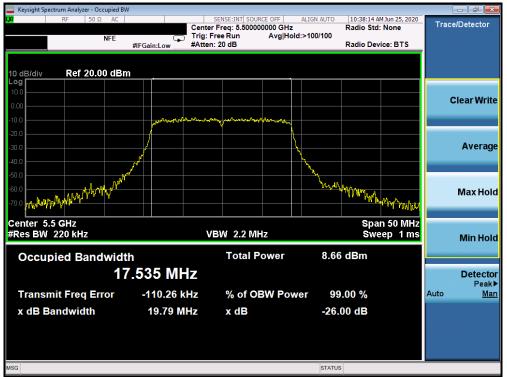


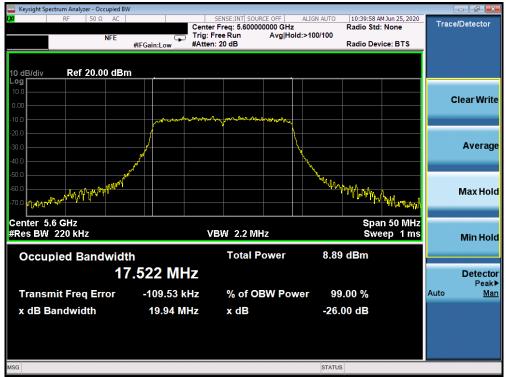
Plot 7-84. 26dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 2C) - Ch. 144)



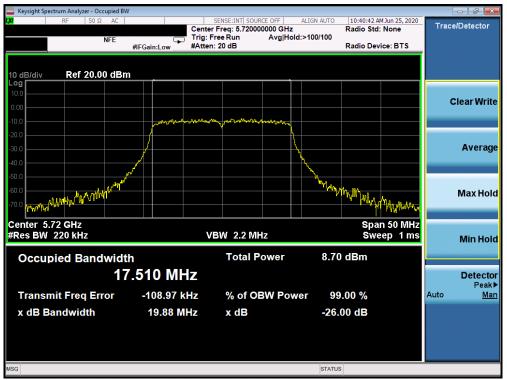
Plot 7-85. 26dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) - Ch. 100)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @remine	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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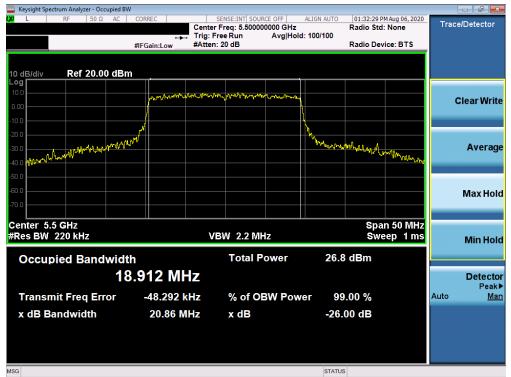
Plot 7-86. 26dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) - Ch. 120)



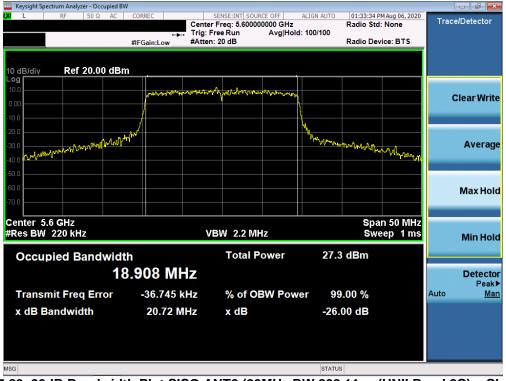
Plot 7-87. 26dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) - Ch. 144)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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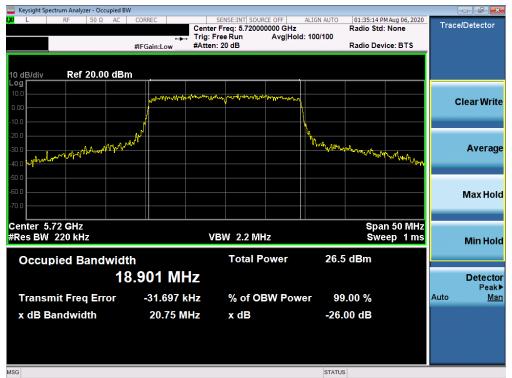
Plot 7-88. 26dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 100)



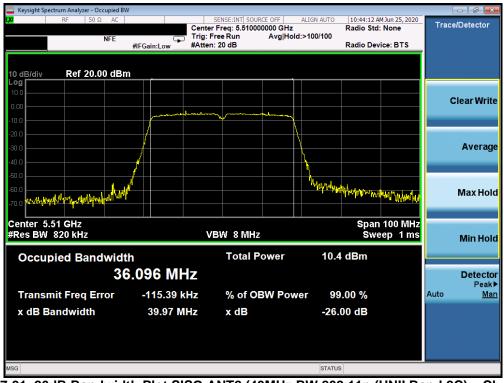
Plot 7-89. 26dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMF916U	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-90. 26dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 144)



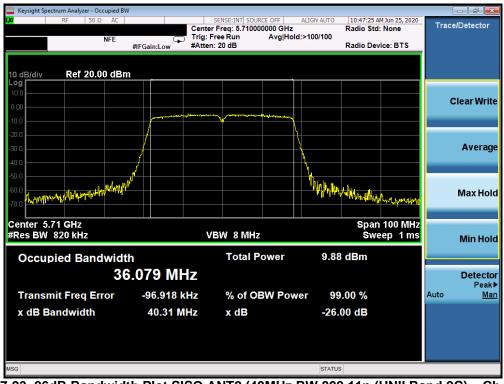
Plot 7-91. 26dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMF916U	PCTEST Froud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUND	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW							
<b>LX</b> RF 50 Ω AC	Ce	SENSE:INT SOURC		10:46:33 Al Radio Std:	M Jun 25, 2020	Trace	/Detector
NFE	Tri	g: Free Run	Avg Hold:>100/100				
#IF	Gain:Low #At	tten: 20 dB		Radio Dev	ice: BTS		
10 dB/div Ref 20.00 dBm							
Log 10.0							
0.00						c	lear Write
-10.0	- mangager and	~~~~					
-20.0	}		N				
-30.0	1		N				Average
							Average
-40.0							
-50.0			We find	ndhu			
-60.0 -70.0 May 10				htter and a frence	AND AND AND A		Max Hold
-70.0							
Center 5.59 GHz				Span	100 MHz		
#Res BW 820 kHz		VBW 8 MHz		Swe	ep 1 ms		Min Hold
							MITTOIG
Occupied Bandwidth		Total Po	ower 10	.3 dBm			
36.0	)55 MHz						Detector
				00.00		A	Peak▶
Transmit Freq Error	-101.72 kHz	% of OB	W Power	99.00 %		Auto	<u>Man</u>
x dB Bandwidth	40.19 MHz	x dB	-2	6.00 dB			
MSG			STA	rus			

Plot 7-92. 26dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) - Ch. 118)



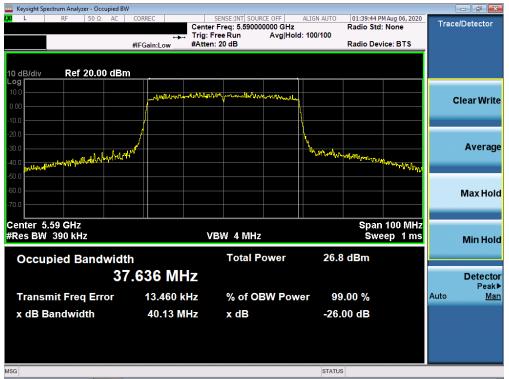
Plot 7-93. 26dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-94. 26dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 102)



Plot 7-95. 26dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 118)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ Commerce	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-96. 26dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 142)



Plot 7-97. 26dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 106)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW						
<b>LXU</b> RF 50 Ω AC	Taina	SENSE:INT SOURCE OFF Freq: 5.610000000 GHz Free Run Avg Hol	ALIGN AUTO 10:50:38 Radio St Id:>100/100	AM Jun 25, 2020 td: None	Tracel	Detector
NFE		n: 20 dB		evice: BTS		
10 dB/div Ref 20.00 dBm						
Log 10.0						
0.00					CI	ear Write
-10.0		And Althouse the second and a second s				
-20.0			<u>}</u>			
-30.0			1			Average
-40.0	<u></u>					_
-50.0						
-60.0						Max Hold
-70.0 4.4 4.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4			MANAMENTAL	water of the fill with		
Center 5.61 GHz			Ena	n 200 MHz		
#Res BW 820 kHz	Ň	/BW 8 MHz		veep 1 ms		Min Hold
		T-4-1 D	9.87 dBm			minnona
Occupied Bandwidth		Total Power	9.87 aBm			
75	410 MHz					Detector Peak►
Transmit Freq Error	-179.31 kHz	% of OBW Pow	ver 99.00 %		Auto	Peak► <u>Man</u>
x dB Bandwidth	81.17 MHz	x dB	-26.00 dB			
MSG			STATUS			

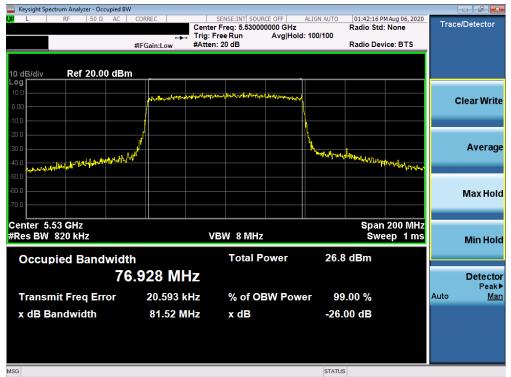
Plot 7-98. 26dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 122)



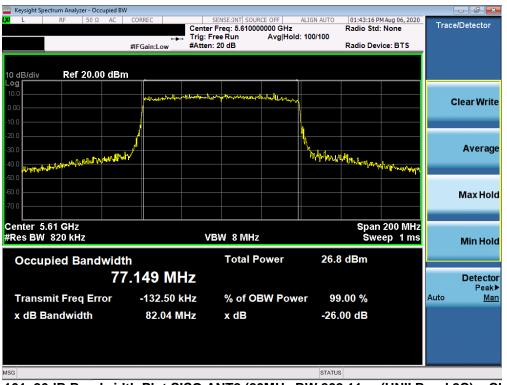
Plot 7-99. 26dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ manine	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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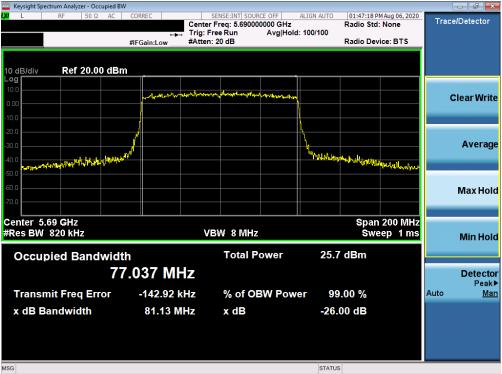
Plot 7-100. 26dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 106)



Plot 7-101. 26dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMF916U	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-102. 26dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## 7.3 6dB Bandwidth Measurement – 802.11a/n/ac/ax

## §15.407 (e); RSS-Gen [6.2]

#### **Test Overview and Limit**

The bandwidth at 6dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 6dB bandwidth.

#### In the 5.725 – 5.850GHz band, the 6dB bandwidth must be $\geq$ 500 kHz.

#### **Test Procedure Used**

ANSI C63.10-2013 – Section 6.9.2 KDB 789033 D02 v02r01 – Section C

#### **Test Settings**

- The signal analyzers' automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 6. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
- 2. RBW = 100 kHz
- 3. VBW <u>></u> 3 x RBW
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep = auto couple

#### Test Setup

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



Figure 7-2. Test Instrument & Measurement Setup

#### Test Notes

None.

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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
	5745	149	а	6	16.33
	5785	157	а	6	16.27
	5825	165	а	6	16.31
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	17.32
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	17.31
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	17.22
e	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	18.53
Band	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	18.76
ä	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	18.89
	5755	151	n (40MHz)	13.5/15 (MCS0)	35.30
	5795	159	n (40MHz)	13.5/15 (MCS0)	36.17
	5755	151	ax (40MHz)	13.5/15 (MCS0)	37.67
	5795	159	ax (40MHz)	13.5/15 (MCS0)	37.76
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	76.78
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	75.88

Table 7-4. Conducted Bandwidth Measurements SISO ANT1



Plot 7-103. 6dB Bandwidth Plot SISO ANT1 (802.11a (UNII Band 3) - Ch. 149)

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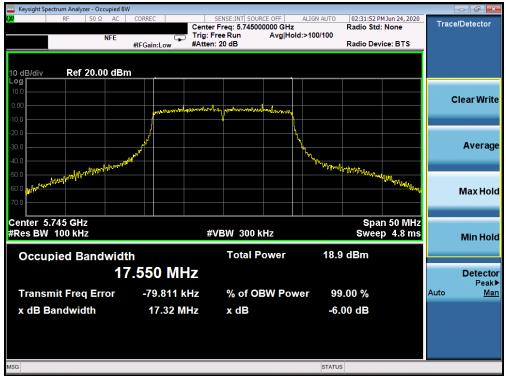
Plot 7-104. 6dB Bandwidth Plot SISO ANT1 (802.11a (UNII Band 3) - Ch. 157)



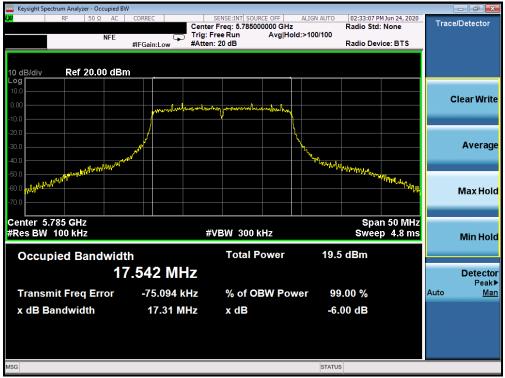
Plot 7-105. 6dB Bandwidth Plot SISO ANT1 (802.11a (UNII Band 3) - Ch. 165)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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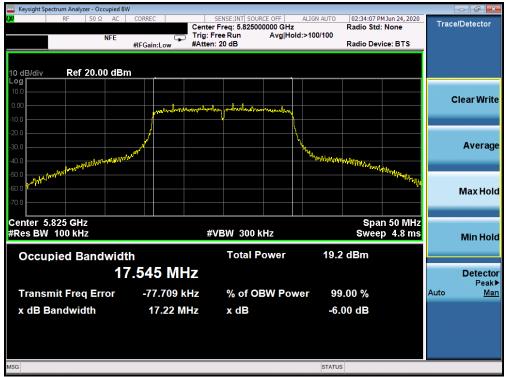
Plot 7-106. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) - Ch. 149)



Plot 7-107. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ immini	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-108. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) - Ch. 165)



Plot 7-109. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) – Ch. 149)

FCC ID: A3LSMF916U	PCTEST Provid to be part of @remove	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 74 of 242
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Keysight Spectrum Analyzer - Occupied BW				
IXI R L RF 50 Ω AC CORRE	C SENSE:INT S		05:48:44 PM Jul 28, 2020 Radio Std: None	Trace/Detector
	🛶 Trig: Free Run	Avg Hold: 100/100		
#IFGa	in:Low #Atten: 20 dB		Radio Device: BTS	r
10 dB/div Ref 20.00 dBm				
10.0				
0.00	www.www.www.www.www.www.www.www.	-les marky my		Clear Write
-10.0				
-20.0				
-20.0		* YANNALA	Allow and and and and and	Average
-40.0 MN***			an sectory	
-50.0				
-50.0				
				Max Hold
-70.0				
Center 5.785 GHz			Span 50 MHz	
#Res BW 100 kHz	#VBW 30	0 kHz	Sweep 4.8 ms	Min Hold
		B	5 J.D	
Occupied Bandwidth		Power 27.	5 dBm	
18.92	0 MHz			Detector
Tronowit From Frank	2.323 kHz % of	OBW Power 99	9.00 %	Peak▶ Auto Man
· ·				Auto <u>iman</u>
x dB Bandwidth	18.76 MHz x dB	-6,	.00 dB	
MSG		STATU	IS	·

Plot 7-110. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 157)



Plot 7-111. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 165)

FCC ID: A3LSMF916U	PCTEST Froud to be part of @ immer	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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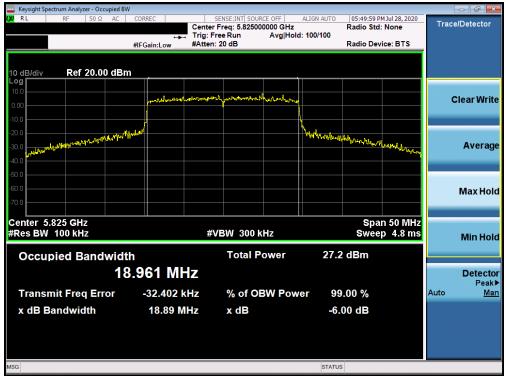
Plot 7-112. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 149)



Plot 7-113. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 157)

FCC ID: A3LSMF916U	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUND	Approved by: Quality Manager
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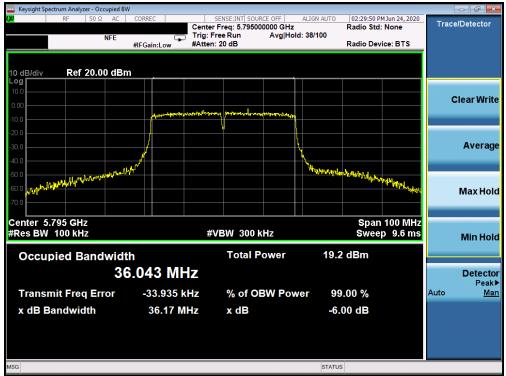
Plot 7-114. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 165)



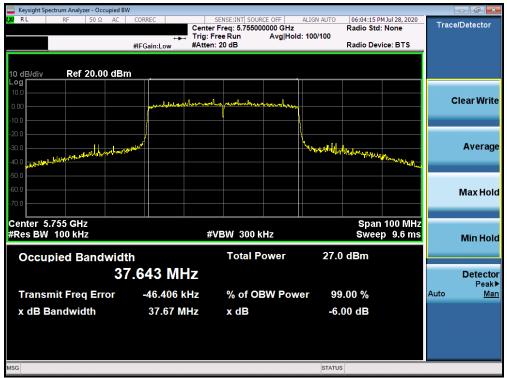
Plot 7-115. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) - Ch. 151)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-116. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) - Ch. 159)



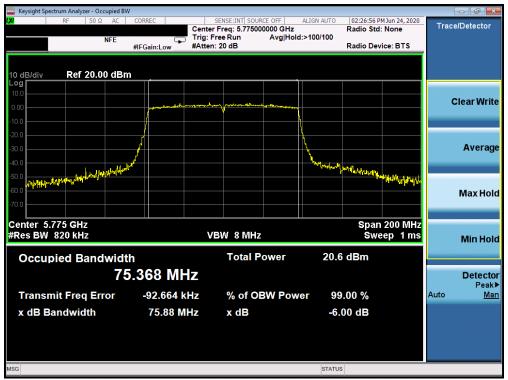
Plot 7-117. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 3) - Ch. 151)

FCC ID: A3LSMF916U	PCTEST Provid to be part of @remove	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-118. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 3) - Ch. 159)



Plot 7-119. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied B	W				
XX RL RF 50Ω AC	CORREC	SENSE:INT SOURCE OFF		6:10:54 PM Jul 28, 2020 adio Std: None	Trace/Detector
	Trig:	Free Run Avg Hold	d: 100/100		
	#IFGain:Low #Atter	n: 20 dB	Ra	adio Device: BTS	
10 dB/div Ref 20.00 dB	m				
Log 10.0					
0.00					Clear Write
	pello and and and and	and moth manufacture where	<b>\</b>		
-10.0					
-20.0					
-30.0			Nu .		Average
-40.0	nhyle -		The all the good	maty many high the ward	
-50.0 performations				and the state of t	
-60.0					Max Hold
-70.0					
Center 5.775 GHz #Res BW 100 kHz		VBW 300 kHz		Span 200 MHz weep 19.13 ms	
#Res BW TOO KHZ	#			weep 19.15 ms	Min Hold
Occupied Bandwid	th	Total Power	26.1 dl	Bm	
	7.077 MHz				Detector
<i>1</i>					Detector Peak▶
Transmit Freq Error	-39.468 kHz	% of OBW Pow	ver 99.00	) %	Auto <u>Man</u>
x dB Bandwidth	76.78 MHz	x dB	-6.00	dB	
		X UD	-0.00	uв	
MSG			STATUS		

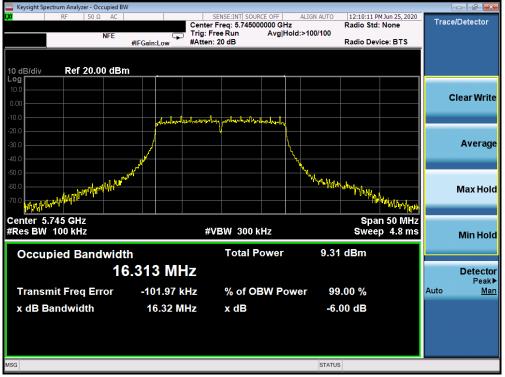
Plot 7-120. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 3) - Ch. 155)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
	5745	149	а	6	16.32
	5785	157	а	6	16.31
	5825	165	а	6	16.32
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	16.86
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	17.27
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	16.83
e	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	18.87
Band	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	18.90
ä	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	18.32
	5755	151	n (40MHz)	13.5/15 (MCS0)	35.52
	5795	159	n (40MHz)	13.5/15 (MCS0)	35.49
	5755	151	ax (40MHz)	13.5/15 (MCS0)	37.67
	5795	159	ax (40MHz)	13.5/15 (MCS0)	37.76
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	75.34
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	77.97

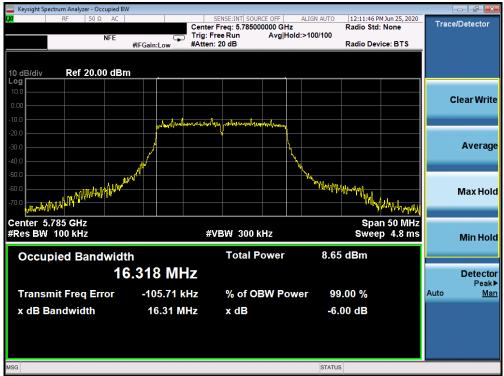
Table 7-5. Conducted Bandwidth Measurements SISO ANT2



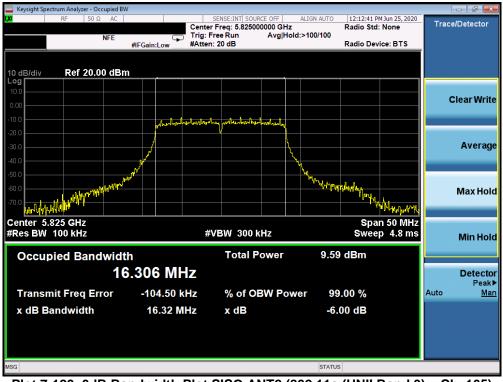
Plot 7-121. 6dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 149)

FCC ID: A3LSMF916U	PCTEST Provid to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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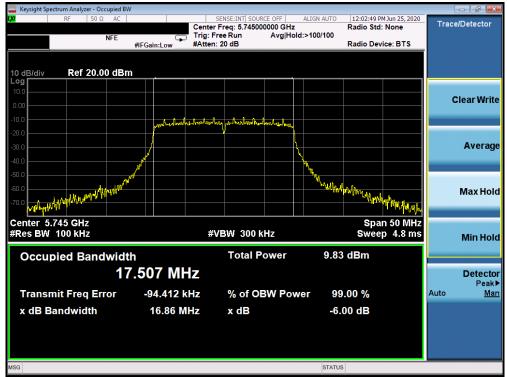
Plot 7-122. 6dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 157)



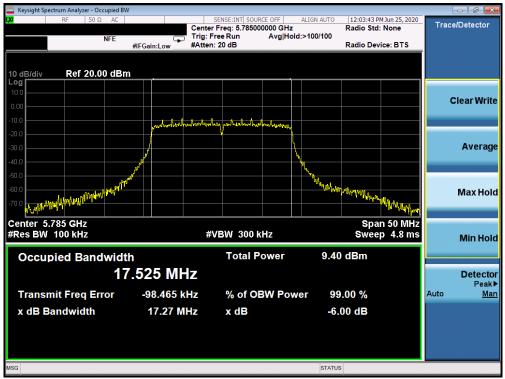
Plot 7-123. 6dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 165)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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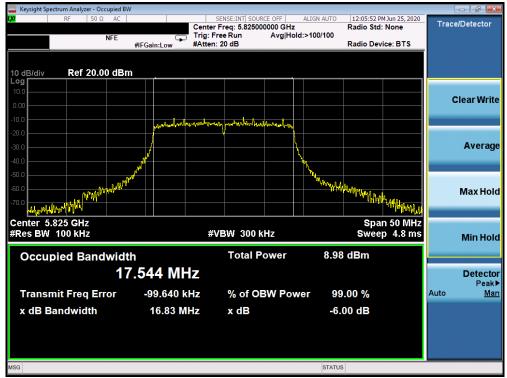
Plot 7-124. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 149)



Plot 7-125. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

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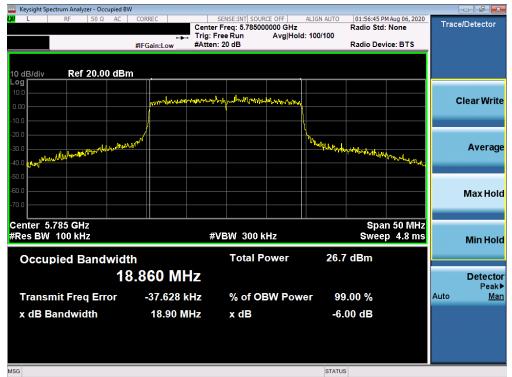
Plot 7-126. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 165)



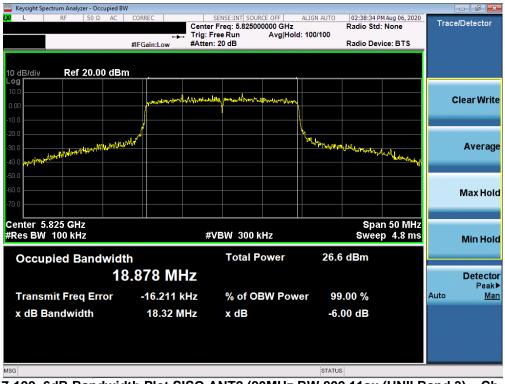
Plot 7-127. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 149)

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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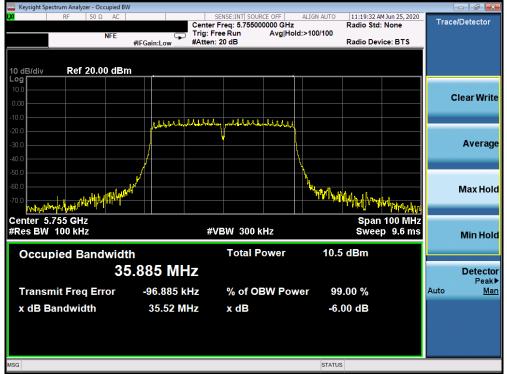
Plot 7-128. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 157)



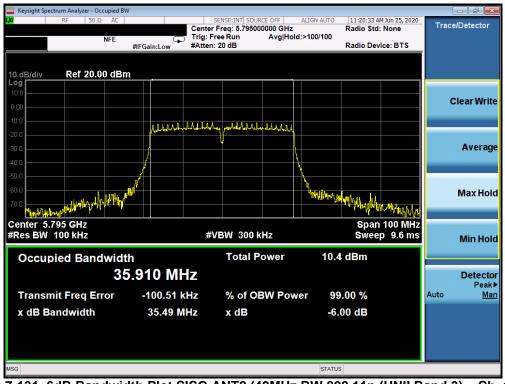
Plot 7-129. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 165)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ Commerce	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-130. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) - Ch. 151)



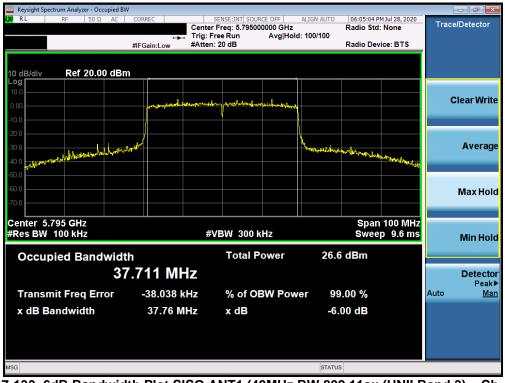
Plot 7-131. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) - Ch. 159)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ Financian	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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🤤 Keysight Spectrum Analyzer - Occupied BV	V					
LXXIRL RF 50Ω AC	CORREC	SENSE:INT SOURCE OFF	ALIGN AUTO 06:04:15 F Radio Std	M Jul 28, 2020	Trace/D	etector
	Trig:	Free Run Avg Hol	d: 100/100			
	#IFGain:Low #Atter	n: 20 dB	Radio Dev	vice: BTS		
10 dB/div Ref 20.00 dBn	n		•			
Log						
0.00	under and more an	ely molimbrary ward			Cle	ar Write
-10.0						
-20.0						
-30.0	perfection.		Margan Margan	145.		Average
-30.0				a some startenthing		
-50.0						
-60.0					N	lax Hold
-70.0						
Center 5.755 GHz			0			
#Res BW 100 kHz	#	¢VBW 300 kHz		n 100 MHz p 9.6 ms	_	
TOO KHZ	"	74 D44 300 KHZ	0000	p 3.0 m3		/lin Hold
Occupied Bandwidt	h	Total Power	27.0 dBm			
	7.643 MHz					Dotoctor
3						Detector Peak▶
Transmit Freq Error	-46.406 kHz	% of OBW Pov	ver 99.00 %		Auto	Man
x dB Bandwidth	37.67 MHz	x dB	-6.00 dB			
	57.07 WITZ		-0.00 ub			
MSG			STATUS			

Plot 7-132. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 3) - Ch. 151)



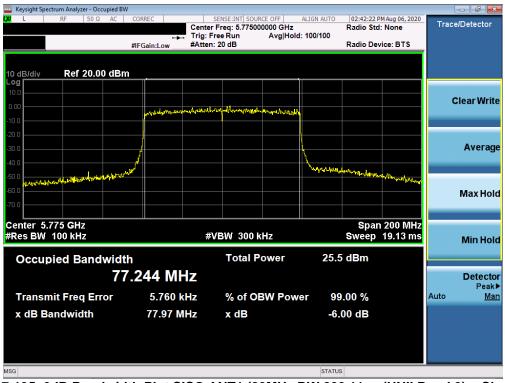
Plot 7-133. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 3) - Ch. 159)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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DM RF 50 Ω AC SENSE.INT[SOURCE OFF] ALIGN AUTO 11:21:39 AMJun 25,2020   NFE   NFE Center Freq: 5.775000000 GHz Radio Std: None   Trig: Freq Run Avg Hold:>100/100   HEGain:Low Trig: Freq Run Avg Hold:>100/100   ALIGN AUTO 11:21:39 AMJun 25,2020   Trig: Freq: 5.775000000 GHz Radio Std: None   Trig: Freq Run Avg Hold:>100/100   Trig: Freq: 0.00 dBm   Log Clear Wri   0.00   0.00
NFE Trig: Free Run Avg Hold:>100/100   #IFGain:Low #Atten: 20 dB Radio Device: BTS   10 dB/div Ref 20.00 dBm Clear Write   0.00 Clear Write Clear Write
10 dB/div Ref 20.00 dBm Clear Write   10.0 0.0
Log Clear Wri
Log Clear Wri
0.00 Clear Wri
-30.0 Avera
-40.0
1-60.0 Max Ho
700 whenever have the set of the
Center 5.775 GHz Span 200 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 19.13 ms Min Ho
75.188 MHz Detect
Transmit Freq Error -96.152 kHz % of OBW Power 99.00 %
x dB Bandwidth 75.34 MHz x dB -6.00 dB
MSG STATUS

Plot 7-134. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)



Plot 7-135. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 3) - Ch. 155)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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# 7.4 UNII Output Power Measurement – 802.11a/n/ac/ax §15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

#### **Test Overview and Limits**

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies.

In the 5.15 – 5.25GHz band, the maximum permissible conducted output power is 250mW (23.98dBm). The maximum e.i.r.p. shall not exceed the lesser of 200 mW or 10 + 10 log10B, dBm.

In the 5.25 – 5.35GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or 11 dBm +  $10\log_{10}(26dB BW) = 11 dBm + 10\log_{10}(18.65) = 23.71dBm$ . The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or 17 + 10 log10B, dBm.

In the 5.47 – 5.725GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or 11 dBm +  $10\log_{10}(26dB BW) = 11 dBm + 10\log_{10}(18.68) = 23.71dBm$ . The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or 17 + 10 log10B, dBm.

In the 5.725 – 5.850GHz band, the maximum permissible conducted output power is 1W (30dBm). The maximum e.i.r.p. is 36 dBm.

#### Test Procedure Used

ANSI C63.10-2013 – Section 12.3.3.2 Method PM-G KDB 789033 D02 v02r01 – Section E)3)b) Method PM-G ANSI C63.10-2013 – Section 14.2 Measure-and-Sum Technique KDB 662911 v02r01 – Section E)1) Measure-and-Sum Technique

#### **Test Settings**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

#### Test Setup

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



Figure 7-3. Test Instrument & Measurement Setup

#### **Test Notes**

Test Notes				
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Per RSS-247 Section 6.2.3, transmission on channels which overlap the 5600-5650 MHz is prohibited. This device operates under these frequencies only under the control of a certified master device and does not support active scanning on these channels. This device does not transmit any beacons or initiate any transmissions in UNII Bands 2A or 2C.

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## SISO Antenna-1 Conducted Output Power Measurements

	Freq [MHz]	Channel	Detector		IEEE Transn	nission Mode		Conducted Power Limit	Conducted Power	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
2				802.11a	802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]	[]	[		
idth)	5180	36	AVG	17.67	17.48	17.51	17.54	23.98	-6.31	-4.87	12.80	23.01	-10.21
÷	5200	40	AVG	17.63	17.40	17.99	17.45	23.98	-5.99	-5.25	12.74	23.01	-10.27
Š	5220	44	AVG	17.99	17.87	17.84	17.99	23.98	-5.99	-5.25	12.74	23.01	-10.27
pu	5240	48	AVG	17.97	17.83	17.76	17.77	23.98	-6.01	-5.25	12.72	23.01	-10.29
Ba	5260	52	AVG	17.47	17.96	17.90	17.39	23.98	-6.02	-4.82	13.14	30.00	-16.86
N	5280	56	AVG	17.42	17.94	17.89	17.96	23.98	-6.04	-4.82	13.12	30.00	-16.88
T	5300	60	AVG	17.99	17.82	17.81	17.82	23.98	-5.99	-4.82	13.17	30.00	-16.83
Σ	5320	64	AVG	17.72	17.99	17.94	17.66	23.98	-5.99	-4.82	13.17	30.00	-16.83
20	5500	100	AVG	17.99	17.99	17.86	17.92	23.98	-5.99	-5.12	12.87	30.00	-17.13
) N	5600	120	AVG	17.76	17.98	17.93	17.99	23.98	-6.00	-6.39	11.59	-	
Ĩ	5620	124	AVG	17.99	17.91	17.91	17.99	23.98	-5.99	-6.39	11.60	-	-
Ū	5720	144	AVG	17.71	17.94	17.84	17.99	23.98	-6.04	-6.88	11.06	30.00	-18.94
Ū.	5745	149	AVG	17.71	17.99	17.90	17.51	30.00	-12.01	-6.88	11.11	-	-
	5785	157	AVG	17.93	17.78	17.72	17.82	30.00	-12.07	-6.11	11.82	-	-
	5825	165	AVG	17.58	17.83	17.85	17.53	30.00	-12.15	-6.11	11.74	-	-

Table 7-6. SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	nannel Detector	IEEE Transmission Mode			Conducted Power Limit	Conducted Power	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
				802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]	[]	[ab.i.]		
₽ ⊂	5190	38	AVG	16.92	16.88	16.80	23.98	-7.06	-5.25	11.67	23.01	-11.34
두 푼	5230	46	AVG	16.72	16.83	16.62	23.98	-7.15	-5.25	11.58	23.01	-11.43
(40MI width	5270	54	AVG	16.65	16.69	16.54	23.98	-7.29	-4.82	11.87	30.00	-18.13
<u>4</u> ¥	5310	62	AVG	16.84	16.82	16.79	23.98	-7.14	-4.82	12.02	30.00	-17.98
Hz and	5510	102	AVG	16.78	16.66	16.67	23.98	-7.20	-5.12	11.66	30.00	-18.34
В Ва	5590	118	AVG	16.45	16.50	16.87	23.98	-7.48	-6.39	10.11	-	-
D B B	5630	126	AVG	16.80	16.96	16.81	23.98	-7.02	-6.39	10.57	-	-
	5710	142	AVG	16.44	16.56	16.98	23.98	-7.42	-6.88	9.68	30.00	-20.32
	5755	151	AVG	16.99	16.99	16.95	30.00	-13.01	-6.11	10.88	-	-
	5795	159	AVG	16.90	16.86	16.84	30.00	-13.10	-6.11	10.79	-	-

Table 7-7. SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	IEEE Transn	nission Mode	Conducted Power Limit	Conducted Power	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
Ť c				802.11ac	802.11ax	[dBm]	Margin [dB]		Lapud	Ennic [GBiii]	
(80MH	5210	42	AVG	15.95	15.54	23.98	-8.03	-4.87	11.08	23.01	-11.93
	5290	58	AVG	15.82	15.85	23.98	-8.16	-4.82	11.00	30.00	-19.00
5GHz Band	5530	106	AVG	15.58	15.71	23.98	-8.40	-5.12	10.46	30.00	-19.54
B: 5G	5610	122	AVG	15.46	15.68	23.98	-8.52	-6.39	9.07	-	-
	5690	138	AVG	15.75	15.77	23.98	-8.23	-6.88	8.87	30.00	-21.13
	5775	155	AVG	15.86	15.58	30.00	-14.14	-6.11	9.75	-	-

Table 7-8. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power

FCC ID: A3LSMF916U	PCTEST Provid to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-2 Conducted Output Power Measurements

	Freq [MHz]	Channel	Detector		IEEE Transn	nission Mode		Conducted Power Limit	Conducted Power	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
2				802.11a	802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]	[]	[u.D.i.i]		
È	5180	36	AVG	17.95	17.83	17.93	17.91	23.98	-6.03	-5.57	12.38	23.01	-10.63
÷	5200	40	AVG	17.91	17.81	17.70	17.84	23.98	-6.07	-6.01	11.90	23.01	-11.11
S S	5220	44	AVG	17.72	17.53	17.57	17.75	23.98	-6.26	-6.01	11.71	23.01	-11.30
andwidth)	5240	48	AVG	17.65	17.53	17.55	17.71	23.98	-6.33	-6.01	11.64	23.01	-11.37
Ba	5260	52	AVG	17.41	17.95	17.96	17.99	23.98	-6.02	-6.26	11.70	30.00	-18.30
N	5280	56	AVG	17.37	17.78	17.86	17.83	23.98	-6.12	-6.26	11.60	30.00	-18.40
Ŷ	5300	60	AVG	17.95	17.75	17.87	17.84	23.98	-6.03	-6.26	11.69	30.00	-18.31
MO	5320	64	AVG	17.81	17.67	17.72	17.62	23.98	-6.17	-6.26	11.55	30.00	-18.45
20	5500	100	AVG	17.65	17.87	17.52	17.58	23.98	-6.11	-5.44	12.43	30.00	-17.57
) N	5600	120	AVG	17.62	17.52	17.51	17.60	23.98	-6.36	-5.59	12.03	-	-
Ï	5620	124	AVG	17.51	17.99	17.91	17.47	23.98	-5.99	-5.59	12.40	-	-
Ū.	5720	144	AVG	17.72	17.65	17.68	17.71	23.98	-6.26	-5.47	12.25	30.00	-17.75
Ū.	5745	149	AVG	17.55	17.34	17.95	17.45	30.00	-12.05	-5.47	12.48	-	-
	5785	157	AVG	17.98	17.81	17.91	17.92	30.00	-12.02	-5.80	12.18	-	-
	5825	165	AVG	17.69	17.58	17.63	17.56	30.00	-12.31	-5.80	11.89	-	-

### Table 7-9. SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	IEEE Transmission Mode			Conducted Power Limit	Conducted Power	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
				802.11n	802.11ac	802.11ax	[dBm]	[dBm] Margin [dB]	[]	[]		
₽ ⊂	5190	38	AVG	16.57	16.51	16.89	23.98	-7.41	-6.01	10.56	23.01	-12.45
두 분	5230	46	AVG	16.77	16.84	16.64	23.98	-7.14	-6.01	10.83	23.01	-12.18
⊔ O .≚	5270	54	AVG	16.56	16.65	16.91	23.98	-7.33	-6.26	10.39	30.00	-19.61
<u>4</u> <del>2</del>	5310	62	AVG	16.84	16.86	16.79	23.98	-7.12	-6.26	10.60	30.00	-19.40
Hz and	5510	102	AVG	16.48	16.56	16.90	23.98	-7.42	-5.44	11.12	30.00	-18.88
В G	5590	118	AVG	16.65	16.74	16.54	23.98	-7.24	-5.59	11.15	-	-
5G B	5630	126	AVG	16.82	16.70	16.71	23.98	-7.16	-5.59	11.23	-	-
	5710	142	AVG	16.80	16.88	16.77	23.98	-7.10	-5.47	11.41	30.00	-18.59
	5755	151	AVG	16.59	16.59	16.55	30.00	-13.41	-5.80	10.79	-	-
	5795	159	AVG	16.99	16.99	16.97	30.00	-13.01	-5.80	11.19	-	-

#### Table 7-10. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	IEEE Transmission Mode		Conducted Power Limit		Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
Ξ.				802.11ac	802.11ax	[dBm]	Margin [dB]				
(80MH; width)	5210	42	AVG	15.92	15.99	23.98	-8.06	-5.57	10.35	23.01	-12.66
	5290	58	AVG	15.52	15.84	23.98	-8.46	-6.26	9.26	30.00	-20.74
5GHz Band	5530	106	AVG	15.56	15.62	23.98	-8.42	-5.44	10.12	30.00	-19.88
5GH Bai	5610	122	AVG	15.72	15.85	23.98	-8.26	-5.59	10.13	-	-
	5690	138	AVG	15.99	15.54	23.98	-7.99	-5.47	10.52	30.00	-19.48
	5775	155	AVG	15.7	15.77	30.00	-14.30	-5.80	9.90	-	-

Table 7-11. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power

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	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
2				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	[abiii]	Chine [GDin]	margin [ab]
主	5180	36	AVG	17.48	17.83	20.67	23.98	-3.31	-2.20	18.47	23.01	-4.54
÷	5200	40	AVG	17.40	17.81	20.62	23.98	-3.36	-2.60	18.02	23.01	-4.99
andwidth)	5220	44	AVG	17.87	17.53	20.71	23.98	-3.27	-2.60	18.11	23.01	-4.90
Ē	5240	48	AVG	17.83	17.53	20.69	23.98	-3.29	-2.60	18.09	23.01	-4.92
Ba	5260	52	AVG	17.96	17.95	20.97	23.98	-3.01	-2.47	18.50	30.00	-11.50
N	5280	56	AVG	17.94	17.78	20.87	23.98	-3.11	-2.47	18.40	30.00	-11.60
T	5300	60	AVG	17.82	17.75	20.80	23.98	-3.18	-2.47	18.33	30.00	-11.67
Σ	5320	64	AVG	17.99	17.67	20.84	23.98	-3.14	-2.47	18.37	30.00	-11.63
(20M	5500	100	AVG	17.99	17.87	20.94	23.98	-3.04	-2.27	18.67	30.00	-11.33
) N	5600	120	AVG	17.98	17.52	20.77	23.98	-3.21	-2.96	17.81	-	
Ϊ	5620	124	AVG	17.91	17.99	20.96	23.98	-3.02	-2.96	18.00	-	
5G	5720	144	AVG	17.94	17.65	20.81	23.98	-3.17	-3.11	17.70	30.00	-12.30
2 L	5745	149	AVG	17.99	17.34	20.69	30.00	-9.31	-3.11	17.58	-	-
	5785	157	AVG	17.78	17.81	20.81	30.00	-9.19	-2.94	17.87	-	-
	5825	165	AVG	17.83	17.58	20.72	30.00	-9.28	-2.94	17.78	-	-

## **MIMO Maximum Conducted Output Power Measurements**

Table 7-12. MIMO 20MHz BW 802.11n (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
2				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	Lapud	Ennie [GB/1]	margin [ab]
idth)	5180	36	AVG	17.67	17.95	20.82	23.98	-3.16	-2.20	18.62	23.01	-4.39
ĕ	5200	40	AVG	17.63	17.91	20.78	23.98	-3.20	-2.60	18.18	23.01	-4.83
Bandw	5220	44	AVG	17.99	17.72	20.87	23.98	-3.11	-2.60	18.27	23.01	-4.74
ğ	5240	48	AVG	17.97	17.65	20.82	23.98	-3.16	-2.60	18.22	23.01	-4.79
a B	5260	52	AVG	17.47	17.41	20.45	23.98	-3.53	-2.47	17.98	30.00	-12.02
	5280	56	AVG	17.42	17.37	20.41	23.98	-3.57	-2.47	17.94	30.00	-12.06
Hz	5300	60	AVG	17.99	17.95	20.98	23.98	-3.00	-2.47	18.51	30.00	-11.49
(20M	5320	64	AVG	17.72	17.81	20.78	23.98	-3.20	-2.47	18.31	30.00	-11.69
50	5500	100	AVG	17.99	17.65	20.83	23.98	-3.15	-2.27	18.56	30.00	-11.44
	5600	120	AVG	17.76	17.62	20.70	23.98	-3.28	-2.96	17.74	-	
Ŧ	5620	124	AVG	17.99	17.51	20.77	23.98	-3.21	-2.96	17.81	-	
Ċ	5720	144	AVG	17.71	17.72	20.73	23.98	-3.25	-3.11	17.62	30.00	-12.38
Ū.	5745	149	AVG	17.71	17.55	20.64	30.00	-9.36	-3.11	17.53	-	-
	5785	157	AVG	17.93	17.98	20.97	30.00	-9.03	-2.94	18.03	-	-
	5825	165	AVG	17.58	17.69	20.65	30.00	-9.35	-2.94	17.71	-	-

Table 7-13. MIMO 20MHz BW 802.11a (UNII) Maximum Conducted Output Power

	Freq [MHz]	eq [MHz] Channel Dete		Conc	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
<u> </u>				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	[abiii]		maigin [ab]
主	5180	36	AVG	17.54	17.91	20.74	23.98	-3.24	-2.20	18.54	23.01	-4.47
/ic	5200	40	AVG	17.45	17.84	20.66	23.98	-3.32	-2.60	18.06	23.01	-4.95
andwidth)	5220	44	AVG	17.99	17.75	20.88	23.98	-3.10	-2.60	18.28	23.01	-4.73
ŭ	5240	48	AVG	17.77	17.71	20.75	23.98	-3.23	-2.60	18.15	23.01	-4.86
Ba	5260	52	AVG	17.39	17.99	20.71	23.98	-3.27	-2.47	18.24	30.00	-11.76
Ч	5280	56	AVG	17.96	17.83	20.91	23.98	-3.07	-2.47	18.44	30.00	-11.56
T I	5300	60	AVG	17.82	17.84	20.84	23.98	-3.14	-2.47	18.37	30.00	-11.63
Σ	5320	64	AVG	17.66	17.62	20.65	23.98	-3.33	-2.47	18.18	30.00	-11.82
(20M	5500	100	AVG	17.92	17.58	20.76	23.98	-3.22	-2.27	18.49	30.00	-11.51
	5600	120	AVG	17.99	17.60	20.81	23.98	-3.17	-2.96	17.85	-	-
Ηz	5620	124	AVG	17.99	17.47	20.75	23.98	-3.23	-2.96	17.79	-	-
5G	5720	144	AVG	17.99	17.71	20.86	23.98	-3.12	-3.11	17.75	30.00	-12.25
Ω.	5745	149	AVG	17.51	17.45	20.49	30.00	-9.51	-3.11	17.38	-	-
	5785	157	AVG	17.82	17.92	20.88	30.00	-9.12	-2.94	17.94	-	
	5825	165	AVG	17.53	17.56	20.56	30.00	-9.44	-2.94	17.62	-	-

#### Table 7-14. MIMO 20MHz BW 802.11ax (UNII) Maximum Conducted Output Power

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	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
2				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	[]		
主	5180	36	AVG	17.51	17.93	20.74	23.98	-3.24	-2.20	18.54	23.01	-4.47
i,	5200	40	AVG	17.99	17.70	20.86	23.98	-3.12	-2.60	18.26	23.01	-4.75
5	5220	44	AVG	17.84	17.57	20.72	23.98	-3.26	-2.60	18.12	23.01	-4.89
andwidth	5240	48	AVG	17.76	17.55	20.67	23.98	-3.31	-2.60	18.07	23.01	-4.94
Ba	5260	52	AVG	17.90	17.96	20.94	23.98	-3.04	-2.47	18.47	30.00	-11.53
N	5280	56	AVG	17.89	17.86	20.89	23.98	-3.09	-2.47	18.42	30.00	-11.58
	5300	60	AVG	17.81	17.87	20.85	23.98	-3.13	-2.47	18.38	30.00	-11.62
20M	5320	64	AVG	17.94	17.72	20.84	23.98	-3.14	-2.47	18.37	30.00	-11.63
50	5500	100	AVG	17.86	17.52	20.70	23.98	-3.28	-2.27	18.43	30.00	-11.57
$\sim$	5600	120	AVG	17.93	17.51	20.74	23.98	-3.24	-2.96	17.78	-	-
F	5620	124	AVG	17.91	17.91	20.92	23.98	-3.06	-2.96	17.96	-	-
C	5720	144	AVG	17.84	17.68	20.77	23.98	-3.21	-3.11	17.66	30.00	-12.34
2	5745	149	AVG	17.90	17.95	20.94	30.00	-9.06	-3.11	17.83	-	-
	5785	157	AVG	17.72	17.91	20.83	30.00	-9.17	-2.94	17.89	-	-
	5825	165	AVG	17.85	17.63	20.75	30.00	-9.25	-2.94	17.81	-	-

#### Table 7-15. MIMO 20MHz BW 802.11ac (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
~				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	[abiii]	Ennie [GBrij	margin [ab]
andwidth)	5180	36	AVG	17.51	17.93	20.74	23.98	-3.24	-2.20	18.54	23.01	-4.47
÷	5200	40	AVG	17.99	17.70	20.86	23.98	-3.12	-2.60	18.26	23.01	-4.75
5	5220	44	AVG	17.84	17.57	20.72	23.98	-3.26	-2.60	18.12	23.01	-4.89
Ĕ	5240	48	AVG	17.76	17.55	20.67	23.98	-3.31	-2.60	18.07	23.01	-4.94
Ba	5260	52	AVG	17.90	17.96	20.94	23.98	-3.04	-2.47	18.47	30.00	-11.53
N	5280	56	AVG	17.89	17.86	20.89	23.98	-3.09	-2.47	18.42	30.00	-11.58
	5300	60	AVG	17.81	17.87	20.85	23.98	-3.13	-2.47	18.38	30.00	-11.62
Σ	5320	64	AVG	17.94	17.72	20.84	23.98	-3.14	-2.47	18.37	30.00	-11.63
20M	5500	100	AVG	17.86	17.52	20.70	23.98	-3.28	-2.27	18.43	30.00	-11.57
) z	5600	120	AVG	17.93	17.51	20.74	23.98	-3.24	-2.96	17.78	-	-
Ϊ	5620	124	AVG	17.91	17.91	20.92	23.98	-3.06	-2.96	17.96	-	
5G	5720	144	AVG	17.84	17.68	20.77	23.98	-3.21	-3.11	17.66	30.00	-12.34
2	5745	149	AVG	17.90	17.95	20.94	30.00	-9.06	-3.11	17.83	-	-
	5785	157	AVG	17.72	17.91	20.83	30.00	-9.17	-2.94	17.89	-	
	5825	165	AVG	17.85	17.63	20.75	30.00	-9.25	-2.94	17.81	-	-

Table 7-16. MIMO 40MHz BW 802.11n (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	[abiii]	Chine [GDin]	margin [ab]
₽ つ	5190	38	AVG	16.80	16.89	19.86	23.98	-4.12	-2.60	17.26	23.01	-5.75
두 둔	5230	46	AVG	16.62	16.64	19.64	23.98	-4.34	-2.60	17.04	23.01	-5.97
(40MI width	5270	54	AVG	16.54	16.91	19.74	23.98	-4.24	-2.47	17.27	30.00	-12.73
4 dv	5310	62	AVG	16.79	16.79	19.80	23.98	-4.18	-2.47	17.33	30.00	-12.67
an H	5510	102	AVG	16.67	16.90	19.80	23.98	-4.18	-2.27	17.53	30.00	-12.47
В G	5590	118	AVG	16.87	16.54	19.72	23.98	-4.26	-2.96	16.76	-	
5 G	5630	126	AVG	16.81	16.71	19.77	23.98	-4.21	-2.96	16.81	-	-
	5710	142	AVG	16.98	16.77	19.89	23.98	-4.09	-3.11	16.78	30.00	-13.22
	5755	151	AVG	16.95	16.55	19.76	30.00	-10.24	-2.94	16.82	-	-
	5795	159	AVG	16.84	16.97	19.92	30.00	-10.08	-2.94	16.98	-	-



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	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	Lapud	Ennic [GB/1]	margin [ab]
₽ ₽	5190	38	AVG	16.88	16.51	19.71	23.98	-4.27	-2.60	17.11	23.01	-5.90
HH (H)	5230	46	AVG	16.83	16.84	19.85	23.98	-4.13	-2.60	17.25	23.01	-5.76
(40M width	5270	54	AVG	16.69	16.65	19.68	23.98	-4.30	-2.47	17.21	30.00	-12.79
4 ₹	5310	62	AVG	16.82	16.86	19.85	23.98	-4.13	-2.47	17.38	30.00	-12.62
nd Tz	5510	102	AVG	16.66	16.56	19.62	23.98	-4.36	-2.27	17.35	30.00	-12.65
GH Bar	5590	118	AVG	16.50	16.74	19.63	23.98	-4.35	-2.96	16.67	-	-
ъ Б С	5630	126	AVG	16.96	16.70	19.84	23.98	-4.14	-2.96	16.88	-	
	5710	142	AVG	16.56	16.88	19.73	23.98	-4.25	-3.11	16.62	30.00	-13.38
	5755	151	AVG	16.99	16.59	19.80	30.00	-10.20	-2.94	16.86	-	-
	5795	159	AVG	16.86	16.99	19.94	30.00	-10.06	-2.94	17.00	-	-

Table 7-18. MIMO 40MHz BW 802.11ac (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Cond	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
Ξ Ę				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	[]		
(80MH width)	5210	42	AVG	15.54	15.99	18.78	23.98	-5.20	-2.20	16.58	23.01	-6.43
<u>∞ ≥</u>	5290	58	AVG	15.85	15.84	18.86	23.98	-5.12	-2.47	16.39	30.00	-13.61
GHz Band	5530	106	AVG	15.71	15.62	18.68	23.98	-5.30	-2.27	16.41	30.00	-13.59
B <sup>3</sup> G	5610	122	AVG	15.68	15.85	18.78	23.98	-5.20	-2.96	15.82	-	-
	5690	138	AVG	15.77	15.54	18.67	23.98	-5.31	-3.11	15.56	30.00	-14.44
	5775	155	AVG	15.58	15.77	18.69	30.00	-11.31	-2.94	15.75	-	-

Table 7-19. MIMO 80MHz BW 802.11ax (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Conc	lucted Power [	dBm]	Conducted Power Limit	Conducted Power	Directional Ant. Gain	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
Ϋ́Ε				ANT1	ANT2	MIMO	[dBm]	Margin [dB]	[dBi]	Lapud	Ennie [GB/II]	margin [ab]
o M idt	5210	42	AVG	15.95	15.92	18.95	23.98	-5.03	-2.20	16.75	23.01	-6.26
<u>8</u>	5290	58	AVG	15.82	15.52	18.68	23.98	-5.30	-2.47	16.21	30.00	-13.79
E E	5530	106	AVG	15.58	15.56	18.58	23.98	-5.40	-2.27	16.31	30.00	-13.69
5G B	5610	122	AVG	15.46	15.72	18.60	23.98	-5.38	-2.96	15.64	-	-
	5690	138	AVG	15.75	15.99	18.88	23.98	-5.10	-3.11	15.77	30.00	-14.23
	5775	155	AVG	15.86	15.70	18.79	30.00	-11.21	-2.94	15.85	-	-

Table 7-20. MIMO 80MHz BW 802.11ac (UNII) Maximum Conducted Output Power

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#### Note:

Per ANSI C63.10-2013 and KDB 662911 v02r01 Section E)1), the conducted powers at Antenna 1 and Antenna 2 were first measured separately during MIMO transmission as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Per ANSI C63.10-2013 Section 14.4.3, the directional gain is calculated using the following formula, where  $G_N$  is the gain of the nth antenna and  $N_{ANT}$ , the total number of antennas used.

Directional gain =  $10 \log[(10^{G_{1/20}} + 10^{G_{2/20}} + ... + 10^{G_{N/20}})^2 / N_{ANT}] dBi$ 

#### Sample MIMO Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted output power was measured to be 17.48 dBm for Antenna-1 and 17.83 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(17.48 dBm + 17.83 dBm) = (55.98 mW + 60.67 mW) = 116.65 mW = 20.67 dBm

#### Sample e.i.r.p. Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average MIMO conducted power was calculated to be 20.67 dBm with directional gain of -2.20 dBi.

e.i.r.p. (dBm) = Conducted Power (dBm) + Ant gain (dBi)

20.67 dBm + -2.20 dBi = 18.47 dBm

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# 7.5 Maximum Power Spectral Density – 802.11a/n/ac/ax §15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

#### **Test Overview and Limit**

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, was used to measure the power spectral density.

## In the 5.15 – 5.25GHz, 5.25 – 5.35GHz, 5.47 – 5.725GHz bands, the maximum permissible power spectral density is 11dBm/MHz.

In the 5.725 – 5.850GHz band, the maximum permissible power spectral density is 30dBm/500kHz.

#### Test Procedure Used

ANSI C63.10-2013 – Section 12.3.2.2 KDB 789033 D02 v02r01 – Section F ANSI C63.10-2013 – Section 14.3.2.2 Measure-and-Sum Technique KDB 662911 v02r01 – Section E)2) Measure-and-Sum Technique

#### Test Settings

- 1. Analyzer was set to the center frequency of the UNII channel under investigation
- 2. Span was set to encompass the entire emission bandwidth of the signal
- 3. RBW = 1MHz
- 4. VBW = 3MHz
- 5. Number of sweep points  $\geq 2 \times (\text{span/RBW})$
- 6. Sweep time = auto
- 7. Detector = power averaging (RMS)
- 8. Trigger was set to free run for all modes
- 9. Trace was averaged over 100 sweeps
- 10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

#### Test Setup

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



Figure 7-4. Test Instrument & Measurement Setup

#### **Test Notes**

#### None

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### SISO Antenna-1 Power Spectral Density Measurements

1	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6	4.68	11.0	-6.32
	5200	40	а	6	4.06	11.0	-6.94
Γ	5240	48	а	6	4.84	11.0	-6.16
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	4.57	11.0	-6.43
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	3.93	11.0	-7.07
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.62	11.0	-6.38
-	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	7.55	11.0	-3.45
Band 1	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	7.74	11.0	-3.26
ä	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	7.95	11.0	-3.05
	5190	38	n (40MHz)	13.5/15 (MCS0)	-0.81	11.0	-11.81
	5230	46	n (40MHz)	13.5/15 (MCS0)	-0.55	11.0	-11.55
Γ	5190	38	ax (40MHz)	13.5/15 (MCS0)	5.82	11.0	-5.18
	5230	46	ax (40MHz)	13.5/15 (MCS0)	5.23	11.0	-5.77
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-7.66	11.0	-18.66
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	1.47	11.0	-9.53
	5260	52	а	6	4.56	11.0	-6.44
	5280	56	а	6	4.56	11.0	-6.44
	5320	64	а	6	4.89	11.0	-6.11
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	4.51	11.0	-6.49
-	5280	56	n (20MHz)	6.5/7.2 (MCS0)	4.28	11.0	-6.72
-	5320	64	n (20MHz)	6.5/7.2 (MCS0)	4.46	11.0	-6.54
2A	5260	52	ax (20MHz)	6.5/7.2 (MCS0)	7.99	11.0	-3.01
Band 2A	5280	56	ax (20MHz)	6.5/7.2 (MCS0)	7.65	11.0	-3.35
Bai	5320	64	ax (20MHz)	6.5/7.2 (MCS0)	7.69	11.0	-3.31
-	5270	54	n (40MHz)	13.5/15 (MCS0)	-1.16	11.0	-12.16
-	5310	62	n (40MHz)	13.5/15 (MCS0)	-1.09	11.0	-12.09
	5270	54	ax (40MHz)	13.5/15 (MCS0)	6.00	11.0	-5.00
-	5310	62	ax (40MHz)	13.5/15 (MCS0)	5.58	11.0	-5.42
-	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-7.66	11.0	-18.66
-	5290	58	ax (80MHz)	29.3/32.5 (MCS0)	2.08	11.0	-8.92
	5500	100	a	6	4.78	11.0	-6.22
-	5600	120	а	6	5.29	11.0	-5.71
-	5720	144	а	6	5.38	11.0	-5.62
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	4.50	11.0	-6.50
-	5600	120	n (20MHz)	6.5/7.2 (MCS0)	4.26	11.0	-6.74
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	4.90	11.0	-6.10
	5500	100	ax (20MHz)	6.5/7.2 (MCS0)	8.48	11.0	-2.52
	5600	120	ax (20MHz)	6.5/7.2 (MCS0)	7.81	11.0	-3.19
-	5720	144	ax (20MHz)	6.5/7.2 (MCS0)	8.47	11.0	-2.53
ບ	5510	102	n (40MHz)	13.5/15 (MCS0)	6.28	11.0	-4.72
Band 2C	5590	118	n (40MHz)	13.5/15 (MCS0)	6.49	11.0	-4.51
Bai	5710	142	n (40MHz)	13.5/15 (MCS0)	5.13	11.0	-5.87
-	5510	102	ax (40MHz)	13.5/15 (MCS0)	6.28	11.0	-4.72
-	5590	118	ax (40MHz)	13.5/15 (MCS0)	6.49	11.0	-4.51
	5710	142	ax (40MHz)	13.5/15 (MCS0)	5.13	11.0	-5.87
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-7.42	11.0	-18.42
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-6.35	11.0	-17.35
-	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-7.25	11.0	-18.25
-	5530	106	ax (80MHz)	29.3/32.5 (MCS0)	2.85	11.0	-8.15
F	5610	122	ax (80MHz)	29.3/32.5 (MCS0)	2.38	11.0	-8.62
-	5690	138	ax (80MHz)	29.3/32.5 (MCS0)	1.34	11.0	-9.66

Table 7-21. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1

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	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6	4.68	-4.87	-0.19	10.0	-10.19
	5200	40	а	6	4.06	-5.25	-1.19	10.0	-11.19
	5240	48	а	6	4.84	-5.25	-0.41	10.0	-10.41
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	4.57	-4.87	-0.30	10.0	-10.30
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	3.93	-5.25	-1.32	10.0	-11.32
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.62	-5.25	-0.63	10.0	-10.63
Ξ	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	7.55	-4.87	2.68	10.0	-7.32
Band	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	7.74	-5.25	2.49	10.0	-7.51
ä	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	7.95	-5.25	2.70	10.0	-7.30
	5190	38	n (40MHz)	13.5/15 (MCS0)	-0.81	-4.87	-5.68	10.0	-15.68
	5230	46	n (40MHz)	13.5/15 (MCS0)	-0.55	-5.25	-5.80	10.0	-15.80
	5190	38	ax (40MHz)	13.5/15 (MCS0)	5.82	-5.25	0.57	10.0	-9.43
	5230	46	ax (40MHz)	13.5/15 (MCS0)	5.23	-4.87	0.36	10.0	-9.64
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-7.66	-5.25	-12.91	10.0	-22.91
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	1.47	-5.25	-3.78	10.0	-13.78

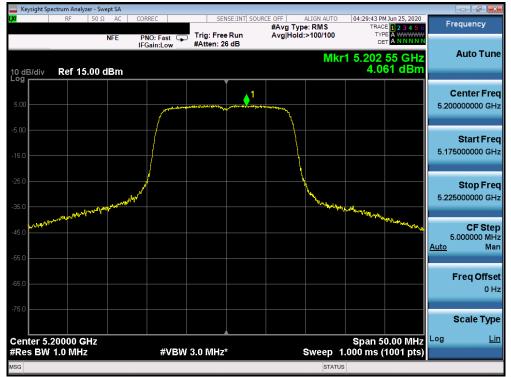
Table 7-22. Band 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED)SISO ANT1



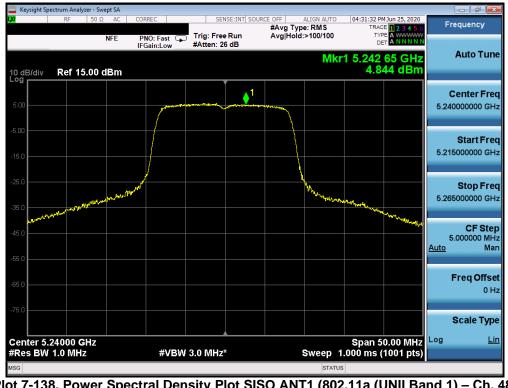
Plot 7-136. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) - Ch. 36)

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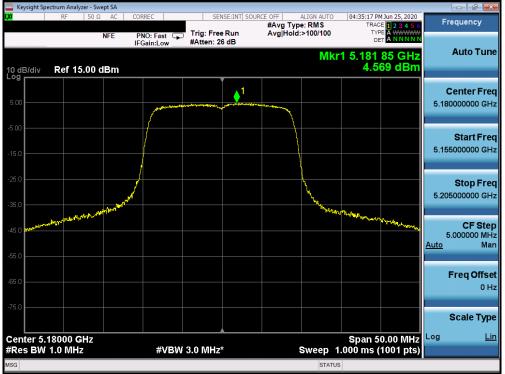
Plot 7-137. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) - Ch. 40)



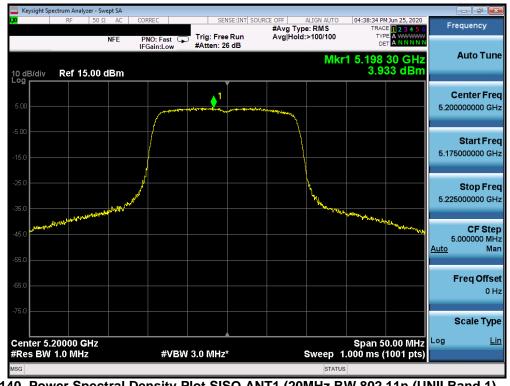
Plot 7-138. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) - Ch. 48)

FCC ID: A3LSMF916U	PCTEST Provid to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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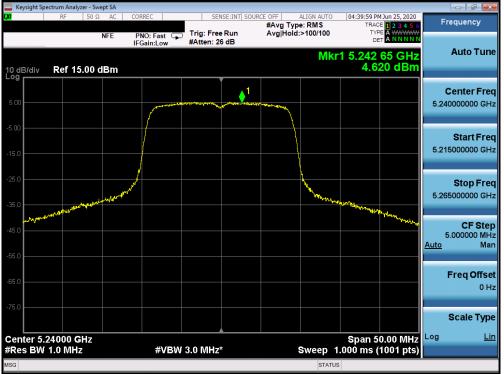
Plot 7-139. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) - Ch. 36)



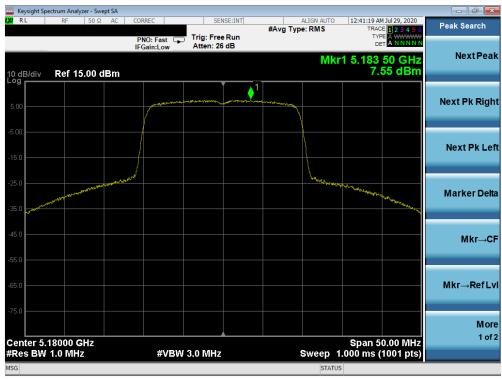
Plot 7-140. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) - Ch. 40)

FCC ID: A3LSMF916U	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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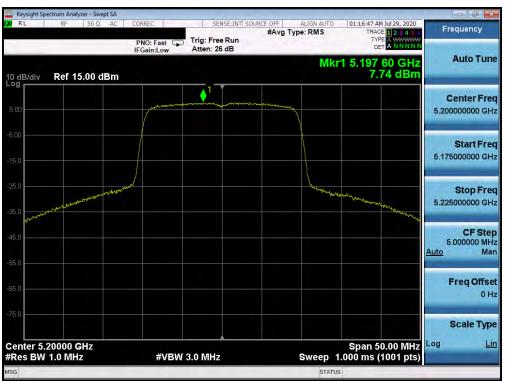
Plot 7-141. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) - Ch. 48)



Plot 7-142. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 1) - Ch. 36)

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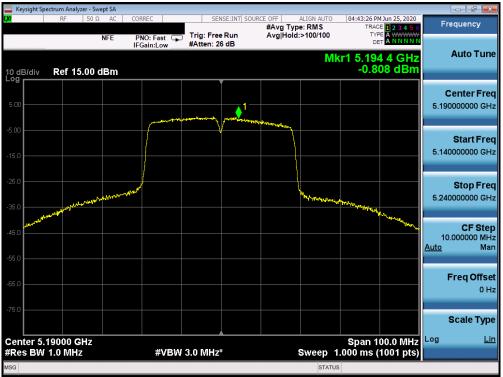
Plot 7-143. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 1) - Ch. 40)



Plot 7-144. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 1) - Ch. 48)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @remain	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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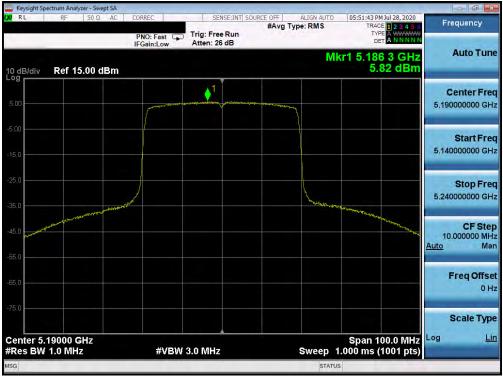
Plot 7-145. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) - Ch. 38)



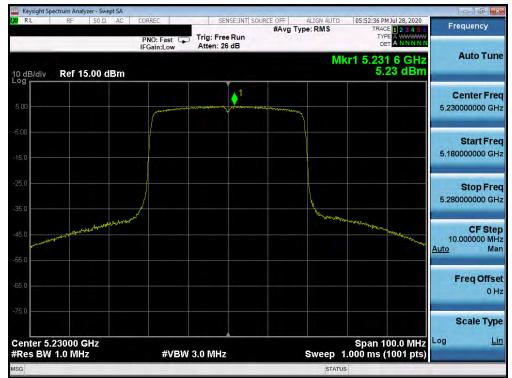
Plot 7-146. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) - Ch. 46)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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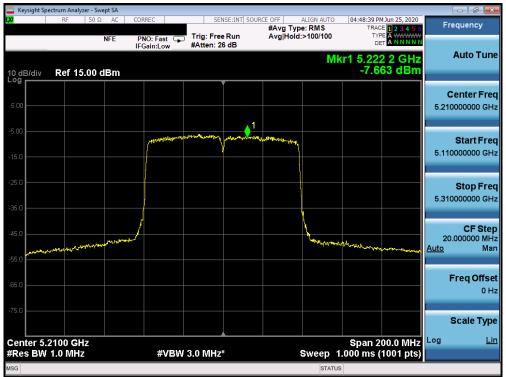
Plot 7-147. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 1) - Ch. 38)



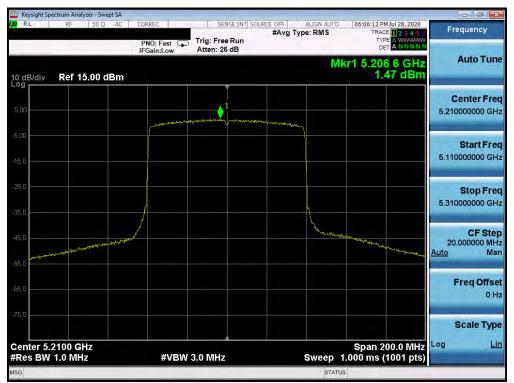
Plot 7-148. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 1) - Ch. 46)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-149. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 1) - Ch. 42)

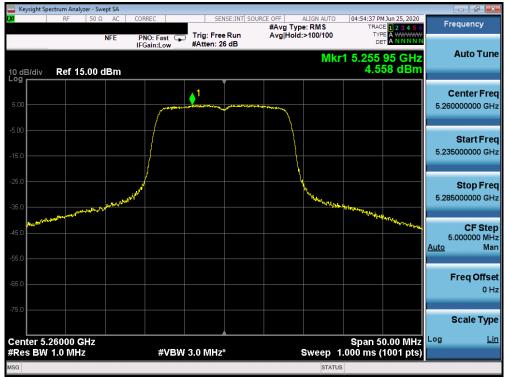


Plot 7-150. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 1) - Ch. 42)

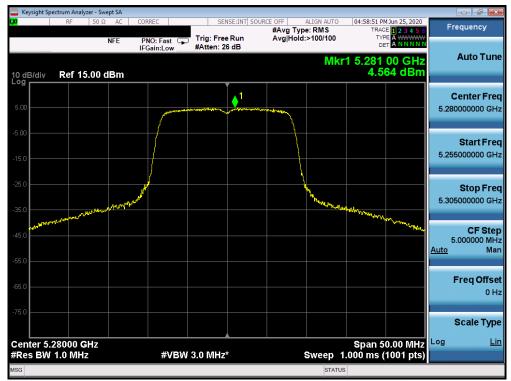
FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUND	Approved by: Quality Manager
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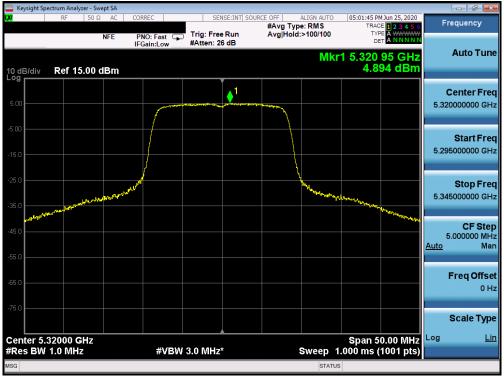
Plot 7-151. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) - Ch. 52)



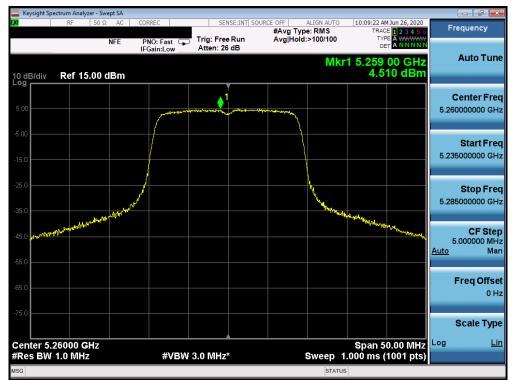
Plot 7-152. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMF916U	PCTEST Proxit to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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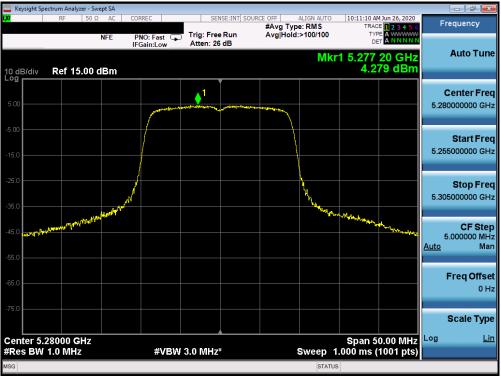
Plot 7-153. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) - Ch. 64)



Plot 7-154. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) - Ch. 52)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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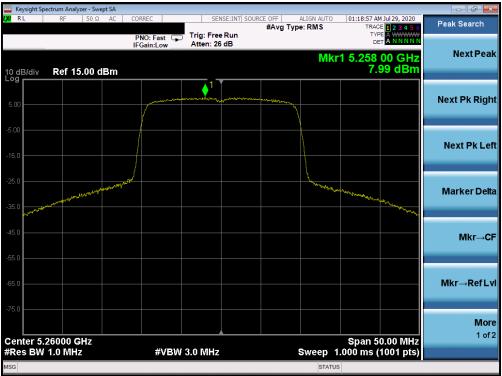
Plot 7-155. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) - Ch. 56)



Plot 7-156. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) - Ch. 64)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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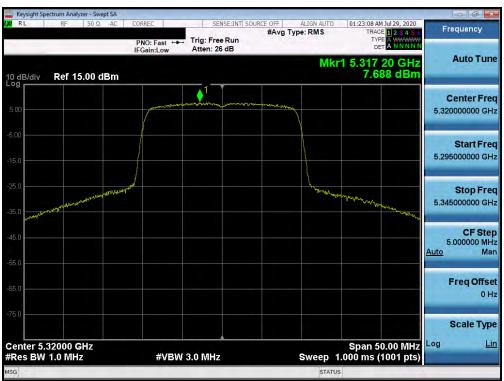
Plot 7-157. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 52)



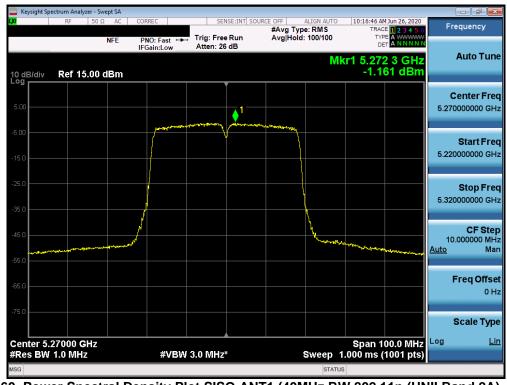
Plot 7-158. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMF916U	Proud to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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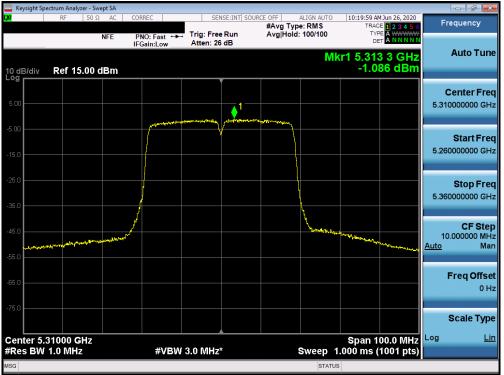
Plot 7-159. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 64)



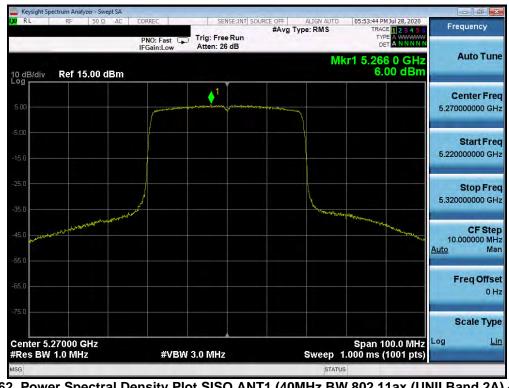
Plot 7-160. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMF916U	PCTEST Froud to be part of @ immer	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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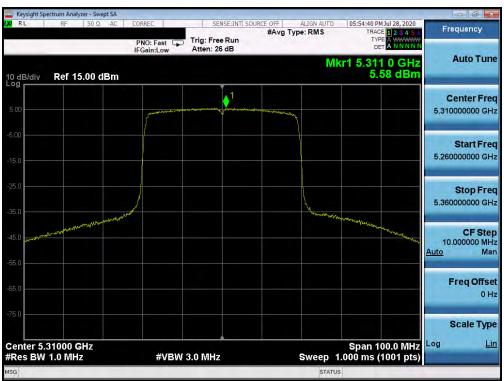
Plot 7-161. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) - Ch. 62)



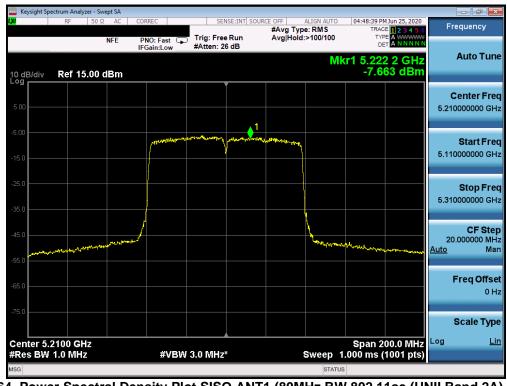
Plot 7-162. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMF916U	PCTEST Proud to be part of @ immin	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-163. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 62)



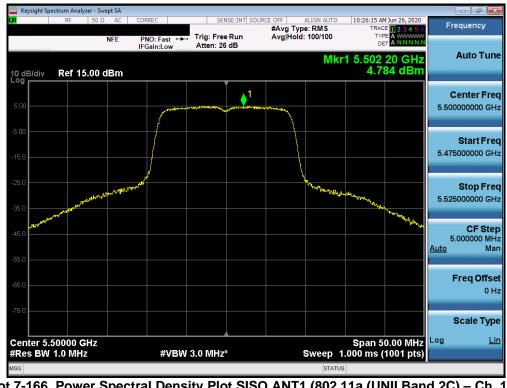
Plot 7-164. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2A) - Ch. 58)

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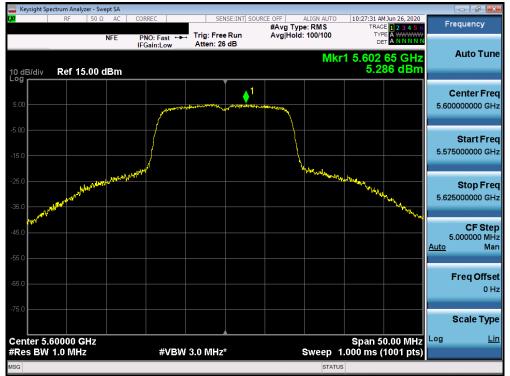
Plot 7-165. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 2A) - Ch. 58)



Plot 7-166. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) - Ch. 100)

FCC ID: A3LSMF916U	PCTEST Provide to be part of @ minim	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 114 of 242
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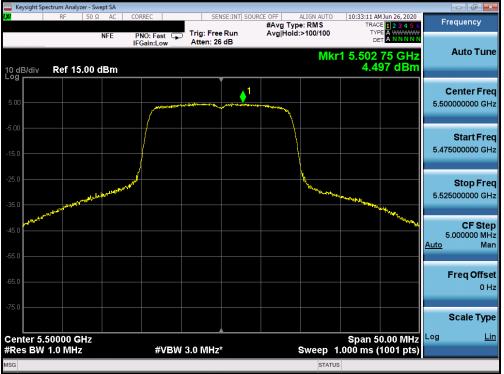


Plot 7-167. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) - Ch. 120)

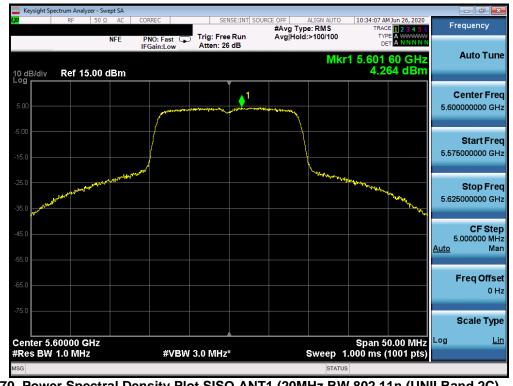


FCC ID: A3LSMF916U	PCTEST Proud to be part of @	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-169. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) - Ch. 100)



Plot 7-170. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) - Ch. 120)

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