



FCC RADIO TEST REPORT

FCC ID : 2AHBN-AP63

Equipment : Premium Outdoor 802.11ax WiFi and BLE Array AP

Brand Name : Mist

Model Name : AP63, AP63E

Applicant: Juniper Networks, Inc.

1133 Innovation Way, Sunnyvale, CA 94089, USA

Manufacturer : Juniper Networks, Inc.

1133 Innovation Way, Sunnyvale, CA 94089, USA

Standard : 47 CFR FCC Part 15.247

The product was received on Apr. 16, 2020, and testing was started from Jul. 03, 2020 and completed on Jul. 27, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Cliff Chang

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

TEL: 886-3-656-9065 FAX: 886-3-656-9085

Report Template No.: CB-A10_6 Ver1.2

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History of this test report

Report No.: FR041650AA

Report No.	Version	Description	Issued Date
FR041650AA	01	Initial issue of report	Aug. 05, 2020

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Summary of Test Result

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

- The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
- The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen Report Producer: Wendy Pan

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1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number	
2400-2483.5	LE	2402-2480	0-39 [40]	

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Band	Mode	BWch (MHz)	Nant	
2.4G	BT-LE(1Mbps)	1	1	
2.4G	BT-LE(2Mbps)	2	1	

Note:

- Bluetooth LE uses a GFSK modulation.
- BWch is the nominal channel bandwidth.

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1.1.2 Antenna Information

For Configuration 1 / Internal Antenna of EUT:

Amt	Dowt	Drend	Model Neme	me Antenna Connector		An	tenna Gai	Dadia	
Ant.	Port	Brand	Model Name	Type	Connector	WLAN 2.4GHz	WLAN 5GHz	Bluetooth	Radio
1 ~ 4	1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	6	-	R1-5GHz
5~8	1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	4	-	-	R2-2.4GHz
9~10	1~2	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	2.3	4.7	-	R3-2.4GHz R3-5GHz
11 ~ 18	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	5.1	R4
19	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	4.3	R4
20	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	1.4	R4

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Note: The above information was declared by manufacturer.

For Radio 1 / 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 2 / 2.4GHz function:

For IEEE 802.11b/g/n/ax and VHT mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 3 / 2.4GHz function:

For IEEE 802.11b/g/n/ax and VHT mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 3 / 5GHz function:

For IEEE 802.11b/g/n/ac/ax mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 4 / Bluetooth function (1TX/1RX):

Only Port 1 can be use as transmitting/receiving antenna.

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For Configuration 3 / Internal Antenna of EUT:

					ype	Antenna Gain(dBi)					
Ant.	Port	Brand	Model Name	Antenna		14/1 A N I	WLAN 5GHz				Radio
				туре		WLAN 2.4GHz	B1 (R1)	B4 (R2)	B1, B4 (R3)	Bluetooth	
1 ~ 4	R1:4~1 R2:1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	4	6	-	-	-	R1-5GHz R2-2.4GHz
5~8	1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	6	-	-	R2-5GHz
9~10	1~2	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	2.3	-	-	4.7	-	R3-2.4GHz R3-5GHz
11~18	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	-	-	5.1	R4
19	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	-	-	4.3	R4
20	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	-	-	1.4	R4

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Note: The above information was declared by manufacturer.

For Radio 1 / 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 2 / 2.4GHz function:

For IEEE 802.11b/g/n/ax and VHT mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 2 / 5GHz Band 4 function:

For IEEE 802.11b/g/n/ac/ax mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 3 / 2.4GHz function:

For IEEE 802.11b/g/n/ax and VHT mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 3 / 5GHz function:

For IEEE 802.11b/g/n/ac/ax mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 4 / Bluetooth function (1TX/1RX):

Only Port 1 can be use as transmitting/receiving antenna.

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For Configuration 2 / External Antenna of EUT:

A 4	Port			Antenna 🕤	0	Ant	Dodio		
Ant.		Brand	Model Name	Type	Connector	WLAN 2.4GHz	WLAN 5GHz	Bluetooth	Radio
1	1~4	AccelTex	ATS-OO-245-46- 6NP-36	Omni Antenna	N-Style	4	6	-	R2-2.4GHz R1-5GHz
'	1~2	AccelTex	ATS-OO-245-46- 6NP-36	Omni Antenna	N-Style	4	6	-	R3-2.4GHz R3-5GHz
2	1~4	AccelTex	ATS-OP-245-81 0-6NP-36	Patch Antenna	N-Style	8	10	-	R2-2.4GHz R1-5GHz
	1~2	AccelTex	ATS-OP-245-81 0-6NP-36	Patch Antenna	N-Style	8	10	-	R3-2.4GHz R3-5GHz
3 ~ 10	1	Juniper	81XKAF15,G36	PIFA Antenna	I-PEX	-	-	5.1	R4
11	1	Juniper	81XKAF15,G36	PIFA Antenna	I-PEX	-	-	4.3	R4
12	1	Juniper	81XKAF15,G36	PIFA Antenna	I-PEX	-	-	1.4	R4

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Note: The above information was declared by manufacturer.

For Radio 1 / 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 2 / 2.4GHz function:

For IEEE 802.11b/g/n/ax and VHT mode (4TX/4RX):

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 3 / 2.4GHz function:

For IEEE 802.11b/g/n/ax and VHT mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 3 / 5GHz function:

For IEEE 802.11b/g/n/ac/ax mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 4 / Bluetooth function (1TX/1RX):

Only Port 1 can be use as transmitting/receiving antenna.

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1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.632	1.99	395u	3k
BT-LE(2Mbps)	0.333	4.78	209u	10k

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Note:

- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From PoE
Function	☑ Point-to-multipoint ☐ Point-to-point
Test Software Version	accessMTool 3.2.0.2
	☐ LE 1M PHY: 1 Mb/s
Support Mode	LE Coded PHY (S=2): 500 Kb/s
oupport mode	LE Coded PHY (S=8): 125 Kb/s
	□ LE 2M PHY: 2 Mb/s

Note: The above information was declared by manufacturer.

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1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	EUT	Description
AP63	EUT 1	The model name: AP63 indicates that it comes with internal antennas and
		The model name: AP63E indicates that the access point comes with
AP63E	EUT 2	external antenna connectors.

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1.1.6 Table for EUT Configuration

Configuration	Configuration EUT Rad		Radio 2	Radio 3	Radio 4
1	1	WLAN 5GHz	WLAN 2.4GHz	WLAN 2.4GHz + WLAN 5GHz	Bluetooth
2	2	WLAN 5GHz	WLAN 2.4GHz	WLAN 2.4GHz + WLAN 5GHz	Bluetooth
3	1	WLAN 5GHz	WLAN 2.4GHz + WLAN 5GHz	WLAN 2.4GHz + WLAN 5GHz	Bluetooth

Note: 1. The Bluetooth antennas are the same for EUT 1 and EUT 2, so there's only EUT 1 was tested and recorded in the report.

- 2. The above information was declared by manufacturer.
- 3. Configuration 1: Radio 1 in 5GHz support Band 1/4, Radio 3 in 5GHz support Band 1/4. Configuration 2: Radio 1 in 5GHz support Band 1/4, Radio 3 in 5GHz support Band 1/4. Configuration 3: Radio 1 in 5GHz support Band 1, Radio 2 in 5GHz support Band 4, Radio 3 in 5GHz support Band 1/4.
- 4. For test items AC Power-line Conducted Emissions, Unwanted Emissions below 1GHz and Radiated Emission Co-location the test configuration was declared by manufacturer as below: Radio 1:WLAN 5GHz (Low Band) + Radio 2: WLAN 2.4GHz + Radio 3: WLAN 5GHz (High Band) + Radio 4: Bluetooth.

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1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

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- 47 CFR FCC Part 15
- ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 558074 D01 v05r02
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

	Testing Location						
	HWA YA ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)						
		TEL	:	886-3-327-3456 FAX : 886-3-327-0973			
\boxtimes	JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.			
		TEL	:	886-3-656-9065 FAX : 886-3-656-9085			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH03-CB	Benson Su	24.8-26.6°C / 56-61%	Jul. 07, 2020 ~ Jul. 27, 2020
Radiated<1GHz	10CH01-CB	Ryo Fan	22~23°C / 59~60%	Jul. 10, 2020 ~ Jul. 11, 2020
Radiated>1GHz	03CH03-CB	Eason Chen	25.7-27.2°C / 58-61%	Jul. 03, 2020 ~ Jul. 24, 2020
radiated Feriz	03CH06-CB	Eason Chen	25.1-26.9°C / 58-60%	Jul. 03, 2020 ~ Jul. 24, 2020
AC Conduction	CO01-CB	Max Lin	22~23°C / 61~62%	Jul. 13, 2020

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

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1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

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Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emissions below 1GHz	4.8 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.0 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 dB	Confidence levels of 95%
Radiated Emission (40GHz ~ 60GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (60GHz ~ 90GHz)	4.5 dB	Confidence levels of 95%
Radiated Emission (90GHz ~ 200GHz)	5.3 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%

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2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	Default
2440MHz	Default
2480MHz	Default
BT-LE(2Mbps)	-
2402MHz	Default
2440MHz	Default
2480MHz	Default

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2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests			
Tests Item AC power-line conducted emissions			
Condition AC power-line conducted measurement for line and neutral			
Operating Mode	Normal Link		
1	EUT 2 Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + External Ant. 2 + PoE 1		

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Th	The Worst Case Mode for Following Conformance Tests					
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands					
Test Condition	Conducted measurement at transmit chains					
	For Ant.11 ~ Ant.17 can be used as transmitting/receiving functions, but only one antenna can be used as transmitting/receiving functions at one time and the worst case was found at Ant.17. So the measurement will follow this same tes configuration.					
	1	EUT 1 + Ant. 17 (Directional Mode / Beam 7)				
Test Mode	2	EUT 1 + Ant. 19 (Beam 9)				
	3	EUT 1 + Ant. 20 (Omni Mode)				

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Emissions in Restricted Frequency Bands		
Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Normal Link		
EUT 1 in Y axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + PoE 1		
EUT 1 in Z axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + PoE 1		
ed to be the worst case between Mode 1~2, thus measurement for Mode 3 ~ 4 will α .		
EUT 2 in Y axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + External Ant. 1 + PoE 1		
EUT 2 in Y axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + External Ant. 2 + PoE 1		
For operating mode 1 is the worst case and it was record in this test report.		
СТХ		

For Ant. 11 ~ Ant.18 (Directional Mode):

Ant.11 ~ Ant.18 can be used as transmitting/receiving functions, but only one antenna can be used as transmitting/receiving functions at one time and the worst case was found at Ant.17. So the measurement will follow this same test configuration.

The EUT was performed at $X \cdot Y$ axis and Z axis and the worst case was found at Y axis. So the measurement will follow this same test configuration.

For Ant. 19 (Beam 9):

The EUT was performed at $X \cdot Y$ axis and Z axis and the worst case was found at Z axis. So the measurement will follow this same test configuration.

For Ant. 20 (Omni Mode):

The EUT was performed at $X \cdot Y$ axis and Z axis and the worst case was found at Y axis. So the measurement will follow this same test configuration.

	· ·	
1	EUT 1 in Y axis + Ant. 17 (Directional Mode / Beam 7)	
2	EUT 1 in Z axis + Ant. 19 (Beam 9)	
3	EUT 1 in Y axis + Ant. 20 (Omni Mode)	

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The Worst Case Mode for Following Conformance Tests					
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation				
For Configuration	1: EUT 1				
1	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)				
2	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)				
For Configuration	2: EUT 2				
3	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)				
4	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)				
For Configuration	3: EUT 1				
5	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)				
6	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)				
7	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 5GHz / High Band) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)				
8	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 5GHz / High Band) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)				
Refer to Sporton Te	Refer to Sporton Test Report No.: FA041650 for Co-location RF Exposure Evaluation.				

Note: The PoE is for measurement only, would not be marketed.

PoE information as below:

Power	Brand	Model
PoE 1	YAMAHA	YPS-PoE-AT
PoE 2	Buffalo	BIJ-POE-1P:T

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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2.4 Accessories

Flush Mount Bracket*1 Mounting Bracket*2 Seal*2

2.5 Support Equipment

For AC Conduction and Radiated (below 1GHz):

	Support Equipment						
No.	Equipment	Brand Name	Model Name	FCC ID			
Α	PoE	YAMAHA	YPS-PoE-AT	N/A			
В	2.5G PC	DELL	T3400	N/A			
С	PoE LOAD	N/A	N/A	N/A			
D	PoE LOAD NB	DELL	E6430	N/A			
Е	2.4G NB	DELL	E6430	N/A			
F	5G-1 NB	DELL	E6430	N/A			
G	5G-2 NB	DELL	E6430	N/A			
Н	Smart phone	Samsung	Galaxy J2	N/A			

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For Radiated (above 1GHz):

1011	Tor Nadiated (above Toriz).						
Support Equipment							
No.	No. Equipment Brand Name Model Name FCC ID						
Α	PoE	Buffalo	BIJ-POE-1P:T	N/A			
В	Notebook	DELL	E4300	N/A			
Е	Bluetooth Test set	Anritsu	MT8852B	N/A			

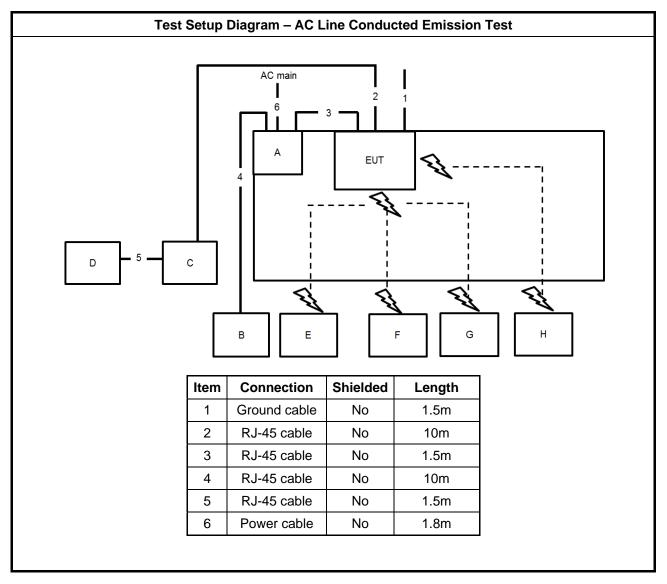
For RF Conducted:

Support Equipment						
No.	Equipment	FCC ID				
Α	Notebook DELL		E4300	N/A		
В	PoE	Buffalo	BIJ-POE-1P:T	N/A		

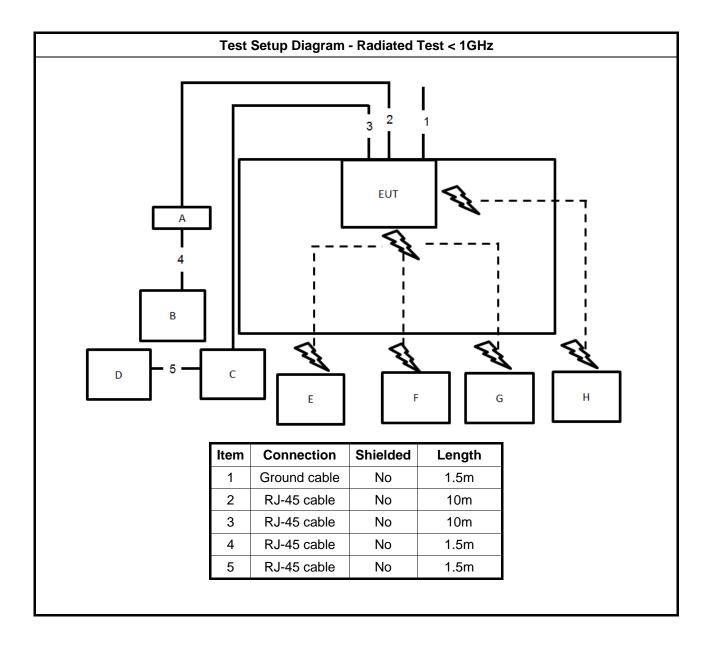
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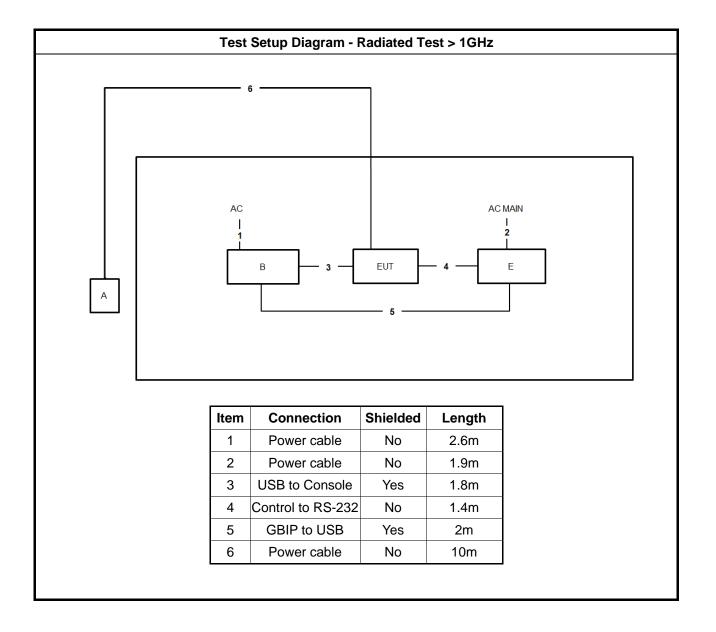
2.6 Test Setup Diagram



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3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit					
Frequency Emission (MHz)	Average				
0.15-0.5	66 - 56 *	56 - 46 *			
0.5-5	56	46			
5-30	60	50			
Note 1: * Decreases with the logarithm of the frequency.					

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3.1.2 Measuring Instruments

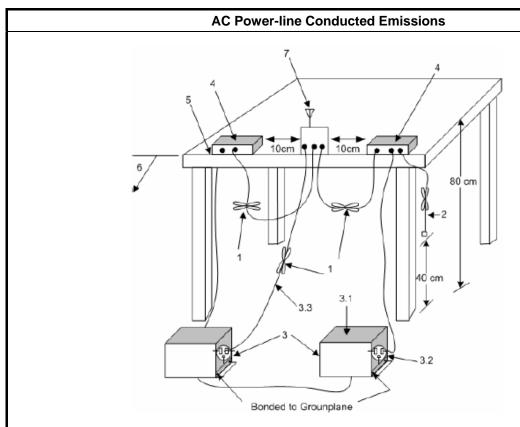
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

	Test Method
-	Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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3.1.4 **Test Setup**



-Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.

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- The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
- 3.1—All other equipment powered from additional LISN(s).
- 3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment. 3.3—LISN at least 80 cm from nearest part of EUT chassis.
- 4—Non-EUT components of EUT system being tested.
- -Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
 -Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground
- 7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

1.1.1. Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level
- Margin = Limit + (Read Level + LISN Factor + Cable Loss)

Test Result of AC Power-line Conducted Emissions 3.1.5

Refer as Appendix A

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3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit				
Systems using digital modulation techniques:				
■ 6 dB bandwidth ≥ 500 kHz.				

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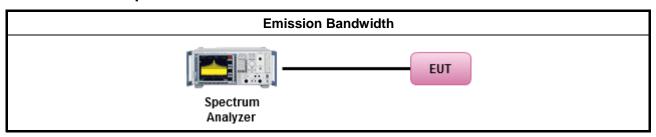
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

	Test Method							
•	For the emission bandwidth shall be measured using one of the options below:							
	\boxtimes	Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.						
		Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.						
		Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.						

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

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3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit

- If G_{TX} ≤ 6 dBi, then P_{Out} ≤ 30 dBm (1 W)
- Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 (G_{TX} 6)$ dBm
- Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 (G_{TX} 6)/3$ dBm
- Smart antenna system (SAS):
 - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 (G_{TX} 6)/3$ dBm
 - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 (G_{TX} 6)/3$ dBm
 - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 (G_{TX} 6)/3 + 8$ dB dBm

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 \mathbf{P}_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, \mathbf{G}_{TX} = the maximum transmitting antenna directional gain in dBi.

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

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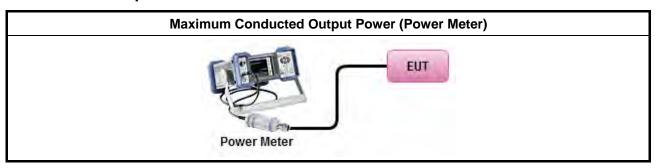
3.3.3 Test Procedures

	Test Method					
•	Max	imum Peak Conducted Output Power				
		Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).				
		Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).				
•	Max	imum Conducted Output Power				
	[duty	/ cycle ≥ 98% or external video / power trigger]				
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.				
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)				
	duty	cycle < 98% and average over on/off periods with duty factor				
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.				
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)				
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3				
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)				
	Measurement using a power meter (PM)					
		Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).				
	\boxtimes	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).				
•	For	conducted measurement.				
	•	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.				
	•	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$				

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3.3.4 Test Setup



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3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

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3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit ■ Power Spectral Density (PSD)≤8 dBm/3kHz

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3.4.2 Measuring Instruments

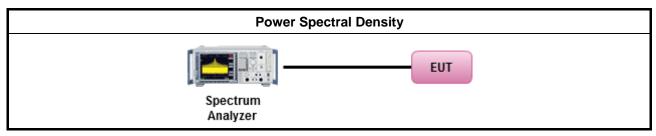
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

	Test Method					
•	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).					
	⊠ Ref	er as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.				
	[duty cyc	sle ≥ 98% or external video / power trigger]				
•	For cond	lucted measurement.				
	• If T	he EUT supports multiple transmit chains using options given below:				
		Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.				
		Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,				
		Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.				

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3.4.4 Test Setup



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3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

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3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit			
RF output power procedure	Limit (dBc)		
Peak output power procedure	20		
Average output power procedure	30		

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- Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.
- Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

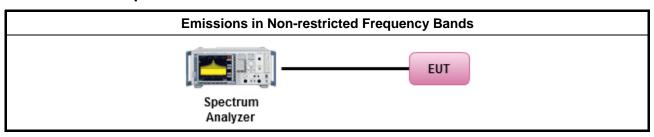
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
■ Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.	

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

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3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit						
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)			
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300			
0.490~1.705	24000/F(kHz)	33.8 - 23	30			
1.705~30.0	30	29	30			
30~88	100	40	3			
88~216	150	43.5	3			
216~960	200	46	3			
Above 960	500	54	3			

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- Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
- Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.
- Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

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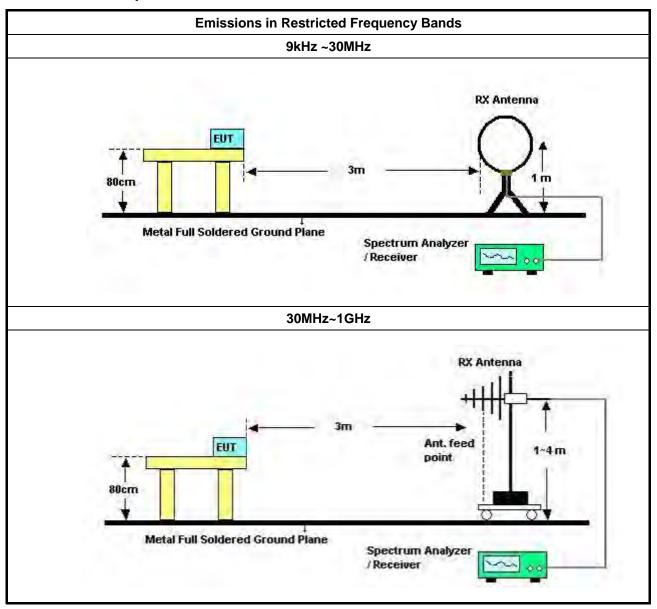
3.6.3 Test Procedures

	Test Method					
•	The	average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].				
•		er as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency and highest frequency channel within the allowed operating band.				
•	For	the transmitter unwanted emissions shall be measured using following options below:				
	•	Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.				
		Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).				
		Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).				
		Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).				
		Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.				
		Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.				
		Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.				
•	For	the transmitter band-edge emissions shall be measured using following options below:				
	•	Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.				
	•	Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.				
	•	Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).				
	•	For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB				
	•	For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.				

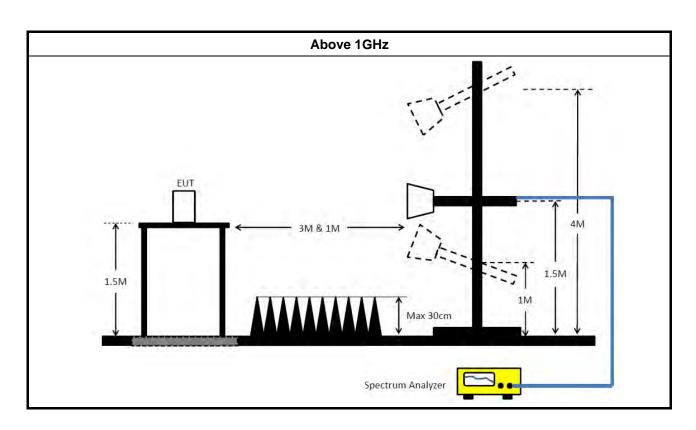
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3.6.4 Test Setup



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3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor (if applicable) = Level.

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

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4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50- 16-2	04083	150kHz ~ 100MHz	Dec. 25, 2019	Dec. 24, 2020	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwa rz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 31, 2020	Jan. 30, 2021	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 20, 2020	May 19, 2021	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (10CH01-CB)
10m Semi Anechoic Chamber	TDK	NSA	10CH01-CB	30MHz~1GHz 10m,3m	Jan. 30, 2020	Jan. 29, 2021	Radiation (10CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10783	9kHz ~ 1.3GHz	Mar. 19, 2020	Mar. 18, 2021	Radiation (10CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10784	9kHz ~ 1.3GHz	Mar. 11, 2020	Mar. 10, 2021	Radiation (10CH01-CB)
Low Cable	Woken	SUCOFLEX 104	low cable-01	25MHz ~ 1GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (10CH01-CB)
High Cable	Woken	SUCOFLEX 104	low cable-02	25MHz ~ 1GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (10CH01-CB)
Biconical Antenna	Schwarzbeck	VHBB 9124	324	30MHz ~ 200MHz	Apr. 20, 2020	Apr. 19, 2021	Radiation (10CH01-CB)
Log Antenna	Schwarzbeck	VUSLP 9111	247	200MHz ~ 1GHz	May 25, 2020	May 24, 2021	Radiation (10CH01-CB)
EMI Test Receiver	Rohde&Schwa rz	ESCI	100186	9kHz ~ 3GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (10CH01-CB)
Spectrum Analyzer	Rohde&Schwa rz	FSV30	101026	9kHz ~ 30GHz	Mar. 03, 2020	Mar. 02, 2021	Radiation (10CH01-CB)

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Calibration Calibration Manufacturer Model No. Characteristics Instrument Serial No. Remark Date **Due Date** Radiation Software Audix E3 6.120210m N.C.R. N.C.R. (10CH01-CB) Radiation ETS · Lindgren Horn Antenna 3115 6821 750MHz~18GHz Jan. 20, 2020 Jan. 19, 2021 (03CH03-CB) Radiation **SCHWARZBE** Horn Antenna **BBHA 9170** BBHA9170507 15GHz ~ 40GHz Jun. 11, 2020 Jun. 10, 2021 CK (03CH03-CB) Radiation Pre-Amplifier **EMCI** EMC12630SE 980383 1GHz ~ 26.5GHz Aug. 02, 2019 Aug. 01, 2020 (03CH03-CB) Radiation TF-130N-R1 18GHz ~ 40GHz Amplifier Jun. 19, 2020 Jun. 18, 2021 (03CH03-CB) Radiation Spectrum FSP40 9kHz ~ 40GHz R&S 100019 Jun. 09, 2020 Jun. 08, 2021 Analyzer (03CH03-CB) High Radiation Cable-20+27(s 1GHz ~ 18GHz RF Cable-high Woken RG402 Jul. 03, 2020 Jun. 02, 2021 (03CH03-CB) pare) High Radiation RF Cable-high Woken RG402 Cable-27(spar 1GHz ~ 18GHz Jul. 03, 2020 Jun. 02, 2021 (03CH03-CB) e) Radiation High RF Cable-high Jul. 16, 2020 Jul. 15, 2021 18GHz ~ 40 GHz Woken RG402 (03CH03-CB) Cable-40G#1 Radiation High Jul. 16, 2020 Jul. 15, 2021 RF Cable-high Woken RG402 18GHz ~ 40 GHz (03CH03-CB) Cable-40G#2 **SCHWARZBE** Radiation BBHA9120D Horn Antenna 9120D-1292 1GHz~18GHz Jul. 17, 2019 Jul. 16, 2020 CK (03CH06-CB) Radiation **SCHWARZBE BBHA** BBHA9120D Horn Antenna 1GHz~18GHz Oct. 05, 2019 Oct. 04, 2020 9120D-1291 CK (03CH06-CB) Radiation Horn Antenna COM-POWER AH-118 071028 1GHz ~ 18GHz Jun. 09, 2020 Jun. 08, 2021 (03CH06-CB) **SCHWARZBE** Radiation Horn Antenna **BBHA 9170** BBHA9170507 15GHz ~ 40GHz Jun. 11, 2020 Jun. 10, 2021 CK (03CH06-CB) Radiation 0.5GHz ~ Pre-Amplifier 83017A MY53270064 May 07, 2020 May 06, 2021 Agilent 26.5GHz (03CH06-CB) Radiation Amplifier TF-130N-R1 18GHz ~ 40GHz Jun. 19, 2020 Jun. 18, 2021 (03CH06-CB) Radiation Spectrum FSP40 100080 9kHz~40GHz Oct. 21, 2019 Oct. 20, 2020 R&S analyzer (03CH06-CB)

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					Calibration	Calibration	
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Date	Due Date	Remark
RF Cable-high	HUBER+SUH NER	RG402	High Cable-05	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUH NER	RG402	High Cable-05+24	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Nov. 01, 2019	Oct. 31, 2020	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

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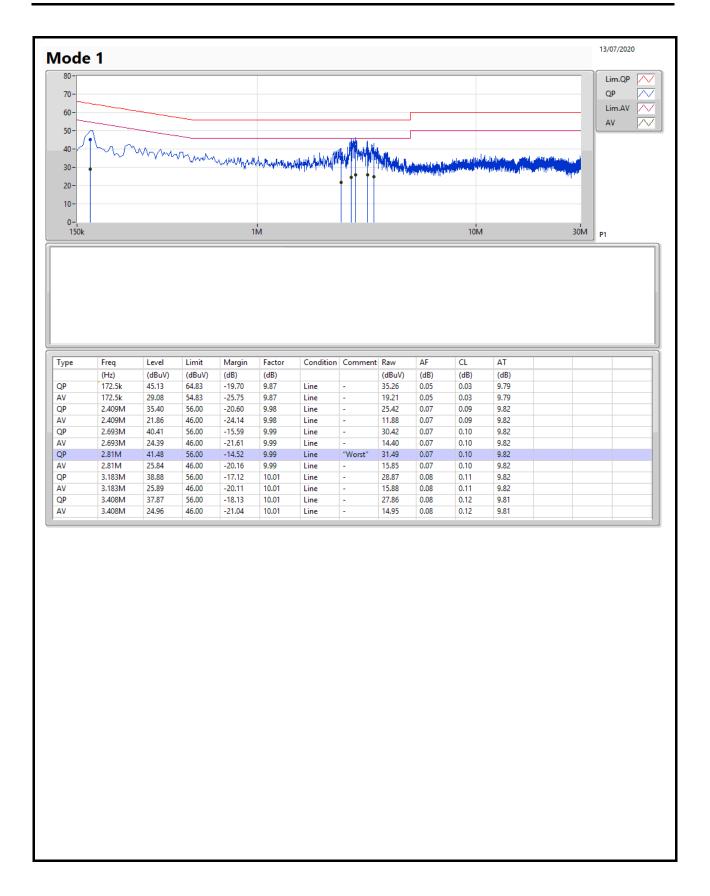
AC Power Port Conducted Emission Result

Appendix A

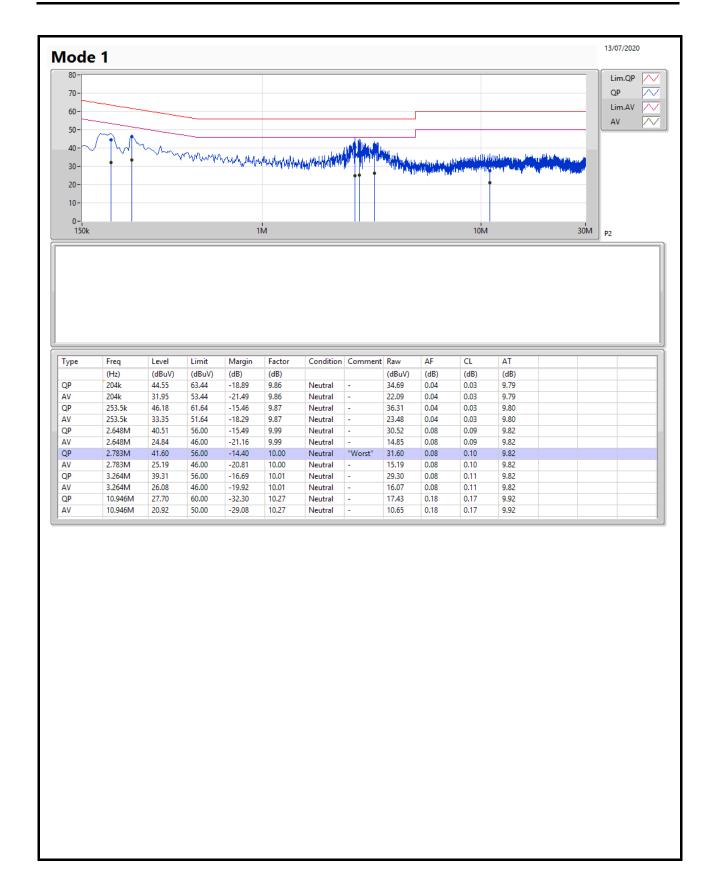
Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Factor	Condition
			(Hz)	(dBuV)	(dBuV)	(dB)	(dB)	
Mode 1	Pass	QP	2.783M	41.60	56.00	-14.40	10.00	Neutral











Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7) Summary

Max-N dB Max-OBW Mode ITU-Code Min-N dB Min-OBW (Hz) (Hz) (Hz) (Hz) 2.4-2.4835GHz -BT-LE(1Mbps) 717.5k 1.052M 1M05F1D 702.5k 1.044M BT-LE(2Mbps) 1.145M 2.059M 2M06F1D 1.138M 2.044M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth; **Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

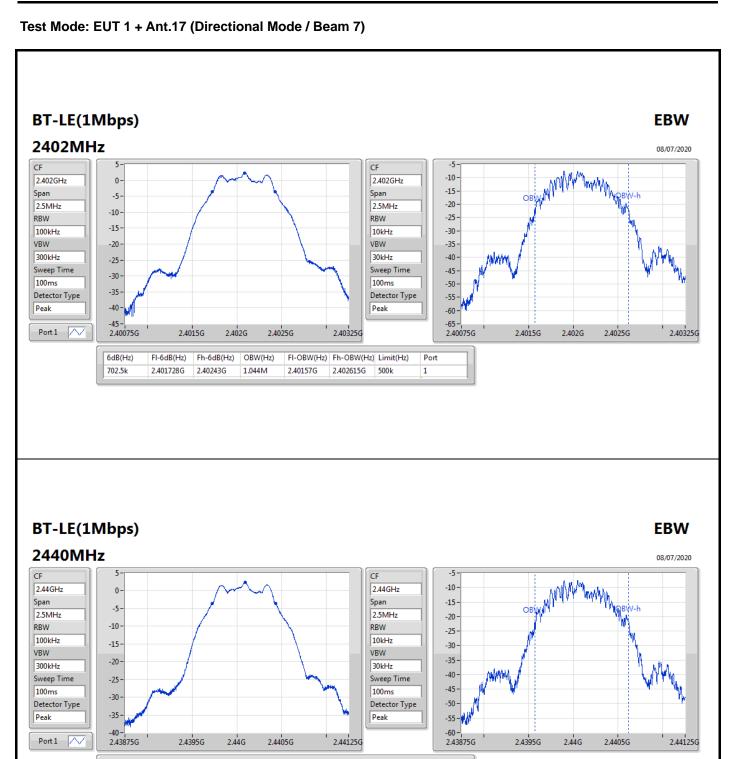


Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7) Result

TCSUIT				
Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	702.5k	1.044M
2440MHz	Pass	500k	711.25k	1.049M
2480MHz	Pass	500k	717.5k	1.052M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.14M	2.044M
2440MHz	Pass	500k	1.138M	2.046M
2480MHz	Pass	500k	1.145M	2.059M

Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;





FI-OBW(Hz) Fh-OBW(Hz) Limit(Hz)

2.439569G 2.440618G 500k

FI-6dB(Hz) Fh-6dB(Hz) OBW(Hz)

1.049M

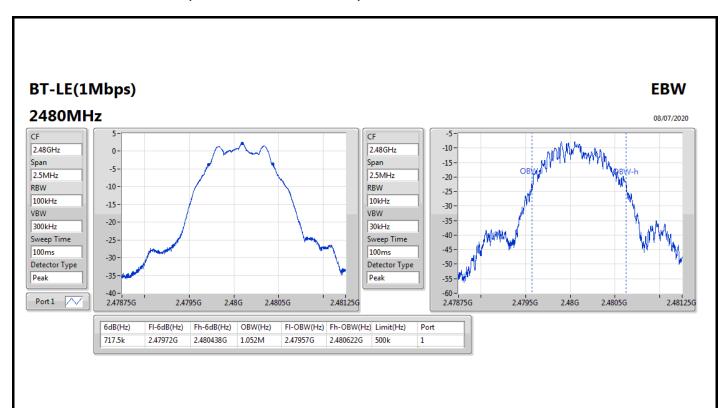
2.439723G 2.440434G

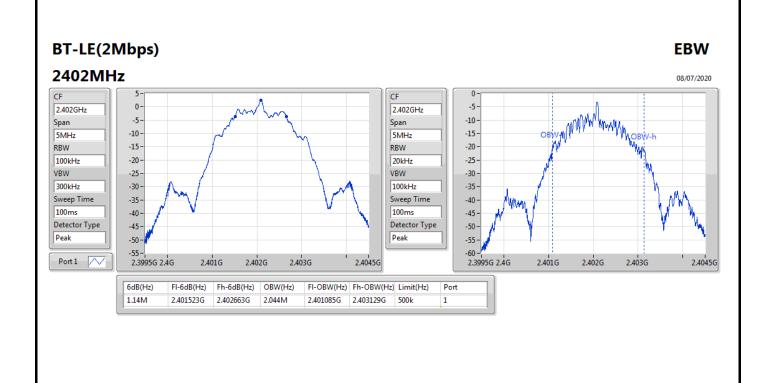
6dB(Hz)

711.25k



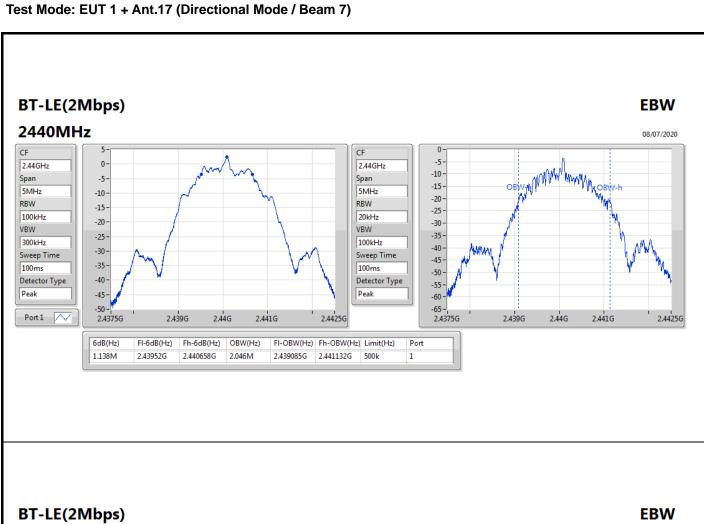
Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7)

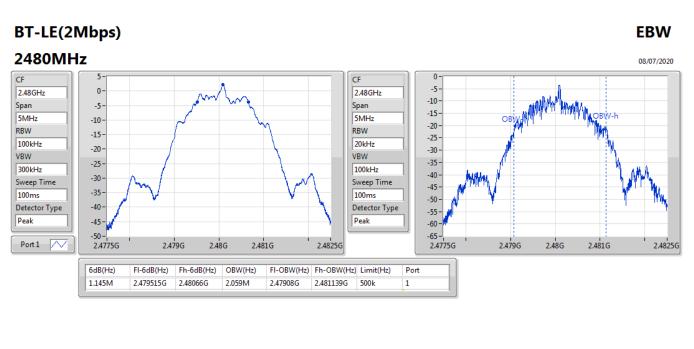




: 4 of 5







: 5 of 5



Test Mode: EUT 1 + Ant.19 (Beam 9)

Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	717.5k	1.052M	1M05F1D	702.5k	1.044M
BT-LE(2Mbps)	1.145M	2.059M	2M06F1D	1.138M	2.044M

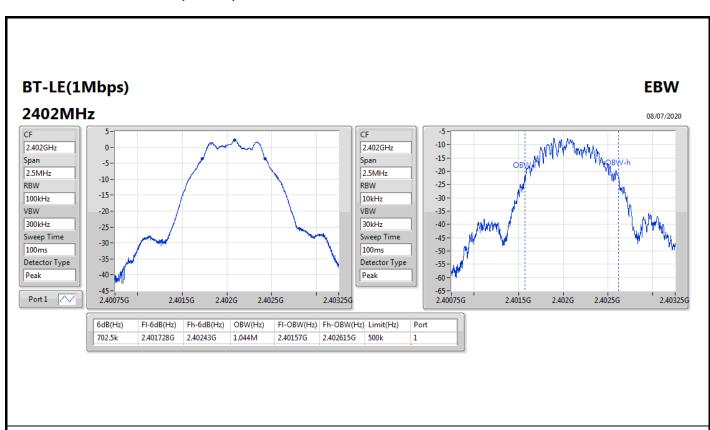
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth; Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth;

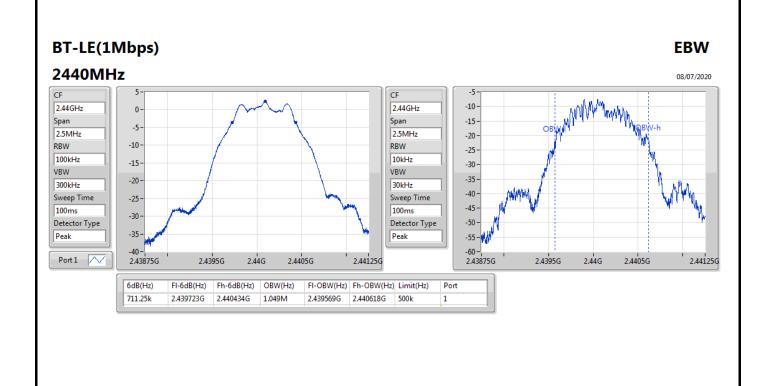
Result

Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	702.5k	1.044M
2440MHz	Pass	500k	711.25k	1.049M
2480MHz	Pass	500k	717.5k	1.052M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.14M	2.044M
2440MHz	Pass	500k	1.138M	2.046M
2480MHz	Pass	500k	1.145M	2.059M

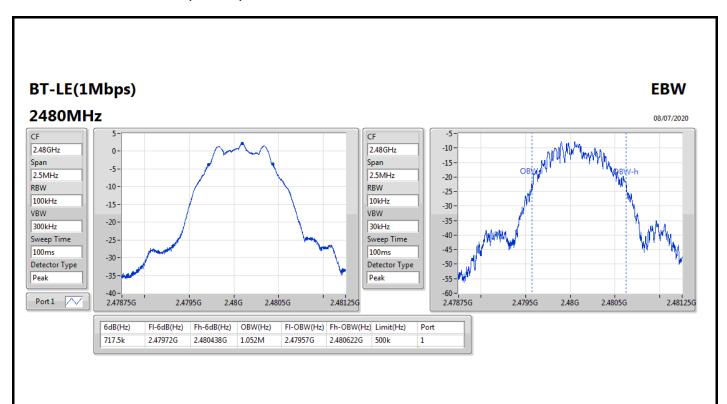
Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

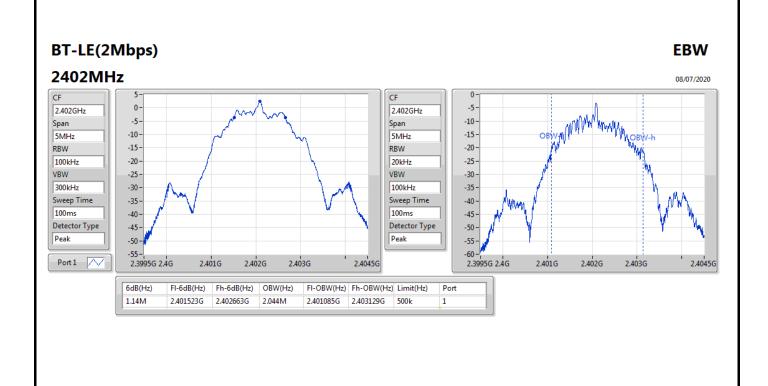




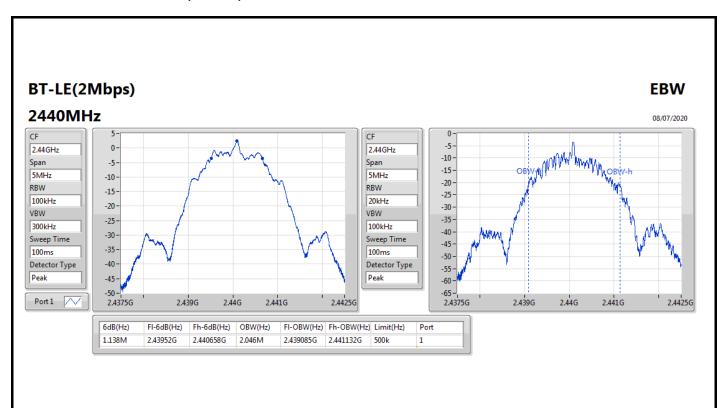


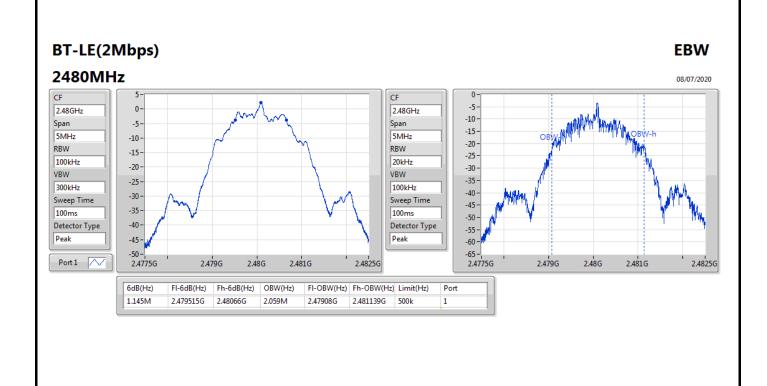














Test Mode: EUT 1 + Ant.20 (Omni Mode)

Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	717.5k	1.052M	1M05F1D	702.5k	1.044M
BT-LE(2Mbps)	1.145M	2.059M	2M06F1D	1.138M	2.044M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth; **Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

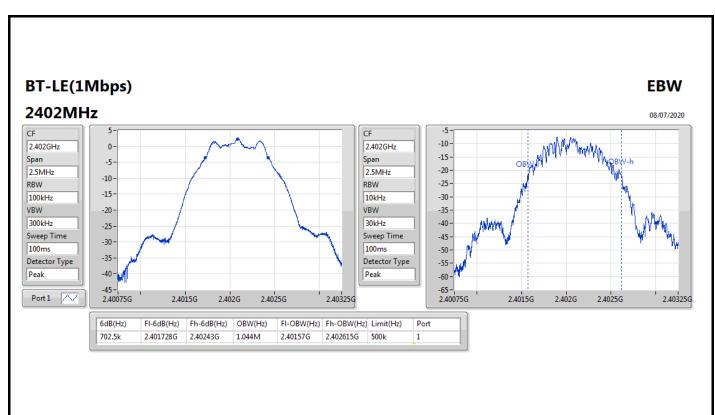


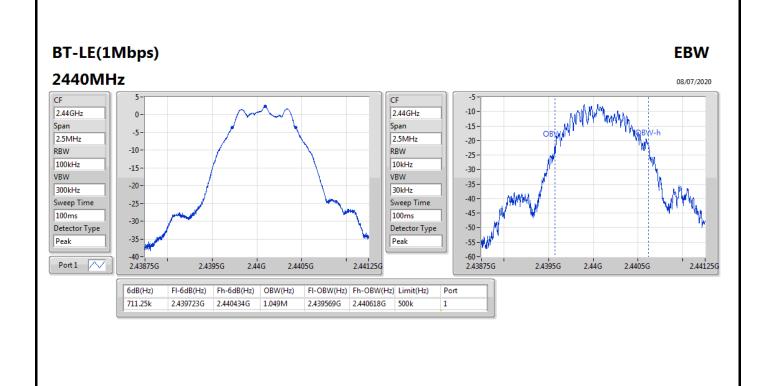
Test Mode: EUT 1 + Ant.20 (Omni Mode) Result

Ttoour				
Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	702.5k	1.044M
2440MHz	Pass	500k	711.25k	1.049M
2480MHz	Pass	500k	717.5k	1.052M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.14M	2.044M
2440MHz	Pass	500k	1.138M	2.046M
2480MHz	Pass	500k	1.145M	2.059M

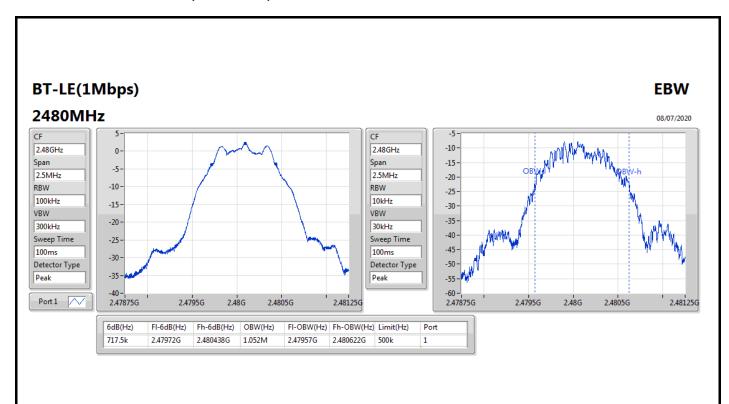
Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

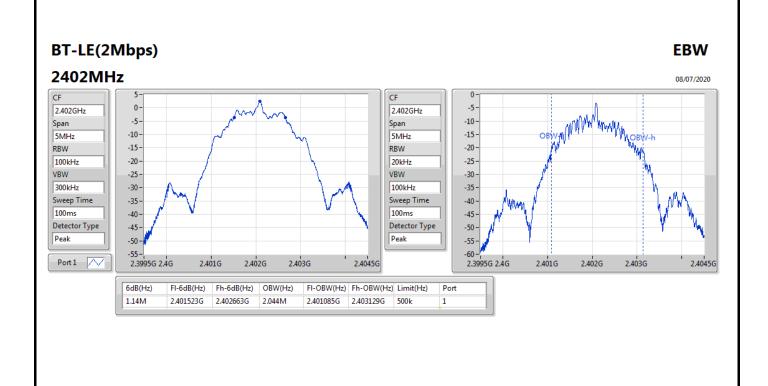




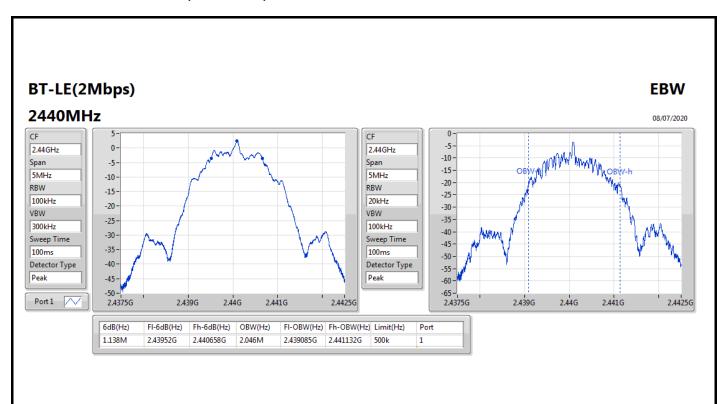


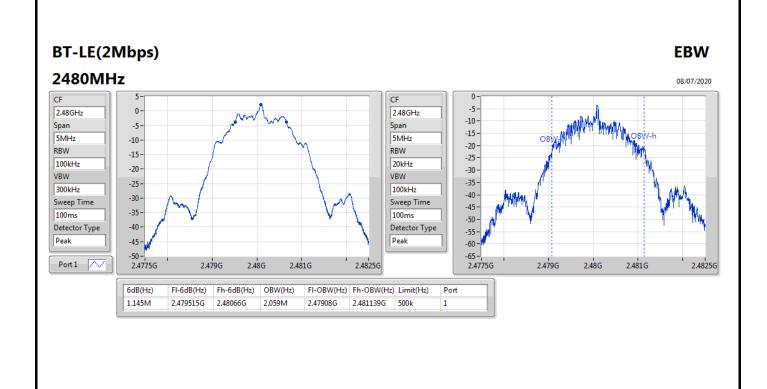














Appendix C.1

Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7) Summary

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	2.24	0.00167
BT-LE(2Mbps)	2.25	0.00168



Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7) Result

Troour				
Mode	Result	Gain	Power	Power Limit
		(dBi)	(dBm)	(dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	5.10	2.24	30.00
2440MHz	Pass	5.10	2.21	30.00
2480MHz	Pass	5.10	2.05	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	5.10	2.25	30.00
2440MHz	Pass	5.10	2.21	30.00
2480MHz	Pass	5.10	2.03	30.00

DG = Directional Gain; **Port X** = Port X output power



Average Power-DTS

Appendix C.2

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	2.24	0.00167
BT-LE(2Mbps)	2.25	0.00168



Result		T		
Mode	Result	Gain	Power	Power Limit
		(dBi)	(dBm)	(dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.30	2.24	30.00
2440MHz	Pass	4.30	2.21	30.00
2480MHz	Pass	4.30	2.05	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.30	2.25	30.00
2440MHz	Pass	4.30	2.21	30.00
2480MHz	Pass	4.30	2.03	30.00

DG = Directional Gain; **Port X** = Port X output power



Average Power-DTS

Appendix C.3

Test Mode: EUT 1 + Ant.20 (Omni Mode)

Summary

Mode	Power (dBm)	Power (W)
	(UBITI)	(00)
2.4-2.4835GHz	•	-
BT-LE(1Mbps)	2.24	0.00167
BT-LE(2Mbps)	2.25	0.00168



Test Mode: EUT 1 + Ant.20 (Omni Mode) Result

Result				
Mode	Result	Gain	Power	Power Limit
		(dBi)	(dBm)	(dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	1.40	2.24	30.00
2440MHz	Pass	1.40	2.21	30.00
2480MHz	Pass	1.40	2.05	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	1.40	2.25	30.00
2440MHz	Pass	1.40	2.21	30.00
2480MHz	Pass	1.40	2.03	30.00

DG = Directional Gain; **Port X** = Port X output power



Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7) Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	(udili/KbW) -
BT-LE(1Mbps)	-13.31
BT-LE(2Mbps)	-15.68

RBW=3 kHz.



Appendix D.1 **PSD-DTS**

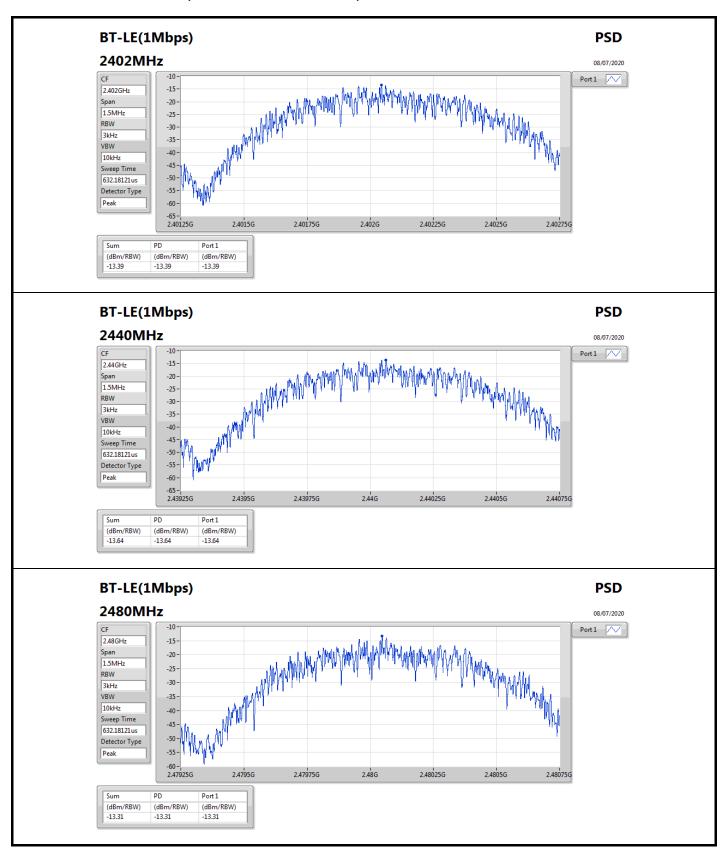
Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7) Result

Mode	Result	Gain	PD	PD Limit	
		(dBi)	(dBm/RBW)	(dBm/RBW)	
BT-LE(1Mbps)	-	-	-	-	
2402MHz	Pass	5.10	-13.39	8.00	
2440MHz	Pass	5.10	-13.64	8.00	
2480MHz	Pass	5.10	-13.31	8.00	
BT-LE(2Mbps)	-	-	-	-	
2402MHz	Pass	5.10	-15.68	8.00	
2440MHz	Pass	5.10	-16.28	8.00	
2480MHz	Pass	5.10	-16.38	8.00	

DG = Directional Gain; RBW=3 kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;

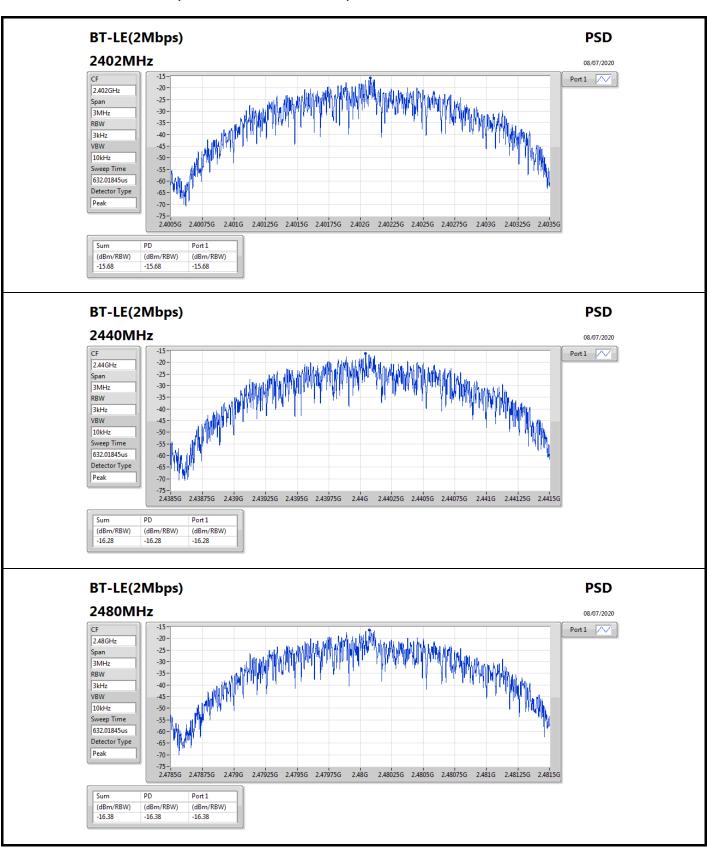


Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7)





Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7)





Test Mode: EUT 1 + Ant.19 (Beam 9)

Summary

- Carrinary						
Mode	PD					
	(dBm/RBW)					
2.4-2.4835GHz	-					
BT-LE(1Mbps)	-13.31					
BT-LE(2Mbps)	-15.68					

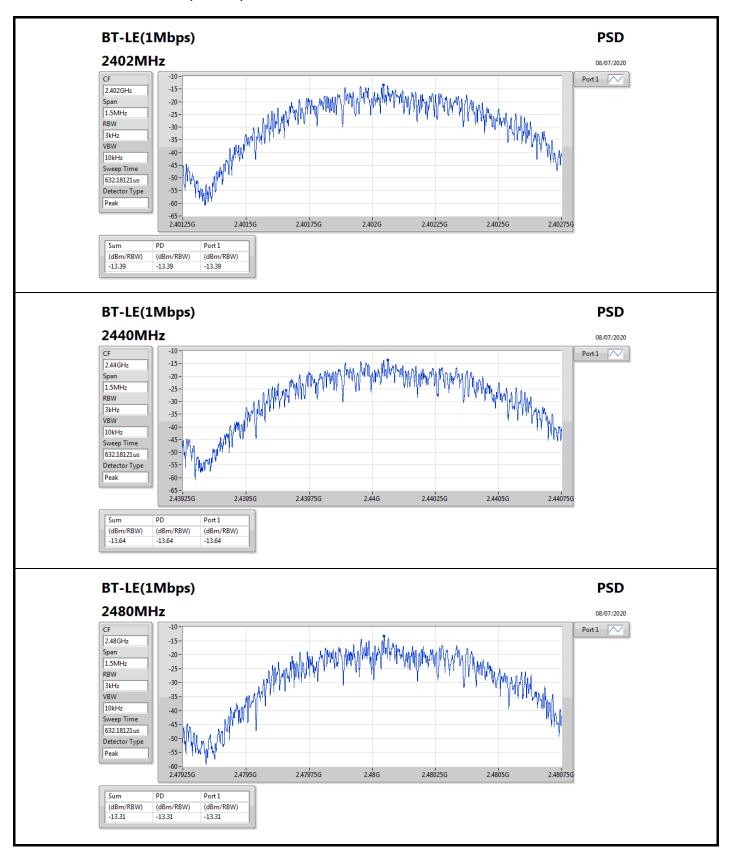
RBW=3 kHz.

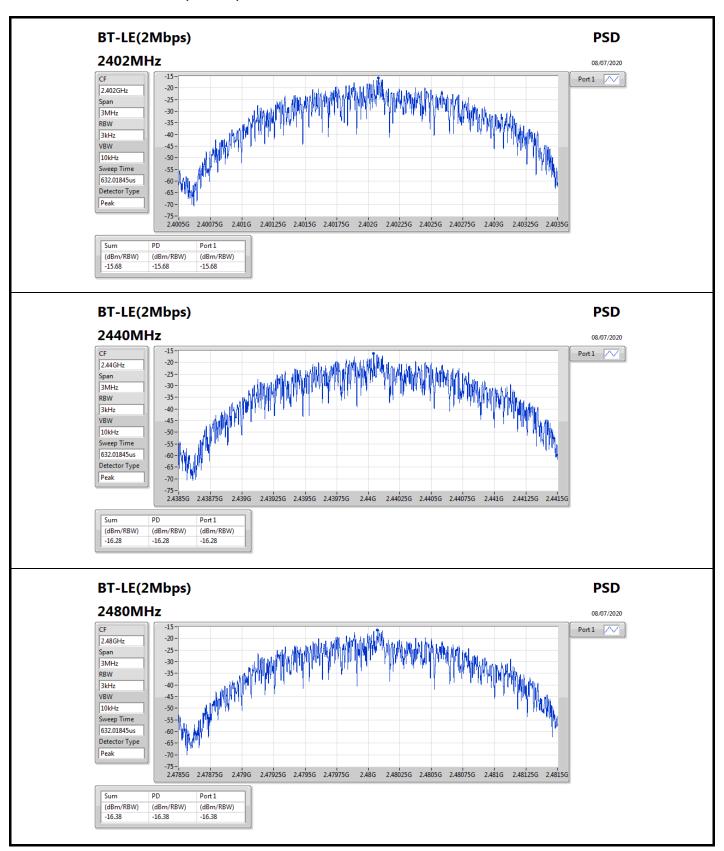


Appendix D.2 **PSD-DTS**

Mode	Result	Gain	PD	PD Limit	
		(dBi)	(dBm/RBW)	(dBm/RBW)	
BT-LE(1Mbps)	-	-	-	-	
2402MHz	Pass	4.30	-13.39	8.00 8.00	
2440MHz	Pass	4.30	-13.64		
2480MHz	Pass	4.30	-13.31	8.00	
BT-LE(2Mbps)	-	-	-	-	
2402MHz	Pass	4.30	-15.68	8.00	
2440MHz	Pass	4.30	-16.28	8.00	
2480MHz	Pass	4.30	-16.38	8.00	

DG = Directional Gain; RBW=3 kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;







Test Mode: EUT 1 + Ant.20 (Omni Mode)

Summary

Mode	PD
	(dBm/RBW)
2.4-2.4835GHz	
BT-LE(1Mbps)	-13.31
BT-LE(2Mbps)	-15.68

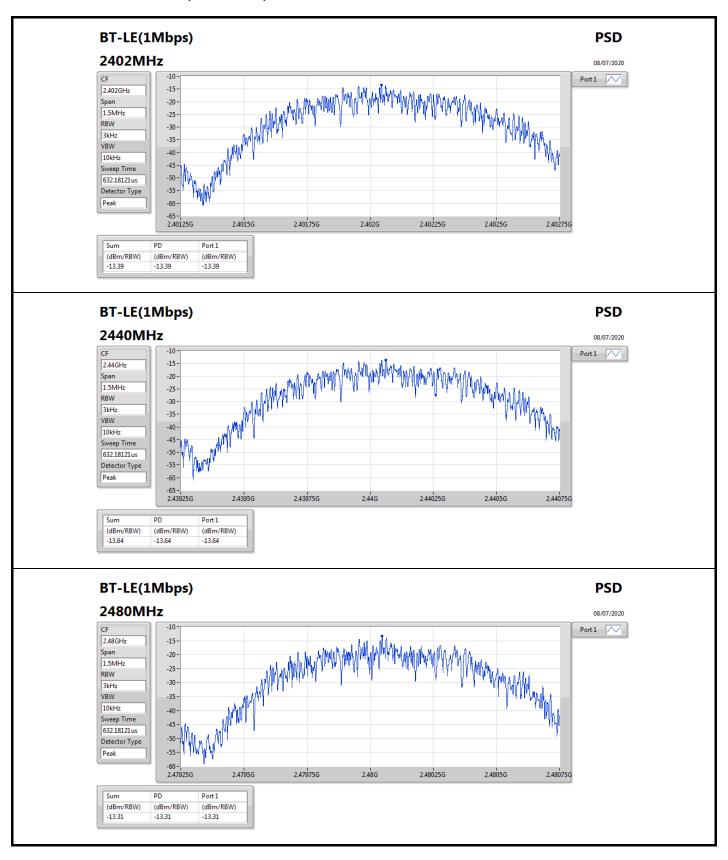
RBW=3 kHz.

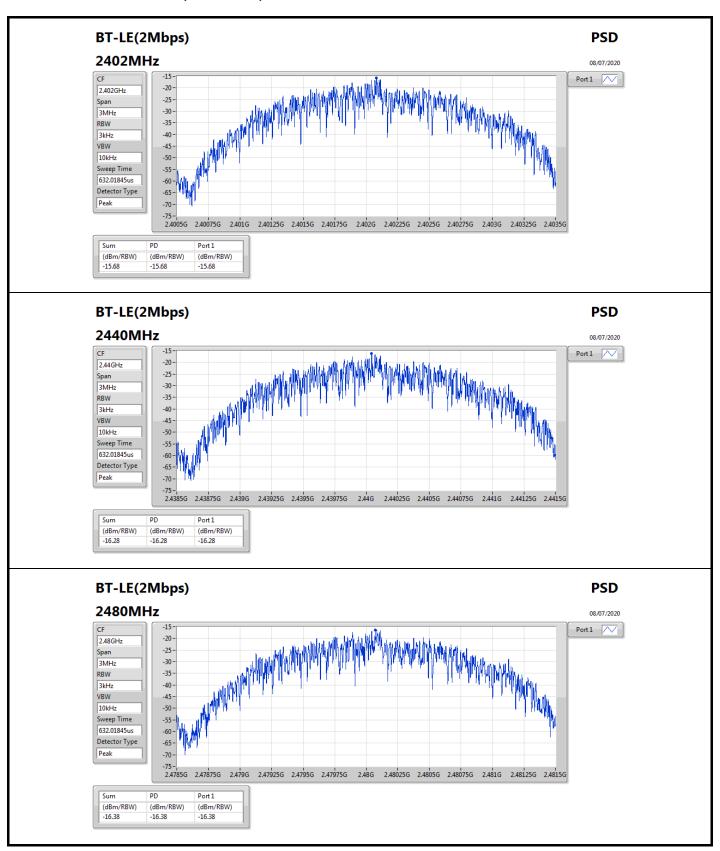


Appendix D.3 **PSD-DTS**

Result					
Mode	Result	Gain	PD	PD Limit	
		(dBi)	(dBm/RBW)	(dBm/RBW)	
BT-LE(1Mbps)	-	-	-	-	
2402MHz	Pass	1.40	-13.39	8.00 8.00	
2440MHz	Pass	1.40	-13.64		
2480MHz	Pass	1.40	-13.31	8.00	
BT-LE(2Mbps)	-	-	-	-	
2402MHz	Pass	1.40	-15.68	8.00	
2440MHz	Pass	1.40	-16.28	8.00	
2480MHz	Pass	1.40	-16.38	8.00	

DG = Directional Gain; RBW=3 kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;







CSE-DTS(Non-restricted Band)

Appendix E.1

Test Mode: EUT 1 + Ant.17 (Directional Mode / Beam 7)

Summary

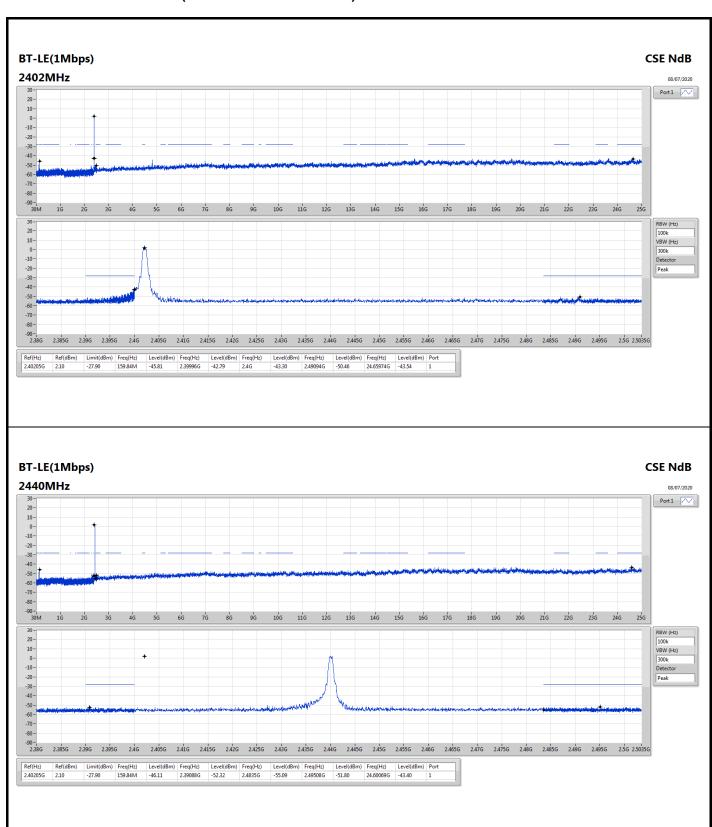
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40205G	2.10	-27.90	159.84M	-45.81	2.39996G	-42.79	2.4G	-43.30	2.49094G	-50.46	24.65974G	-43.54	1
BT-LE(2Mbps)	Pass	2.40205G	2.34	-27.66	159.84M	-46.51	2.4G	-32.39	2.4G	-33.15	2.48704G	-51.35	24.56975G	-43.19	1



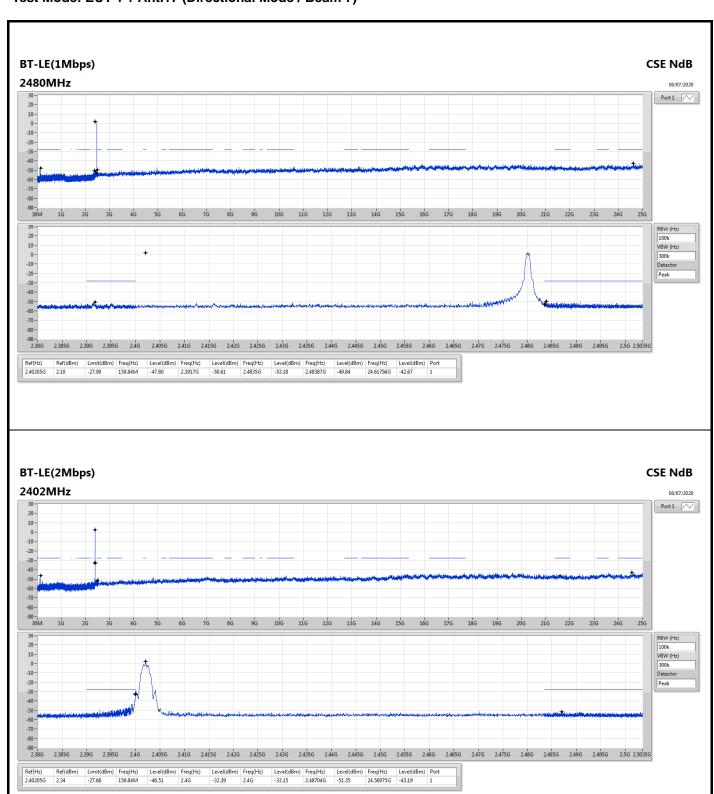
Appendix E.1

INCOUR															
Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40205G	2.10	-27.90	159.84M	-45.81	2.39996G	-42.79	2.4G	-43.30	2.49094G	-50.46	24.65974G	-43.54	1
2440MHz	Pass	2.40205G	2.10	-27.90	159.84M	-46.11	2.39088G	-52.32	2.4835G	-55.09	2.49508G	-51.80	24.60069G	-43.40	1
2480MHz	Pass	2.40205G	2.10	-27.90	159.84M	-47.80	2.3917G	-50.61	2.4835G	-53.18	2.48387G	-49.84	24.61756G	-42.67	1
BT-LE(2Mbps)	-	-	-	-	-	-		-	-	-	-	-	*	-	-
2402MHz	Pass	2.40205G	2.34	-27.66	159.84M	-46.51	2.4G	-32.39	2.4G	-33.15	2.48704G	-51.35	24.56975G	-43.19	1
2440MHz	Pass	2.40205G	2.34	-27.66	159.84M	-46.73	2.39308G	-52.50	2.4G	-55.33	2.48513G	-51.41	16.52163G	-43.05	1
2480MHz	Pass	2.40205G	2.34	-27.66	159.84M	-45.73	2.39149G	-51.09	2.4835G	-54.33	2.49323G	-49.66	23.30714G	-42.52	1

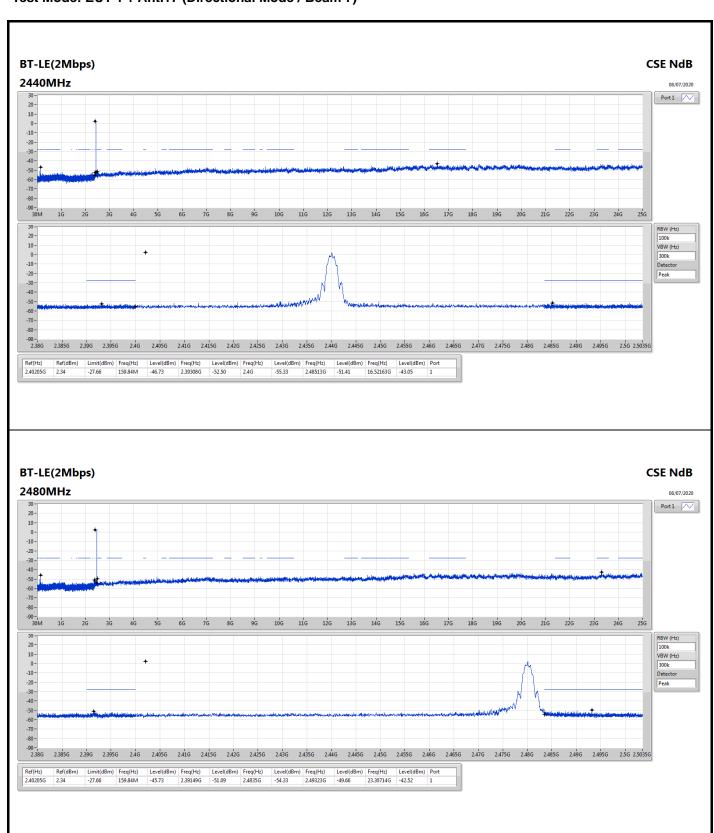














CSE-DTS(Non-restricted Band)

Appendix E.2

Test Mode: EUT 1 + Ant.19 (Beam 9)

Summary

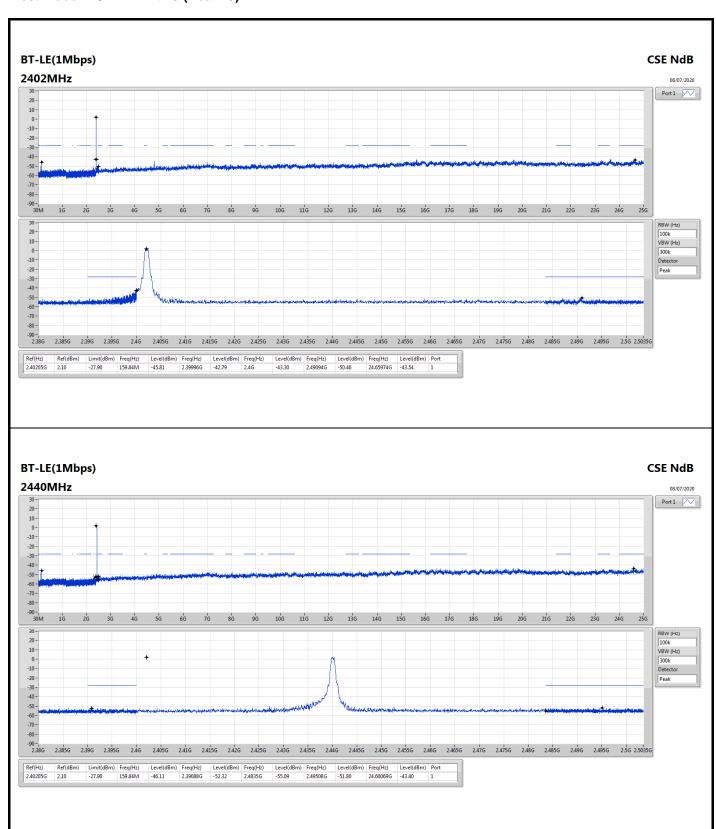
Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40205G	2.10	-27.90	159.84M	-45.81	2.39996G	-42.79	2.4G	-43.30	2.49094G	-50.46	24.65974G	-43.54	1
BT-LE(2Mbps)	Pass	2.40205G	2.34	-27.66	159.84M	-46.51	2.4G	-32.39	2.4G	-33.15	2.48704G	-51.35	24.56975G	-43.19	1

Result

Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
BT-LE(1Mbps)	-	-		-		-	-	-	-	-	-	-		-	-
2402MHz	Pass	2.40205G	2.10	-27.90	159.84M	-45.81	2.39996G	-42.79	2.4G	-43.30	2.49094G	-50.46	24.65974G	-43.54	1
2440MHz	Pass	2.40205G	2.10	-27.90	159.84M	-46.11	2.39088G	-52.32	2.4835G	-55.09	2.49508G	-51.80	24.60069G	-43.40	1
2480MHz	Pass	2.40205G	2.10	-27.90	159.84M	-47.80	2.3917G	-50.61	2.4835G	-53.18	2.48387G	-49.84	24.61756G	-42.67	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40205G	2.34	-27.66	159.84M	-46.51	2.4G	-32.39	2.4G	-33.15	2.48704G	-51.35	24.56975G	-43.19	1
2440MHz	Pass	2.40205G	2.34	-27.66	159.84M	-46.73	2.39308G	-52.50	2.4G	-55.33	2.48513G	-51.41	16.52163G	-43.05	1
2480MHz	Pass	2.40205G	2.34	-27.66	159.84M	-45.73	2.39149G	-51.09	2.4835G	-54.33	2.49323G	-49.66	23.30714G	-42.52	1

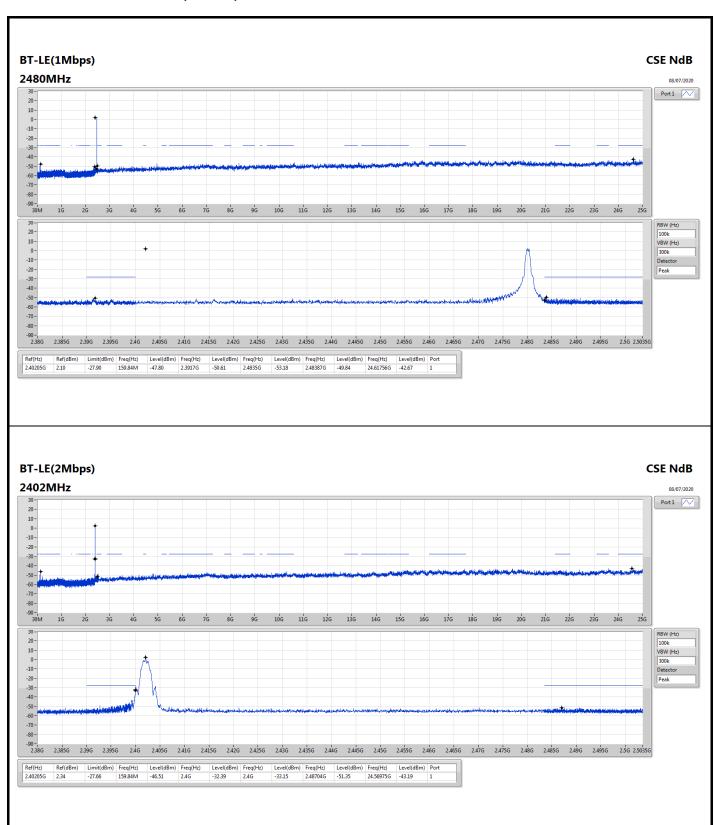


Test Mode: EUT 1 + Ant.19 (Beam 9)



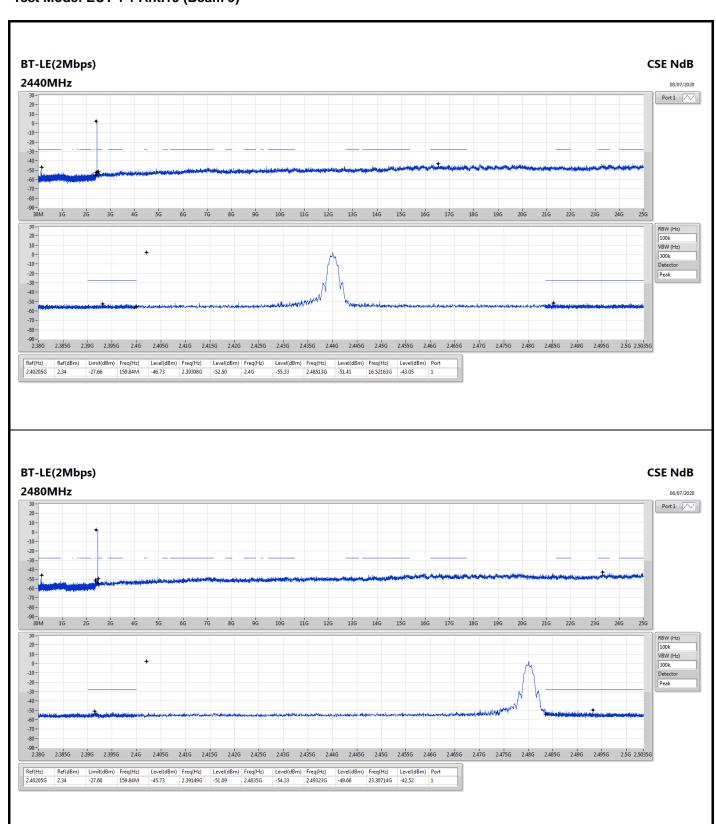


Test Mode: EUT 1 + Ant.19 (Beam 9)





Test Mode: EUT 1 + Ant.19 (Beam 9)





CSE-DTS(Non-restricted Band)

Appendix E.3

Test Mode: EUT 1 + Ant.20 (Omni Mode)

Summary

Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40205G	2.10	-27.90	159.84M	-45.81	2.39996G	-42.79	2.4G	-43.30	2.49094G	-50.46	24.65974G	-43.54	1
BT-LE(2Mbps)	Pass	2.40205G	2.34	-27.66	159.84M	-46.51	2.4G	-32.39	2.4G	-33.15	2.48704G	-51.35	24.56975G	-43.19	1



CSE-DTS(Non-restricted Band)

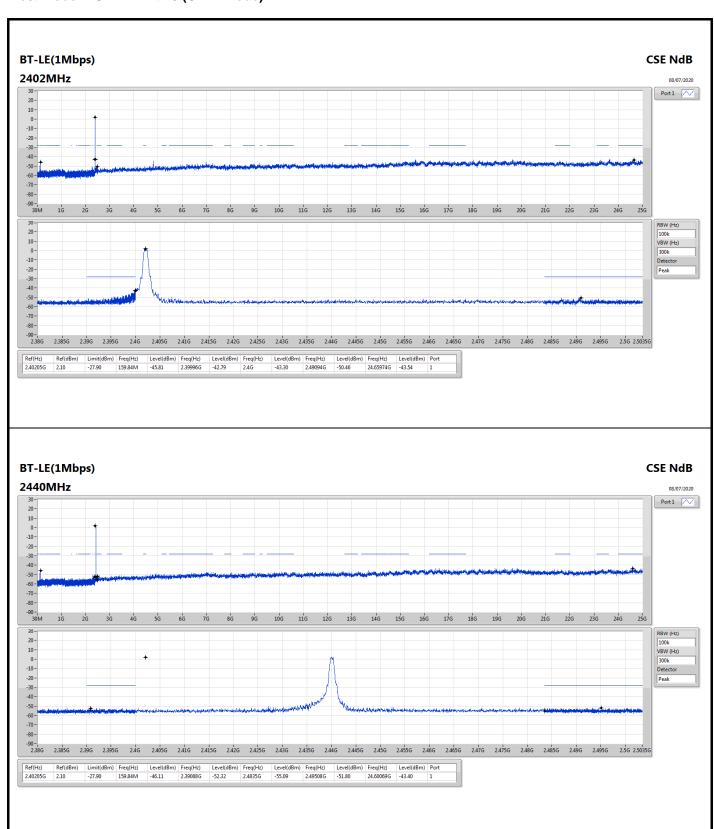
Appendix E.3

Test Mode: EUT 1 + Ant.20 (Omni Mode) Result

Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
BT-LE(1Mbps)	-	-	-	-		-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40205G	2.10	-27.90	159.84M	-45.81	2.39996G	-42.79	2.4G	-43.30	2.49094G	-50.46	24.65974G	-43.54	1
2440MHz	Pass	2.40205G	2.10	-27.90	159.84M	-46.11	2.39088G	-52.32	2.4835G	-55.09	2.49508G	-51.80	24.60069G	-43.40	1
2480MHz	Pass	2.40205G	2.10	-27.90	159.84M	-47.80	2.3917G	-50.61	2.4835G	-53.18	2.48387G	-49.84	24.61756G	-42.67	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40205G	2.34	-27.66	159.84M	-46.51	2.4G	-32.39	2.4G	-33.15	2.48704G	-51.35	24.56975G	-43.19	1
2440MHz	Pass	2.40205G	2.34	-27.66	159.84M	-46.73	2.39308G	-52.50	2.4G	-55.33	2.48513G	-51.41	16.52163G	-43.05	1
2480MHz	Pass	2.40205G	2.34	-27.66	159.84M	-45.73	2.39149G	-51.09	2.4835G	-54.33	2.49323G	-49.66	23.30714G	-42.52	1

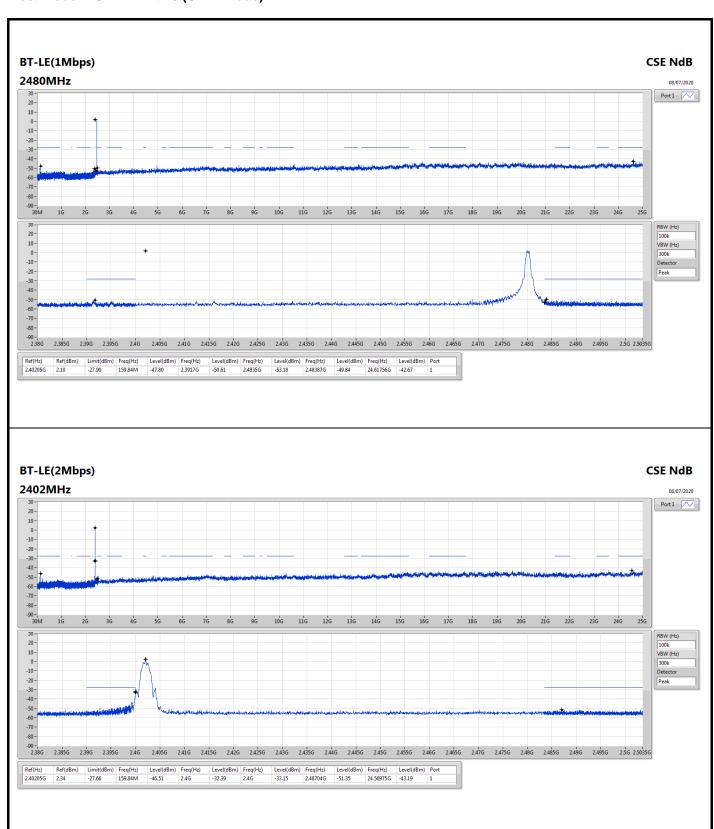


Test Mode: EUT 1 + Ant.20 (Omni Mode)



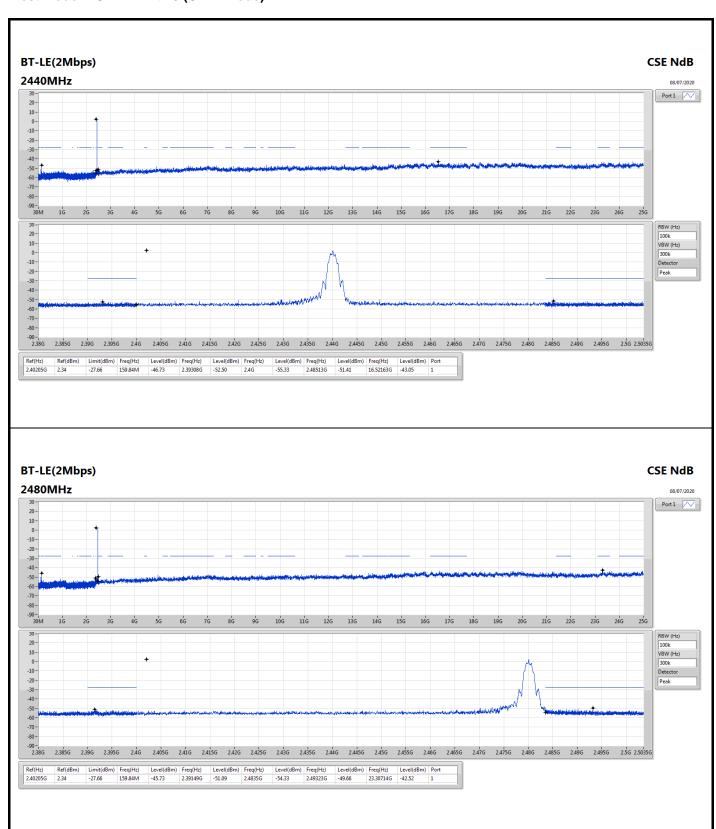


Test Mode: EUT 1 + Ant.20 (Omni Mode)





Test Mode: EUT 1 + Ant.20 (Omni Mode)

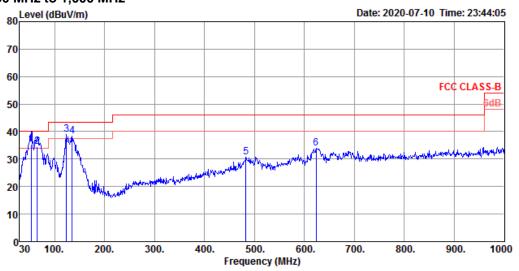




Radiated Emission below 1GHz Result

Test Mode 1 Frequency Range 30 MHz to 1,000 MHz

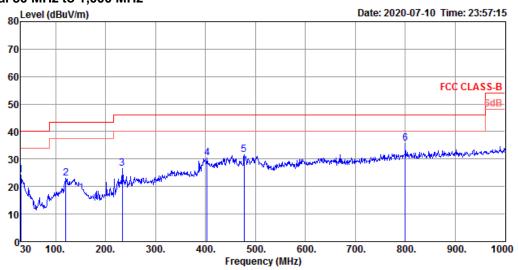
Vertical 30 MHz to 1,000 MHz



Eneg	Level								A/Pos	1/Pos	Pol/Phase
1164	rever	LINE	LIMIT	rever	lactor	1 ac coi	LUSS	Kelliai K			FOI/Filase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
53.28	35.36	40.00	-4.64	48.50	27.75	12.21	2.40	QP	200	344	VERTICAL
64.92	34.65	40.00	-5.35	48.22	27.61	11.41	2.63	QP	300	187	VERTICAL
124.09	38.90	43.50	-4.60	45.76	27.48	17.09	3.53	Peak	200	3	VERTICAL
134.76	38.45	43.50	-5.05	45.48	27.40	16.69	3.68	Peak	200	306	VERTICAL
482.99	30.79	46.00	-15.21	29.34	28.13	22.65	6.93	Peak	200	240	VERTICAL
623.64	33.92	46.00	-12.08	30.02	28.24	24.22	7.92	Peak	100	360	VERTICAL
	53.28 64.92 124.09 134.76 482.99	MHz dBuV/m 53.28 35.36 64.92 34.65 124.09 38.90 134.76 38.45 482.99 30.79	Freq Level Line MHz dBuV/m dBuV/m 53.28 35.36 40.00 64.92 34.65 40.00 124.09 38.90 43.50 134.76 38.45 43.50 482.99 30.79 46.00	Freq Level Line Limit MHz dBuV/m dBuV/m dB 53.28 35.36 40.00 -4.64 64.92 34.65 40.00 -5.35 124.09 38.90 43.50 -4.60 134.76 38.45 43.50 -5.05 482.99 30.79 46.00 -15.21	Freq Level Line Limit Level MHz dBuV/m dBuV/m dBuV/m dB dBuV 53.28 35.36 40.00 -4.64 48.50 64.92 34.65 40.00 -5.35 48.22 124.09 38.90 43.50 -4.60 45.76 134.76 38.45 43.50 -5.05 45.48 482.99 30.79 46.00 -15.21 29.34	Freq Level Line Limit Level Factor MHz dBuV/m dBuV/m dB dBuV dB 53.28 35.36 40.00 -4.64 48.50 27.75 64.92 34.65 40.00 -5.35 48.22 27.61 124.09 38.90 43.50 -4.60 45.76 27.48 134.76 38.45 43.50 -5.05 45.48 27.40 482.99 30.79 46.00 -15.21 29.34 28.13	Freq Level Line Limit Level Factor Factor MHz dBuV/m dBuV/m dB dBuV dB dBw dB/m 53.28 35.36 40.00 -4.64 48.50 27.75 12.21 64.92 34.65 40.00 -5.35 48.22 27.61 11.41 124.09 38.90 43.50 -4.60 45.76 27.48 17.09 134.76 38.45 43.50 -5.05 45.48 27.40 16.69 482.99 30.79 46.00 -15.21 29.34 28.13 22.65	Freq Level Line Limit Level Factor Factor Loss MHz dBuV/m dBuV/m dB dBuV dB dB/m dB 53.28 35.36 40.00 -4.64 48.50 27.75 12.21 2.40 64.92 34.65 40.00 -5.35 48.22 27.61 11.41 2.63 124.09 38.90 43.50 -4.60 45.76 27.48 17.09 3.53 134.76 38.45 43.50 -5.05 45.48 27.40 16.69 3.68 482.99 30.79 46.00 -15.21 29.34 28.13 22.65 6.93	53.28 35.36 40.00 -4.64 48.50 27.75 12.21 2.40 QP 64.92 34.65 40.00 -5.35 48.22 27.61 11.41 2.63 QP 124.09 38.90 43.50 -4.60 45.76 27.48 17.09 3.53 Peak	Freq Level Line Limit Level Factor Factor Loss Remark MHz dBuV/m dBuV/m dB dBuV dB dB/m dB dB/m dB Cm 53.28 35.36 40.00 -4.64 48.50 27.75 12.21 2.40 QP 200 64.92 34.65 40.00 -5.35 48.22 27.61 11.41 2.63 QP 300 124.09 38.90 43.50 -4.60 45.76 27.48 17.09 3.53 Peak 200 134.76 38.45 43.50 -5.05 45.48 27.40 16.69 3.68 Peak 200 482.99 30.79 46.00 -15.21 29.34 28.13 22.65 6.93 Peak 200	Freq Level Line Limit Level Factor Factor Loss Remark MHz dBuV/m dBuV/m dB dBuV dB dB/m dB dB/m dB cm deg 53.28 35.36 40.00 -4.64 48.50 27.75 12.21 2.40 QP 200 344 64.92 34.65 40.00 -5.35 48.22 27.61 11.41 2.63 QP 300 187 124.09 38.90 43.50 -4.60 45.76 27.48 17.09 3.53 Peak 200 3 134.76 38.45 43.50 -5.05 45.48 27.40 16.69 3.68 Peak 200 306 482.99 30.79 46.00 -15.21 29.34 28.13 22.65 6.93 Peak 200 240



Horizontal 30 MHz to 1,000 MHz



				0ver						A/Pos	T/Pos	
	Freq	Level	Line	Limit	Level	Factor	Factor	Loss	Remark			Pol/Phase
-	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	30.00	24.24	40.00	-15.76	26.93	27.72	23.22	1.81	Peak	100	330	HORIZONTAL
2	120.21	23.05	43.50	-20.45	29.86	27.51	17.22	3.48	Peak	100	258	HORIZONTAL
3	233.70	26.51	46.00	-19.49	32.99	27.02	15.72	4.82	Peak	100	352	HORIZONTAL
4	403.45	30.50	46.00	-15.50	30.56	27.37	20.98	6.33	Peak	400	11	HORIZONTAL
5	477.17	31.65	46.00	-14.35	30.26	28.10	22.59	6.90	Peak	100	342	HORIZONTAL
6	800.18	35.58	46.00	-10.42	28.79	27.35	25.09	9.05	Peak	200	328	HORIZONTAL



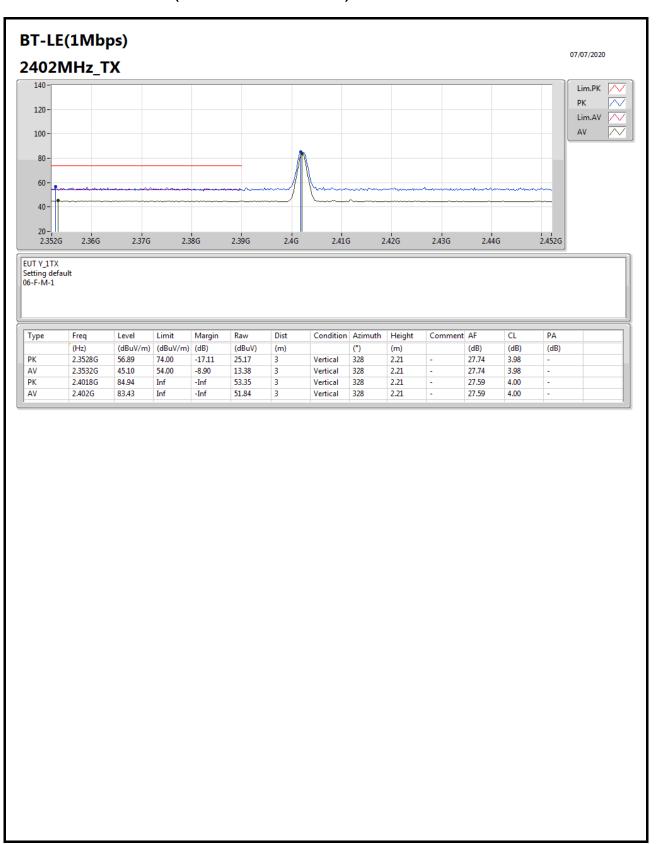
RSE TX above 1GHz

Appendix F.2

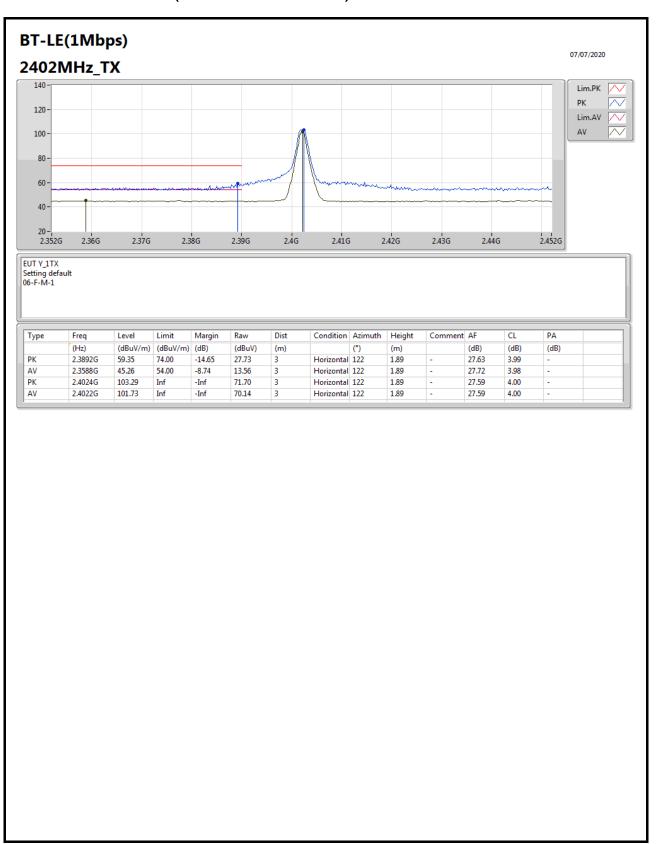
Page No. : 1 of 25

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2.4-2.4835GHz	-	-	•	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	4.8041G	53.57	54.00	-0.43	3	Horizontal	172	1.46	-

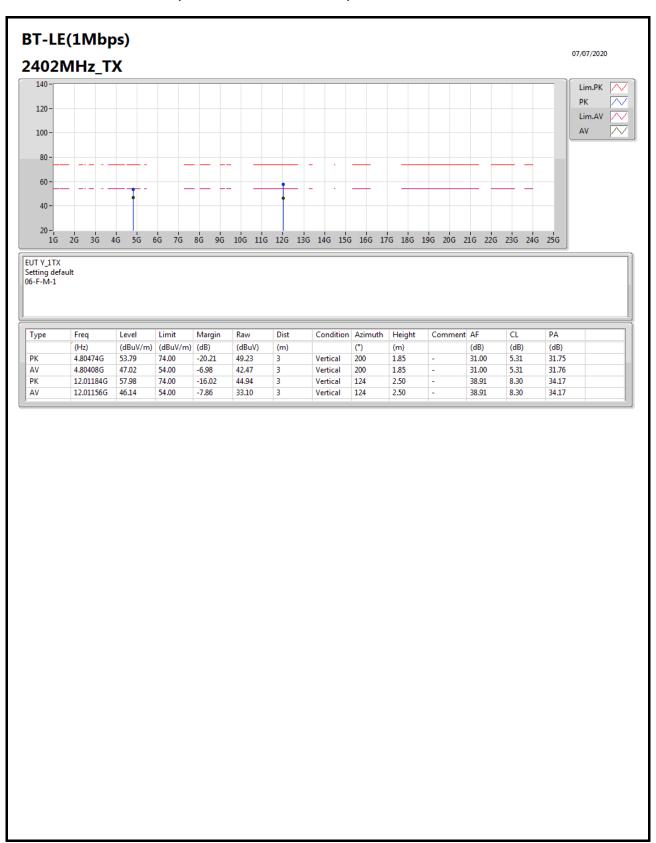




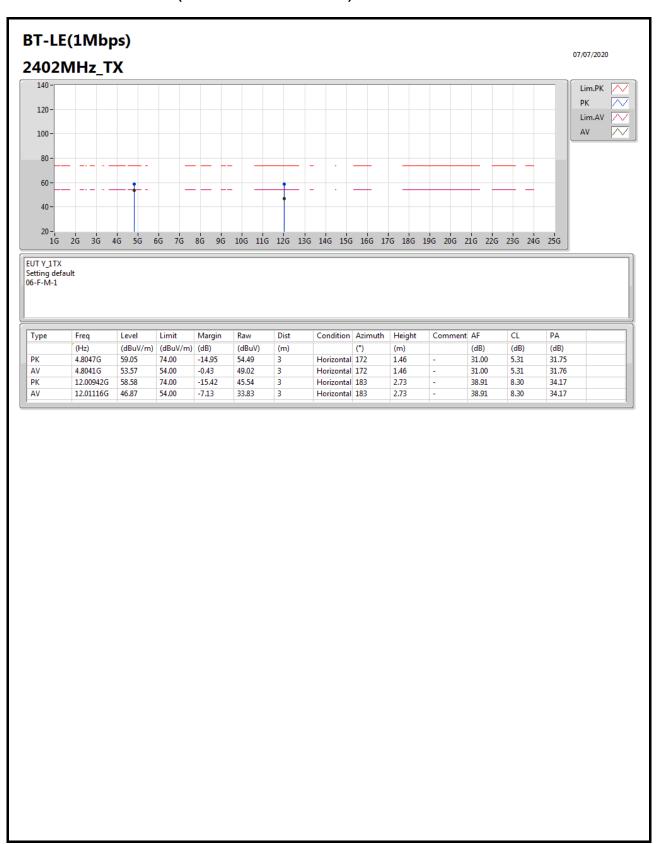




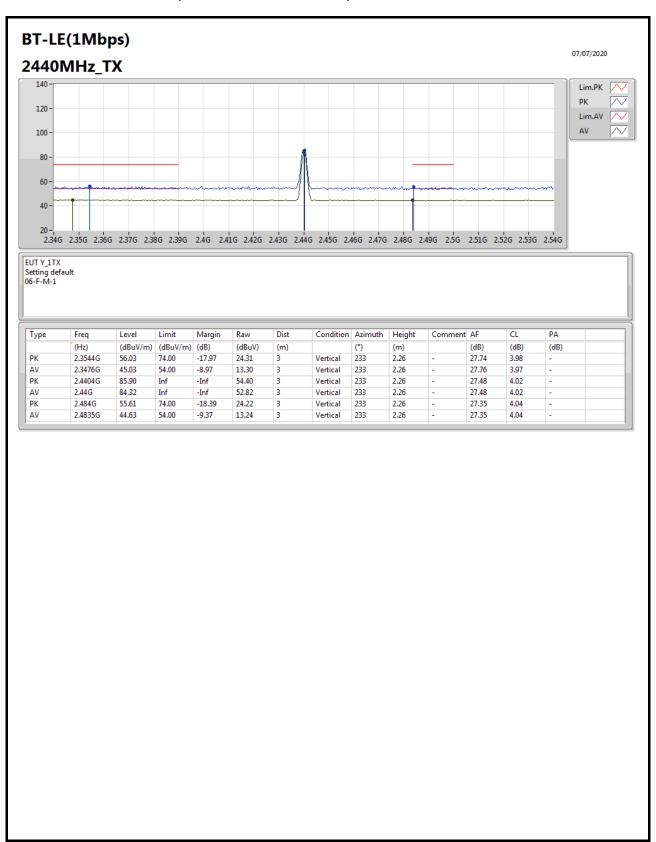




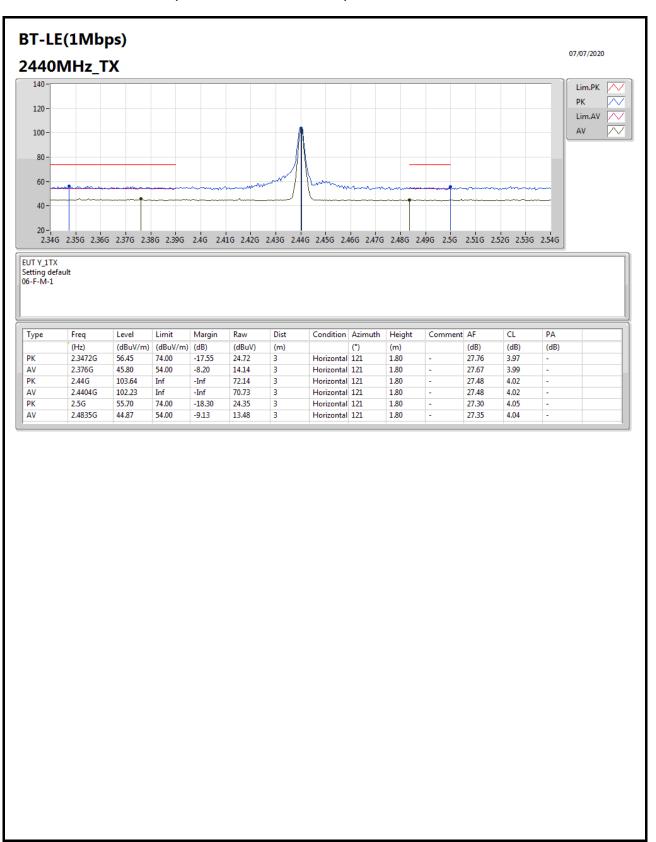




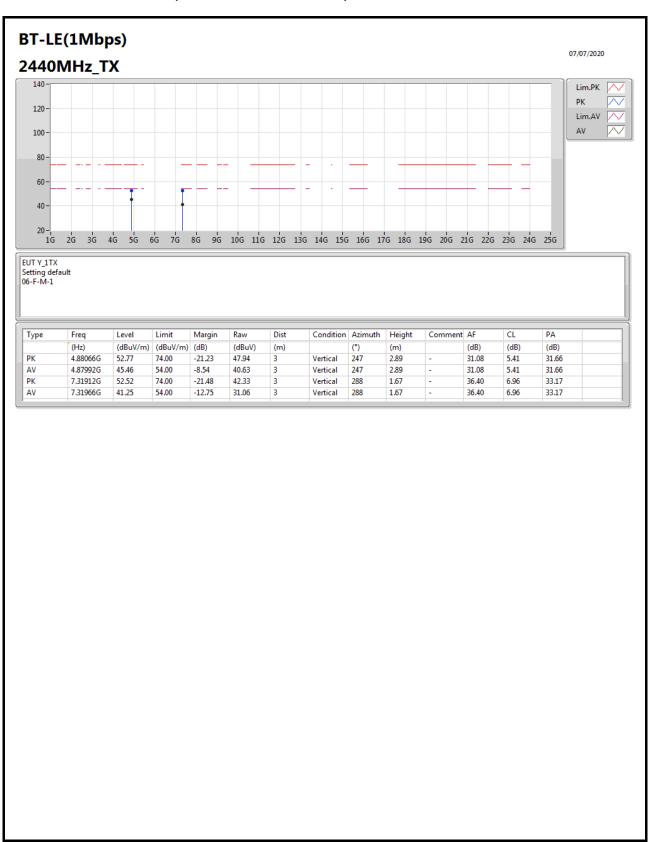




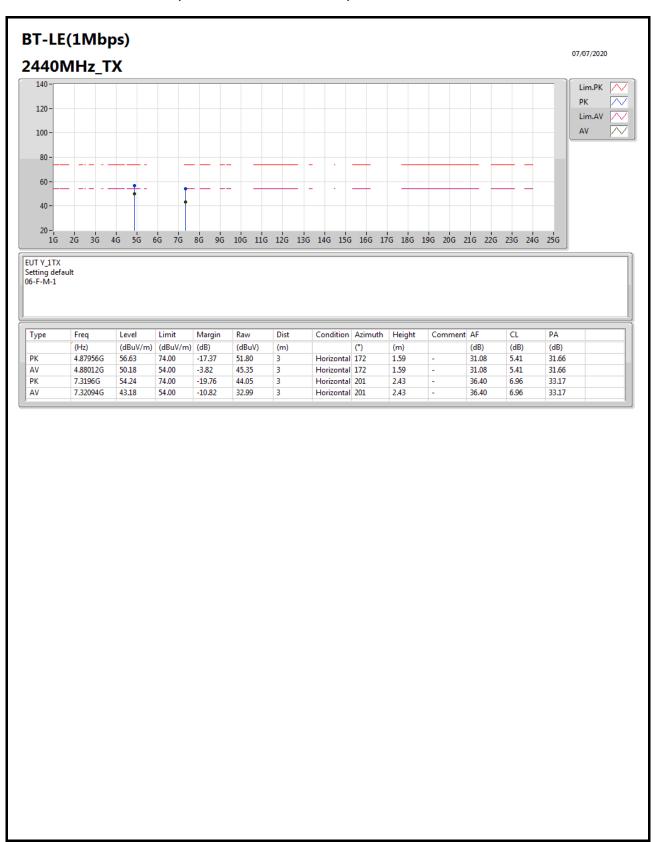




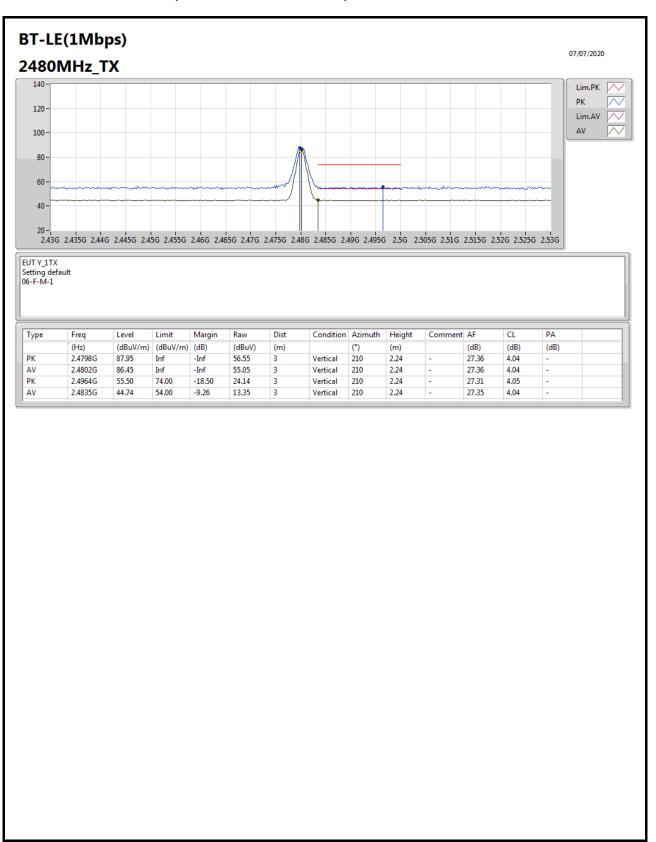




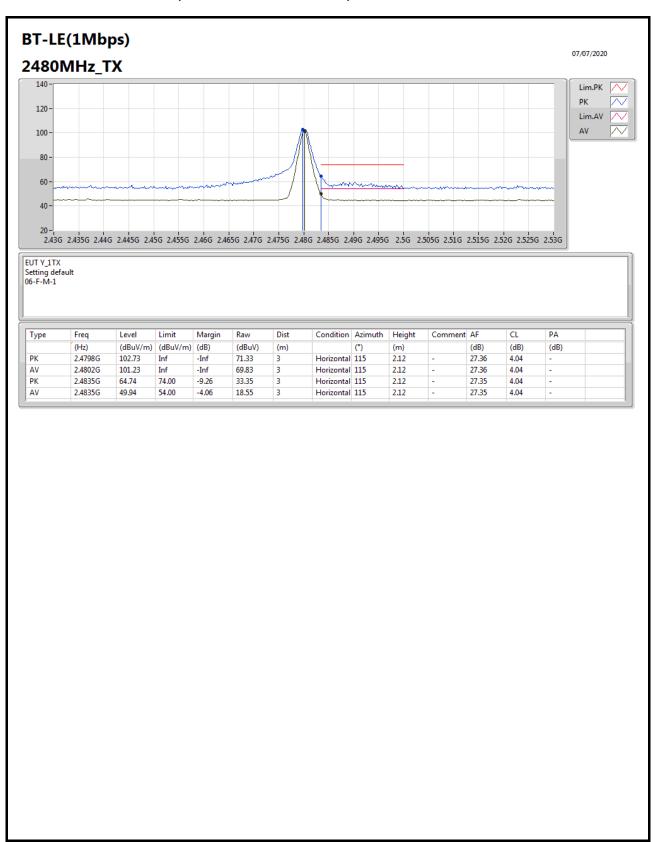




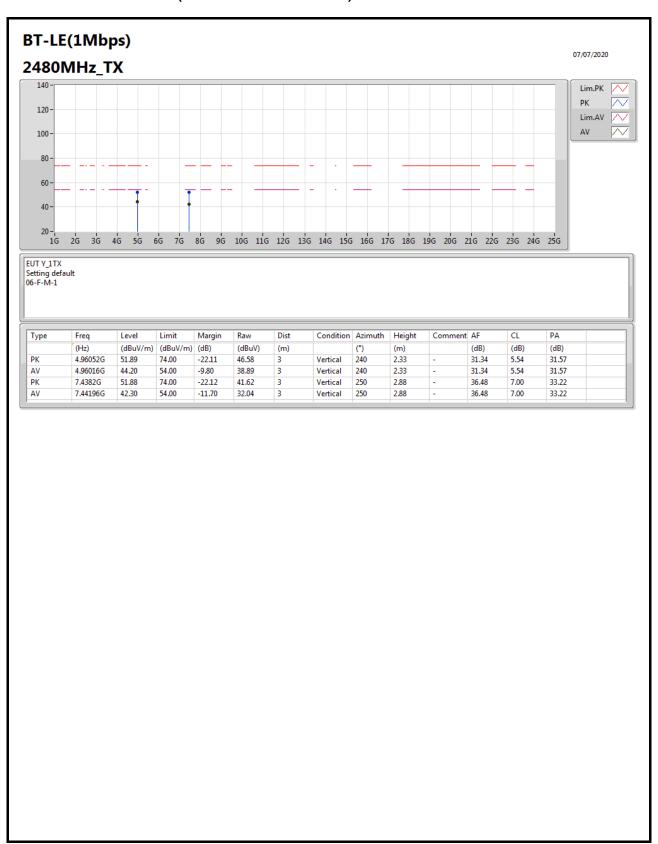




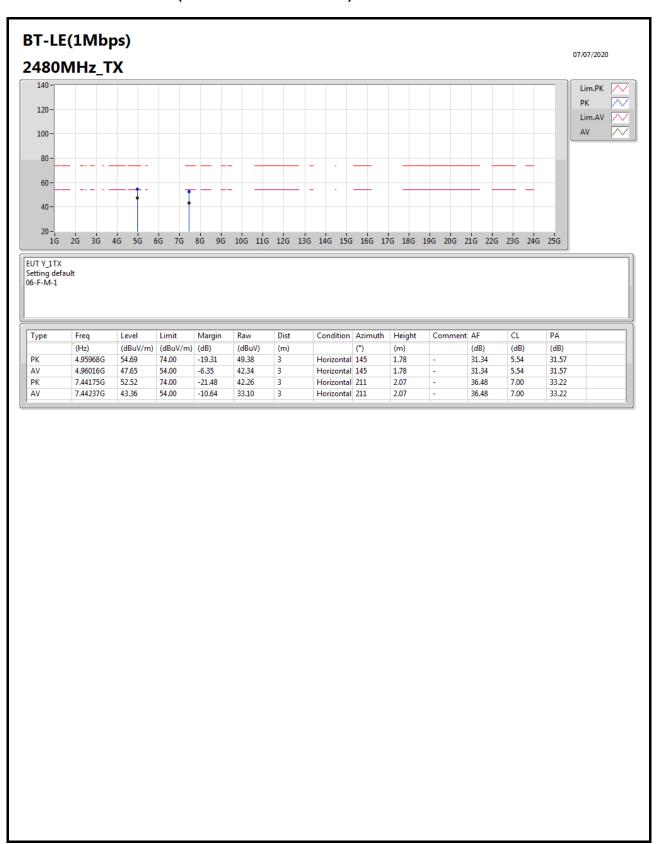




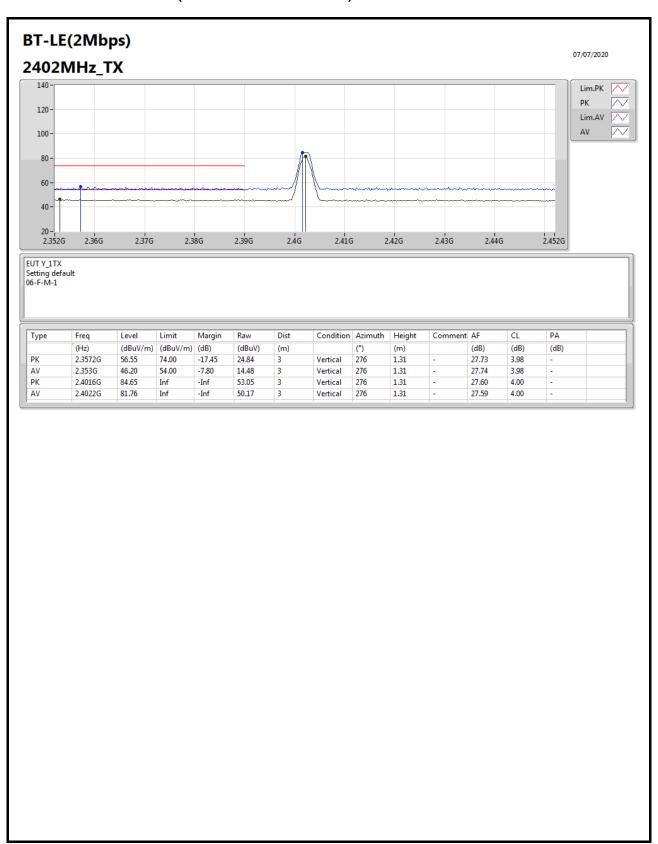




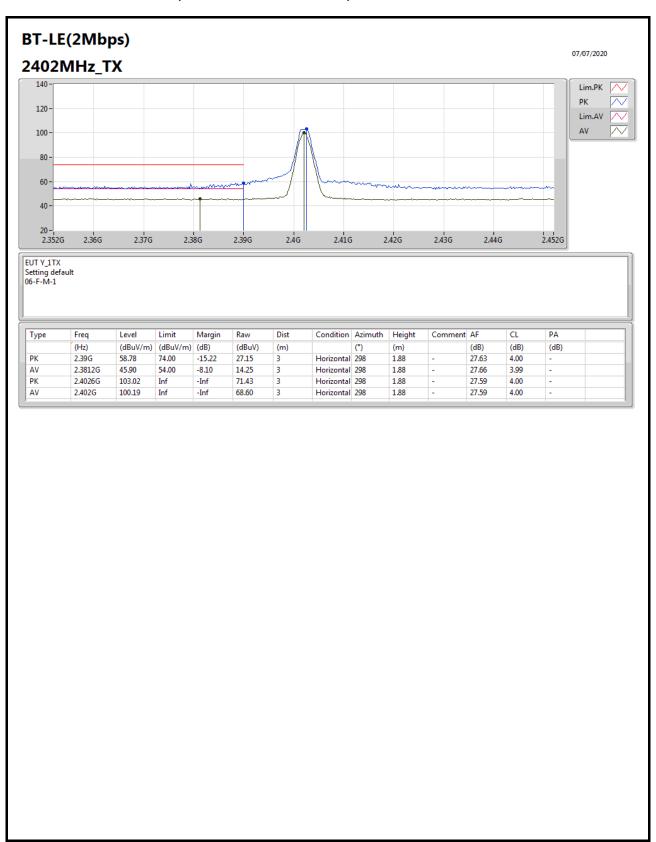




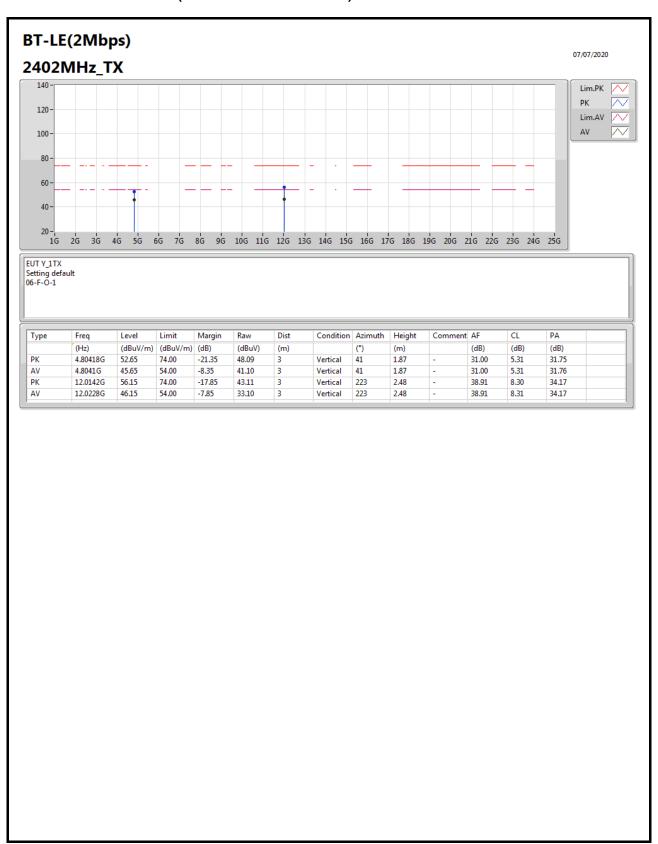




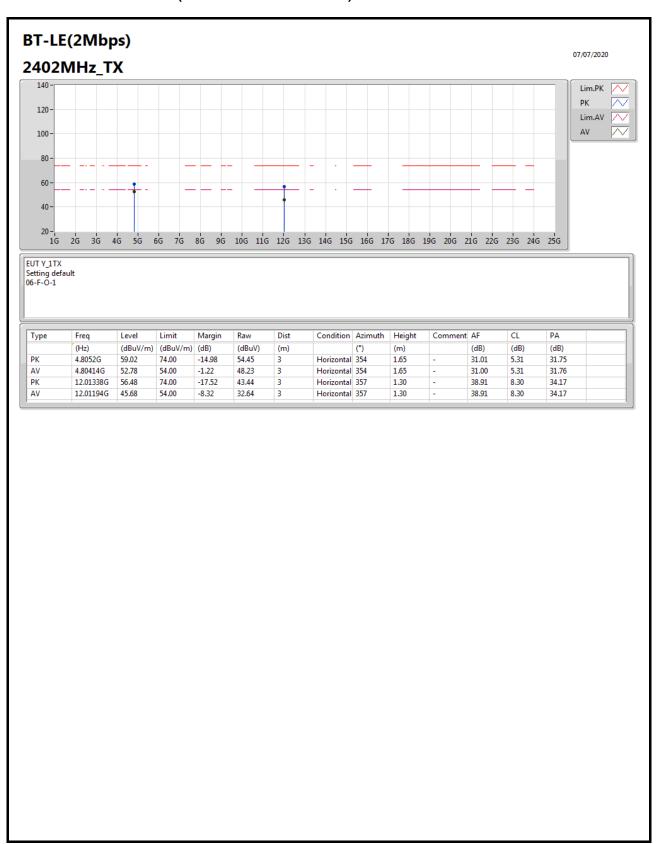




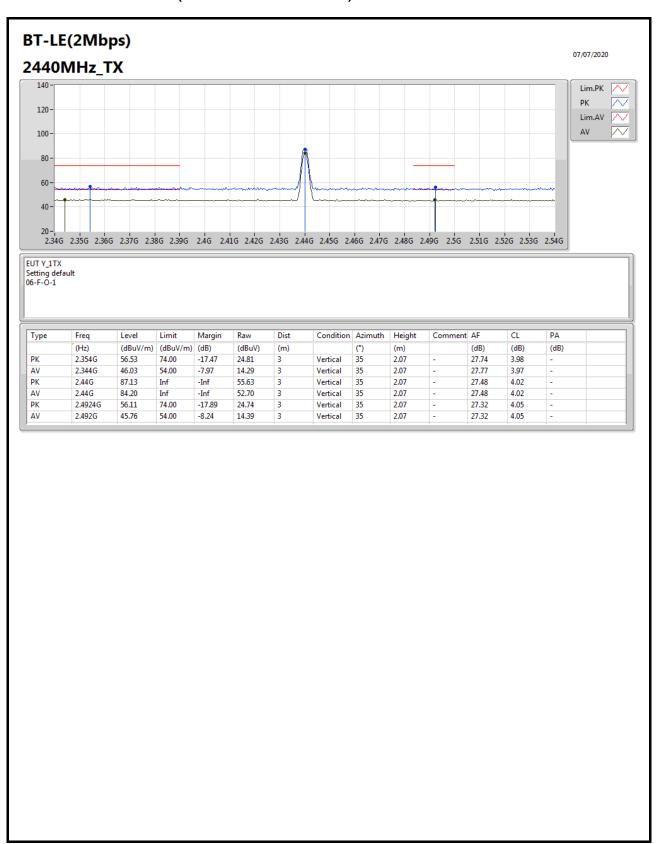




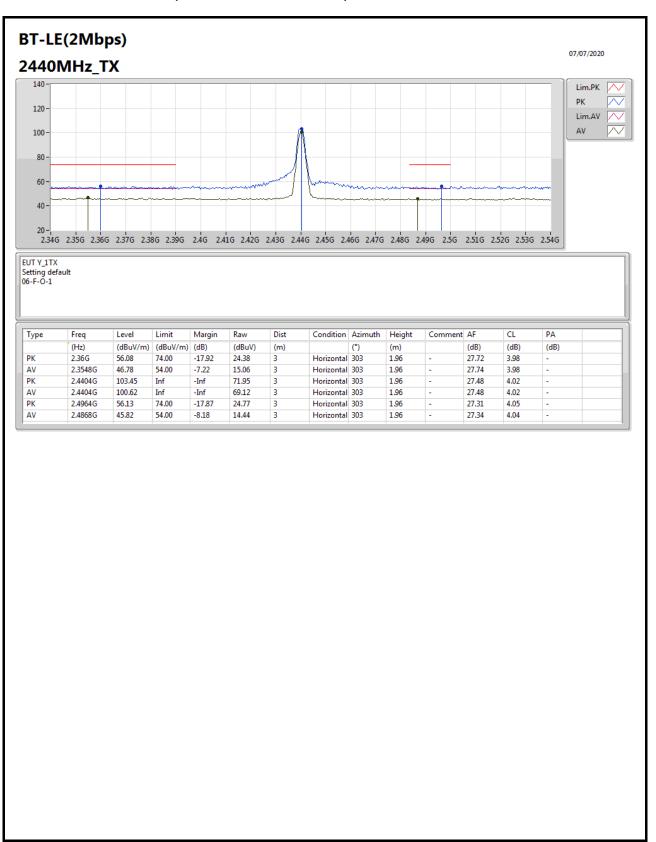




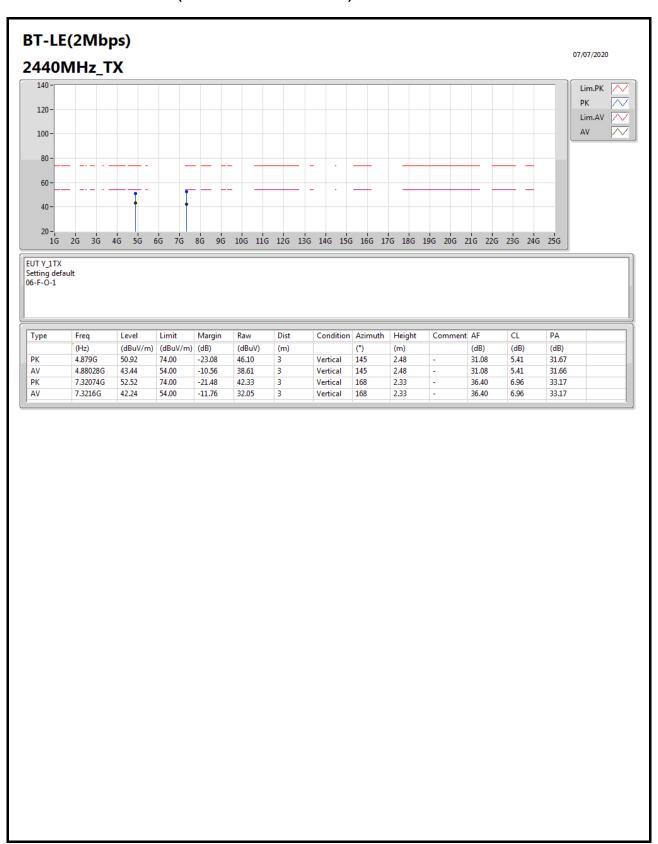




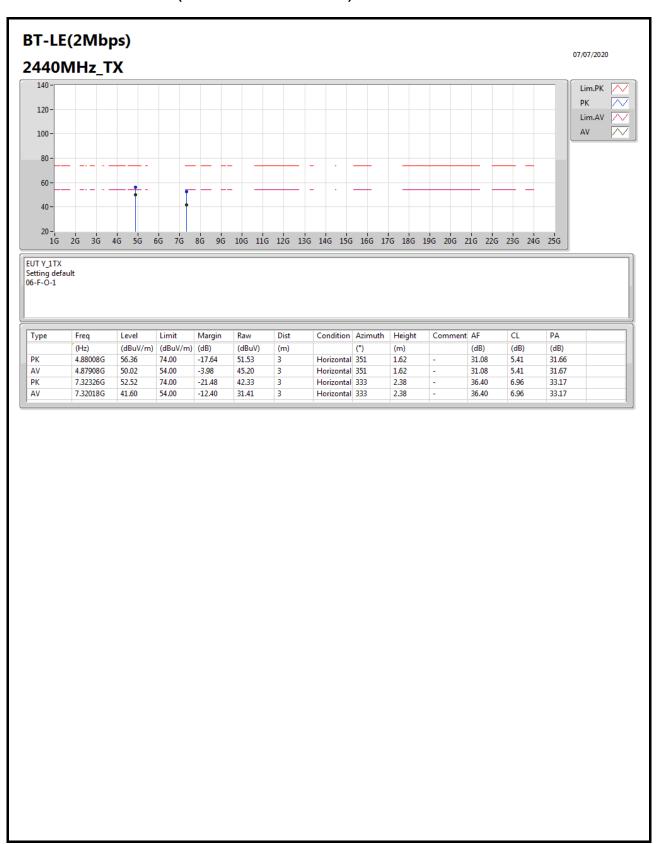




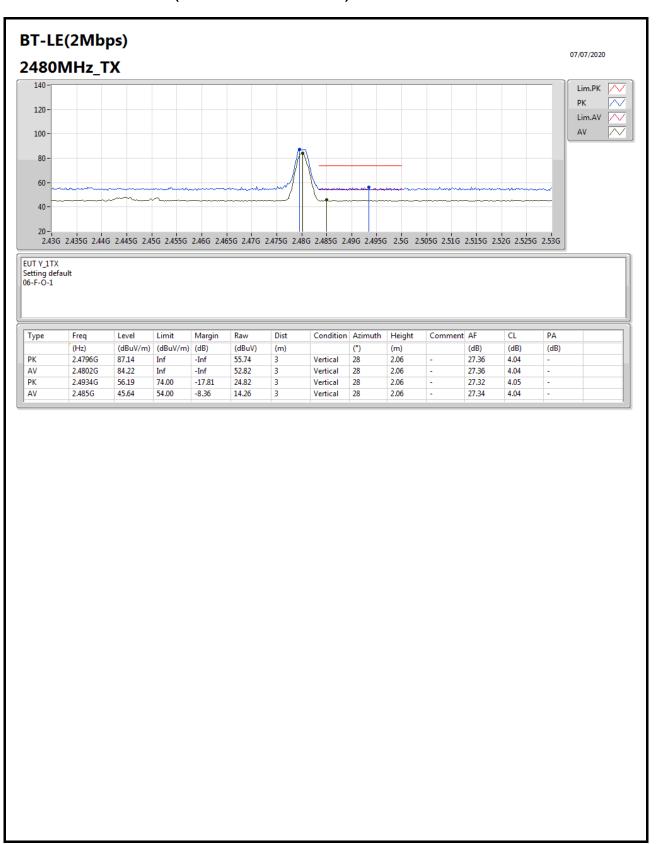




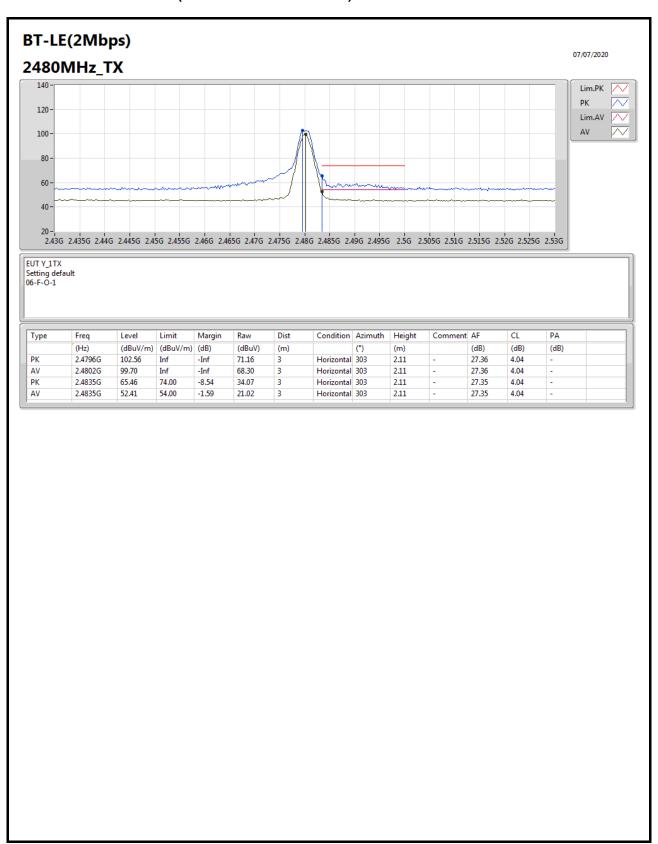




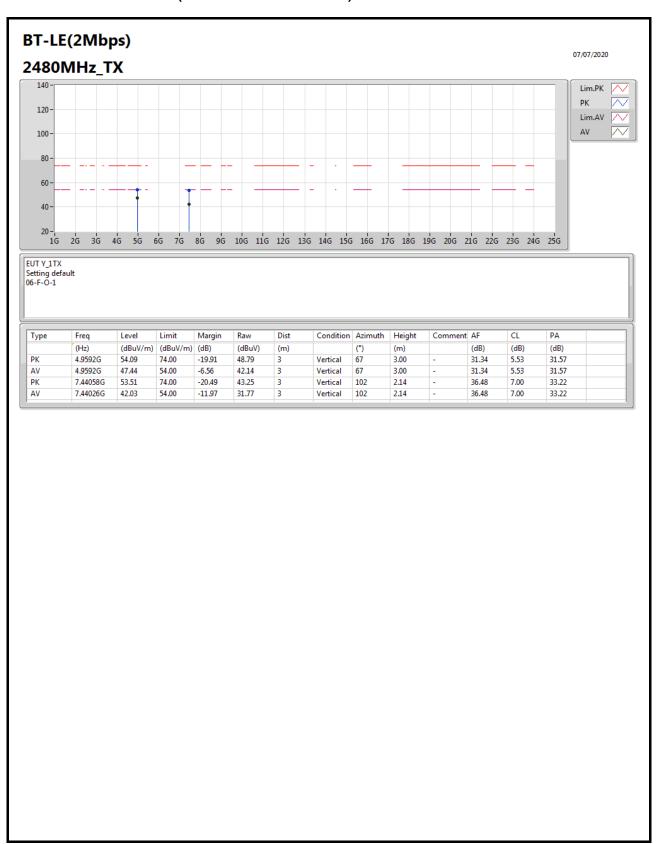




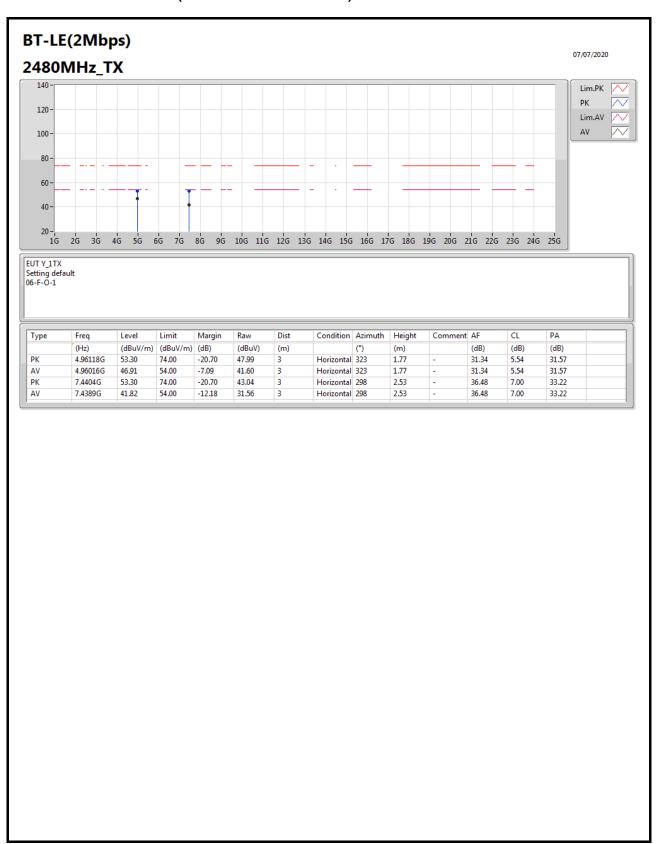














RSE TX above 1GHz

Appendix F.3

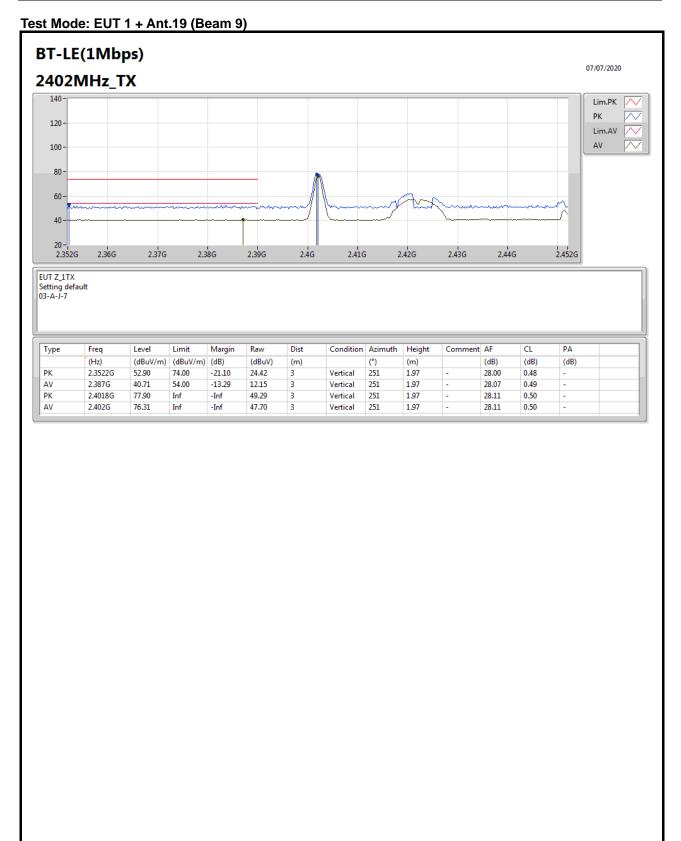
Page No. : 1 of 25

Test Mode: EUT 1 + Ant.19 (Beam 9)

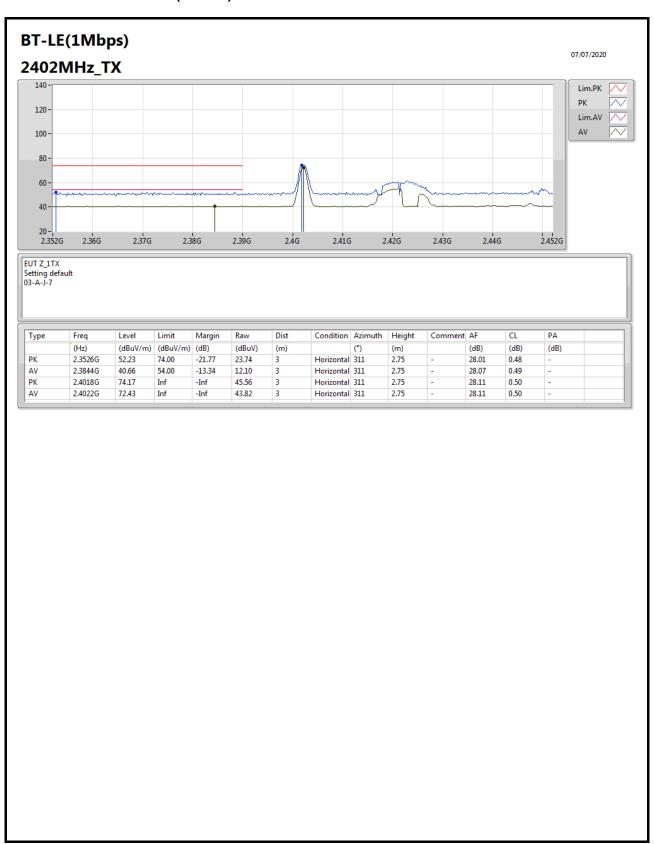
Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2.4-2.4835GHz	-		•	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	4.96009G	51.63	54.00	-2.37	3	Vertical	318	3.00	-

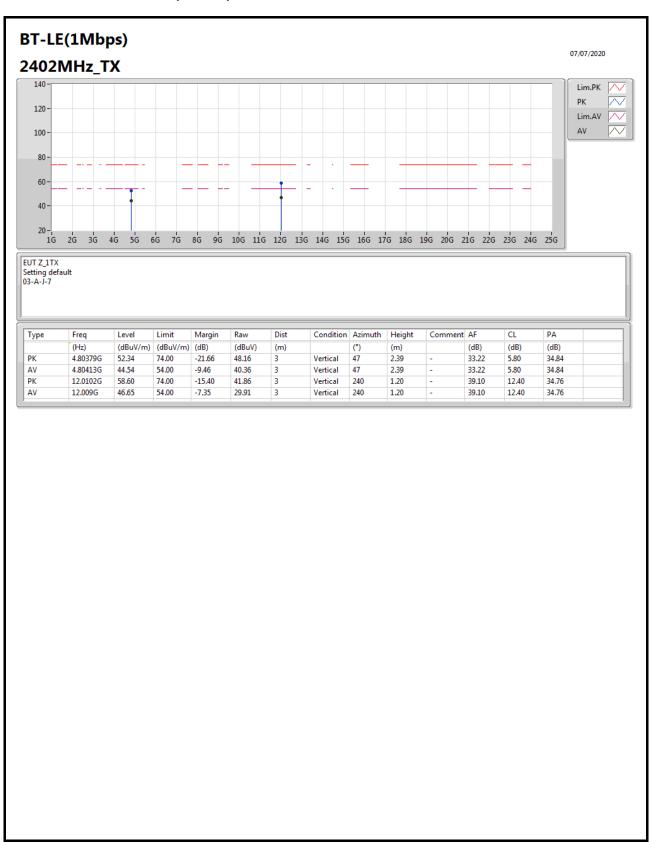




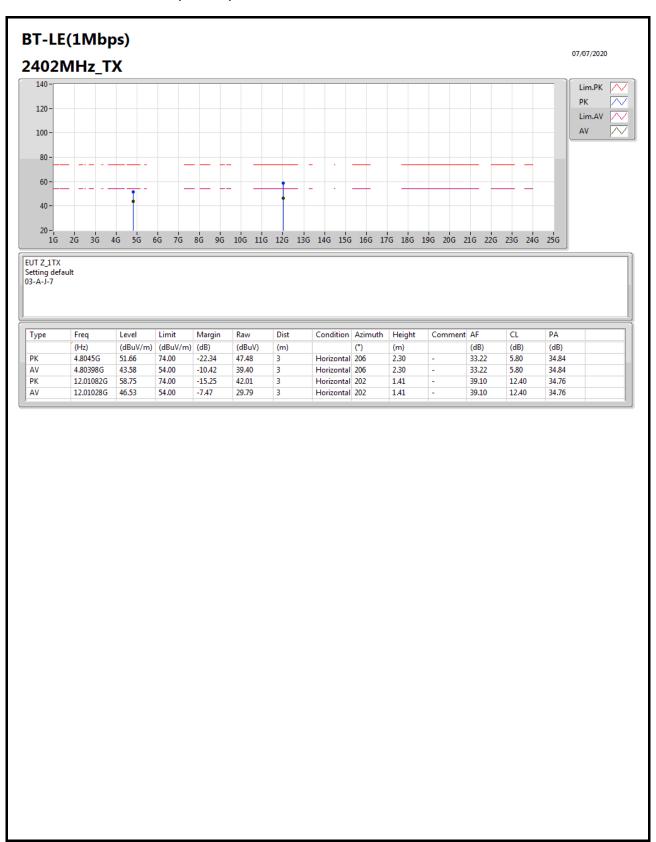




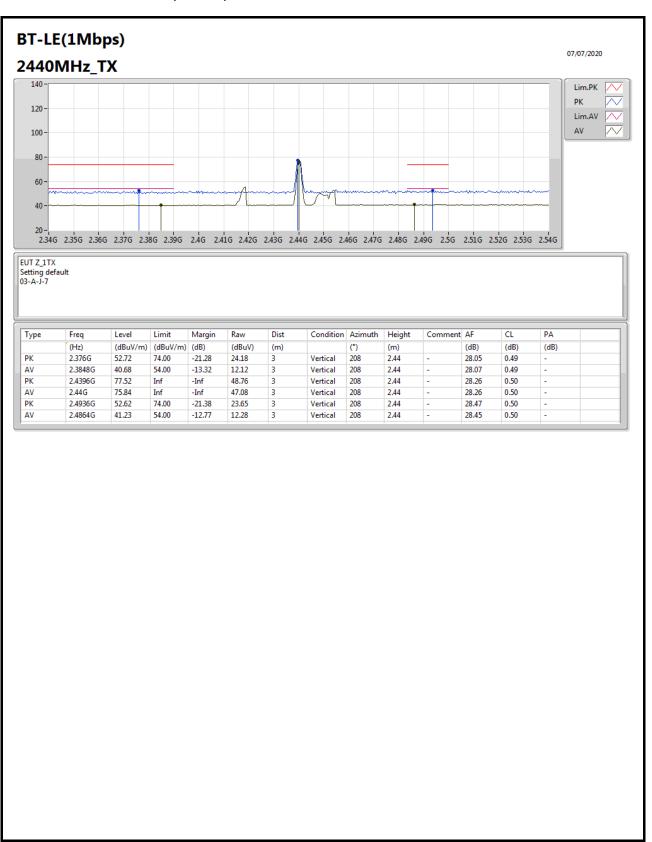




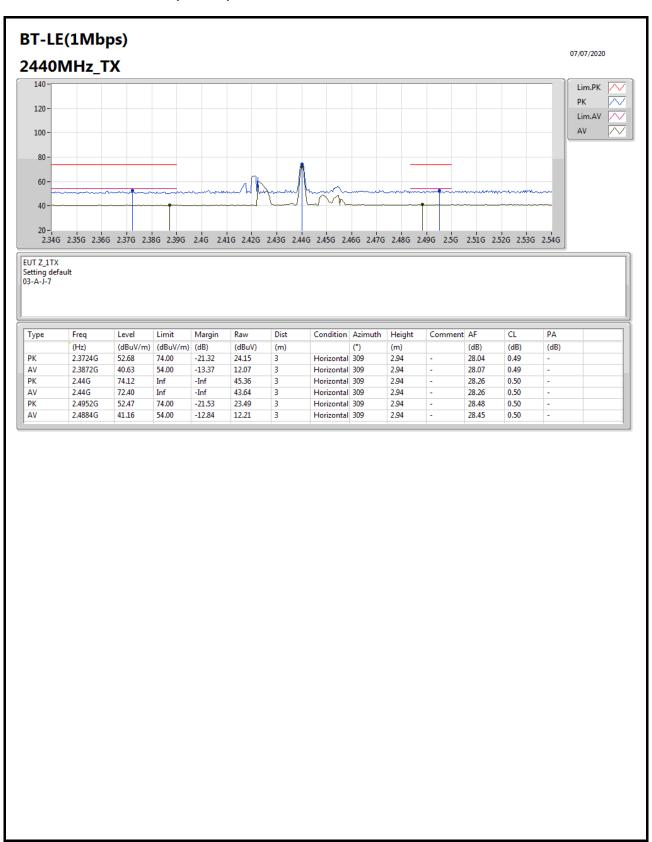




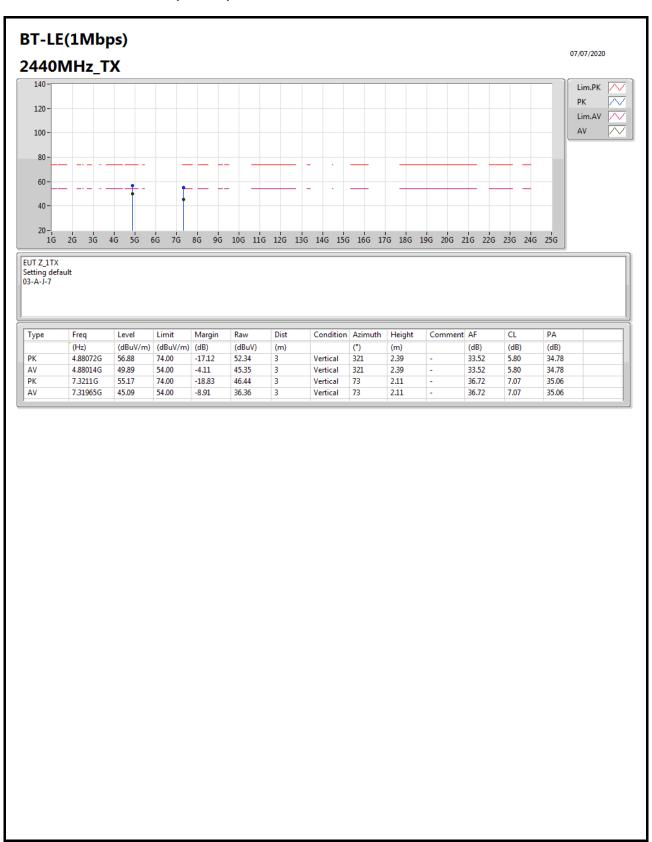




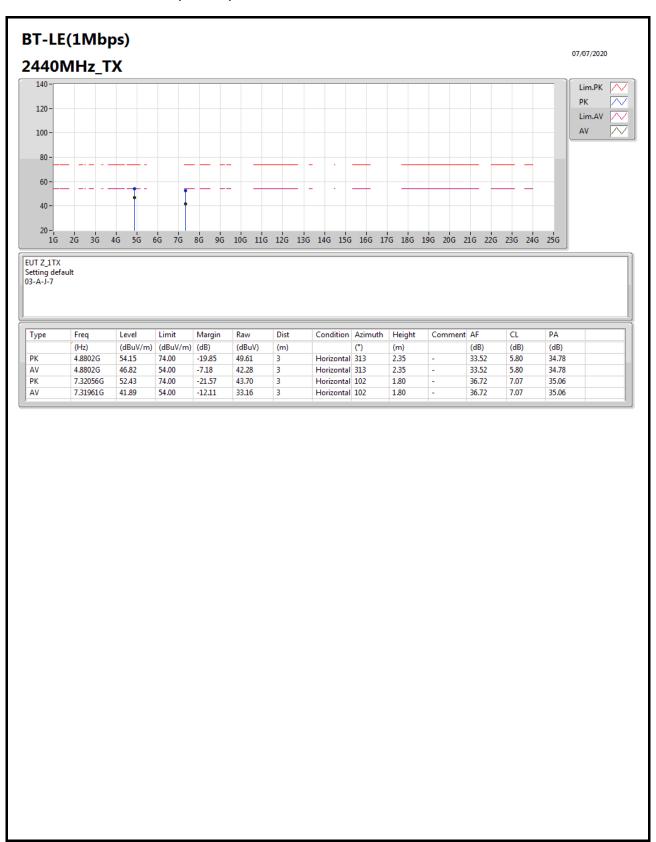




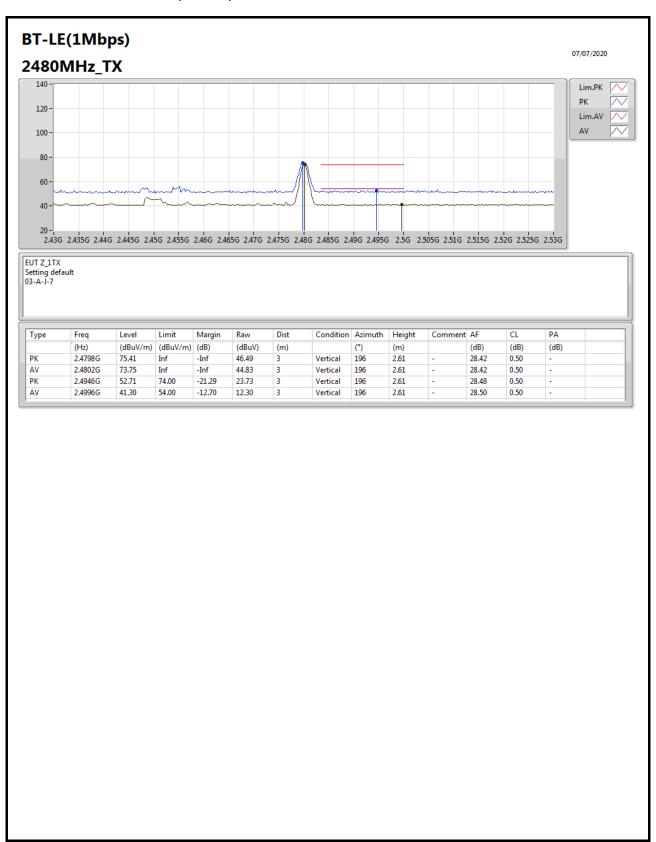




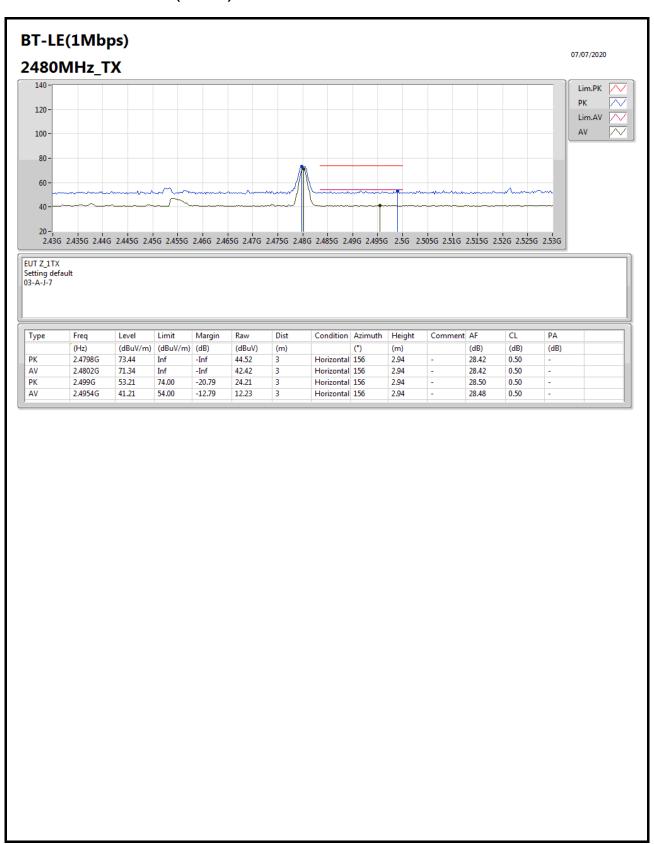




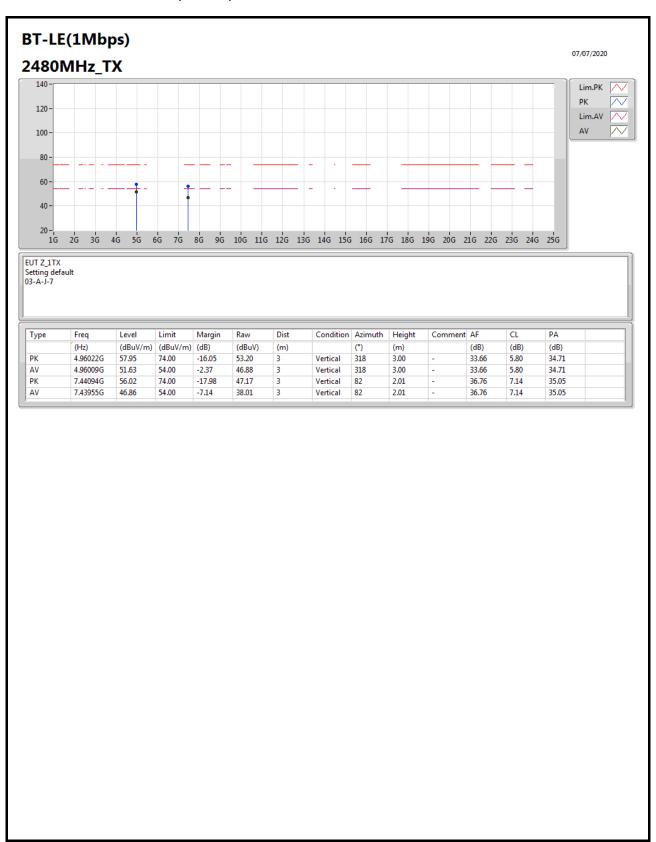




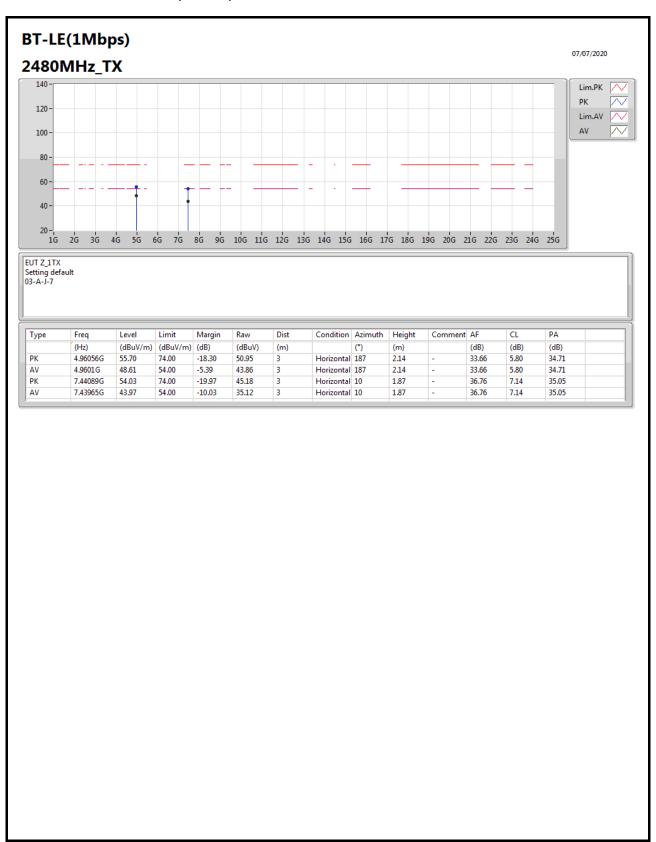




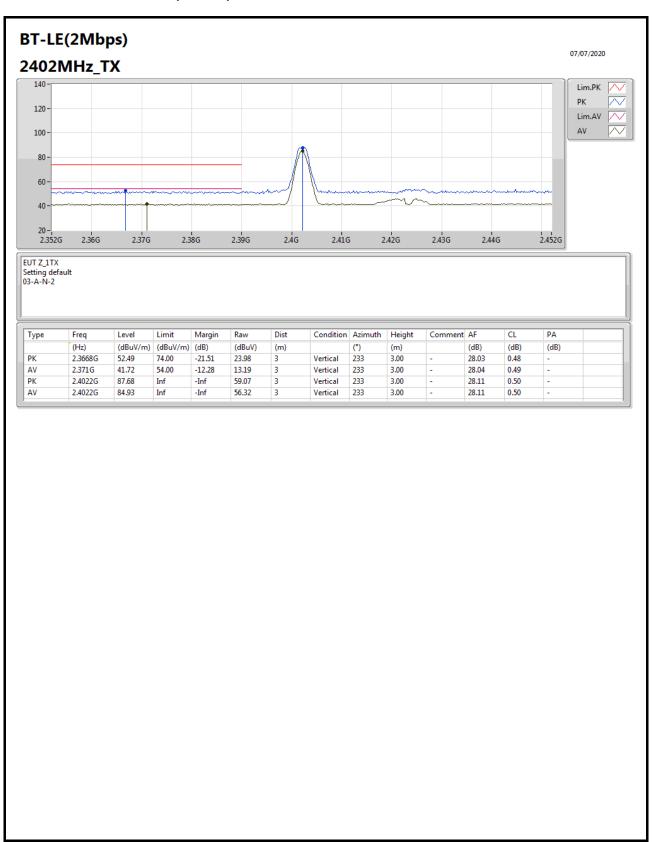




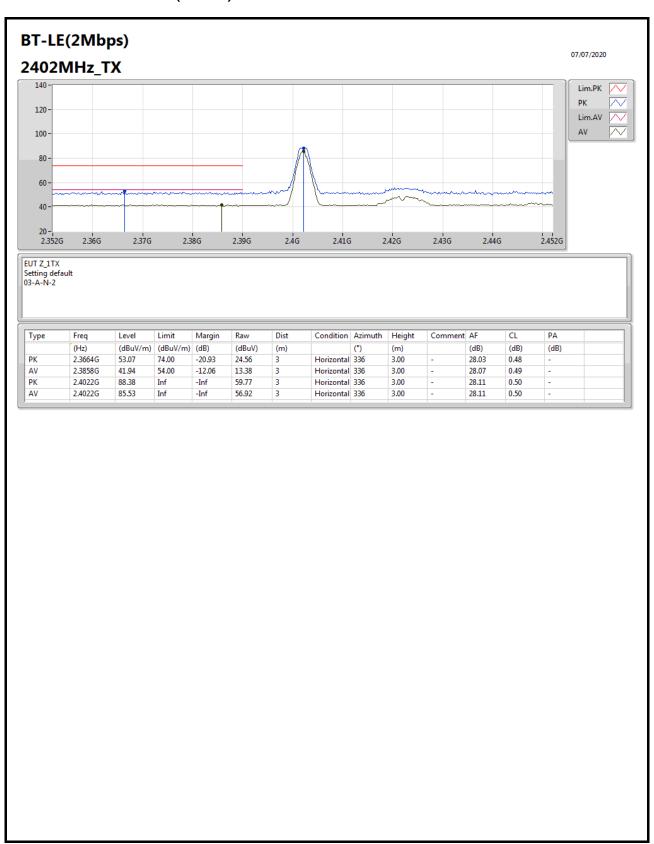




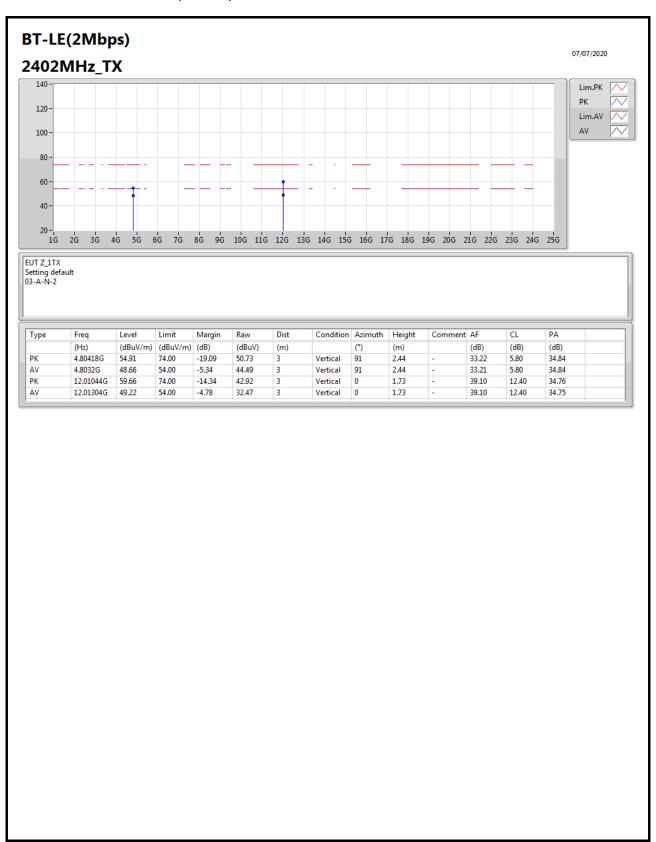




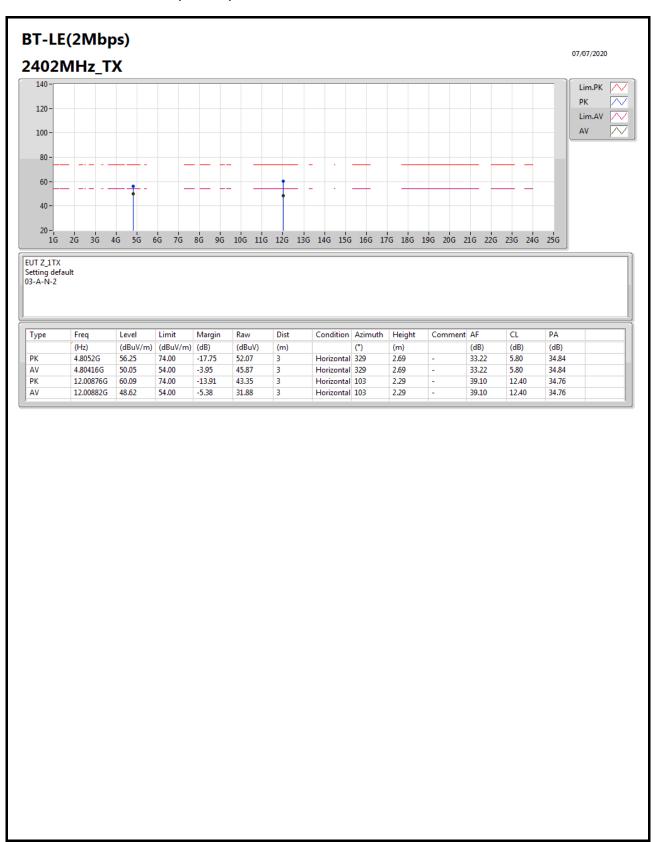




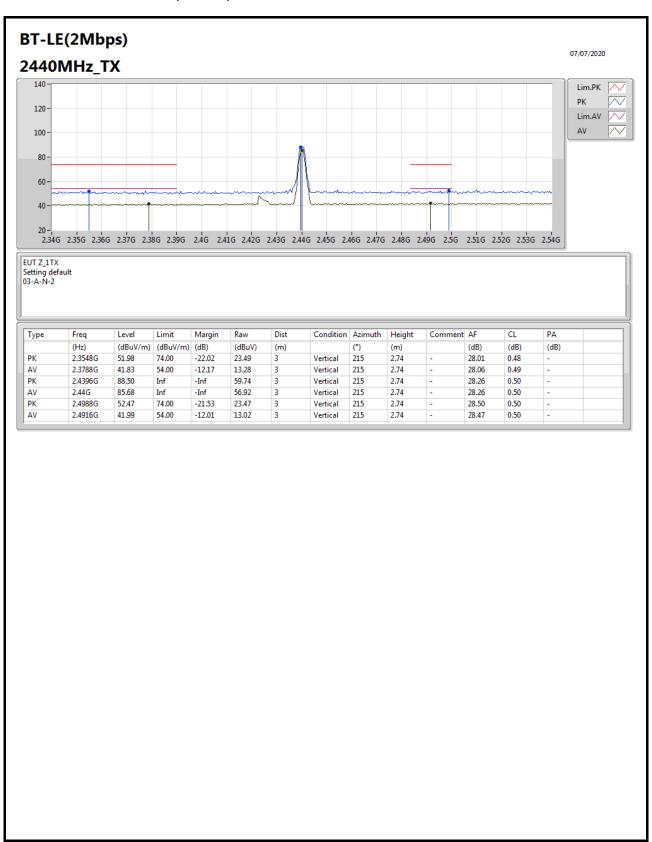




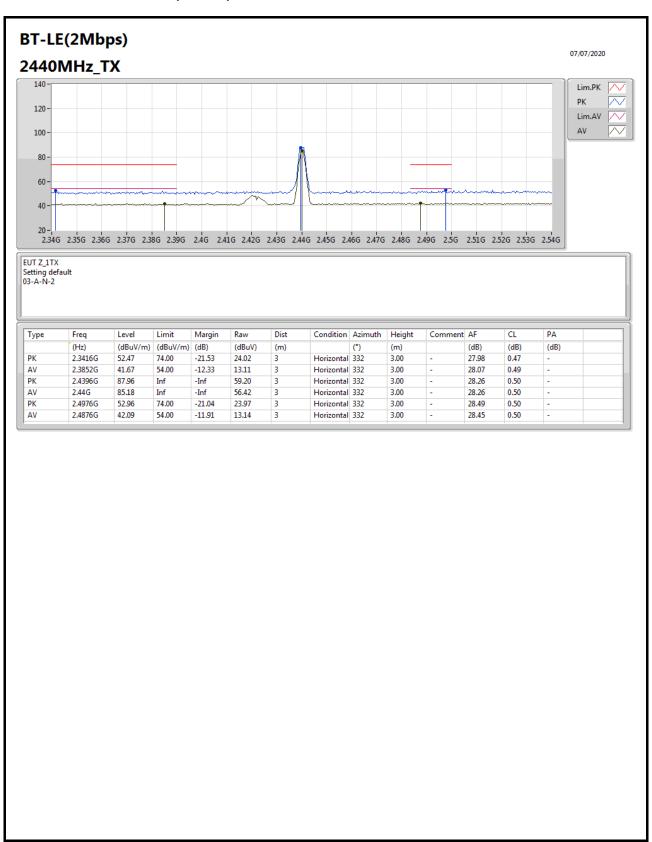




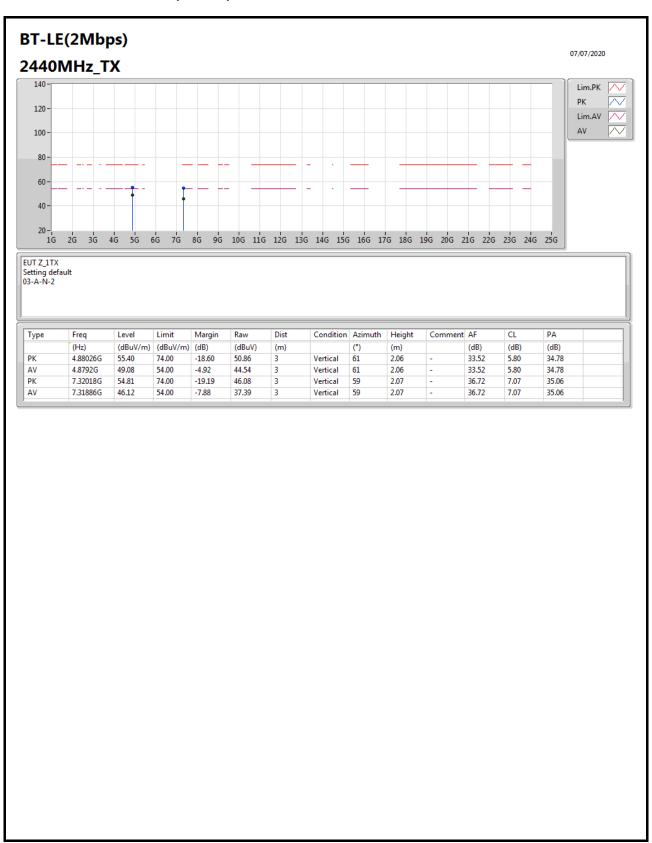




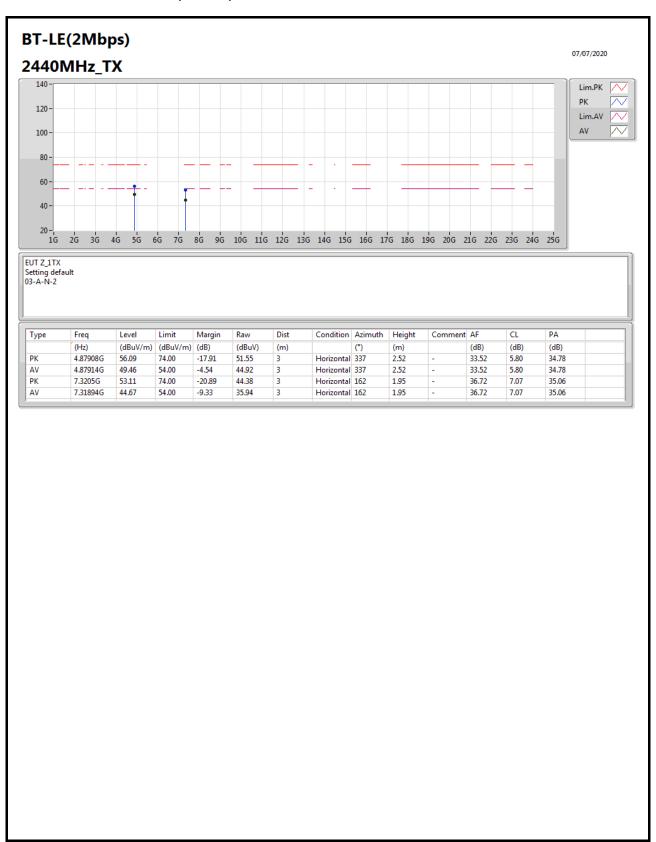




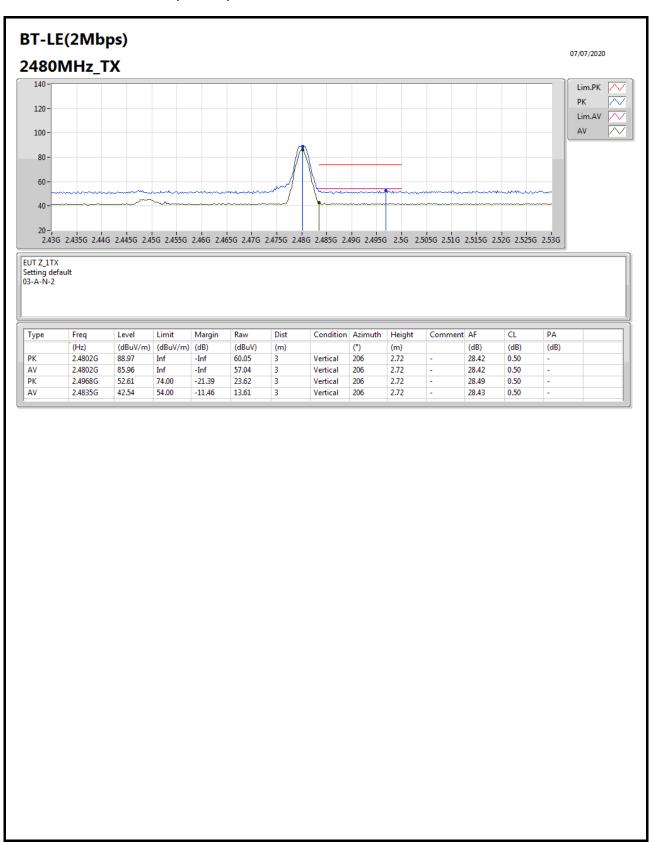




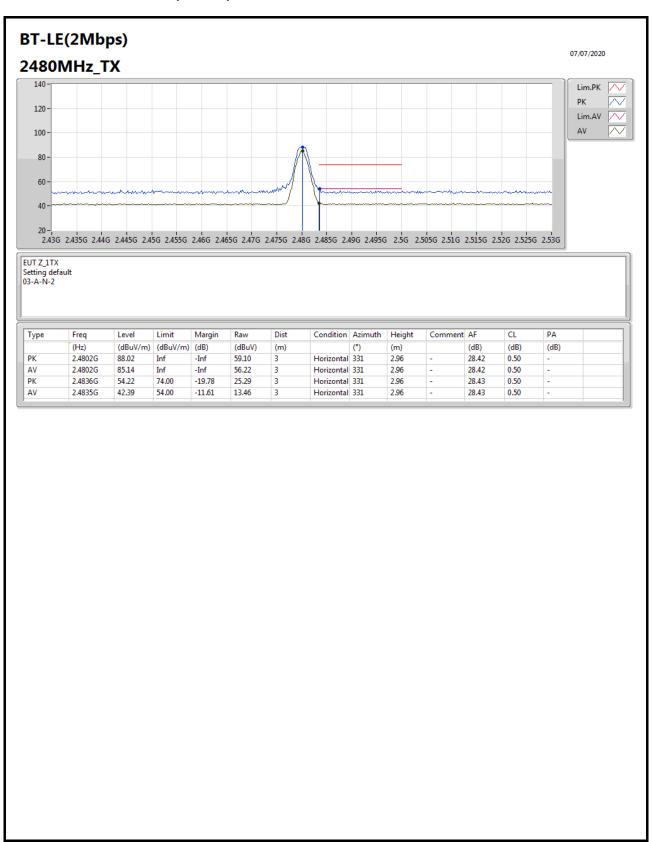




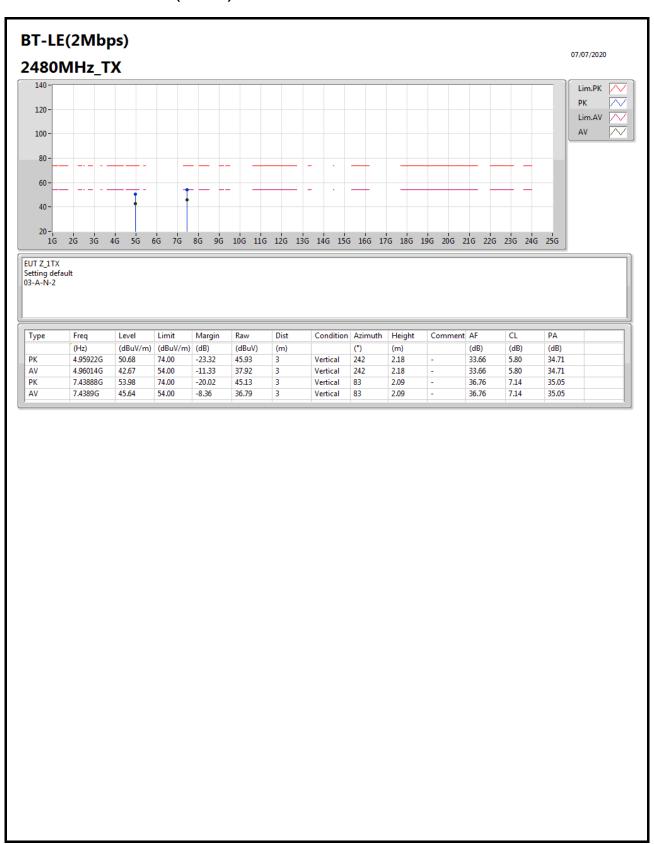




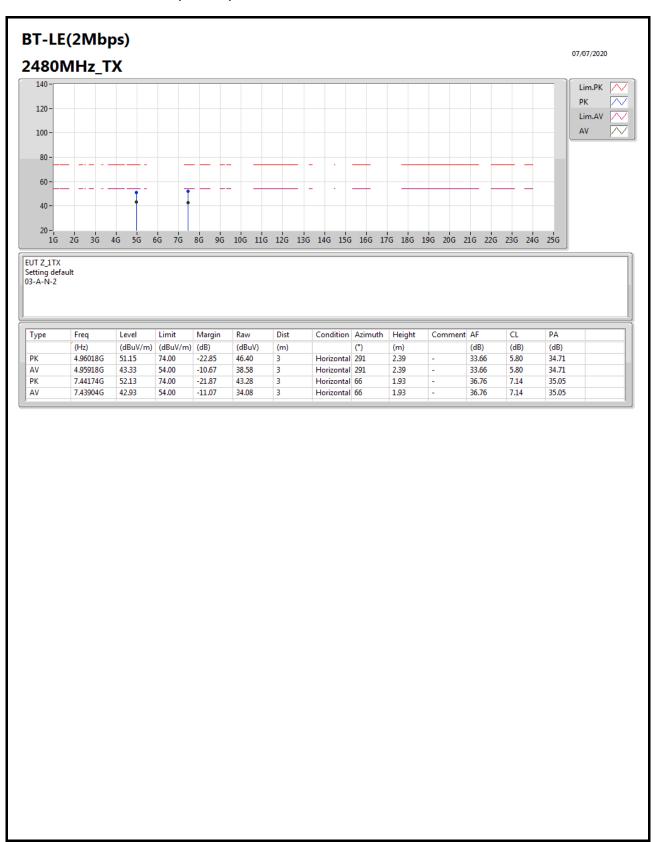














RSE TX above 1GHz

Appendix F.4

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Test Mode: EUT 1 + Ant.20 (Omni Mode)

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2.4-2.4835GHz	-	-	•	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	AV	2.4835G	50.67	54.00	-3.33	3	Horizontal	321	2.01	-



