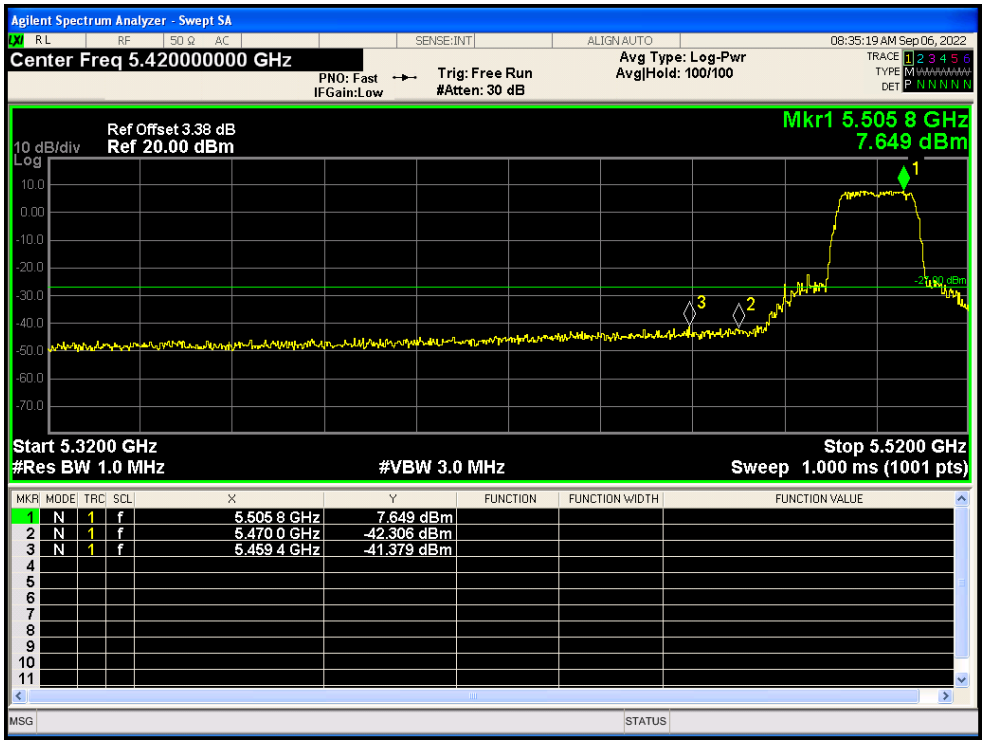
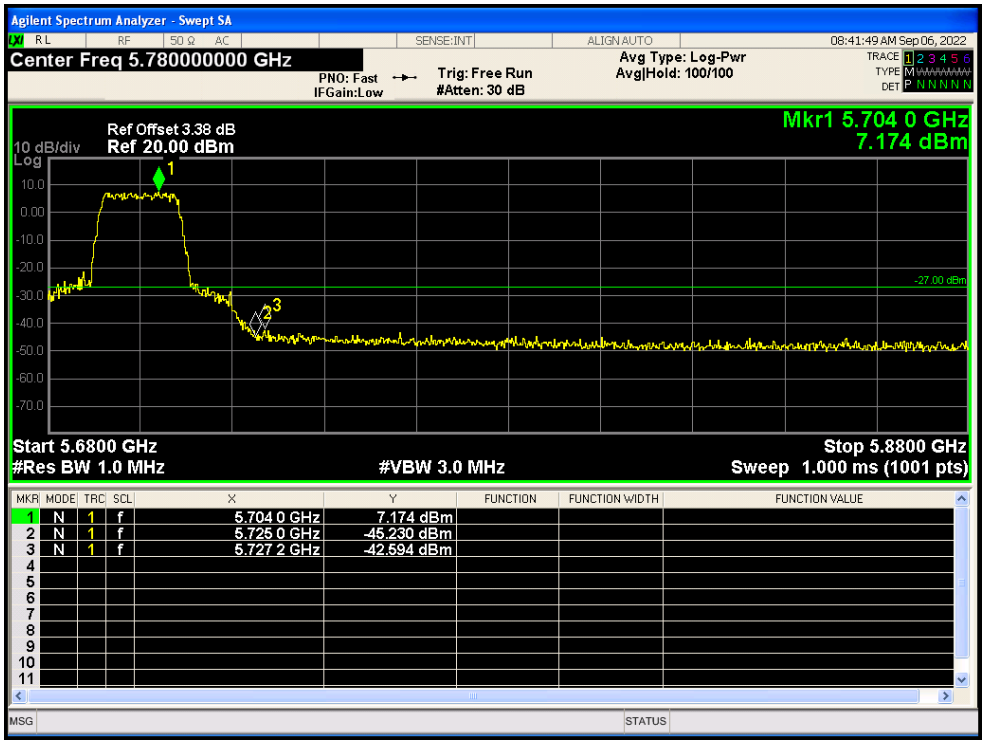
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5500	Ant1	-41.37	-27	Pass
NVNT	a	5700	Ant1	-42.59	-27	Pass
NVNT	n20	5500	Ant1	-41.42	-27	Pass
NVNT	n20	5700	Ant1	-39.42	-27	Pass
NVNT	n40	5510	Ant1	-32.5	-27	Pass
NVNT	n40	5670	Ant1	-42.03	-27	Pass

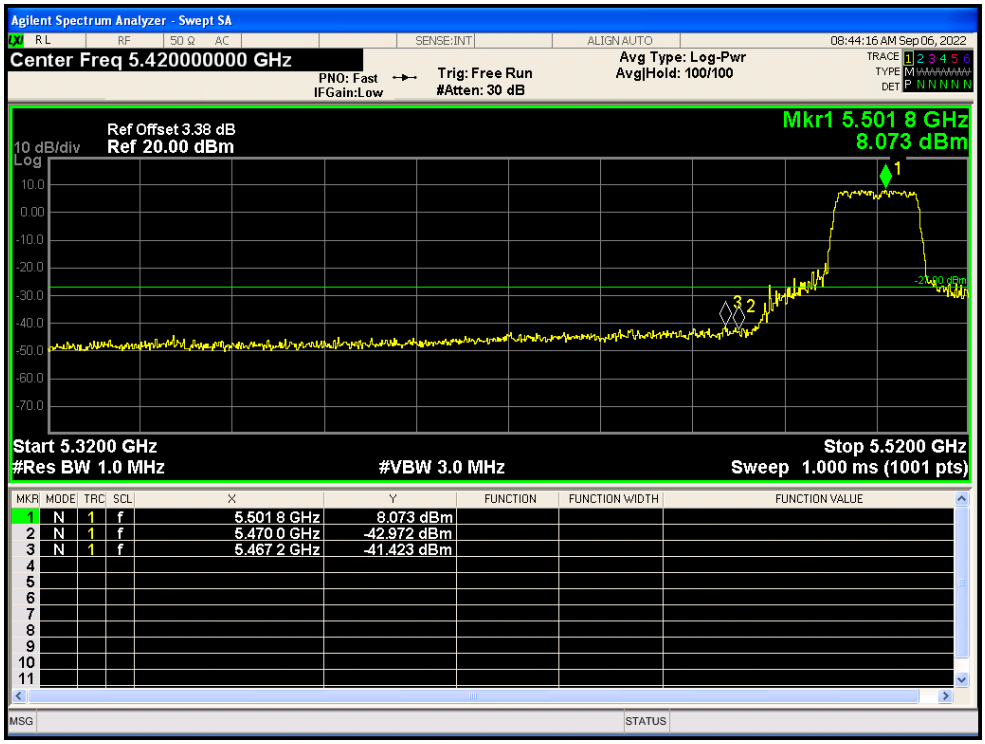
Band Edge NVNT a 5500MHz Low Ant1



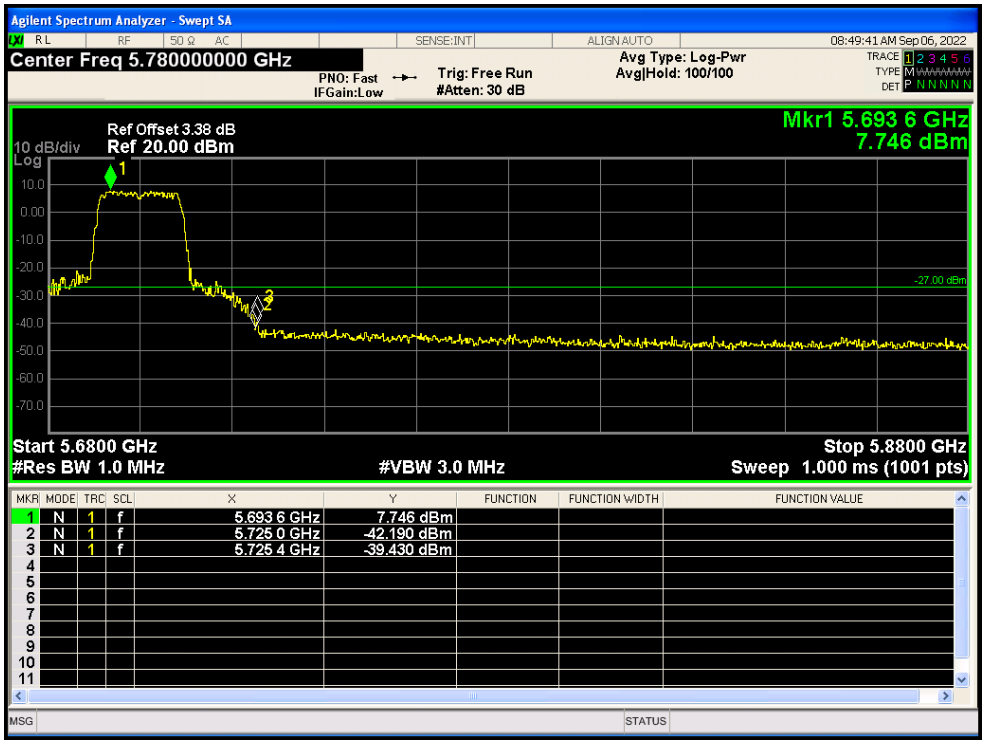
Band Edge NVNT a 5700MHz High Ant1



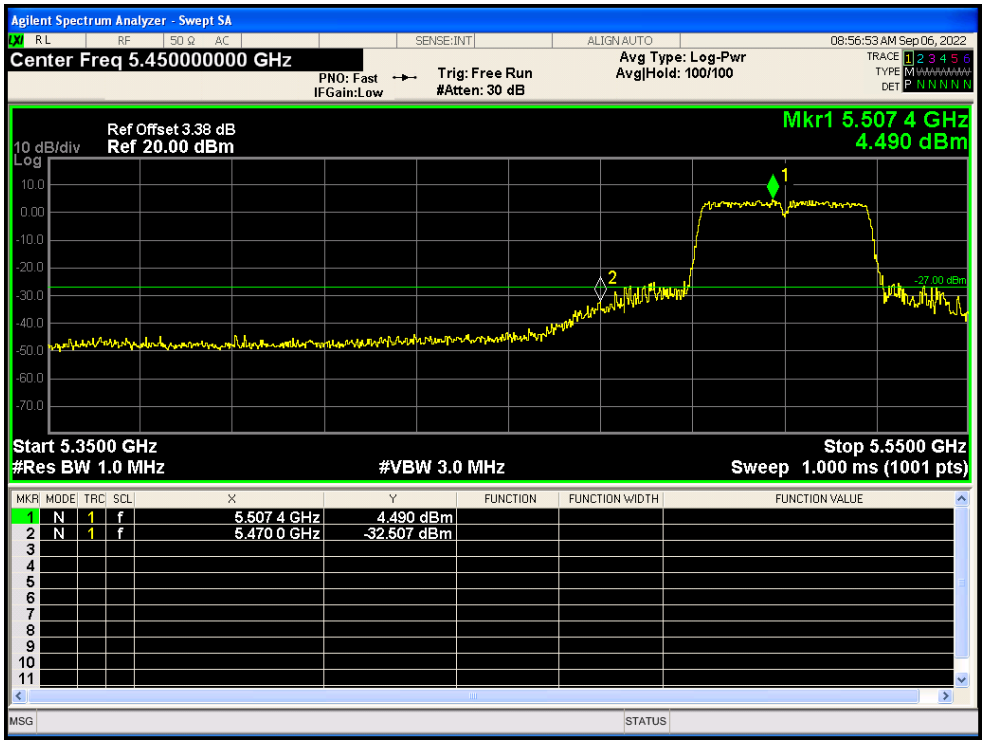
Band Edge NVNT n20 5500MHz Low Ant1



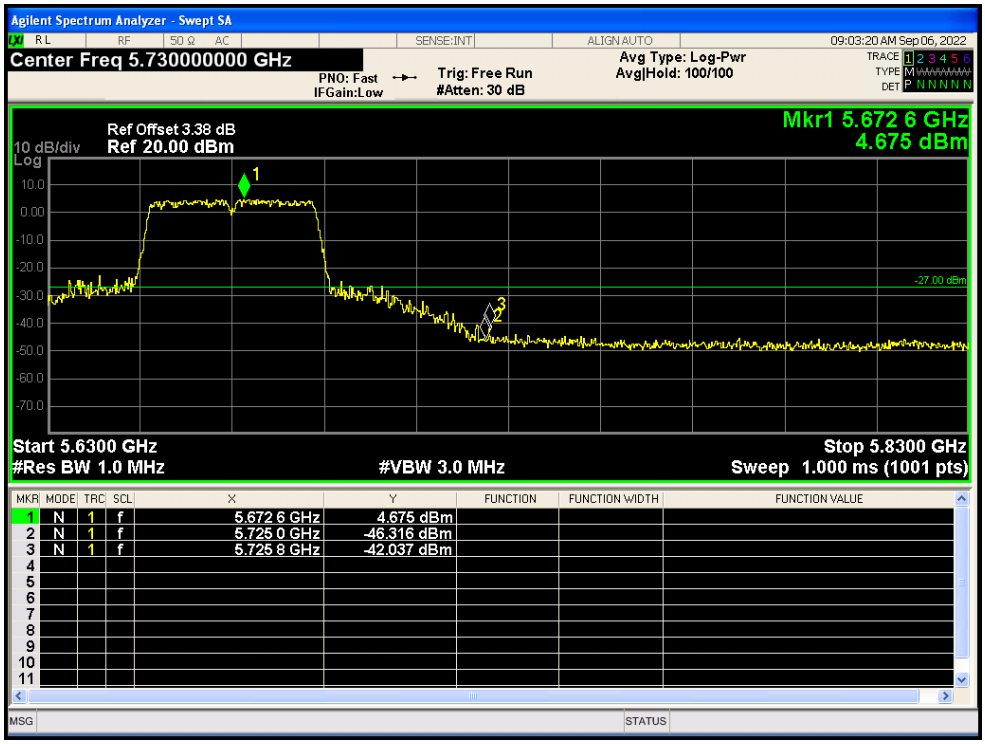
Band Edge NVNT n20 5700MHz High Ant1



Band Edge NVNT n40 5510MHz Low Ant1



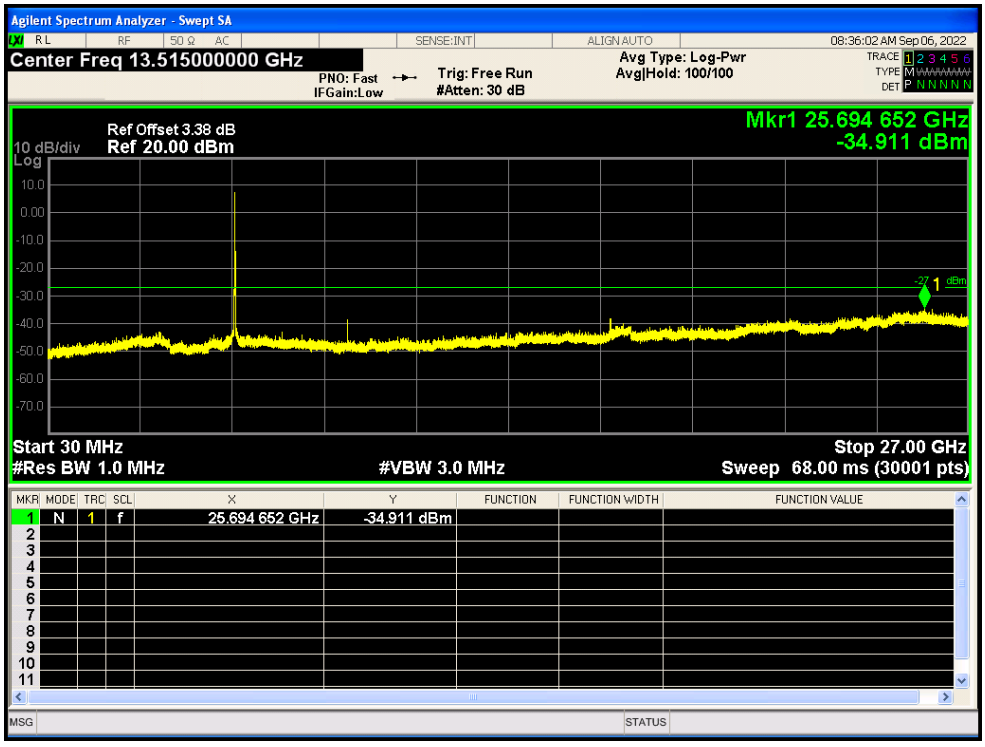
Band Edge NVNT n40 5670MHz High Ant1


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
09:03:20 AM Sep 06, 2022
Center Freq 5.730000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 3.38 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 5.672 6 GHz
4.675 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-27.00 dBm
Start 5.6300 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.8300 GHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.672 6 GHz 4.675 dBm
2 N 1 f 5.725 0 GHz -46.316 dBm
3 N 1 f 5.725 8 GHz -42.037 dBm
MSG
STATUS

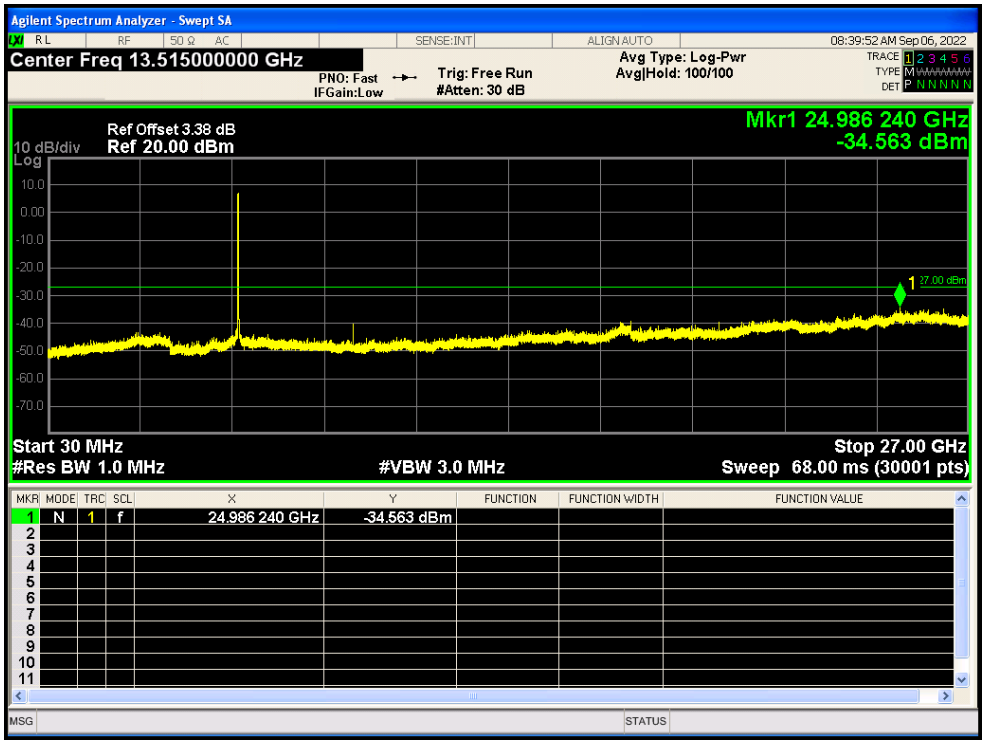
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5500	Ant1	-34.91	-27	Pass
NVNT	a	5600	Ant1	-34.56	-27	Pass
NVNT	a	5700	Ant1	-32.81	-27	Pass
NVNT	n20	5500	Ant1	-35.5	-27	Pass
NVNT	n20	5600	Ant1	-34.62	-27	Pass
NVNT	n20	5700	Ant1	-35.08	-27	Pass
NVNT	n40	5510	Ant1	-35.05	-27	Pass
NVNT	n40	5590	Ant1	-34.74	-27	Pass
NVNT	n40	5670	Ant1	-34.72	-27	Pass

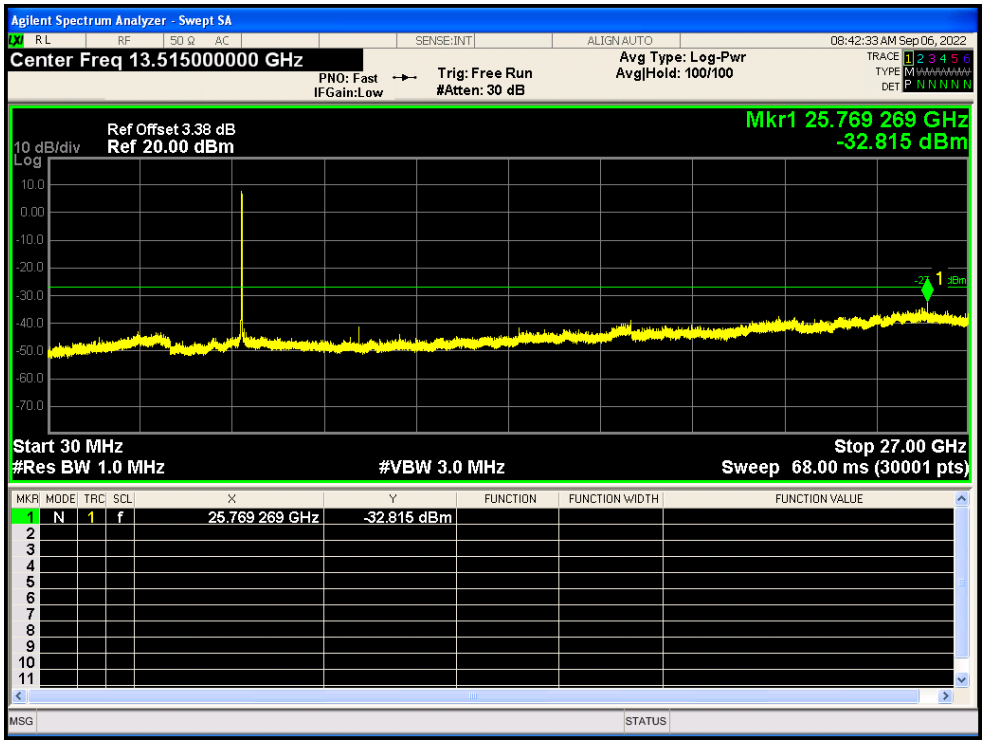
Tx. Spurious NVNT a 5500MHz Ant1 Emission



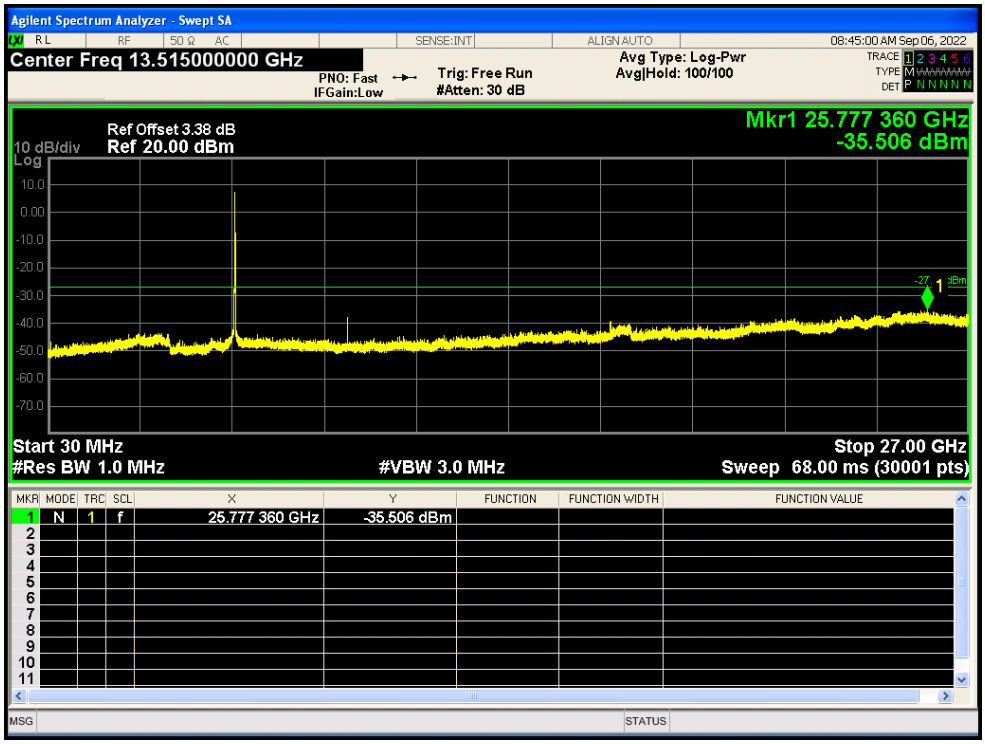
Tx. Spurious NVNT a 5600MHz Ant1 Emission



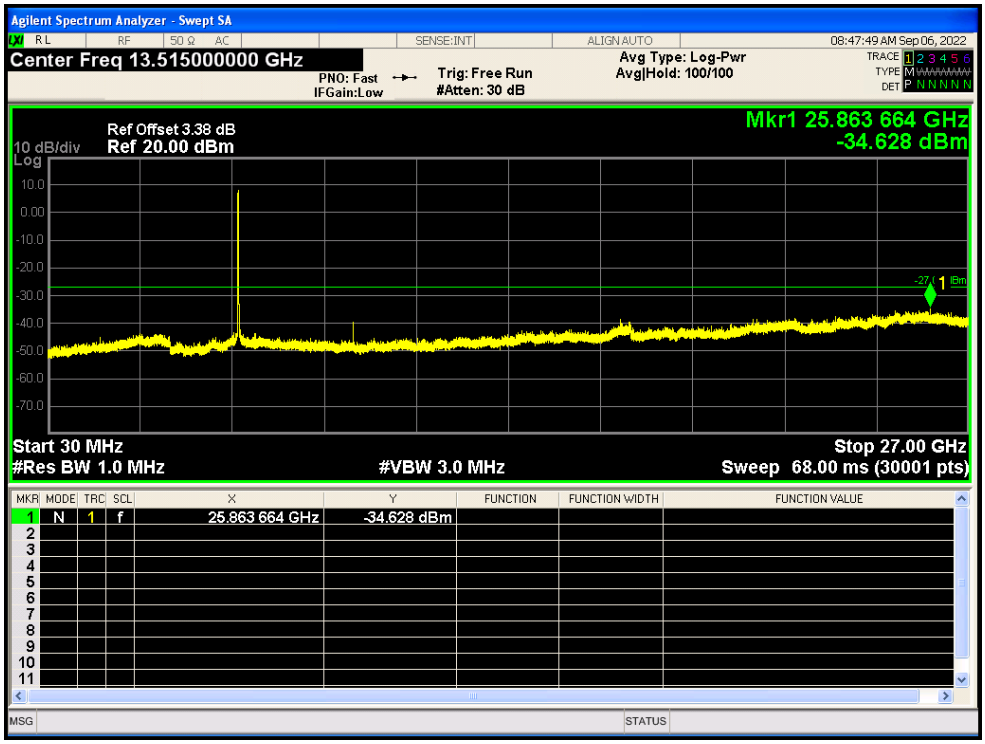
Tx. Spurious NVNT a 5700MHz Ant1 Emission



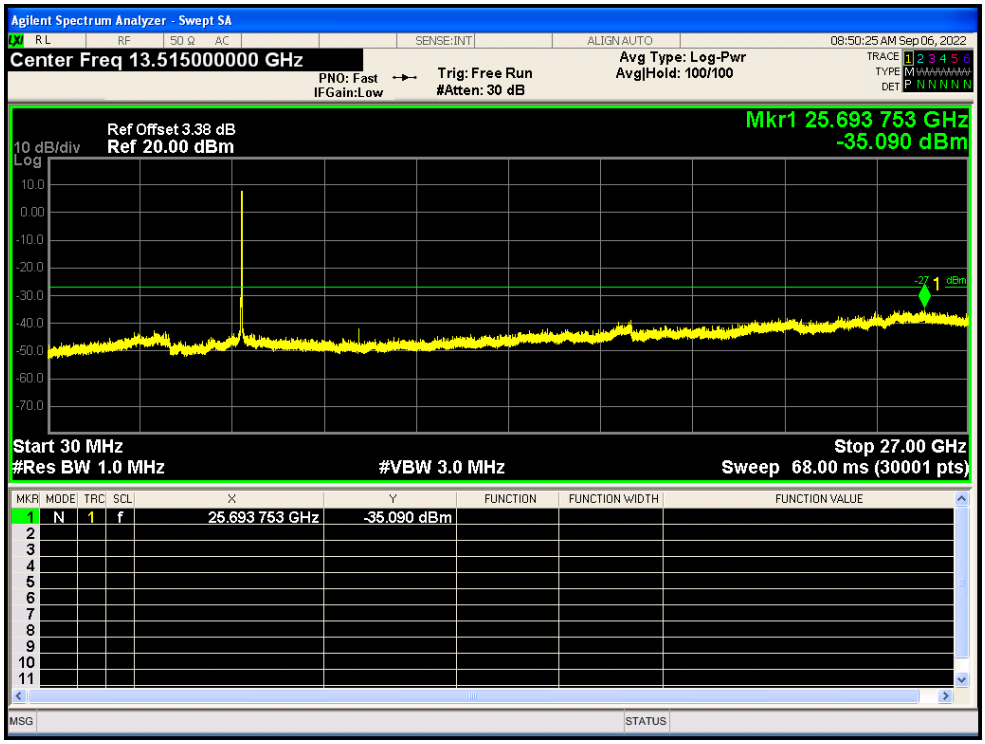
Tx. Spurious NVNT n20 5500MHz Ant1 Emission



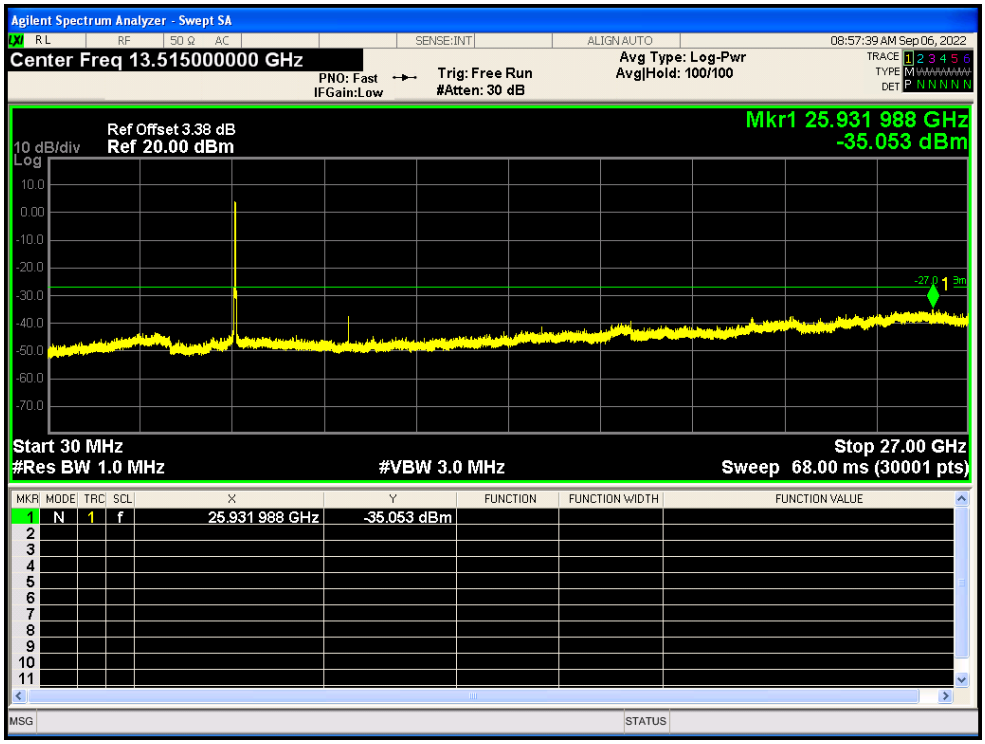
Tx. Spurious NVNT n20 5600MHz Ant1 Emission



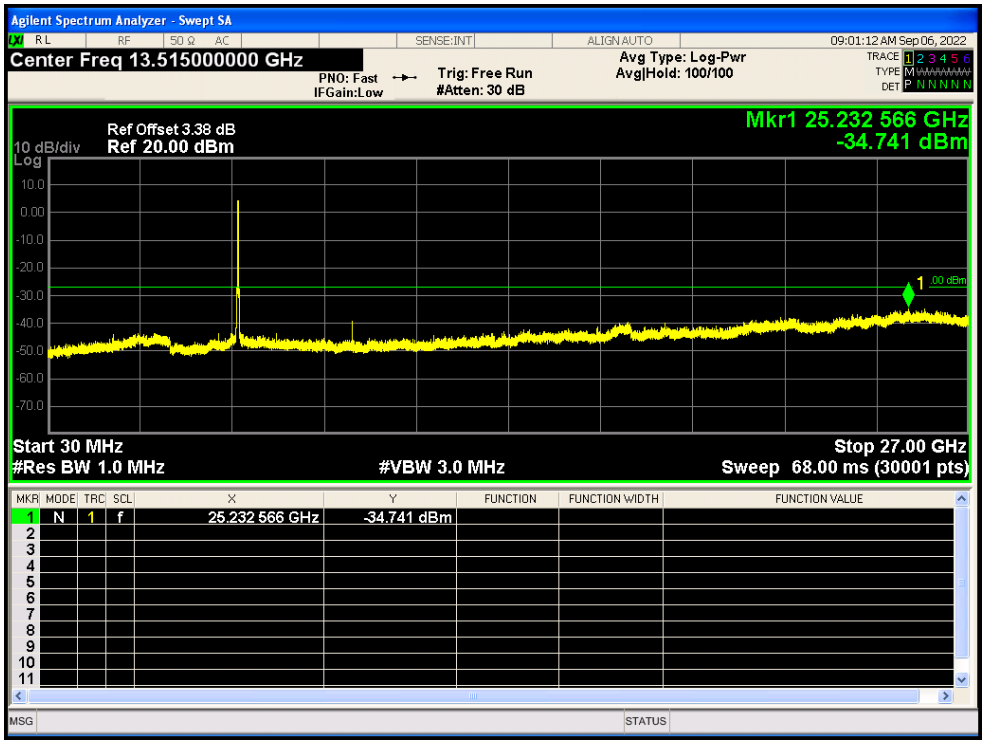
Tx. Spurious NVNT n20 5700MHz Ant1 Emission



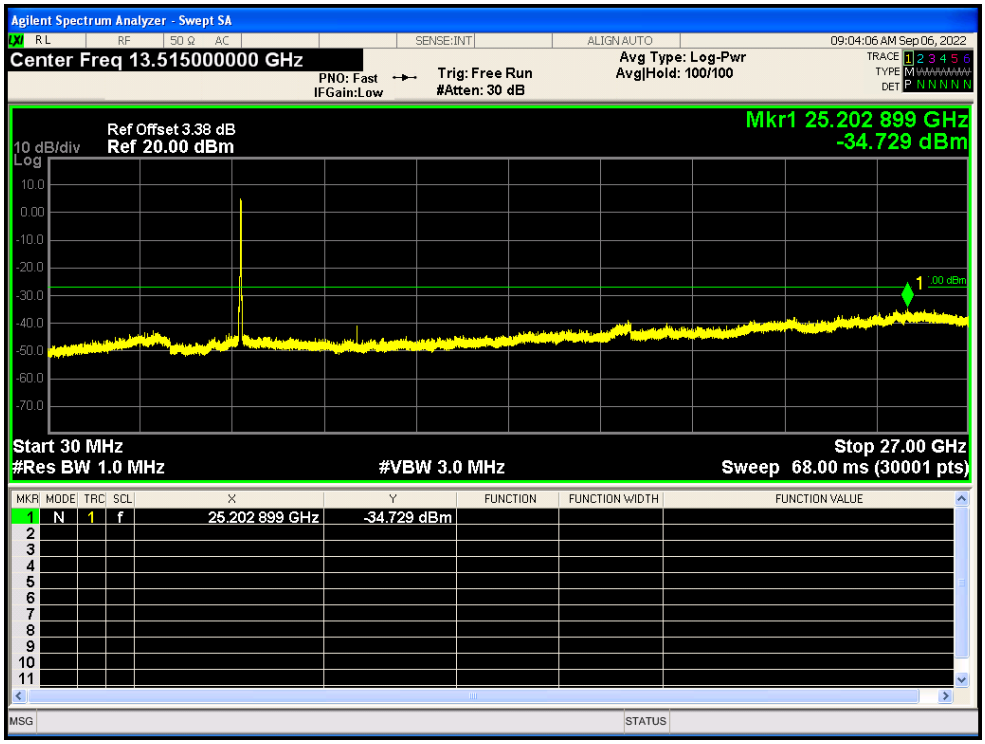
Tx. Spurious NVNT n40 5510MHz Ant1 Emission



Tx. Spurious NVNT n40 5590MHz Ant1 Emission



Tx. Spurious NVNT n40 5670MHz Ant1 Emission

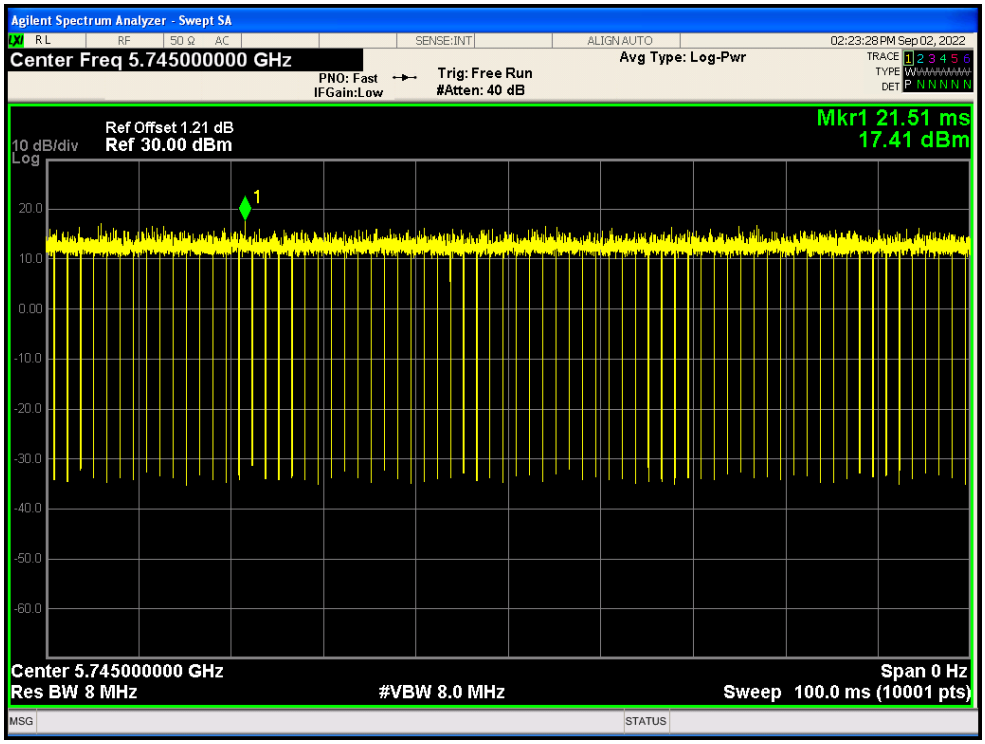


5.8G WIFI

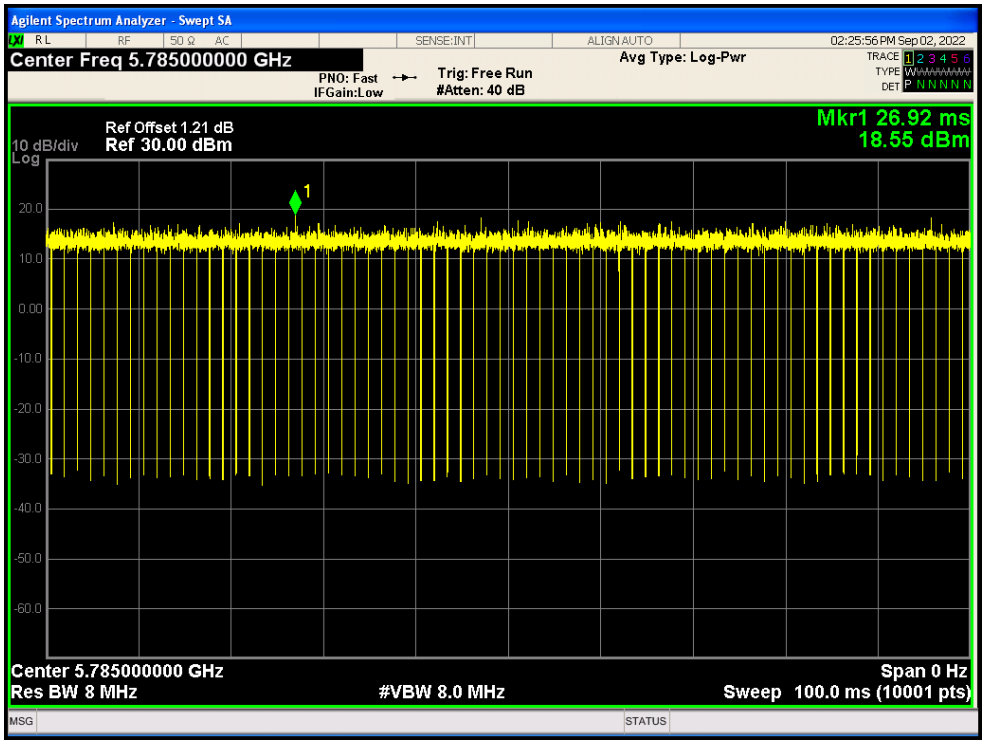
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5745	Ant1	98.2	0.08
NVNT	a	5785	Ant1	98.2	0.08
NVNT	a	5825	Ant1	98.21	0.08
NVNT	n20	5745	Ant1	98.07	0.08
NVNT	n20	5785	Ant1	98.08	0.08
NVNT	n20	5825	Ant1	98.08	0.08
NVNT	n40	5755	Ant1	96.34	0.16
NVNT	n40	5795	Ant1	96.37	0.16

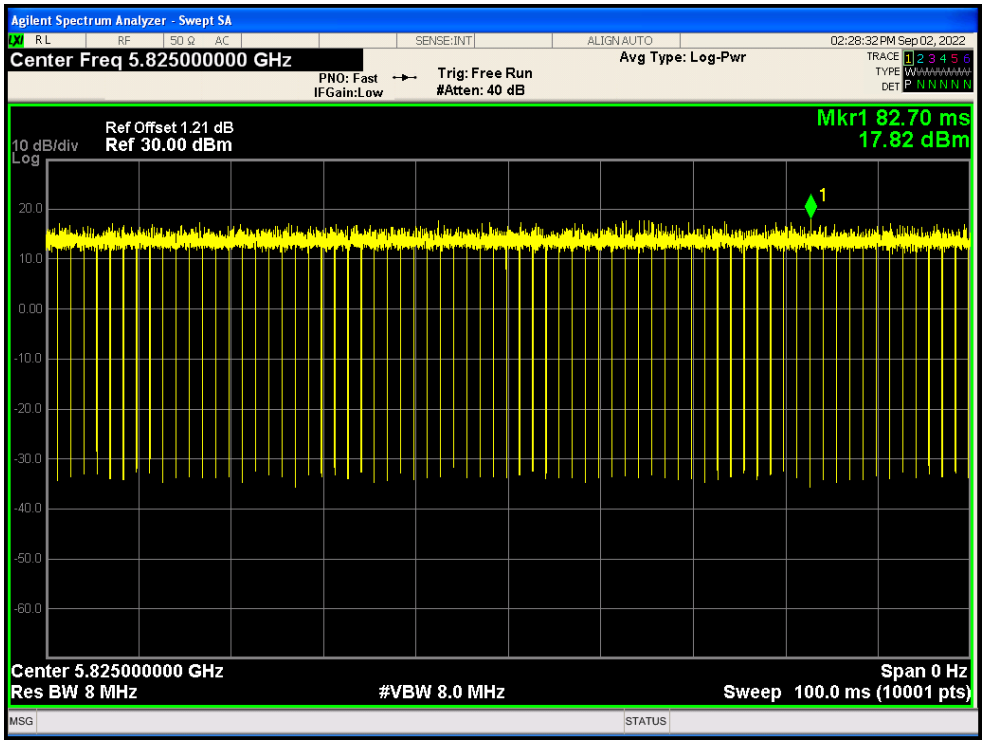
Duty Cycle NVNT a 5745MHz Ant1



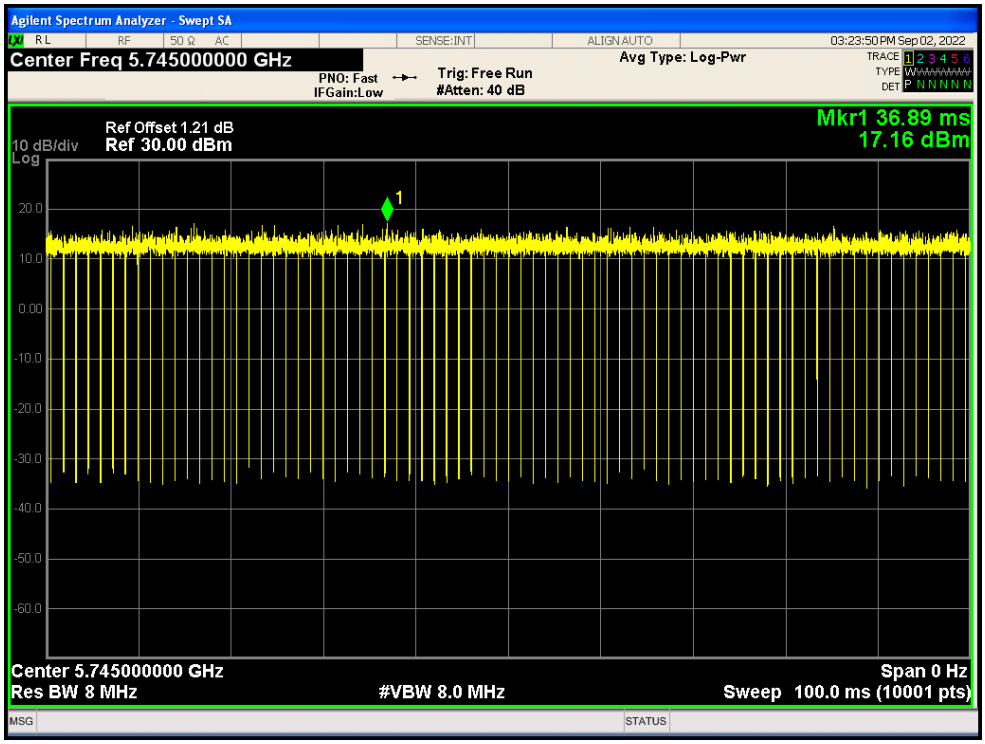
Duty Cycle NVNT a 5785MHz Ant1



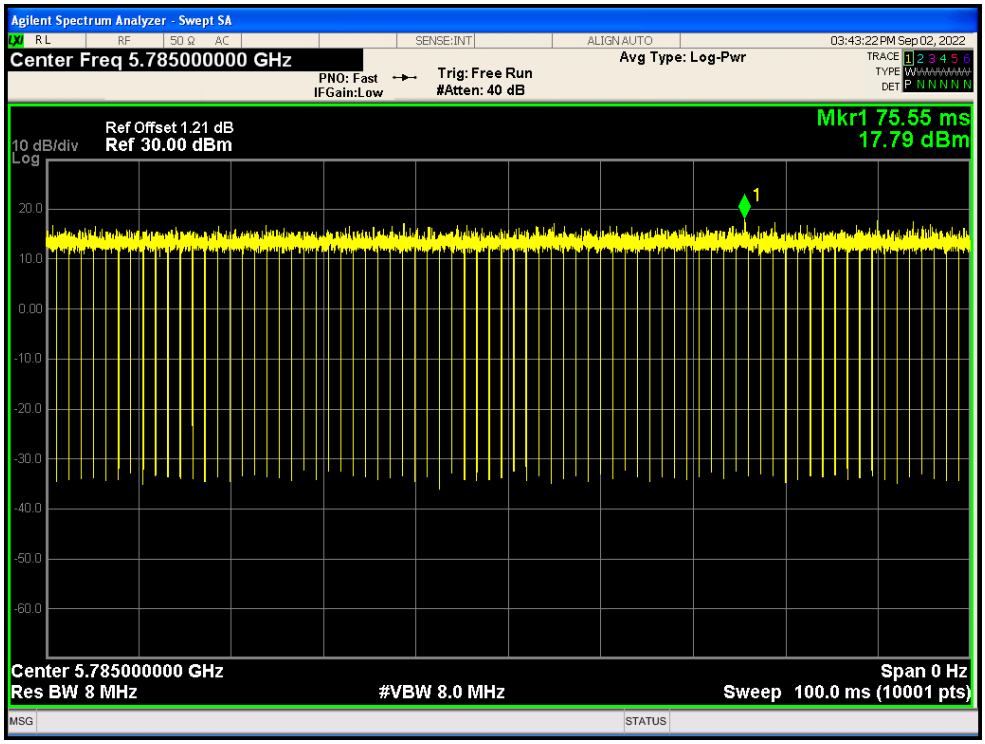
Duty Cycle NVNT a 5825MHz Ant1



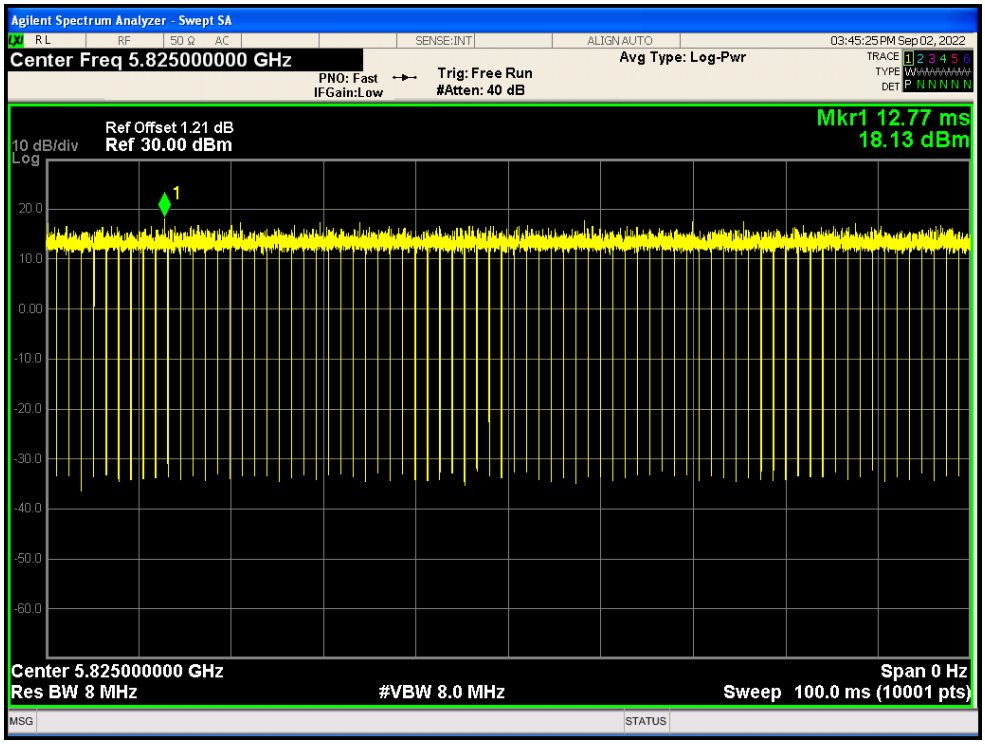
Duty Cycle NVNT n20 5745MHz Ant1



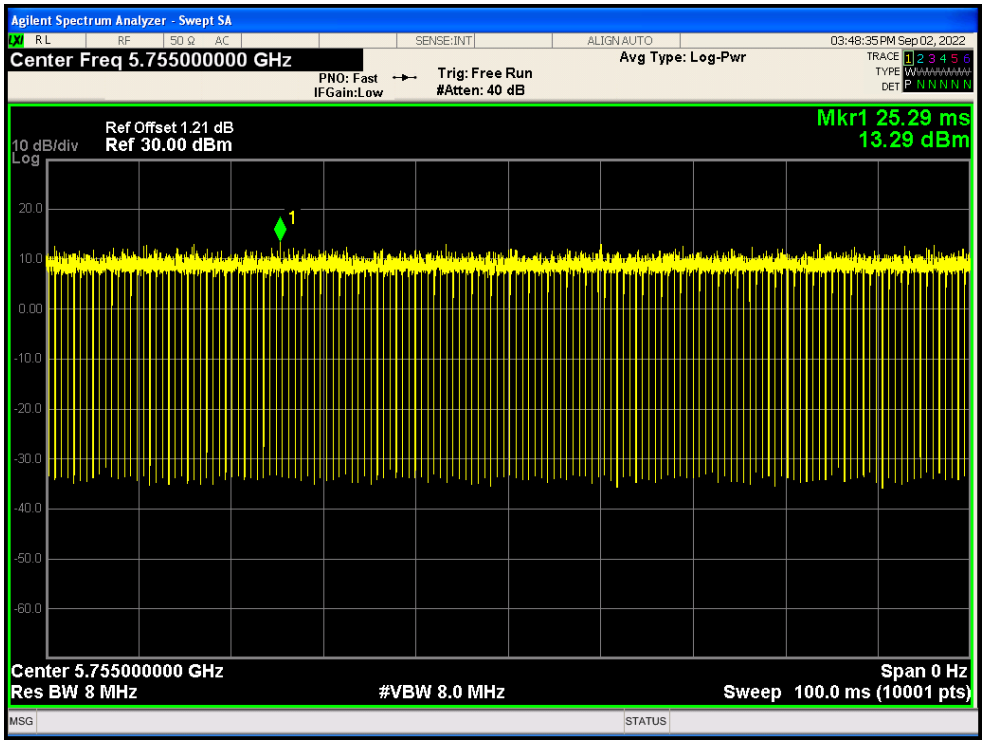
Duty Cycle NVNT n20 5785MHz Ant1



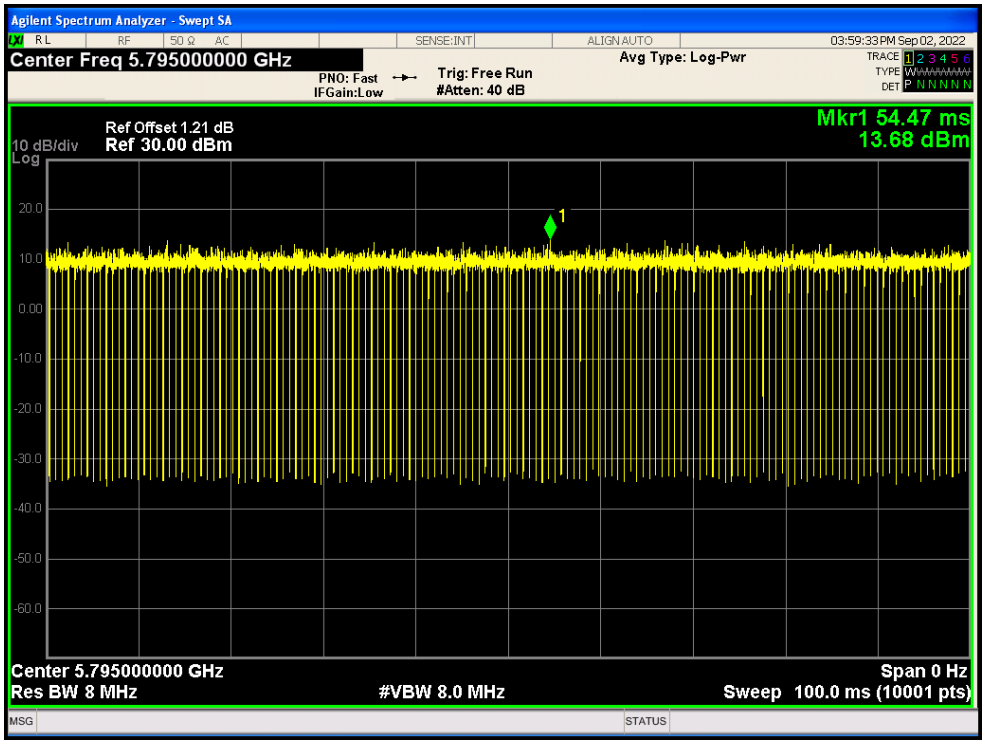
Duty Cycle NVNT n20 5825MHz Ant1



Duty Cycle NVNT n40 5755MHz Ant1



Duty Cycle NVNT n40 5795MHz Ant1


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:59:33 PM Sep 02, 2022
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE WWWWW
DET P N N N N N
Ref Offset 1.21 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr1 54.47 ms
13.68 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 5.795000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 100.0 ms (10001 pts)
MSG
STATUS

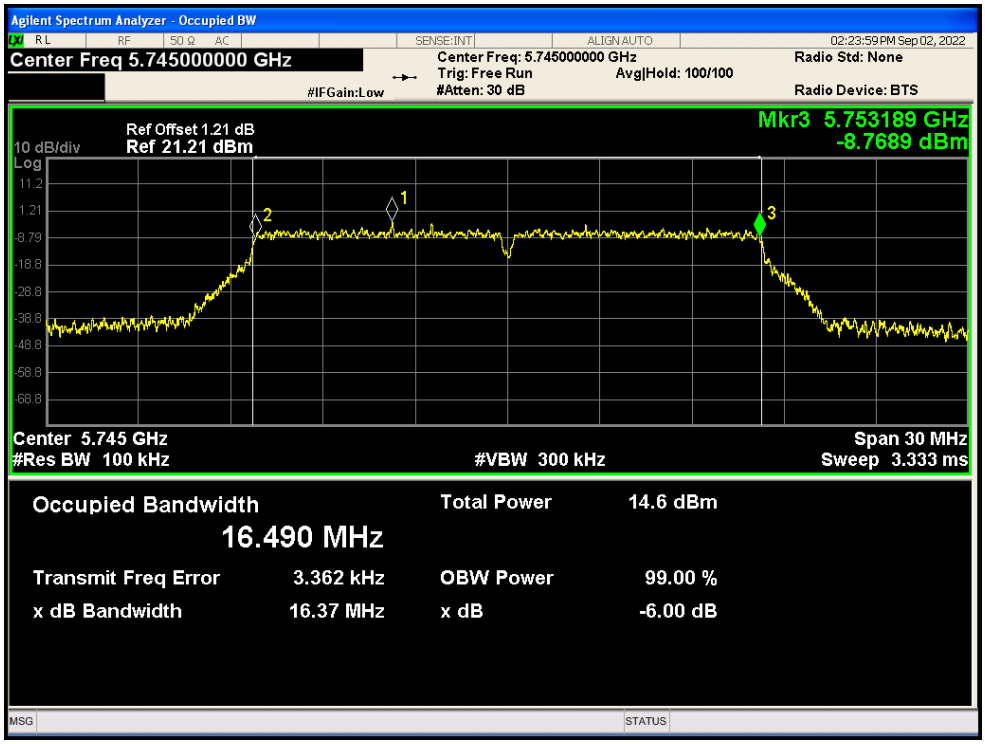
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	8.864	0.08	8.944	30	Pass
NVNT	a	5785	Ant1	9.868	0.08	9.948	30	Pass
NVNT	a	5825	Ant1	9.852	0.08	9.932	30	Pass
NVNT	n20	5745	Ant1	9.482	0.08	9.562	30	Pass
NVNT	n20	5785	Ant1	9.782	0.08	9.862	30	Pass
NVNT	n20	5825	Ant1	9.774	0.08	9.854	30	Pass
NVNT	n40	5755	Ant1	9.068	0.16	9.228	30	Pass
NVNT	n40	5795	Ant1	8.886	0.16	9.046	30	Pass

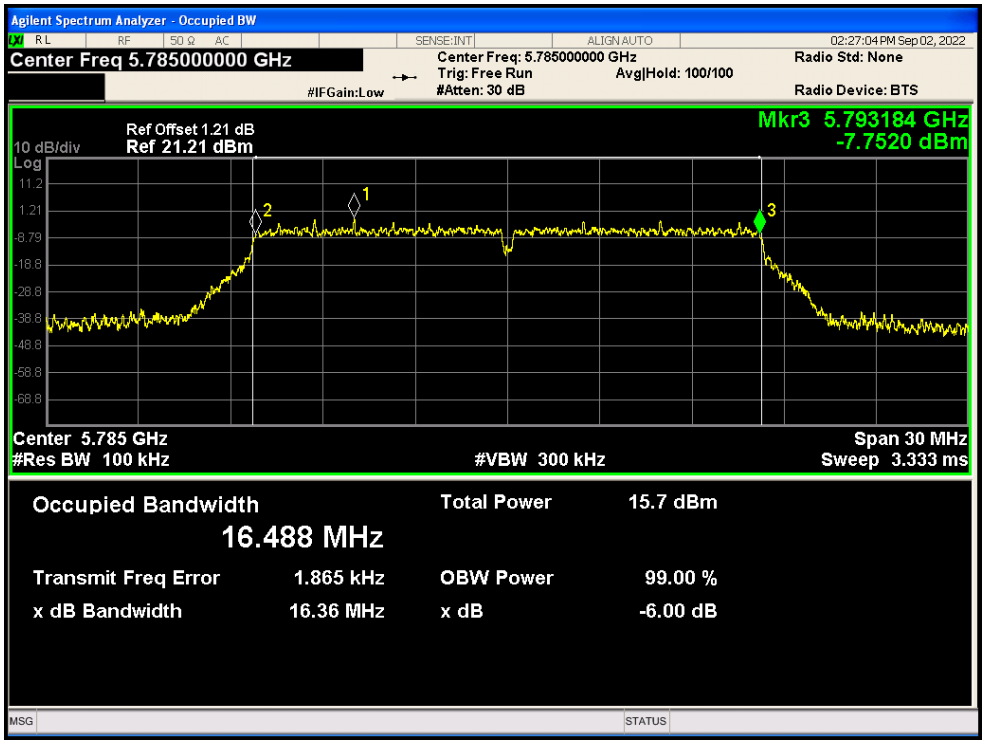
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.37	0.5	Pass
NVNT	a	5785	Ant1	16.363	0.5	Pass
NVNT	a	5825	Ant1	16.384	0.5	Pass
NVNT	n20	5745	Ant1	17.626	0.5	Pass
NVNT	n20	5785	Ant1	17.612	0.5	Pass
NVNT	n20	5825	Ant1	17.625	0.5	Pass
NVNT	n40	5755	Ant1	36.236	0.5	Pass
NVNT	n40	5795	Ant1	36.229	0.5	Pass

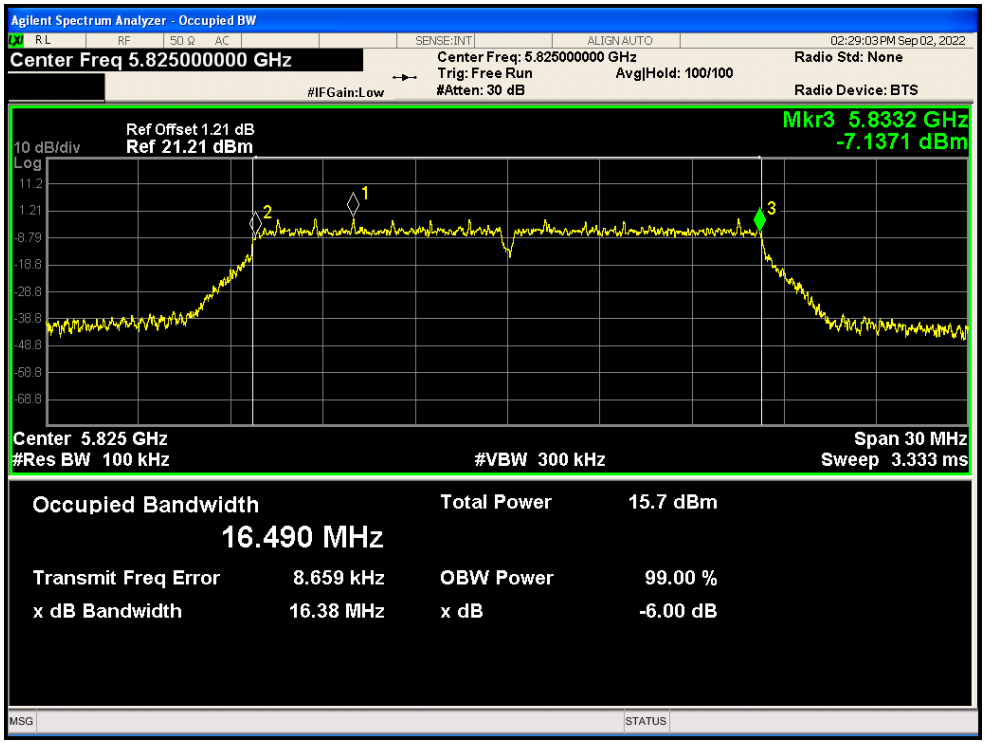
-6dB Bandwidth NVNT a 5745MHz Ant1



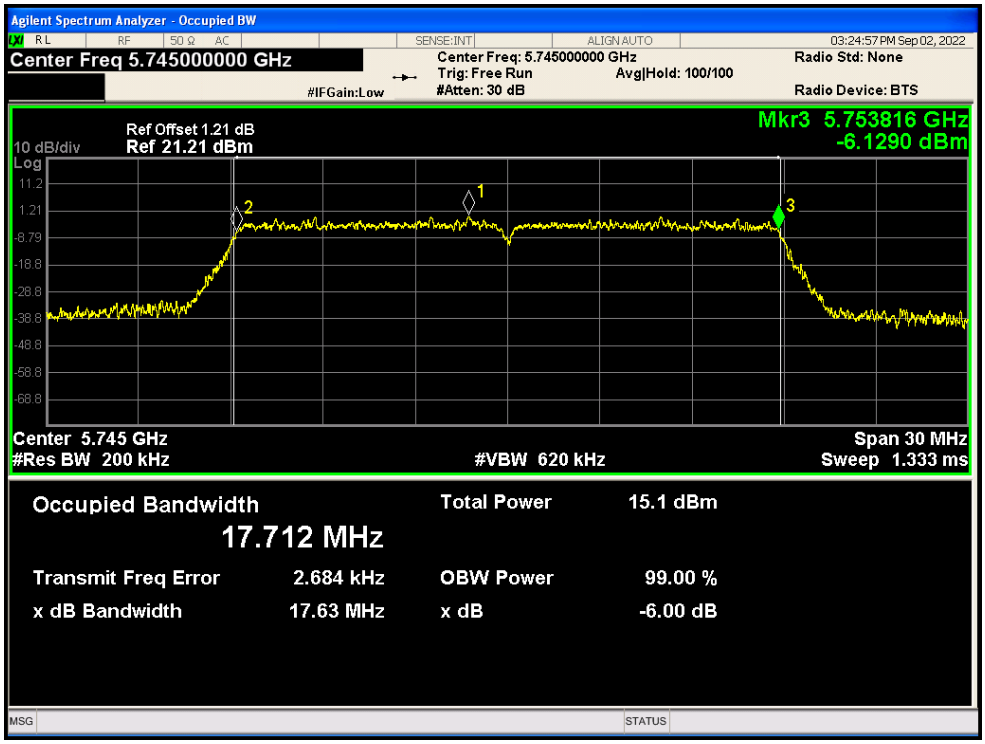
-6dB Bandwidth NVNT a 5785MHz Ant1



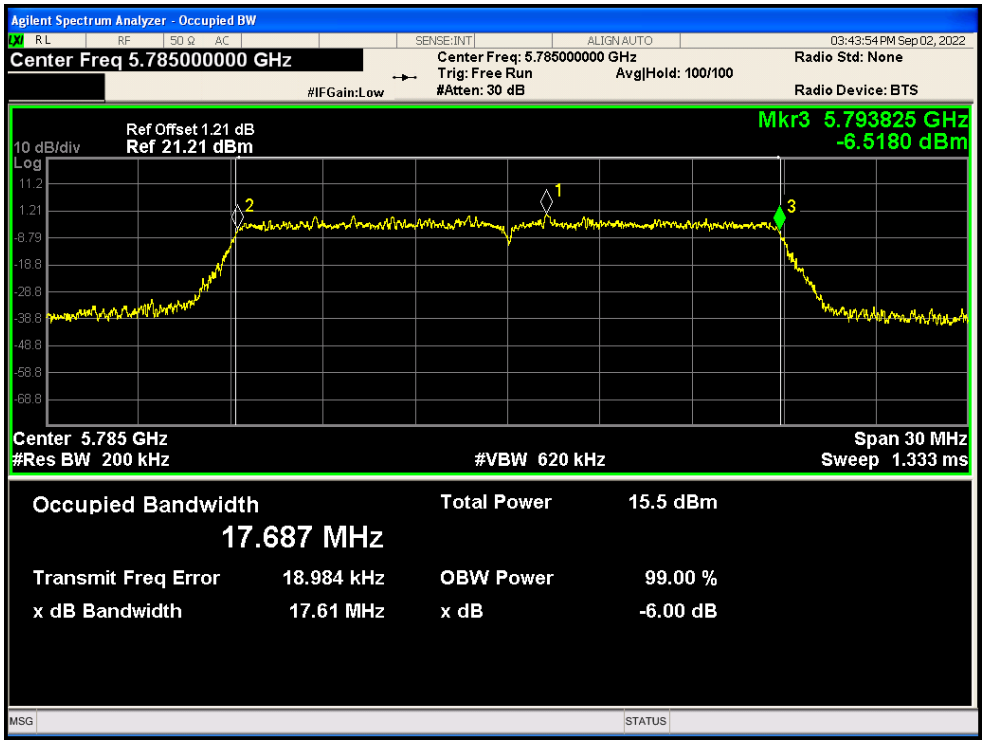
-6dB Bandwidth NVNT a 5825MHz Ant1



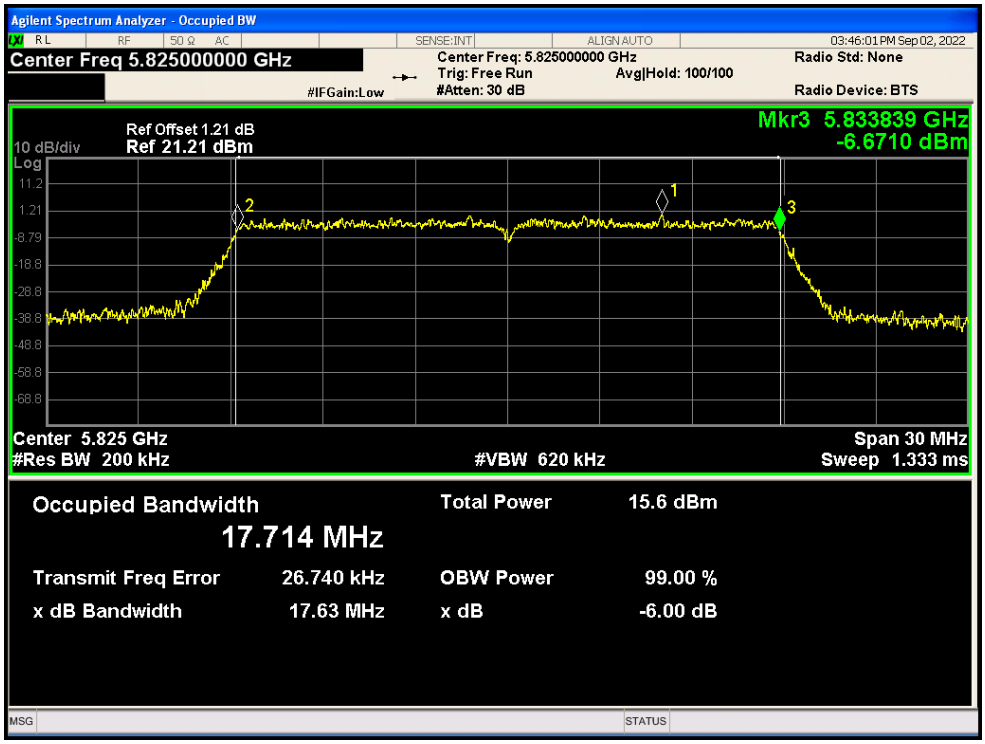
-6dB Bandwidth NVNT n20 5745MHz Ant1



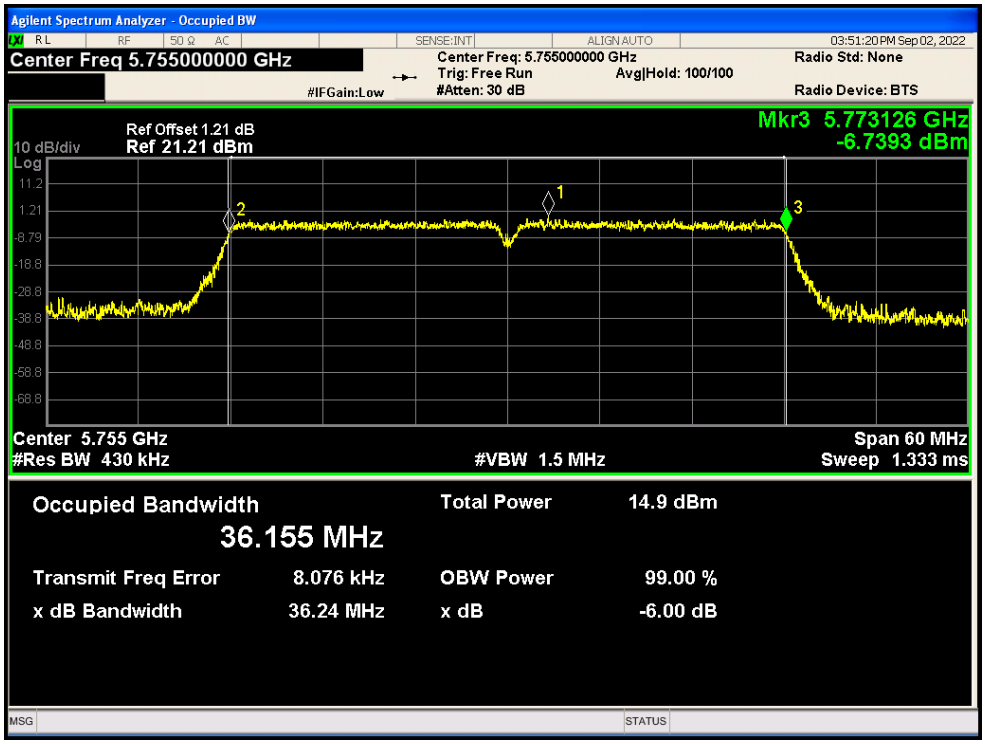
-6dB Bandwidth NVNT n20 5785MHz Ant1



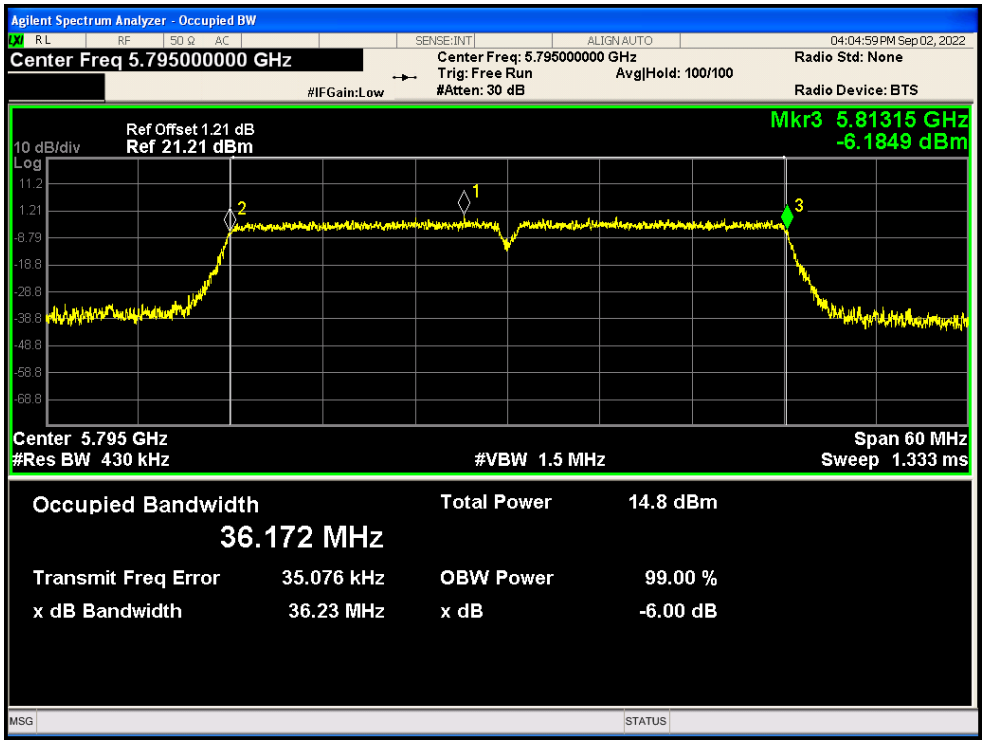
-6dB Bandwidth NVNT n20 5825MHz Ant1



-6dB Bandwidth NVNT n40 5755MHz Ant1



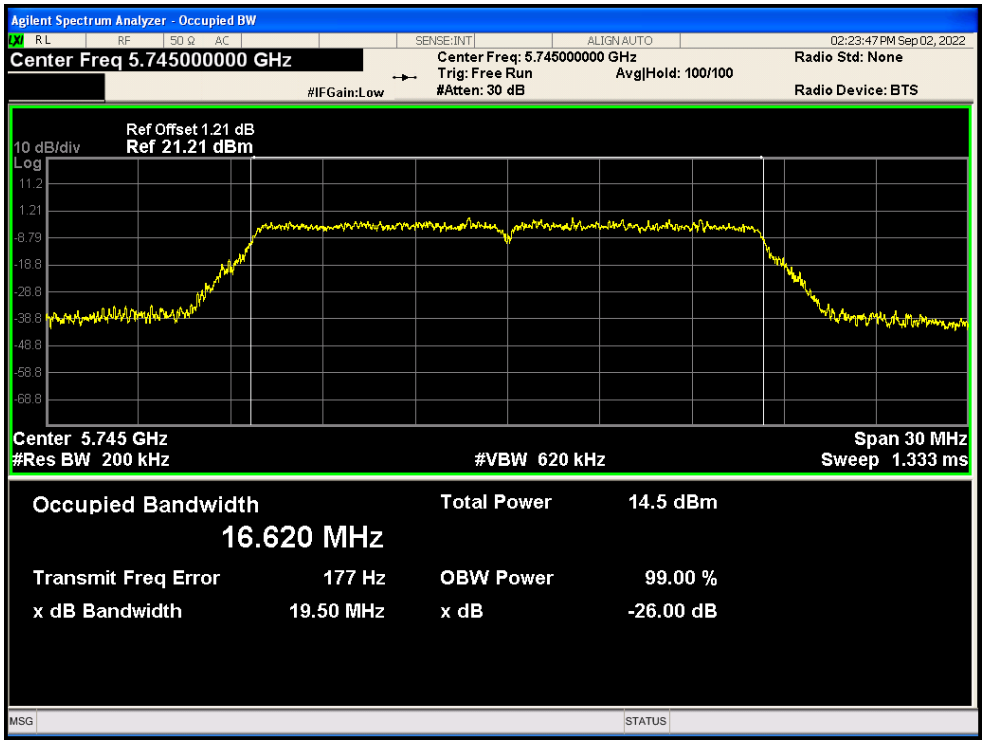
-6dB Bandwidth NVNT n40 5795MHz Ant1



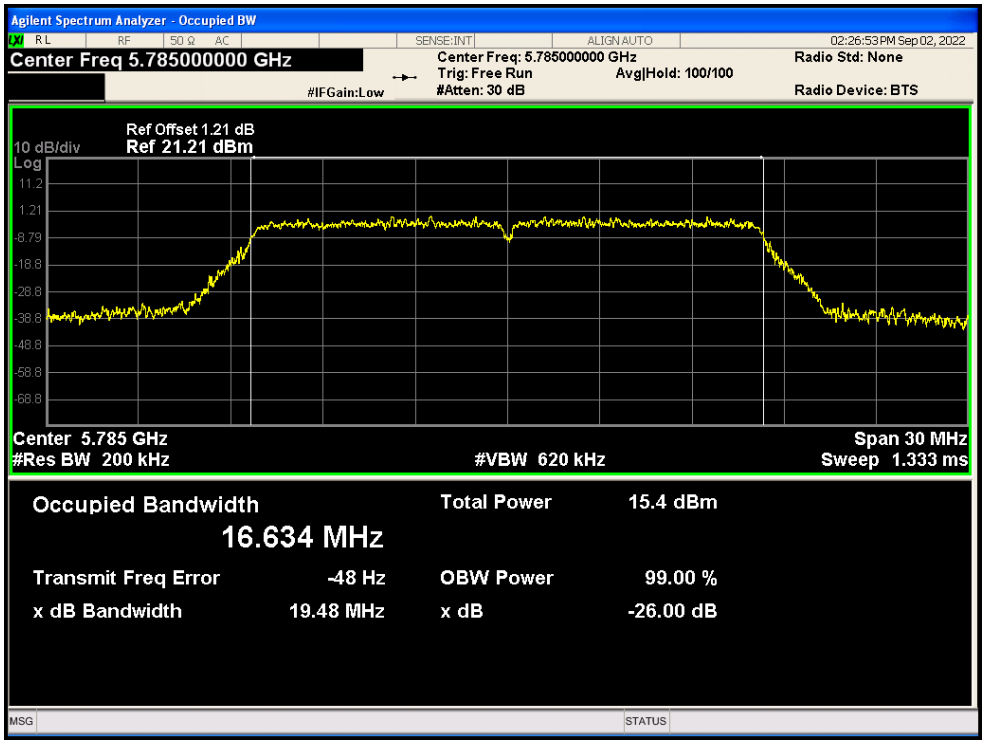
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.62
NVNT	a	5785	Ant1	16.634
NVNT	a	5825	Ant1	16.632
NVNT	n20	5745	Ant1	17.716
NVNT	n20	5785	Ant1	17.733
NVNT	n20	5825	Ant1	17.714
NVNT	n40	5755	Ant1	36.188
NVNT	n40	5795	Ant1	36.189

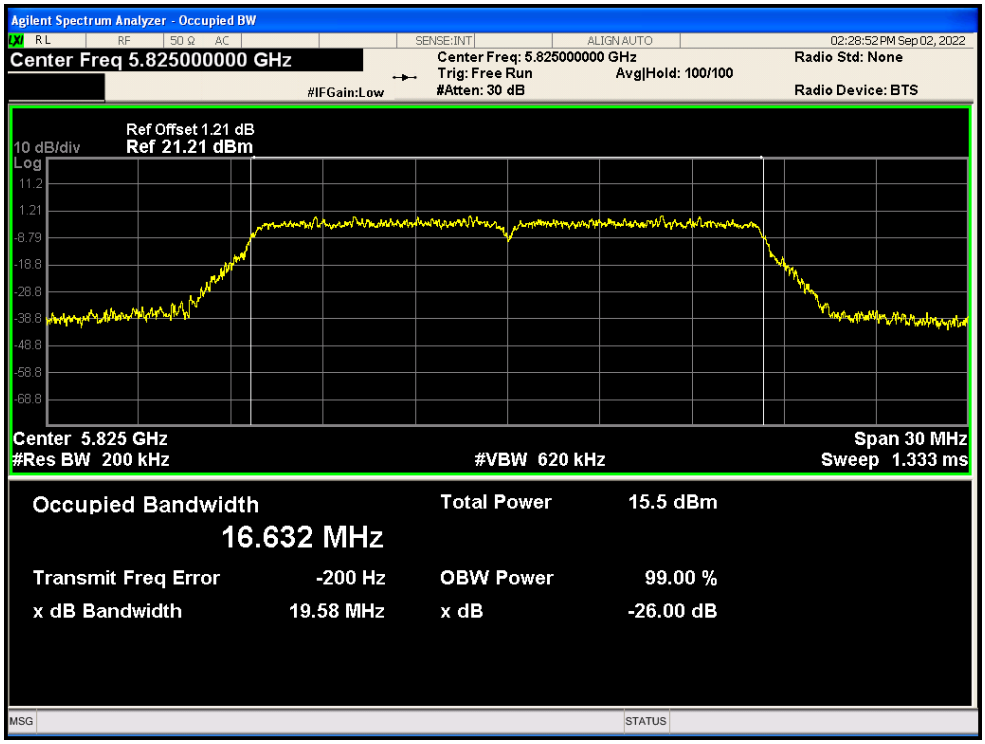
OBW NVNT a 5745MHz Ant1



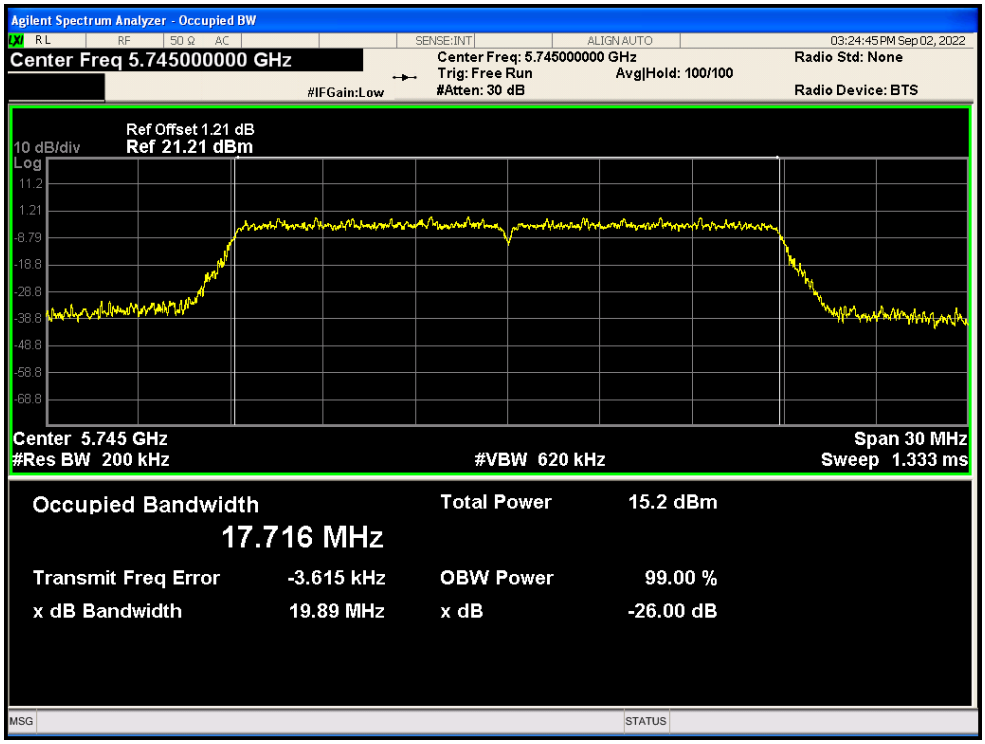
OBW NVNT a 5785MHz Ant1



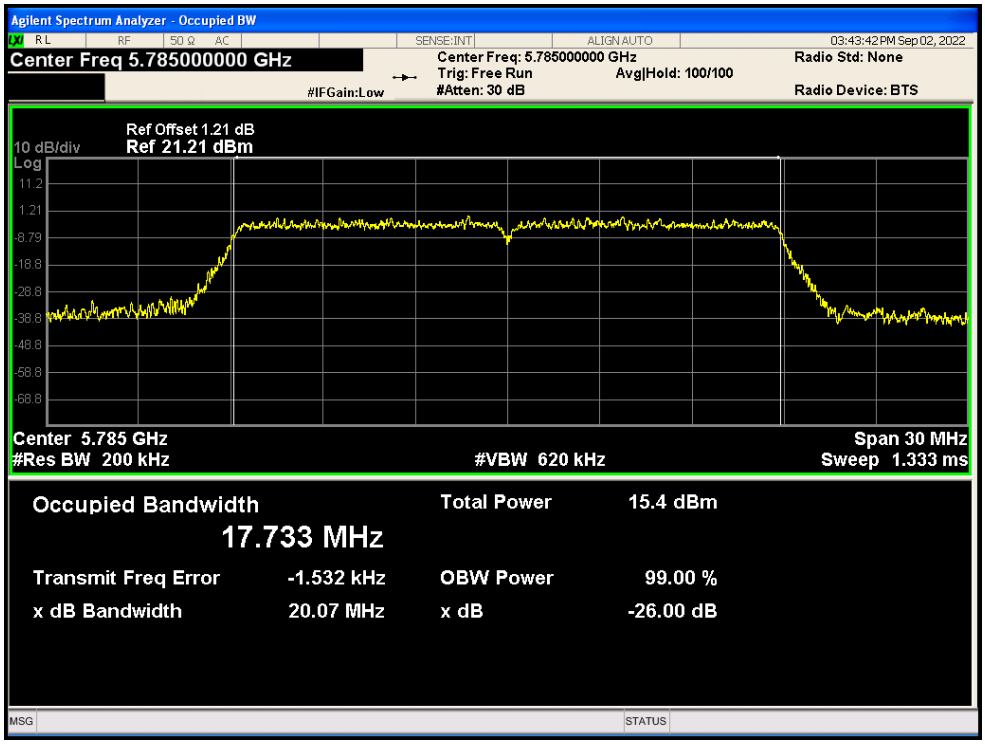
OBW NVNT a 5825MHz Ant1



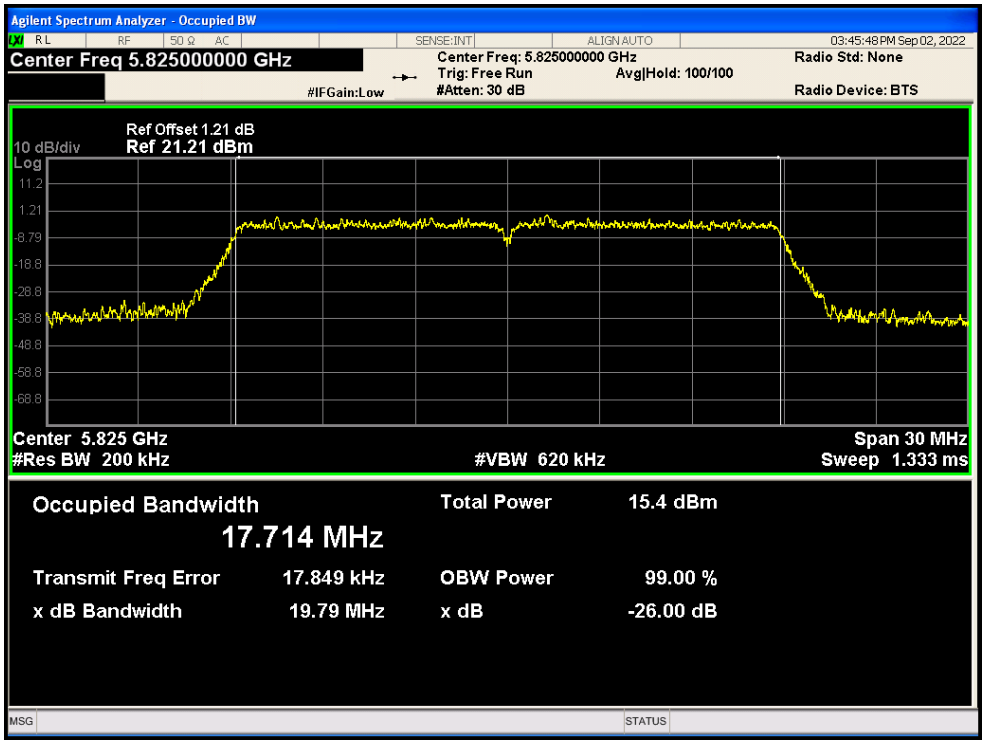
OBW NVNT n20 5745MHz Ant1



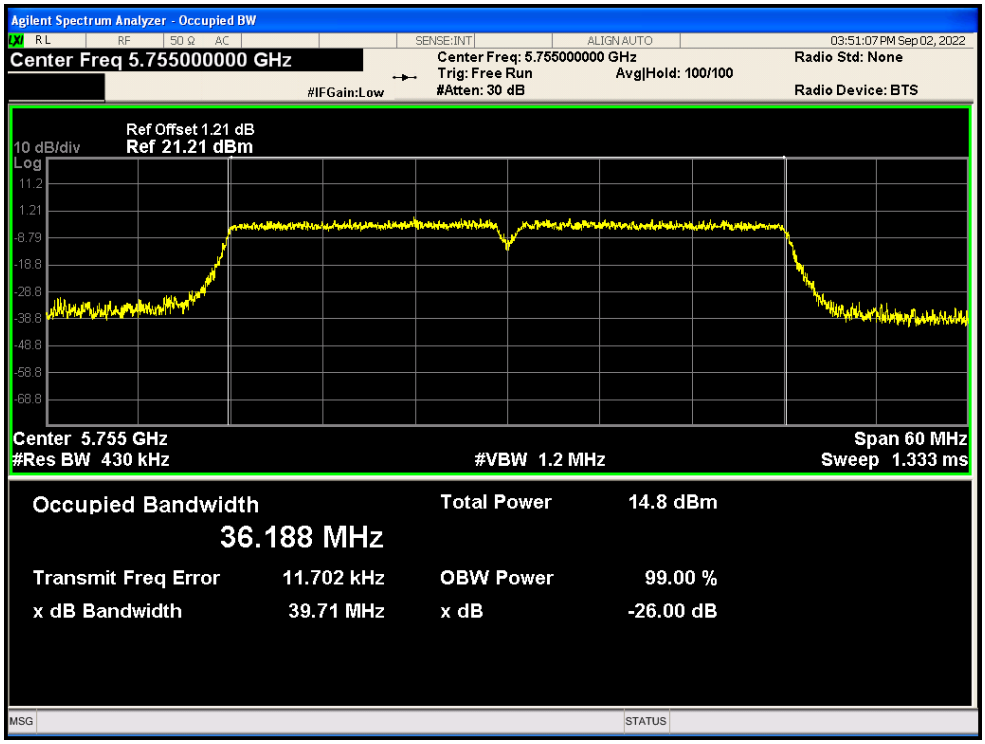
OBW NVNT n20 5785MHz Ant1



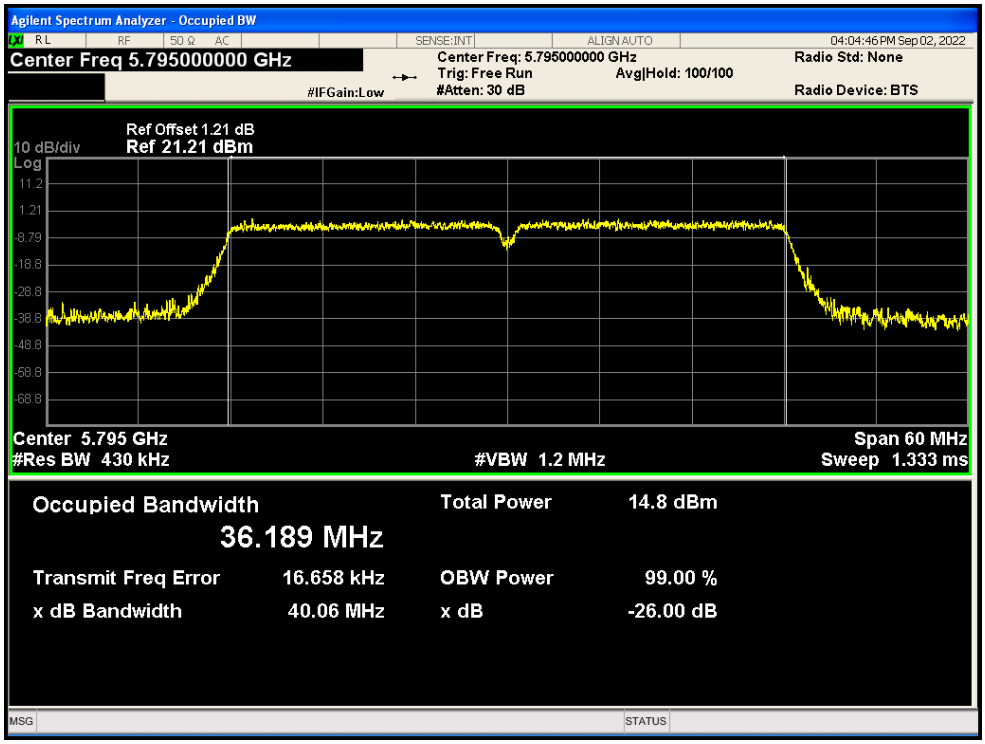
OBW NVNT n20 5825MHz Ant1



OBW NVNT n40 5755MHz Ant1



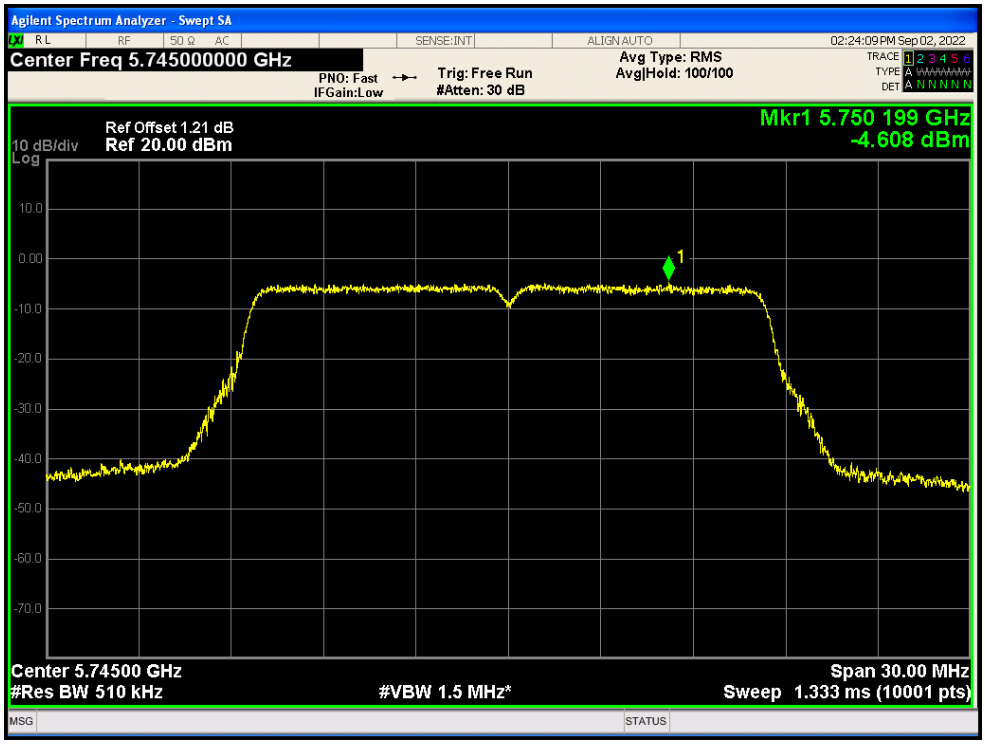
OBW NVNT n40 5795MHz Ant1


Agilent Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:04:46 PM Sep 02, 2022
Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 1.21 dB
10 dB/div
Ref 21.21 dBm
Log
11.2
1.21
-8.79
-18.8
-28.8
-38.8
-48.8
-58.8
-68.8
Center 5.795 GHz
#Res BW 430 kHz
#VBW 1.2 MHz
Span 60 MHz
Sweep 1.333 ms
Occupied Bandwidth
36.189 MHz
Total Power
14.8 dBm
Transmit Freq Error
16.658 kHz
OBW Power
99.00 %
x dB Bandwidth
40.06 MHz
x dB
-26.00 dB
MSG
STATUS

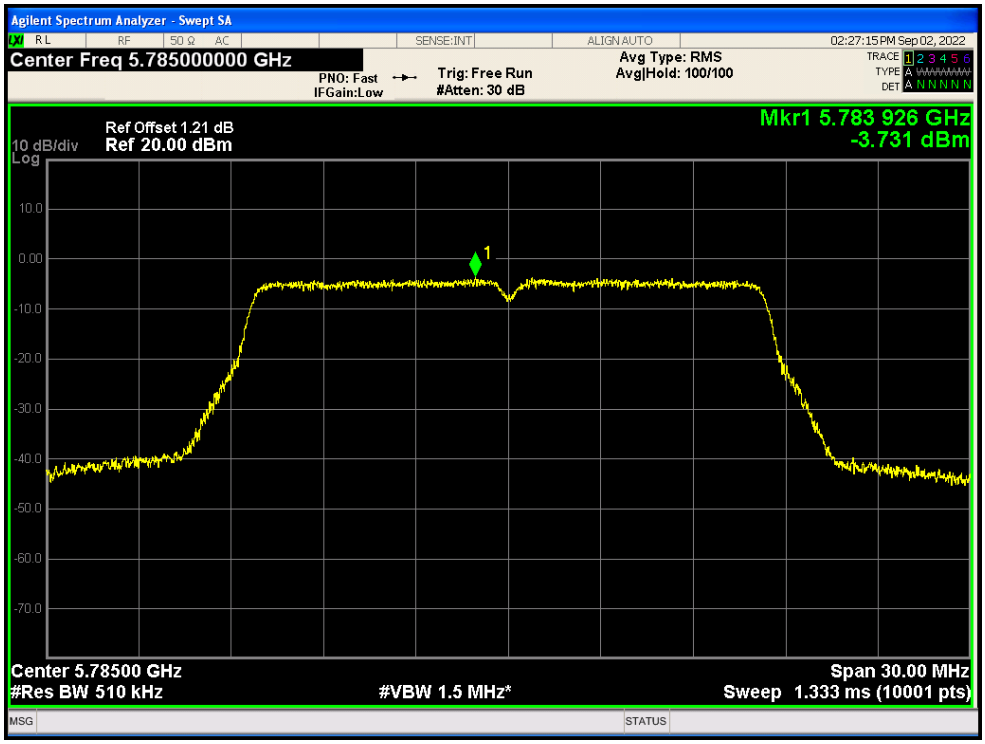
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-4.608	0.08	-4.528	30	Pass
NVNT	a	5785	Ant1	-3.731	0.08	-3.651	30	Pass
NVNT	a	5825	Ant1	-3.819	0.08	-3.739	30	Pass
NVNT	n20	5745	Ant1	-4.416	0.08	-4.336	30	Pass
NVNT	n20	5785	Ant1	-4.106	0.08	-4.026	30	Pass
NVNT	n20	5825	Ant1	-3.8	0.08	-3.72	30	Pass
NVNT	n40	5755	Ant1	-7.74	0.16	-7.58	30	Pass
NVNT	n40	5795	Ant1	-7.838	0.16	-7.678	30	Pass

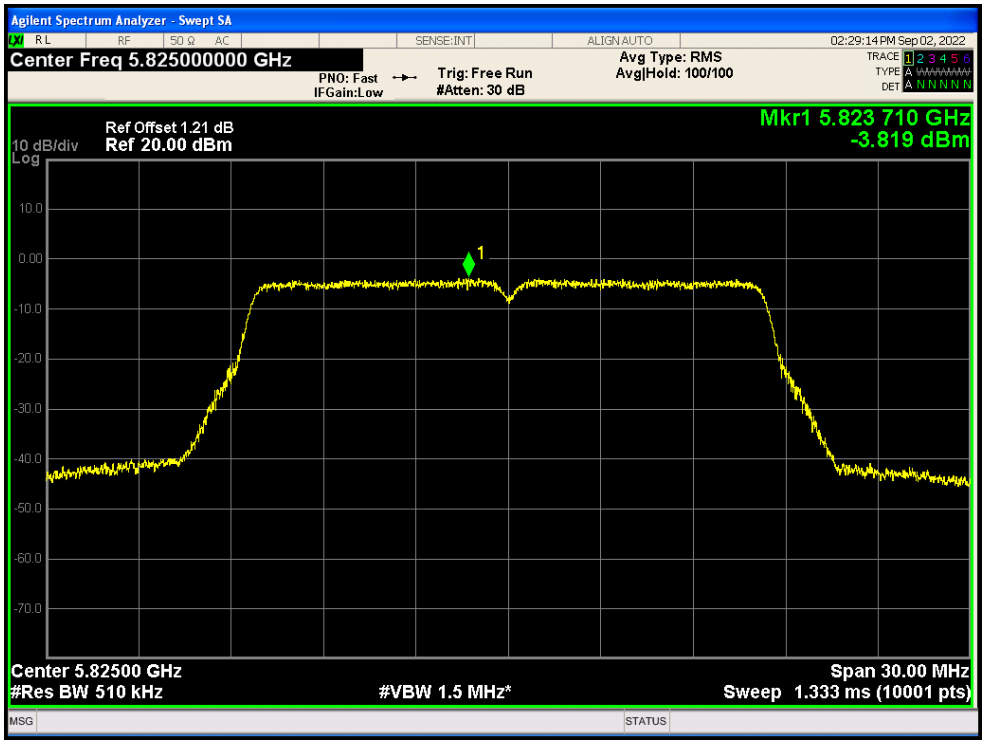
PSD NVNT a 5745MHz Ant1



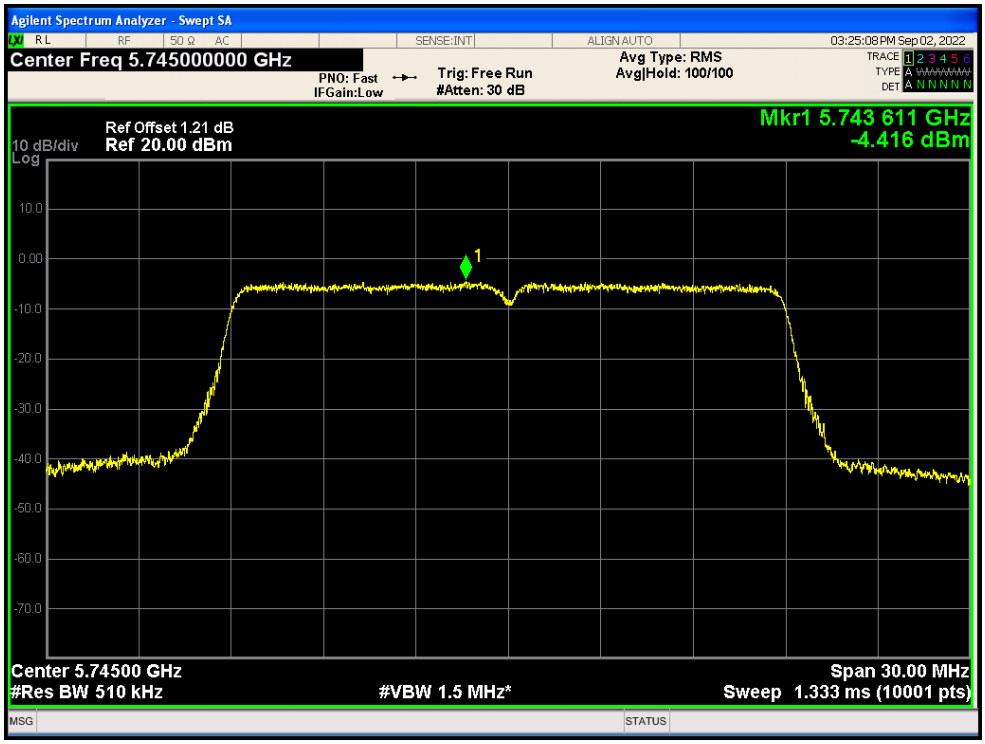
PSD NVNT a 5785MHz Ant1



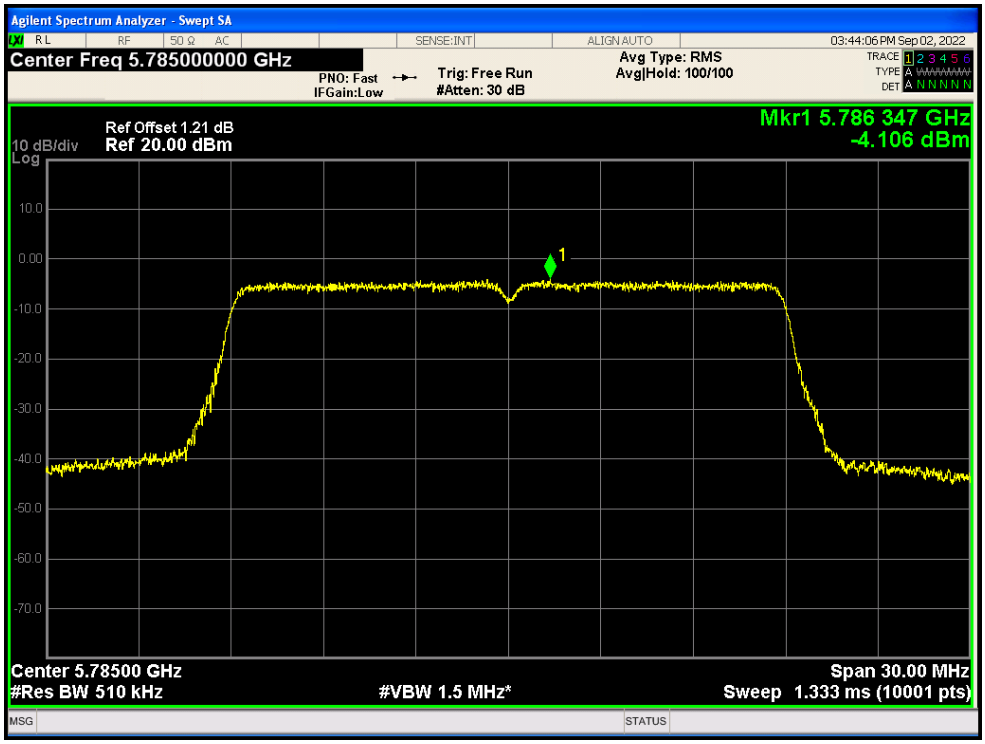
PSD NVNT a 5825MHz Ant1



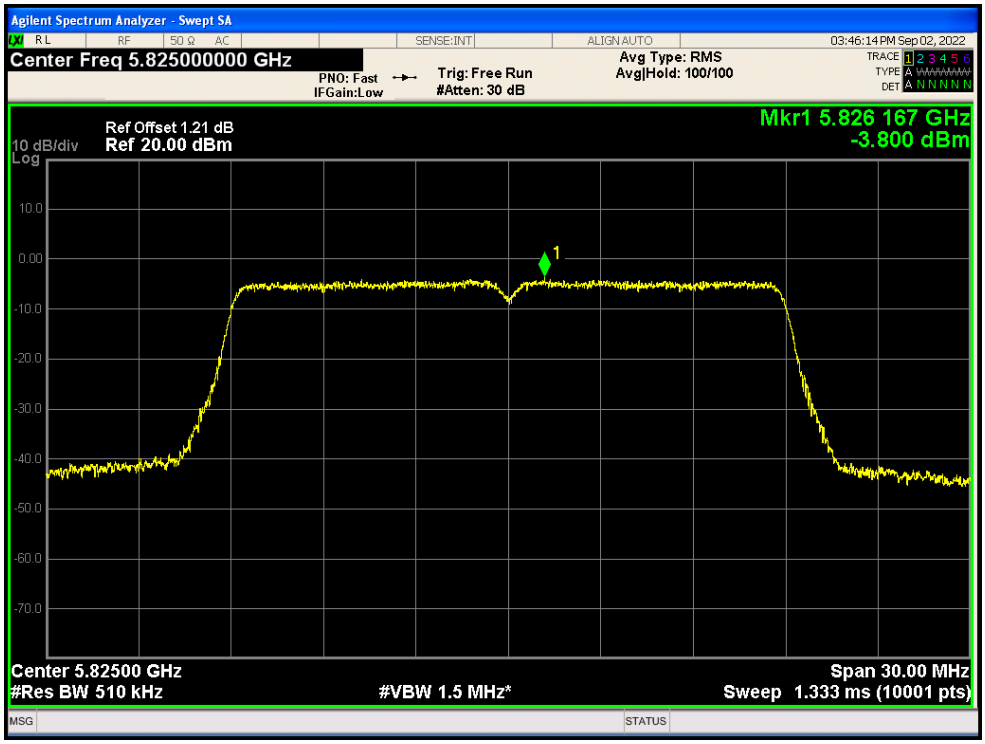
PSD NVNT n20 5745MHz Ant1



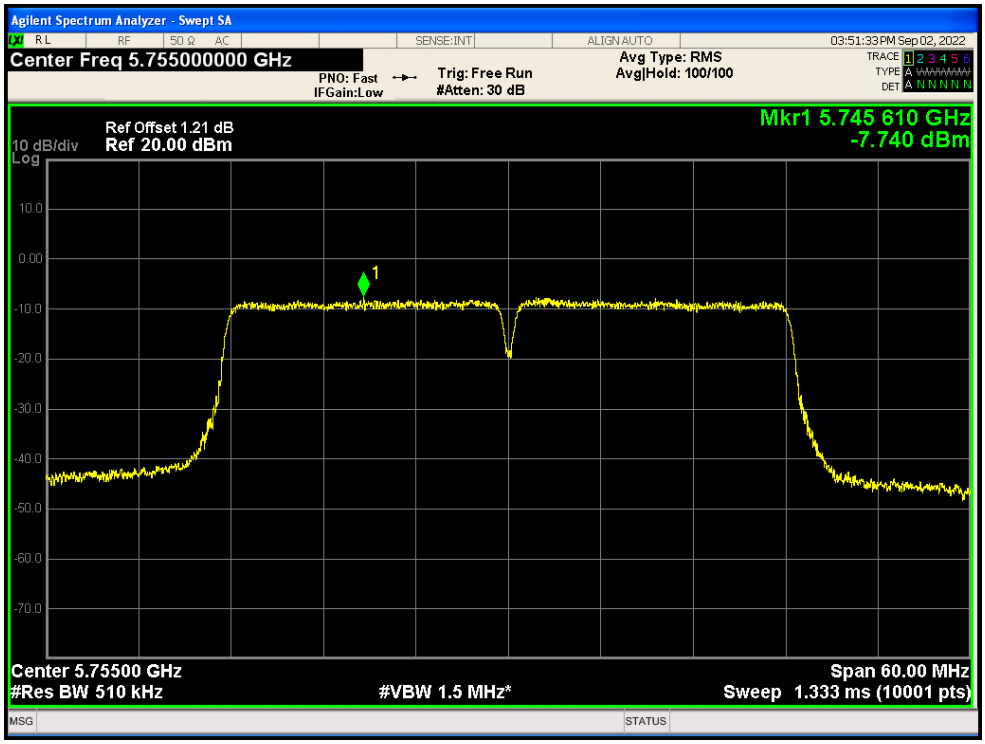
PSD NVNT n20 5785MHz Ant1



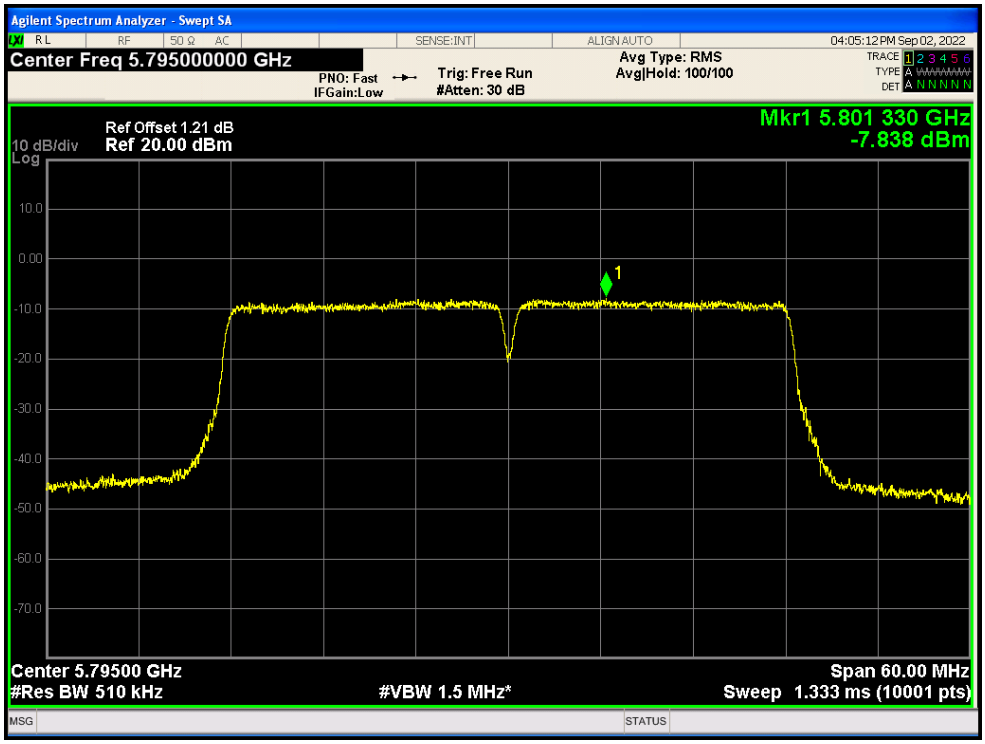
PSD NVNT n20 5825MHz Ant1



PSD NVNT n40 5755MHz Ant1



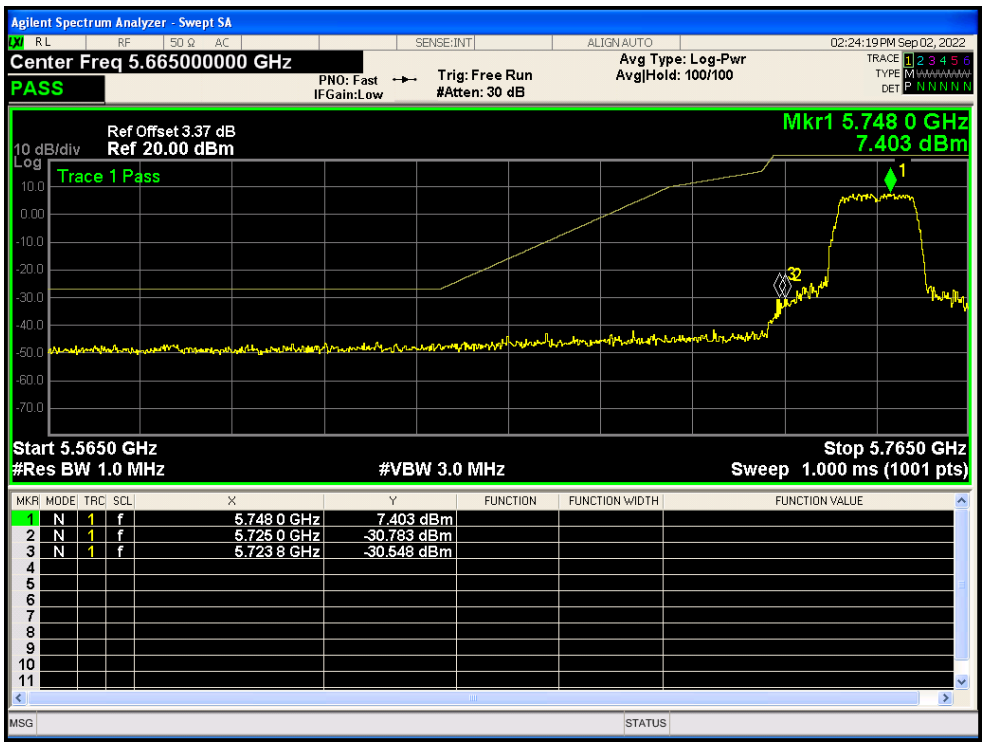
PSD NVNT n40 5795MHz Ant1


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:05:12 PM Sep 02, 2022
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold: 100/100
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Ref Offset 1.21 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 5.801 330 GHz
-7.838 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 5.79500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 60.00 MHz
Sweep 1.333 ms (10001 pts)
MSG
STATUS

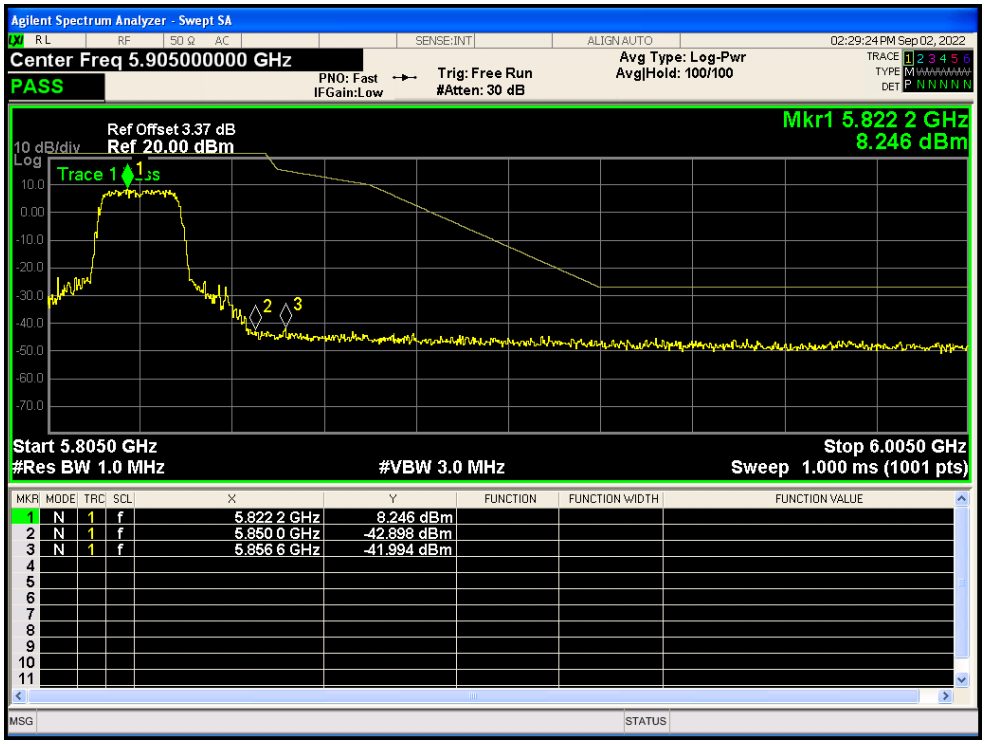
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Verdict
NVNT	a	5745	Ant1	-30.54	Pass
NVNT	a	5825	Ant1	-41.99	Pass
NVNT	n20	5745	Ant1	-26.87	Pass
NVNT	n20	5825	Ant1	-40.25	Pass
NVNT	n40	5755	Ant1	-24.19	Pass
NVNT	n40	5795	Ant1	-42.83	Pass

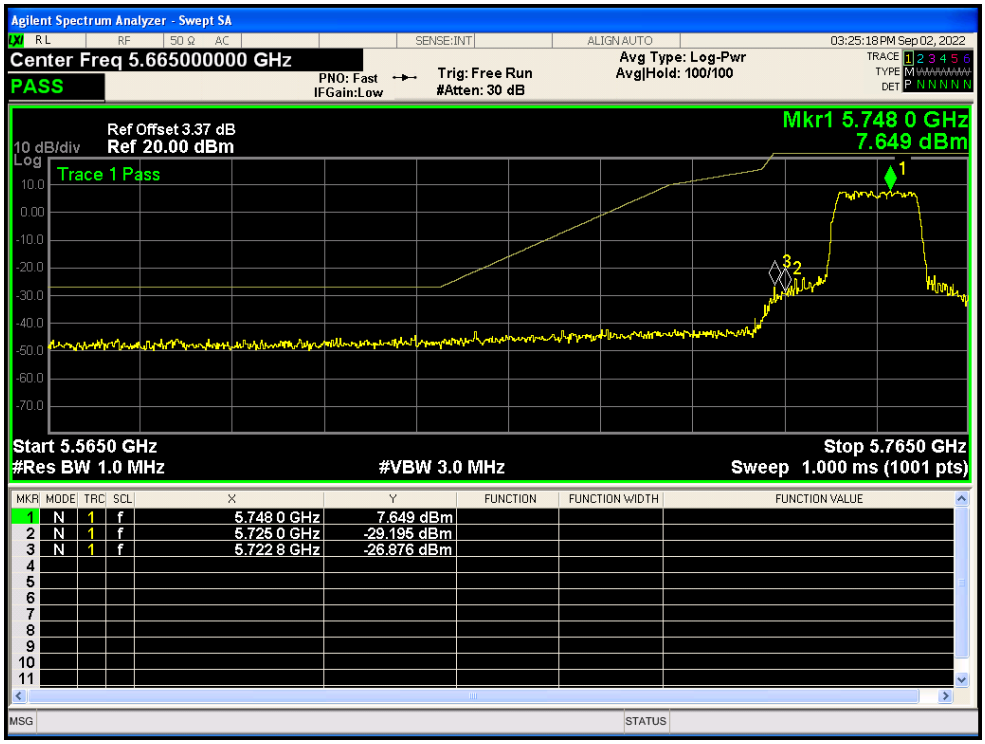
Band Edge NVNT a 5745MHz Low Ant1



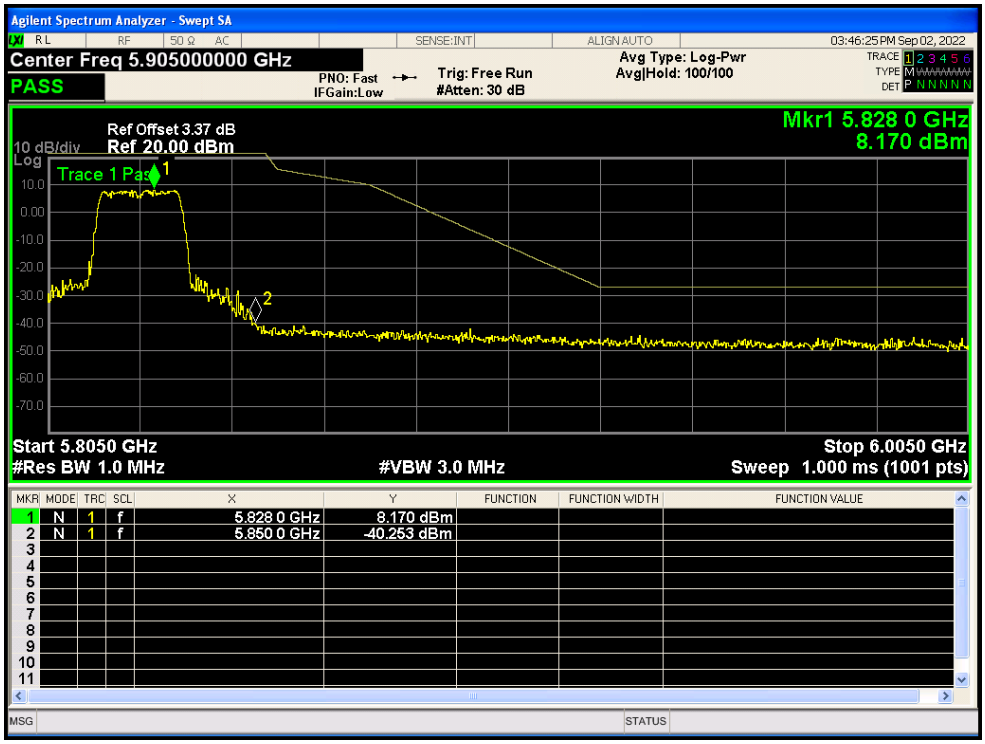
Band Edge NVNT a 5825MHz High Ant1



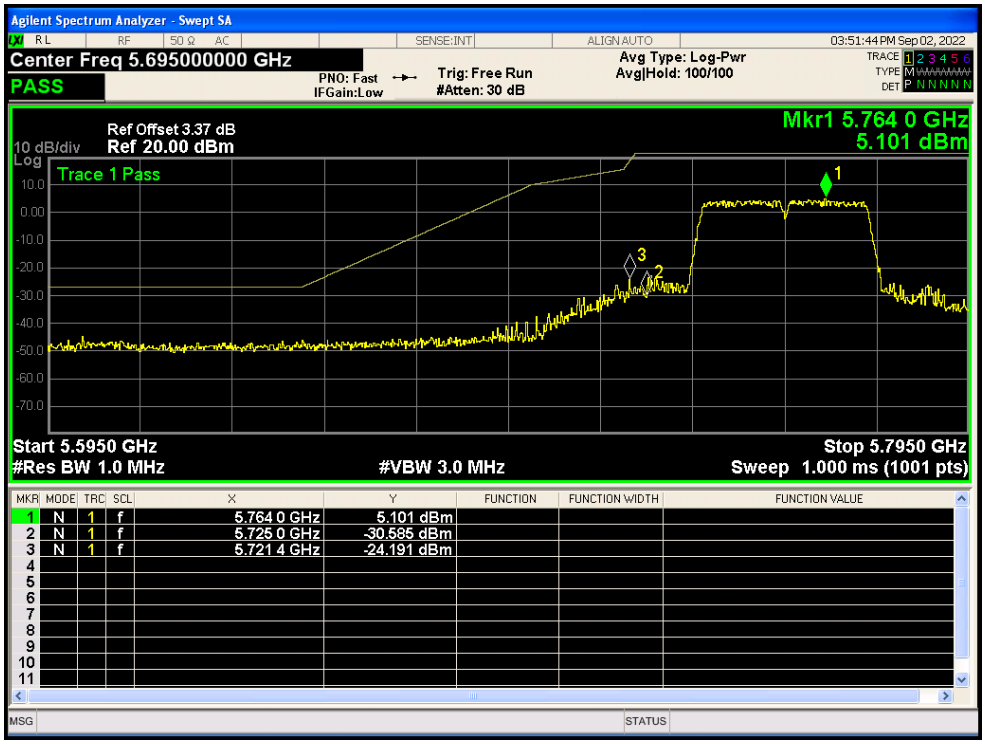
Band Edge NVNT n20 5745MHz Low Ant1



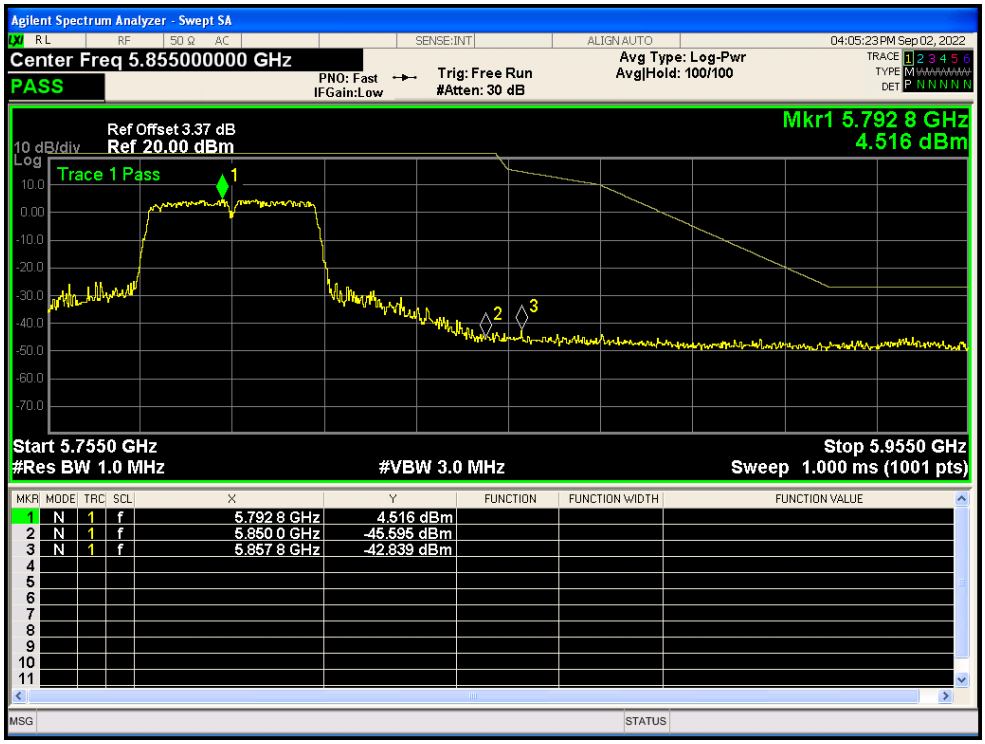
Band Edge NVNT n20 5825MHz High Ant1



Band Edge NVNT n40 5755MHz Low Ant1



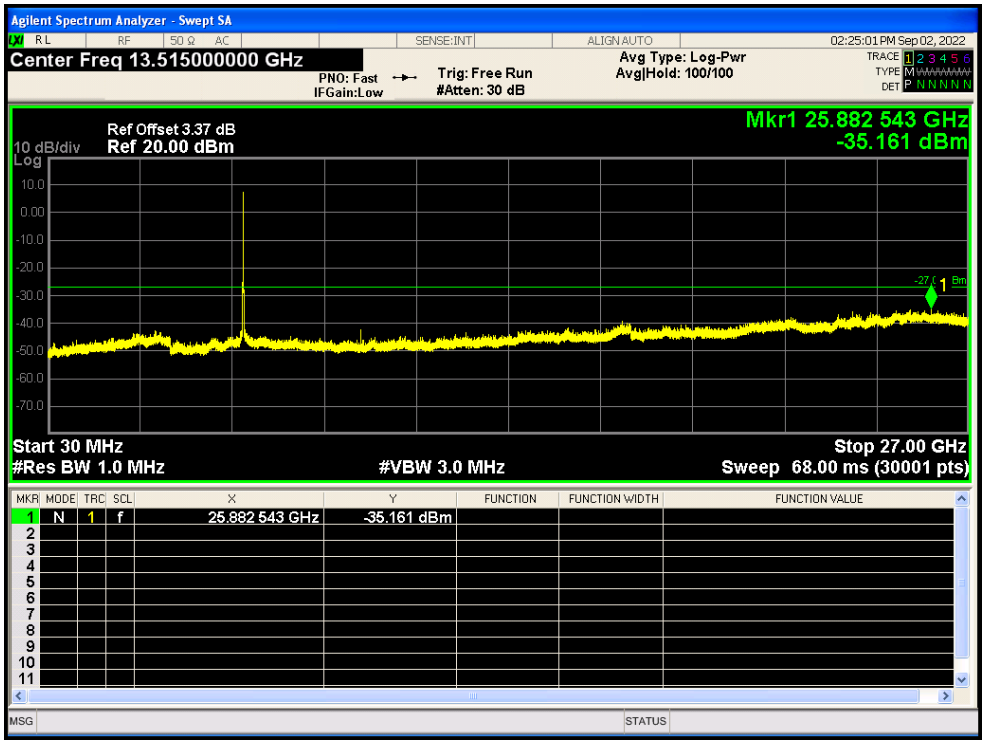
Band Edge NVNT n40 5795MHz High Ant1


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:05:23 PM Sep 02, 2022
Center Freq 5.855000000 GHz
PASS
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 3.37 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 5.792 8 GHz
4.516 dBm
Trace 1 Pass
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Start 5.7550 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 5.9550 GHz
Sweep 1.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 5.792 8 GHz 4.516 dBm
2 N 1 f 5.850 0 GHz -45.595 dBm
3 N 1 f 5.857 8 GHz -42.839 dBm
4
5
6
7
8
9
10
11
MSG
STATUS

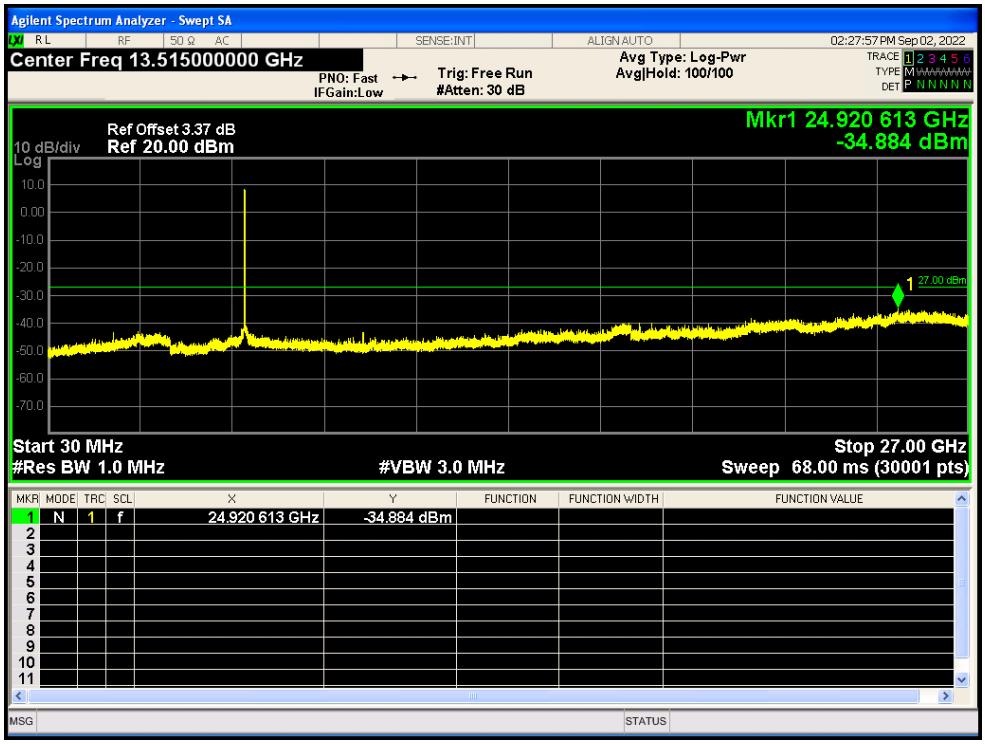
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5745	Ant1	-35.16	-27	Pass
NVNT	a	5785	Ant1	-34.88	-27	Pass
NVNT	a	5825	Ant1	-34.98	-27	Pass
NVNT	n20	5745	Ant1	-35.13	-27	Pass
NVNT	n20	5785	Ant1	-35.21	-27	Pass
NVNT	n20	5825	Ant1	-35.16	-27	Pass
NVNT	n40	5755	Ant1	-34.79	-27	Pass
NVNT	n40	5795	Ant1	-35.06	-27	Pass

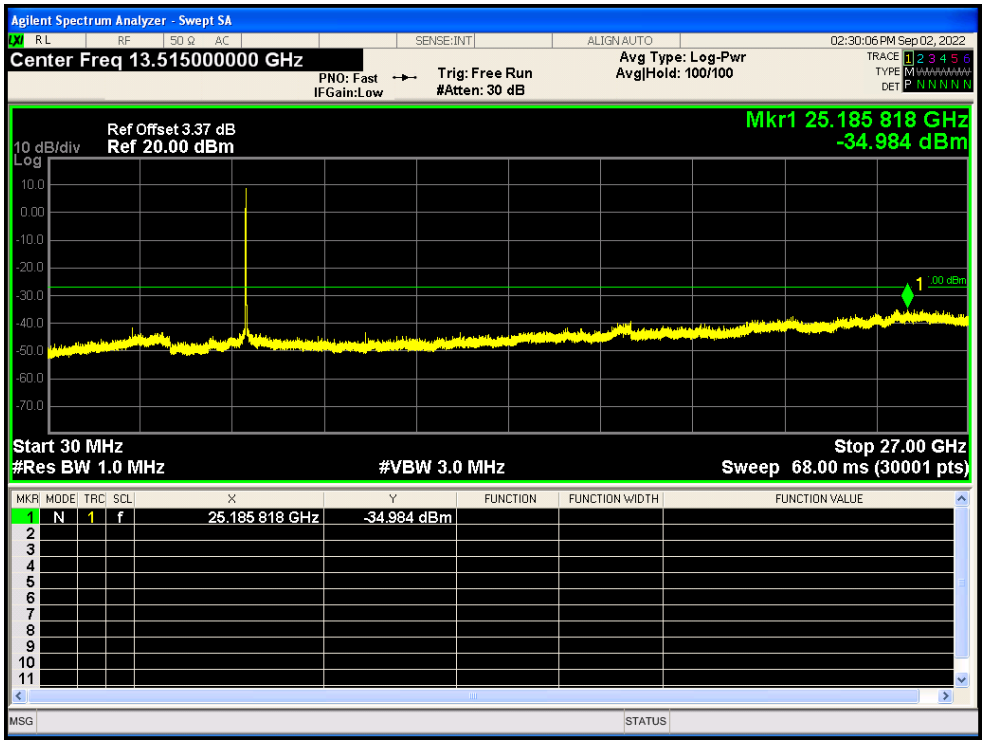
Tx. Spurious NVNT a 5745MHz Ant1 Emission



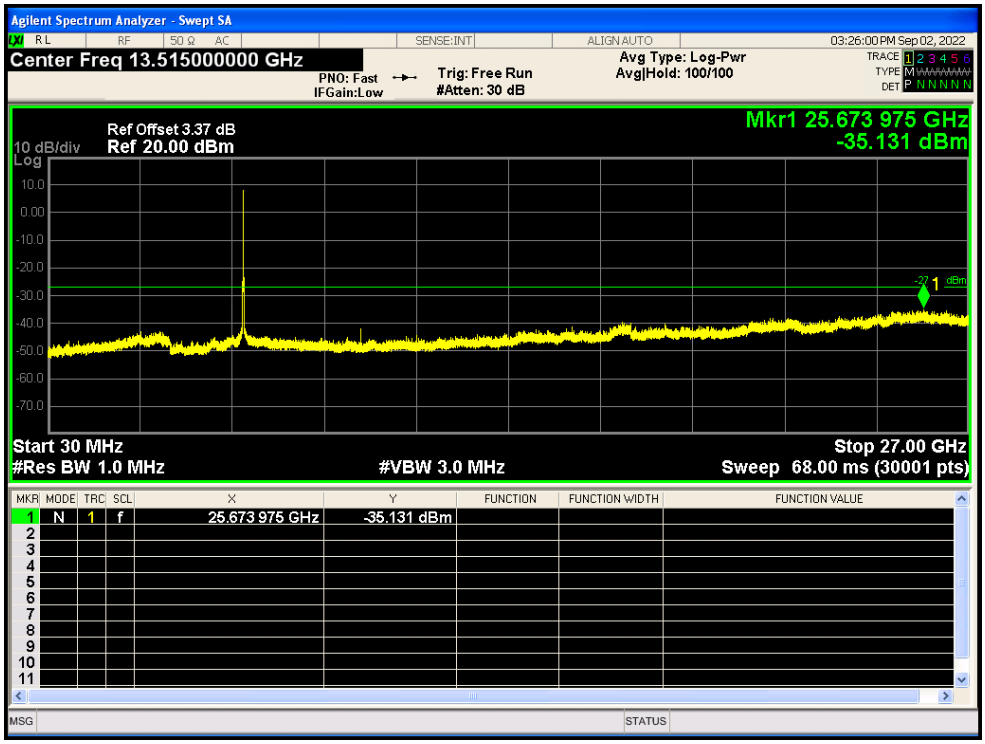
Tx. Spurious NVNT a 5785MHz Ant1 Emission



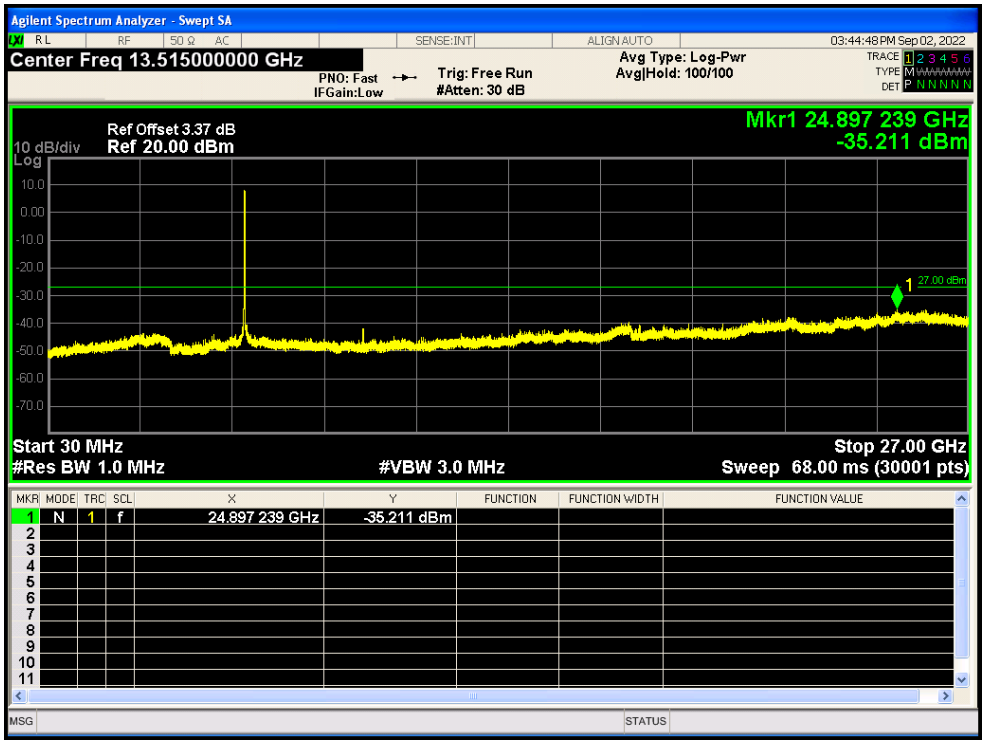
Tx. Spurious NVNT a 5825MHz Ant1 Emission



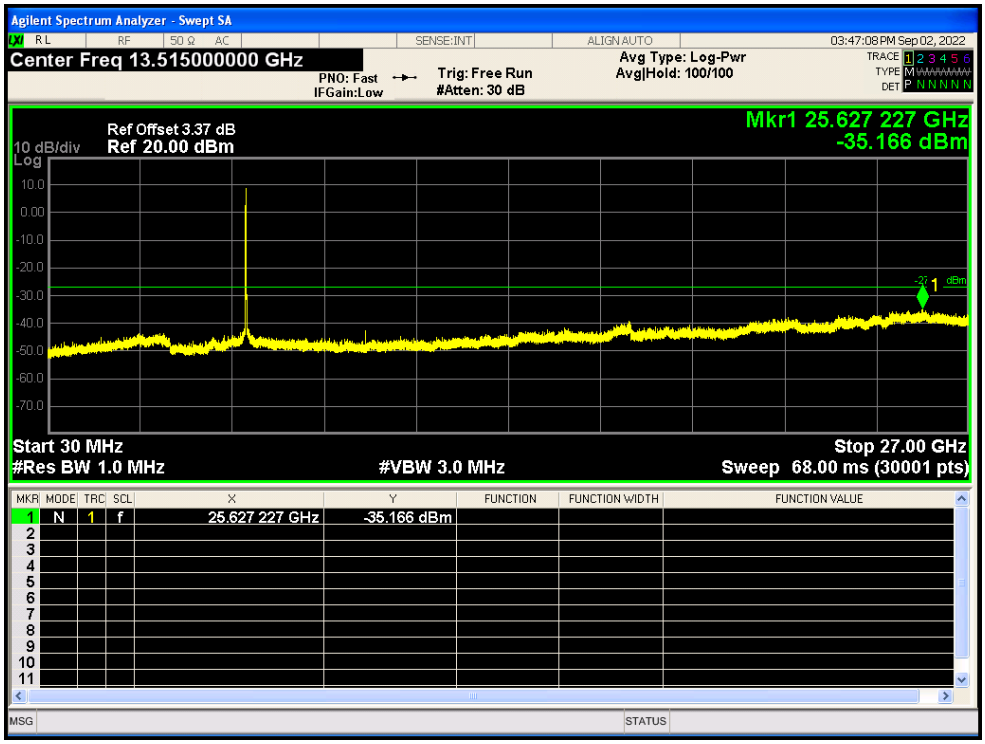
Tx. Spurious NVNT n20 5745MHz Ant1 Emission



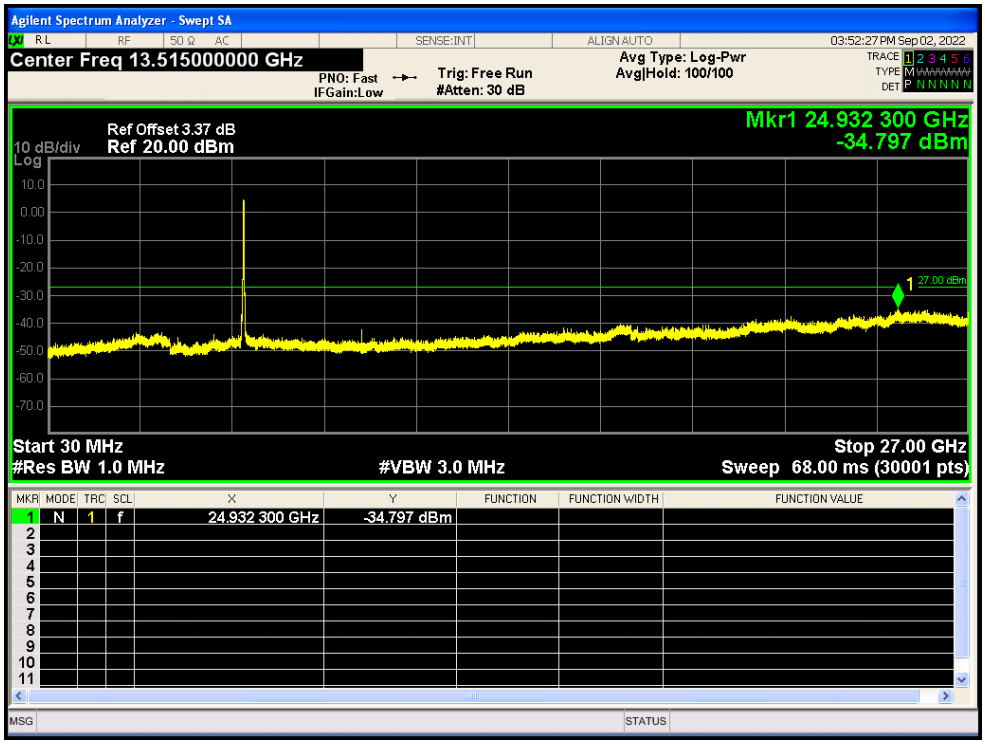
Tx. Spurious NVNT n20 5785MHz Ant1 Emission



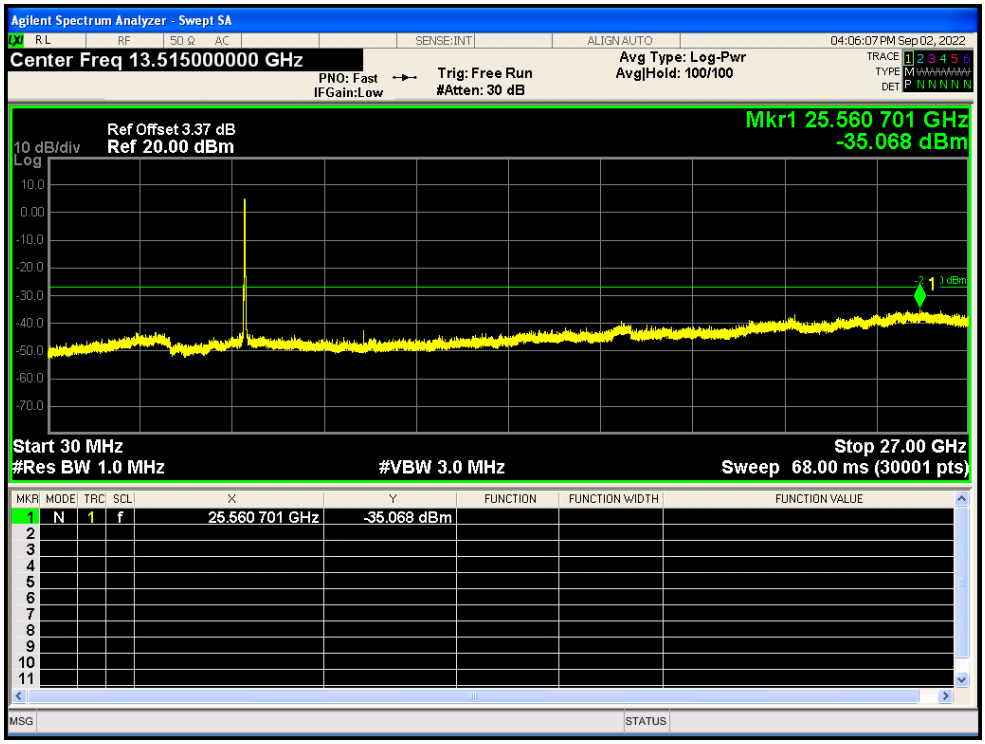
Tx. Spurious NVNT n20 5825MHz Ant1 Emission



Tx. Spurious NVNT n40 5755MHz Ant1 Emission



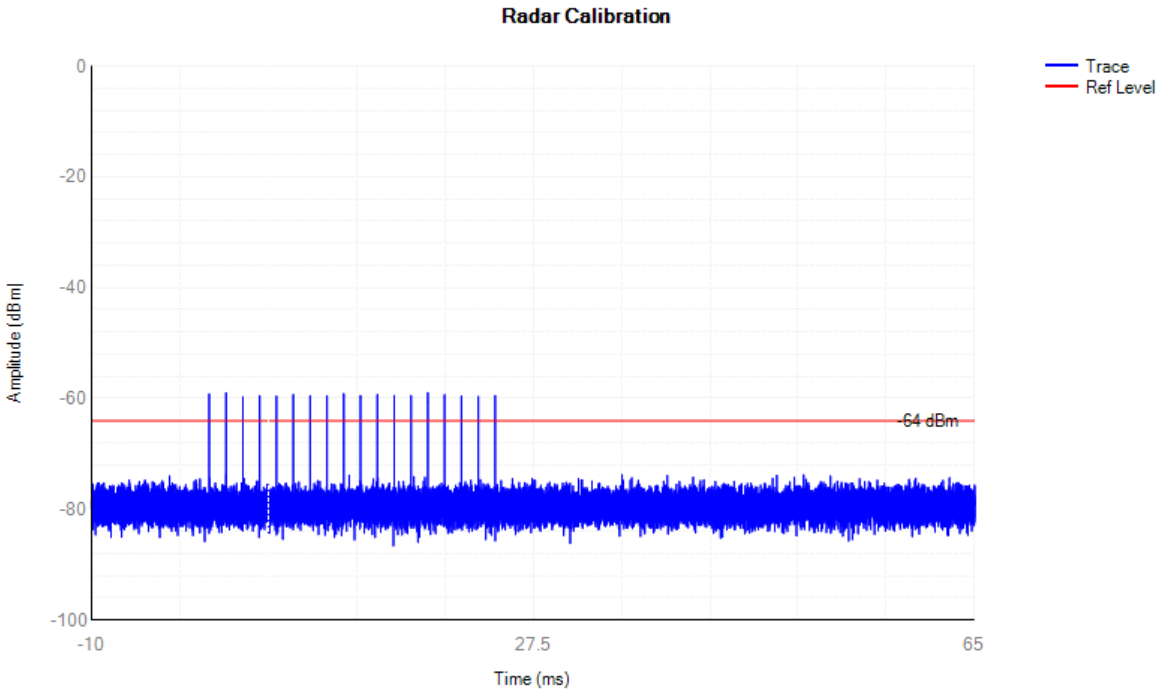
Tx. Spurious NVNT n40 5795MHz Ant1 Emission


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
04:06:07 PM Sep 02, 2022
Ref Offset 3.37 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 25.560 701 GHz
-35.068 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 27.00 GHz
Sweep 68.00 ms (30001 pts)
1 N 1 f 25.560 701 GHz -35.068 dBm

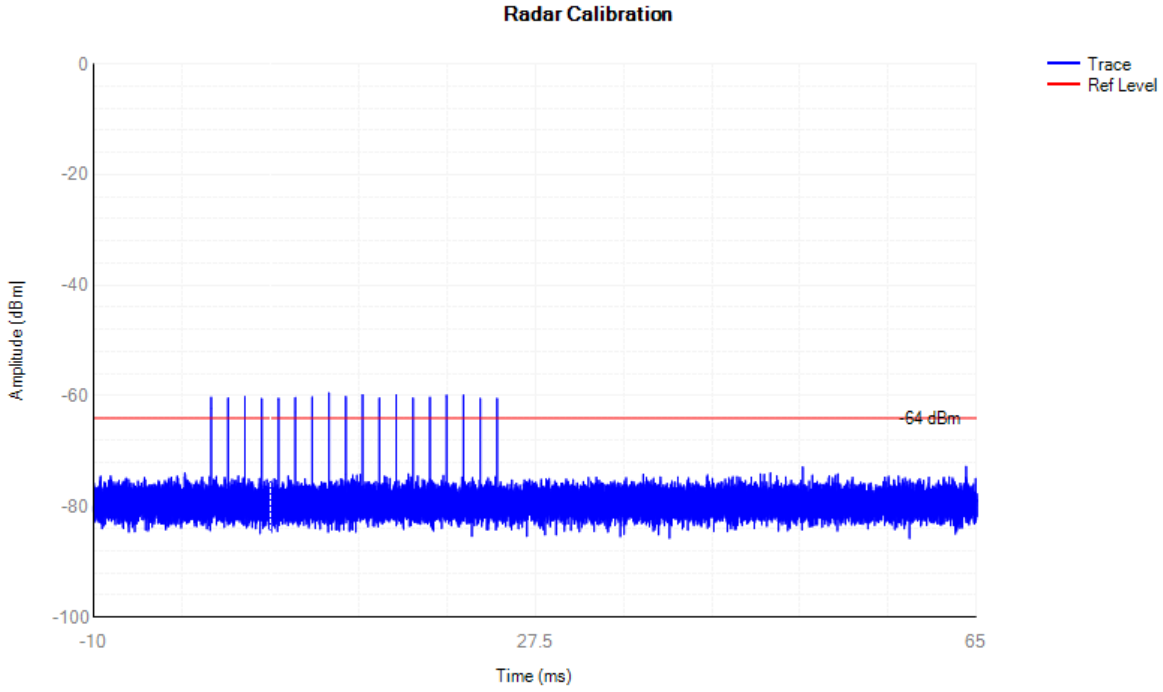
DFS

Calibration

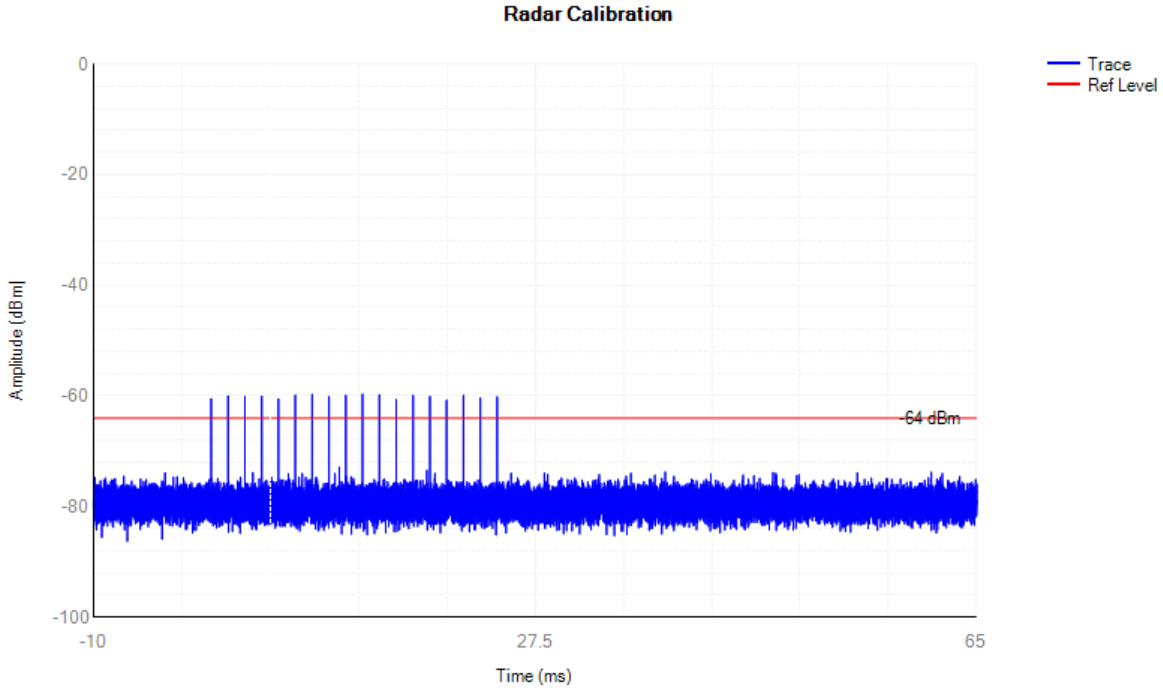
5310MHz n40 DFS_FCC_T0



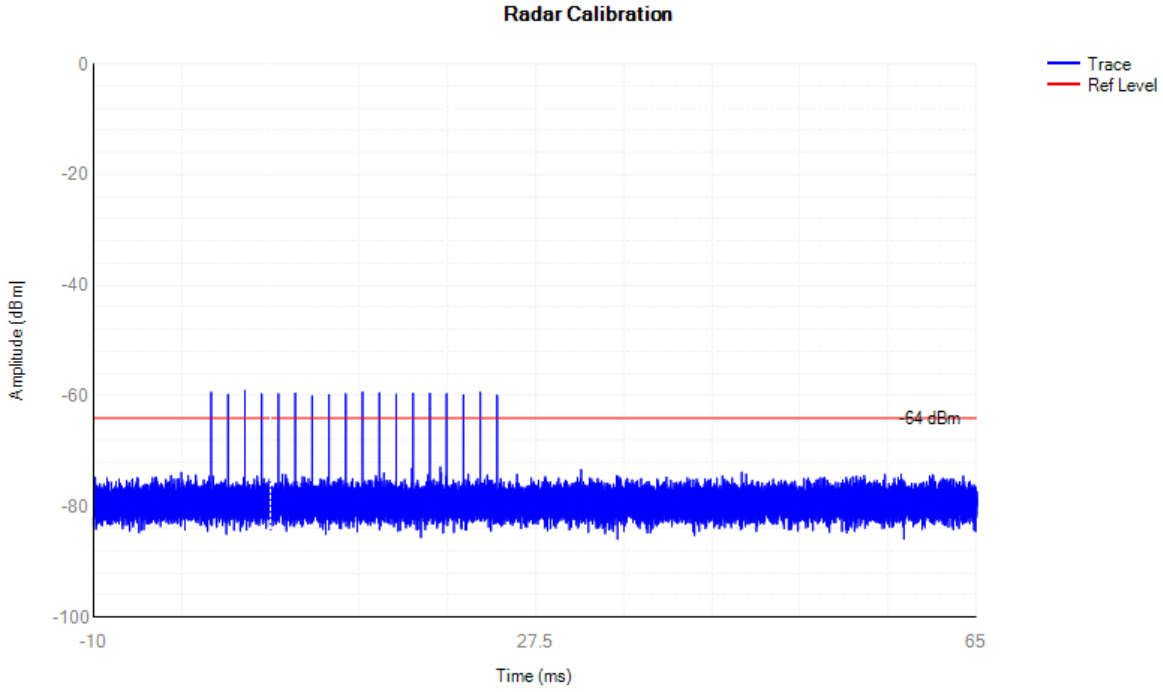
5510MHz n40 DFS_FCC_T0



5320MHz a DFS_FCC_T0

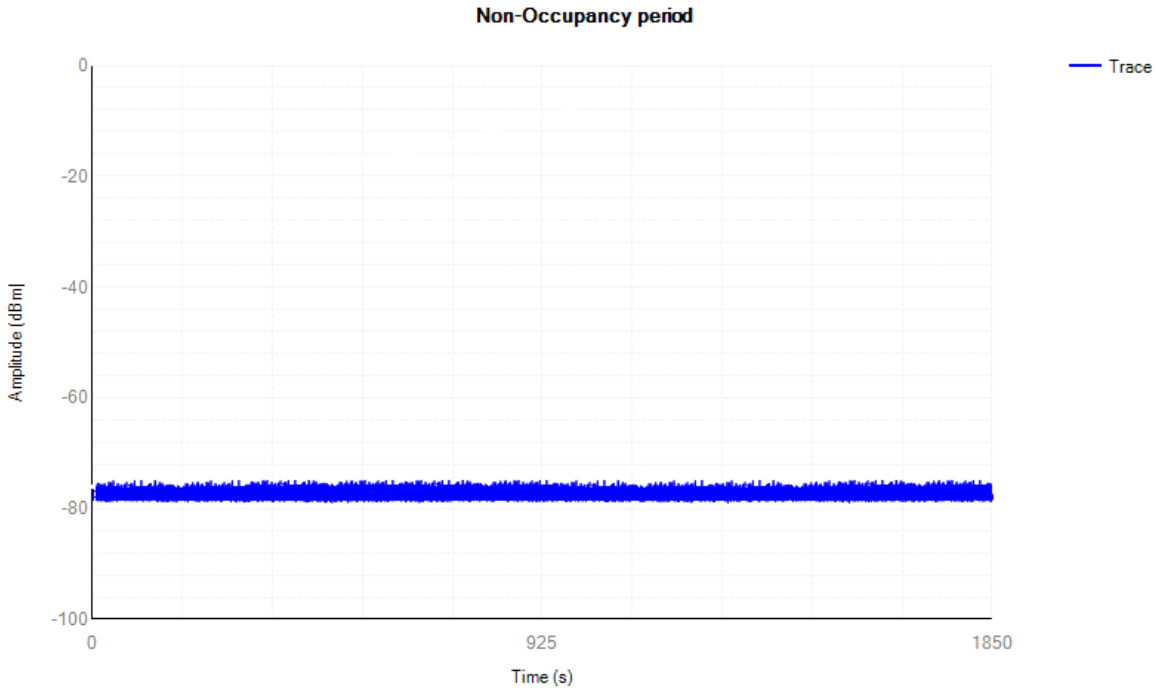


5500MHz a DFS_FCC_T0

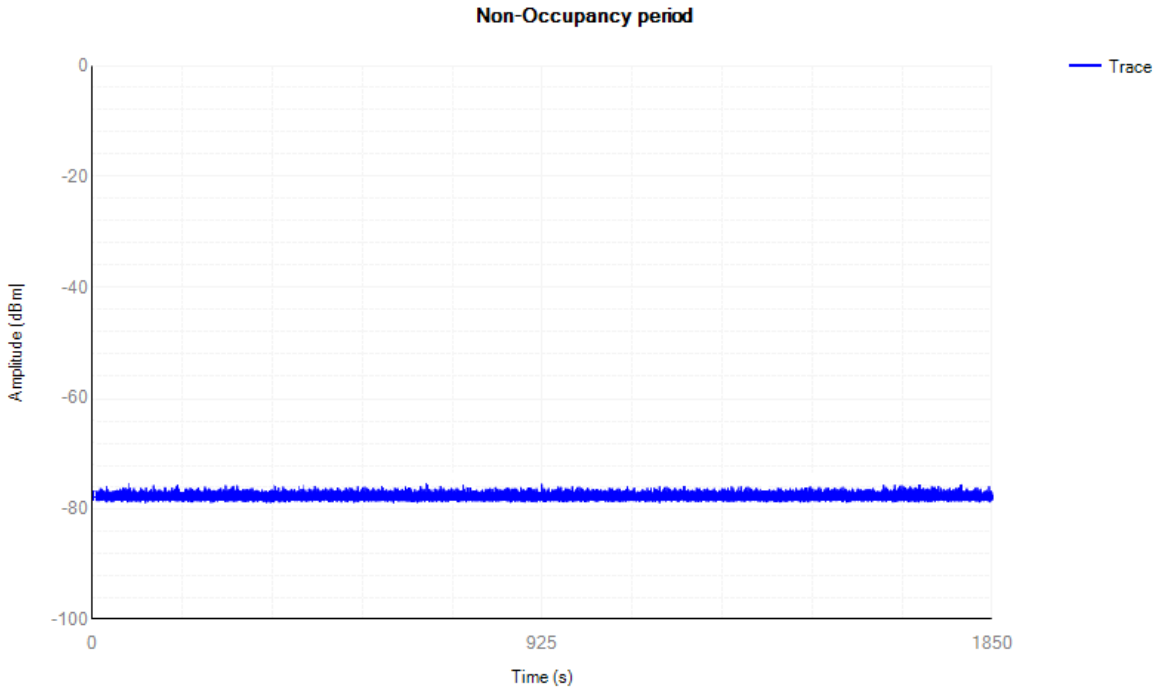

Radar Calibration
Trace
Ref Level
0
-20
-40
-60
-80
-100
Amplitude [dBm]
-64 dBm
-10
27.5
65
Time (ms)

Non-Occupancy

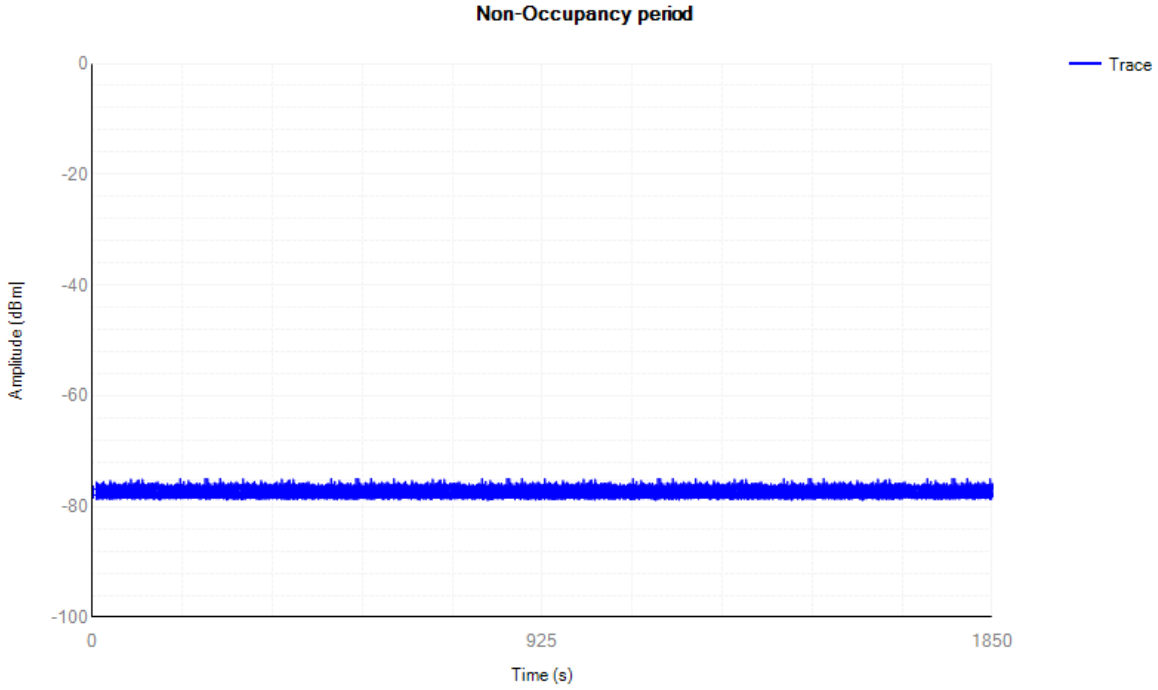
5310MHz n40 Non-Occupancy



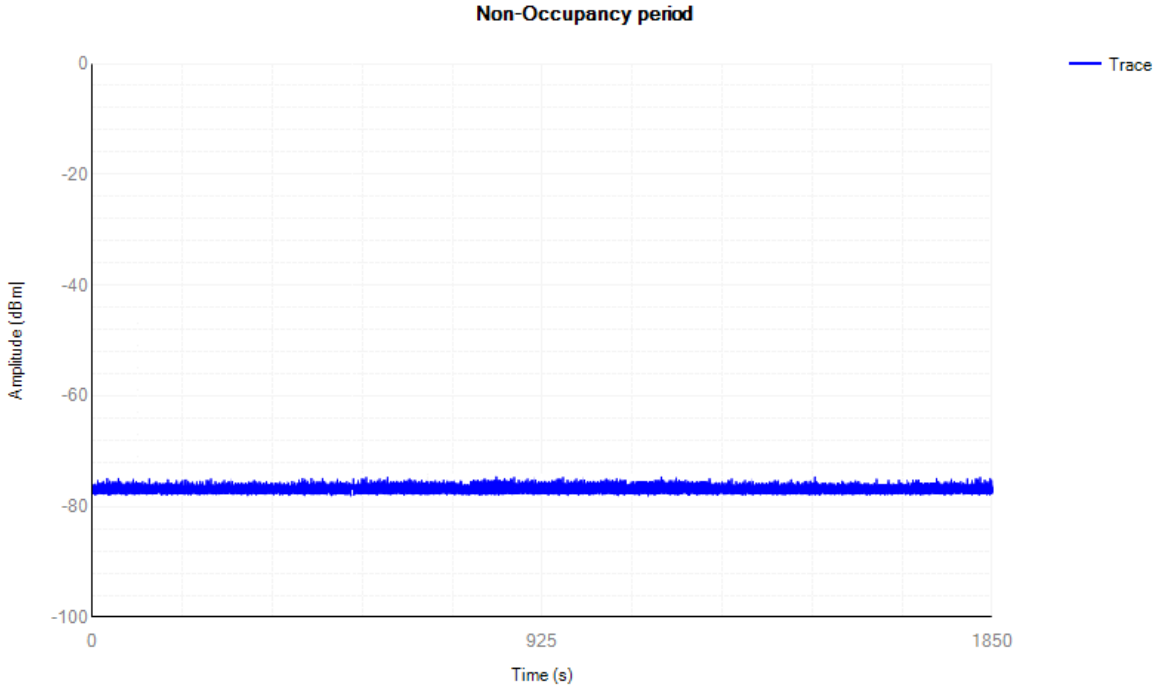
5510MHz n40 Non-Occupancy



5320MHz a Non-Occupancy



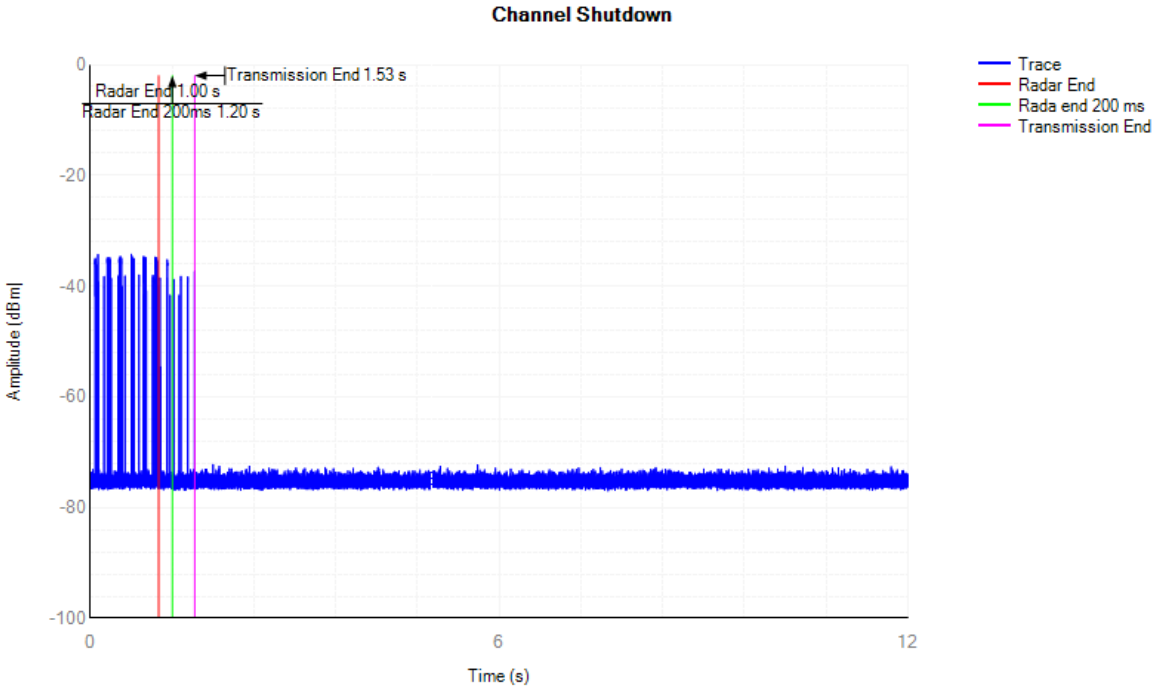
5500MHz a Non-Occupancy



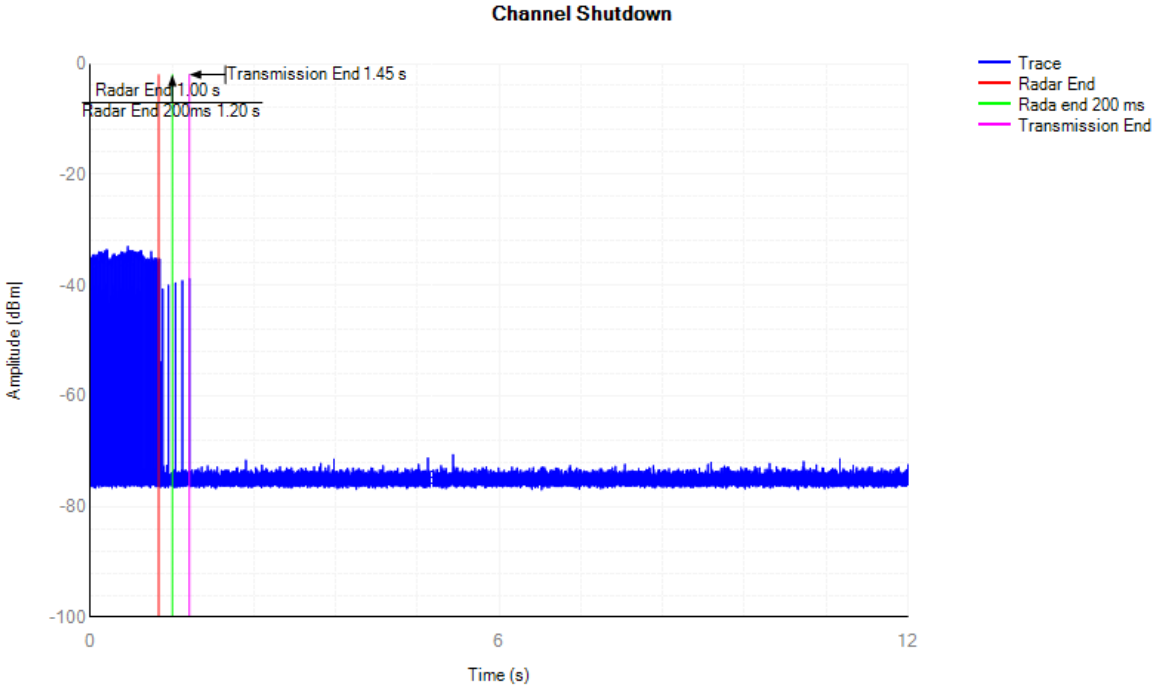
Shutdown Time

Mode	Frequency (MHz)	Channel Move Time (s)	Limit Channel Move Time (s)	Close Transmission Time (s)	Limit Close Transmission Time (s)	Close Transmission Time after 200ms(s)	Limit Close Transmission Time after 200ms (s)	Verdict
n40	5310	0.53	10	0.0084	0.26	0.0036	0.06	Pass
n40	5510	0.4512	10	0.0072	0.26	0.0024	0.06	Pass
a	5320	0.4284	10	0.0084	0.26	0.002	0.06	Pass
a	5500	0.514	10	0.0092	0.26	0.0024	0.06	Pass

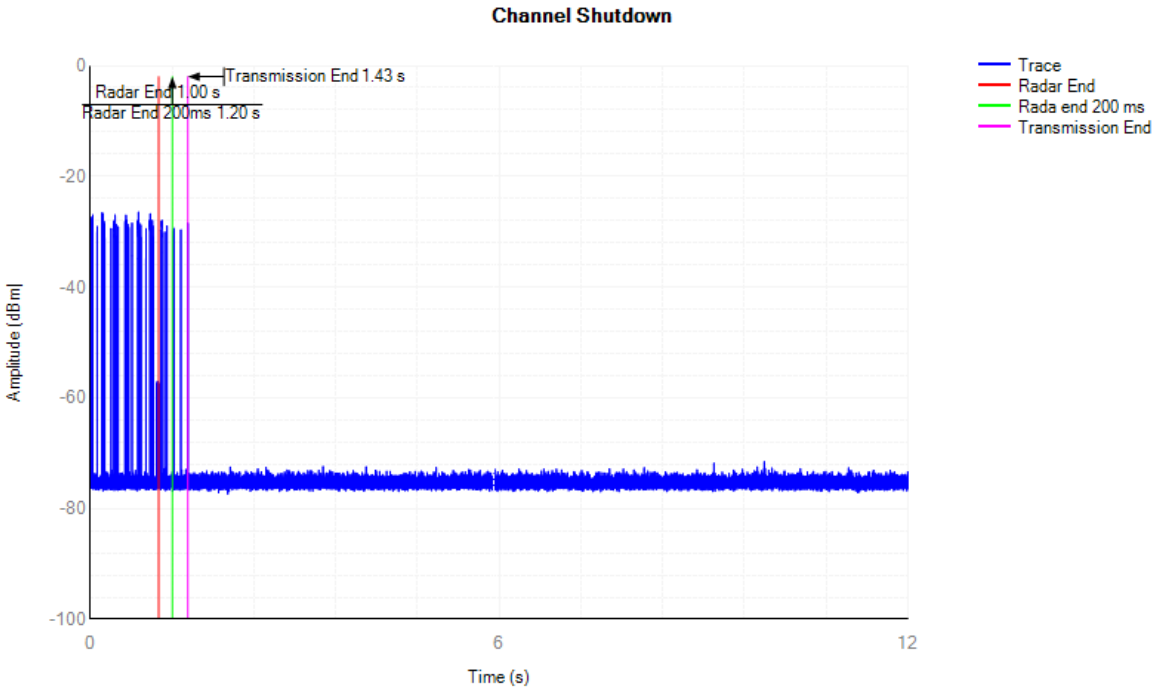
5310MHz n40 Shutdown



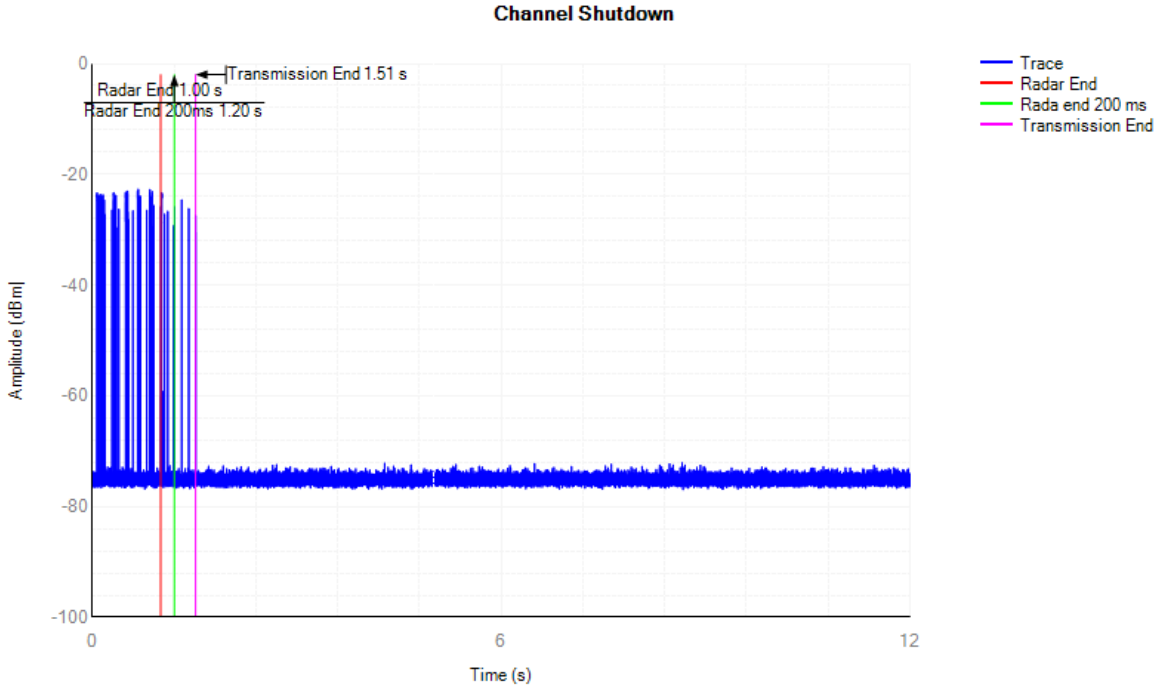
5510MHz n40 Shutdown



5320MHz a Shutdown



5500MHz a Shutdown


Channel Shutdown
Transmission End 1.51 s
Radar End 1.00 s
Radar End 200ms 1.20 s
Trace
Radar End
Rada end 200 ms
Transmission End
0
-20
-40
-60
-80
-100
Amplitude [dBm]
0
6
12
Time (s)