

Quectel Antenna 6XD Appendix

Report No.: BCTC2407217909-2E

Applicant: Vivid-Hosting, LLC

Product Name: FRC Radio

Test Model: VH-109

Tested Date: 2024-07-15 to 2024-08-13

Issued Date: 2024-09-09

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Appendix 1: Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ax20	5955	Ant1	98.68	0	0.19
		6175		96.85	0.14	0.19
		6415		97.94	0.09	0.19
		6435		97.57	0.11	0.19
		6475		98.86	0	0.19
		6515		98.68	0	0.19
		6535		98.68	0	0.19
		6695		97.21	0.12	0.19
		6855		98.68	0	0.19
		6875		98.31	0	0.19
		6895		97.39	0.11	0.19
		7115		98.68	0	0.19
		5955	Ant2	97.21	0.12	0.19
		6175		97.21	0.12	0.19
		6415		97.03	0.13	0.19
		6435		97.03	0.13	0.19
		6475		98.86	0	0.19
		6515		98.83	0	0.19
		6535		98.68	0	0.19
		6695		98.12	0	0.19
		6855		98.68	0	0.19
		6875		98.68	0	0.19
		6895		98.68	0	0.19
		6995		97.03	0.13	0.19
		7115		96.85	0.14	0.19
		5955	Ant3	98.68	0	0.19
		6175		98.68	0	0.19
		6415		98.31	0	0.19
		6435		98.68	0	0.19
		6475		97.57	0.11	0.19
		6515		97.03	0.13	0.19
		6535		96.85	0.14	0.19
		6695		97.03	0.13	0.19
		6855		97.57	0.11	0.19
		6875		97.57	0.11	0.19
		6895		98.68	0	0.19
		6995		97.03	0.13	0.19
		7115		98.31	0	0.19
		5935	Ant4	97.39	0.11	0.19

		6175		98.12	0	0.19
		6415		98.49	0	0.19
		6435		96.85	0.14	0.19
		6475		98.68	0	0.19
		6515		97.03	0.13	0.19
		6535		98.68	0	0.19
		6695		97.75	0.1	0.19
		6855		98.31	0	0.19
		6875		97.21	0.12	0.19
		6895		97.21	0.12	0.19
		6995		98.49	0	0.19
		7115		98.12	0	0.19
		5955	Sum	97.39	0.11	0.19
		6175		97.03	0.13	0.19
		6415		96.67	0.15	0.19
		6435		96.67	0.15	0.19
		6475		97.39	0.11	0.19
		6515		97.03	0.13	0.19
		6535		98.68	0	0.19
		6695		96.85	0.14	0.19
		6855		97.57	0.11	0.19
		6875		98.68	0	0.19
		6895		98.68	0	0.19
		6995		98.31	0	0.19
		7115		98.49	0	0.19
	ax40	5965	Ant1	98.71	0	0.19
		6165		98.17	0	0.19
		6405		98.9	0	0.19
		6445		98.35	0	0.19
		6485		97.46	0.11	0.19
		6525		98.71	0	0.19
		6565		98.9	0	0.19
		6685		98.35	0	0.19
		6845		96.93	0.14	0.19
		6885		97.46	0.11	0.19
		6925		98.53	0	0.19
		6965		97.28	0.12	0.19
		7085		97.64	0.1	0.19
		5965	Ant2	98.71	0	0.19
		6165		98.9	0	0.19
		6405		98.89	0	0.19
		6445		98.9	0	0.19
		6485		98.17	0	0.19
		6525		96.93	0.14	0.19

		6565		97.46	0.11	0.19
		6685		98.71	0	0.19
		6845		98.71	0	0.19
		6885		98.71	0	0.19
		6925		97.11	0.13	0.19
		6965		99.72	0	1.38
		7085		96.76	0.14	0.19
		5965	Ant3	98.71	0	0.19
		6165		98.53	0	0.19
		6405		98.35	0	0.19
		6445		98.06	0	0.19
		6485		98.17	0	0.19
		6525		98.17	0	0.19
		6565		97.81	0.1	0.19
		6685		98.17	0	0.19
		6845		97.64	0.1	0.19
		6885		98.71	0	0.19
		6925		98.53	0	0.19
		6965		97.28	0.12	0.19
		7085		97.81	0.1	0.19
		5965	Ant4	97.45	0.11	0.19
		6165		96.93	0.14	0.19
		6405		98.71	0	0.19
		6445		98.35	0	0.19
		6485		98.9	0	0.19
		6525		98.71	0	0.19
		6565		97.28	0.12	0.19
		6685		97.64	0.1	0.19
		6845		98.71	0	0.19
		6885		98.71	0	0.19
		6925		97.63	0.1	0.19
		6965		98.35	0	0.19
		7085		97.28	0.12	0.19
		5965	Sum	97.45	0.11	0.19
		6165		98.71	0	0.19
		6405		98.71	0	0.19
		6445		97.64	0.1	0.19
		6485		98.71	0	0.19
		6525		96.93	0.14	0.19
		6565		96.93	0.14	0.19
		6685		98.35	0	0.19
		6845		98.89	0	0.19
		6885		97.11	0.13	0.19
		6925		97.28	0.12	0.19

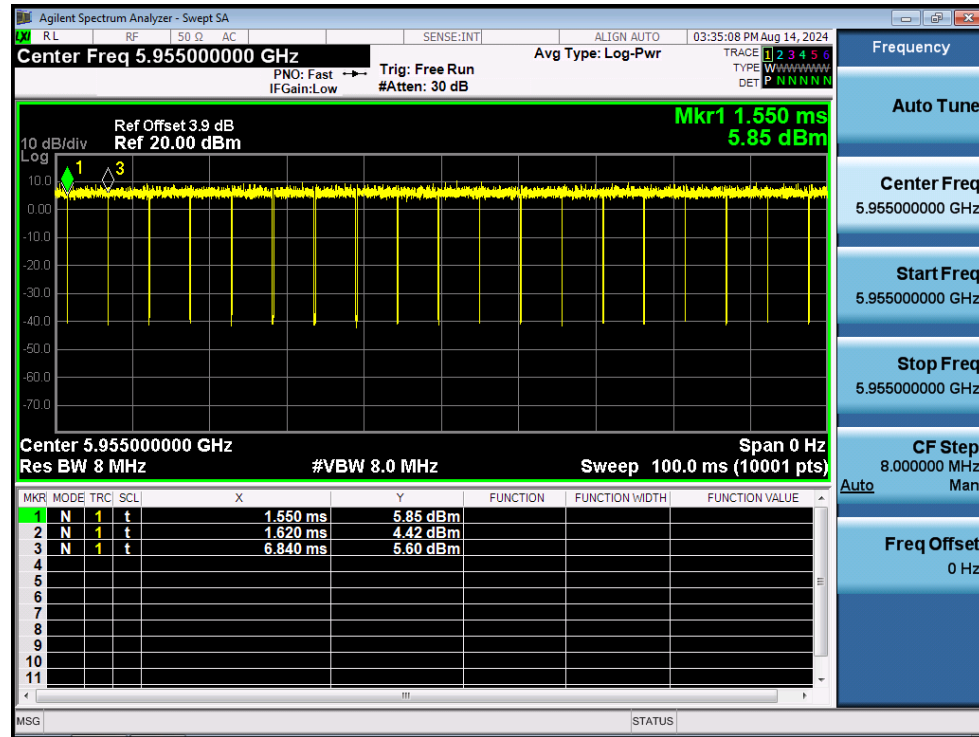
		6965		98.35	0	0.19
		7085		97.64	0.1	0.19
	ax80	5985	Ant1	98.54	0	0.19
		6145		98.18	0	0.19
		6385		98.01	0	0.18
		6465		96.77	0.14	0.19
		6545		97.83	0.1	0.19
		6625		96.95	0.13	0.19
		6705		97.65	0.1	0.19
		6785		98.72	0	0.19
		6865		97.47	0.11	0.19
		6945		97.3	0.12	0.19
		7025		98.9	0	0.19
		5985	Ant2	97.3	0.12	0.19
		6145		98.18	0	0.19
		6385		98.72	0	0.19
		6465		97.3	0.12	0.19
		6545		97.12	0.13	0.19
		6625		97.47	0.11	0.19
		6705		98.01	0	0.18
		6785		98.72	0	0.19
		6865		98.72	0	0.19
		6945		98.9	0	0.19
		7025		97.47	0.11	0.19
		5985	Ant3	98.72	0	0.19
		6145		97.65	0.1	0.19
		6385		98.18	0	0.19
		6465		98.9	0	0.19
		6545		97.12	0.13	0.19
		6625		96.95	0.13	0.18
		6705		97.83	0.1	0.18
		6785		97.3	0.12	0.19
		6865		97.13	0.13	0.18
		6945		98.9	0	0.18
		7025		96.95	0.13	0.19
		6145	Ant4	96.95	0.13	0.18
		6385		98.72	0	0.19
		6465		98.54	0	0.19
		6545		97.48	0.11	0.18
		6625		98.72	0	0.19
		6705		97.3	0.12	0.18
		6785		97.83	0.1	0.19
		6865		98.54	0	0.18
		6945		98.18	0	0.19

		7025	Sum	97.3	0.12	0.19
		5985		97.3	0.12	0.18
		6145		97.83	0.1	0.19
		6385		97.48	0.11	0.18
		6465		98	0	0.19
		6545		98.36	0	0.19
		6625		97.83	0.1	0.19
		6705		97.83	0.1	0.19
		6785		98.72	0	0.19
		6865		98.72	0	0.19
		6945		98.72	0	0.19
		7025		98.36	0	0.19
	ax160	6025	Ant1	98.67	0	0.22
		6185		97.58	0.11	0.23
		6345		96.32	0.16	0.22
		6505		98.67	0	0.22
		6665		96.74	0.14	0.22
		6825		97.59	0.11	0.22
		6985		98.45	0	0.22
		6025	Ant2	96.74	0.14	0.22
		6185		97.58	0.11	0.23
		6345		98.45	0	0.23
		6505		96.32	0.16	0.22
		6665		96.94	0.13	0.23
		6825		96.11	0.17	0.22
		6985		98.45	0	0.22
		6025	Ant3	97.37	0.12	0.23
		6185		98.45	0	0.22
		6345		97.37	0.12	0.22
		6505		97.37	0.12	0.23
		6665		98.01	0	0.23
		6825		97.8	0.1	0.23
		6985		98.67	0	0.23
		6025	Ant4	96.95	0.13	0.22
		6185		98.23	0	0.23
		6345		97.37	0.12	0.23
		6505		97.37	0.12	0.23
		6665		98.02	0	0.22
		6825		96.74	0.14	0.22
		6985		98.23	0	0.22
		6025	Sum	98.23	0	0.22
		6185		96.31	0.16	0.23
		6345		96.95	0.13	0.22
		6505		96.31	0.16	0.23

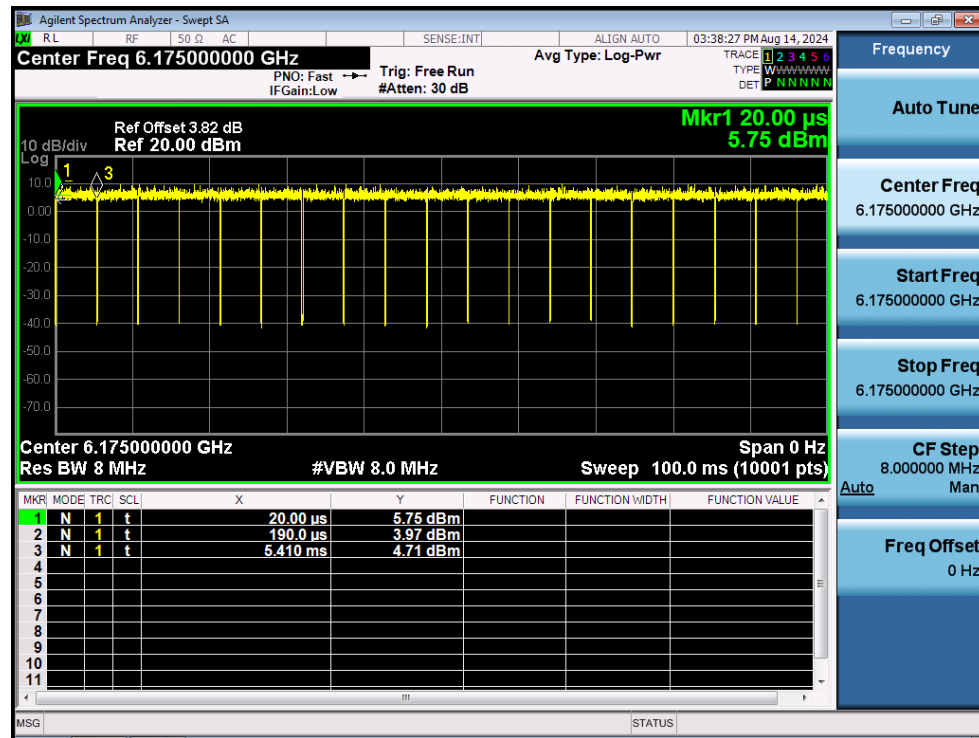
		6665		98.23	0	0.22
		6825		97.37	0.12	0.23
		6985		97.8	0.1	0.22

Test Graphs

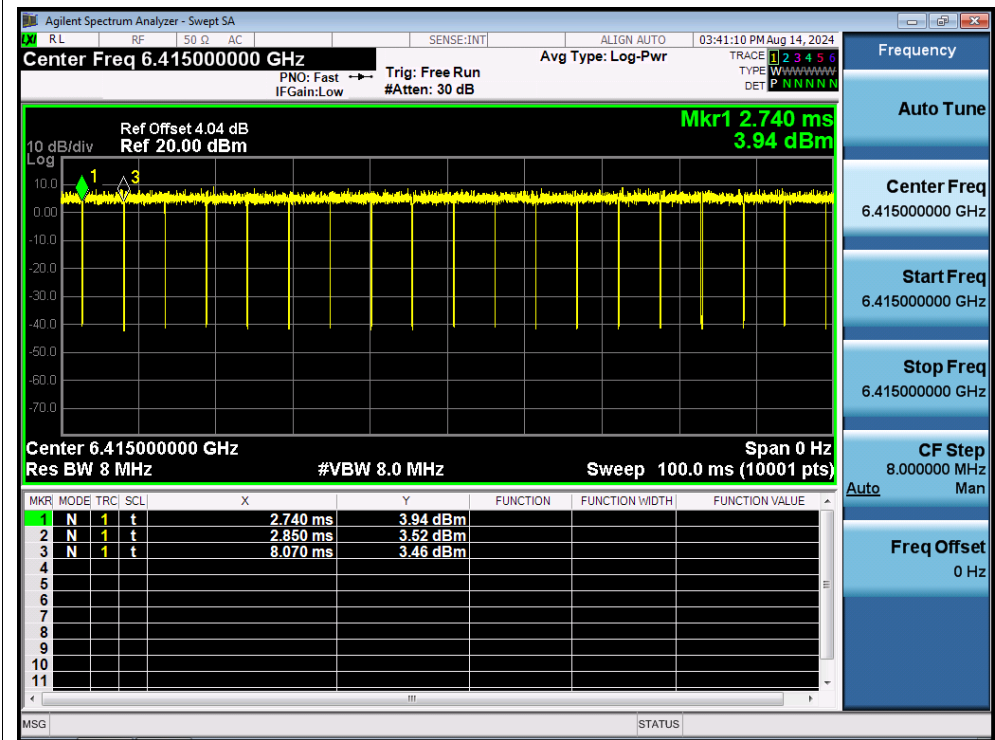
Duty Cycle NVNT ax20 5955MHz Ant1



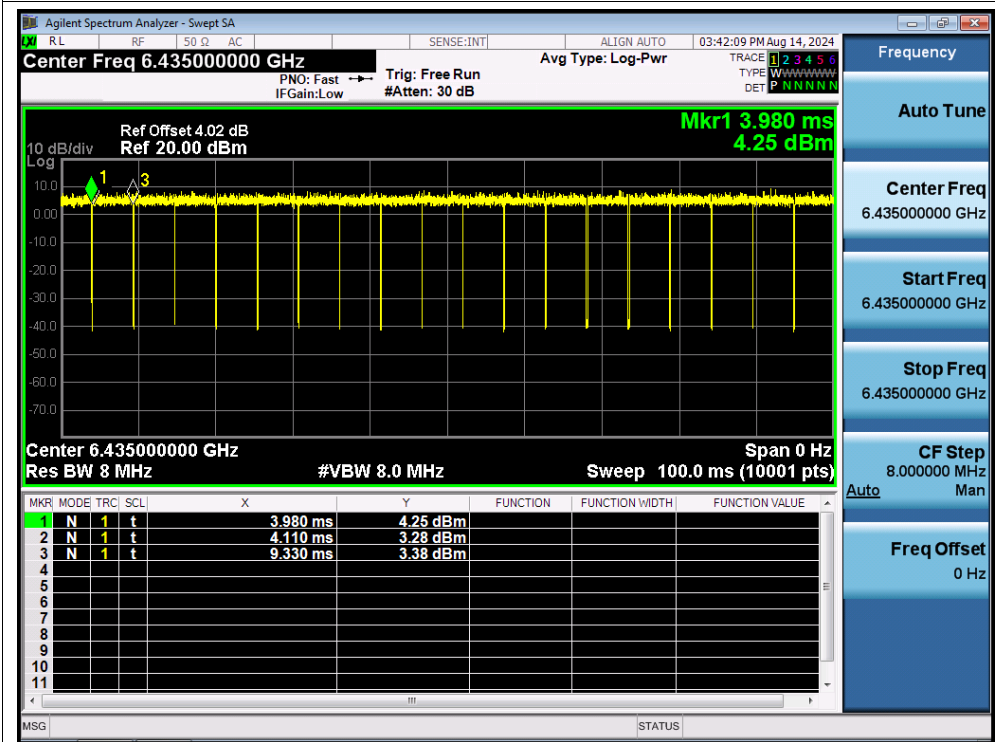
Duty Cycle NVNT ax20 6175MHz Ant1



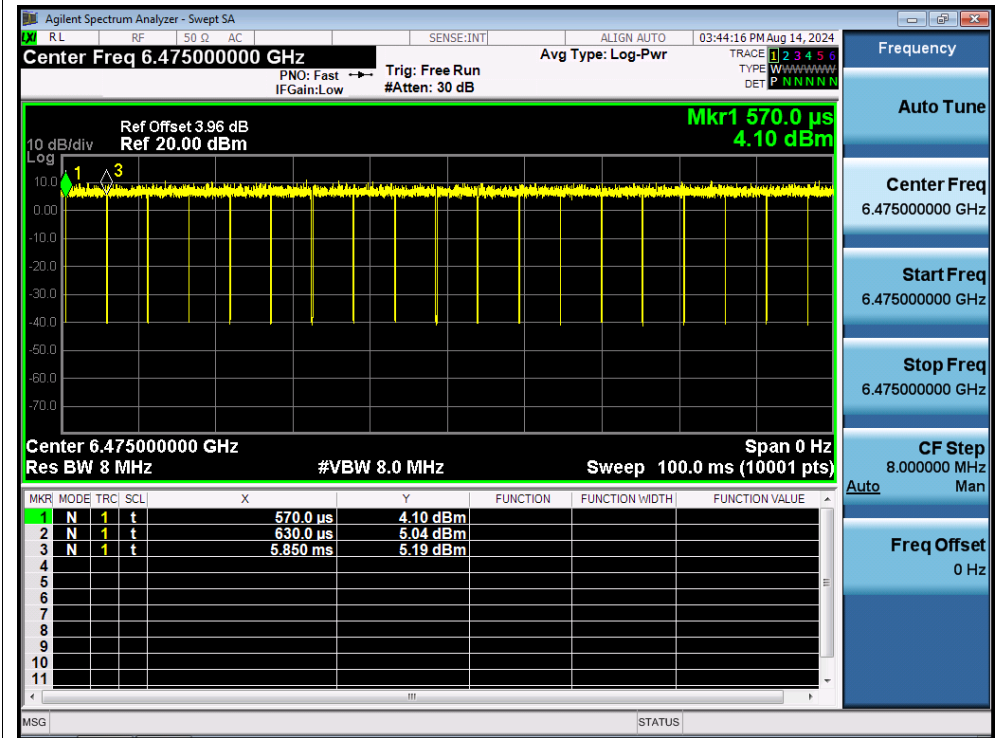
Duty Cycle NVNT ax20 6415MHz Ant1



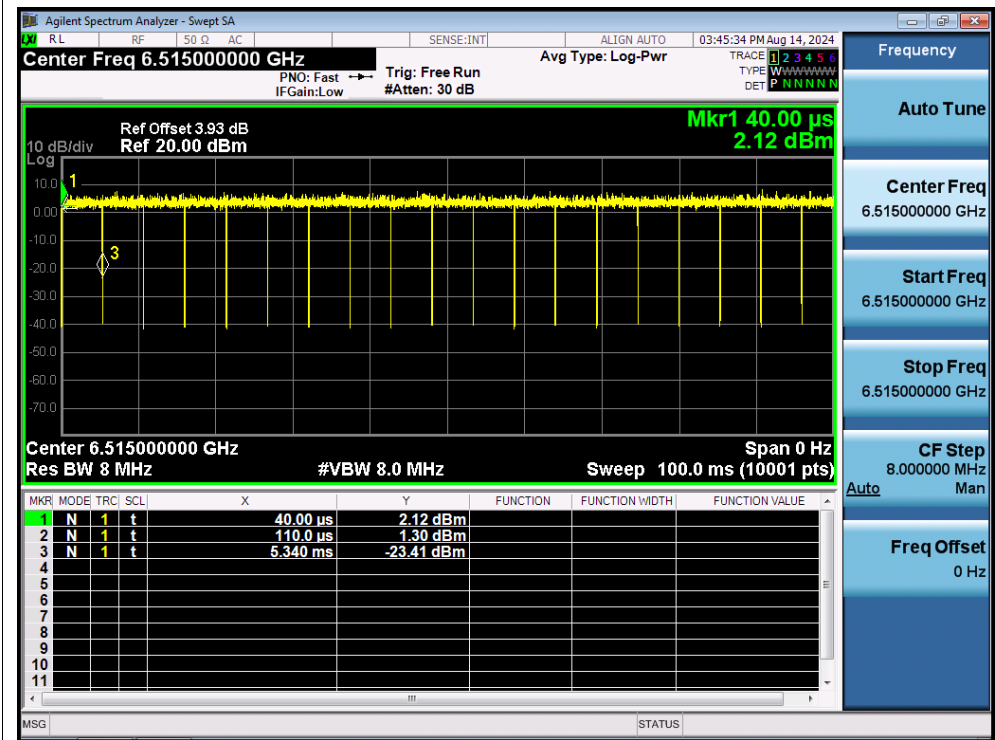
Duty Cycle NVNT ax20 6435MHz Ant1



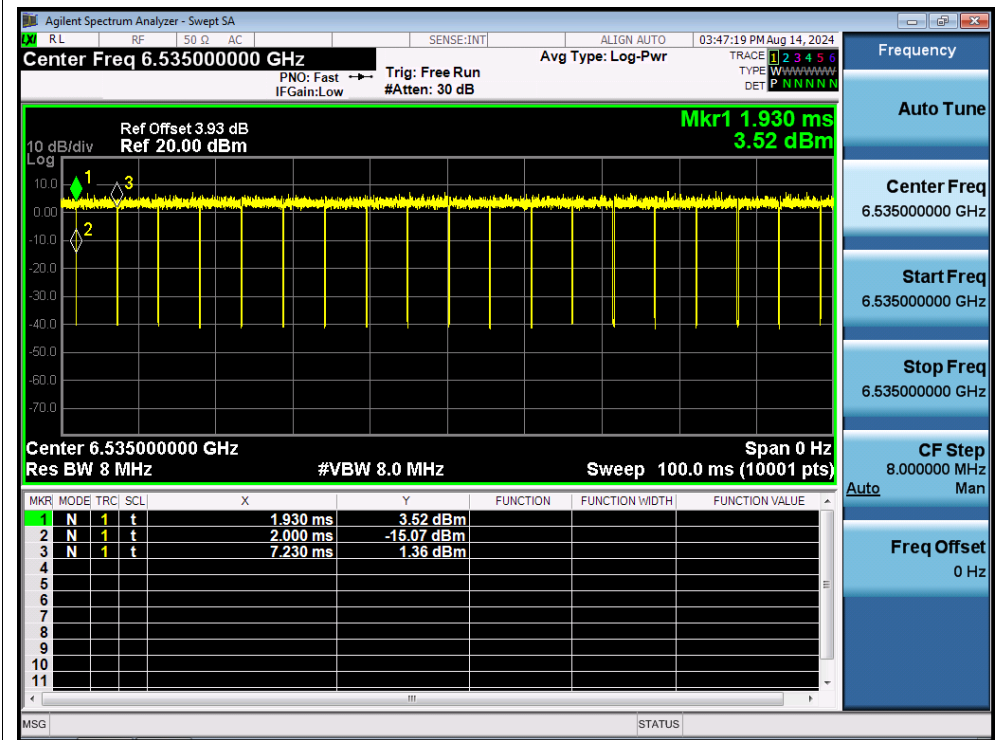
Duty Cycle NVNT ax20 6475MHz Ant1



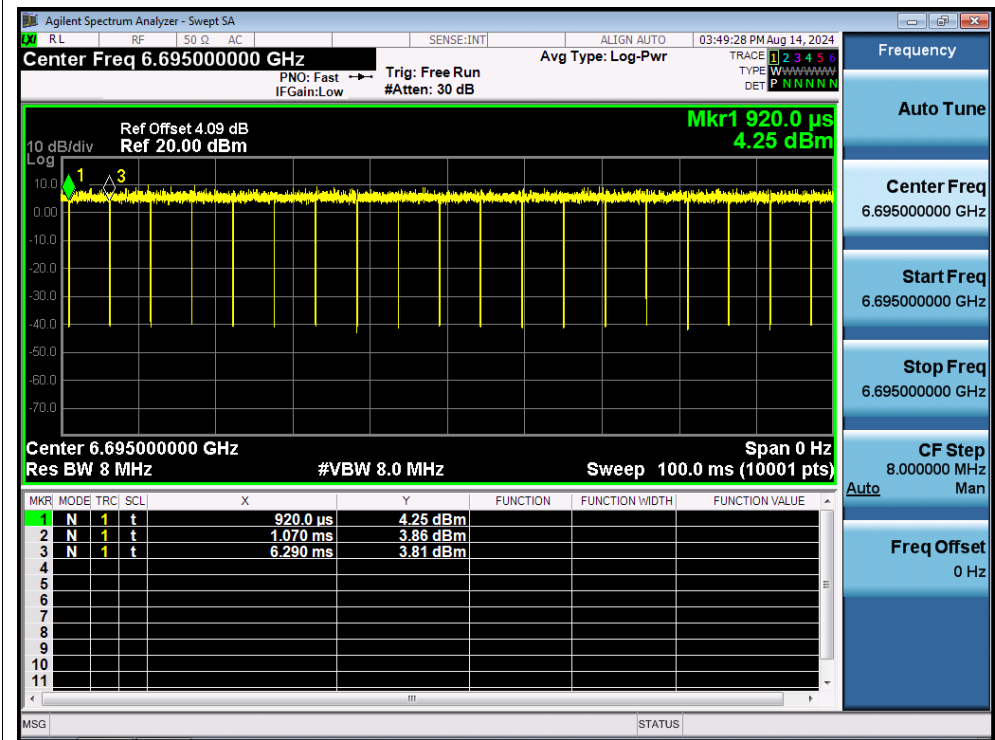
Duty Cycle NVNT ax20 6515MHz Ant1



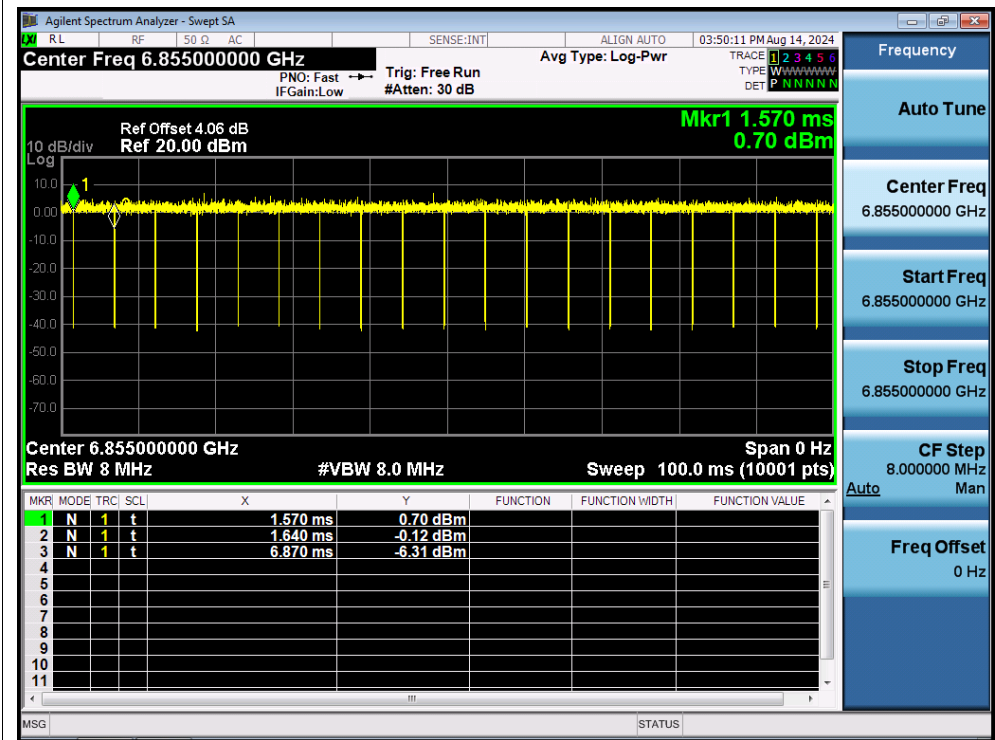
Duty Cycle NVNT ax20 6535MHz Ant1



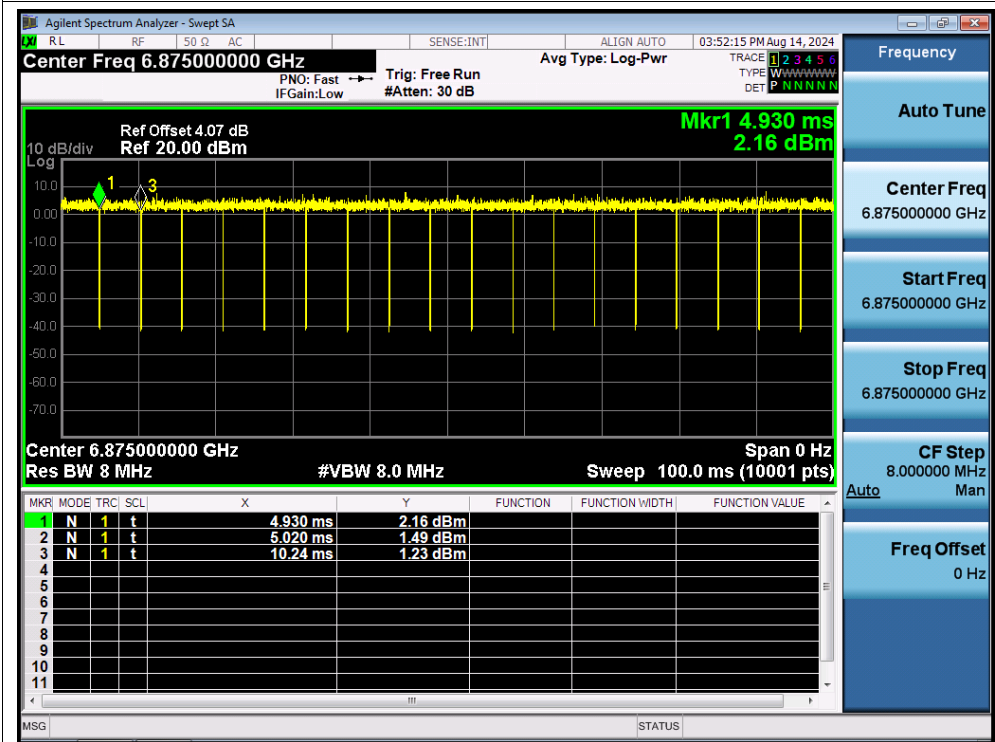
Duty Cycle NVNT ax20 6695MHz Ant1



Duty Cycle NVNT ax20 6855MHz Ant1



Duty Cycle NVNT ax20 6875MHz Ant1



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:53:09 PM Aug 14, 2024

Center Freq 6.895000000 GHz PNO: Fast → Trig: Free Run Avg Type: Log-Pwr TRACE 1 2 3 4 5 6
IF Gain: Low #Atten: 30 dB TYPE W W W W W W W W
DET P N N N N N

Ref Offset 4.08 dB Mkr1 3.960 ms
Ref 20.00 dBm 3.82 dBm

10 dB/div Log

Center 6.895000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	3.960 ms	3.82 dBm			
2	N	1	t	4.100 ms	3.39 dBm			
3	N	1	t	9.320 ms	3.67 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
6.895000000 GHz

Start Freq
6.895000000 GHz

Stop Freq
6.895000000 GHz

CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz

Duty Cycle NVNT ax20 7115MHz Ant1

Agilent Spectrum Analyzer - Sweep SA

Center Freq 7.115000000 GHz

Ref Offset 4.05 dB
Ref 20.00 dBm

10 dB/div
Log

Mkr1 4.500 ms
3.95 dBm

Center Freq 7.115000000 GHz
Res BW 8 MHz
Span 0 Hz
Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	4.500 ms	3.95 dBm			
2	N	1	t	4.570 ms	2.35 dBm			
3	N	1	t	9.790 ms	2.27 dBm			

Frequency

Auto Tune

Center Freq 7.115000000 GHz

Start Freq 7.115000000 GHz

Stop Freq 7.115000000 GHz

CF Step 8.000000 MHz

Freq Offset 0 Hz

Duty Cycle NVent ax20 5955MHz Ant2

The screenshot displays the Agilent Spectrum Analyzer interface. The main display shows a noise floor at 5.955 GHz. A marker (Mkr1) is placed at 5.050 ms with a value of 4.21 dBm. The frequency range is from 5.955 GHz to 5.955 GHz (Span 0 Hz). The resolution bandwidth (Res BW) is 8.0 MHz, and the sweep time is 100.0 ms. The center frequency is 5.955 GHz. The display is in Log mode, and the vertical scale is 10 dB/div. The horizontal scale is 10000 pts. The interface includes various control buttons and a table of markers.

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:58:18 PM Aug 14, 2024

Center Freq 5.955000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N

Ref Offset 3.86 dB
Ref 20.00 dBm

Mkr1 5.050 ms
4.21 dBm

10 dB/div
Log

Center 5.955000000 GHz Span 0 Hz
Res BW 8.0 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	5.050 ms	4.21 dBm			
2	N	1	t	5.200 ms	3.14 dBm			
3	N	1	t	10.42 ms	3.68 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
5.955000000 GHz

Start Freq
5.955000000 GHz

Stop Freq
5.955000000 GHz

CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz

Duty Cycle NVNT ax20 6175MHz Ant2

Agilent Spectrum Analyzer - Sweep SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:00:28 PM Aug 14, 2024

Center Freq 6.175000000 GHz Avg Type: Log-Pwr

PNO: Fast Trg: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET P N N N N N

10 dB/div Ref Offset 3.85 dB
Log Ref 20.00 dBm

Mkr1 1.440 ms 4.55 dBm

Center 6.175000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	1.440 ms	4.55 dBm			
2	N	1	t	1.590 ms	3.22 dBm			
3	N	1	t	6.810 ms	3.69 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
6.175000000 GHz

Start Freq
6.175000000 GHz

Stop Freq
6.175000000 GHz

CF Step
8.000000 MHz

Man

Freq Offset
0 Hz

Duty Cycle NVent ax20 6415MHz Ant2

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:03:54 PM Aug 14, 2024

Center Freq 6.41500000 GHz PNO: Fast → Trig: Free Run Avg Type: Log-Pwr

IF Gain: Low #Atten: 30 dB TRACE 1 2 3 4 5 6

TYPE W W W W W W W W

DET P N N N N N

10 dB/div Log Ref Offset 4 dB Mkr1 980.0 μs

Ref 20.00 dBm 4.27 dBm

Center 6.41500000 GHz Span 0 Hz

Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	980.0 μs	4.27 dBm			
2	N	1	t	1.140 ms	3.65 dBm			
3	N	1	t	6.360 ms	6.16 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 6.41500000 GHz

Start Freq 6.41500000 GHz

Stop Freq 6.41500000 GHz

CF Step 8.000000 MHz

Auto Man

Freq Offset 0 Hz

Duty Cycle NVNT ax20 6435MHz Ant2

Agilent Spectrum Analyzer - Sweep SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:07:28 PM Aug 14, 2024

Center Freq 6.435000000 GHz Avg Type: Log-Pwr

PNO: Fast Trig: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET P N N N N N

Ref Offset 3.99 dB
Ref 20.00 dBm

**Mkr1 5.370 ms
3.97 dBm**

10 dB/div
Log

Center 6.435000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	5.370 ms	3.97 dBm			
2	N	1	t	5.530 ms	3.34 dBm			
3	N	1	t	10.75 ms	3.17 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
6.435000000 GHz

Start Freq
6.435000000 GHz

Stop Freq
6.435000000 GHz

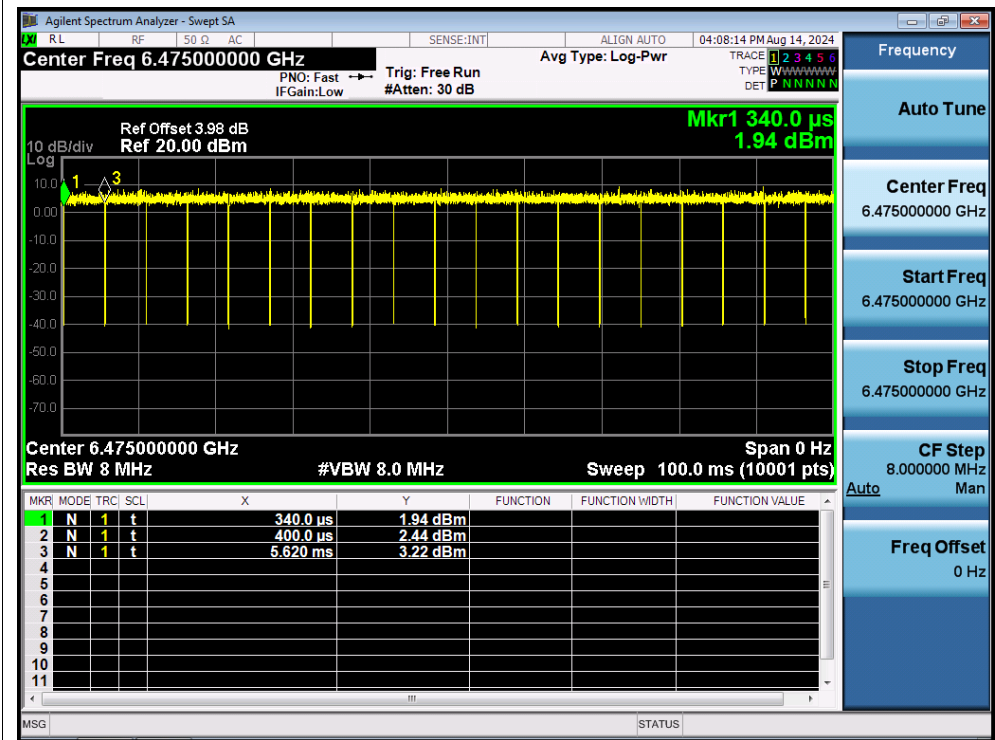
CF Step
8.000000 MHz

Man

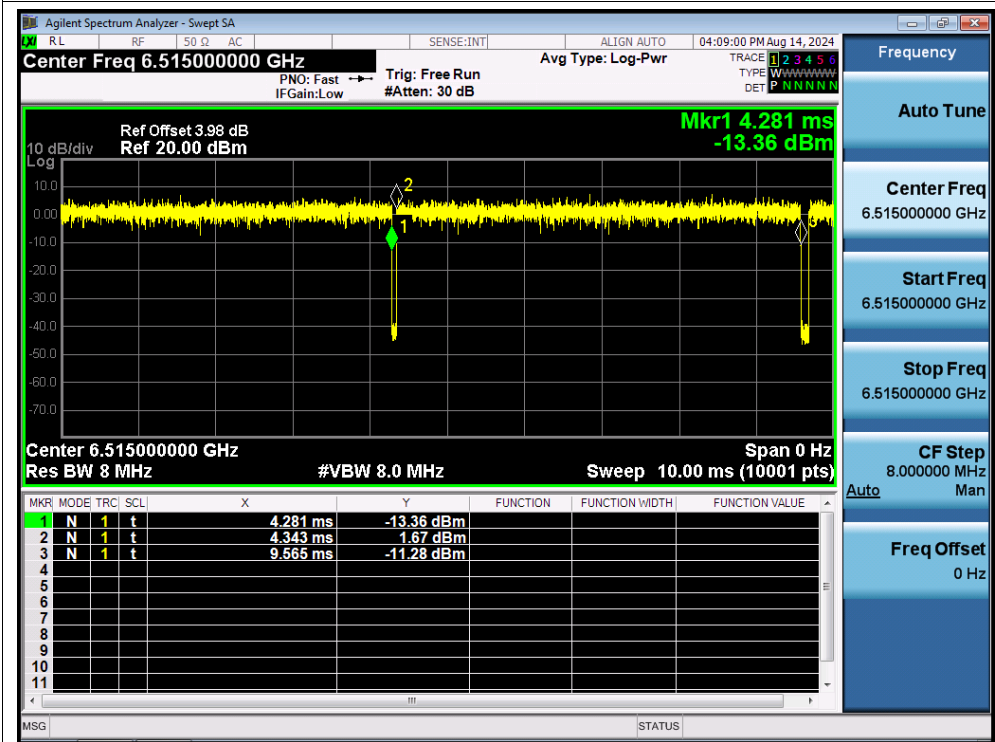
Freq Offset
0 Hz

MSG STATUS

Duty Cycle NVNT ax20 6475MHz Ant2



Duty Cycle NVNT ax20 6515MHz Ant2



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:09:48 PM Aug 14, 2024

Center Freq 6.535000000 GHz PNO: Fast → Trig: Free Run Avg Type: Log-Pwr TRACE 1 2 3 4 5 6
IF Gain: Low #Atten: 30 dB TYPE W W W W W W W W
DET P N N N N N

Ref Offset 3.97 dB Mkr1 4.550 ms
Ref 20.00 dBm 3.17 dBm

10 dB/div Log

Center 6.535000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	4.550 ms	3.17 dBm			
2	N	1	t	4.620 ms	2.44 dBm			
3	N	1	t	9.850 ms	2.74 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSQ STATUS

Frequency

Auto Tune

Center Freq 6.535000000 GHz

Start Freq 6.535000000 GHz

Stop Freq 6.535000000 GHz

CF Step 8.000000 MHz Man

Auto

Freq Offset 0 Hz

Duty Cycle NVNT ax20 6695MHz Ant2

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:12:08 PM Aug 14, 2024

Center Freq 6.695000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W W
DET P N N N N N

Ref Offset 4.11 dB
Ref 20.00 dBm

Mkr1 5.160 ms
3.19 dBm

10 dB/div
Log

Center 6.695000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz
Sweep 100.0 ms (10001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	5.160 ms	3.19 dBm			
2	N	1	t	5.260 ms	3.64 dBm			
3	N	1	t	10.48 ms	3.75 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
6.695000000 GHz

Start Freq
6.695000000 GHz

Stop Freq
6.695000000 GHz

CF Step
8.000000 MHz

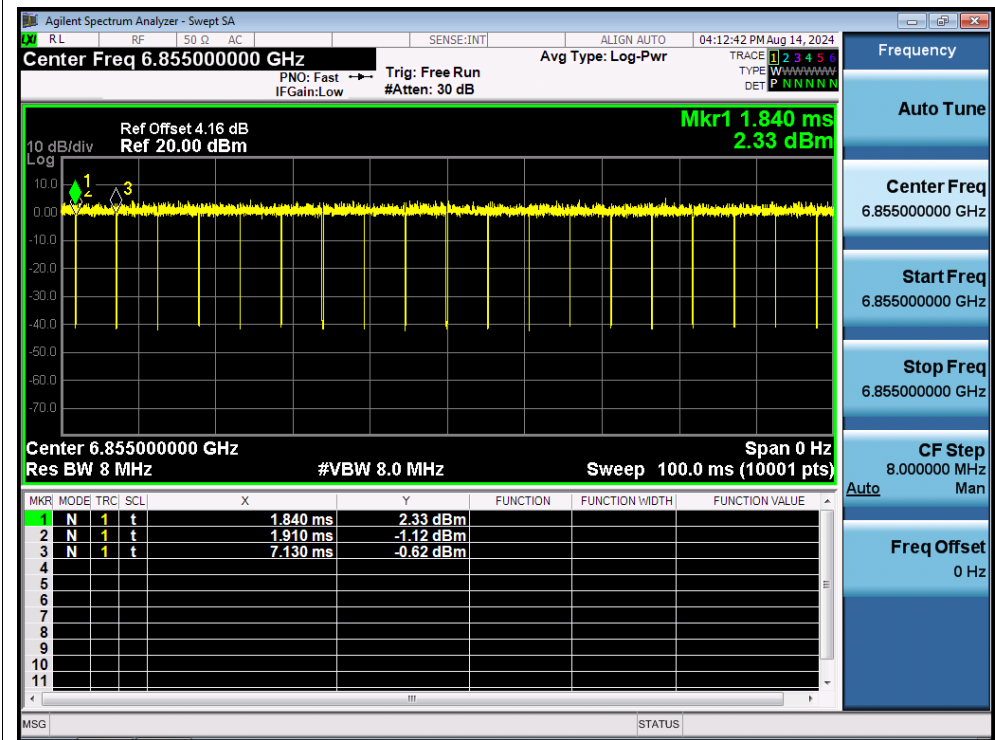
Man

Auto

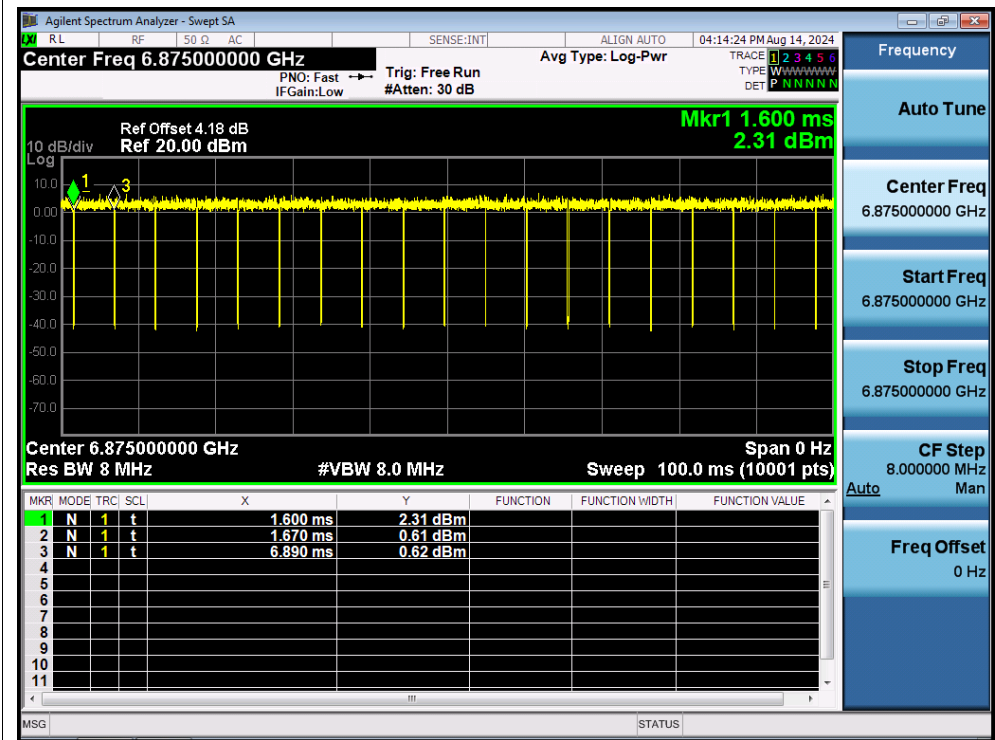
Freq Offset
0 Hz

MSG STATUS

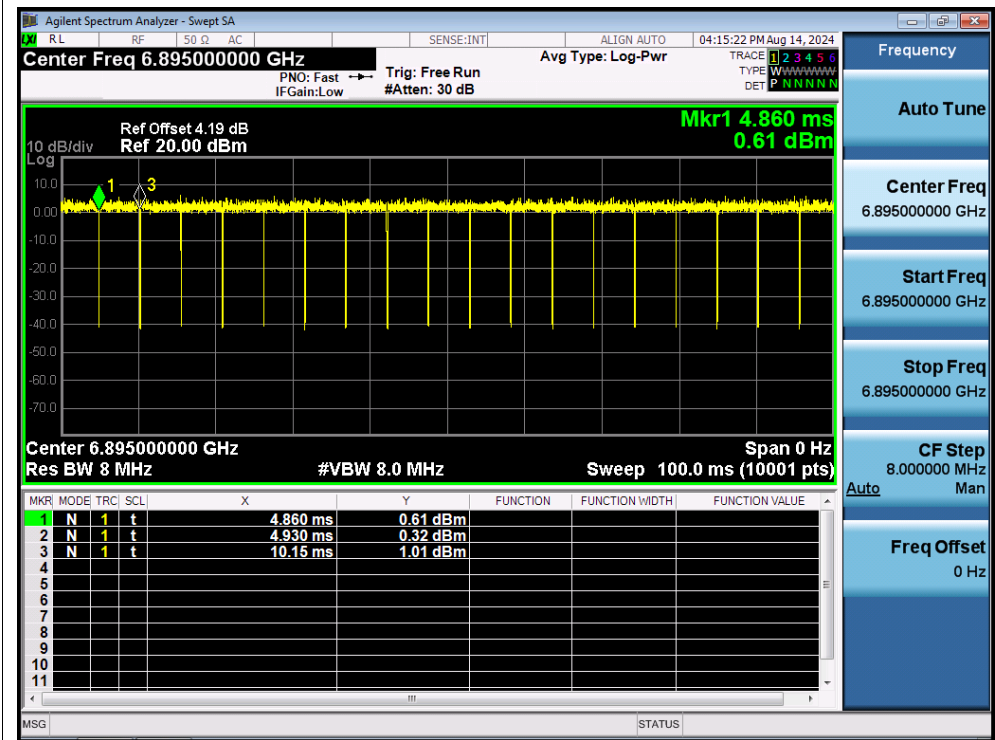
Duty Cycle NVNT ax20 6855MHz Ant2



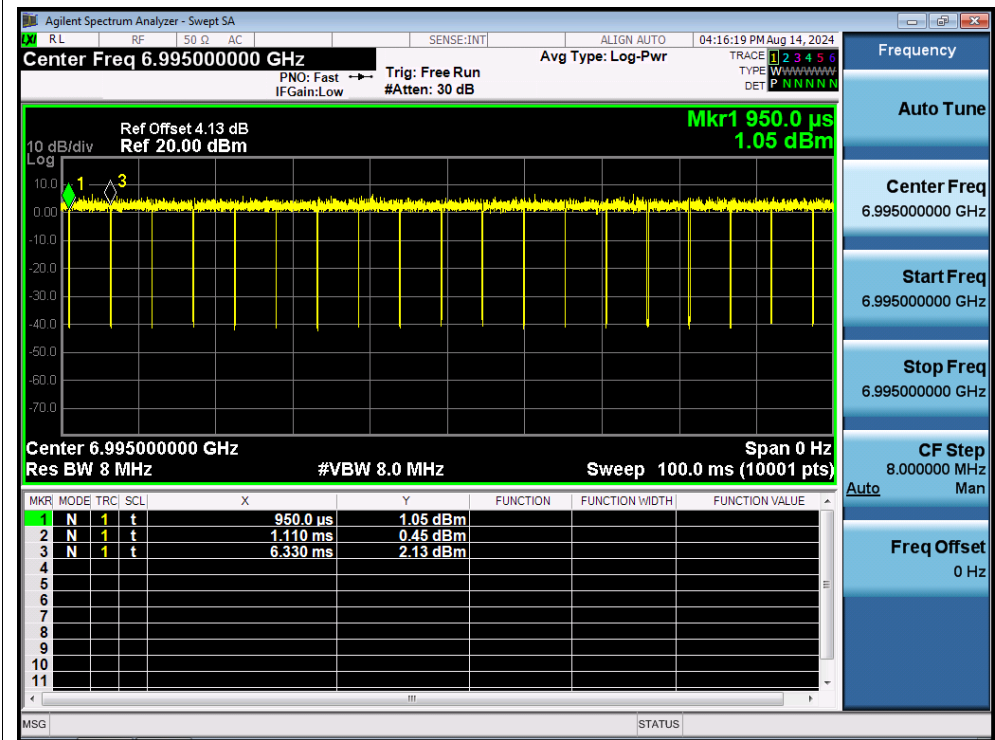
Duty Cycle NVNT ax20 6875MHz Ant2



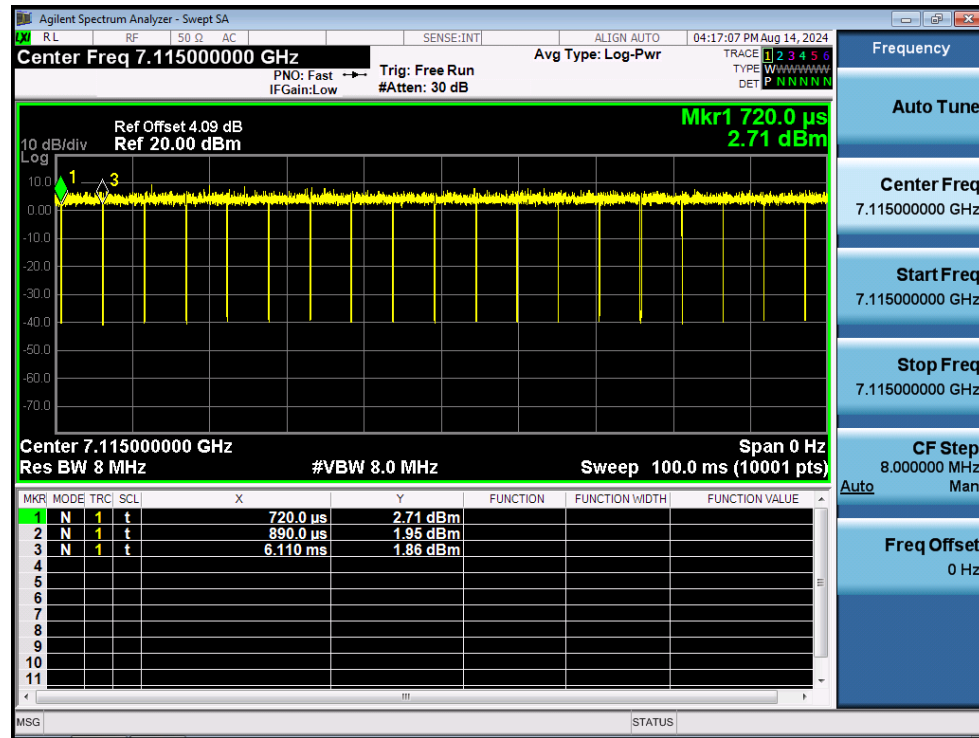
Duty Cycle NVNT ax20 6895MHz Ant2



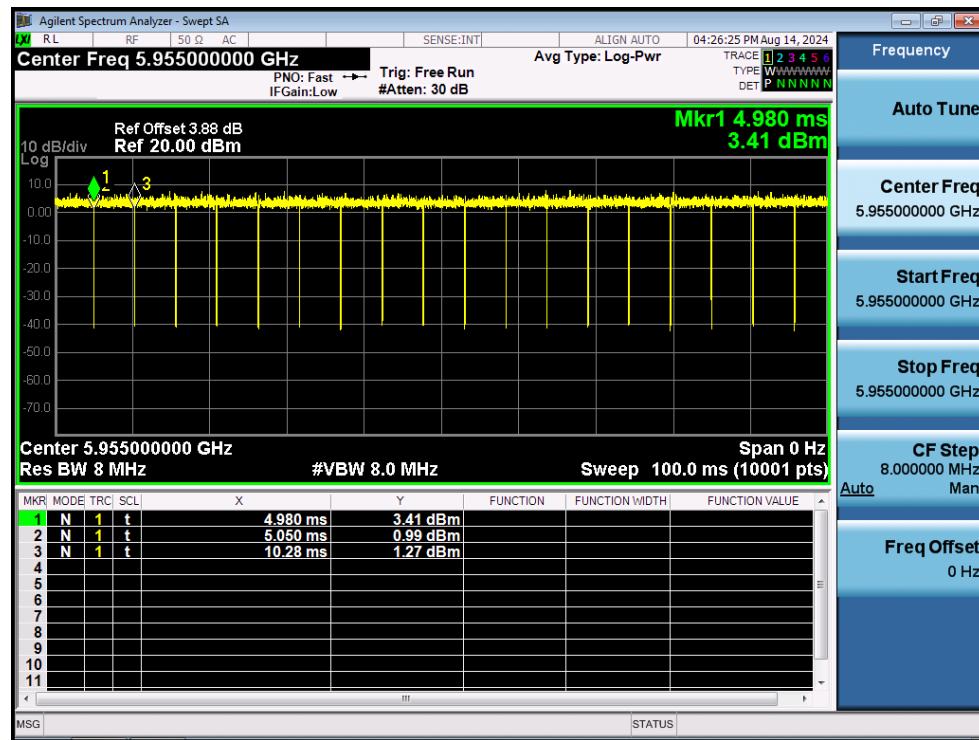
Duty Cycle NVNT ax20 6995MHz Ant2



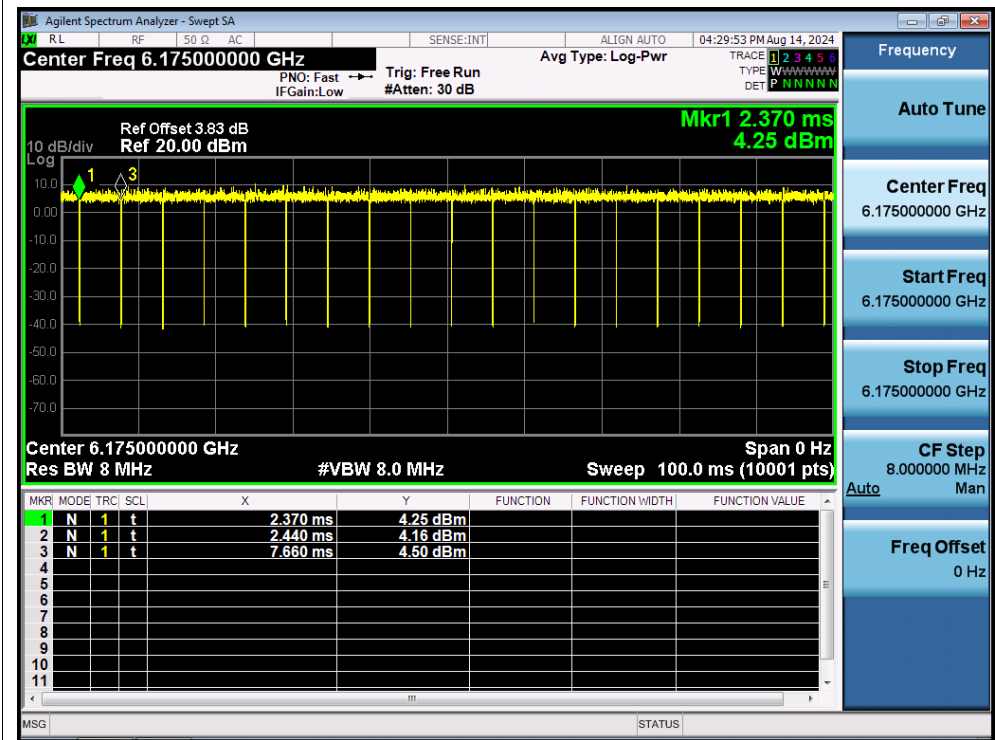
Duty Cycle NVNT ax20 7115MHz Ant2



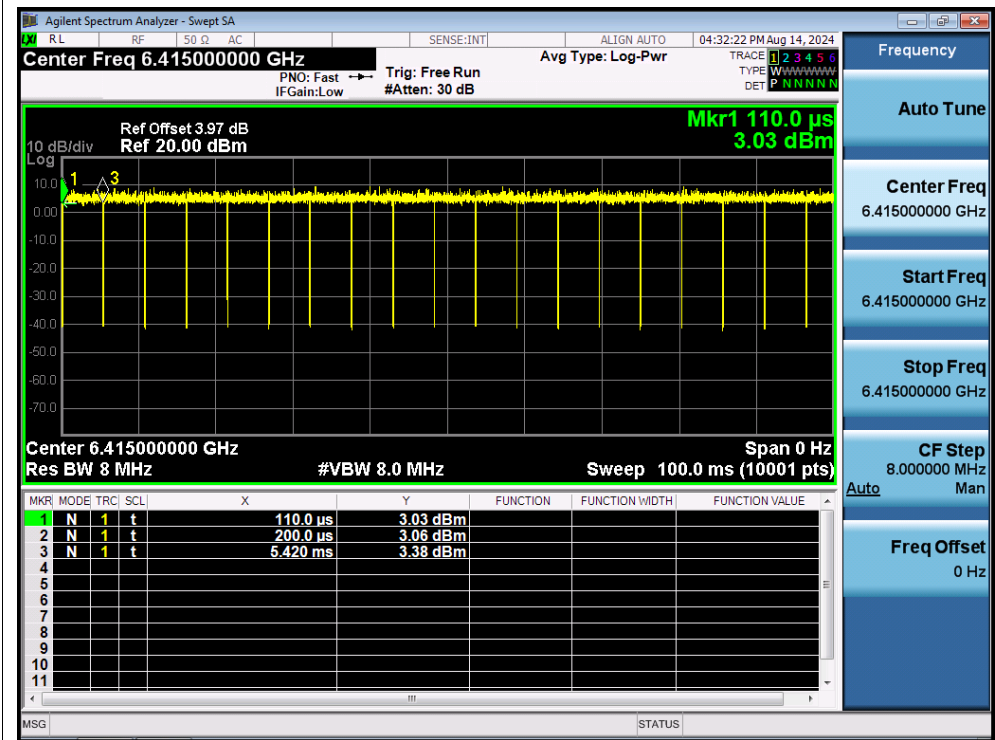
Duty Cycle NVNT ax20 5955MHz Ant3



Duty Cycle NVNT ax20 6175MHz Ant3



Duty Cycle NVNT ax20 6415MHz Ant3



Duty Cycle NVNT ax20 6435MHz Ant3

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:33:59 PM Aug 14, 2024

Center Freq 6.435000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

Ref Offset 3.96 dB
Ref 20.00 dBm

Mkr1 4.250 ms
3.79 dBm

10 dB/div
Log

Center 6.435000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	4.250 ms	3.79 dBm			
2	N	1	t	4.320 ms	3.29 dBm			
3	N	1	t	9.540 ms	3.37 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
6.435000000 GHz

Start Freq
6.435000000 GHz

Stop Freq
6.435000000 GHz

CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz

Duty Cycle NVNT ax20 6475MHz Ant3

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:34:59 PM Aug 14, 2024

Center Freq 6.475000000 GHz Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N N

Ref Offset 3.97 dB
Ref 20.00 dBm

PN0: Fast → Trig: Free Run
IFGain:Low #Atten: 30 dB

10 dB/div
Log

Mkr1 2.460 ms
3.42 dBm

Center 6.475000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	2.460 ms	3.42 dBm			
2	N	1	t	2.590 ms	2.73 dBm			
3	N	1	t	7.820 ms	3.07 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
6.475000000 GHz

Start Freq
6.475000000 GHz

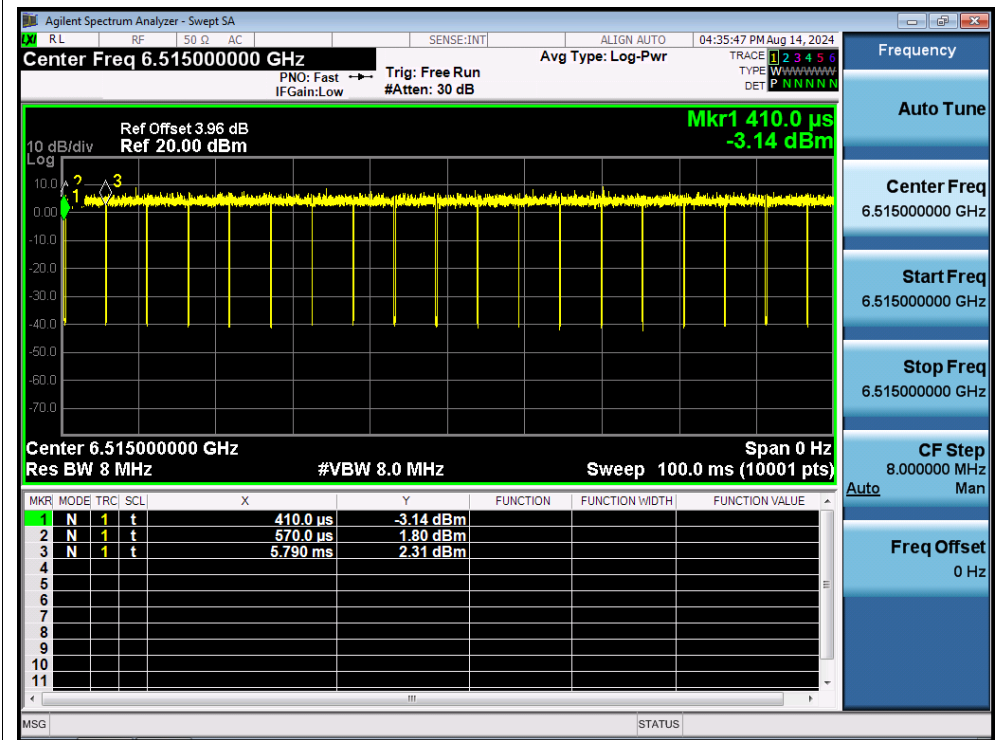
Stop Freq
6.475000000 GHz

CF Step
8.000000 MHz
Man

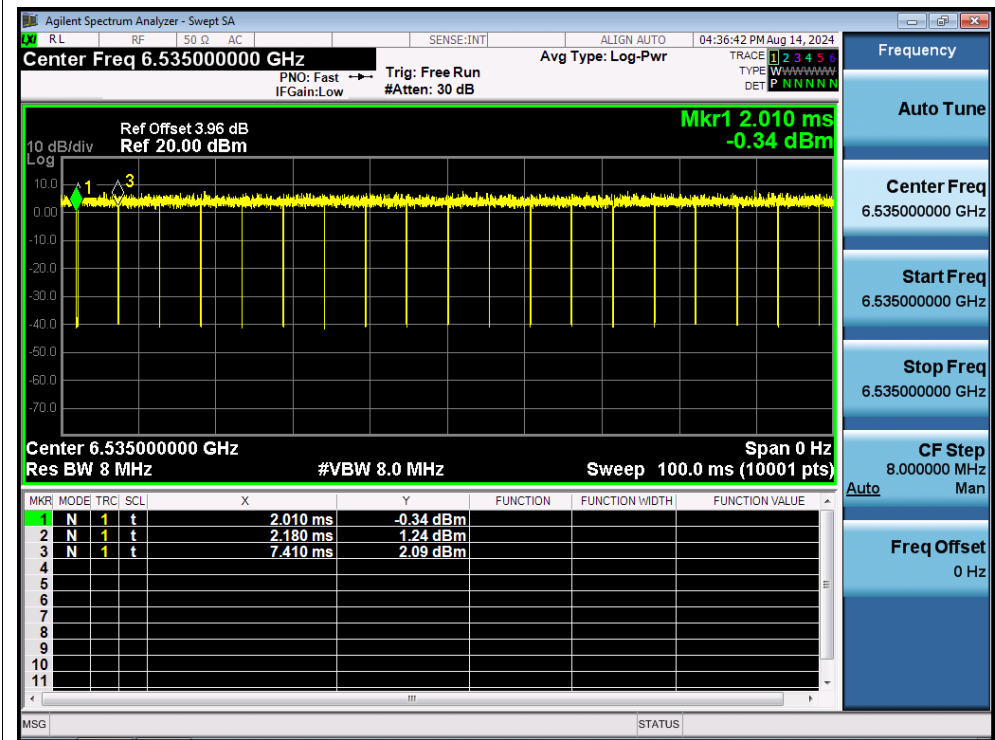
Auto

Freq Offset
0 Hz

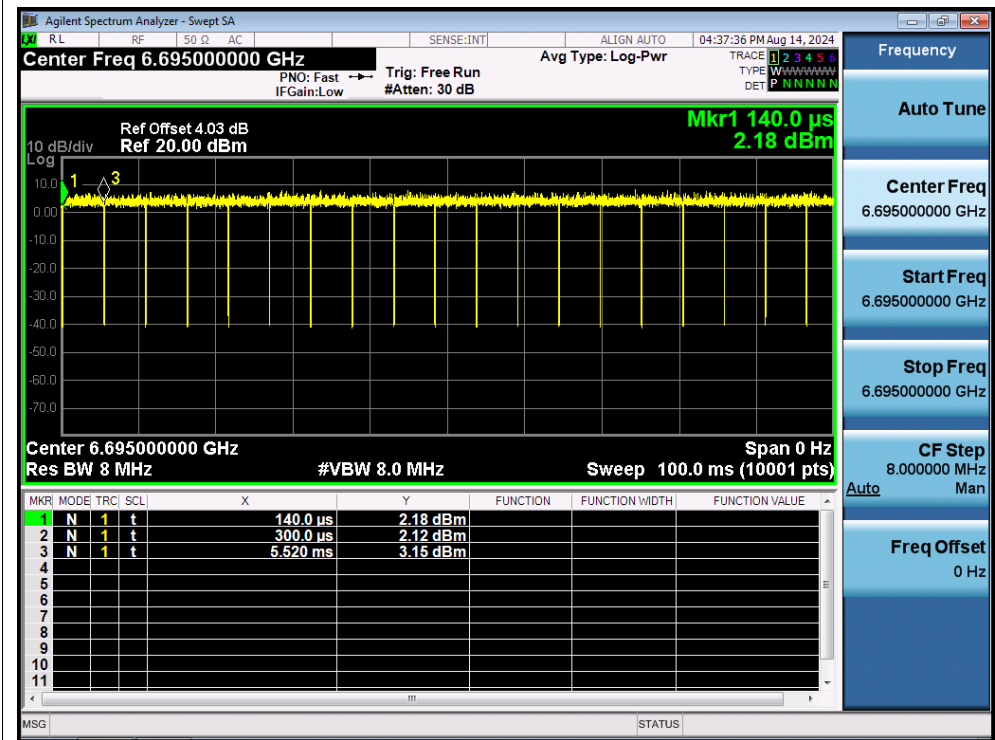
Duty Cycle NVNT ax20 6515MHz Ant3



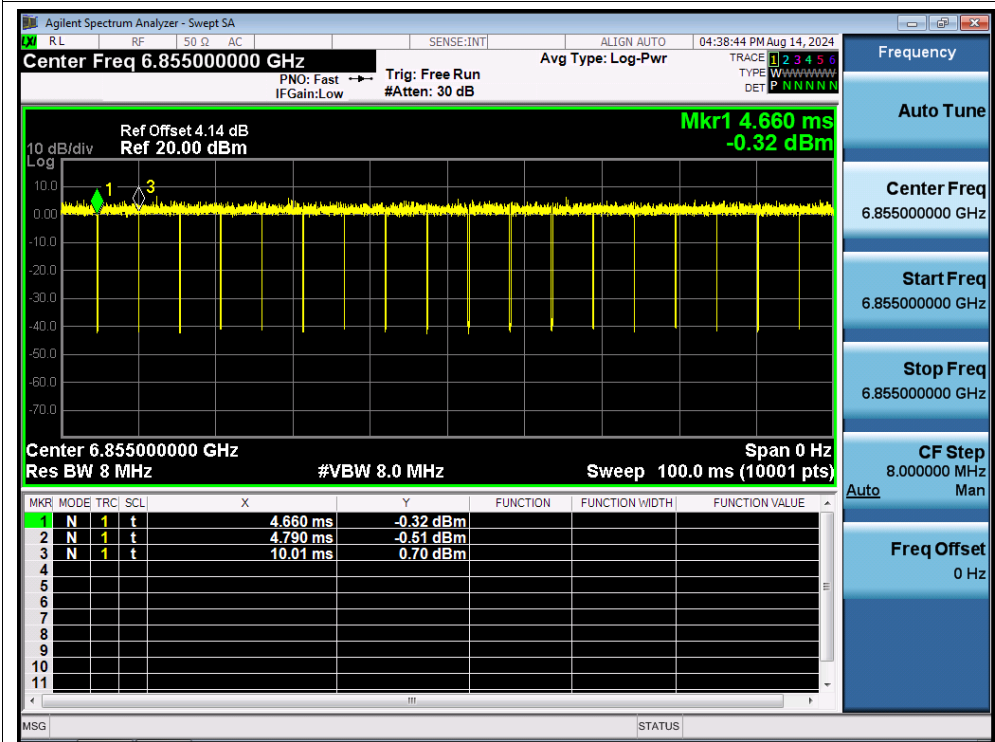
Duty Cycle NVNT ax20 6535MHz Ant3



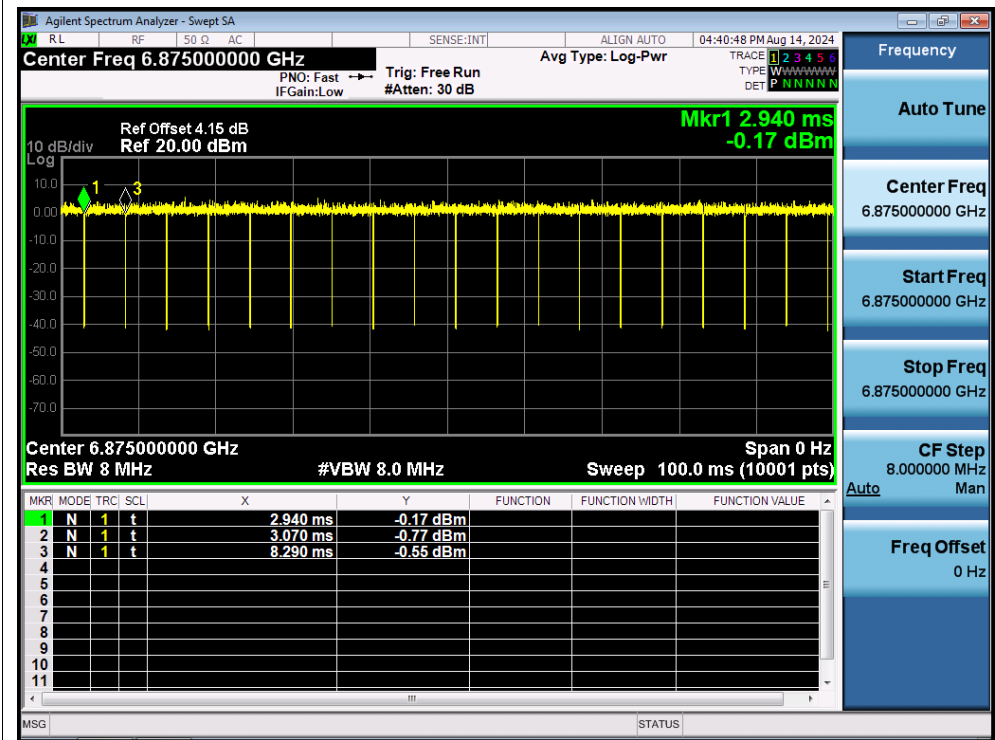
Duty Cycle NVNT ax20 6695MHz Ant3



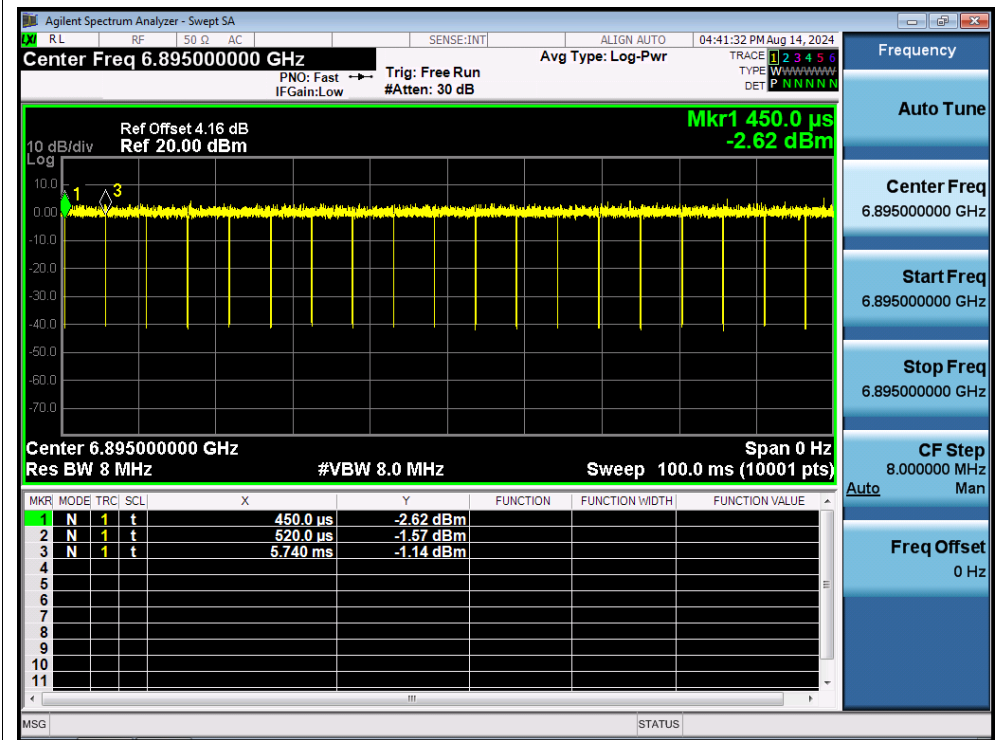
Duty Cycle NVNT ax20 6855MHz Ant3



Duty Cycle NVNT ax20 6875MHz Ant3



Duty Cycle NVNT ax20 6895MHz Ant3



Duty Cycle NVNT ax20 6995MHz Ant3

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:42:40 PM Aug 14, 2024

Center Freq 6.995000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

Ref Offset 4.12 dB
Ref 20.00 dBm

Mkr1 4.170 ms
3.25 dBm

10 dB/div
Log

Center 6.995000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	4.170 ms	3.25 dBm			
2	N	1	t	4.330 ms	2.54 dBm			
3	N	1	t	9.560 ms	1.77 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
6.995000000 GHz

Start Freq
6.995000000 GHz

Stop Freq
6.995000000 GHz

CF Step
8.000000 MHz

Freq Offset
0 Hz

MSG STATUS

Duty Cycle NVNT ax20 7115MHz Ant3

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:43:56 PM Aug 14, 2024

Center Freq 7.115000000 GHz PNO: Fast → Trig: Free Run Avg Type: Log-Pwr

Ref Offset 4.09 dB TYPE 1 2 3 4 5 6
Ref 20.00 dBm IFGain:Low #Atten: 30 dB DET P N N N N N

Mkr1 3.890 ms
1.54 dBm

10 dB/div Log

Center 7.115000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	3.890 ms	1.54 dBm			
2	N	1	t	3.980 ms	0.93 dBm			
3	N	1	t	9.200 ms	2.69 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 7.115000000 GHz

Start Freq 7.115000000 GHz

Stop Freq 7.115000000 GHz

CF Step 8.000000 MHz Man

Auto

Freq Offset 0 Hz

Duty Cycle NVNT ax20 5935MHz Ant4

The screenshot displays an Agilent Spectrum Analyzer interface. The main display shows a signal at a center frequency of 5.935000000 GHz. The signal is characterized by a series of vertical pulses. A marker labeled 'Mkr1' is positioned at 1.870 ms with a value of 3.02 dBm. The reference level is set to 20.00 dBm, and the reference offset is 3.95 dB. The resolution bandwidth (Res BW) is 8 MHz, and the span is 0 Hz. The sweep rate is 100.0 ms (10001 pts).

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:47:47 PM Aug 14, 2024

Center Freq 5.935000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

Ref Offset 3.95 dB
Ref 20.00 dBm

Mkr1 1.870 ms
3.02 dBm

10 dB/div
Log

Center 5.935000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	1.870 ms	3.02 dBm			
2	N	1	t	2.010 ms	2.79 dBm			
3	N	1	t	7.240 ms	0.31 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
5.935000000 GHz

Start Freq
5.935000000 GHz

Stop Freq
5.935000000 GHz

CF Step
8.000000 MHz
Man

Freq Offset
0 Hz

MSG STATUS

Duty Cycle NVNT ax20 6175MHz Ant4

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:49:15 PM Aug 14, 2024

Center Freq 6.175000000 GHz Avg Type: Log-Pwr

TRAC 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N

Ref Offset 4.01 dB
Ref 20.00 dBm

10 dB/div
Log

Mkr1 4.400 ms
5.33 dBm

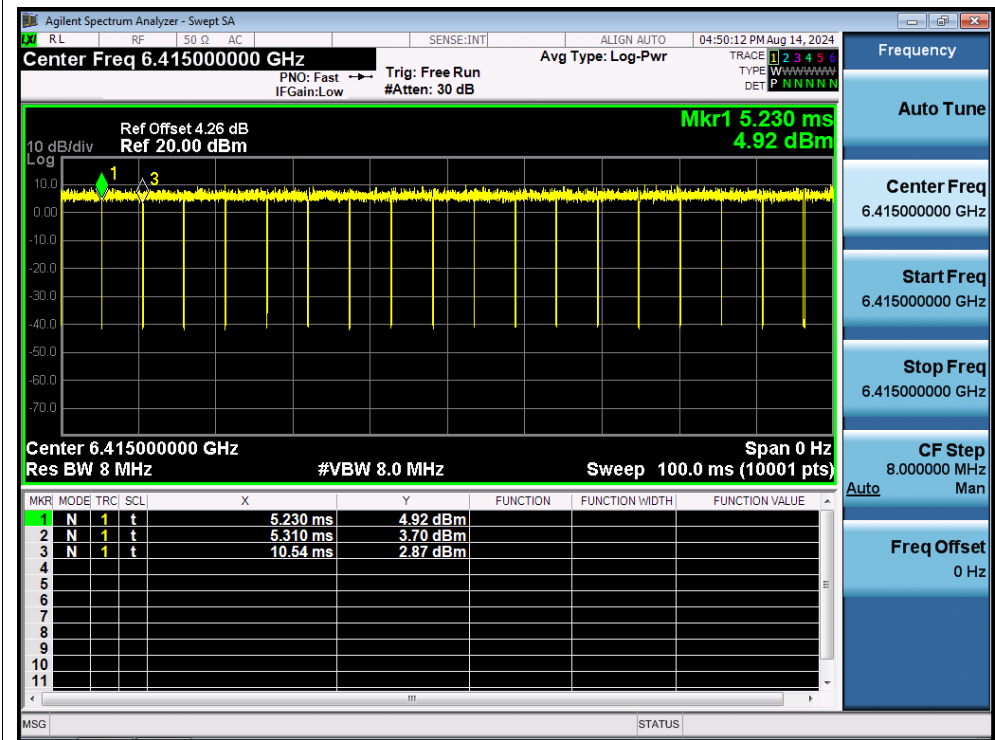
Center 6.175000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	4.400 ms	5.33 dBm			
2	N	1	t	4.500 ms	4.41 dBm			
3	N	1	t	9.720 ms	3.88 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

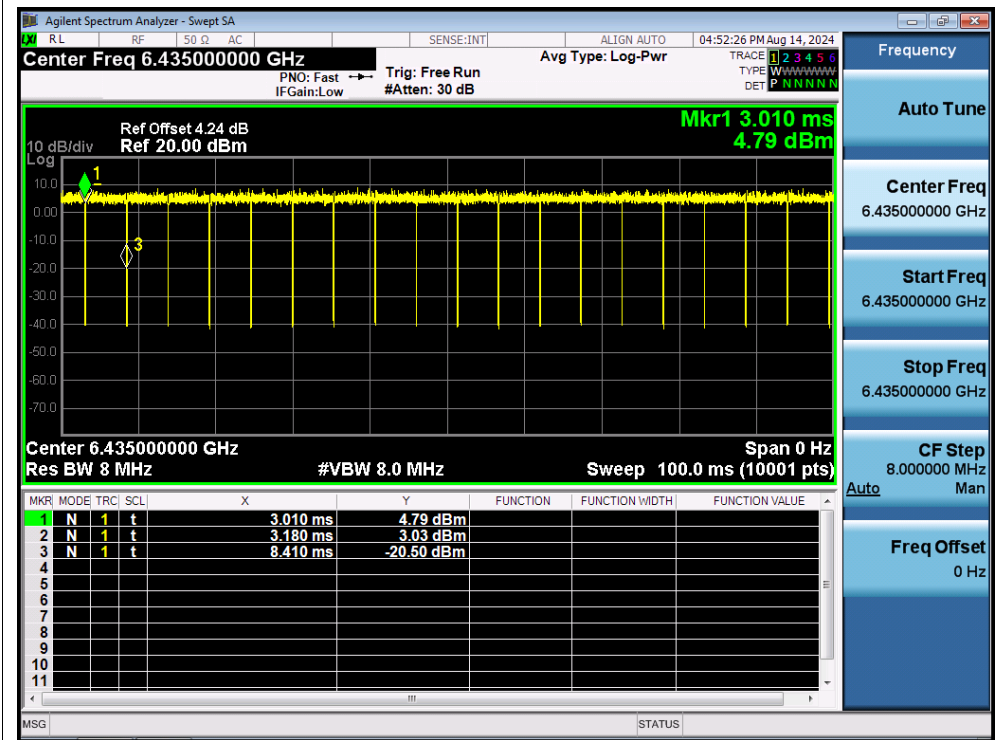
MSG STATUS

Frequency
Auto Tune
Center Freq 6.175000000 GHz
Start Freq 6.175000000 GHz
Stop Freq 6.175000000 GHz
CF Step 8.000000 MHz
Auto Man
Freq Offset 0 Hz

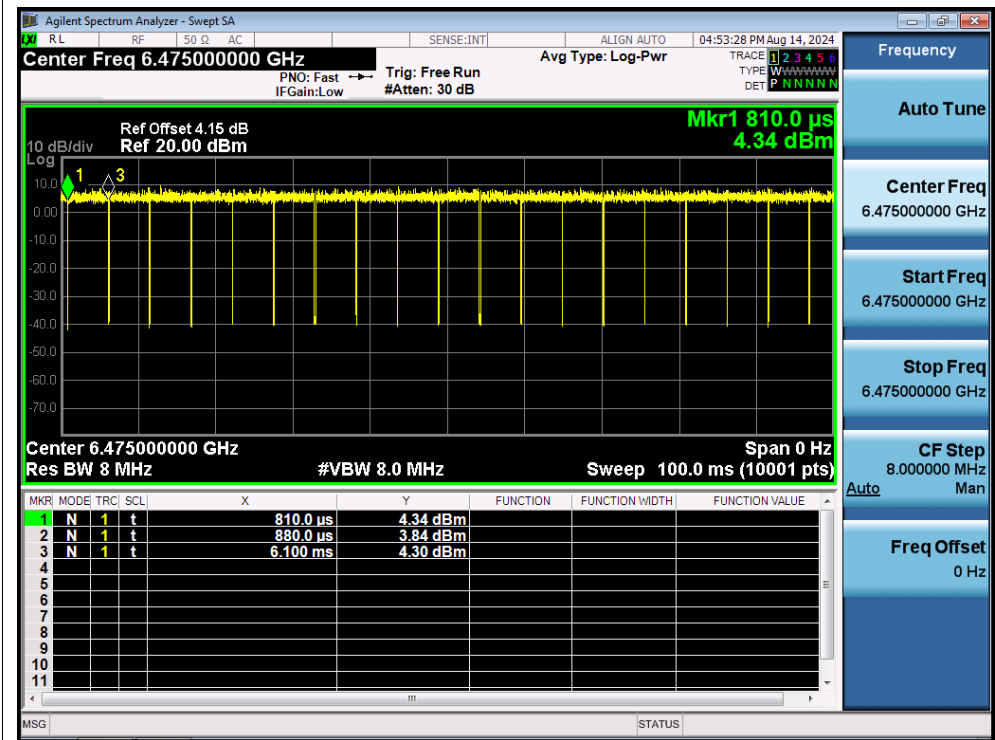
Duty Cycle NVNT ax20 6415MHz Ant4



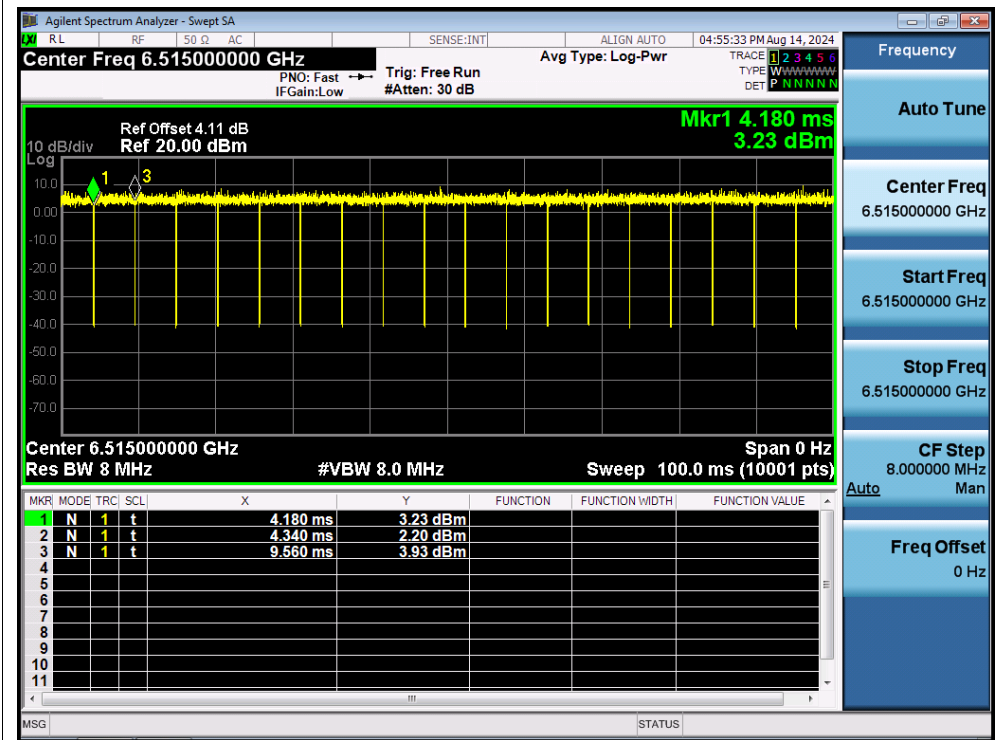
Duty Cycle NVNT ax20 6435MHz Ant4



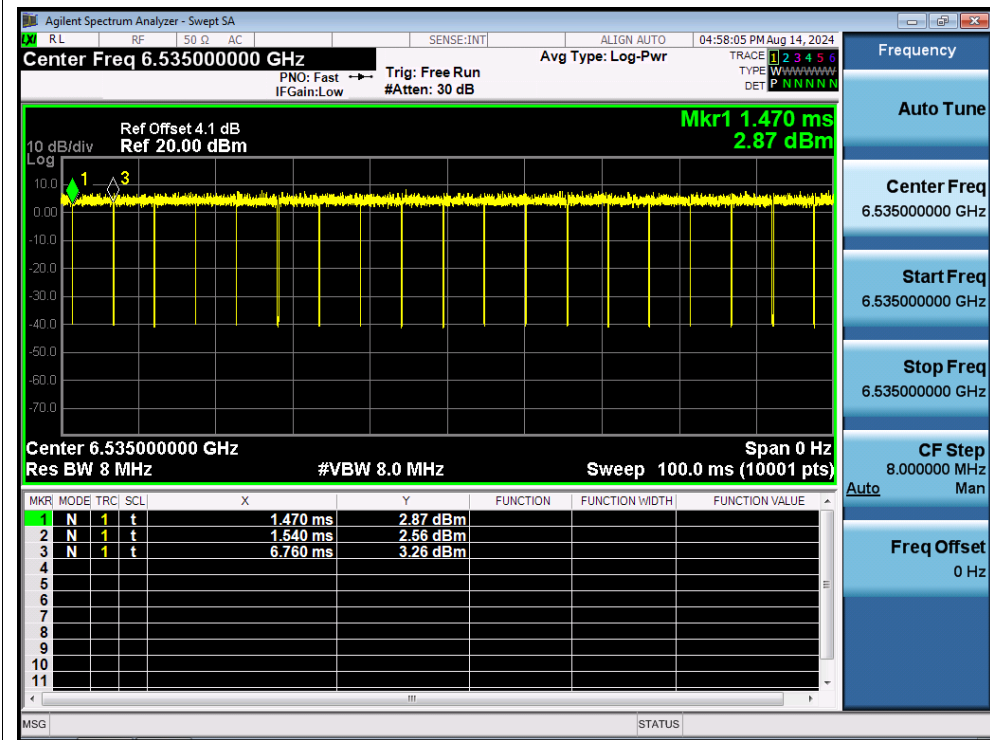
Duty Cycle NVNT ax20 6475MHz Ant4



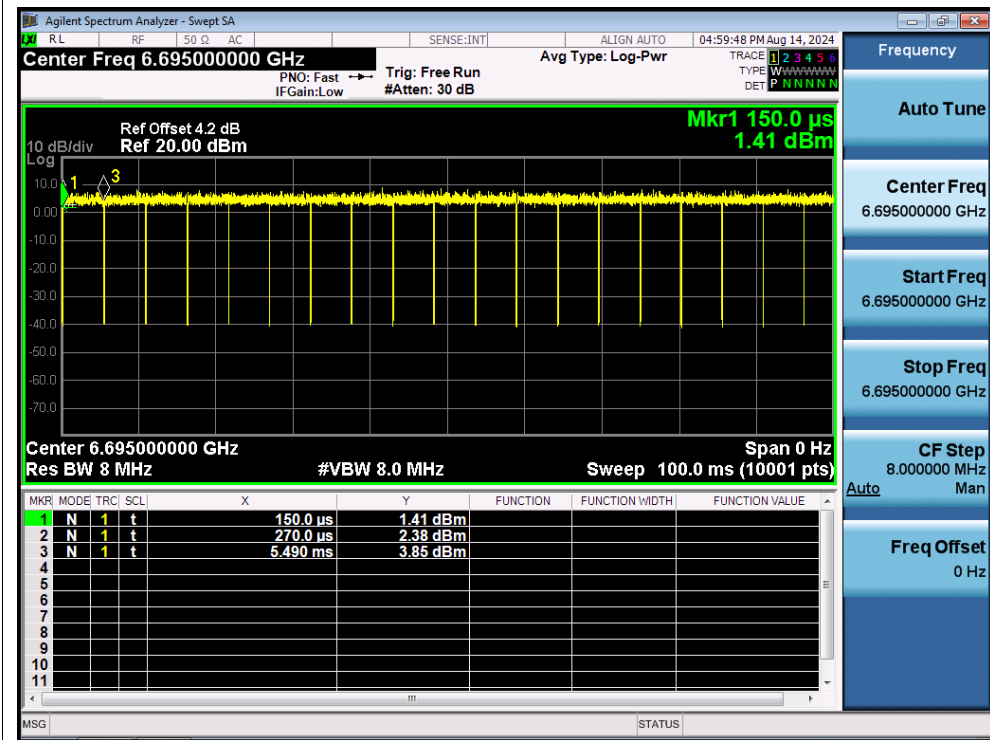
Duty Cycle NVNT ax20 6515MHz Ant4



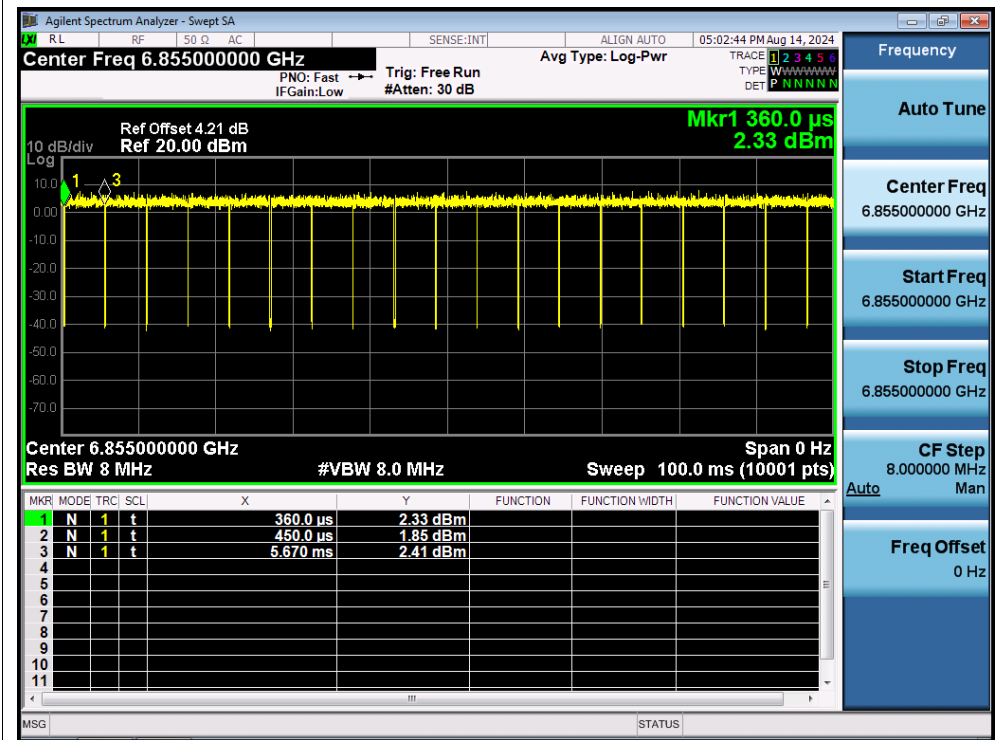
Duty Cycle NVNT ax20 6535MHz Ant4



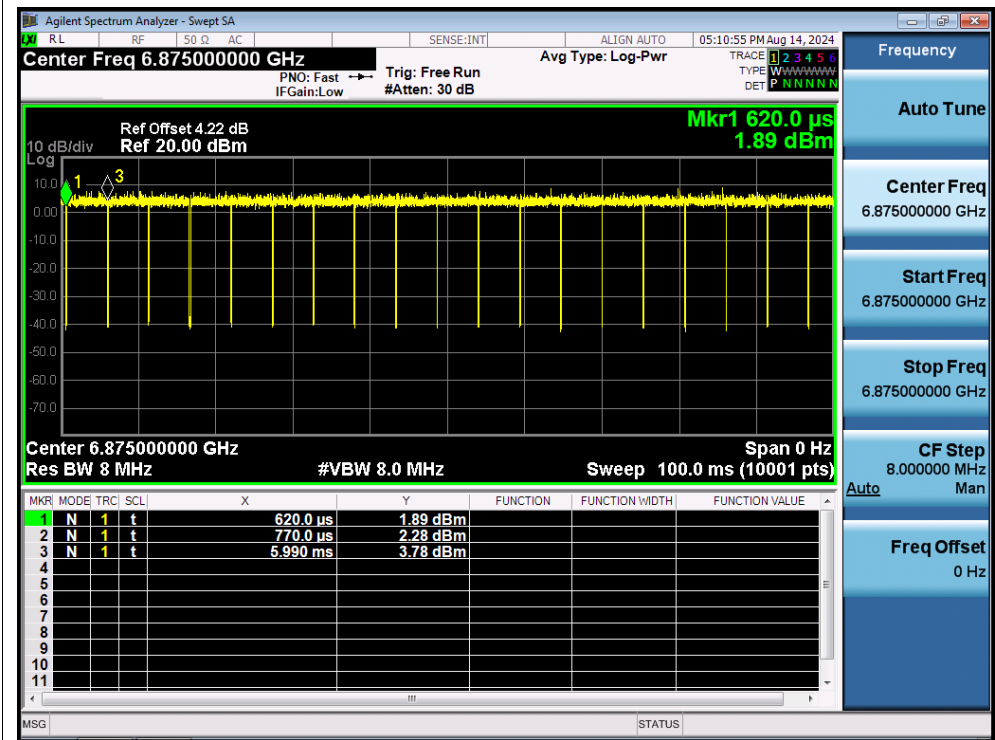
Duty Cycle NVNT ax20 6695MHz Ant4



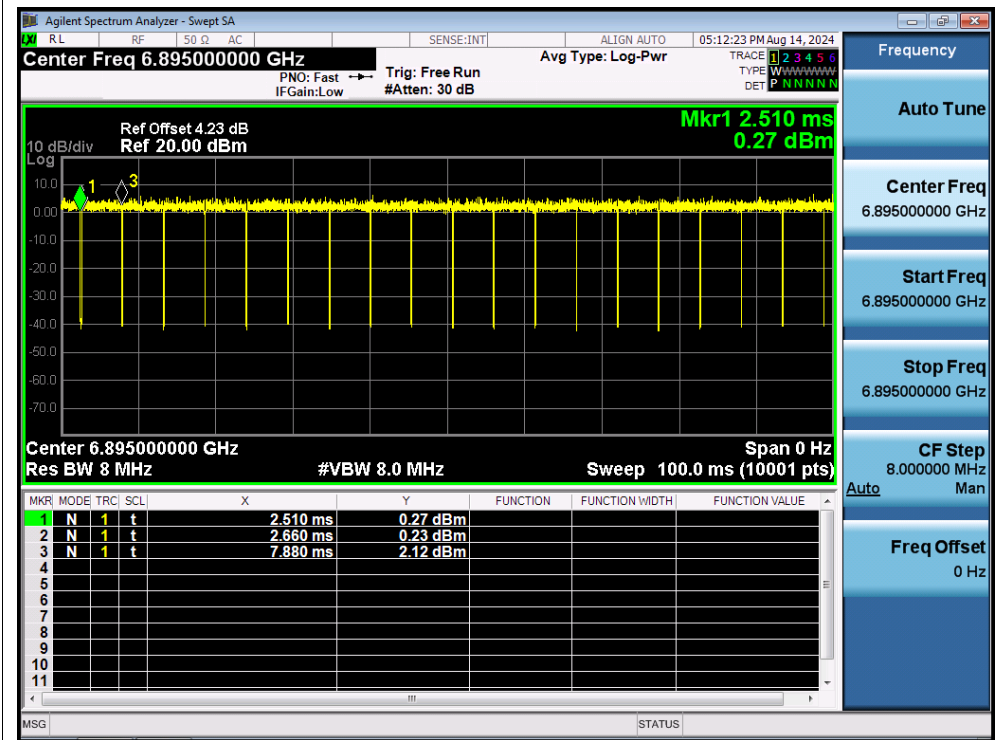
Duty Cycle NVNT ax20 6855MHz Ant4



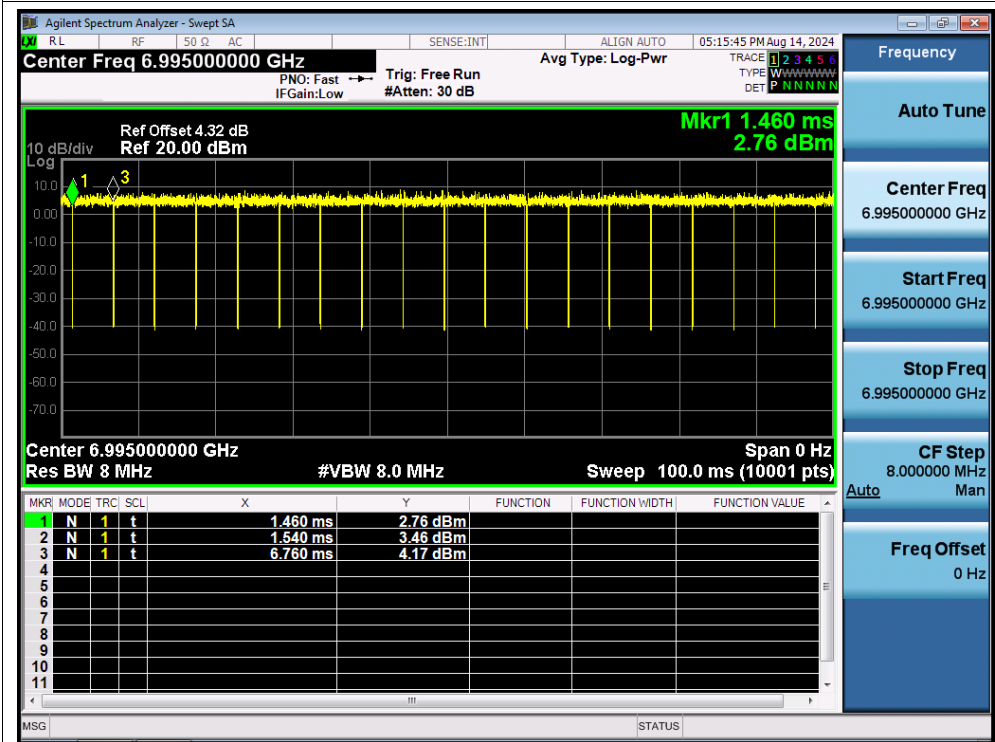
Duty Cycle NVNT ax20 6875MHz Ant4



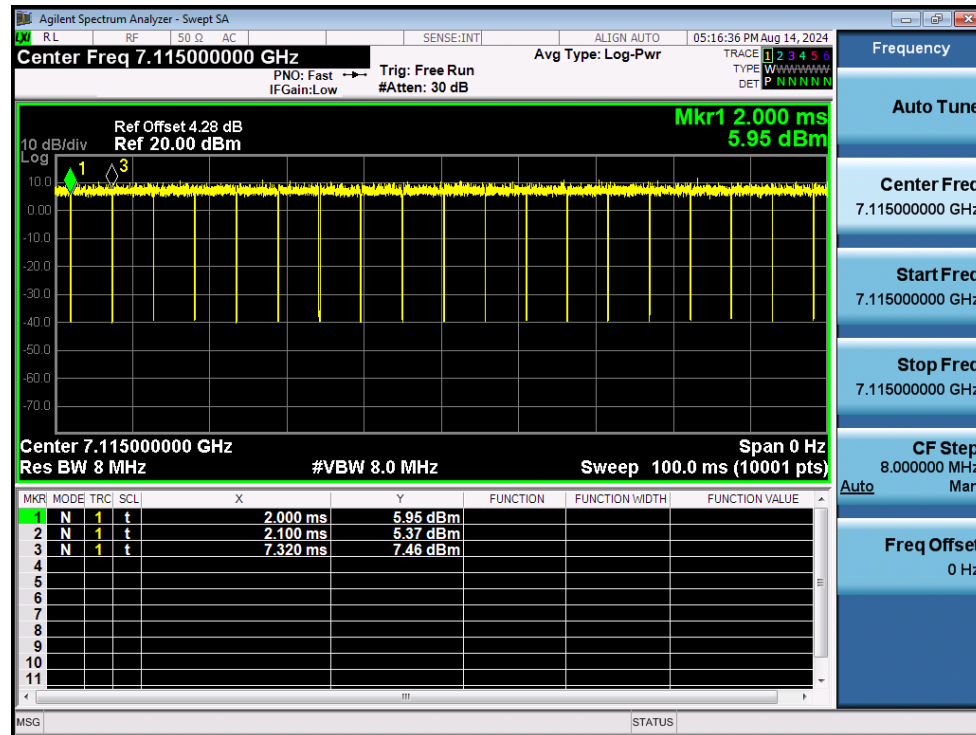
Duty Cycle NVNT ax20 6895MHz Ant4



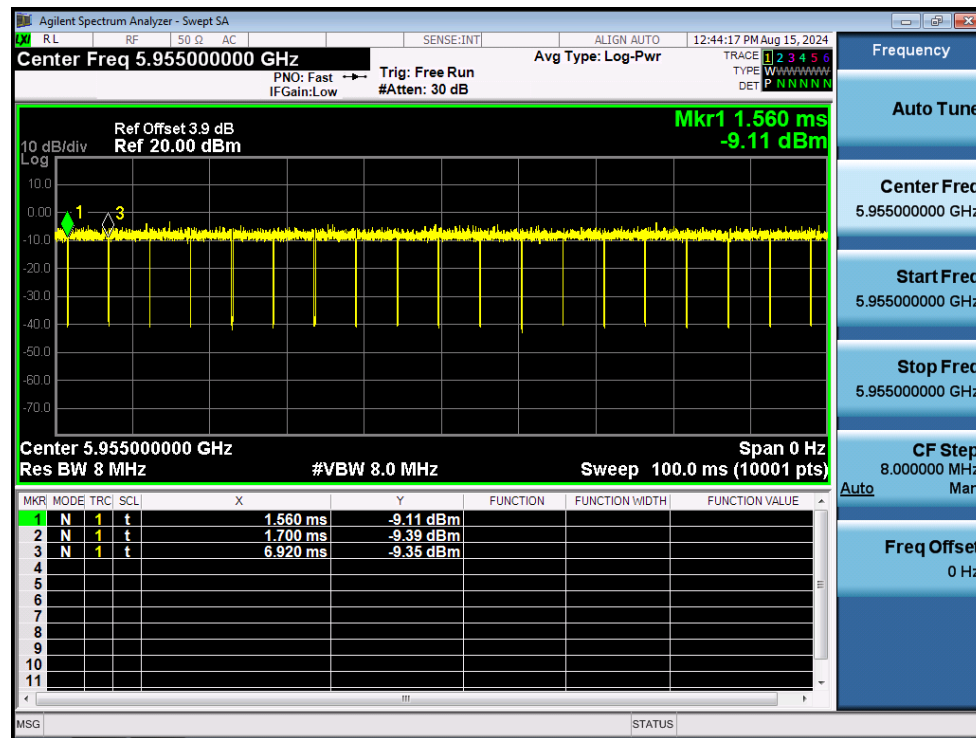
Duty Cycle NVNT ax20 6995MHz Ant4



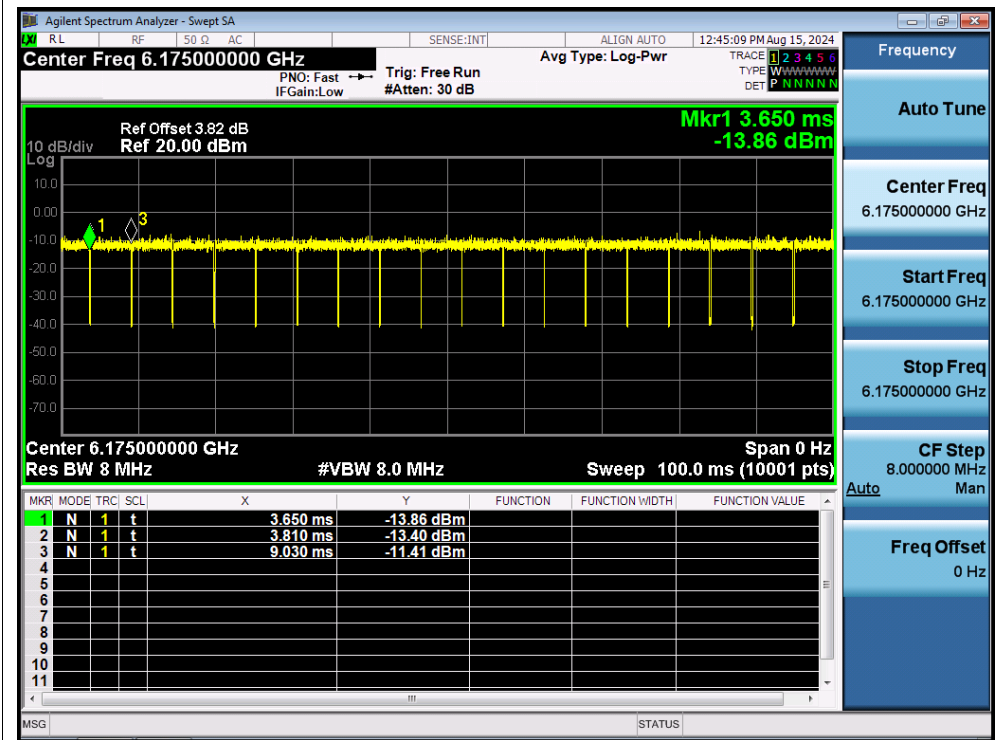
Duty Cycle NVNT ax20 7115MHz Ant4



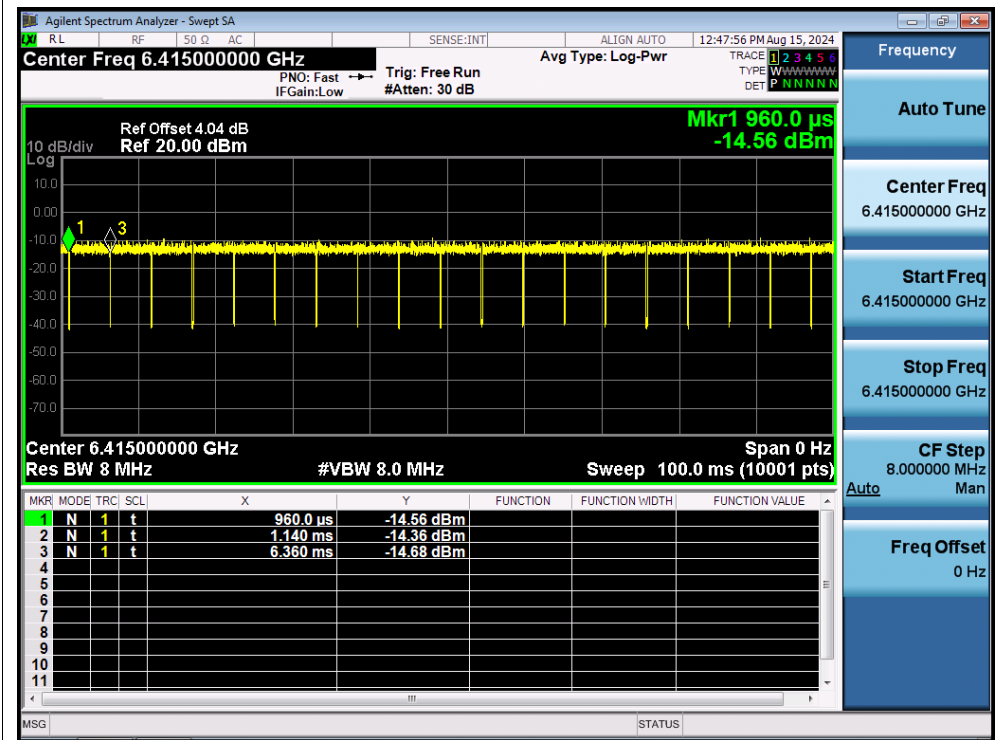
Duty Cycle NVNT ax20 5955MHz Sum



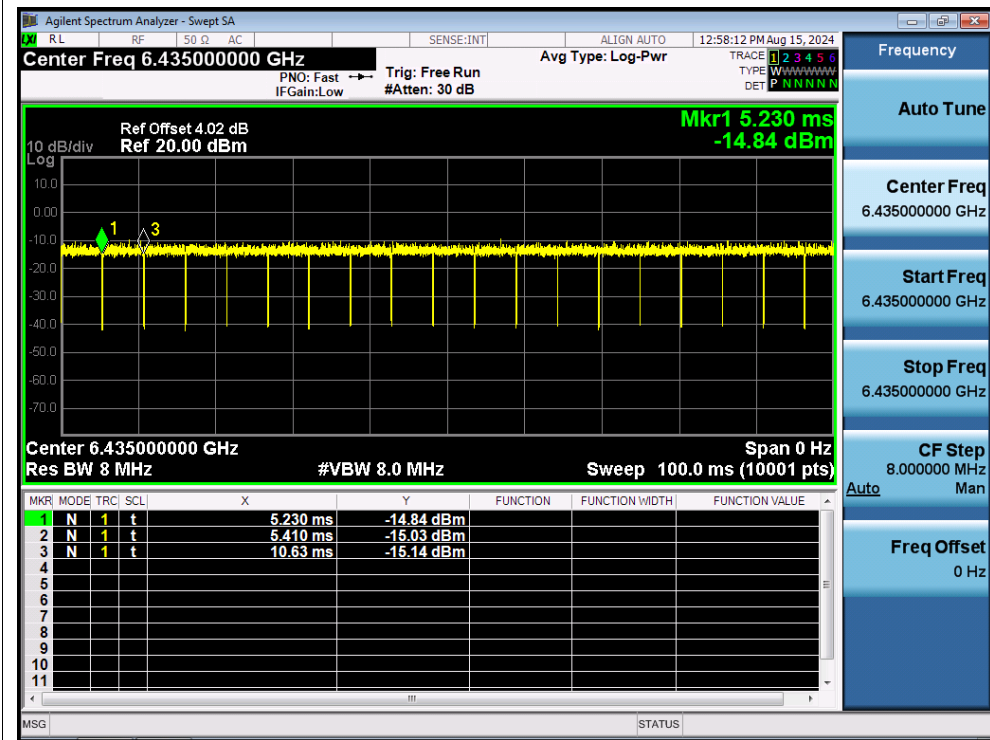
Duty Cycle NVNT ax20 6175MHz Sum



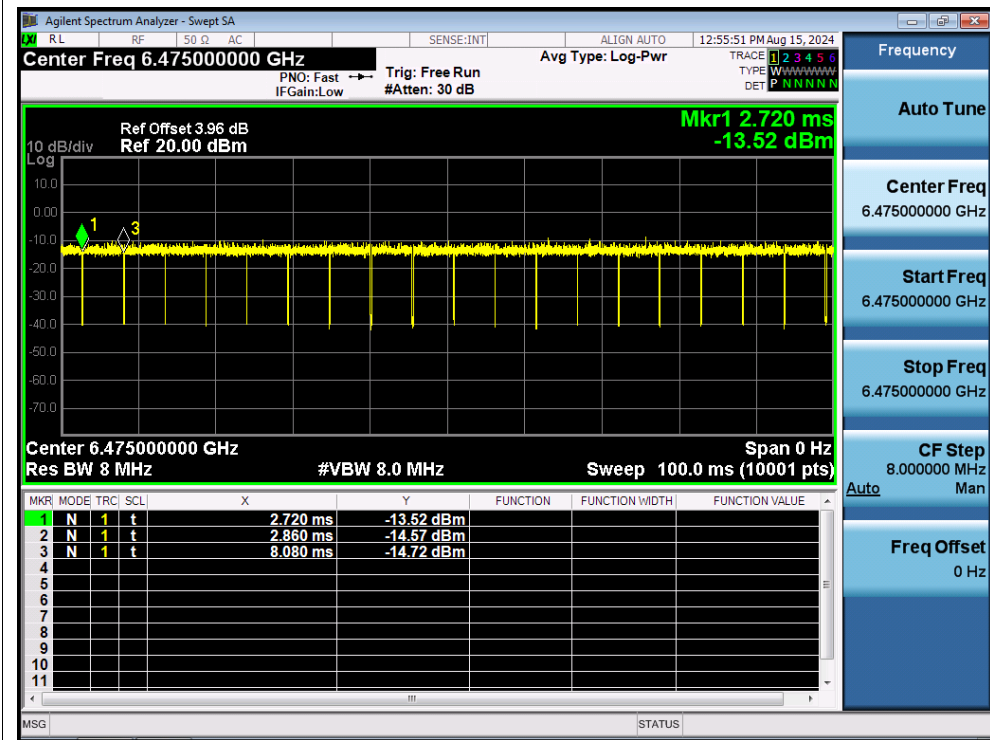
Duty Cycle NVNT ax20 6415MHz Sum



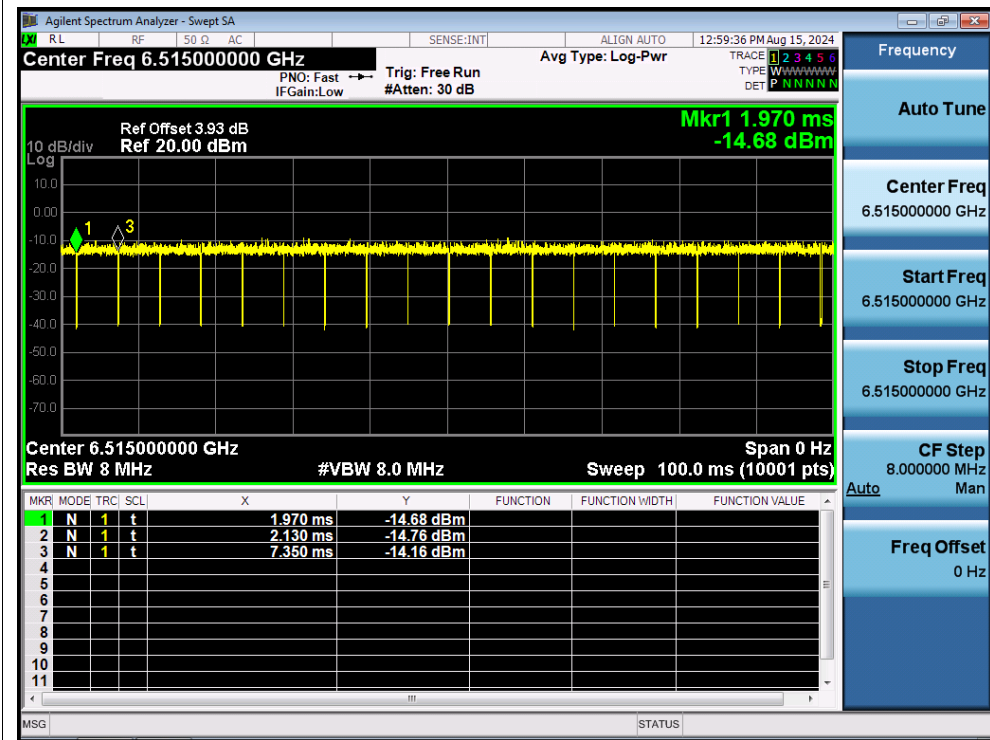
Duty Cycle NVNT ax20 6435MHz Sum



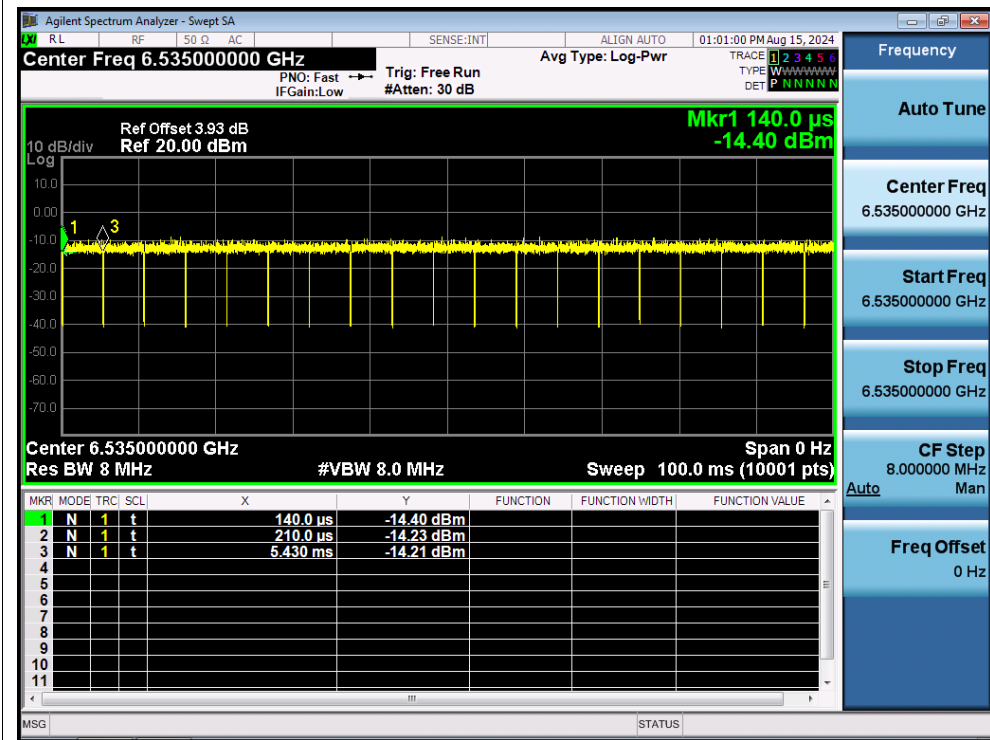
Duty Cycle NVNT ax20 6475MHz Sum



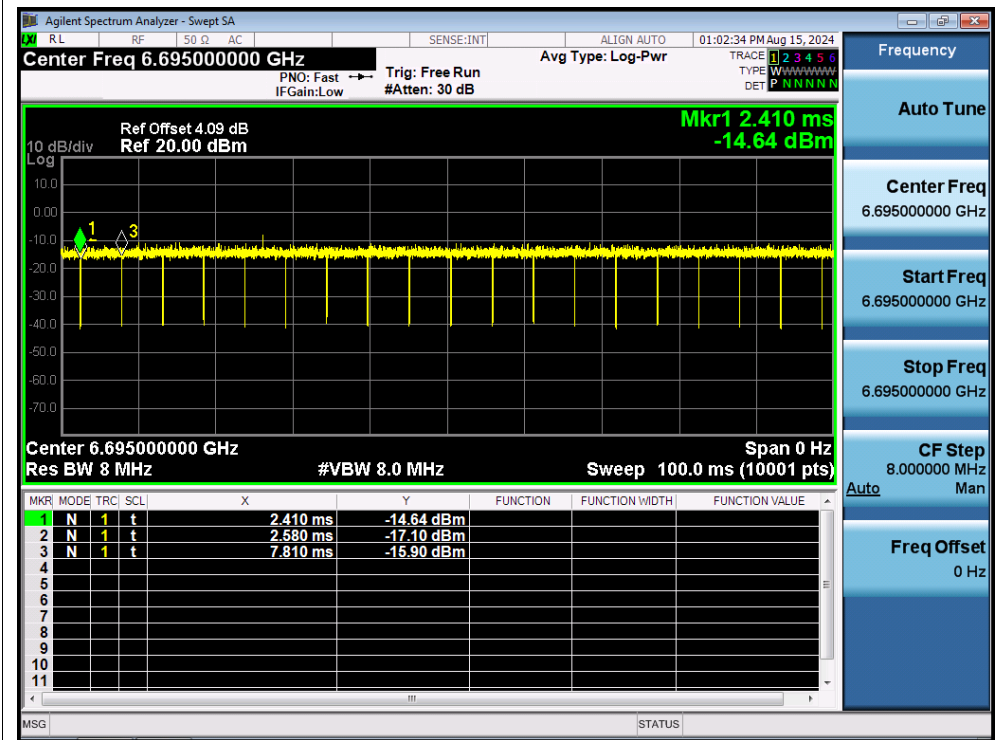
Duty Cycle NVNT ax20 6515MHz Sum



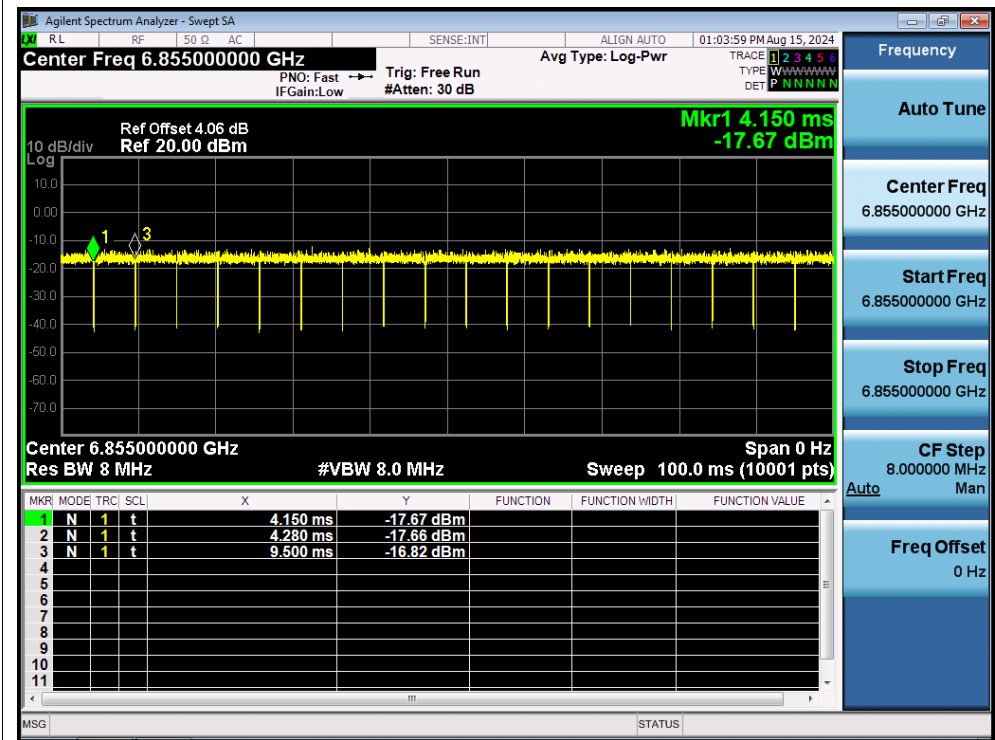
Duty Cycle NVNT ax20 6535MHz Sum



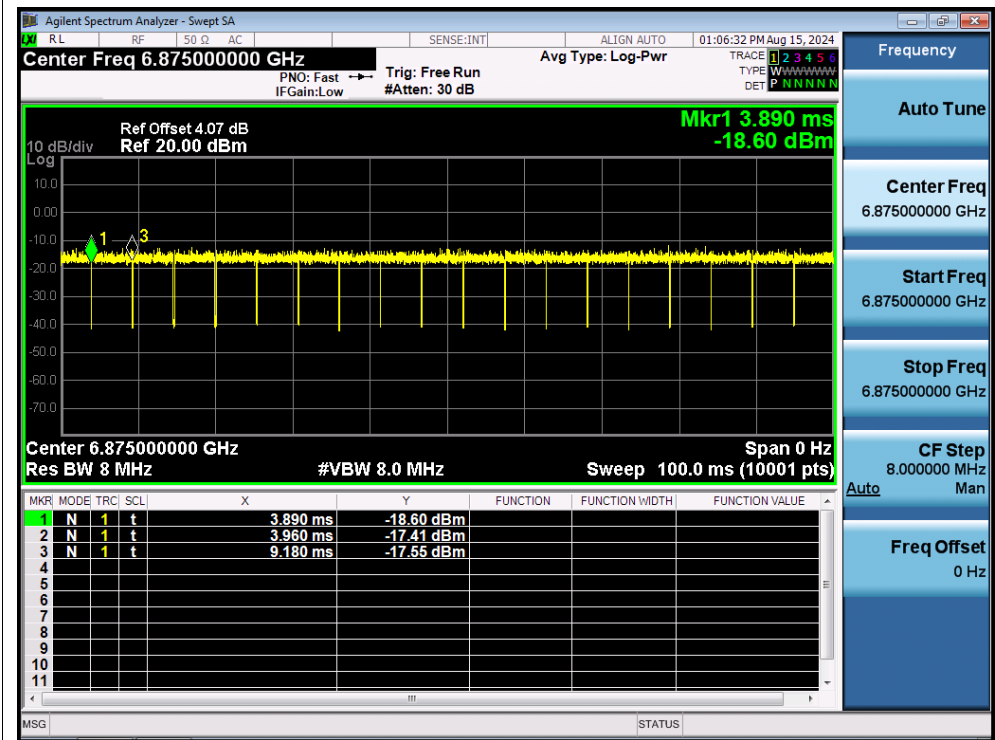
Duty Cycle NVNT ax20 6695MHz Sum



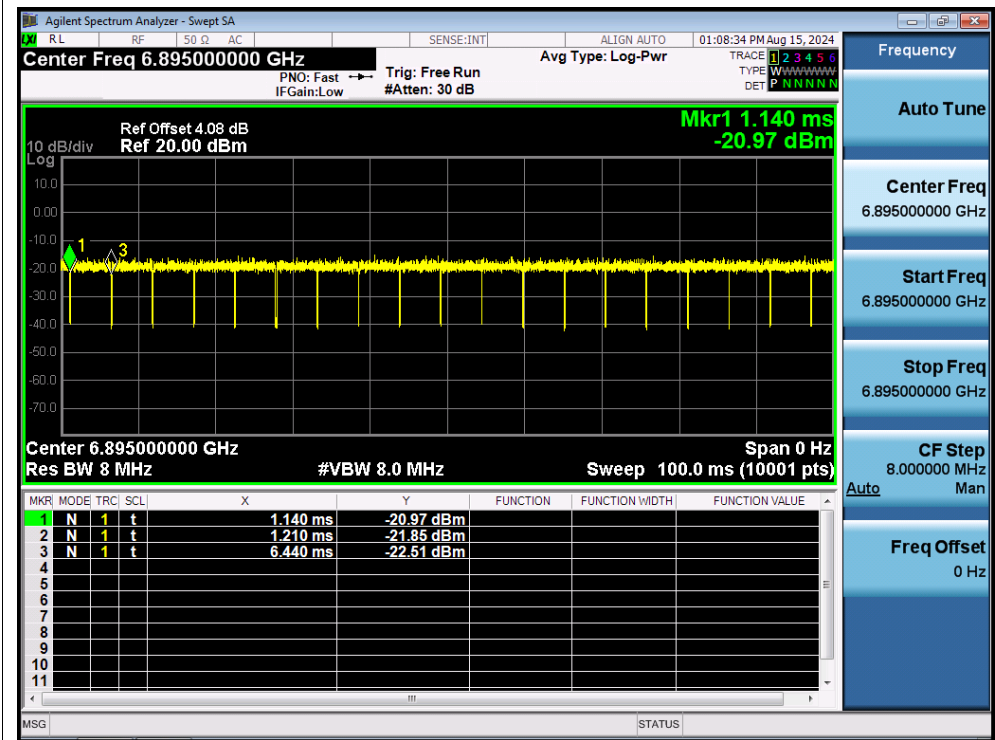
Duty Cycle NVNT ax20 6855MHz Sum



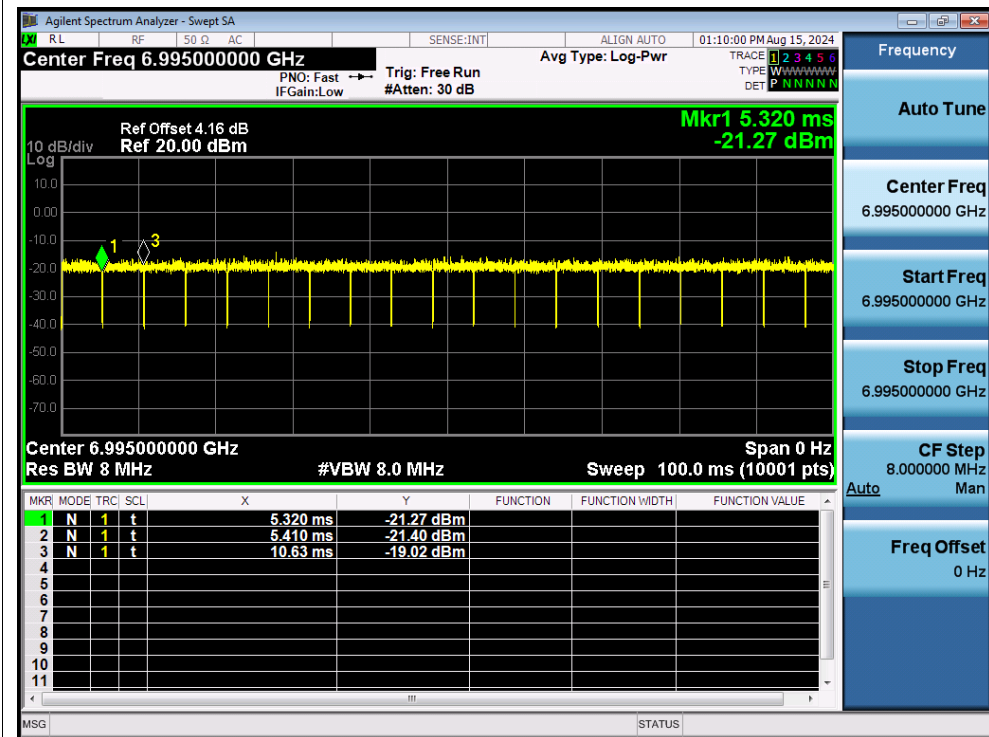
Duty Cycle NVNT ax20 6875MHz Sum



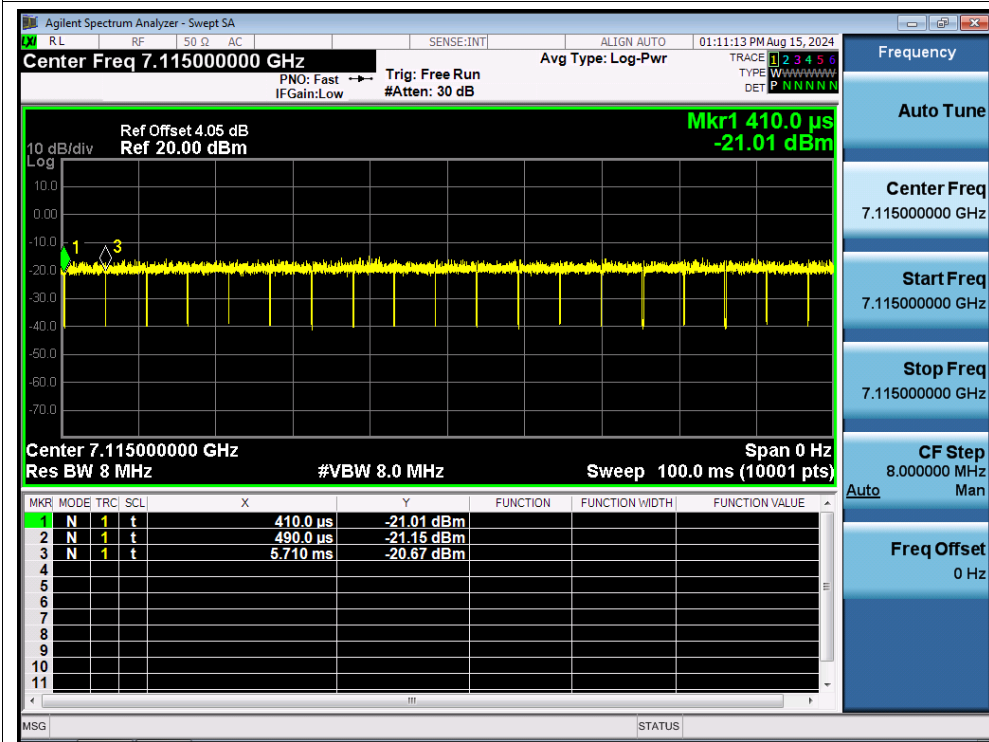
Duty Cycle NVNT ax20 6895MHz Sum



Duty Cycle NVNT ax20 6995MHz Sum



Duty Cycle NVNT ax20 7115MHz Sum



[illegible]

Duty Cycle NVNT ax40 6165MHz Ant1

Agilent Spectrum Analyzer - Sweep SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:26:16 PM Aug 14, 2024

Center Freq 6.165000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET P N N N N N

Ref Offset 3.83 dB
Ref 20.00 dBm

**Mkr1 1.550 ms
2.15 dBm**

10 dB/div
Log

Center 6.165000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	1.550 ms	2.15 dBm			
2	N	1	t	1.650 ms	-0.90 dBm			
3	N	1	t	7.020 ms	2.29 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
6.165000000 GHz

Start Freq
6.165000000 GHz

Stop Freq
6.165000000 GHz

CF Step
8.000000 MHz
Man

Freq Offset
0 Hz

MSG STATUS

Duty Cycle NVent ax40 6405MHz Ant1

Agilent Spectrum Analyzer - Sweep SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:27:04 PM Aug 14, 2024

Center Freq 6.405000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET P N N N N N

Ref Offset 4.05 dB
Ref 20.00 dBm

Mkr1 3.180 ms
2.63 dBm

10 dB/div
Log

Center 6.405000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	3.180 ms	2.63 dBm			
2	N	1	t	3.240 ms	-0.45 dBm			
3	N	1	t	8.610 ms	2.65 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
6.405000000 GHz

Start Freq
6.405000000 GHz

Stop Freq
6.405000000 GHz

CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz

Duty Cycle NVNT ax40 6445MHz Ant1

Agilent Spectrum Analyzer - Swept SA

Center Freq 6.445000000 GHz

Ref Offset 4 dB
Ref 20.00 dBm

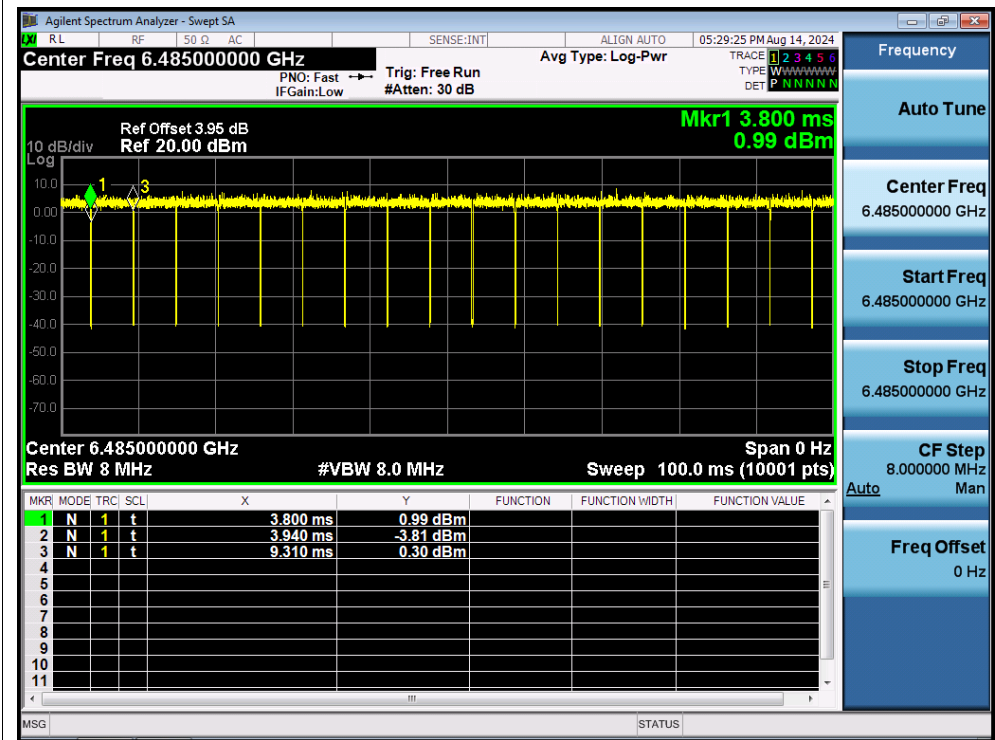
10 dB/div
Log

Mkr1 1.070 ms
2.80 dBm

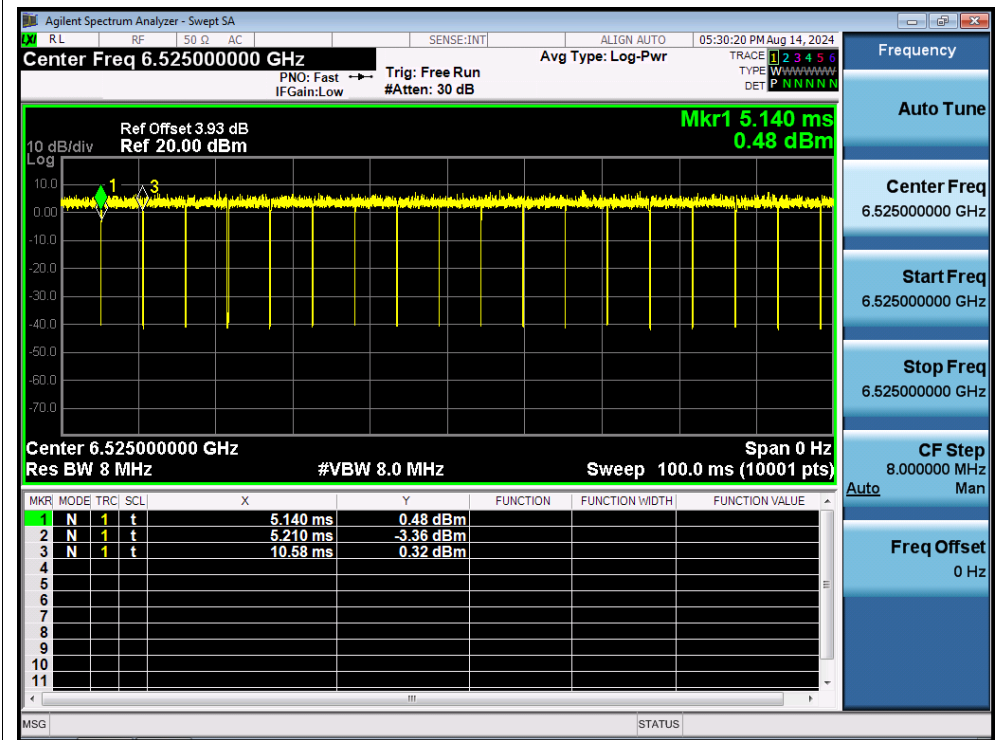
Center Freq 6.445000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Sweep 100.0 ms (10001 pts)
Span 0 Hz

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	1.070 ms	2.80 dBm			
2	N	1	t	1.160 ms	-0.28 dBm			
3	N	1	t	6.520 ms	4.08 dBm			

Duty Cycle NVNT ax40 6485MHz Ant1



Duty Cycle NVNT ax40 6525MHz Ant1



Duty Cycle NVNT ax40 6565MHz Ant1

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:47:41 PM Aug 14, 2024

Center Freq 6.565000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

Ref Offset 3.92 dB
Ref 20.00 dBm

Mkr1 3.450 ms
4.62 dBm

10 dB/div
Log

Center 6.565000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	3.450 ms	4.62 dBm			
2	N	1	t	3.510 ms	-0.50 dBm			
3	N	1	t	8.880 ms	3.74 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
6.565000000 GHz

Start Freq
6.565000000 GHz

Stop Freq
6.565000000 GHz

CF Step
8.000000 MHz

Freq Offset
0 Hz

Auto

Man

MSG STATUS

Duty Cycle NVNT ax40 6685MHz Ant1

Agilent Spectrum Analyzer - Sweep SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:48:53 PM Aug 14, 2024

Center Freq 6.685000000 GHz Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N

Ref Offset 4.09 dB
Ref 20.00 dBm

10 dB/div
Log

1 2 3

Mkr1 4.810 ms
4.12 dBm

Center 6.685000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	4.810 ms	4.12 dBm			
2	N	1	t	4.900 ms	-0.37 dBm			
3	N	1	t	10.26 ms	3.63 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 6.685000000 GHz

Start Freq 6.685000000 GHz

Stop Freq 6.685000000 GHz

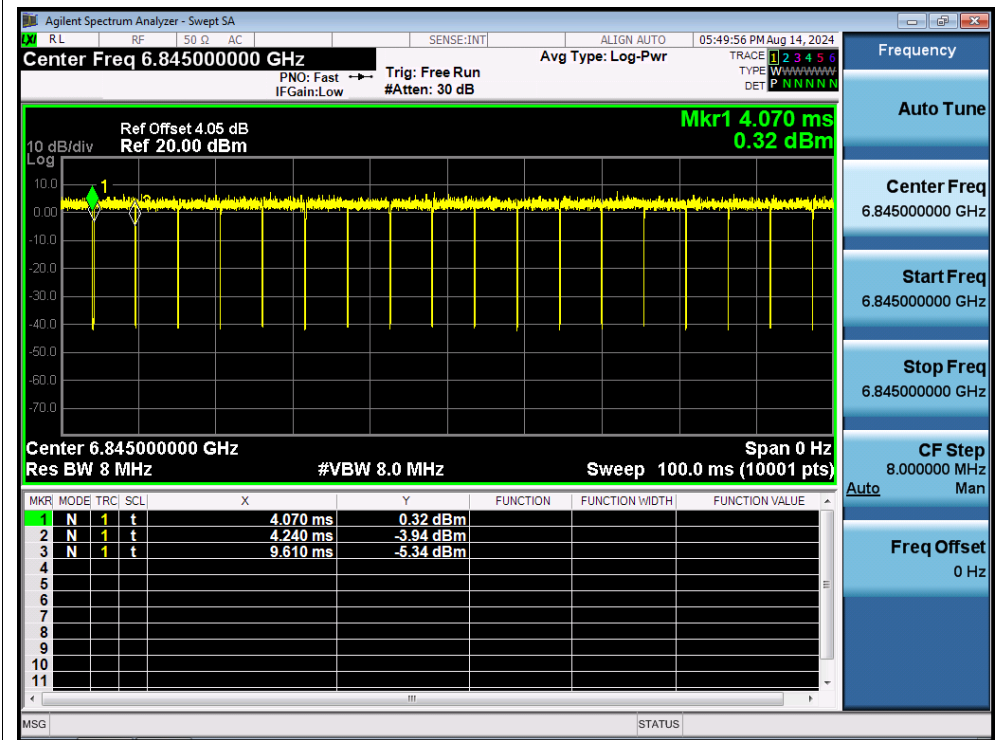
CF Step 8.000000 MHz

Man

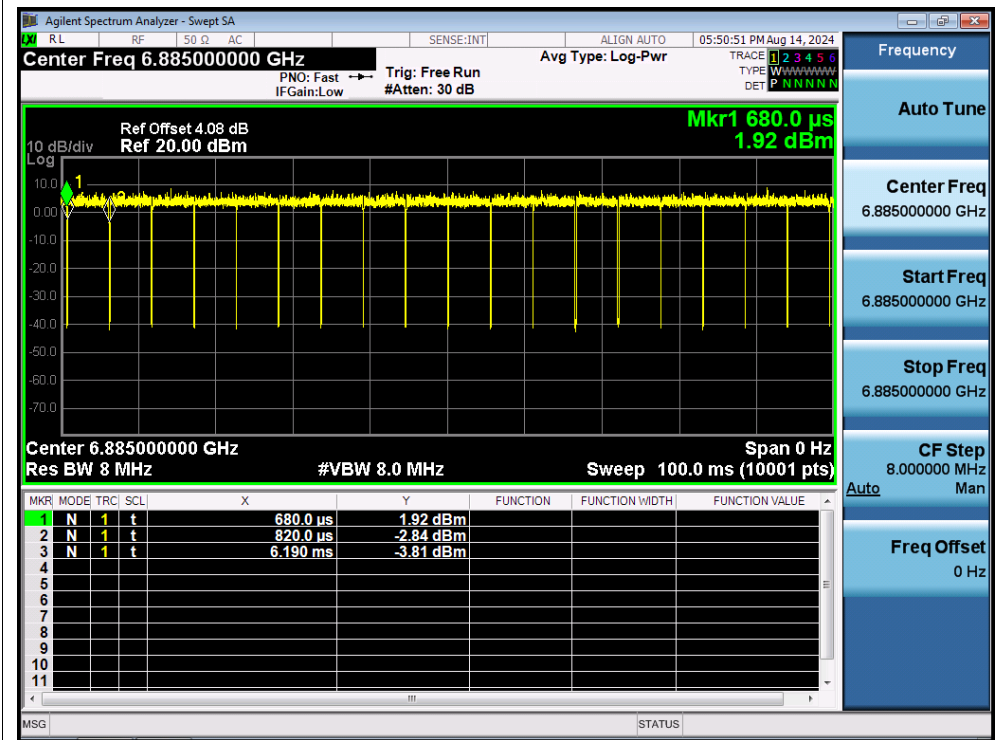
Auto

Freq Offset 0 Hz

Duty Cycle NVNT ax40 6845MHz Ant1



Duty Cycle NVNT ax40 6885MHz Ant1



Duty Cycle NVent ax40 6925MHz Ant1

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:51:40 PM Aug 14, 2024

Center Freq 6.925000000 GHz PNO: Fast → Trig: Free Run Avg Type: Log-Pwr TRACE 1 2 3 4 5 6
IF Gain: Low #Atten: 30 dB TYPE W W W W W W W W
DET P N N N N N

Ref Offset 4.1 dB Mkr1 2.030 ms
Ref 20.00 dBm 0.50 dBm

10 dB/div Log

Center 6.925000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

Mkr	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	2.030 ms	0.50 dBm			
2	N	1	t	2.110 ms	-0.98 dBm			
3	N	1	t	7.470 ms	1.03 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSQ STATUS

Frequency

Auto Tune

Center Freq
6.925000000 GHz

Start Freq
6.925000000 GHz

Stop Freq
6.925000000 GHz

CF Step
8.000000 MHz
Man

Auto

Freq Offset
0 Hz

Duty Cycle NVNT ax40 6965MHz Ant1

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:52:28 PM Aug 14, 2024

Center Freq 6.965000000 GHz Avg Type: Log-Pwr

PNO: Fast → Trig: Free Run
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET P N N N N N

Ref Offset 4.15 dB
Ref 20.00 dBm

**Mkr1 240.0 μs
-1.19 dBm**

10 dB/div
Log

Center 6.965000000 GHz Span 0 Hz
Res BW 8 MHz #VBW 8.0 MHz Sweep 100.0 ms (10001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	t	240.0 μs	-1.19 dBm			
2	N	1	t	390.0 μs	-2.71 dBm			
3	N	1	t	5.750 ms	-0.85 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
6.965000000 GHz

Start Freq
6.965000000 GHz

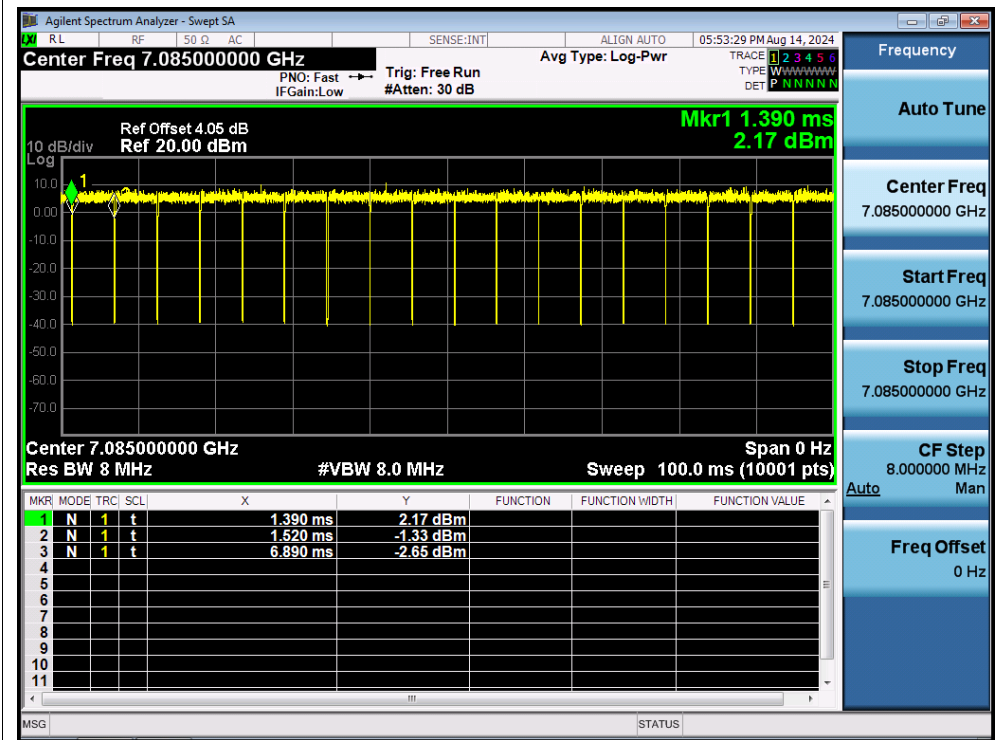
Stop Freq
6.965000000 GHz

CF Step
8.000000 MHz

Man

Freq Offset
0 Hz

Duty Cycle NVNT ax40 7085MHz Ant1



Duty Cycle NVNT ax40 5965MHz Ant2

