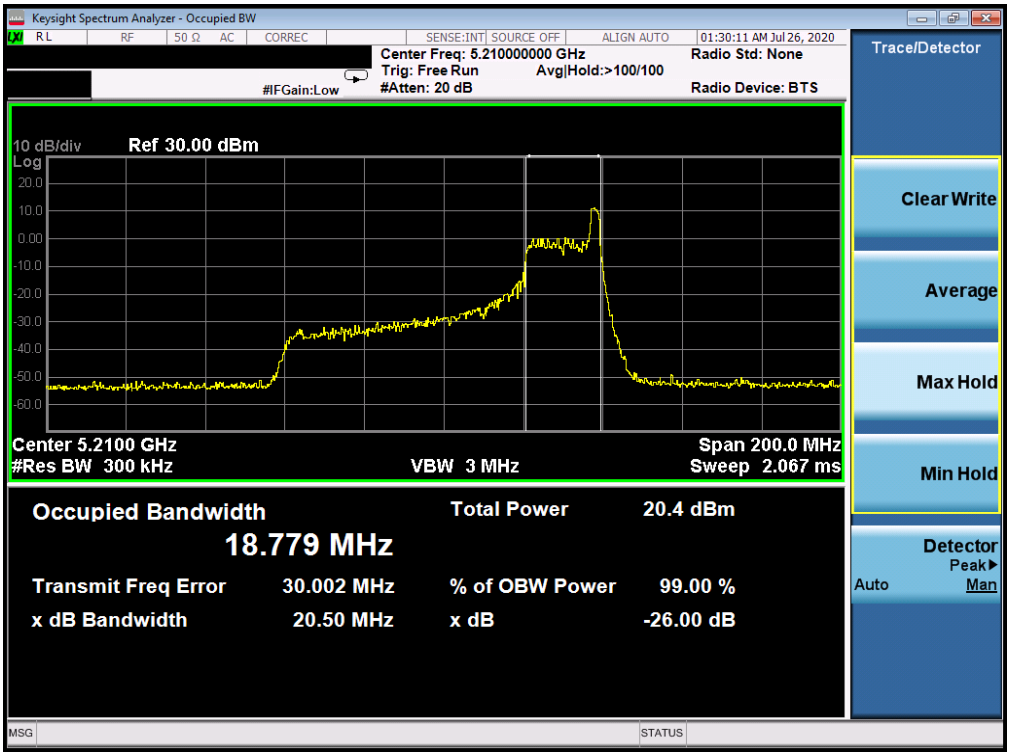
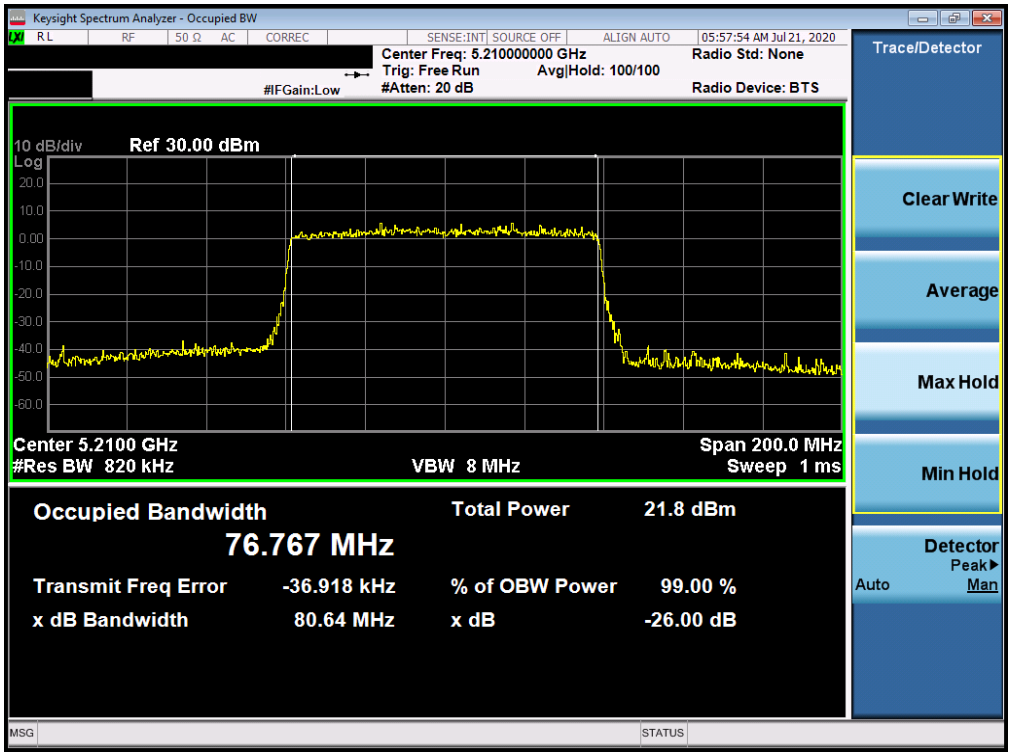
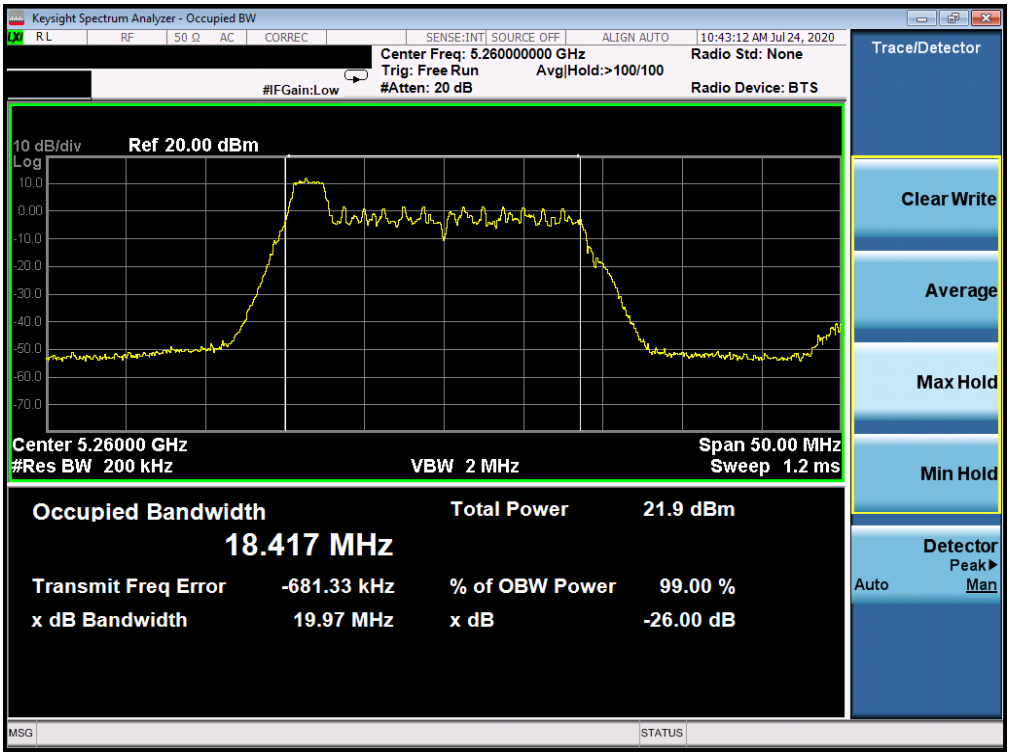


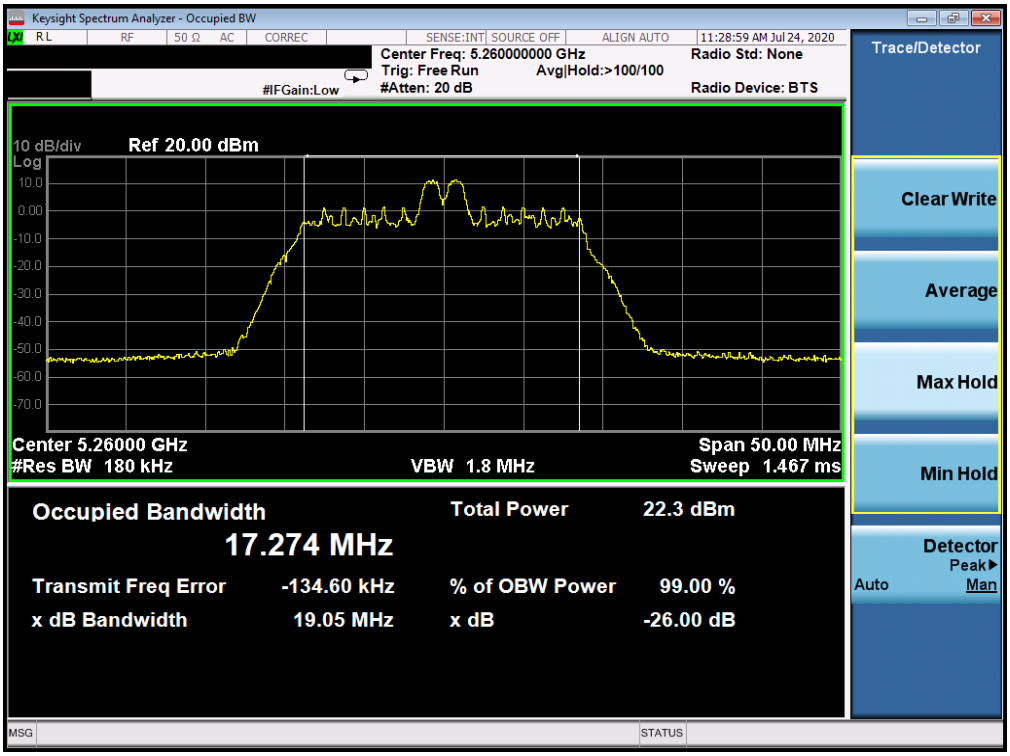
Plot 7-103. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 1) – Ch. 42)



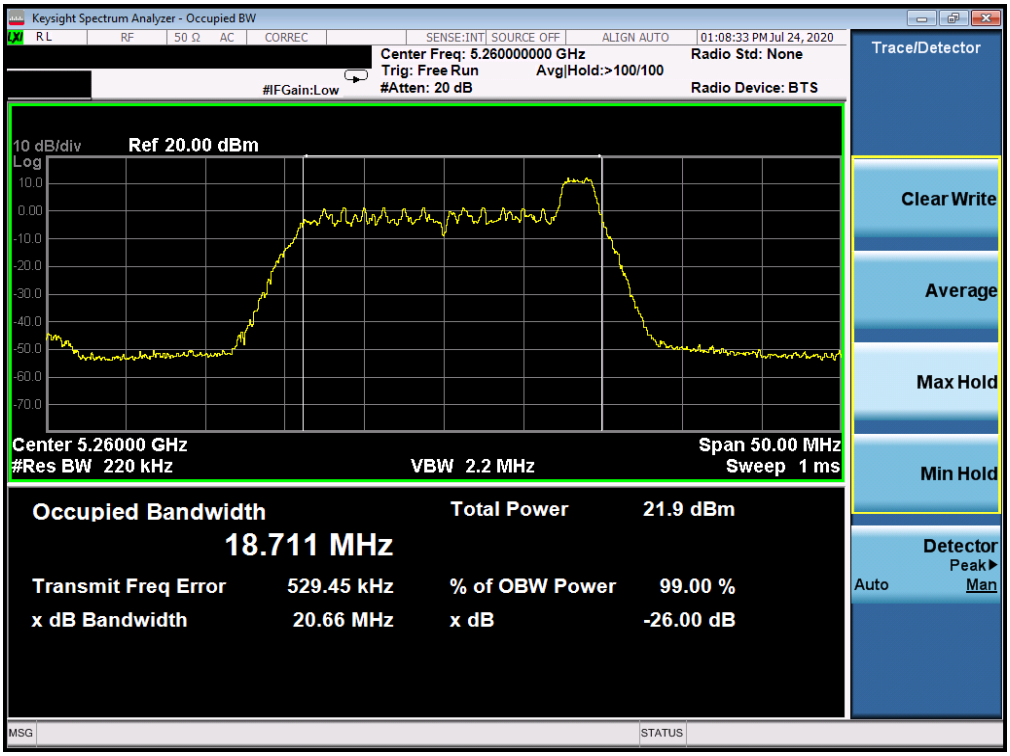
Plot 7-104. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax – RU996 (UNII Band 1) – Ch. 42)



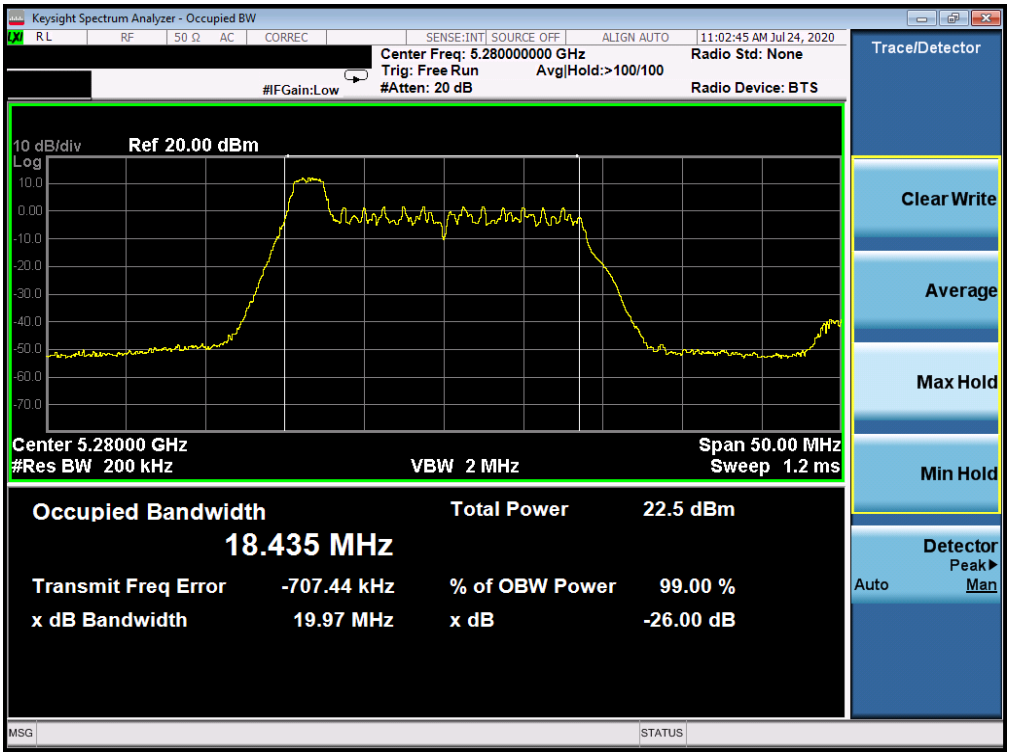
Plot 7-105. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 52)



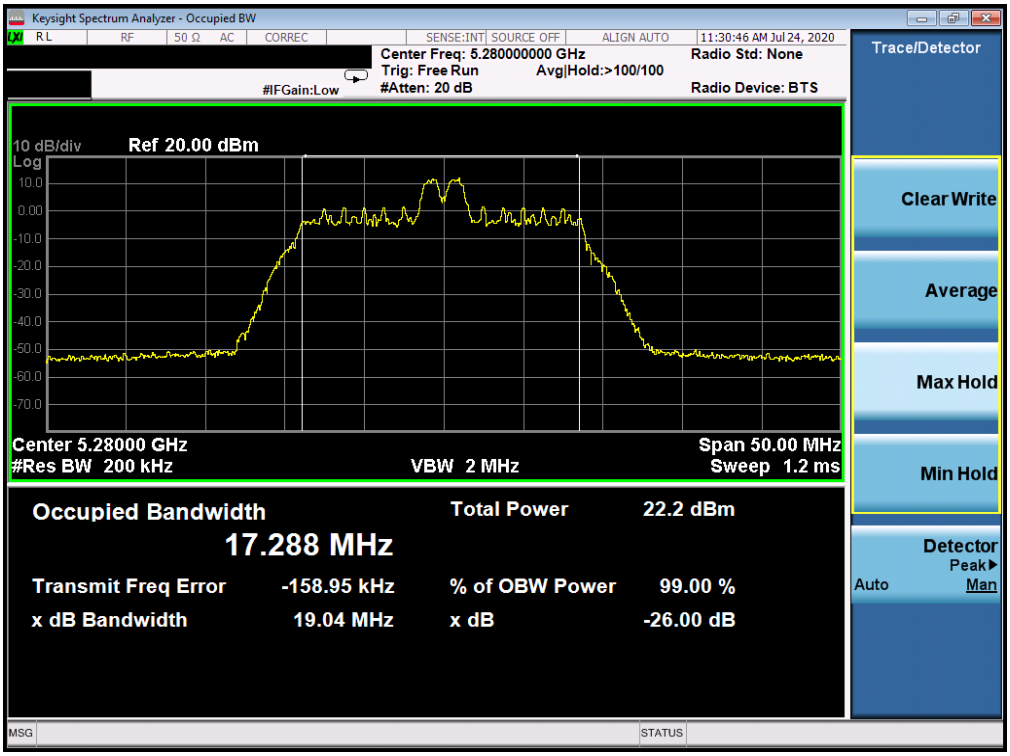
Plot 7-106. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 52)



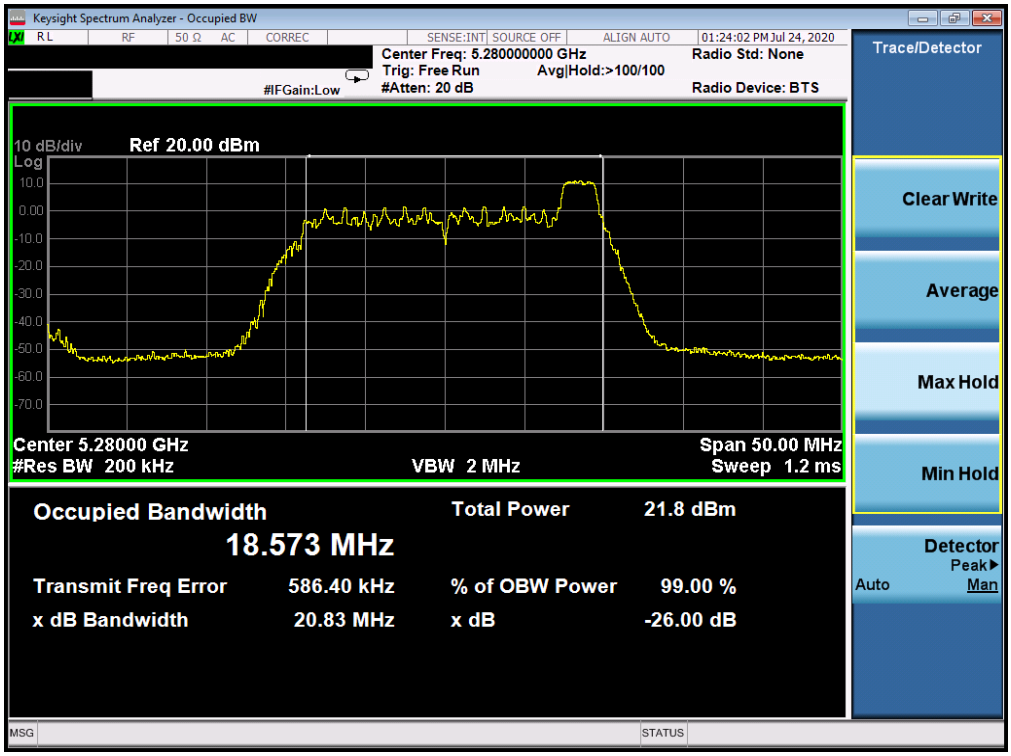
Plot 7-107. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 52)



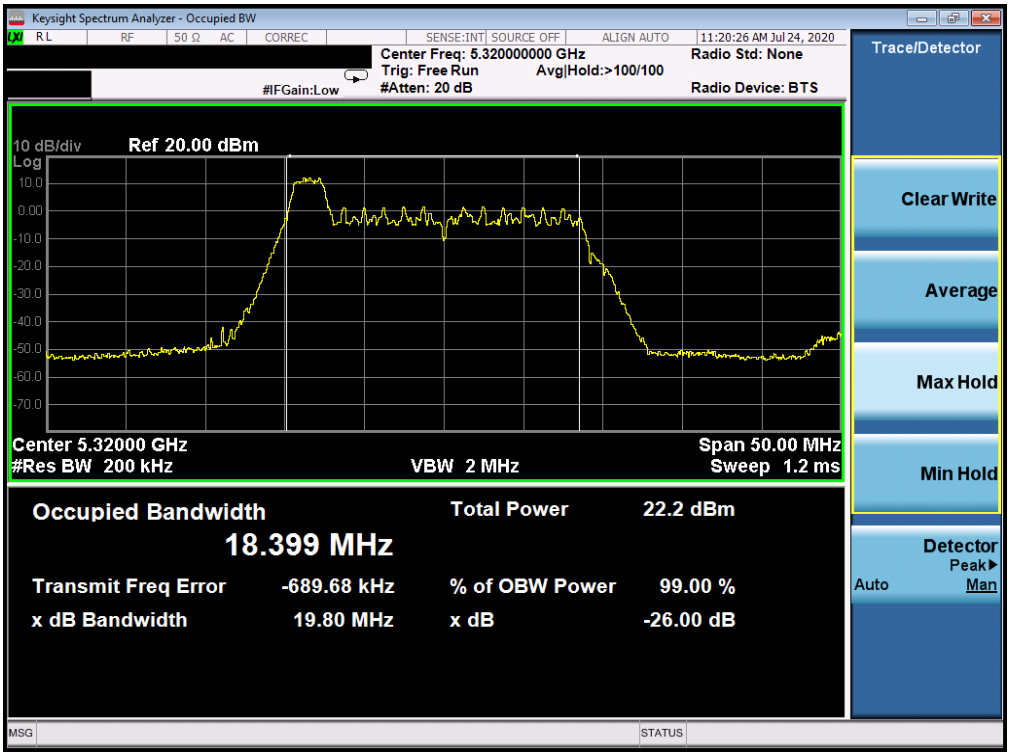
Plot 7-108. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 56)



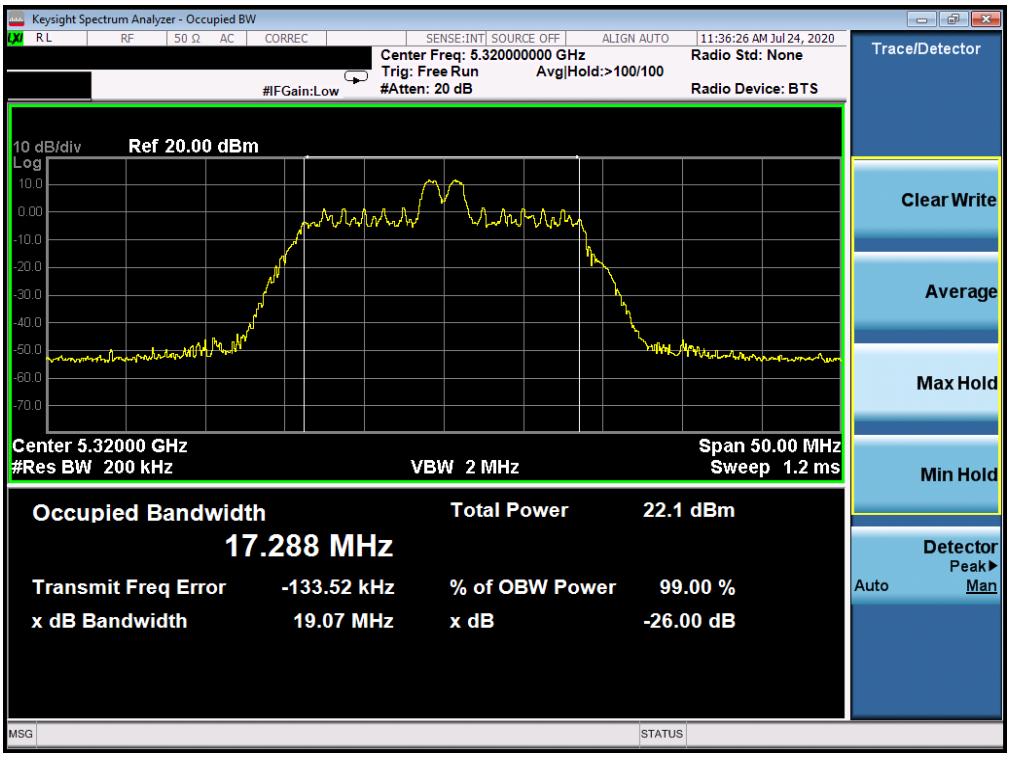
Plot 7-109. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 56)



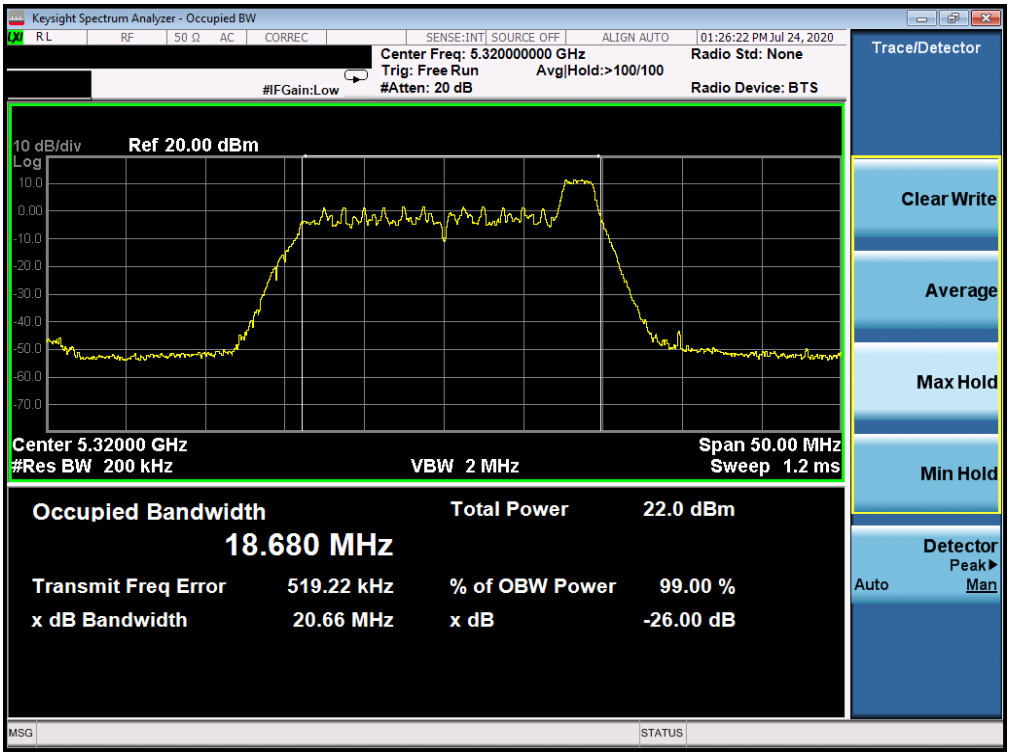
Plot 7-110. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8– RU26 (UNII Band 2A) – Ch. 56)



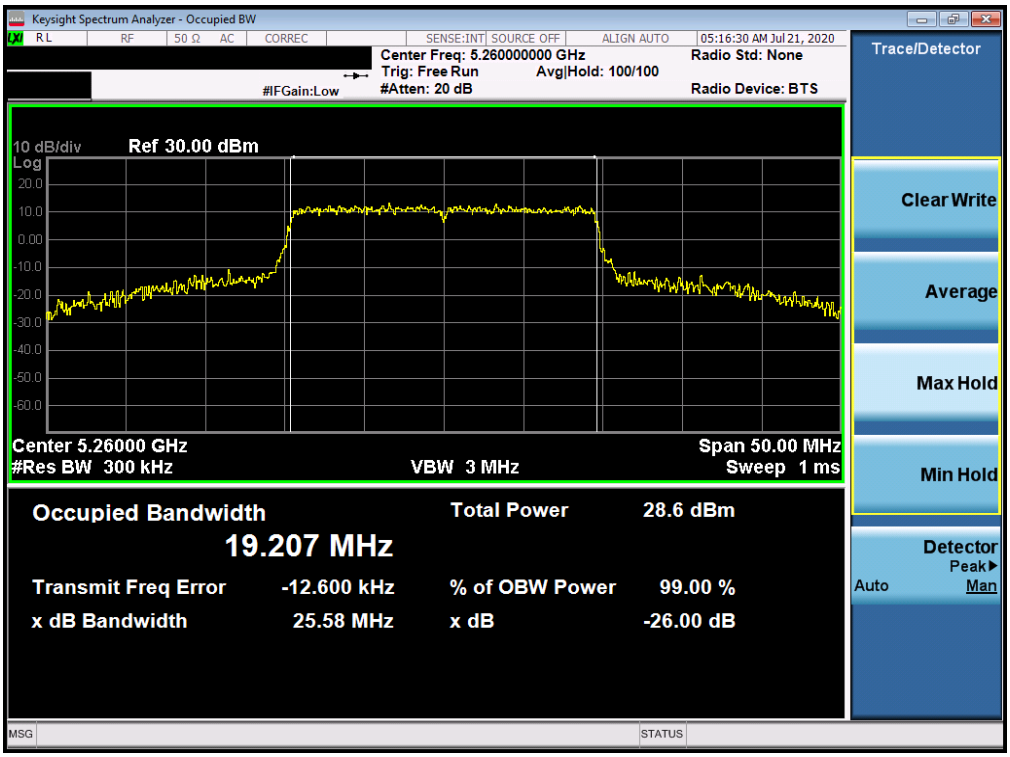
Plot 7-111. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 64)



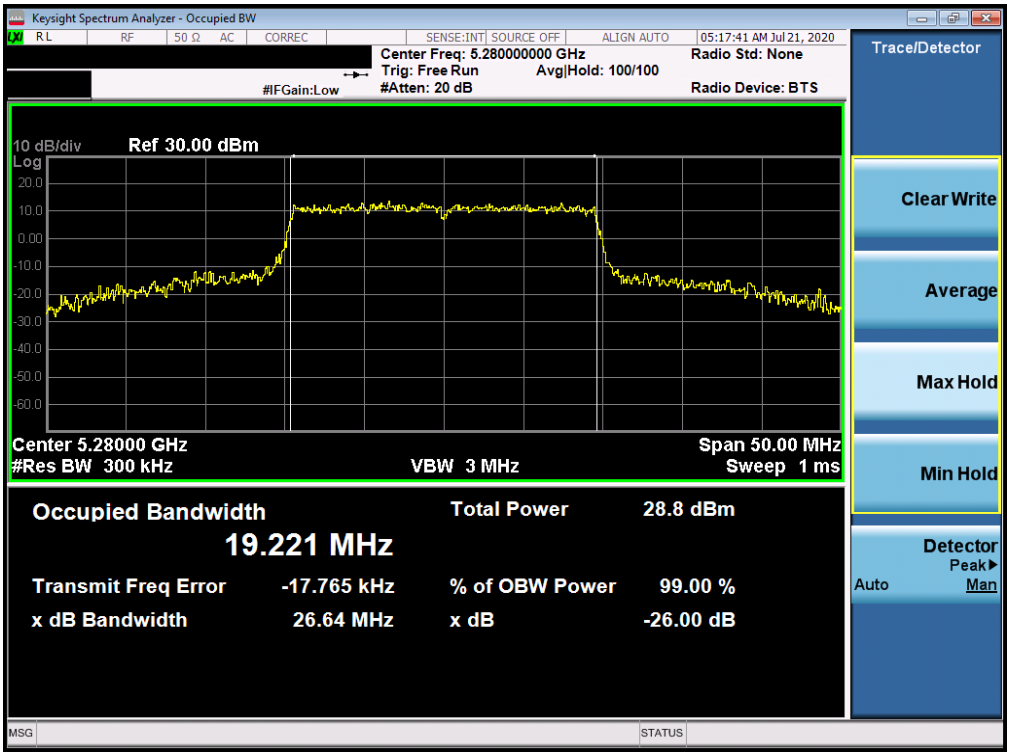
Plot 7-112. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2A) – Ch. 64)



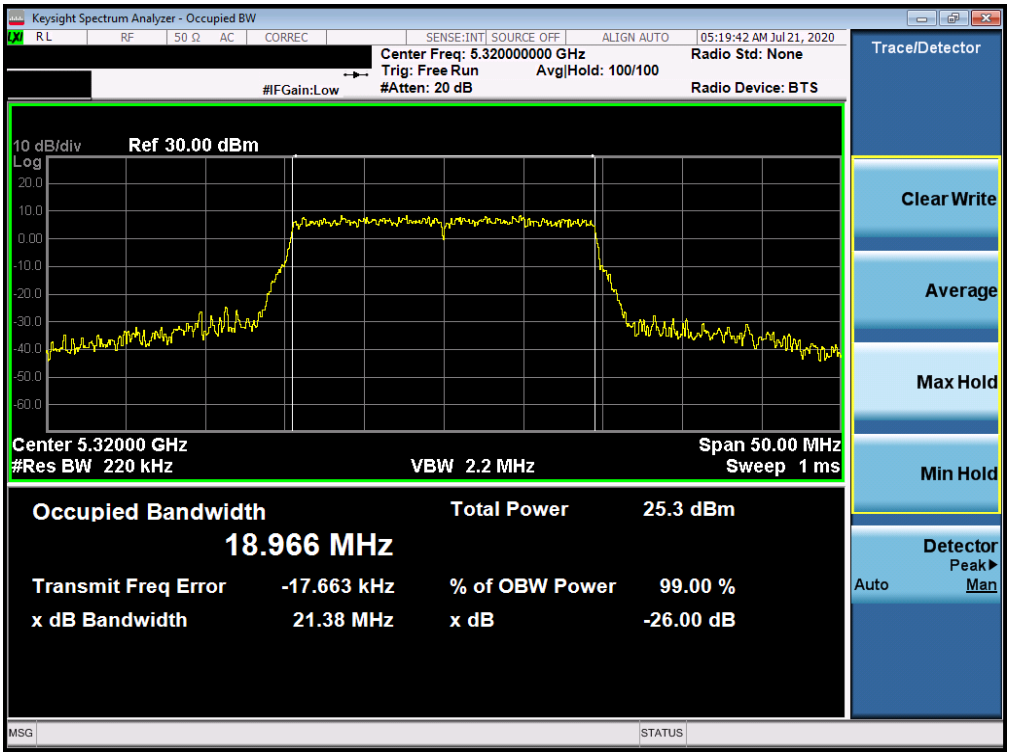
Plot 7-113. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 64)



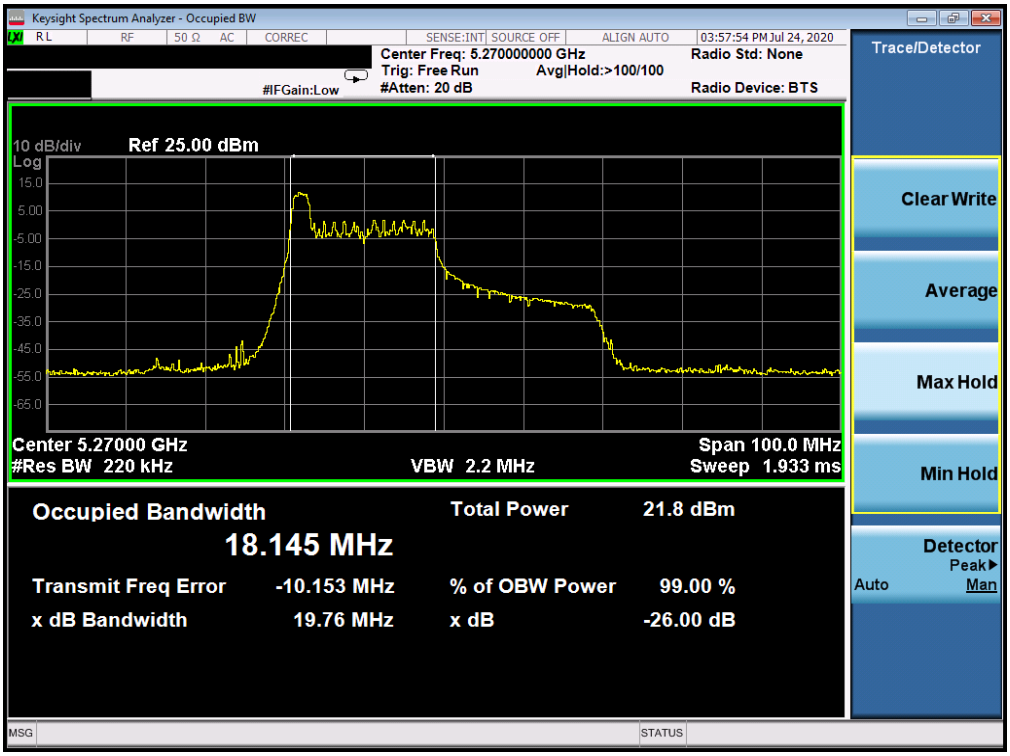
Plot 7-114. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 52)



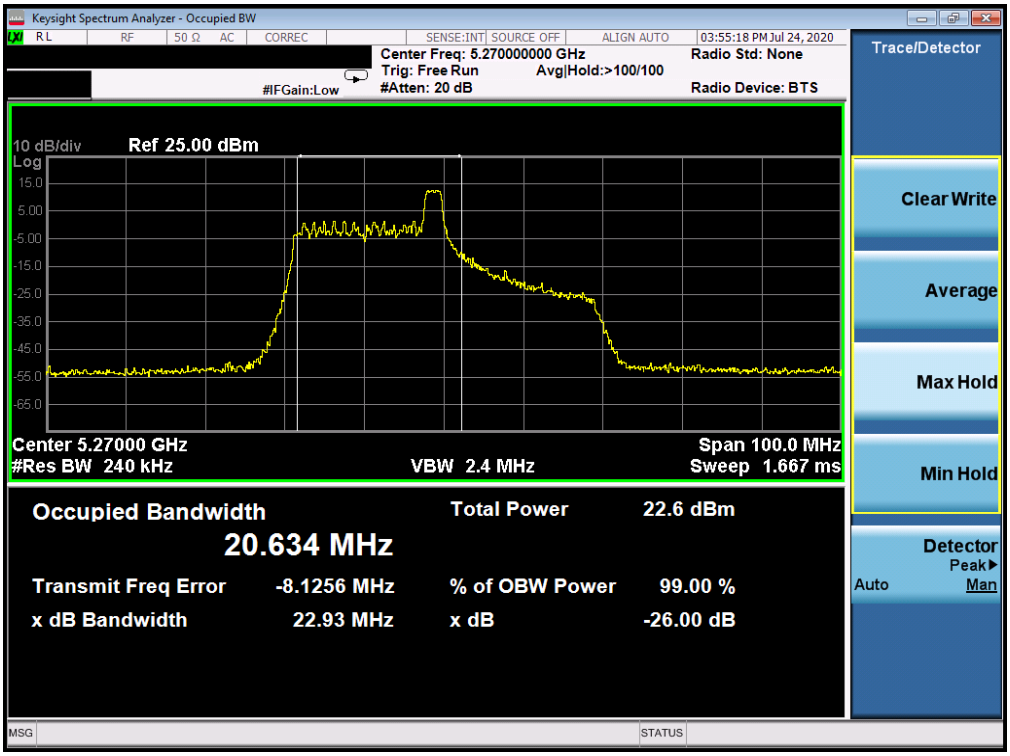
Plot 7-115. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 56)



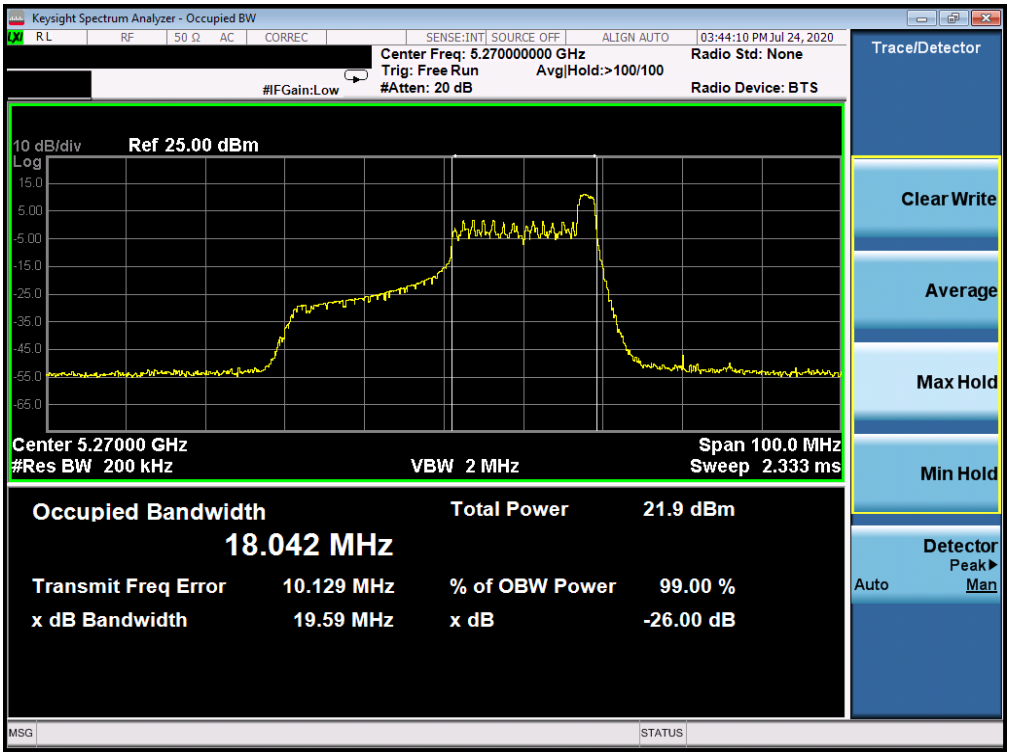
Plot 7-116. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 2A) – Ch. 64)



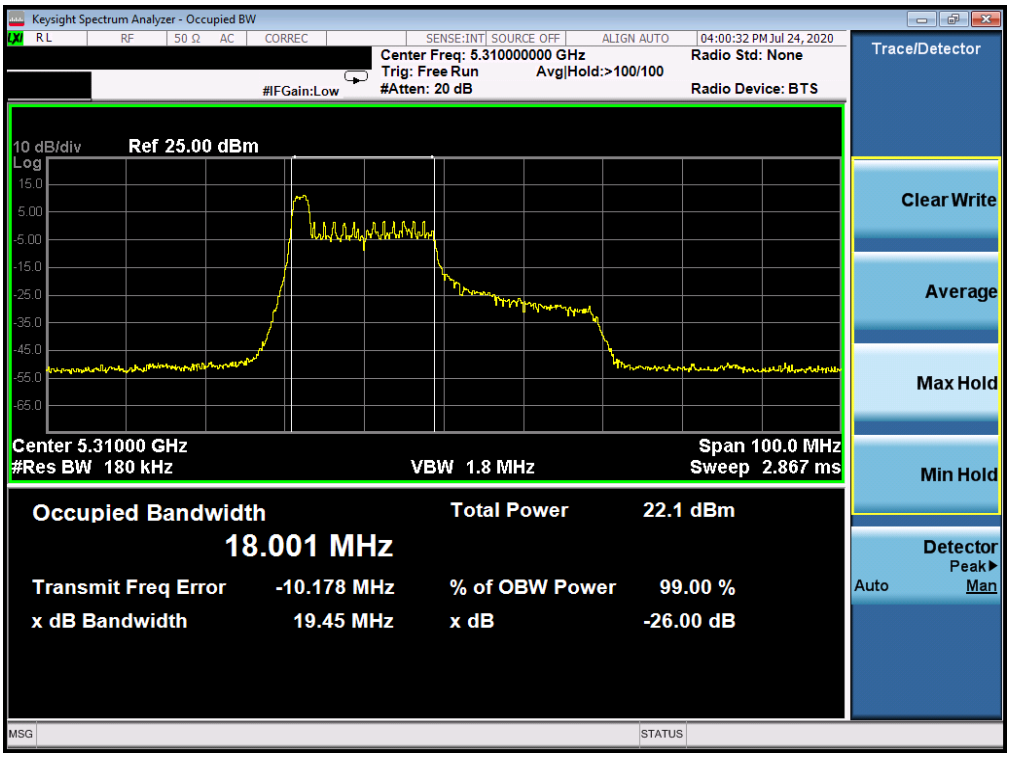
Plot 7-117. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 54)



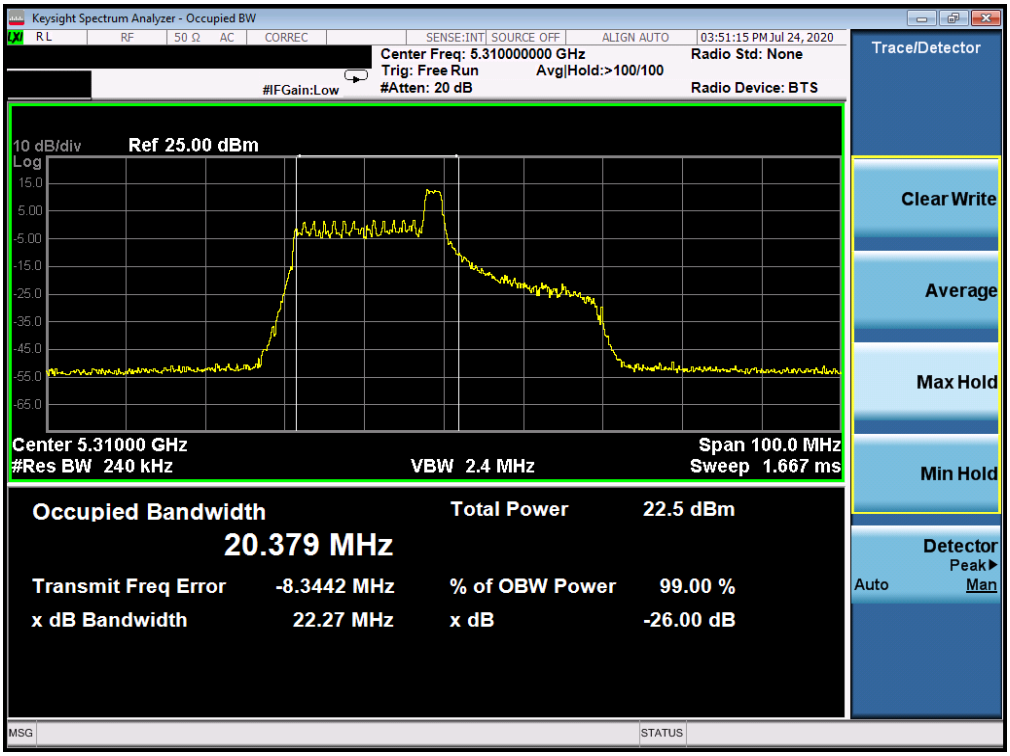
Plot 7-118. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 54)



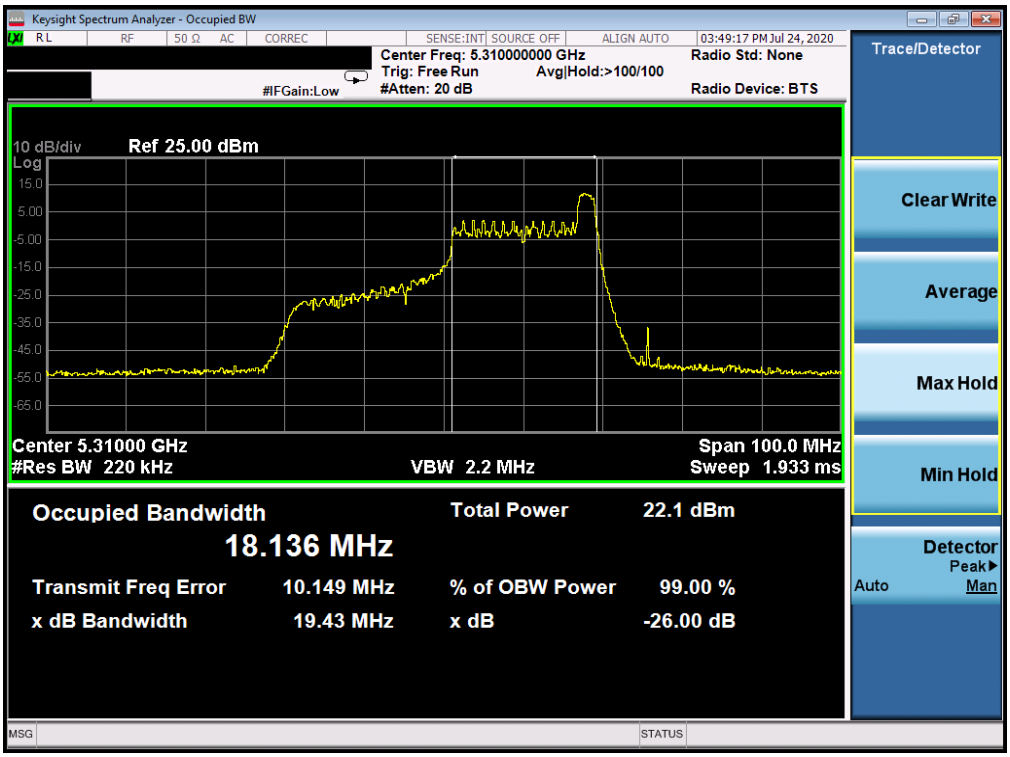
Plot 7-119. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2A) – Ch. 54)



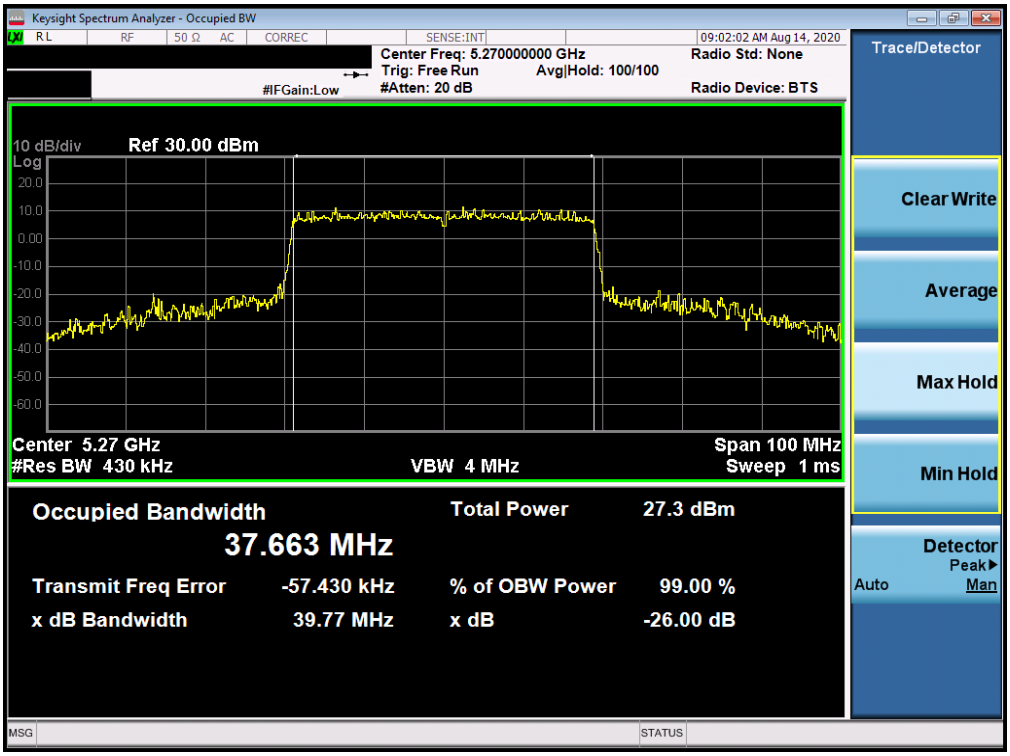
Plot 7-120. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 62)



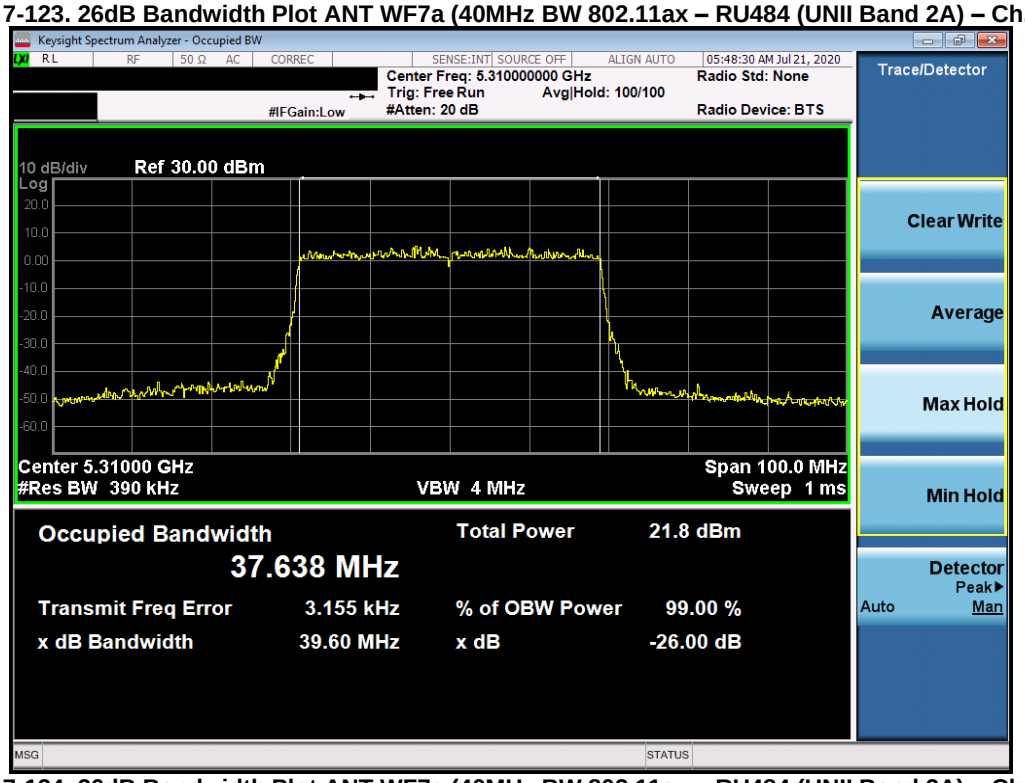
Plot 7-121. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2A) – Ch. 62)



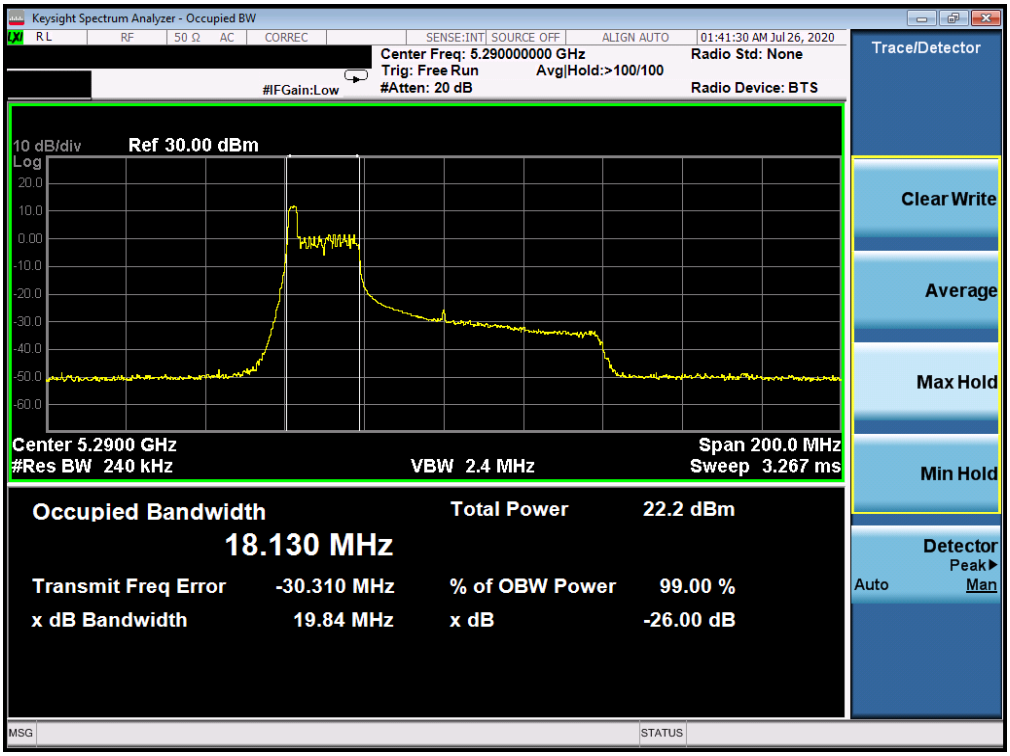
Plot 7-122. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2A) – Ch. 62)



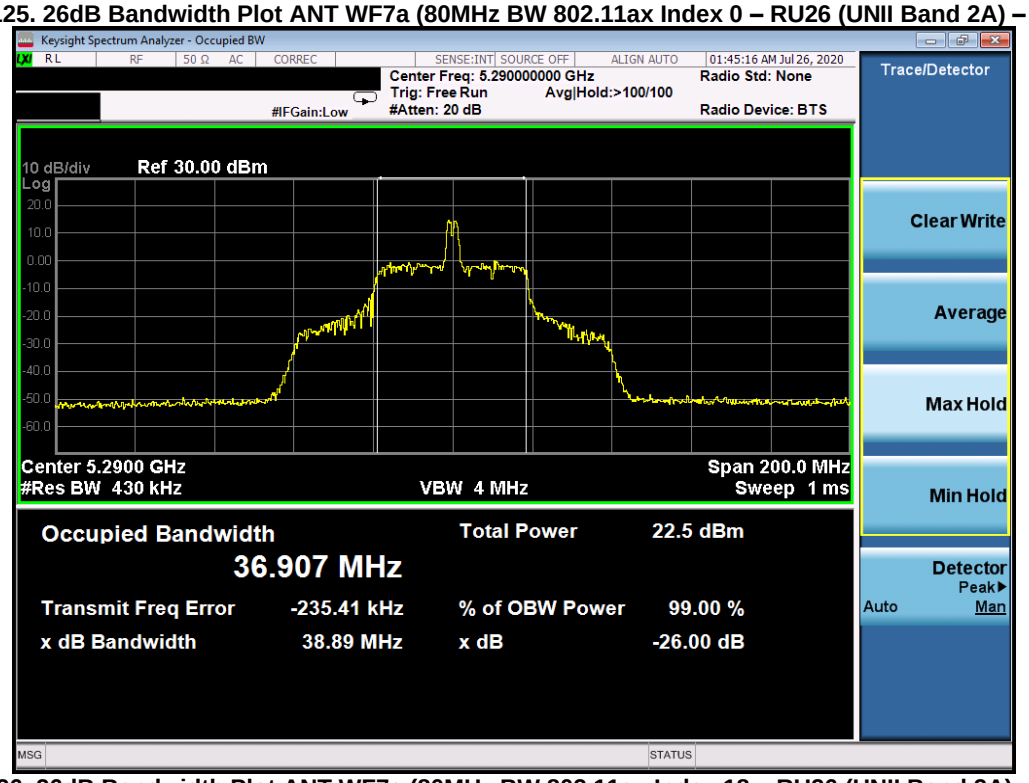
Plot 7-123. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 2A) – Ch. 54)



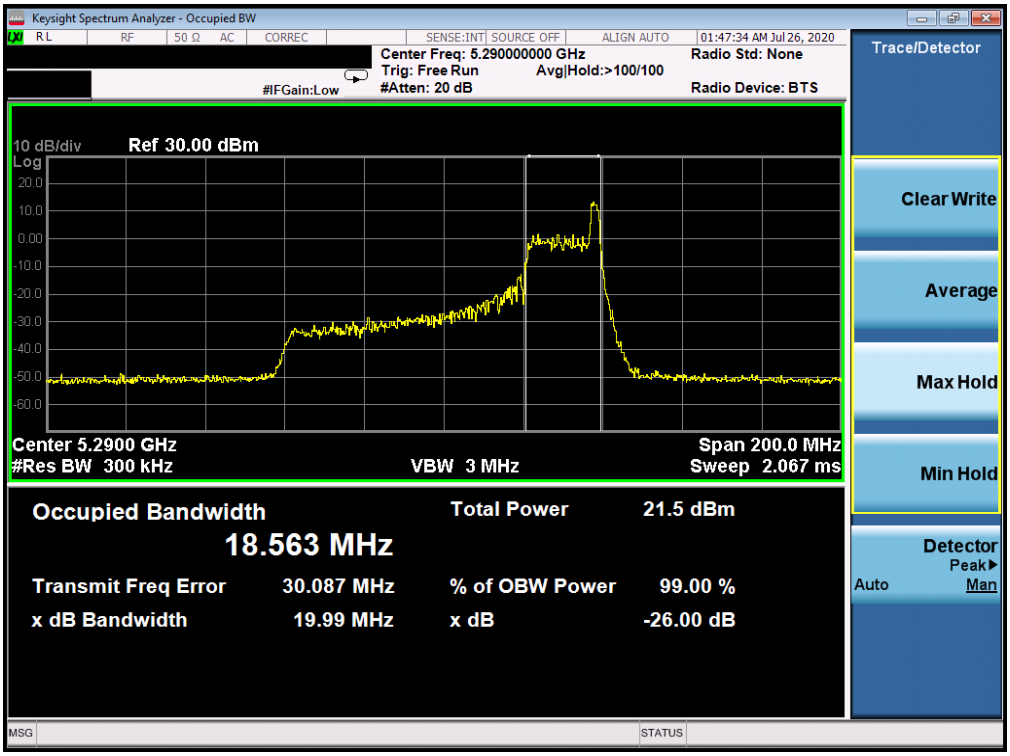
Plot 7-124. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 2A) – Ch. 62)



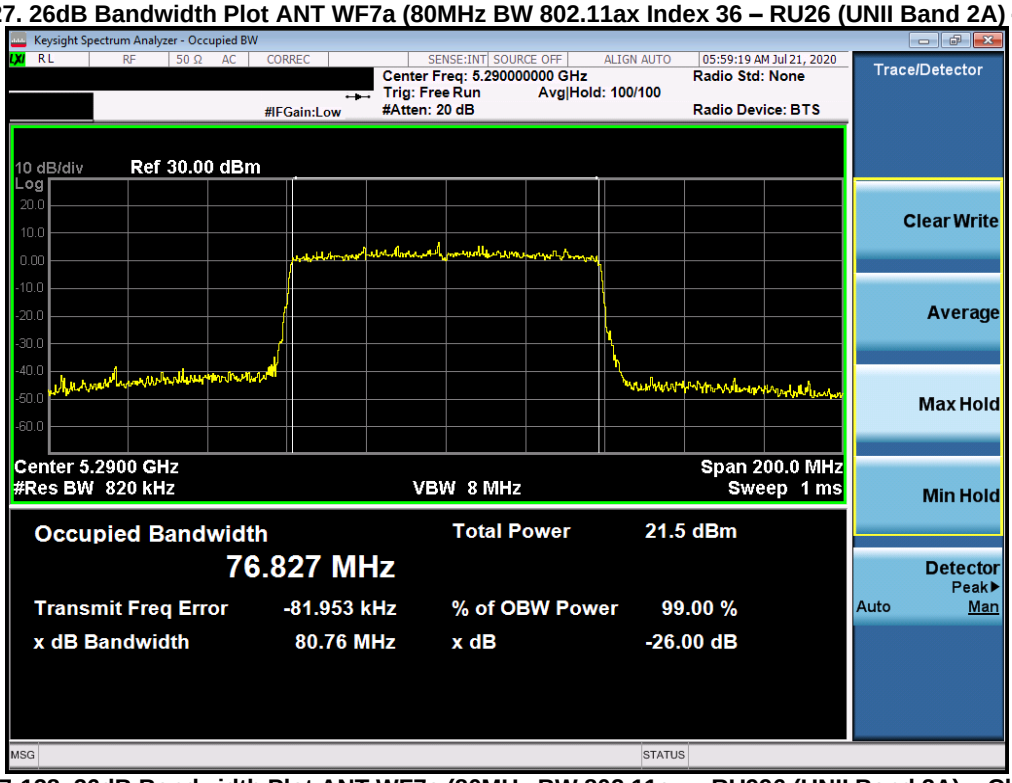
Plot 7-125. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 2A) – Ch. 58)



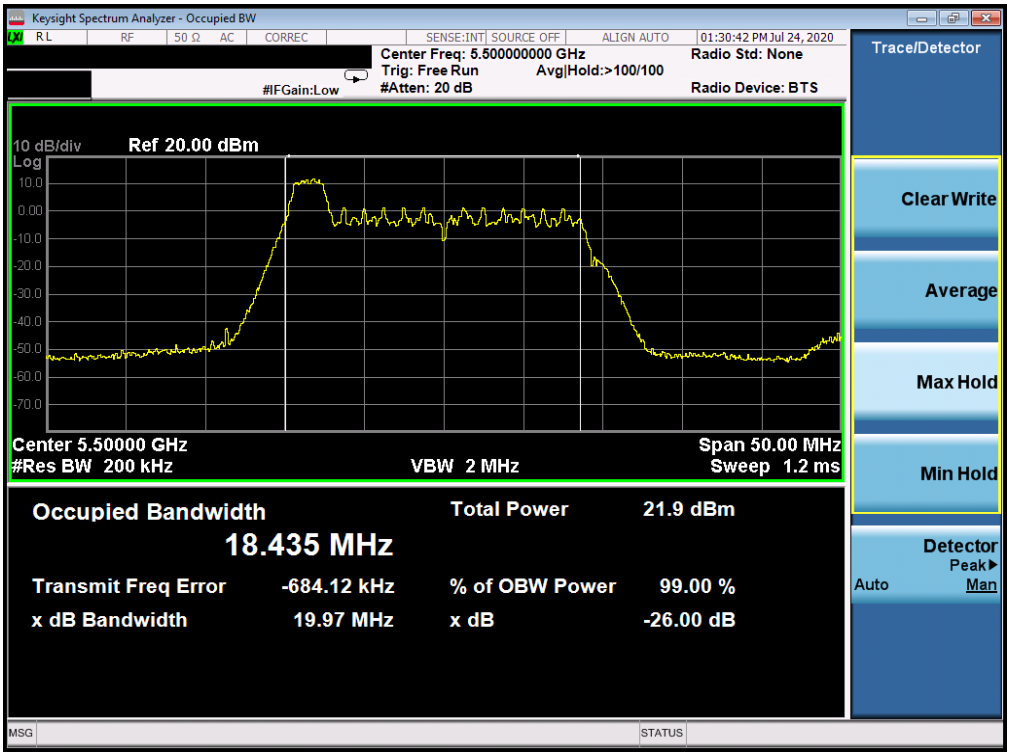
Plot 7-126. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 2A) – Ch. 58)



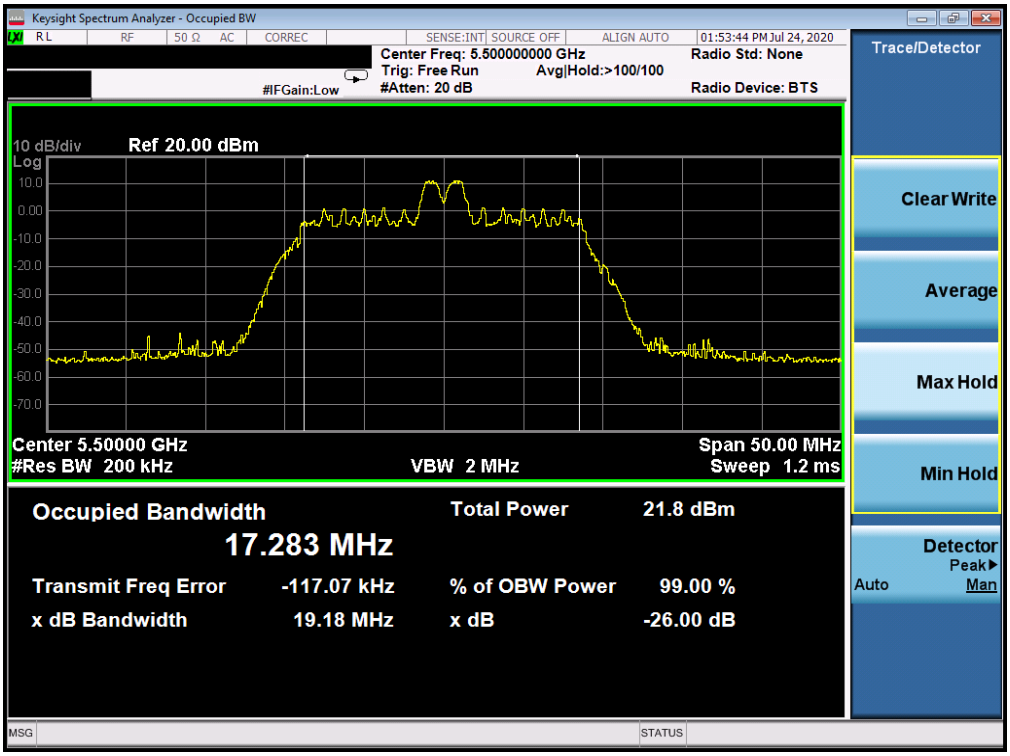
Plot 7-127. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 2A) – Ch. 58)



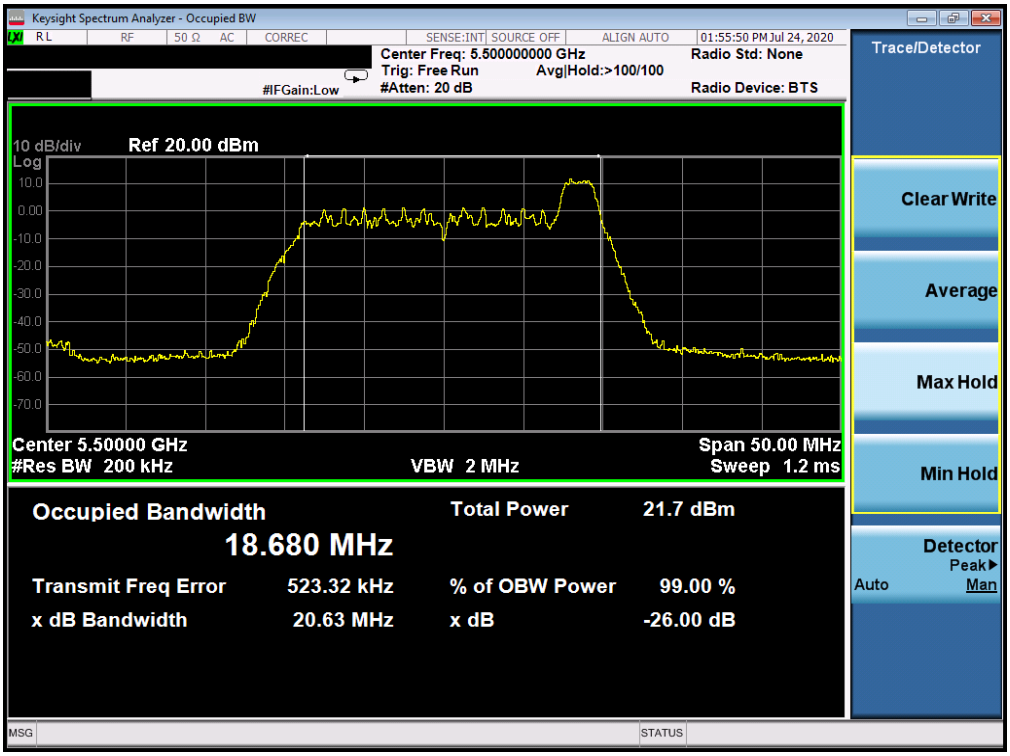
Plot 7-128. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax – RU996 (UNII Band 2A) – Ch. 58)



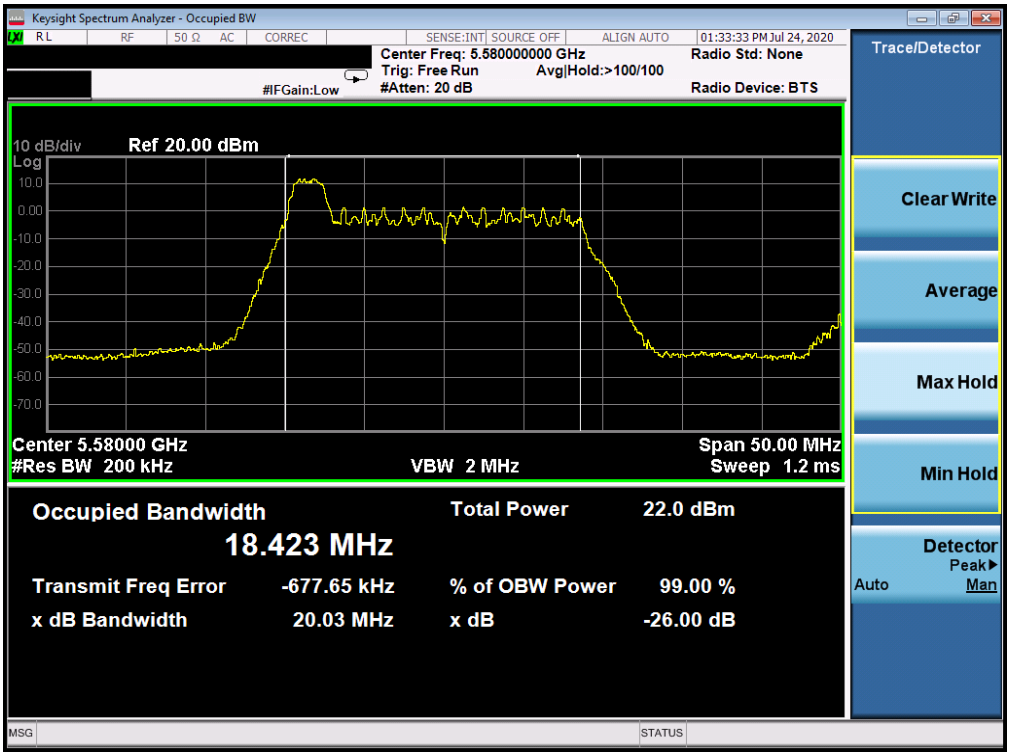
Plot 7-129. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 100)



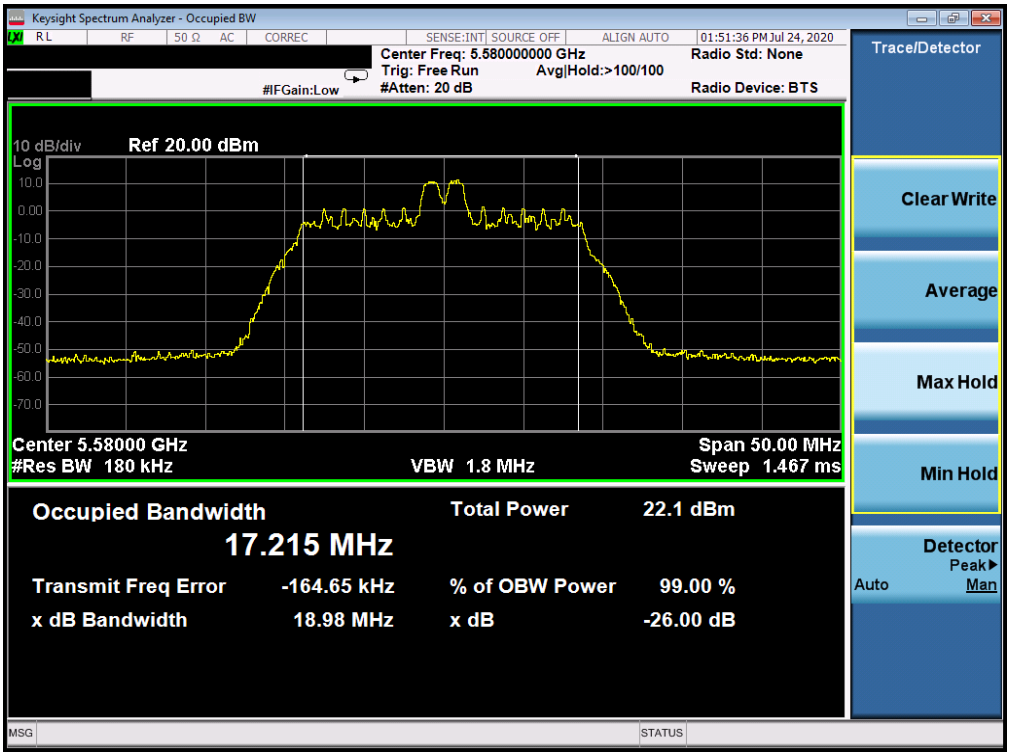
Plot 7-130. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2C) – Ch. 100)



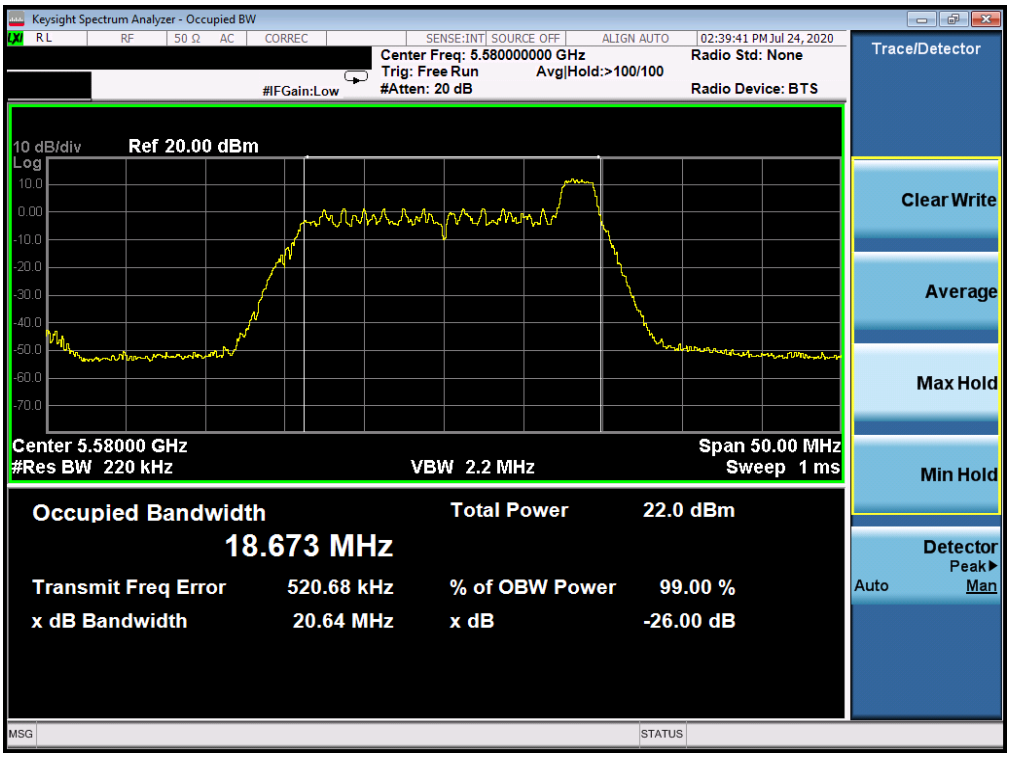
Plot 7-131. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 100)



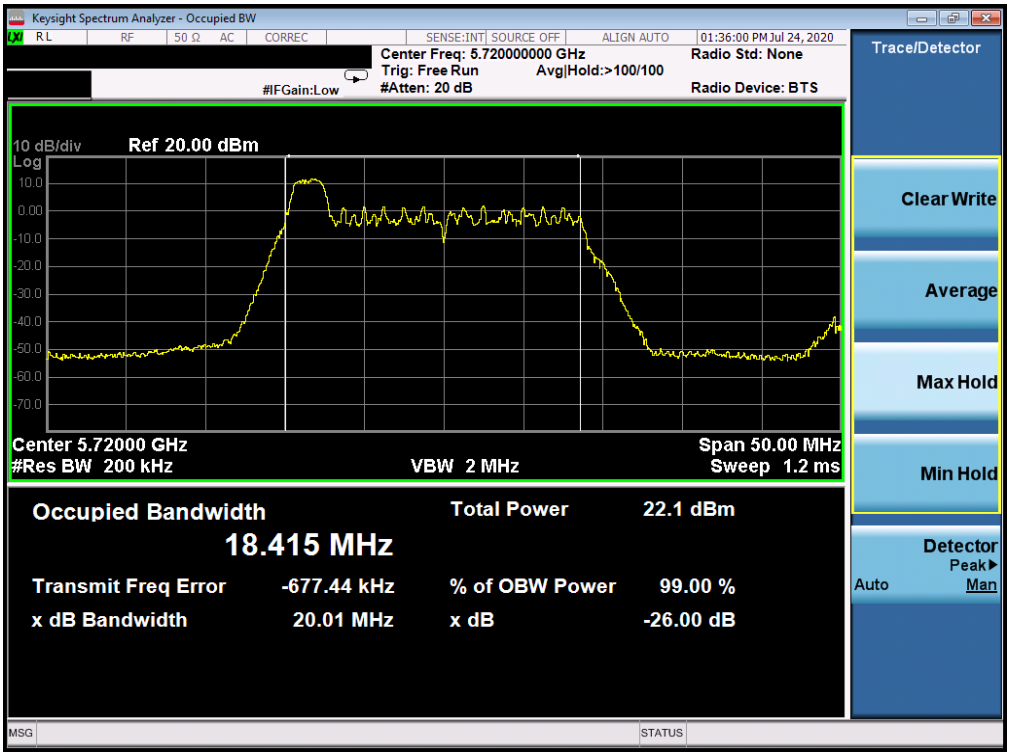
Plot 7-132. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 116)



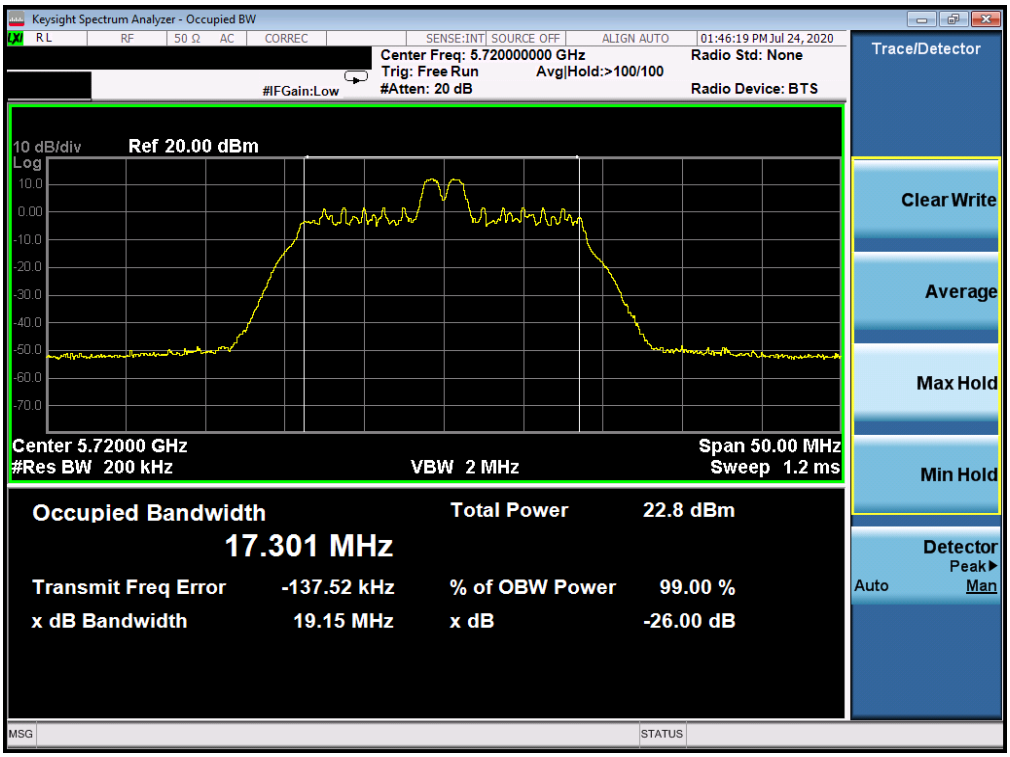
Plot 7-133. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2C) – Ch. 116)



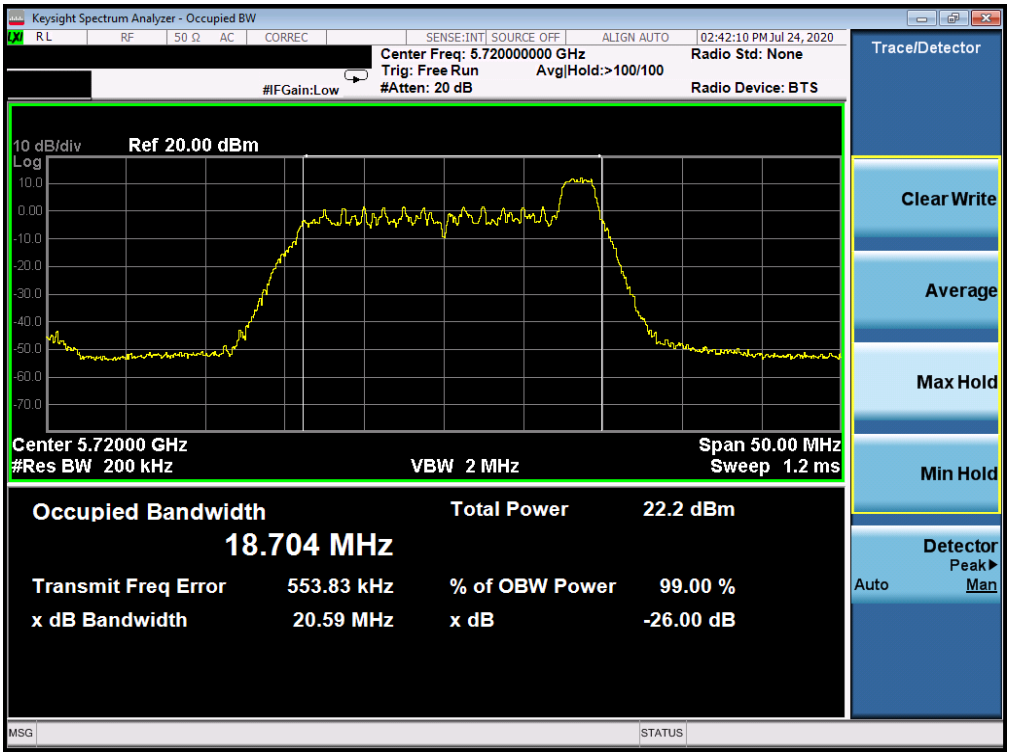
Plot 7-134. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8– RU26 (UNII Band 2C) – Ch. 116)



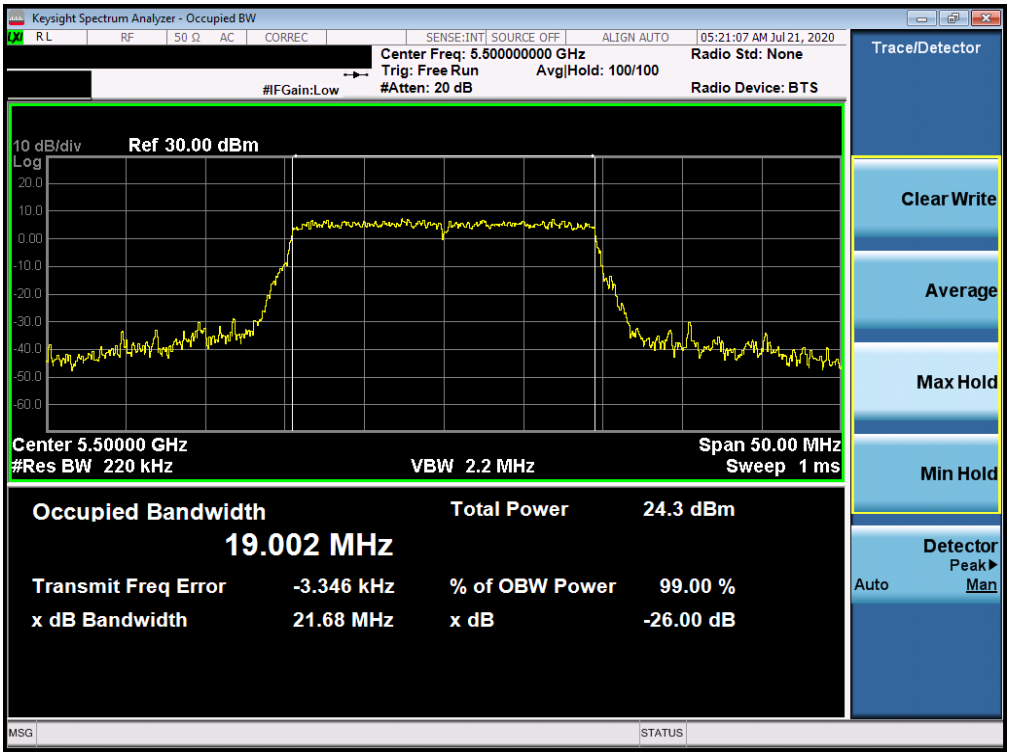
Plot 7-135. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 144)



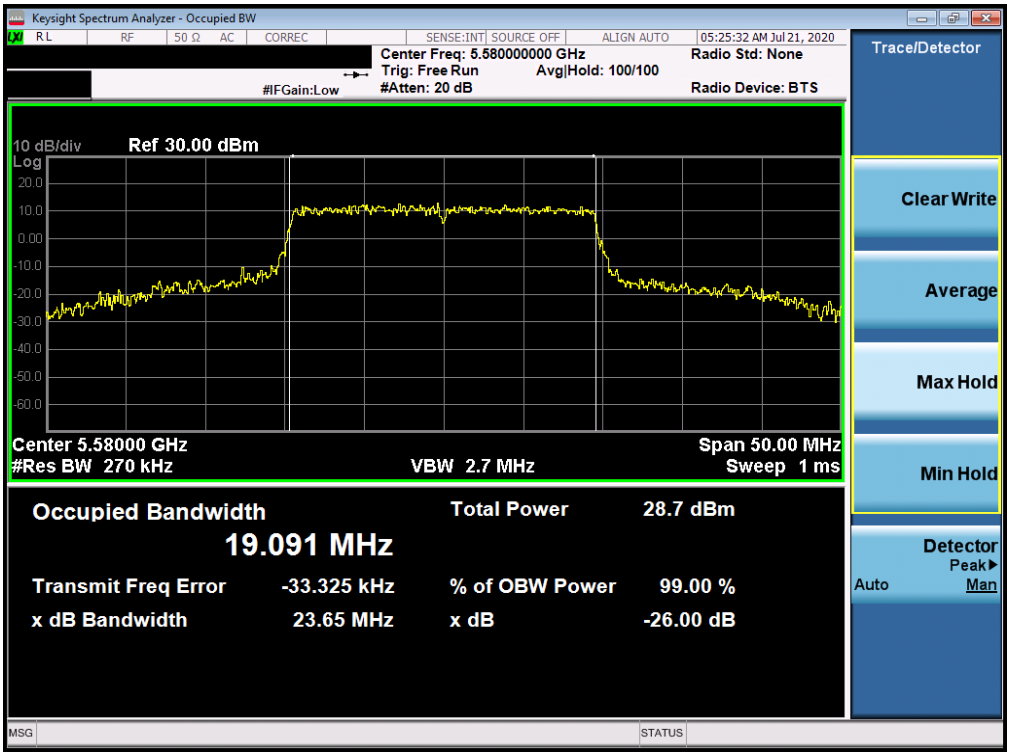
Plot 7-136. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 2C) – Ch. 144)



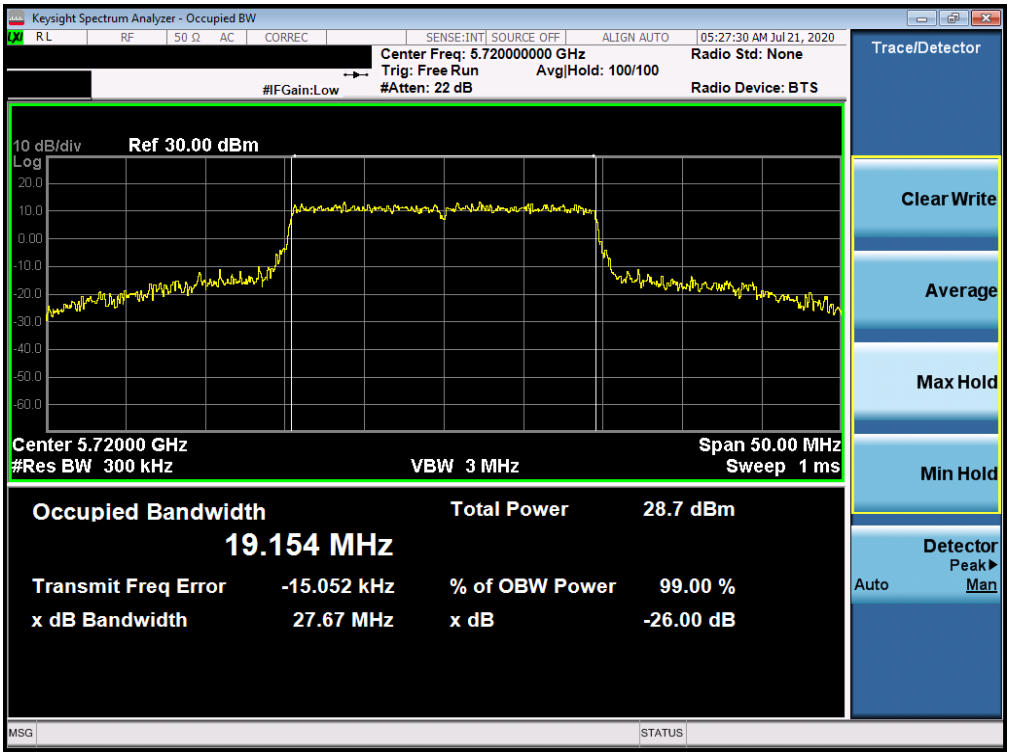
Plot 7-137. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 144)



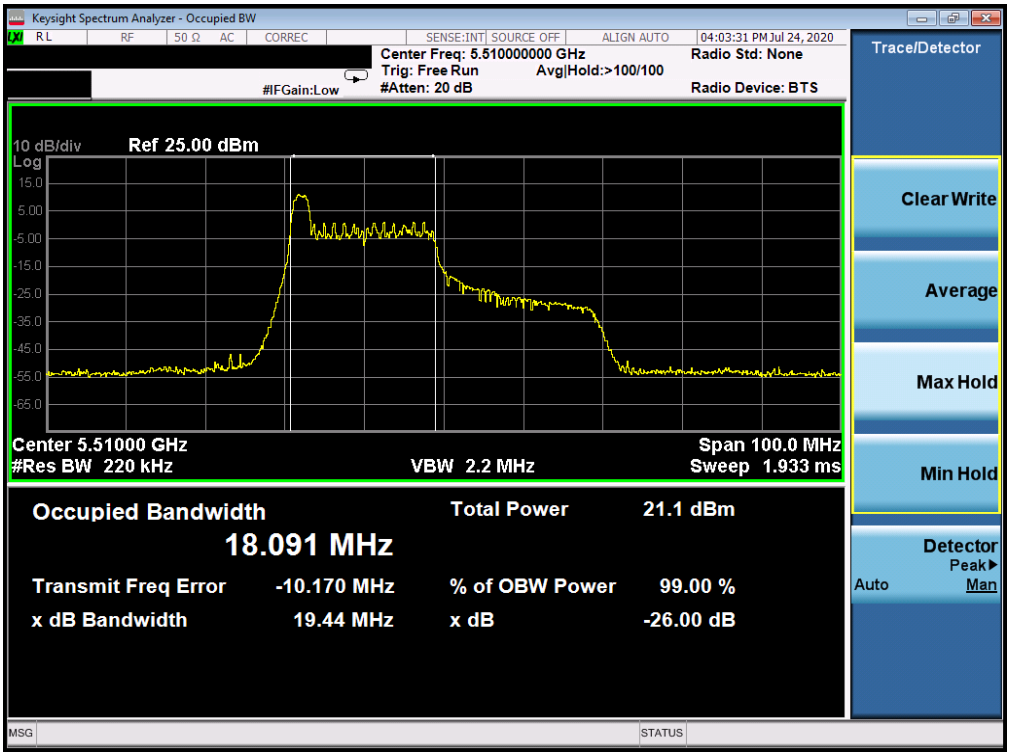
Plot 7-138. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 2C) – Ch. 100)



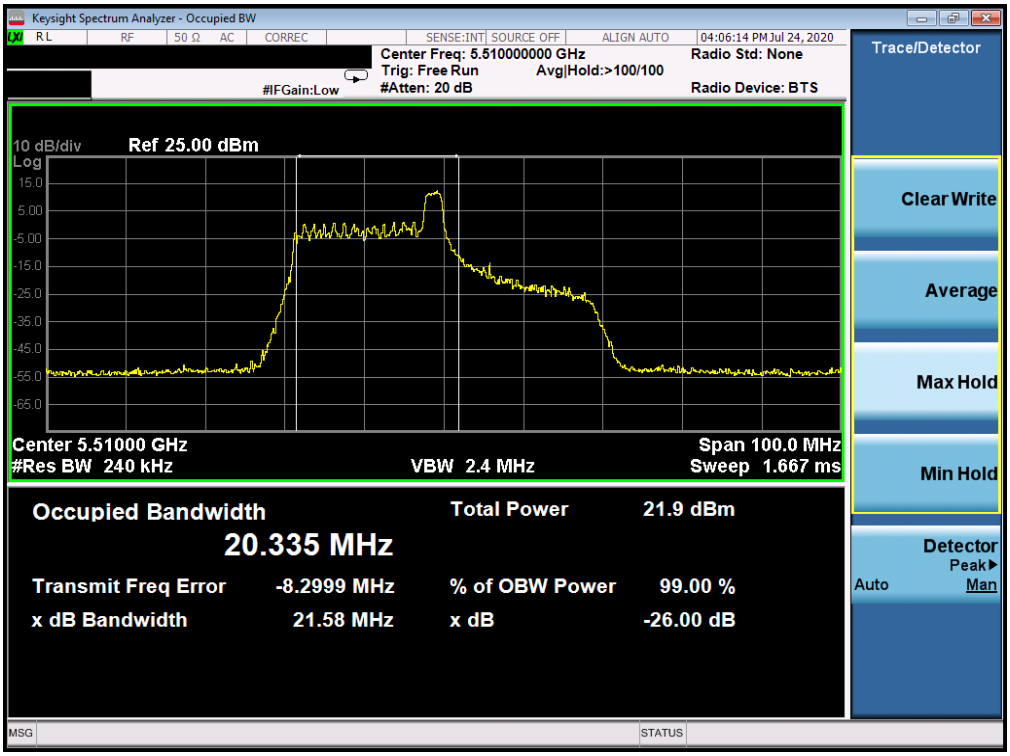
Plot 7-139. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 2C) – Ch. 116)



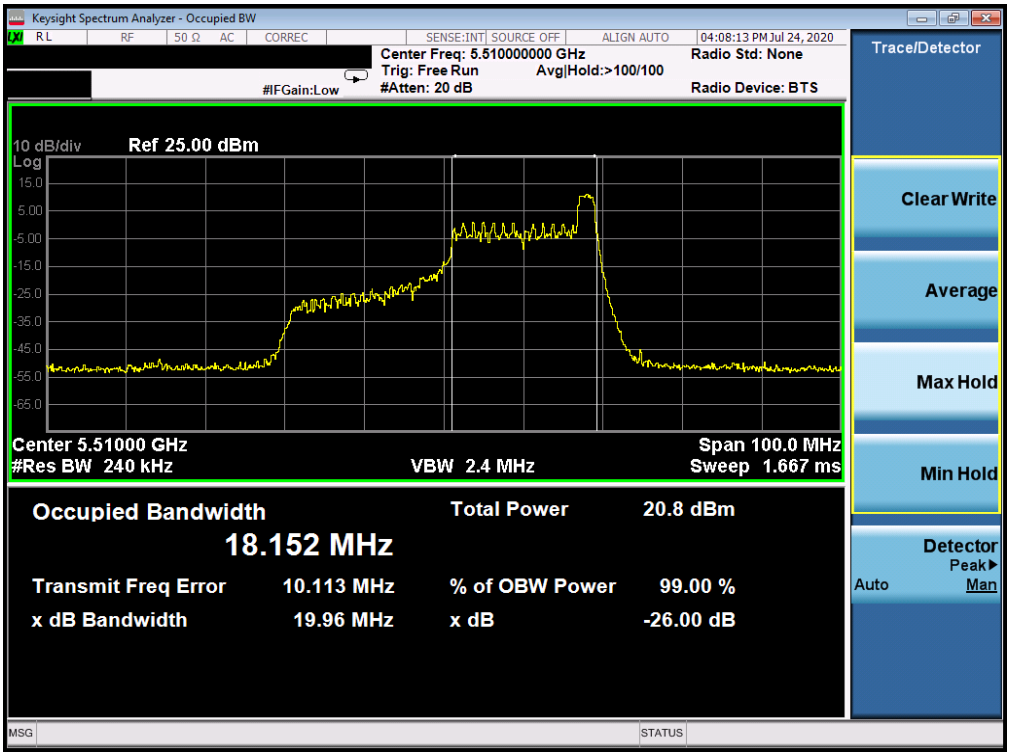
Plot 7-140. 26dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 2C) – Ch. 144)



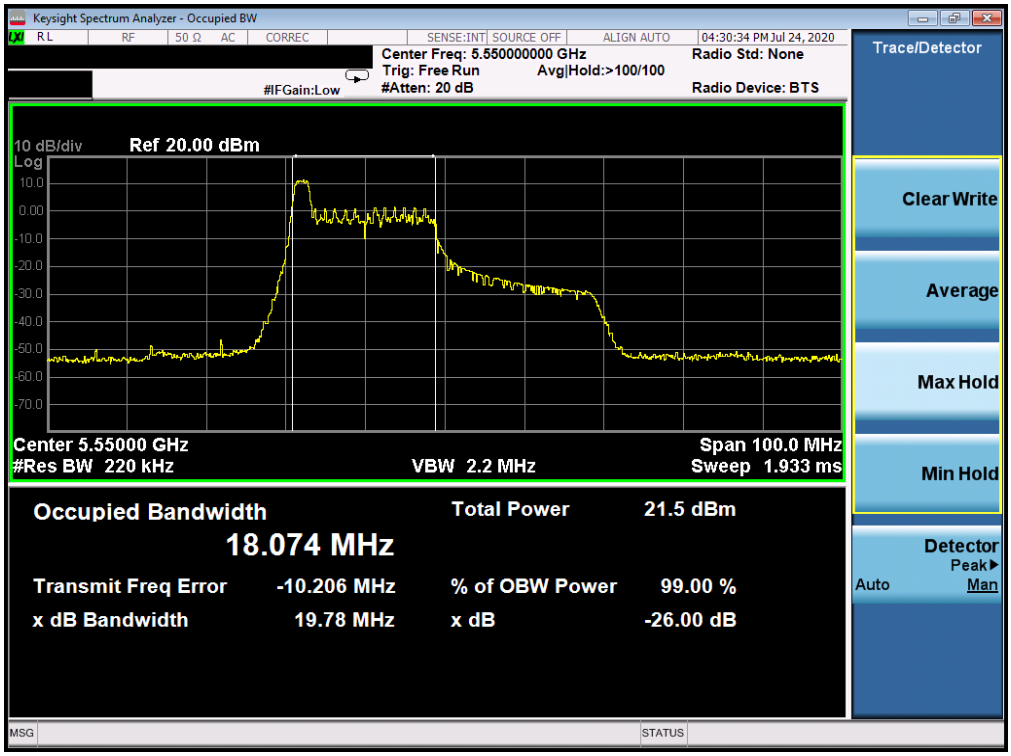
Plot 7-141. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 102)



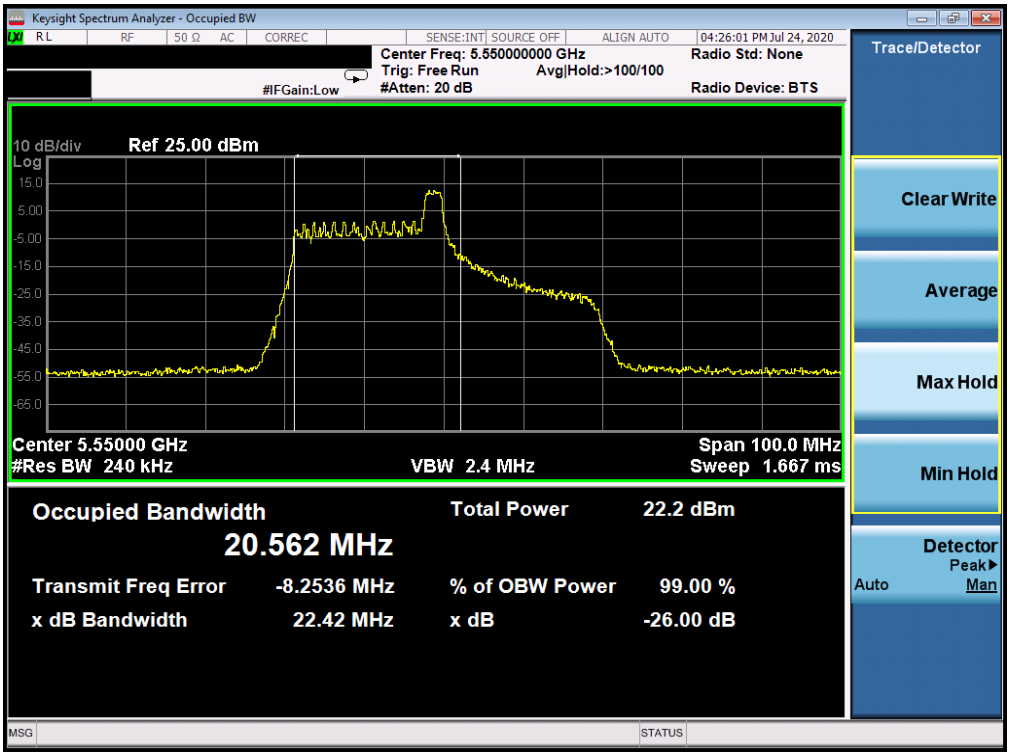
Plot 7-142. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 102)



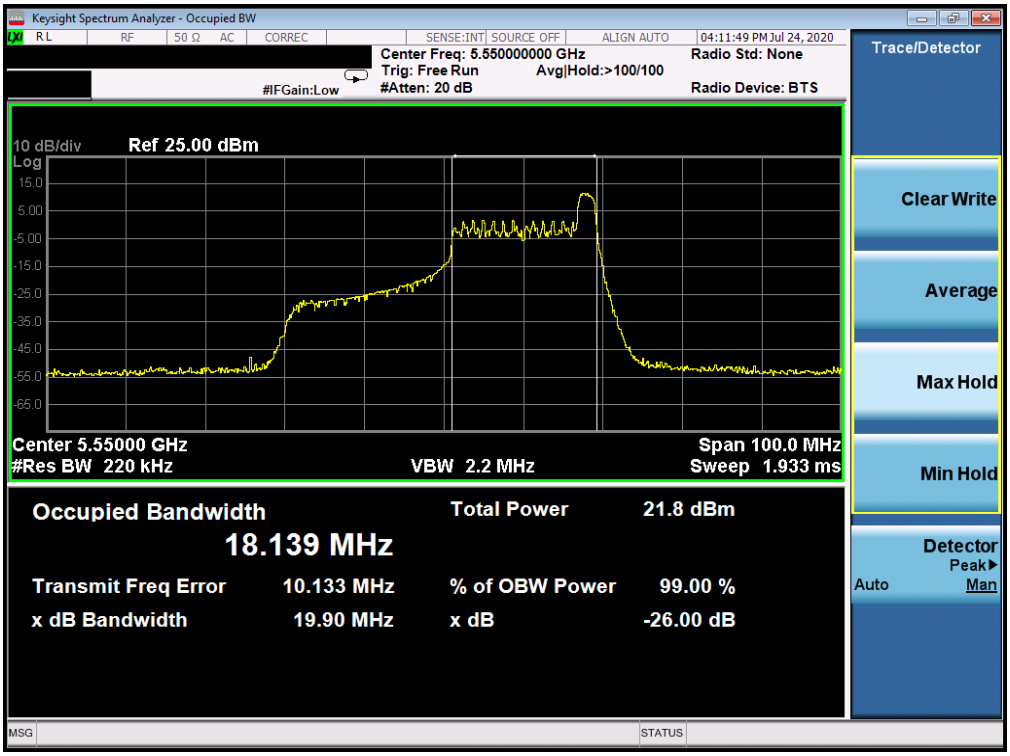
Plot 7-143. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2C) – Ch. 102)



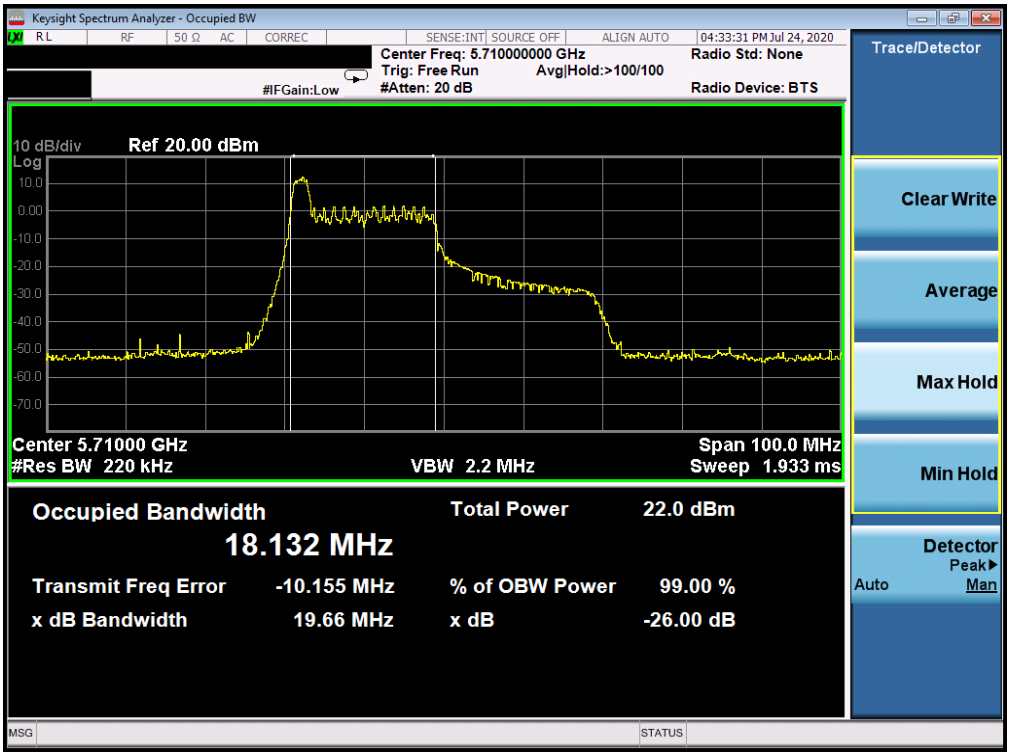
Plot 7-144. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 110)



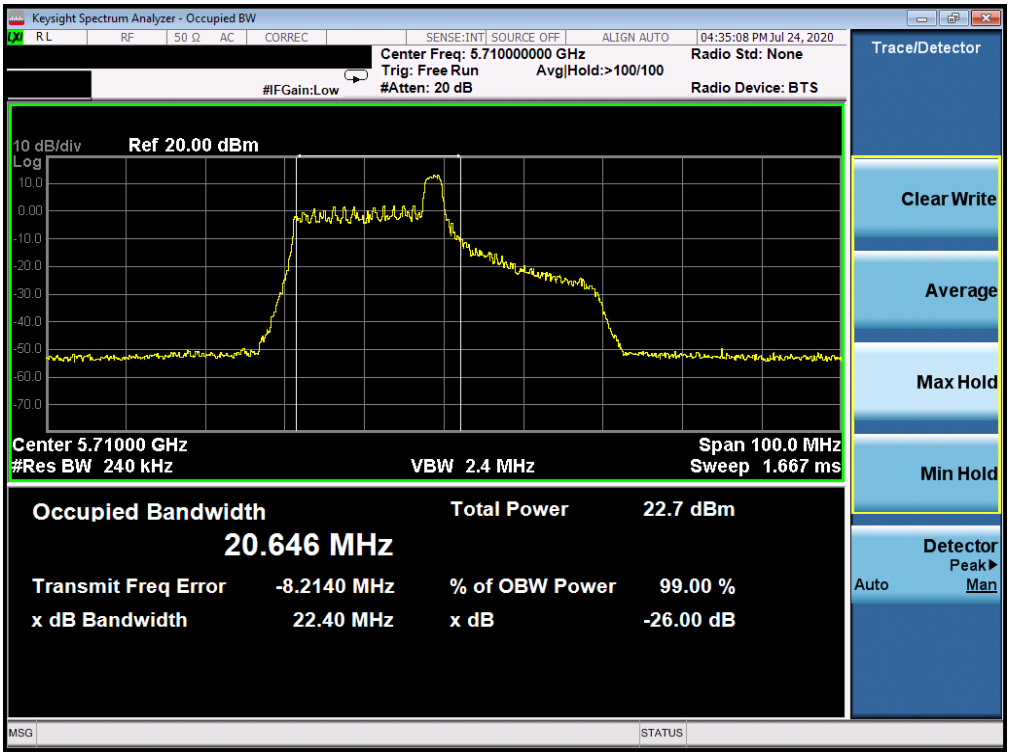
Plot 7-145. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 110)



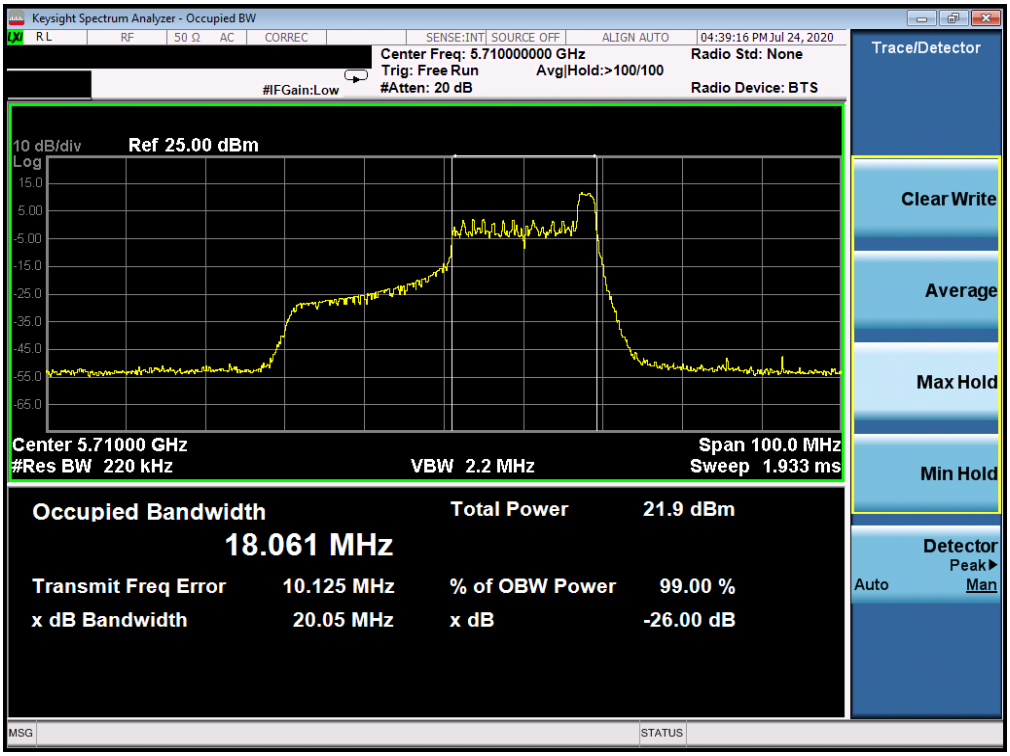
Plot 7-146. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2C) – Ch. 110)



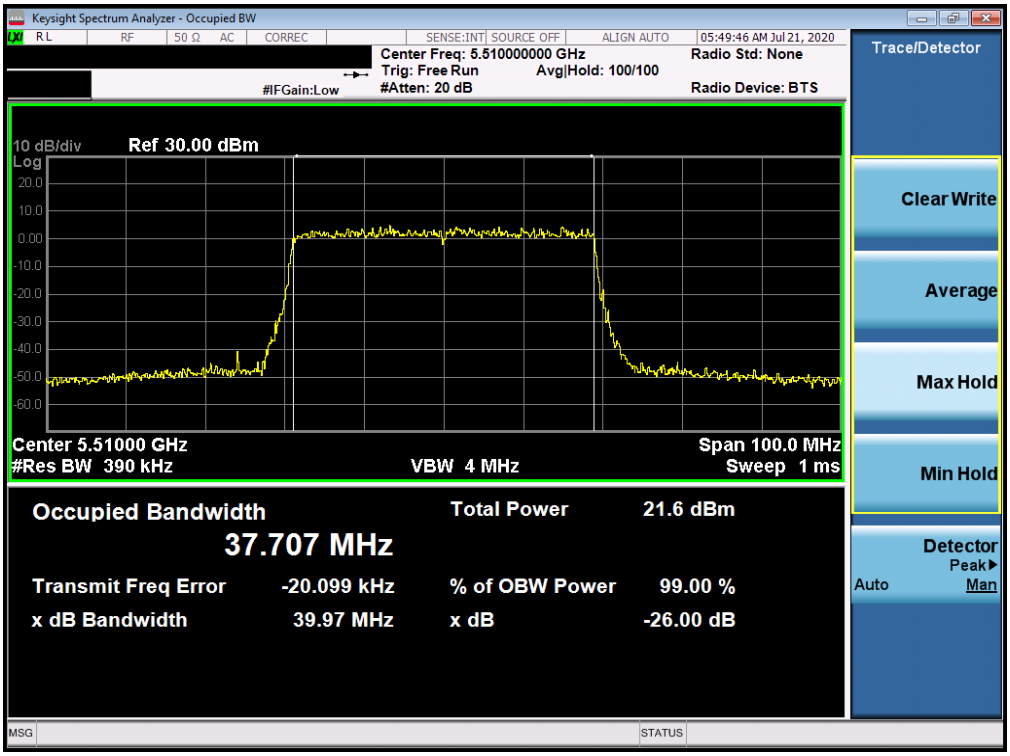
Plot 7-147. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 142)



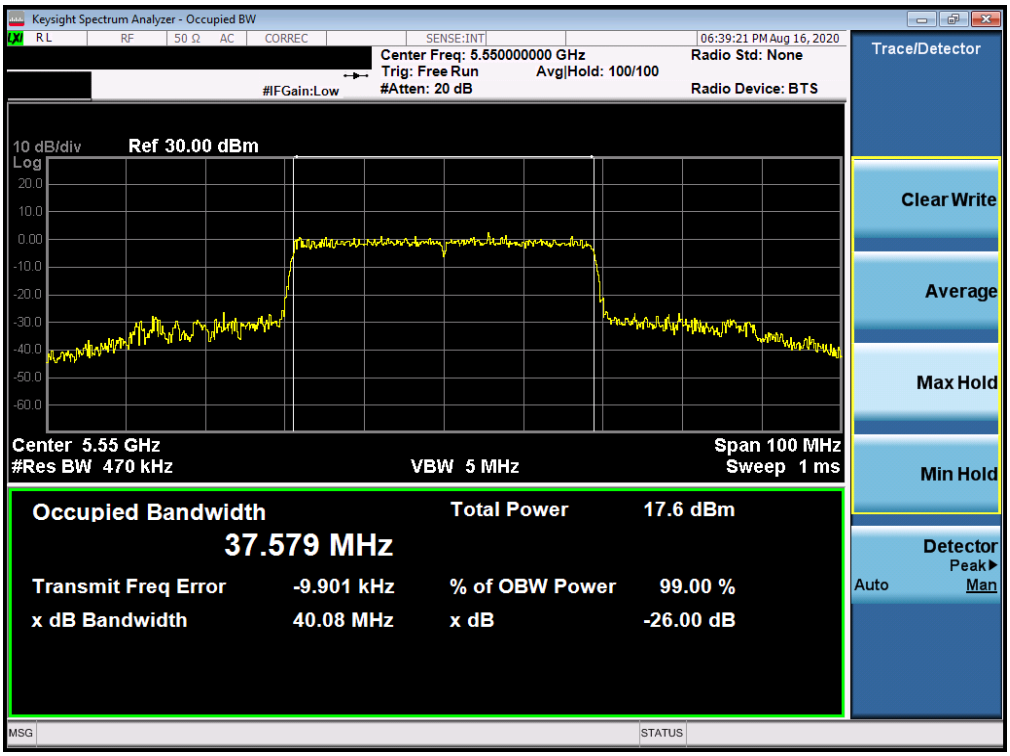
Plot 7-148. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 2C) – Ch. 142)



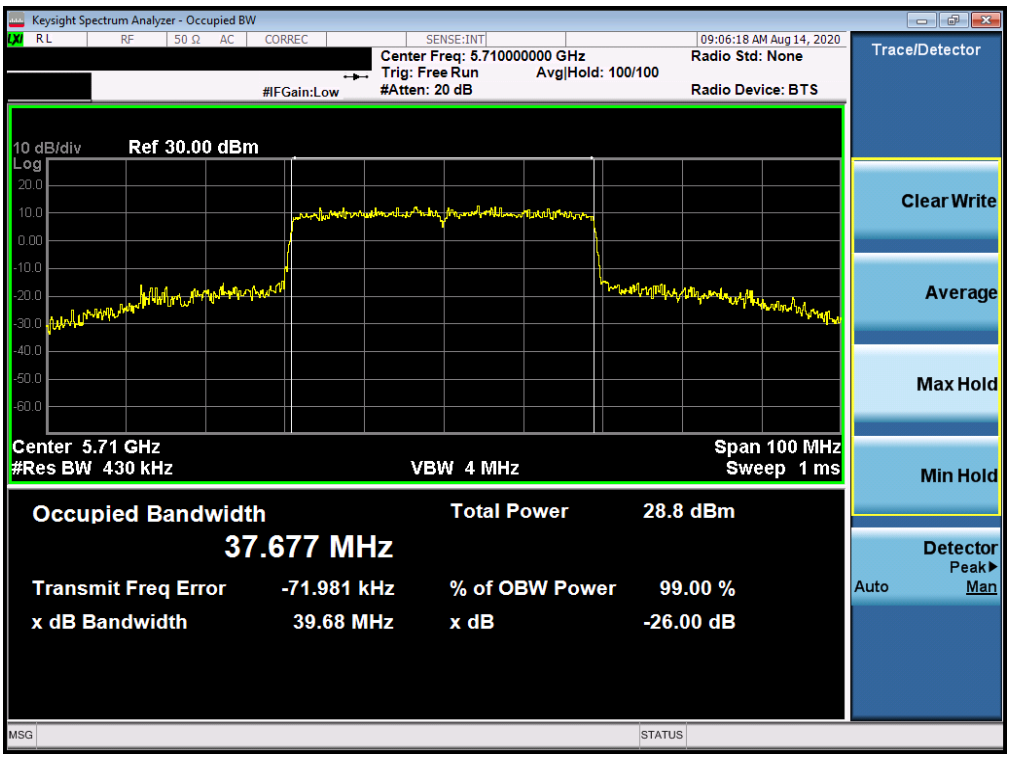
Plot 7-149. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 2C) – Ch. 142)



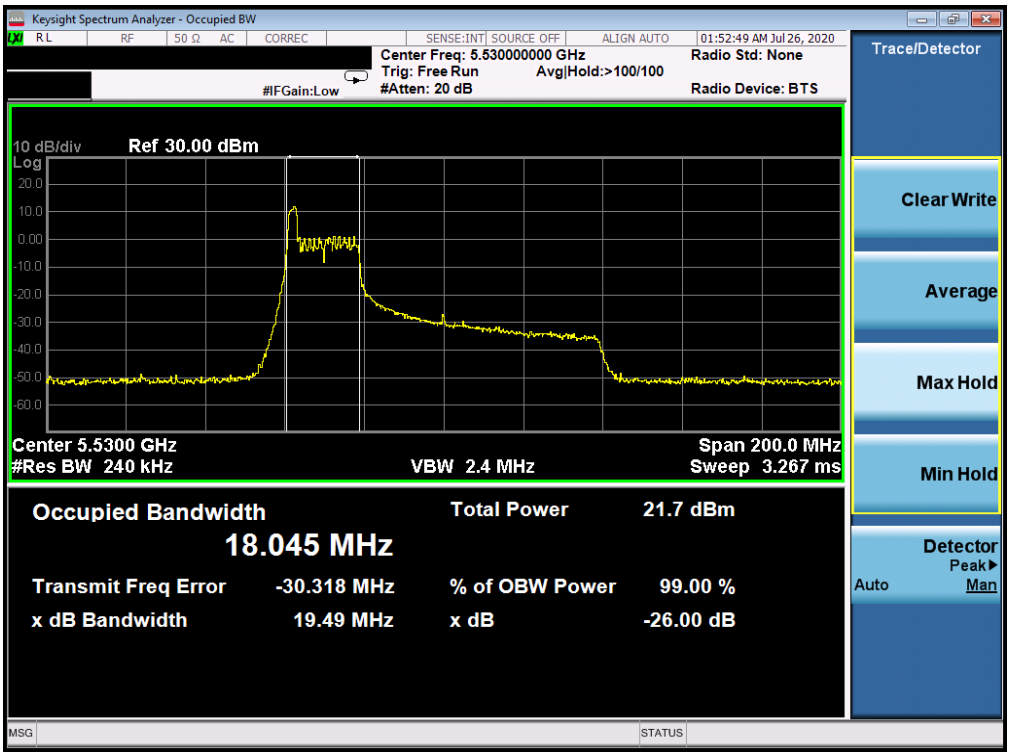
Plot 7-150. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 2C) – Ch. 102)



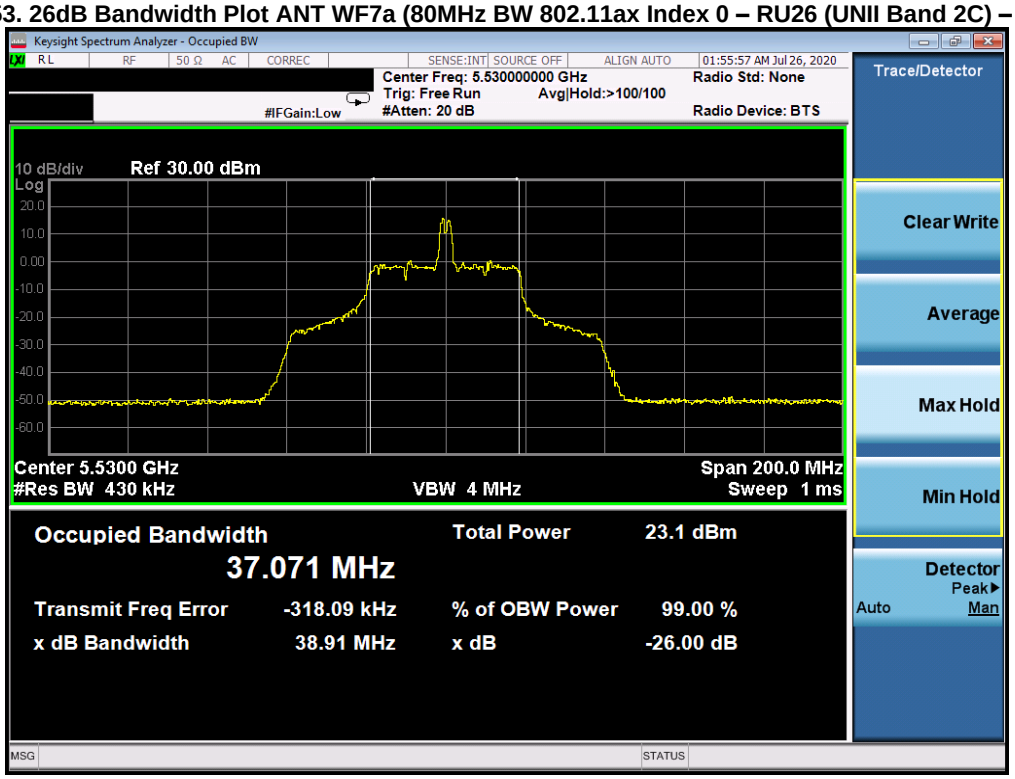
Plot 7-151. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 2C) – Ch. 110)



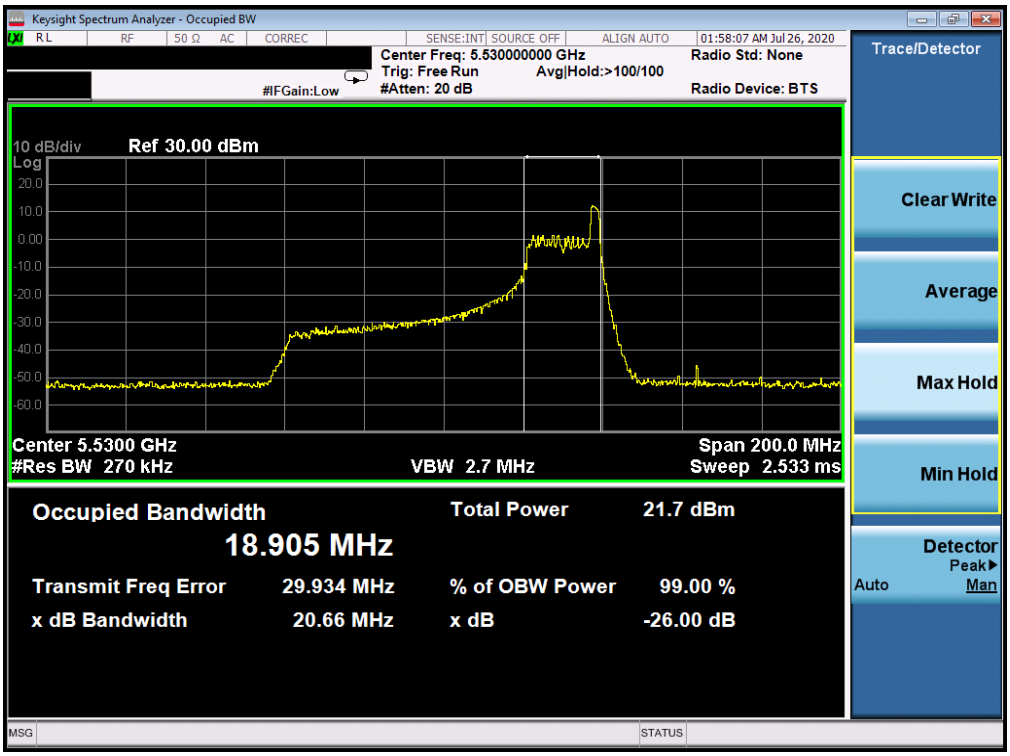
Plot 7-152. 26dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 2C) – Ch. 142)



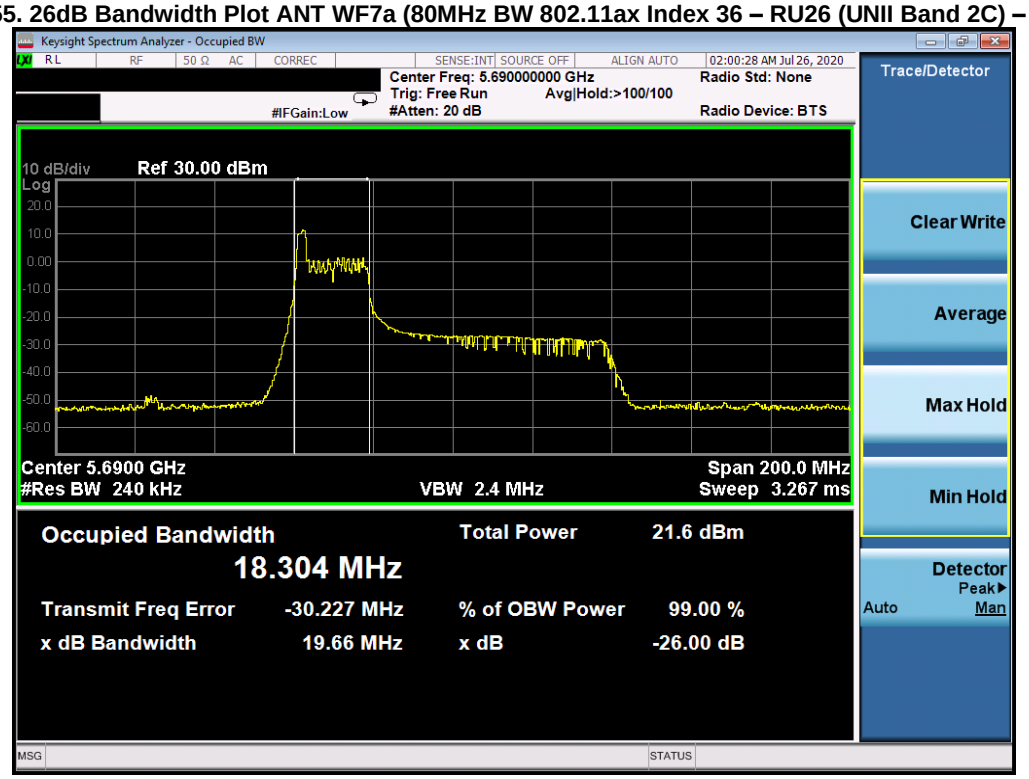
Plot 7-153. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 106)



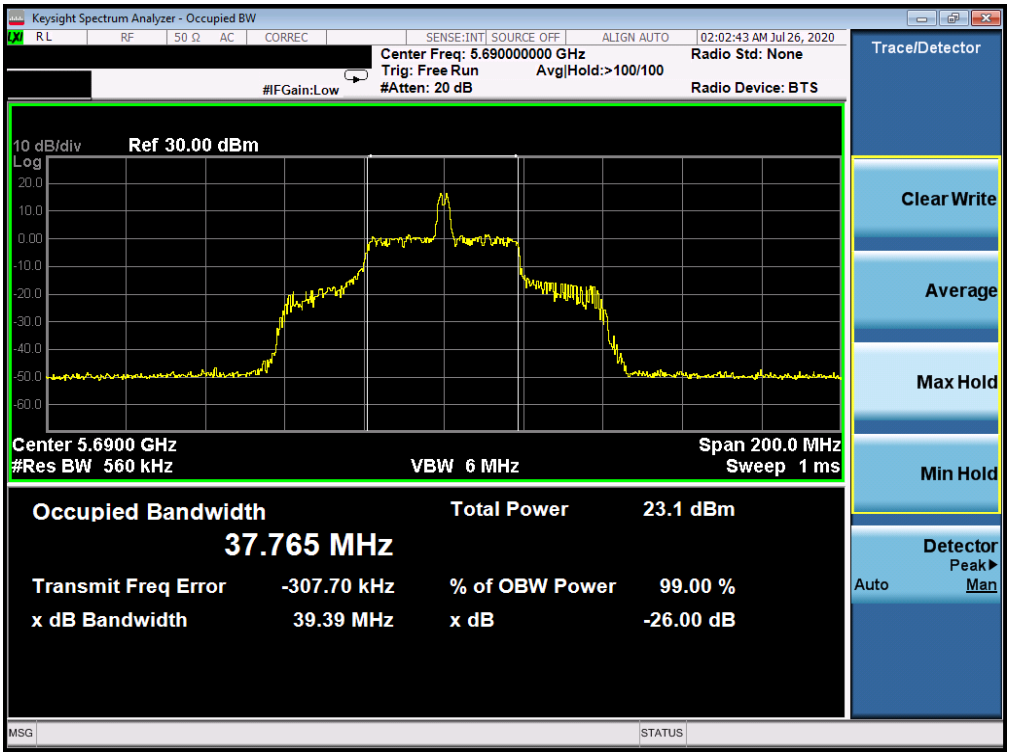
Plot 7-154. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 2C) – Ch. 106)



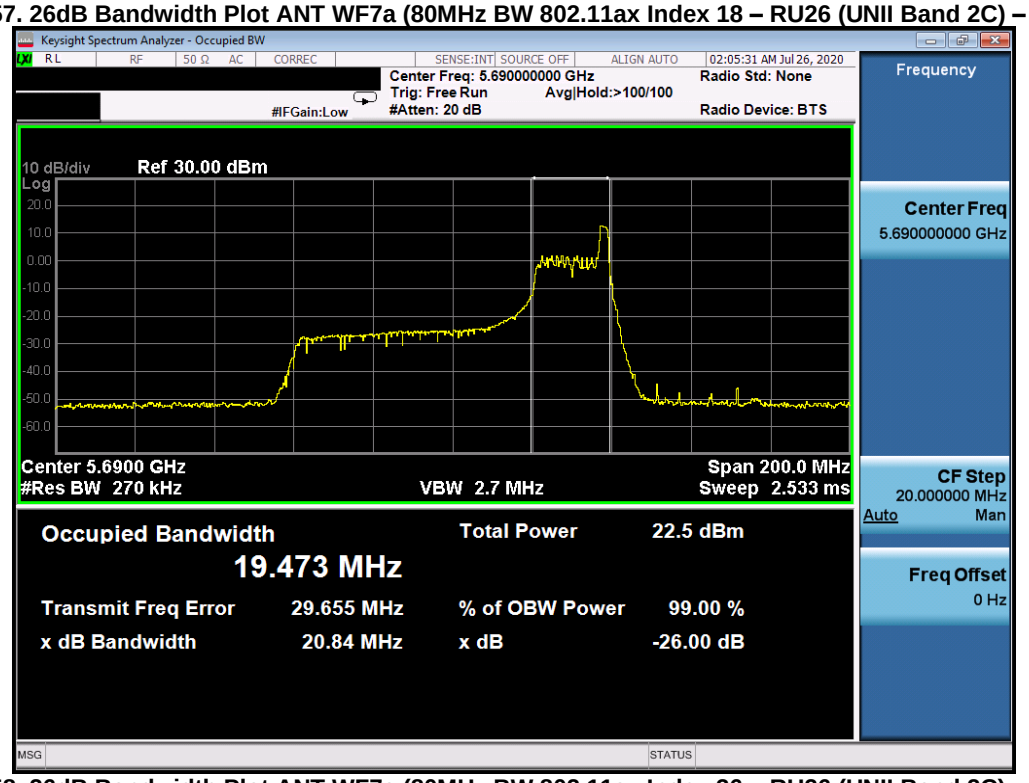
Plot 7-155. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 2C) – Ch. 106)



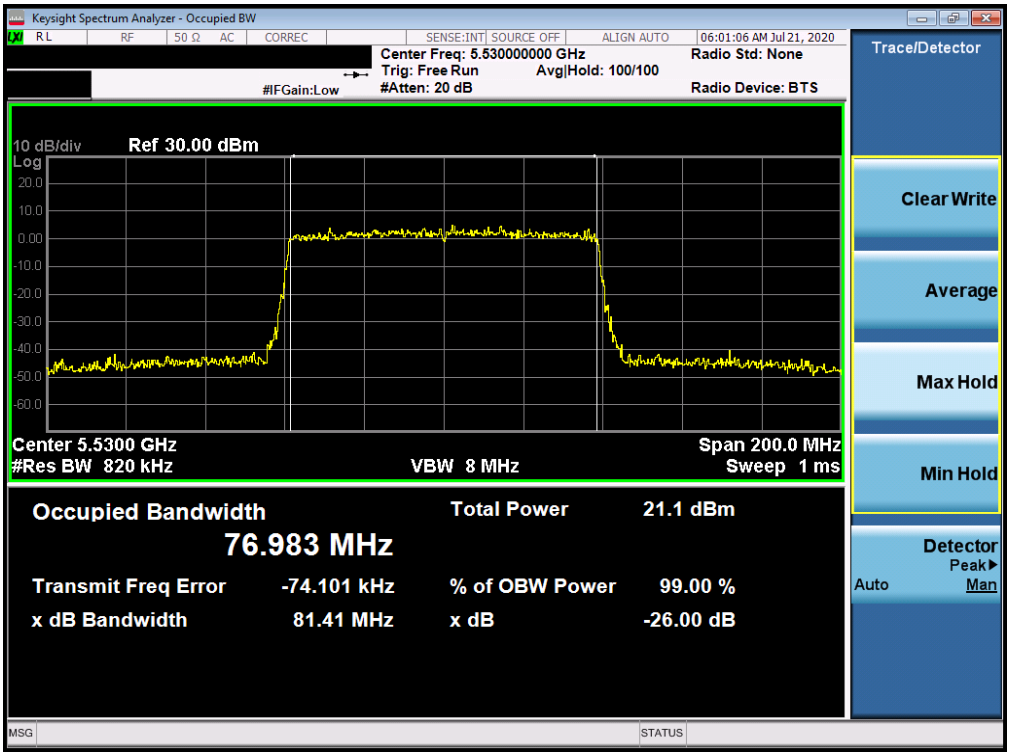
Plot 7-156. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 2C) – Ch. 138)



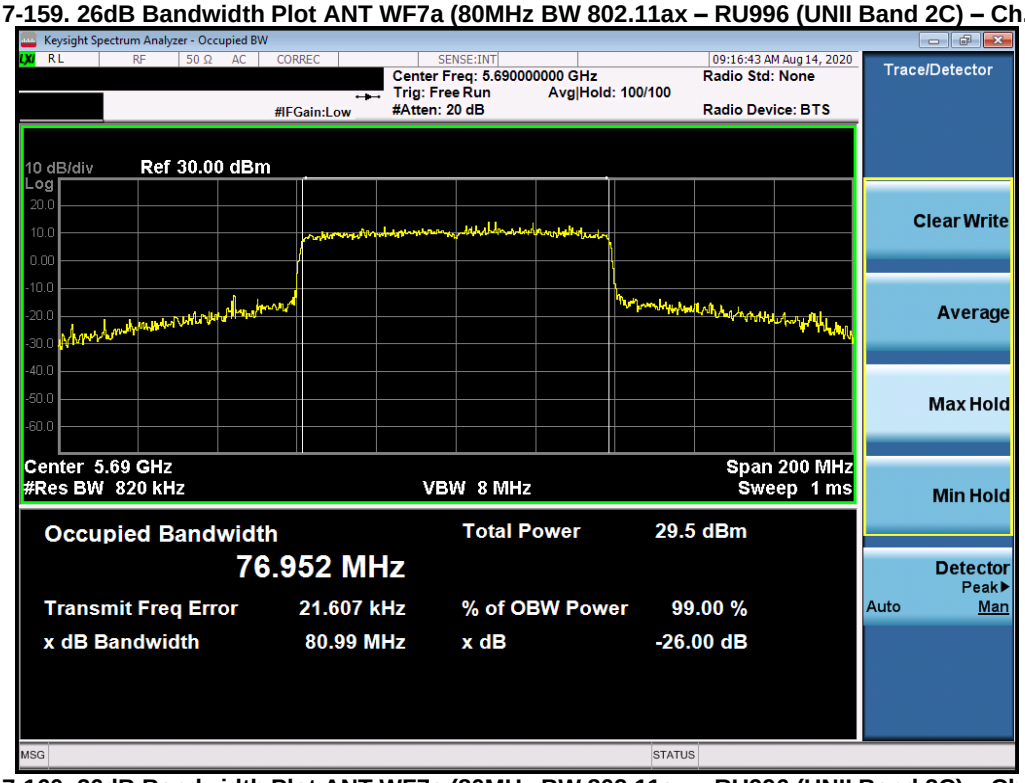
Plot 7-157. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 2C) – Ch. 138)



Plot 7-158. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 2C) – Ch. 138)



Plot 7-159. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax – RU996 (UNII Band 2C) – Ch. 106)



Plot 7-160. 26dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax – RU996 (UNII Band 2C) – Ch. 138)

7.3 6dB Bandwidth Measurement – 802.11ax OFDMA

§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 – Section 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 ≥ 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

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.

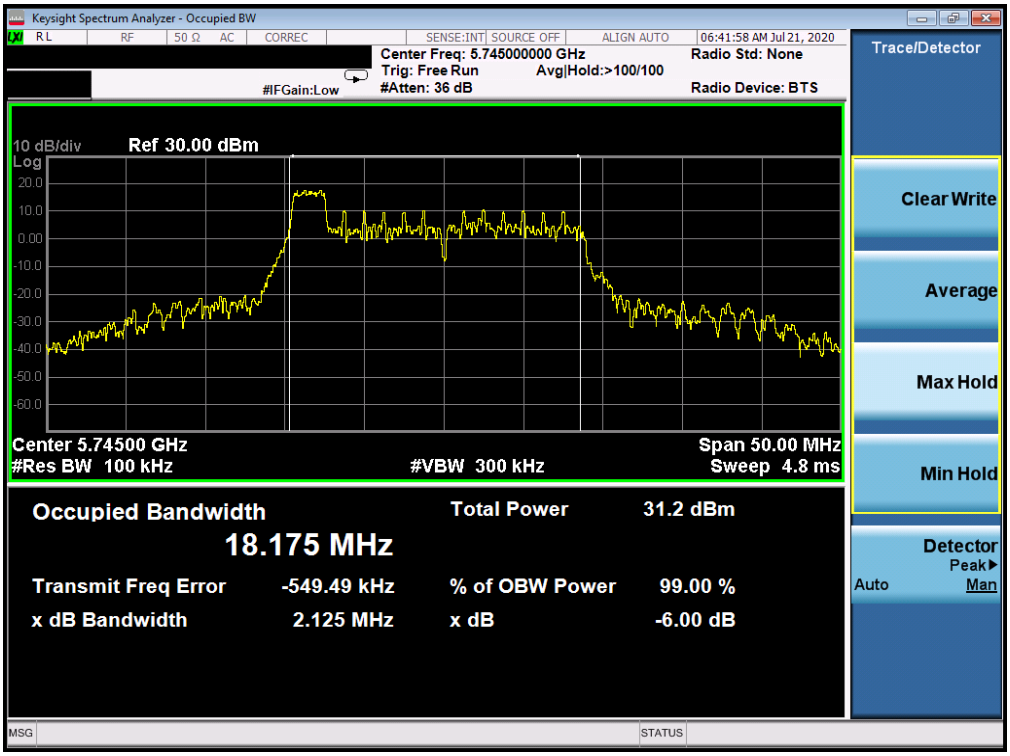
Antenna WF8 6 dB Bandwidth Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
Band 3	5745	149	ax (20MHz)	26	0	135/143.4 (MCS11)	2.125
				26	4	135/143.4 (MCS11)	2.692
				26	8	135/143.4 (MCS11)	2.118
	5785	157	ax (20MHz)	26	0	135/143.4 (MCS11)	2.095
				26	4	135/143.4 (MCS11)	2.694
				26	8	135/143.4 (MCS11)	2.142
	5825	165	ax (20MHz)	26	0	135/143.4 (MCS11)	2.086
				26	4	135/143.4 (MCS11)	2.725
				26	8	135/143.4 (MCS11)	2.146
	5755	151	ax (40MHz)	26	0	271/286.8 (MCS11)	2.131
				26	4	271/286.8 (MCS11)	2.186
				26	8	271/286.8 (MCS11)	2.127
	5795	159	ax (40MHz)	26	0	271/286.8 (MCS11)	2.141
				26	4	271/286.8 (MCS11)	2.186
				26	8	271/286.8 (MCS11)	2.126
	5775	155	ax (80MHz)	26	0	567/600.5 (MCS11)	2.197
				26	4	567/600.5 (MCS11)	2.867
				26	8	567/600.5 (MCS11)	2.231

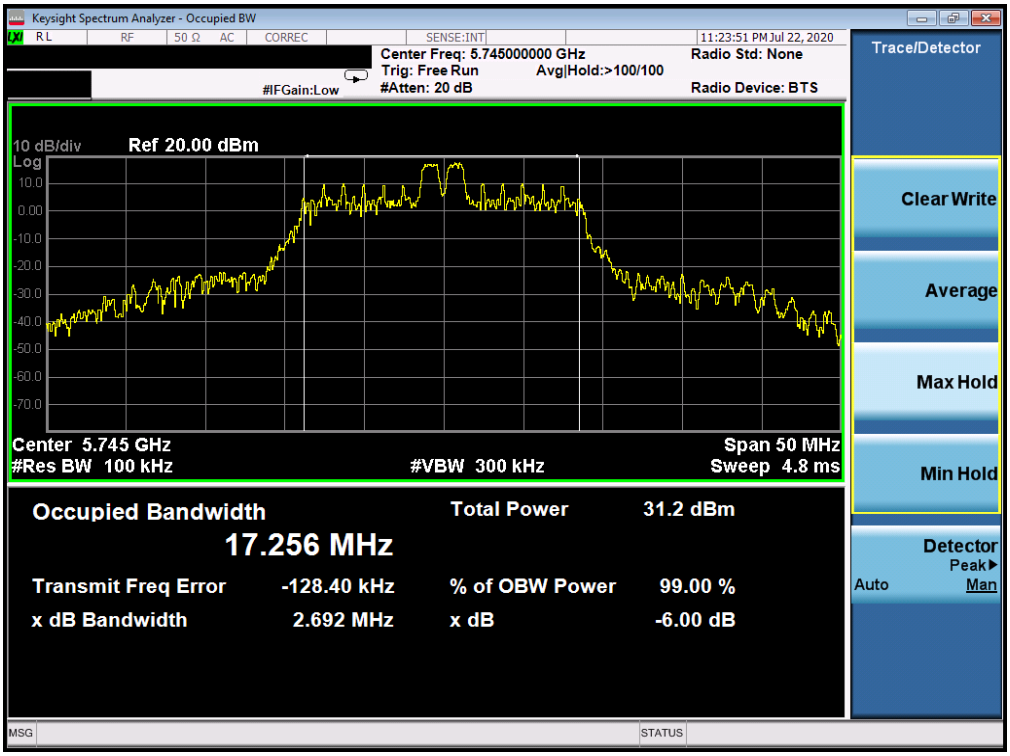
Table 7-6. Conducted Bandwidth Measurements ANT WF8 (RU26)

	Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
Band 3	5745	149	ax (20MHz)	242	61	135/143.4 (MCS11)	18.920
	5785	157	ax (20MHz)	242	61	135/143.4 (MCS11)	18.970
	5825	165	ax (20MHz)	242	61	135/143.4 (MCS11)	19.010
	5755	151	ax (40MHz)	484	65	271/286.8 (MCS11)	37.280
	5795	159	ax (40MHz)	484	65	271/286.8 (MCS11)	37.760
	5775	155	ax (80MHz)	996	67	567/600.5 (MCS11)	77.270

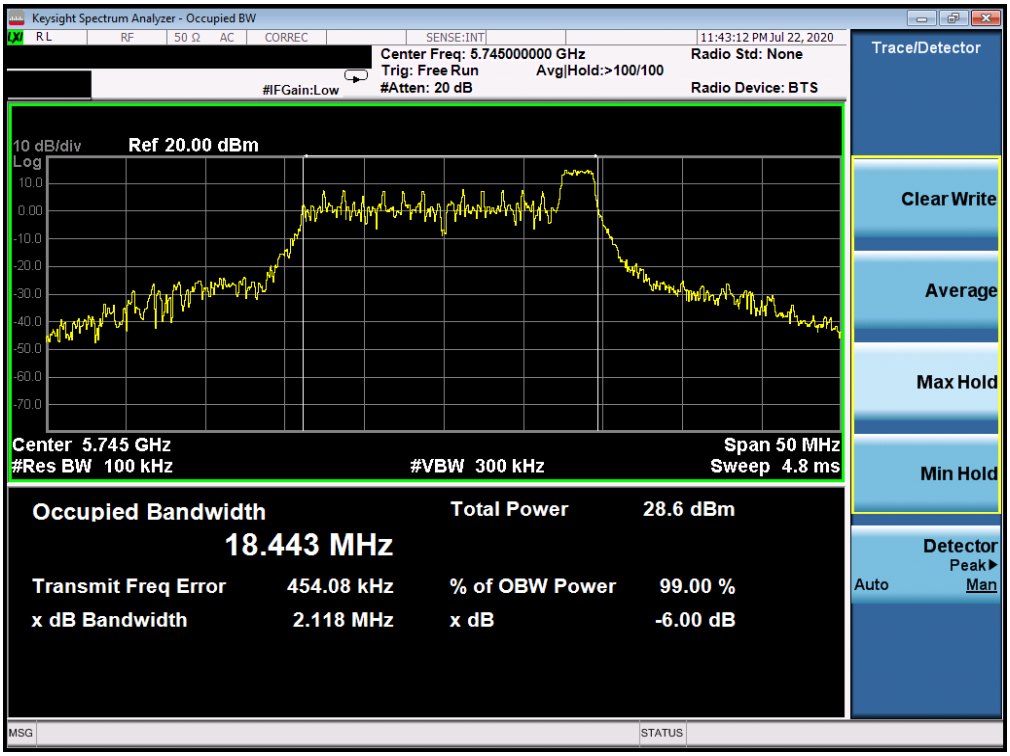
Table 7-7. Conducted Bandwidth Measurements ANT WF8 (Fully- loaded RU)



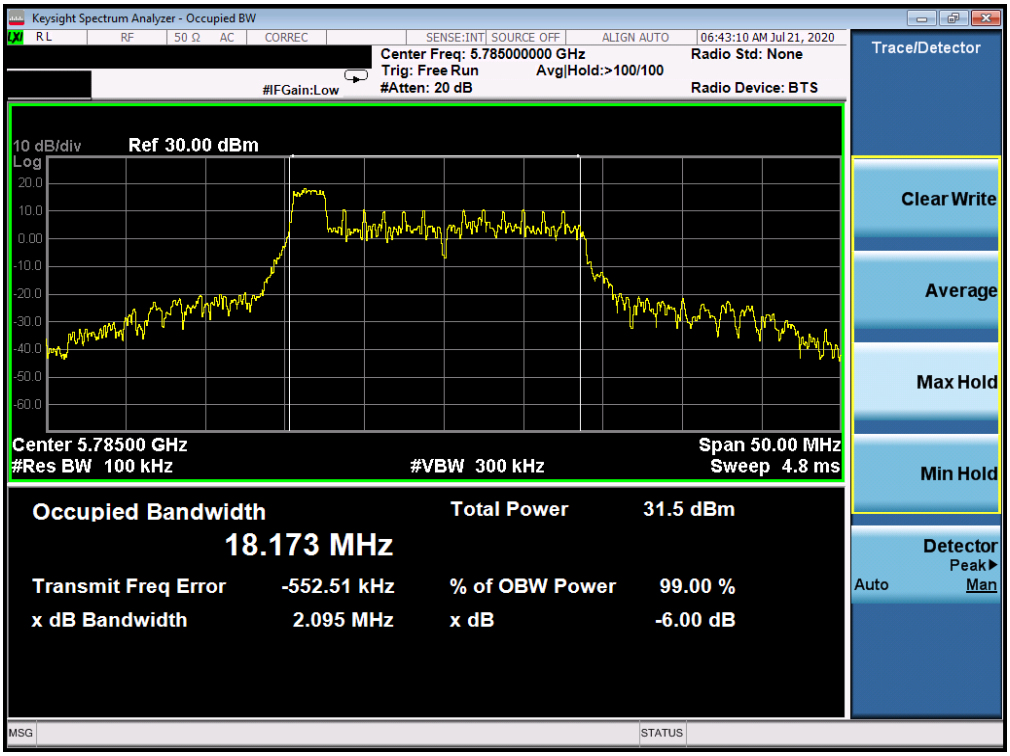
Plot 7-161. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 149)



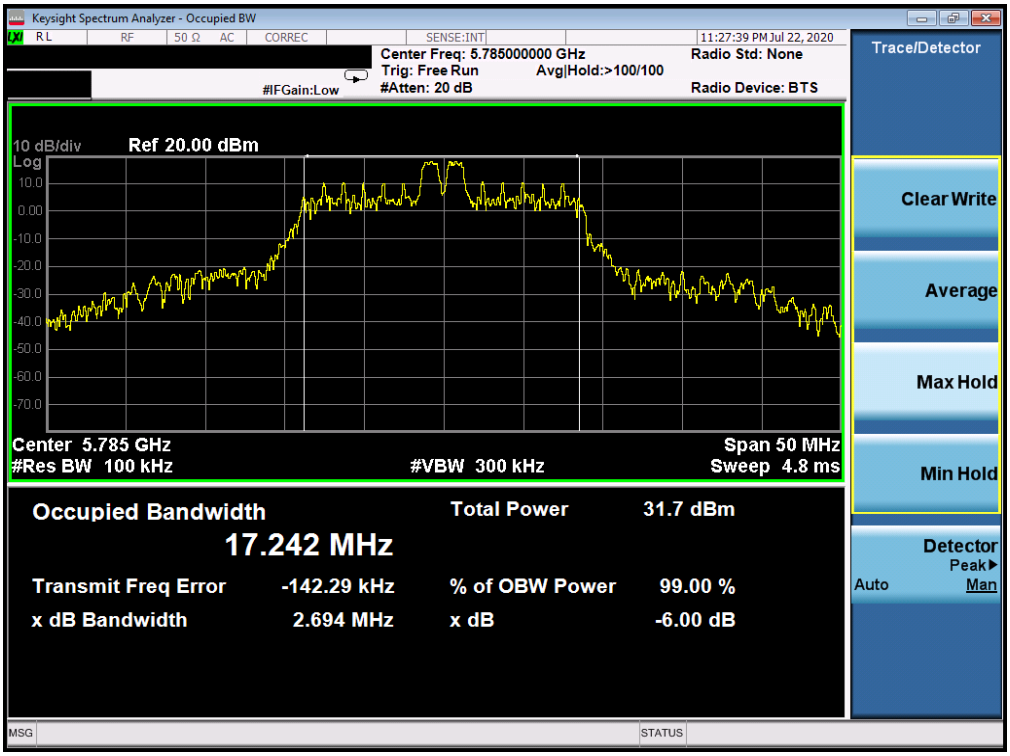
Plot 7-162. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 3) – Ch. 149)



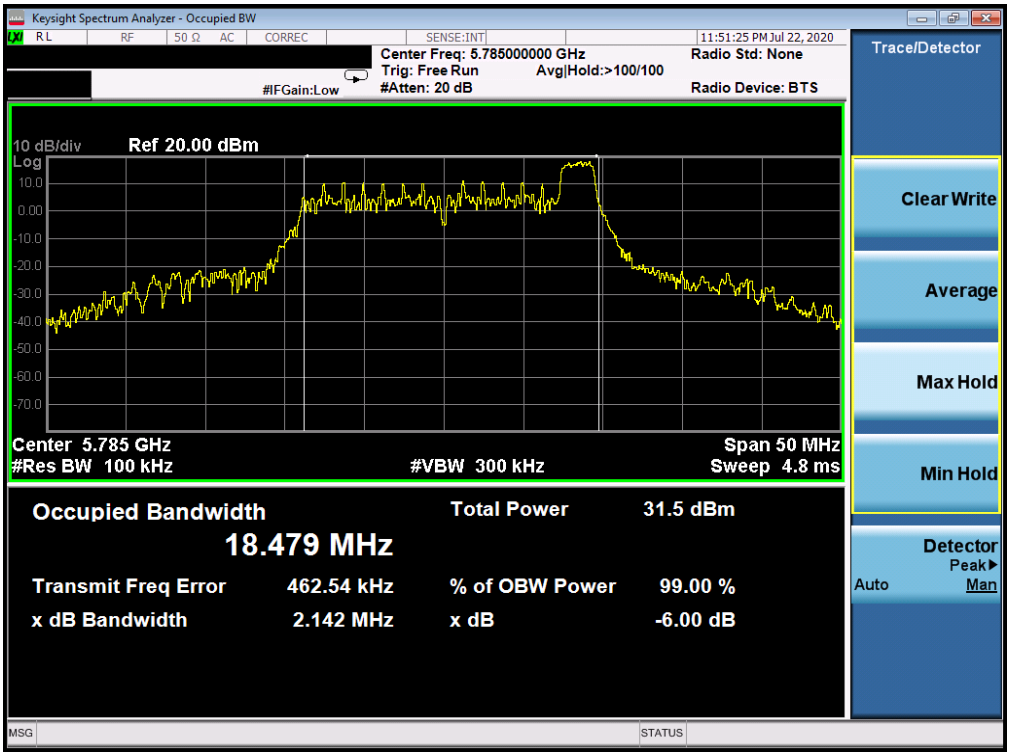
Plot 7-163. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 149)



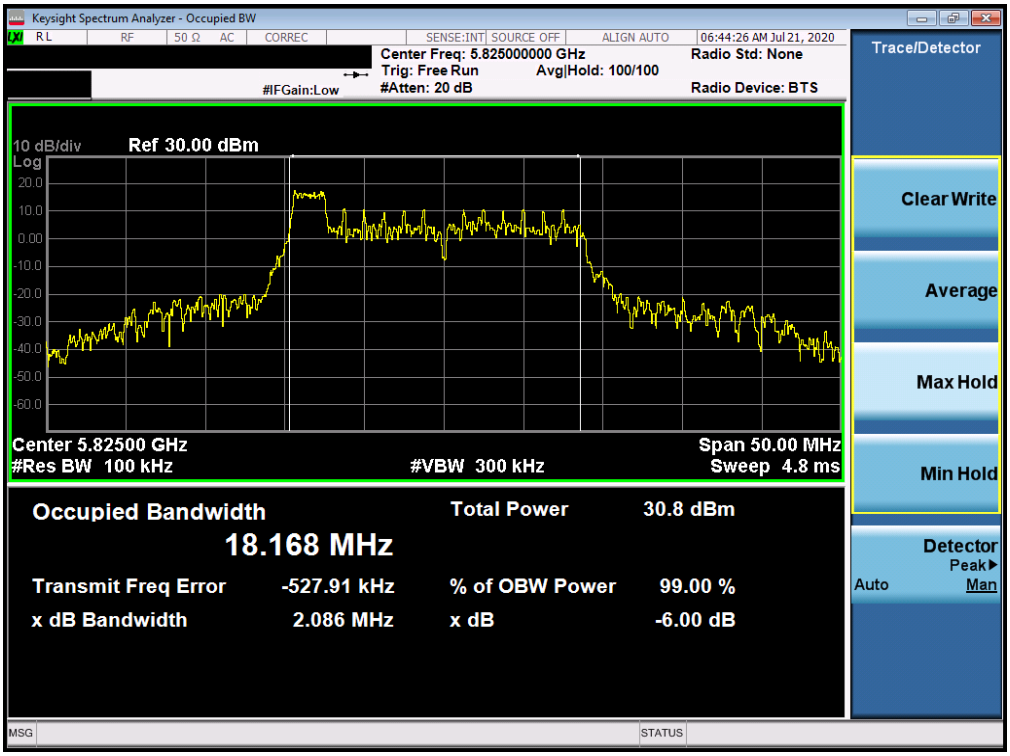
Plot 7-164. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 157)



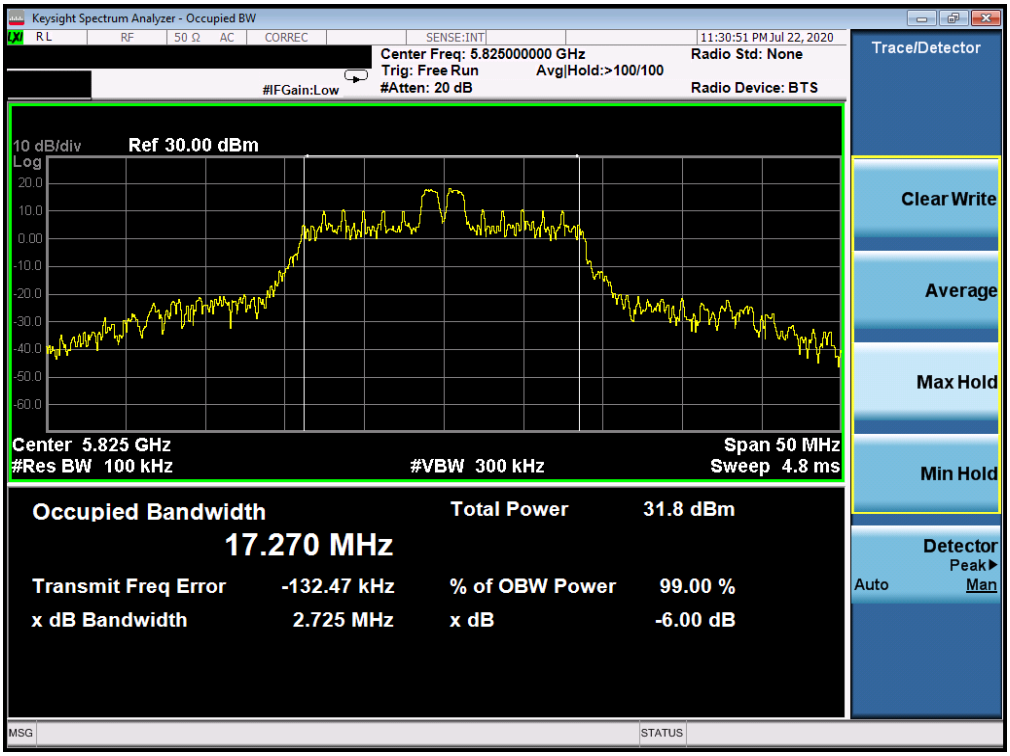
Plot 7-165. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 3) – Ch. 157)



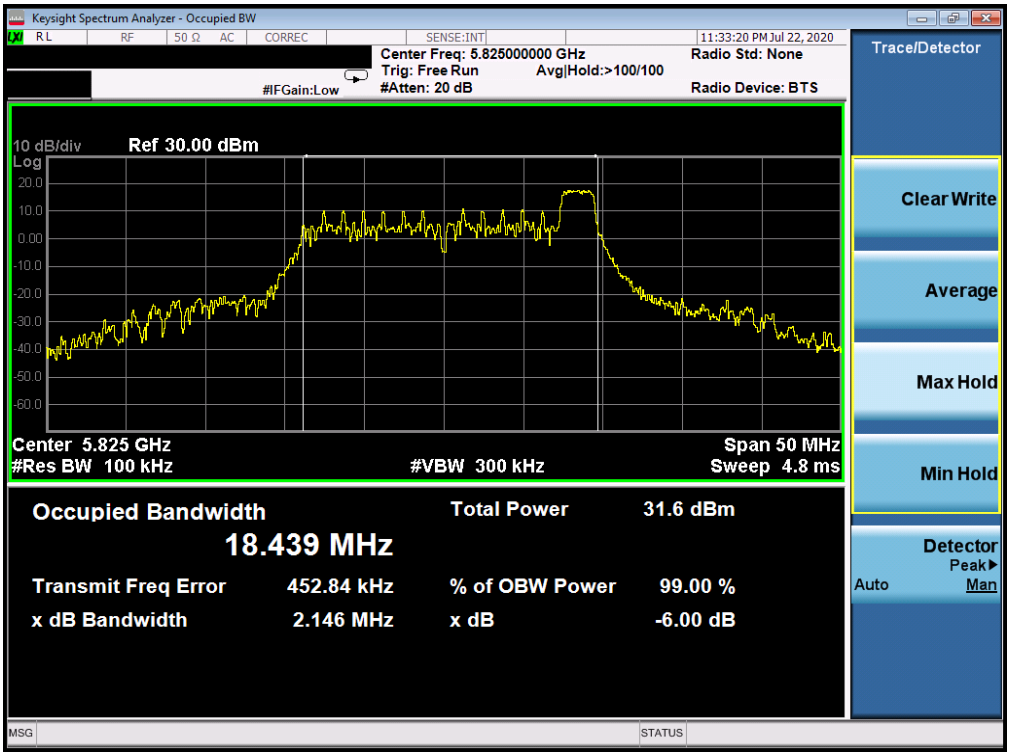
Plot 7-166. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 8– RU26 (UNII Band 3) – Ch. 157)



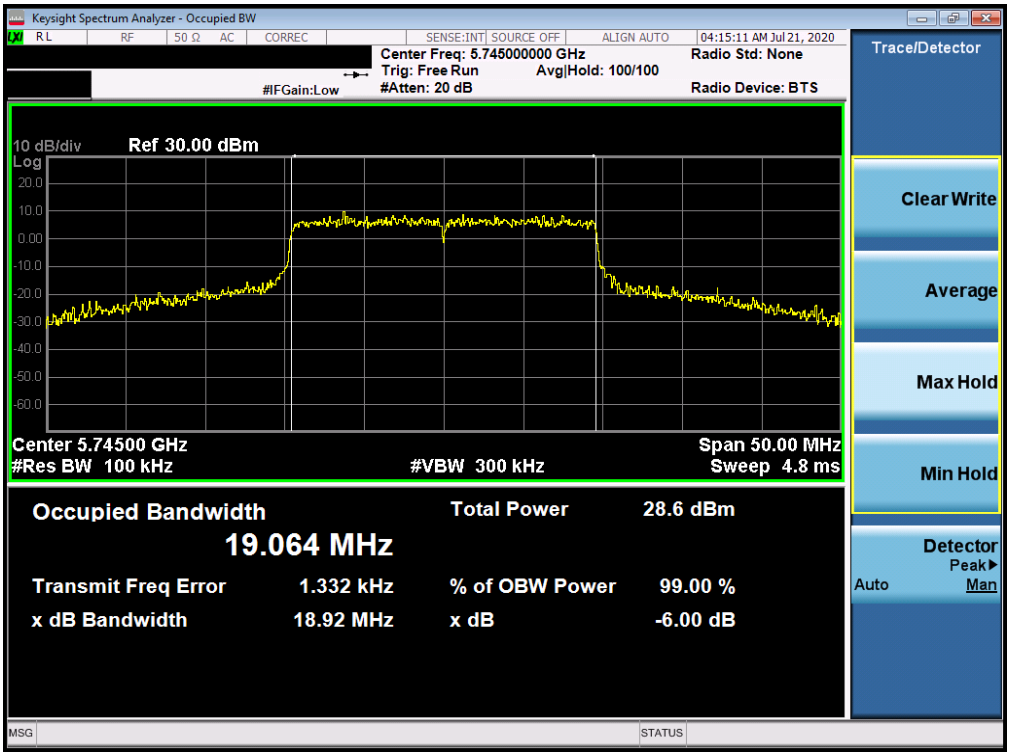
Plot 7-167. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 165)



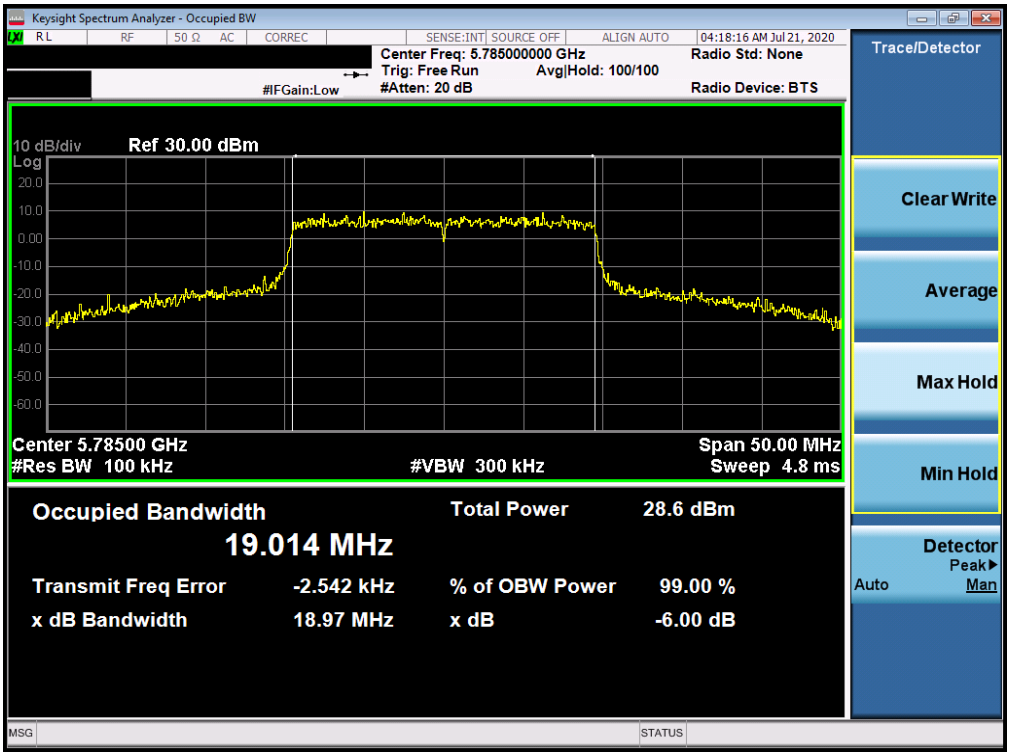
Plot 7-168. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 3) – Ch. 165)



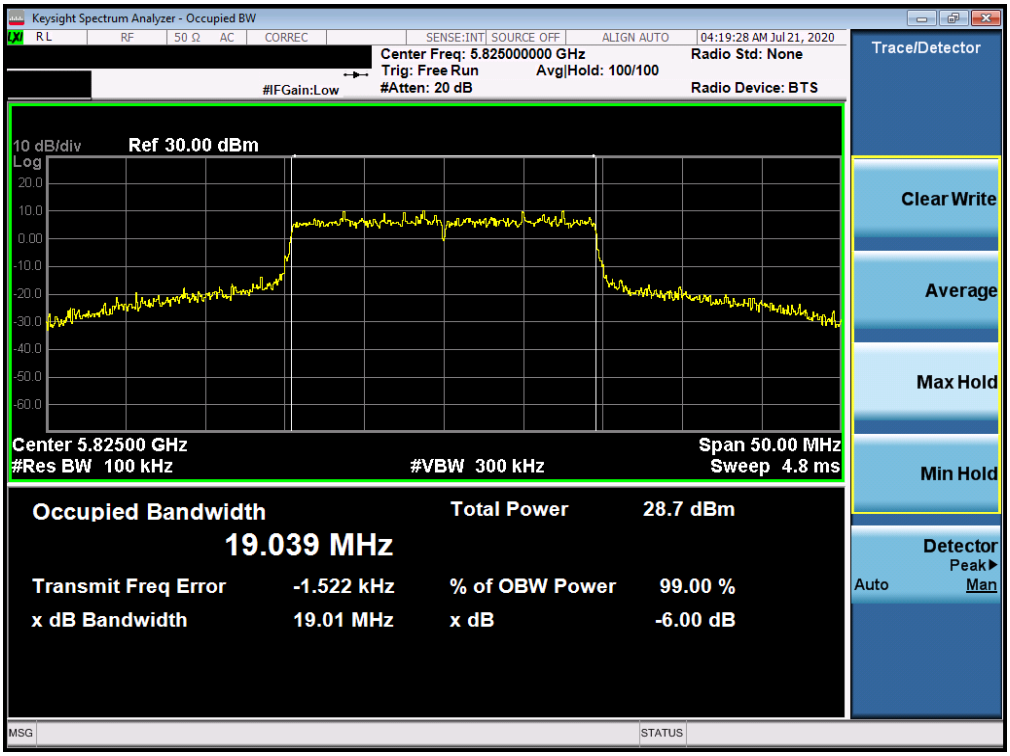
Plot 7-169. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 165)



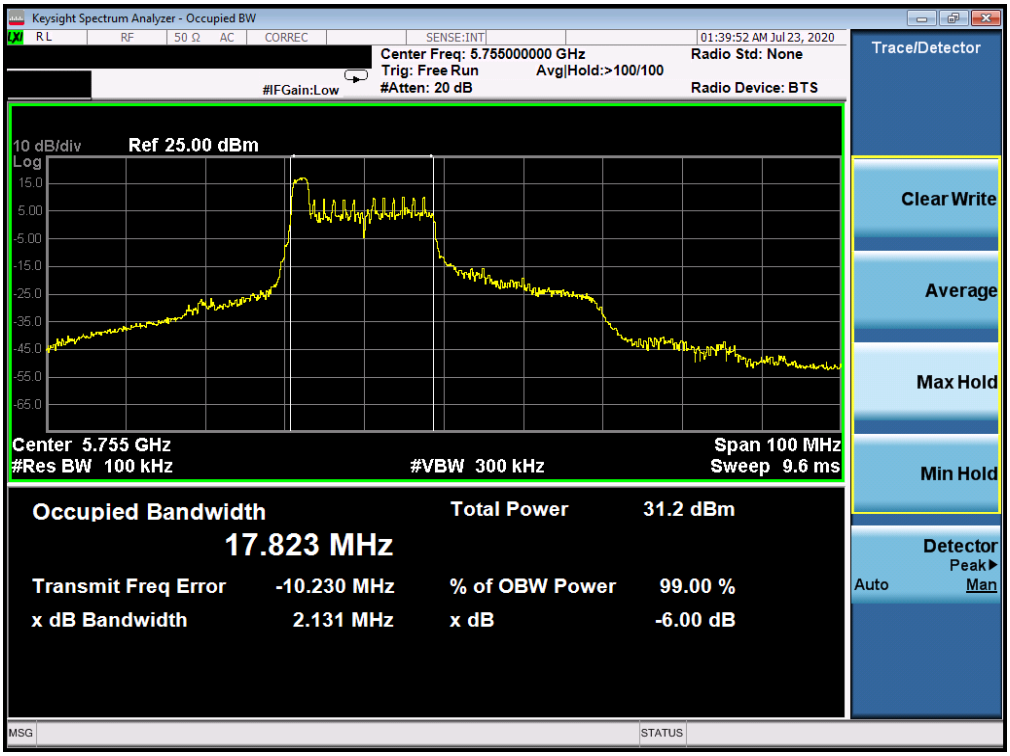
Plot 7-170. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax– RU242 (UNII Band 3) – Ch. 149)



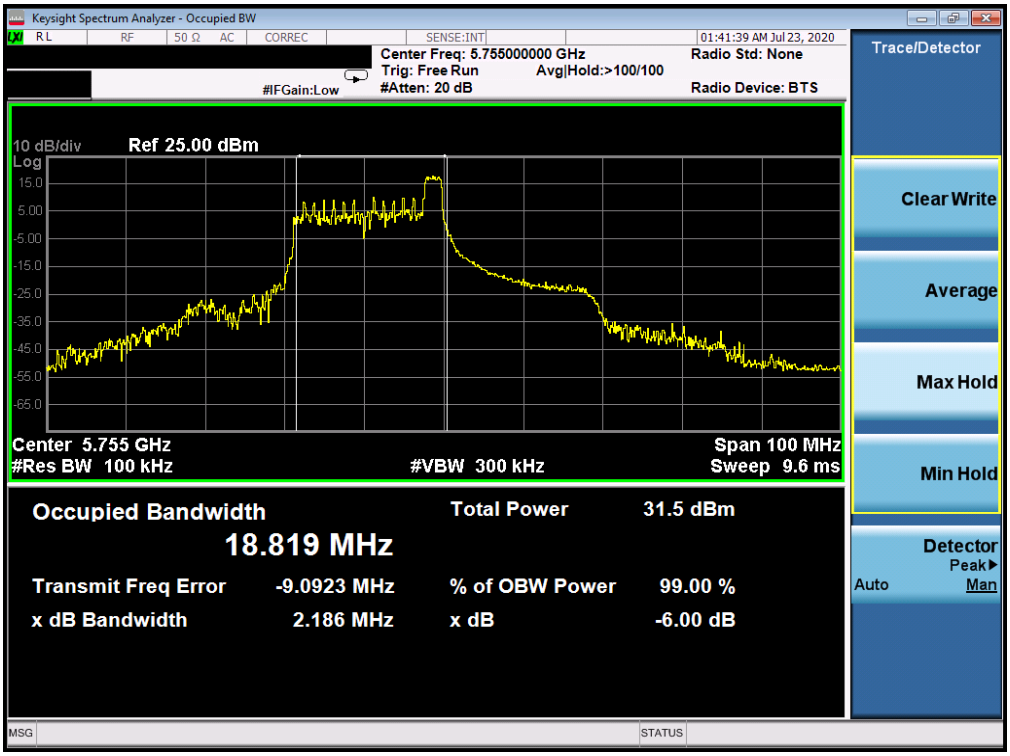
Plot 7-171. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax– RU242 (UNII Band 3) – Ch. 157)



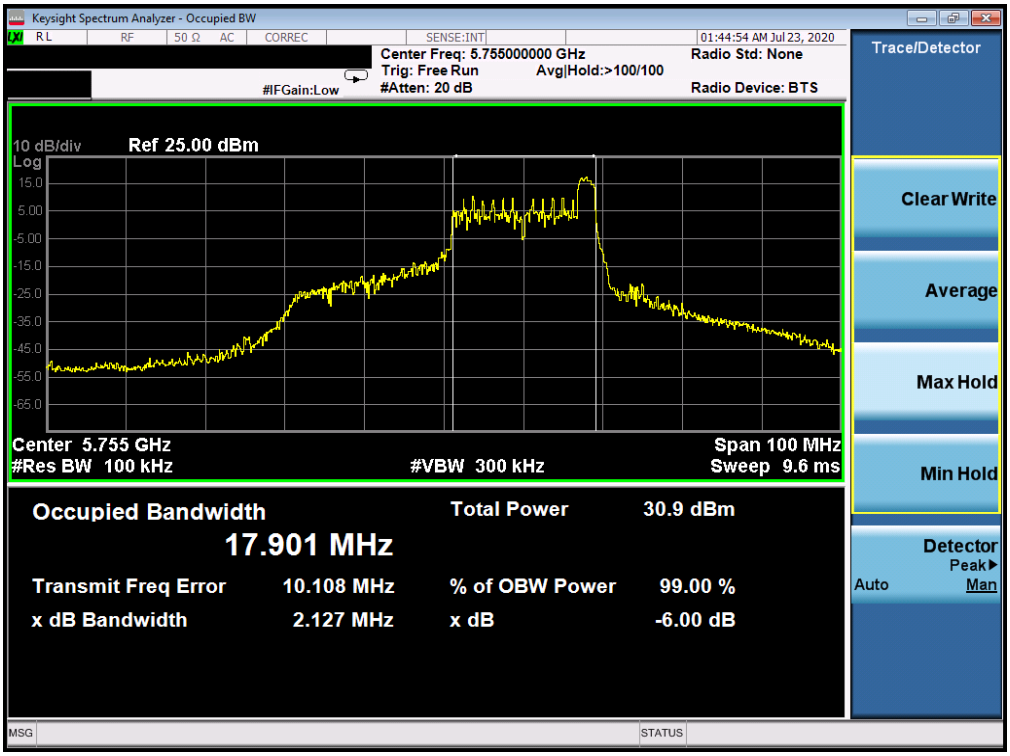
Plot 7-172. 6dB Bandwidth Plot ANT WF8 (20MHz BW 802.11ax– RU242 (UNII Band 3) – Ch. 165)



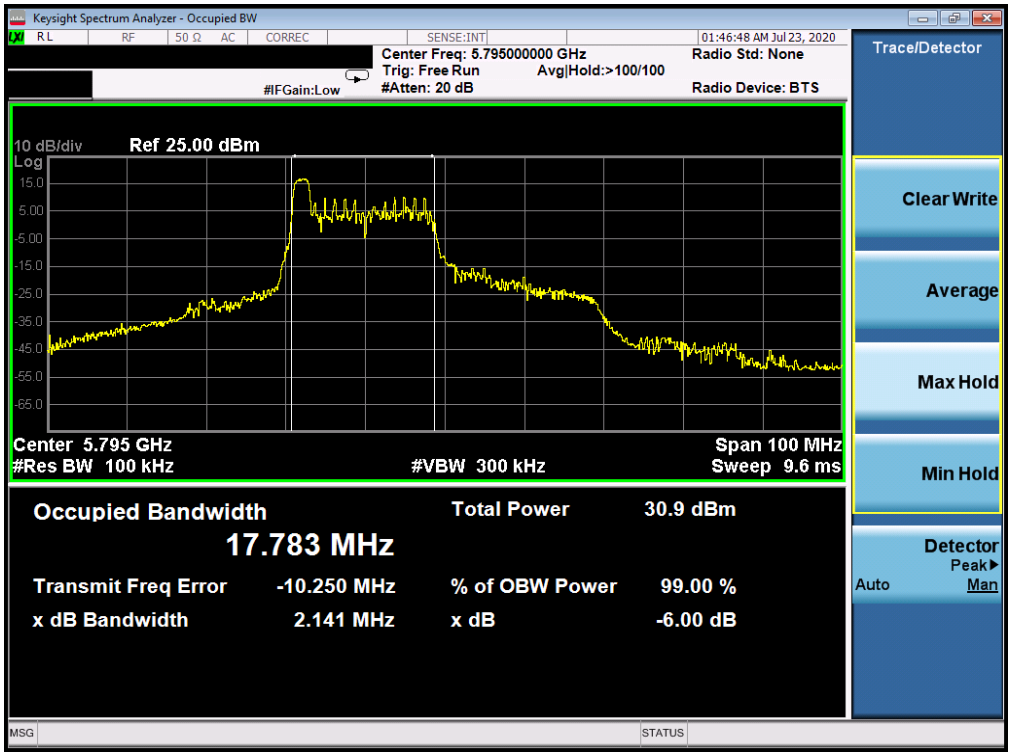
Plot 7-173. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 151)



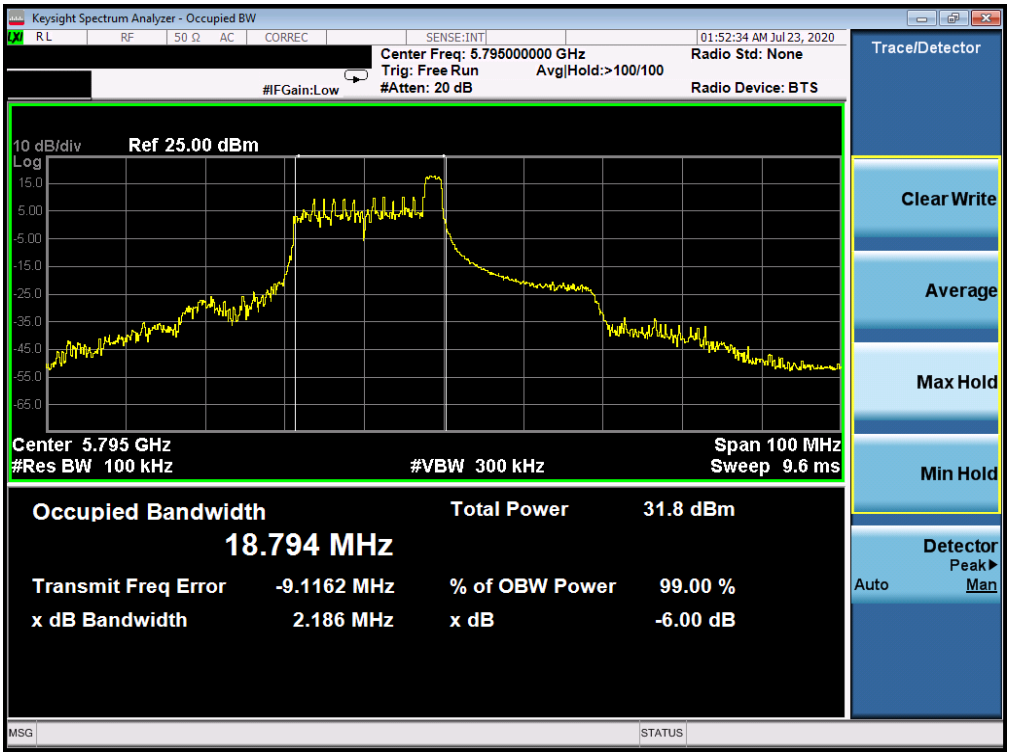
Plot 7-174. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 151)



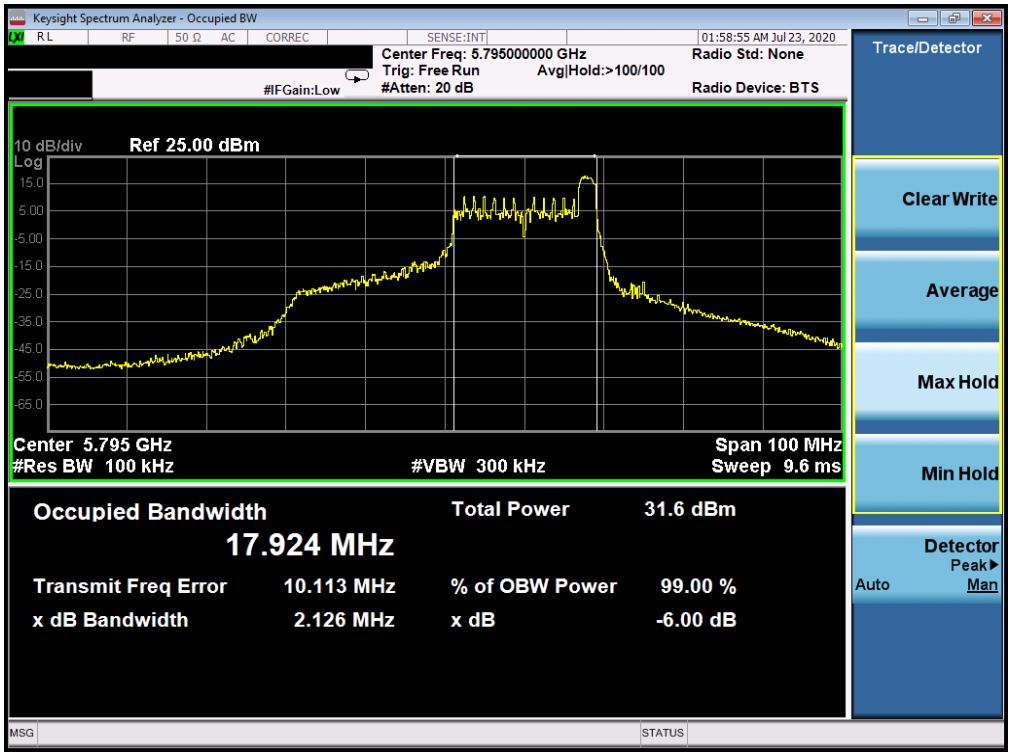
Plot 7-175. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 3) – Ch. 151)



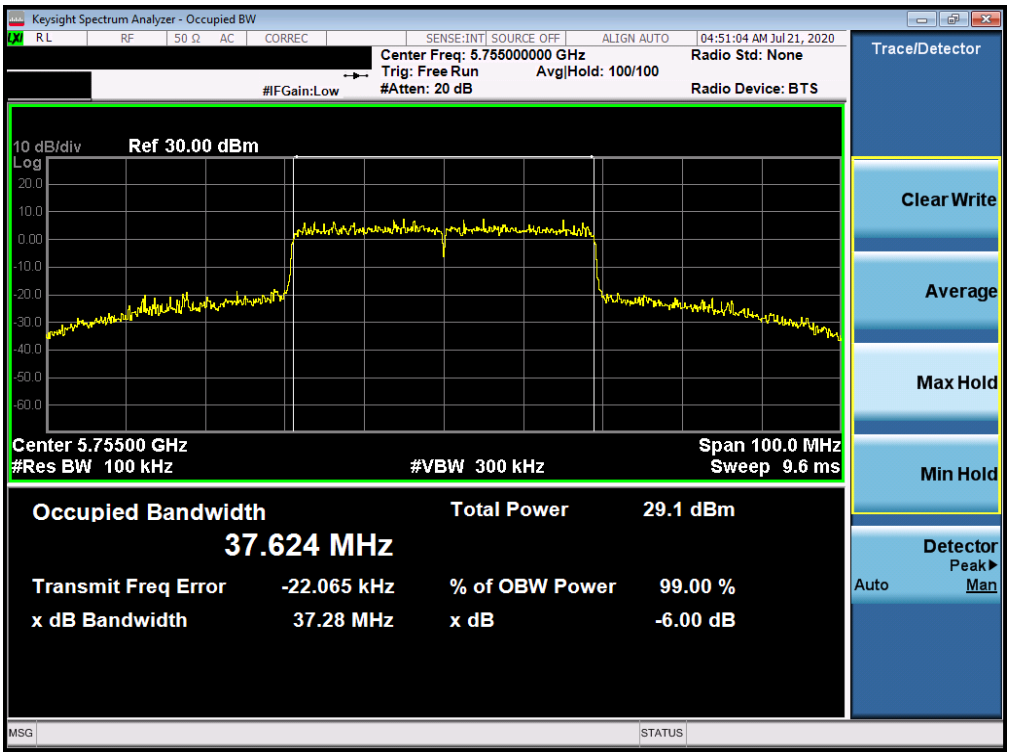
Plot 7-176. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 159)



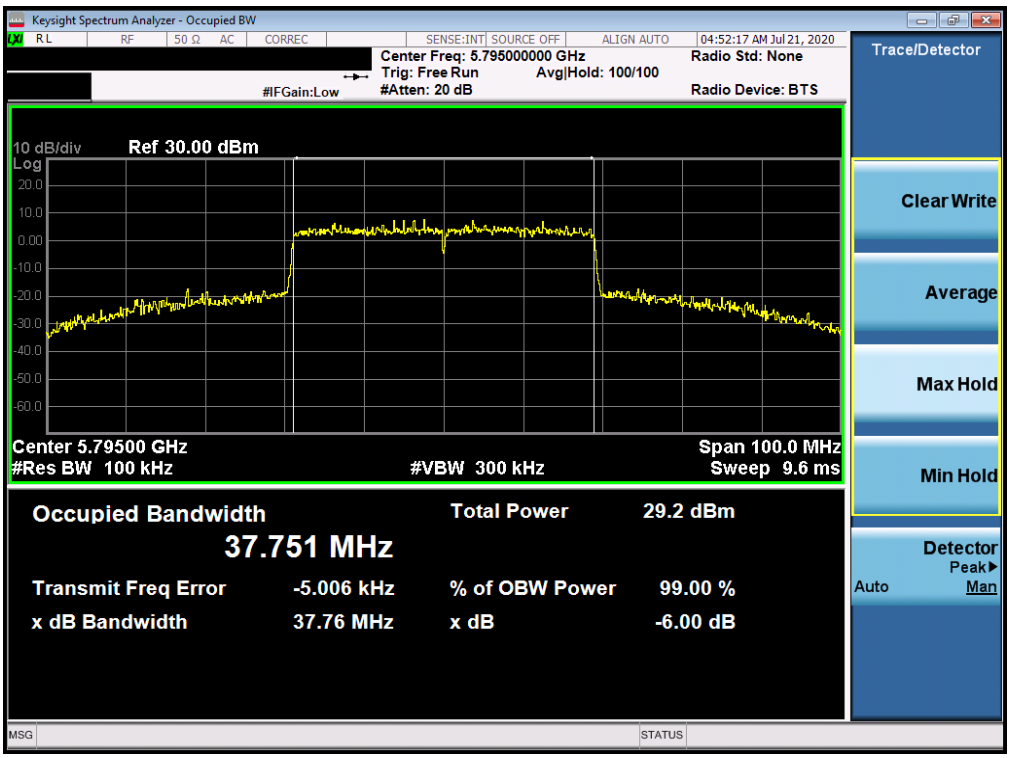
Plot 7-177. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 159)



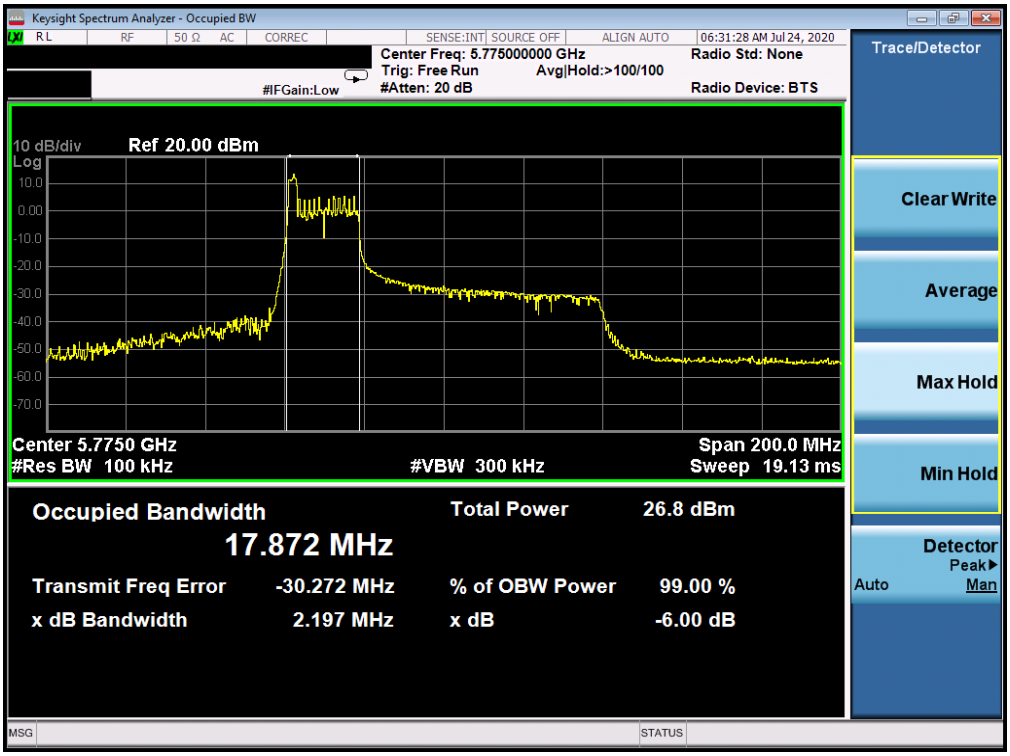
Plot 7-178. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 3) – Ch. 159)



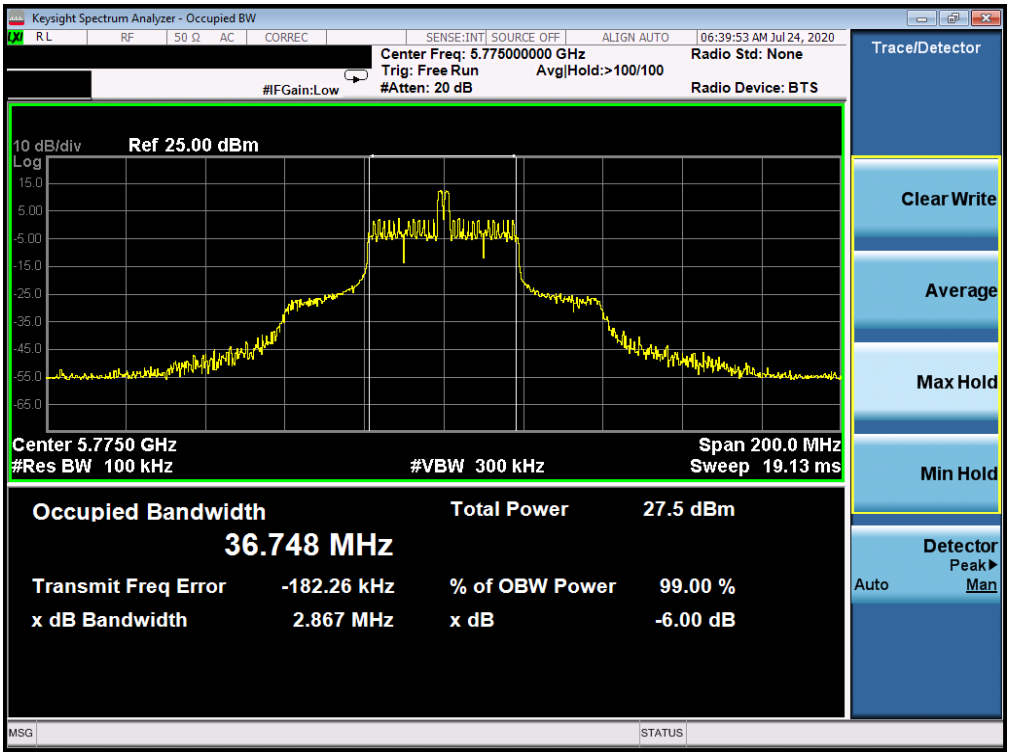
Plot 7-179. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax – RU484 (UNII Band 3) – Ch. 151)



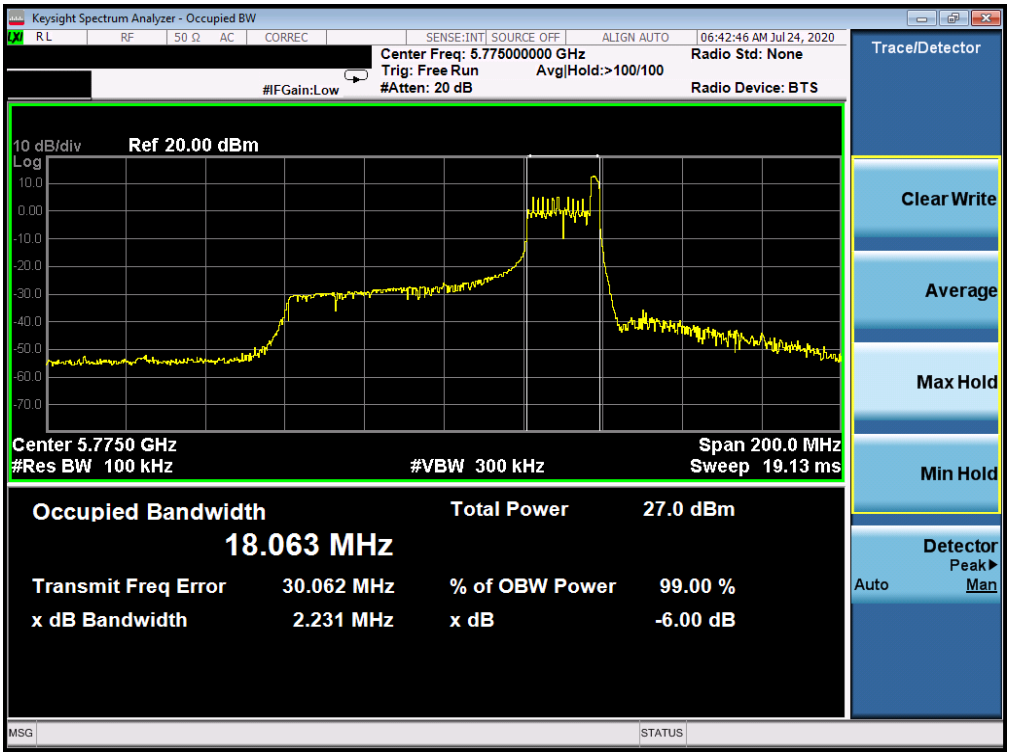
Plot 7-180. 6dB Bandwidth Plot ANT WF8 (40MHz BW 802.11ax – RU484 (UNII Band 3) – Ch. 159)



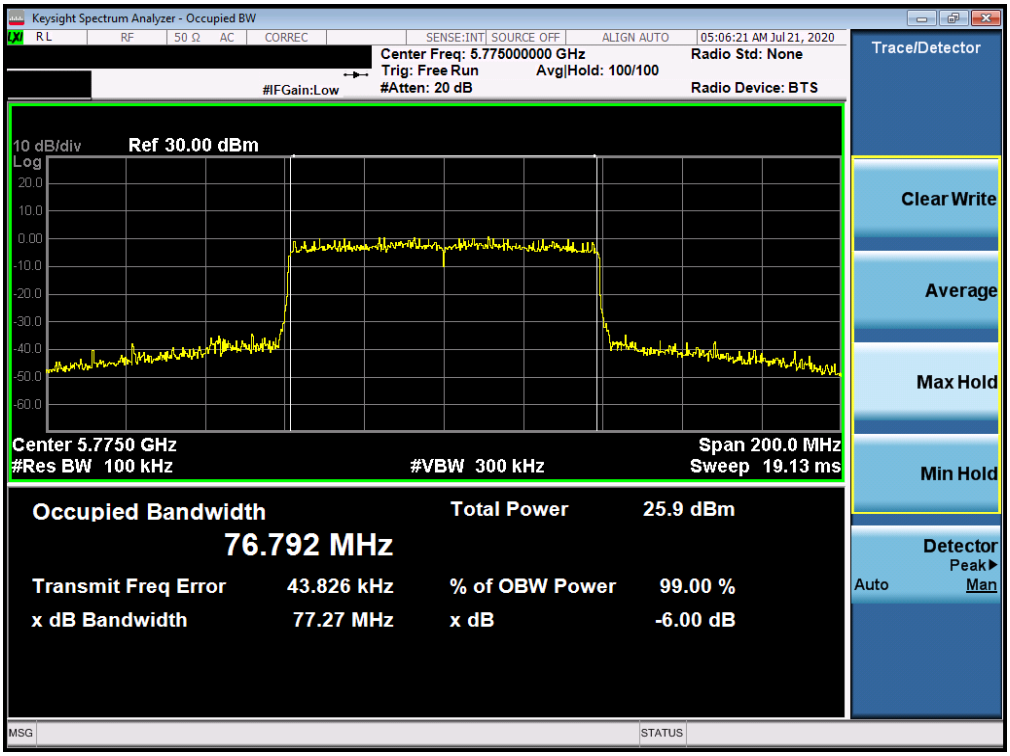
Plot 7-181. 6dB Bandwidth Plot ANT WF8 (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 155)



Plot 7-182. 6dB Bandwidth Plot ANT WF8 (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 3) – Ch. 155)



Plot 7-183. 6dB Bandwidth Plot ANT WF8 (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 3) – Ch. 155)



Plot 7-184. 6dB Bandwidth Plot ANT WF8 (80MHz BW 802.11ax – RU996 (UNII Band 3) – Ch. 155)

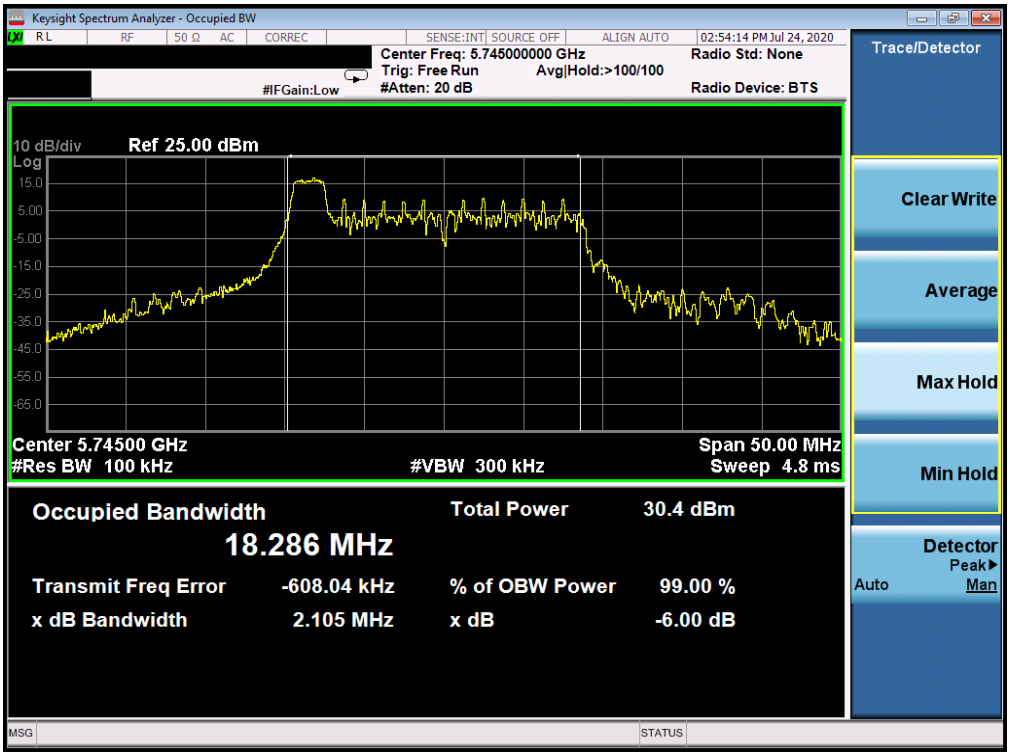
Antenna WF7a 6dB Bandwidth Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
Band 3	5745	149	ax (20MHz)	26	0	135/143.4 (MCS11)	2.105
				26	4	135/143.4 (MCS11)	2.711
				26	8	135/143.4 (MCS11)	2.142
	5785	157	ax (20MHz)	26	0	135/143.4 (MCS11)	2.147
				26	4	135/143.4 (MCS11)	2.711
				26	8	135/143.4 (MCS11)	2.077
	5825	165	ax (20MHz)	26	0	135/143.4 (MCS11)	2.127
				26	4	135/143.4 (MCS11)	2.706
				26	8	135/143.4 (MCS11)	2.119
	5755	151	ax (40MHz)	26	0	271/286.8 (MCS11)	2.109
				26	4	271/286.8 (MCS11)	2.174
				26	8	271/286.8 (MCS11)	2.150
	5795	159	ax (40MHz)	26	0	271/286.8 (MCS11)	2.115
				26	4	271/286.8 (MCS11)	2.150
				26	8	271/286.8 (MCS11)	2.124
	5775	155	ax (80MHz)	26	0	567/600.5 (MCS11)	2.267
				26	4	567/600.5 (MCS11)	2.913
				26	8	567/600.5 (MCS11)	2.198

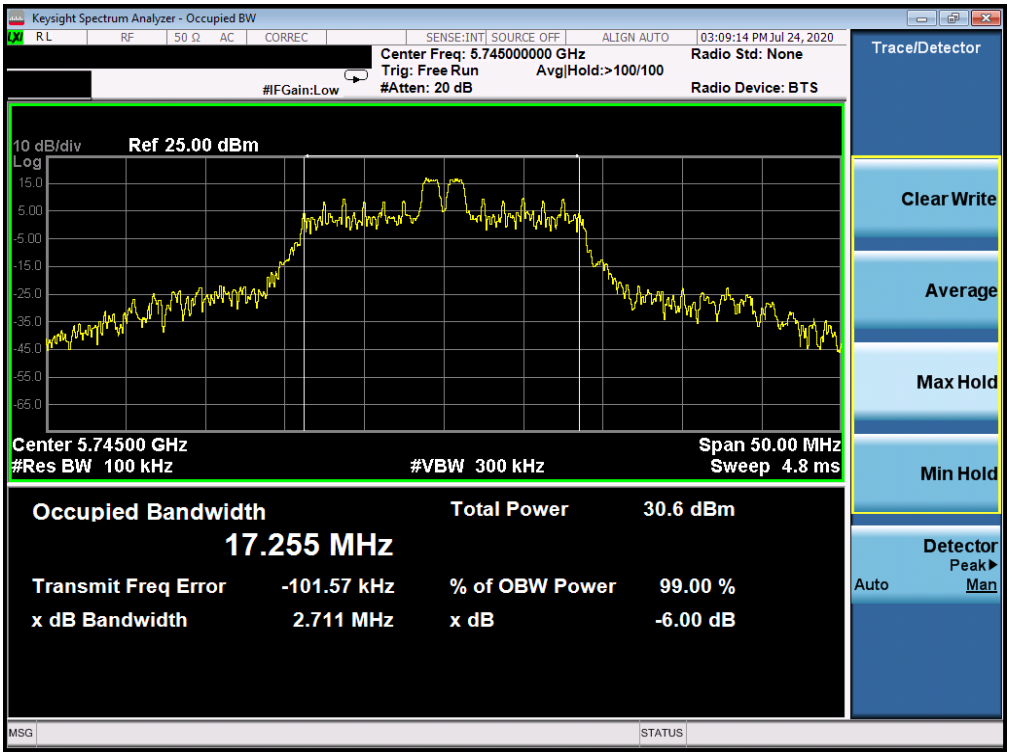
Table 7-8. Conducted Bandwidth Measurements ANT WF7a (RU26)

	Frequency [MHz]	Channel No.	802.11 Mode	RU Size	RU Index	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
Band 3	5745	149	ax (20MHz)	242	61	135/143.4 (MCS11)	19.020
	5785	157	ax (20MHz)	242	61	135/143.4 (MCS11)	19.010
	5825	165	ax (20MHz)	242	61	135/143.4 (MCS11)	19.000
	5755	151	ax (40MHz)	484	65	271/286.8 (MCS11)	37.750
	5795	159	ax (40MHz)	484	65	271/286.8 (MCS11)	37.640
	5775	155	ax (80MHz)	996	67	567/600.5 (MCS11)	77.450

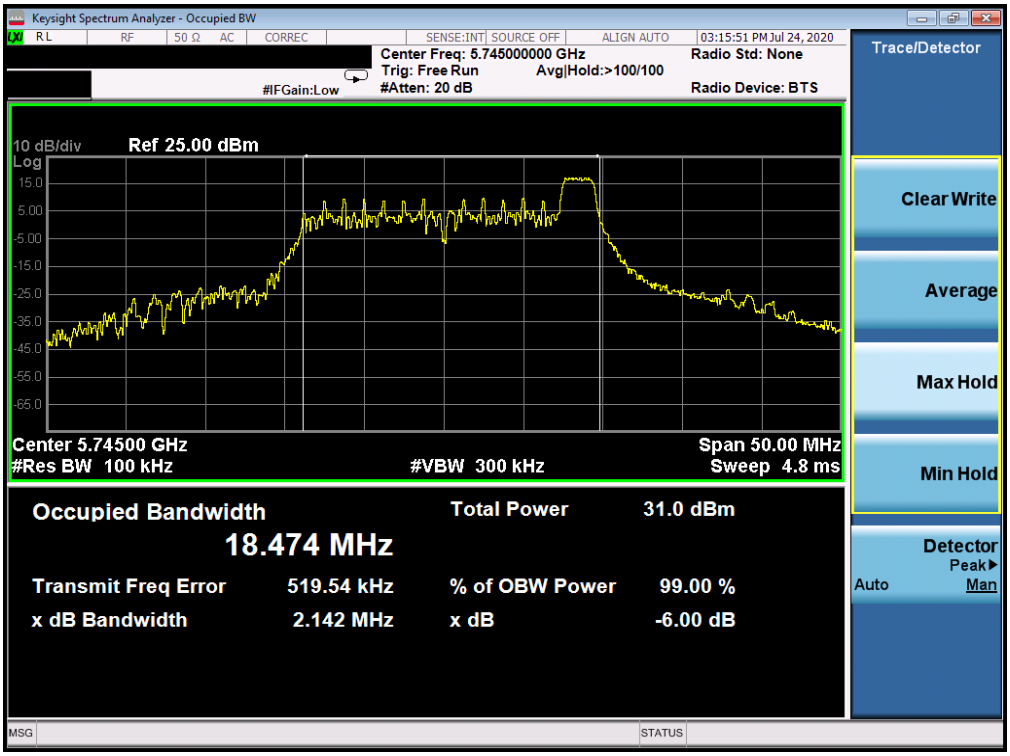
Table 7-9. Conducted Bandwidth Measurements ANT WF7a (Fully-loaded RU)



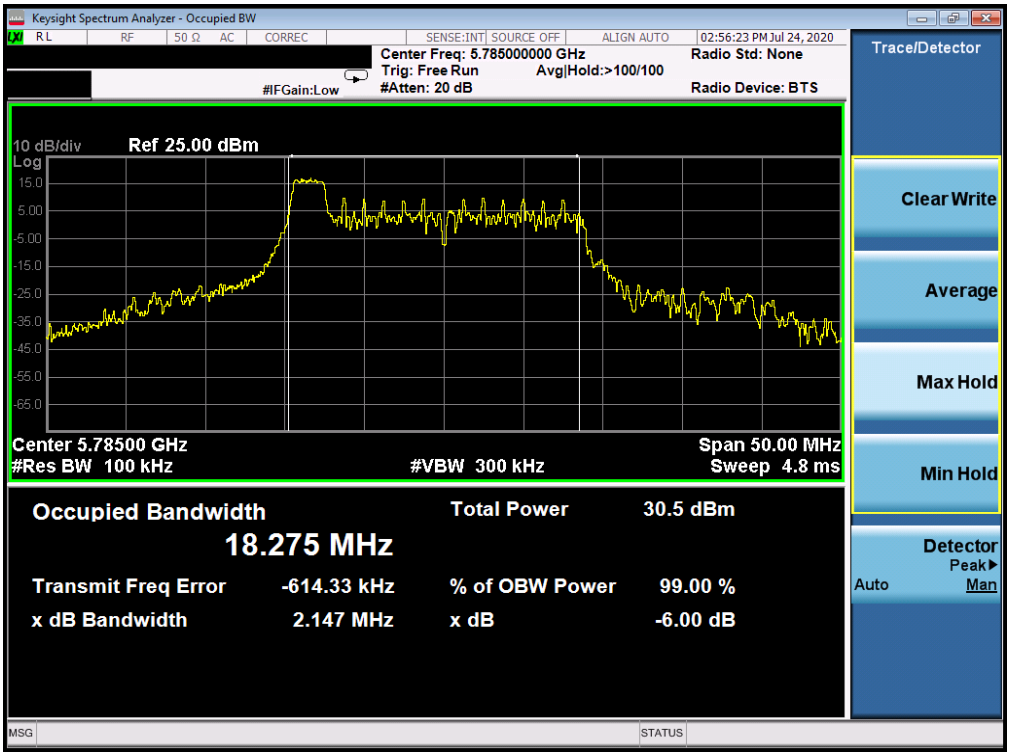
Plot 7-185. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 149)



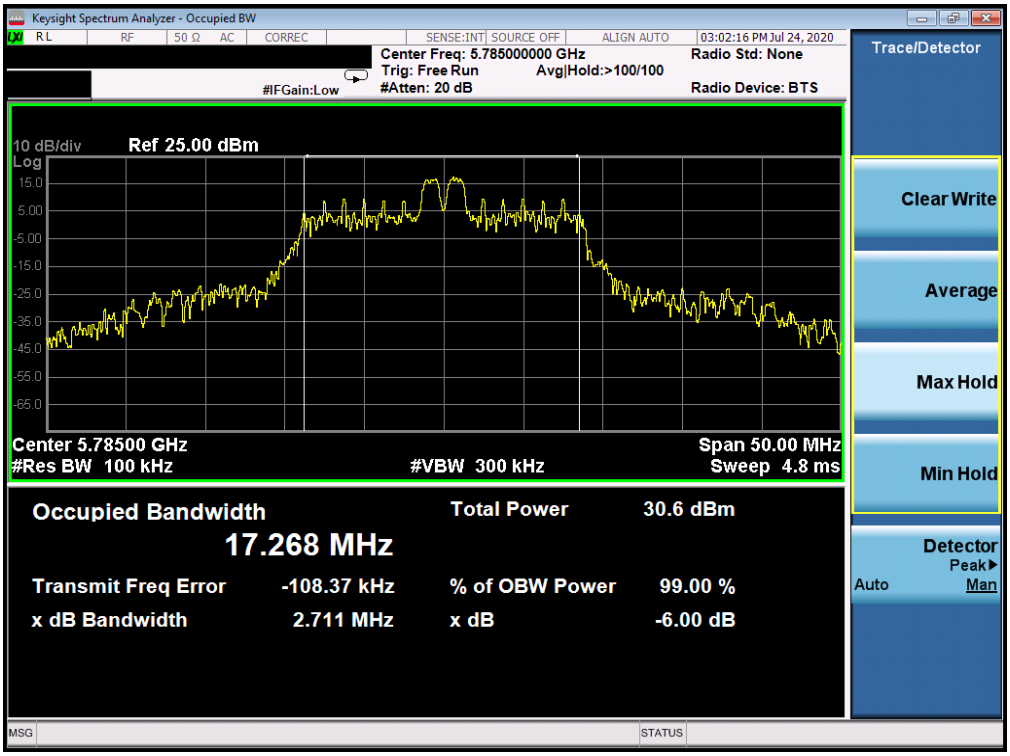
Plot 7-186. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 3) – Ch. 149)



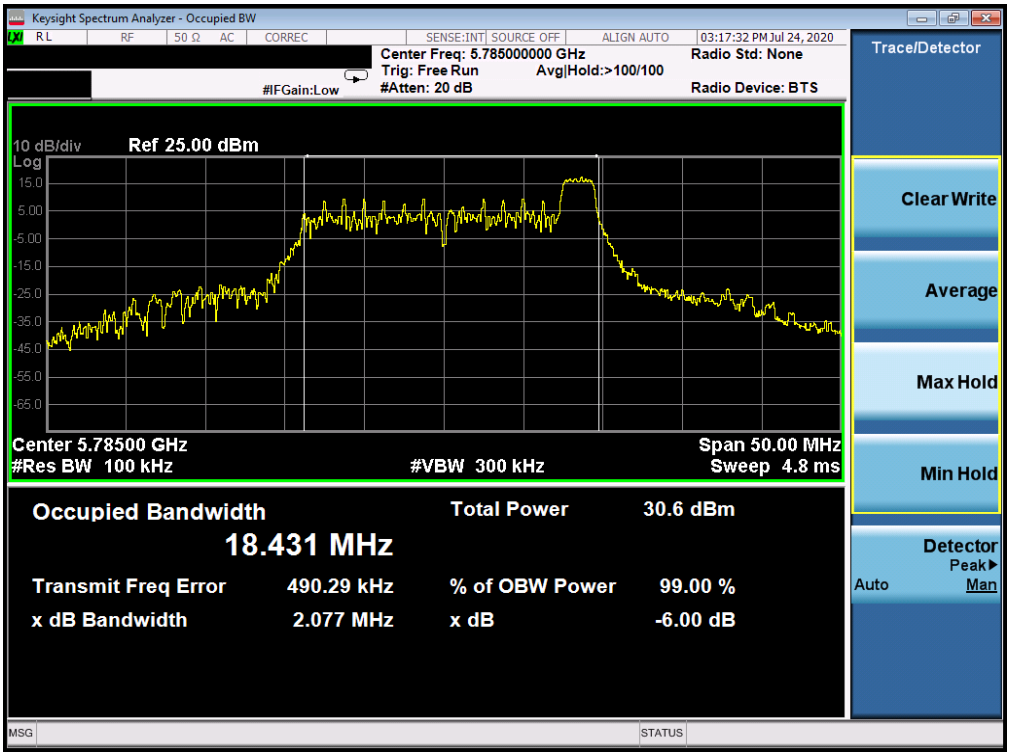
Plot 7-187. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 149)



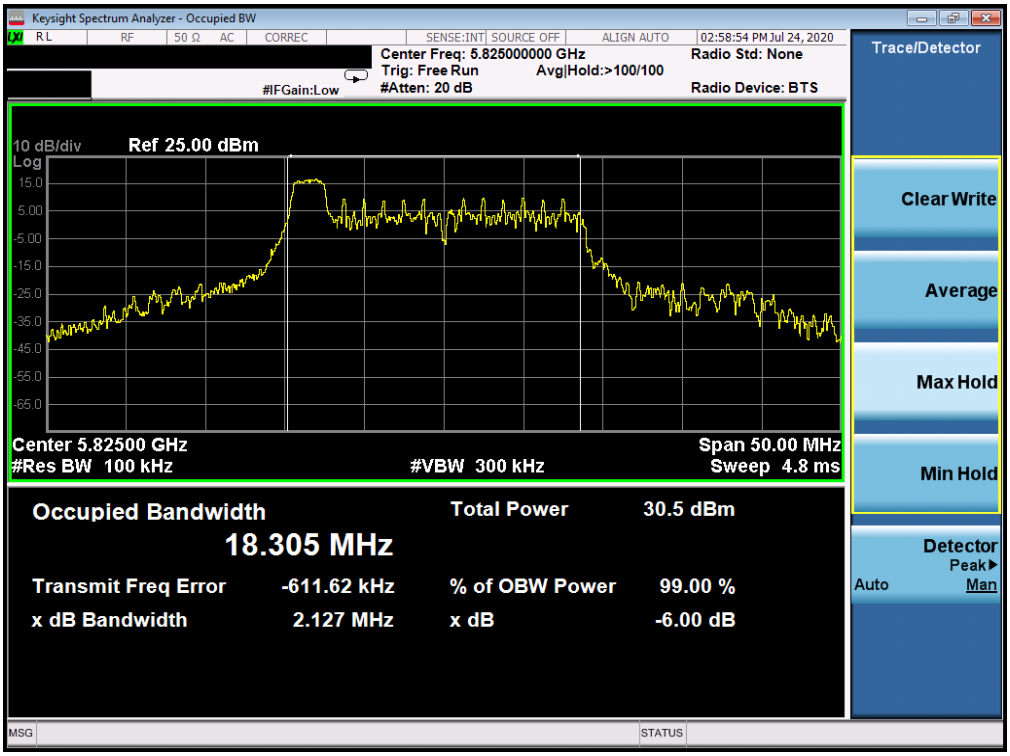
Plot 7-188. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 157)



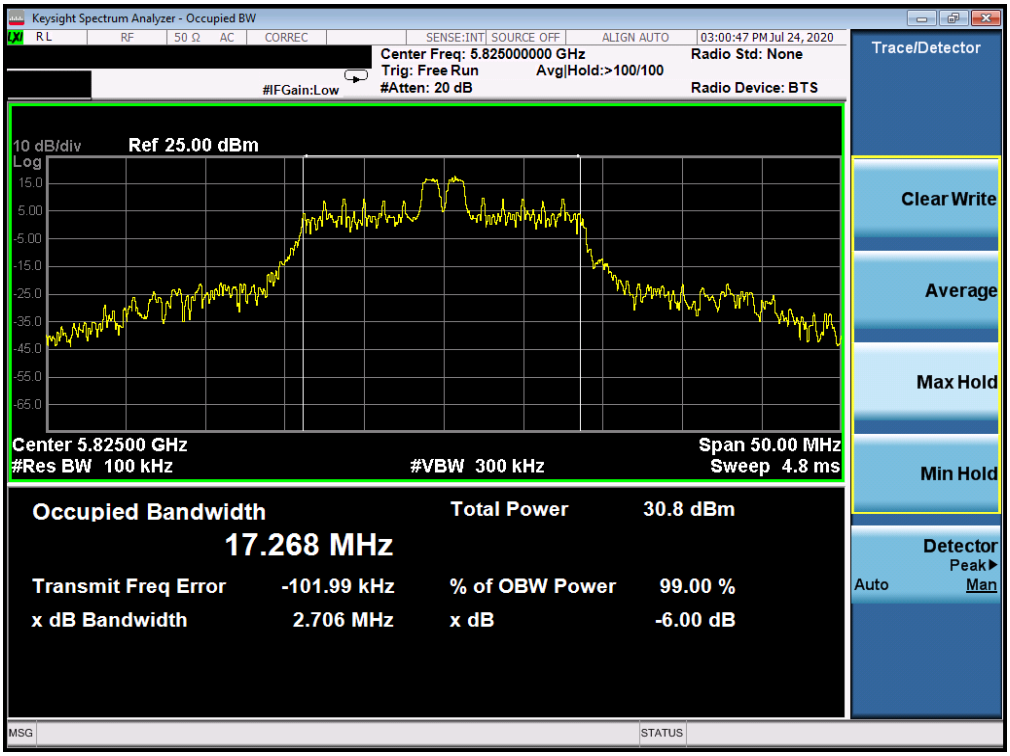
Plot 7-189. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 3) – Ch. 157)



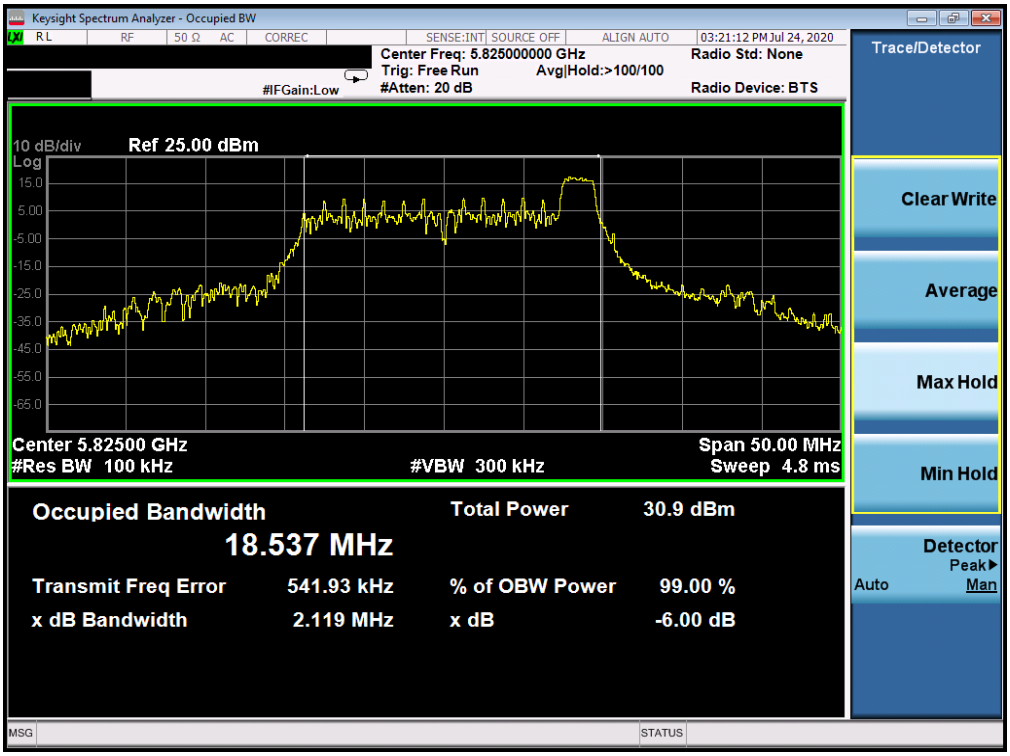
Plot 7-190. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8– RU26 (UNII Band 3) – Ch. 157)



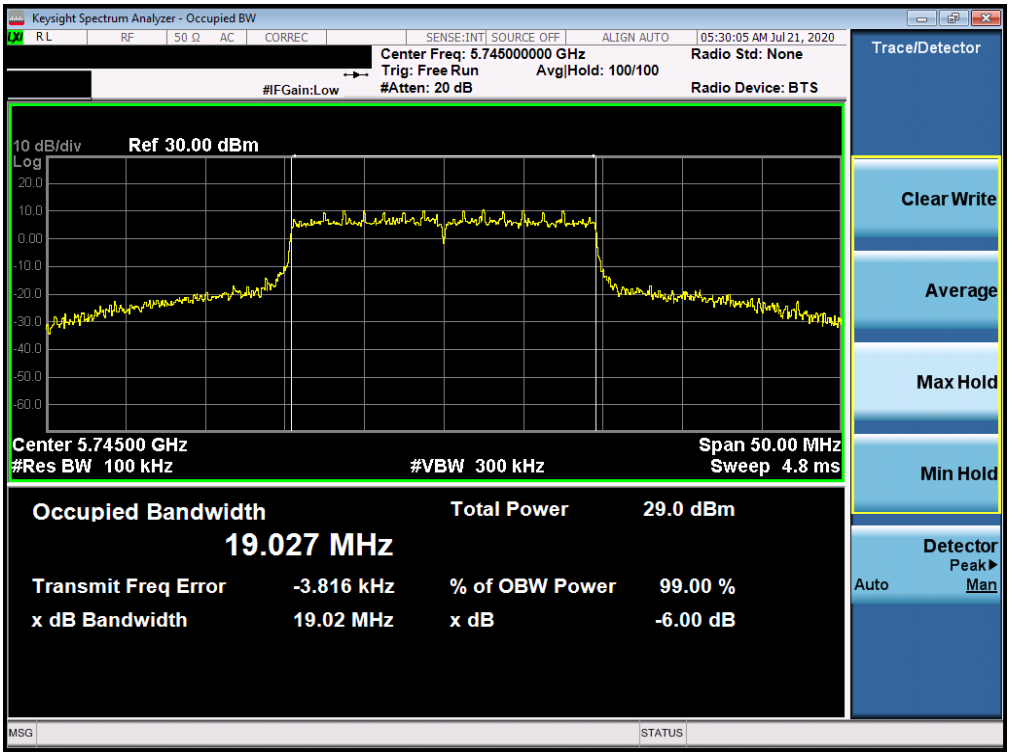
Plot 7-191. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 165)21



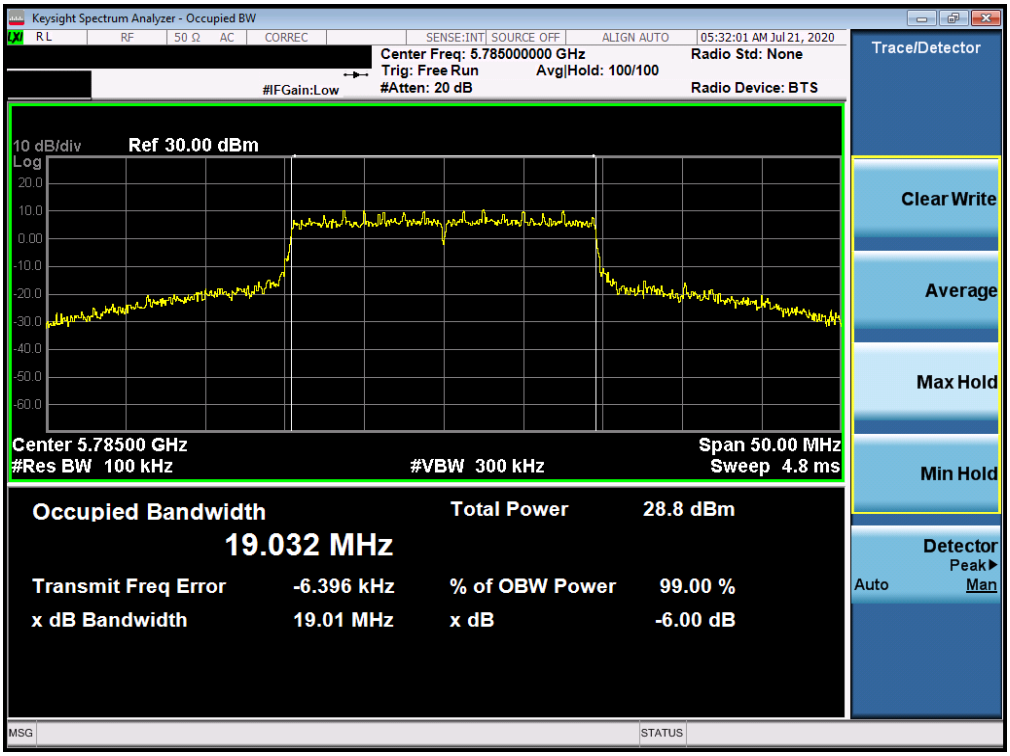
Plot 7-192. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 4 – RU26 (UNII Band 3) – Ch. 165)



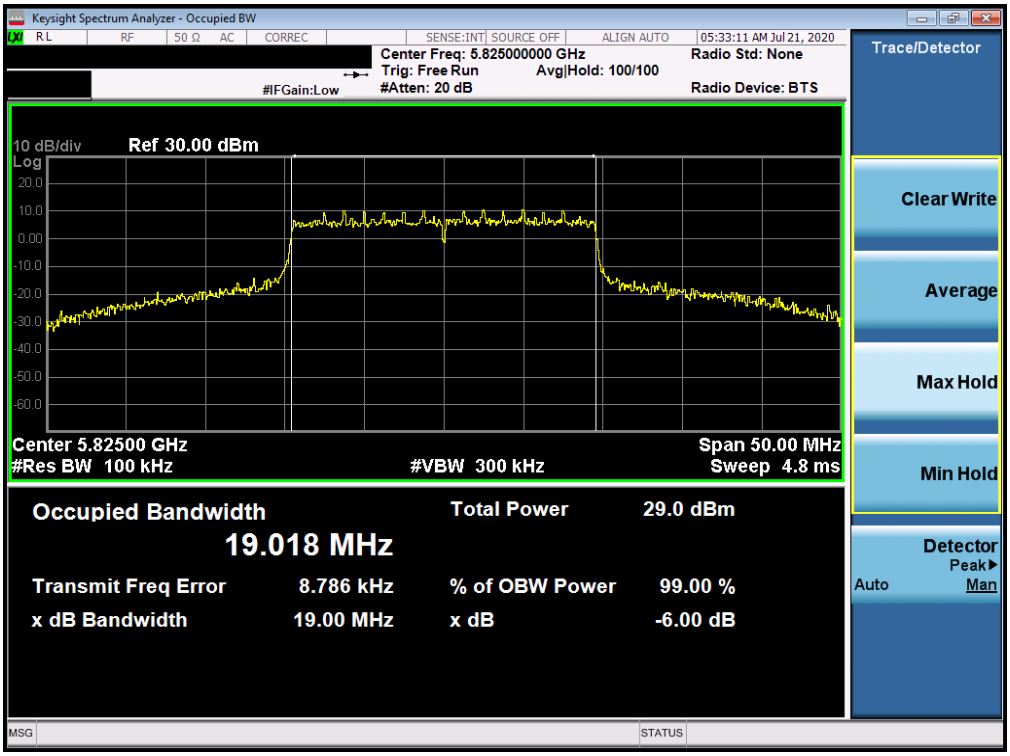
Plot 7-193. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 165)



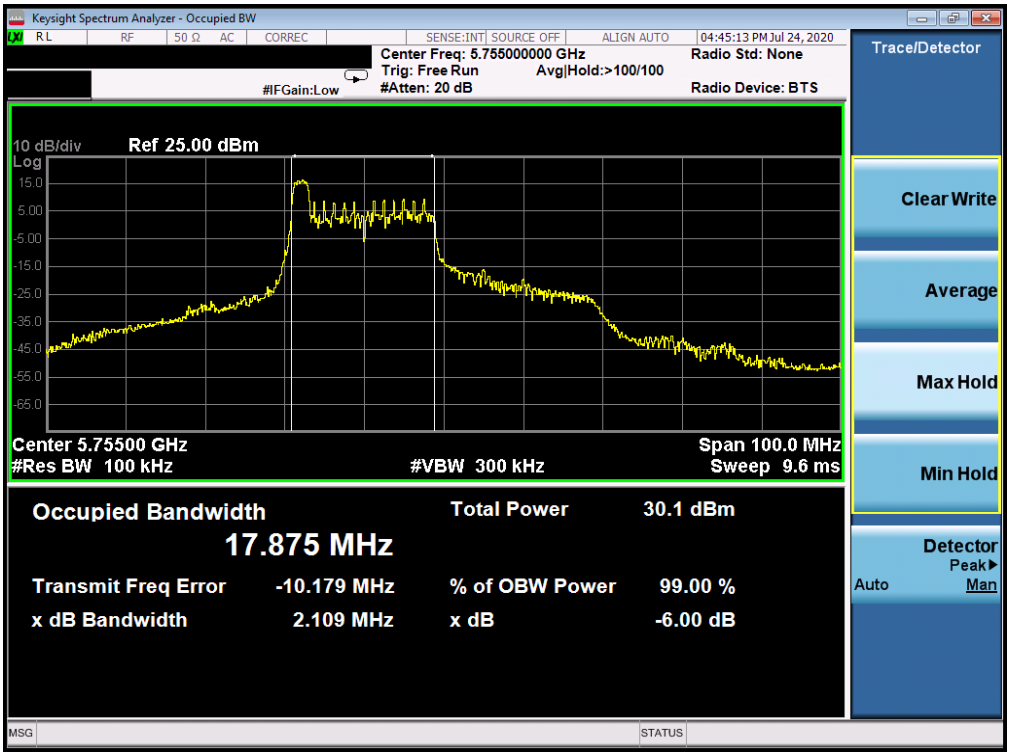
Plot 7-194. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 3) – Ch. 149)



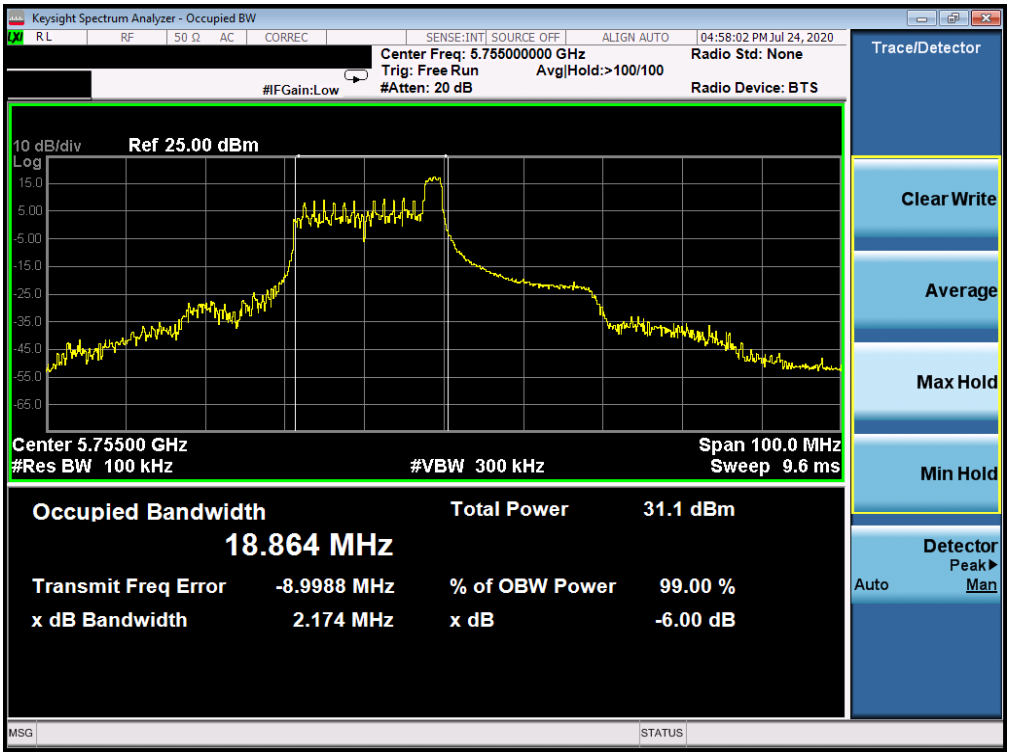
Plot 7-195. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 3) – Ch. 157)



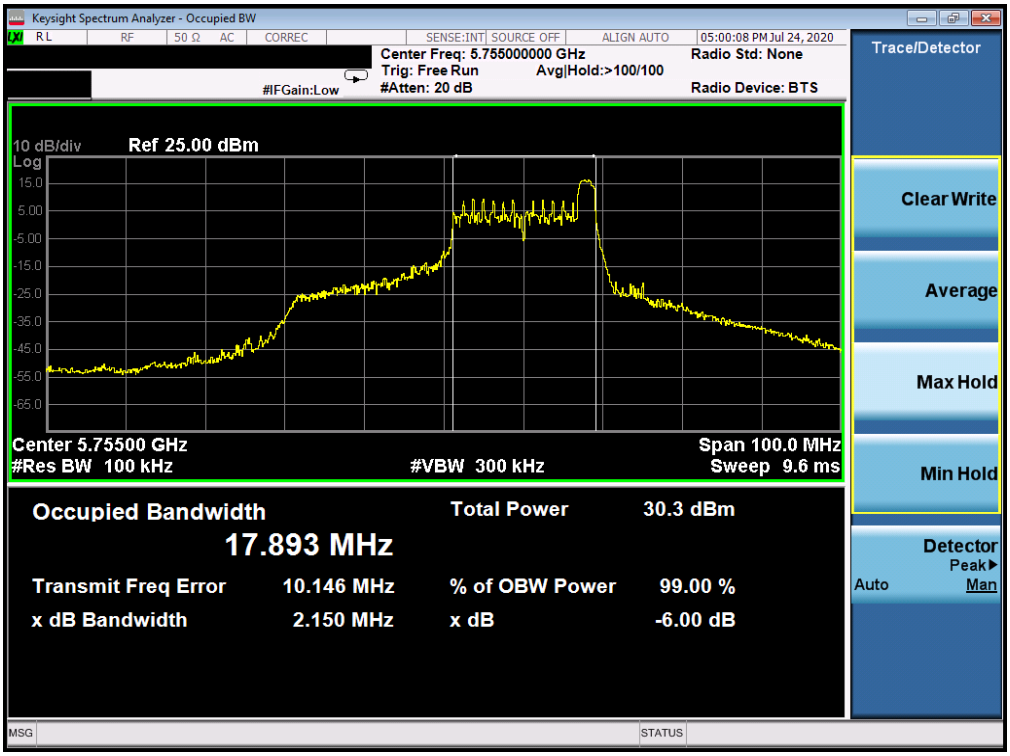
Plot 7-196. 6dB Bandwidth Plot ANT WF7a (20MHz BW 802.11ax– RU242 (UNII Band 3) – Ch. 165)



Plot 7-197. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 151)

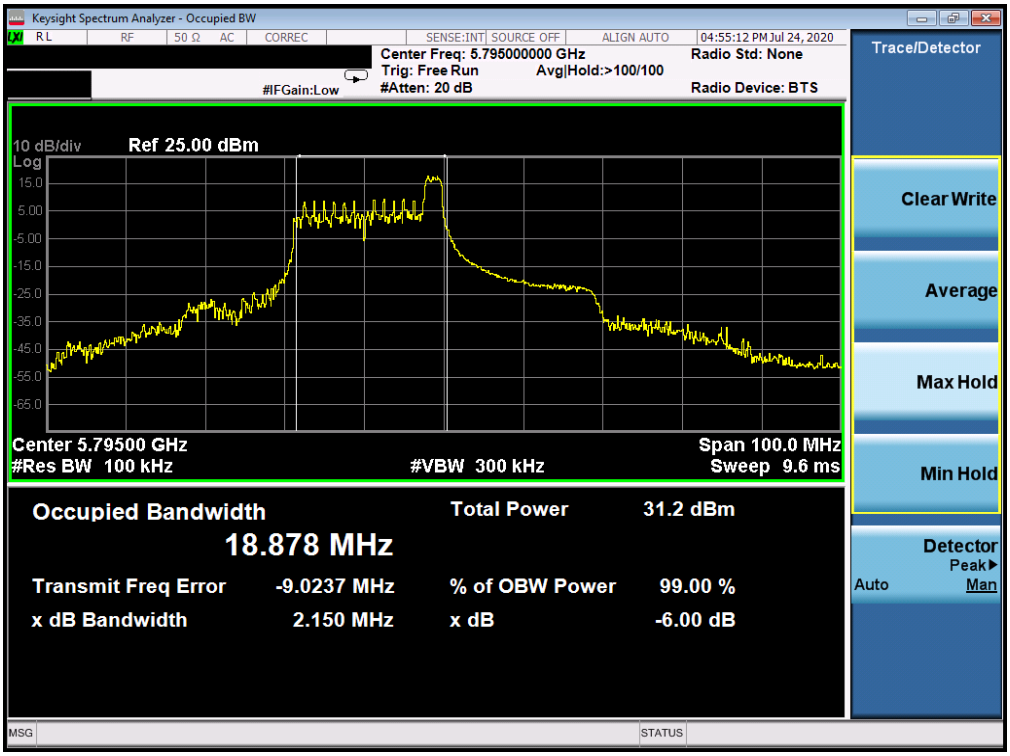


Plot 7-198. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 151)

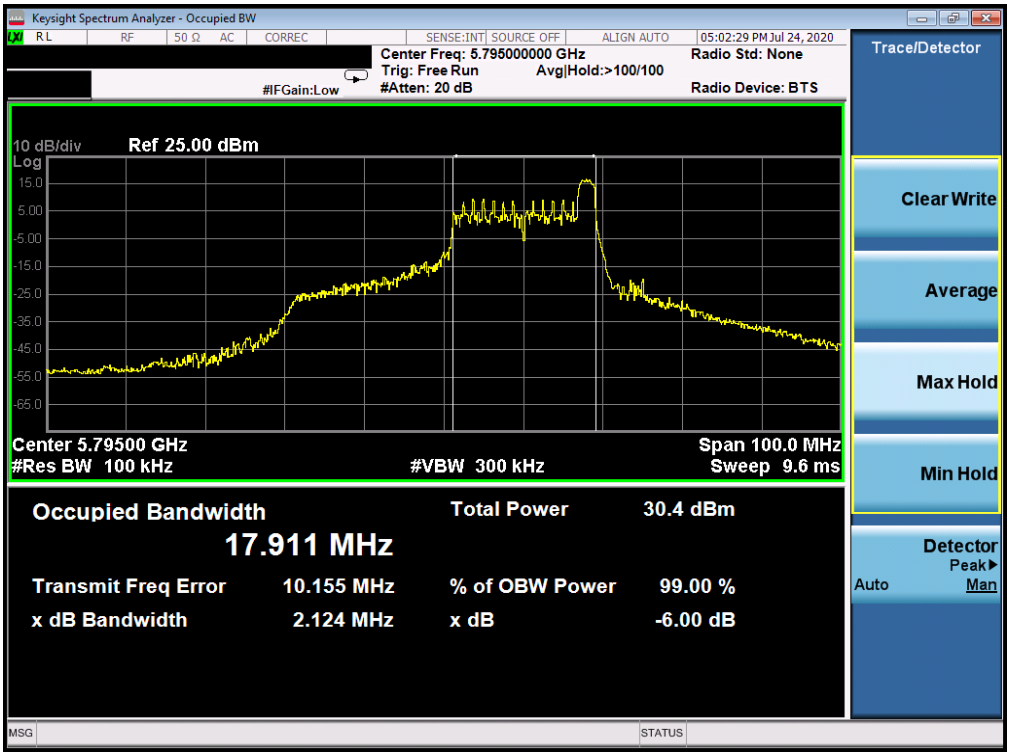


Plot 7-199. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 3) – Ch. 151)

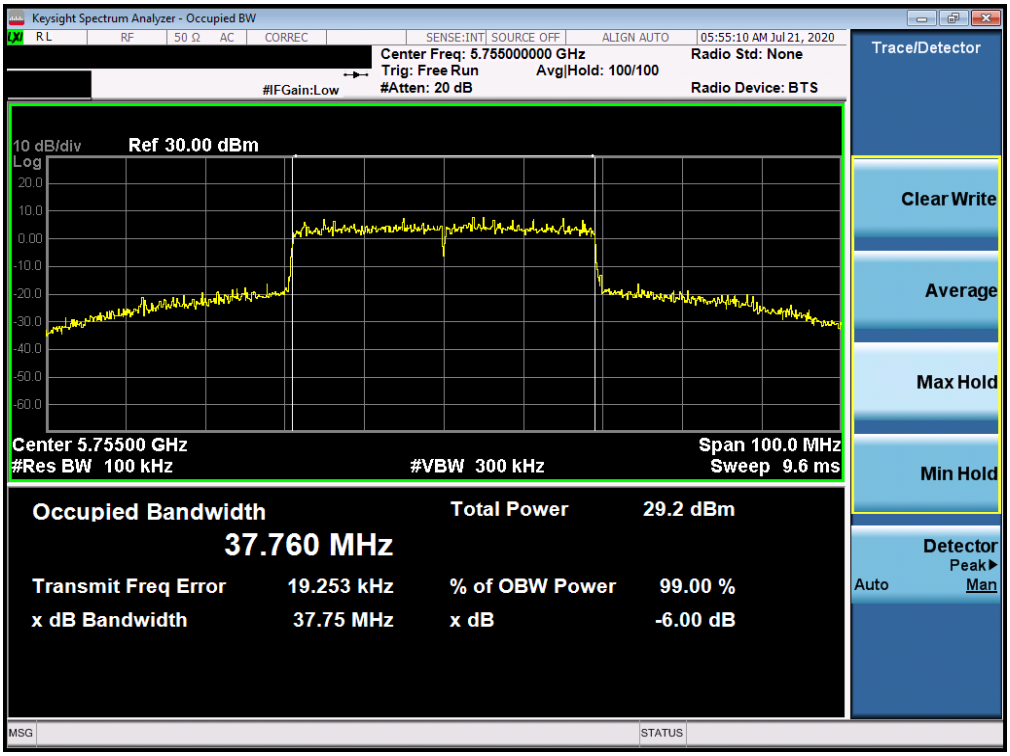
Plot 7-200. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 159)



Plot 7-201. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 8 – RU26 (UNII Band 3) – Ch. 159)

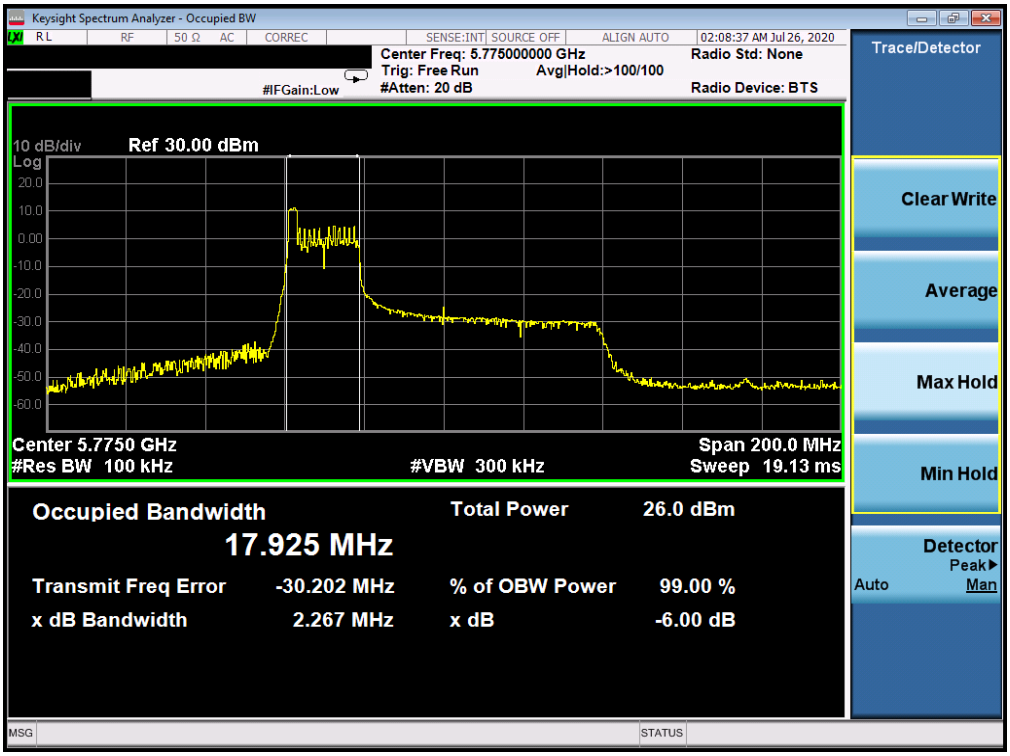


Plot 7-202. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax Index 17 – RU26 (UNII Band 3) – Ch. 159)

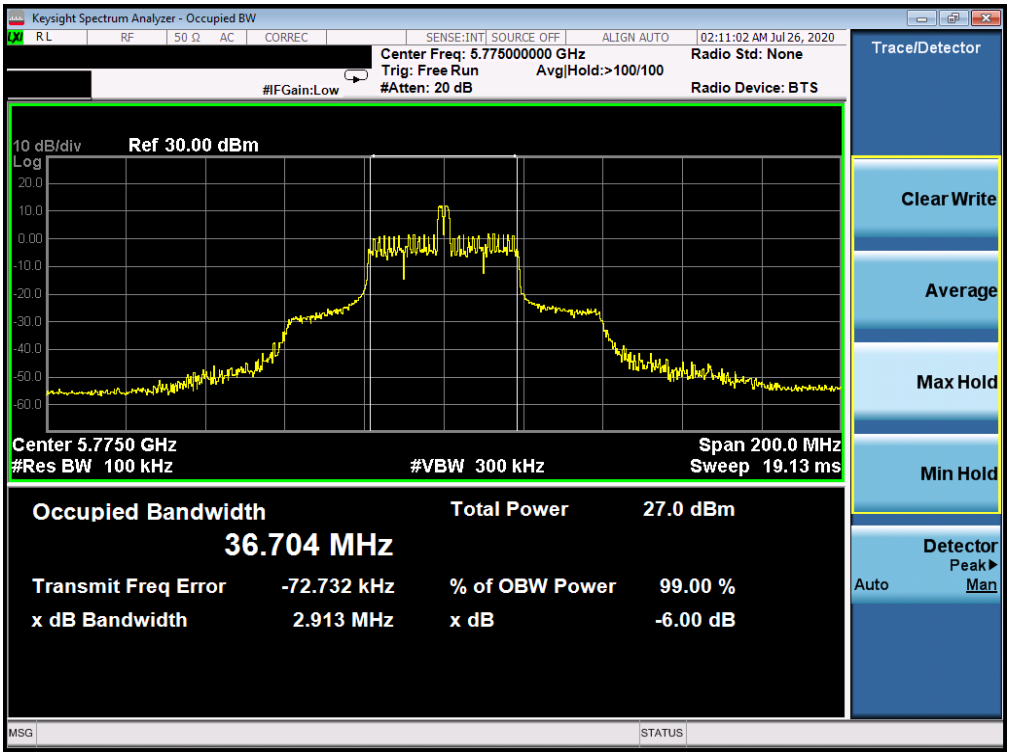


Plot 7-203. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 3) – Ch. 151)

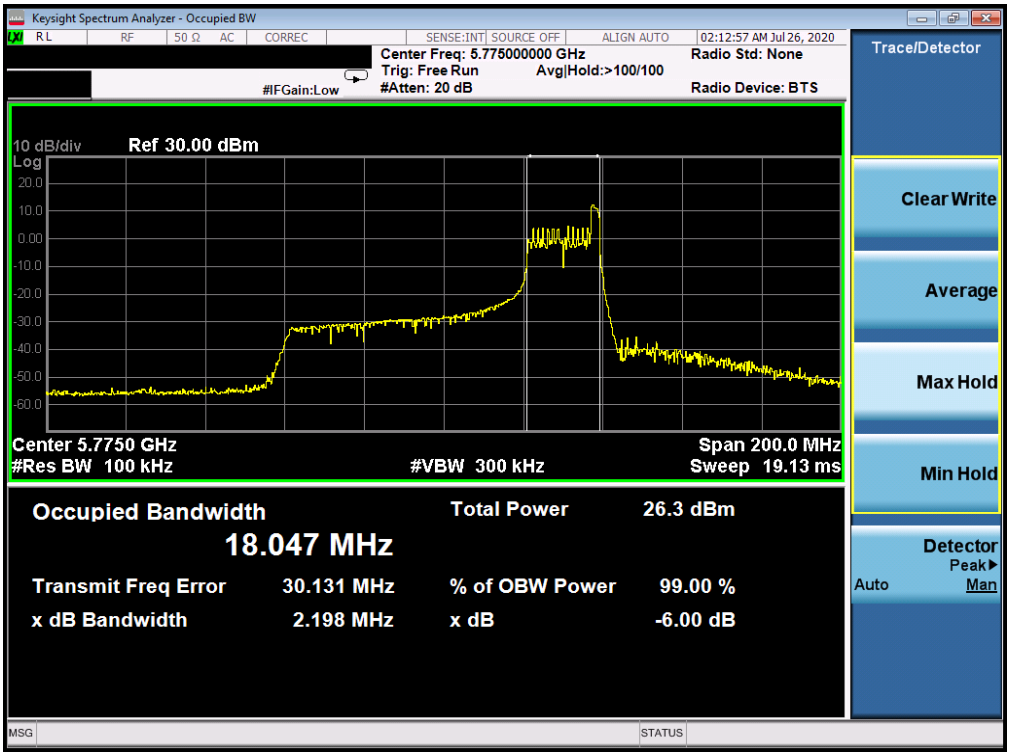
Plot 7-204. 6dB Bandwidth Plot ANT WF7a (40MHz BW 802.11ax – RU484 (UNII Band 3) – Ch. 159)



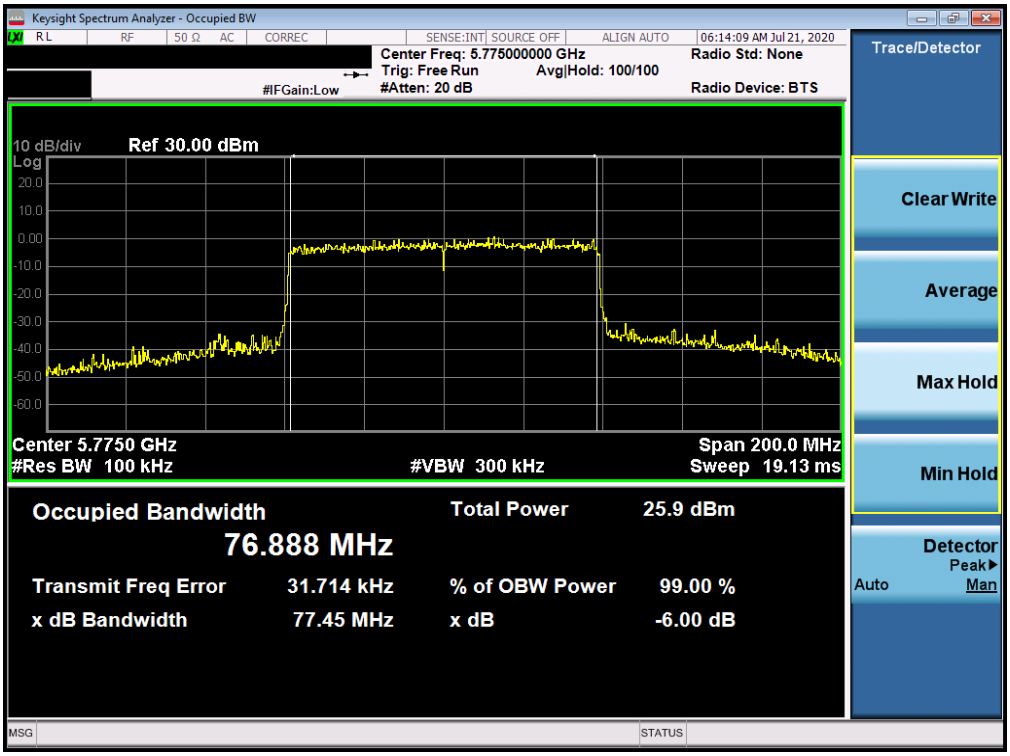
Plot 7-205. 6dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 0 – RU26 (UNII Band 3) – Ch. 155)



Plot 7-206. 6dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 18 – RU26 (UNII Band 3) – Ch. 155)



Plot 7-207. 6dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax Index 36 – RU26 (UNII Band 3) – Ch. 155)



Plot 7-208. 6dB Bandwidth Plot ANT WF7a (80MHz BW 802.11ax – RU996 (UNII Band 3) – Ch. 155)

7.4 Conducted Output Power and Max EIRP Measurement – 802.11ax OFDMA

§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. B is the 99% OBW per ISED RSS-247 and 26dB BW is per FCC 15.407.

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 $\log_{10}$B, 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$\log_{10}$(18.97) = 24.24dBm. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or 17 + 10 $\log_{10}$B, 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$\log_{10}$(18.10) = 23.58dBm. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or 17 + 10 $\log_{10}$B, 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

1. All RU's were investigated and RU 26 and fully-loaded RU were reported.
2. Additionally, the highest power among partially-loaded RU's was reported.
3. The "-" shown in the following power tables are used to denote N/A.
4. For 802.11ax, the worst case data rate was found to be MCS11.

FCC Antenna WF8 Conducted Output Power Measurements (RU26)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
5GHz (20MHz Bandwidth)	5180	36	AVG	26	0	11.62	23.98	-12.36
			AVG	26	4	12.00	23.98	-11.98
			AVG	26	8	11.62	23.98	-12.36
	5200	40	AVG	26	0	11.47	23.98	-12.51
			AVG	26	4	12.00	23.98	-11.98
			AVG	26	8	11.60	23.98	-12.38
	5240	48	AVG	26	0	11.56	23.98	-12.42
			AVG	26	4	11.93	23.98	-12.05
			AVG	26	8	11.31	23.98	-12.67
	5260	52	AVG	26	0	11.30	23.78	-12.48
			AVG	26	4	11.97	23.78	-11.81
			AVG	26	8	11.39	23.78	-12.39
	5300	60	AVG	26	0	11.28	23.78	-12.50
			AVG	26	4	12.00	23.78	-11.78
			AVG	26	8	11.61	23.78	-12.17
	5320	64	AVG	26	0	11.45	23.78	-12.33
			AVG	26	4	12.00	23.78	-11.78
			AVG	26	8	11.52	23.78	-12.26
	5500	100	AVG	26	0	11.58	23.58	-12.00
			AVG	26	4	12.00	23.58	-11.58
			AVG	26	8	11.64	23.58	-11.94
	5580	116	AVG	26	0	11.39	23.58	-12.19
			AVG	26	4	12.00	23.58	-11.58
			AVG	26	8	11.42	23.58	-12.16
	5720	144	AVG	26	0	11.51	23.58	-12.07
			AVG	26	4	12.00	23.58	-11.58
			AVG	26	8	11.62	23.58	-11.96
	5745	149	AVG	26	0	20.55	30.00	-9.45
			AVG	27	4	21.00	30.00	-9.00
			AVG	28	8	20.61	30.00	-9.39
	5785	157	AVG	29	0	20.46	30.00	-9.54
			AVG	30	4	20.95	30.00	-9.05
			AVG	31	8	20.55	30.00	-9.45
	5825	165	AVG	32	0	20.82	30.00	-9.18
			AVG	33	4	21.00	30.00	-9.00
			AVG	34	8	20.70	30.00	-9.30

Table 7-10. FCC ANT WF8 20MHz BW (UNII) Maximum Conducted Output Power (RU26)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
5GHz (40MHz Bandwidth)	5190	38	AVG	26	0	10.91	23.98	-13.07
			AVG	26	8	11.95	23.98	-12.03
			AVG	26	17	11.15	23.98	-12.83
	5230	46	AVG	26	0	10.90	23.98	-13.08
			AVG	26	8	12.00	23.98	-11.98
			AVG	26	17	11.00	23.98	-12.98
	5270	54	AVG	26	0	11.10	23.78	-12.68
			AVG	26	8	12.00	23.78	-11.78
			AVG	26	17	11.26	23.78	-12.52
	5310	62	AVG	26	0	10.85	23.78	-12.93
			AVG	26	8	12.00	23.78	-11.78
			AVG	26	17	11.05	23.78	-12.73
	5510	102	AVG	26	0	10.30	23.58	-13.28
			AVG	26	8	11.42	23.58	-12.16
			AVG	26	17	10.49	23.58	-13.09
	5550	110	AVG	26	0	11.10	23.58	-12.48
			AVG	26	8	12.00	23.58	-11.58
			AVG	26	17	11.28	23.58	-12.30
	5590	118	AVG	26	0	10.98	23.58	-12.60
			AVG	26	8	12.00	23.58	-11.58
			AVG	26	17	11.26	23.58	-12.32
	5710	142	AVG	26	0	10.64	23.58	-12.94
			AVG	26	8	11.94	23.58	-11.64
			AVG	26	17	11.22	23.58	-12.36
	5755	151	AVG	26	0	19.40	23.98	-4.58
			AVG	26	8	20.50	23.98	-3.48
			AVG	26	17	19.65	23.98	-4.33
	5795	159	AVG	26	0	19.50	23.98	-4.48
			AVG	26	8	20.50	23.98	-3.48
			AVG	26	17	19.60	23.98	-4.38

Table 7-11. FCC ANT WF8 40MHz BW (UNII) Maximum Conducted Output Power (RU26)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
5GHz (80MHz Bandwidth)	5210	42	AVG	26	0	10.44	23.98	-13.54
			AVG	26	18	11.00	23.98	-12.98
			AVG	26	36	10.41	23.98	-13.57
	5290	58	AVG	26	0	11.22	23.78	-12.56
			AVG	26	18	12.00	23.78	-11.78
			AVG	26	36	11.07	23.78	-12.71
	5530	106	AVG	26	0	11.30	23.58	-12.28
			AVG	26	18	11.98	23.58	-11.60
			AVG	26	36	11.30	23.58	-12.28
	5610	122	AVG	26	0	11.01	23.58	-12.57
			AVG	26	18	12.00	23.58	-11.58
			AVG	26	36	11.12	23.58	-12.46
	5690	138	AVG	26	0	11.48	23.58	-12.10
			AVG	26	18	11.96	23.58	-11.62
			AVG	26	36	11.68	23.58	-11.90
	5775	155	AVG	26	0	15.13	23.47	-8.34
			AVG	26	18	15.97	23.47	-7.50
			AVG	26	36	15.09	23.47	-8.38

Table 7-12. FCC ANT WF8 80MHz BW (UNII) Maximum Conducted Output Power (RU26)

ISED Antenna WF8 Conducted Output Power Measurements (RU26)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
5GHz (20MHz Bandwidth)	5180	36	AVG	26	0	6.22	-	-	2.50	8.72	22.75	-14.03
			AVG	26	4	6.75	-	-	2.50	9.25	22.75	-13.50
			AVG	26	8	6.24	-	-	2.50	8.74	22.75	-14.01
	5200	40	AVG	26	0	6.32	-	-	2.50	8.82	22.75	-13.93
			AVG	26	4	6.75	-	-	2.50	9.25	22.75	-13.50
			AVG	26	8	6.28	-	-	2.50	8.78	22.75	-13.97
	5240	48	AVG	26	0	6.31	-	-	2.50	8.81	22.75	-13.94
			AVG	26	4	6.75	-	-	2.50	9.25	22.75	-13.50
			AVG	26	8	6.30	-	-	2.50	8.80	22.75	-13.95
	5260	52	AVG	26	0	11.30	23.78	-12.48	2.60	13.90	29.78	-15.88
			AVG	26	4	11.97	23.78	-11.81	2.60	14.57	29.78	-15.21
			AVG	26	8	11.39	23.78	-12.39	2.60	13.99	29.78	-15.79
	5300	60	AVG	26	0	11.28	23.78	-12.50	2.60	13.88	29.78	-15.90
			AVG	26	4	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
			AVG	26	8	11.61	23.78	-12.17	2.60	14.21	29.78	-15.57
	5320	64	AVG	26	0	11.45	23.78	-12.33	2.60	14.05	29.78	-15.73
			AVG	26	4	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
			AVG	26	8	11.52	23.78	-12.26	2.60	14.12	29.78	-15.66
	5500	100	AVG	26	0	11.58	23.58	-12.00	2.50	14.08	29.58	-15.50
			AVG	26	4	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
			AVG	26	8	11.64	23.58	-11.94	2.50	14.14	29.58	-15.44
	5580	116	AVG	26	0	11.39	23.58	-12.19	2.50	13.89	29.58	-15.69
			AVG	26	4	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
			AVG	26	8	11.42	23.58	-12.16	2.50	13.92	29.58	-15.66
	5720	144	AVG	26	0	11.51	23.58	-12.07	2.50	14.01	29.58	-15.57
			AVG	26	4	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
			AVG	26	8	11.62	23.58	-11.96	2.50	14.12	29.58	-15.46
	5745	149	AVG	26	0	16.53	30.00	-13.47	-0.20	16.33	-	-
			AVG	27	4	16.87	30.00	-13.13	-0.20	16.67	-	-
			AVG	28	8	16.63	30.00	-13.37	-0.20	16.43	-	-
	5785	157	AVG	29	0	16.53	30.00	-13.47	-0.20	16.33	-	-
			AVG	30	4	17.00	30.00	-13.00	-0.20	16.80	-	-
			AVG	31	8	16.63	30.00	-13.37	-0.20	16.43	-	-
	5825	165	AVG	32	0	16.43	30.00	-13.57	-0.20	16.23	-	-
			AVG	33	4	16.98	30.00	-13.02	-0.20	16.78	-	-
			AVG	34	8	16.67	30.00	-13.33	-0.20	16.47	-	-

Table 7-13. ISED ANT WF8 20MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (RU26)

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5190	38	AVG	26	0	5.69	-	-	2.50	8.19	22.75	-14.56
			AVG	26	8	6.71	-	-	2.50	9.21	22.75	-13.54
			AVG	26	17	5.60	-	-	2.50	8.10	22.75	-14.65
	5230	46	AVG	26	0	5.21	-	-	2.50	7.71	22.75	-15.04
			AVG	26	8	6.48	-	-	2.50	8.98	22.75	-13.77
			AVG	26	17	5.40	-	-	2.50	7.90	22.75	-14.85
	5270	54	AVG	26	0	11.10	23.78	-12.68	2.60	13.70	29.78	-16.08
			AVG	26	8	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
			AVG	26	17	11.26	23.78	-12.52	2.60	13.86	29.78	-15.92
	5310	62	AVG	26	0	10.85	23.78	-12.93	2.60	13.45	29.78	-16.33
			AVG	26	8	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
			AVG	26	17	11.05	23.78	-12.73	2.60	13.65	29.78	-16.13
	5510	102	AVG	26	0	10.30	23.58	-13.28	2.50	12.80	29.58	-16.78
			AVG	26	8	11.42	23.58	-12.16	2.50	13.92	29.58	-15.66
			AVG	26	17	10.49	23.58	-13.09	2.50	12.99	29.58	-16.59
	5550	110	AVG	26	0	11.10	23.58	-12.48	2.50	13.60	29.58	-15.98
			AVG	26	8	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
			AVG	26	17	11.28	23.58	-12.30	2.50	13.78	29.58	-15.80
	5590	118	AVG	26	0	10.98	23.58	-12.60	2.50	13.48	29.58	-16.10
			AVG	26	8	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
			AVG	26	17	11.26	23.58	-12.32	2.50	13.76	29.58	-15.82
	5710	142	AVG	26	0	10.64	23.58	-12.94	2.50	13.14	29.58	-16.44
			AVG	26	8	11.94	23.58	-11.64	2.50	14.44	29.58	-15.14
			AVG	26	17	11.22	23.58	-12.36	2.50	13.72	29.58	-15.86
	5755	151	AVG	26	0	15.89	23.98	-8.09	-0.20	15.69	-	-
			AVG	26	8	17.00	23.98	-6.98	-0.20	16.80	-	-
			AVG	26	17	16.21	23.98	-7.77	-0.20	16.01	-	-
	5795	159	AVG	26	0	15.95	23.98	-8.03	-0.20	15.75	-	-
			AVG	26	8	17.00	23.98	-6.98	-0.20	16.80	-	-
			AVG	26	17	16.12	23.98	-7.86	-0.20	15.92	-	-

Table 7-14. ISED ANT WF8 40MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (RU26)

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5210	42	AVG	26	0	5.95	-	-	2.50	8.45	22.75	-14.30
			AVG	26	18	6.75	-	-	2.50	9.25	22.75	-13.50
			AVG	26	36	5.99	-	-	2.50	8.49	22.75	-14.26
	5290	58	AVG	26	0	11.22	23.78	-12.56	2.60	13.82	29.78	-15.96
			AVG	26	18	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
			AVG	26	36	11.07	23.78	-12.71	2.60	13.67	29.78	-16.11
	5530	106	AVG	26	0	11.30	23.58	-12.28	2.50	13.80	29.58	-15.78
			AVG	26	18	11.98	23.58	-11.60	2.50	14.48	29.58	-15.10
			AVG	26	36	11.30	23.58	-12.28	2.50	13.80	29.58	-15.78
	5610	122	AVG	26	0	11.01	23.58	-12.57	2.50	13.51	29.58	-16.07
			AVG	26	18	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
			AVG	26	36	11.12	23.58	-12.46	2.50	13.62	29.58	-15.96
	5690	138	AVG	26	0	11.48	23.58	-12.10	2.50	13.98	29.58	-15.60
			AVG	26	18	11.96	23.58	-11.62	2.50	14.46	29.58	-15.12
			AVG	26	36	11.68	23.58	-11.90	2.50	14.18	29.58	-15.40
	5775	155	AVG	26	0	15.13	23.47	-8.34	-0.20	14.93	29.47	-14.54
			AVG	26	18	15.97	23.47	-7.50	-0.20	15.77	29.47	-13.70
			AVG	26	36	15.09	23.47	-8.38	-0.20	14.89	29.47	-14.58

Table 7-15. ISED ANT WF8 80MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (RU26)

FCC Antenna WF8 Conducted Output Power Measurements (Highest Power Among Partially-Loaded RU's)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
5GHz (20MHz Bandwidth)	5180	36	AVG	106	53	15.82	23.98	-8.16
			AVG	106	54	16.00	23.98	-7.98
	5200	40	AVG	106	53	17.93	23.98	-6.05
			AVG	106	54	18.00	23.98	-5.98
	5240	48	AVG	106	53	17.93	23.98	-6.05
			AVG	106	54	18.00	23.98	-5.98
	5260	52	AVG	106	53	17.92	23.78	-5.86
			AVG	106	54	18.00	23.78	-5.78
	5300	60	AVG	106	53	17.92	23.78	-5.86
			AVG	106	54	18.00	23.78	-5.78
	5320	64	AVG	106	53	15.45	23.78	-8.33
			AVG	106	54	15.40	23.78	-8.38
	5500	100	AVG	106	53	15.00	23.58	-8.58
			AVG	106	54	15.00	23.58	-8.58
	5520	104	AVG	106	53	17.00	23.58	-6.58
			AVG	106	54	17.00	23.58	-6.58
	5540	108	AVG	106	53	17.89	23.58	-5.69
			AVG	106	54	18.00	23.58	-5.58
	5580	116	AVG	106	53	17.95	23.58	-5.63
			AVG	106	54	18.00	23.58	-5.58
	5660	132	AVG	106	53	18.00	23.58	-5.58
			AVG	106	54	18.00	23.58	-5.58
	5680	136	AVG	106	53	16.95	23.58	-6.63
			AVG	106	54	17.00	23.58	-6.58
	5700	140	AVG	106	53	11.91	23.58	-11.67
			AVG	106	54	12.00	23.58	-11.58
	5720	144	AVG	106	53	18.00	23.58	-5.58
			AVG	106	54	18.00	23.58	-5.58
	5745	149	AVG	106	53	20.93	30.00	-9.07
			AVG	106	54	21.00	30.00	-9.00
	5785	157	AVG	106	53	21.00	30.00	-9.00
			AVG	106	54	21.00	30.00	-9.00
	5825	165	AVG	106	53	21.00	30.00	-9.00
			AVG	106	54	20.84	30.00	-9.16

Table 7-16. FCC ANT WF8 20MHz BW (UNII) Maximum Conducted Output Power (Highest Power Among Partially-Loaded RU's)

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
	5190	38	AVG	242	61	12.91	23.98	-11.07
			AVG	242	62	13.00	23.98	-10.98
	5230	46	AVG	242	61	20.00	23.98	-3.98
			AVG	242	62	20.00	23.98	-3.98
	5270	54	AVG	242	61	20.00	23.78	-3.78
			AVG	242	62	20.00	23.78	-3.78
	5310	62	AVG	242	61	12.94	23.78	-10.84
			AVG	242	62	12.97	23.78	-10.81
	5510	102	AVG	242	61	13.00	23.58	-10.58
			AVG	242	62	12.96	23.58	-10.62
	5550	110	AVG	242	61	20.00	23.58	-3.58
			AVG	242	62	20.00	23.58	-3.58
	5590	118	AVG	242	61	20.00	23.58	-3.58
			AVG	242	62	20.00	23.58	-3.58
	5670	134	AVG	242	61	14.50	23.58	-9.08
			AVG	242	62	14.50	23.58	-9.08
	5710	142	AVG	106	53	17.48	23.58	-6.10
			AVG	106	54	18.00	23.58	-5.58
			AVG	106	56	17.84	23.58	-5.74
	5755	151	AVG	242	61	20.50	23.98	-3.48
			AVG	242	62	20.50	23.98	-3.48
	5795	159	AVG	242	61	20.50	23.98	-3.48
			AVG	242	62	20.50	23.98	-3.48

Table 7-17. FCC ANT WF8 40MHz BW (UNII) Maximum Conducted Output Power (Highest Power Among Partially-Loaded RU's)

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
	5210	42	AVG	484	65	10.72	23.98	-13.26
			AVG	484	66	11.00	23.98	-12.98
	5290	58	AVG	484	65	12.00	23.78	-11.78
			AVG	484	66	12.00	23.78	-11.78
	5530	106	AVG	484	65	11.80	23.58	-11.78
			AVG	484	66	11.84	23.58	-11.74
	5610	122	AVG	484	65	16.90	23.58	-6.68
			AVG	484	66	17.20	23.58	-6.38
	5690	138	AVG	106	53	17.47	23.58	-6.11
			AVG	106	56	18.00	23.58	-5.58
			AVG	106	60	17.76	23.58	-5.82
	5775	155	AVG	484	65	15.85	23.47	-7.62
			AVG	484	66	16.00	23.47	-7.47

Table 7-18. FCC ANT WF8 80MHz BW (UNII) Maximum Conducted Output Power (Highest Power Among Partially-Loaded RU's)

ISED Antenna WF8 Conducted Output Power Measurements (Highest Power Among Partially-Loaded RU's)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
5GHz (20MHz Bandwidth)	5180	36	AVG	106	53	12.63	-	-	2.50	15.13	22.75	-7.62
			AVG	106	54	12.65	-	-	2.50	15.15	22.75	-7.60
	5200	40	AVG	106	53	12.65	-	-	2.50	15.15	22.75	-7.60
			AVG	106	54	12.68	-	-	2.50	15.18	22.75	-7.57
	5240	48	AVG	106	53	12.75	-	-	2.50	15.25	22.75	-7.50
			AVG	106	54	12.75	-	-	2.50	15.25	22.75	-7.50
	5260	52	AVG	106	53	17.92	23.78	-5.86	2.60	20.52	29.78	-9.26
			AVG	106	54	18.00	23.78	-5.78	2.60	20.60	29.78	-9.18
	5300	60	AVG	106	53	17.92	23.78	-5.86	2.60	20.52	29.78	-9.26
			AVG	106	54	18.00	23.78	-5.78	2.60	20.60	29.78	-9.18
	5320	64	AVG	106	53	15.45	23.78	-8.33	2.60	18.05	29.78	-11.73
			AVG	106	54	15.40	23.78	-8.38	2.60	18.00	29.78	-11.78
	5500	100	AVG	106	53	15.00	23.58	-8.58	2.50	17.50	29.58	-12.08
			AVG	106	54	15.00	23.58	-8.58	2.50	17.50	29.58	-12.08
	5520	104	AVG	106	53	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
			AVG	106	54	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5540	108	AVG	106	53	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
			AVG	106	54	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5580	116	AVG	106	53	16.97	23.58	-6.61	2.50	19.47	29.58	-10.11
			AVG	106	54	16.97	23.58	-6.61	2.50	19.47	29.58	-10.11
	5660	132	AVG	106	53	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
			AVG	106	54	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5680	136	AVG	106	53	16.95	23.58	-6.63	2.50	19.45	29.58	-10.13
			AVG	106	54	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5700	140	AVG	106	53	11.91	23.58	-11.67	2.50	14.41	29.58	-15.17
			AVG	106	54	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
	5720	144	AVG	106	53	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
			AVG	106	54	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5745	149	AVG	106	53	17.00	30.00	-13.00	-0.20	16.80	-	-
			AVG	106	54	17.00	30.00	-13.00	-0.20	16.80	-	-
	5785	157	AVG	106	53	16.88	30.00	-13.12	-0.20	16.68	-	-
			AVG	106	54	16.83	30.00	-13.17	-0.20	16.63	-	-
	5825	165	AVG	106	53	16.93	30.00	-13.07	-0.20	16.73	-	-
			AVG	106	54	16.85	30.00	-13.15	-0.20	16.65	-	-

Table 7-19. ISED ANT WF8 20MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (Highest Power Among Partially-Loaded RU's)

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5190	38	AVG	242	61	12.82	-	-	2.50	15.32	22.75	-7.43
			AVG	242	62	13.00	-	-	2.50	15.50	22.75	-7.25
	5230	46	AVG	242	61	15.17	-	-	2.50	17.67	22.75	-5.08
			AVG	242	62	15.08	-	-	2.50	17.58	22.75	-5.17
	5270	54	AVG	242	61	19.05	23.78	-4.73	2.60	21.65	29.78	-8.13
			AVG	242	62	19.23	23.78	-4.55	2.60	21.83	29.78	-7.95
	5310	62	AVG	242	61	12.94	23.78	-10.84	2.60	15.54	29.78	-14.24
			AVG	242	62	12.97	23.78	-10.81	2.60	15.57	29.78	-14.21
	5510	102	AVG	242	61	12.96	23.58	-10.62	2.50	15.46	29.58	-14.12
			AVG	242	62	13.00	23.58	-10.58	2.50	15.50	29.58	-14.08
	5550	110	AVG	242	61	16.90	23.58	-6.68	2.50	19.40	29.58	-10.18
			AVG	242	62	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5590	118	AVG	242	61	16.61	23.58	-6.97	2.50	19.11	29.58	-10.47
			AVG	242	62	16.96	23.58	-6.62	2.50	19.46	29.58	-10.12
	5670	134	AVG	242	61	14.50	23.58	-9.08	2.50	17.00	29.58	-12.58
			AVG	242	62	14.50	23.58	-9.08	2.50	17.00	29.58	-12.58
	5710	142	AVG	106	53	16.37	23.58	-7.21	2.50	18.87	29.58	-10.71
			AVG	106	54	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
			AVG	106	56	16.59	23.58	-6.99	2.50	19.09	29.58	-10.49
	5755	151	AVG	242	61	16.65	23.98	-7.33	-0.20	16.45	-	-
			AVG	242	62	16.96	23.98	-7.02	-0.20	16.76	-	-
	5795	159	AVG	242	61	16.86	23.98	-7.12	-0.20	16.66	-	-
			AVG	242	62	17.00	23.98	-6.98	-0.20	16.80	-	-

Table 7-20. ISED ANT WF8 40MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (Highest Power Among Partially-Loaded RU's)

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5210	42	AVG	484	65	10.81	-	-	2.50	13.31	22.75	-9.44
			AVG	484	66	10.93	-	-	2.50	13.43	22.75	-9.32
	5290	58	AVG	484	65	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
			AVG	484	66	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
	5530	106	AVG	484	65	11.80	23.58	-11.78	2.50	14.30	29.58	-15.28
			AVG	484	66	11.84	23.58	-11.74	2.50	14.34	29.58	-15.24
	5610	122	AVG	484	65	16.70	23.58	-6.88	2.50	19.20	29.58	-10.38
			AVG	484	66	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5690	138	AVG	106	53	16.57	23.58	-7.01	2.50	19.07	29.58	-10.51
			AVG	106	56	16.91	23.58	-6.67	2.50	19.41	29.58	-10.17
			AVG	106	60	16.64	23.58	-6.94	2.50	19.14	29.58	-10.44
	5775	155	AVG	484	65	15.85	23.47	-7.62	-0.20	15.65	-	-
			AVG	484	66	16.00	23.47	-7.47	-0.20	15.80	-	-

Table 7-21. ISED ANT WF8 80MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (Highest Power Among Partially-Loaded RU's)

FCC Antenna WF8 Conducted Output Power Measurements (Fully-loaded RU)

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
	5180	36	AVG	242	61	16.00	23.98	-7.98
	5200	40	AVG	242	61	20.00	23.98	-3.98
	5240	48	AVG	242	61	20.00	23.98	-3.98
	5260	52	AVG	242	61	19.98	23.78	-3.80
	5300	60	AVG	242	61	20.00	23.78	-3.78
	5320	64	AVG	242	61	15.50	23.78	-8.28
	5500	100	AVG	242	61	15.00	23.58	-8.58
	5520	104	AVG	242	61	16.98	23.58	-6.60
	5540	108	AVG	242	61	20.00	23.58	-3.58
	5580	116	AVG	242	61	20.00	23.58	-3.58
	5660	132	AVG	242	61	20.00	23.58	-3.58
	5680	136	AVG	242	61	17.00	23.58	-6.58
	5700	140	AVG	242	61	11.96	23.58	-11.62
	5720	144	AVG	242	61	20.00	23.58	-3.58
	5745	149	AVG	242	61	20.90	30.00	-9.10
	5785	157	AVG	242	61	20.94	30.00	-9.06
	5825	165	AVG	242	61	21.00	30.00	-9.00

Table 7-22. FCC ANT WF8 20MHz BW (UNII) Maximum Conducted Output Power (Fully-loaded RU)

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
	5190	38	AVG	484	65	13.00	23.98	-10.98
	5230	46	AVG	484	65	20.00	23.98	-3.98
	5270	54	AVG	484	65	20.00	23.78	-3.78
	5310	62	AVG	484	65	12.95	23.78	-10.83
	5510	102	AVG	484	65	13.00	23.58	-10.58
	5550	110	AVG	484	65	18.50	23.58	-5.08
	5590	118	AVG	484	65	21.00	23.58	-2.58
	5670	134	AVG	484	65	14.50	23.58	-9.08
	5710	142	AVG	484	65	20.93	23.58	-2.65
	5755	151	AVG	484	65	20.50	23.98	-3.48
	5795	159	AVG	484	65	20.50	23.98	-3.48

Table 7-23. FCC ANT WF8 40MHz BW (UNII) Maximum Conducted Output Power (Fully-loaded RU)

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
	5210	42	AVG	996	67	11.00	23.98	-12.98
	5290	58	AVG	996	67	12.00	23.78	-11.78
	5530	106	AVG	996	67	12.00	23.58	-11.58
	5610	122	AVG	996	67	17.25	23.58	-6.33
	5690	138	AVG	996	67	20.96	23.58	-2.62
	5775	155	AVG	996	67	16.00	23.47	-7.47

Table 7-24. FCC ANT WF8 80MHz BW (UNII) Maximum Conducted Output Power (Fully-loaded RU)

ISED Antenna WF8 Conducted Output Power Measurements (Fully-loaded RU)

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5180	36	AVG	242	61	15.25	-	-	2.50	17.75	22.75	-5.00
	5200	40	AVG	242	61	15.25	-	-	2.50	17.75	22.75	-5.00
	5240	48	AVG	242	61	15.25	-	-	2.50	17.75	22.75	-5.00
	5260	52	AVG	242	61	19.22	23.78	-4.56	2.60	21.82	29.78	-7.96
	5300	60	AVG	242	61	19.14	23.78	-4.64	2.60	21.74	29.78	-8.04
	5320	64	AVG	242	61	15.50	23.78	-8.28	2.60	18.10	29.78	-11.68
	5500	100	AVG	242	61	15.00	23.58	-8.58	2.50	17.50	29.58	-12.08
	5520	104	AVG	242	61	16.98	23.58	-6.60	2.50	19.48	29.58	-10.10
	5540	108	AVG	242	61	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5580	116	AVG	242	61	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5660	132	AVG	242	61	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5680	136	AVG	242	61	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5700	140	AVG	242	61	11.96	23.58	-11.62	2.50	14.46	29.58	-15.12
	5720	144	AVG	242	61	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5745	149	AVG	242	61	16.98	30.00	-13.02	-0.20	16.78	-	-
	5785	157	AVG	242	61	16.98	30.00	-13.02	-0.20	16.78	-	-
	5825	165	AVG	242	61	17.00	30.00	-13.00	-0.20	16.80	-	-

Table 7-25. ISED ANT WF8 20MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (Fully-loaded RU)

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5190	38	AVG	484	65	13.00	-	-	2.50	15.50	22.75	-7.25
	5230	46	AVG	484	65	17.75	-	-	2.50	20.25	22.75	-2.50
	5270	54	AVG	484	65	19.24	23.78	-4.54	2.60	21.84	29.78	-7.94
	5310	62	AVG	484	65	12.95	23.78	-10.83	2.60	15.55	29.78	-14.23
	5510	102	AVG	484	65	13.00	23.58	-10.58	2.50	15.50	29.58	-14.08
	5550	110	AVG	484	65	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5590	118	AVG	484	65	17.00	23.58	-6.58	2.50	19.50	29.58	-10.08
	5670	134	AVG	484	65	14.50	23.58	-9.08	2.50	17.00	29.58	-12.58
	5710	142	AVG	484	65	16.93	23.58	-6.65	2.50	19.43	29.58	-10.15
	5755	151	AVG	484	65	17.00	23.98	-6.98	-0.20	16.80	-	-
	5795	159	AVG	484	65	16.95	23.98	-7.03	-0.20	16.75	-	-

Table 7-26. ISED ANT WF8 40MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (Fully-loaded RU)

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
	5210	42	AVG	996	67	10.90	-	-	2.50	13.40	22.75	-9.35
	5290	58	AVG	996	67	12.00	23.78	-11.78	2.60	14.60	29.78	-15.18
	5530	106	AVG	996	67	12.00	23.58	-11.58	2.50	14.50	29.58	-15.08
	5610	122	AVG	996	67	16.95	23.58	-6.63	2.50	19.45	29.58	-10.13
	5690	138	AVG	996	67	16.91	23.58	-6.67	2.50	19.41	29.58	-10.17
	5775	155	AVG	996	67	16.00	23.47	-7.47	-0.20	15.80	29.47	-13.67

Table 7-27. ISED ANT WF8 80MHz BW (UNII) Maximum Conducted Output Power and Max EIRP (Fully-loaded RU)

FCC Antenna WF7a Conducted Output Power Measurements (RU26)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
5GHz (20MHz Bandwidth)	5180	36	AVG	26	0	11.52	23.98	-12.46
			AVG	26	4	12.00	23.98	-11.98
			AVG	26	8	11.55	23.98	-12.43
	5200	40	AVG	26	0	11.66	23.98	-12.32
			AVG	26	4	12.00	23.98	-11.98
			AVG	26	8	11.65	23.98	-12.33
	5240	48	AVG	26	0	11.45	23.98	-12.53
			AVG	26	4	12.00	23.98	-11.98
			AVG	26	8	11.56	23.98	-12.42
	5260	52	AVG	26	0	11.55	23.78	-12.23
			AVG	26	4	12.00	23.78	-11.78
			AVG	26	8	11.47	23.78	-12.31
	5300	60	AVG	26	0	11.66	23.78	-12.12
			AVG	26	4	12.00	23.78	-11.78
			AVG	26	8	11.56	23.78	-12.22
	5320	64	AVG	26	0	11.61	23.78	-12.17
			AVG	26	4	11.96	23.78	-11.82
			AVG	26	8	11.43	23.78	-12.35
	5500	100	AVG	26	0	11.62	23.58	-11.96
			AVG	26	4	12.00	23.58	-11.58
			AVG	26	8	11.59	23.58	-11.99
	5580	116	AVG	26	0	11.60	23.58	-11.98
			AVG	26	4	12.00	23.58	-11.58
			AVG	26	8	11.59	23.58	-11.99
	5720	144	AVG	26	0	11.34	23.58	-12.24
			AVG	26	4	12.00	23.58	-11.58
			AVG	26	8	11.59	23.58	-11.99
	5745	149	AVG	26	0	20.45	30.00	-9.55
			AVG	27	4	20.97	30.00	-9.03
			AVG	28	8	20.83	30.00	-9.17
	5785	157	AVG	29	0	20.43	30.00	-9.57
			AVG	30	4	20.95	30.00	-9.05
			AVG	31	8	20.69	30.00	-9.31
	5825	165	AVG	32	0	20.37	30.00	-9.63
			AVG	33	4	21.00	30.00	-9.00
			AVG	34	8	20.63	30.00	-9.37

Table 7-28. FCC ANT WF7a 20MHz BW (UNII) Maximum Conducted Output Power (RU26)

	Freq [MHz]	Channel	Detector	RU Size	RU Index	Conducted Power [dBm]	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
5GHz (40MHz Bandwidth)	5190	38	AVG	26	0	10.74	23.98	-13.24
			AVG	26	8	11.88	23.98	-12.10
			AVG	26	17	10.99	23.98	-12.99
	5230	46	AVG	26	0	10.92	23.98	-13.06
			AVG	26	8	12.00	23.98	-11.98
			AVG	26	17	11.19	23.98	-12.79
	5270	54	AVG	26	0	10.91	23.78	-12.87
			AVG	26	8	11.85	23.78	-11.93
			AVG	26	17	10.96	23.78	-12.82
	5310	62	AVG	26	0	10.85	23.78	-12.93
			AVG	26	8	11.98	23.78	-11.80
			AVG	26	17	11.08	23.78	-12.70
	5510	102	AVG	26	0	10.57	23.58	-13.01
			AVG	26	8	11.45	23.58	-12.13
			AVG	26	17	10.67	23.58	-12.91
	5550	110	AVG	26	0	11.14	23.58	-12.44
			AVG	26	8	12.00	23.58	-11.58
			AVG	26	17	11.05	23.58	-12.53
	5590	118	AVG	26	0	10.79	23.58	-12.79
			AVG	26	8	12.00	23.58	-11.58
			AVG	26	17	10.69	23.58	-12.89
	5710	142	AVG	26	0	10.70	23.58	-12.88
			AVG	26	8	12.00	23.58	-11.58
			AVG	26	17	11.13	23.58	-12.45
	5755	151	AVG	26	0	19.36	23.98	-4.62
			AVG	26	8	20.50	23.98	-3.48
			AVG	26	17	19.74	23.98	-4.24
	5795	159	AVG	26	0	19.27	23.98	-4.71
			AVG	26	8	20.43	23.98	-3.55
			AVG	26	17	19.65	23.98	-4.33

Table 7-29. FCC ANT WF7a 40MHz BW (UNII) Maximum Conducted Output Power (RU26)