TX AC40 Mode_DUTY CYCLE

Duty cycle: TX DUTYMHz

Duty cycle = T_{ON} / T_{Total}

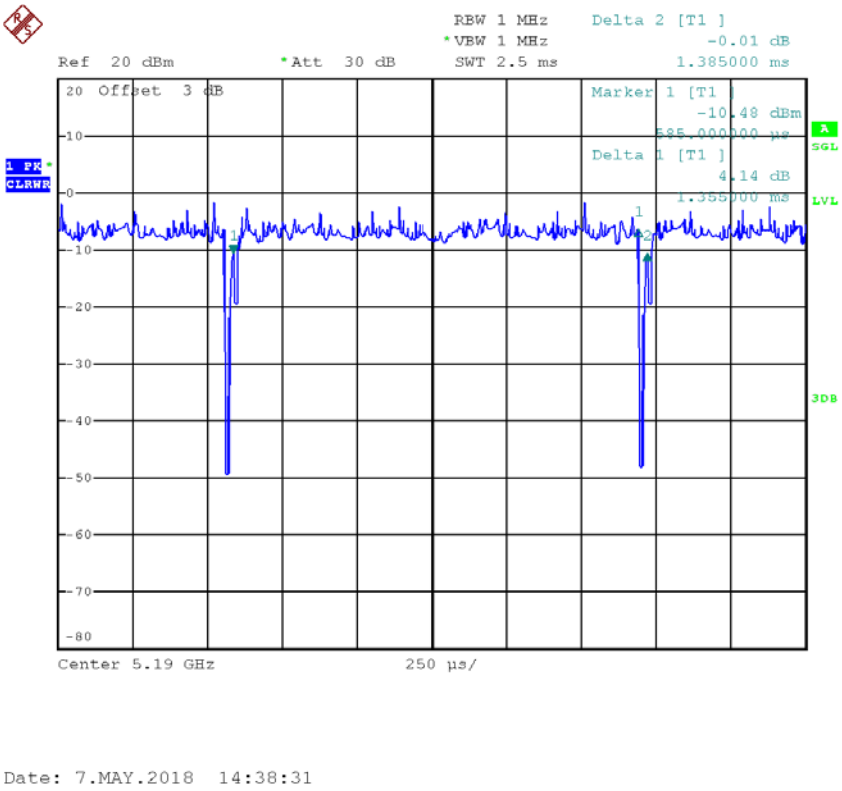
T_{ON}: 1.355 msec

T_{Total}: 1.385 msec

Duty cycle: 97.834%

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 0.10



Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be cacluated as Output Power = Measured power + Ducy factor
Power Spectral Density = Measured density + Duty factor

TX AC80 Mode_DUTY CYCLE

Duty cycle: TX DUTYMHz

Duty cycle = T_{ON} / T_{Total}

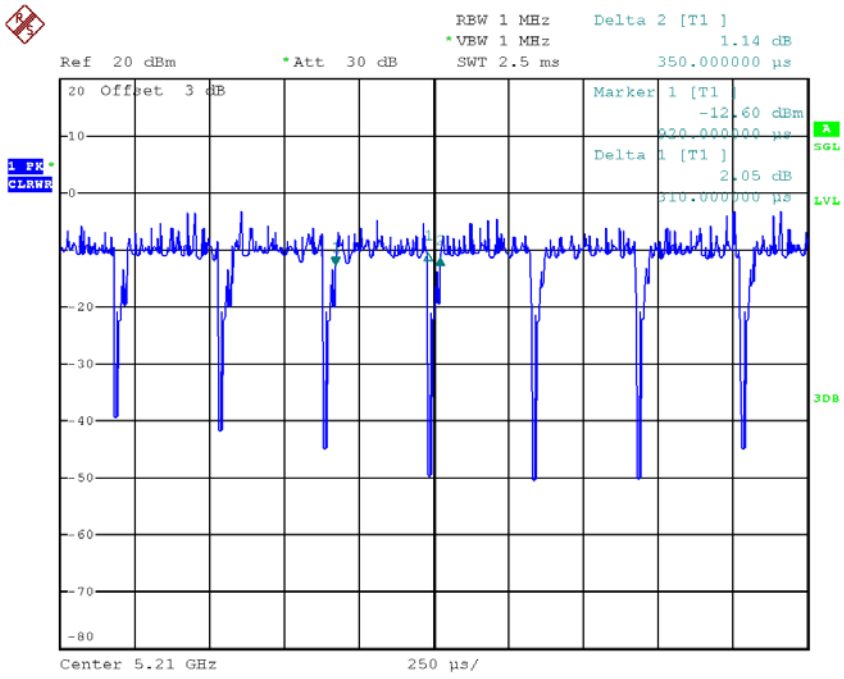
T_{ON}: 0.310 msec

T_{Total}: 0.350 msec

Duty cycle: 88.571%

Duty Factor = 10 log(1/Duty cycle)

Duty Factor = 0.53

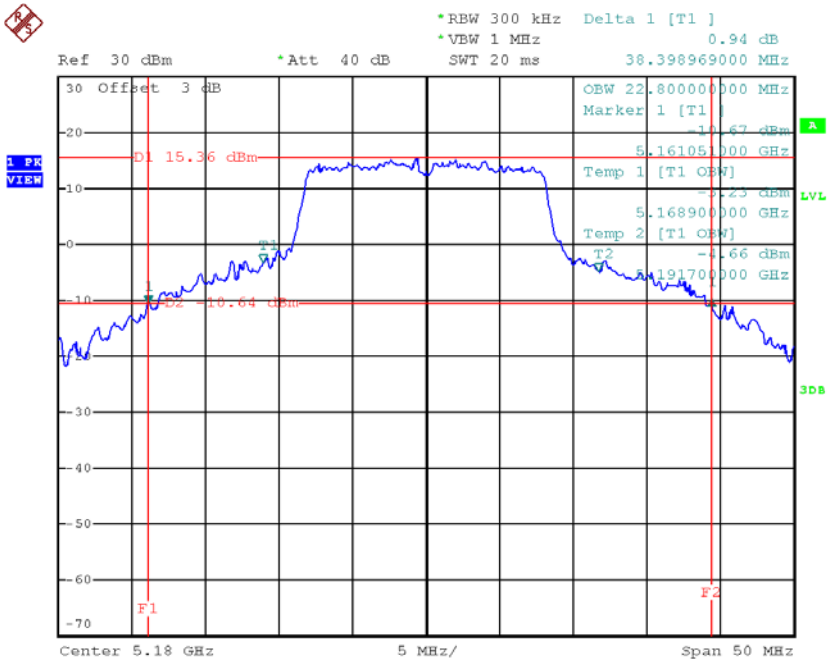


Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be cacluated as Output Power = Measured power + Ducy factor
Power Spectral Density = Measured density + Duty factor

APPENDIX E - BANDWIDTH

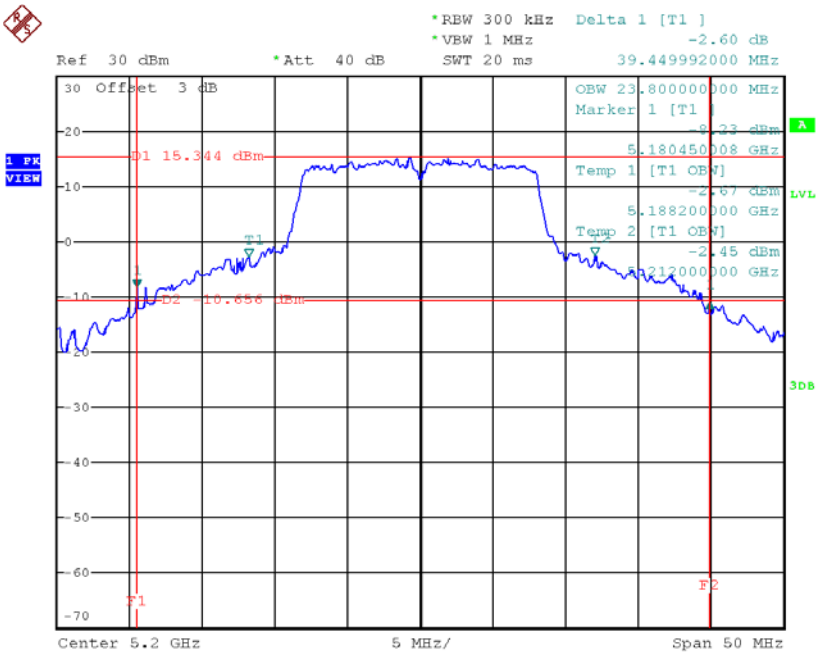
Test Mode: UNII-1/TX A Mode_CH36/CH40/CH48			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	38.40	22.80
CH40	5200	39.45	23.80
CH48	5240	38.50	24.70

TX CH36



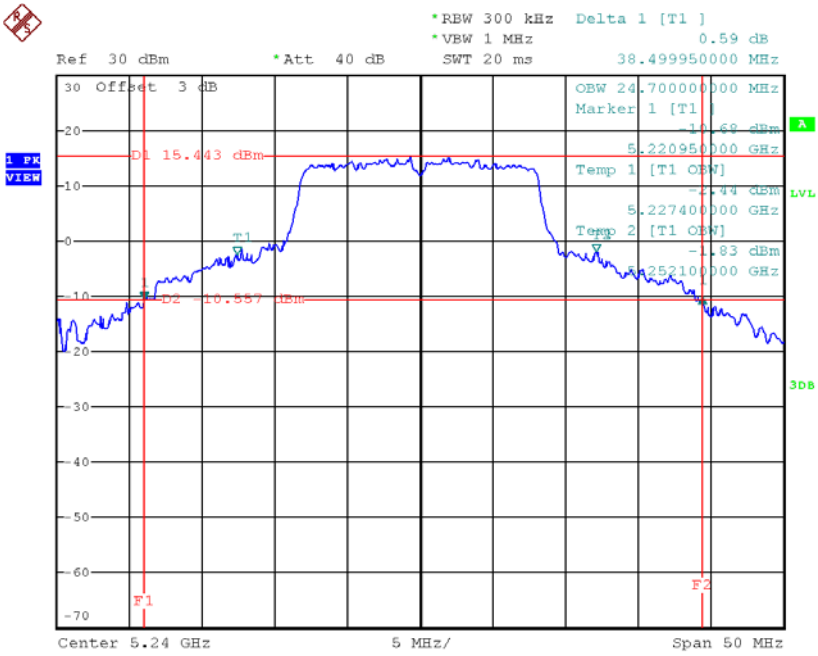
Date: 8.MAY.2018 11:52:37

TX CH40



Date: 8.MAY.2018 11:53:27

TX CH48

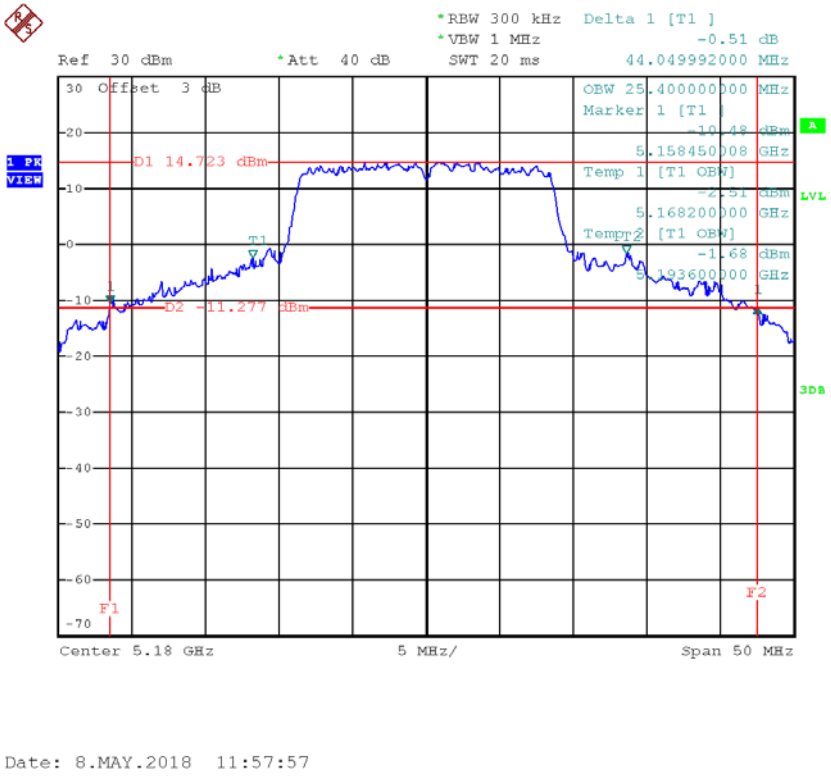


Date: 8.MAY.2018 11:54:10

Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48

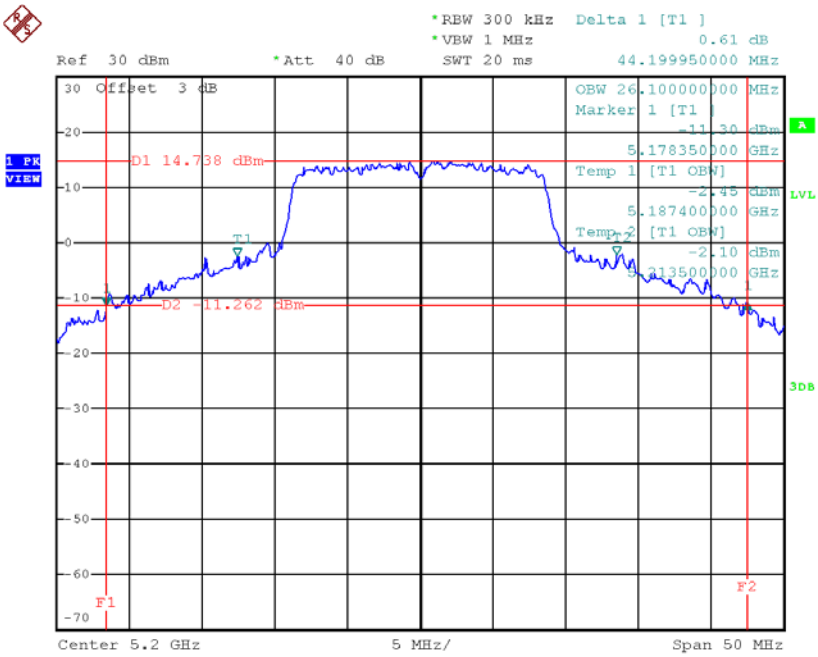
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	44.05	25.40
CH40	5200	44.20	26.10
CH48	5240	44.89	27.30

TX CH36



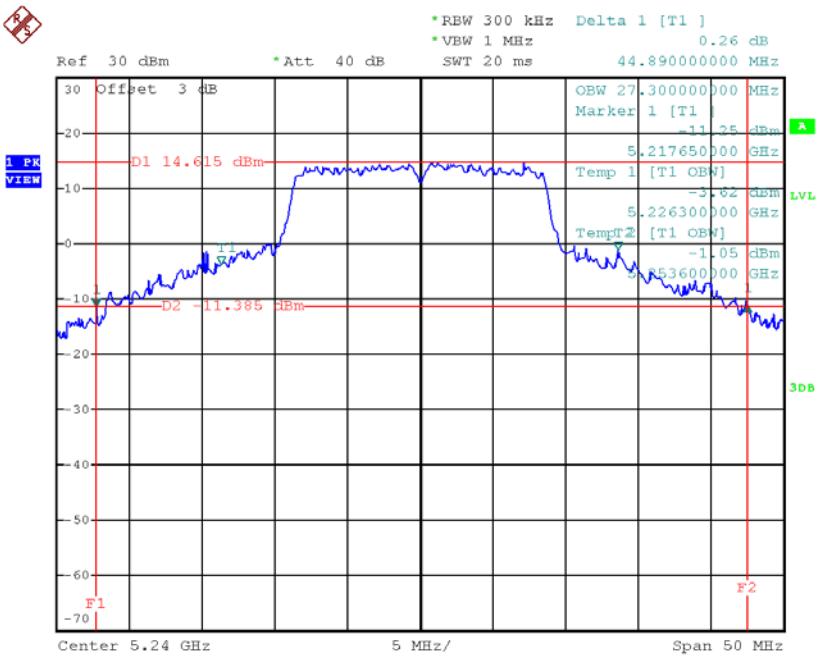
Date: 8.MAY.2018 11:57:57

TX CH40



Date: 8.MAY.2018 13:36:06

TX CH48

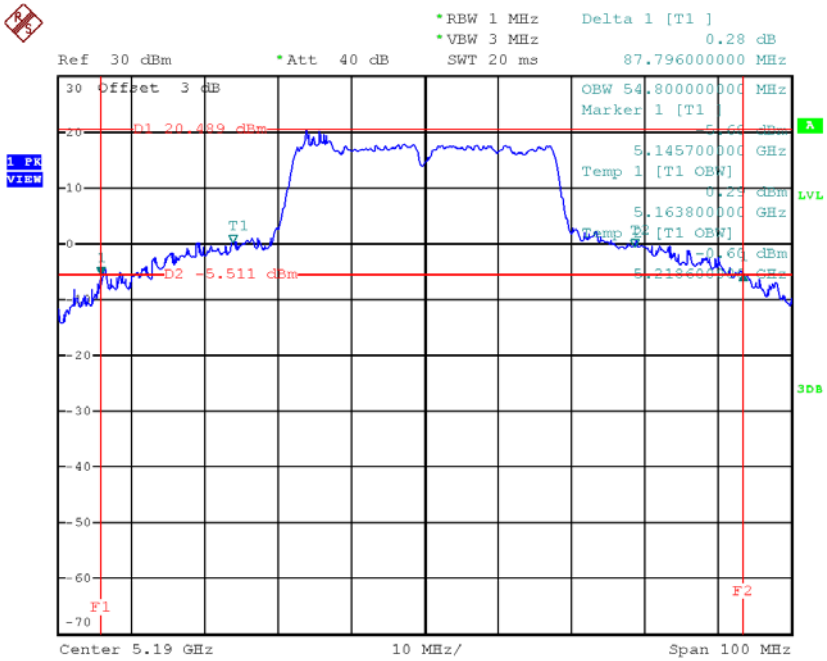


Date: 8.MAY.2018 13:36:35

Test Mode: UNII-1/TX N40 Mode_CH38/CH46

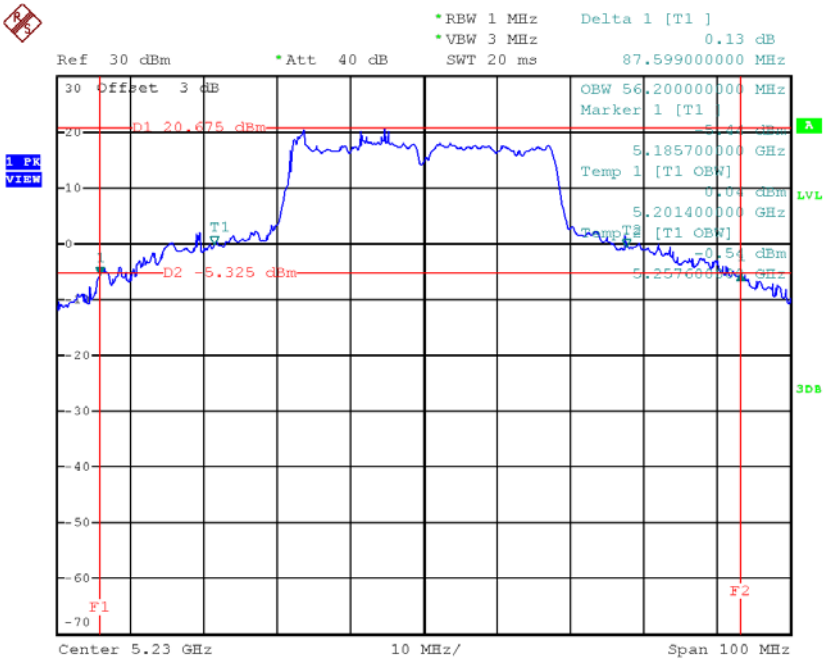
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH38	5190	87.80	54.80
CH46	5230	87.60	56.20

TX CH38



Date: 8.MAY.2018 13:51:38

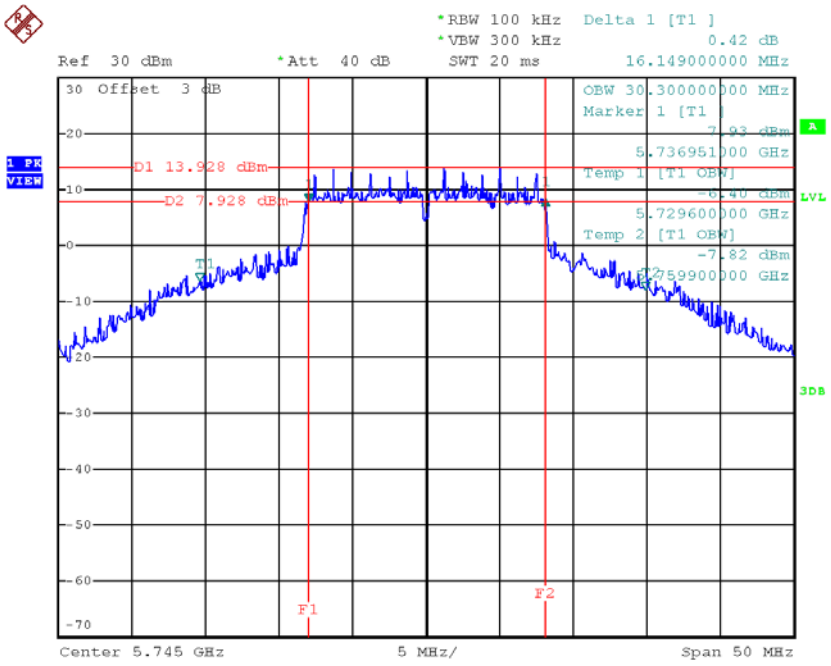
TX CH46



Date: 8.MAY.2018 13:52:41

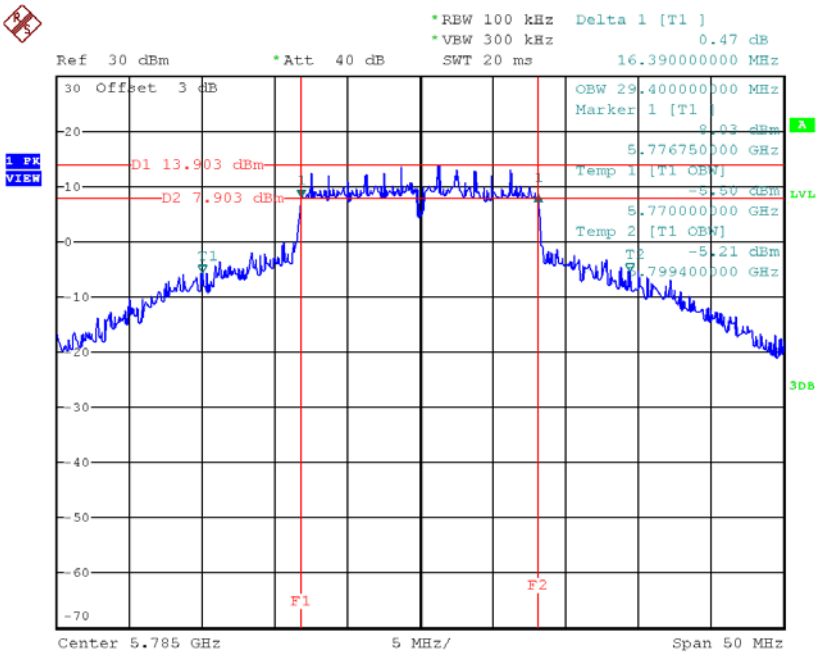
Test Mode: UNII-3/ TX A Mode_CH149/CH157/CH165				
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	16.15	30.30	>=500
CH157	5785	16.39	29.40	>=500
CH165	5825	16.39	27.90	>=500

TX CH 149



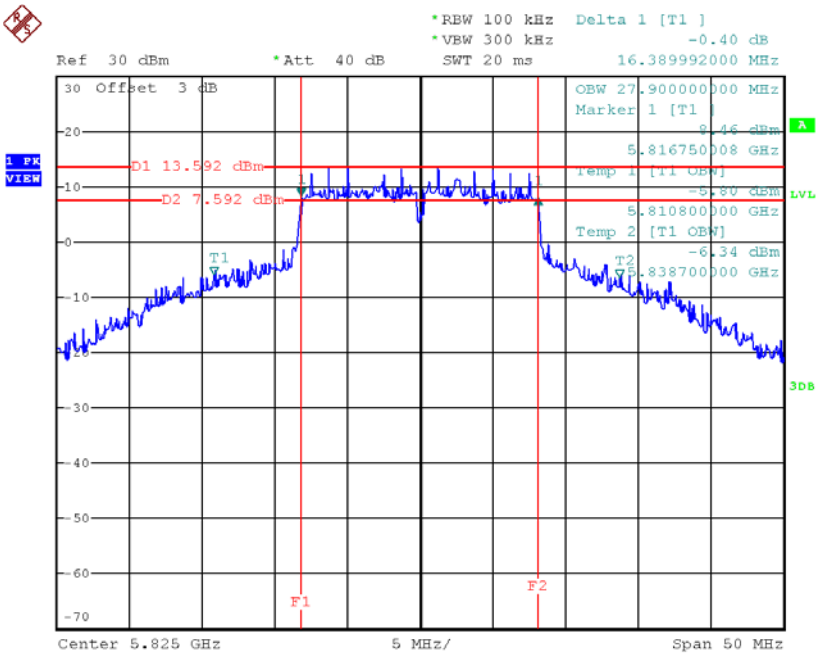
Date: 8.MAY.2018 11:55:03

TX CH 157



Date: 8.MAY.2018 11:55:59

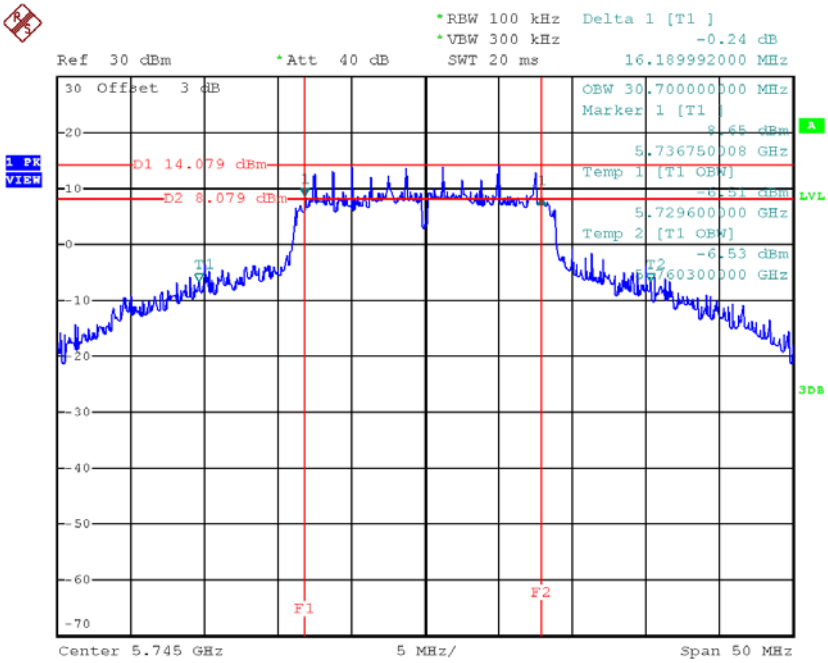
TX CH 165



Date: 8.MAY.2018 11:56:51

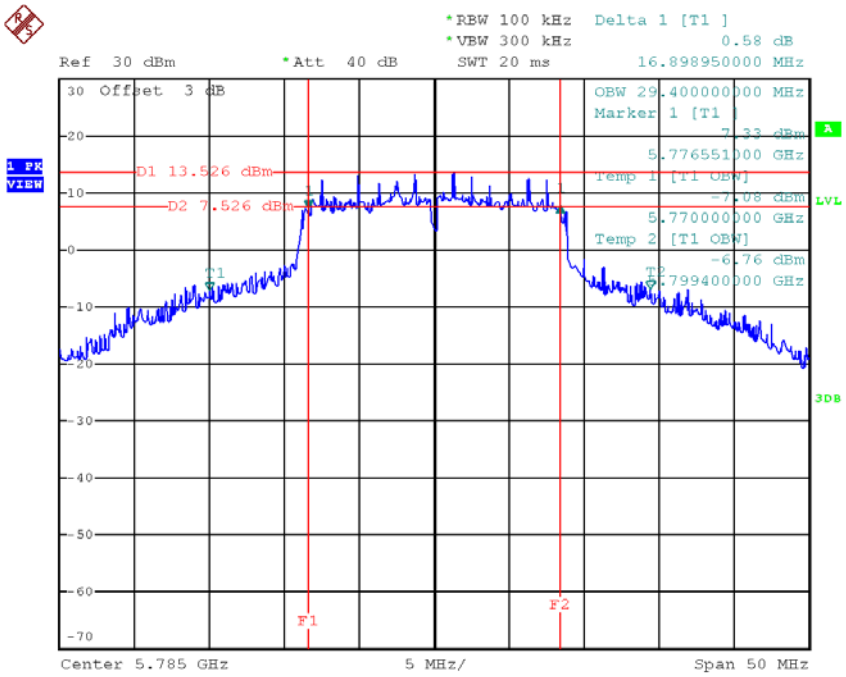
Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165				
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	16.19	30.70	>=500
CH157	5785	16.90	29.40	>=500
CH165	5825	16.99	29.50	>=500

TX CH 149



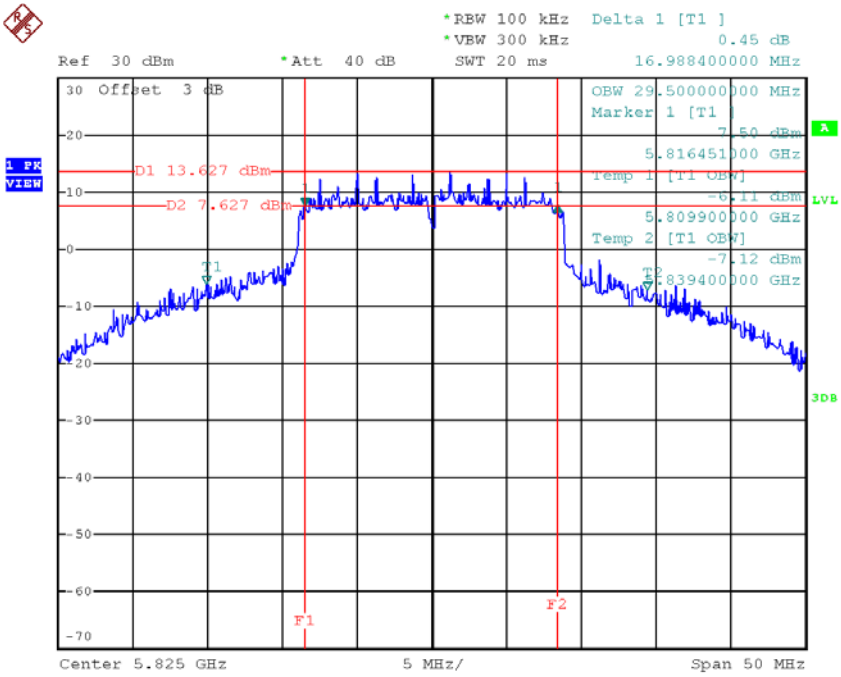
Date: 8.MAY.2018 13:37:56

TX CH 157



Date: 8.MAY.2018 13:38:52

TX CH 165

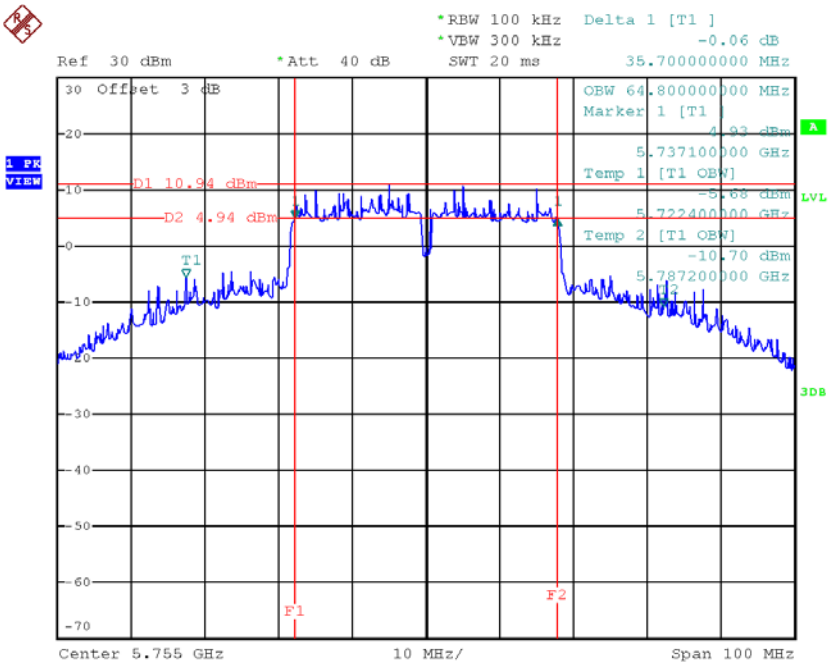


Date: 8.MAY.2018 13:39:37

Test Mode: UNII-3/ TX N40 Mode_CH151/CH159

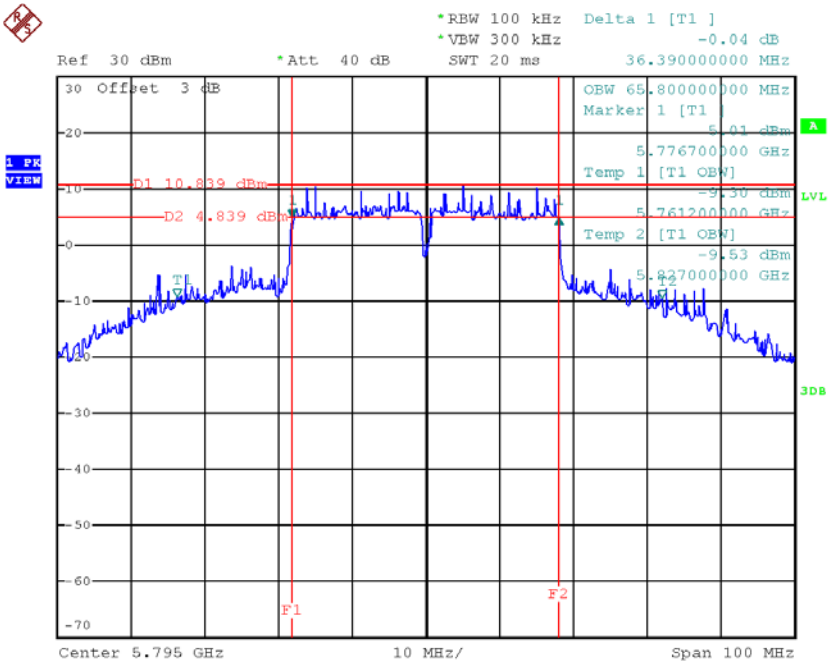
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH151	5755	35.70	64.80	>=500
CH159	5795	36.39	65.80	>=500

TX CH 151



Date: 8.MAY.2018 13:54:13

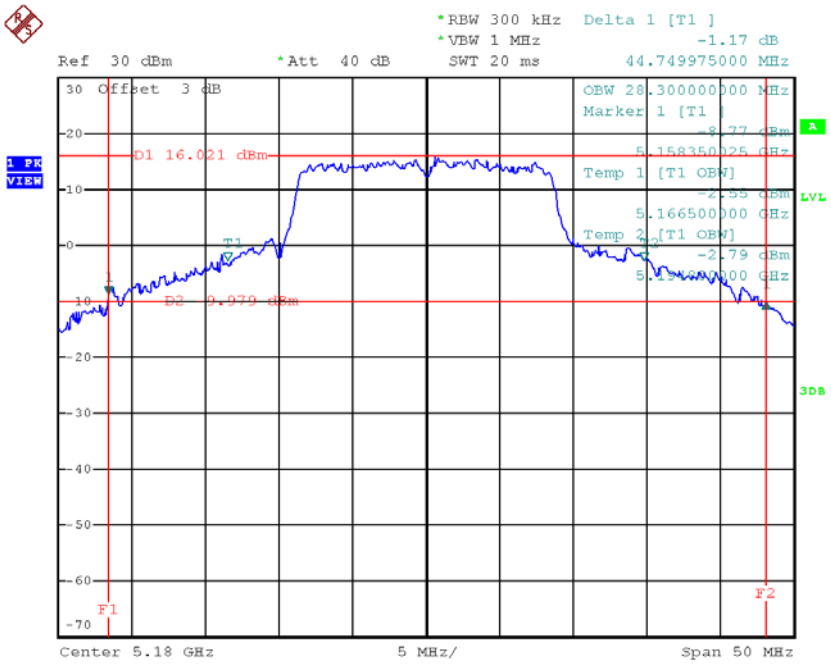
TX CH 159



Date: 8.MAY.2018 13:56:13

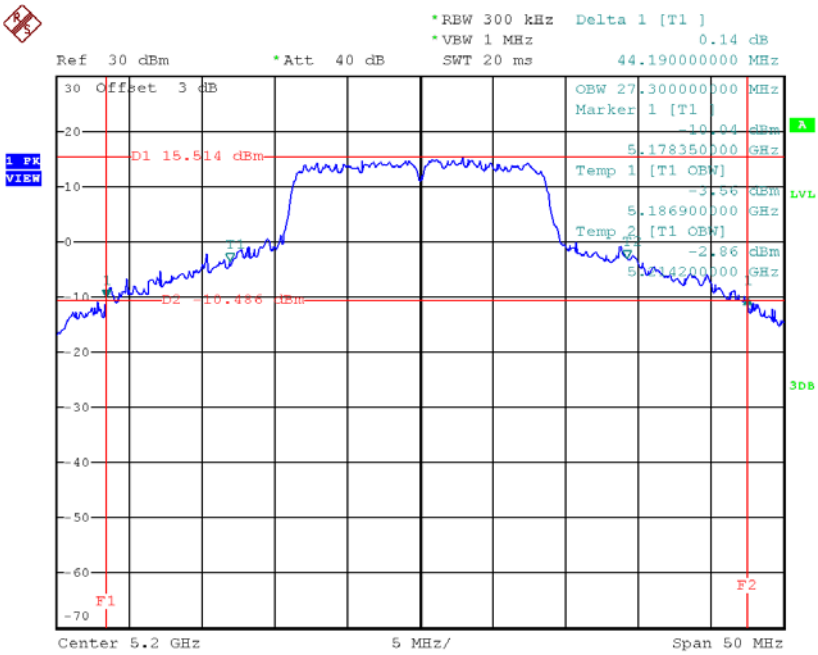
Test Mode: UNII-1/TX AC20 Mode_CH36/CH40/CH48			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	44.75	28.30
CH40	5200	44.19	27.30
CH48	5240	44.49	28.40

TX CH36



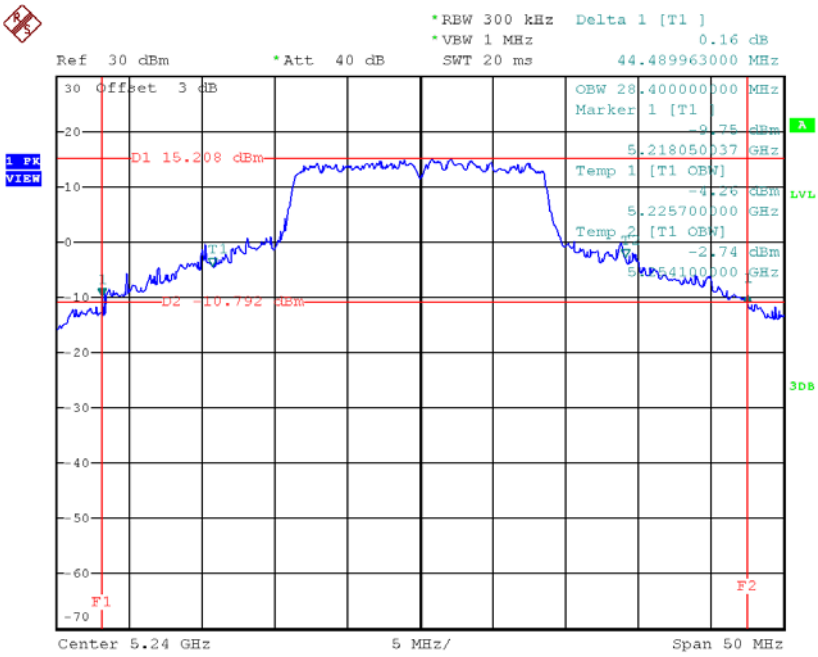
Date: 8.MAY.2018 13:43:36

TX CH40



Date: 8.MAY.2018 13:44:08

TX CH48

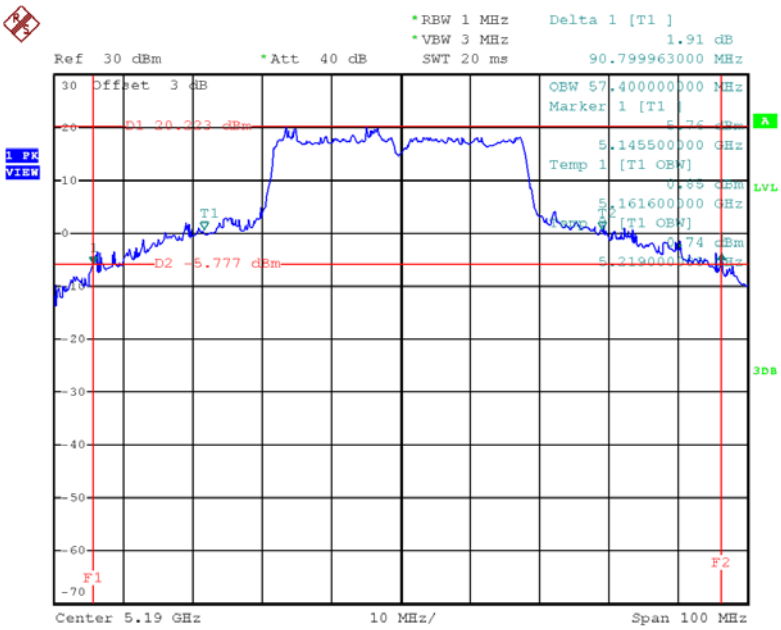


Date: 8.MAY.2018 13:44:38

Test Mode: UNII-1/TX AC40 Mode_CH38/CH46

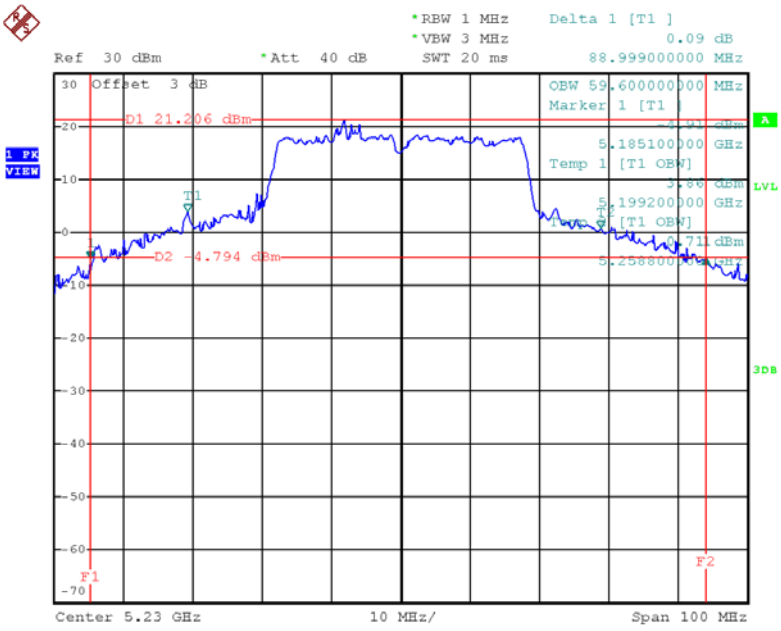
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH38	5190	90.80	57.40
CH46	5230	89.00	59.60

TX CH38



Date: 8.MAY.2018 13:57:47

TX CH46

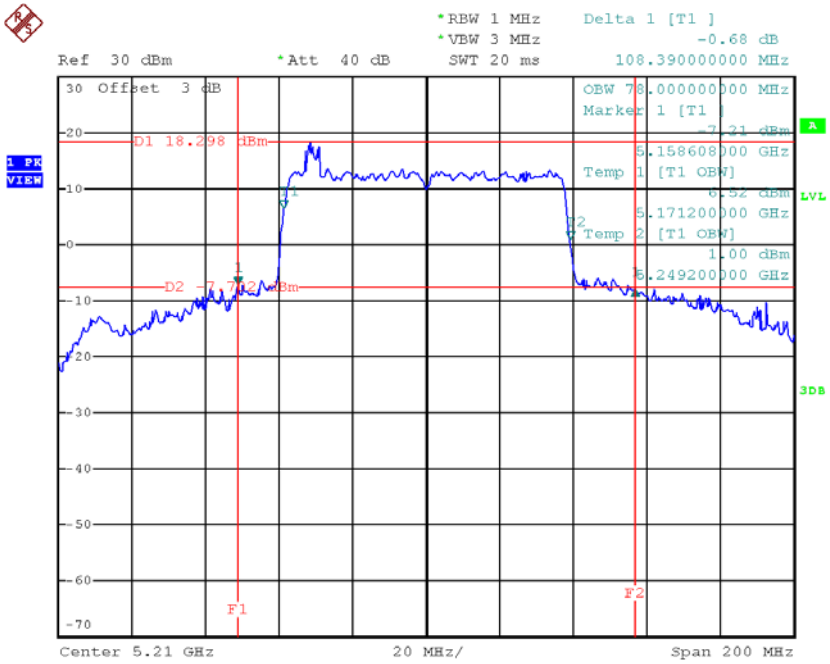


Date: 8.MAY.2018 13:58:57

Test Mode: UNII-1/TX AC80 Mode_CH42

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH42	5210	108.39	78.00

TX CH42

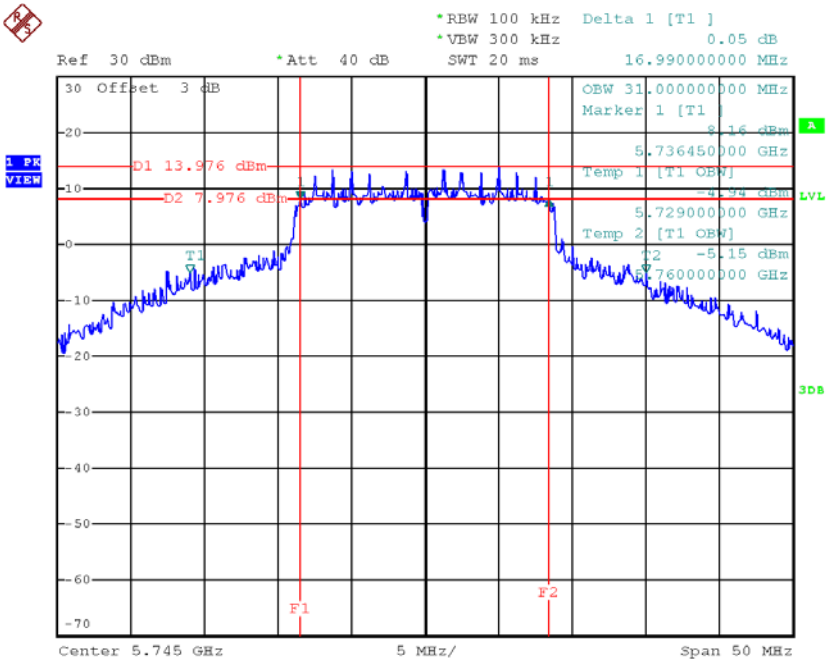


Date: 14.MAY.2018 15:54:06

Test Mode: UNII-3/ TX AC20 Mode_CH149/CH157/CH165

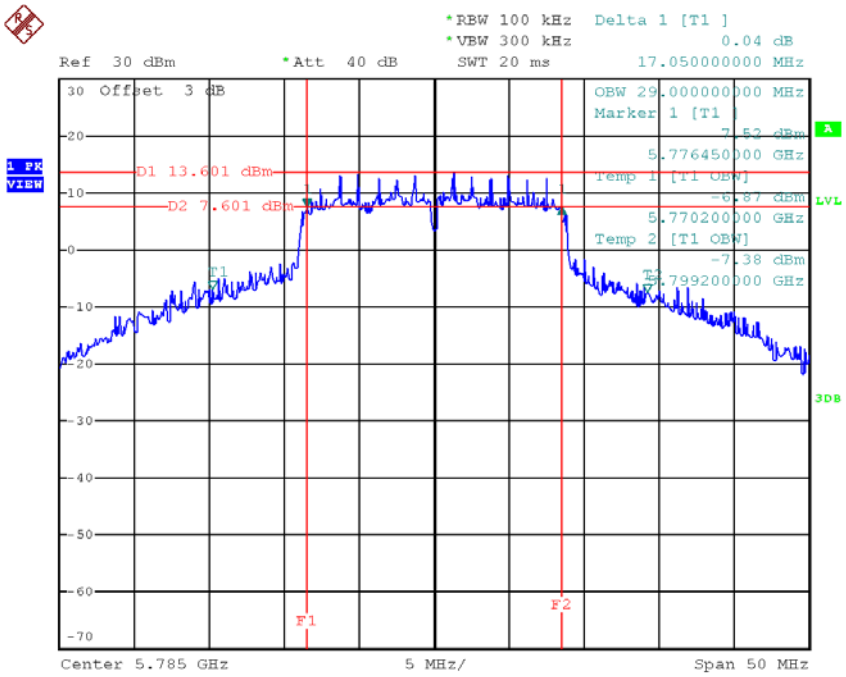
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	16.99	31.00	>=500
CH157	5785	17.05	29.00	>=500
CH165	5825	16.60	29.40	>=500

TX CH 149



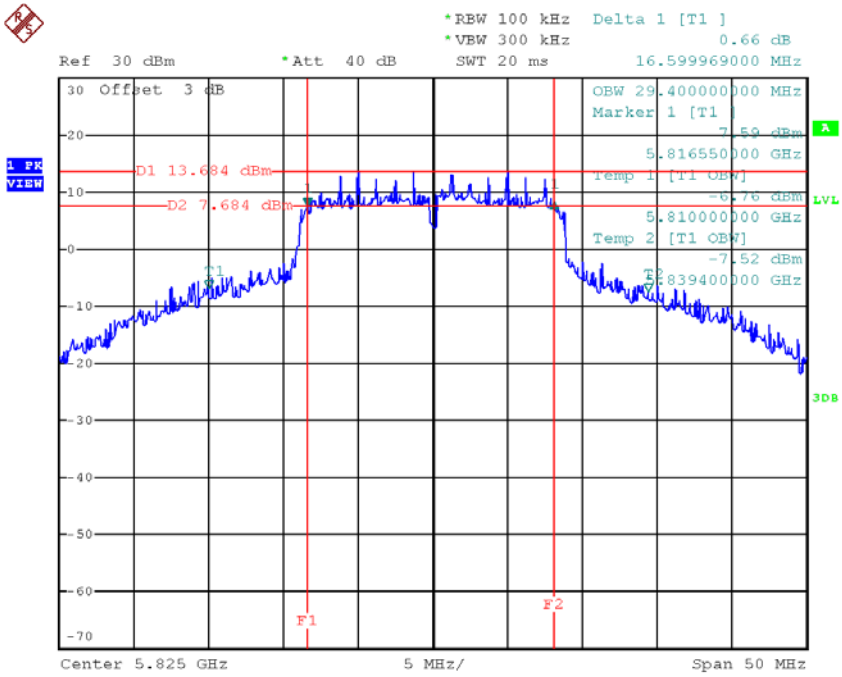
Date: 8.MAY.2018 13:48:16

TX CH 157



Date: 8.MAY.2018 13:49:15

TX CH 165

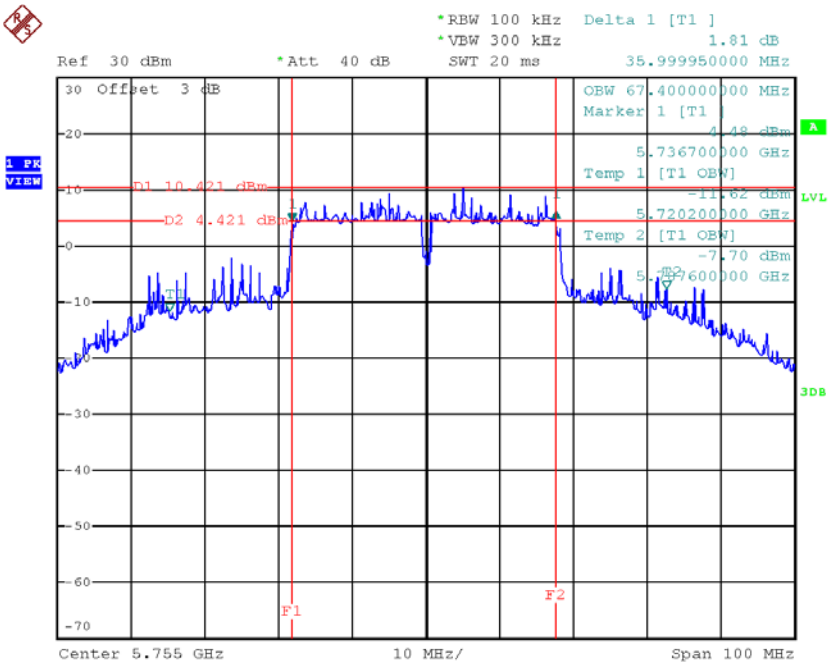


Date: 8.MAY.2018 13:50:06

Test Mode: UNII-3/ TX AC40 Mode_CH151/CH159

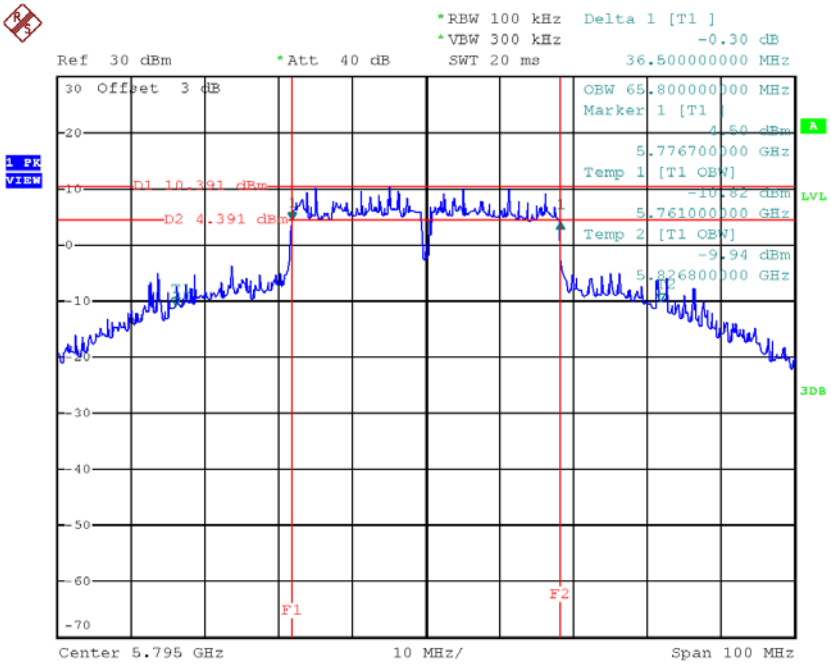
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH151	5755	36.00	67.40	>=500
CH159	5795	36.50	65.80	>=500

TX CH 151



Date: 8.MAY.2018 14:00:58

TX CH 159

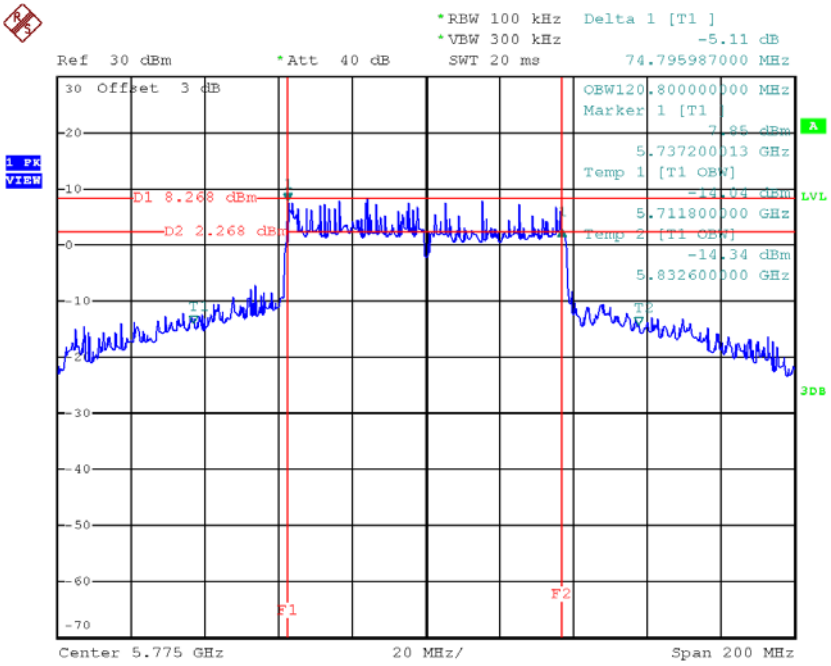


Date: 8.MAY.2018 14:02:40

Test Mode: UNII-3/ TX AC80 Mode_CH155

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH155	5775	74.80	120.80	>=500

TX CH 155



Date: 8.MAY.2018 14:05:00

APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode: UNII-1/TX A Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	21.62	0.06	21.68	30.00	1.00
CH40	5200	21.53	0.06	21.59	30.00	1.00
CH48	5240	21.34	0.06	21.40	30.00	1.00

Test Mode: UNII-1/TX N20 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	21.19	0.06	21.25	30.00	1.00
CH40	5200	21.23	0.06	21.29	30.00	1.00
CH48	5240	21.44	0.06	21.50	30.00	1.00

Test Mode: UNII-1/TX N40 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	15.87	0.08	15.95	30.00	1.00
CH46	5230	21.49	0.08	21.57	30.00	1.00

Test Mode: UNII-1/TX AC20 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	21.09	0.06	21.15	30.00	1.00
CH40	5200	21.11	0.06	21.17	30.00	1.00
CH48	5240	21.37	0.06	21.43	30.00	1.00

Test Mode: UNII-1/TX AC40 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	14.72	0.10	14.82	30.00	1.00
CH46	5230	21.47	0.10	21.57	30.00	1.00

Test Mode: UNII-1/TX AC80 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH42	5210	13.01	0.53	13.54	30.00	1.00

Test Mode: UNII-3/ TX A Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	21.72	0.06	21.78	30.00	1.00
CH157	5785	21.48	0.06	21.54	30.00	1.00
CH165	5825	21.49	0.06	21.55	30.00	1.00

Test Mode: UNII-3/TX N20 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	21.62	0.06	21.68	30.00	1.00
CH157	5785	21.35	0.06	21.41	30.00	1.00
CH165	5825	21.41	0.06	21.47	30.00	1.00

Test Mode: UNII-3/ TX N40 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	21.43	0.08	21.51	30.00	1.00
CH159	5795	21.71	0.08	21.79	30.00	1.00

Test Mode: UNII-3/TX AC20 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	21.51	0.06	21.57	30.00	1.00
CH157	5785	21.23	0.06	21.29	30.00	1.00
CH165	5825	21.35	0.06	21.41	30.00	1.00

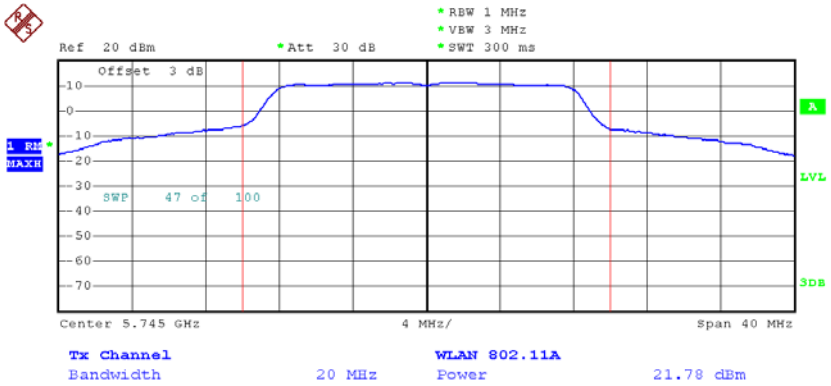
Test Mode: UNII-3/TX AC40 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	21.37	0.10	21.47	30.00	1.00
CH159	5795	21.53	0.10	21.63	30.00	1.00

Test Mode: UNII-3/TX AC80 Mode						
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH155	5775	21.16	0.53	21.69	30.00	1.00

Worst case :

Test Mode: TX A Mode

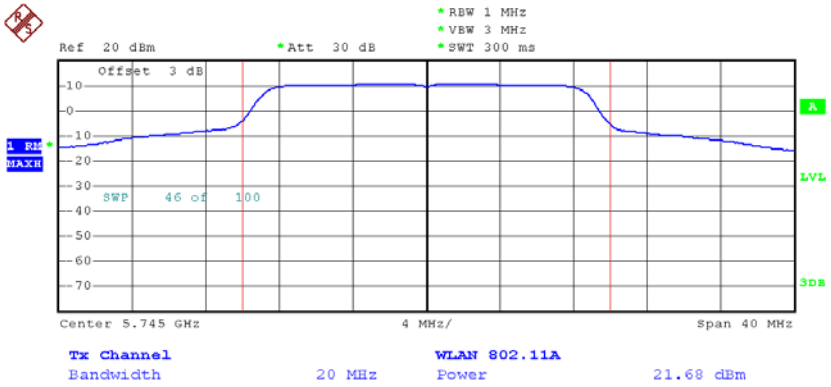
A_5745



Date: 15.JUN.2018 10:32:06

Test Mode: TX N20 Mode

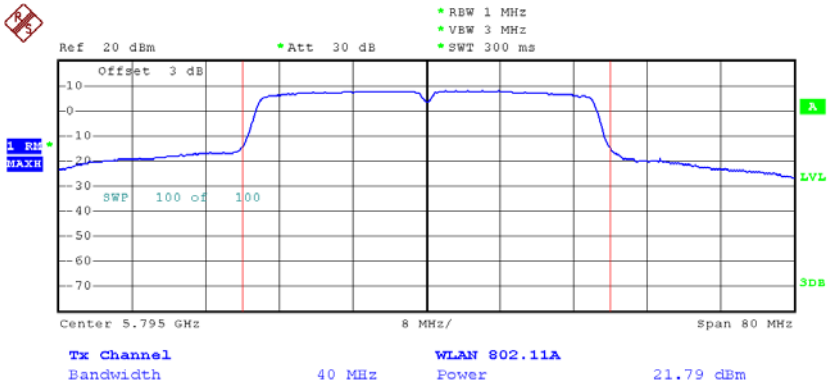
N20_5745



Date: 15.JUN.2018 10:33:47

Test Mode: TX N40 Mode

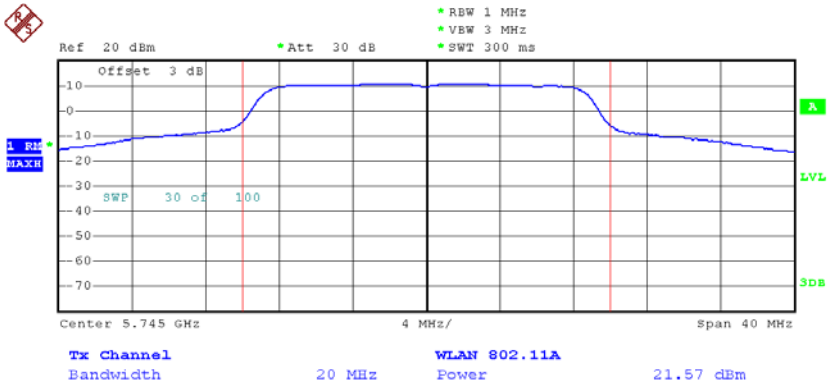
N40_5795



Date: 15.JUN.2018 16:08:43

Test Mode: TX AC20 Mode

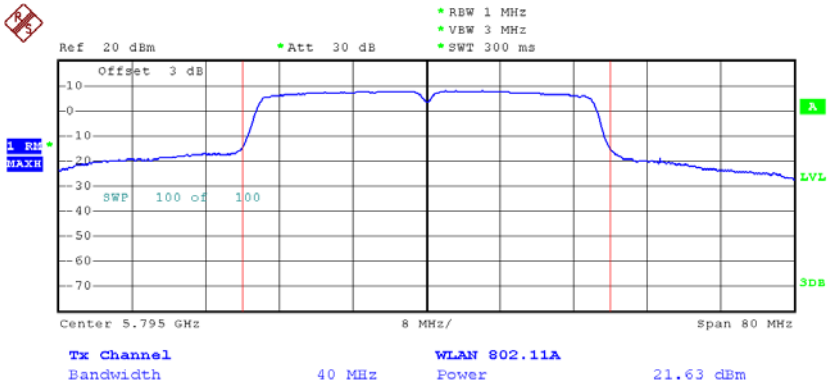
AC20_5745



Date: 15.JUN.2018 10:44:05

Test Mode:TX AC40 Mode

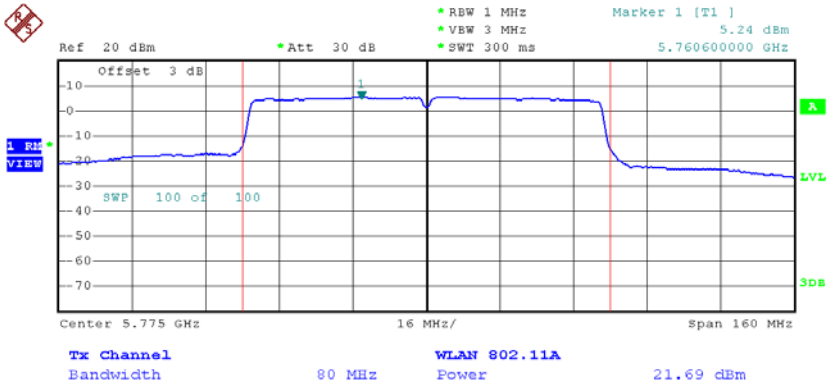
AC40_5795



Date: 15.JUN.2018 16:14:40

Test Mode: TX AC80 Mode

AC80_5775



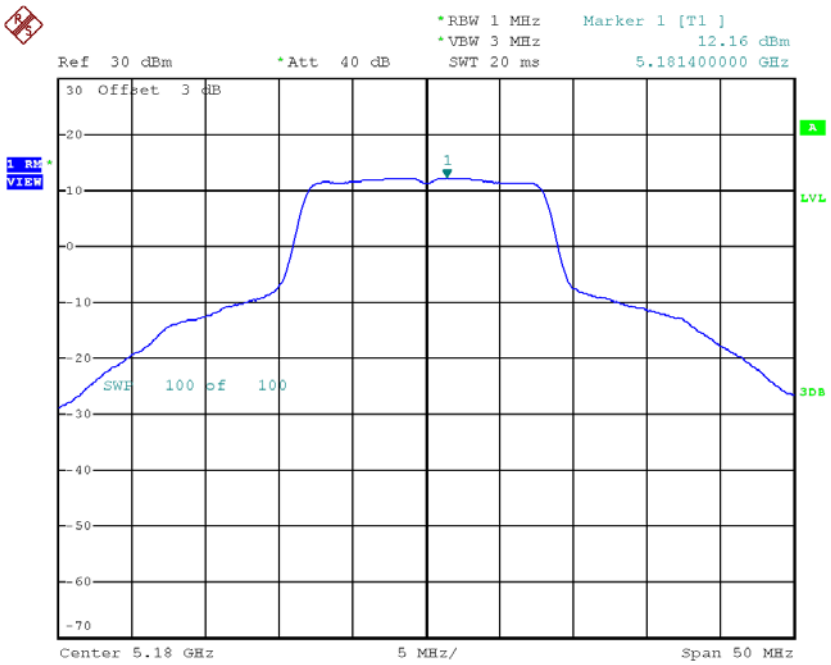
Date: 15.JUN.2018 15:55:43

APPENDIX G - POWER SPECTRAL DENSITY

Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48

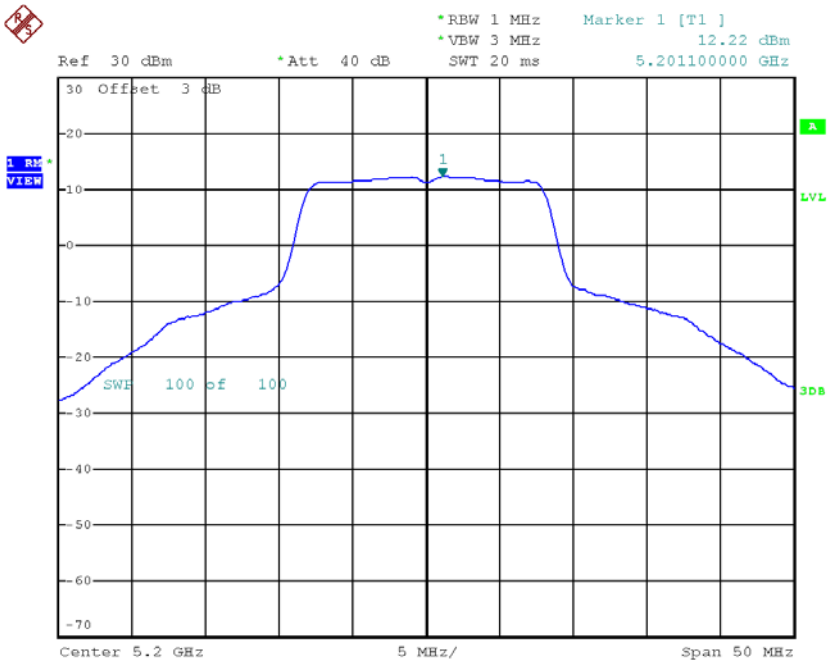
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	12.16	0.06	12.22	17.00
CH40	5200	12.22	0.06	12.28	17.00
CH48	5240	12.10	0.06	12.16	17.00

CH36



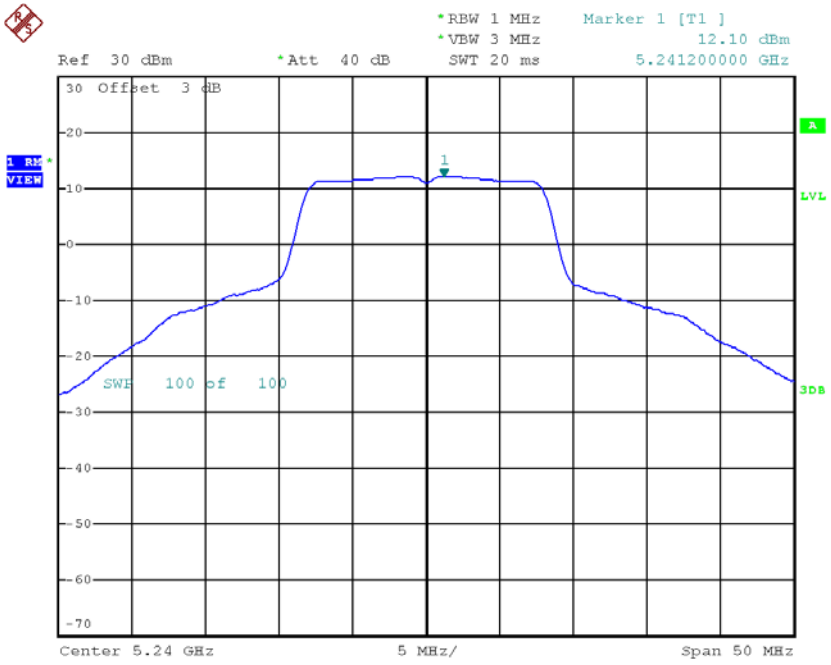
Date: 8.MAY.2018 11:52:46

CH40



Date: 8.MAY.2018 11:53:36

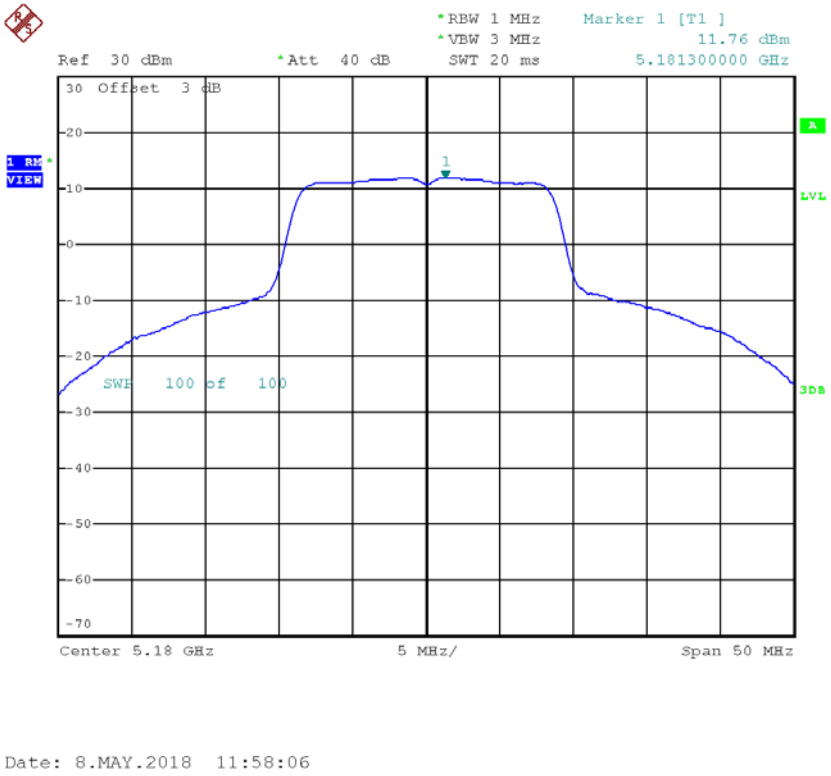
CH48



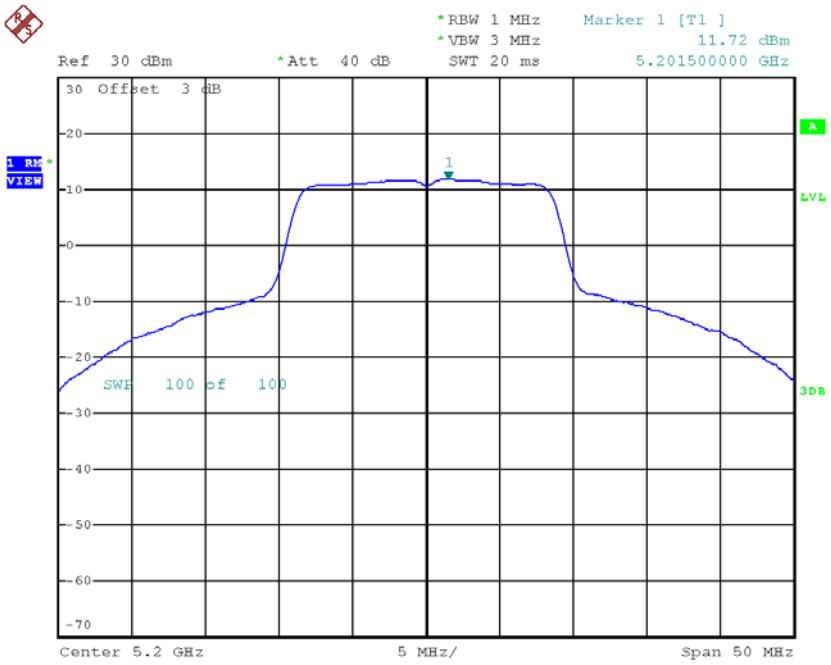
Date: 8.MAY.2018 11:54:19

Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48					
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	11.76	0.06	11.82	17.00
CH40	5200	11.72	0.06	11.78	17.00
CH48	5240	11.58	0.06	11.64	17.00

CH36

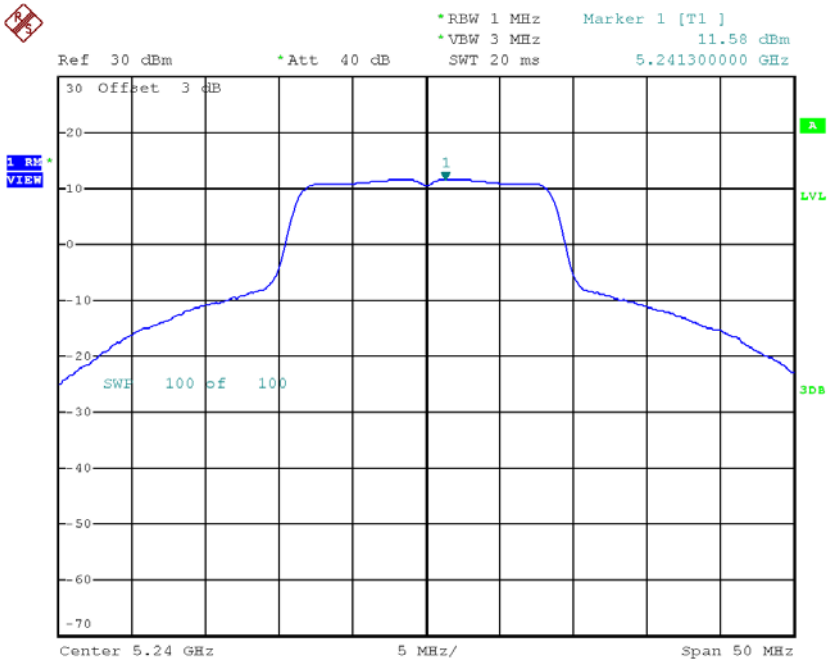


CH40



Date: 8.MAY.2018 13:36:15

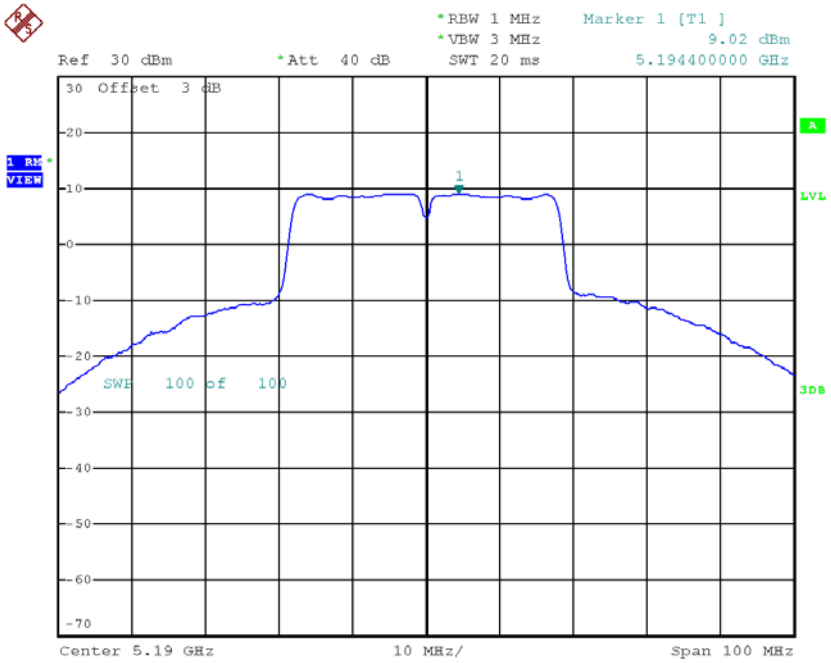
CH48



Date: 8.MAY.2018 13:36:44

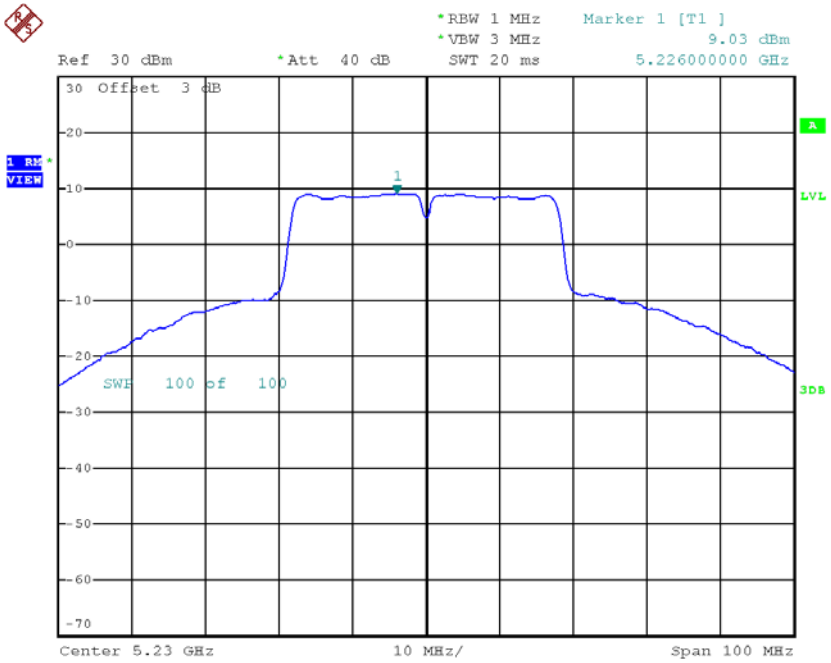
Test Mode: UNII-1/TX N40 Mode_CH38/CH46					
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	9.02	0.08	9.10	17.00
CH46	5230	9.03	0.08	9.11	17.00

CH38



Date: 8.MAY.2018 13:51:49

CH46

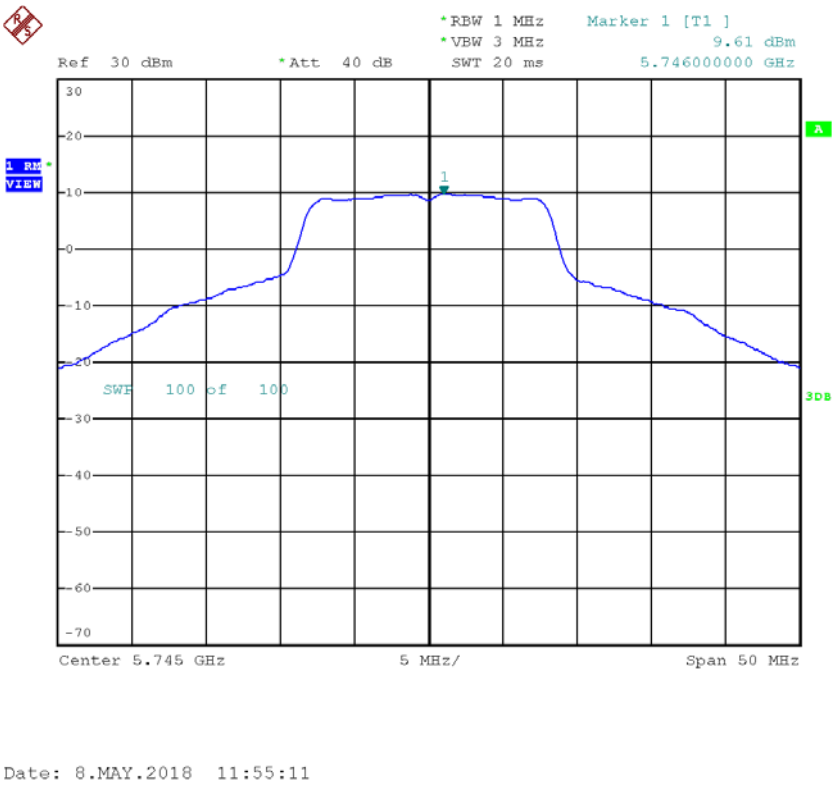


Date: 8.MAY.2018 13:52:52

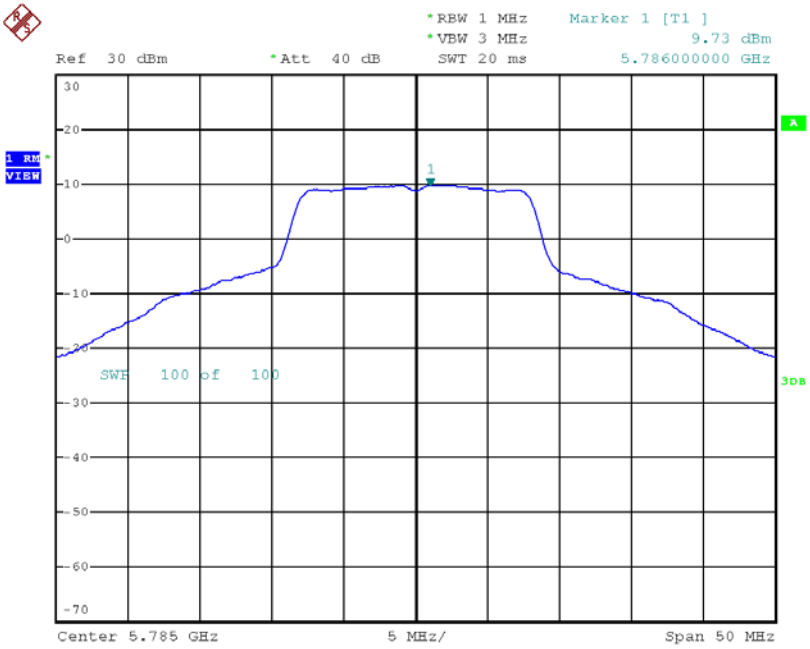
Test Mode: UNII-3/TX A Mode_CH149/CH157/CH165

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	9.61	0.06	9.67	30.00
CH157	5785	9.73	0.06	9.79	30.00
CH165	5825	9.71	0.06	9.77	30.00

TX CH149

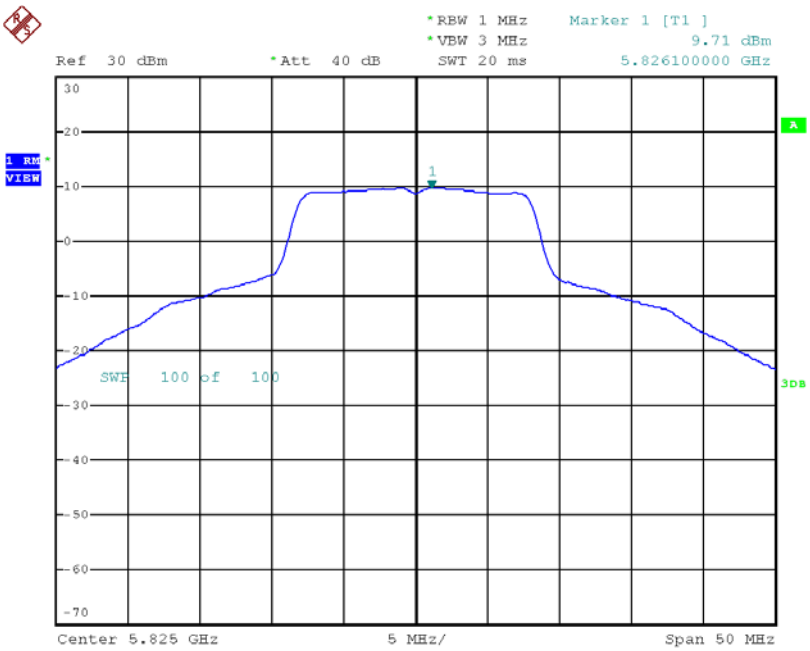


TX CH157



Date: 8.MAY.2018 11:56:07

TX CH165

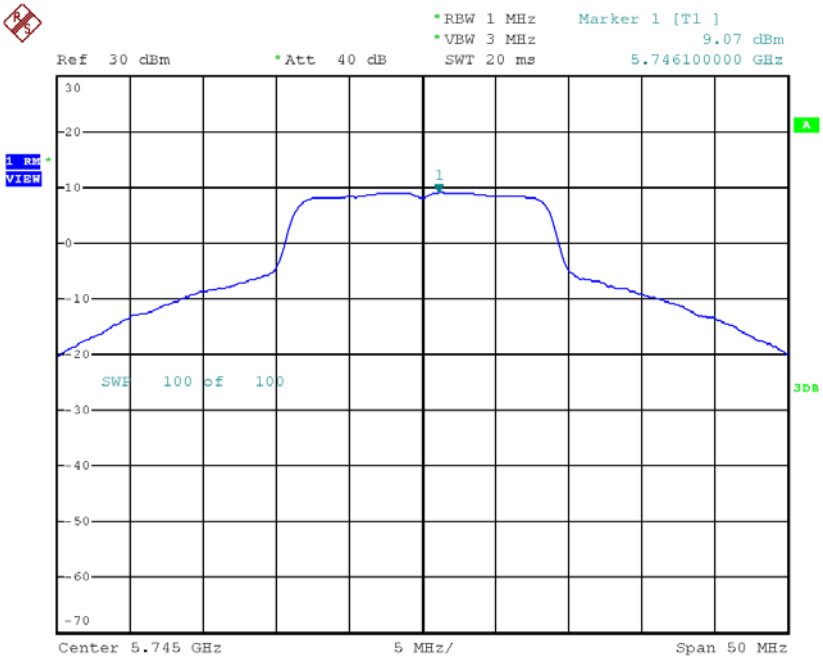


Date: 8.MAY.2018 11:56:59

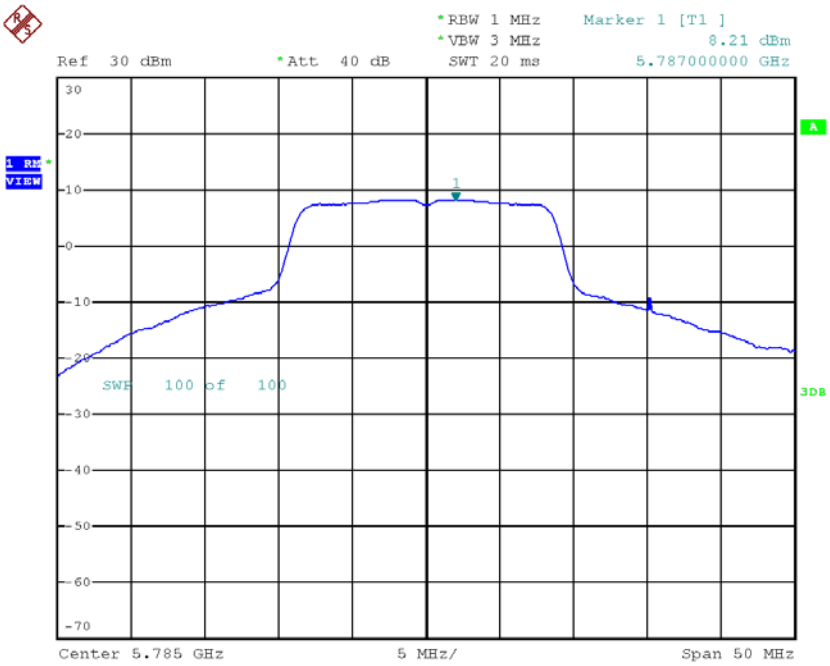
Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	9.07	0.06	9.13	30.00
CH157	5785	8.21	0.06	8.27	30.00
CH165	5825	9.20	0.06	9.26	30.00

TX CH149

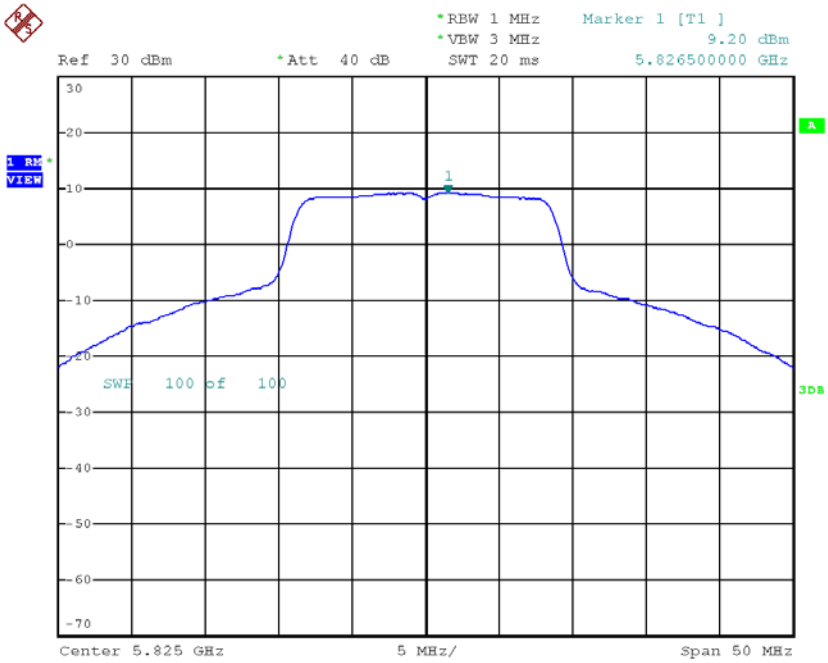


TX CH157



Date: 8.MAY.2018 13:39:01

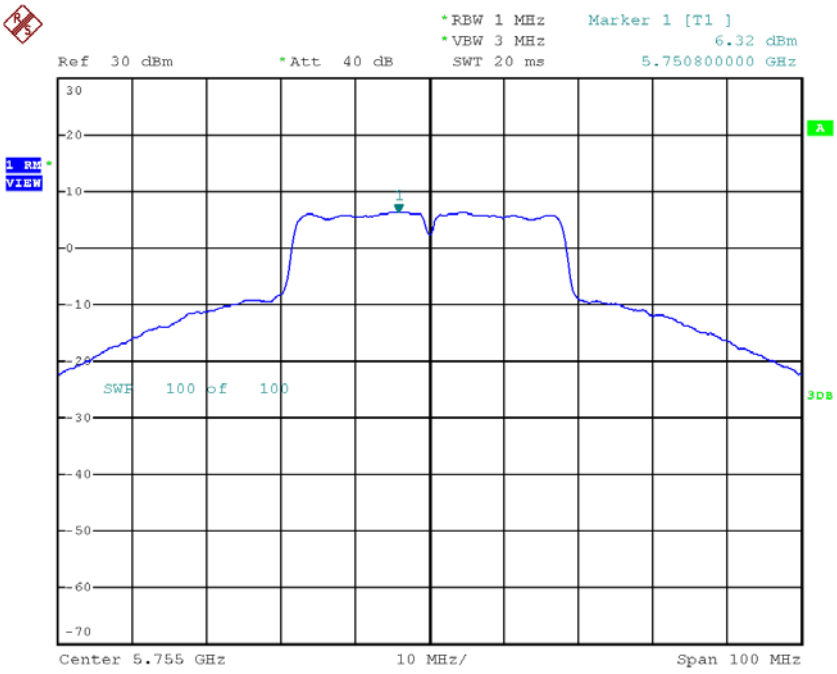
TX CH165



Date: 8.MAY.2018 13:39:46

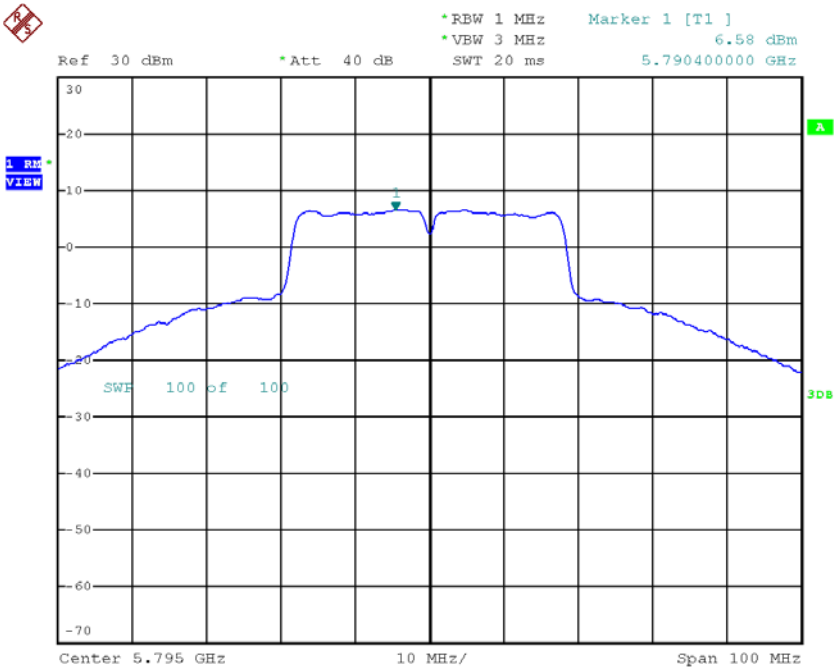
Test Mode: UNII-3/ TX N40 Mode_CH151/CH159					
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	6.32	0.08	6.40	30.00
CH159	5795	6.58	0.08	6.66	30.00

TX CH151



Date: 8.MAY.2018 13:54:25

TX CH159

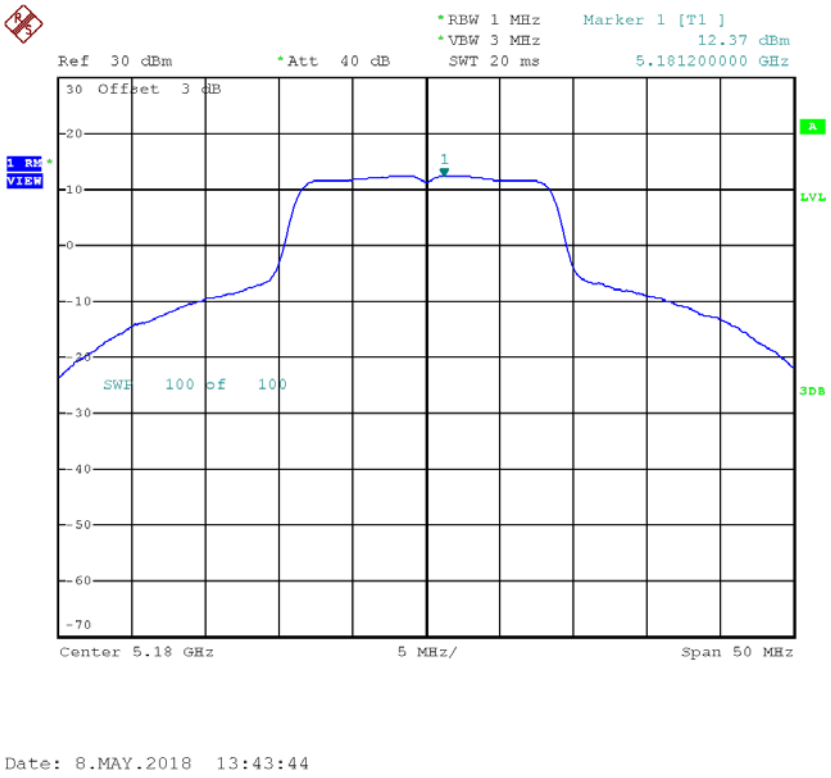


Date: 8.MAY.2018 13:56:25

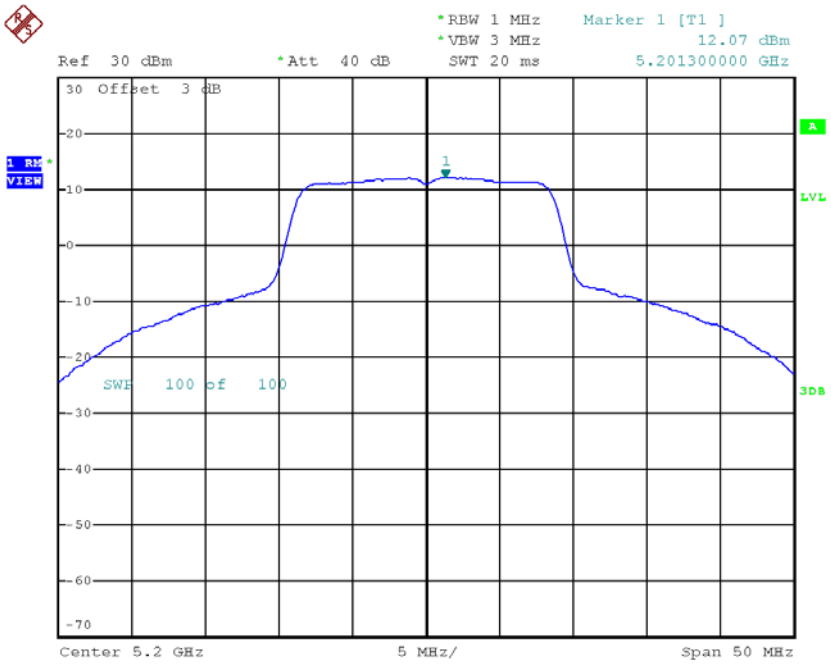
Test Mode: UNII-1/TX AC20 Mode_CH36/CH40/CH48

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	12.37	0.06	12.43	17.00
CH40	5200	12.07	0.06	12.13	17.00
CH48	5240	11.93	0.06	11.99	17.00

CH36

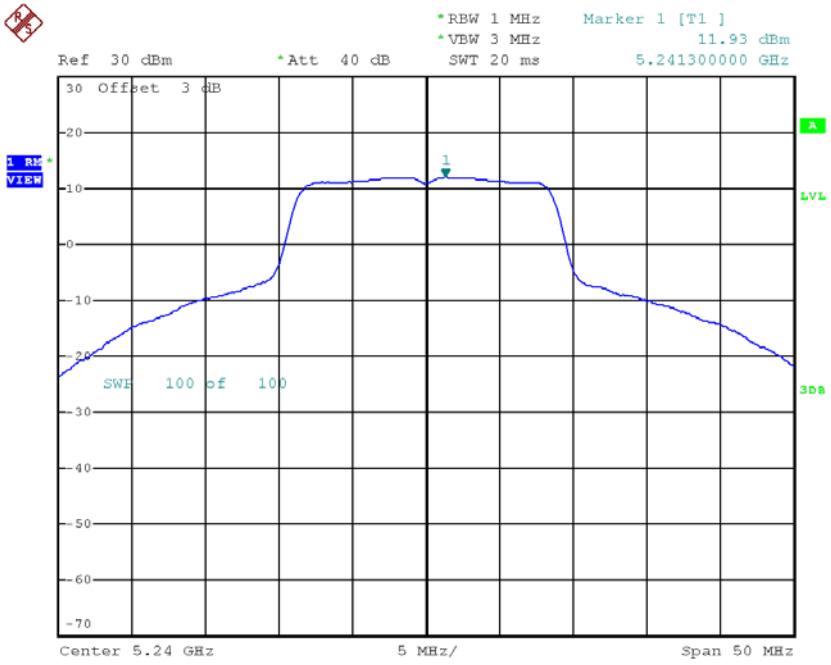


CH40



Date: 8.MAY.2018 13:44:16

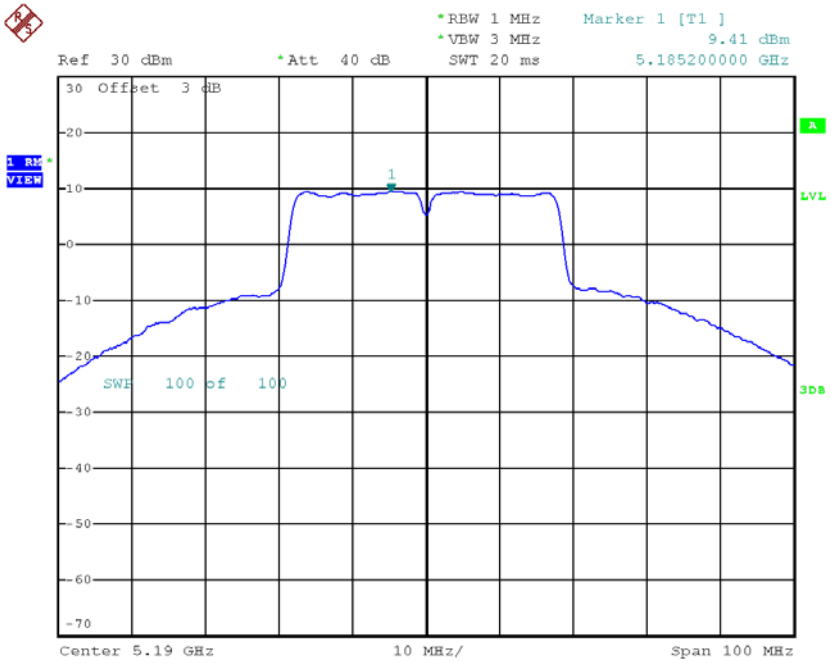
CH48



Date: 8.MAY.2018 13:44:47

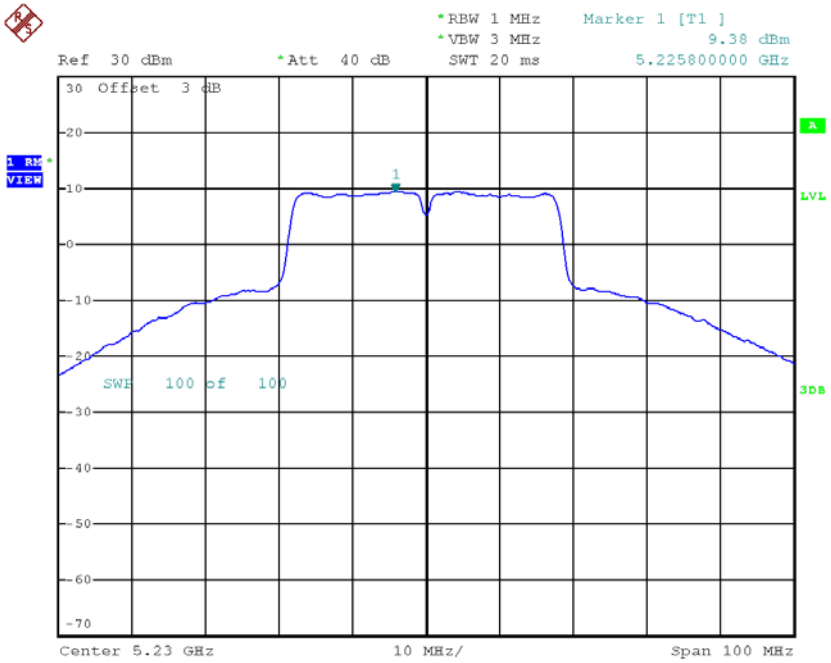
Test Mode: UNII-1/TX AC40 Mode_CH38/CH46					
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	9.41	0.10	9.51	17.00
CH46	5230	9.38	0.10	9.48	17.00

CH38



Date: 8.MAY.2018 13:57:59

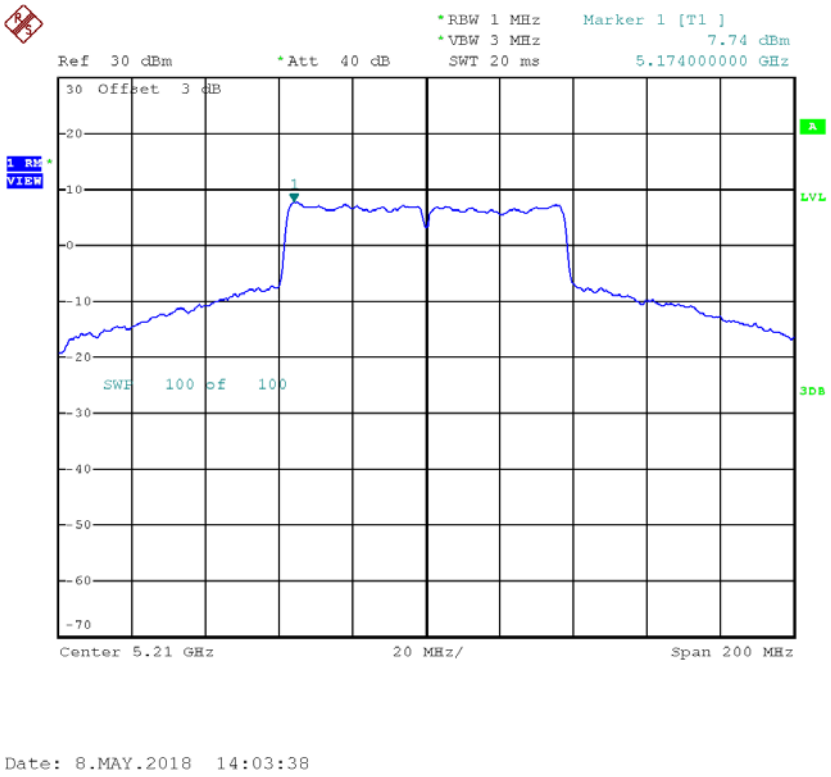
CH46



Date: 8.MAY.2018 13:59:09

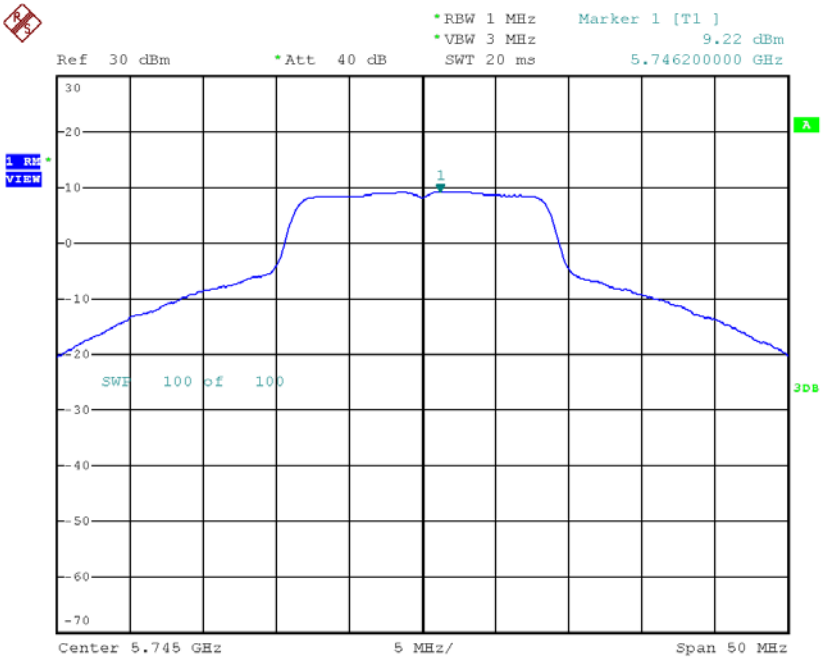
Test Mode: UNII-1/TX AC80 Mode_CH42					
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH42	5210	7.74	0.53	8.27	17.00

CH42



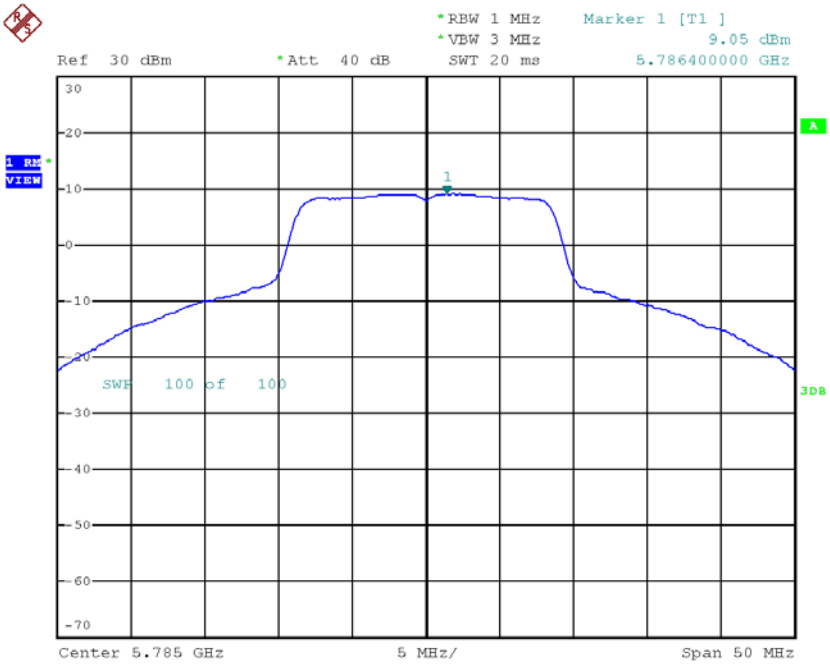
Test Mode: UNII-3/ TX AC20 Mode_CH149/CH157/CH165					
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	9.22	0.06	9.28	30.00
CH157	5785	9.05	0.06	9.11	30.00
CH165	5825	9.28	0.06	9.34	30.00

TX CH149



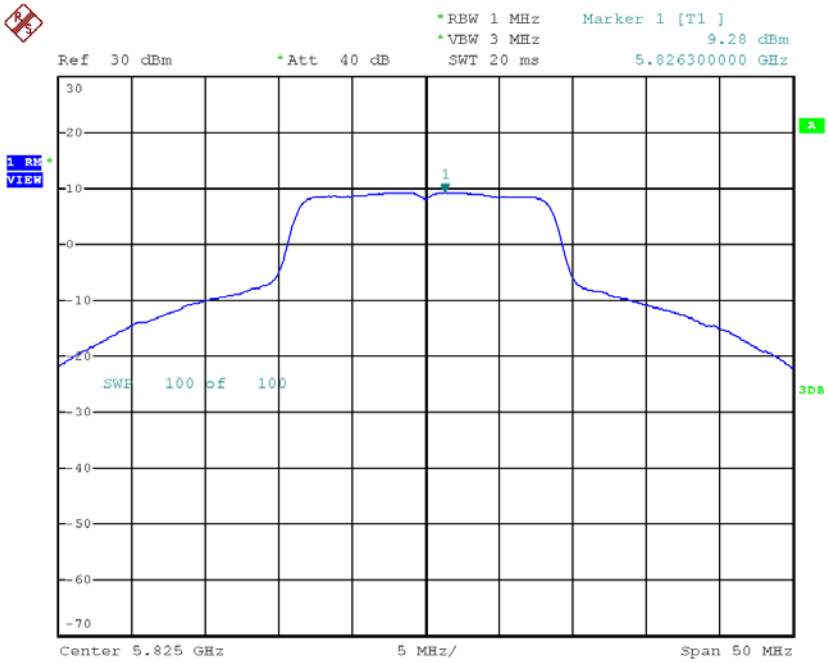
Date: 8.MAY.2018 13:48:25

TX CH157



Date: 8.MAY.2018 13:49:23

TX CH165

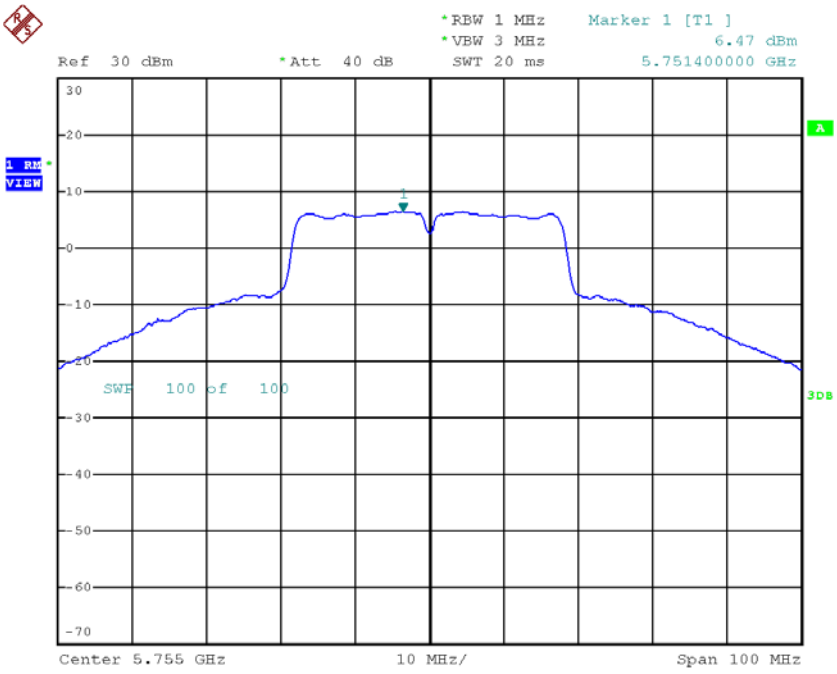


Date: 8.MAY.2018 13:50:15

Test Mode: UNII-3/ TX AC40 Mode_CH151/CH159

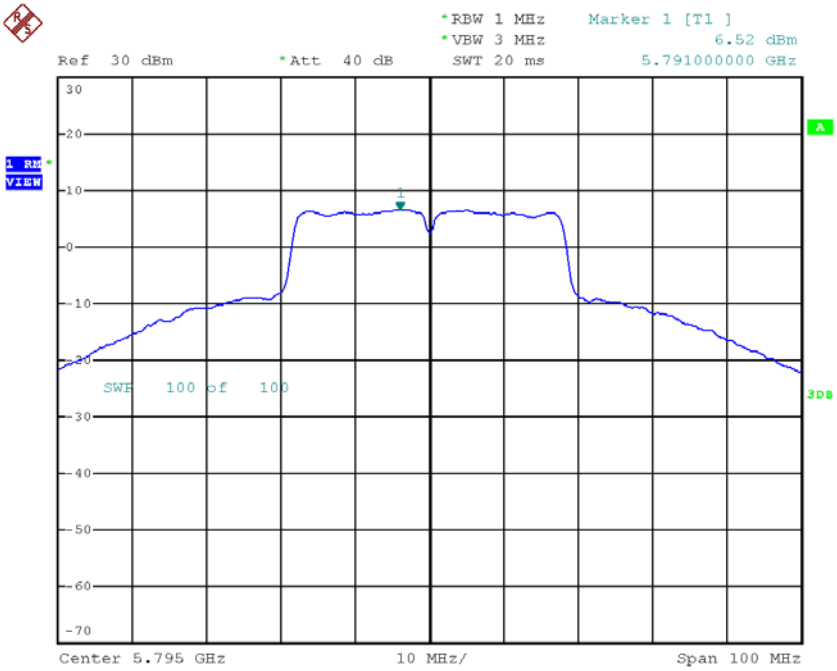
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	6.47	0.10	6.57	30.00
CH159	5795	6.52	0.10	6.62	30.00

TX CH151



Date: 8.MAY.2018 14:01:10

TX CH159

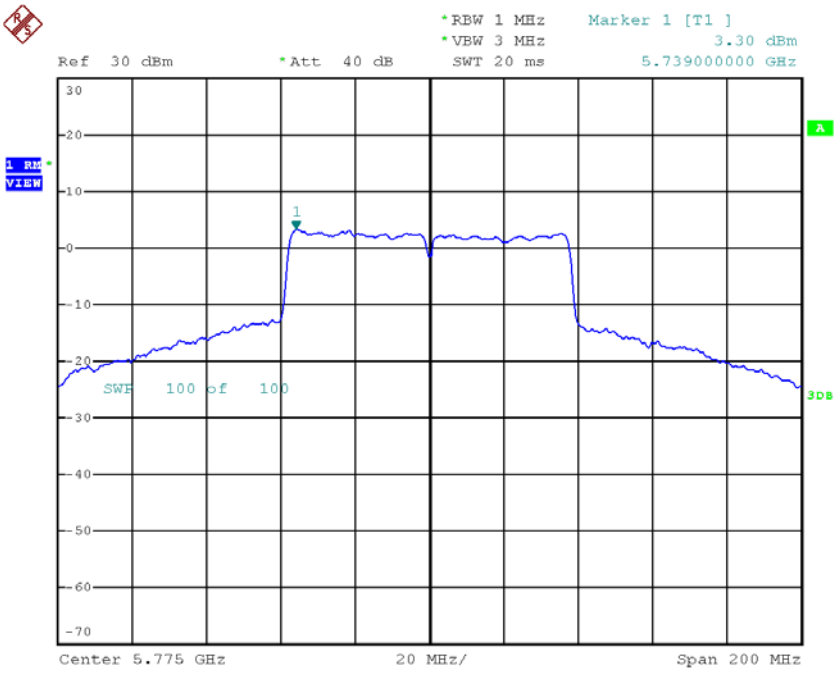


Date: 8.MAY.2018 14:02:51

Test Mode: UNII-3/ TX AC80 Mode_CH155

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH155	5775	3.30	0.53	3.83	30.00

TX CH155



Date: 8.MAY.2018 14:05:12

APPENDIX H - FREQUENCY STABILITY

Test Mode:	UNII-1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180.0000
132	5179.9600
120	5179.9799
108	5179.9800
Max. Deviation (MHz)	0.0400
Max. Deviation (ppm)	7.7220

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(℃)	5180.0000
0	5179.9799
10	5179.9599
20	5179.9750
30	5179.9800
40	5179.9799
Max. Deviation (MHz)	0.0401
Max. Deviation (ppm)	7.7413

Test Mode:	UNII-3

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5745.0000
132	5744.9750
120	5744.9600
108	5744.9599
Max. Deviation (MHz)	0.0401
Max. Deviation (ppm)	6.9800

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(℃)	5745.0000
0	5744.9599
10	5744.9600
20	5744.9750
30	5744.9599
40	5744.9600
Max. Deviation (MHz)	0.0401
Max. Deviation (ppm)	6.9800