

Appendix for Test report



Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

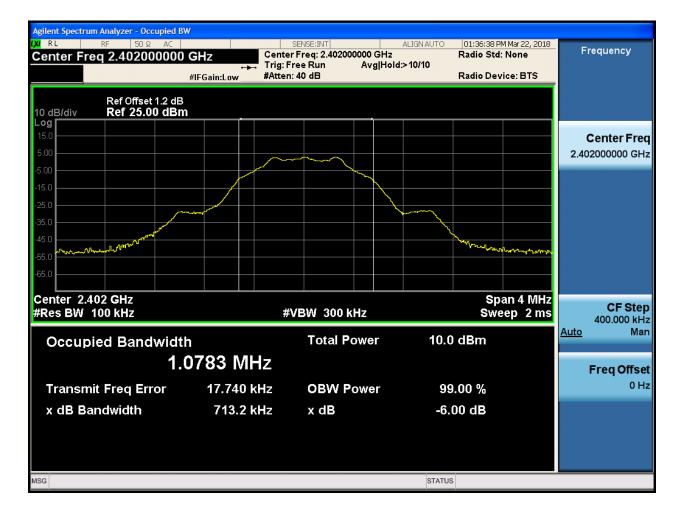
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1 _Ch0	L	2402	0.71	pass
TM1 _Ch19	М	2440	0.72	pass
TM1 _Ch39	Н	2480	0.72	pass



Part II - Test Plots

2.1 TM1_Ch0_L





2.2 TM1_Ch19_M

Agilent Spectrum Analyzer - Occupied Δ RL RF 50 Ω AC Center Freq 2.44000000	0 GHz Cer Tris	SENSE:INT Iter Freq: 2.440000000 GHz g: Free Run Avg Hold sen: 40 dB		⁸ Frequency
Ref Offset 1.2 d 10 dB/div Ref 25.00 dB	B	en: 40 ab	Radio Device: BTS	
15.0 5.00 -5.00				Center Freq 2.440000000 GHz
-15.0				
-35.0 -45.0 -55.0				<u>N</u>
Center 2.44 GHz #Res BW 100 kHz		#VBW 300 kHz	Span 4 MH Sweep 2 m	CF Step
Occupied Bandwid	th .0783 MHz	Total Power	11.4 dBm	400.000 kHz <u>Auto</u> Man
Transmit Freq Error	21.575 kHz	OBW Power	99.00 %	Freq Offset 0 Hz
x dB Bandwidth	719.8 kHz	x dB	-6.00 dB	
MSG			STATUS	



2.3 TM1_Ch39_H

Agilent Spectrum Analyzer - Occupied B Δ RL RF 50 Ω AC Center Freq 2.480000000	GHz Cente	SENSE:INT Pr Freq: 2.480000000 GHz Free Run Avg Hold		Frequency
Ref Offset 1.2 dB 10 dB/div Ref 25.00 dBr		n: 40 dB	Radio Device: BTS	
15.0 5.00				Center Freq 2.480000000 GHz
-15.0				
-35.0 -45.0 -55.0				
Center 2.48 GHz #Res BW 100 kHz	#	VBW 300 kHz	Span 4 MHz Sweep 2 ms	
Occupied Bandwidt	_h 0793 MHz	Total Power	10.3 dBm	<u>Auto</u> Man
Transmit Freq Error	23.796 kHz	OBW Power	99.00 %	Freq Offset 0 Hz
x dB Bandwidth	719.4 kHz	x dB	-6.00 dB	
MSG			STATUS	



Appendix B: Occupied Bandwidth

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

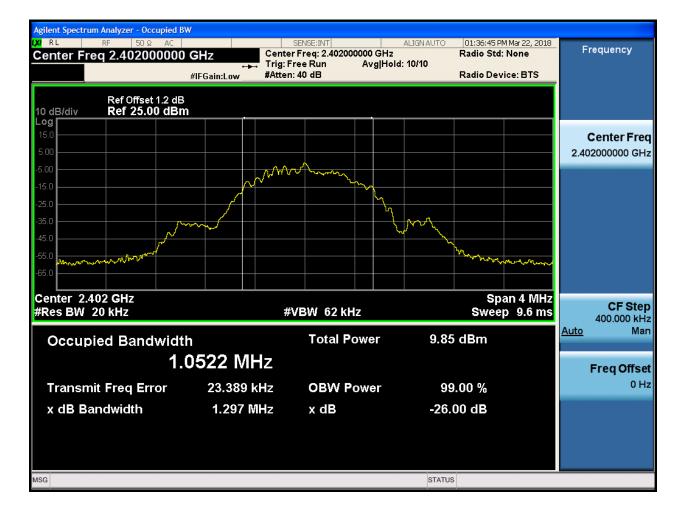
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Occupied Bandwidth [MHz]	Verdict
TM1 _Ch0	L	2402	1.05	pass
TM1 _Ch19	М	2440	1.05	pass
TM1 _Ch39	Н	2480	1.06	pass



Part II - Test Plots

2.1 TM1_Ch0_L





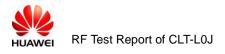
2.2 TM1_Ch19_M

Agilent Spectrum Analyzer - Occupied I Μ RL RF 50 Ω AC Center Freq 2.4400000000) GHz c ↔⊷ T	SENSE:INT enter Freq: 2.440000000 GH rig: Free Run Avg H Atten: 40 dB	z Radio St old: 10/10	PM Mar 22, 2018 d: None wice: BTS	Frequency
Ref Offset 1.2 dE 10 dB/div Ref 25.00 dB Log					
15.0 5.00		M			Center Freq 2.44000000 GHz
-15.0		a na a mana	A		
-35.0					
-55.0 -65.0				Murninghan	
Center 2.44 GHz #Res BW 20 kHz		#VBW 62 kHz		oan 4 MHz ep 9.6 ms	CF Step 400.000 kHz
Occupied Bandwid		Total Power	11.2 dBm		<u>Auto</u> Man
	.0528 MHz		00.00.1/		Freq Offset 0 Hz
Transmit Freq Error x dB Bandwidth	27.075 kHz 1.294 MHz		99.00 % -26.00 dB		0112
MSG			STATUS		



2.3 TM1_Ch39_H

	GHz Center	SENSE:INT Freq: 2.480000000 GHz ree Run Avg Hold : 40 dB	ALIGNAUTO 01:44:06 PM M Radio Std: N d:>10/10 Radio Device	Frequency
Ref Offset 1.2 dB 10 dB/div Ref 25.00 dBm				
Log 15.0 5.00				Center Freq 2.480000000 GHz
-15.0				
-45.0			the second secon	Lowlyn.
-65.0				
Center 2.48 GHz #Res BW 20 kHz	#\	VBW 62 kHz	Span Sweep	4 MHz 9.6 ms CF Step 400.000 kHz
Occupied Bandwidth		Total Power	10.1 dBm	<u>Auto</u> Man
1.0	568 MHz			Freq Offset
Transmit Freq Error	28.248 kHz	OBW Power	99.00 %	0 Hz
x dB Bandwidth	1.262 MHz	x dB	-26.00 dB	
MSG			STATUS	_



Appendix C: Duty Cycle

Part I - Test Results

Test Mode	TX Freq. [MHz]	Duty cycle [%]
TM1	CH0,CH19,CH39	62.3

Part II - Test Plots

2.1 TM1

	um Analyzer - Swept SA								
Center Fi	RF 50 Ω AC req 2.440000000) GHz	SENS	E:INT	Avg Typ	ALIGNAUTO e: Log-Pwr	TRAC	M Mar 22, 2018 CE <mark>1 2 3 4 5 6</mark>	Frequency
		PNO: Fast ↔ IFGain:Low	Trig: Free Atten: 24				TY D	PE WWWWWWW ET P N N N N N	
		II Odinizovi					Mkr3 1	.082 ms	Auto Tune
10 dB/div	Ref 14.00 dBm						3.	61 dBm	
Log	<u>\1</u>		<mark>∕</mark> 2	<mark>♦</mark> 3					Center Freq
-6.00					`				2.440000000 GHz
-16.0									
-26.0							ļ,		Otoret Enor
-36.0									Start Freq 2.44000000 GHz
-46.0									2.440000000 GHz
-56.0	Vinter of the Andrew H		hypertellaphe	ll typ		v. with the second	porphal		
-66.0									Stop Freq 2.44000000 GHz
-76.0									2.440000000 GH2
Center 24	440000000 GHz						S	pan 0 Hz	CE Step
Res BW 8		#VBW	8.0 MHz			Sweep 2	.000 ms (1001 pts)	CF Step 8.000000 MHz
MKR MODE TF	RC SCL X		Y		CTION FUI	NCTION WIDTH	FUNCTIO	ON VALUE	<u>Auto</u> Man
1 N 1 2 N 1	t t	456.0 μs 846.0 μs	<u>3.60 dB</u> 3.60 dB						
3 N 1	t	1.082 ms	3.61 dB	m					Freq Offset
5									0 Hz
6 7									
8 9									
10									
<			Ш						
MSG						STATUS			

Appendix D: Maximum Conducted Average Output Power

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	Power[dBm]	Verdict
TM1 _Ch0	L	2402	62.3	3.45	pass
TM1 _Ch19	М	2440	62.3	4.83	pass
TM1 _Ch39	н	2480	62.3	3.71	pass



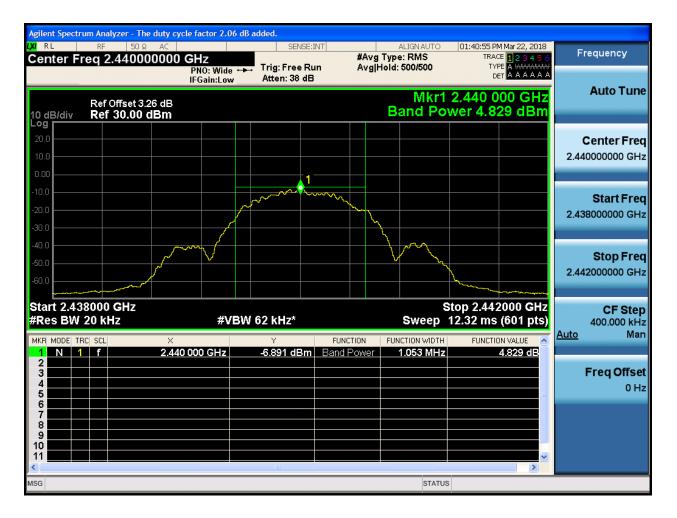
Part II - Test Plots

2.1 TM1_Ch0_L

Agilent Spectro	u <mark>m Analyzer - The</mark> RF 50 Ω		nctor 2.06	dB ac		ISE:INT			ALIGN AUTO	01/27/07 0	M Mar 22, 2018		
	eq 2.40200	0000 GH	Z IO: Wide		Trig: Free			vg Typ		TRA TY	CE 123456 PE A WWWWW	Fre	equency
			Gain:Low	-	Atten: 38	dB			Maland				Auto Tune
10 dB/div	Ref Offset 3.2 Ref 30.00 d							В	and Po	wer 3.4	00 GHz 50 dBm		
Log 20.0												с	enter Freq
10.0												2.402	000000 GHz
-10.0						1							
-20.0				ىمىر	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~ ~~	<u>۱</u>				2 400	Start Freq 000000 GHz
-30.0			/	<u></u>				Ly -				2.100	
-40.0		~~~~~						$\overline{\mathbf{b}}$	\sim				Stop Freq
-60.0		/										2.404	000000 GHz
Start 2.40	0000 GHz								<u> </u>	stop 2.40	4000 GHz		CF Step
#Res BW			#VE	3W 6	62 kHz*				Sweep	12.32 ms	(601 pts)	Auto	400.000 kHz Man
MKR MODE TF	C SCL	× 2.402.000) GHz		Y -8.754 dE		CTION Pow		ICTION WIDTH		ON VALUE 3.450 dB	Auto	Widiri
2 3												F	req Offset
5 6											=		0 Hz
7													
9 10													
11 <											<u>></u>		
MSG									STATUS	3			

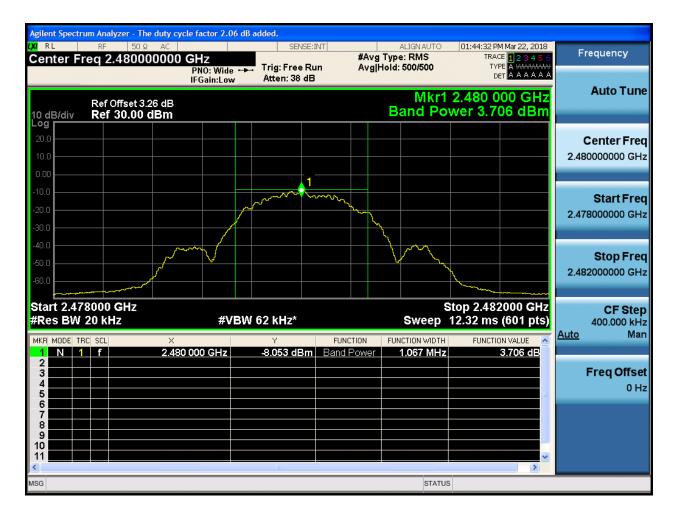


2.2 TM1_Ch19_M





2.3 TM1_Ch39_H



Appendix E: Maximum Power Spectral Density Level

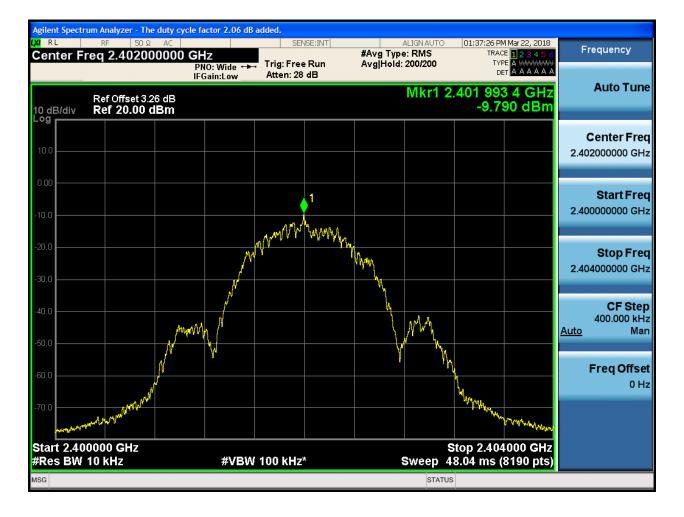
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	PSD[dBm/10 kHz]	Verdict
TM1 _Ch0	L	2402	62.3	-9.79	pass
TM1 _Ch19	М	2440	62.3	-8.97	pass
TM1 _Ch39	н	2480	62.3	-10.27	pass



Part II - Test Plots

2.1 TM1_Ch0_L





2.2 TM1_Ch19_M





2.3 TM1_Ch39_H





Appendix F: Band Edges Compliance

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1 _Ch0	L	2402	2.82	-50.91	pass
TM1 _Ch39	Н	2480	3.14	-52.23	pass



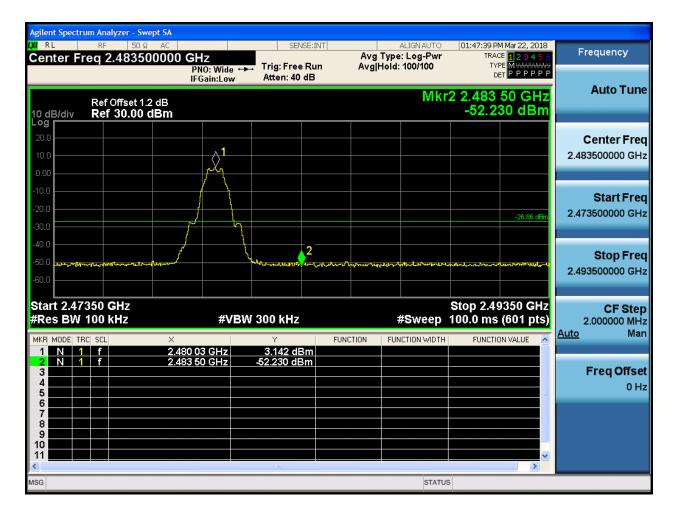
Part II - Test Plots

2.1 TM1_Ch0_L

		trum		lyzer - Swe												
lxi rl			RF		AC			SEN	ISE:INT			LIGN AUTO		M Mar 22, 2018		Frequency
Cent	ter	Fre	<u>q 2</u>	.39250	00000			Trig: Free	Dum		Type: Hold:	Log-Pwr	TRA T\			requeitcy
						PNO: Wid IFGain:Lo		Atten: 40		Avgi	Hold.	10/10		PE MWWWWW ET P P P P P		
	_		_			II Gainteo							<u> </u>			Auto Tune
				Offset 1.2								IVIK	2 2.400	00 GHz		
10 dE	3/div		Ref	30.00	dBm								-50.9	06 dBm		
Log																
20.0																Center Freq
10.0													(y l	2.3	92500000 GHz
0.00													مر م			
-10.0																
														ł		Start Freq
-20.0														-27.18 dBm	2.3	80000000 GHz
-30.0													- p ²	<u>Ч</u>		
-40.0																
-50.0														L L		Stop Freq
	ጉጉሥ	ኮግሌ	are a	warentrate	Mag-and V.S.	whole a whole a strength of the strength of th	hylledforthe	ᢛᡣ᠊ᢩᡁ_{ᡀᡕᢧ}ᡞ᠕ᢉ ᡐᡃᡵ	᠕ᡀᠧᢣᡒᡅᠴ		ՠՠՠՠ	աստերի հերում է հերում է հերում է հերում է հերուներին է հերուներին է հերուներին է հերուներին է հերուներին է հե Այստություններին է հերություններին է հերություններին է հերություններին է հերություններին է հերություններին է հե Այստություններին է հերություններին է հերություններին է հերություններին է հերություններին է հերություններին է հե	1.1644	[™] ₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	2.4	05000000 GHz
-60.0																
				811-									O t O 1			
Start						-40	100147	000 LU-						0500 GHz		CF Step
#Res	5 DV	V II	10	λΠΖ		#	VDW	300 kHz			#	Sweep	100.0 ms	; (601 pts)	0	2.500000 MHz
MKR M	10DE	TRC	SCL		×			Y		UNCTION	FUN	CTION WIDTH	FUNCTI	ON VALUE 🛛 🔼	Auto	Man
	N	1	f			2 25 GHz		2.824 dE								
2	N	1			2.4	<u>00 00 GHz</u>		<u>-50.906 dE</u>	sm							Freq Offset
4																0 Hz
5														∃		0112
6																
8																
9																
10														~		
<																
MSG			-									STATUS	s			
	_	_	_								_		-			



2.2 TM1_Ch39_H



Appendix G: Unwanted Emissions into Non-Restricted Frequency

Bands

In this Appendix, the "Pref", which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, the "Puw" referrers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] = $10 \times lg(100 \ [kHz]/narrower RBW \ [kHz])$. As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the "< Limit" denotes that "The Puw [dBm] is less than Pref[dBm]-30[dBm],see test plots for detailed".

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
TM1_Ch0	L	2402	2.90	<limit< td=""><td>pass</td></limit<>	pass
TM1_Ch19	М	2440	4.20	<limit< td=""><td>pass</td></limit<>	pass
TM1_Ch39	Н	2480	3.14	<limit< td=""><td>pass</td></limit<>	pass

Part I - Test Results



Part II - Test Plots

2.1 TM1_Ch0_L

Pref:

Agilent Spectrum Analyzer - Swept SA		E:INT ALIGN AU	TO 01:37:52 PM Mar 22, 2018	
Center Freq 2.4020000		Avg Type: Log-P Run Avg Hold:>1000/1	Wr TRACE 123456	Frequency
Ref Offset 1.2 dB 10 dB/div Ref 20.00 dBm	in outline ow		r1 2.402 013 GHz 2.905 dBm	Auto Tune
10.0		1		Center Freq 2.402000000 GHz
-10.0				Start Freq 2.400000000 GHz
-20.0				Stop Free 2.404000000 GH;
40.0				CF Step 400.000 kH <u>Auto</u> Mar
-50.0 -60.0			Market Market	Freq Offse 0 Ha
-70.0			Stop 2.404000 GHz	
#Res BW 100 kHz	#VBW 300 kHz		p 2.000 ms (601 pts)	



Puw:

	um Analyzer - Swept SA								
XIRL Cepter Er	ռ⊧ 50 Ջ <u>۸</u> DC req 79.500 kHz		SENSE:INT	Avg Type	LIGNAUTO		4 Mar 22, 2018 E 1 2 3 4 5 6	F	requency
Senter Fi	req 73.300 kHz	PNO: Close Trig: Fr IFGain:Low #Atten:		Avg Hold:		TYP			
l0 dB/div _og	Ref Offset 1.2 dB Ref 0.00 dBm					Mkr1 9.0 -82.4	000 kHz 86 dBm		Auto Tune
10.0								-	Center Fred 79.500 kH:
20.0 30.0 									Start Free 9.000 kH
40.0 50.0							-47.10 dBm		Stop Fre 150.000 kH
0.0								<u>Auto</u>	CF Ste 14.100 kH Ma
30.0									Freq Offse
30.0	ᢉᡃᠬ᠕ᡁᠬᢂᢩᠰᡂᠰᠾᠬᡟᡟ	ᠳ᠆ᡙᡰᡃᠬᡂ _ᡆ ᠘ᡁᡎᠰᡅᡅᢑᡗᠧᡗᢧ	ฬาณกุปกาไ	ᢦᠠ ^ᡗ ᡊ᠕ᡃᡌᢏᢇᡅᡎᢇᡁᠰᢧ	ᡁᡰᢩ᠕ᡔᢧᠬᠵᡢ᠋ᢩᡘᡁ	᠆ᡗᢦ᠋ᢩᠺᡀᡘᠴᢝ᠋ᠿᠬᢦ	ᡐᠬᡢᡗᢑᢦᡀᡎᢇᠯ		
tart 9.00 Res BW		#VBW 3.0 kH	 z		Sweep		i0.00 kHz (601 pts)		
SG						s 🚺 DC Cou			



	um Analyzer - S									
XI RL Center F	^{RF} ∣50 req 15.07	IΩ <u>A</u> DC 5000 MH:	Z		ISE:INT	Avg Type	ALIGNAUTO	TRAC	4 Mar 22, 2018 E <mark>1 2 3 4 5 6</mark> E M WWWWW	Frequency
			PNO: Wide 🖵 FGain:Low	Trig: Free #Atten: 40		Avg Hold:	>50/50	DE		
10 dB/div Log	Ref Offset ' Ref 20.00	1.2 dB) dBm					N	/kr1 1.3 -62.7	94 MHz 50 dBm	Auto Tune
										Center Fred
10.0										15.075000 MH
0.00										
10.0										Start Free 150.000 kH
10.0										
20.0										Stop Fre
30.0										30.000000 MH
									-37.10 dBm	CF Ste
40.0										2.985000 MH Auto Ma
50.0										I Ma
60.0 1										Freq Offse
ing a data	lisiyin in higibadha	di dalah dalam	a, dah dipuntuh di kala da kana	i ya sheyidaraha			nd har the house		antia-international	0 H
70.0										
Start 150	kHz							Stop 3	0.00 MHz	
Res BW			#VBW	30 kHz			Sweep 2	85.4 ms (3001 pts)	
ISG							STATUS	上 DC Cou	pled	



Agilent Spectr	um Analyzer - Swep									
XIRL	RF 50 Ω			SEN	ISE:INT		ALIGNAUTO : Log-Pwr		Mar 22, 2018	Frequency
Center F	req 1.165000	PN	Z 10: Fast 😱 iain:Low	Trig: Free #Atten: 40		Avg Hold:		TYP	E M WWWWWW T P P P P P P	
10 dB/div Log	Ref Offset 1.2 c Ref 20.00 dE	dB 3m					Mkı	1 2.147 -48.78	06 GHz 30 dBm	Auto Tune
10.0										Center Freq 1.165000000 GHz
-10.0										Start Freq 30.000000 MHz
-20.0									-27.10 dBm	Stop Freq 2.300000000 GHz
-40.0									1 - 1 hu- 1 hit	CF Step 227.000000 MHz <u>Auto</u> Man
-60.0	n style son i te ne sen sen sin de la	i lingin da sister da	a desti den dibidearen Alfreder anteresteraren	alah katang tang bah Katang tang tang tang tang tang tang tang	The set of the balance of the balanc			al (general (see) al general		Freq Offset
-70.0										
Start 30 N #Res BW			#VBW	300 kHz			Sweep 2	Stop 2. 217.1 ms (300 GHz 8001 pts)	
MSG							STATU	S		



ISG							STATU			
Start 2.30 #Res BW			#VBW	300 kHz			Sweep (Stop 2.40 9.600 ms (
70.0										
60.0										Freq Offse 0 H
00.00	unturburtunturtu	n Carrown	Mandal Mark Taken and Mandal Manda	mininan	4 m rannaly	have by the fi	Mar Ne Andrew	all attanted and a state	JreMptored WW	
50.0							1			Auto Mai
40.0										CF Stej 10.000000 MH
30.0										2.4000000000
20.0									-27.10 dBm	Stop Fre 2.400000000 GH
10.0										2.300000000 GH
0.00										Start Fre
10.0										2.350000000 GH
										Center Free
l0 dB/div	Ref Offset 1.2 Ref 20.00 (-49.4	43 dBm	
			IFGain:Low	#Atten: 40) dB		M	kr1 2.36		Auto Tun
Center F	req 2.3500(00000	GHz PNO: Fast	Trig: Free		Avg Type Avg Hold:	e: Log-Pwr >200/200	TRAC TYP	E 123456 E M WWWWW T P P P P P P	Frequency
RL	RF 50 Ω	AC		SEM	NSE:INT		ALIGN AUTO	01:38:58 PM	4 Mar 22, 2018	E



ISG							STATUS	1		
Start 2.48 ≉Res BW	3500 GHz 100 kHz		#VBW	300 kHz				Stop 2.500 1.600 ms		
70.0										
50.0										Freq Offse 0 H
		հերթություն	www.www.ww	hulunum	ᡃᡅᡊᡙᠰ᠉	ᢦ᠋ᢆ᠕᠕᠕᠘᠘᠘	ᠬ᠕ᡀ᠕ᡢᡗᡃᠧᡟᢛᡗᠬ	how and the	᠕ᡗᠬᠬᡟ ^ᠺ ᠈ᡩᡳᢧ᠉	Ence Off
50.0				♦ ¹						Auto Ma
40.0										CF Stej 1.650000 MH
30.0										2.000000000
20.0									-27.10 dBm	Stop Fre 2.500000000 GH
10.0										2.483500000 GH
.00										Start Fre
10.0										2.491750000 GH
										Center Free
0 dB/div	Ref Offset 1.: Ref 20.00								42 dBm	
			IFGain:Low	#Atten: 40	dB		Mkr1.2	.490 59		Auto Tun
enter F	req 2.4917	50000 (GHz PNO: Wide 🗔	Trig: Free		Avg Type Avg Hold:	e: Log-Pwr >200/200	TYP	E 123456 E M WWWWW T P P P P P P	Frequency
RL	RF 50 Ω	AC		SEN	ISE:INT		ALIGN AUTO	01:39:07 PM	1 Mar 22, 2018	E



Agilent Spectre	um Analyzer - Swept SA	A				
LXI RL	RF 50 Ω AC		SENSE:INT	ALIGNAUTO	01:39:39 PM Mar 22, 2018	Frequency
Center Fr	req 14.500000	DUU GHZ PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 40 dB	Avg Type: Log-Pwr Avg Hold: 10/10	TRACE 123456 TYPE M WWWWWW DET P P P P P P	
10 dB/div Log	Ref Offset 1.2 dB Ref 20.00 dBm	1		М	kr1 25.513 GHz -37.234 dBm	Auto Tune
10.0						Center Freq 14.50000000 GHz
-10.0						Start Freq 2.500000000 GHz
-20.0					-27.10 dBm	Stop Freq 26.50000000 GHz
-40.0			a na shekara ta shekar Ta shekara ta shekara t			CF Step 2.40000000 GHz <u>Auto</u> Man
-60.0			ste _n n lan _g i desident			Freq Offset 0 Hz
-70.0	GH7				Stop 26.50 GHz	
#Res BW		#VBW	300 kHz	Sweep	2.294 s (8001 pts)	
MSG				STATUS		



2.2 TM1_Ch19_M

Pref:





Puw:

Agilent Spectrum Analyzer - Swept SA				
	SENSE:IN	T ALIGNAUTO Avg Type: Log-Pwr	01:41:54 PM Mar 22, 2018 TRACE 1 2 3 4 5 6	Frequency
Center Freq 79.500 kHz	PNO: Close 🖵 Trig: Free Run IFGain:Low #Atten: 26 dB			
Ref Offset 1.2 dB 10 dB/div Ref 0.00 dBm		Iv	lkr1 26.625 kHz -83.590 dBm	Auto Tune
-10.0				Center Freq 79.500 kHz
-20.0				Start Freq 9.000 kHz
40.0			-45.80 dBm	Stop Frec 150.000 kHz
70.0				CF Stej 14.100 kH <u>Auto</u> Ma
80.0 1	Colon and particular		Der ob en la	Freq Offse 0 H:
Start 9.00 kHz			Stop 150.00 kHz	
Res BW 1.0 kHz	#VBW 3.0 kHz	_	134.8 ms (601 pts)	



			alyzer - Sv											
XI R	-	RF		Ω 🧥 DC				SEI	VSE:INT		ALIGNAUTO		4 Mar 22, 2018 E 1 2 3 4 5 6	Frequency
Cer	ner F	req	15.075		PN	0: Wide C ain:Low		Trig: Free #Atten: 40		Avg Hold:		TYP	PE MWWWWWW TPPPPP	
10 dl Log	B/div		Offset 1 5 20.00								N	1kr1 22.1 -62.2	30 MHz 14 dBm	Auto Tune
10.0														Center Fred 15.075000 MH;
0.00 -10.0														Start Fred 150.000 kHz
-20.0 -30.0														Stop Free 30.000000 MH;
-40.0 -50.0													-35.80 dBm	CF Step 2.985000 MH: <u>Auto</u> Mar
-60.0		والم الم	ماليا. والمارية المارية الم	faith delta	و الم	a da se d	delas.	a hada bah di ji da sa di	feel. An of other	والمعرفة والمعرفة والمعاومة والمعاورة		No. In Mary Market Market	the street and the	Freq Offse 0 H;
-70.0			ina data kan da			aja de data a cada di se			an tankik telah		li Viet de la la de la	harred at the part of the second s		
	rt 150 Is BW		Hz			#VB	W 3	0 kHz			Sweep	Stop 3 285.4 ms (0.00 MHz 3001 pts)	
MSG											STATI	JS 🦺 DC Cou	ipled	



		m Analyze										
Cen	ter Fr	_{RF} eq 1.16	50 Ω 5500	0000 GH	z	.		Avg Type Avg Hold:		TRAC	1 Mar 22, 2018 E <mark>1 2 3 4 5 6</mark> E M M M M M M	Frequency
10 dE	Bidiy	Ref Offs Ref 20		dB	NO: Fast 🕞 Gain:Low	#Atten: 40		Avginoid.		DE 1 2.147	ТРРРРР	Auto Tune
10.0				5								Center Freq 1.165000000 GHz
0.00 -10.0												Start Freq 30.000000 MHz
-20.0 -30.0											-25.80 dBm	Stop Freq 2.300000000 GHz
-40.0 -50.0					s sources and define	a sula alla suda	مد و دار و الار فالد	ովումունեն	The state of the s	in a ferring the starts of the		CF Step 227.000000 MHz <u>Auto</u> Man
-60.0	<mark>ling dara ja siden ila</mark> Provensionen and and and and and and and and and an	, ili in a di anta ka		n breg fri de de la desta de Referencia de la desta de la desta Referencia de la desta de			a k byst i Lenner Andre y Killer	n an 196 an Allen aine The Line Berl	and a second	, an is an a first all the latence of		Freq Offset 0 Hz
-70.0 Star	t 30 M	Hz								Stop 2	.300 GHz	
		00 kHz			#VBW	300 kHz			Sweep 2	217.1 ms (8001 pts)	
MSG									STATU	s		



	TOU KHZ		#VBV	JUU KHZ			Sweep s	9.600 ms (roor pisj	
Start 2.30 Res BW	000 GHz		#\/B\A	/ 300 kHz			Sween (0000 GHz	
70.0										
60.0										Freq Offse 0 H
N. WARMAN	พระสำโหญาประสะรัฐการเหม่าได	leitotsetservijet.	W. W. Kanglor K	al White Marsel	kiter-terpfinded	hard thread the	lowalduration	ntanathtital.aut	n fallen setter fallen fa	Eron Offer
50.0					¢'					<u>Auto</u> Mai
40.0					4					CF Step 10.000000 MH
30.0										
									-25.80 dBm	Stop Fre 2.400000000 GH
20.0										Stop Ero
10.0										2.300000000 GH
0.00										Start Fre
10.0										Center Free 2.350000000 GH
- ^{og}										Contor Fro
0 dB/div	Ref Offset 1. Ref 20.00						MI	(r1 2.35) -48.9	1 0 GHz 97 dBm	Autorun
			PNO: Fast 🕞 IFGain:Low	Trig: Free #Atten: 40		Avginoid.				Auto Tun
	req 2.3500		GHz				: Log-Pwr	TRAC	E 1 2 3 4 5 6	Frequency
gilent Spectr		Ω AC		CEN	NSE:INT		ALIGN AUTO	01:42:45 0	4 Mar 22, 2018	



KU RL		AC		SEI	NSE:INT		ALIGN AUTO		4 Mar 22, 2018	Frequency
Center Fi	req 2.4917	50000	GHz PNO: Wide 🗔	Trig: Free	e Run	Avg Type Avg Hold	e: Log-Pwr ⊳200/200	TRAC TYP	^{2E} 123456 ^{2E} M WWWW TPPPPPP	Frequency
			IFGain:Low	#Atten: 4	0 dB					Auto Tur
	Ref Offset 1.	2 dB					Mkr1 2	493 37	2 5 GHz	Auto Tun
l0 dB/div	Ref 20.00	dBm						-48.4	26 dBm	
										Center Fre
10.0										2.491750000 GH
										2.40 11 00000 011
0.00										
										Start Fre
10.0										2.483500000 GH
20.0										Stop Fre
									-25.80 dBm	2.500000000 GH
30.0										
40.0										CF Ste
40.0						1				1.650000 MH
50.0					· · · · · · · · · · · · · · · · · · ·	<u></u>				<u>Auto</u> Ma
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60.0										Freq Offse
										0 H
70.0										
tart 2 49	3500 GHz							ton 2 500	0000 GHz	
Res BW			#VBM	/ 300 kHz					(601 pts)	
sg							STATUS	1		



Agilent Spectr	rum Analyzer - Swe	pt SA								
LXI RL	RF 50 Ω			SEN	ISE:INT		ALIGN AUTO		4 Mar 22, 2018	Frequency
Center F	req 14.5000	PI	I HZ NO: Fast 🖵 Gain:Low	Trig: Free #Atten: 40		Avg Type Avg Hold:	: Log-Pwr 10/10	TY	CE 123456 PE MWWWWW TPPPPPP	
10 dB/div Log	Ref Offset 1.2 Ref 20.00 d	dB I Bm					Μ	kr1 25.6 -38.0	42 GHz 09 dBm	Auto Tune
10.0										Center Freq 14.500000000 GHz
-10.0										Start Freq 2.50000000 GHz
-20.0									-25.80 dBm	Stop Freq 26.500000000 GHz
-40.0	a al ann ag fan a blitter de seul		a y , y - h that live a star a star a star	ninalita di sala	a shi dalla sha a					CF Step 2.400000000 GHz <u>Auto</u> Man
-60.0			and a second							Freq Offset 0 Hz
.70.0							~	Ston	6 50 CH2	
#Res BW			#VBW	300 kHz			Sweep	2.294 s (6.50 GHz 8001 pts)	
MSG							STATUS	;		



2.3 TM1_Ch39_H

Pref:





Puw:

	um Analyzer - Swep										
XI RL	RF 50 Ω 🥼			SEN	ISE:INT		ALIGNAUTO : Log-Pwr		4 Mar 22, 2018 E 1 2 3 4 5 6	F	requency
Center Fi	req 79.500 k	PN	IO: Close 🖵 Gain:Low	Trig: Free #Atten: 26		Avg Type Avg Hold:		TYF			
10 dB/div Log	Ref Offset 1.2 (Ref 0.00 dB)							Mkr1 9.4 -83.8	470 kHz 09 dBm		Auto Tune
-10.0											Center Fred 79.500 kHz
-20.0											Start Fred 9.000 kHz
40.0 50.0									-46.86 dBm		Stop Fred 150.000 kH;
70.0										<u>Auto</u>	CF Stej 14.100 kH Ma
80.0											Freq Offse
0.00	ᠰᢆᡙᡗᡟᠰᠧᡔ᠋᠋᠕ᡁᠰᠬᠺ	ֈֈ֏ՠֈՠՠֈՠֈՠֈ	ᡁᡗᢩᡀᡔᡃᡃᢩᠬ᠆ᠰᢧᠵᢐ		_๗ ᠰᠡᠰᡎᠰᡅ	l	ᢞᡰᡁᡃᡝᠴᡟᢩ᠘ ^{ᡁᢕ} ᡙ	ᡒᢦᡗ ^{ᡗ᠕ᡁᠰ} ᠋ᡅᢇᢧᡗ	and a construction of the second s		
Start 9.00 Res BW			#VBW	3.0 kHz			Sweep	Stop 15 134.8 ms	0.00 kHz (601 pts)		
ISG							STATUS	DC Cou	pled		



			alyzer - Sw											
LXI RI Cen		RF eq	50 Ω 15.0750	: <u>1</u> dc 000 M	Hz			JSE:INT	Avg Type	ALIGNAUTO :: Log-Pwr	TRAC	1 Mar 22, 2018 E <mark>1 2 3 4 5 6</mark>	F	requency
					PN	0: Wide 🖵 ain:Low	Trig: Free #Atten: 40		Avg Hold:	>50/50	TYP DE	E MWWWWW T P P P P P P		
10 dE	3/div		Offset 1.: f 20.00 (Mł		31 MHz 01 dBm		Auto Tune
Log														Center Freg
10.0														5.075000 MHz
0.00														
														Start Freq
-10.0														150.000 kHz
-20.0														Stop Freq
-30.0													3	0.000000 MHz
-30.0												-36.86 dBm		
-40.0														CF Step 2.985000 MHz
-50.0													<u>Auto</u>	Man
											^ 1			Freq Offset
-60.0	s, (data) data	a hail in	ا مهرا ال الم	المراد والعالي	ور الم	and the second	anala tanta	resultari di 1944		(And the state of the	المنا والارتد وما	والنامية والله		0 Hz
-70.0	the (president		a later for the state of the	- Inder die			lifas seriator	all a duite a duite.		national distantiane distance of the		a all second light		
	t 150 s BW		Hz			#\/B\//	30 kHz			Sweep 2		0.00 MHz 3001 pts)		
MSG											L DC Cou			



XI RL Center F	RF 50 Ω req 1.165000	0000 GH	z		ISE:INT	Avg Type	ALIGNAUTO	TRAC	1 Mar 22, 2018 E <mark>1 2 3 4 5 6</mark> E M WWWWW	Frequency
			NO: Fast 🖵 Gain:Low	Trig: Free #Atten: 40		Avg Hold:	>50/50	DE		
10 dB/div Log	Ref Offset 1.2 Ref 20.00 d	dB Bm					Mkr	1 2.070 -48.40	45 GHz 66 dBm	Auto Tune
10.0										Center Freq 1.165000000 GHz
-10.0										Start Freq 30.000000 MHz
-20.0									-26.86 dBm	Stop Freq 2.300000000 GHz
-40.0									1	CF Step 227.000000 MHz <u>Auto</u> Man
-30.0 pplotertig rpst.de.to -60.0	stiplina, proposi da piso a palata da da A da cara a piso paga da	al tala ang sa	an ya di Afrika ya di Afrika Mana ka na ka na Mana ka na ka n	la a blar at set yr sweddau Gegener yn a gymer y gymer yn g	da pal in pal in a forma da Asing tipo da la programa		in a shirt in a shirt in a fan ta shirt i Ta ya mi a sa a sa shirt i shirt i ayaa k	n fill film og en film film film som en s Helle en som e		Freq Offset 0 Hz
-70.0										
Start 30 N #Res BW			#VBW	300 kHz			Sweep 2		.300 GHz 8001 pts)	



ISG							STATUS			
Start 2.30 #Res BW	0000 GHz 100 kHz		#VBW	300 kHz			Sweep 9	Stop 2.40 .600 ms (0000 GHz 1001 pts)	
70.0										
60.0										Freq Offse 0 H
hunning	iple have bad the production	and a classical	the forthe balantic the main of the second sec	Makeline James Co.	₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	www.hendlu.hem	(harddayfirddyn	1/11/14 million	Mady Malan Mrsh	
50.0	∮ ¹									Auto Ma
-40.0										CF Stej 10.000000 MH
30.0										
									-26.86 dBm	Stop Fre 2.400000000 GH
20.0										
10.0										2.300000000 GH
0.00										Start Fre
10.0										Center Free 2.350000000 GH
I0 dB/div	Ref Offset 1.2 Ref 20.00 (MI	(r1 2.31) -49.1	6 4 GHz 19 dBm	Auto Tun
			PNO: Fast 🖵 IFGain:Low	Trig: Free #Atten: 40		Avg Hold:			PE MWWWWW TPPPPPP	Auto Tun
	req 2.35000		GHz		VSE:INT	Avg Type	ALIGNAUTO	TRAC	4 Mar 22, 2018 E <mark>1 2 3 4 5 6</mark>	Frequency
gilent Spectr		AC		051	IOT IN IT			01:10:01 0	111	



	um Analyzer - Swej									
X/ RL Center E	RF 50 Ω req 2.491750		iHz	SEN	ISE:INT		ALIGNAUTO :: Log-Pwr	TRAC	Mar 22, 2018	Frequency
			PNO: Wide 🖵 FGain:Low	Trig: Free #Atten: 40		Avg Hold:	>200/200	TYP DE		
10 dB/div Log	Ref Offset 1.2 Ref 20.00 d	dB Bm					Mkr1 2	498 707. -50.24	75 GHz 17 dBm	Auto Tune
10.0										Center Freq 2.491750000 GHz
0.00 -10.0										Start Freq 2.483500000 GHz
-20.0									-26.86 dBm	Stop Freq 2.500000000 GHz
-40.0									↓ ¹	CF Step 1.650000 MHz <u>Auto</u> Man
оого <mark>радала</mark> 60.0	_{๚๚} ๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚๚	ᠵᠾᠰᡃᡅᠺ᠋ᠵᡗ	ᡃᡳᡊᡗ ^ᠰ ᡰᠩᠧᡅ᠇ _{ᠿᡄ} ᠕᠆ᠬ _ᡟ	᠕ᡶᢏᡵᡗᢔᢑᠬᢑᢇᠺ	᠕ᡌᡃᡗᡅᡘᡁᡗᡃᢤᢍ	ᢔᡀ᠓᠆ᢧᠾ᠆ᠰᢈᠵᢏ	arvanta ara	ᠳᠣᡗᡃᡅᠧᡗᡀᠰᡨᠾᡳᡢ	^{ֈԱ} Իղ ^{գՄ} ՆԻԿՆ-	Freq Offset 0 Hz
-70.0	3500 GHz							Stop 2.500	000 GHz	
≉Res BW			#VBW	300 kHz			Sweep	1.600 ms	(601 pts)	
SG							STATUS	3		







Appendix H: Radiated Spurious Emission & Spurious in Restricted

Band

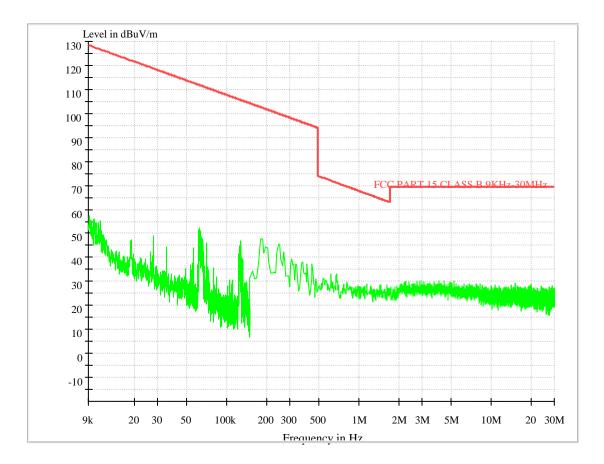
Note: We tested all modes, but the data presented below is the worst case.Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered



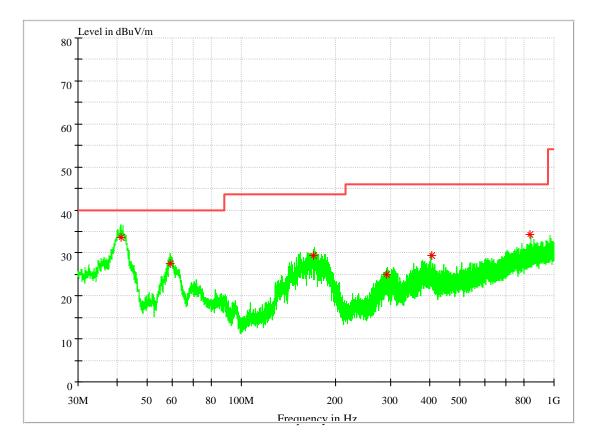






2.2 Part 2: Testing Range of "30 MHz to 1 GHz"

- Note 1: The test results and plot for testing range of "30 MHz to 1 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency	Level	Limit	Margin	Height	Pol	Azimu	Transd.
(MHz)	(dBµ V/m)	(dBµ V/m)	(dB)	(cm)		th	(dB)
41.121960	33.60	40.00	6.40	101.0	V	100.0	17.5
59.234420	27.58	40.00	12.42	124.0	V	37.0	12.0
169.474980	29.38	43.50	14.12	101.0	V	60.0	11.5
291.847460	25.00	46.00	21.00	162.0	Н	262.0	15.3
404.853320	29.35	46.00	16.65	100.0	V	68.0	19.4
837.160100	34.30	46.00	11.70	100.0	Н	5.0	25.5

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain) The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level



2.3 Part 3: Testing Range of "1GHz to 3GHz"

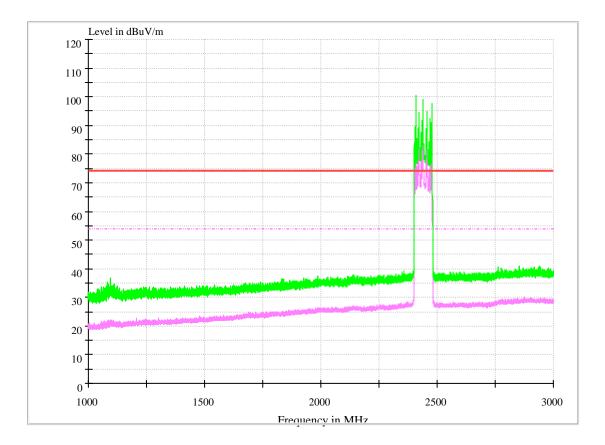
Note 1: The testing range of "1GHz to 3 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands.

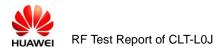
Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 $dB\mu V/m$) and Average Limit (54 $dB\mu V/m$).

Note 3: The peak spike exceeds the limit line is EUT's operating frequency.

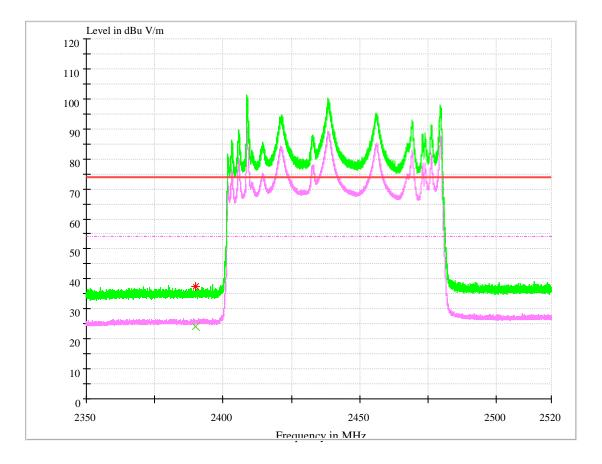
Test Mode:

2.3.1Test Mode: TM1





2.3.1.1 Channel 0



MEASUREMENT RESULT: AV Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.		
(MHz)	(dBµ V/m)	(dBµ V/m)	(dB)	(cm)		h	(dB)		
2390	24.08	54.00	29.92	150.0	Н	98.0	-10.2		
MEASUREMENT	MEASUREMENT RESULT: PK Detector								

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.				
(MHz)	(dBµ V/m)	(dBµ V/m)	(dB)	(cm)		h (deg)	(dB)				
2390	37.55	74.00	36.45	150.0	Н	315.0	-10.2				

Note:

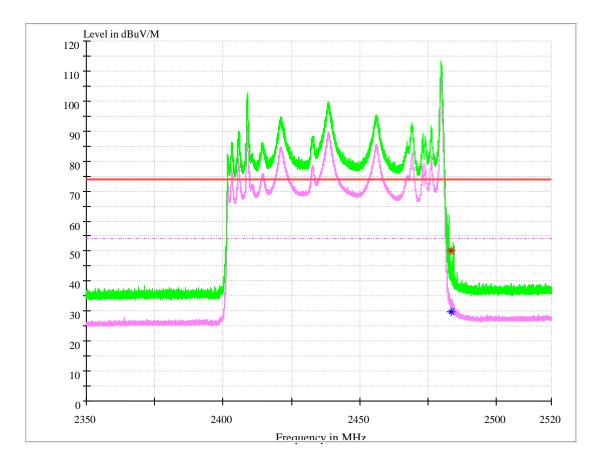
1, Level =Reading level by receiver + Transd (Antenna factor + cable loss - preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level



2.3.1.2 Channel 39



MEASUREMENT RESULT: AV Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.
(MHz)	(dBµ V/m)	(dBµ V/m)	(dB)	(cm)		h	(dB)
2483.5	27.76	54.00	26.24	150.0	Н	186.0	-10.2

MEASUREMENT RESULT: PK Detector

Frequency	Level	Limit	Margin	Height	Pol	Azimut	Transd.
(MHz)	(dBµ V/m)	(dBµ V/m)	(dB)	(cm)		h (deg)	(dB)
2483.5	45.18	74.00	28.82	150.0	Н	32.0	-10.2

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

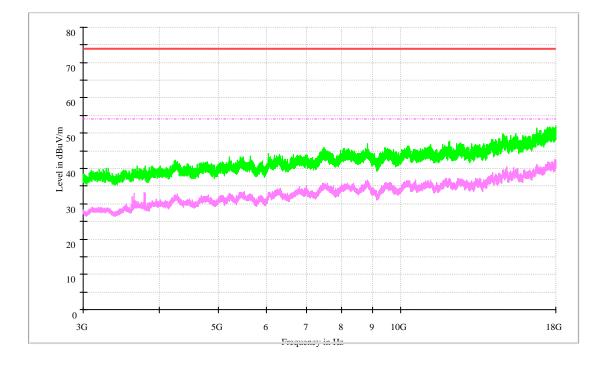
The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level



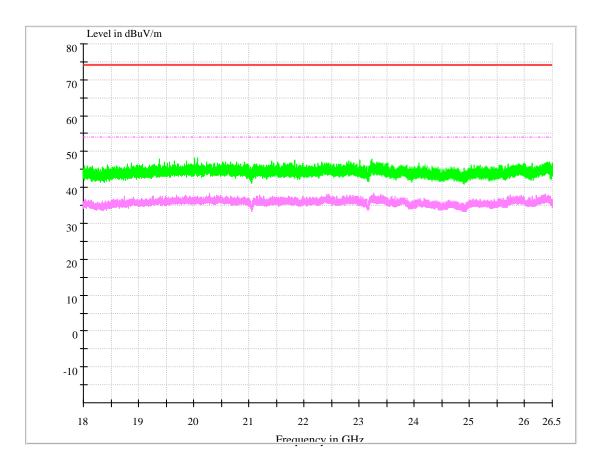
2.4 Part 4: Testing Range of "3 GHz to 18 GHz"

- Note 1: The test results and plot for testing range of "3 GHz to 18 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of "3 GHz to 18 GHz" is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 3 GHz, that is Peak limit (74 $dB\mu V/m$) and Average Limit (54 $dB\mu V/m$).





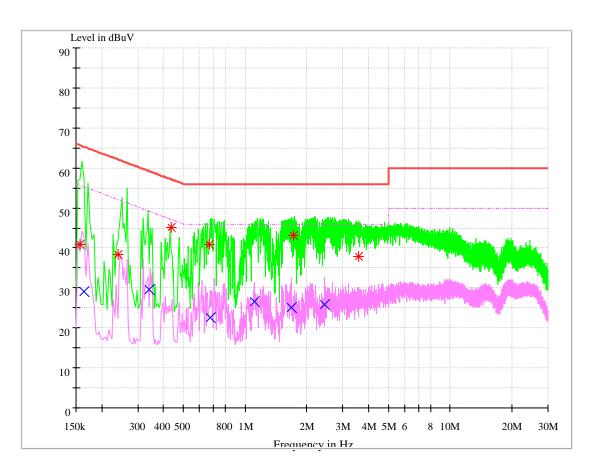
2.5 Part 5: Testing Range of "18 GHz to 26.5 GHz"





Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz



Channel 39

Frequency		Limit	Transd.	Margin	Line	PE
(MHz)	(dBµ V)	(dBµ V)	(dB)	(dB)		
0.156975	40.85	65.62	9.7	24.77	Ν	FLO
0.239303	38.35	62.12	9.7	23.77	L1	FLO
0.439092	45.11	57.08	9.7	11.97	Ν	FLO
0.666645	40.80	56.00	9.7	15.20	Ν	FLO
1.730888	43.21	56.00	9.7	12.79	Ν	FLO
3.594118	37.91	56.00	9.7	18.09	Ν	FLO

MEASUREMENT RESULT: PK Detector

MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBµ V)	Limit (dBµ V)	Transd. (dB)	Margin (dB)	Line	PE
0.164413	29.02	55.24	9.7	26.22	Ν	FLO
0.341436	29.50	49.17	9.7	19.67	Ν	FLO
0.679570	22.50	46.00	9.7	23.50	Ν	FLO
1.116469	26.55	46.00	9.7	19.45	Ν	FLO
1.680912	24.96	46.00	9.7	21.04	Ν	FLO
2.434142	25.92	46.00	9.7	20.08	Ν	FLO

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss - preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

END