

Maximum Power Spectral Density

Test place Shonan EMC Lab. No.5 Shielded Room
Date May 30, 2023
Temperature / Humidity 27 deg. C / 44 % RH
Engineer Shiro Kobayashi
Mode Tx 11ax-40(OFDMA), 52-tone RU

RF0 + RF1 Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	RU Index	PSD (Conducted)						PSD (e.i.r.p.)					
		Antenna			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Antenna			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
		RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]				RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]			
5190	37	0.66	0.69	1.35	1.29	11.00	9.71	2.09	2.17	4.26	6.29	17.00	10.71
	40	0.63	0.65	1.28	1.08	11.00	9.92	2.01	2.05	4.06	6.08	17.00	10.92
	44	0.72	0.65	1.37	1.36	11.00	9.64	2.28	2.04	4.32	6.36	17.00	10.64
5230	37	0.72	0.66	1.38	1.40	11.00	9.60	2.28	2.08	4.36	6.40	17.00	10.60
	40	0.70	0.67	1.37	1.37	11.00	9.63	2.23	2.11	4.34	6.37	17.00	10.63
	44	0.74	0.64	1.38	1.39	11.00	9.61	2.32	2.03	4.36	6.39	17.00	10.61
5755	37	0.36	0.37	0.72	-1.42	30.00	31.42	1.12	1.16	2.28	3.58	36.00	32.42
	40	0.32	0.35	0.67	-1.74	30.00	31.74	1.00	1.12	2.12	3.26	36.00	32.74
	44	0.33	0.36	0.69	-1.60	30.00	31.60	1.04	1.15	2.19	3.40	36.00	32.60
5795	37	0.47	0.42	0.89	-0.52	30.00	30.52	1.49	1.32	2.81	4.48	36.00	31.52
	40	0.42	0.38	0.80	-0.95	30.00	30.95	1.34	1.20	2.54	4.05	36.00	31.95
	44	0.38	0.35	0.73	-1.37	30.00	31.37	1.20	1.11	2.31	3.63	36.00	32.37

Tested Frequency [MHz]	RU Index	-	RBW Correction Factor [dB]	RF0					RF1						
				PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]
5190	37	-	0.00	-14.95	3.44	9.71	5.00	-1.80	3.20	-15.02	3.41	9.98	5.00	-1.63	3.37
	40	-	0.00	-15.13	3.44	9.71	5.00	-1.98	3.02	-15.27	3.41	9.98	5.00	-1.88	3.12
	44	-	0.00	-14.56	3.44	9.71	5.00	-1.41	3.59	-15.29	3.41	9.98	5.00	-1.90	3.10
5230	37	-	0.00	-14.59	3.45	9.72	5.00	-1.42	3.58	-15.23	3.43	9.98	5.00	-1.82	3.18
	40	-	0.00	-14.69	3.45	9.72	5.00	-1.52	3.48	-15.17	3.43	9.98	5.00	-1.76	3.24
	44	-	0.00	-14.51	3.45	9.72	5.00	-1.34	3.66	-15.33	3.43	9.98	5.00	-1.92	3.08
5755	37	-	6.99	-24.87	3.65	9.73	5.00	-4.50	0.50	-24.98	3.63	9.99	5.00	-4.37	0.63
	40	-	6.99	-25.36	3.65	9.73	5.00	-4.99	0.01	-25.14	3.63	9.99	5.00	-4.53	0.47
	44	-	6.99	-25.19	3.65	9.73	5.00	-4.82	0.18	-25.01	3.63	9.99	5.00	-4.40	0.60
5795	37	-	6.99	-23.67	3.67	9.73	5.00	-3.28	1.72	-24.42	3.65	9.99	5.00	-3.79	1.21
	40	-	6.99	-24.11	3.67	9.73	5.00	-3.72	1.28	-24.85	3.65	9.99	5.00	-4.22	0.78
	44	-	6.99	-24.58	3.67	9.73	5.00	-4.19	0.81	-25.20	3.65	9.99	5.00	-4.57	0.43

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log(\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD (Conducted) Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor

PSD (e.i.r.p.) Result = PSD (Conducted) Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (U-NII-1 for FCC)

Maximum Power Spectral Density

Test place Shonan EMC Lab. No.5 Shielded Room
Date May 31, 2023
Temperature / Humidity 25 deg. C / 42 % RH
Engineer Shiro Kobayashi
Mode Tx 11ax-40(OFDMA), 242-tone RU

RF0 + RF1 Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	RU Index	PSD (Conducted)						PSD (e.i.r.p.)					
		Antenna			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Antenna			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
		RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]				RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]			
5190	61	0.14	0.15	0.29	-5.40	11.00	16.40	0.44	0.47	0.91	-0.40	17.00	17.40
	62	0.16	0.15	0.31	-5.04	11.00	16.04	0.50	0.49	0.99	-0.04	17.00	17.04
5230	61	0.16	0.15	0.31	-5.04	11.00	16.04	0.51	0.48	0.99	-0.04	17.00	17.04
	62	0.16	0.15	0.31	-5.07	11.00	16.07	0.51	0.47	0.98	-0.07	17.00	17.07
5755	61	0.07	0.08	0.15	-8.28	30.00	38.28	0.22	0.25	0.47	-3.28	36.00	39.28
	62	0.07	0.08	0.15	-8.28	30.00	38.28	0.22	0.25	0.47	-3.28	36.00	39.28
5795	61	0.09	0.09	0.18	-7.46	30.00	37.46	0.29	0.27	0.57	-2.46	36.00	38.46
	62	0.09	0.08	0.17	-7.70	30.00	37.70	0.28	0.25	0.54	-2.70	36.00	38.70

Tested Frequency [MHz]	RU Index	-	RF0						RF1						
			RBW Correction Factor [dB]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]
				[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]
5190	61	-	0.00	-21.73	3.44	9.71	5.00	-8.58	-3.58	-21.63	3.41	9.98	5.00	-8.24	-3.24
	62	-	0.00	-21.14	3.44	9.71	5.00	-7.99	-2.99	-21.51	3.41	9.98	5.00	-8.12	-3.12
5230	61	-	0.00	-21.06	3.45	9.72	5.00	-7.89	-2.89	-21.64	3.43	9.98	5.00	-8.23	-3.23
	62	-	0.00	-21.09	3.45	9.72	5.00	-7.92	-2.92	-21.66	3.43	9.98	5.00	-8.25	-3.25
5755	61	-	6.99	-32.01	3.65	9.73	5.00	-11.64	-6.64	-31.58	3.63	9.99	5.00	-10.97	-5.97
	62	-	6.99	-31.95	3.65	9.73	5.00	-11.58	-6.58	-31.62	3.63	9.99	5.00	-11.01	-6.01
5795	61	-	6.99	-30.71	3.67	9.73	5.00	-10.32	-5.32	-31.24	3.65	9.99	5.00	-10.61	-5.61
	62	-	6.99	-30.85	3.67	9.73	5.00	-10.46	-5.46	-31.61	3.65	9.99	5.00	-10.98	-5.98

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD (Conducted) Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor

PSD (e.i.r.p.) Result = PSD (Conducted) Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (U-NII-1 for FCC)

Maximum Power Spectral Density

Test place Shonan EMC Lab. No.5 Shielded Room
Date May 31, 2023
Temperature / Humidity 25 deg. C / 42 % RH
Engineer Shiro Kobayashi
Mode Tx 11ax-80(OFDMA), 52-tone RU

RF0 + RF1 Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	RU Index	PSD (Conducted)							PSD (e.i.r.p.)					
		Antenna			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Antenna			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	
		RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]				RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]				
5210	37	0.62	0.64	1.26	1.01	11.00	9.99	1.97	2.02	3.99	6.01	17.00	10.99	
	44	0.68	0.60	1.28	1.08	11.00	9.92	2.16	1.90	4.06	6.08	17.00	10.92	
	52	0.68	0.64	1.32	1.20	11.00	9.80	2.14	2.02	4.16	6.20	17.00	10.80	
5775	37	0.39	0.34	0.73	-1.38	30.00	31.38	1.23	1.07	2.30	3.62	36.00	32.38	
	44	0.43	0.37	0.80	-0.96	30.00	30.96	1.37	1.17	2.54	4.04	36.00	31.96	
	52	0.37	0.31	0.67	-1.73	30.00	31.73	1.16	0.97	2.12	3.27	36.00	32.73	

Tested Frequency [MHz]	RU Index	-	RBW Correction Factor [dB]	RF0						RF1					
				PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]
				5210	37	-	0.00	-15.23	3.44	9.72	5.00	-2.07	2.94	-15.34	3.42
44	-	0.00	-14.83		3.44	9.72	5.00	-1.67	3.34	-15.61	3.42	9.98	5.00	-2.21	2.79
52	-	0.00	-14.86		3.44	9.72	5.00	-1.70	3.31	-15.34	3.42	9.98	5.00	-1.94	3.06
5775	37	-	6.99	-24.48	3.66	9.73	5.00	-4.10	0.90	-25.31	3.64	9.99	5.00	-4.69	0.31
	44	-	6.99	-24.03	3.66	9.73	5.00	-3.65	1.35	-24.94	3.64	9.99	5.00	-4.32	0.69
	52	-	6.99	-24.75	3.66	9.73	5.00	-4.37	0.63	-25.77	3.64	9.99	5.00	-5.15	-0.15

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD (Conducted) Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor

PSD (e.i.r.p.) Result = PSD (Conducted) Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (U-NII-1 for FCC)

Maximum Power Spectral Density

Test place: Shonan EMC Lab. No.5 Shielded Room
 Date: May 31, 2023
 Temperature / Humidity: 25 deg. C / 42 % RH
 Engineer: Shiro Kobayashi
 Mode: Tx 11ax-80(OFDMA), 484-tone RU

RF0 + RF1 Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	RU Index	PSD (Conducted)							PSD (e.i.r.p.)						
		Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin		
		RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]				RF0 [mW/MHz]	RF1 [mW/MHz]	Sum [mW/MHz]					
5210	65	0.07	0.07	0.15	-8.38	11.00	19.38	0.23	0.23	0.46	-3.38	17.00	20.38		
	66	0.08	0.08	0.15	-8.13	11.00	19.13	0.25	0.24	0.49	-3.13	17.00	20.13		
5775	65	0.04	0.04	0.08	-10.86	30.00	40.86	0.14	0.12	0.26	-5.86	36.00	41.86		
	66	0.04	0.04	0.08	-11.04	30.00	41.04	0.13	0.12	0.25	-6.04	36.00	42.04		

Tested Frequency [MHz]	RU Index	-	RF0							RF1						
			RBW Correction Factor [dB]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	
5210	65	-	0.00	-24.64	3.44	9.72	5.00	-11.48	-6.48	-24.70	3.42	9.98	5.00	-11.30	-6.30	
	66	-	0.00	-24.22	3.44	9.72	5.00	-11.06	-6.06	-24.63	3.42	9.98	5.00	-11.23	-6.23	
5775	65	-	6.99	-33.88	3.66	9.73	5.00	-13.50	-8.50	-34.90	3.64	9.99	5.00	-14.28	-9.28	
	66	-	6.99	-34.32	3.66	9.73	5.00	-13.94	-8.94	-34.78	3.64	9.99	5.00	-14.16	-9.16	

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log(\text{Specified bandwidth} / \text{Measured bandwidth})$

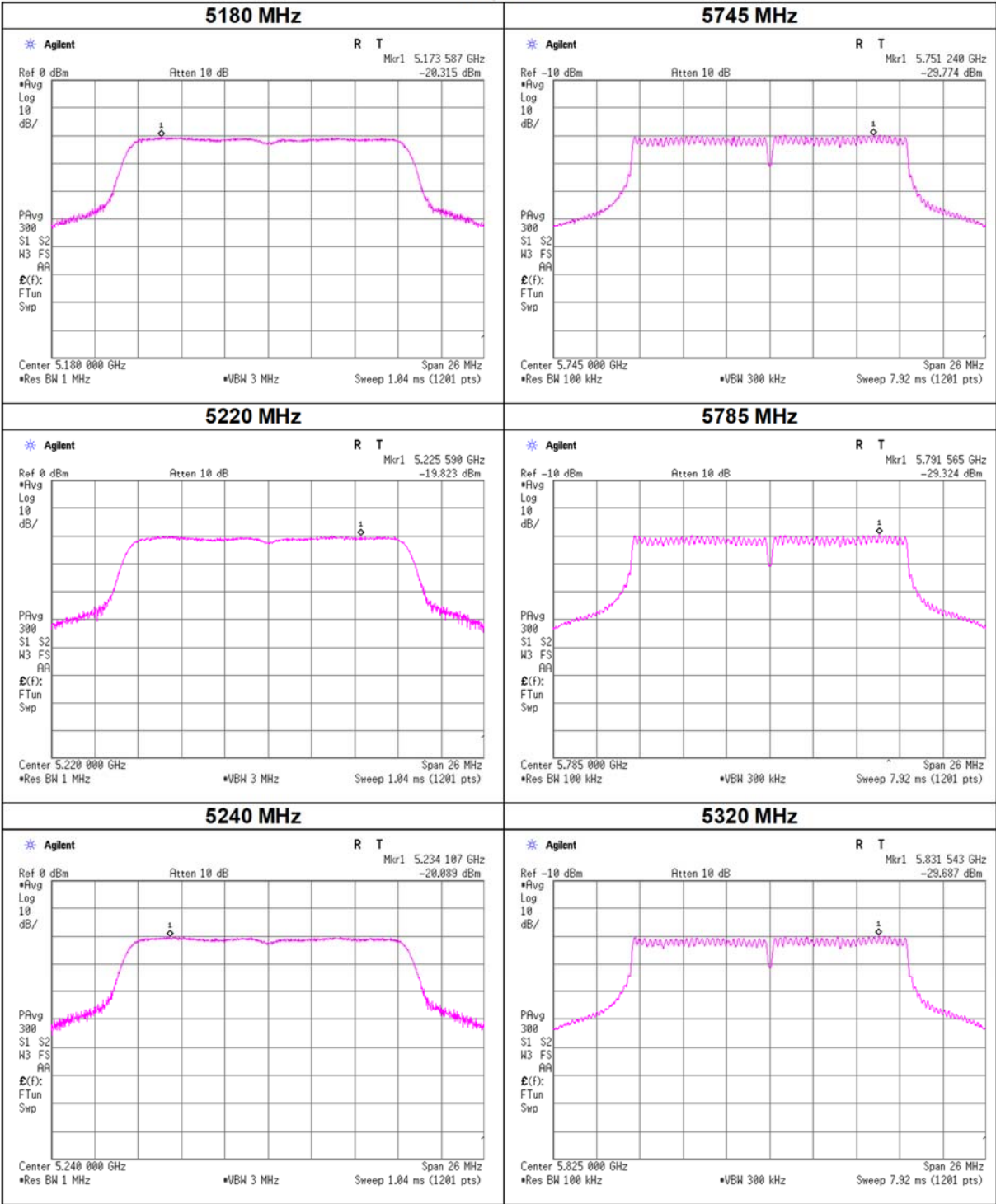
PSD (Conducted) Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor

PSD (e.i.r.p.) Result = PSD (Conducted) Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (U-NII-1 for FCC)

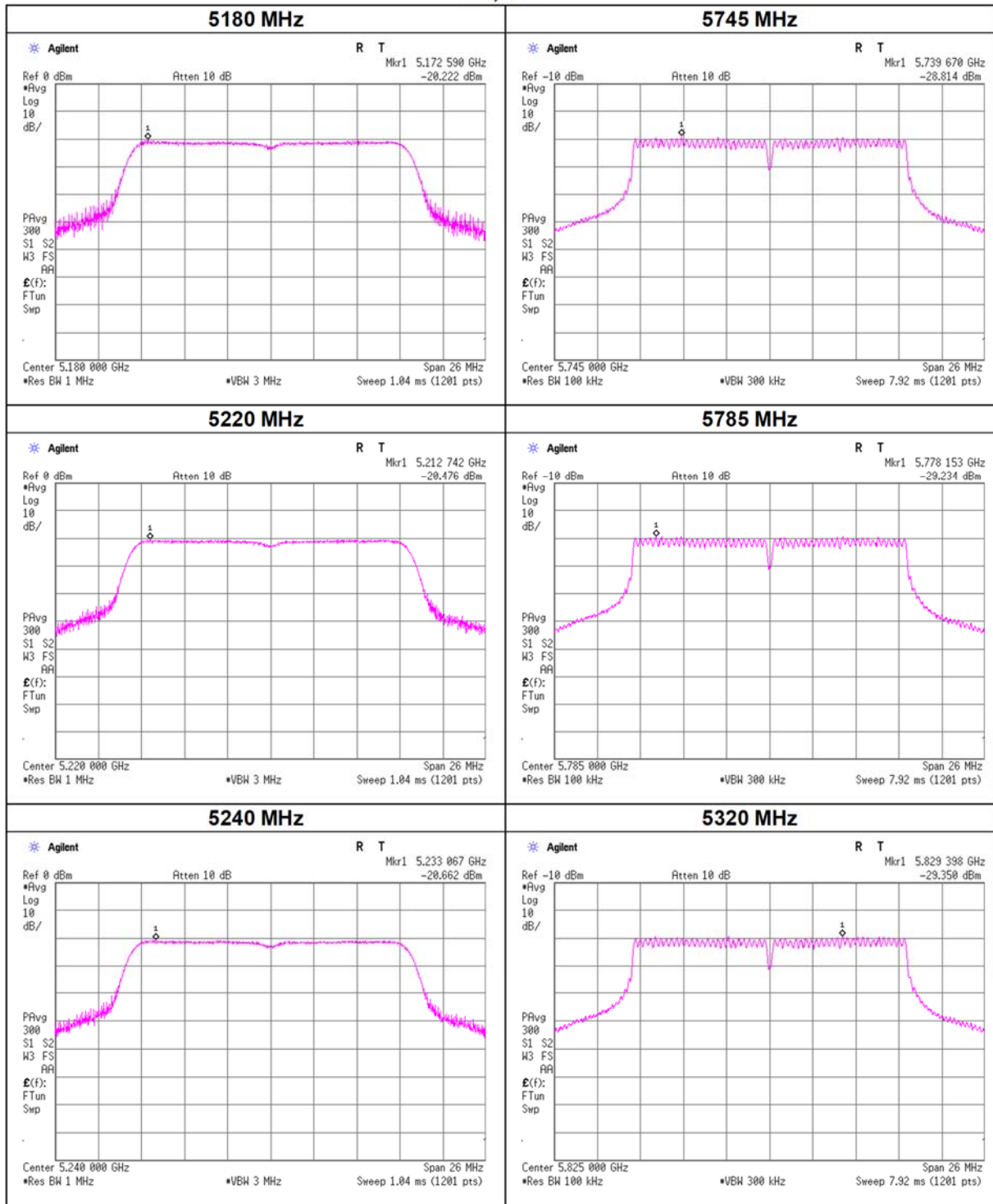
Maximum Power Spectral Density

11a, RF0



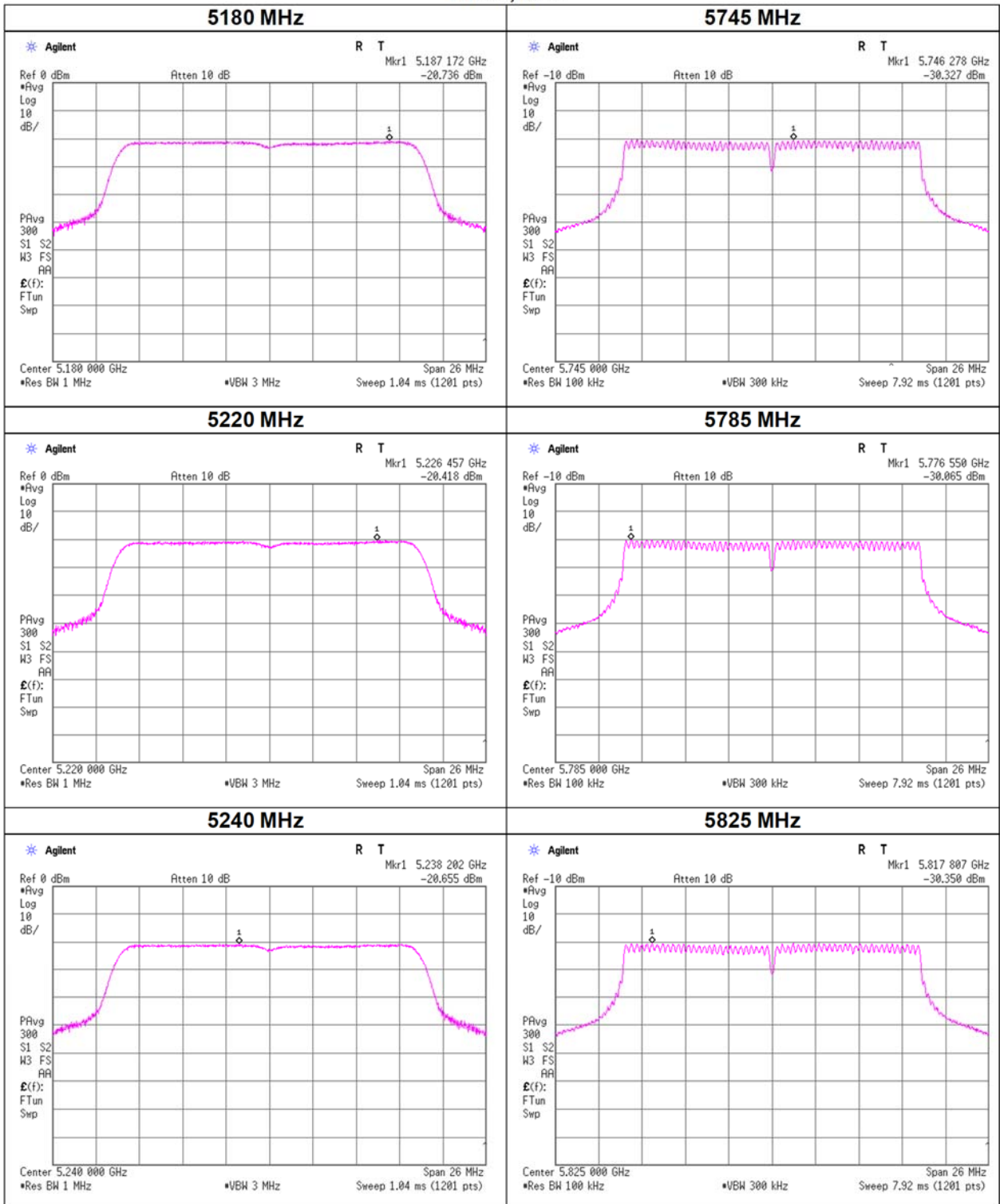
Maximum Power Spectral Density

11a, RF1



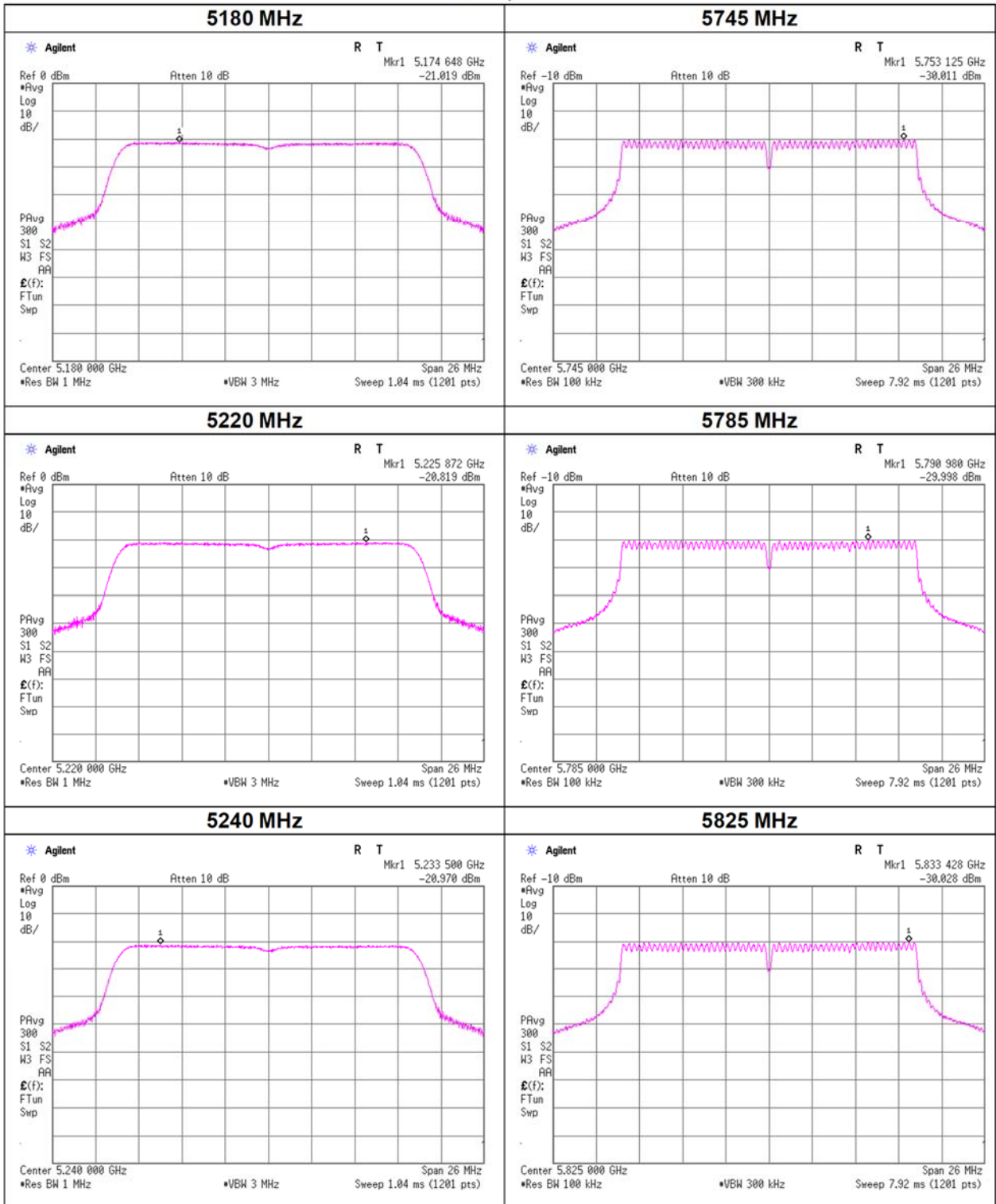
Maximum Power Spectral Density

11n-20, RF0



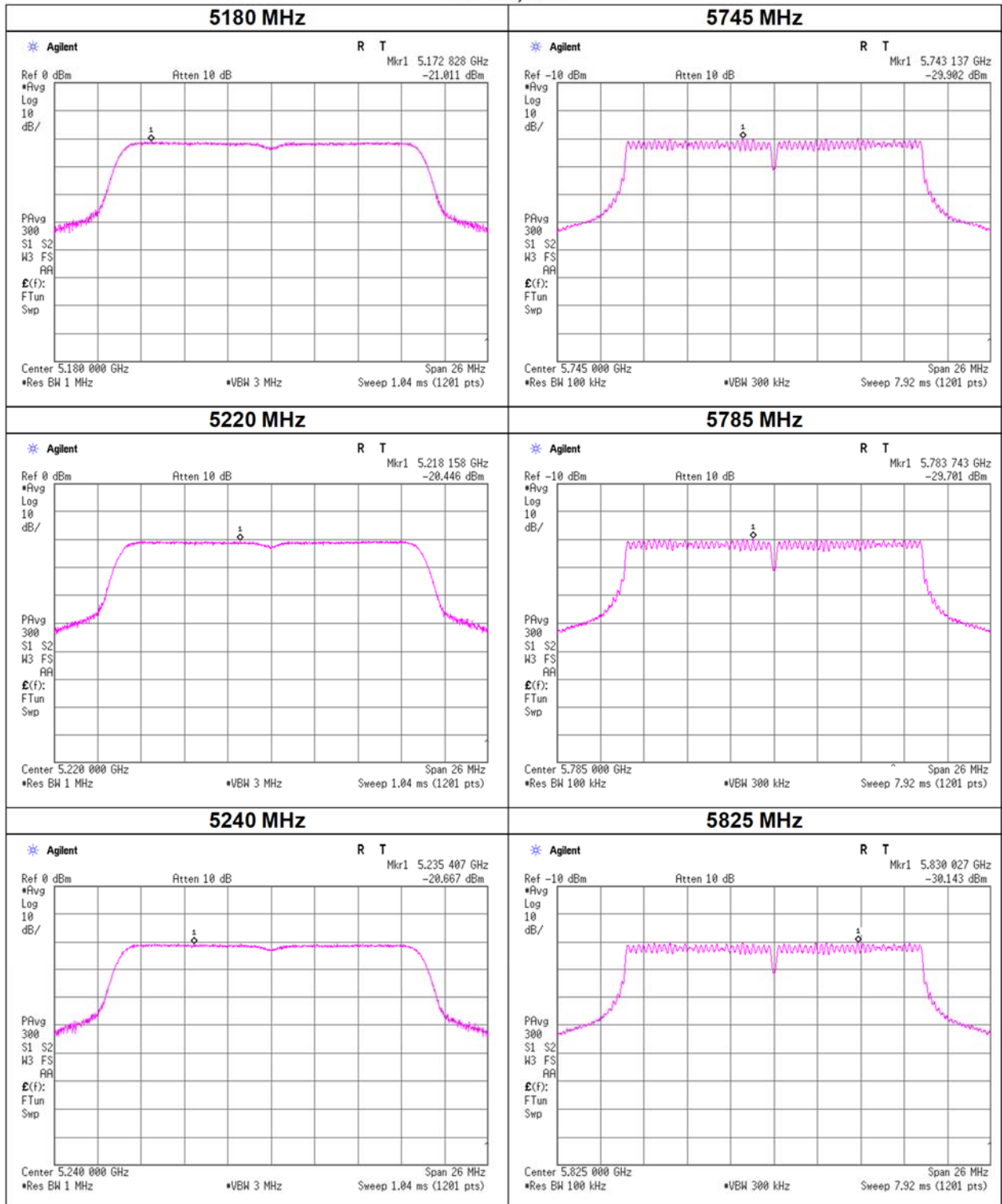
Maximum Power Spectral Density

11n-20, RF1



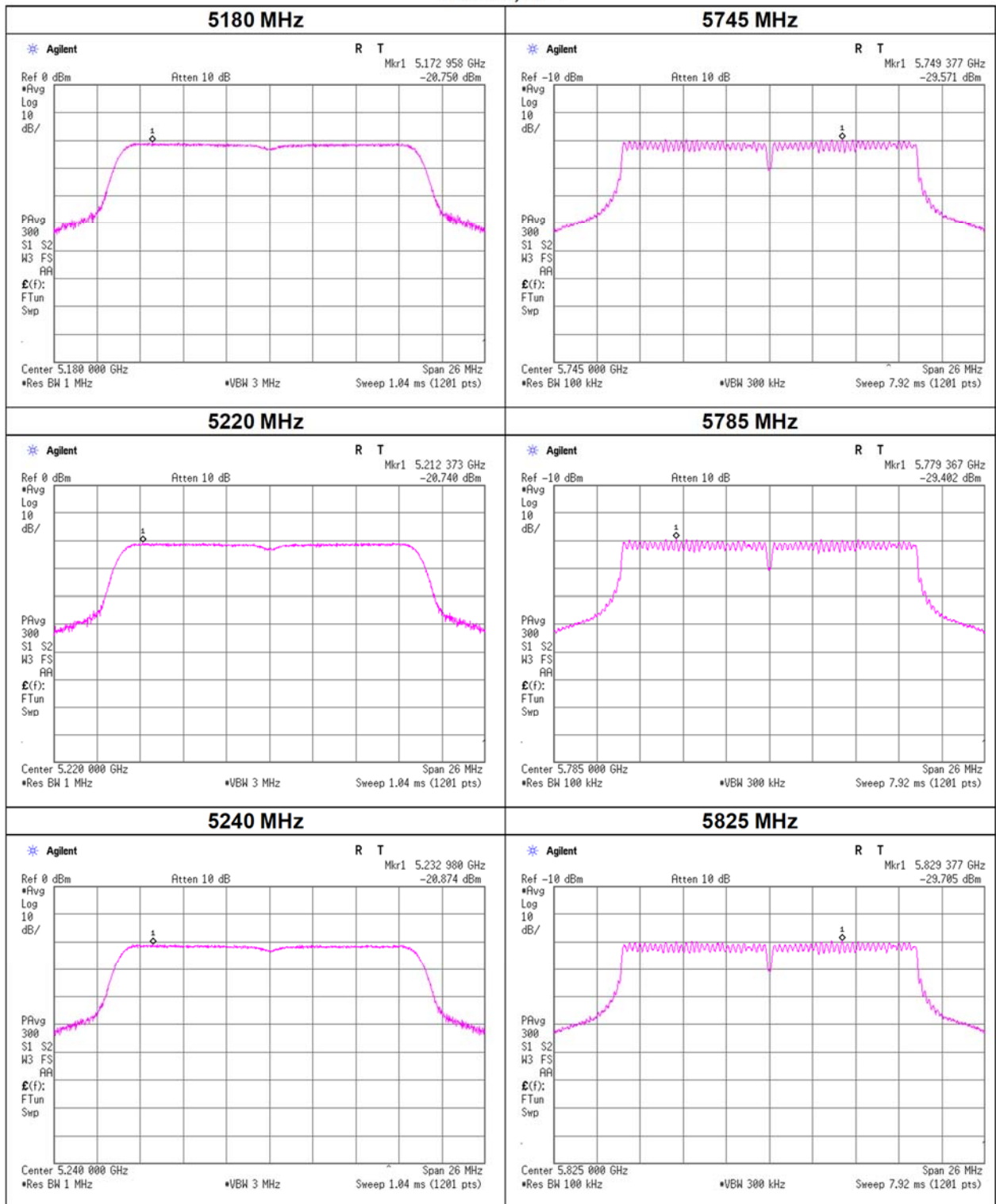
Maximum Power Spectral Density

11ac-20, RF0



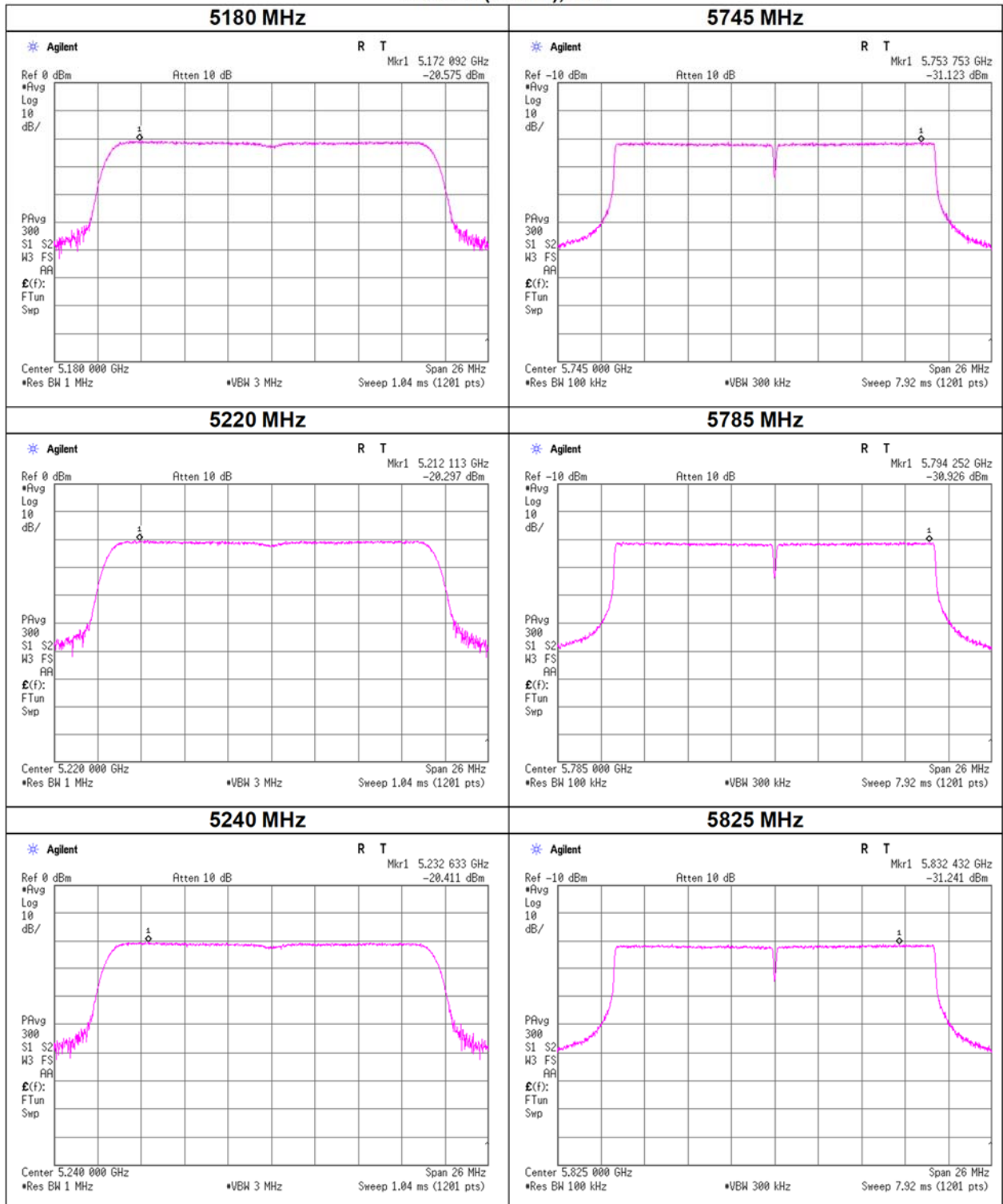
Maximum Power Spectral Density

11ac-20, RF1



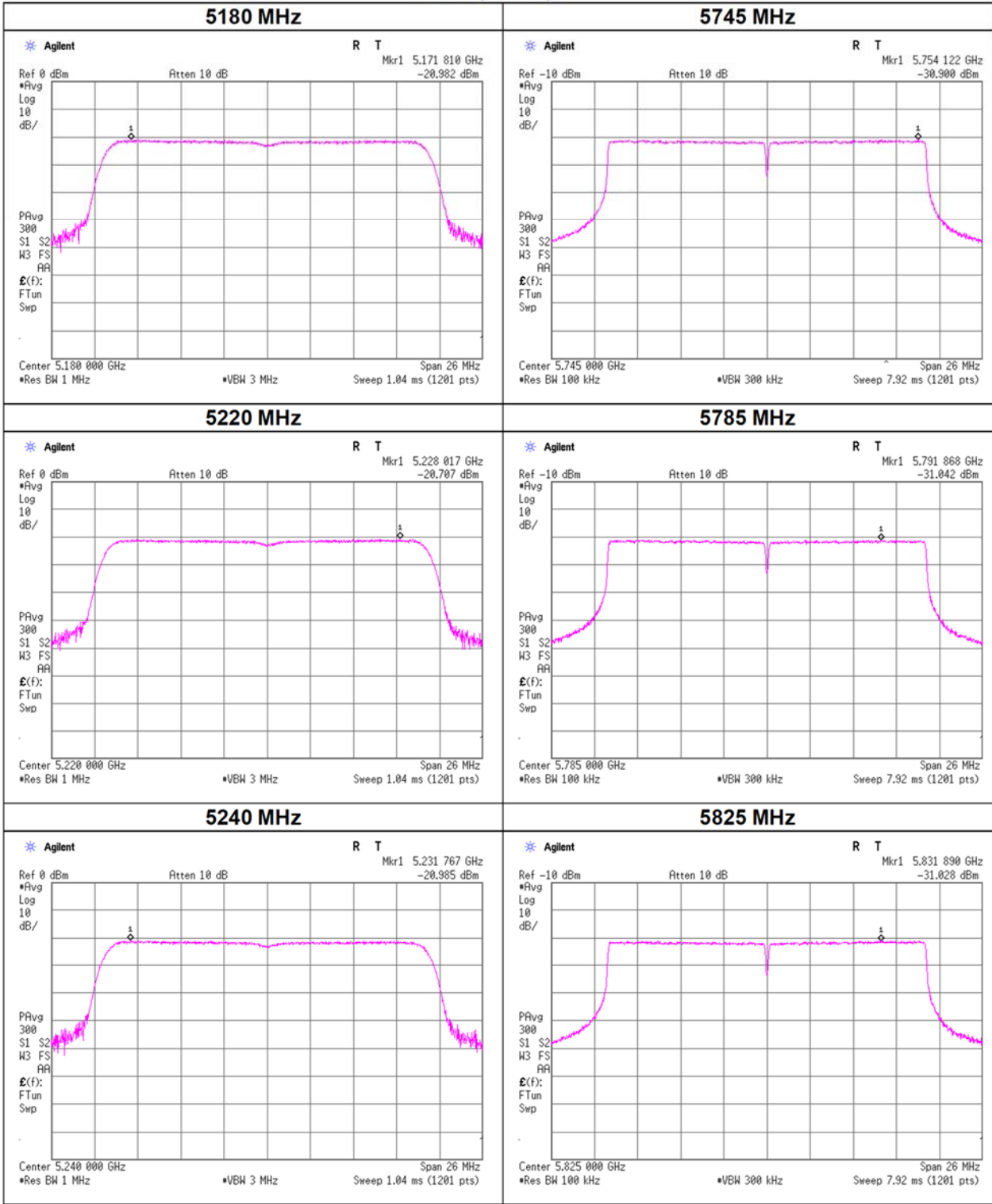
Maximum Power Spectral Density

11ax-20 (OFDM), RF0



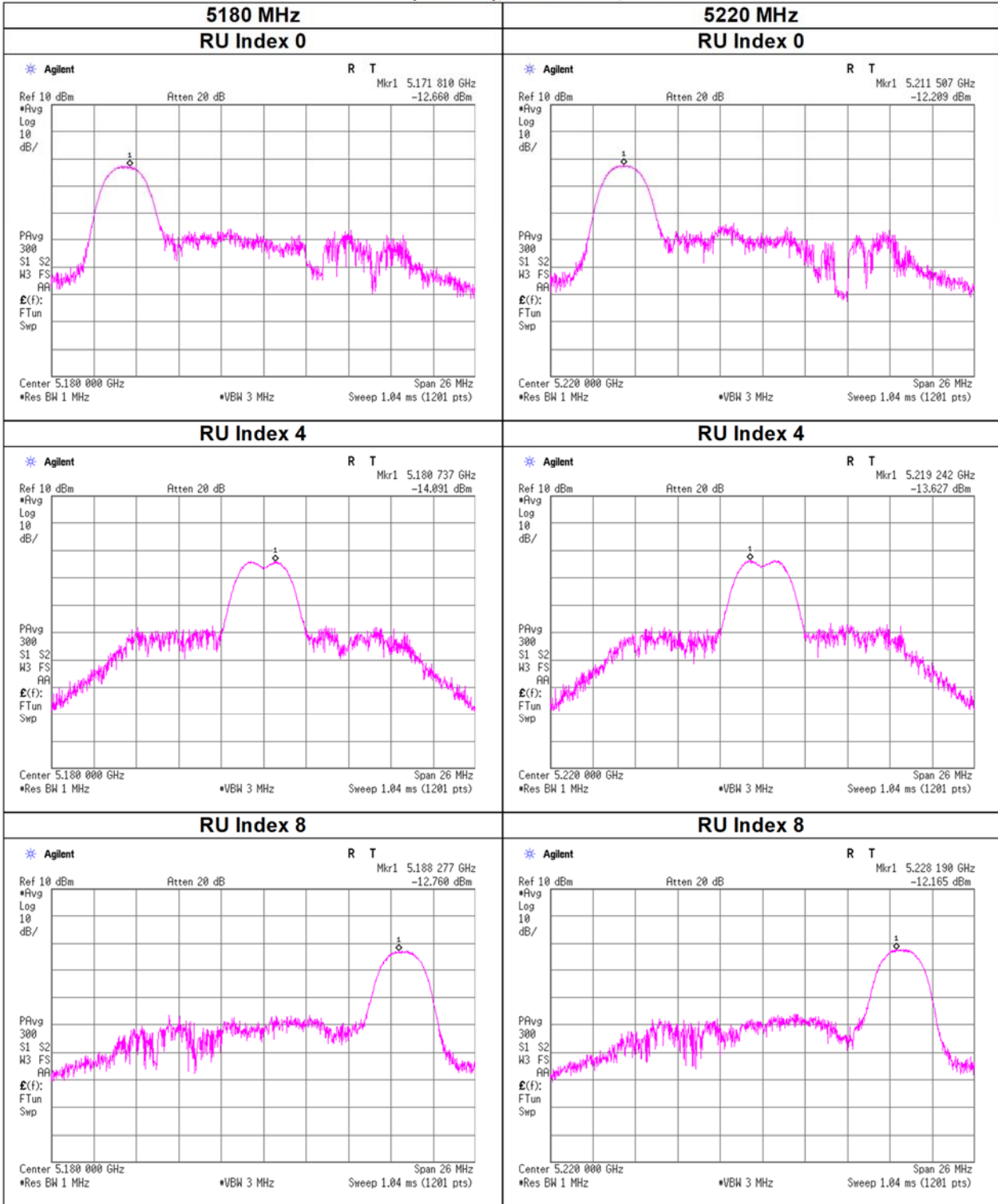
Maximum Power Spectral Density

11ax-20 (OFDM), RF1



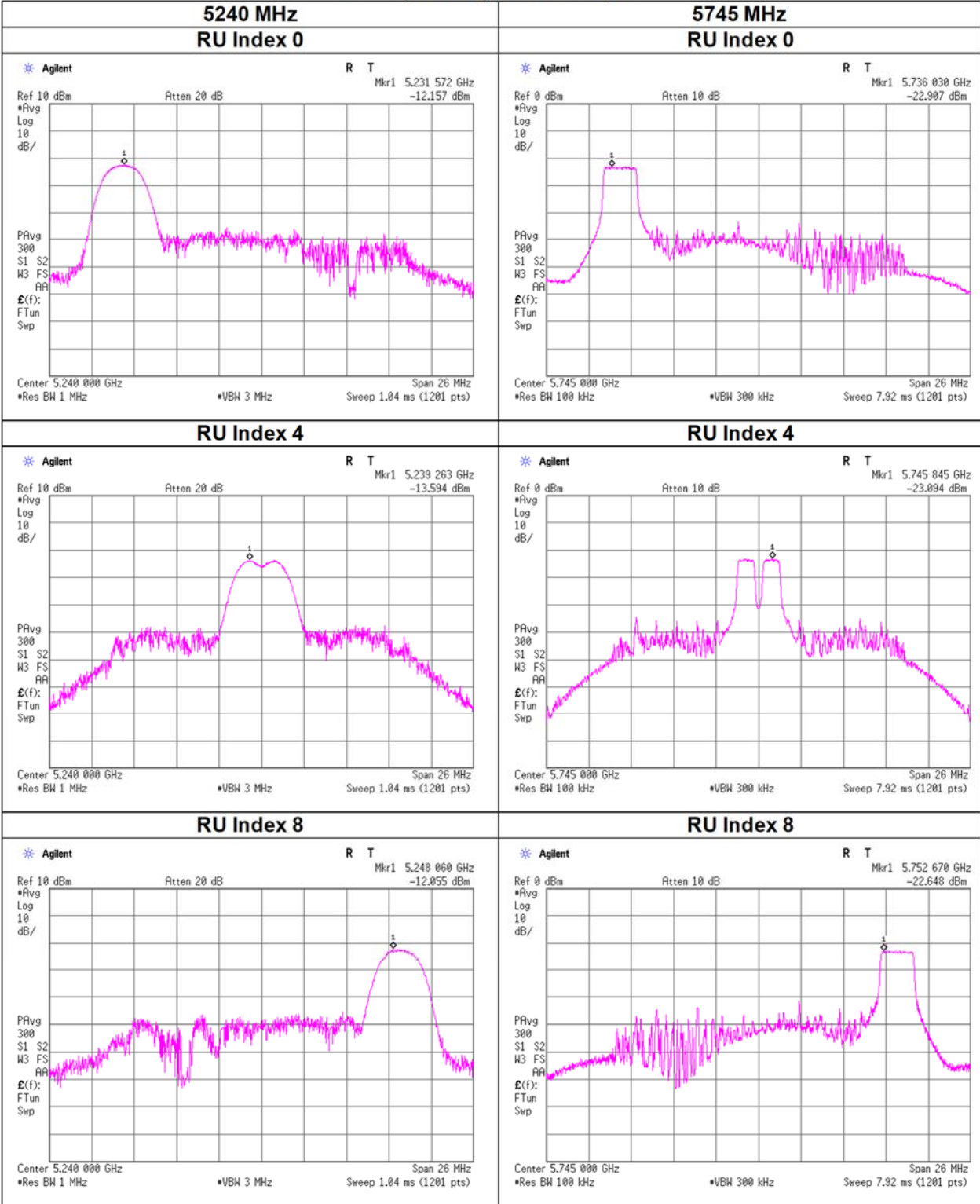
Maximum Power Spectral Density

11ax-20(OFDMA), 26-tone RU, RF0



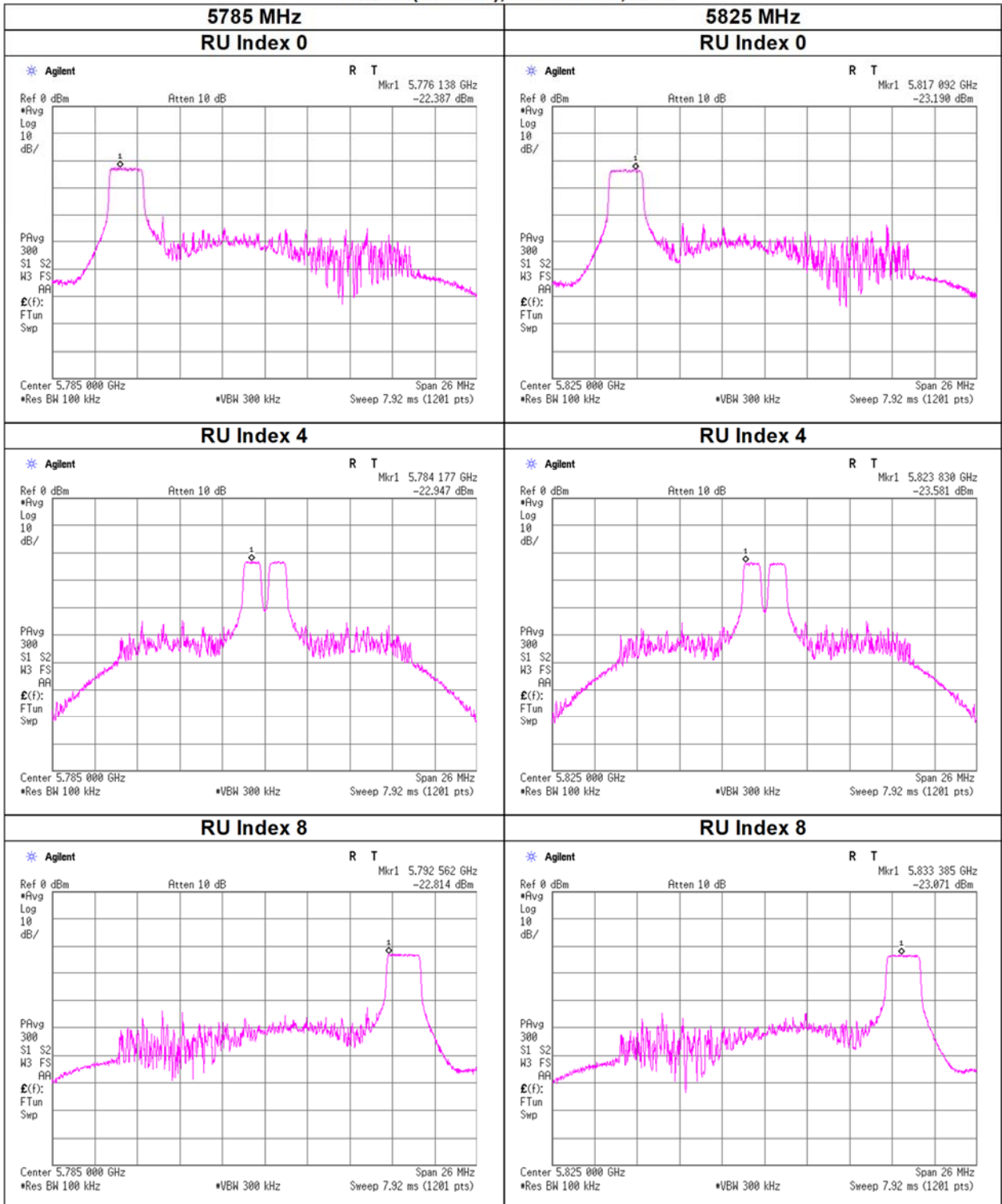
Maximum Power Spectral Density

11ax-20(OFDMA), 26-tone RU, RF0



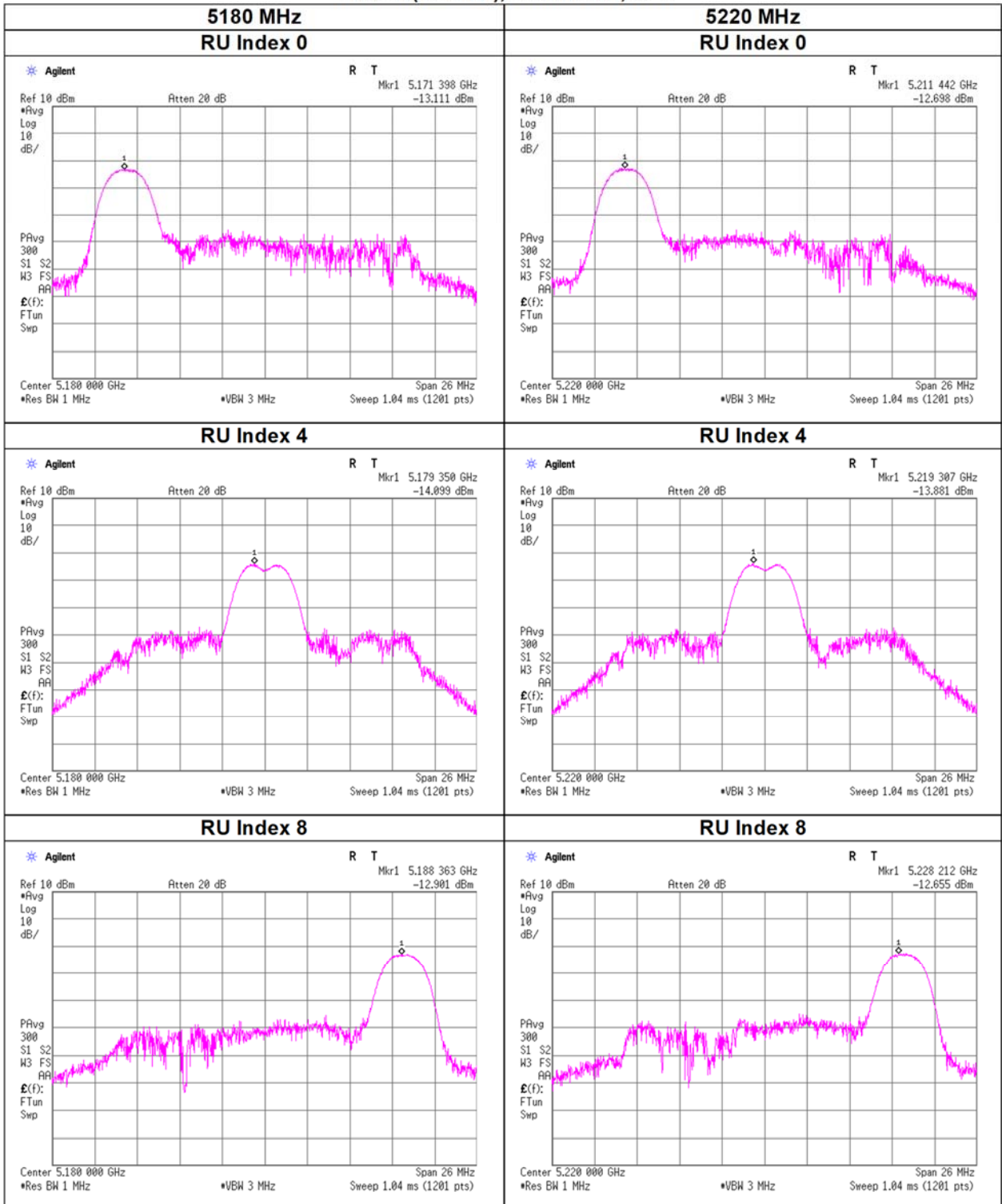
Maximum Power Spectral Density

11ax-20(OFDMA), 26-tone RU, RF0



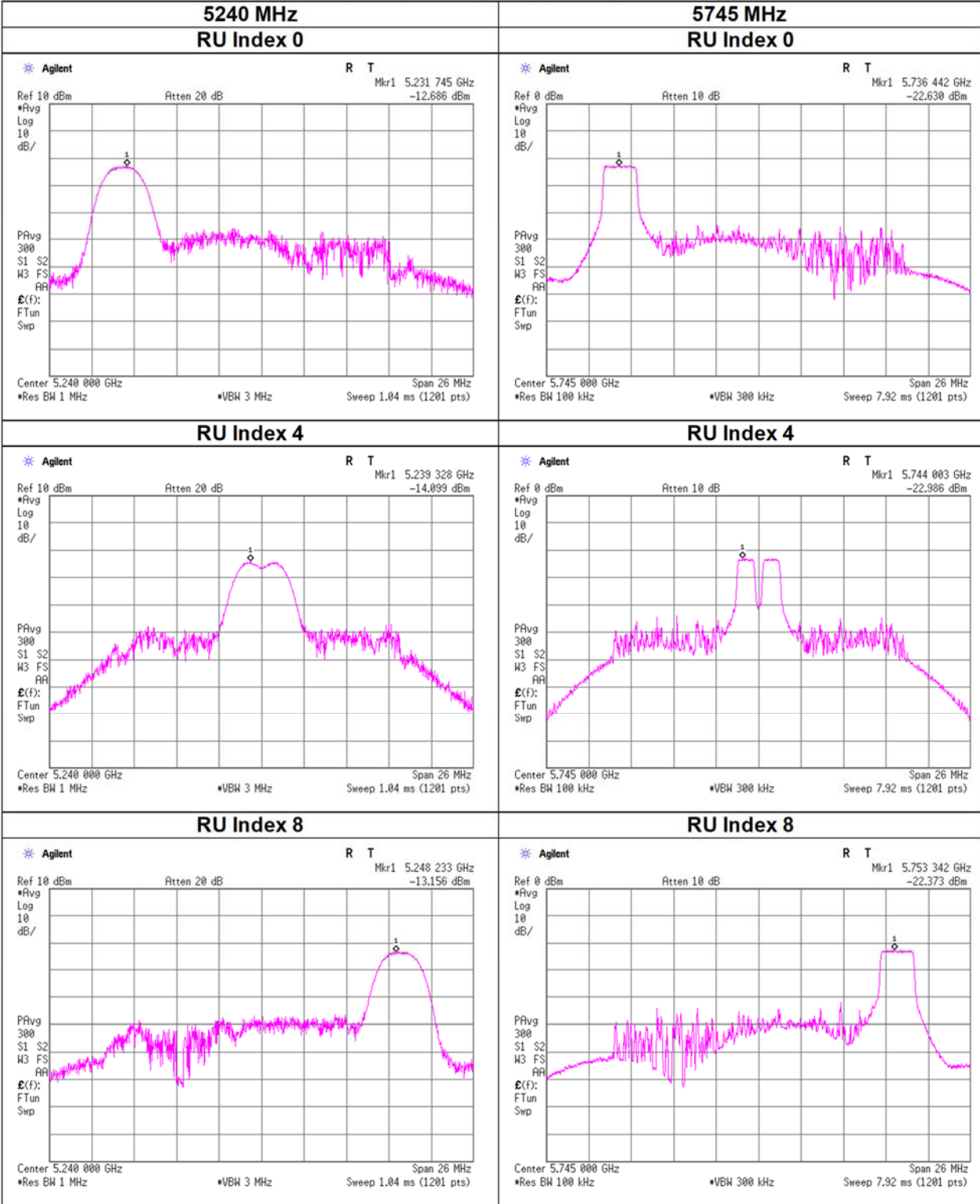
Maximum Power Spectral Density

11ax-20(OFDMA), 26-tone RU, RF1



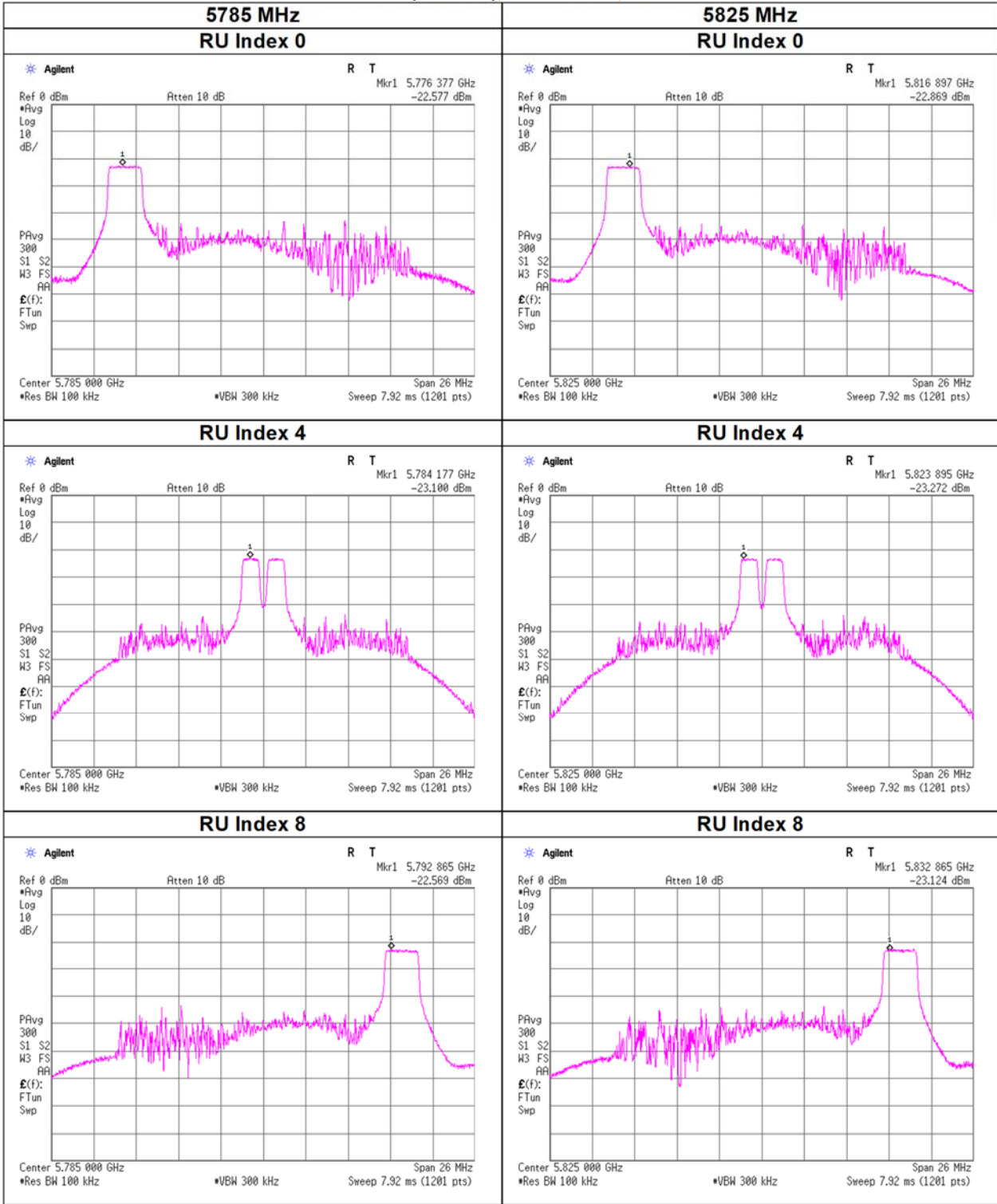
Maximum Power Spectral Density

11ax-20(OFDMA), 26-tone RU, RF1



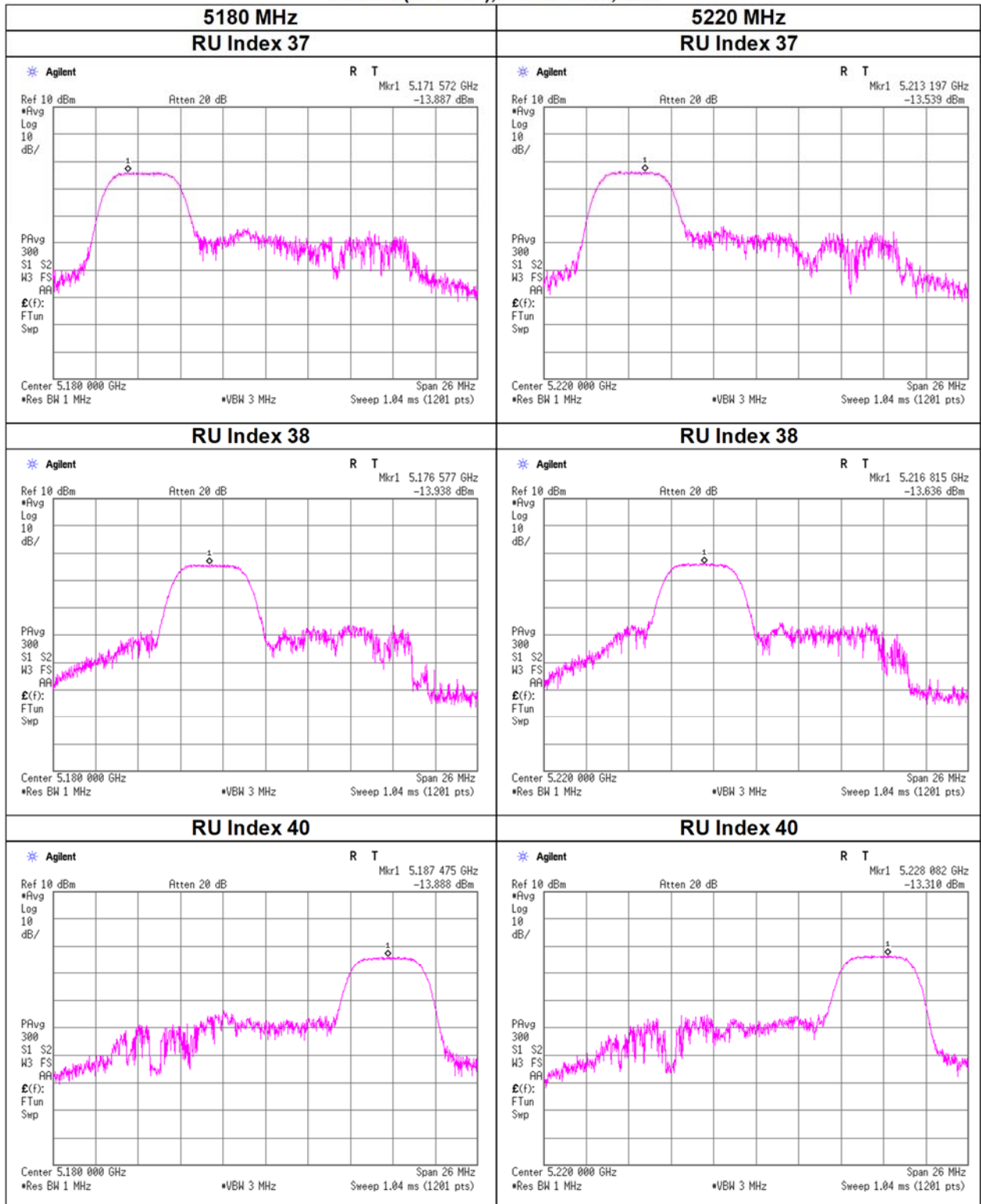
Maximum Power Spectral Density

11ax-20(OFDMA), 26-tone RU, RF1



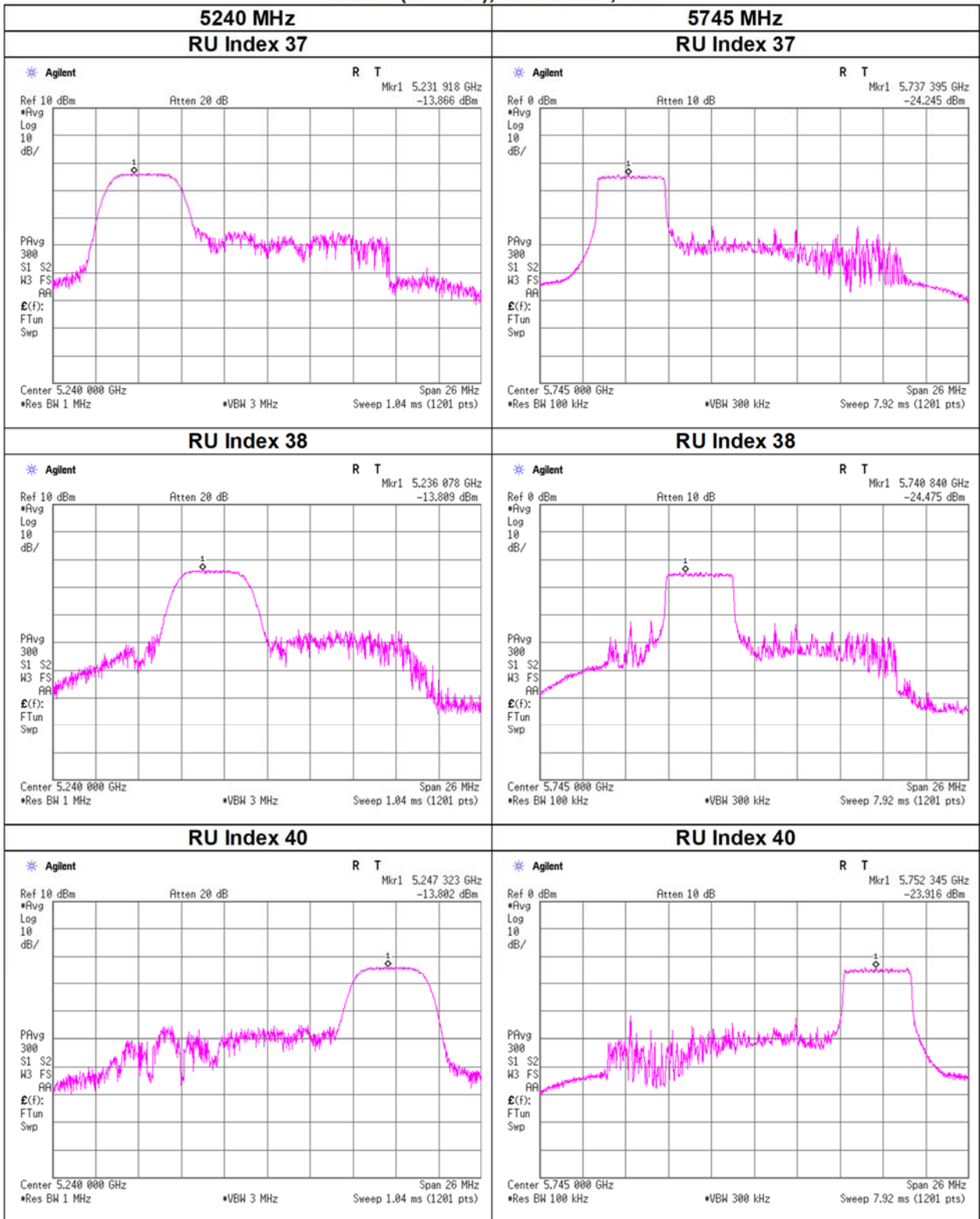
Maximum Power Spectral Density

11ax-20(OFDMA), 52-tone RU, RF0



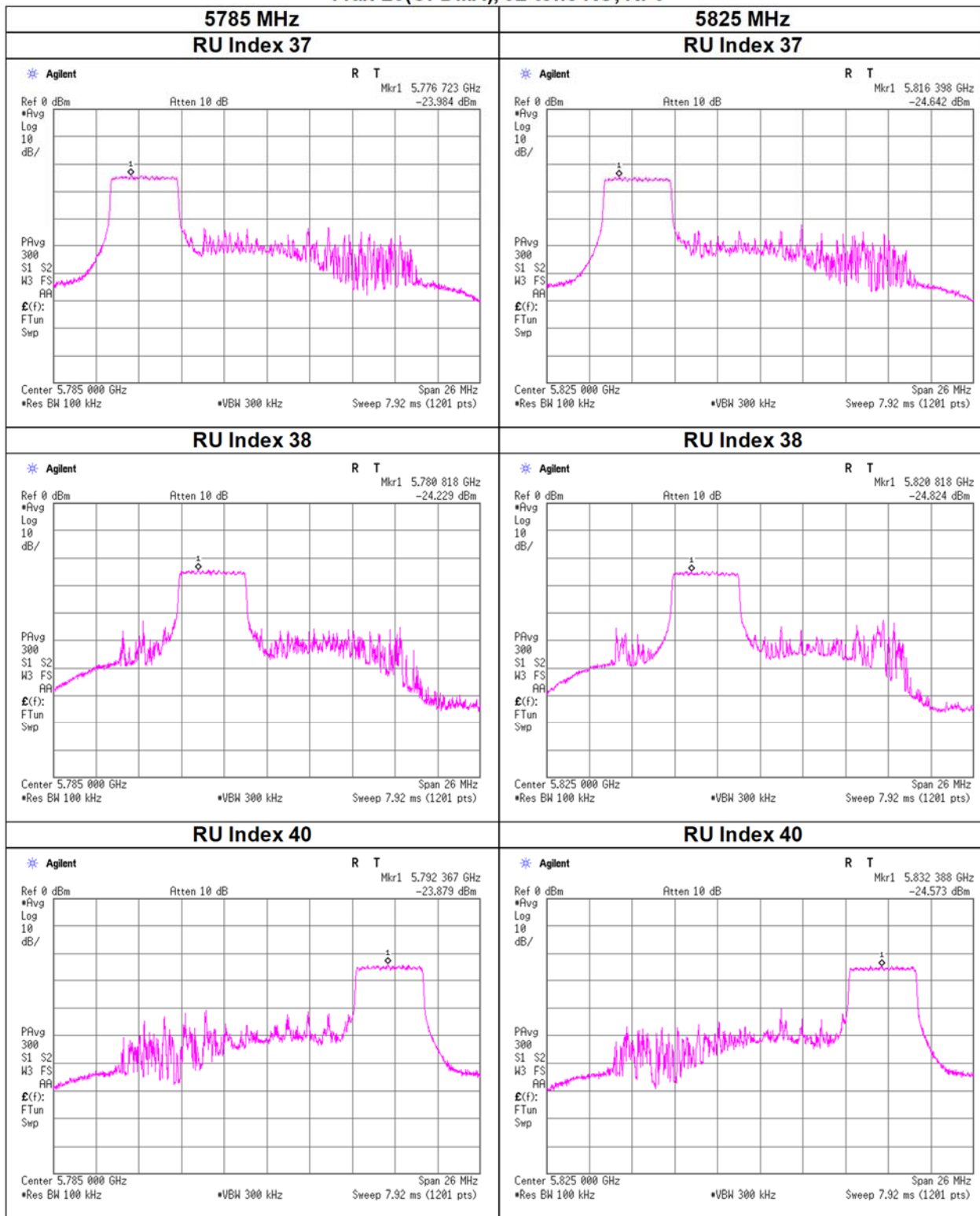
Maximum Power Spectral Density

11ax-20(OFDMA), 52-tone RU, RF0



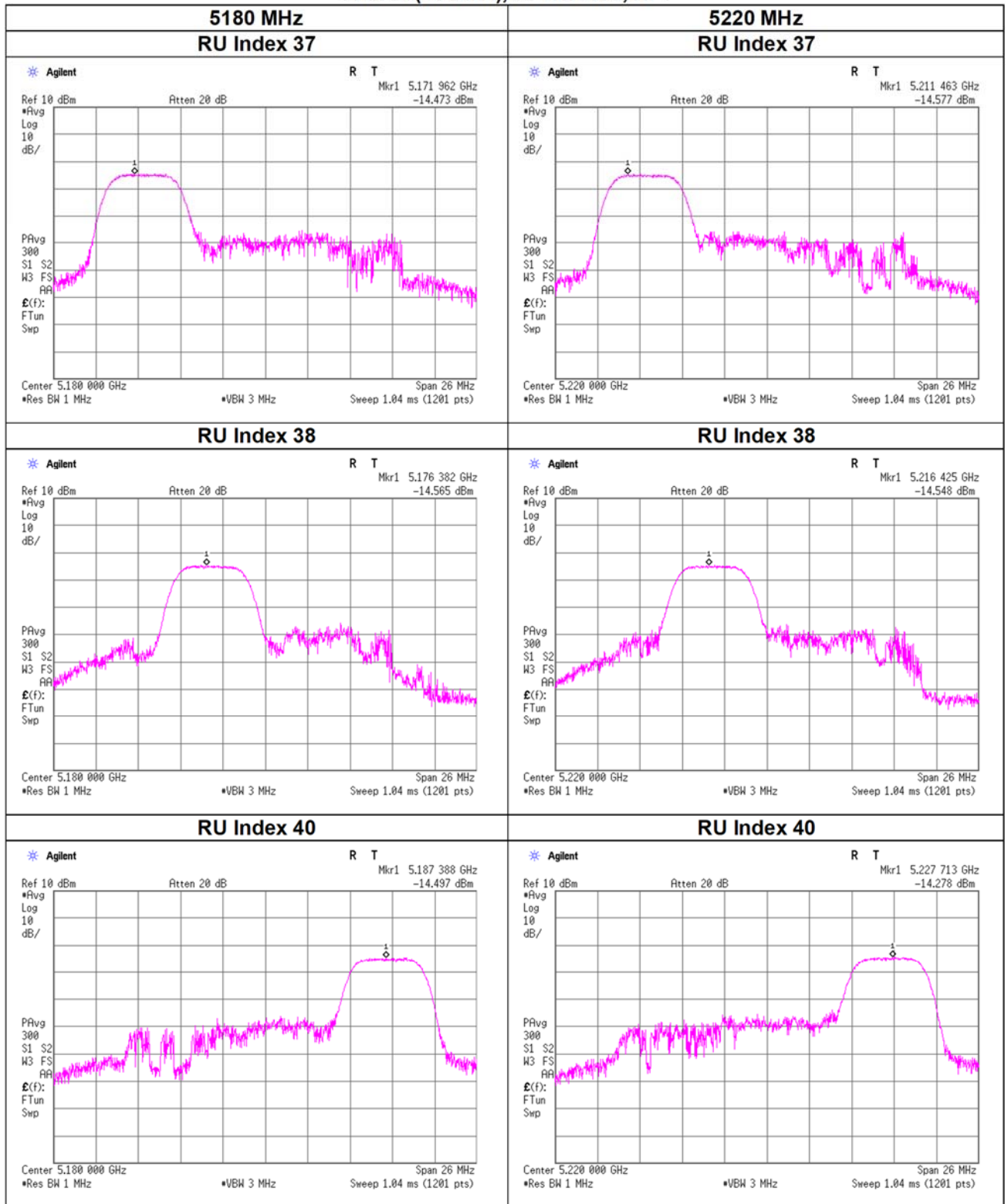
Maximum Power Spectral Density

11ax-20(OFDMA), 52-tone RU, RF0



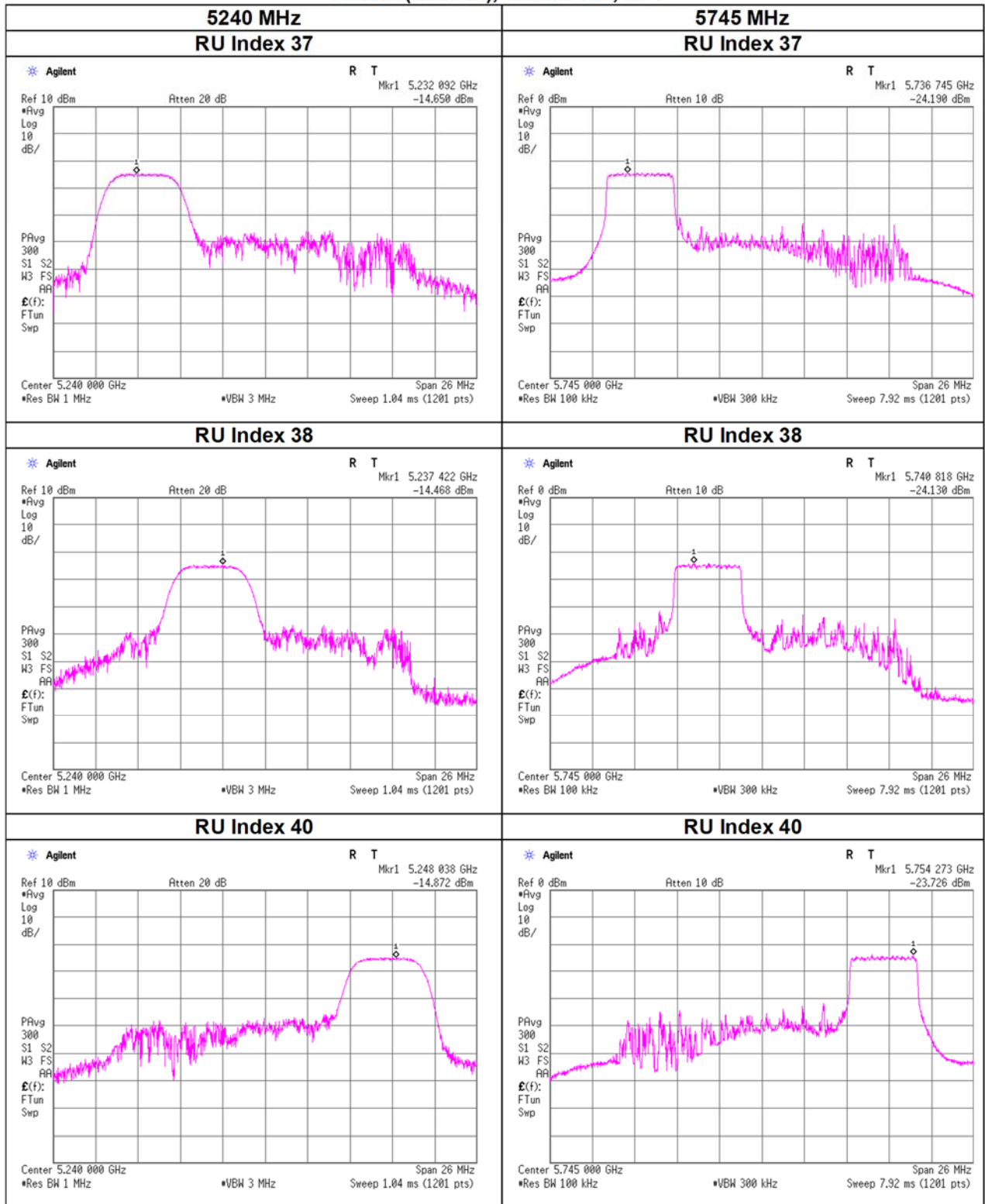
Maximum Power Spectral Density

11ax-20(OFDMA), 52-tone RU, RF1



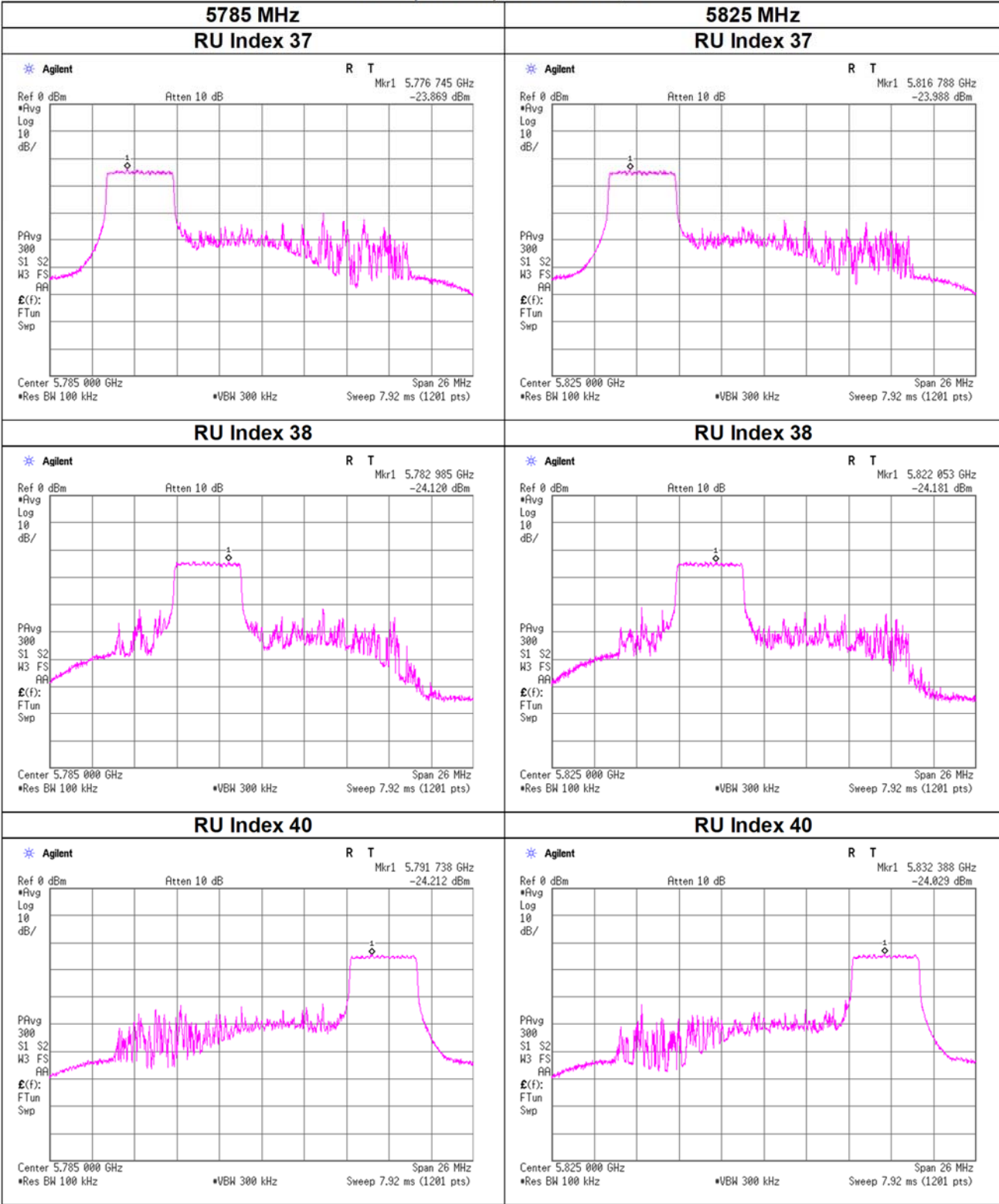
Maximum Power Spectral Density

11ax-20(OFDMA), 52-tone RU, RF1



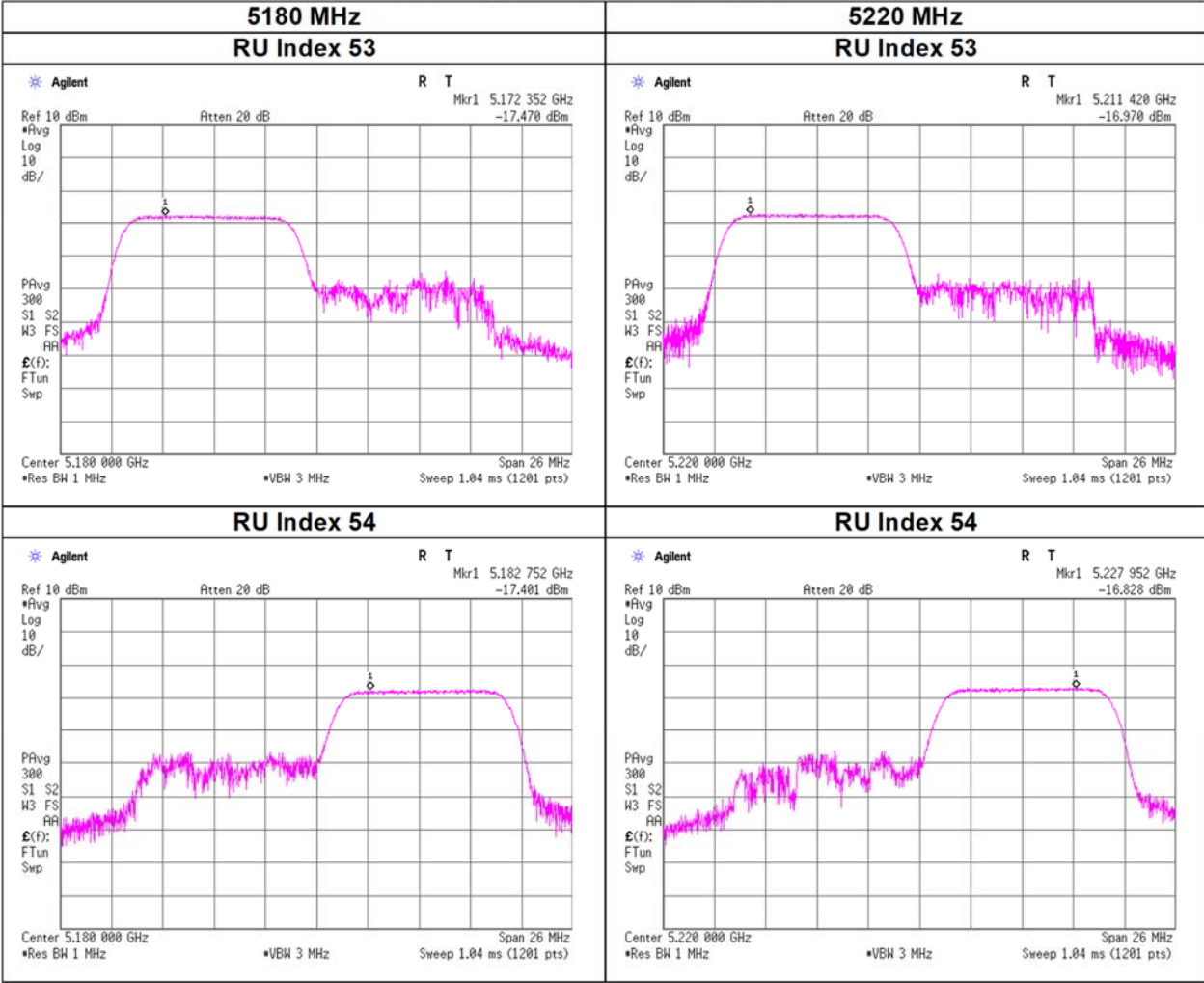
Maximum Power Spectral Density

11ax-20(OFDMA), 52-tone RU, RF1



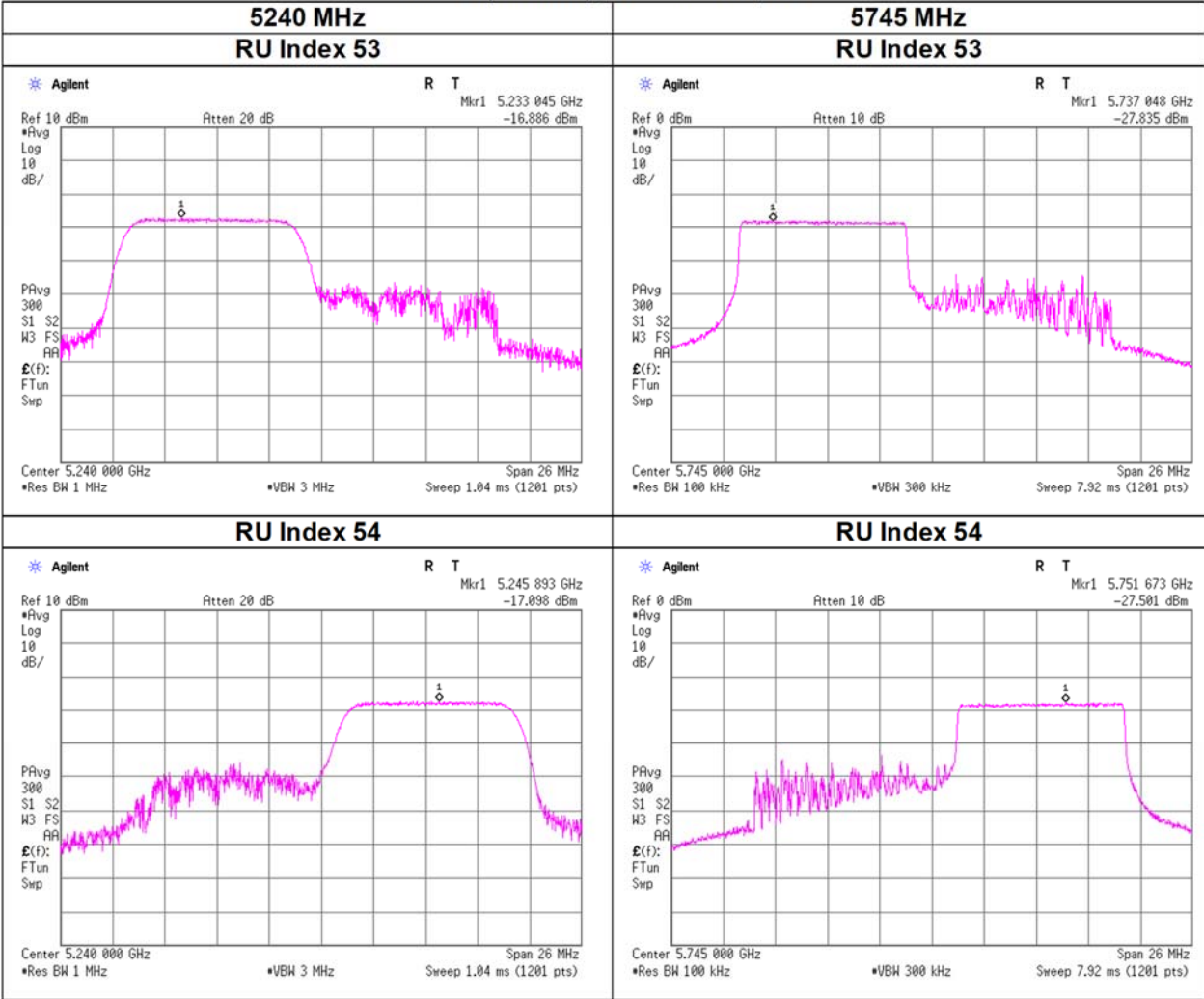
Maximum Power Spectral Density

11ax-20(OFDMA), 106-tone RU, RF0



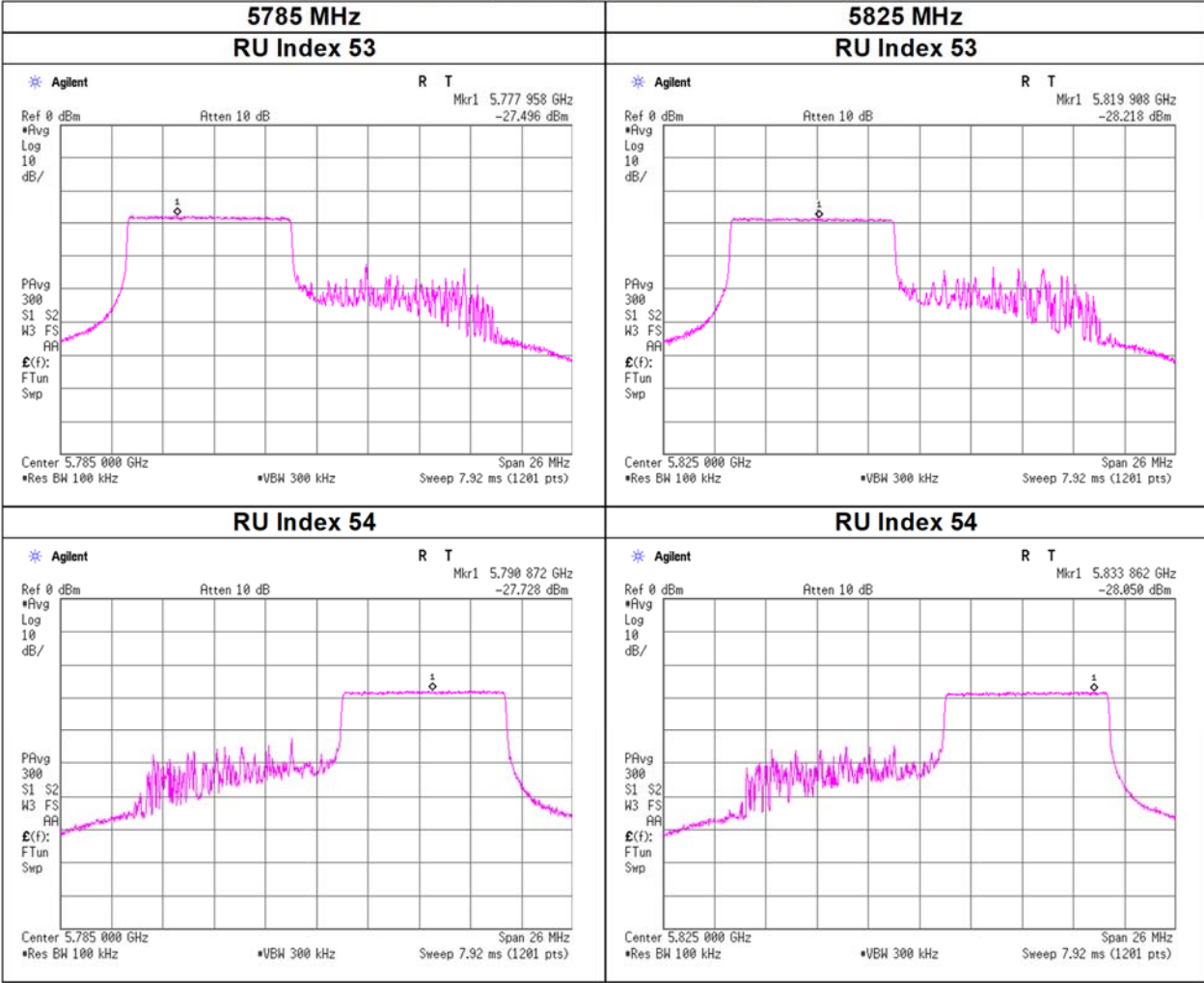
Maximum Power Spectral Density

11ax-20(OFDMA), 106-tone RU, RF0



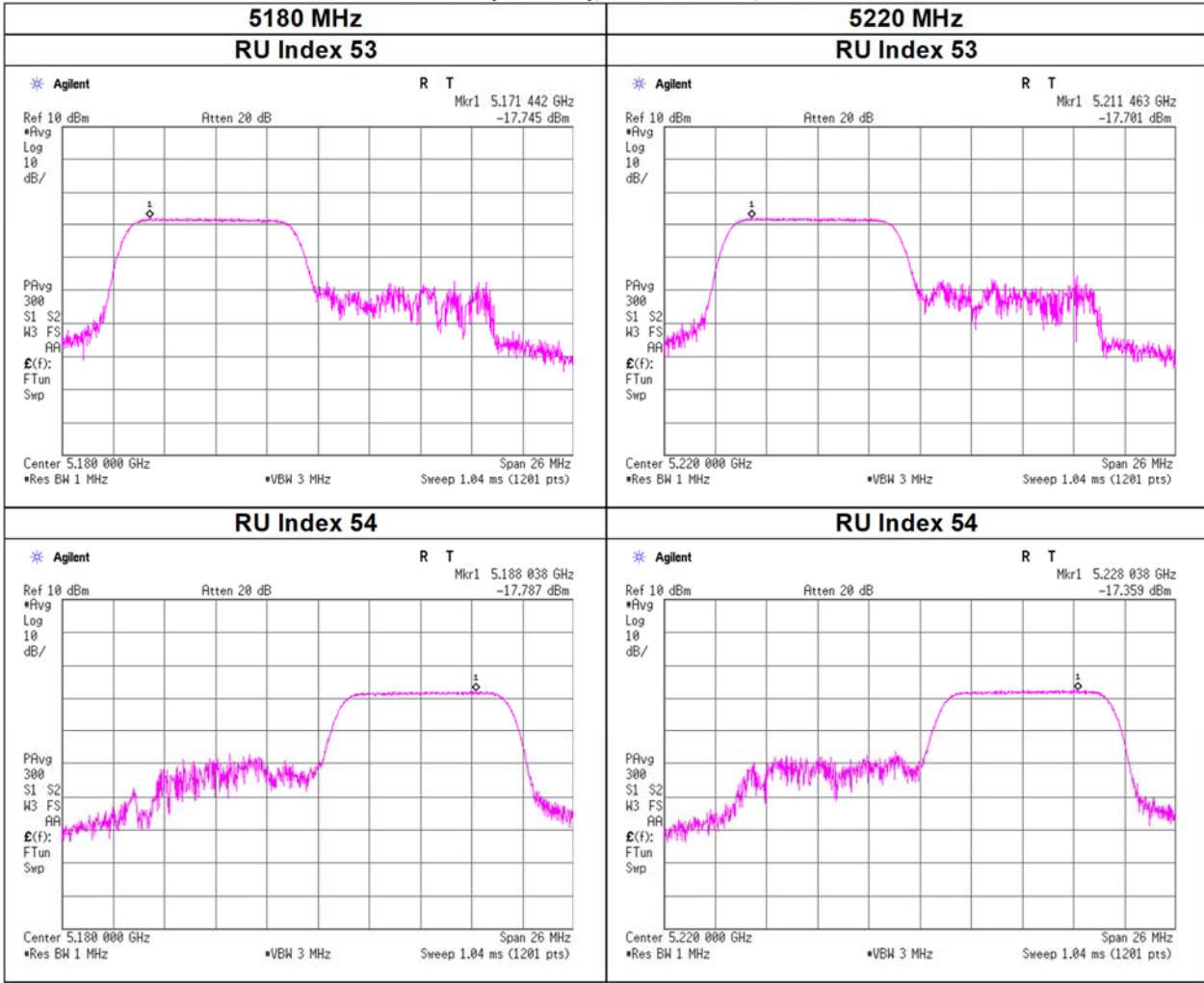
Maximum Power Spectral Density

11ax-20(OFDMA), 106-tone RU, RF0



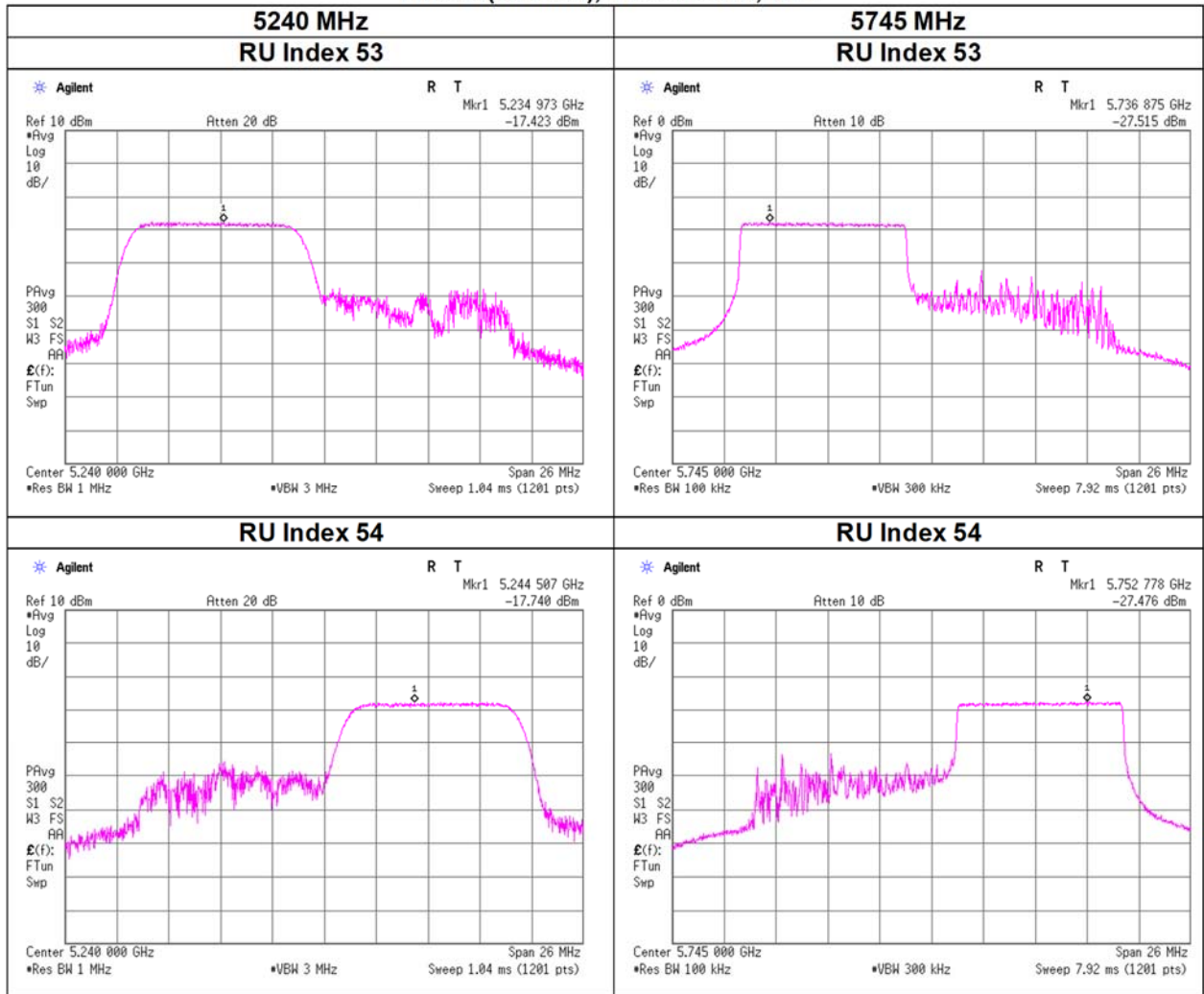
Maximum Power Spectral Density

11ax-20(OFDMA), 106-tone RU, RF1



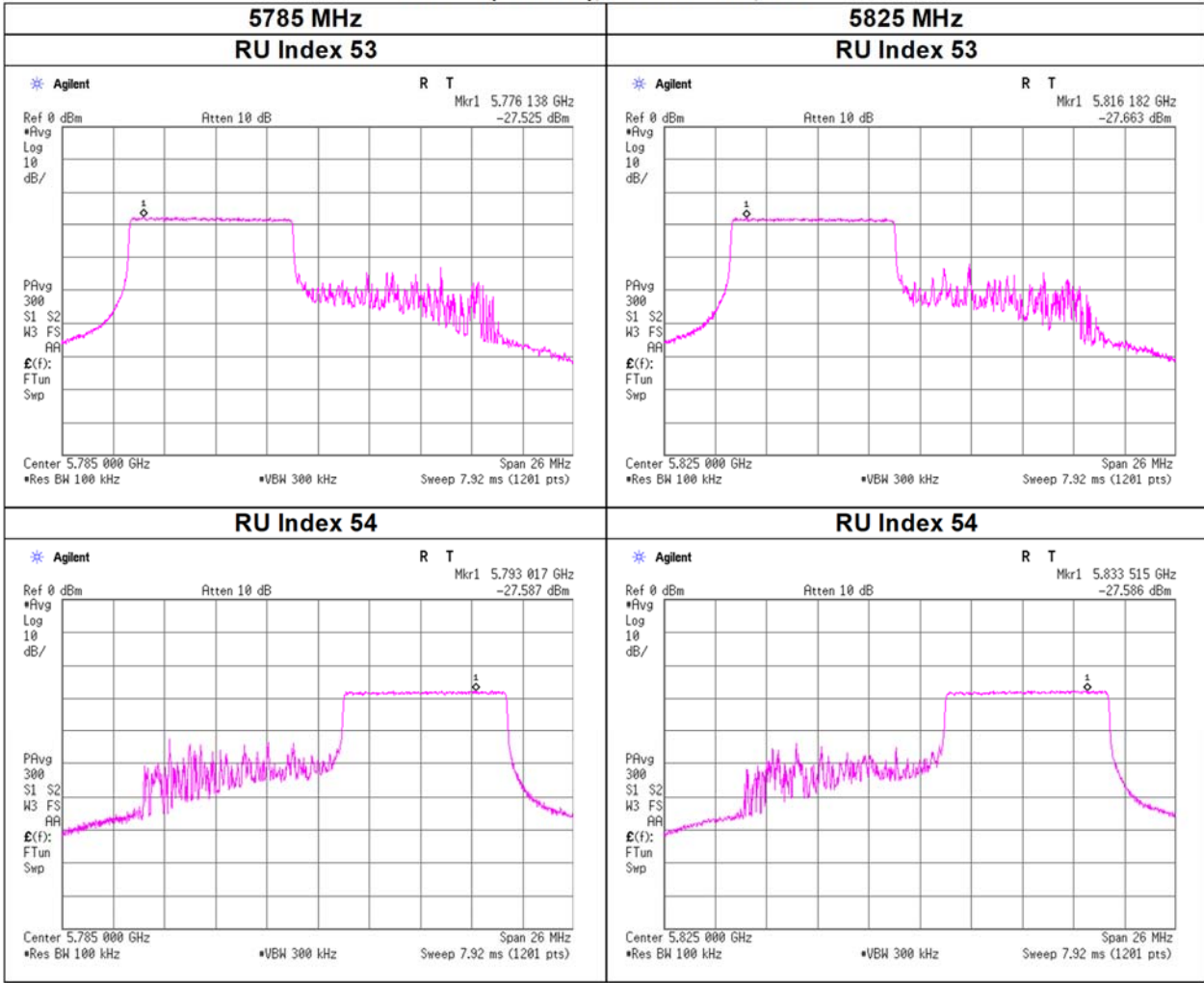
Maximum Power Spectral Density

11ax-20(OFDMA), 106-tone RU, RF1



Maximum Power Spectral Density

11ax-20(OFDMA), 106-tone RU, RF1



Maximum Power Spectral Density

11ax-20(OFDMA), 242-tone RU, RF0

