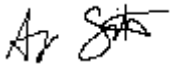
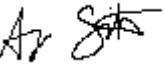


Test Report TR3871B

Equipment Under Test:	BD Neo Infusion Pump
Requirement(s):	FCC 15.407
Test Date(s):	3/12/2025-4/23/2025
Prepared for:	DEKA Research Attn: Jack Murphy 340 Commercial Street Manchester, NH 03101

Report Issued by: Anthony Smith, EMC Engineering Specialist	
Signature: 	Date: 11/19/2025
Report Reviewed by: Adam Alger, Sr. Manager, EMC Laboratory	
Signature: 	Date: 11/19/2025
Report Constructed by: Anthony Smith, EMC Engineering Specialist	
Signature: 	Date: 6/9/2025

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Company: DEKA Research	Page 1 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

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Ezurio Test Services in Review

The Ezurio laboratory located at W66 N220 Commerce Court Cedarburg, Wisconsin, 53012 USA is recognized through the following organizations:



A2LA – American Association for Laboratory Accreditation

Accreditation based on ISO/IEC 17025:2017 with Electrical (EMC) Scope

A2LA Certificate Number: 1255.01

Scope of accreditation includes all test methods listed herein unless otherwise noted



Federal Communications Commission (FCC) – USA

Accredited Test Firm Registration Number: 953492

Recognition of two 3 meter Semi-Anechoic Chambers



Innovation, Science and Economic Development Canada

Accredited U.S. Identification Number: US0218

Recognition of two 3 meter Semi-Anechoic Chambers

Company: DEKA Research	Page 3 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

1 TEST REPORT SUMMARY

During **3/12/2025-4/23/2025** the Equipment Under Test (EUT), **BD Neo Infusion Pump**, as provided by **DEKA Research** was tested to the following requirements:

Operation in the 5.15-5.25, 5.25-5.35, 5.47-5.725, and 5.735-5.835 GHz bands

Requirements	Description	Method	Compliant
15.407(b) (1), (2), (3), (4), (9), and (10) 15.209	Spurious Radiated Emissions in Restricted Bands 30-40000 MHz	ANSI C63.10	Yes
15.407(a)	26 dB and 99% Occupied Bandwidth	ANSI C63.10	Yes
15.407(b)(1)(2)(3)(4)	Conducted Out-of-band Emissions	ANSI C63.10	Yes
15.407(a)(5)	Power Spectral Density	ANSI C63.10	Yes
15.407(g)	Frequency Stability	ANSI C63.10	Reported
FCC 15.407(b)(9)	AC Mains Conducted Emissions	ANSI C63.10	Yes

Notice:

The results relate only to the item tested as configured and described in this report. Any additional configurations, modes of operation, or modifications made to the equipment under test after the specified test date(s) are at the decision of the client and may not apply to the data seen in this test report.

The decision rule for Pass / Fail assessment to the specification or standard listed in this test report has been agreed upon by the client and laboratory to be as follows:

Measurement Type	Rule
Emissions – Amplitude	1 dB below specified limit
Emissions – Frequency	1% less than the specification
Immunity	Tested at specified level

Company: DEKA Research	Page 4 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

2 CLIENT INFORMATION

Company Name	DEKA Research
Contact Person	Jack Murphy
Address	340 Commercial Street Manchester, NH 03101

2.1 Equipment Under Test (EUT) Information

The following information has been supplied by the client

Product Name	BD Neo Infusion Pump
Model Number	BD Neo PCU: 9200 BD Neo Pump Module: 9210
Serial Number	PCU 03010574: Config 33 used for comparison PCU 03010575: Config 34 used for reported test data PCU 03010576: Config 34 used for conducted RF test data PCU 03010615: Config 39 with antenna termination used for AC Mains Conducted Emissions
Date of Receipt	2/20/2025
Condition	Good
FCC ID	2ATGAST60

2.2 Product Description

The Neo Infusion Device is a modular system that accurately infuses a broad range of drugs fluids, parenteral nutrition solutions, blood, and blood products. The Neo Infusion Device is intended for use in professional Healthcare Facilities on adult, pediatric, and neonatal patients. The Neo Infusion Device consists of the Point-of-Care Unit (PCU), and up to four detachable Large Volume Pump (LVP) Modules, which provide infusion capabilities.

2.3 Modifications Incorporated for Compliance

None noted at time of test

2.4 Deviations and Exclusions from Test Specifications

None noted at time of test

Company: DEKA Research	Page 5 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
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2.5 Channels Tested

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Power Setting
20	36	11a	6M	5180	14
20	40	11a	6M	5200	18
20	48	11a	6M	5240	18
20	36	HT20	MCS0	5180	14
20	40	HT20	MCS0	5200	18
20	48	HT20	MCS0	5240	18
20	36	VHT20	MCS0	5180	14
20	40	VHT20	MCS0	5200	18
20	48	VHT20	MCS0	5240	18
20	52	11a	6M	5260	16
20	60	11a	6M	5300	16
20	64	11a	6M	5320	14
20	52	HT20	MCS0	5260	16
20	60	HT20	MCS0	5300	16
20	64	HT20	MCS0	5320	14
20	52	VHT20	MCS0	5260	16
20	60	VHT20	MCS0	5300	16
20	64	VHT20	MCS0	5320	14
20	100	11a	6M	5500	13
20	116	11a	6M	5580	18
20	140	11a	6M	5700	12
20	100	HT20	MCS0	5500	14
20	116	HT20	MCS0	5580	18
20	140	HT20	MCS0	5700	13
20	100	VHT20	MCS0	5500	14
20	116	VHT20	MCS0	5580	18
20	140	VHT20	MCS0	5700	13
20	144	11a	6M	5720	18
20	144	HT20	MCS0	5720	18
20	144	VHT20	MCS0	5720	18
20	149	11a	6M	5745	18
20	157	11a	6M	5785	18
20	165	11a	6M	5825	18
20	149	HT20	MCS0	5745	18
20	157	HT20	MCS0	5785	18
20	165	HT20	MCS0	5825	18
20	149	VHT20	MCS0	5745	18

Company: DEKA Research	Page 6 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

20	157	VHT20	MCS0	5785	18
20	165	VHT20	MCS0	5825	18
40	38	HT40	MCS0	5190	13
40	46	HT40	MCS0	5230	16
40	38	VHT40	MCS0	5190	13
40	46	VHT40	MCS0	5230	16
40	54	HT40	MCS0	5270	15
40	62	HT40	MCS0	5310	12
40	54	VHT40	MCS0	5270	15
40	62	VHT40	MCS0	5310	12
40	102	HT40	MCS0	5510	13
40	110	HT40	MCS0	5550	16
40	134	HT40	MCS0	5670	14
40	102	VHT40	MCS0	5510	13
40	110	VHT40	MCS0	5550	16
40	134	VHT40	MCS0	5670	14
40	142	HT40	MCS0	5710	16
40	142	VHT40	MCS0	5710	16
40	151	HT40	MCS0	5755	16
40	159	HT40	MCS0	5795	16
40	151	VHT40	MCS0	5755	16
40	159	VHT40	MCS0	5795	16
80	42	VHT80	MCS0	5210	10
80	58	VHT80	MCS0	5290	11
80	106	VHT80	MCS0	5530	11
80	122	VHT80	MCS0	5610	14
80	138	VHT80	MCS0	5690	14
80	155	VHT80	MCS0	5775	14

2.6 Additional Information

Radio programmed via Labtool software. Two configurations exist for device. These are known as Config 33 and Config 34. Config 34 was used for reported test results. Devices were checked to compare any concerning areas, and no substantial differences were noted.

Transmitters in EUT:

125 kHz: Inductively coupled “proximity” identification or access control technology.

13.56 MHz: Inductively coupled and capable of reading NFC credentials as well as other credentials operating at 13.56 MHz.

2.4/5 GHz: WLAN – 802.11a/b/g/n/ac.

Company: DEKA Research	Page 7 of 44	Name: BD Neo Infusion Pump
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2.7 Software Versions

Milestone 29 Wifi Test Version

Neo Clinical Application Version 1.3.7.6001

Normal Badge Reader software 2.3.3

Labtool Version 1.0.0.164

2.8 Auxiliary Equipment

Laptop

Dell Latitude 5450

MN: P165G

SN: 15702971583

Network Switch

Cisco SG200-08

MN: SLM2008T-V01

SN: PSJ150800KY

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Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

3 REFERENCES

Publication	Edition	Date	AMD 1	AMD 2
FCC eCFR 47 Part 15	-	2025	-	-
ANSI C63.10	-	2020	2024	-
TR3871C	-	2025	-	-

4 UNCERTAINTY SUMMARY

Using the guidance of the following publications the calculated measurement uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level, using a coverage factor of $k = 2$.

References
CISPR 16-4-1
CISPR 16-4-2
CISPR 32
ANSI C63.23
A2LA P103
A2LA P103c
ETSI TR 100-028

Measurement Type	Configuration	Uncertainty $\pm$
Radiated Emissions	Biconical Antenna	5.0 dB
Radiated Emissions	Log Periodic Antenna	5.3 dB
Radiated Emissions	Horn Antenna	4.7 dB
AC Line Conducted Emissions	Artificial Mains Network	3.4 dB
Telecom Conducted Emissions	Asymmetric Artificial Network	4.9 dB
Disturbance Power Emissions	Absorbing Clamp	4.1 dB
Radiated Immunity	3 Volts/meter	2.2 dB
Conducted Immunity	CDN/EM/BCI	2.4/3.5/3.4 dB
EFT Burst/Surge	Peak pulse voltage	164 volts
ESD Immunity	15 kV level	1377 Volts

Parameter	ETSI U.C. $\pm$	U.C. $\pm$
Radio Frequency, from F0	1×10^{-7}	0.55×10^{-7}
Occupied Channel Bandwidth	5 %	2 %
RF conducted Power (Power Meter)	1.5 dB	1.2 dB
RF conducted emissions (Spectrum Analyzer)	3.0 dB	1.7 dB
All emissions, radiated	6.0 dB	5.3 dB
Temperature	1° C	0.65° C
Humidity	5 %	2.9 %
Supply voltages	3 %	1 %

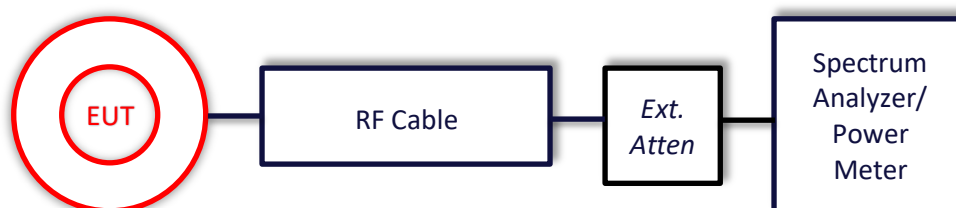
Company: DEKA Research	Page 10 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

5 TEST DATA

5.1 Antenna Port Conducted Emissions

Description of Measurement	The direct measurement of emissions at the antenna port of the EUT is achieved by use of a RF connection to a spectrum analyzer or power meter. The cable and attenuator factors are loaded into the analyzer or power meter allowing for direct measurement readings without the need for further corrections.
Example Calculations	Measurement (dBm) + Cable factor (dB) + External Attenuator (dB) = Corrected Reading (dBm) Margin (dB) = Limit (dBm) – Corrected Reading (dBm)

Block Diagram



Instrumentation

Asset #	Description	Manufacturer	Model #	Serial #	Date	Due Date	Status
AA 960144	Cable	Gore	EKD01D010720	5800373	1/28/2025	1/28/2026	Active Verification
EE 960070	AC Power Source	Cal. Inst.	1251RP	n/a	1/30/2025	1/30/2026	Active Verification
EE 960087	Analyzer - Spectrum	Agilent	N9010A	MY53400296	4/1/2025	4/1/2026	Active Calibration

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5.1.1 Fundamental Emission Output Power

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.7, 22.1, 21.4°C	R.H. %	28.4, 25.6, 32.3
Test Date	3/12/2025, 3/13/2025, 3/14/2025	Location	Conducted RF Bench
Requirement	FCC 15.407 (a)(1)(2)(3)	Method	ANSI C63.10

Limits:

The maximum peak conducted output power of the intentional radiator shall not exceed 250 mW in the 5.15-5.25, 5.25-5.35, and 5.47-5.725 GHz bands. It shall not exceed 1W in the 5.725-5.85 GHz band.

Test Parameters

Frequency	5150-5850 MHz	Setup	Conducted RF
RBW	1 MHz	VBW	3 MHz
Detector(s)	Average	Settings	Trace Average Span: 30 MHz, 60 MHz, 120 MHz

EUT Parameters

Input Power	120VAC 60 Hz	Mode	5 GHz WLAN Transmit
Frequency	5180-5835 MHz	Channel	See 2.5

Company: DEKA Research	Page 12 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

Table

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Measured Output Power (dBm) Chain 0	Measured Output Power (dBm) Chain 1	Total Power (mW)	Total Power (dBm)	Limit (dBm)	Margin (dB)	Power Setting
20	36	11a	6M	5180	14.1	13.8	49.7	17.0	24.0	7.0	14
20	40	11a	6M	5200	17.8	17.5	116.5	20.7	24.0	3.3	18
20	48	11a	6M	5240	17.3	17.3	107.4	20.3	24.0	3.7	18
20	36	HT20	MCS0	5180	14.1	13.9	50.3	17.0	24.0	7.0	14
20	40	HT20	MCS0	5200	17.9	17.8	121.9	20.9	24.0	3.1	18
20	48	HT20	MCS0	5240	17.5	17.5	112.5	20.5	24.0	3.5	18
20	36	VHT20	MCS0	5180	14.3	13.8	50.9	17.1	24.0	6.9	14
20	40	VHT20	MCS0	5200	18.0	17.6	120.6	20.8	24.0	3.2	18
20	48	VHT20	MCS0	5240	17.5	17.4	111.2	20.5	24.0	3.5	18
20	52	11a	6M	5260	15.1	15.6	68.7	18.4	23.9	5.5	16
20	60	11a	6M	5300	14.6	15.1	61.2	17.9	24.0	6.1	16
20	64	11a	6M	5320	12.5	13.1	38.2	15.8	24.0	8.2	14
20	52	HT20	MCS0	5260	15.3	15.5	69.4	18.4	24.0	5.6	16
20	60	HT20	MCS0	5300	14.7	15.2	62.6	18.0	24.0	6.0	16
20	64	HT20	MCS0	5320	12.6	13.2	39.1	15.9	24.0	8.1	14
20	52	VHT20	MCS0	5260	15.3	15.4	68.6	18.4	24.0	5.6	16
20	60	VHT20	MCS0	5300	14.7	15.2	62.6	18.0	24.0	6.0	16
20	64	VHT20	MCS0	5320	12.6	13.1	38.6	15.9	24.0	8.1	14
20	100	11a	6M	5500	10.3	12.1	26.9	14.3	24.0	9.7	13
20	116	11a	6M	5580	16.1	17.2	93.2	19.7	24.0	4.3	18
20	140	11a	6M	5700	11.0	11.0	25.2	14.0	23.8	9.8	12
20	100	HT20	MCS0	5500	11.4	13.2	34.7	15.4	24.0	8.6	14
20	116	HT20	MCS0	5580	16.3	17.4	97.6	19.9	24.0	4.1	18
20	140	HT20	MCS0	5700	12.1	12.1	32.4	15.1	24.0	8.9	13
20	100	VHT20	MCS0	5500	11.5	13.2	35.0	15.4	24.0	8.6	14
20	116	VHT20	MCS0	5580	16.3	17.4	97.6	19.9	24.0	4.1	18
20	140	VHT20	MCS0	5700	12.1	12.1	32.4	15.1	24.0	8.9	13
20	144	11a	6M	5720	16.8	16.7	94.6	19.8	24.0	4.2	18
20	144	HT20	MCS0	5720	16.8	16.8	95.7	19.8	24.0	4.2	18
20	144	VHT20	MCS0	5720	16.8	16.8	95.7	19.8	24.0	4.2	18
20	149	11a	6M	5745	17.1	16.5	96.0	19.8	30.0	10.2	18
20	157	11a	6M	5785	17.1	16.5	96.0	19.8	30.0	10.2	18
20	165	11a	6M	5825	16.9	16.4	92.6	19.7	30.0	10.3	18
20	149	HT20	MCS0	5745	17.3	16.7	100.5	20.0	30.0	10.0	18
20	157	HT20	MCS0	5785	17.3	16.7	100.5	20.0	30.0	10.0	18
20	165	HT20	MCS0	5825	17.1	16.6	97.0	19.9	30.0	10.1	18

Company: DEKA Research

Report: TR3871B

Job: C-3871

Name: BD Neo Infusion Pump

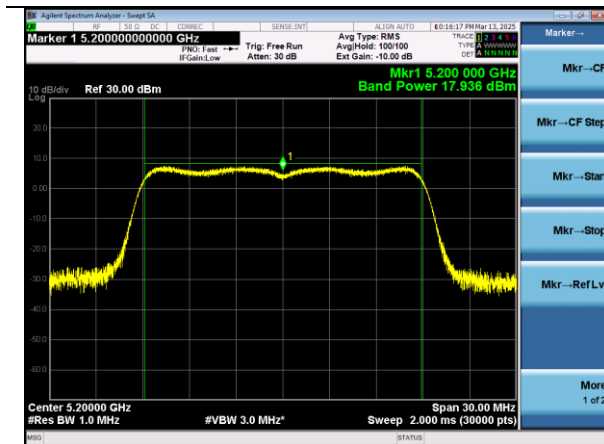
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BD Neo Pump Module: 9210

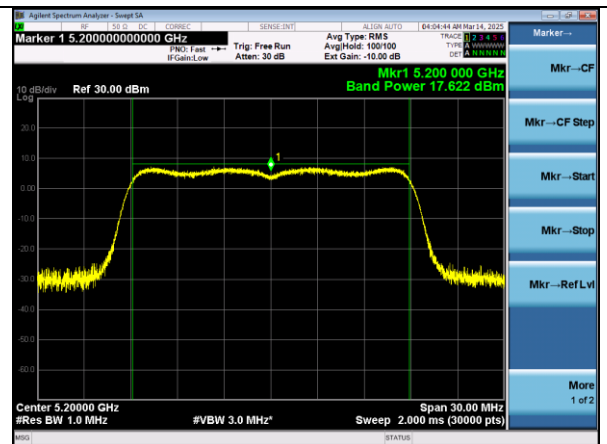
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20	157	VHT20	MCS0	5785	17.2	16.7	99.3	20.0	30.0	10.0	18
20	165	VHT20	MCS0	5825	17.1	16.6	97.0	19.9	30.0	10.1	18
40	38	HT40	MCS0	5190	13.0	12.7	38.6	15.9	24.0	8.1	13
40	46	HT40	MCS0	5230	15.7	15.5	72.6	18.6	24.0	5.4	16
40	38	VHT40	MCS0	5190	13.0	12.7	38.6	15.9	24.0	8.1	13
40	46	VHT40	MCS0	5230	15.7	15.4	71.8	18.6	24.0	5.4	16
40	54	HT40	MCS0	5270	14.2	14.3	53.2	17.3	30.0	12.7	15
40	62	HT40	MCS0	5310	10.7	11.2	24.9	14.0	30.0	16.0	12
40	54	VHT40	MCS0	5270	14.3	14.4	54.5	17.4	30.0	12.6	15
40	62	VHT40	MCS0	5310	10.7	11.2	24.9	14.0	30.0	16.0	12
40	102	HT40	MCS0	5510	10.7	12.3	28.7	14.6	30.0	15.4	13
40	110	HT40	MCS0	5550	14.2	15.5	61.8	17.9	30.0	12.1	16
40	134	HT40	MCS0	5670	13.4	13.5	44.3	16.5	30.0	13.5	14
40	102	VHT40	MCS0	5510	10.7	12.3	28.7	14.6	30.0	15.4	13
40	110	VHT40	MCS0	5550	14.1	15.5	61.2	17.9	30.0	12.1	16
40	134	VHT40	MCS0	5670	13.4	13.6	44.8	16.5	30.0	13.5	14
40	142	HT40	MCS0	5710	15.3	15.5	69.4	18.4	30.0	11.6	16
40	142	VHT40	MCS0	5710	15.3	15.4	68.6	18.4	30.0	11.6	16
40	151	HT40	MCS0	5755	15.6	14.8	66.5	18.2	30.0	11.8	16
40	159	HT40	MCS0	5795	15.5	14.9	66.4	18.2	30.0	11.8	16
40	151	VHT40	MCS0	5755	15.6	14.9	67.2	18.3	30.0	11.7	16
40	159	VHT40	MCS0	5795	15.5	14.9	66.4	18.2	30.0	11.8	16
80	42	VHT80	MCS0	5210	10.6	10.5	22.7	13.6	24.0	10.4	10
80	58	VHT80	MCS0	5290	10.8	11.0	24.6	13.9	30.0	16.1	11
80	106	VHT80	MCS0	5530	9.5	11.0	21.5	13.3	30.0	16.7	11
80	122	VHT80	MCS0	5610	13.4	14.4	49.4	16.9	30.0	13.1	14
80	138	VHT80	MCS0	5690	14.2	14.2	52.6	17.2	30.0	12.8	14
80	155	VHT80	MCS0	5775	14.5	13.7	51.6	17.1	30.0	12.9	14

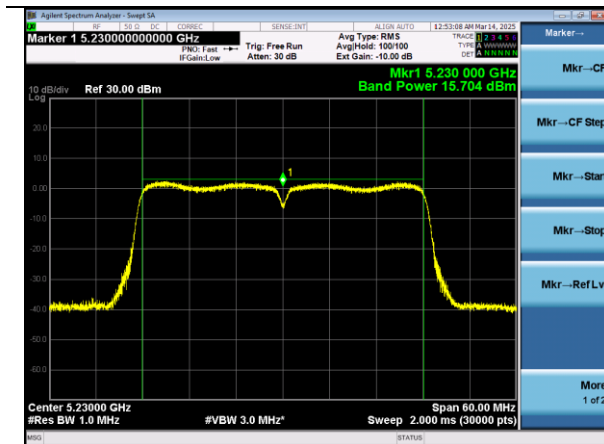
Worst Case Plots



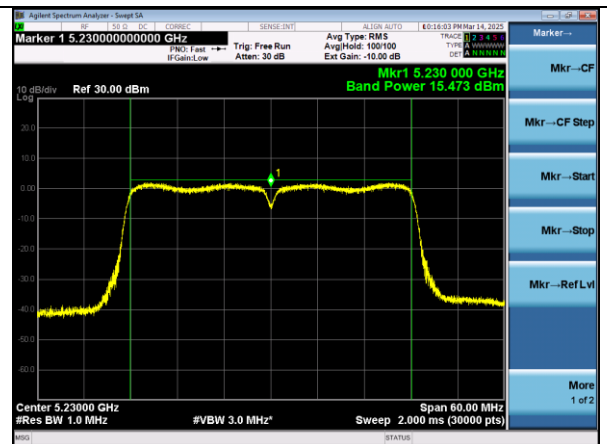
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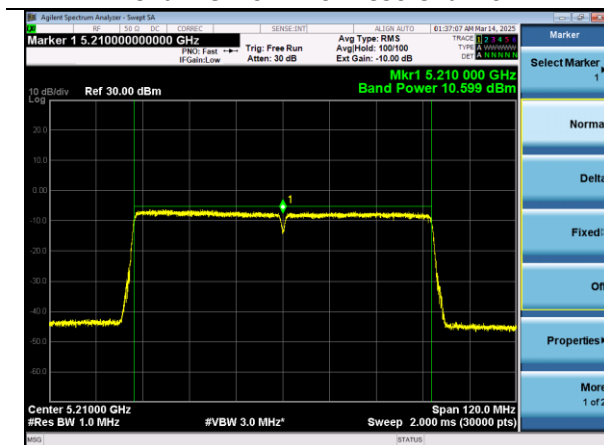
Channel 40 VHT20 MCS0 Chain 1



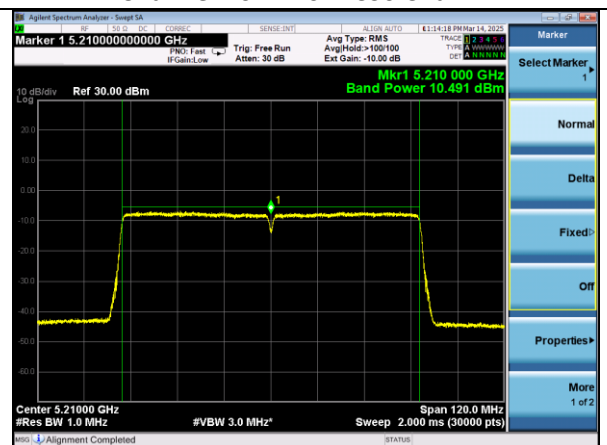
Channel 46 HT40 MCS0 Chain 0



Channel 46 HT40 MCS0 Chain 1



Channel 42 VHT80 MCS0 Chain 0



Channel 42 VHT80 MCS0 Chain 1

Company: DEKA Research		Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200
Job: C-3871	Page 15 of 44	BD Neo Pump Module: 9210
		Serial: 03010574, 03010575, 03010576, 03010615

5.1.2 Maximum Power Spectral Density

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.7, 22.1, 21.4°C	R.H. %	28.4, 25.6, 32.3
Test Date	3/12/2025, 3/13/2025, 3/14/2025	Location	Conducted RF Bench
Requirement	15.407(a)(5)	Method	ANSI C63.10

Limits:

Frequency (MHz)	Limit (dBm/MHz)	Limit (dBm/500kHz)
5150-5250	11	-
5250-5350	11	-
5470-5725	11	-
5725-5850	-	30

Test Parameters

Frequency	5150-5850 MHz	Setup	Conducted RF
RBW	1 MHz	VBW	3 MHz
Detector(s)	RMS Average	Settings	Trace Average

EUT Parameters

Input Power	120 VAC 60 Hz	Mode	5 GHz WLAN Transmit
Frequency	5180-5825 MHz	Channel	See 2.5

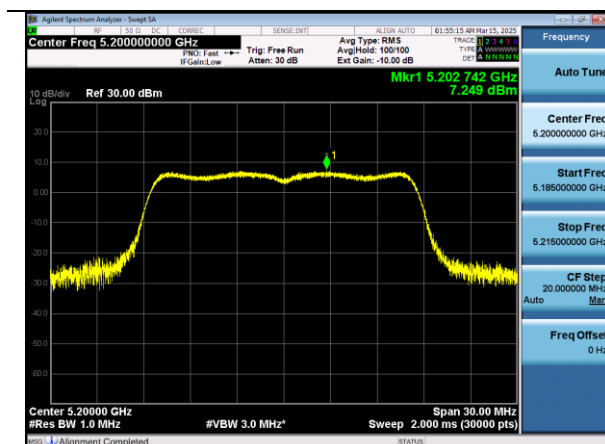
Table

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Measured PSD (dBm/1MHz)	Limit (dBm/MHz)	Margin (dB)
20	36	11a	6M	5180	3.7	11.0	7.3
20	40	11a	6M	5200	7.2	11.0	3.8
20	48	11a	6M	5240	7.2	11.0	3.8
20	36	HT20	MCS0	5180	3.2	11.0	7.8
20	40	HT20	MCS0	5200	7.0	11.0	4.0
20	48	HT20	MCS0	5240	6.9	11.0	4.1
20	36	VHT20	MCS0	5180	3.5	11.0	7.5
20	40	VHT20	MCS0	5200	7.0	11.0	4.0
20	48	VHT20	MCS0	5240	6.9	11.0	4.1
20	52	11a	6M	5260	5.1	11.0	5.9
20	60	11a	6M	5300	4.9	11.0	6.1
20	64	11a	6M	5320	2.8	11.0	8.2
20	52	HT20	MCS0	5260	4.9	11.0	6.1
20	60	HT20	MCS0	5300	4.8	11.0	6.2
20	64	HT20	MCS0	5320	2.8	11.0	8.2
20	52	VHT20	MCS0	5260	5.0	11.0	6.0
20	60	VHT20	MCS0	5300	4.6	11.0	6.4
20	64	VHT20	MCS0	5320	2.8	11.0	8.2
20	100	11a	6M	5500	1.7	11.0	9.3
20	116	11a	6M	5580	7.2	11.0	3.8
20	140	11a	6M	5700	0.6	11.0	10.4
20	100	HT20	MCS0	5500	3.0	11.0	8.0
20	116	HT20	MCS0	5580	7.1	11.0	3.9
20	140	HT20	MCS0	5700	1.7	11.0	9.3
20	100	VHT20	MCS0	5500	2.7	11.0	8.3
20	116	VHT20	MCS0	5580	6.9	11.0	4.1
20	140	VHT20	MCS0	5700	1.6	11.0	9.4
20	144	11a	6M	5720	6.6	11.0	4.4
20	144	HT20	MCS0	5720	6.4	11.0	4.6
20	144	VHT20	MCS0	5720	6.6	11.0	4.4
40	38	HT40	MCS0	5190	-0.7	11.0	11.7
40	46	HT40	MCS0	5230	1.9	11.0	9.1
40	38	VHT40	MCS0	5190	-0.9	11.0	11.9
40	46	VHT40	MCS0	5230	2.0	11.0	9.0
40	54	HT40	MCS0	5270	1.0	11.0	10.0

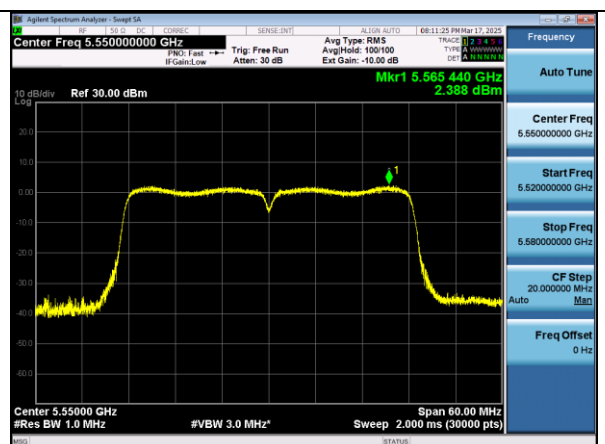
40	62	HT40	MCS0	5310	-2.2	11.0	13.2
40	54	VHT40	MCS0	5270	1.2	11.0	9.8
40	62	VHT40	MCS0	5310	-1.8	11.0	12.8
40	102	HT40	MCS0	5510	-0.9	11.0	11.9
40	110	HT40	MCS0	5550	2.4	11.0	8.6
40	134	HT40	MCS0	5670	0.4	11.0	10.6
40	102	VHT40	MCS0	5510	-1.1	11.0	12.1
40	110	VHT40	MCS0	5550	2.2	11.0	8.8
40	134	VHT40	MCS0	5670	0.1	11.0	10.9
40	142	HT40	MCS0	5710	2.0	11.0	9.0
40	142	VHT40	MCS0	5710	2.0	11.0	9.0
80	42	VHT80	MCS0	5210	-6.5	11.0	17.5
80	58	VHT80	MCS0	5290	-6.1	11.0	17.1
80	106	VHT80	MCS0	5530	-6.0	11.0	17.0
80	122	VHT80	MCS0	5610	-2.6	11.0	13.6
80	138	VHT80	MCS0	5690	-2.8	11.0	13.8

Nominal Bandwidth	Channel	Mode	Data Rate	Frequency (MHz)	Measured PSD (dBm/500kHz)	Limit (dBm/500kHz)	Margin (dB)
20	149	11a	6M	5745	3.3	30.0	26.7
20	157	11a	6M	5785	3.4	30.0	26.6
20	165	11a	6M	5825	3.4	30.0	26.6
20	149	HT20	MCS0	5745	3.3	30.0	26.7
20	157	HT20	MCS0	5785	3.3	30.0	26.7
20	165	HT20	MCS0	5825	3.4	30.0	26.6
20	149	VHT20	MCS0	5745	3.3	30.0	26.7
20	157	VHT20	MCS0	5785	3.5	30.0	26.5
20	165	VHT20	MCS0	5825	3.3	30.0	26.7
40	151	HT40	MCS0	5755	-1.5	30.0	31.5
40	159	HT40	MCS0	5795	-1.3	30.0	31.3
40	151	VHT40	MCS0	5755	-1.5	30.0	31.5
40	159	VHT40	MCS0	5795	-1.4	30.0	31.4
80	155	VHT80	MCS0	5775	-6.3	30.0	36.3

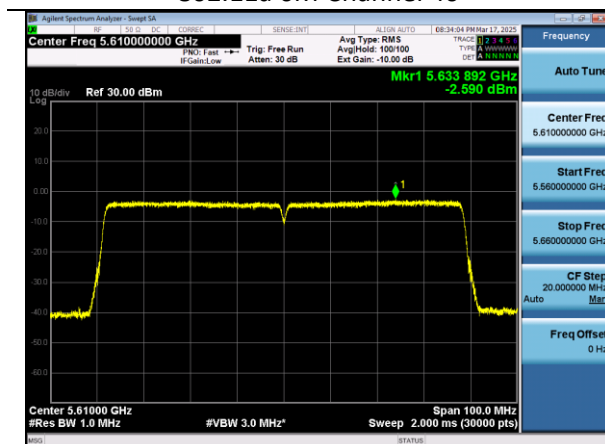
Worst Case Plots



802.11a 6M Channel 40



802.11 HT40 MCS0 Channel 110



802.11 VHT80 MCS0 Channel 122

Company: DEKA Research	Page 19 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

5.1.3 26dB and 99% Occupied Bandwidth

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.7, 22.1, 21.4°C	R.H. %	28.4, 25.6, 32.3
Test Date	3/12/2025, 3/13/2025, 3/14/2025	Location	Conducted RF Bench
Requirement	FCC 15.407 (a)	Method	ANSI C63.10

Limits: The minimum 26 dB Bandwidth shall be at least 500 kHz.

Test Parameters

Frequency	5150-5850 MHz	Setup	Conducted RF
RBW	300 kHz (20 MHz BW) 510 kHz (40 MHz BW) 1 MHz (80 MHz BW)	VBW	1 MHz (20 MHz BW) 3 MHz (40 and 80 MHz BW)
Detector(s)	Peak	Settings	Max Hold

EUT Parameters

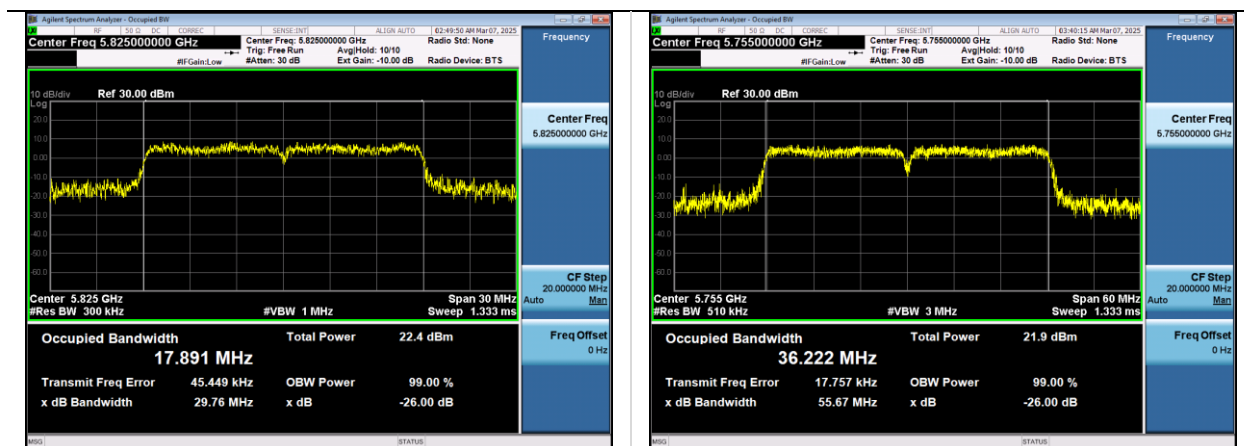
Input Power	120 VAC 60 Hz	Mode	5 GHz WLAN Transmit
Frequency	5180-5825 MHz	Channel	See 2.5

Table

Nominal Bandwidth	Channel	Mode	Data Rate	OBW (MHz)	26dB DTS BW (MHz)
20	36	11a	6M	16.9	22.8
20	40	11a	6M	17.0	28.2
20	48	11a	6M	17.0	28.5
20	36	HT20	MCS0	17.7	20.3
20	40	HT20	MCS0	17.8	27.0
20	48	HT20	MCS0	17.8	27.1
20	36	VHT20	MCS0	17.7	20.2
20	40	VHT20	MCS0	17.7	27.8
20	48	VHT20	MCS0	17.7	20.9
20	52	11a	6M	16.8	19.7
20	60	11a	6M	16.8	19.8
20	64	11a	6M	16.8	20.1
20	52	HT20	MCS0	17.7	20.2
20	60	HT20	MCS0	17.7	20.0
20	64	HT20	MCS0	17.7	20.2
20	52	VHT20	MCS0	17.7	20.0
20	60	VHT20	MCS0	17.7	20.0
20	64	VHT20	MCS0	17.7	19.8
20	100	11a	6M	16.7	28.9
20	116	11a	6M	16.9	29.5
20	140	11a	6M	16.6	19.2
20	100	HT20	MCS0	17.7	19.9
20	116	HT20	MCS0	17.8	29.7
20	140	HT20	MCS0	17.7	19.9
20	100	VHT20	MCS0	17.7	20.0
20	116	VHT20	MCS0	17.8	29.6
20	140	VHT20	MCS0	17.7	19.8
20	144	11a	6M	16.9	28.8
20	144	HT20	MCS0	17.9	28.4
20	144	VHT20	MCS0	17.8	29.4
20	149	11a	6M	16.8	29.3
20	157	11a	6M	16.8	28.7
20	165	11a	6M	17.1	30.0
20	149	HT20	MCS0	17.8	29.7

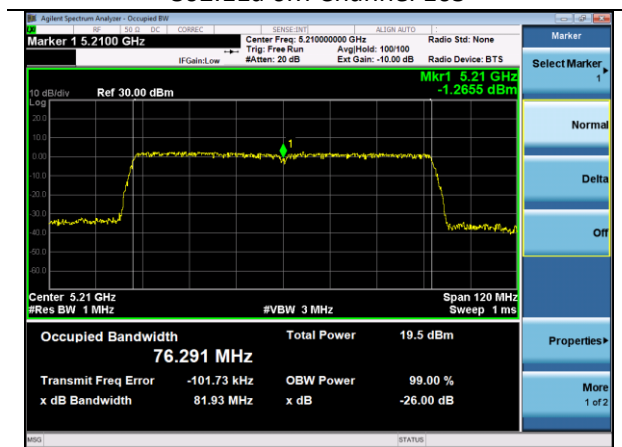
20	157	HT20	MCS0	17.8	29.4
20	165	HT20	MCS0	18.0	29.9
20	149	VHT20	MCS0	17.8	29.9
20	157	VHT20	MCS0	17.8	29.3
20	165	VHT20	MCS0	17.9	29.8
40	38	HT40	MCS0	36.2	40.5
40	46	HT40	MCS0	36.1	40.4
40	38	VHT40	MCS0	36.2	40.7
40	46	VHT40	MCS0	36.1	40.4
40	54	HT40	MCS0	36.1	39.9
40	62	HT40	MCS0	36.1	40.1
40	54	VHT40	MCS0	36.2	40.1
40	62	VHT40	MCS0	36.1	39.8
40	102	HT40	MCS0	36.2	39.9
40	110	HT40	MCS0	36.1	45.4
40	134	HT40	MCS0	36.2	46.6
40	102	VHT40	MCS0	36.2	40.0
40	110	VHT40	MCS0	36.1	40.7
40	134	VHT40	MCS0	36.2	43.0
40	142	HT40	MCS0	36.2	47.6
40	142	VHT40	MCS0	36.2	52.3
40	151	HT40	MCS0	36.3	53.6
40	159	HT40	MCS0	36.2	52.3
40	151	VHT40	MCS0	36.2	55.7
40	159	VHT40	MCS0	36.2	51.6
80	42	VHT80	MCS0	76.3	81.9
80	58	VHT80	MCS0	76.0	81.5
80	106	VHT80	MCS0	75.9	81.2
80	122	VHT80	MCS0	76.0	81.4
80	138	VHT80	MCS0	75.9	80.9
80	155	VHT80	MCS0	76.0	81.2

Worst Case Plots



802.11a 6M Channel 165

802.11 VHT40 MCS0 Channel 151



802.11 VHT80 MCS0 Channel 42

Company: DEKA Research	Page 23 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

5.1.4 Emissions in Non-Restricted Frequency Bands

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.7, 22.1, 21.4°C	R.H. %	28.4, 25.6, 32.3
Test Date	3/12/2025, 3/13/2025, 3/14/2025	Location	Conducted RF Bench
Requirement	15.407(b)(1)(2)(3)(4)	Method	ANSI C63.10

Limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating solely in the 5.725-5.850 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Test Parameters

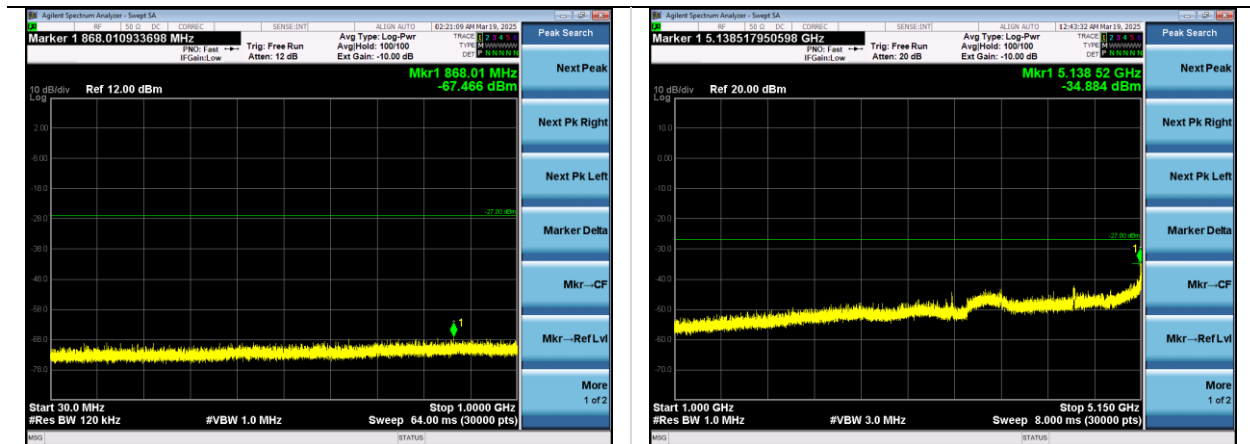
Frequency	30-40000 MHz	Setup	Conducted RF
RBW	1 MHz Above 1 GHz 120 kHz Below 1 GHz	VBW	3 MHz Above 1 GHz 1.2 MHz Below 1 GHz
Detector(s)	Peak	Settings	Max Hold

EUT Parameters

Input Power	120VAC 60 Hz	Mode	5 GHz WLAN Transmit
Frequency	5180-5825 MHz	Channel	See 2.5

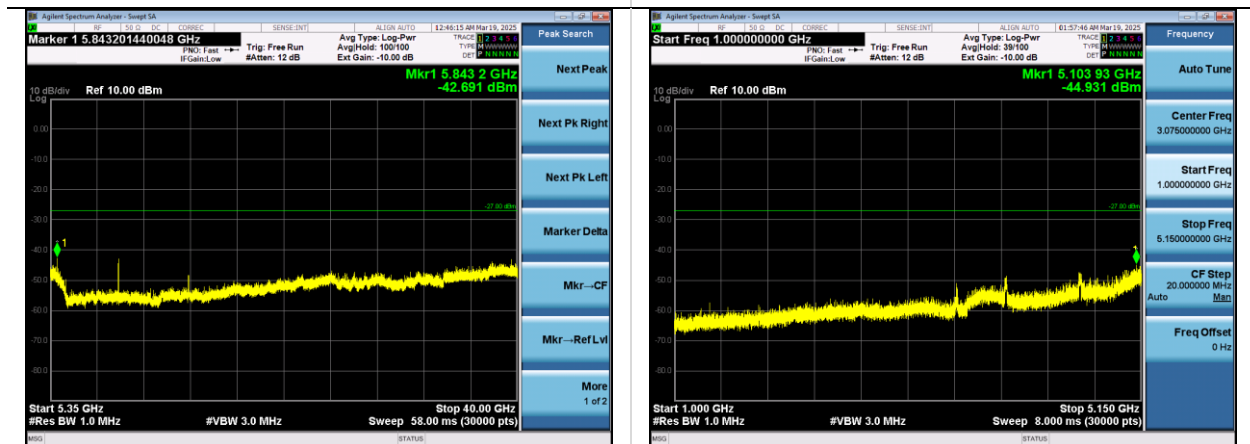
Company: DEKA Research	Page 24 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

Worst Case Plots



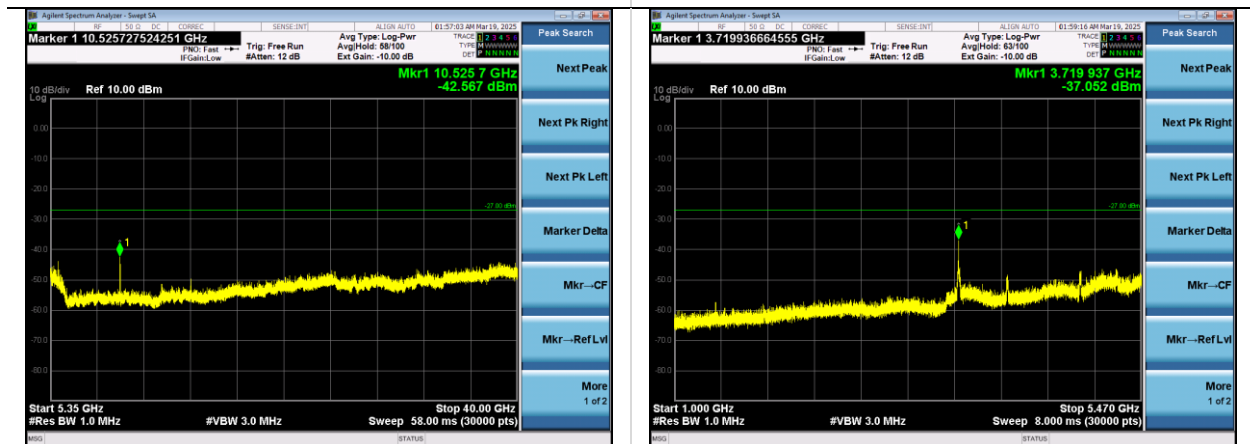
30-1000 MHz
802.11a 6M Ch 40

1-5.15 GHz
802.11a 6M Ch 40



5.35-40 GHz
802.11a 6M Ch 40

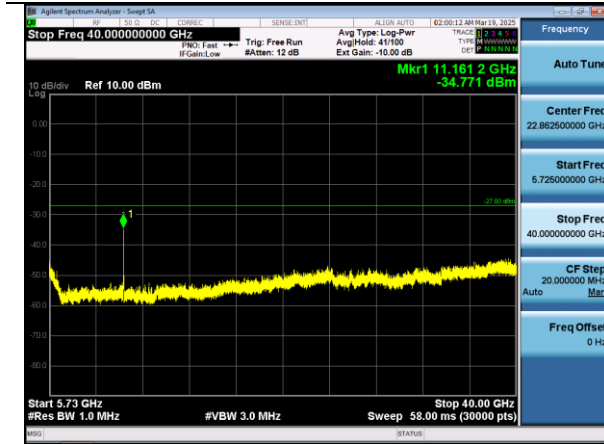
1-5.15 GHz
802.11a 6M Ch 52



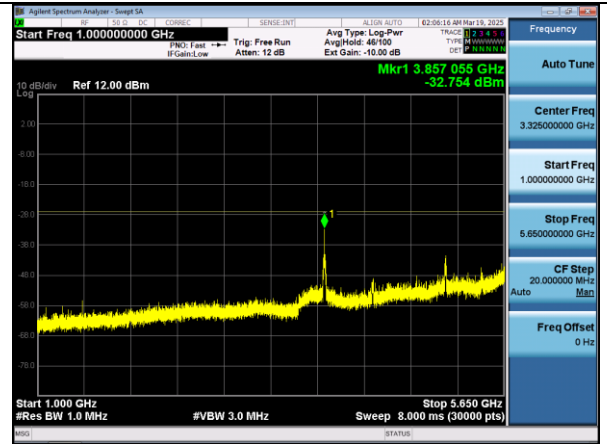
5.35-40 GHz
802.11a 6M Ch 52

1-5.47 GHz
802.11a 6M Ch 116

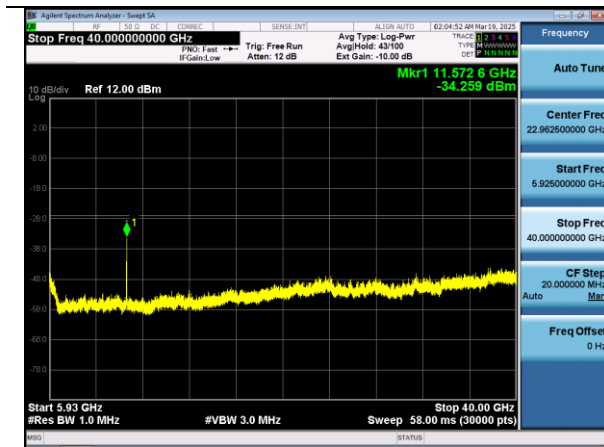
Company: DEKA Research		Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200
Job: C-3871		BD Neo Pump Module: 9210
		Serial: 03010574, 03010575, 03010576, 03010615



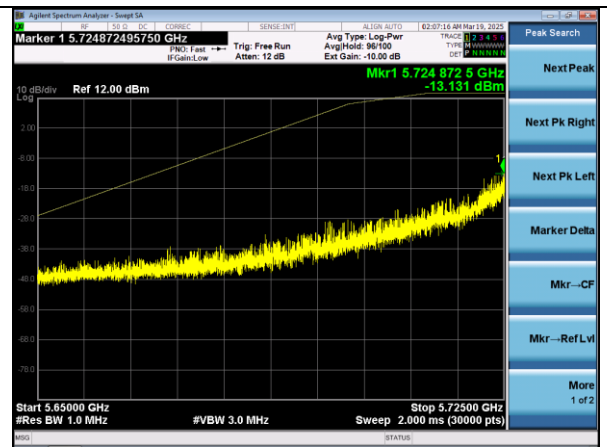
5.725-40 GHz
802.11a 6M Ch 116



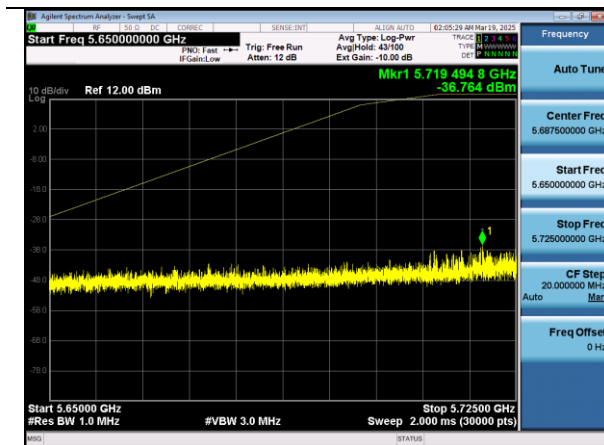
1-5.65 GHz
802.11a 6M Ch 157



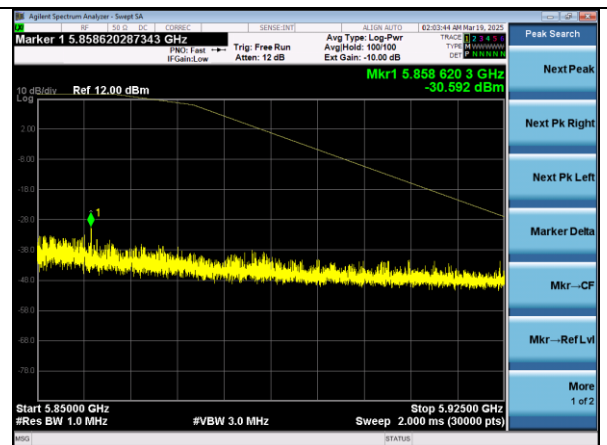
5.925-40 GHz
802.11 6M Ch 157



5.65-5.725 GHz
802.11a 6M Ch 149

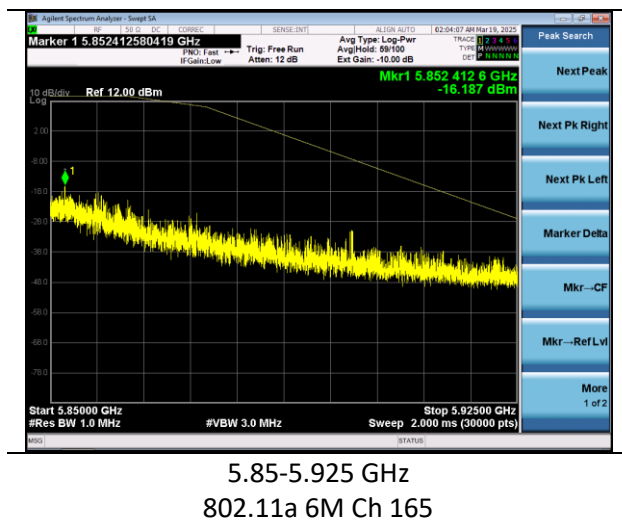


5.65-5.725 GHz
802.11a 6M Ch 157



5.85-5.925 GHz
802.11a 6M Ch 157

Company: DEKA Research	Page 26 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200
Job: C-3871		BD Neo Pump Module: 9210
		Serial: 03010574, 03010575, 03010576, 03010615



Company: DEKA Research	Page 27 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

5.1.5 Frequency Stability

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.8, 21.2	R.H. %	35.9, 34.7
Test Date	4/21/2025, 4/22/2025	Location	Temp Chamber
Requirement	15.407(g)	Method	ANSI C63.10

Test Parameters

Frequency	5150-5850 MHz	Setup	Conducted RF
Detector(s)	Peak	Settings	Max Hold
Power	85%, 100%, 115%		

Table

VAC	Channel	Frequency (Hz)
120	36	5179994547
120	40	5199995090
120	48	5239994144
120	52	5259995557
120	60	5299996244
120	64	5319995385
120	100	5499993358
120	116	5579993540
120	140	5699992857
120	149	5745002885
120	157	5785002987
120	165	5825003144
102	36	5179995532
102	40	5199998160
102	48	5239996168
102	52	5259996108
102	60	5299995481
102	64	5319995442
102	100	5499993417
102	116	5579995637
102	140	5699992948
102	149	5745002759
102	157	5785003059
102	165	5825003107
138	36	5179994137
138	40	5199999457
138	48	5239997491
138	52	5259994603
138	60	5299997333
138	64	5319995401
138	100	5499993417
138	116	5579995986
138	140	5699993229
138	149	5745002754
138	157	5785002948
138	165	5825003193

5.2 Radiated Emissions

Description of Measurement	The frequency spectrum is investigated for intentional and / or unintentional signals emanating from the EUT by use of a standardized test site and measurement antenna. The antenna, cable, pre-amp, and other necessary measurement system correction factors are loaded onto the EMI receiver / spectrum analyzer when the measurements are performed allowing the data to be gathered and reported as corrected values. The maximum emissions from the EUT are determined by turn-table azimuth rotation (360°) and scanning of the measurement antenna. Maximized levels are noted at degree values of azimuth, measurement antenna height, and measurement antenna polarity.
Example Calculations	Measurement (dBμV) + Cable factor (dB) + Other (dB) + Antenna Factor (dB/m) = Corrected Reading (dBμV/m) Margin (dB) = Limit (dBμV/m) - Corrected Reading (dBμV/m) Example at 4000 MHz: Reading = 40 dBμV + 3.4 dB + 0.9 dB + 6.5 dB/m = 50.8 dBμV/m Average Limit = 20 log (500) = 54 dBμV/m Margin = 54 dBμV/m - 50.8 dBμV/m = 3.2 dB

Block Diagram



5.2.1 Radiated Emissions

Operator	Anthony Smith	QA	Jon Dilley, Dylan Rosenfeldt
Temperature	24.0, 22.7, 22.2, 22.9, 22.1, 23.3, 25.8°C	R.H. %	26.7, 25.3, 25.2, 23.9, 28.1, 27.1, 31.3
Test Date	2/27/2025, 3/20/2025, 3/24/2025, 3/25/2025, 3/26/2025, 3/27/2025, 3/28/2025	Location	Chamber 5
Requirement	FCC 15.407	Method	ANSI C63.10

Limits:

15.407

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating solely in the 5.725-5.850 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Frequency (MHz)	Peak Limit (dBμV/m)
30-40000	68.2

15.209

Frequency (MHz)	Quasi-Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)
30-88	40.0	-	-
88-216	43.5	-	-
216-960	46.0	-	-
960-1000	54.0	-	-
1000-40000	-	54.0	74.0

Company: DEKA Research	Page 31 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

Test Parameters

Frequency	30-40000	Distance	3m
Detector(s)	Peak, QP, Avg	Table height	80cm Below 1 GHz 150cm Above 1 GHz
RBW	120kHz Below 1 GHz 1 MHz Above 1 GHz	VBW	1.2 MHz Below 1 GHz 3 MHz Above 1 GHz (Peak)

Instrumentation

Asset #	Description	Manufacturer	Model #	Serial #	Date	Due Date	Status
AA 960081	Antenna - Double Ridge Horn	EMCO	3115	6907	1/8/2025	1/8/2026	Active Calibration
AA 960161	Filter - Highpass 5 GHz	K&L Microwave	11SH10-8000	2	4/3/2025	4/3/2026	Active Calibration
AA 960162	Cable	MegaPhase	EM2-S1S1-120	51503501 001	1/28/2025	1/28/2026	Active Verification
AA 960174	Antenna - Small Horn	ETS Lindgren	3116C-PA	00206880	12/2/2024	12/2/2025	Active Calibration
AA 960194	Antenna - Biconical	A.H. Systems, Inc.	SAS-540	780	12/9/2024	12/9/2025	Active Calibration
AA 960195	Antenna - Log Periodic	A.H. Systems, Inc.	SAS-512-2	557	11/22/2024	11/23/2025	Active Calibration
AA 960210	Antenna - Low Noise Amplifier	Mini-Circuits	ZVA-213X-S+	037101808	1/8/2025	1/8/2026	Active Calibration
AA 960220	Cable	A.H. Systems, Inc.	SAC-26G-6	552	1/28/2025	1/28/2026	Active Verification
EE 960087	Analyzer - Spectrum	Agilent	N9010A	MY53400296	4/1/2025	4/1/2026	Active Calibration
EE 960203	Analyzer - EMI Receiver	Keysight	N9038A	MY56400072	4/2/2025	4/2/2026	Active Calibration
LSC-500	Cable	Chamber 5 Emissions	-	-	1/27/2025	1/27/2026	Active Verification

EUT Parameters

Input Power	120VAC 60 Hz	Mode	5 GHz WLAN Transmit
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Company: DEKA Research	Page 32 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

Table

Below 1 GHz

Channel	Modulation	Frequency (MHz)	Antenna Polarity	Height (cm)	Azimuth (degree)	Quasi-Peak Reading (dBμV/m)	Quasi-Peak Limit (dBμV/m)	Quasi-Peak Margin (dB)
48	802.11a 6Mbps	38.9	V	100	257	35.1	40.0	4.9
48	802.11a 6Mbps	45.1	V	100	344	34.0	40.0	6.0
48	802.11a 6Mbps	70.8	V	100	0	29.8	40.0	10.2
48	802.11a 6Mbps	985.3	V	100	0	30.0	54.0	24.1
48	802.11a 6Mbps	307.1	H	100	107	28.7	46.0	17.3
48	802.11a 6Mbps	300.0	H	100	110	25.0	46.0	21.0

Spurious Above 1 GHz

Average

Channel	Frequency (MHz)	Antenna Polarity	Height (cm)	Azimuth (degree)	Average Reading (dBμV/m)	Average Limit (dBμV/m)	Average Margin (dB)	Radio Mode	Note
36	5150.0	V	200	49	45.4	54.0	8.6	802.11a 6M	SISO Chain 1
36	5150.0	V	200	49	45.7	54.0	8.3	802.11ac VHT20	SISO Chain 1
36	5147.0	V	150	3	45.5	54.0	8.5	802.11ac VHT20	MIMO
36	5149.6	V	124	347	43.8	54.0	10.2	802.11ac VHT20	SISO Chain 2
38	5149.8	V	199	54	46.2	54.0	7.8	802.11ac VHT40	SISO Chain 1
38	5147.8	V	122	24	48.3	54.0	5.7	802.11ac VHT40	MIMO
42	5146.6	V	208	52	46.6	54.0	7.4	802.11ac VHT80	SISO Chain 1
42	5145.8	V	153	34	48.3	54.0	5.7	802.11ac VHT80	MIMO
64	5350.1	V	212	48	47.3	54.0	6.7	802.11a 6M	SISO Chain 1
64	5350.0	V	212	48	47.8	54.0	6.2	802.11ac VHT20	SISO Chain 1
64	5352.4	V	165	51	46.6	54.0	7.4	802.11ac VHT20	MIMO
62	5350.0	V	207	53	48.6	54.0	5.4	802.11ac VHT40	SISO Chain 1
62	5350.8	V	150	38	48.6	54.0	5.4	802.11ac VHT40	MIMO
58	5350.0	V	211	52	51.3	54.0	2.7	802.11ac VHT80	SISO Chain 1
58	5350.7	V	157	36	51.4	54.0	2.6	802.11ac VHT80	MIMO
100	5459.8	V	211	45	44.6	54.0	9.4	802.11a 6M	SISO Chain 1
100	5460.0	V	211	45	45.1	54.0	8.9	802.11ac VHT20	SISO Chain 1
100	5458.0	V	136	76	44.6	54.0	9.4	802.11ac VHT20	MIMO
102	5460.0	V	209	48	46.0	54.0	8.0	802.11ac VHT40	SISO Chain 1
102	5459.9	H	270	7	45.6	54.0	8.4	802.11ac VHT40	MIMO
106	5460.0	V	210	46	47.9	54.0	6.1	802.11ac VHT80	SISO Chain 1
106	5457.1	H	142	6	47.6	54.0	6.4	802.11ac VHT80	MIMO

Company: DEKA Research	Page 33 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

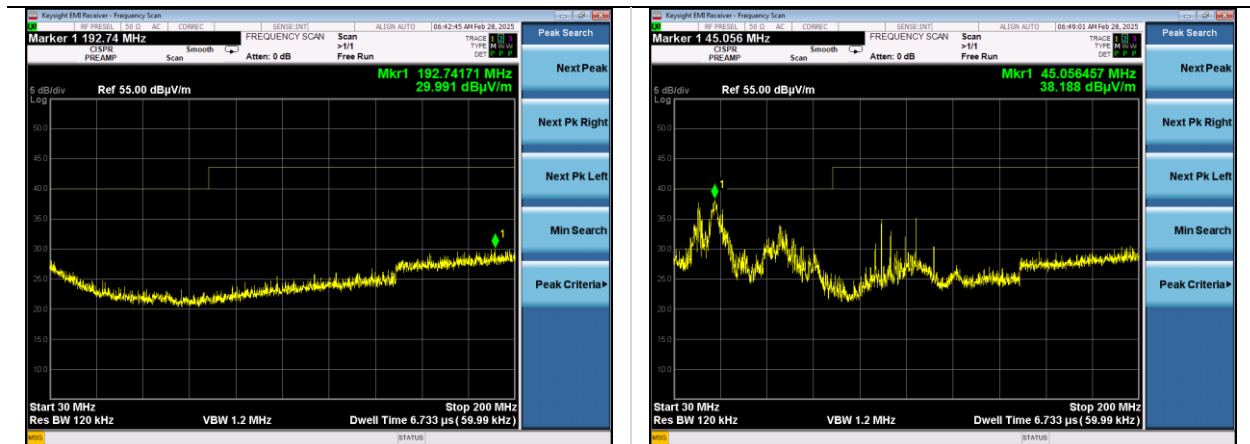
Frequency (MHz)	Antenna Polarity	Height (cm)	Azimuth (degree)	Average Reading (dBμV/m)	Average Limit (dBμV/m)	Average Margin (dB)	Radio Mode	Note
10400.1	H	100	52	42.0	54.0	12.1	802.11a 6M Ch 40	SISO - Chain 1
10400.1	V	322	344	43.7	54.0	10.3	802.11a 6M Ch 40	SISO - Chain 1
11160.1	H	339	332	50.9	54.0	3.1	802.11a 6M Ch 116	SISO - Chain 1
11160.2	V	215	32	48.4	54.0	5.6	802.11a 6M Ch 116	SISO - Chain 1
10480.1	H	206	342	42.3	54.0	11.7	802.11a 6M Ch 48	SISO - Chain 1
10480.2	V	106	52	41.5	54.0	12.5	802.11a 6M Ch 48	SISO - Chain 1
10482.8	V	136	69	40.3	54.0	13.7	802.11n Ch 48	MIMO
10480.2	H	150	28	41.3	54.0	12.7	802.11n Ch 48	MIMO
10480.0	H	205	342	42.0	54.0	12.0	802.11n Ch 48	SISO - Chain 1
10479.9	V	106	52	41.0	54.0	13.0	802.11n Ch 48	SISO - Chain 1
10483.9	H	288	28	36.9	54.0	17.1	802.11n Ch 48	SISO - Chain 2
10484.2	V	137	221	36.0	54.0	18.1	802.11n Ch 48	SISO - Chain 2
11159.9	H	339	329	50.4	54.0	3.6	802.11n Ch 116	SISO - Chain 1
11159.9	V	214	32	47.9	54.0	6.1	802.11n Ch 116	SISO - Chain 1

Peak

Channel	Frequency (MHz)	Antenna Polarity	Height (cm)	Azimuth (degree)	Peak Reading (dBμV/m)	Peak Limit (dBμV/m)	Peak Margin (dB)	Radio Mode	Note
36	5148.8	V	200	49	56.6	68.2	11.6	802.11a 6M	SISO Chain 1
36	5144.8	V	200	49	55.6	68.2	12.6	802.11ac VHT20	SISO Chain 1
36	5145.5	V	150	3	54.0	68.2	14.2	802.11ac VHT20	MIMO
36	4854.0	V	124	347	53.1	68.2	15.1	802.11ac VHT20	SISO Chain 2
38	5146.8	V	199	54	56.3	68.2	11.9	802.11ac VHT40	SISO Chain 1
38	5149.4	V	122	24	57.5	68.2	10.7	802.11ac VHT40	MIMO
42	5146.6	V	208	52	56.9	68.2	11.3	802.11ac VHT80	SISO Chain 1
42	5145.5	V	153	34	57.9	68.2	10.3	802.11ac VHT80	MIMO
64	5350.7	V	212	48	58.7	68.2	9.5	802.11a 6M	SISO Chain 1
64	5353.6	V	212	48	59.1	68.2	9.1	802.11ac VHT20	SISO Chain 1
64	5353.9	V	165	51	58.5	68.2	9.7	802.11ac VHT20	MIMO
62	5350.6	V	207	53	59.1	68.2	9.1	802.11ac VHT40	SISO Chain 1
62	5350.2	V	150	38	59.7	68.2	8.5	802.11ac VHT40	MIMO
58	5350.3	V	211	52	62.2	68.2	6.0	802.11ac VHT80	SISO Chain 1
58	5350.4	V	157	36	61.8	68.2	6.4	802.11ac VHT80	MIMO
100	5422.3	V	211	45	56.3	68.2	11.9	802.11a 6M	SISO Chain 1
100	5459.2	V	211	45	56.6	68.2	11.6	802.11ac VHT20	SISO Chain 1
100	5437.8	V	136	76	55.6	68.2	12.6	802.11ac VHT20	MIMO
102	5404.0	V	209	48	56.3	68.2	11.9	802.11ac VHT40	SISO Chain 1
102	5425.3	H	270	7	55.6	68.2	12.6	802.11ac VHT40	MIMO
106	5459.6	V	210	46	60.7	68.2	7.5	802.11ac VHT80	SISO Chain 1
106	5451.7	H	142	6	58.0	68.2	10.2	802.11ac VHT80	MIMO
165	5850.7	V	133	40	74.5	120.6	46.1	802.11a 6M	SISO Chain 1
149	5724.8	V	150	48	79.9	121.7	41.8	802.11a 6M	SISO Chain 1
149	5723.4	V	150	48	84.2	118.6	34.4	802.11ac VHT20	SISO Chain 1
165	5850.6	V	133	40	75.2	120.8	45.6	802.11ac VHT20	SISO Chain 1
165	5850.3	V	114	10	76.1	121.5	45.4	802.11ac VHT20	MIMO
149	5723.3	V	179	50	84.3	118.3	34.0	802.11ac VHT20	MIMO
151	5718.9	V	150	45	77.0	110.5	33.5	802.11ac VHT40	SISO Chain 1
159	5850.4	V	144	45	66.8	121.3	54.5	802.11ac VHT40	SISO Chain 1
151	5723.7	V	125	24	78.7	119.2	40.5	802.11ac VHT40	MIMO
159	5850.1	V	124	29	68.8	122.0	53.2	802.11ac VHT40	MIMO
155	5856.8	V	148	47	64.6	110.3	45.7	802.11ac VHT80	SISO Chain 1
155	5718.8	V	148	47	68.9	110.5	41.6	802.11ac VHT80	SISO Chain 1
155	5724.2	V	115	28	68.1	120.4	52.3	802.11ac VHT80	MIMO
155	5850.9	V	115	28	66.2	120.1	53.9	802.11ac VHT80	MIMO

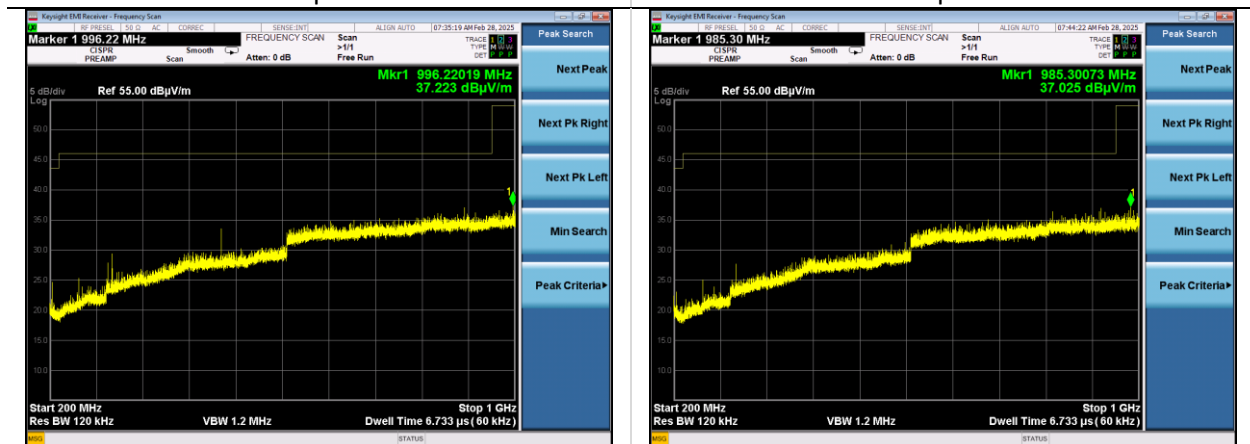
Frequency (MHz)	Antenna Polarity	Height (cm)	Azimuth (degree)	Peak Reading (dBμV/m)	Peak Limit (dBμV/m)	Peak Margin (dB)	Radio Mode	Note
10402.3	H	100	52	54.6	68.2	13.6	802.11a 6M Ch 40	SISO - Chain 1
10402.5	V	211	344	56.0	68.2	12.2	802.11a 6M Ch 40	SISO - Chain 1
11161.0	H	339	332	62.9	68.2	5.3	802.11a 6M Ch 116	SISO - Chain 1
11162.7	V	215	32	61.0	68.2	7.3	802.11a 6M Ch 116	SISO - Chain 1
10482.1	H	206	342	54.7	68.2	13.5	802.11a 6M Ch 48	SISO - Chain 1
10482.4	V	106	52	54.1	68.2	14.1	802.11a 6M Ch 48	SISO - Chain 1
10482.6	V	136	69	52.0	68.2	16.2	802.11n Ch 48	MIMO
10479.8	H	150	28	53.1	68.2	15.1	802.11n Ch 48	MIMO
10479.2	H	205	342	54.3	68.2	13.9	802.11n Ch 48	SISO - Chain 1
10479.4	V	106	52	53.8	68.2	14.4	802.11n Ch 48	SISO - Chain 1
10485.6	H	288	28	49.2	68.2	19.0	802.11n Ch 48	SISO - Chain 2
10486.8	V	137	221	48.1	68.2	20.1	802.11n Ch 48	SISO - Chain 2
11158.9	H	339	329	62.9	68.2	5.3	802.11n Ch 116	SISO - Chain 1
11159.2	V	214	32	61.4	68.2	6.8	802.11n Ch 116	SISO - Chain 1
5466.8	V	211	45	58.5	68.2	9.7	802.11a 6M	SISO - Chain 1
5469.7	V	211	45	58.7	68.2	9.5	802.11ac VHT20	SISO - Chain 1
5467.4	V	136	76	58.5	68.2	9.7	802.11ac VHT20	MIMO
5469.7	V	209	48	59.7	68.2	8.6	802.11ac VHT40	SISO - Chain 1
5470.0	H	270	7	58.9	68.2	9.3	802.11ac VHT40	MIMO
5461.9	V	210	46	60.5	68.2	7.7	802.11ac VHT80	SISO - Chain 1
5462.9	H	142	6	60.0	68.2	8.2	802.11ac VHT80	MIMO

Worst Case Plots



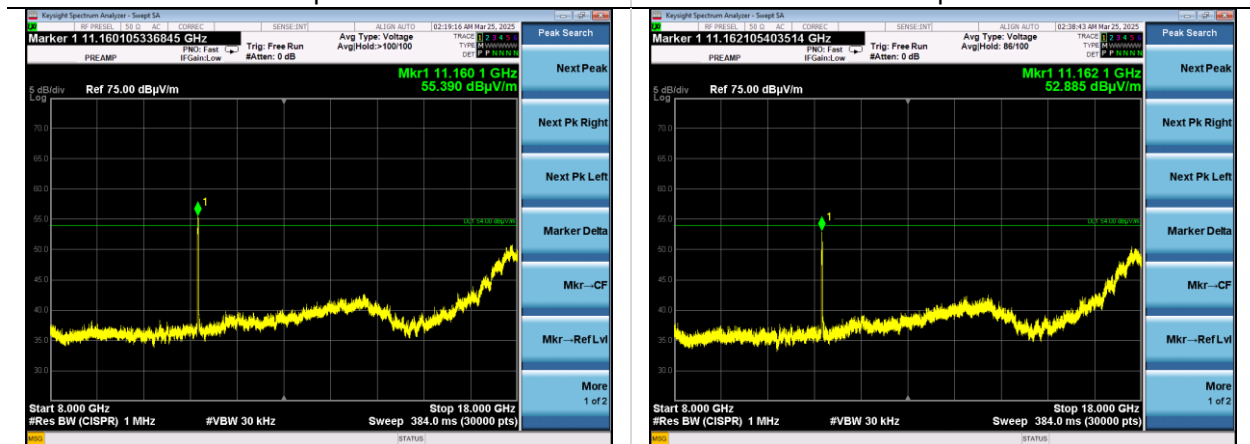
30-200 MHz Horizontal
Ch 48 6Mbps Transmit

30-200 MHz Vertical
Ch 48 6Mbps Transmit



200-1000 MHz Horizontal
Ch 48 6Mbps Transmit

200-1000 MHz Vertical
Ch 48 6Mbps Transmit



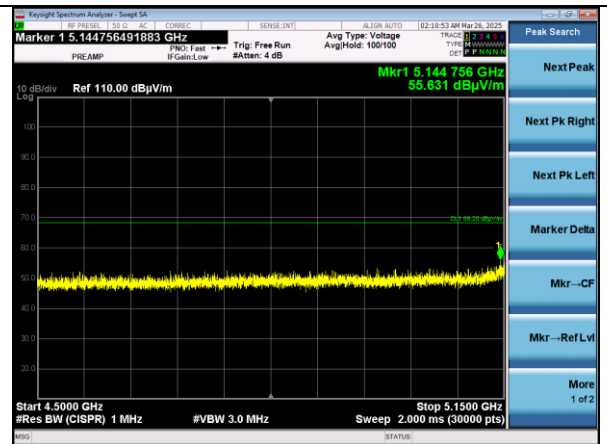
8-18 GHz Horizontal
802.11a 6M Ch 116

8-18 GHz Vertical
802.11a 6M Ch 116

Company: DEKA Research		Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200
Job: C-3871		BD Neo Pump Module: 9210
		Serial: 03010574, 03010575, 03010576, 03010615



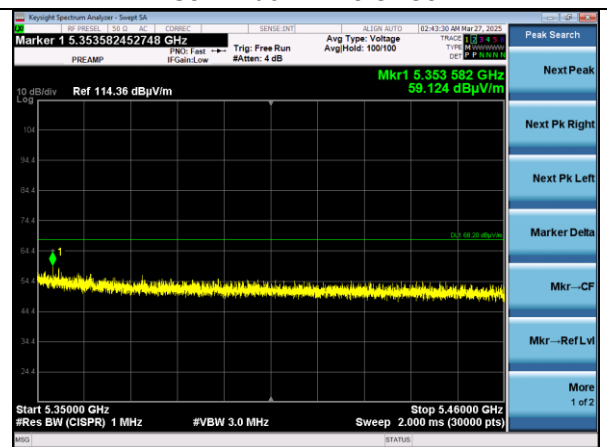
4500-5150 MHz Average
802.11ac VHT20 Ch 36



4500-5150 MHz Peak
802.11ac VHT20 Ch 36



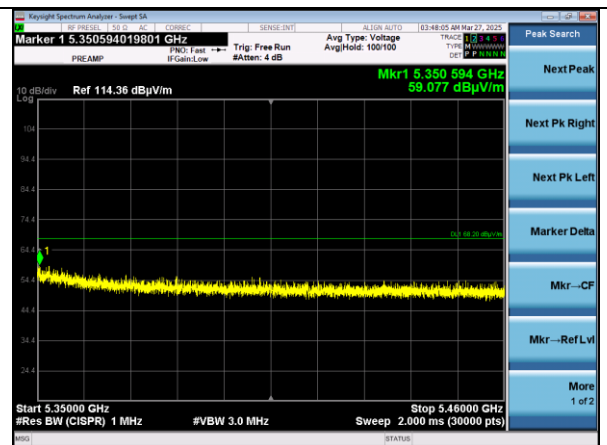
5350-5460 MHz Average
802.11ac VHT20 Ch 64



5350-5460 MHz Peak
802.11ac VHT20 Ch 64

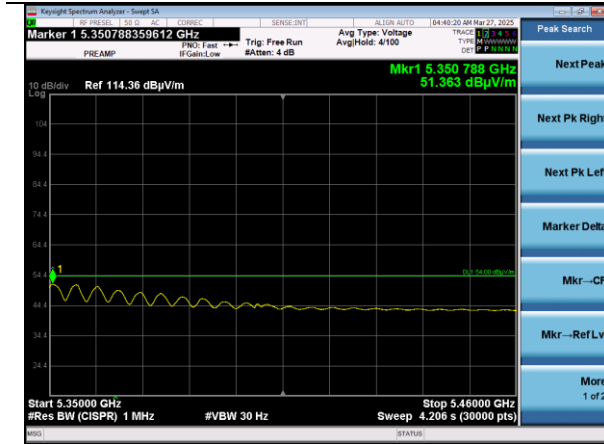


5350-5460 MHz Average
802.11ac VHT40 Ch 62

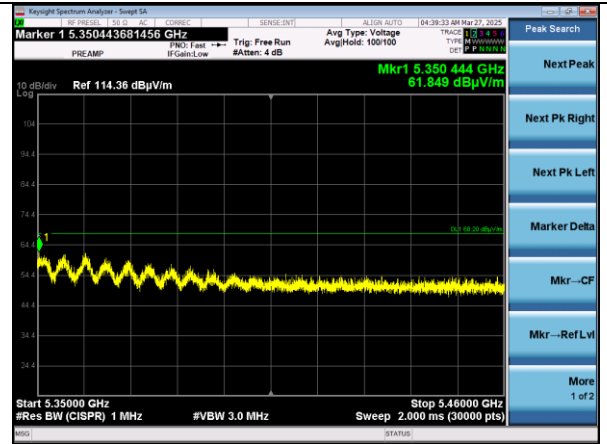


5350-5460 MHz Peak
802.11ac VHT40 Ch 62

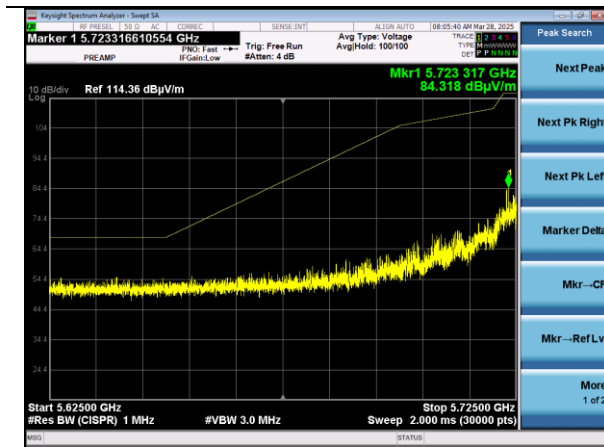
Company: DEKA Research		Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200
Job: C-3871	Page 38 of 44	BD Neo Pump Module: 9210
		Serial: 03010574, 03010575, 03010576, 03010615



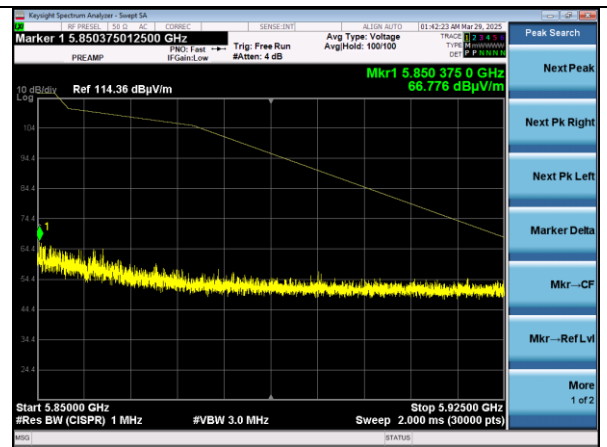
5350-5460 MHz Average
802.11ac VHT80 Ch 58



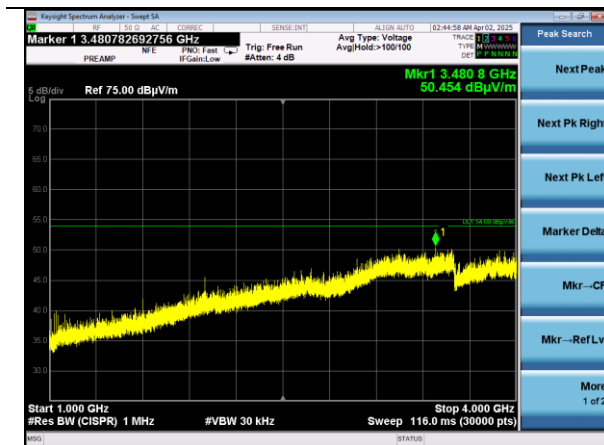
5350-5460 MHz Peak
802.11ac VHT80 Ch 58



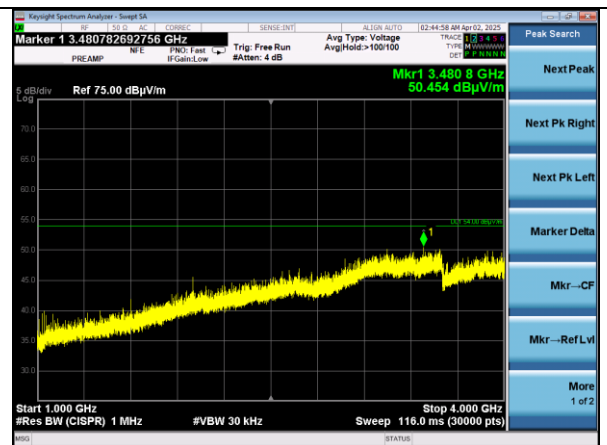
5625-5725 MHz Peak
802.11ac VHT20 Ch 149



5850-5925 MHz Peak
802.11ac VHT20 Ch 165

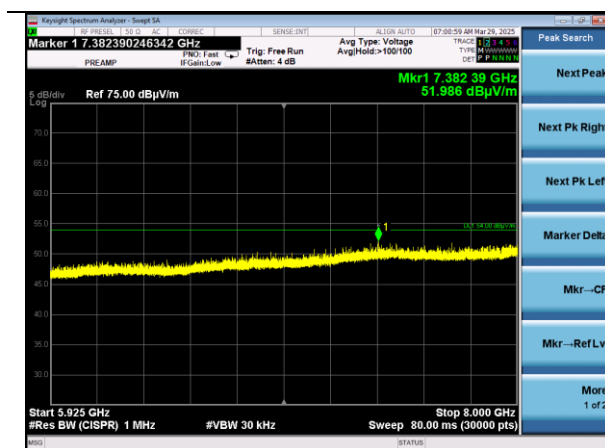


1-4 GHz Horizontal
802.11a 6M Ch 48

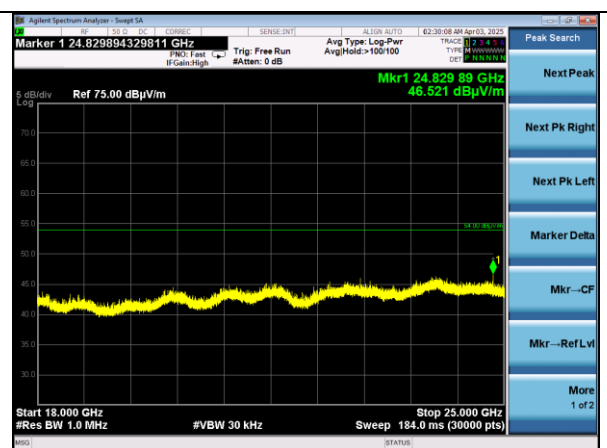


4-4.5 GHz Horizontal
802.11a 6M Ch 48

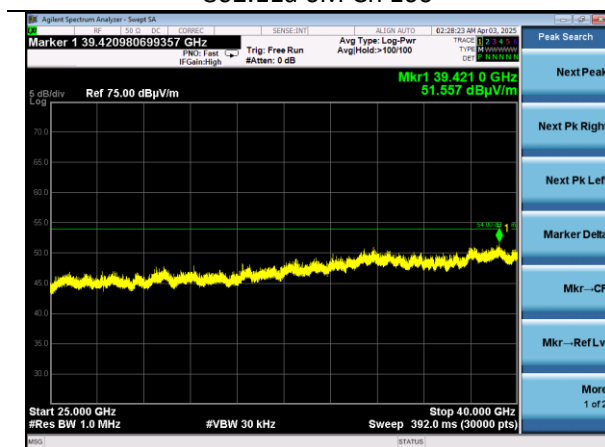
Company: DEKA Research	Page 39 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615



5.925-8 GHz Horizontal
802.11a 6M Ch 100



18-25 GHz Horizontal
802.11a 6M Ch 48



25-40 GHz Horizontal
802.11a 6M Ch 48

Company: DEKA Research	Page 40 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

5.3 AC Mains Conducted Emissions

A line impedance stabilization network (LISN) or artificial mains network (AMN) allows the emissions of the power supply conductors to be measured while isolating the EUT from the supply mains.

Description of Measurement

The AMN, cable, and other necessary measurement system correction factors are loaded onto the EMI receiver when the measurements are performed. The data is gathered and reported as the corrected values.

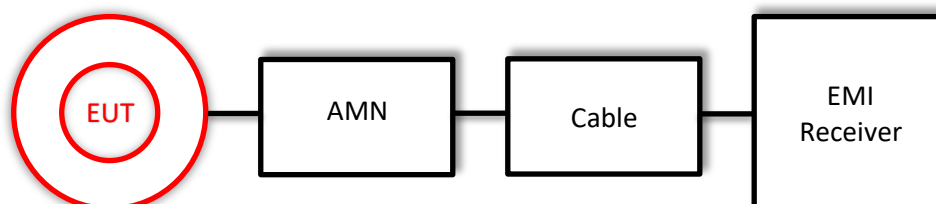
Maximum emissions are determined with a peak max hold trace then measurements at a selection of the highest points are made with quasi-peak and average detectors. Results are recorded and compared to limit for each line. (e.g. line and neutral)

Example Calculations

Measurement (dBμV) + Cable factor (dB) + Other (dB) = Corrected Reading (dBμV)

Margin (dB) = Limit (dBμV) - Corrected Reading (dBμV)

Block Diagram



5.3.1 AC Mains Conducted Emissions

Operator	Anthony Smith	QA	Dylan Rosenfeldt
Temperature	21.7, 21.2°C	R.H. %	30.0, 35.9%
Test Date	4/17/2025, 4/23/2025	Location	Bench
Requirement	FCC 15.407(b)(9)	Method	ANSI C63.10

Limits:

Frequency (MHz)	Quasi-Peak Limit (dBμV)	Average Limit (dBμV)
0.15-0.5	66.0-56.0*	56.0-46.0*
0.5-5	56.0	46.0
5-30	60.0	50.0

*Decreases with the logarithm of the frequency.

Test Parameters

Frequency	150k-30MHz	Distance	80cm EUT to LISN
Detector(s)	Peak, QP, Avg	Table height	80cm
RBW	9 kHz	VBW	62 kHz

Instrumentation

Asset #	Description	Manufacturer	Model #	Serial #	Date	Due Date	Status
EE 960088	Analyzer - EMI Receiver	Agilent	N9038A	MY51210138	12/10/2024	12/10/2025	Active Calibration
EE 960089	LISN	COM-POWER	LI-215A	191943	3/31/2025	3/31/2026	Active Calibration
LSC-203	Cable	Micro-Coax	UFB311A-0-1440-70U70U	64639 224071-005	1/29/2025	1/29/2026	Active Verification

EUT Parameters

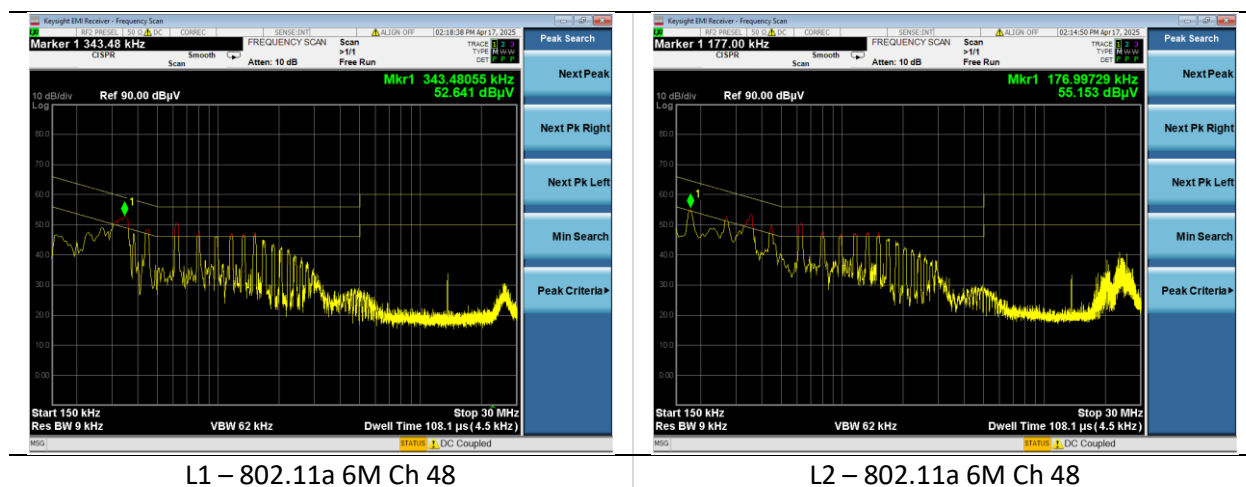
Input Power	120VAC 60 Hz	Mode	WLAN Transmit
EUT	See TR3871C for details on RFID antenna terminated.	EUT	WLAN Channel 48 802.11a 6M

Company: DEKA Research	Page 42 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615

Table

Line	Frequency (MHz)	Peak Reading (dBμV)	Quasi-Peak Reading (dBμV)	Average Reading (dBμV)	Quasi-Peak Limit (dBμV)	Average Limit (dBμV)	Quasi-Peak Margin (dB)	Average Margin (dB)
L2	13.600	55.1	52.8	34.9	60.0	50.0	7.2	15.1
L2	0.173	57.3	54.2	33.8	64.8	54.8	10.6	21.0
L2	0.339	55.6	50.9	37.9	59.2	49.2	8.3	11.3
L2	0.424	49.6	46.9	44.6	57.4	47.4	10.5	2.8
L2	0.595	49.3	47.4	45.0	56.0	46.0	8.6	1.0
L2	0.771	47.7	45.3	40.3	56.0	46.0	10.7	5.7
L1	0.173	57.2	54.1	33.8	64.8	54.8	10.7	21.0
L1	0.258	54.9	51.9	46.2	61.5	51.5	9.6	5.3
L1	0.339	54.7	52.0	38.3	59.2	49.2	7.2	10.9
L1	0.424	50.1	46.5	44.5	57.4	47.4	10.9	2.9
L1	0.600	49.9	47.4	43.6	56.0	46.0	8.6	2.4
L1	0.771	47.2	45.2	40.4	56.0	46.0	10.8	5.6
L1	13.609	54.4	50.6	33.0	60.0	50.0	9.4	17.0

Plots



6 REVISION HISTORY

Version	Date	Notes	Person
0	5/24/2025	Initial Draft	Anthony Smith
0.1	6/9/2025	Revised Draft	Anthony Smith
0.2	6/12/2025	Revisions to Client Information	Anthony Smith
0.3	6/17/2025	Further Revisions	Anthony Smith
1.0	6/24/2025	Client requested release prior to TCB review	Anthony Smith
1.1	7/24/2025	Typo Fixed	Anthony Smith
1.2	9/5/2025	Client info updated	Anthony Smith
1.3	11/19/2025	References updated	Anthony Smith

END OF REPORT

Company: DEKA Research	Page 44 of 44	Name: BD Neo Infusion Pump
Report: TR3871B		Model: BD Neo PCU: 9200 BD Neo Pump Module: 9210
Job: C-3871		Serial: 03010574, 03010575, 03010576, 03010615