	119.0	1.6	3.0	0.0	H-Horn	AV	0.0	39.8	54.0	-14.2	GFSK, DH5, EUT vertical
4803.680	50.6	8.2	121.0	1.6	3.0	0.0	H-Horn	PK	0.0	58.8	74.0	-15.2	GFSK, DH5, EUT on side
1601.023	42.3	-4.6	66.0	2.1	3.0	20.0	V-Horn	PK	0.0	57.7	74.0	-16.3	GFSK, DH5, EUT horizontal
4803.913	49.4	8.2	159.0	1.2	3.0	0.0	V-Horn	PK	0.0	57.6	74.0	-16.4	GFSK, DH5, EUT on side
4804.017	28.8	8.2	123.0	1.0	3.0	0.0	H-Horn	AV	0.0	37.0	54.0	-17.0	GFSK, DH5, EUT horizontal
1601.280	41.2	-4.6	201.0	1.4	3.0	20.0	H-Horn	PK	0.0	56.6	74.0	-17.4	GFSK, DH5, EUT on side
4803.847	48.4	8.2	153.0	1.4	3.0	0.0	V-Horn	PK	0.0	56.6	74.0	-17.4	GFSK, DH5, EUT vertical
4804.270	25.5	8.2	277.0	1.5	3.0	0.0	H-Horn	AV	0.0	33.7	54.0	-20.3	8DPSK, 3DH5, EUT on side
4804.353	25.4	8.2	107.0	1.5	3.0	0.0	H-Horn	AV	0.0	33.6	54.0	-20.4	pi/4-DQPSK, 2DH5, EUT on side
4804.050	25.4	8.1	214.0	2.1	3.0	0.0	V-Horn	AV	0.0	33.5	54.0	-20.5	pi/4-DQPSK, 2DH5, EUT horizontal
4804.607	25.4	8.1	116.0	2.1	3.0	0.0	V-Horn	AV	0.0	33.5	54.0	-20.5	8DPSK, 3DH5, EUT horizontal
4804.150	41.7	8.2	119.0	1.6	3.0	0.0	H-Horn	PK	0.0	49.9	74.0	-24.1	GFSK, DH5, EUT vertical
4803.850	40.6	8.2	123.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.8	74.0	-25.2	GFSK, DH5, EUT horizontal
4804.833	38.9	8.2	277.0	1.5	3.0	0.0	H-Horn	PK	0.0	47.1	74.0	-26.9	8DPSK, 3DH5, EUT on side
4803.230	38.8	8.2	116.0	2.1	3.0	0.0	V-Horn	PK	0.0	47.0	74.0	-27.0	8DPSK, 3DH5, EUT horizontal
4804.753	38.1	8.2	107.0	1.5	3.0	0.0	H-Horn	PK	0.0	46.3	74.0	-27.7	pi/4-DQPSK, 2DH5, EUT on side
4803.317	38.0	8.2	214.0	2.1	3.0	0.0	V-Horn	PK	0.0	46.2	74.0	-27.8	pi/4-DQPSK, 2DH5, EUT horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.1.9

EUT:	Allegro MX BC04 Module			Work Order:	JUNI0005
Serial Number:	None			Date:	07/22/08
Customer:	Juniper Systems, Inc.			Temperature:	24
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	1020.2mb
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

None

EUT OPERATING MODES

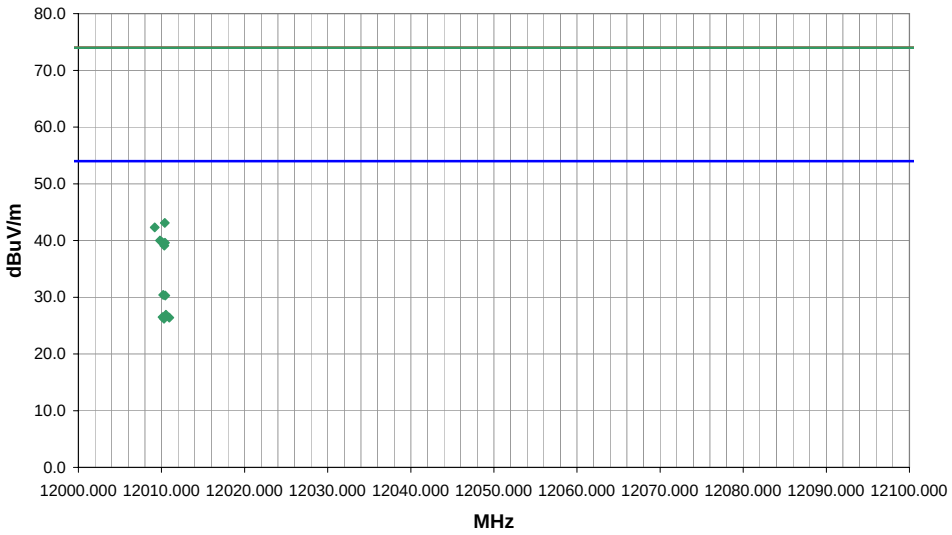
Transmitting Bluetooth, low channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	2
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
12010.210	41.8	-11.4	103.0	1.0	3.0	0.0	H-Horn	AV	0.0	30.4	54.0	-23.6	GFSK, DH5, EUT on side
12010.450	41.7	-11.4	74.0	1.0	3.0	0.0	V-Horn	AV	0.0	30.3	54.0	-23.7	GFSK, DH5, EUT horizontal
12010.540	38.3	-11.4	343.0	1.0	3.0	0.0	H-Horn	AV	0.0	26.9	54.0	-27.1	8DPSK, 3DH5, EUT on side
12010.130	37.9	-11.4	24.0	1.0	3.0	0.0	H-Horn	AV	0.0	26.5	54.0	-27.5	pi/4-DQPSK, 2DH5, EUT on side
12010.930	37.8	-11.4	53.0	1.0	3.0	0.0	V-Horn	AV	0.0	26.4	54.0	-27.6	8DPSK, 3DH5, EUT horizontal
12010.300	37.6	-11.4	160.0	1.0	3.0	0.0	V-Horn	AV	0.0	26.2	54.0	-27.8	pi/4-DQPSK, 2DH5, EUT horizontal
12010.400	54.5	-11.4	74.0	1.0	3.0	0.0	V-Horn	PK	0.0	43.1	74.0	-30.9	GFSK, DH5, EUT horizontal
12009.190	53.7	-11.4	103.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.3	74.0	-31.7	GFSK, DH5, EUT on side
12009.810	51.4	-11.4	343.0	1.0	3.0	0.0	H-Horn	PK	0.0	40.0	74.0	-34.0	8DPSK, 3DH5, EUT on side
12010.090	51.1	-11.4	53.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.7	74.0	-34.3	8DPSK, 3DH5, EUT horizontal
12010.420	51.0	-11.4	24.0	1.0	3.0	0.0	H-Horn	PK	0.0	39.6	74.0	-34.4	pi/4-DQPSK, 2DH5, EUT on side
12010.340	50.5	-11.4	160.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.1	74.0	-34.9	pi/4-DQPSK, 2DH5, EUT horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.1.9

EUT:	Allegro MX BC04 Module	Work Order:	JUNI0005
Serial Number:	None	Date:	07/22/08
Customer:	Juniper Systems, Inc.	Temperature:	24
Attendees:	None	Humidity:	36%
Project:	None	Barometric Pres.:	1020.2mb
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

None

EUT OPERATING MODES

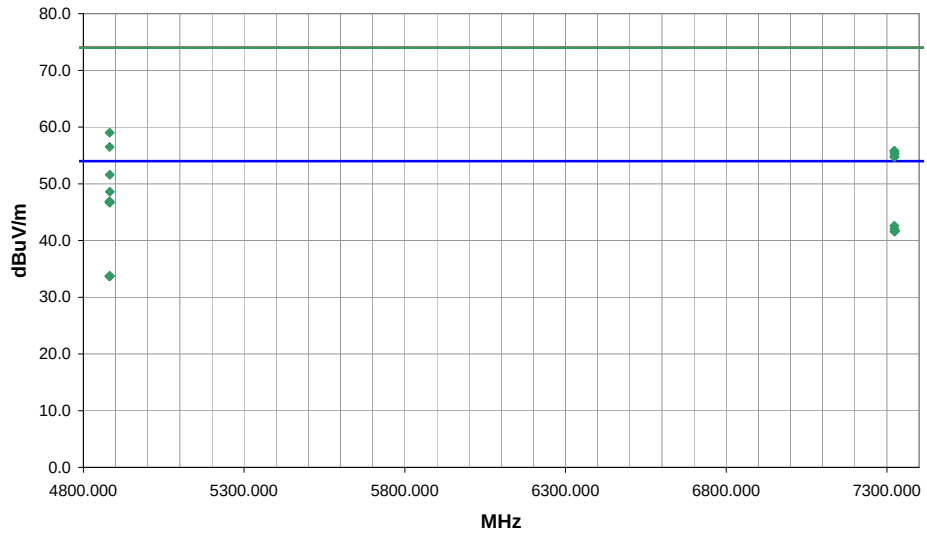
Transmitting Bluetooth, mid channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4882.040	43.1	8.5	214.0	1.0	3.0	0.0	H-Horn	AV	0.0	51.6	54.0	-2.4	GFSK, DH5, EUT on side
4882.040	40.1	8.5	176.0	1.6	3.0	0.0	V-Horn	AV	0.0	48.6	54.0	-5.4	GFSK, DH5, EUT horizontal
7323.030	26.9	15.7	182.0	1.3	3.0	0.0	V-Horn	AV	0.0	42.6	54.0	-11.4	GFSK, DH5, EUT horizontal
7323.127	26.4	15.7	226.0	1.4	3.0	0.0	H-Horn	AV	0.0	42.1	54.0	-11.9	GFSK, DH5, EUT on side
7324.577	26.0	15.7	192.0	1.4	3.0	0.0	H-Horn	AV	0.0	41.7	54.0	-12.3	8DPSK, 3DH5, EUT on side
7324.807	26.0	15.7	308.0	2.6	3.0	0.0	V-Horn	AV	0.0	41.7	54.0	-12.3	pi/4-DQPSK, 2DH5, EUT horizontal
7323.207	25.9	15.7	54.0	1.4	3.0	0.0	H-Horn	AV	0.0	41.6	54.0	-12.4	pi/4-DQPSK, 2DH5, EUT on side
7323.683	25.9	15.7	59.0	2.5	3.0	0.0	V-Horn	AV	0.0	41.6	54.0	-12.4	8DPSK, 3DH5, EUT on horizontal
4881.850	50.5	8.5	214.0	1.0	3.0	0.0	H-Horn	PK	0.0	59.0	74.0	-15.0	GFSK, DH5, EUT on side
4881.617	48.0	8.5	176.0	1.6	3.0	0.0	V-Horn	PK	0.0	56.5	74.0	-17.5	GFSK, DH5, EUT horizontal
7322.857	40.1	15.7	226.0	1.4	3.0	0.0	H-Horn	PK	0.0	55.8	74.0	-18.2	GFSK, DH5, EUT on side
7323.413	40.1	15.7	192.0	1.4	3.0	0.0	H-Horn	PK	0.0	55.8	74.0	-18.2	8DPSK, 3DH5, EUT on side
7323.503	39.7	15.7	182.0	1.3	3.0	0.0	V-Horn	PK	0.0	55.4	74.0	-18.6	GFSK, DH5, EUT horizontal
7323.673	39.6	15.7	308.0	2.6	3.0	0.0	V-Horn	PK	0.0	55.3	74.0	-18.7	pi/4-DQPSK, 2DH5, EUT horizontal
7323.073	39.1	15.7	54.0	1.4	3.0	0.0	H-Horn	PK	0.0	54.8	74.0	-19.2	pi/4-DQPSK, 2DH5, EUT on side
7323.247	39.0	15.7	59.0	2.5	3.0	0.0	V-Horn	PK	0.0	54.7	74.0	-19.3	8DPSK, 3DH5, EUT on horizontal
4880.573	25.2	8.5	0.0	2.4	3.0	0.0	V-Horn	AV	0.0	33.7	54.0	-20.3	pi/4-DQPSK, 2DH5, EUT horizontal
4881.797	25.2	8.5	106.0	2.4	3.0	0.0	V-Horn	AV	0.0	33.7	54.0	-20.3	8DPSK, 3DH5, EUT on horizontal
4882.193	25.2	8.5	150.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.7	54.0	-20.3	8DPSK, 3DH5, EUT on side
4882.287	25.2	8.5	70.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.7	54.0	-20.3	pi/4-DQPSK, 2DH5, EUT on side
4881.283	38.4	8.5	0.0	2.4	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1	pi/4-DQPSK, 2DH5, EUT horizontal
4881.450	38.3	8.5	106.0	2.4	3.0	0.0	V-Horn	PK	0.0	46.8	74.0	-27.2	8DPSK, 3DH5, EUT on horizontal
4881.267	38.2	8.5	150.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	8DPSK, 3DH5, EUT on side
4882.437	38.2	8.5	70.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	pi/4-DQPSK, 2DH5, EUT on side

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.1.9

EUT:	Allegro MX BC04 Module			Work Order:	JUNI0005
Serial Number:	None			Date:	07/22/08
Customer:	Juniper Systems, Inc.			Temperature:	24
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	1020.2mb
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

None

EUT OPERATING MODES

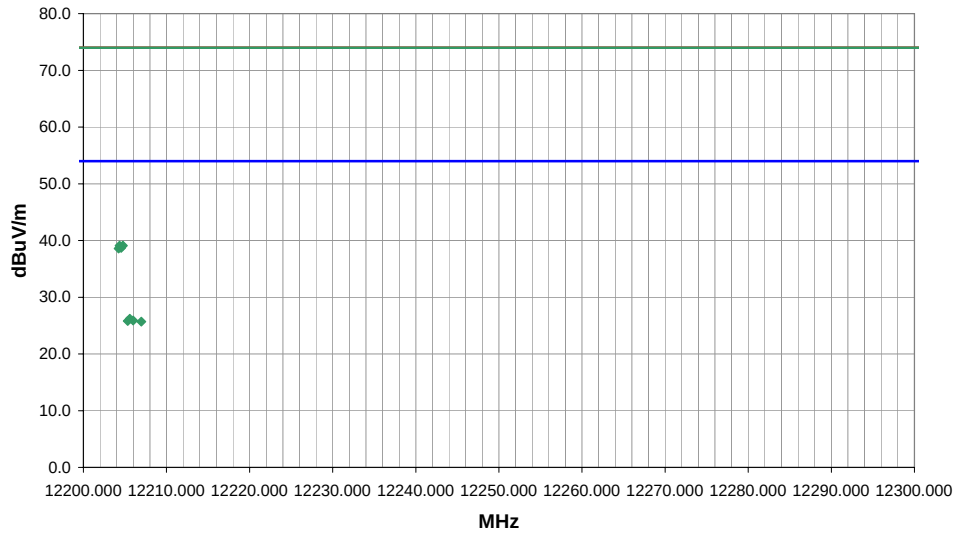
Transmitting Bluetooth, mid channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
12205.590	37.2	-11.0	82.0	1.0	3.0	0.0	H-Horn	AV	0.0	26.2	54.0	-27.8	8DPSK, 3DH5, EUT on side
12205.980	36.9	-11.0	114.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.9	54.0	-28.1	8DPSK, 3DH5, EUT horizontal
12205.330	36.8	-11.0	65.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.8	54.0	-28.2	pi/4-DQPSK, 2DH5, EUT on side
12206.970	36.7	-11.0	257.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.7	54.0	-28.3	pi/4-DQPSK, 2DH5, EUT horizontal
12204.350	50.1	-11.0	114.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.1	74.0	-34.9	8DPSK, 3DH5, EUT horizontal
12204.760	50.1	-11.0	65.0	1.0	3.0	0.0	H-Horn	PK	0.0	39.1	74.0	-34.9	pi/4-DQPSK, 2DH5, EUT on side
12204.550	49.7	-11.0	82.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.7	74.0	-35.3	8DPSK, 3DH5, EUT on side
12204.230	49.6	-11.0	257.0	1.0	3.0	0.0	V-Horn	PK	0.0	38.6	74.0	-35.4	pi/4-DQPSK, 2DH5, EUT horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.7.3

EUT:	Allegro MX BC04 Module	Work Order:	JUNI0005
Serial Number:	None	Date:	08/26/08
Customer:	Juniper Systems, Inc.	Temperature:	23
Attendees:	None	Humidity:	40%
Project:	None	Barometric Pres.:	30.15
Tested by:	Jennifer Herrett	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

None

EUT OPERATING MODES

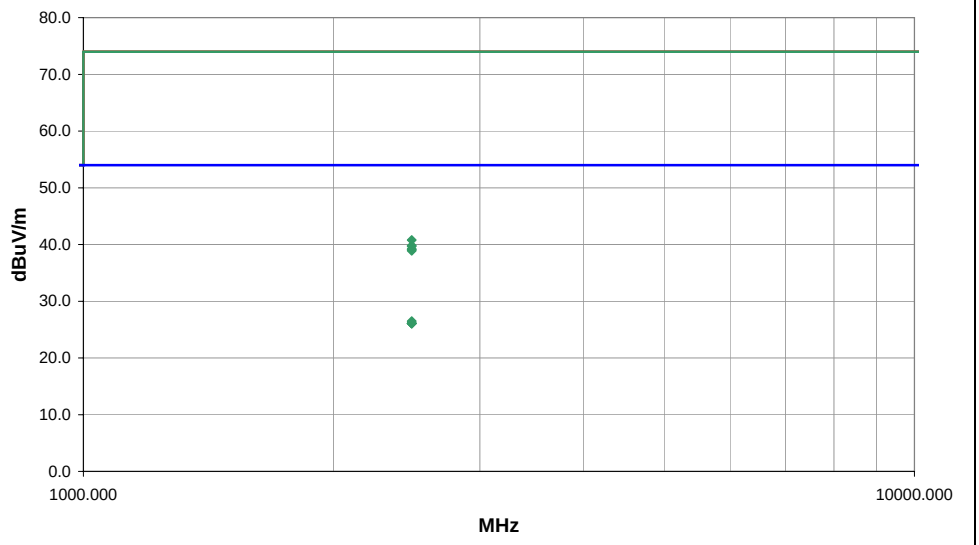
Transmitting Bluetooth, high channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	5
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
2483.717	24.3	2.2	75.0	1.0	3.0	20.0	V-Horn	AV	0.0	26.5	54.0	-7.5	GFSK, DH5, EUT horizontal
2483.385	23.9	2.2	212.0	1.0	3.0	20.0	H-Horn	AV	0.0	26.1	54.0	-7.9	8DQPSK, 3DH5, EUT on side
2483.520	23.9	2.2	19.0	1.0	3.0	20.0	H-Horn	AV	0.0	26.1	54.0	-7.9	GFSK, DH5, EUT on side
2483.680	23.9	2.2	256.0	1.0	3.0	20.0	V-Horn	AV	0.0	26.1	54.0	-7.9	8DQPSK, 3DH5, EUT horizontal
2483.962	23.9	2.2	258.0	1.0	3.0	20.0	H-Horn	AV	0.0	26.1	54.0	-7.9	pi/4-DQPSK, 2DH5, EUT on side
2484.057	23.9	2.2	356.0	1.0	3.0	20.0	V-Horn	AV	0.0	26.1	54.0	-7.9	pi/4-DQPSK, 2DH5, EUT horizontal
2483.642	38.6	2.2	212.0	1.0	3.0	20.0	H-Horn	PK	0.0	40.8	74.0	-13.2	8DQPSK, 3DH5, EUT on side
2483.715	37.6	2.2	256.0	1.0	3.0	20.0	V-Horn	PK	0.0	39.8	74.0	-14.2	8DQPSK, 3DH5, EUT horizontal
2483.860	37.5	2.2	258.0	1.0	3.0	20.0	H-Horn	PK	0.0	39.7	74.0	-14.3	pi/4-DQPSK, 2DH5, EUT on side
2483.520	37.0	2.2	19.0	1.0	3.0	20.0	H-Horn	PK	0.0	39.2	74.0	-14.8	GFSK, DH5, EUT on side
2483.688	36.9	2.2	356.0	1.0	3.0	20.0	V-Horn	PK	0.0	39.1	74.0	-14.9	pi/4-DQPSK, 2DH5, EUT horizontal
2483.713	36.7	2.2	75.0	1.0	3.0	20.0	V-Horn	PK	0.0	38.9	74.0	-15.1	GFSK, DH5, EUT horizontal

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.7.3

EUT:	Allegro MX BC04 Module	Work Order:	JUNI0005
Serial Number:	None	Date:	08/26/08
Customer:	Juniper Systems, Inc.	Temperature:	23
Attendees:	None	Humidity:	40%
Project:	None	Barometric Pres.:	30.15
Tested by:	Jennifer Herrett	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003, KDB No. 558074

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

COMMENTS

None

EUT OPERATING MODES

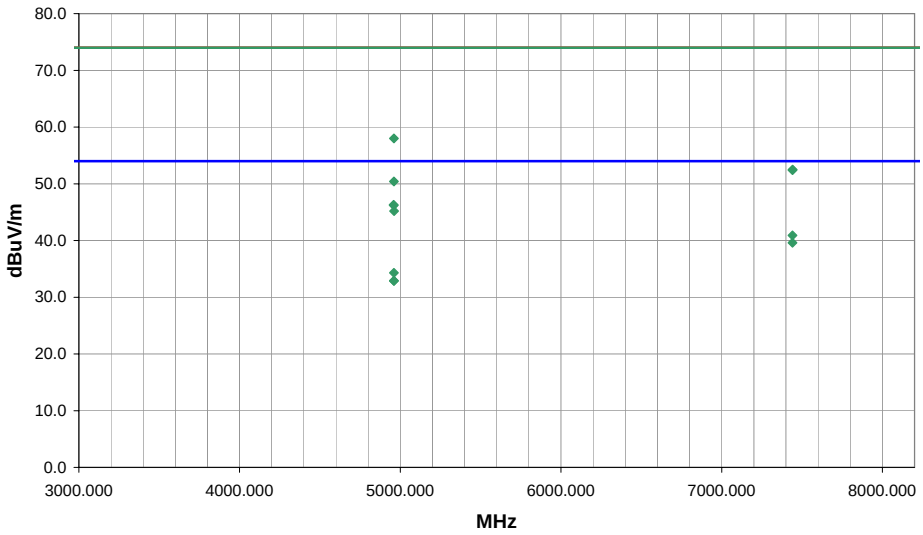
Transmitting Bluetooth, high channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	6
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4960.033	40.3	10.1	104.0	1.0	3.0	0.0	H-Horn	AV	0.0	50.4	54.0	-3.6	GFSK, DH5, EUT on side
7439.892	25.1	15.8	178.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	GFSK, DH5, EUT horizontal
7440.025	23.8	15.8	248.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.6	54.0	-14.4	GFSK, DH5, EUT on side
4960.258	47.9	10.1	104.0	1.0	3.0	0.0	H-Horn	PK	0.0	58.0	74.0	-16.0	GFSK, DH5, EUT on side
4960.008	24.2	10.1	163.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.3	54.0	-19.7	GFSK, DH5, EUT horizontal
4959.975	22.8	10.1	213.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.9	54.0	-21.1	pi/4-DQPSK, 2DH5, EUT on side
4960.042	22.8	10.1	300.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.9	54.0	-21.1	8DPSK, 3DH5, EUT on side
7441.100	36.7	15.8	248.0	1.0	3.0	0.0	H-Horn	PK	0.0	52.5	74.0	-21.5	GFSK, DH5, EUT on side
7440.000	36.6	15.8	179.0	1.0	3.0	0.0	V-Horn	PK	0.0	52.4	74.0	-21.6	GFSK, DH5, EUT horizontal
4958.658	36.2	10.1	300.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.3	74.0	-27.7	8DPSK, 3DH5, EUT on side
4959.808	36.1	10.1	163.0	1.2	3.0	0.0	V-Horn	PK	0.0	46.2	74.0	-27.8	GFSK, DH5, EUT horizontal
4961.367	35.1	10.1	213.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.2	74.0	-28.8	pi/4-DQPSK, 2DH5, EUT on side

NORTHWEST EMC

RADIATED SPURIOUS EMISSIONS

PSA 2007.05.07
EMI 2008.7.3

EUT:	Allegro MX BC04 Module			Work Order:	JUNI0005
Serial Number:	None			Date:	08/26/08
Customer:	Juniper Systems, Inc.			Temperature:	23
Attendees:	None			Humidity:	40%
Project:	None			Barometric Pres.:	30.15
Tested by:	Jennifer Herrett	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2007	ANSI C63.4:2003

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

COMMENTS

None

EUT OPERATING MODES

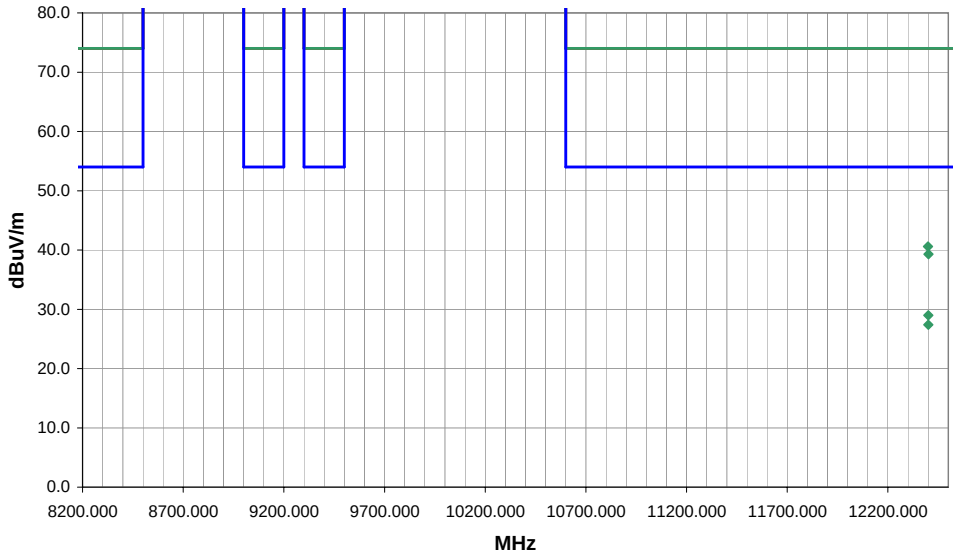
Transmitting Bluetooth, high channel, see comments for data rate and position

DEVIATIONS FROM TEST STANDARD

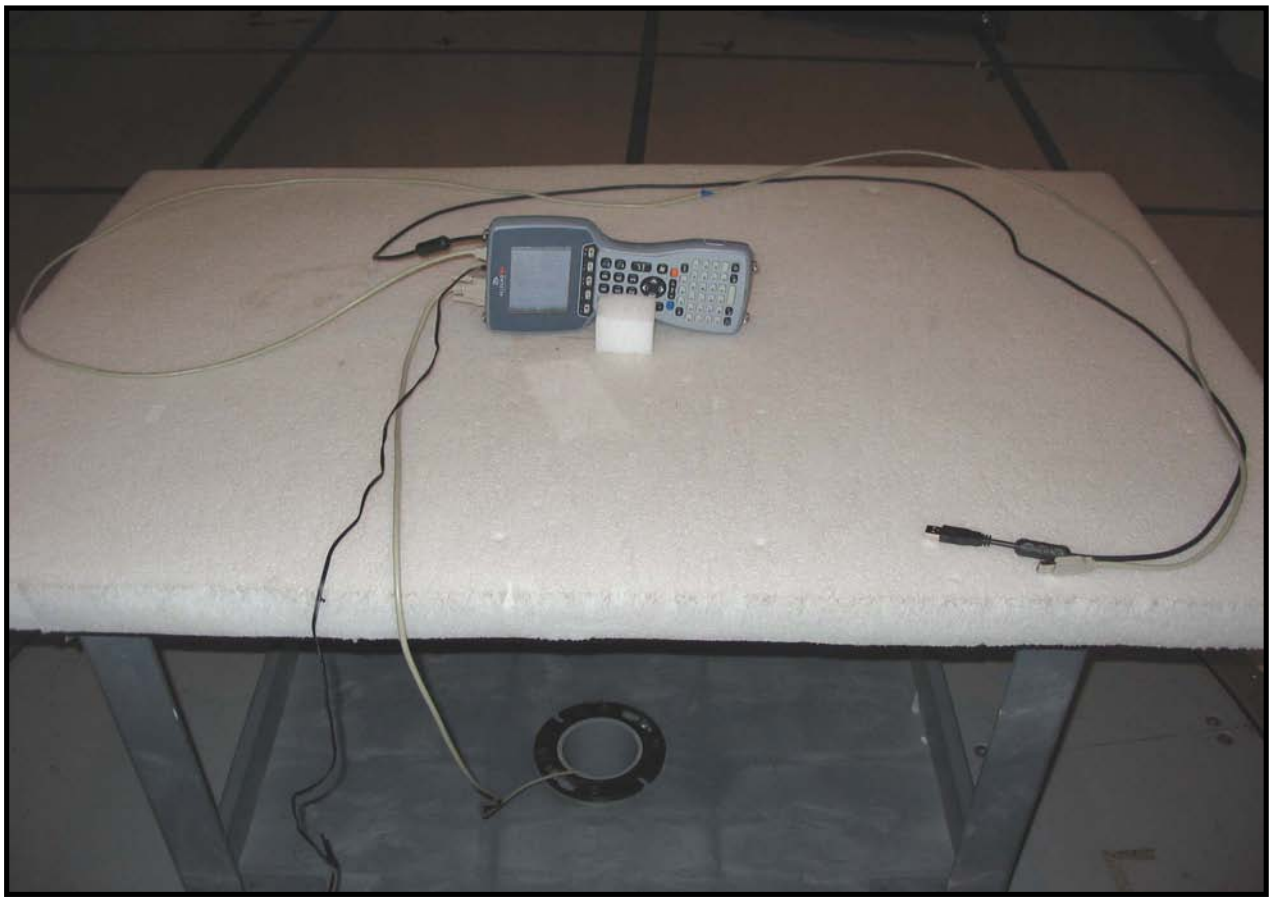
No deviations.

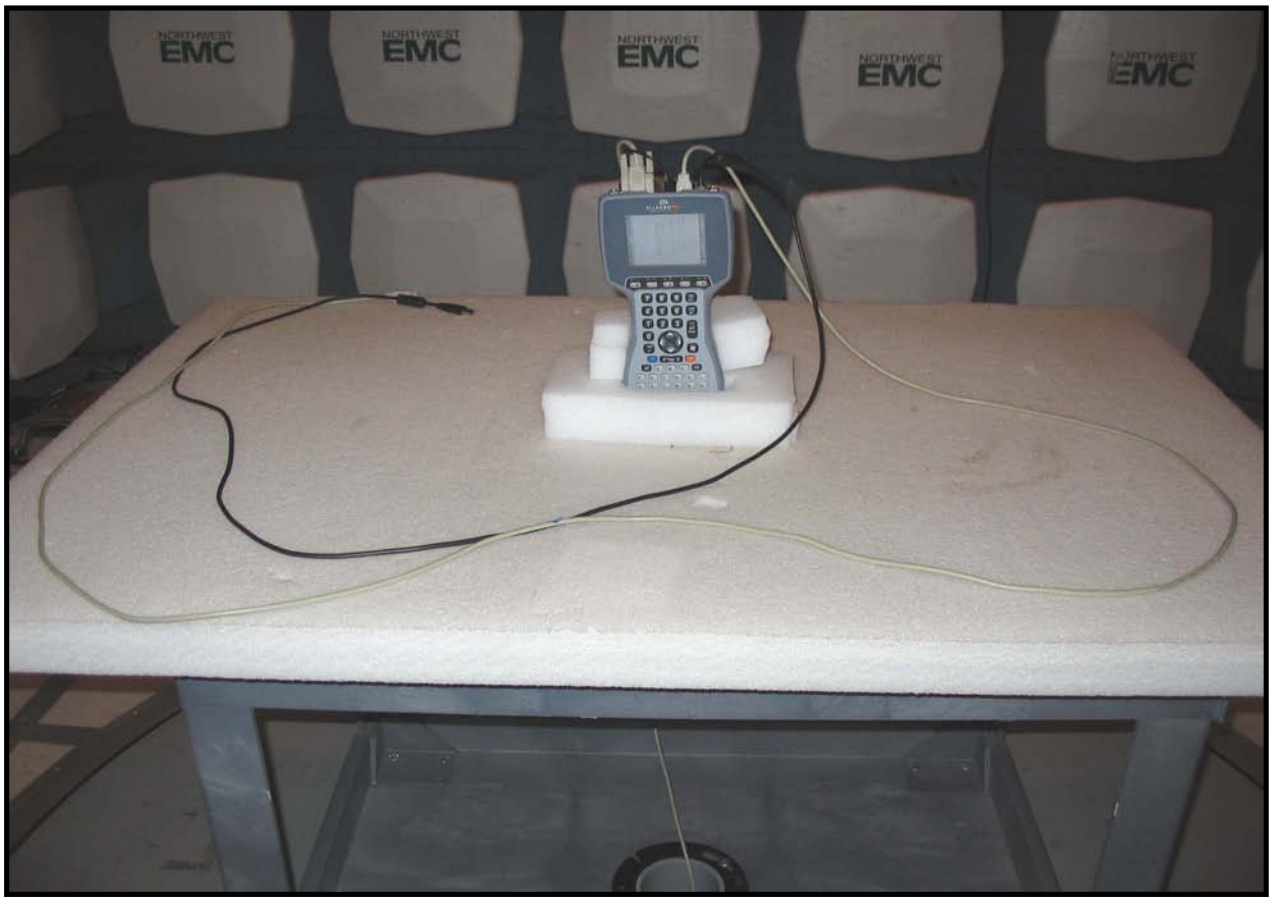
Run #	7
Configuration #	1
Results	Pass

Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
12400.470	31.8	-2.8	105.0	1.0	3.0	0.0	H-Horn	AV	0.0	29.0	54.0	-25.0	GFSK, DH5, EUT on side
12400.330	30.2	-2.8	50.0	1.0	3.0	0.0	V-Horn	AV	0.0	27.4	54.0	-26.6	GFSK, DH5, EUT horizontal
12399.140	43.4	-2.8	105.0	1.0	3.0	0.0	H-Horn	PK	0.0	40.6	74.0	-33.4	GFSK, DH5, EUT on side
12401.100	42.1	-2.8	50.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.3	74.0	-34.7	GFSK, DH5, EUT horizontal

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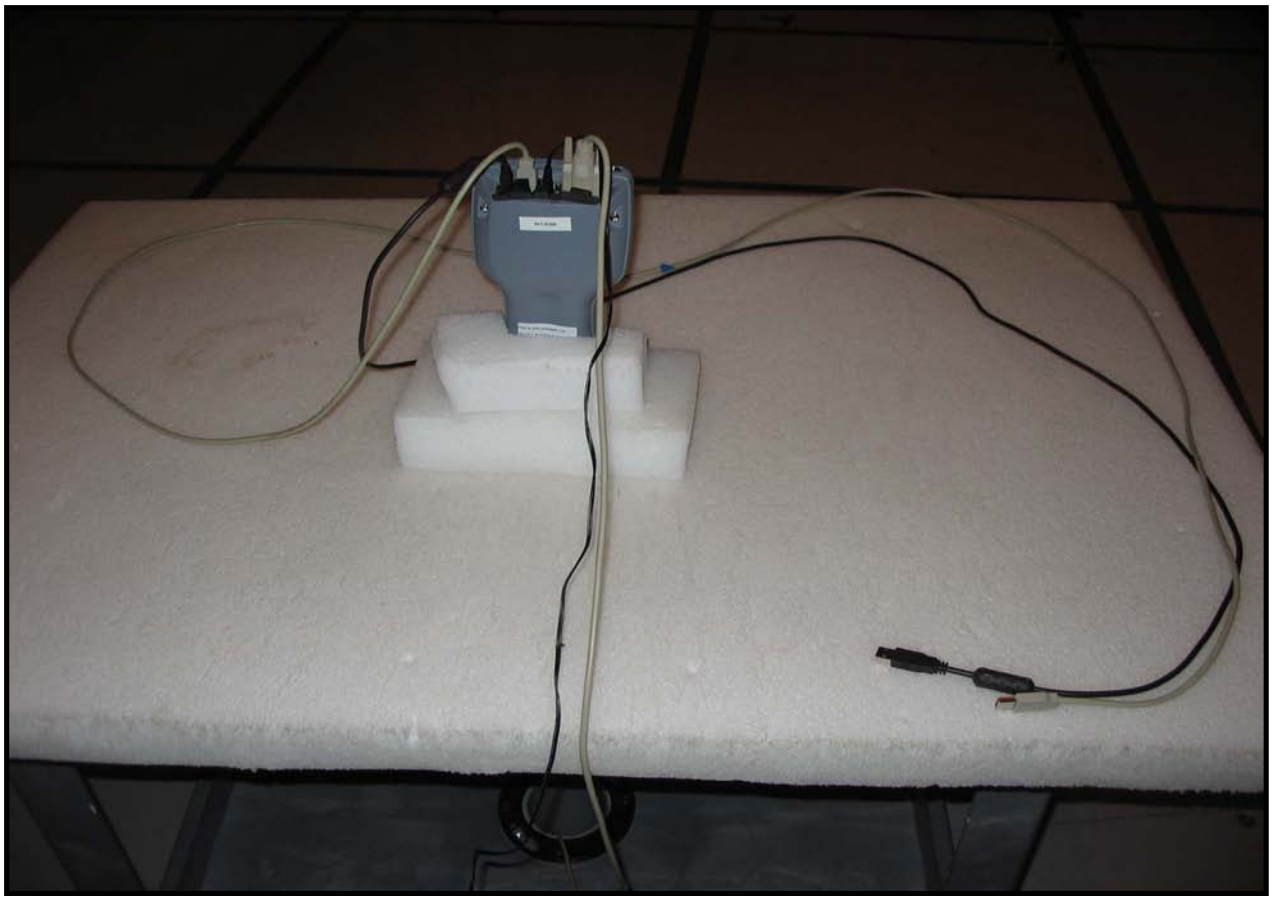


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AC POWERLINE CONDUCTED EMISSIONS

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 BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), high channel
Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), mid channel
Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), low channel

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

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
Receiver	Rohde & Schwarz	ESCI	ARG	12/7/2007	13 mo
EV07 Cables		Conducted Cables	EVG	5/2/2008	13 mo
Attenuator	Coaxicom	66702 2910-20	ATO	6/30/2008	13 mo
High Pass Filter	T.T.E.	7766	HFG	2/5/2008	13 mo
LISN	Solar	9252-50-R-24-BNC	LIR	1/4/2008	13 mo
LISN	Solar	9252-50-R-24-BNC	LIP	1/4/2008	13 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

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is 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.

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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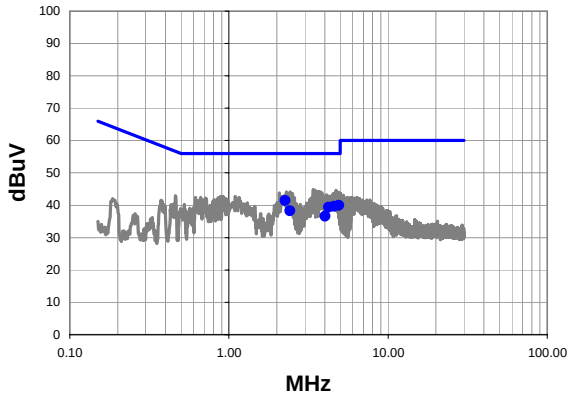
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett
EUT:	Allegro MX BC04 Module				
Configuration:	2 - Basic Configuration - with Ktec Power Adapter				
Customer:	Juniper Systems, Inc.				
Attendees:	None				
EUT Power:	120VAC/60Hz				
Operating Mode:	Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), low channel				
Deviations:	No deviations.				
Comments:	None				

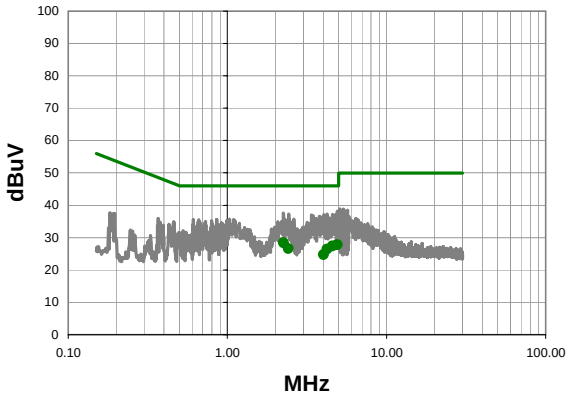
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

Run #	1	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
2.252	20.8	20.6	41.4	56.0	-14.6
4.900	19.3	20.6	39.9	56.0	-16.1
4.572	19.0	20.6	39.6	56.0	-16.4
4.236	18.7	20.6	39.3	56.0	-16.7
2.420	17.7	20.6	38.3	56.0	-17.7
4.028	16.0	20.6	36.6	56.0	-19.4

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
2.252	7.8	20.6	28.4	46.0	-17.6
4.900	7.1	20.6	27.7	46.0	-18.3
4.572	6.8	20.6	27.4	46.0	-18.6
2.420	6.0	20.6	26.6	46.0	-19.4
4.236	5.8	20.6	26.4	46.0	-19.6
4.028	4.1	20.6	24.7	46.0	-21.3

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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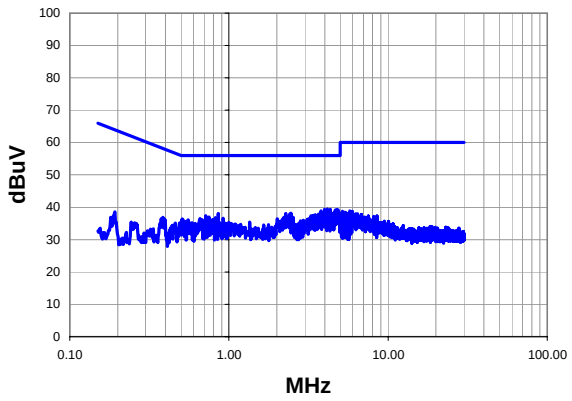
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	2 - Basic Configuration - with Ktec Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), low channel
Deviations:	No deviations.
Comments:	None

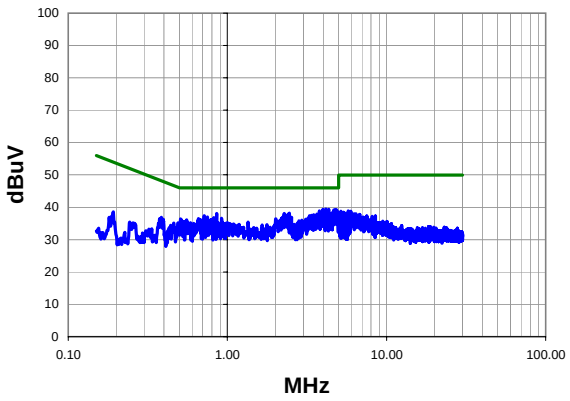
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

Run #	2	**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)
4.152	18.8	20.6	39.4	56.0	-16.6
4.328	18.7	20.6	39.3	56.0	-16.7
3.992	18.7	20.6	39.3	56.0	-16.7
4.784	18.6	20.6	39.2	56.0	-16.8
4.856	18.5	20.6	39.1	56.0	-16.9
4.656	18.5	20.6	39.1	56.0	-16.9
3.784	18.2	20.6	38.8	56.0	-17.2
4.224	18.1	20.6	38.7	56.0	-17.3
4.920	17.9	20.6	38.5	56.0	-17.5
2.456	17.6	20.6	38.2	56.0	-17.8
4.536	17.5	20.6	38.1	56.0	-17.9
4.040	17.5	20.6	38.1	56.0	-17.9
2.272	17.5	20.6	38.1	56.0	-17.9
0.855	17.4	20.7	38.1	56.0	-17.9
4.424	17.4	20.6	38.0	56.0	-18.0
3.648	17.3	20.6	37.9	56.0	-18.1
2.408	17.3	20.6	37.9	56.0	-18.1
3.488	17.1	20.6	37.7	56.0	-18.3
4.456	16.9	20.6	37.5	56.0	-18.5
3.936	16.9	20.6	37.5	56.0	-18.5

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
4.152	18.8	20.6	39.4	46.0	-6.6
4.328	18.7	20.6	39.3	46.0	-6.7
3.992	18.7	20.6	39.3	46.0	-6.7
4.784	18.6	20.6	39.2	46.0	-6.8
4.856	18.5	20.6	39.1	46.0	-6.9
4.656	18.5	20.6	39.1	46.0	-6.9
3.784	18.2	20.6	38.8	46.0	-7.2
4.224	18.1	20.6	38.7	46.0	-7.3
4.920	17.9	20.6	38.5	46.0	-7.5
2.456	17.6	20.6	38.2	46.0	-7.8
4.536	17.5	20.6	38.1	46.0	-7.9
4.040	17.5	20.6	38.1	46.0	-7.9
2.272	17.5	20.6	38.1	46.0	-7.9
0.855	17.4	20.7	38.1	46.0	-7.9
4.424	17.4	20.6	38.0	46.0	-8.0
3.648	17.3	20.6	37.9	46.0	-8.1
2.408	17.3	20.6	37.9	46.0	-8.1
3.488	17.1	20.6	37.7	46.0	-8.3
4.456	16.9	20.6	37.5	46.0	-8.5
3.936	16.9	20.6	37.5	46.0	-8.5

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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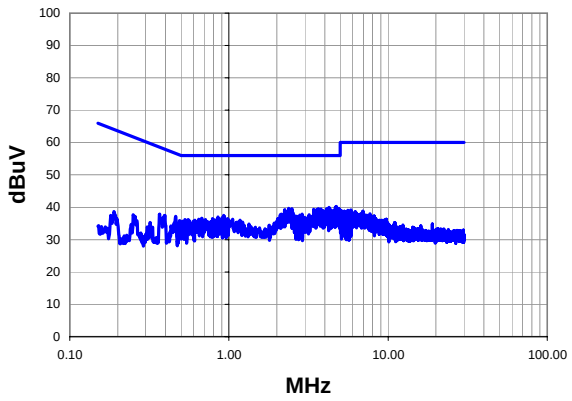
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	2 - Basic Configuration - with Ktec Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), mid channel
Deviations:	No deviations.
Comments:	None

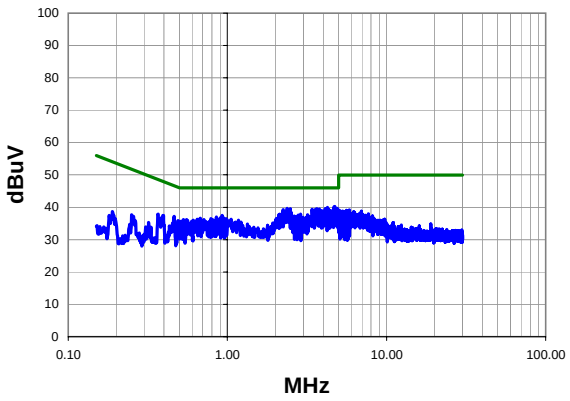
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

Run #	3	**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)
4.720	19.6	20.6	40.2	56.0	-15.8
4.656	19.4	20.6	40.0	56.0	-16.0
4.256	19.3	20.6	39.9	56.0	-16.1
2.376	19.1	20.6	39.7	56.0	-16.3
4.920	19.0	20.6	39.6	56.0	-16.4
2.488	19.0	20.6	39.6	56.0	-16.4
4.120	18.9	20.6	39.5	56.0	-16.5
3.656	18.9	20.6	39.5	56.0	-16.5
3.784	18.8	20.6	39.4	56.0	-16.6
3.408	18.8	20.6	39.4	56.0	-16.6
4.864	18.7	20.6	39.3	56.0	-16.7
4.784	18.7	20.6	39.3	56.0	-16.7
4.328	18.7	20.6	39.3	56.0	-16.7
3.584	18.7	20.6	39.3	56.0	-16.7
2.240	18.7	20.6	39.3	56.0	-16.7
4.984	18.5	20.7	39.2	56.0	-16.8
3.720	18.5	20.6	39.1	56.0	-16.9
3.504	18.5	20.6	39.1	56.0	-16.9
3.528	18.4	20.6	39.0	56.0	-17.0
4.400	18.3	20.6	38.9	56.0	-17.1

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
4.720	19.6	20.6	40.2	46.0	-5.8
4.656	19.4	20.6	40.0	46.0	-6.0
4.256	19.3	20.6	39.9	46.0	-6.1
2.376	19.1	20.6	39.7	46.0	-6.3
4.920	19.0	20.6	39.6	46.0	-6.4
2.488	19.0	20.6	39.6	46.0	-6.4
4.120	18.9	20.6	39.5	46.0	-6.5
3.656	18.9	20.6	39.5	46.0	-6.5
3.784	18.8	20.6	39.4	46.0	-6.6
3.408	18.8	20.6	39.4	46.0	-6.6
4.864	18.7	20.6	39.3	46.0	-6.7
4.784	18.7	20.6	39.3	46.0	-6.7
4.328	18.7	20.6	39.3	46.0	-6.7
3.584	18.7	20.6	39.3	46.0	-6.7
2.240	18.7	20.6	39.3	46.0	-6.7
4.984	18.5	20.7	39.2	46.0	-6.8
3.720	18.5	20.6	39.1	46.0	-6.9
3.504	18.5	20.6	39.1	46.0	-6.9
3.528	18.4	20.6	39.0	46.0	-7.0
4.400	18.3	20.6	38.9	46.0	-7.1

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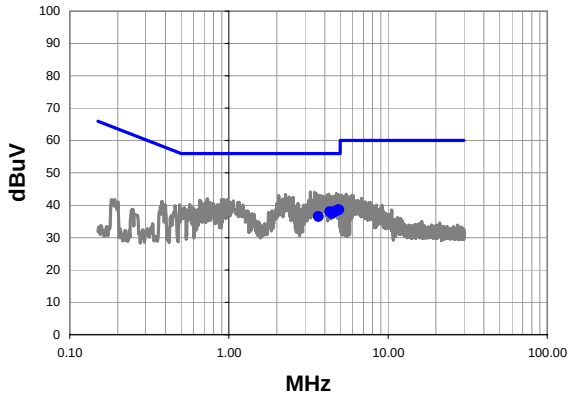
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	2 - Basic Configuration - with Ktec Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), mid channel
Deviations:	No deviations.
Comments:	None

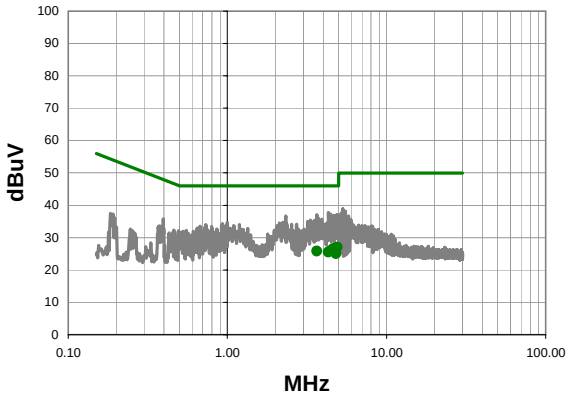
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
4.916	17.9	20.6	38.5	56.0	-17.5
4.820	17.8	20.6	38.4	56.0	-17.6
4.652	17.4	20.6	38.0	56.0	-18.0
4.320	17.3	20.6	37.9	56.0	-18.1
4.456	16.7	20.6	37.3	56.0	-18.7
3.656	15.9	20.6	36.5	56.0	-19.5

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
4.916	6.4	20.6	27.0	46.0	-19.0
4.652	6.0	20.6	26.6	46.0	-19.4
4.456	5.3	20.6	25.9	46.0	-20.1
3.656	5.2	20.6	25.8	46.0	-20.2
4.320	4.9	20.6	25.5	46.0	-20.5
4.820	4.4	20.6	25.0	46.0	-21.0

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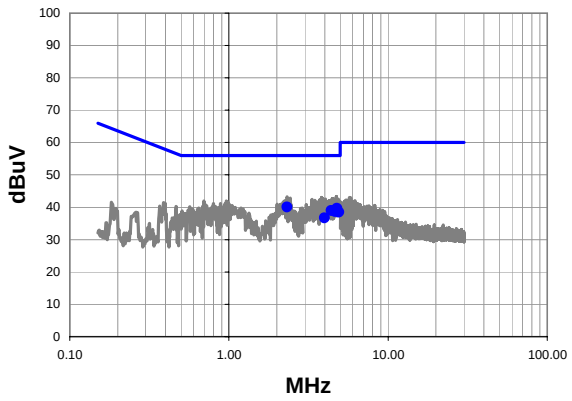
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	2 - Basic Configuration - with Ktec Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), high channel
Deviations:	No deviations.
Comments:	None

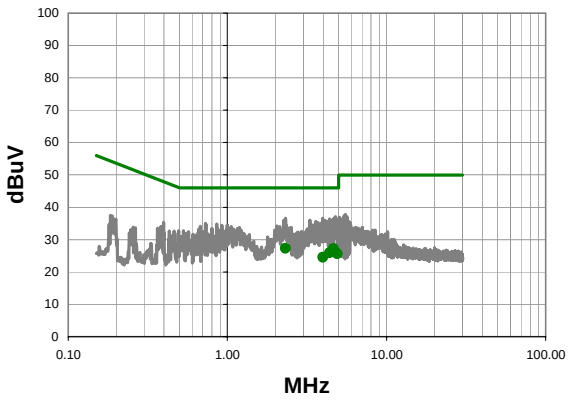
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
2.324	19.5	20.6	40.1	56.0	-15.9
4.780	19.0	20.6	39.6	56.0	-16.4
4.384	18.3	20.6	38.9	56.0	-17.1
4.644	18.0	20.6	38.6	56.0	-17.4
4.920	17.8	20.6	38.4	56.0	-17.6
3.988	16.1	20.6	36.7	56.0	-19.3

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
2.324	6.7	20.6	27.3	46.0	-18.7
4.644	6.6	20.6	27.2	46.0	-18.8
4.780	5.5	20.6	26.1	46.0	-19.9
4.384	5.3	20.6	25.9	46.0	-20.1
4.920	5.0	20.6	25.6	46.0	-20.4
3.988	3.9	20.6	24.5	46.0	-21.5

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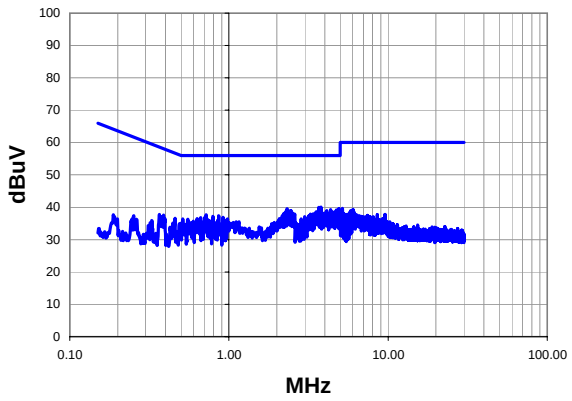
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	2 - Basic Configuration - with Ktec Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DH5) and 802.11(b) (1 Mbps, 0101), high channel
Deviations:	No deviations.
Comments:	None

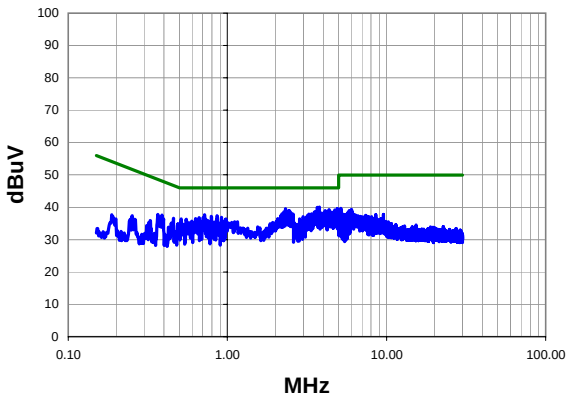
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit

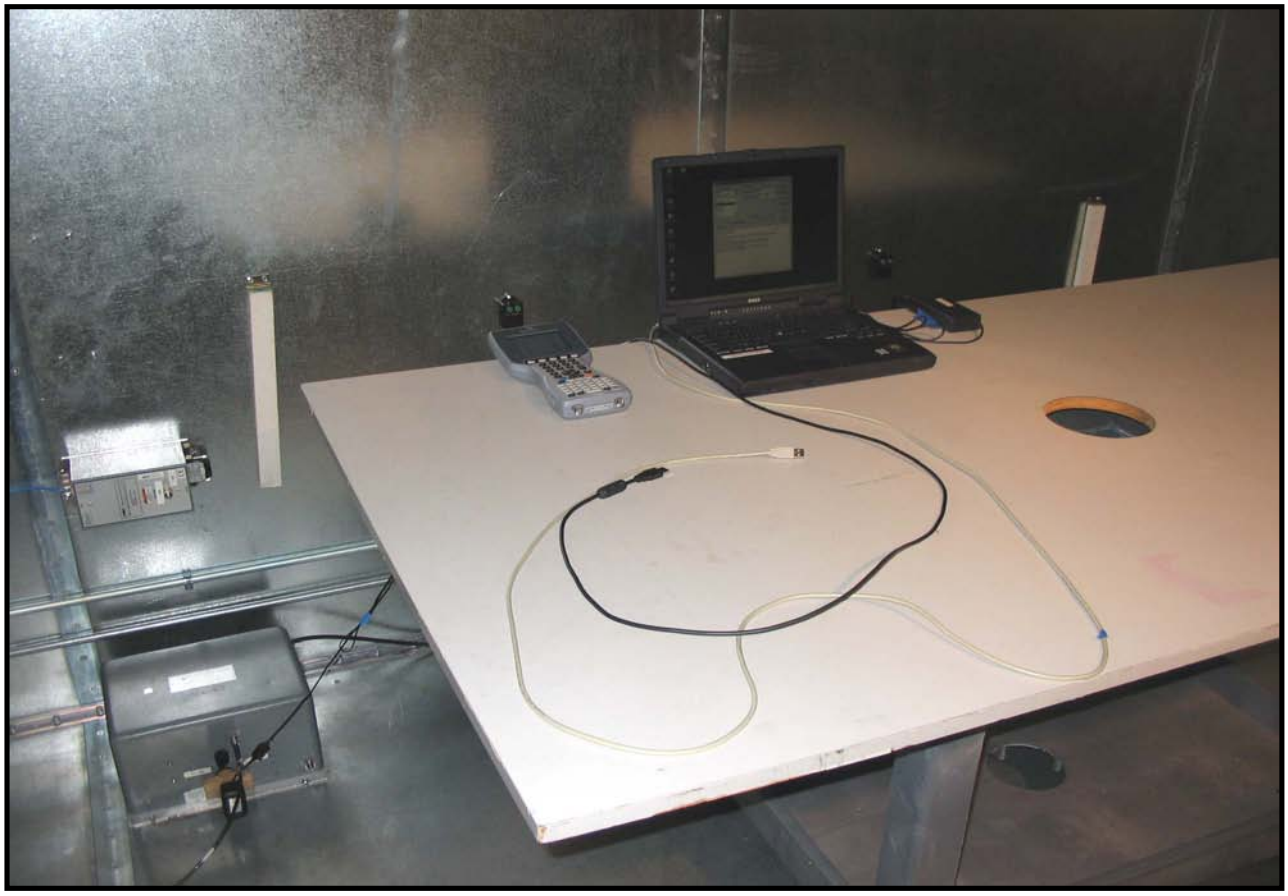


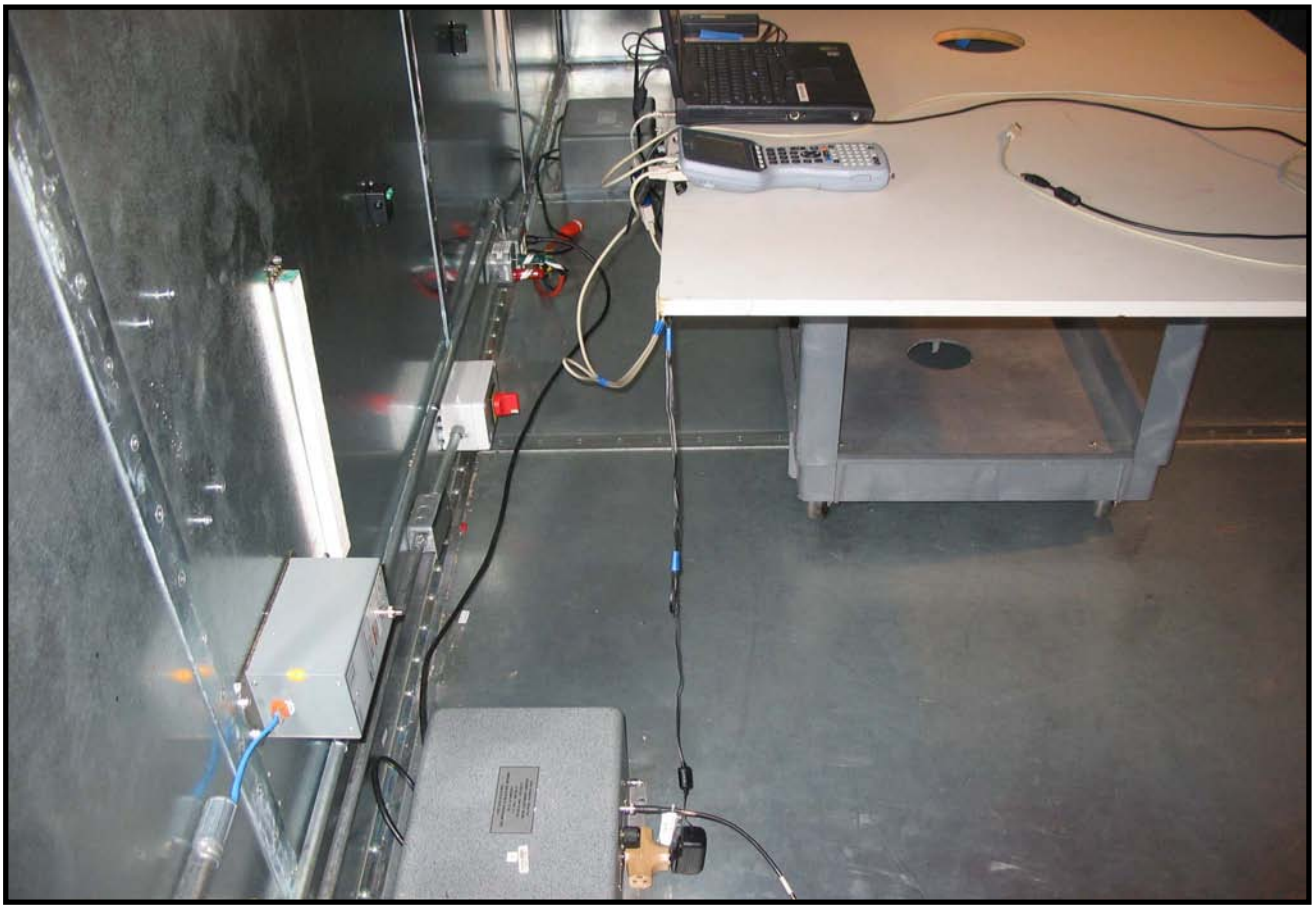
Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
3.784	19.4	20.6	40.0	56.0	-16.0
3.672	19.3	20.6	39.9	56.0	-16.1
2.320	19.0	20.6	39.6	56.0	-16.4
4.912	18.9	20.6	39.5	56.0	-16.5
3.736	18.8	20.6	39.4	56.0	-16.6
4.344	18.6	20.6	39.2	56.0	-16.8
4.720	18.5	20.6	39.1	56.0	-16.9
2.432	18.4	20.6	39.0	56.0	-17.0
4.784	18.3	20.6	38.9	56.0	-17.1
4.112	18.3	20.6	38.9	56.0	-17.1
2.464	18.3	20.6	38.9	56.0	-17.1
4.384	18.1	20.6	38.7	56.0	-17.3
3.544	18.0	20.6	38.6	56.0	-17.4
2.264	18.0	20.6	38.6	56.0	-17.4
4.656	17.9	20.6	38.5	56.0	-17.5
4.984	17.8	20.7	38.5	56.0	-17.5
4.512	17.8	20.6	38.4	56.0	-17.6
4.048	17.7	20.6	38.3	56.0	-17.7
3.856	17.7	20.6	38.3	56.0	-17.7
2.520	17.6	20.6	38.2	56.0	-17.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
3.784	19.4	20.6	40.0	46.0	-6.0
3.672	19.3	20.6	39.9	46.0	-6.1
2.320	19.0	20.6	39.6	46.0	-6.4
4.912	18.9	20.6	39.5	46.0	-6.5
3.736	18.8	20.6	39.4	46.0	-6.6
4.344	18.6	20.6	39.2	46.0	-6.8
4.720	18.5	20.6	39.1	46.0	-6.9
2.432	18.4	20.6	39.0	46.0	-7.0
4.784	18.3	20.6	38.9	46.0	-7.1
4.112	18.3	20.6	38.9	46.0	-7.1
2.464	18.3	20.6	38.9	46.0	-7.1
4.384	18.1	20.6	38.7	46.0	-7.3
3.544	18.0	20.6	38.6	46.0	-7.4
2.264	18.0	20.6	38.6	46.0	-7.4
4.656	17.9	20.6	38.5	46.0	-7.5
4.984	17.8	20.7	38.5	46.0	-7.5
4.512	17.8	20.6	38.4	46.0	-7.6
4.048	17.7	20.6	38.3	46.0	-7.7
3.856	17.7	20.6	38.3	46.0	-7.7
2.520	17.6	20.6	38.2	46.0	-7.8





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 BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), low channel
Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), high channel
Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), mid channel

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

3

SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwarz	ESCI	ARG	12/7/2007	13 mo
High Pass Filter	T.T.E.	7766	HFG	2/5/2008	13 mo
EV07 Cables		Conducted Cables	EVG	5/2/2008	13 mo
Attenuator	Coaxicom	66702 2910-20	ATO	6/30/2008	13 mo
LISN	Solar	9252-50-R-24-BNC	LIR	1/4/2008	13 mo
LISN	Solar	9252-50-R-24-BNC	LIP	1/4/2008	13 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

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is 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.

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

PSA-ESCI 2008.07.07
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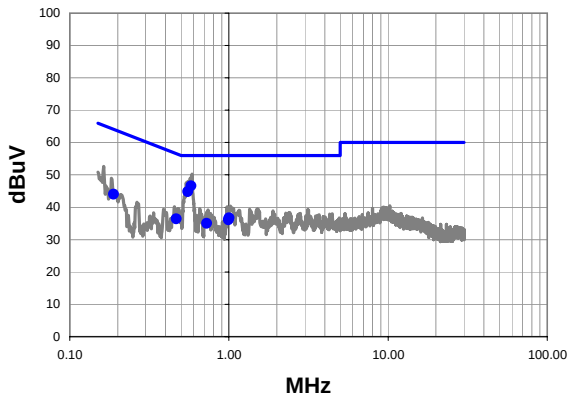
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	3 - Basic Configuration - with PhiHong Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), mid channel
Deviations:	No deviations.
Comments:	None

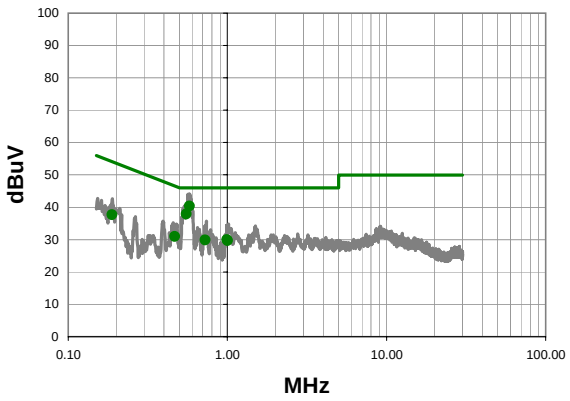
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.577	25.7	20.8	46.5	56.0	-9.5
0.551	23.9	20.9	44.8	56.0	-11.2
1.004	16.1	20.6	36.7	56.0	-19.3
0.994	15.5	20.6	36.1	56.0	-19.9
0.189	22.7	21.3	44.0	64.1	-20.1
0.468	15.5	20.9	36.4	56.5	-20.1
0.726	14.3	20.8	35.1	56.0	-20.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.577	19.5	20.8	40.3	46.0	-5.7
0.551	17.0	20.9	37.9	46.0	-8.1
0.468	10.1	20.9	31.0	46.5	-15.5
0.994	9.4	20.6	30.0	46.0	-16.0
0.726	9.1	20.8	29.9	46.0	-16.1
1.004	9.1	20.6	29.7	46.0	-16.3
0.189	16.4	21.3	37.7	54.1	-16.4

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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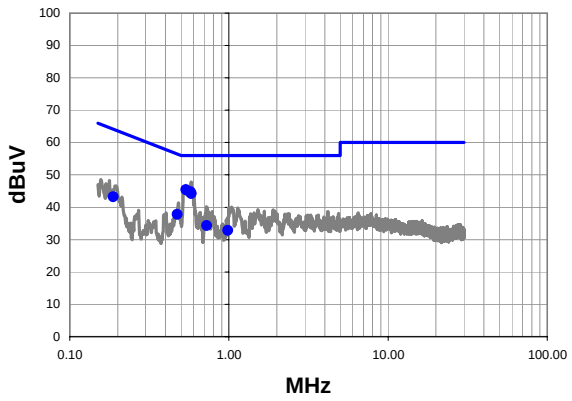
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	3 - Basic Configuration - with PhiHong Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), mid channel
Deviations:	No deviations.
Comments:	None

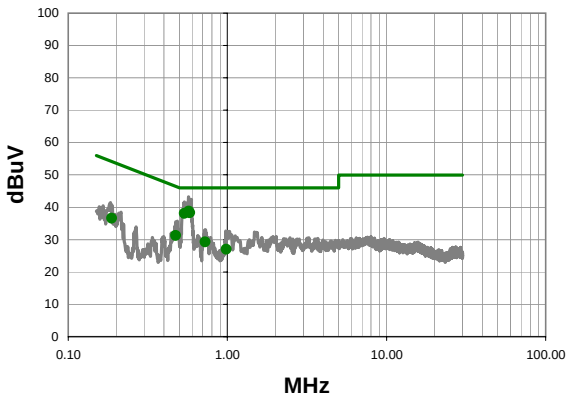
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.538	24.5	20.9	45.4	56.0	-10.6
0.574	24.0	20.8	44.8	56.0	-11.2
0.582	23.4	20.8	44.2	56.0	-11.8
0.473	16.9	20.9	37.8	56.5	-18.7
0.188	21.9	21.3	43.2	64.1	-20.9
0.724	13.6	20.8	34.4	56.0	-21.6
0.984	12.2	20.6	32.8	56.0	-23.2

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.574	17.9	20.8	38.7	46.0	-7.3
0.582	17.4	20.8	38.2	46.0	-7.8
0.538	17.2	20.9	38.1	46.0	-7.9
0.473	10.4	20.9	31.3	46.5	-15.2
0.724	8.5	20.8	29.3	46.0	-16.7
0.188	15.3	21.3	36.6	54.1	-17.5
0.984	6.4	20.6	27.0	46.0	-19.0

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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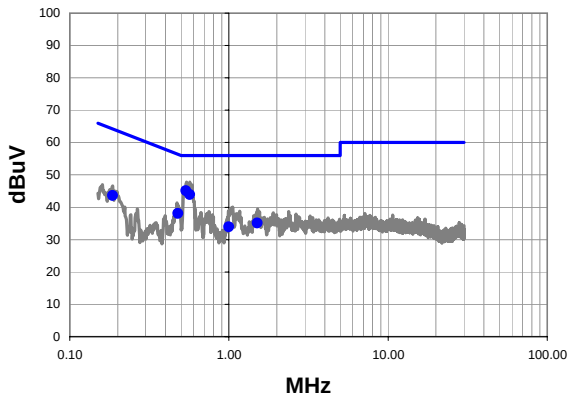
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	3 - Basic Configuration - with PhiHong Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), high channel
Deviations:	No deviations.
Comments:	None

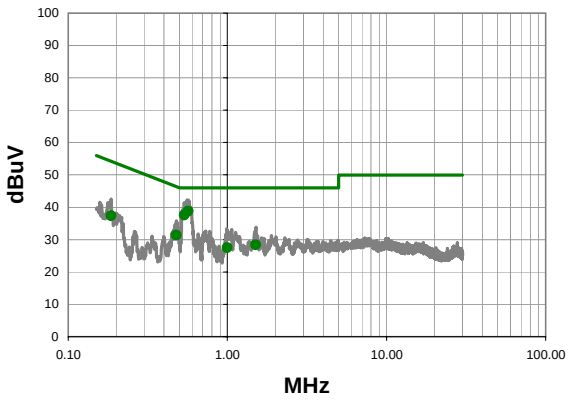
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.536	24.2	20.9	45.1	56.0	-10.9
0.568	23.1	20.9	44.0	56.0	-12.1
0.478	17.2	20.9	38.1	56.4	-18.3
0.186	22.3	21.3	43.6	64.2	-20.6
1.508	14.5	20.6	35.1	56.0	-20.9
0.999	13.3	20.6	33.9	56.0	-22.1

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.568	17.9	20.9	38.8	46.0	-7.3
0.536	16.7	20.9	37.6	46.0	-8.4
0.478	10.5	20.9	31.4	46.4	-15.0
0.186	16.0	21.3	37.3	54.2	-16.9
1.508	7.8	20.6	28.4	46.0	-17.6
0.999	6.9	20.6	27.5	46.0	-18.5

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AC POWERLINE CONDUCTED EMISSIONS

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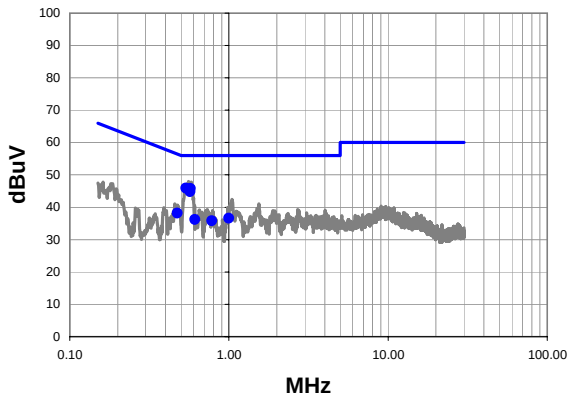
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	3 - Basic Configuration - with PhiHong Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), high channel
Deviations:	No deviations.
Comments:	None

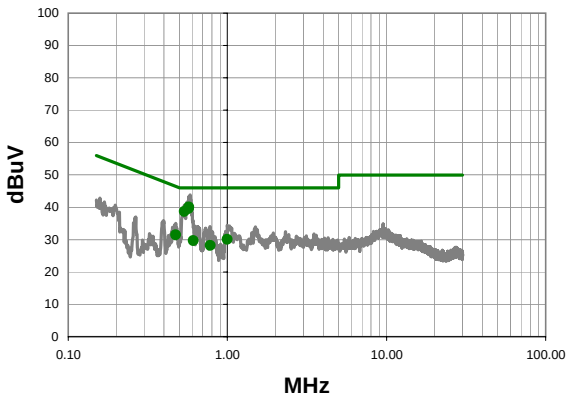
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.536	25.0	20.9	45.9	56.0	-10.1
0.572	24.9	20.8	45.7	56.0	-10.3
0.570	24.0	20.8	44.8	56.0	-11.2
0.473	17.3	20.9	38.2	56.5	-18.3
1.000	16.0	20.6	36.6	56.0	-19.4
0.612	15.4	20.8	36.2	56.0	-19.8
0.783	15.1	20.7	35.8	56.0	-20.2

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.572	19.2	20.8	40.0	46.0	-6.0
0.570	18.7	20.8	39.5	46.0	-6.5
0.536	17.8	20.9	38.7	46.0	-7.3
0.473	10.6	20.9	31.5	46.5	-15.0
1.000	9.5	20.6	30.1	46.0	-15.9
0.612	8.9	20.8	29.7	46.0	-16.3
0.783	7.5	20.7	28.2	46.0	-17.8

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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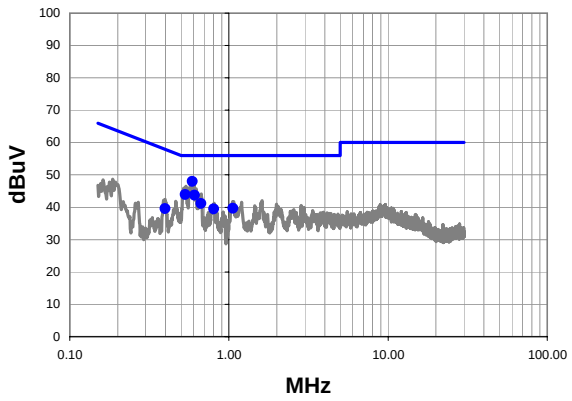
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett
EUT:	Allegro MX BC04 Module				
Configuration:	3 - Basic Configuration - with PhiHong Power Adapter				
Customer:	Juniper Systems, Inc.				
Attendees:	None				
EUT Power:	120VAC/60Hz				
Operating Mode:	Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), low channel				
Deviations:	No deviations.				
Comments:	None				

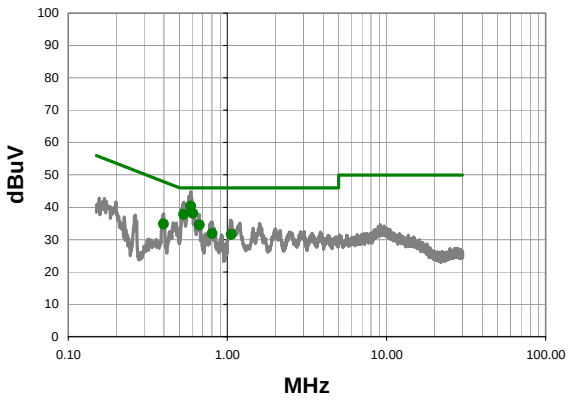
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.590	27.1	20.8	47.9	56.0	-8.1
0.531	23.0	20.9	43.9	56.0	-12.1
0.607	22.9	20.8	43.7	56.0	-12.3
0.667	20.4	20.8	41.2	56.0	-14.8
1.060	19.1	20.6	39.7	56.0	-16.3
0.802	18.8	20.7	39.5	56.0	-16.5
0.397	18.6	20.9	39.5	57.9	-18.4

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.590	19.5	20.8	40.3	46.0	-5.7
0.607	17.3	20.8	38.1	46.0	-7.9
0.531	16.9	20.9	37.8	46.0	-8.2
0.667	13.7	20.8	34.5	46.0	-11.5
0.397	13.9	20.9	34.8	47.9	-13.1
0.802	11.1	20.7	31.8	46.0	-14.2
1.060	11.0	20.6	31.6	46.0	-14.4

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

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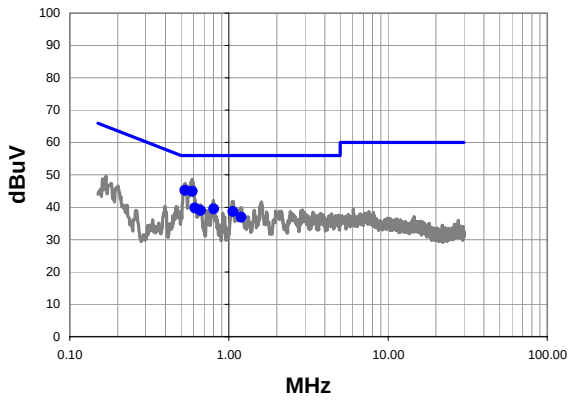
Work Order:	JUNI0005	**Date:**	09/04/08		
Project:	None	**Temperature:**	23		
Job Site:	EV10	**Humidity:**	40		
Serial Number:	None	**Barometric Pres.:**	1022.4	**Tested by:**	Jennifer Herrett

EUT:	Allegro MX BC04 Module
Configuration:	3 - Basic Configuration - with PhiHong Power Adapter
Customer:	Juniper Systems, Inc.
Attendees:	None
EUT Power:	120VAC/60Hz
Operating Mode:	Transmitting BT (8DPSK/3DT5) and 802.11(b) (1Mbps, 0101), low channel
Deviations:	No deviations.
Comments:	None

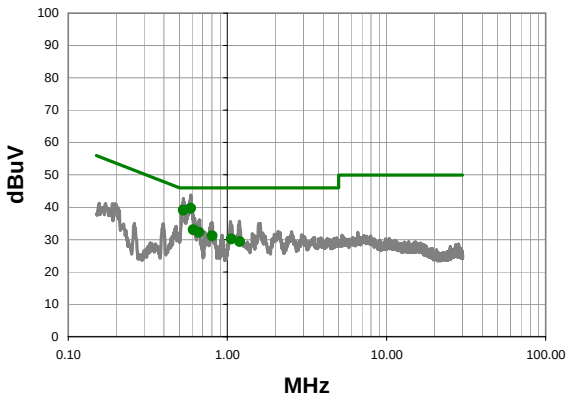
Test Specifications	**Test Method**
FCC 15.207:2007	ANSI C63.4:2003

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

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.529	24.3	20.9	45.2	56.0	-10.8
0.589	24.1	20.8	44.9	56.0	-11.1
0.611	18.9	20.8	39.7	56.0	-16.3
0.805	18.8	20.7	39.5	56.0	-16.5
0.664	18.2	20.8	39.0	56.0	-17.0
1.060	18.1	20.6	38.7	56.0	-17.3
1.196	16.3	20.6	36.9	56.0	-19.1

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.589	18.8	20.8	39.6	46.0	-6.4
0.529	18.2	20.9	39.1	46.0	-6.9
0.611	12.2	20.8	33.0	46.0	-13.0
0.664	11.5	20.8	32.3	46.0	-13.7
0.805	10.5	20.7	31.2	46.0	-14.8
1.060	9.6	20.6	30.2	46.0	-15.8
1.196	8.8	20.6	29.4	46.0	-16.6