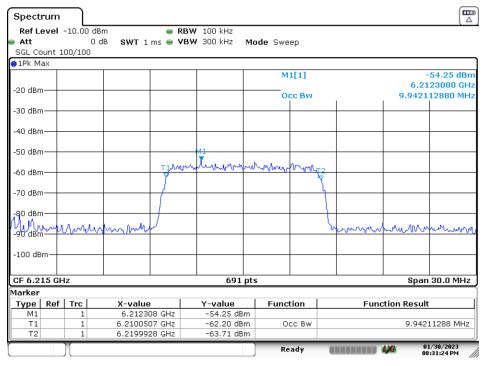
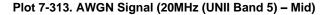
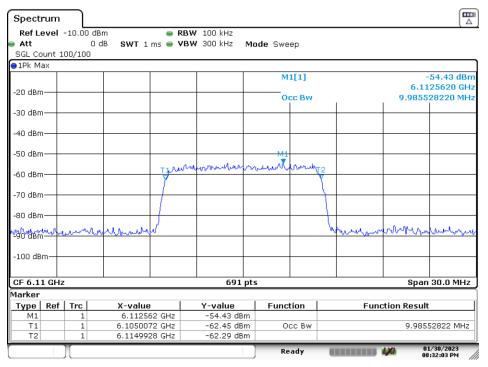


7.6.1 AWGN Plots



Date: 30.JAN.2023 20:31:24



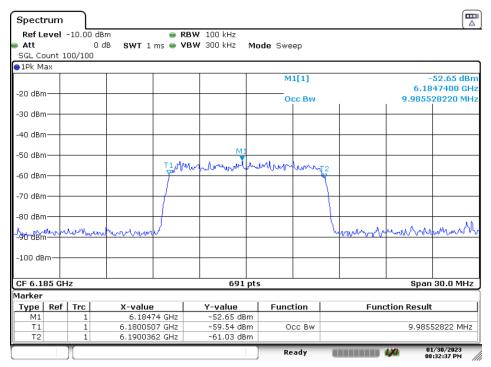


Date: 30.JAN.2023 20:32:03

Plot 7-314. AWGN Signal (160MHz (UNII Band 5) - Low)

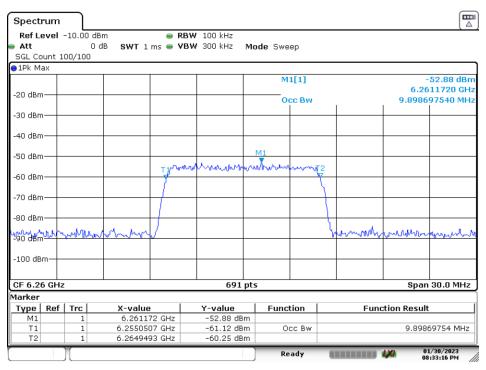
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 101 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 191 of 237
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Date: 30.JAN.2023 20:32:38

Plot 7-315. AWGN Signal (160MHz (UNII Band 5) – Mid)



Date: 30.JAN.2023 20:33:16

Plot 7-316. AWGN Signal (160MHz (UNII Band 5) - Mid)

FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 102 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 192 of 237
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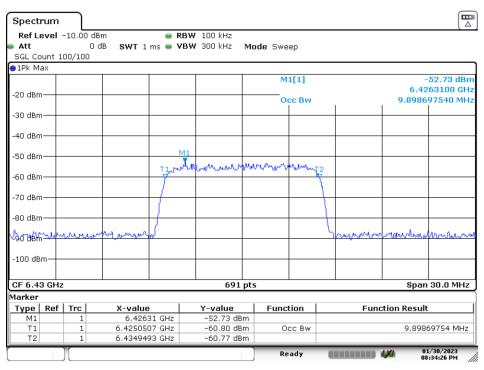
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Spect	rum												
Ref Le	evel	-10.00 c	iBm (RBW	100 kHz								,
🗕 Att		0	dB SWT 1 ms (VBW	300 kHz	Мос	le Swe	ер					
SGL Co	unt 1	.00/100											
●1Pk Ma	эх												
							M	1[1]				-	54.46 dBm
00 40											6	5.45	31330 GHz
-20 dBm	דרי						0	c Bw			10.0	7235	58900 MHz
-30 dBm											1		
-30 übn													
-40 dBm													
-40 0811	'												
-50 dBm					641								
00 0011	'				montana]	4						
-60 dBm			T1	ph-way	und menne	ww	www	Mry	2				
	·								٢.				
-70 dBm									Ļ				
									1				
-80 dBm									+				
			1 5 4 1						1				
<u>-90 abh</u>	r h	1. C. M. C.	montinel			<u> </u>			1	abrilling	nume	ww	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
-100 dB	m——					+							
CF 6.4	55 GF	łz			691	pts				1	S	pan	30.0 MHz
Marker													
Type	Ref	Trc	X-value	1	Y-value	1	Func	ion		Fun	ction Re	sult	1
M1		1	6.453133 GF	Iz	-54.46 di	Bm	. and			1 411		sare	
T1		1	6.4499638 GH		-62.77 di		0	cc Bw			10	.072	3589 MHz
T2		1	6.4600362 GH	łz	-62.84 di	Bm							
		Τ					Re	ady			L)(I		/30/2023 33:54 PM

Date: 30.JAN.2023 20:33:54

Plot 7-317. AWGN Signal (20MHz (UNII Band 6) - Mid)



Date: 30.JAN.2023 20:34:27

Plot 7-318. AWGN Signal (160MHz (UNII Band 6) – Low)

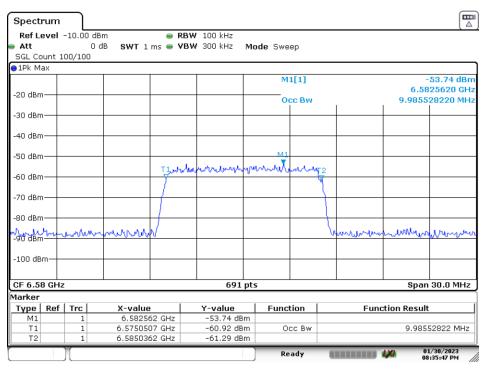
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 102 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 193 of 237
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Spect	rum												
🗕 Att		-10.00	OdB SWT :		RBW 100 kHz VBW 300 kHz	Мо	de Swe	ер					
😑 1Pk M	lax												
						Т	M	1[1]				-	53.76 dBm
00 40-	.											6.50	84730 GHz
-20 dBr	n						0	c Bw			9.0	8986	97540 MHz
-30 dBr	n					+							
-40 dBr	n					-							
-50 dBr	n					-		MI					
				T1/M	mound	h	Month	han	2				
-60 dBr	n			7		<u> </u>		U	٢				
-70 dBr	n			++		\vdash			1				
-80 dBr	n					_							
/ <u>`:46`%e</u> e	and	my	martin	m/					J	Marymerson	now	Mour	man
50 abi	"									1			
-100 de	3m-					-							
CF 6.5	05 GH	łz			691	l pts	;			1	· · · ·	Span	30.0 MHz
Marker						<u> </u>							
Туре		Trc	X-valu	е	Y-value	1	Func	tion		Fun	ction R	esult	1
M1		1		473 GHz	-53.76 d	Bm							
T1		1	6.50005	507 GHz	-60.87 d	Bm	0	c Bw			9	.8986	59754 MHz
T2		1	6.50994	493 GHz	-60.62 d	Bm							
][Re	ady			LXI		1/30/2023 :35:03 PM

Date: 30.JAN.2023 20:35:03

Plot 7-319. AWGN Signal (160MHz (UNII Band 6) - Mid)



Date: 30.JAN.2023 20:35:47

Plot 7-320. AWGN Signal (160MHz (UNII Band 6) - High)

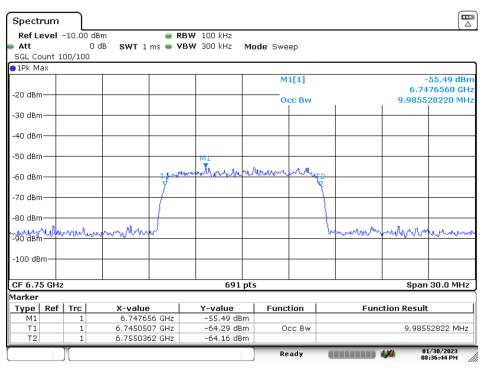
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 104 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 194 of 237
© 2023 ELEMENT	•		V 9.0 02/01/2019



Spect	rum												
Ref L	evel	-10.00 c	lBm	•	RBW	100 kHz							
👄 Att			dB SWT 1	ms 😑	VBW	300 kHz	Mod	e Swe	ер				
		00/100											
⊖1Pk M	lax												
								M	1[1]				-51.56 dBm
-20 dBr	n——						<u> </u>						946960 GHz
								0	cc Bw			9.898	697540 MHz
-30 dBr	n——						<u> </u>						
-40 dBr	n		_										
						M	1						
-50 dBr	n												
				TLN	rulyou	handrand	hor	whe	Anna				
-60 dBr	n-+-			7			+			₹			
										4 .			
-70 dBr	n-+-		-	\vdash						+			
										1			
-80 dBr			-							+			
rato	ma	man	mound	S.						- \	Lungahr	money	mann
-90 dBr	n	0.0 0		*			<u> </u>						
-100 de	3m-						<u> </u>						
CF 6.6	95 GF	lz	•			691	pts					Spa	n 30.0 MHz
Marker													
Туре	Ref	Trc	X-value	•	1	Y-value	1	Func	tion		Fund	ction Resu	lt
M1		1	6.69469	96 GHz		-51.56 d	3m						
T1		1	6.690050	07 GHz		-60.17 d	3m	0	cc Bw			9.898	369754 MHz
T2		1	6.699949	93 GHz		-61.44 d	3m						
][]						Re	ady				01/30/2023 08:36:15 PM

Date: 30.JAN.2023 20:36:16

Plot 7-321. AWGN Signal (20MHz (UNII Band 7) - Mid)



Date: 30.JAN.2023 20:36:44

Plot 7-322. AWGN Signal (160MHz (UNII Band 7) – Low)

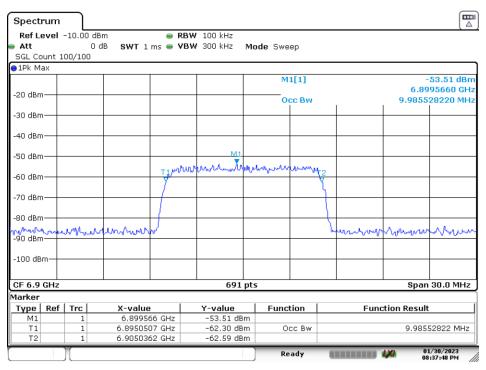
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 105 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 195 of 237
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Spect	rum												
🕳 Att		-10.00 .00/100	OdB SWT 1	-		100 kHz 300 kHz	Mo	de Swe	ер				
●1Pk M	lax												
								М	1[1]			6.9	-52.45 dBm 251740 GHz
-20 dBr	n+							0	cc Bw				697540 MHz
-30 dBr	n-+-				-		-						
-40 dBr	n												
-50 dBr	n				_		11						
-60 dBr	n			T July	where	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	hr	Mundow	www	2			
-70 dBr	m									Ļ			
-80 dBr	n									1			
^^	mm	man	mannen	ph						6	mm	round	www.www
-100 dE													
100 00													
CF 6.8	25 GF	lz				691	pts					Spa	n 30.0 MHz
Marker													
Туре	Ref	Trc	X-value			Y-value		Func	tion		Fund	ction Resu	lt
M1		1	6.8251			-52.45 dB			_				
T1 T2		1	6.820050			-61.21 dB		0	CC BW			9.898	369754 MHz
][Re	ady				01/30/2023 08:37:17 PM

Date: 30.JAN.2023 20:37:17

Plot 7-323. AWGN Signal (160MHz (UNII Band 7) - Mid)



Date: 30.JAN.2023 20:37:48

Plot 7-324. AWGN Signal (160MHz (UNII Band 7) - High)

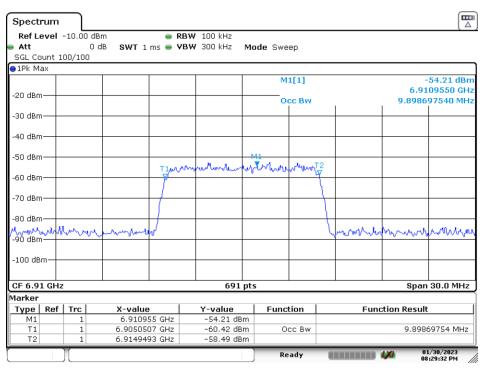
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 106 of 227
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Spect	rum												
Ref L Att SGL Co		-10.00	0 dB SWT 1	😑 . ms 😑 '	RBW 1 VBW 3		Mo	de Swe	эр				
●1Pk M	ax												
								M	l[1]			6.9	-53.17 dBm 329160 GHz
-20 dBn								0	c Bw				112880 MHz
-30 dBn	n												
-40 dBn	n												
-50 dBn	n					M1							
-60 dBn	n			Tur	w	Jun	m	r which	nnad	[2			
-70 dBn	n			$\left \right $	_					+			
-80 dBn	n			_	_					+			
-90 dBn	aluerfa 7	MM	mmm	W						6	how	whown	myun
-100 dB	-m-												
CF 6.9	35 GH	lz				691	pts					Spa	n 30.0 MHz
Marker		1 - 1			1		,						
Type	Ref	Trc	X-valu			<mark>-value</mark> -53.17 dB		Funct	ion		Fun	ction Resu	lt
M1 T1		1	6.93005	16 GHz		-53.17 aB -61.64 dB		0	C Bw			9,94	211288 MHz
T2		1	6.93999			-60.68 dB							
][Re	ady				01/30/2023 08:30:52 PM

Date: 30.JAN.2023 20:30:52

Plot 7-325. AWGN Signal (20MHz (UNII Band 8) - Mid)



Date: 30.JAN.2023 20:29:32

Plot 7-326. AWGN Signal (160MHz (UNII Band 8) – Low)

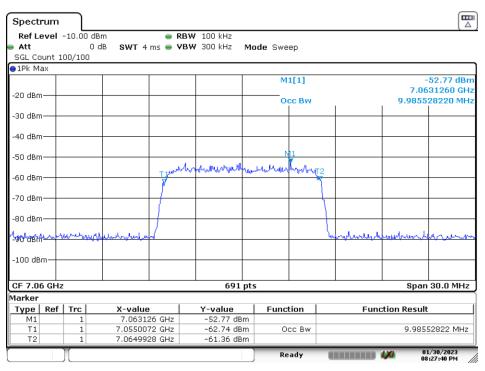
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 197 of 237
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Fage 197 01 237
© 2023 ELEMENT	•		V 9.0 02/01/2019



Spect	rum												
Ref L	evel	-10.00				100 kHz							
	unt 1	100/100		ms 🔲	¥BW	300 kHz	MIC	de Swe	ep				
⊖1Pk M	ax												
								M	1[1]				56.63 dBm
-20 dBn	י+-י						\vdash	0	c Bw				84730 GHz 28220 MHz
-30 dBn	η						-						
-40 dBn	- +				_								
-50 dBn	<u>ا</u> ر								M1				
-60 dBn	<u>+</u>			T Jour	مسط	lasan yang	and a	Andread	م للوسالية	2			
-70 dBn	א-י			\vdash	+		-			$\left\{ \right.$			
-80 dBm	· .			Η			-			+			
-90 dBn	Month	nmhun	mundur	W						J	Mulmen	manno	Lunword
-100 dB													
CF 6.9	85 GI	lz				691	pts	5				Span	30.0 MHz
Marker													
Туре	Ref	Trc	X-value		-	Y-value		Funct	ion		Fund	ction Result	
M1 T1		1	6.9884			-56.63 dB		0	c Bw			9,985	52822 MHz
T2		1	6.98999			-65.18 dB						515000	
][Re	ady				1/30/2023 :30:19 PM

Date: 30.JAN.2023 20:30:19

Plot 7-327. AWGN Signal (160MHz (UNII Band 8) - Mid)



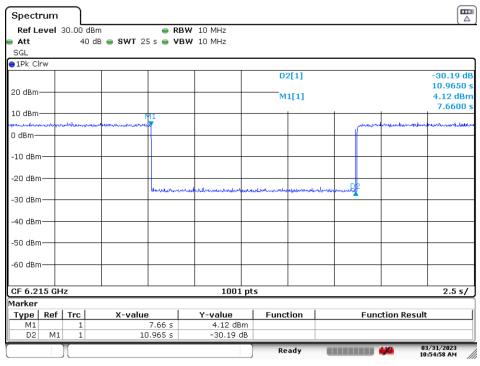
Date: 30.JAN.2023 20:27:40

Plot 7-328. AWGN Signal (160MHz (UNII Band 8) – High)

FCC ID: PY7-84558E	MEASUREMENT REPORT Tech Tech	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 109 of 227
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7.6.2 CBP Timing Plots



Date: 31.MAR.2023 10:54:58



Spectru	m					
Ref Lev Att SGL	el 30.00 de 40 (Bm e Ri dB e SWT 25 s e Vi	3W 10 MHz 3W 10 MHz			, , , , , , , , , , , , , , , , , , ,
●1Pk Clrw						
20 dBm—				M1[1]		-11.50 dBr 12.2100 -14.96 d
10 dBm—						10.8650
& dethewal	فيتهجه فترج بتوقية فيرابهم	under an the data of the second statement of the	instedantisen may			- full a soo
-10 dBm—			M1			
-20 dBm—						neweenender
-30 dBm—			- Liful	and and a second se	and a standard and a	municum
-40 dBm—						
-50 dBm—						
-60 dBm—						
CF 6.11 (GHz		1001 p	its		2.5 s/
larker			· · · · ·			
	ef Trc	X-value	Y-value	Function	Fund	tion Result
M1 D2	1 M1 1	12.21 s 10.865 s	-11.50 dBm -14.96 dB			
][Ready		03/31/2023 11:04:54 AM

Date: 31.MAR.2023 11:04:54

Plot 7-330. Contention Based Protocol Timing Plot (160MHz (UNII Band 5) - Ch. 47 Low)

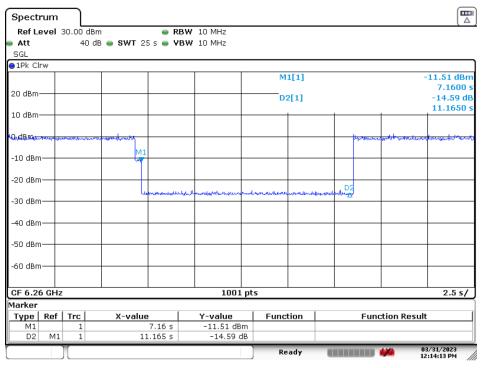
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 199 of 237
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Fage 199 01 237
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Ref L	evel :	30.00 d	Bm	🔵 RB	W 10 MHz						
Att		40	dB 🔵 SWT 2	5 s 😐 VB	W 10 MHz						
SGL											
1Pk Cl	rw										
						D	2[1]				-27.69 d
											10.4400
20 dBm						N	11[1]				1.34 dB
											5.7600
10 dBm			M1								
and the second	ىيى <mark>م</mark> ىيىس	-	ment					manner	umm	40,001-1244-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	and the second second
n anu-											
-10 dBm											
-10 060	'										
-20 dBrr											
-20 0011	'		1 I.		بحمار ومناقله والرياد للدوسيو وب						
-30 dBm			Hunterter	llen of a supplicity of the loss of	~~	han di kalender kan di Milligh					
	·										
-40 dBm	∩				_						
-50 dBm	ι <u> </u>										
-60 dBm	∩										
CF 6.1	85 CH	7			1001	nte					2.5 s
larker		-			1001						2.5 3
Type	Ref	Trc	X-value	, 1	Y-value	Fund	tion		Euncti	on Resu	l+
M1	1.01	1		5.76 s	1.34 dBm				- ance	on Kesu	
D2	M1	1	:	10.44 s	-27.69 dB						
						2	eady				03/31/2023

Date: 31.MAR.2023 12:07:41



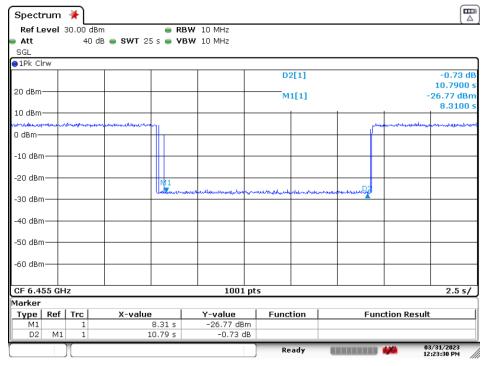


Date: 31.MAR.2023 12:14:12

Plot 7-332. Contention Based Protocol Timing Plot (160MHz (UNII Band 5) - Ch. 47 High)

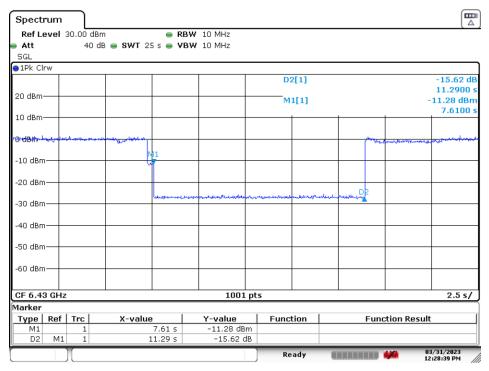
FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 200 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 200 of 237
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Date: 31.MAR.2023 12:23:29





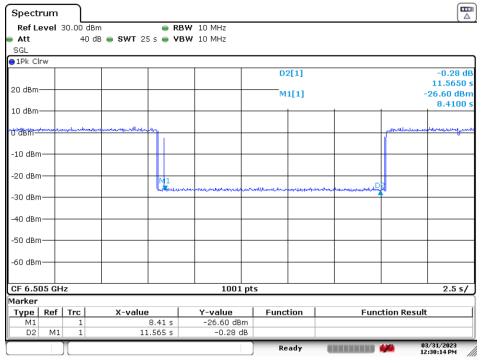
Date: 31.MAR.2023 12:28:38

Plot 7-334. Contention Based Protocol Timing Plot (160MHz (UNII Band 6) - Ch. 111 Low)

FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dago 201 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 201 of 237
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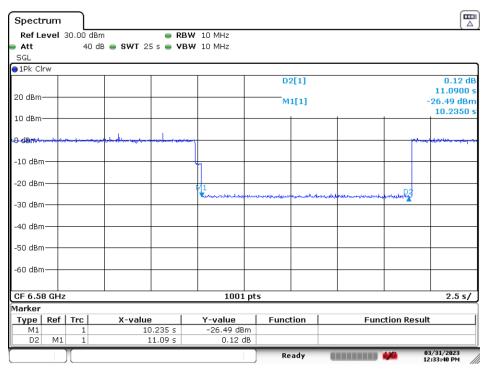
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Date: 31.MAR.2023 12:30:14

Plot 7-335. Contention Based Protocol Timing Plot (160MHz (UNII Band 6) - Ch. 111 Mid)



Date: 31.MAR.2023 12:33:41

Plot 7-336. Contention Based Protocol Timing Plot (160MHz (UNII Band 6) – Ch. 111 High)

FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 202 of 227
1M2302060006-08-R3.PY7	01/30/2023 - 04/18/2023	Portable Handset	Page 202 of 237
© 2023 ELEMENT	•		V 9.0 02/01/2019

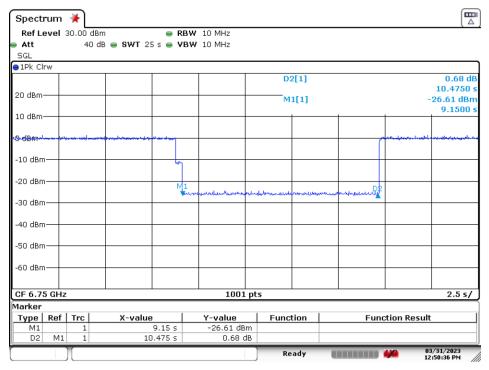
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n ()	Ľ							
Ref Level			_	W 10 MHz				
Att	40	dB 👄 SWT 2	5 s 👄 VB	W 10 MHz				
SGL								
1Pk Clrw								
					D2[1]			0.07 d
20 dBm —								11.4250
					M1[1]			-26.40 dB
10 dBm —				_				8.9500
Antonegandaballat	California de Martino de	للمسيسيوسي والمساور	and the second second				Jackey and Million	mountant
) dBm				_				
-10 dBm								_
				1 1				
-20 dBm —			N 1					_
-20 dBm			M1	man	er-Halmesellermon	moundation	or marken 2	
			M1	******************************	et was the second state of the	warmen war	-+-ue.h	
			M1	n-abalaan-kaletakabet	erralises and from the	war on in the second by	-vrueller	
-30 dBm			M1	water and the second	h/m-Hademarada Krimmen	warmen af an		
-30 dBm			N 1	ne allanaan daardaa ah	erroutheresetele fromme	werson and rectanapling	www.	
-20 dBm			N 1		errondisconsected to come	war un and reduced by	w.unek	
-30 dBm -40 dBm -50 dBm				,,,~,1)	erroute erroute	war an		
-30 dBm						warunung abaruphan	where a state of the state of t	
-30 dBm -40 dBm -50 dBm				94742-042-042-042-042-047-042-047-047-047-047-047-047-047-047-047-047				
30 dBm 40 dBm 50 dBm 60 dBm	Hz			1001				2.5 \$/
30 dBm 40 dBm 50 dBm 60 dBm CF 6.695 G	Hz							2.5 s/
30 dBm 40 dBm 50 dBm 60 dBm <u>CF 6.695 G</u> larker		X-yalus		1001	pts			
30 dBm 40 dBm 50 dBm 60 dBm <u>CF 6.695 G</u> larker	Hz	X-value			pts		Function Resu	
-30 dBm -40 dBm -50 dBm -60 dBm CF 6.695 G Marker Type Ref	[:] Trc		e	1001 Y-value	pts			2.5 s/

Date: 31.MAR.2023 12:46:18



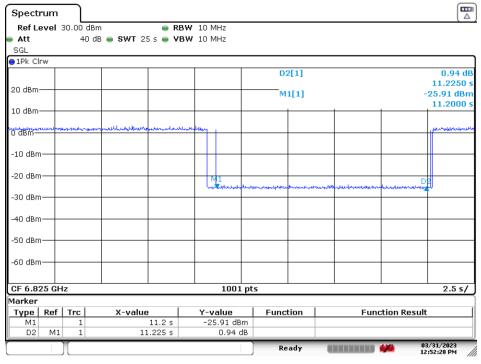


Date: 31.MAR.2023 12:50:37

Plot 7-338. Contention Based Protocol Timing Plot (160MHz (UNII Band 7) - Ch. 175 Low)

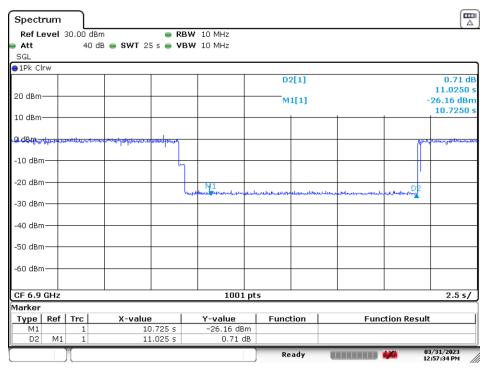
FCC ID: PY7-84558E	MEASUREMENT REPORT	Approved by: Technical Manager	
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Date: 31.MAR.2023 12:52:28

Plot 7-339. Contention Based Protocol Timing Plot (160MHz (UNII Band 7) - Ch. 175 Mid)



Date: 31.MAR.2023 12:57:33

Plot 7-340. Contention Based Protocol Timing Plot (160MHz (UNII Band 7) - Ch. 175 High)

FCC ID: PY7-84558E	MEASUREMENT REPORT Test Dates: EUT Type: 01/30/2023 - 04/18/2023 Portable Handset	Approved by: Technical Manager	
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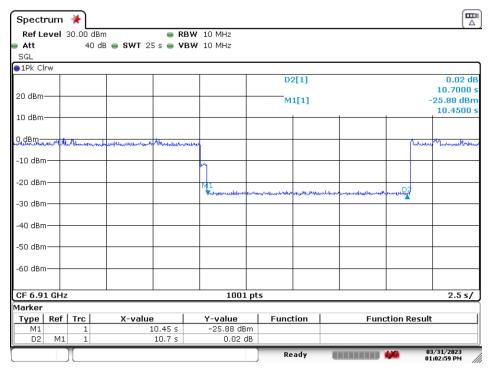
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Spectrur									
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						ady			

Date: 31.MAR.2023 13:00:56





Date: 31.MAR.2023 13:03:00

Plot 7-342. Contention Based Protocol Timing Plot (160MHz (UNII Band 8) - Ch. 207 Low)

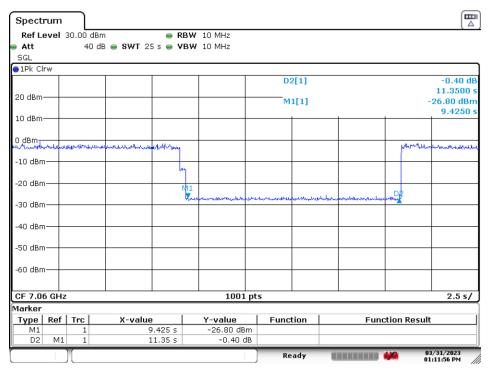
FCC ID: PY7-84558E		MEASUREMENT REPORT	
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Spectrum									
Ref Level	30.00 de	Зm	😑 RB'	W 10 MHz					
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SGL									
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					D	2[1]			0.40 dB
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-40 dBm									
10 0.0111									
-50 dBm									
-60 dBm									
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Marker									
	Trc	X-value	1	Y-value	Func	ion	Fund	ction Result	:
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					Re	ady		01 01	3/31/2023 L:05:53 PM

Date: 31.MAR.2023 13:05:54

Plot 7-343. Contention Based Protocol Timing Plot (160MHz (UNII Band 8) - Ch. 207 Mid)



Date: 31.MAR.2023 13:11:57

Plot 7-344. Contention Based Protocol Timing Plot (160MHz (UNII Band 8) - Ch. 207 High)

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7.7 Radiated Emission Measurements

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11ax (20/40/80/160MHz), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst-case emissions are reported in this section.

For transmitters operating in the 5.925-7.125 GHz band: All emissions outside of the 5.925-7.125 GHz band shall not exceed an EIRP of -27dBm/MHz (68.2dBuV/m at a 3m distance). Emissions found in a restricted band are subject to the limits of 15.209 as shown in the table below.

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400\F (kHz)	300
0.490 – 1.705 MHz	24000\F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-11. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5

Test Settings – Above 1GHz

Average Field Strength Measurements (Method AD – Average Detection)

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = power average (RMS)
- 5. Number of measurement points = 1001 (Number of points must be $\geq 2 \times \text{span}$)
- 6. Sweep time = auto
- 7. Trace (RMS) averaging was performed over at least 100 traces.

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Peak Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize.

Test Settings - Below 1GHz

Quasi-Peak Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest.
- 2. RBW = 120kHz (for emissions from 30MHz 1GHz)
- 3. Detector = quasi-peak
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize.

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

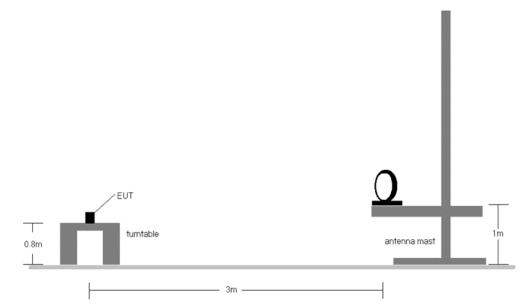
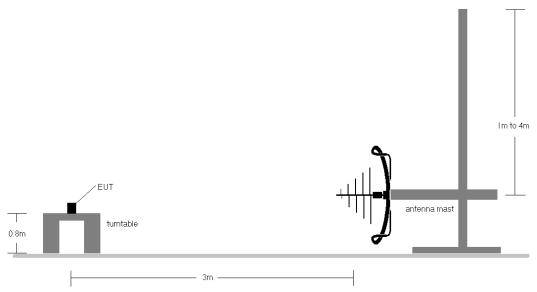
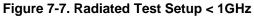


Figure 7-6. Radiated Test Setup < 30Mhz

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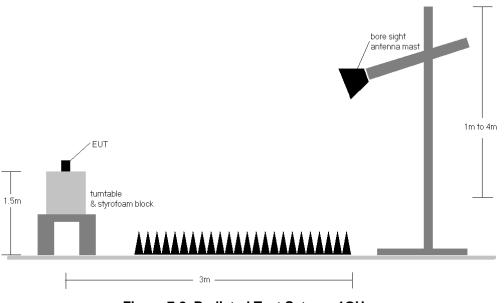


Figure 7-8. Radiated Test Setup > 1GHz

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Test Notes

- All spurious emissions lying in restricted bands specified in §15.205 are below the limits specified in §15.209. All spurious emissions that do not lie in a restricted band are subject to an average limit of -27dBm/MHz. At 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
- All spurious emissions that do not lie in a restricted band are subject to a peak limit not to exceed 20dB of the average limit [68.2dBµV/m]. If a peak measurement passes the average limit, it was determined no further investigation is necessary.
- 3. The antenna is manipulated through typical positions, polarity, and length during the tests. The EUT is manipulated through three orthogonal planes.
- 4. This unit was tested with its standard battery.
- 5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported, however emissions whose levels were not within 20dB of the respective limits were not reported.
- 6. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
- 7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 8. In the case where a peak-detector measurement passed the given RMS limit it was determined sufficient to demonstrate compliance.
- 9. The results recorded using the broadband antenna are known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.

Sample Calculations

Determining Spurious Emissions Levels

- ο Field Strength Level [dBµV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level $[dB\mu V/m]$ Limit $[dB\mu V/m]$

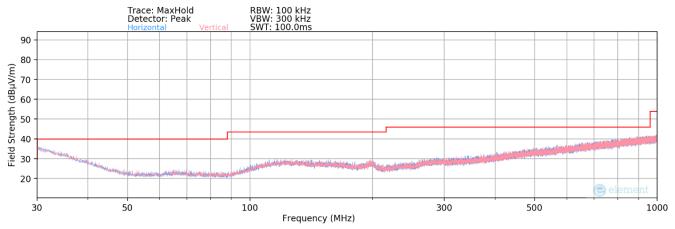
Radiated Band Edge Measurement Offset

The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula: Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

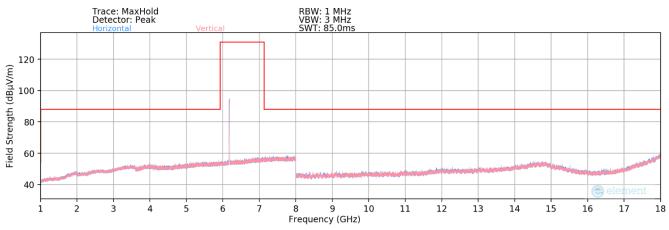
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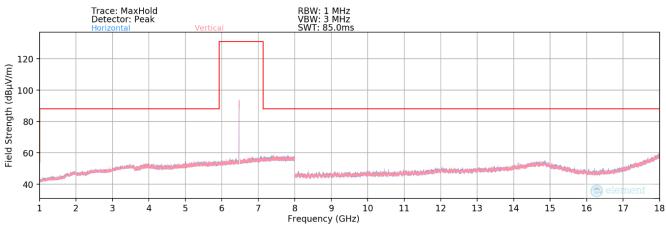
7.7.1 MIMO Radiated Spurious Emission Measurements









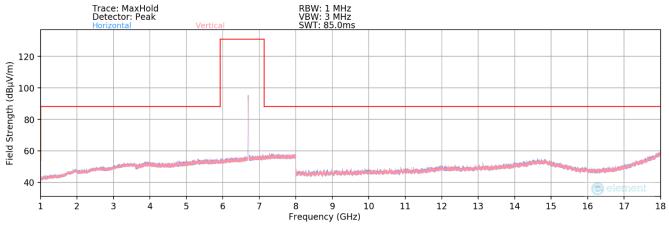


Plot 7-347. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 6 Ch. 105)

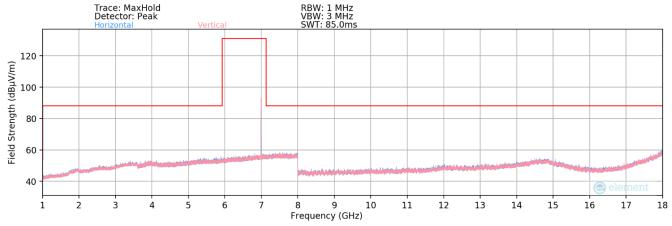
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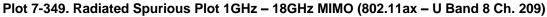
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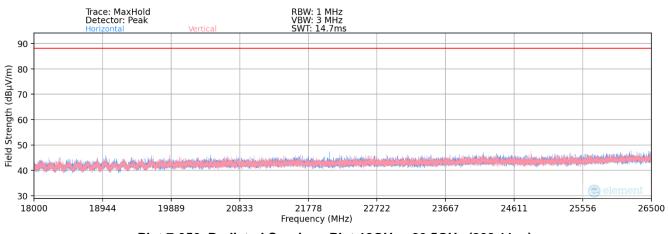








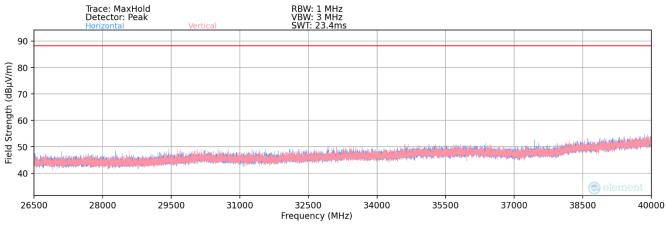






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MIMO Radiated Spurious Emission Measurements – UNII Band 5

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5955MHz
Channel:	1

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11910.00	Average	V	-	-	-78.13	9.35	0.00	38.22	53.98	-15.76
*	11910.00	Peak	V	-	-	-66.76	9.35	0.00	49.59	73.98	-24.39
*	17865.00	Average	V	-	-	-76.94	16.41	0.00	46.47	53.98	-7.51
*	17865.00	Peak	V	-	-	-64.72	16.41	0.00	58.69	73.98	-15.29
*	23820.00	Average	V	-	-	-63.21	3.04	-9.54	37.29	53.98	-16.69
*	23820.00	Peak	V	-	-	-58.51	3.04	-9.54	41.99	73.98	-31.99
	29775.00	Peak	V	-	-	-56.75	5.46	-9.54	46.17	68.20	-22.03

Table 7-12. Radiated Measurements MIMO

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6Mbps 1 & 3 Meters 6175MHz 45

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	12350.00	Average	V	-	-	-77.97	9.61	0.00	38.64	53.98	-15.34
*	12350.00	Peak	V	-	-	-66.66	9.61	0.00	49.95	73.98	-24.03
*	18525.00	Average	V	-	-	-65.01	-1.22	-9.54	31.23	53.98	-22.75
*	18525.00	Peak	V	-	-	-56.75	-1.22	-9.54	39.49	73.98	-34.49
	24700.00	Peak	V	-	-	-57.05	3.18	-9.54	43.59	68.20	-24.61
	30875.00	Peak	V	-	-	-58.19	5.98	-9.54	45.25	68.20	-22.95

Table 7-13. Radiated Measurements MIMO

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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	6175MHz
Channel:	45

Frequency [MHz]	Detector	Ant. Pol. Antenna [H/V] Height [cm]		Turntable Azimuth [degree]	Azimuth Level [dBm]		Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
316.00	Quasi-Peak	V	-	-	-93.67	21.39	34.72	46.02	-11.30

Table 7-14. Radiated Measurements MIMO below 1GHz

Worst Case Mode:802.11aWorst Case Transfer Rate:6MbpsDistance of Measurements:1 & 3 MetersOperating Frequency:6415MHzChannel:93

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	12830.00	Peak	V	-	-	-66.78	9.64	0.00	49.86	68.20	-18.34
*	19245.00	Average	V	-	-	-64.64	-0.11	-9.54	32.71	53.98	-21.26
*	19245.00	Peak	V	-	-	-55.42	-0.11	-9.54	41.93	73.98	-32.04
	25660.00	Peak	V	-	-	-54.80	3.94	-9.54	46.60	68.20	-21.60
	32075.00	Peak	V	-	-	-57.48	7.34	-9.54	47.32	68.20	-20.88

Table 7-15. Radiated Measurements MIMO

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6Mbps 1 & 3 Meters 5955MHz 1

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11910.00	Average	V	-	-	-77.98	9.35	0.00	38.37	53.98	-15.61
*	11910.00	Peak	V	-	-	-66.37	9.35	0.00	49.98	73.98	-24.00
*	17865.00	Average	V	-	-	-77.02	16.41	0.00	46.39	53.98	-7.59
*	17865.00	Peak	V	-	-	-65.57	16.41	0.00	57.84	73.98	-16.14
*	23820.00	Average	V	-	-	-68.42	3.04	-9.54	32.08	53.98	-21.90
*	23820.00	Peak	V	-	-	-56.18	3.04	-9.54	44.31	73.98	-29.66
	29775.00	Peak	V	-	-	-55.97	5.46	-9.54	46.94	68.20	-21.26

Table 7-16. Radiated Measurements MIMO with WCP

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MIMO Radiated Spurious Emission Measurements – UNII Band 6

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	6435MHz
Channel:	97

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	12870.00	Peak	V	-	-	-66.76	10.05	0.00	50.29	68.20	-17.91
*	19305.00	Average	V	-	-	-64.53	0.19	-9.54	33.12	53.98	-20.86
*	19305.00	Peak	V	-	-	-55.41	0.19	-9.54	42.24	73.98	-31.74
	25740.00	Peak	V	-	-	-54.35	3.95	-9.54	47.06	68.20	-21.14
	32175.00	Peak	V	-	-	-55.84	7.80	-9.54	49.42	68.20	-18.78

Table 7-17. Radiated Measurements MIMO

Worst Case Mode: Worst Case Transfer Rate: **Distance of Measurements: Operating Frequency:** Channel:

802.11a
6Mbps
1 & 3 Meters
6475MHz
105

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	12950.00	Peak	V	-	-	-66.74	10.13	0.00	50.39	68.20	-17.81
*	19425.00	Average	V	-	-	-64.24	-0.20	-9.54	33.02	53.98	-20.96
*	19425.00	Peak	V	-	-	-55.94	-0.20	-9.54	41.32	73.98	-32.66
	25900.00	Peak	V	-	-	-54.10	4.02	-9.54	47.38	68.20	-20.82
	32375.00	Peak	V	-	-	-55.73	7.70	-9.54	49.43	68.20	-18.77

Table 7-18. Radiated Measurements MIMO

FCC ID: PY7-84558E		MEASUREMENT REPORT				
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Worst Case Mode:	802.11a		
Worst Case Transfer Rate:	6Mbps		
Distance of Measurements:	1 & 3 Meters		
Operating Frequency:	6515MHz		
Channel:	113		

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	13030.00	Peak	V	-	-	-65.80	10.12	0.00	51.32	68.20	-16.88
*	19545.00	Average	V	-	-	-65.02	-0.06	-9.54	32.38	53.98	-21.60
*	19545.00	Peak	V	-	-	-55.11	-0.06	-9.54	42.29	73.98	-31.69
	26060.00	Peak	V	-	-	-54.27	4.42	-9.54	47.61	68.20	-20.59
	32575.00	Peak	V	-	-	-55.07	7.53	-9.54	49.92	68.20	-18.28

Table 7-19. Radiated Measurements MIMO

Worst Case Mode:	802.1
Worst Case Transfer Rate:	6Mbp
Distance of Measurements:	1 & 3
Operating Frequency:	6515
Channel:	113

	802.11a
:	6Mbps
5:	1 & 3 Meters
	6515MHz
	113

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	13030.00	Peak	V	-	-	-65.60	10.12	0.00	51.52	68.20	-16.68
*	19545.00	Average	V	-	-	-65.54	-0.06	-9.54	31.86	53.98	-22.12
*	19545.00	Peak	V	-	-	-54.45	-0.06	-9.54	42.95	73.98	-31.03
	26060.00	Peak	V	-	-	-55.46	4.42	-9.54	46.42	68.20	-21.78
	32575.00	Peak	V	-	-	-54.50	7.53	-9.54	50.49	68.20	-17.71

Table 7-20. Radiated Measurements MIMO with WCP

FCC ID: PY7-84558E		Approved by: Technical Manager	
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MIMO Radiated Spurious Emission Measurements – UNII Band 7

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	6695MHz
Channel:	117

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	13070.00	Peak	V	-	-	-66.81	10.15	0.00	50.34	68.20	-17.86
*	19605.00	Average	V	-	-	-64.61	0.17	-9.54	33.02	53.98	-20.96
*	19605.00	Peak	V	-	-	-54.32	0.17	-9.54	43.31	73.98	-30.67
	26140.00	Peak	V	-	-	-55.48	4.31	-9.54	46.29	68.20	-21.91
	32675.00	Peak	V	-	-	-55.69	7.84	-9.54	49.61	68.20	-18.59

Table 7-21. Radiated Measurements MIMO

Worst Case Mode:						
Worst Case Transfer Rate:						
Distance of Measurements:						
Operating Frequency:						
Channel:						

<u>802.11a</u>
6Mbps
1 & 3 Meters
6695MHz
149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	13390.00	Average	V	-	-	-78.04	10.35	0.00	39.31	53.98	-14.67
*	13390.00	Peak	V	-	-	-66.54	10.35	0.00	50.81	73.98	-23.17
*	20085.00	Average	V	-	-	-63.12	0.30	-9.54	34.64	53.98	-19.34
*	20085.00	Peak	V	-	-	-54.64	0.30	-9.54	43.12	73.98	-30.86
	26780.00	Peak	V	-	-	-55.38	4.61	-9.54	46.69	68.20	-21.51
	33475.00	Peak	V	-	-	-54.76	9.50	-9.54	52.20	68.20	-16.00

Table 7-22. Radiated Measurements MIMO

FCC ID: PY7-84558E		MEASUREMENT REPORT	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	Test Dates: EUT Type:			
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	6875MHz
Channel:	185

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	13750.00	Peak	V	-	-	-66.78	11.07	0.00	51.29	68.20	-16.91
*	20625.00	Average	V	-	-	-65.34	0.61	-9.54	32.73	53.98	-21.25
*	20625.00	Peak	V	-	-	-55.69	0.61	-9.54	42.38	73.98	-31.60
	27500.00	Peak	V	-	-	-54.32	4.81	-9.54	47.95	68.20	-20.25
	34375.00	Peak	V	-	-	-55.19	11.22	-9.54	53.49	68.20	-14.71

Table 7-23. Radiated Measurements MIMO

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	6695MHz
Channel:	149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	13390.00	Average	V	-	-	-77.84	10.35	0.00	39.51	53.98	-14.47
*	13390.00	Peak	V	-	-	-66.68	10.35	0.00	50.67	73.98	-23.31
*	20085.00	Average	V	-	-	-66.56	0.30	-9.54	31.20	53.98	-22.78
*	20085.00	Peak	V	-	-	-55.71	0.30	-9.54	42.05	73.98	-31.93
	26780.00	Peak	V	-	-	-56.01	4.61	-9.54	46.06	68.20	-22.14
	33475.00	Peak	V	-	-	-55.12	9.50	-9.54	51.83	68.20	-16.37

Table 7-24. Radiated Measurements MIMO with WCP

FCC ID: PY7-84558E		MEASUREMENT REPORT			
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MIMO Radiated Spurious Emission Measurements – UNII Band 8

Worst Case Mode:802.11aWorst Case Transfer Rate:6MbpsDistance of Measurements:1 & 3 MetersOperating Frequency:6895MHzChannel:189

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	13790.00	Peak	V	-	-	-66.45	11.00	0.00	51.55	68.20	-16.65
*	20685.00	Average	V	-	-	-64.26	0.88	-9.54	34.08	53.98	-19.90
*	20685.00	Peak	V	-	-	-55.39	0.88	-9.54	42.95	73.98	-31.03
	27580.00	Peak	V	-	-	-54.70	5.07	-9.54	47.83	68.20	-20.37
	34475.00	Peak	V	-	-	-55.08	11.03	-9.54	53.41	68.20	-14.79

Table 7-25. Radiated Measurements MIMO

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6Mbps 1 & 3 Meters 6995MHz 209

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	13990.00	Peak	V	-	-	-65.62	11.26	0.00	52.64	68.20	-15.56
*	20985.00	Average	V	-	-	-65.23	1.17	-9.54	33.40	53.98	-20.58
*	20985.00	Peak	V	-	-	-54.91	1.17	-9.54	43.72	73.98	-30.26
	27980.00	Peak	V	-	-	-55.24	5.33	-9.54	47.55	68.20	-20.65
	34975.00	Peak	V	-	-	-55.68	11.76	-9.54	53.53	68.20	-14.67

Table 7-26. Radiated Measurements MIMO

FCC ID: PY7-84558E		MEASUREMENT REPORT				
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	7115MHz
Channel:	233

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	14230.00	Peak	V	-	-	-65.37	12.13	0.00	53.76	68.20	-14.44
*	21345.00	Average	V	-	-	-64.33	1.54	-9.54	34.67	53.98	-19.31
*	21345.00	Peak	V	-	-	-55.41	1.54	-9.54	43.59	73.98	-30.39
	28460.00	Peak	V	-	-	-55.78	5.22	-9.54	46.90	68.20	-21.30
	35575.00	Peak	V	-	-	-56.47	11.58	-9.54	52.57	68.20	-15.63

Table 7-27. Radiated Measurements MIMO

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	7115MHz
Channel:	233

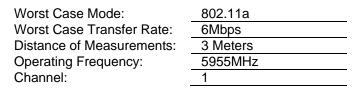
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	14230.00	Peak	V	-	-	-65.53	12.13	0.00	53.60	68.20	-14.60
*	21345.00	Average	V	-	-	-66.54	1.54	-9.54	32.45	53.98	-21.53
*	21345.00	Peak	V	-	-	-55.25	1.54	-9.54	43.75	73.98	-30.23
	28460.00	Peak	V	-	-	-59.68	5.22	-9.54	42.99	68.20	-25.21
	35575.00	Peak	V	-	-	-55.76	11.58	-9.54	53.28	68.20	-14.92

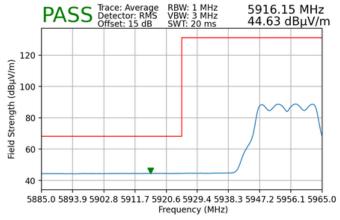
Table 7-28. Radiated Measurements MIMO with WCP

FCC ID: PY7-84558E	MEASUREMENT REPORT		Approved by: Technical Manager	
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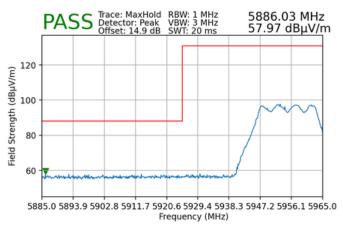


7.7.2 MIMO Radiated Band Edge Measurements (20MHz BW)





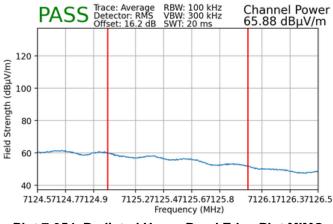
Plot 7-352. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)

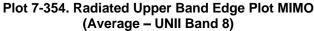


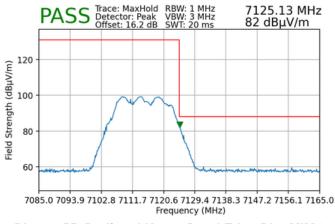
Plot 7-353. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5)

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

	802.11a
: :	6Mbps
s:	3 Meters
	7115MHz
	233





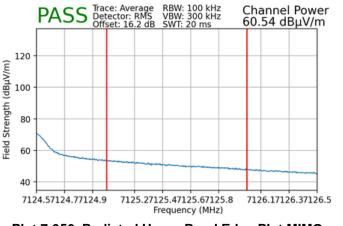


Plot 7-355. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8)

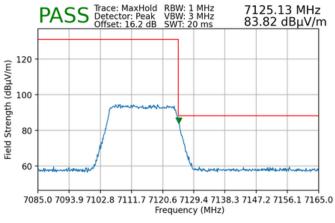
FCC ID: PY7-84558E	MEASUREMENT REPORT		Approved by: Technical Manager	
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233



Plot 7-356. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8) with WCP

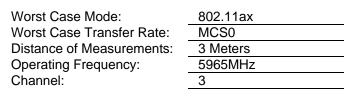


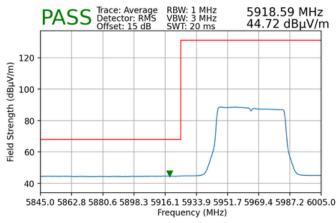
Plot 7-357. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8) with WCP

FCC ID: PY7-84558E	MEASUREMENT REPORT		Approved by: Technical Manager	
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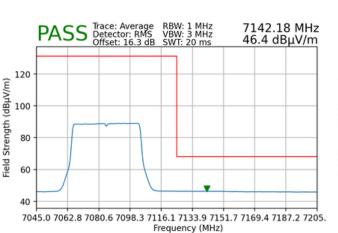
7.7.3 MIMO Radiated Band Edge Measurements (40MHz BW)

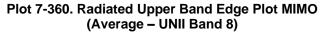


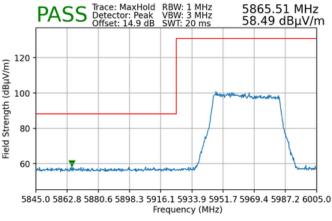


Plot 7-358. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)

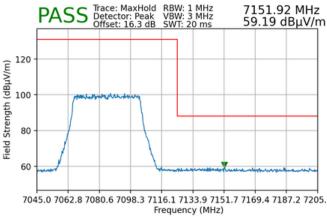
Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:







Plot 7-359. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5)

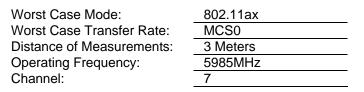


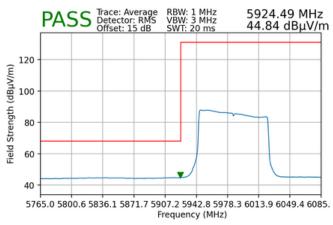
Plot 7-361. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8)

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7.7.4 MIMO Radiated Band Edge Measurements (80MHz BW)

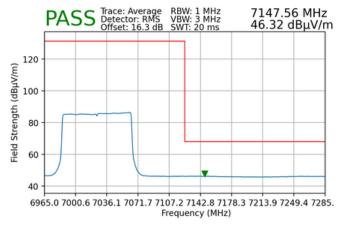


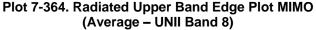


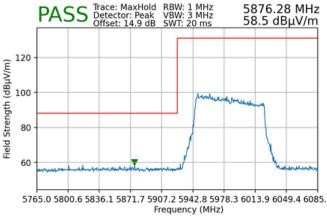
Plot 7-362. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

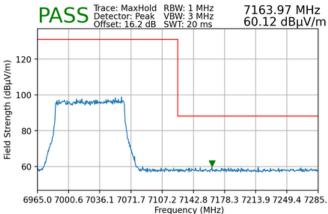
	802.11ax
e:	MCS0
ts:	3 Meters
	7025MHz
	215







Plot 7-363. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5)

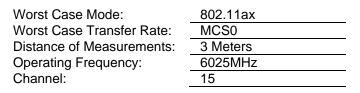


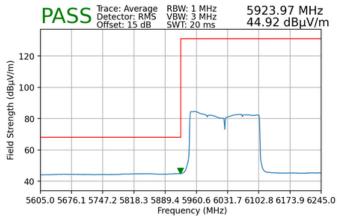


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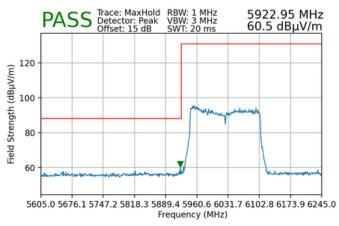


7.7.5 MIMO Radiated Band Edge Measurements (160MHz BW)





Plot 7-366. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5)

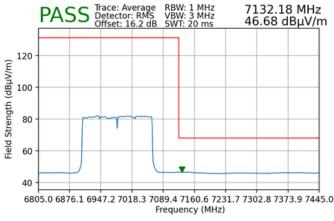


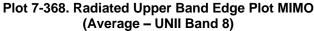
Plot 7-367. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5)

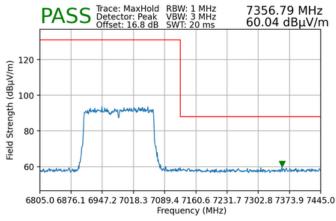
Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

Worst Case Mode:

	802.11ax
e:	MCS0
ts:	3 Meters
	6985MHz
	207







Plot 7-369. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8)

FCC ID: PY7-84558E	MEASUREMENT REPORT		Approved by: Technical Manager	
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7.8 Line Conducted Test Data

Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst-case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207.

Frequency of emission (MHz)	Conducted Limit (dBµV)		
	Quasi-peak	Average	
0.15 – 0.5	66 to 56*	56 to 46*	
0.5 – 5	56	46	
5 – 30	60	50	

Table 7-29. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the spurious emission of interest.
- 2. RBW = 9kHz (for emissions from 150kHz 30MHz)
- 3. Detector = quasi-peak
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize.

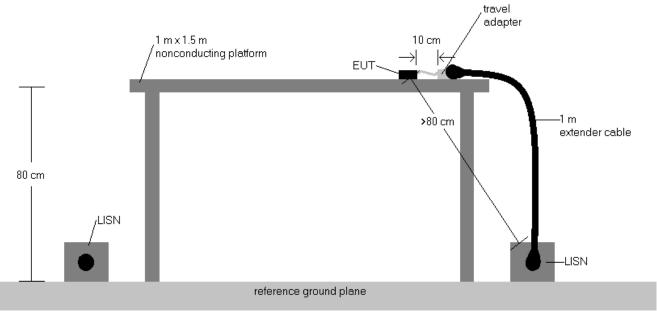
Average Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the spurious emission of interest.
- 2. RBW = 9kHz (for emissions from 150kHz 30MHz)
- 3. Detector = RMS
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize.

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The EUT and measurement equipment were set up as shown in the diagram below.





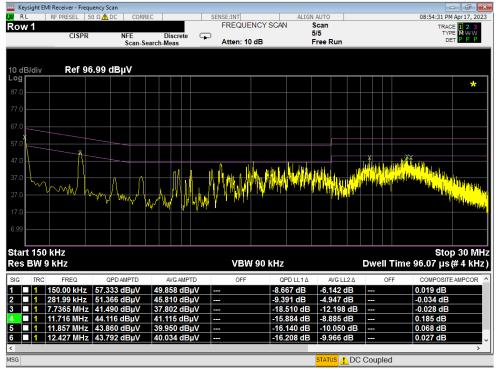
Test Notes

- 1. All modes of operation were investigated, and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
- 2. The limit for an intentional radiator from 150kHz to 30MHz is specified in 15.207.
- 3. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
- 4. QP/AV Level (dB μ V) = QP/AV Analyzer/Receiver Level (dB μ V) + Corr. (dB)
- 5. Margin (dB) = QP/AV Limit (dB μ V) QP/AV Level (dB μ V)
- 6. Traces shown in plot are made using a peak detector.
- 7. Deviations to the Specifications: None.

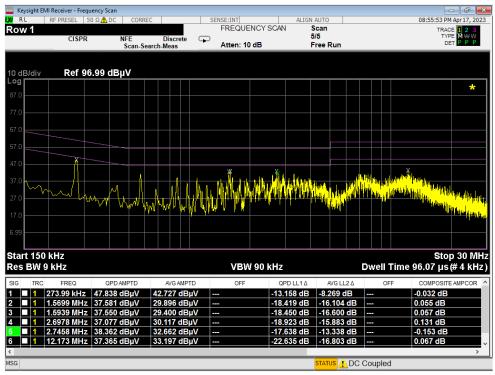
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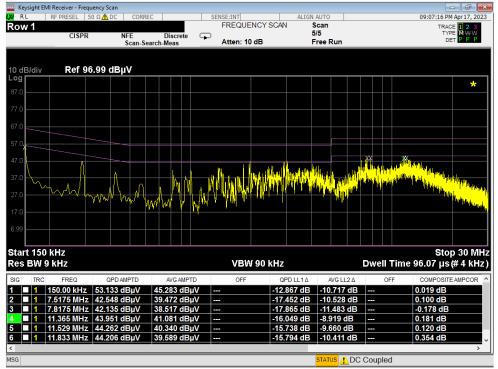
Plot 7-370. Line Conducted Plot with 802.11a UNII Band 5 (L1)



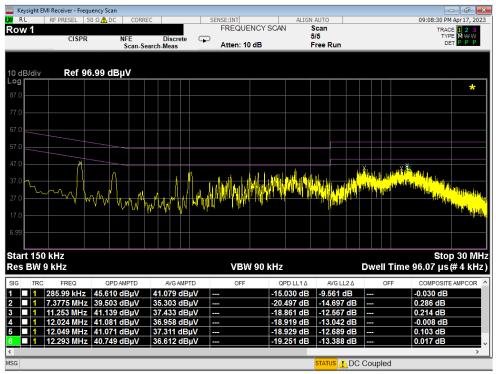
Plot 7-371. Line Conducted Plot with 802.11a UNII Band 5 (N)

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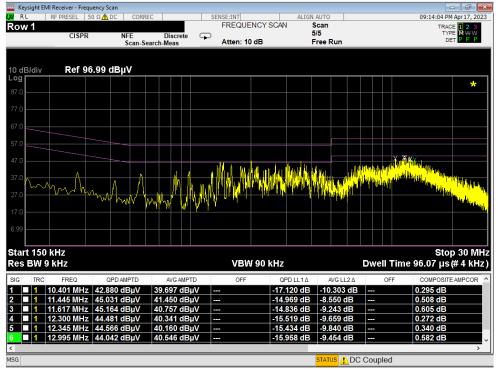
Plot 7-372. Line Conducted Plot with 802.11a UNII Band 6 (L1)



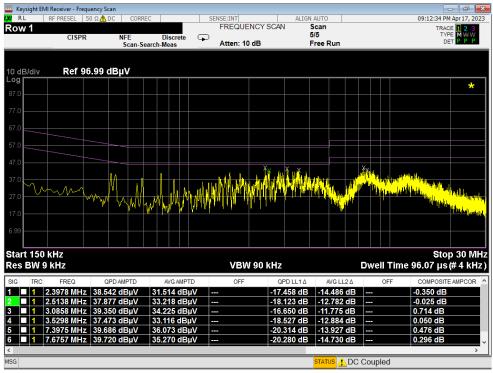
Plot 7-373. Line Conducted Plot with 802.11a UNII Band 6 (N)

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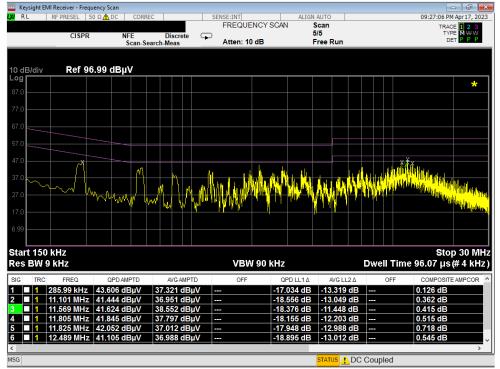
Plot 7-374. Line Conducted Plot with 802.11a UNII Band 7 (L1)



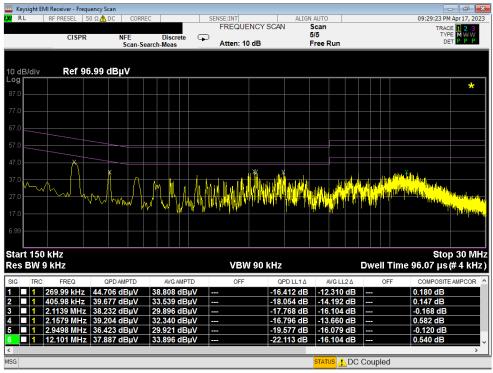
Plot 7-375. Line Conducted Plot with 802.11a UNII Band 7 (N)

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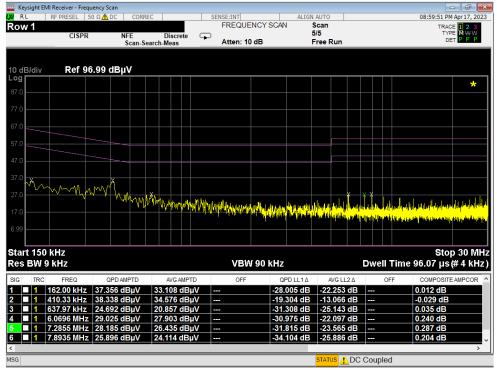
Plot 7-376. Line Conducted Plot with 802.11a UNII Band 8 (L1)



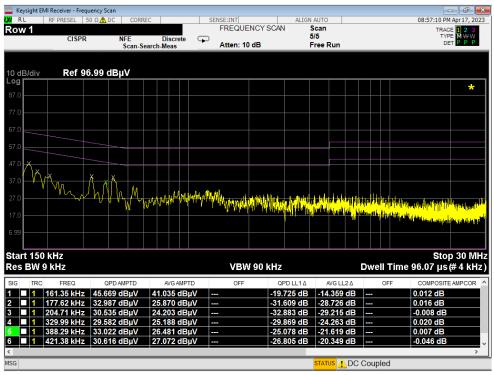
Plot 7-377. Line Conducted Plot with 802.11a UNII Band 8 (N)

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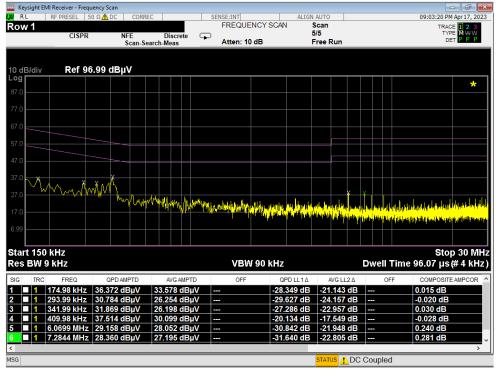
Plot 7-378. Line Conducted Plot with 802.11a UNII Band 5 (L1) with WCP



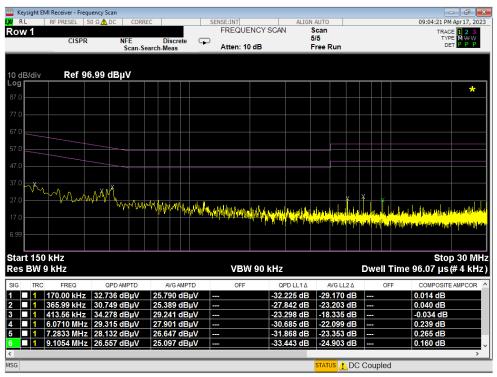
Plot 7-379. Line Conducted Plot with 802.11a UNII Band 5 (N) with WCP

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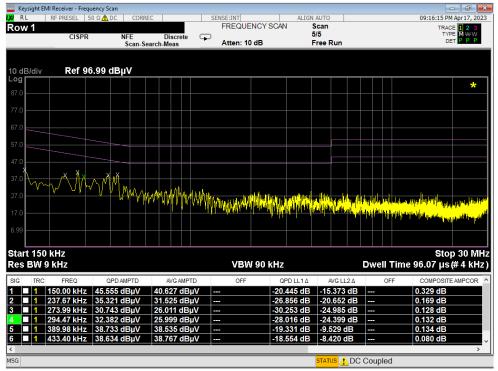
Plot 7-380. Line Conducted Plot with 802.11a UNII Band 6 (L1) with WCP



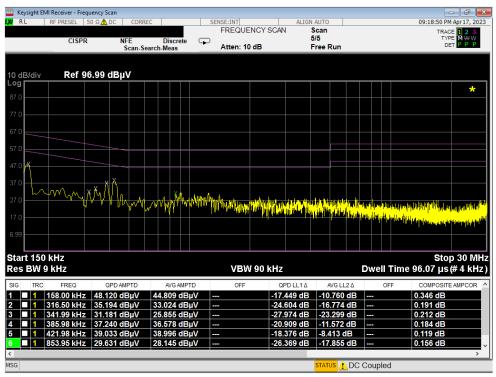
Plot 7-381. Line Conducted Plot with 802.11a UNII Band 6 (N) with WCP

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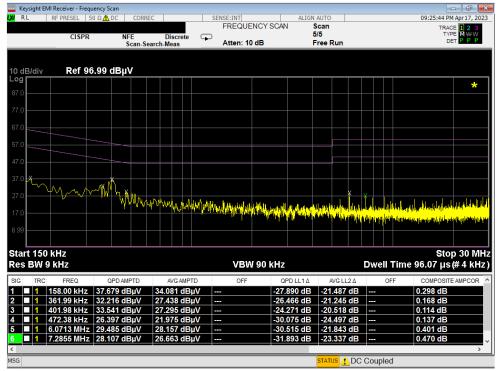
Plot 7-382. Line Conducted Plot with 802.11a UNII Band 7 (L1) with WCP



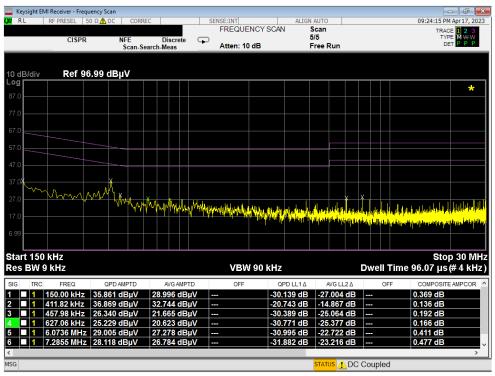
Plot 7-383. Line Conducted Plot with 802.11a UNII Band 7 (N) with WCP

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Plot 7-384. Line Conducted Plot with 802.11a UNII Band 8 (L1) with WCP



Plot 7-385. Line Conducted Plot with 802.11a UNII Band 8 (N) with WCP

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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Sony Portable Handset FCC: PY7-84558E** is in compliance with FCC Part Subpart E (15.407) of the FCC rules for operation as a client device.

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