

Plot 7-55. 26dB BW & 99% OBW Antenna 1b (40MHz BW 11ax Index 17 – RU26 – Ch.54)



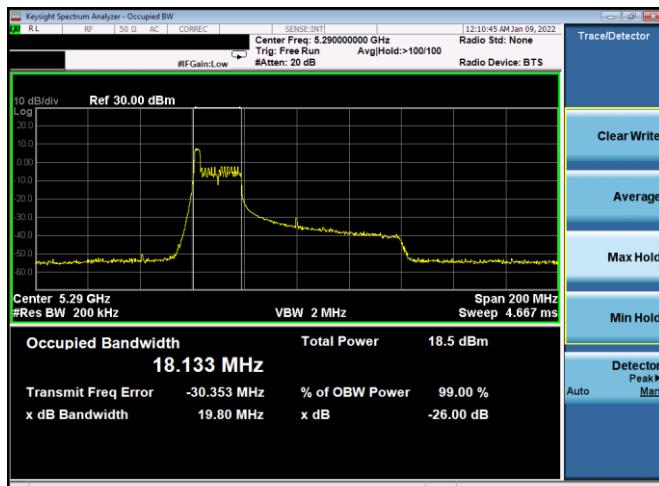
Plot 7-58. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax Index 18 – RU26 – Ch.58)



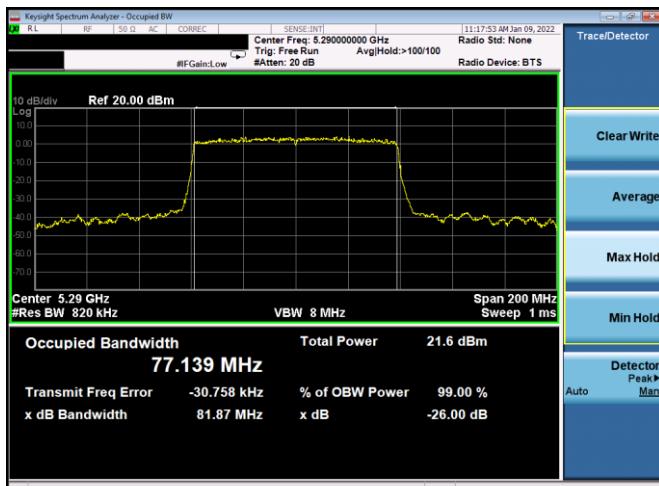
Plot 7-56. 26dB BW & 99% OBW Antenna 1b (40MHz BW 11ax – RU484 – Ch.54)



Plot 7-59. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax Index 36 – RU26 – Ch.58)

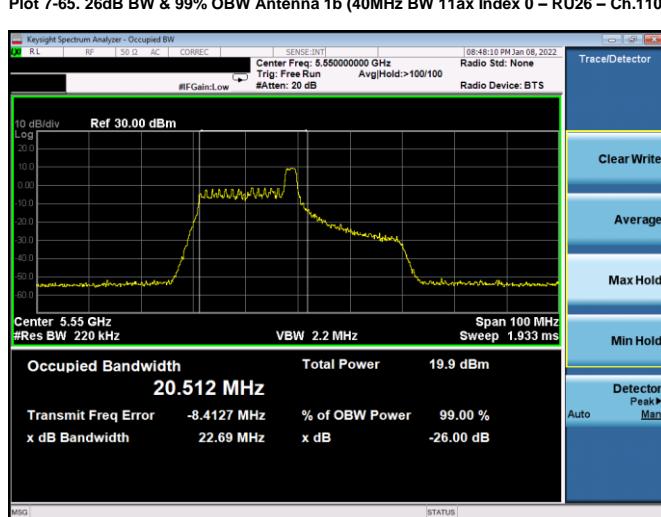
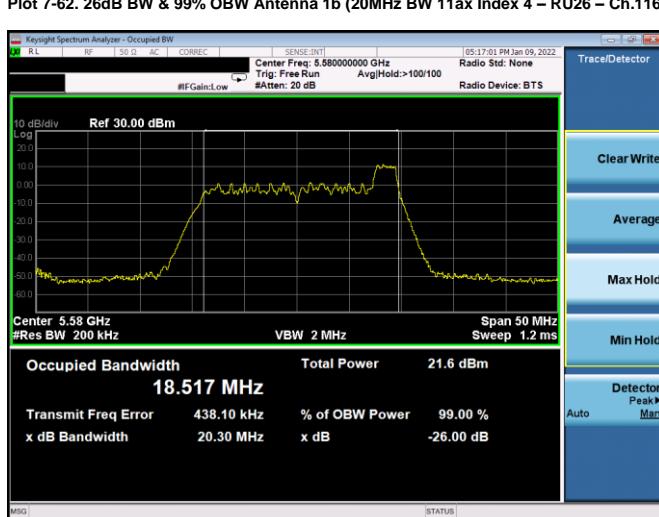
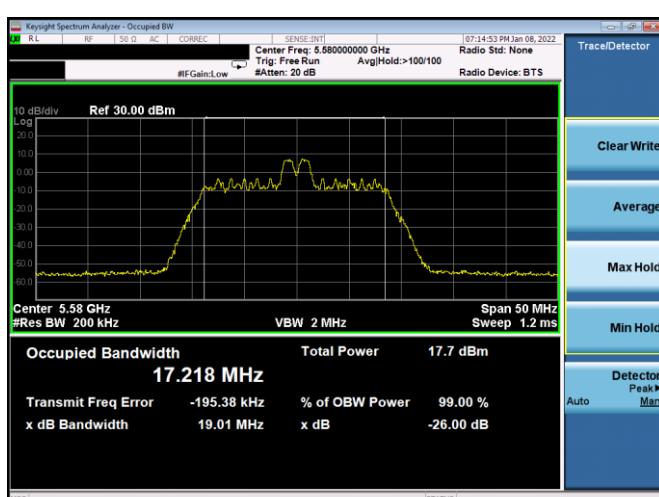
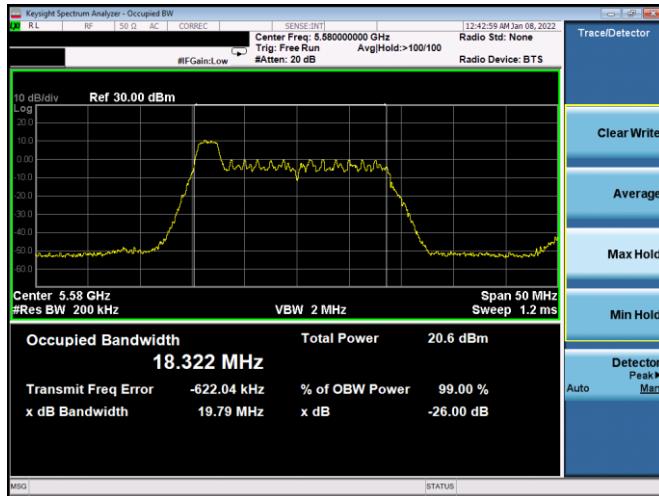


Plot 7-57. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax Index 0 – RU26 – Ch.58)

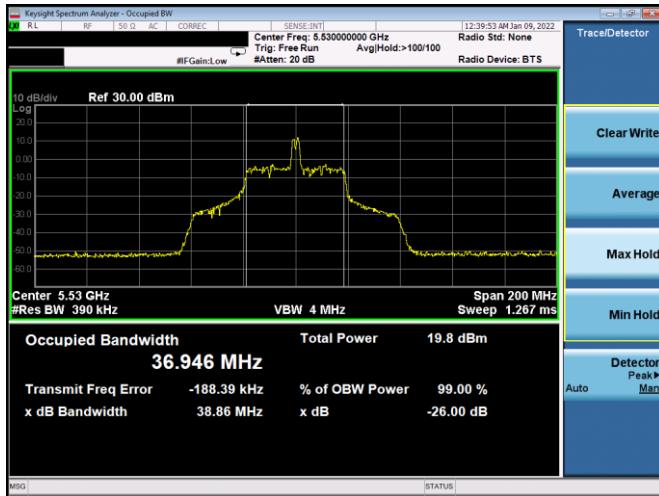


Plot 7-60. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax – RU996 – Ch.58)

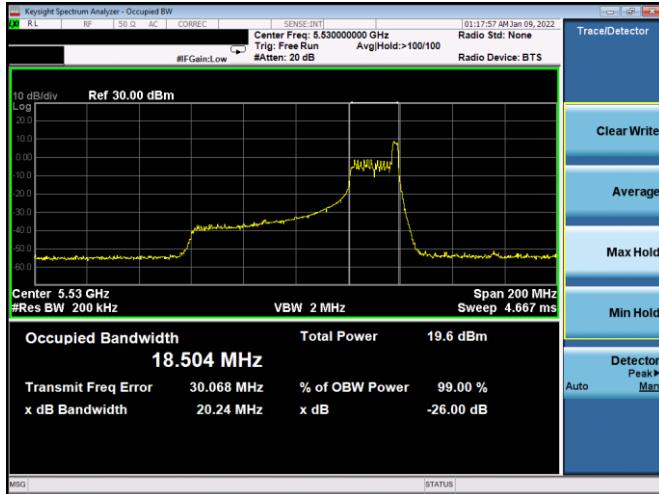
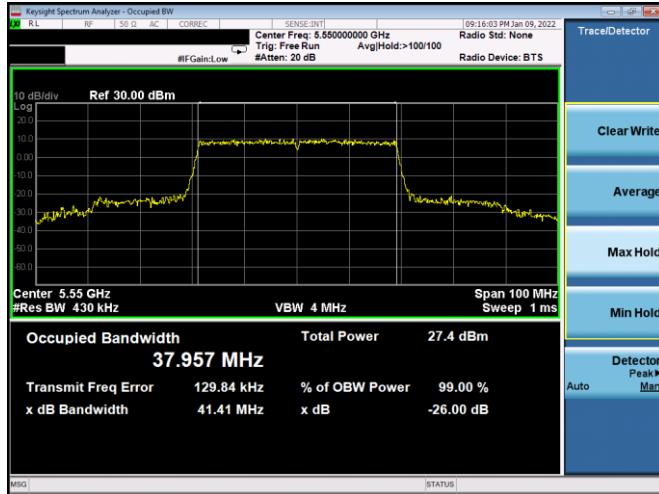
FCC ID: BCGA2589 IC: 579C-A2589	PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 30 of 397



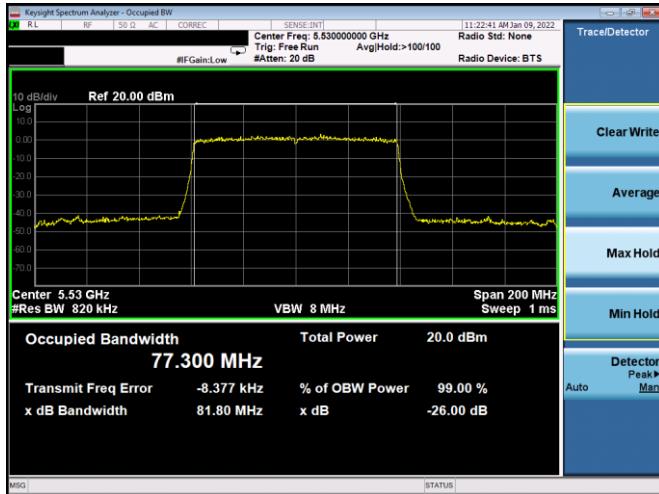
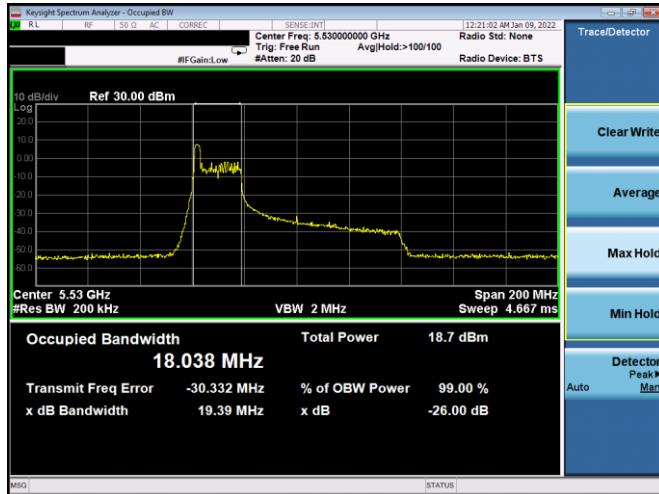
FCC ID: BCGA2589 IC: 579C-A2589	PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 31 of 397



Plot 7-67. 26dB BW & 99% OBW Antenna 1b (40MHz BW 11ax Index 17 – RU26 Ch.110)



Plot 7-71. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax Index 36 – RU26 Ch.106)



Plot 7-69. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax Index 0 – RU26 – Ch.106)

Plot 7-72. 26dB BW & 99% OBW Antenna 1b (80MHz BW 11ax – RU996 – Ch.106)

FCC ID: BCGA2589 IC: 579C-A2589	PCTEST Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 32 of 397	

Antenna 3a 26dB & 99% Bandwidth Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 99% Occupied Bandwidth [MHz]	Measured 26dB Bandwidth [MHz]
Band 1	5180	36	ax (20MHz)	26	0	135/143.4 (MCS11)	17.73	19.46
				26	4	135/143.4 (MCS11)	17.28	18.99
				26	8	135/143.4 (MCS11)	17.65	20.47
	5200	40	ax (20MHz)	26	0	135/143.4 (MCS11)	18.37	19.92
				26	4	135/143.4 (MCS11)	17.23	18.94
				26	8	135/143.4 (MCS11)	18.60	20.53
	5240	48	ax (20MHz)	26	0	135/143.4 (MCS11)	18.31	19.87
				26	4	135/143.4 (MCS11)	17.30	18.96
				26	8	135/143.4 (MCS11)	18.42	20.21
	5190	38	ax (40MHz)	26	0	271/286.8 (MCS11)	18.38	20.49
				26	8	271/286.8 (MCS11)	20.76	22.71
				26	17	271/286.8 (MCS11)	18.30	20.52
	5230	46	ax (40MHz)	26	0	271/286.8 (MCS11)	18.49	20.40
				26	8	271/286.8 (MCS11)	20.89	22.55
				26	17	271/286.8 (MCS11)	18.44	20.28
	5210	42	ax (80MHz)	26	0	567/600.5 (MCS11)	18.07	19.53
				26	18	567/600.5 (MCS11)	37.13	38.88
				26	36	567/600.5 (MCS11)	18.59	20.62
Band 2A	5260	52	ax (20MHz)	26	0	135/143.4 (MCS11)	18.24	19.21
				26	4	135/143.4 (MCS11)	14.66	17.38
				26	8	135/143.4 (MCS11)	18.28	19.54
	5280	56	ax (20MHz)	26	0	135/143.4 (MCS11)	18.37	19.83
				26	4	135/143.4 (MCS11)	17.28	18.95
				26	8	135/143.4 (MCS11)	18.61	20.52
	5320	64	ax (20MHz)	26	0	135/143.4 (MCS11)	18.18	19.73
				26	4	135/143.4 (MCS11)	16.36	17.35
				26	8	135/143.4 (MCS11)	18.01	20.19
	5270	54	ax (40MHz)	26	0	271/286.8 (MCS11)	18.42	20.33
				26	8	271/286.8 (MCS11)	21.06	22.47
				26	17	271/286.8 (MCS11)	18.42	20.03
	5310	62	ax (40MHz)	26	0	271/286.8 (MCS11)	18.29	20.11
				26	8	271/286.8 (MCS11)	20.40	22.53
				26	17	271/286.8 (MCS11)	18.35	20.20
	5290	58	ax (80MHz)	26	0	567/600.5 (MCS11)	18.06	19.55
				26	18	567/600.5 (MCS11)	37.00	38.96
				26	36	567/600.5 (MCS11)	18.67	20.90
Band 2C	5500	100	ax (20MHz)	26	0	135/143.4 (MCS11)	18.00	19.15
				26	4	135/143.4 (MCS11)	16.53	18.19
				26	8	135/143.4 (MCS11)	17.75	19.94
	5580	116	ax (20MHz)	26	0	135/143.4 (MCS11)	18.36	19.85
				26	4	135/143.4 (MCS11)	17.21	18.70
				26	8	135/143.4 (MCS11)	18.65	20.37
	5720	144	ax (20MHz)	26	0	135/143.4 (MCS11)	17.56	18.63
				26	4	135/143.4 (MCS11)	16.73	18.08
				26	8	135/143.4 (MCS11)	17.97	20.19
	5510	102	ax (40MHz)	26	0	271/286.8 (MCS11)	18.31	20.06
				26	8	271/286.8 (MCS11)	20.82	22.58
				26	17	271/286.8 (MCS11)	18.34	20.68
	5550	110	ax (40MHz)	26	0	271/286.8 (MCS11)	18.41	20.38
				26	8	271/286.8 (MCS11)	20.81	23.24
				26	17	271/286.8 (MCS11)	18.38	19.93
	5710	142	ax (40MHz)	26	0	271/286.8 (MCS11)	18.34	20.27
				26	8	271/286.8 (MCS11)	20.70	23.13
				26	17	271/286.8 (MCS11)	18.32	20.37
	5530	106	ax (80MHz)	26	0	567/600.5 (MCS11)	18.12	19.62
				26	18	567/600.5 (MCS11)	37.08	38.89
				26	36	567/600.5 (MCS11)	18.73	20.87
	5690	138	ax (80MHz)	26	0	567/600.5 (MCS11)	18.39	19.51
				26	18	567/600.5 (MCS11)	37.38	39.12
				26	36	567/600.5 (MCS11)	18.72	20.42

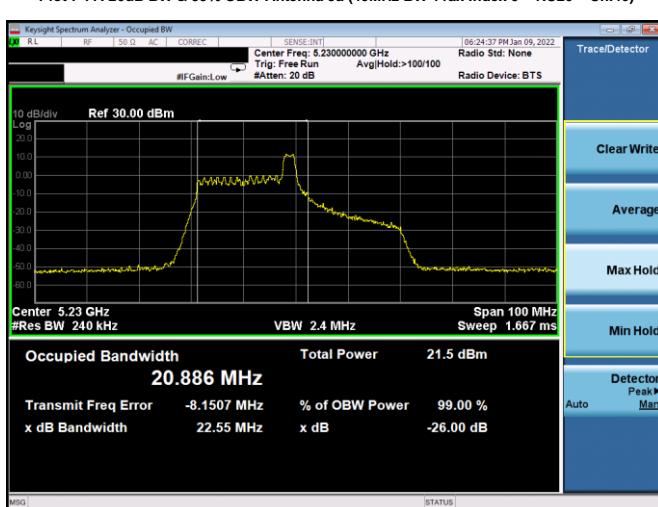
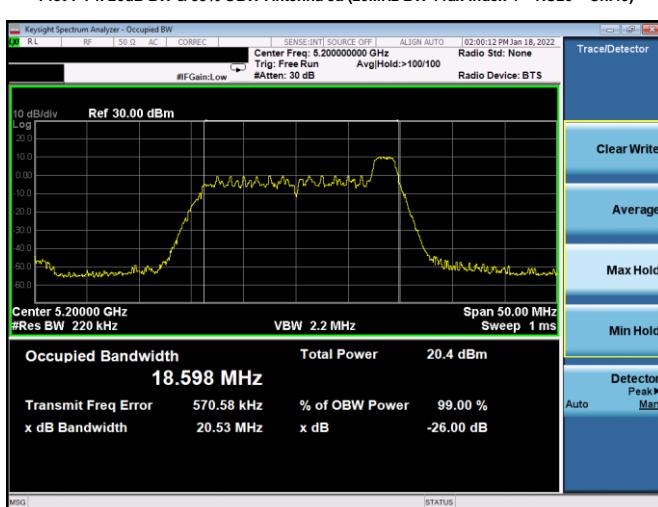
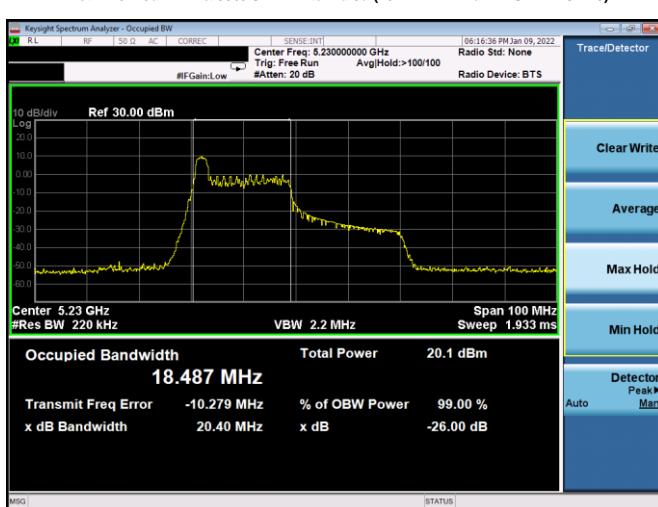
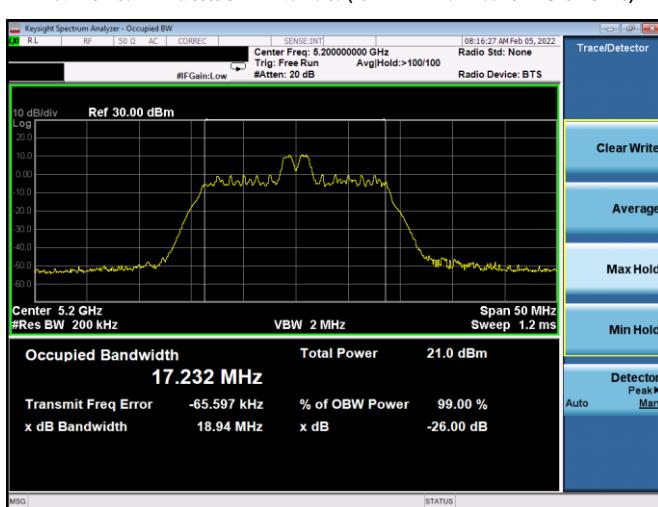
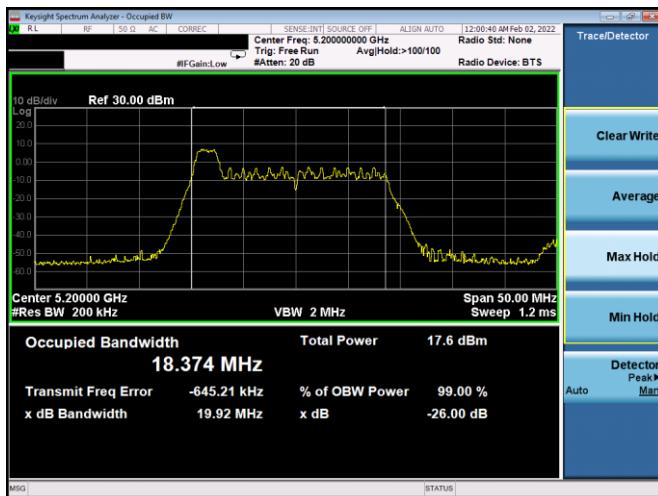
Table 7-6. Conducted BW Measurements Antenna 3a (RU26)

FCC ID: BCGA2589 IC: 579C-A2589	PCTEST [®] Proud to be part of the element			MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device					Page 33 of 397

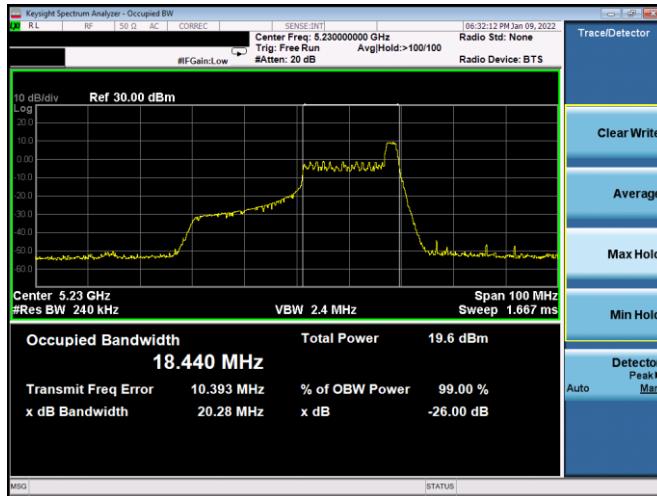
	Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 99% Occupied Bandwidth [MHz]	Measured 26dB Bandwidth [MHz]
Band 1	5180	36	ax (20MHz)	242	61	135/143.4 (MCS11)	19.04	21.21
	5200	40	ax (20MHz)	242	61	135/143.4 (MCS11)	19.18	28.23
	5240	48	ax (20MHz)	242	61	135/143.4 (MCS11)	19.17	27.38
	5190	38	ax (40MHz)	484	65	271/286.8 (MCS11)	37.92	41.57
	5230	46	ax (40MHz)	484	65	271/286.8 (MCS11)	38.26	57.54
	5210	42	ax (80MHz)	996	67	567/600.5 (MCS11)	77.14	81.89
Band 2A	5260	52	ax (20MHz)	242	61	135/143.4 (MCS11)	19.17	29.41
	5280	56	ax (20MHz)	242	61	135/143.4 (MCS11)	19.12	27.41
	5320	64	ax (20MHz)	242	61	135/143.4 (MCS11)	19.05	21.28
	5270	54	ax (40MHz)	484	65	271/286.8 (MCS11)	36.07	46.14
	5310	62	ax (40MHz)	484	65	271/286.8 (MCS11)	37.96	41.92
	5290	58	ax (80MHz)	996	67	567/600.5 (MCS11)	77.14	82.00
Band 2C	5500	100	ax (20MHz)	242	61	135/143.4 (MCS11)	19.03	21.24
	5580	116	ax (20MHz)	242	61	135/143.4 (MCS11)	19.02	21.33
	5720	144	ax (20MHz)	242	61	135/143.4 (MCS11)	19.06	21.52
	5510	102	ax (40MHz)	484	65	271/286.8 (MCS11)	37.88	41.44
	5550	110	ax (40MHz)	484	65	271/286.8 (MCS11)	37.99	41.42
	5710	142	ax (40MHz)	484	65	271/286.8 (MCS11)	37.98	43.06
	5530	106	ax (80MHz)	996	67	567/600.5 (MCS11)	77.24	82.06
	5690	138	ax (80MHz)	996	67	567/600.5 (MCS11)	77.77	117.10

Table 7-7. Conducted BW Measurements Antenna 3a (Fully – loaded RU)

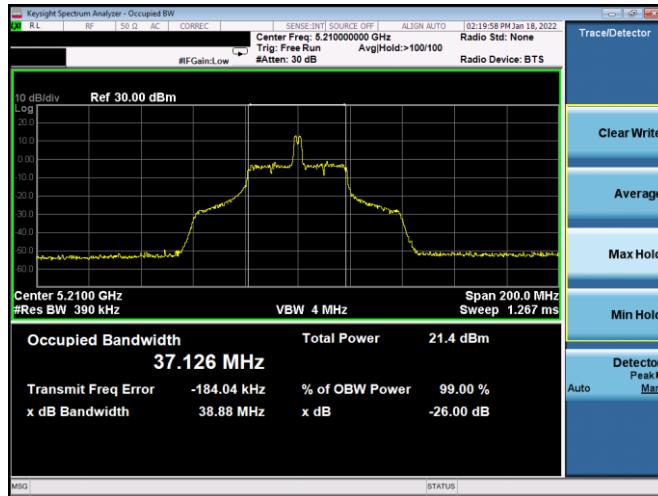
FCC ID: BCGA2589 IC: 579C-A2589	 PCTEST [®] Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 34 of 397



FCC ID: BCGA2589 IC: 579C-A2589	 PCTEST Proud to be part of the element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 35 of 397



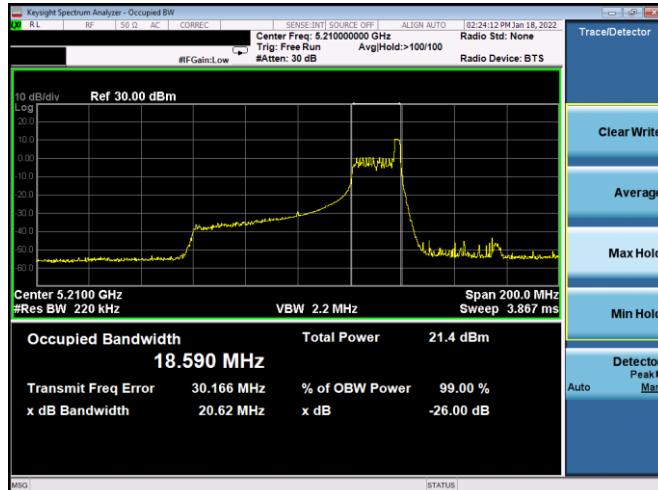
Plot 7-79. 26dB BW & 99% OBW Antenna 3a (40MHz BW 11ax Index 17 – RU26 – Ch.46)



Plot 7-82. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax Index 18 – RU26 – Ch.42)



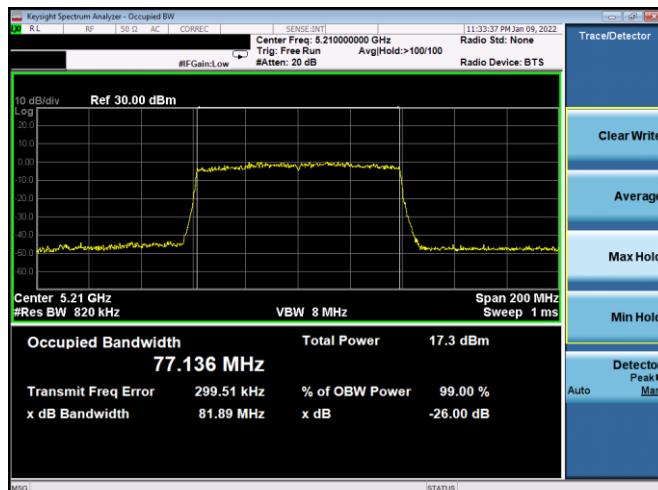
Plot 7-80. 26dB BW & 99% OBW Antenna 3a (40MHz BW 11ax – RU484 – Ch.46)



Plot 7-83. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax Index 36 – RU26 – Ch.42)

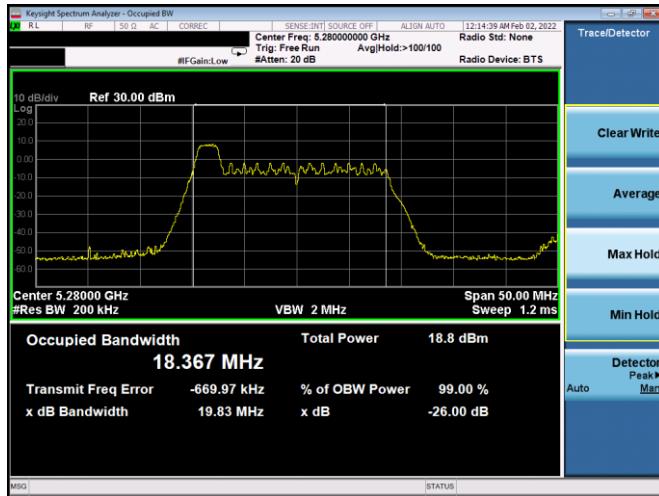


Plot 7-81. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax Index 0 – RU26 – Ch.42)



Plot 7-84. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax – RU996 – Ch.42)

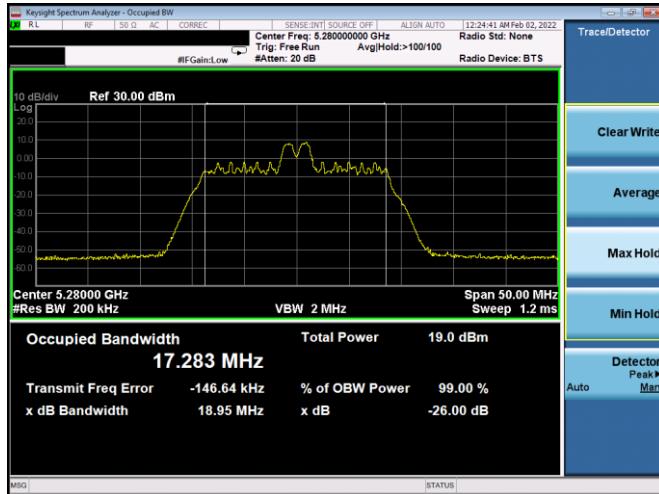
FCC ID: BCGA2589 IC: 579C-A2589	PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 36 of 397



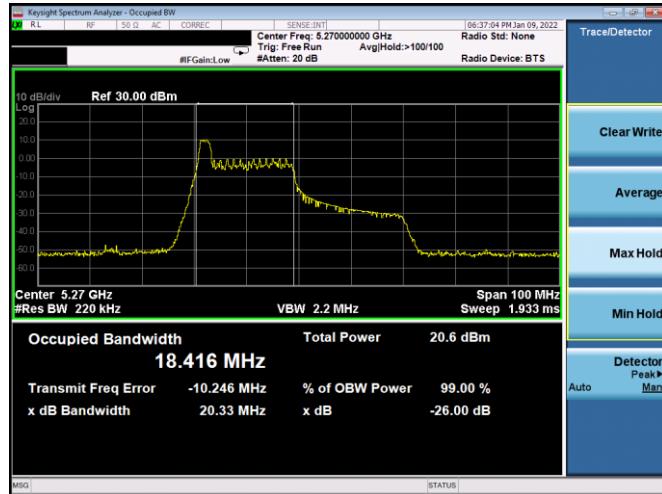
Plot 7-85. 26dB BW & 99% OBW Antenna 3a (20MHz BW 11ax Index 0 - RU26 - Ch.56)



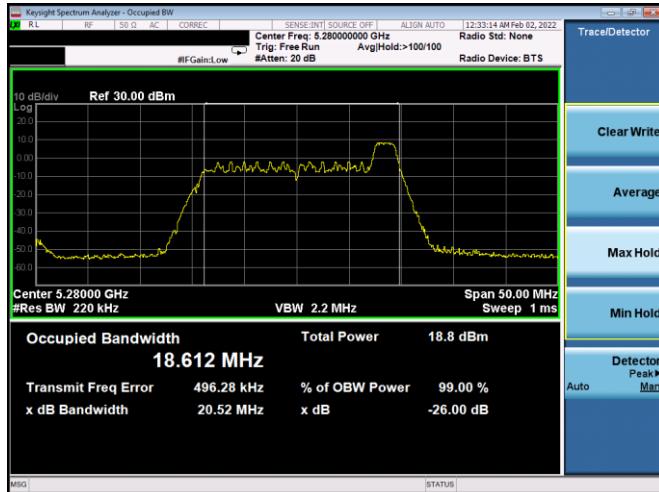
Plot 7-88. 26dB BW & 99% OBW Antenna 3a (20MHz BW 11ax - RU242 - Ch.56)



Plot 7-86. 26dB BW & 99% OBW Antenna 3a (20MHz BW 11ax Index 4 - RU26 - Ch.56)



Plot 7-89. 26dB BW & 99% OBW Antenna 3a (40MHz BW 11ax Index 0 - RU26 - Ch.54)

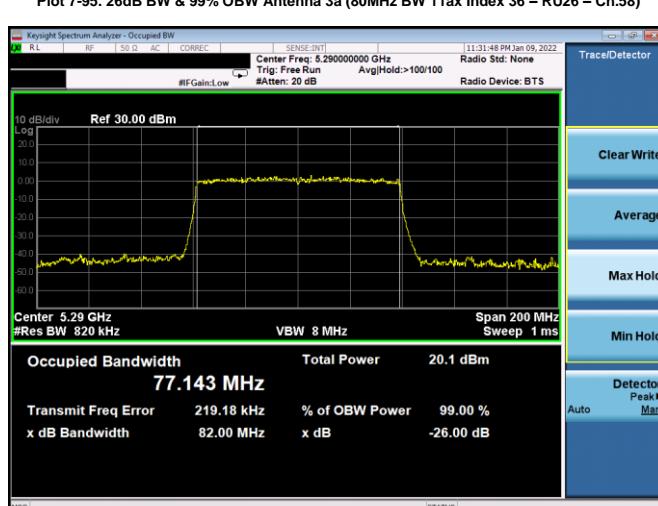
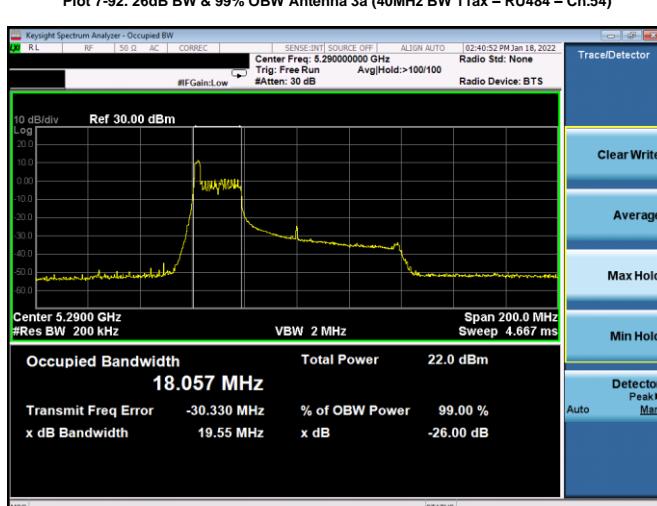
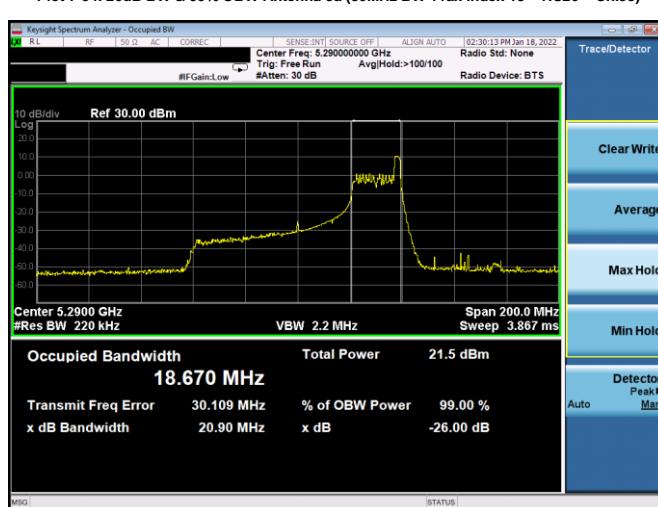
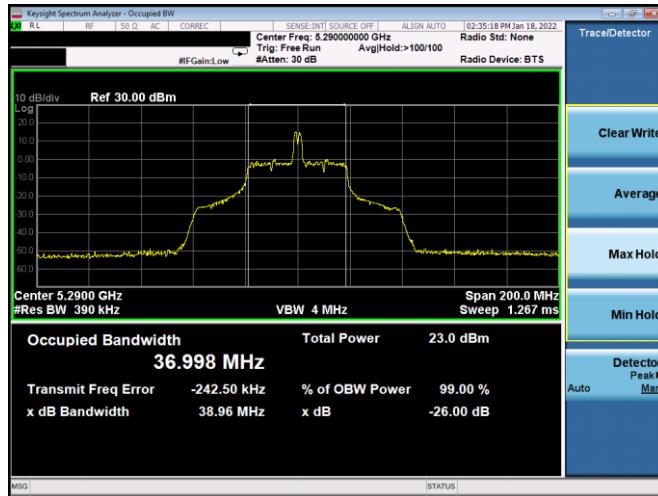


Plot 7-87. 26dB BW & 99% OBW Antenna 3a (20MHz BW 11ax Index 8 - RU26 - Ch.56)

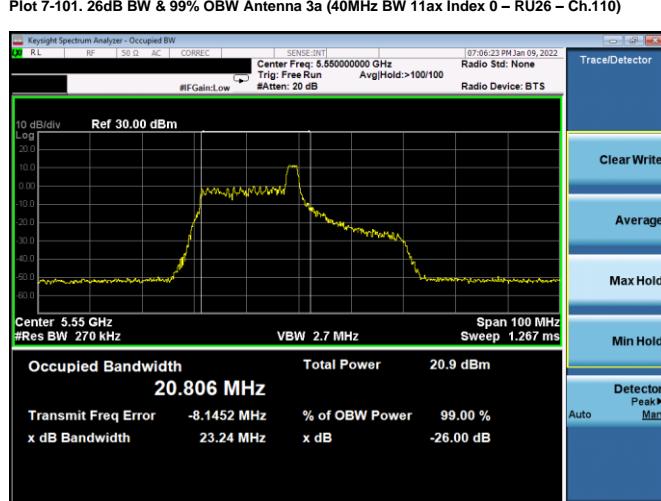
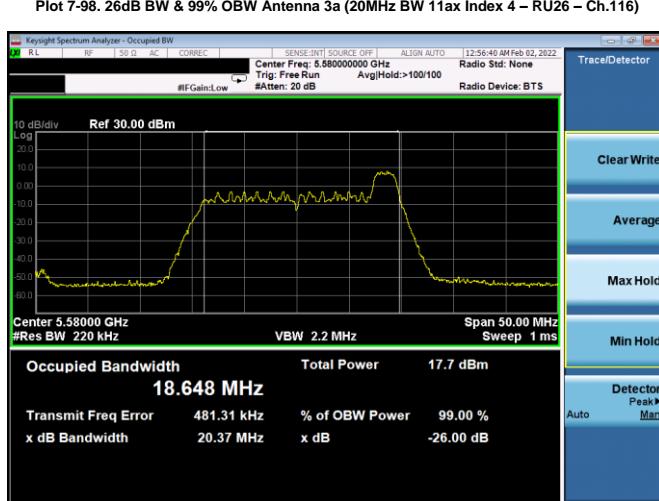
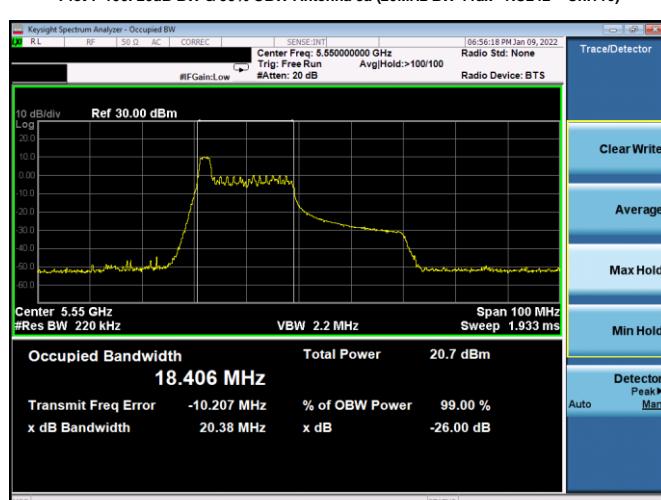
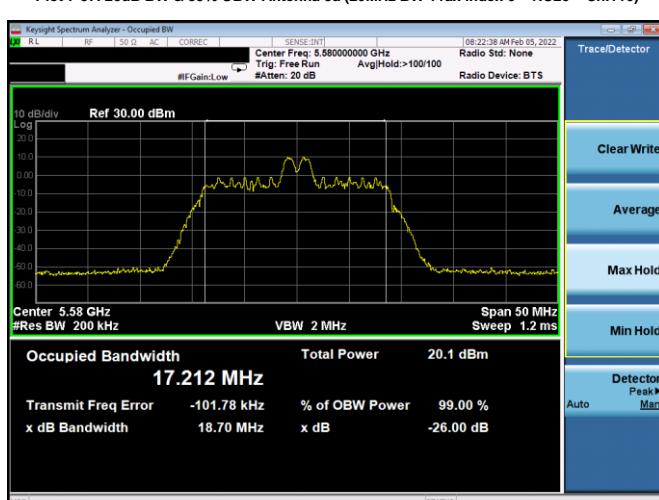
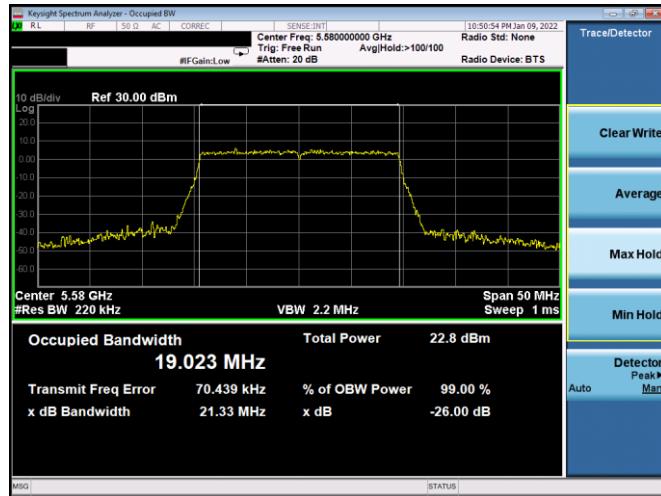
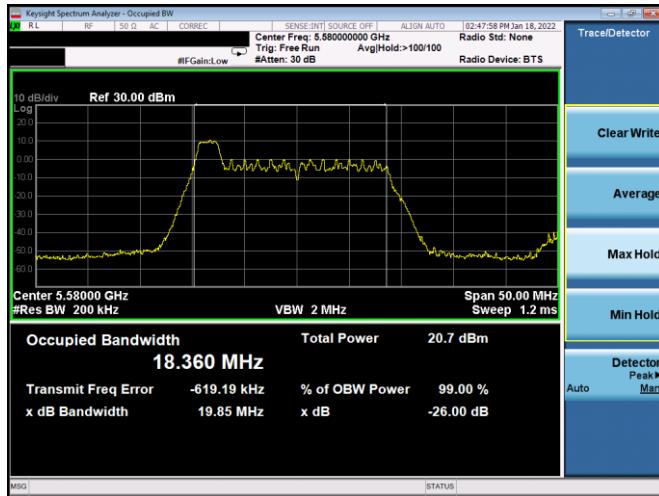


Plot 7-90. 26dB BW & 99% OBW Antenna 3a (40MHz BW 11ax Index 8 - RU26 - Ch.54)

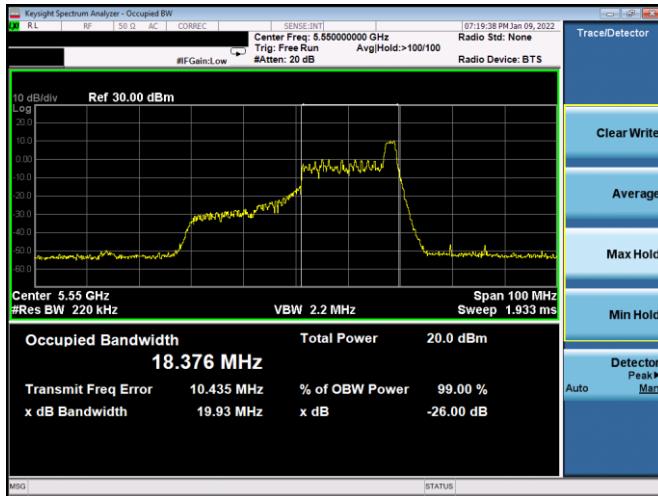
FCC ID: BCGA2589 IC: 579C-A2589	 PCTEST Proud to be part of the element		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 37 of 397	



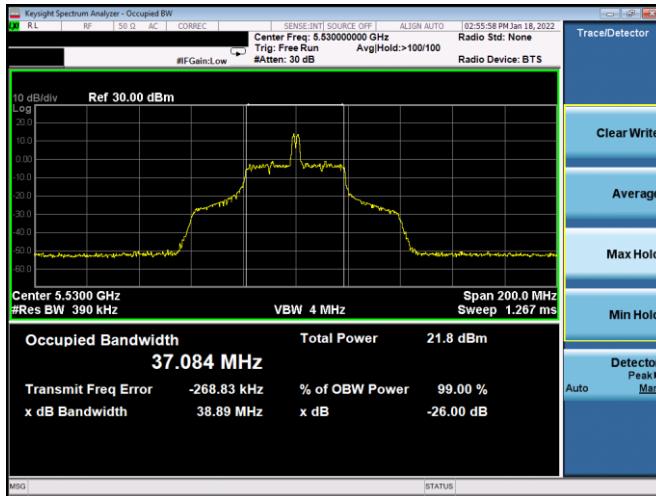
FCC ID: BCGA2589	IC: 579C-A2589	PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device		Page 38 of 397



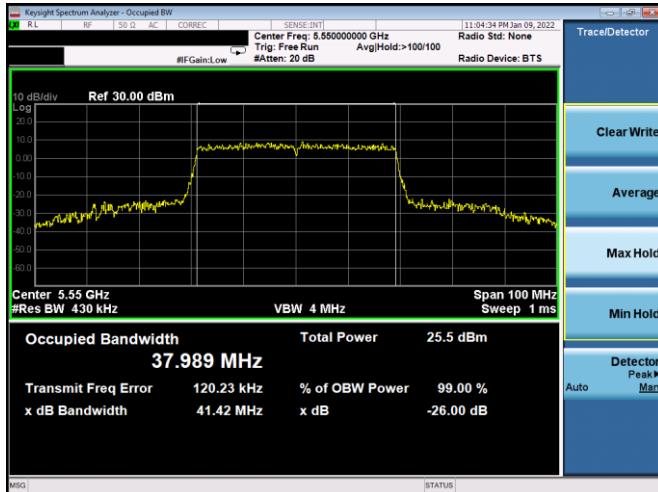
FCC ID: BCGA2589 IC: 579C-A2589	PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 39 of 397



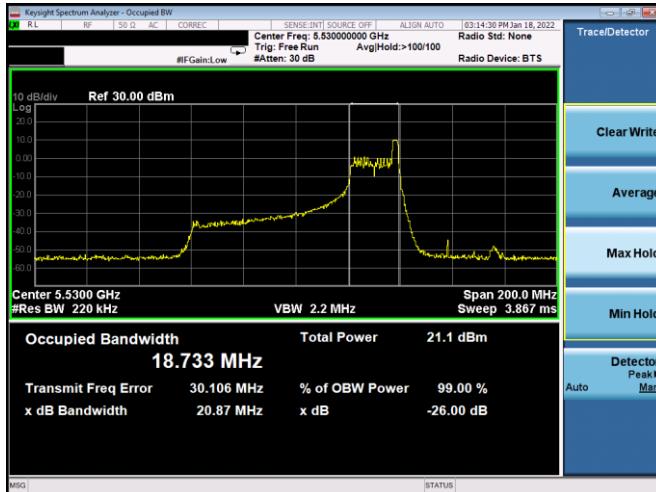
Plot 7-103. 26dB BW & 99% OBW Antenna 3a (40MHz BW 11ax Index 17 – RU26 – Ch.110)



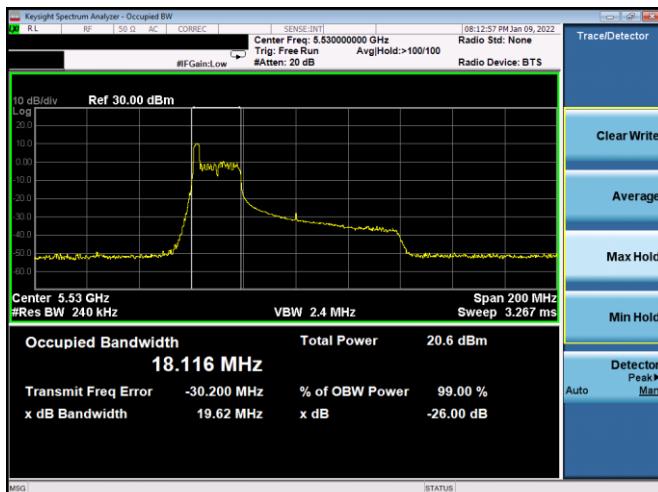
Plot 7-106. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax Index 18 – RU26 – Ch.106)



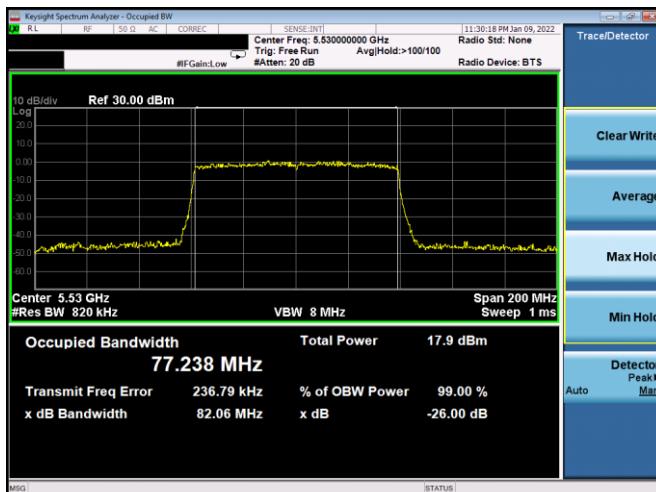
Plot 7-104. 26dB BW & 99% OBW Antenna 3a (40MHz BW 11ax – RU484 – Ch.110)



Plot 7-107. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax Index 36 – RU26 – Ch.106)



Plot 7-105. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax Index 0 – RU26 – Ch.106)



Plot 7-108. 26dB BW & 99% OBW Antenna 3a (80MHz BW 11ax – RU996 – Ch.106)

FCC ID: BCGA2589 IC: 579C-A2589	PCTEST Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device		

7.3 6dB & 99% Bandwidth Measurement – 802.11ax OFDMA

§2.1049: \$15.407 (e); RSS-Gen [6.7]

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 ≥ 500 kHz.

Test Procedure Used

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

Test Settings

1. 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 $\geq 3 \times$ 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

1. All antenna configurations were investigated and only the worst case is reported
2. All RU's were investigated and only worst case partially-loaded and fully-loaded RU's were reported.
3. Low, mid, and high channels were tested and tabular data has been reported. Only mid channel bandwidth plots have been reported.

FCC ID: BCGA2589 IC: 579C-A2589	PCTEST [®] Proud to be part of the element		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 41 of 397	

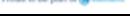
Antenna 2b 6dB & 99% Bandwidth Measurements

Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 99% Occupied Bandwidth [MHz]	Measured 6dB Bandwidth [MHz]	Minimum 6dB Bandwidth [MHz]	Pass / Fail	
Band 3	5745	149	ax (20MHz)	26	0	8/8.6 (MCS0)	18.15	2.15	0.50	Pass
				26	4	8/8.6 (MCS0)	17.22	2.71	0.50	Pass
				26	8	8/8.6 (MCS0)	18.40	2.12	0.50	Pass
	5785	157	ax (20MHz)	26	0	8/8.6 (MCS0)	17.89	2.10	0.50	Pass
				26	4	8/8.6 (MCS0)	17.19	2.68	0.50	Pass
				26	8	8/8.6 (MCS0)	17.96	2.13	0.50	Pass
	5825	165	ax (20MHz)	26	0	8/8.6 (MCS0)	18.17	2.05	0.50	Pass
				26	4	8/8.6 (MCS0)	16.99	2.66	0.50	Pass
				26	8	8/8.6 (MCS0)	18.20	2.07	0.50	Pass
	5755	151	ax (40MHz)	26	0	16/17.2 (MCS0)	17.57	2.15	0.50	Pass
				26	8	16/17.2 (MCS0)	19.38	2.15	0.50	Pass
				26	17	16/17.2 (MCS0)	18.04	2.18	0.50	Pass
	5795	159	ax (40MHz)	26	0	16/17.2 (MCS0)	18.00	2.19	0.50	Pass
				26	8	16/17.2 (MCS0)	18.74	2.13	0.50	Pass
				26	17	16/17.2 (MCS0)	18.05	2.19	0.50	Pass
	5775	155	ax (80MHz)	26	0	34/36 (MCS0)	17.97	2.23	0.50	Pass
				26	18	34/36 (MCS0)	36.51	2.86	0.50	Pass
				26	36	34/36 (MCS0)	18.13	2.25	0.50	Pass

Table 7-8. Conducted Bandwidth Measurements Antenna 2b (RU26)

Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 99% Occupied Bandwidth [MHz]	Measured 6dB Bandwidth [MHz]	Minimum 6dB Bandwidth [MHz]	Pass / Fail	
Band 3	5745	149	ax (20MHz)	242	61	8/8.6 (MCS0)	18.84	18.83	0.50	Pass
	5785	157	ax (20MHz)	242	61	8/8.6 (MCS0)	18.87	18.68	0.50	Pass
	5825	165	ax (20MHz)	242	61	8/8.6 (MCS0)	18.91	18.89	0.50	Pass
	5755	151	ax (40MHz)	484	65	16/17.2 (MCS0)	37.87	38.09	0.50	Pass
	5795	159	ax (40MHz)	484	65	16/17.2 (MCS0)	37.87	38.09	0.50	Pass
	5775	155	ax (80MHz)	996	67	34/36 (MCS0)	77.15	77.96	0.50	Pass

Table 7-9. Conducted Bandwidth Measurements Antenna 2b (Fully- loaded RU)

FCC ID: BCGA2589 IC: 579C-A2589	 PCTEST [®] Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2111150079-15.BCG	Test Dates: 12/02/2021 - 02/16/2022	EUT Type: Tablet Device	Page 42 of 397