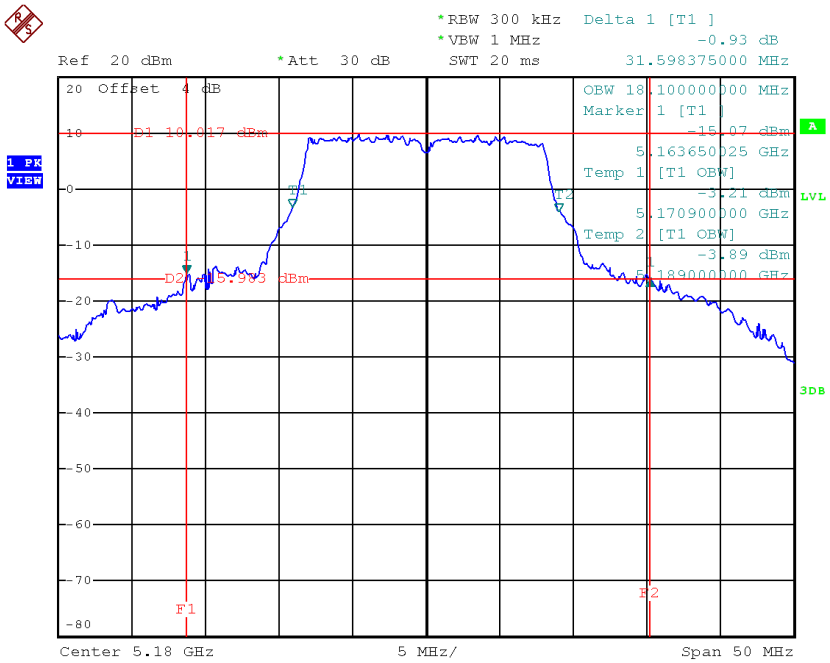
# APPENDIX E - BANDWIDTH

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

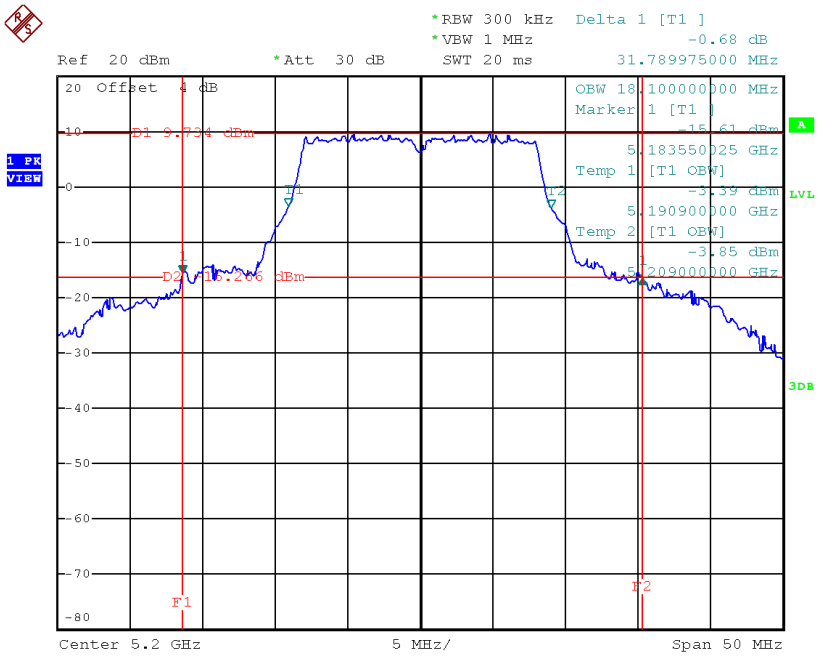
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH36 | 5180 | 31.60 | 18.10 |
| CH40 | 5200 | 31.79 | 18.10 |
| CH48 | 5240 | 29.70 | 17.90 |

**TX CH36**



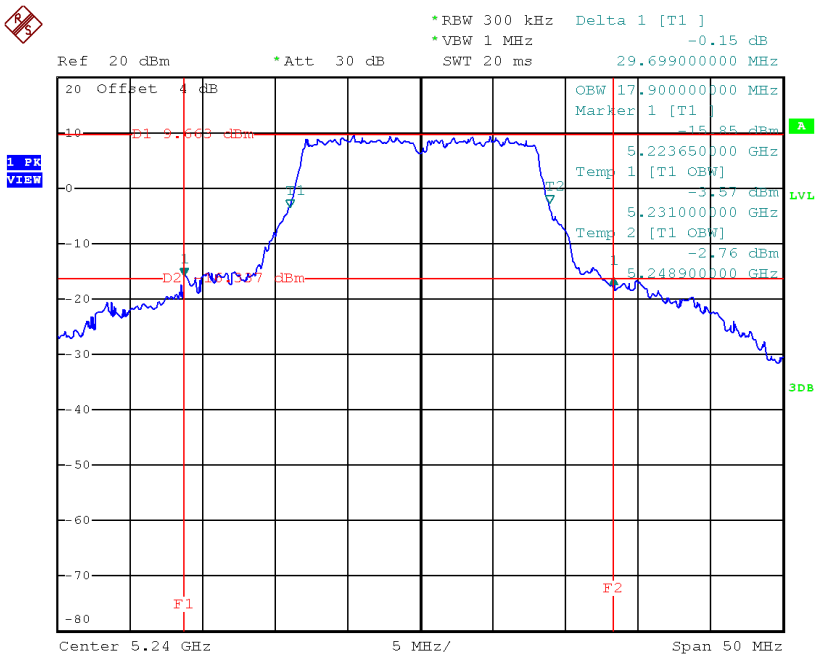

Date: 23.NOV.2017 21:10:25

## TX CH40




Date: 23.NOV.2017 20:05:42

## TX CH48

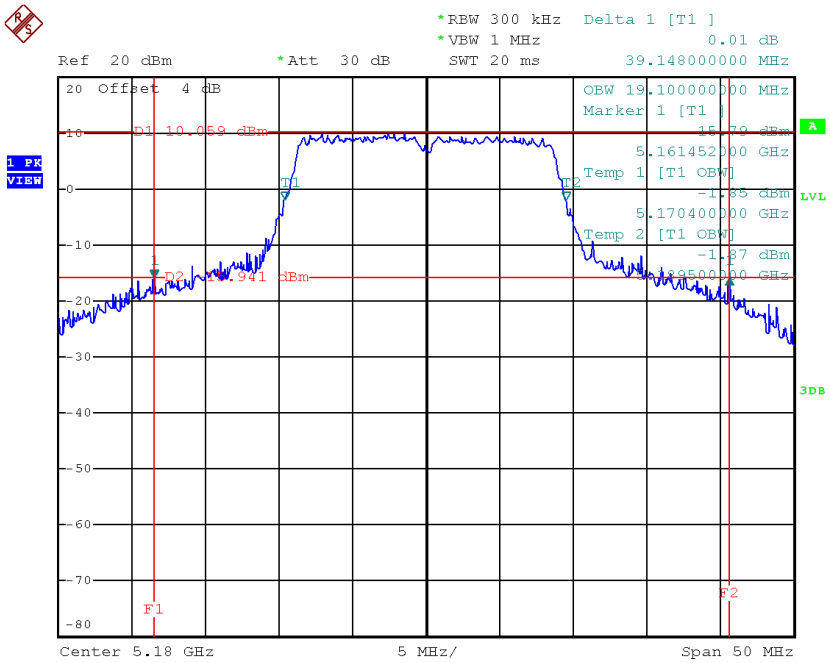



Date: 23.NOV.2017 20:06:48

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

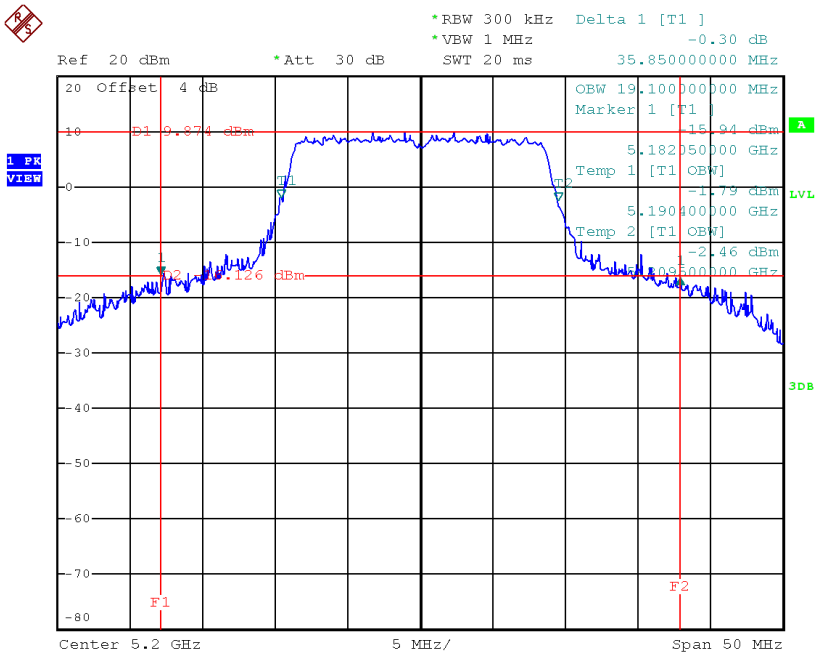
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH36 | 5180 | 39.15 | 19.10 |
| CH40 | 5200 | 35.85 | 19.10 |
| CH48 | 5240 | 32.69 | 18.90 |

**TX CH36**



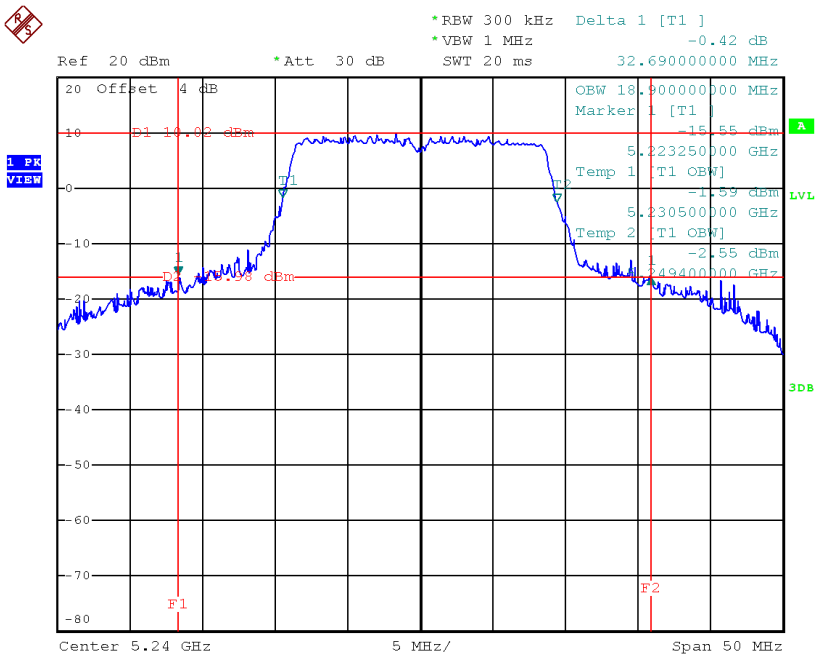

Date: 23.NOV.2017 20:27:08

## TX CH40




Date: 23.NOV.2017 20:27:55

## TX CH48

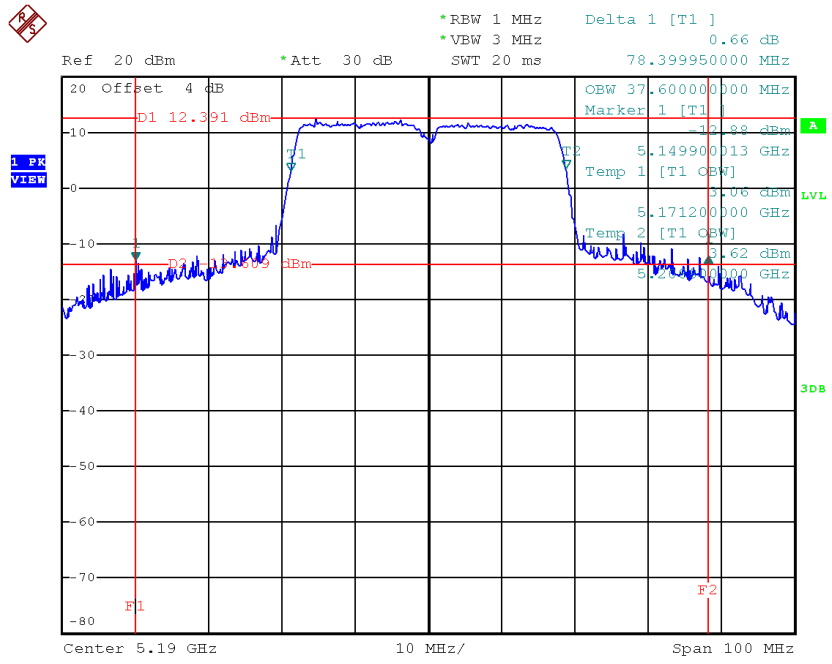



Date: 23.NOV.2017 20:29:01

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

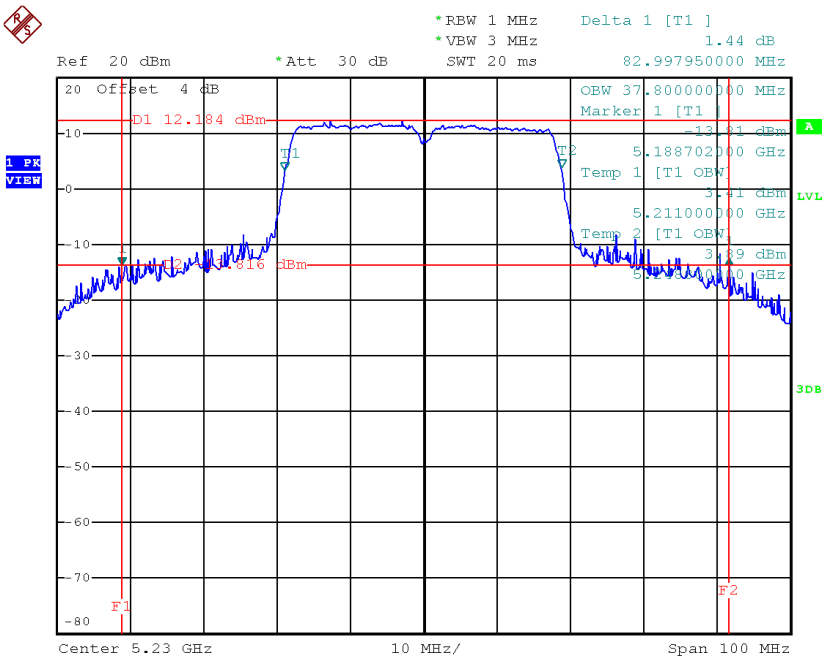
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH38 | 5190 | 78.40 | 37.60 |
| CH46 | 5230 | 83.00 | 37.80 |

## TX CH38




Date: 23.NOV.2017 20:46:47

## TX CH46

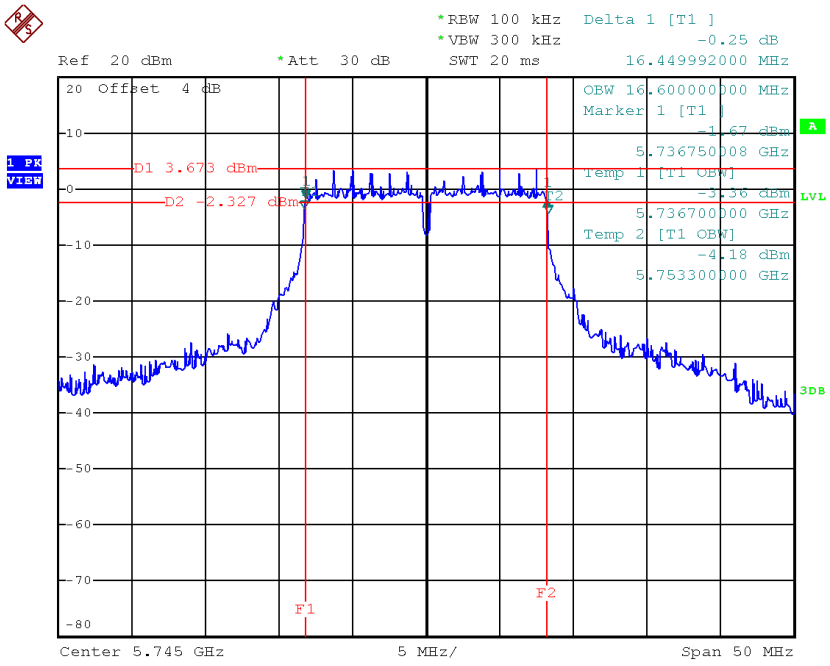



Date: 23.NOV.2017 20:47:26

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

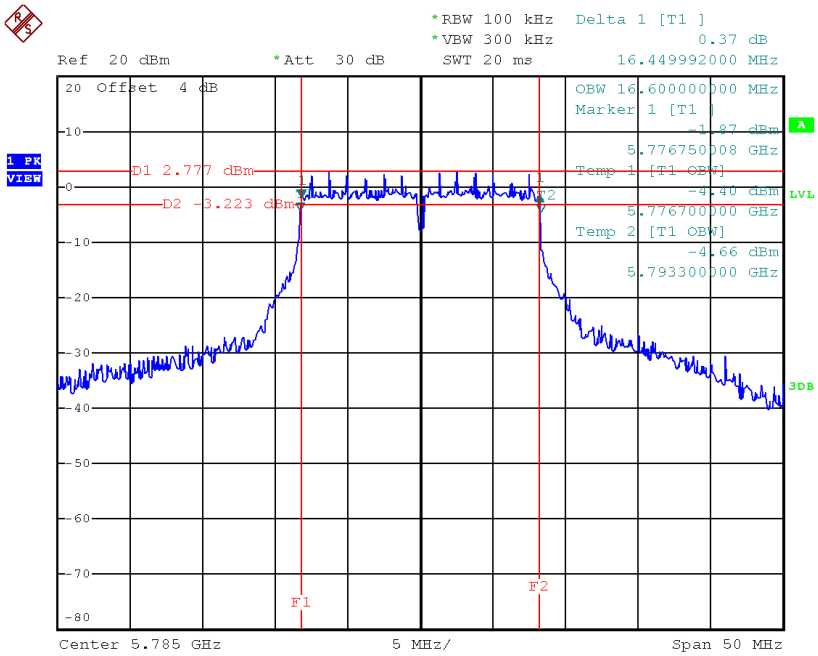
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH149 | 5745 | 16.45 | 16.60 | >=500 |
| CH157 | 5785 | 16.45 | 16.60 | >=500 |
| CH165 | 5825 | 16.45 | 16.60 | >=500 |

**TX CH 149**



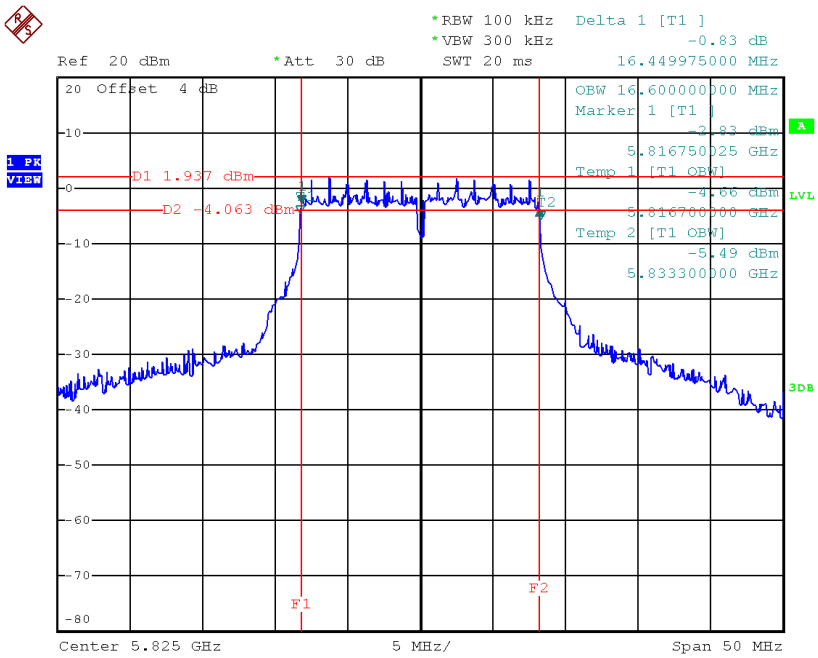

Date: 23.NOV.2017 20:20:46

## TX CH 157




Date: 23.NOV.2017 20:25:38

## TX CH 165

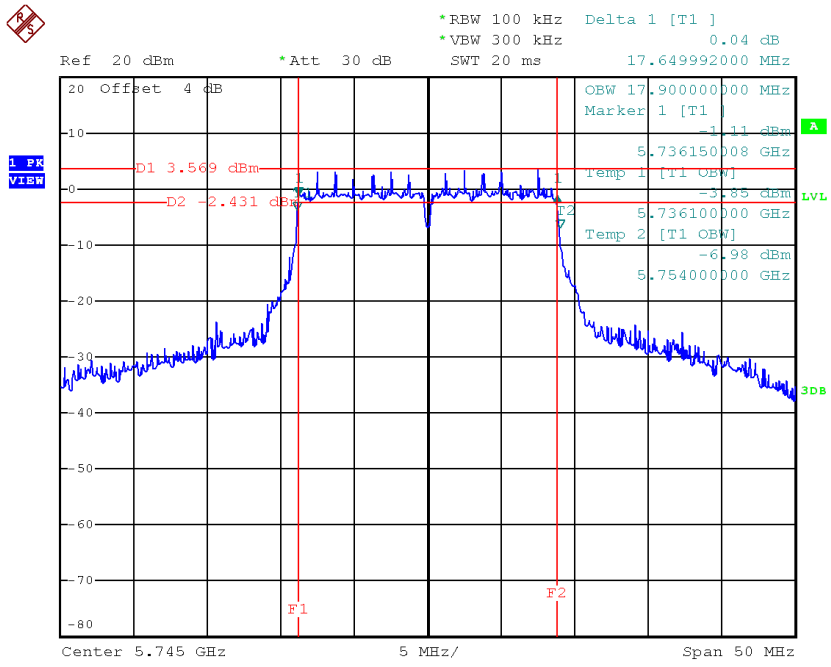



Date: 23.NOV.2017 20:26:26

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

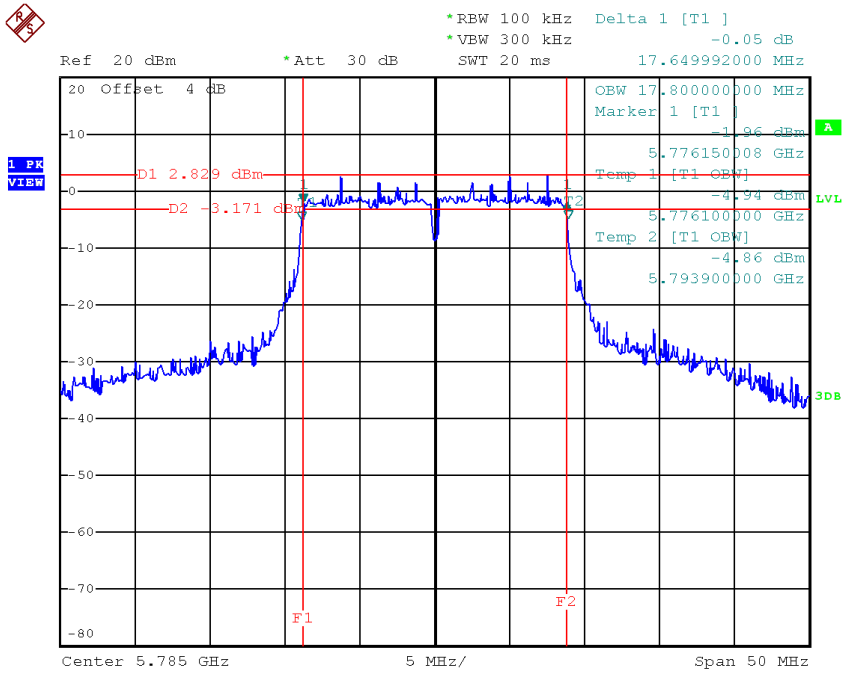
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH149 | 5745 | 17.65 | 17.90 | >=500 |
| CH157 | 5785 | 17.65 | 17.80 | >=500 |
| CH165 | 5825 | 17.65 | 17.80 | >=500 |

**TX CH 149**



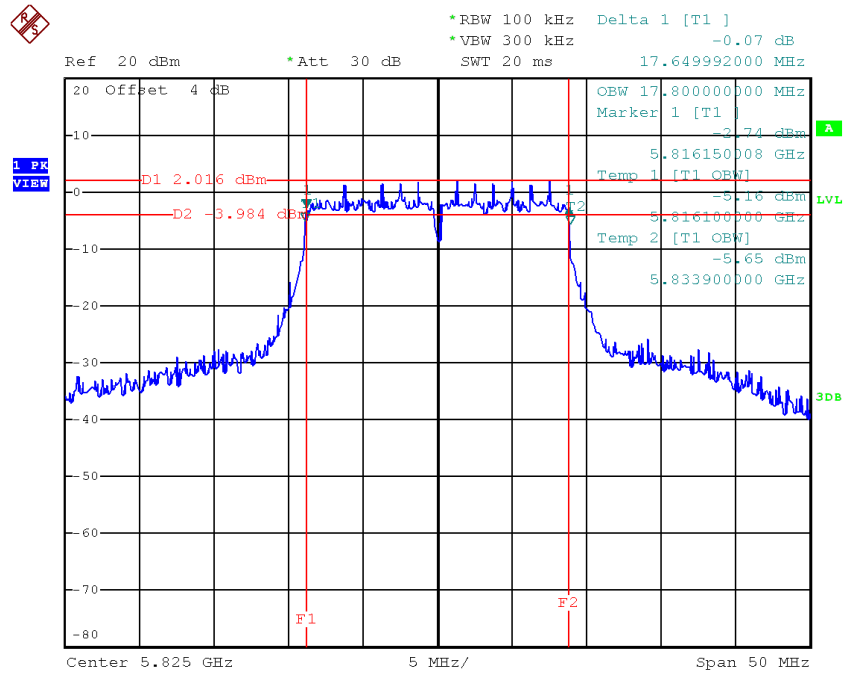

Date: 23.NOV.2017 20:34:52

## TX CH 157




Date: 23.NOV.2017 20:35:41

## TX CH 165

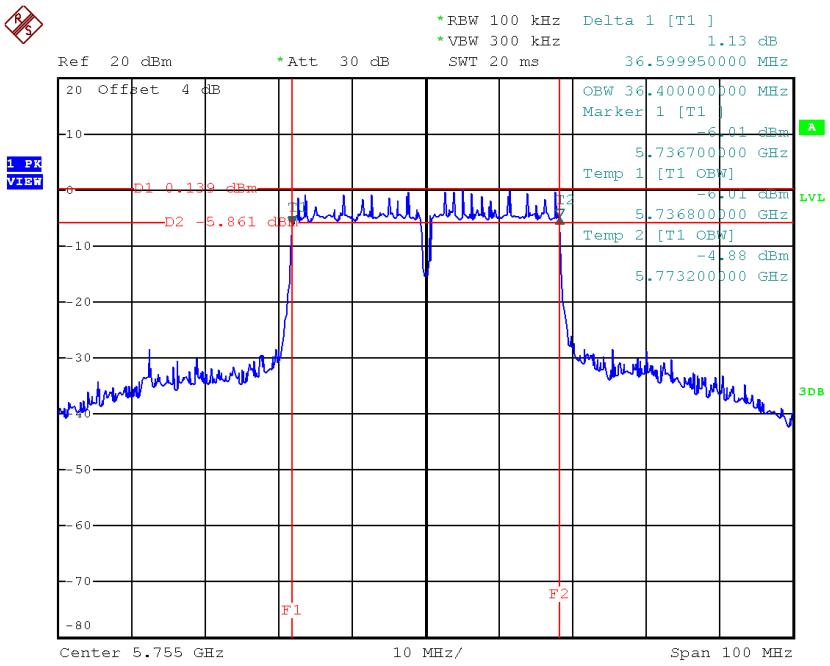



Date: 23.NOV.2017 20:36:30

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

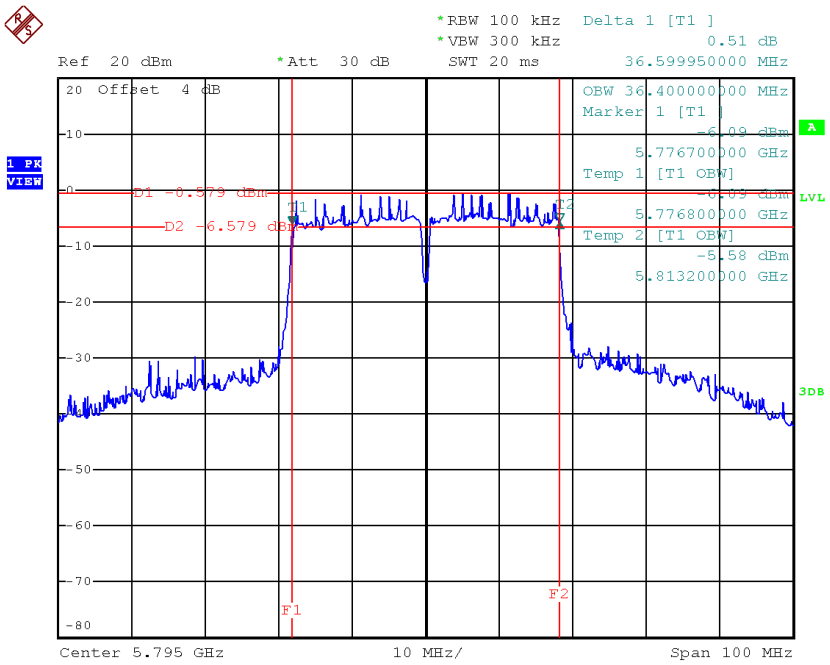
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH151 | 5755 | 36.60 | 36.40 | >=500 |
| CH159 | 5795 | 36.60 | 36.40 | >=500 |

## TX CH 151




Date: 23.NOV.2017 20:52:07

## TX CH 159

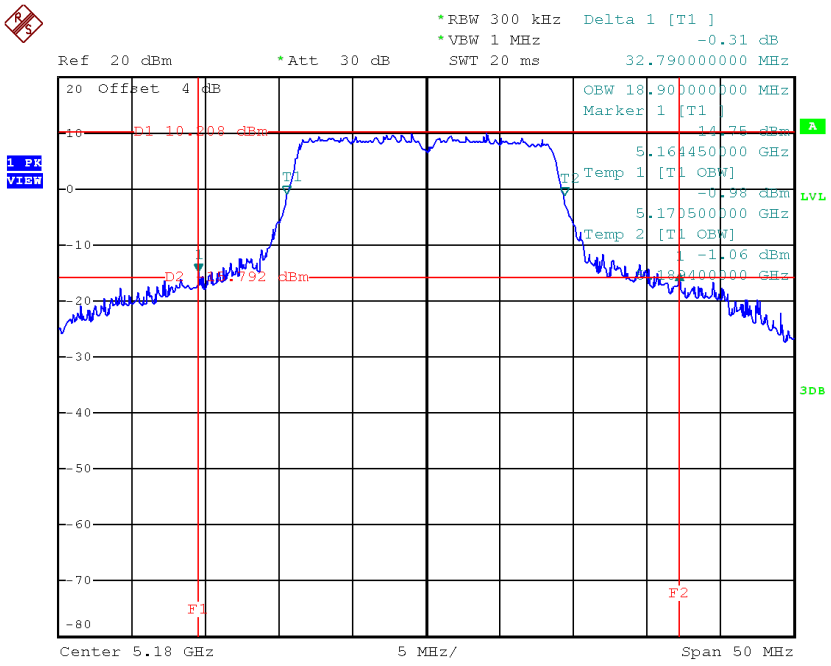



Date: 23.NOV.2017 20:53:01

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

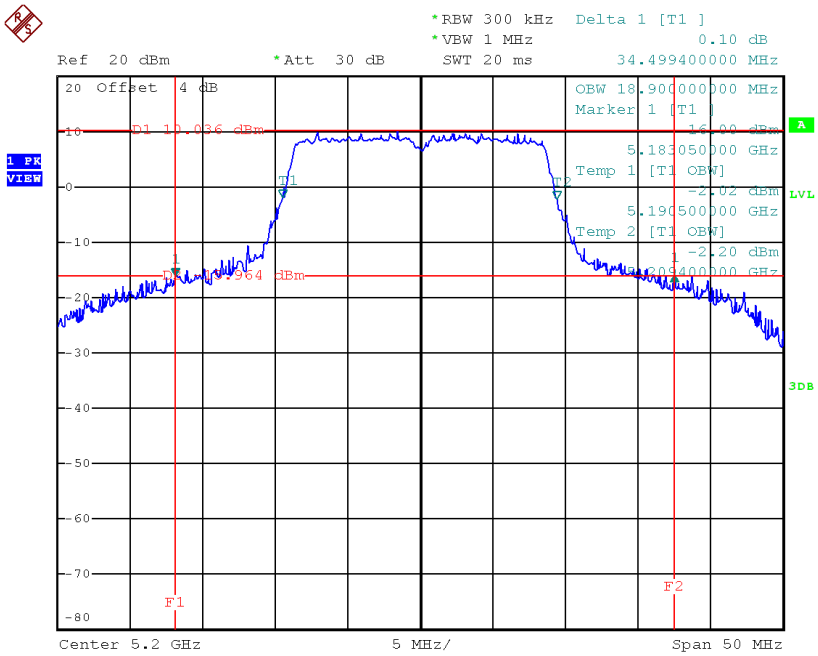
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH36 | 5180 | 32.79 | 18.90 |
| CH40 | 5200 | 34.50 | 18.90 |
| CH48 | 5240 | 34.80 | 18.90 |

**TX CH36**



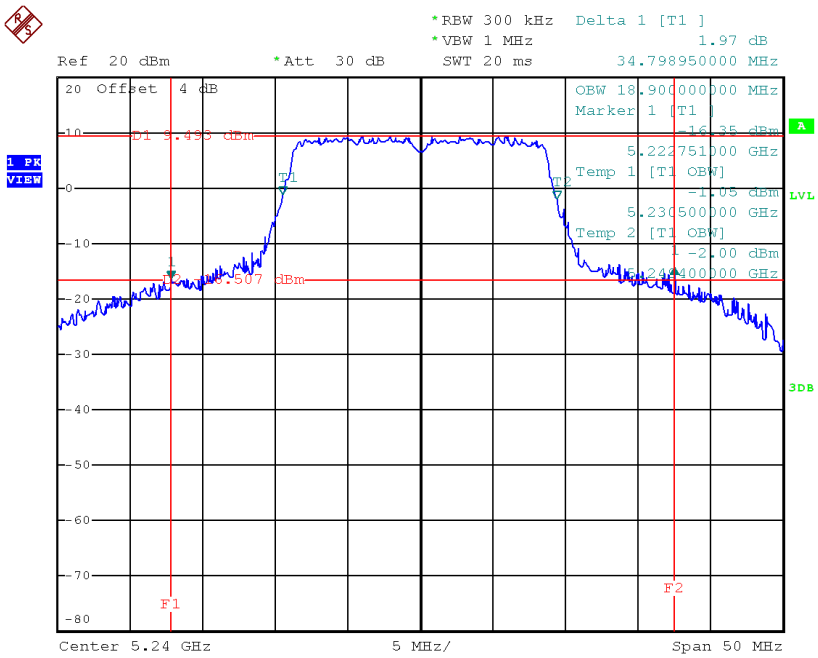

Date: 23.NOV.2017 20:37:29

## TX CH40




Date: 23.NOV.2017 20:38:07

## TX CH48

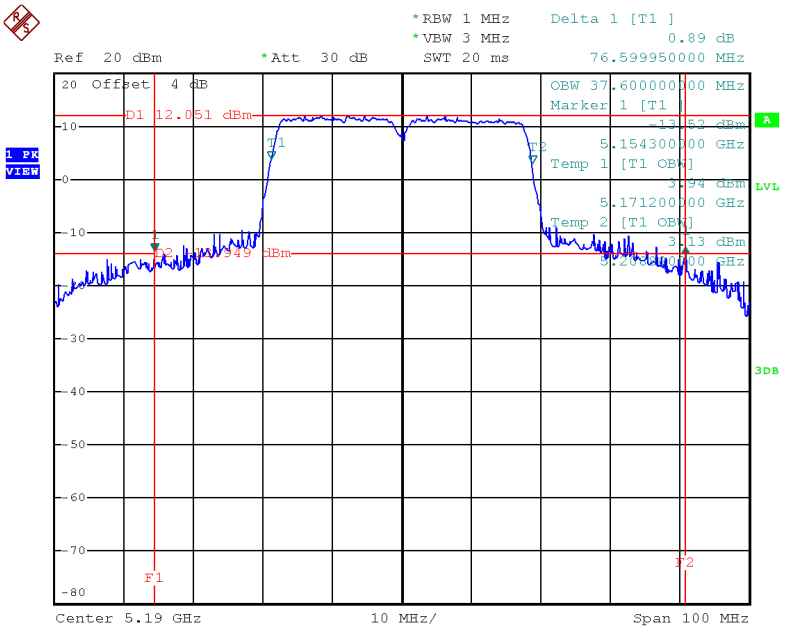



Date: 23.NOV.2017 20:38:49

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

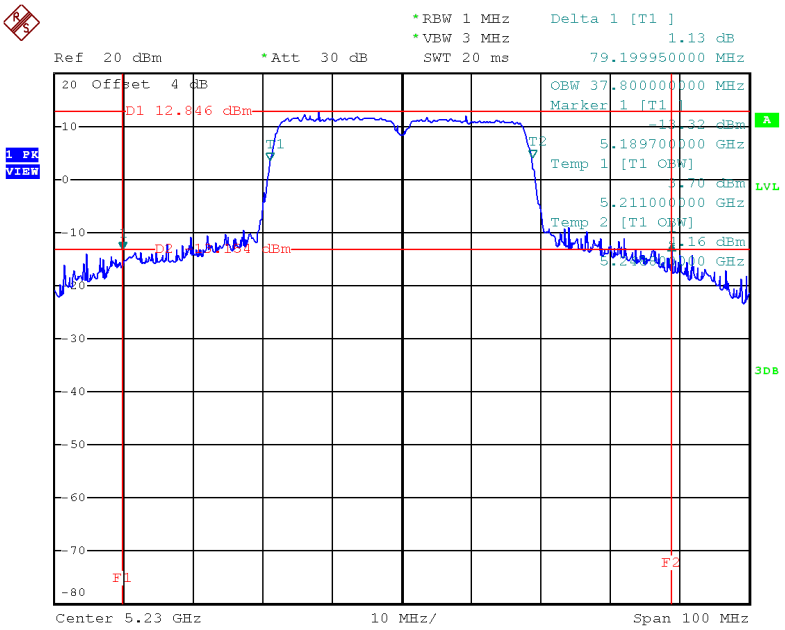
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH38 | 5190 | 76.60 | 37.60 |
| CH46 | 5230 | 79.20 | 37.80 |

## TX CH38




Date: 23.NOV.2017 20:54:00

## TX CH46

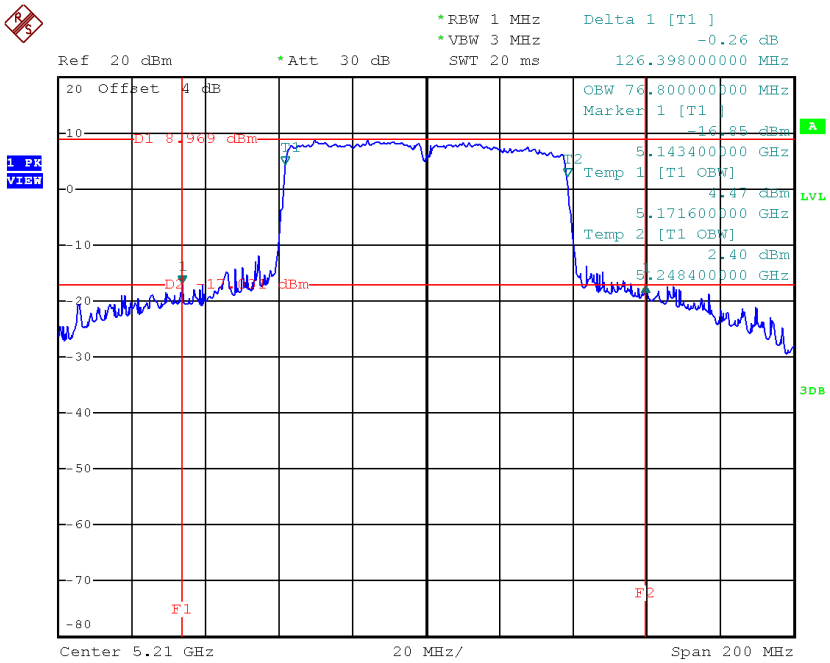



Date: 23.NOV.2017 20:54:36

| Test Mode: UNII-1/TX AC80 Mode_CH42 |
|---|

| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH42 | 5210 | 126.40 | 76.80 |

**TX CH42**

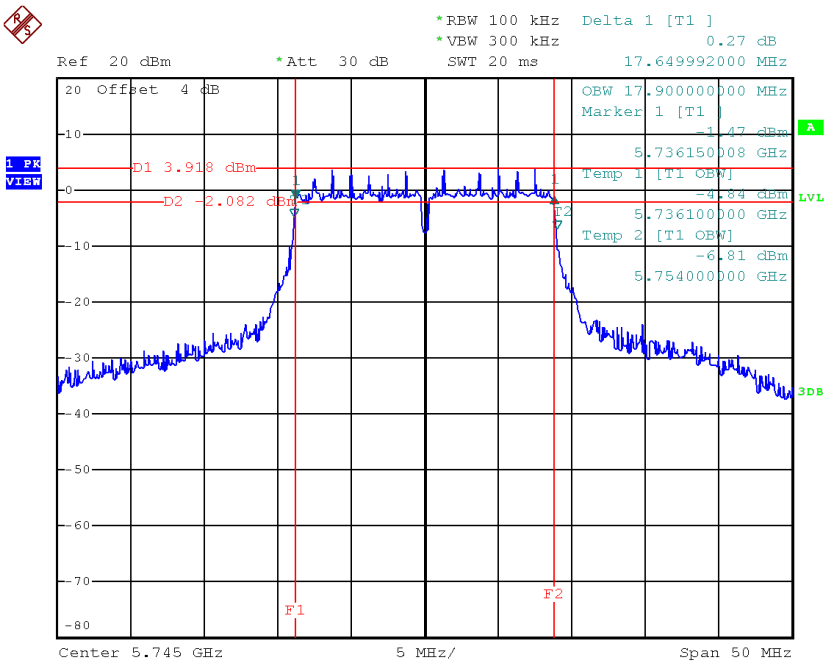



Date: 23.NOV.2017 21:04:54

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

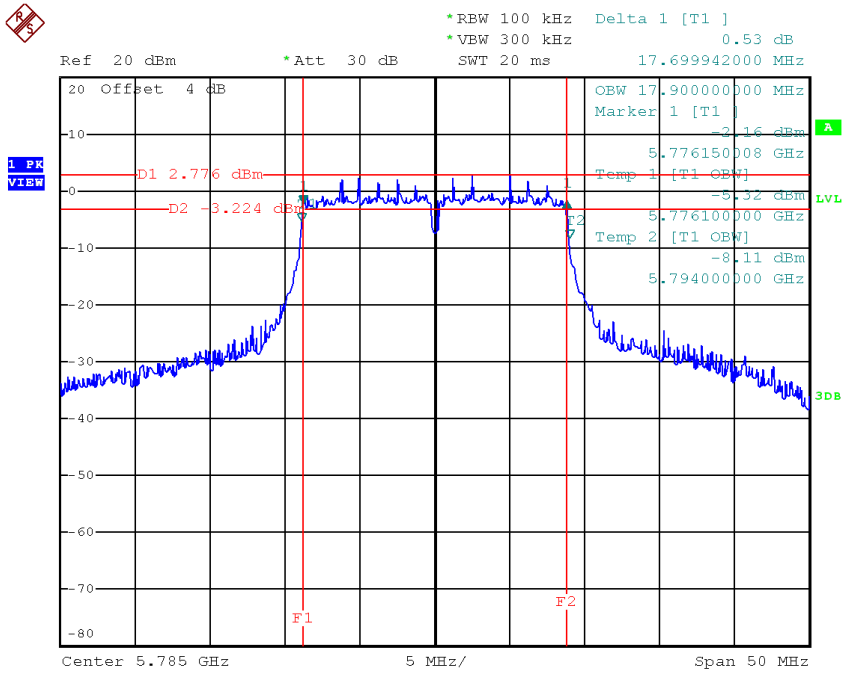
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH149 | 5745 | 17.65 | 17.90 | >=500 |
| CH157 | 5785 | 17.70 | 17.90 | >=500 |
| CH165 | 5825 | 17.65 | 17.80 | >=500 |

**TX CH 149**



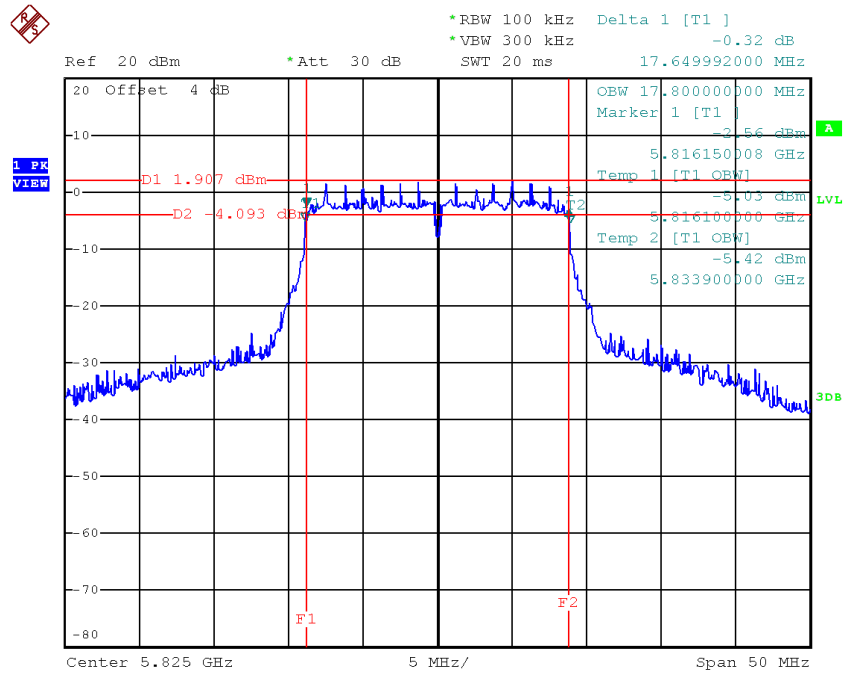

Date: 23.NOV.2017 20:44:19

## TX CH 157




Date: 23.NOV.2017 20:45:07

## TX CH 165

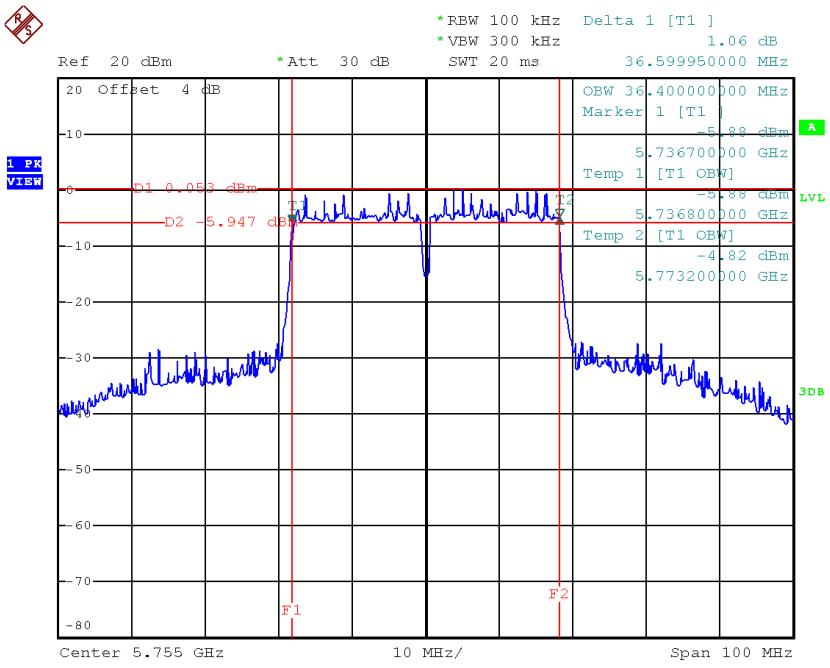



Date: 23.NOV.2017 20:45:55

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

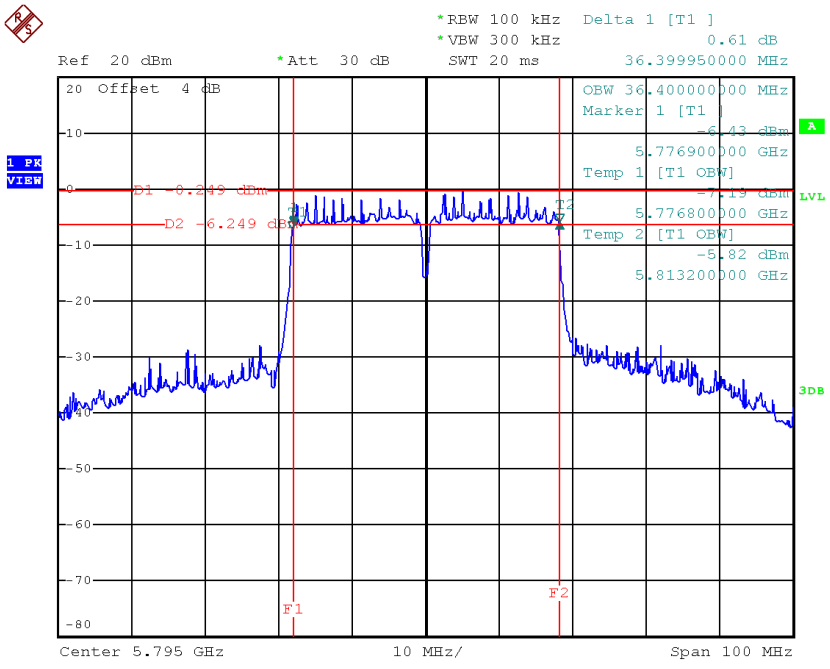
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH151 | 5755 | 36.60 | 36.40 | >=500 |
| CH159 | 5795 | 36.40 | 36.40 | >=500 |

## TX CH 151




Date: 23.NOV.2017 21:02:32

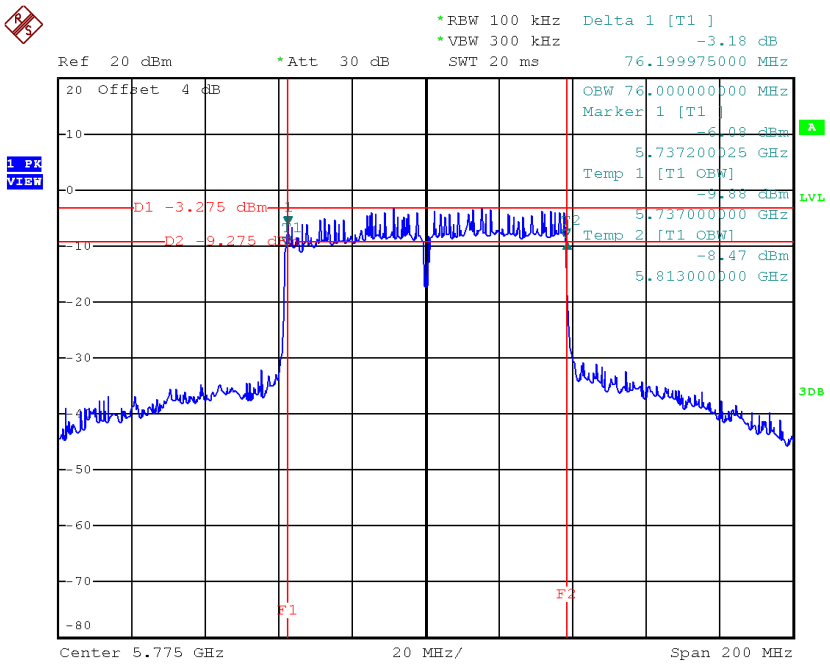
## TX CH 159




Date: 23.NOV.2017 21:03:33

| Test Mode: UNII-3/ TX AC80 Mode_CH155 | | | | |
|---|---|---|---|---|
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
| CH155 | 5775 | 76.20 | 76.00 | >=500 |

**TX CH 155**




Date: 23.NOV.2017 21:09:23

# 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 | 15.07 | 0.12 | 15.19 | 30.00 | 1.00 |
| CH40 | 5200 | 17.93 | 0.12 | 18.05 | 30.00 | 1.00 |
| CH48 | 5240 | 18.08 | 0.12 | 18.20 | 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 | 14.65 | 0.16 | 14.81 | 30.00 | 1.00 |
| CH40 | 5200 | 17.85 | 0.16 | 18.01 | 30.00 | 1.00 |
| CH48 | 5240 | 18.07 | 0.16 | 18.23 | 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 | 13.65 | 0.53 | 14.18 | 30.00 | 1.00 |
| CH46 | 5230 | 17.24 | 0.53 | 17.77 | 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 | 18.47 | 0.12 | 18.59 | 30.00 | 1.00 |
| CH157 | 5785 | 18.33 | 0.12 | 18.45 | 30.00 | 1.00 |
| CH165 | 5825 | 18.11 | 0.12 | 18.23 | 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 | 18.42 | 0.16 | 18.58 | 30.00 | 1.00 |
| CH157 | 5785 | 18.22 | 0.16 | 18.38 | 30.00 | 1.00 |
| CH165 | 5825 | 18.14 | 0.16 | 18.30 | 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 | 17.58 | 0.53 | 18.11 | 30.00 | 1.00 |
| CH159 | 5795 | 17.47 | 0.53 | 18.00 | 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 | 14.62 | 0.16 | 14.78 | 30.00 | 1.00 |
| CH40 | 5200 | 17.87 | 0.16 | 18.03 | 30.00 | 1.00 |
| CH48 | 5240 | 18.15 | 0.16 | 18.31 | 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 | 11.45 | 0.53 | 11.98 | 30.00 | 1.00 |
| CH46 | 5230 | 17.17 | 0.53 | 17.70 | 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 | 11.05 | 0.79 | 11.84 | 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 | 18.37 | 0.16 | 18.53 | 30.00 | 1.00 |
| CH157 | 5785 | 18.28 | 0.16 | 18.44 | 30.00 | 1.00 |
| CH165 | 5825 | 18.04 | 0.16 | 18.20 | 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 | 17.52 | 0.53 | 18.05 | 30.00 | 1.00 |
| CH159 | 5795 | 17.45 | 0.53 | 17.98 | 30.00 | 1.00 |

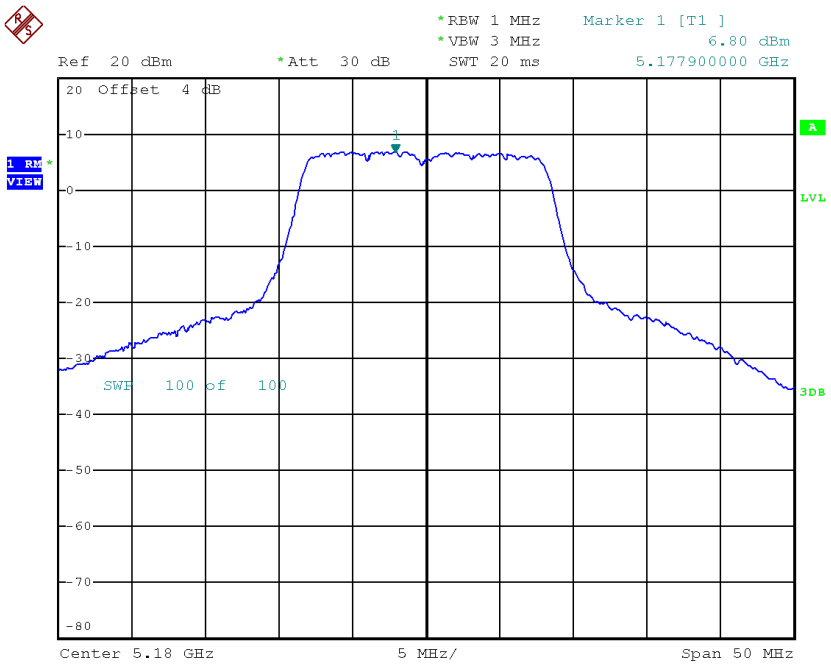
| Test Mode: UNII-3/TX AC80 Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor | Output Power + Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH155 | 5775 | 16.94 | 0.79 | 17.73 | 30.00 | 1.00 |

# APPENDIX G - POWER SPECTRAL DENSITY

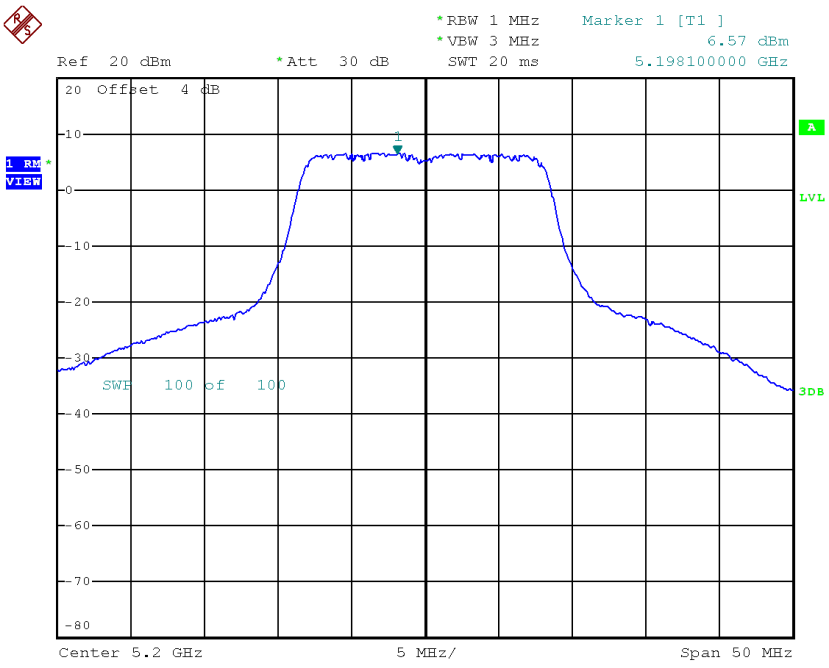
**Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48**

| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor | Power Density + Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH36 | 5180 | 6.80 | 0.12 | 6.92 | 17.00 |
| CH40 | 5200 | 6.57 | 0.12 | 6.69 | 17.00 |
| CH48 | 5240 | 6.44 | 0.12 | 6.56 | 17.00 |

**CH36**

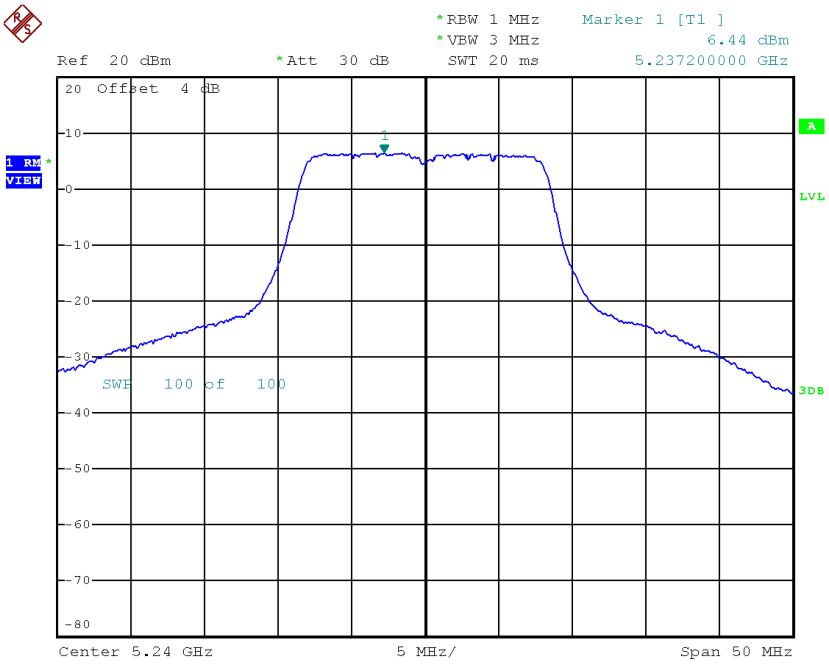


## CH40




Date: 23.NOV.2017 20:05:51

## CH48

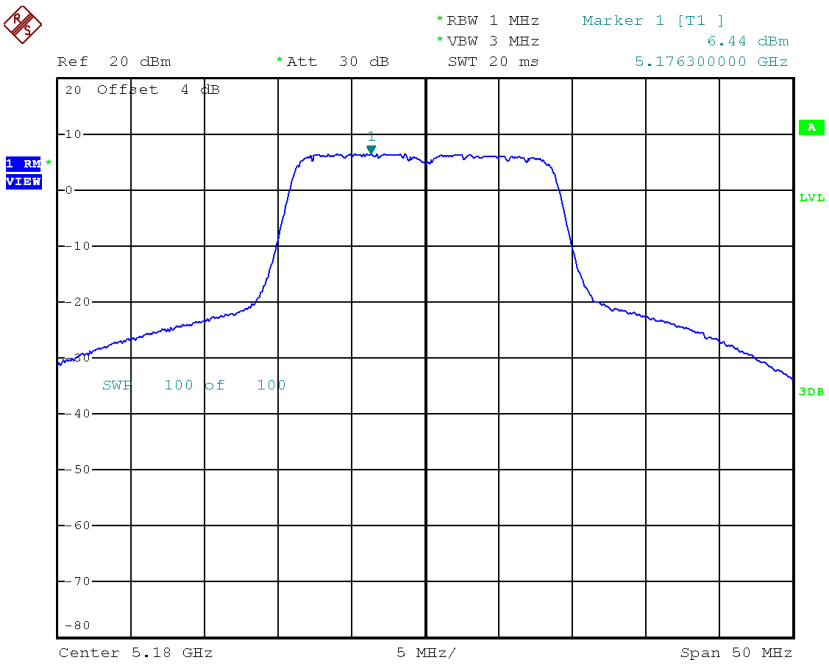



Date: 23.NOV.2017 20:06:57

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

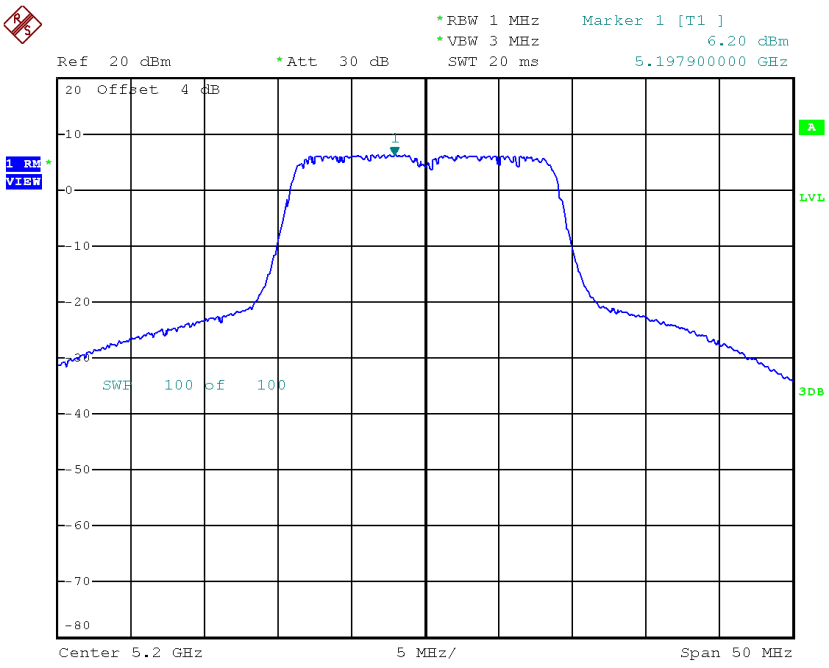
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor | Power Density + Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH36 | 5180 | 6.44 | 0.16 | 6.60 | 17.00 |
| CH40 | 5200 | 6.20 | 0.16 | 6.36 | 17.00 |
| CH48 | 5240 | 6.14 | 0.16 | 6.30 | 17.00 |

**CH36**



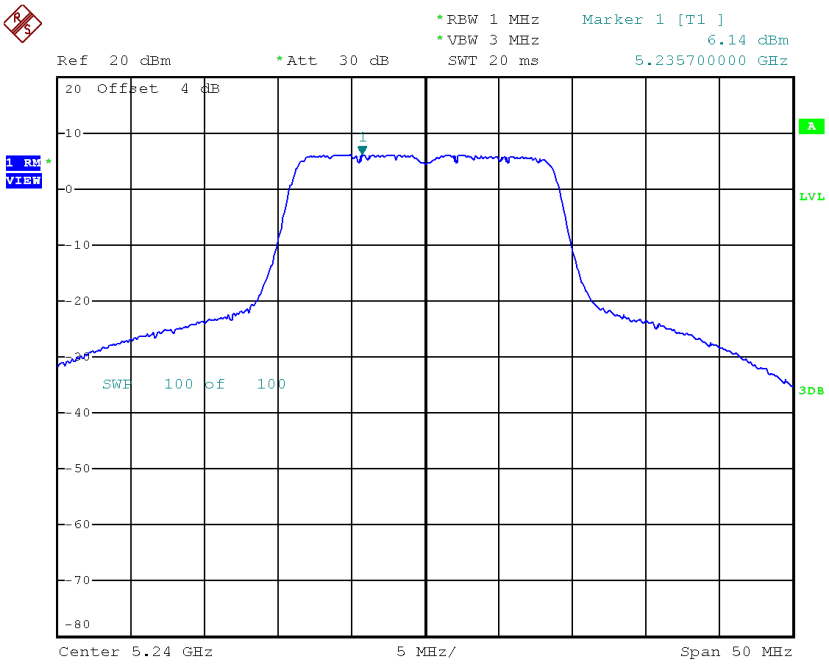

Date: 23.NOV.2017 20:27:18

## CH40




Date: 23.NOV.2017 20:28:05

## CH48

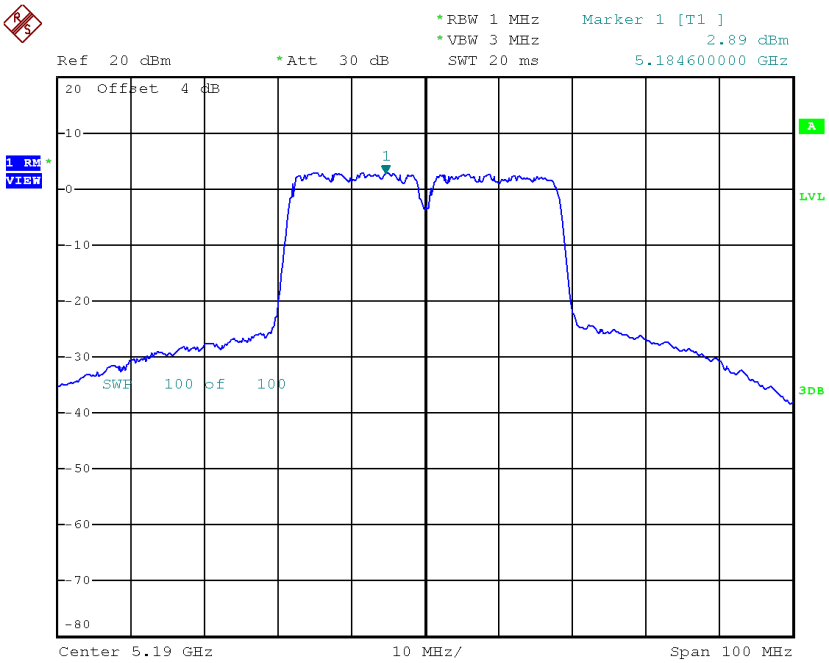



Date: 23.NOV.2017 20:29:11

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

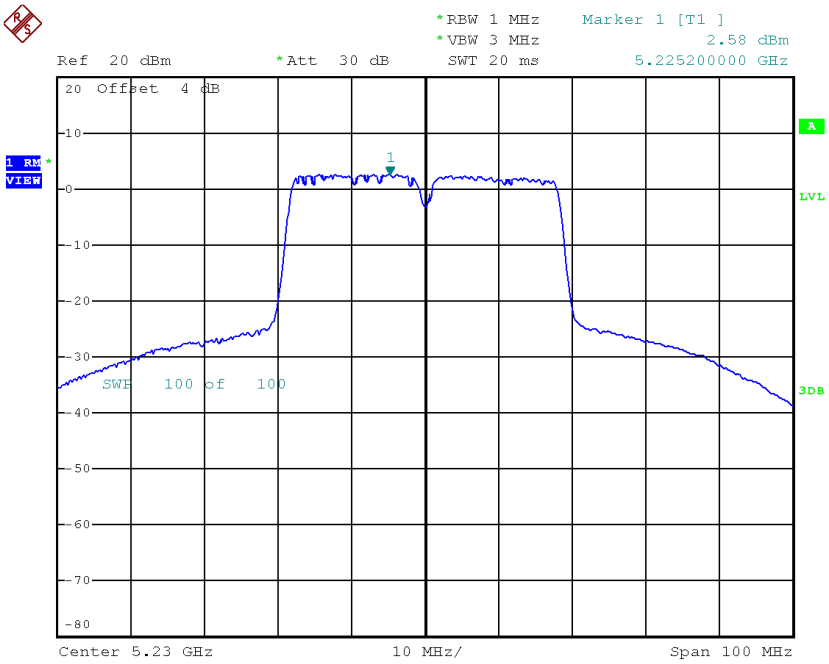
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor | Power Density + Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH38 | 5190 | 2.89 | 0.53 | 3.42 | 17.00 |
| CH46 | 5230 | 2.58 | 0.53 | 3.11 | 17.00 |

## CH38




Date: 23.NOV.2017 20:47:00

## CH46

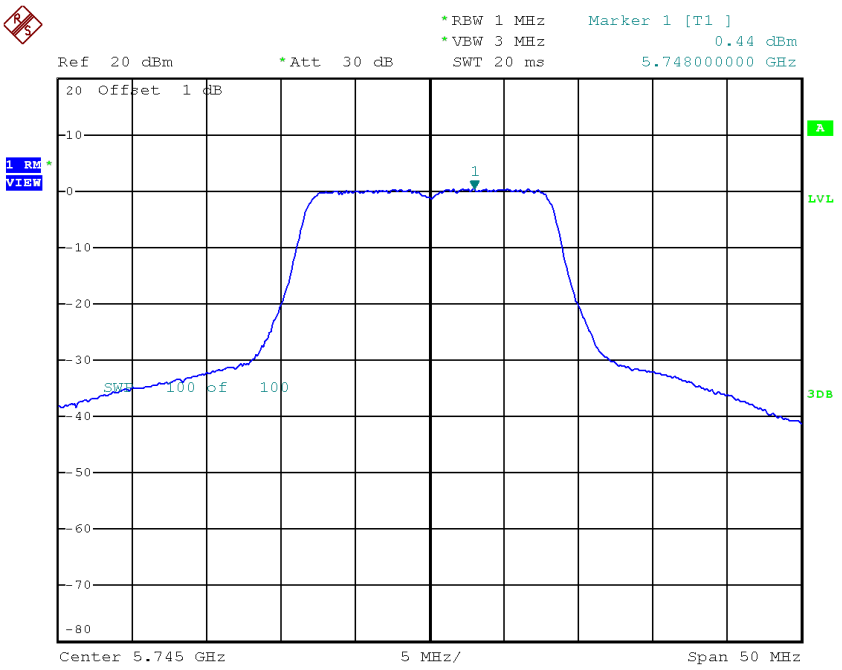



Date: 23.NOV.2017 20:47:38

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

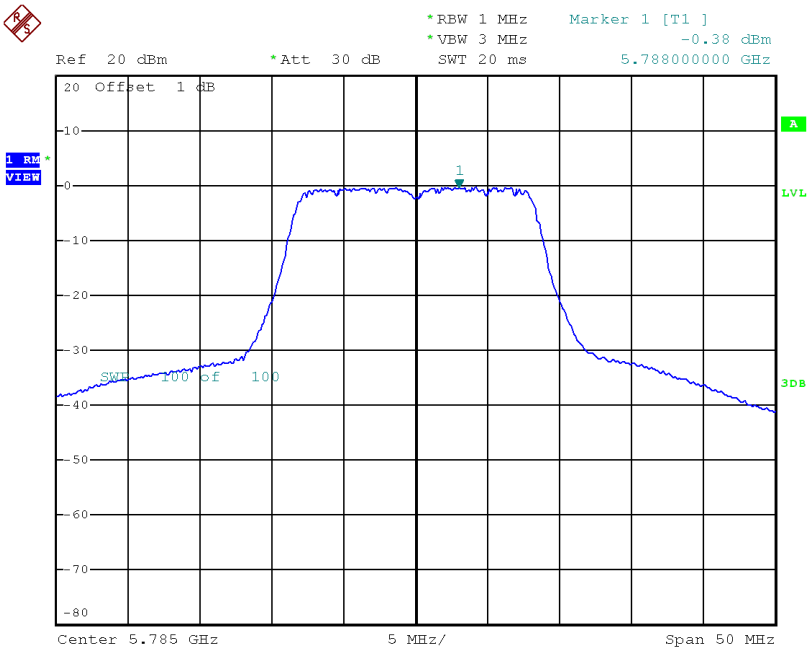
| Channel | Frequency (MHz) | Power Density (dBm/500kHz) | Duty Factor | Power Density + Duty Factor (dBm/500kHz) | Limit (dBm/500kHz) |
|---|---|---|---|---|---|
| CH149 | 5745 | 0.44 | 0.12 | 0.56 | 30.00 |
| CH157 | 5785 | -0.38 | 0.12 | -0.26 | 30.00 |
| CH165 | 5825 | -1.09 | 0.12 | -0.97 | 30.00 |

**TX CH149**



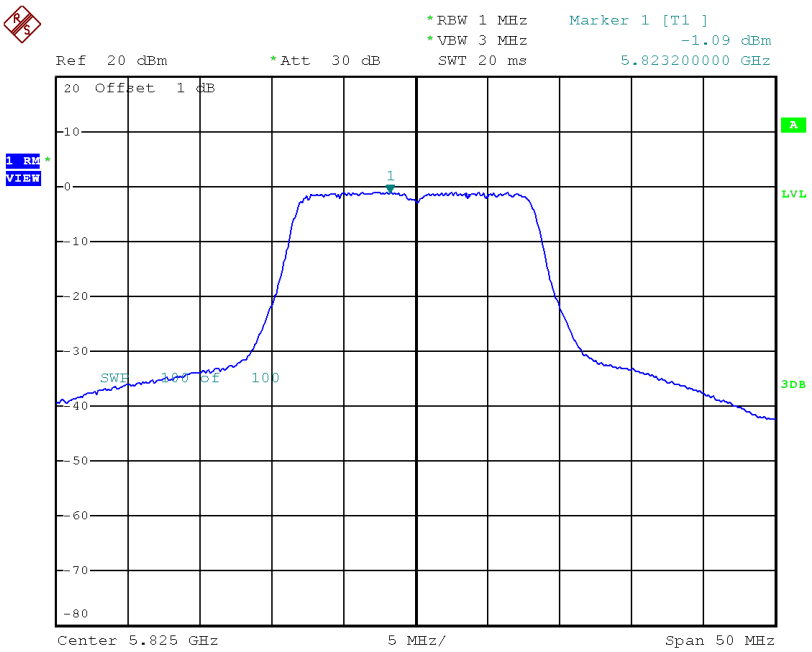

Date: 23.NOV.2017 20:20:18

## TX CH157




Date: 23.NOV.2017 20:25:48

## TX CH165

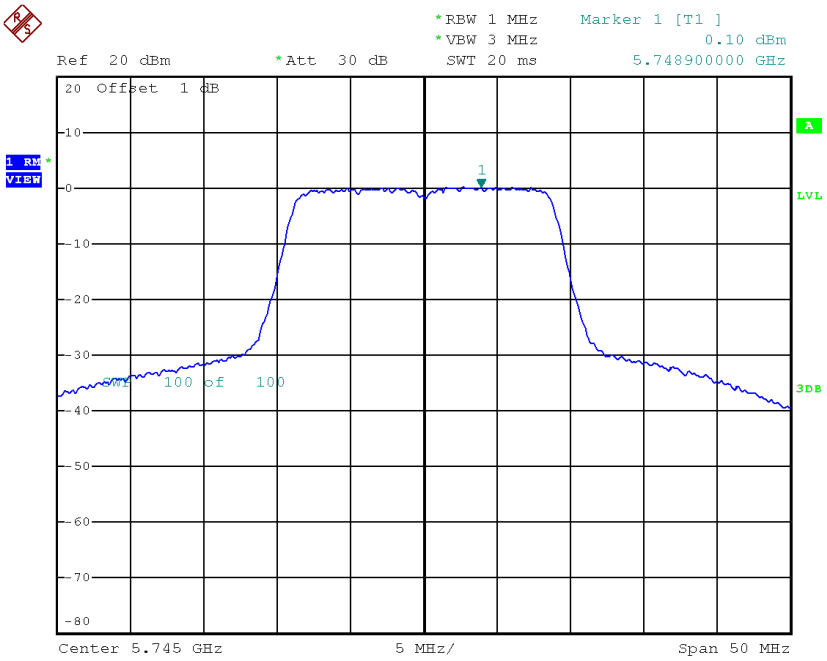



Date: 23.NOV.2017 20:26:35

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

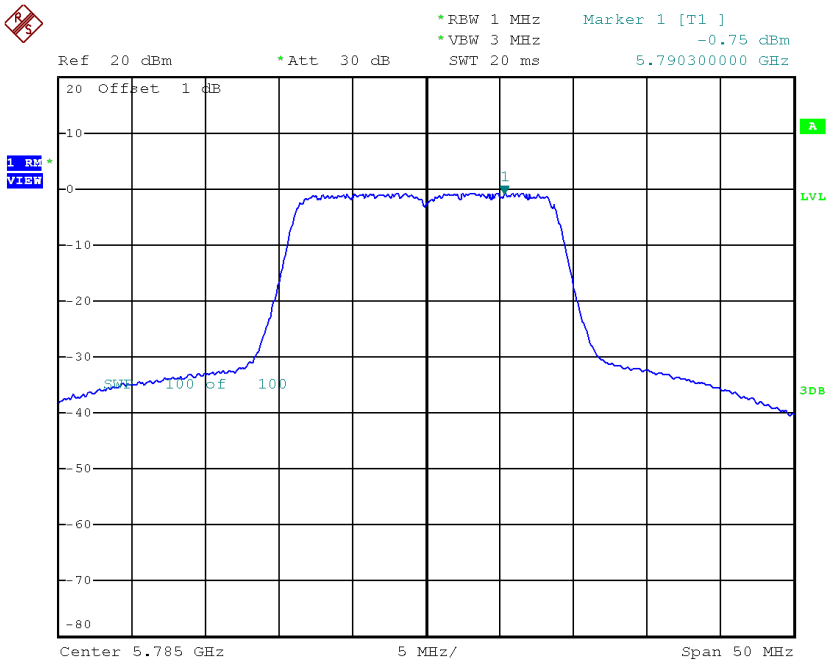
| Channel | Frequency (MHz) | Power Density (dBm/500kHz) | Duty Factor | Power Density + Duty Factor (dBm/500kHz) | Limit (dBm/500kHz) |
|---|---|---|---|---|---|
| CH149 | 5745 | 0.10 | 0.16 | 0.26 | 30.00 |
| CH157 | 5785 | -0.75 | 0.16 | -0.59 | 30.00 |
| CH165 | 5825 | -1.42 | 0.16 | -1.26 | 30.00 |

**TX CH149**



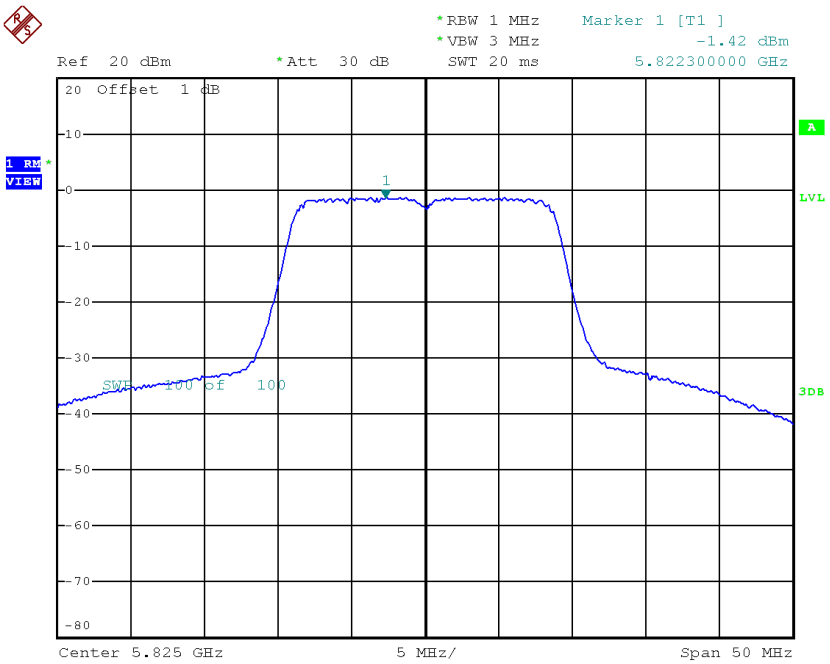

Date: 23.NOV.2017 20:35:02

## TX CH157




Date: 23.NOV.2017 20:35:51

## TX CH165

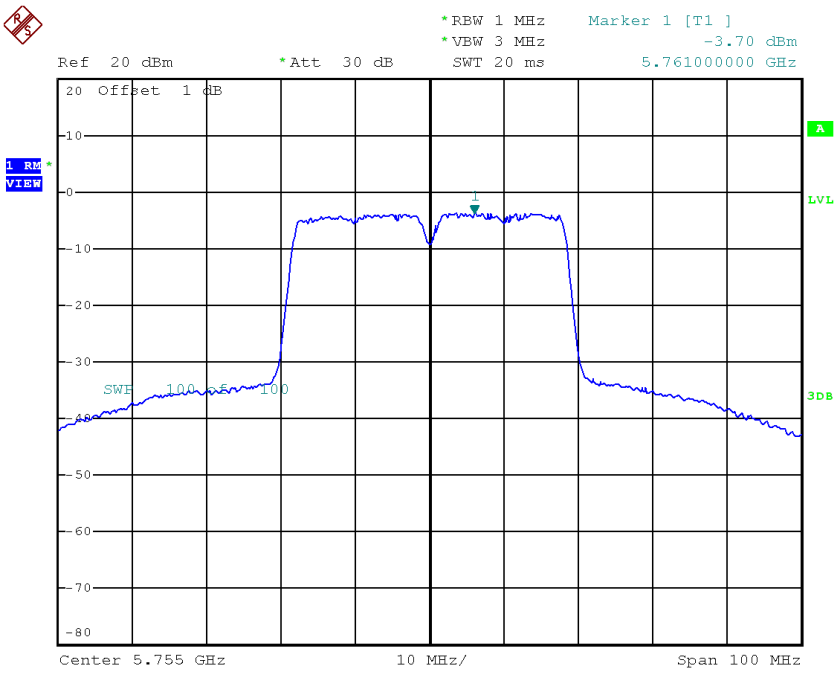



Date: 23.NOV.2017 20:36:40

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

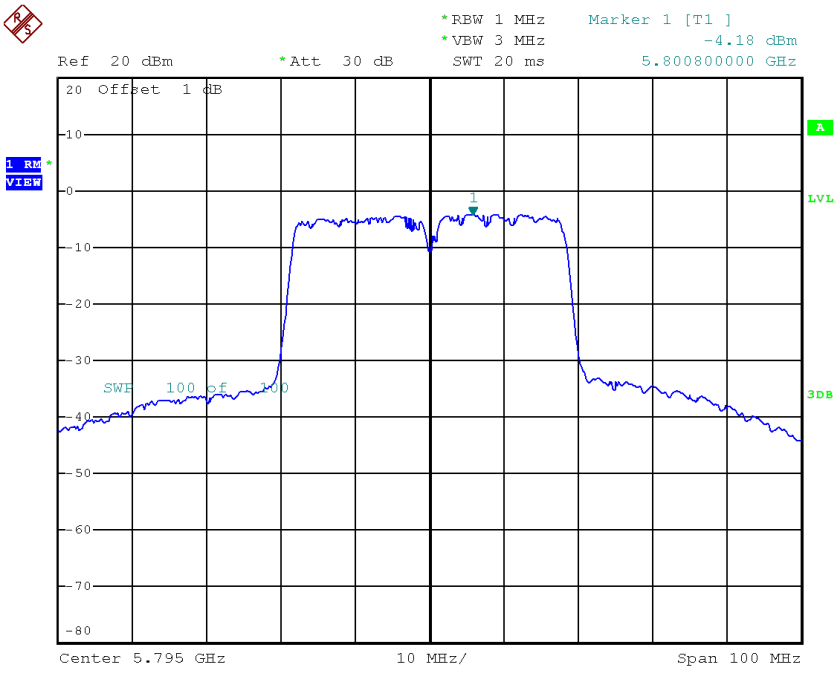
| Channel | Frequency (MHz) | Power Density (dBm/500kHz) | Duty Factor | Power Density + Duty Factor (dBm/500kHz) | Limit (dBm/500kHz) |
|---|---|---|---|---|---|
| CH151 | 5755 | -3.70 | 0.53 | -3.17 | 30.00 |
| CH159 | 5795 | -4.18 | 0.53 | -3.65 | 30.00 |

## TX CH151




Date: 23.NOV.2017 20:52:20

## TX CH159

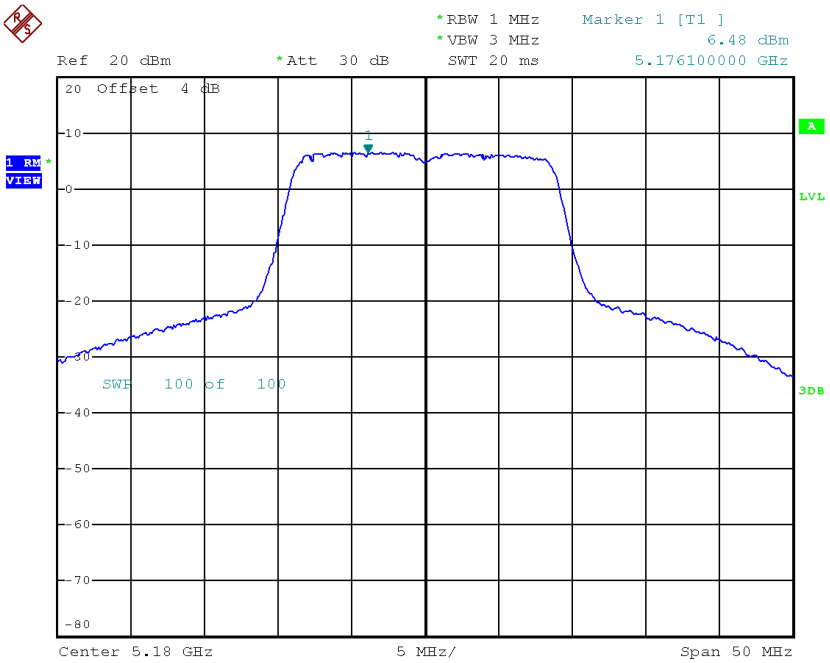



Date: 23.NOV.2017 20:53:13

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

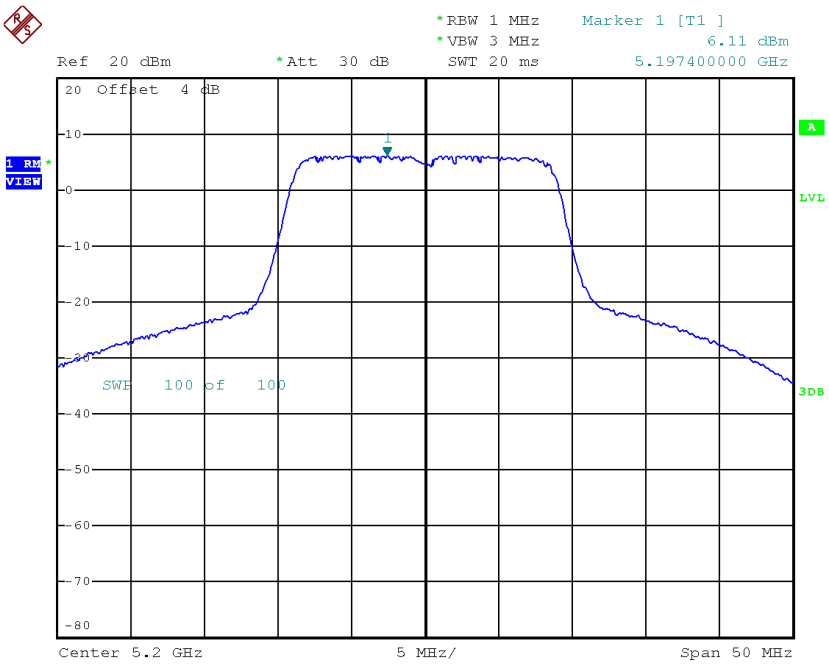
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor | Power Density + Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH36 | 5180 | 6.48 | 0.16 | 6.64 | 17.00 |
| CH40 | 5200 | 6.11 | 0.16 | 6.27 | 17.00 |
| CH48 | 5240 | 6.22 | 0.16 | 6.38 | 17.00 |

**CH36**



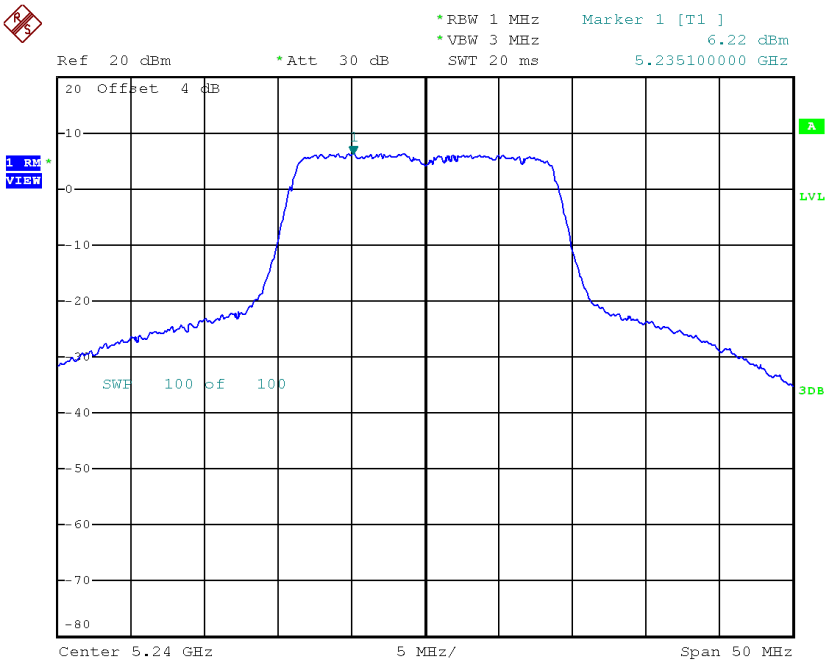

Date: 23.NOV.2017 20:37:38

## CH40




Date: 23.NOV.2017 20:38:16

## CH48

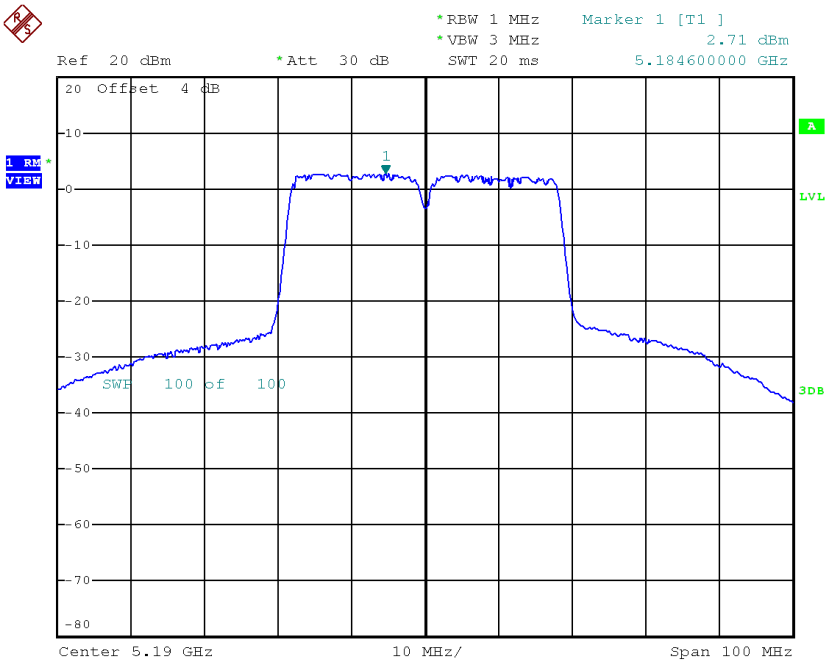



Date: 23.NOV.2017 20:38:58

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

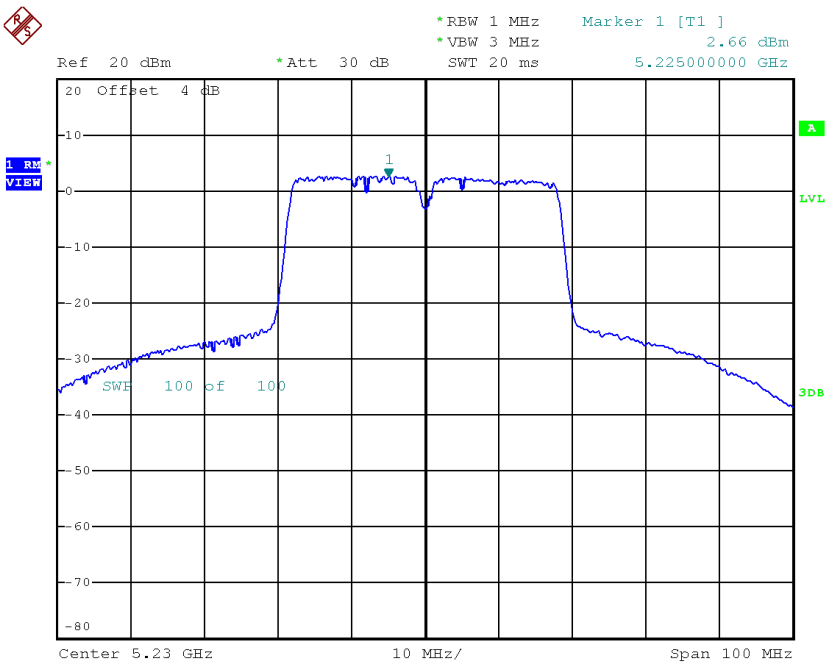
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor | Power Density + Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH38 | 5190 | 2.71 | 0.53 | 3.24 | 17.00 |
| CH46 | 5230 | 2.66 | 0.53 | 3.19 | 17.00 |

## CH38




Date: 23.NOV.2017 20:54:13

## CH46

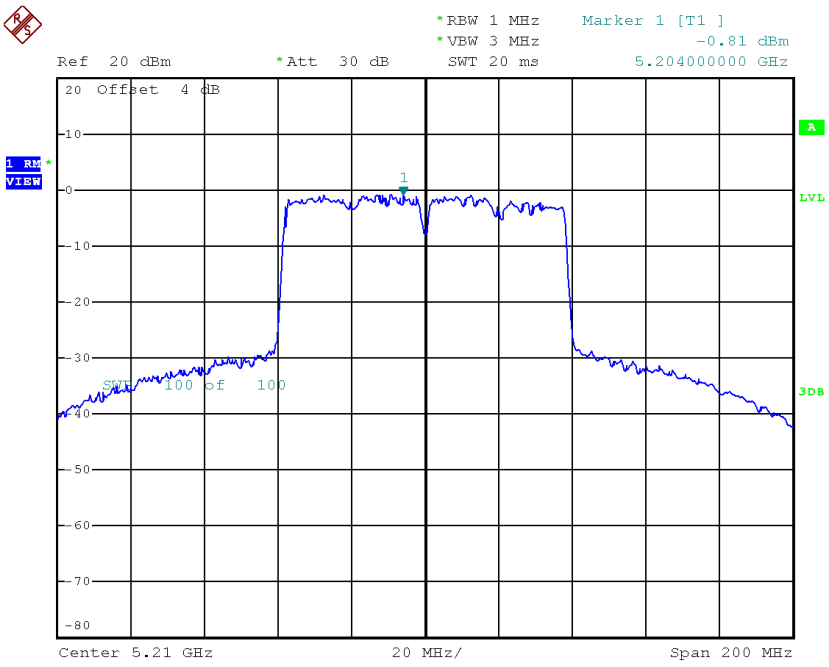



Date: 23.NOV.2017 20:54:48

**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 | -0.81 | 0.79 | -0.02 | 17.00 |

**CH42**

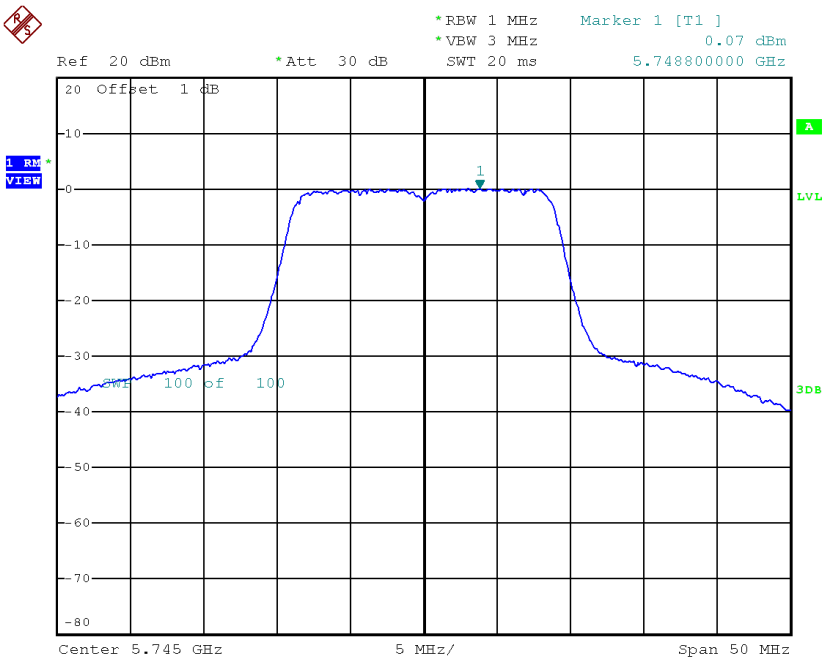



Date: 23.NOV.2017 21:05:07

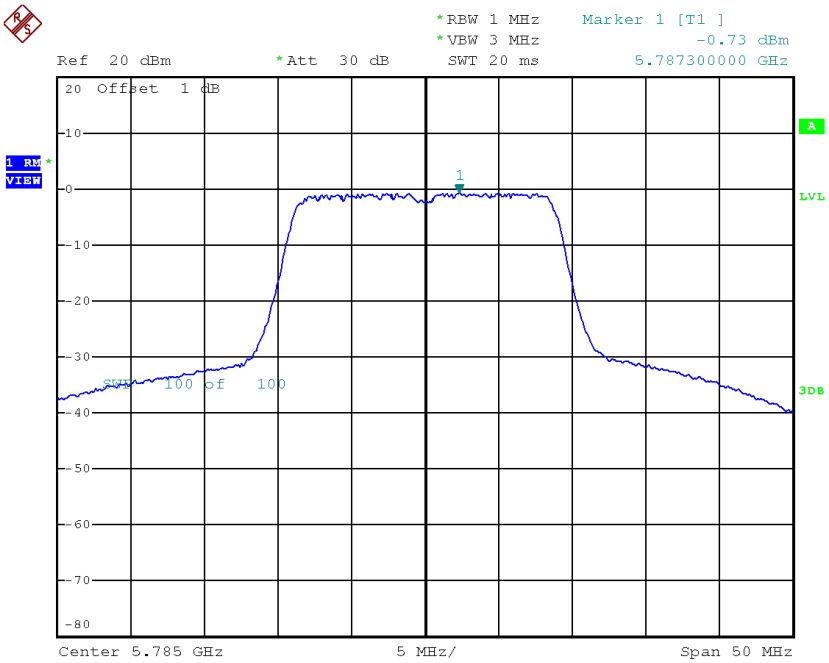
**Test Mode: UNII-3/ TX AC20 Mode_CH149/CH157/CH165**

| Channel | Frequency (MHz) | Power Density (dBm/500kHz) | Duty Factor | Power Density + Duty Factor (dBm/500kHz) | Limit (dBm/500kHz) |
|---|---|---|---|---|---|
| CH149 | 5745 | 0.07 | 0.16 | 0.23 | 30.00 |
| CH157 | 5785 | -0.73 | 0.16 | -0.57 | 30.00 |
| CH165 | 5825 | -1.41 | 0.16 | -1.25 | 30.00 |

**TX CH149**

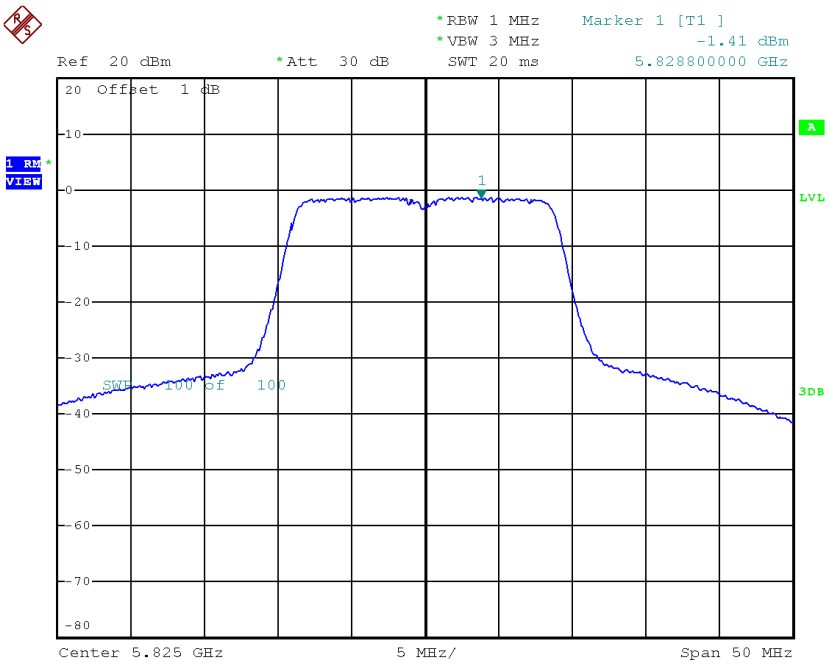


## TX CH157




Date: 23.NOV.2017 20:45:17

## TX CH165

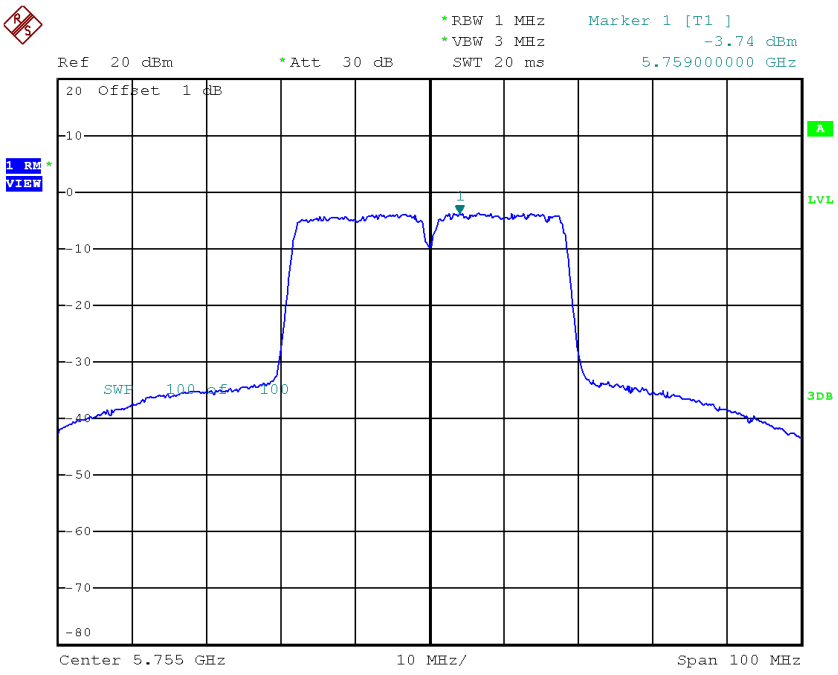



Date: 23.NOV.2017 20:46:05

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

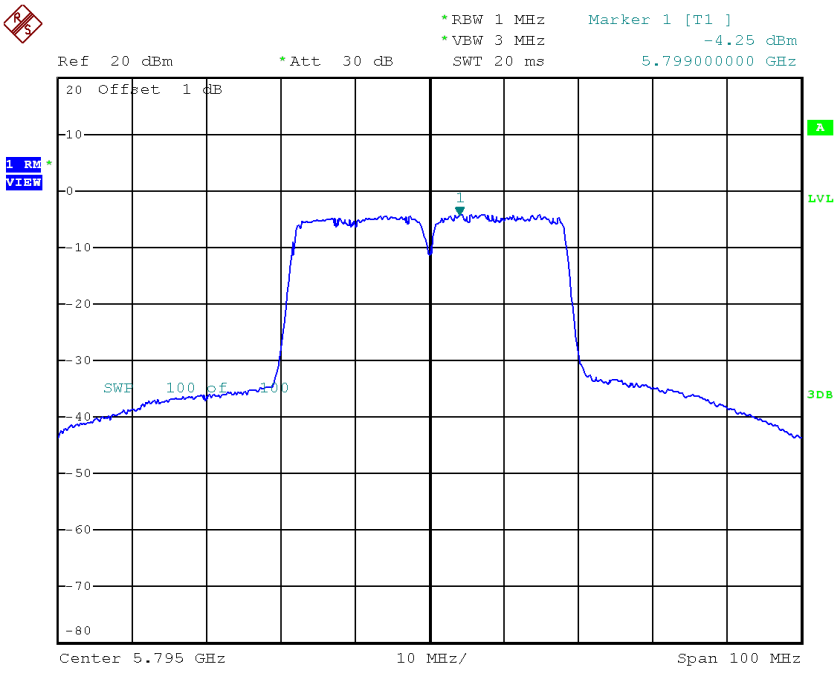
| Channel | Frequency (MHz) | Power Density (dBm/500kHz) | Duty Factor | Power Density + Duty Factor (dBm/500kHz) | Limit (dBm/500kHz) |
|---|---|---|---|---|---|
| CH151 | 5755 | -3.74 | 0.53 | -3.21 | 30.00 |
| CH159 | 5795 | -4.25 | 0.53 | -3.72 | 30.00 |

## TX CH151




Date: 23.NOV.2017 21:02:45

## TX CH159

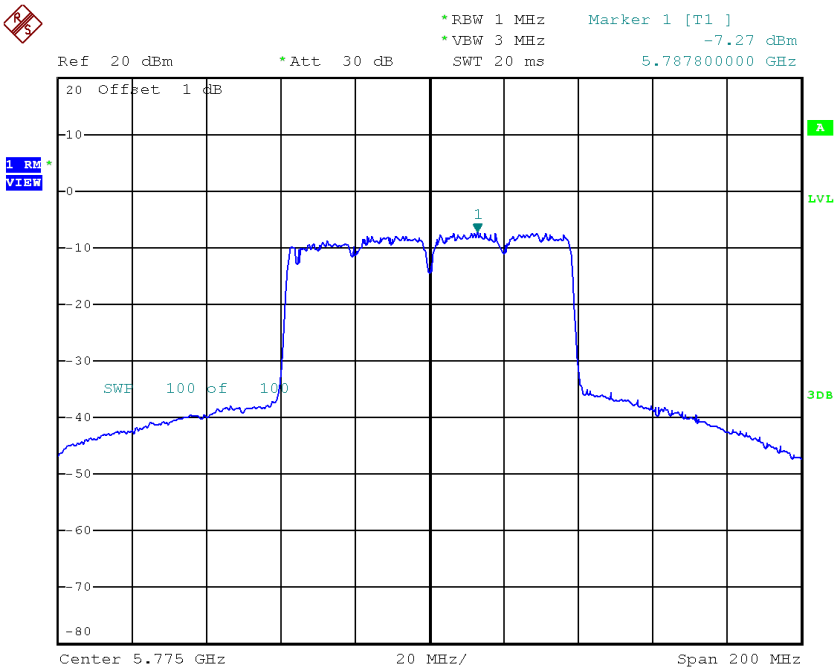



Date: 23.NOV.2017 21:03:46

## 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 | -7.27 | 0.79 | -6.48 | 30.00 |

**TX CH155**




Date: 23.NOV.2017 21:09:36

# APPENDIX H - FREQUENCY STABILITY

| Test Mode: | UNII-1 |
|---|---|

**Voltage vs. Frequency Stability**

| Voltage | Measurement Frequency (MHz) |
|---|---|
| (V) | 5180.0000 |
| 132 | 5179.9800 |
| 120 | 5179.9750 |
| 108 | 5179.9799 |
| Max. Deviation (MHz) | 0.0201 |
| Max. Deviation (ppm) | 3.8803 |

**Temperature vs. Frequency Stability**

| Temperature | Measurement Frequency (MHz) |
|---|---|
| (℃) | 5180.0000 |
| -5 | 5179.9799 |
| 5 | 5179.9800 |
| 15 | 5179.9800 |
| 25 | 5179.9800 |
| 35 | 5179.9750 |
| 45 | 5179.9800 |
| 50 | 5179.9800 |
| Max. Deviation (MHz) | 0.0250 |
| Max. Deviation (ppm) | 4.8263 |

| Test Mode: | UNII-3 |
|---|---|

**Voltage vs. Frequency Stability**

| Voltage | Measurement Frequency (MHz) |
|---|---|
| (V) | 5745.0000 |
| 132 | 5745.0000 |
| 120 | 5744.9748 |
| 108 | 5744.9750 |
| Max. Deviation (MHz) | 0.0250 |
| Max. Deviation (ppm) | 4.3516 |

**Temperature vs. Frequency Stability**

| Temperature | Measurement Frequency (MHz) |
|---|---|
| (℃) | 5745.0000 |
| -5 | 5744.9750 |
| 5 | 5744.9750 |
| 15 | 5744.9750 |
| 25 | 5744.9950 |
| 35 | 5744.9800 |
| 45 | 5744.9799 |
| 50 | 5744.9750 |
| Max. Deviation (MHz) | 0.0250 |
| Max. Deviation (ppm) | 4.3516 |