

Tx. Spurious NVNT a 5320MHz Ant1 Emission



Tx. Spurious NVNT a 5260MHz Ant2 Emission



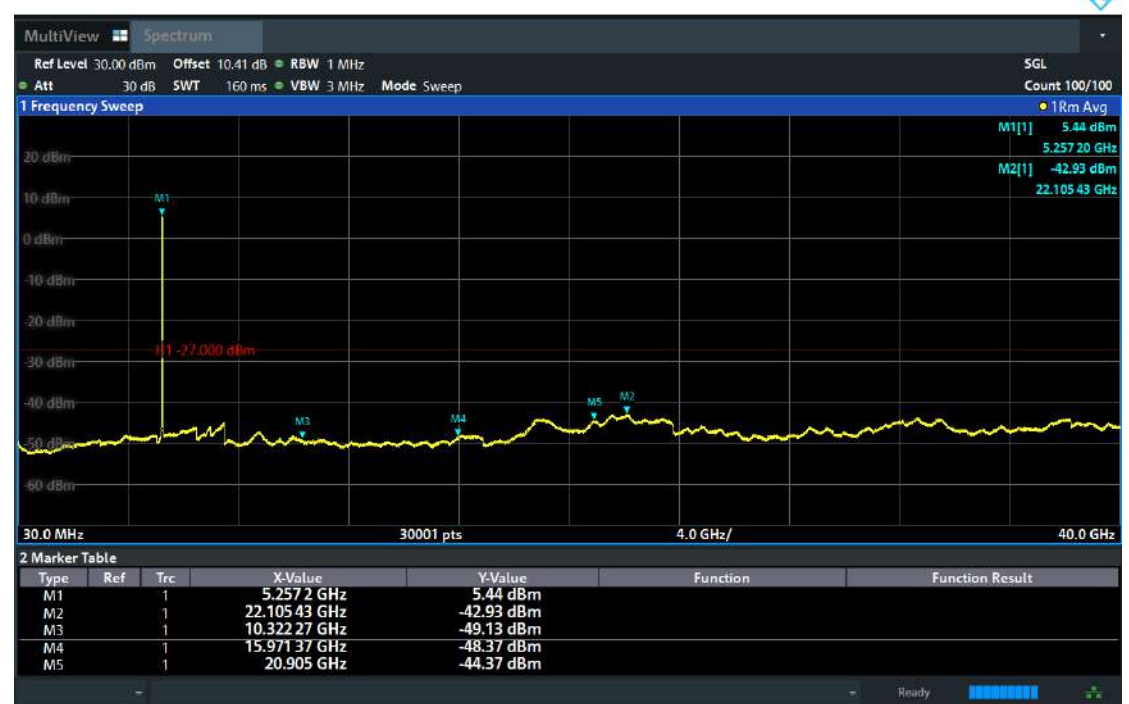
Tx. Spurious NVNT a 5280MHz Ant2 Emission



Tx. Spurious NVNT a 5320MHz Ant2 Emission



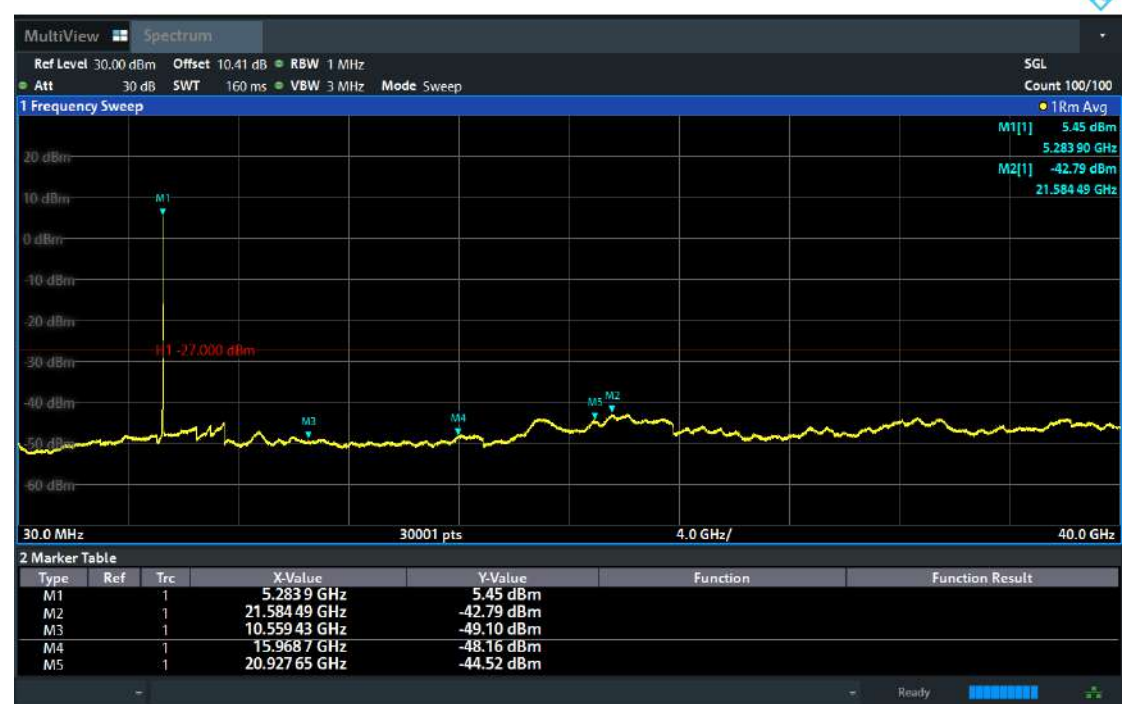
Tx. Spurious NVNT n20 5260MHz Ant1 Emission



Tx. Spurious NVNT n20 5260MHz Ant2 Emission



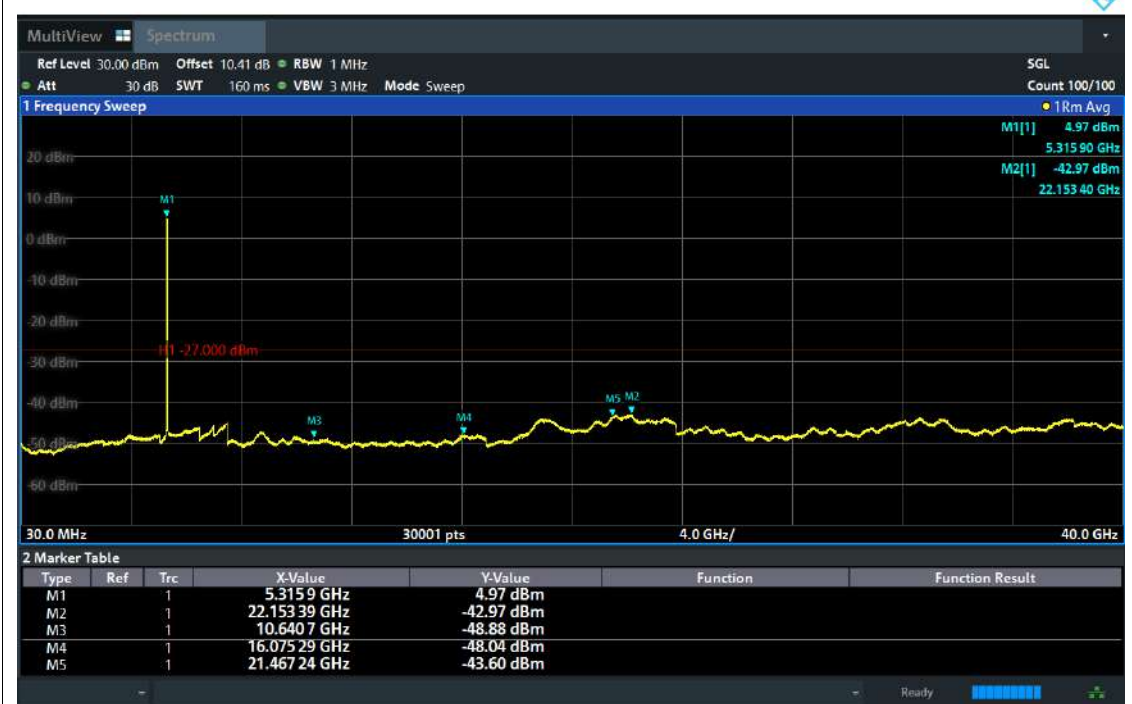
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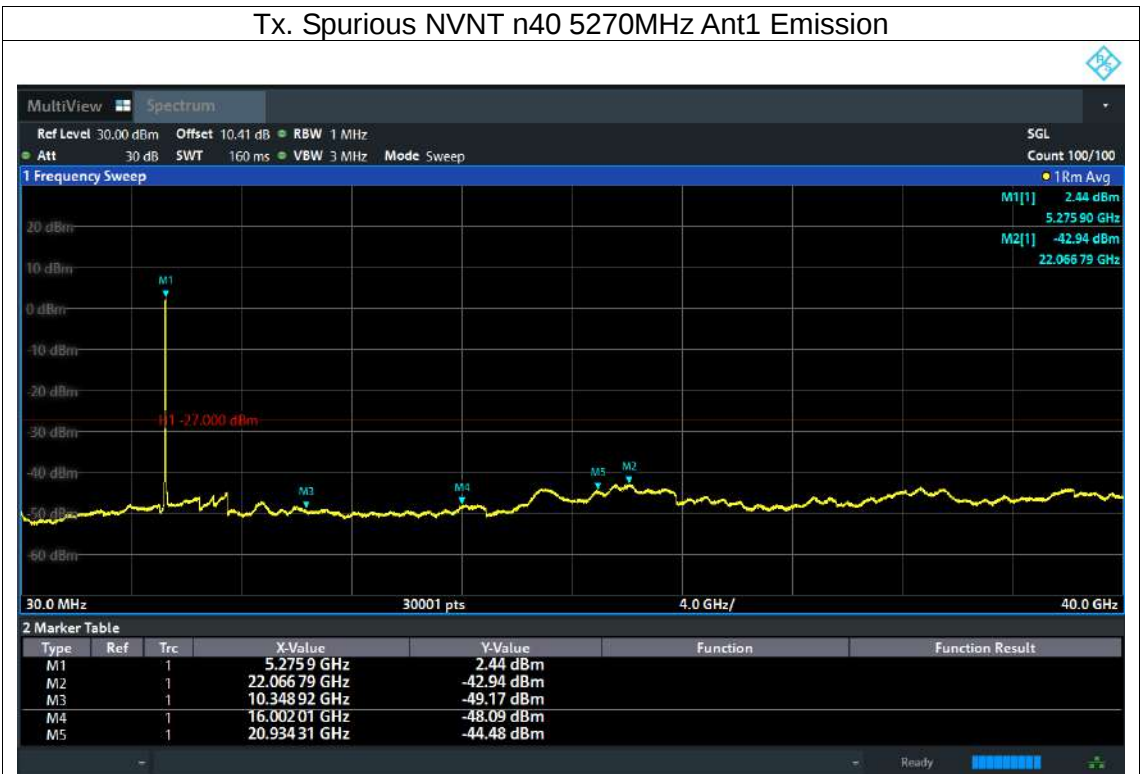
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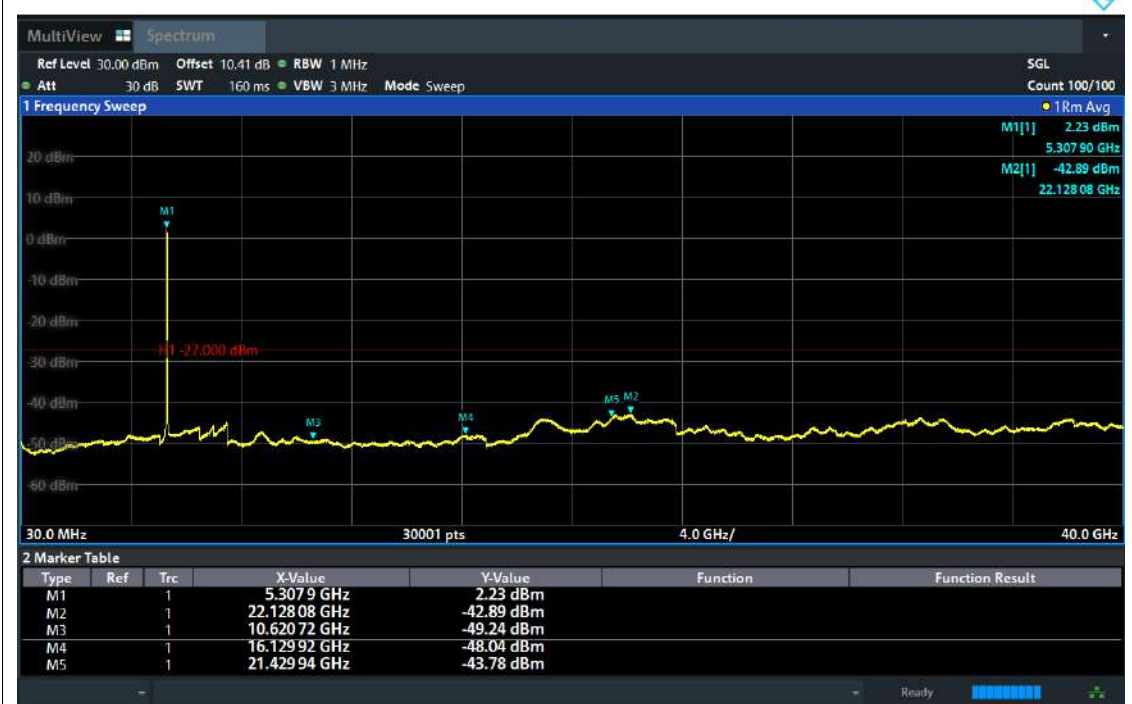
Tx. Spurious NVNT n40 5270MHz Ant1 Emission



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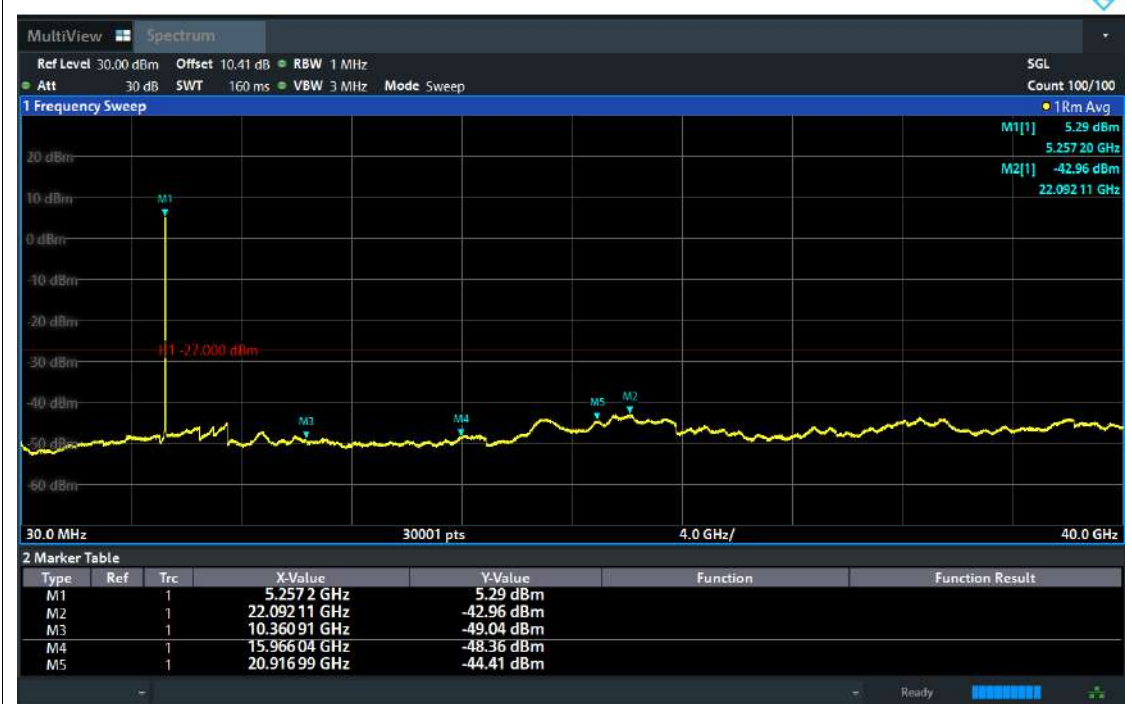
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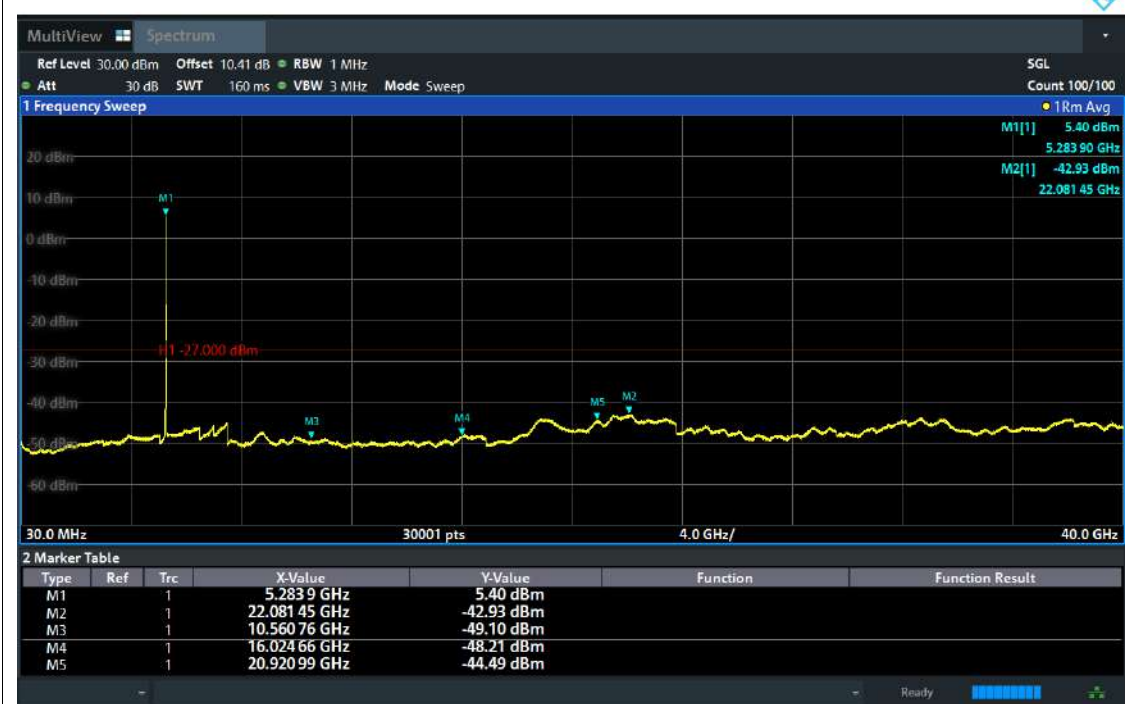
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Tx. Spurious NVNT ac20 5260MHz Ant2 Emission



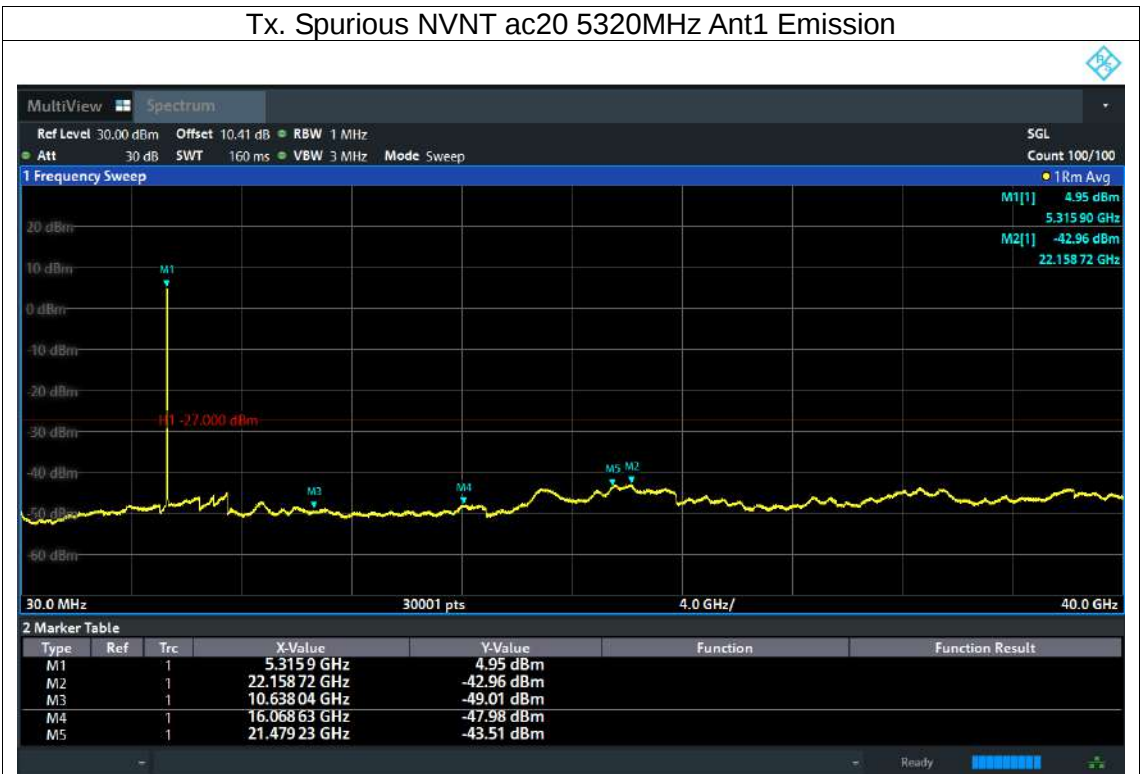
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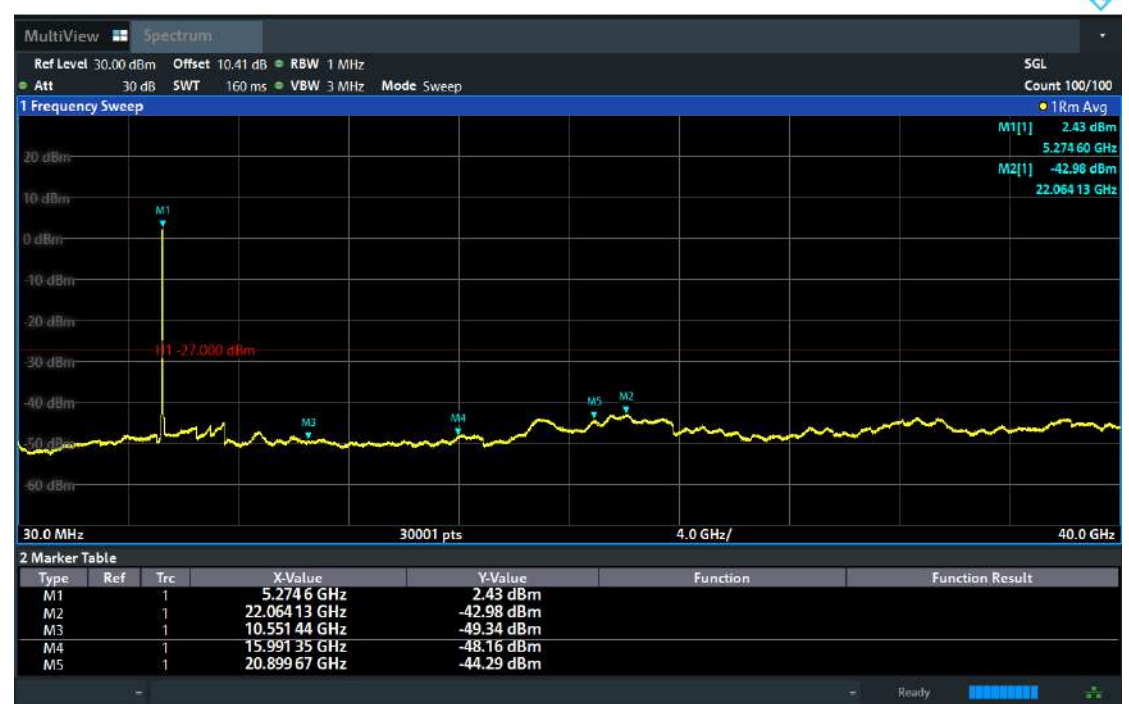
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Tx. Spurious NVNT ac20 5320MHz Ant2 Emission



Tx. Spurious NVNT ac40 5270MHz Ant1 Emission



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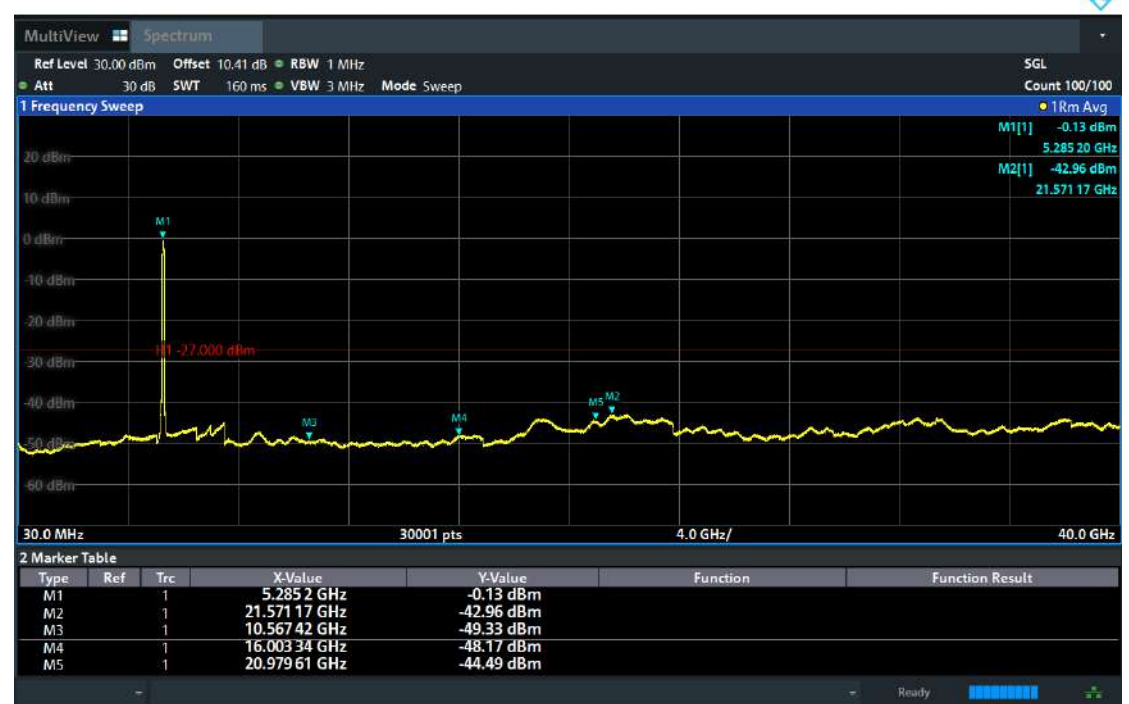
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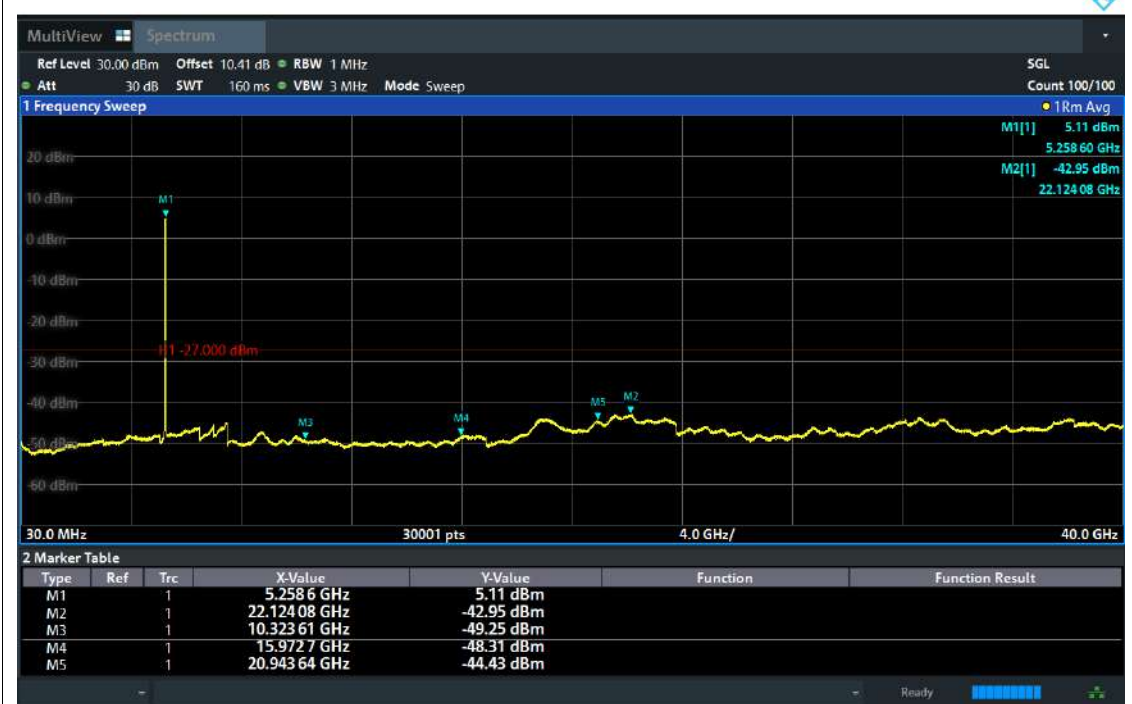
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Tx. Spurious NVNT ac80 5290MHz Ant2 Emission



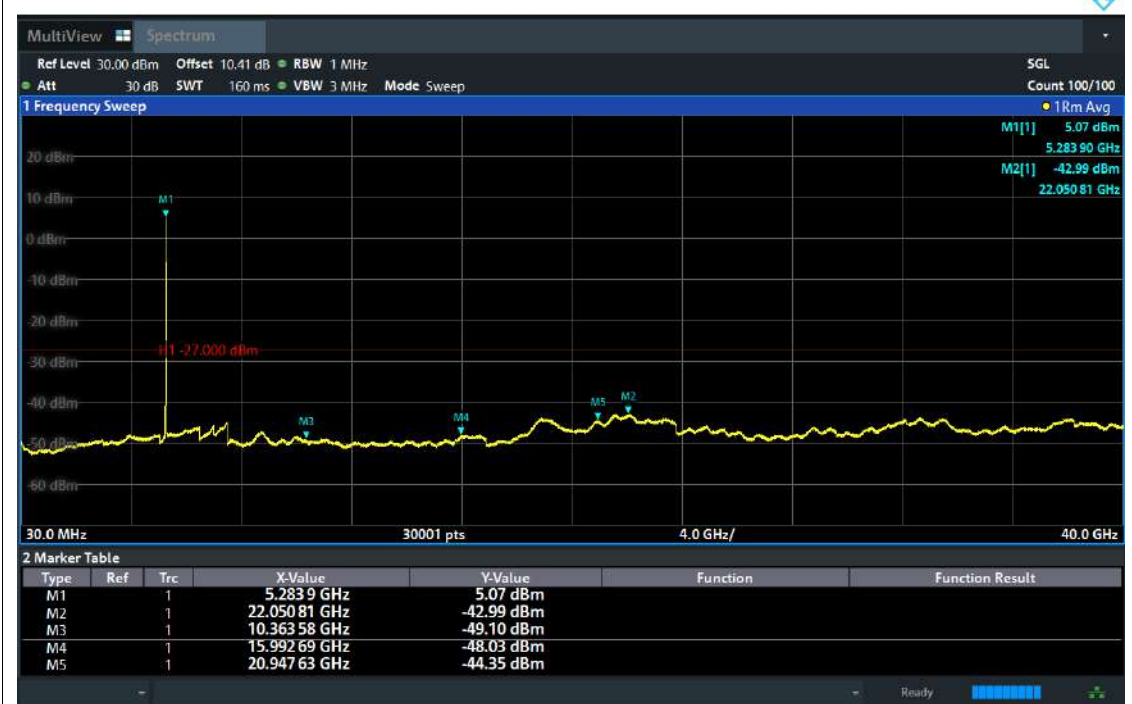
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Tx. Spurious NVNT ax20 5260MHz Ant2 Emission



Tx. Spurious NVNT ax20 5280MHz Ant1 Emission



Tx. Spurious NVNT ax20 5280MHz Ant2 Emission



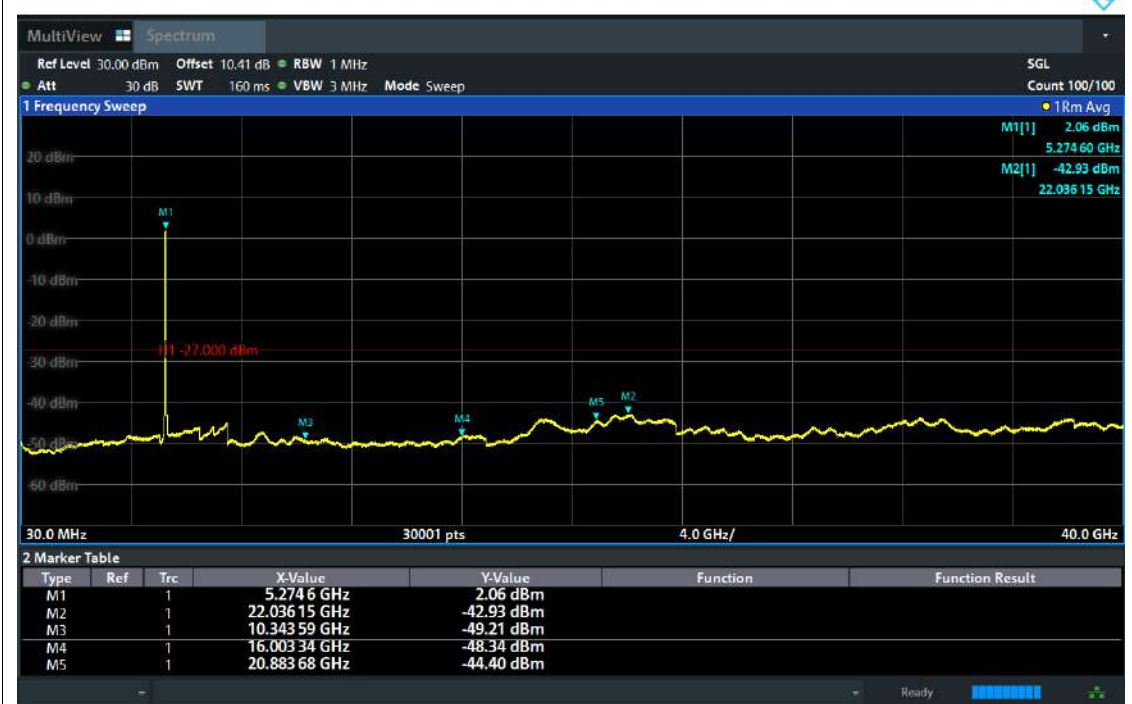
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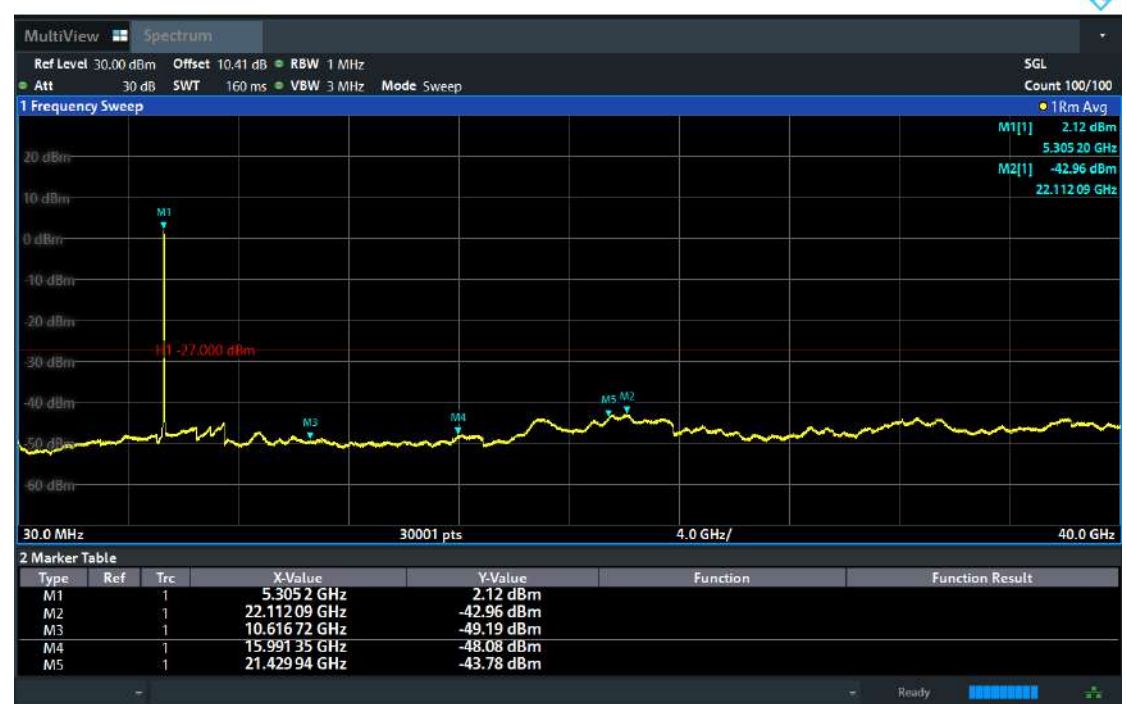
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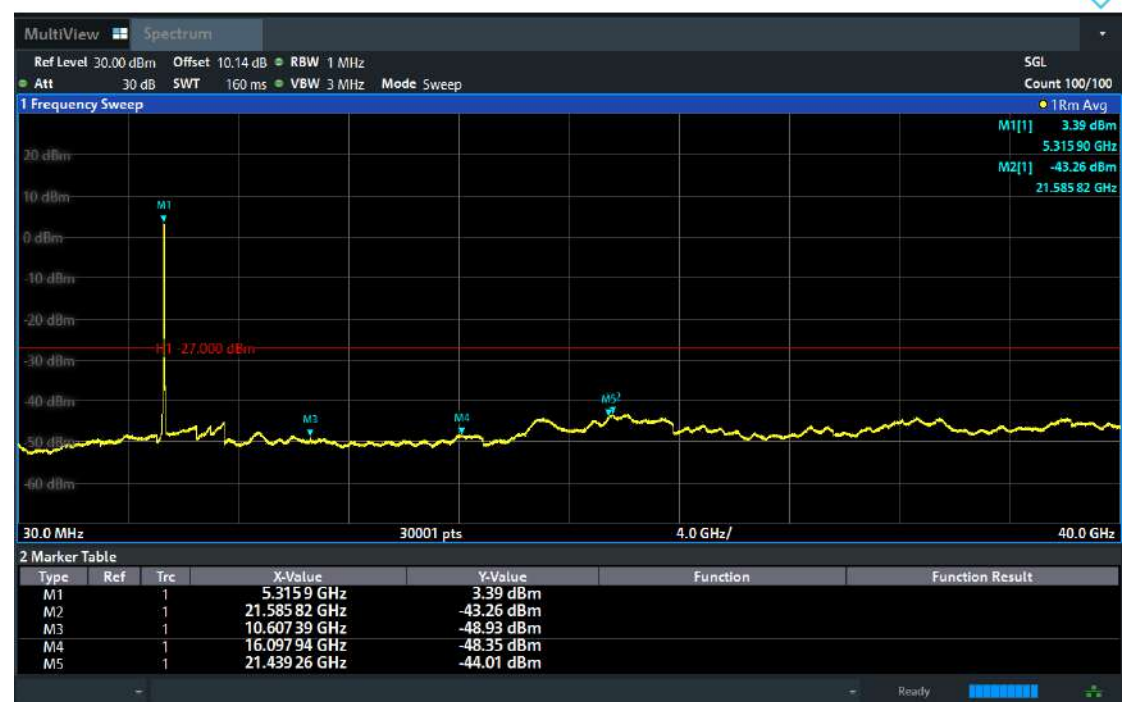
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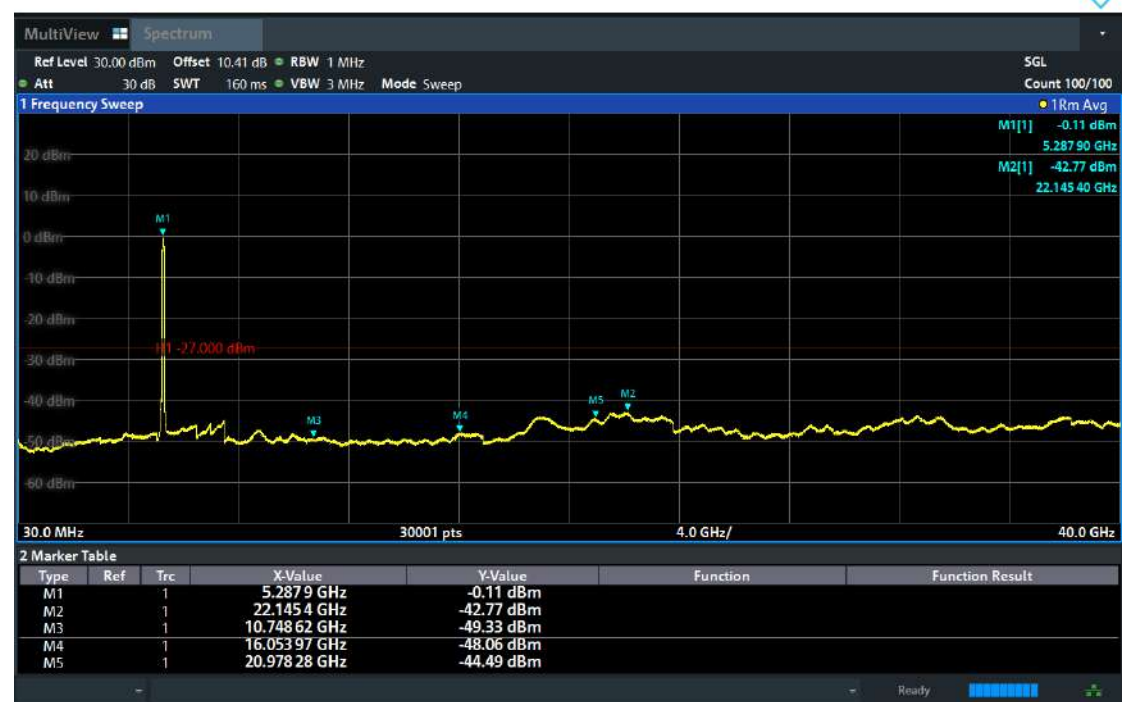
Tx. Spurious NVNT ax40 5310MHz Ant1 Emission



Tx. Spurious NVNT ax40 5310MHz Ant2 Emission



Tx. Spurious NVNT ax80 5290MHz Ant1 Emission



Tx. Spurious NVNT ax80 5290MHz Ant2 Emission



For U-NII-2C

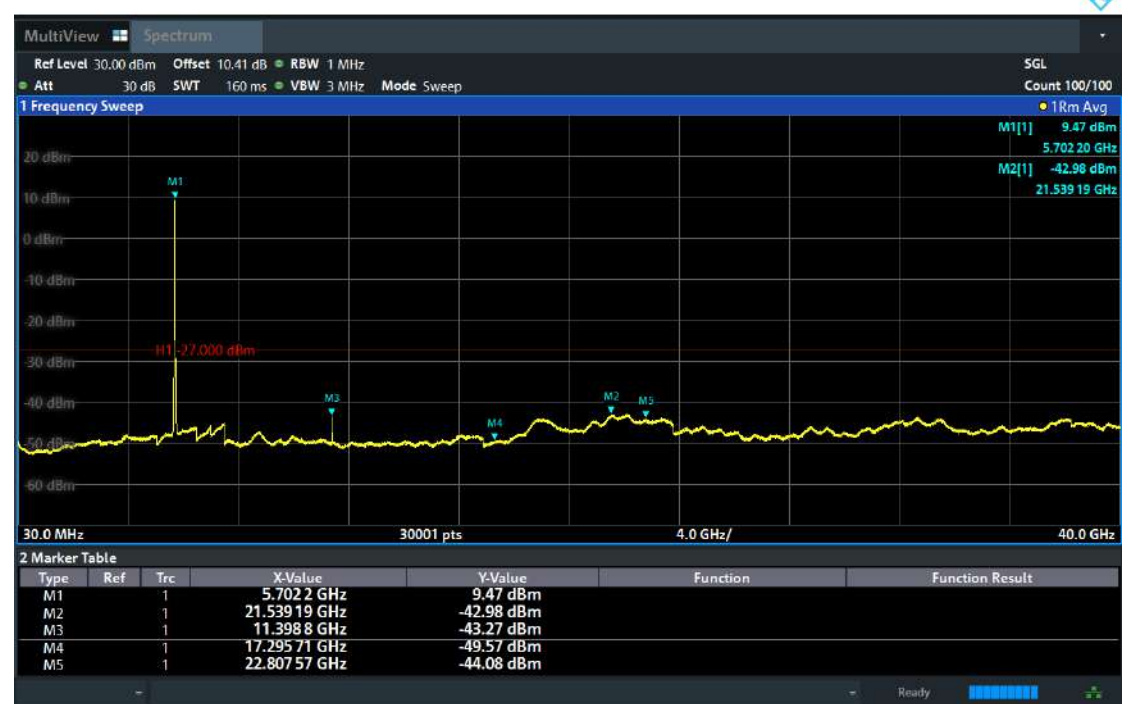
Tx. Spurious NVNT a 5500MHz Ant1 Emission



Tx. Spurious NVNT a 5580MHz Ant1 Emission



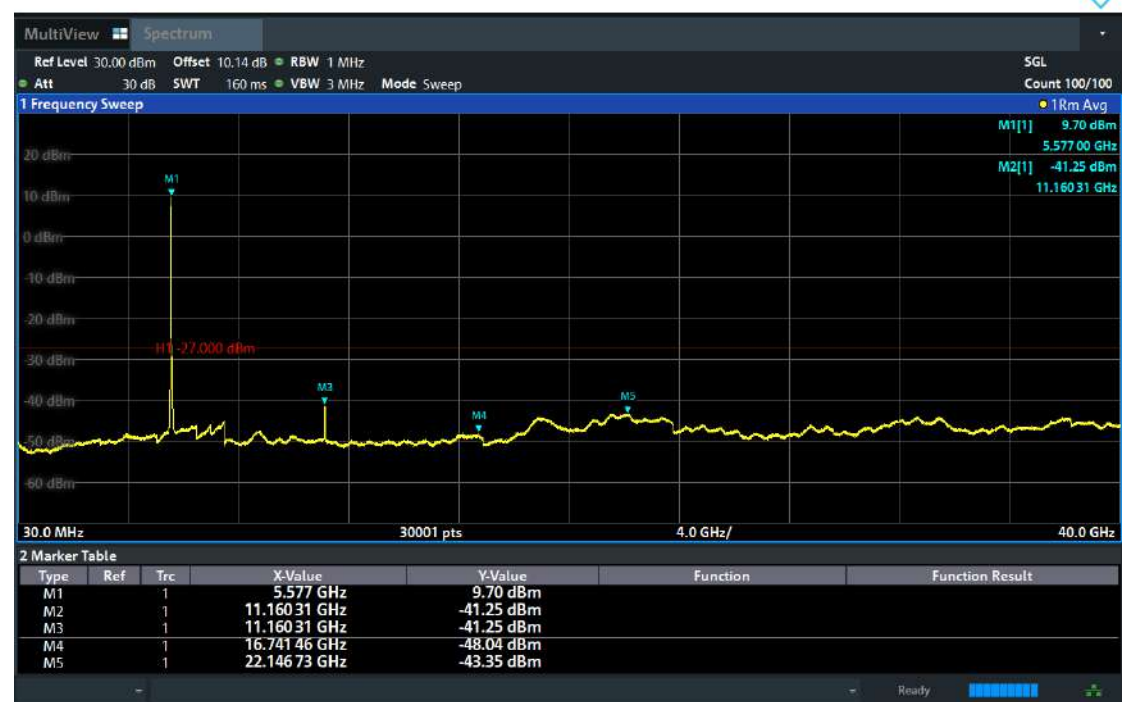
Tx. Spurious NVNT a 5700MHz Ant1 Emission



Tx. Spurious NVNT a 5500MHz Ant2 Emission



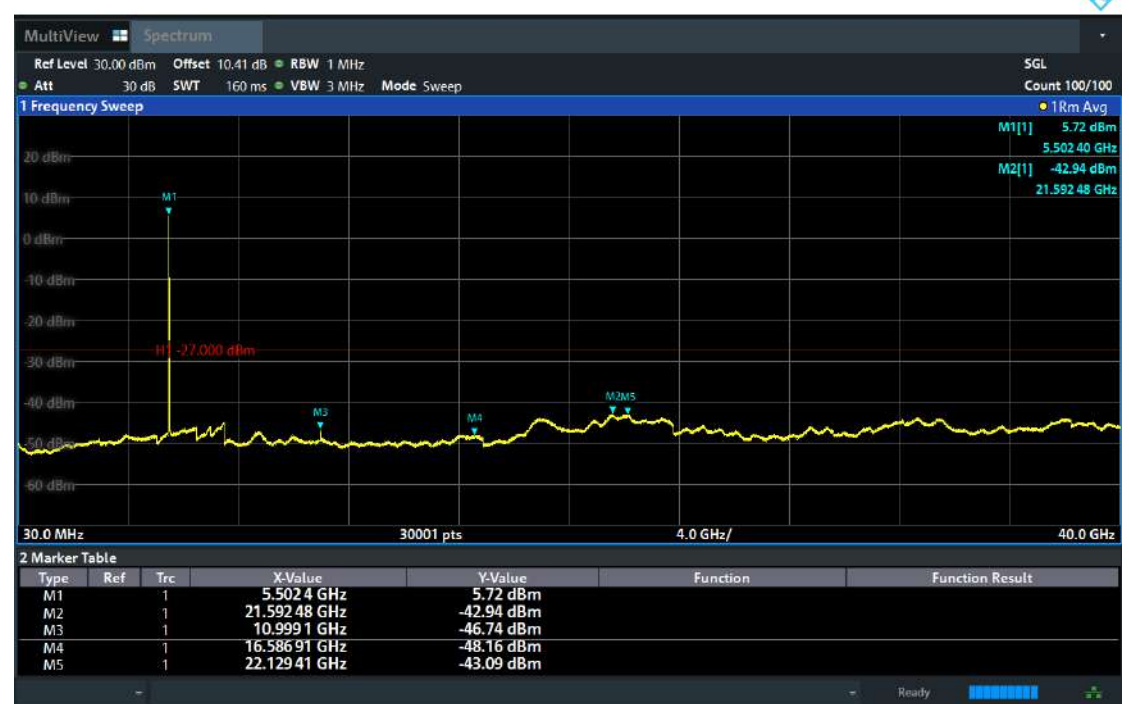
Tx. Spurious NVNT a 5580MHz Ant2 Emission



Tx. Spurious NVNT a 5700MHz Ant2 Emission



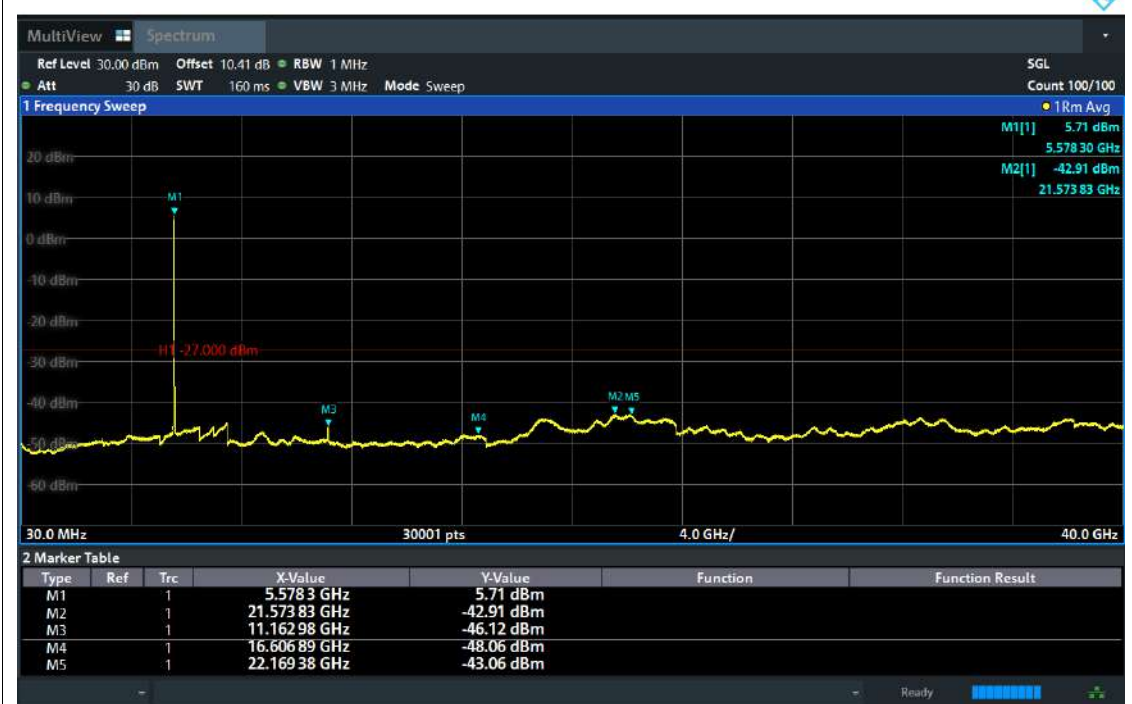
Tx. Spurious NVNT n20 5500MHz Ant1 Emission



Tx. Spurious NVNT n20 5500MHz Ant2 Emission



Tx. Spurious NVNT n20 5580MHz Ant1 Emission



Tx. Spurious NVNT n20 5580MHz Ant2 Emission



Tx. Spurious NVNT n20 5700MHz Ant1 Emission



Tx. Spurious NVNT n20 5700MHz Ant2 Emission



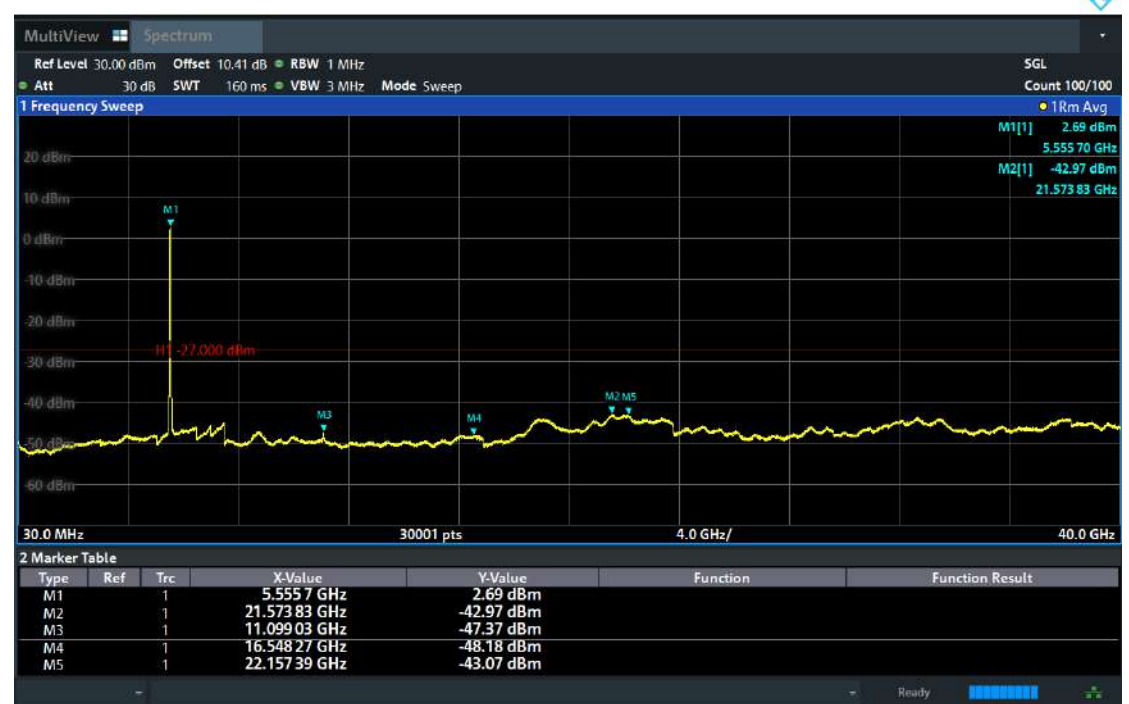
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Tx. Spurious NVNT n40 5510MHz Ant2 Emission



Tx. Spurious NVNT n40 5550MHz Ant1 Emission



Tx. Spurious NVNT n40 5550MHz Ant2 Emission



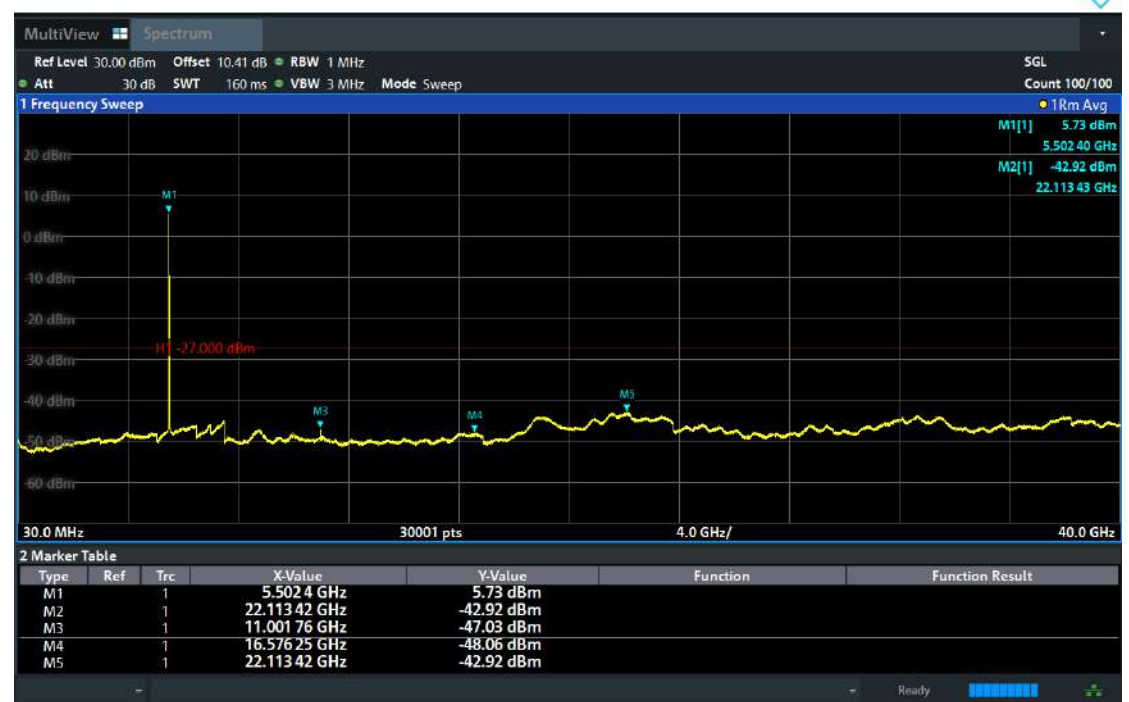
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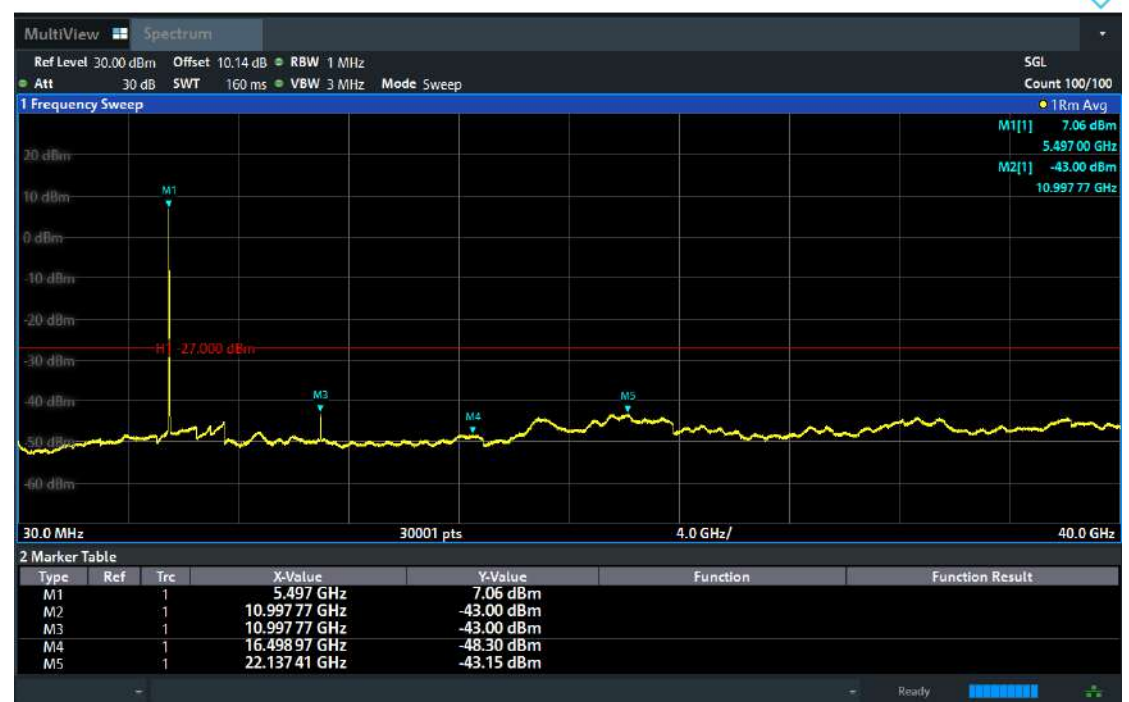
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Tx. Spurious NVNT ac20 5500MHz Ant1 Emission



Tx. Spurious NVNT ac20 5500MHz Ant2 Emission



Tx. Spurious NVNT ac20 5580MHz Ant1 Emission



Tx. Spurious NVNT ac20 5580MHz Ant2 Emission



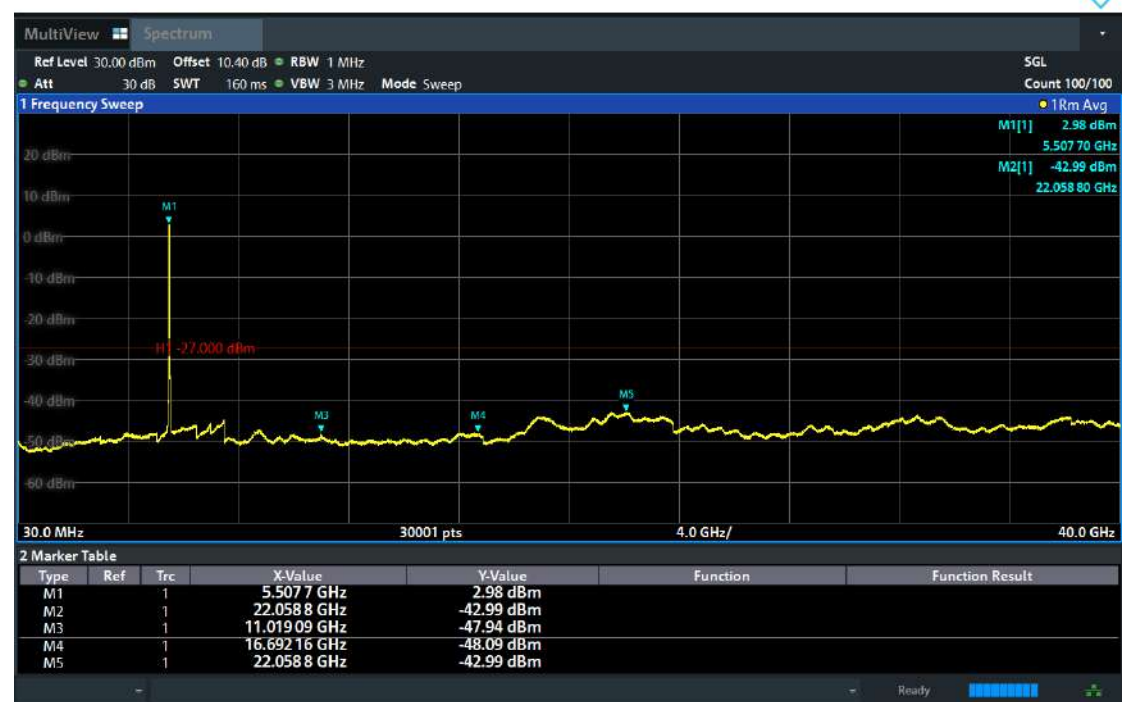
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Tx. Spurious NVNT ac20 5700MHz Ant2 Emission



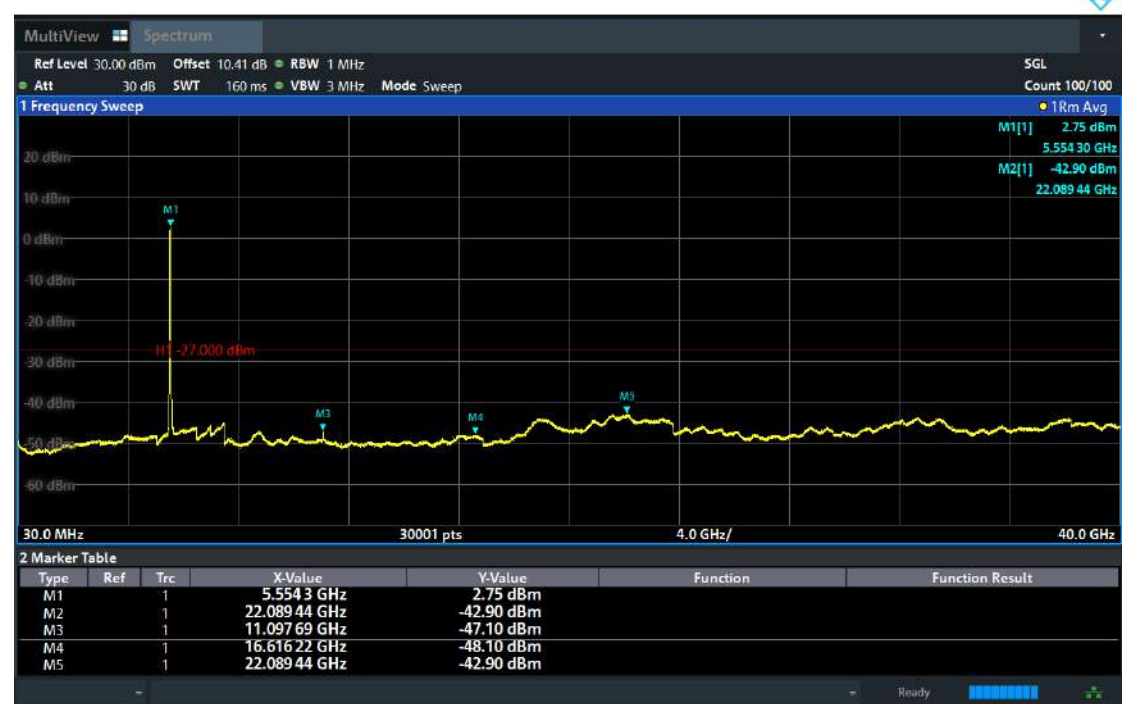
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Tx. Spurious NVNT ac40 5510MHz Ant2 Emission



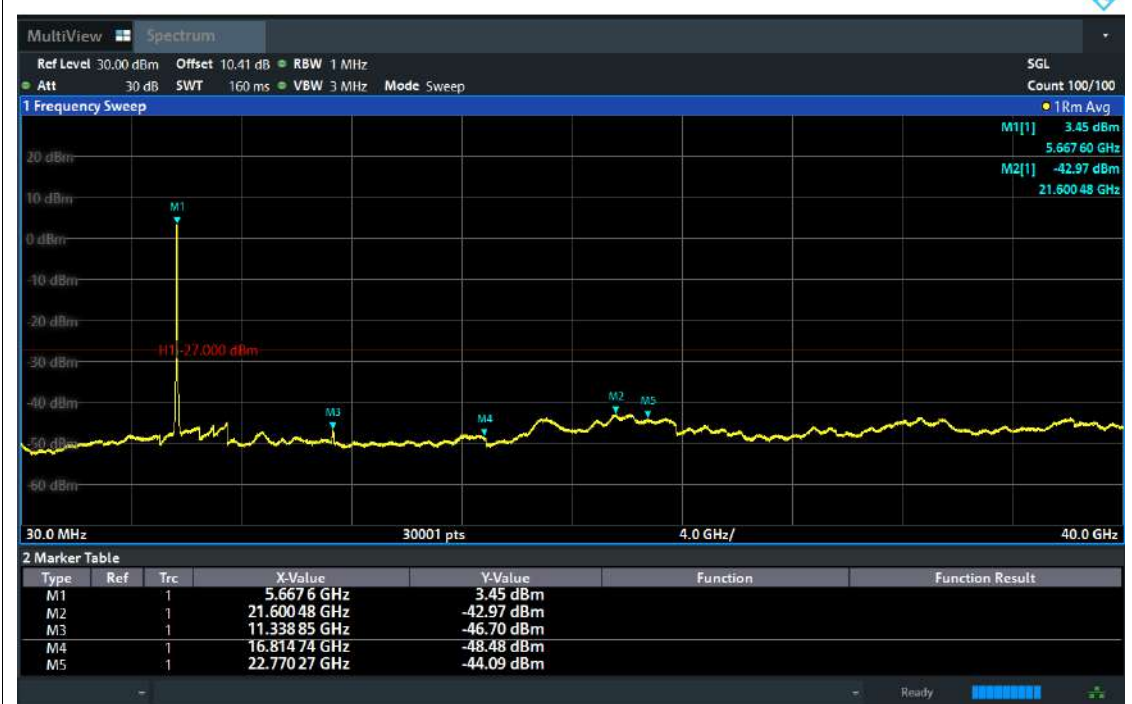
Tx. Spurious NVNT ac40 5550MHz Ant1 Emission



Tx. Spurious NVNT ac40 5550MHz Ant2 Emission



Tx. Spurious NVNT ac40 5670MHz Ant1 Emission



Tx. Spurious NVNT ac40 5670MHz Ant2 Emission



Tx. Spurious NVNT ac80 5530MHz Ant1 Emission



Tx. Spurious NVNT ac80 5530MHz Ant2 Emission



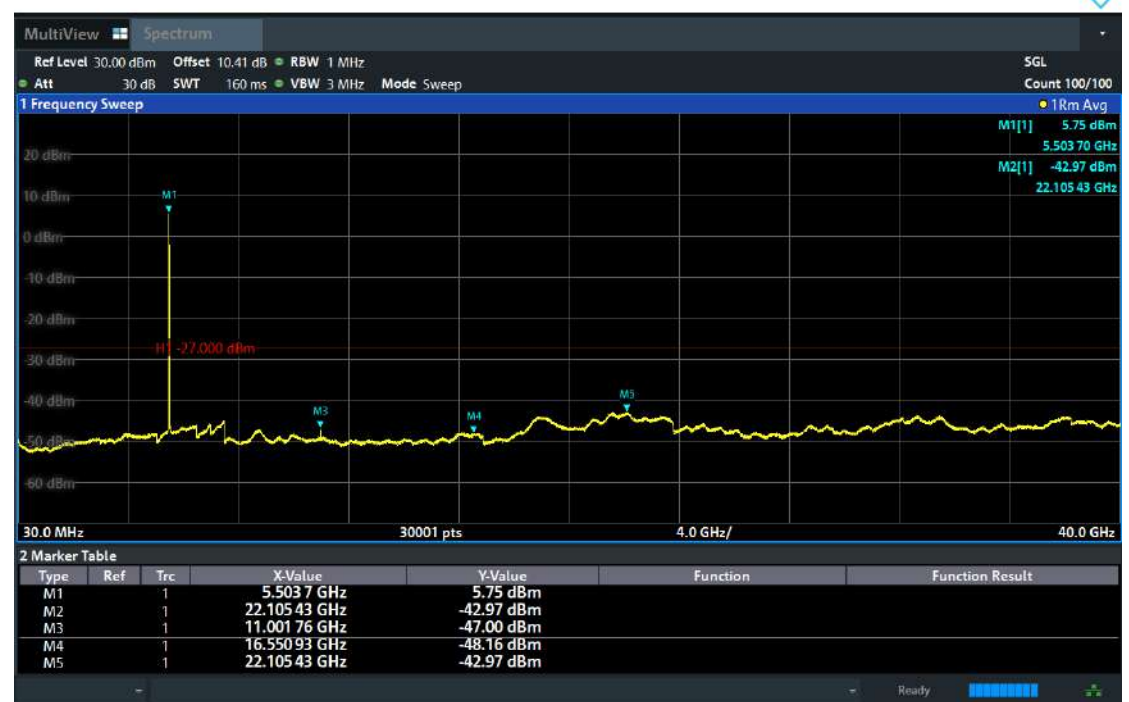
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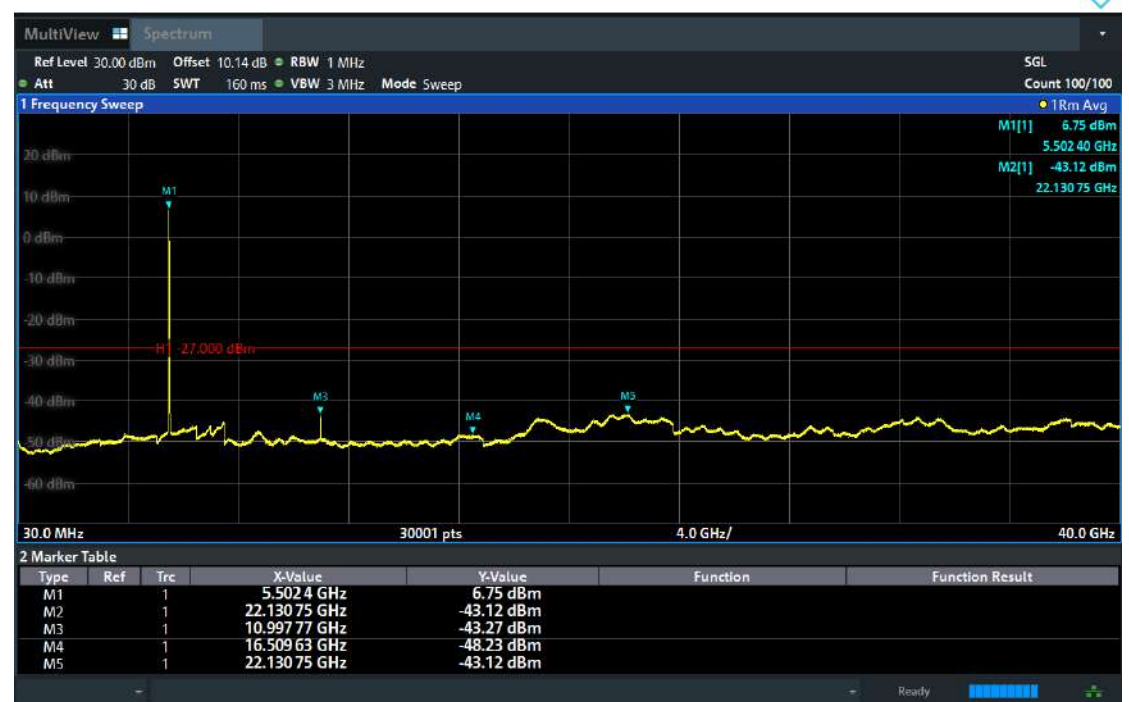
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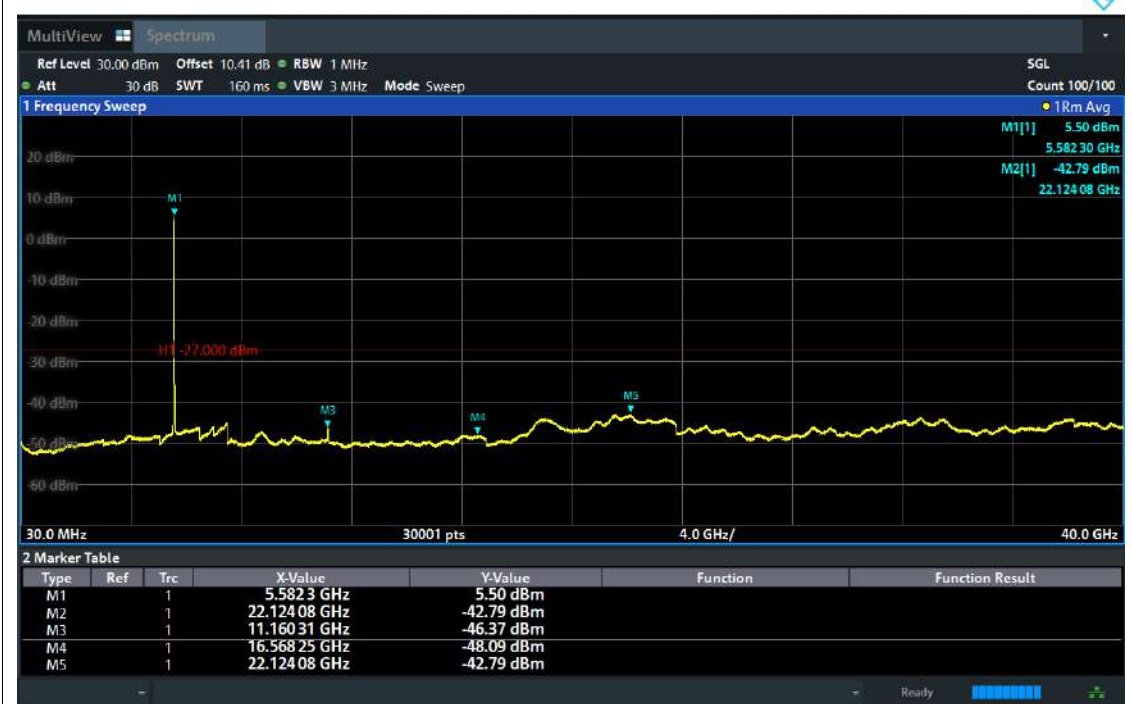
Tx. Spurious NVNT ax20 5500MHz Ant1 Emission



Tx. Spurious NVNT ax20 5500MHz Ant2 Emission



Tx. Spurious NVNT ax20 5580MHz Ant1 Emission



Tx. Spurious NVNT ax20 5580MHz Ant2 Emission



Tx. Spurious NVNT ax20 5700MHz Ant1 Emission



Tx. Spurious NVNT ax20 5700MHz Ant2 Emission



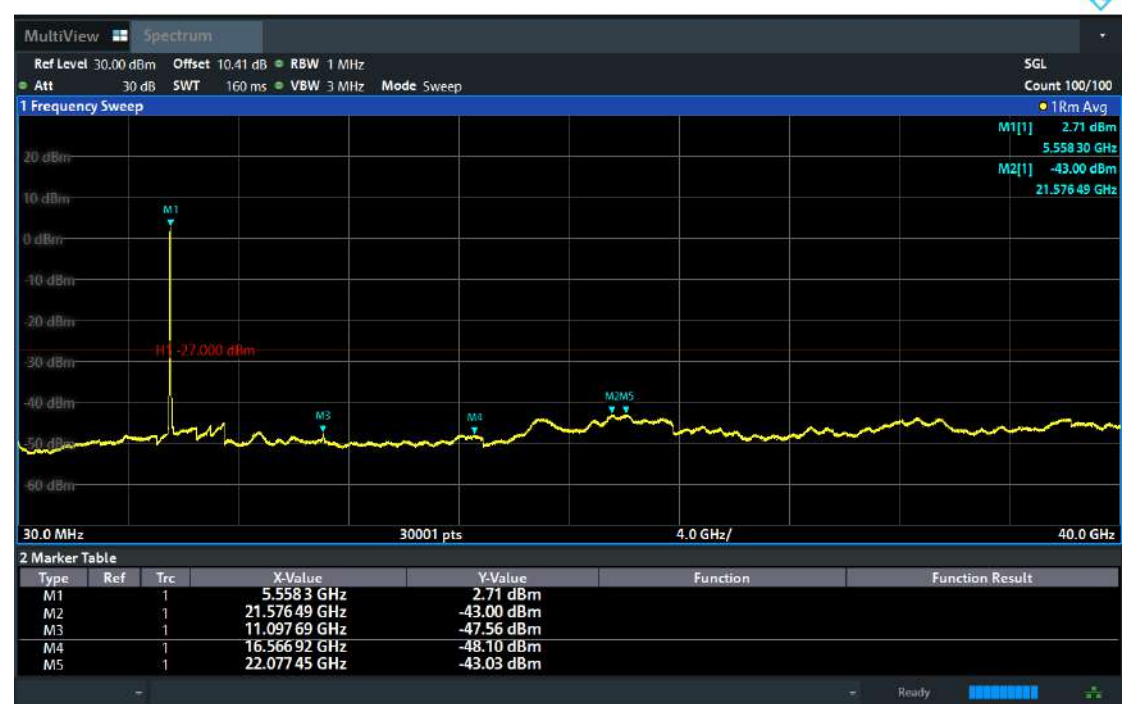
Tx. Spurious NVNT ax40 5510MHz Ant1 Emission



Tx. Spurious NVNT ax40 5510MHz Ant2 Emission



Tx. Spurious NVNT ax40 5550MHz Ant1 Emission



Tx. Spurious NVNT ax40 5550MHz Ant2 Emission



Tx. Spurious NVNT ax40 5670MHz Ant1 Emission



Tx. Spurious NVNT ax40 5670MHz Ant2 Emission



Tx. Spurious NVNT ax80 5530MHz Ant1 Emission



Tx. Spurious NVNT ax80 5530MHz Ant2 Emission



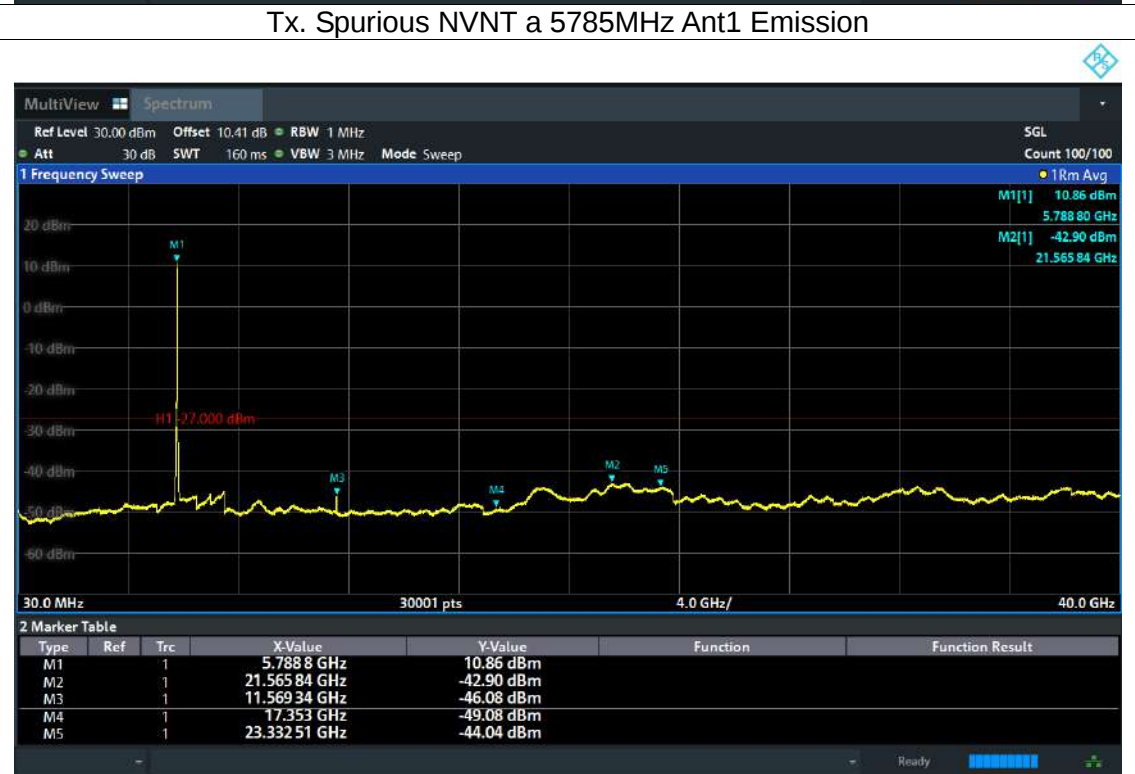
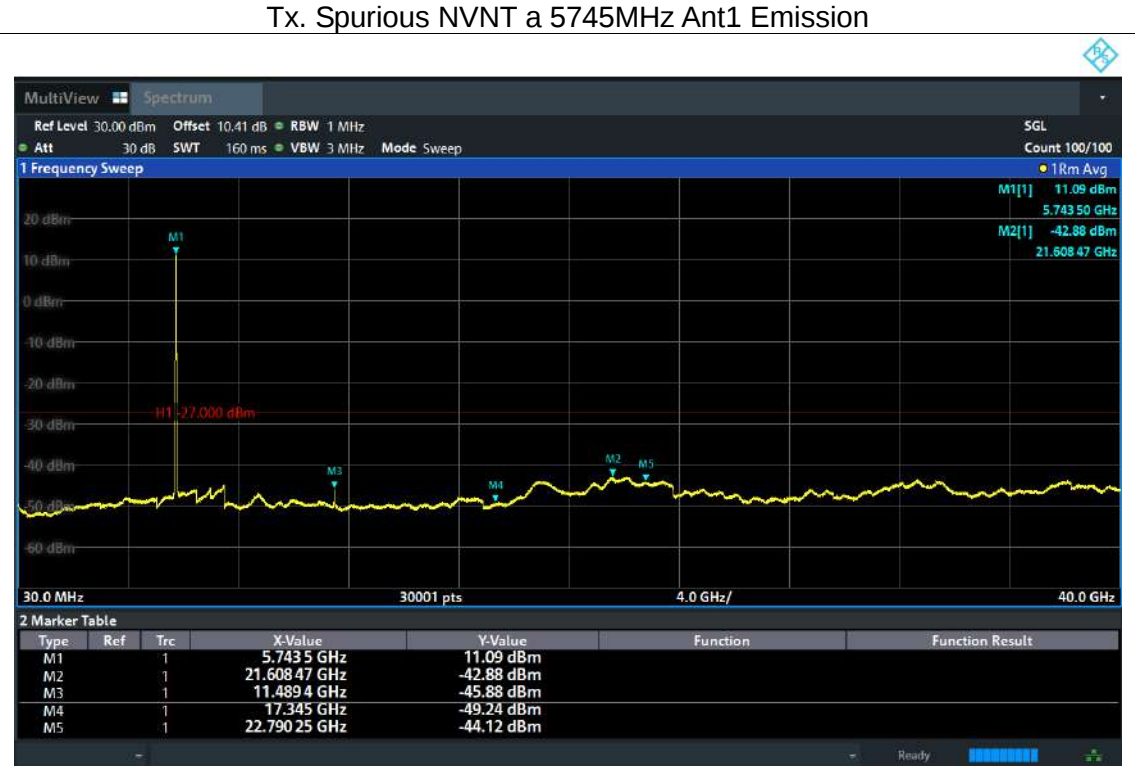
Tx. Spurious NVNT ax80 5610MHz Ant1 Emission



Tx. Spurious NVNT ax80 5610MHz Ant2 Emission



For U-NII-3



Tx. Spurious NVNT a 5825MHz Ant1 Emission



Tx. Spurious NVNT a 5745MHz Ant2 Emission



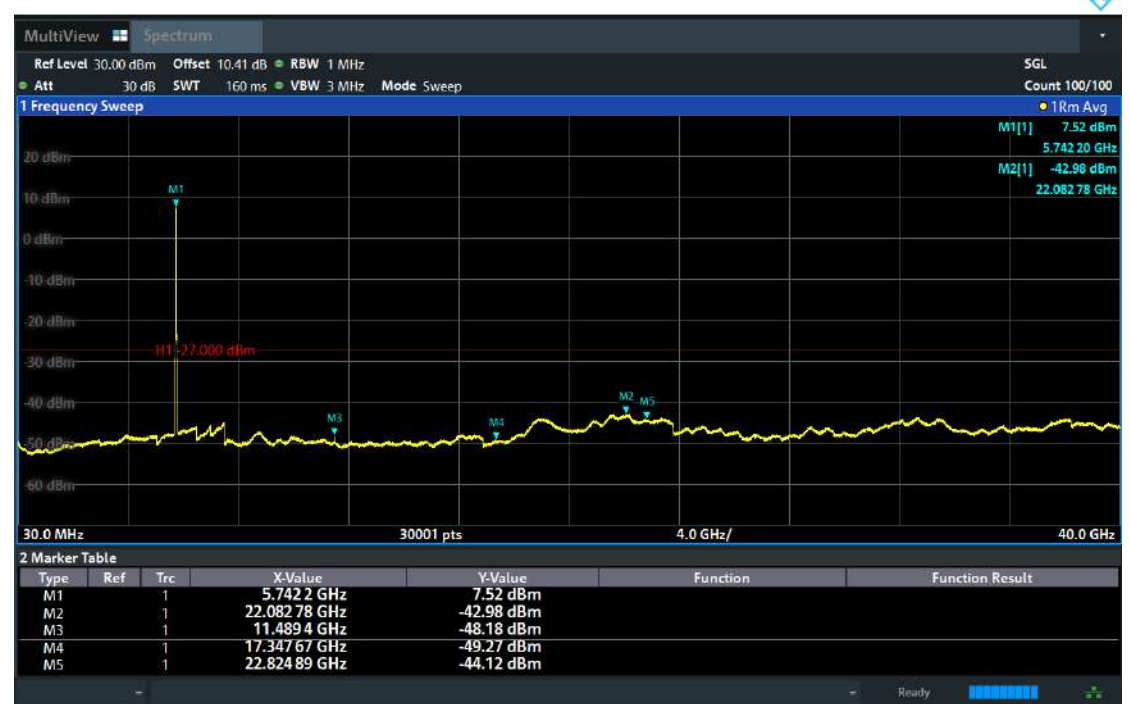
Tx. Spurious NVNT a 5785MHz Ant2 Emission



Tx. Spurious NVNT a 5825MHz Ant2 Emission



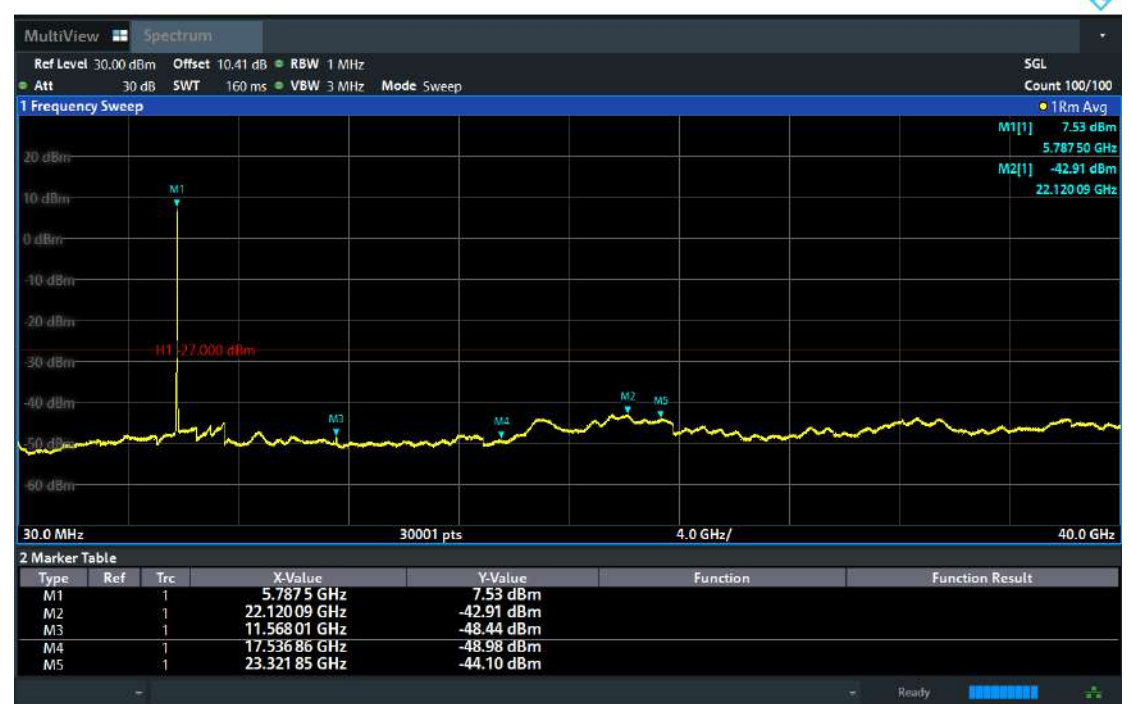
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Tx. Spurious NVNT n20 5745MHz Ant2 Emission



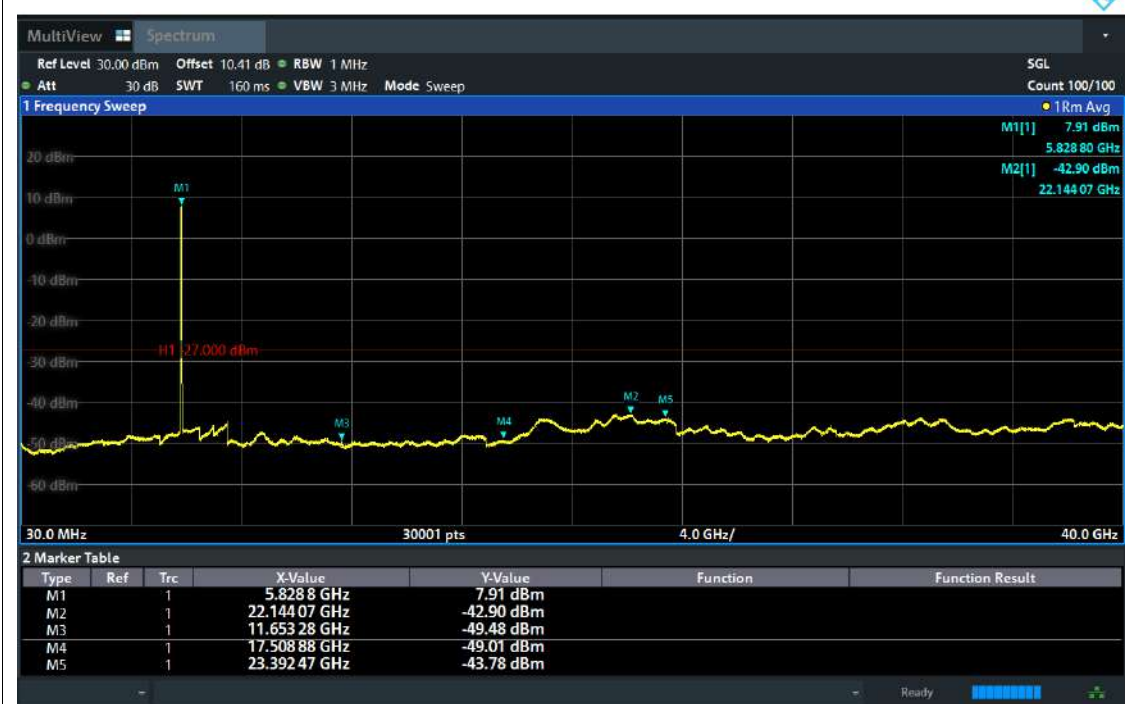
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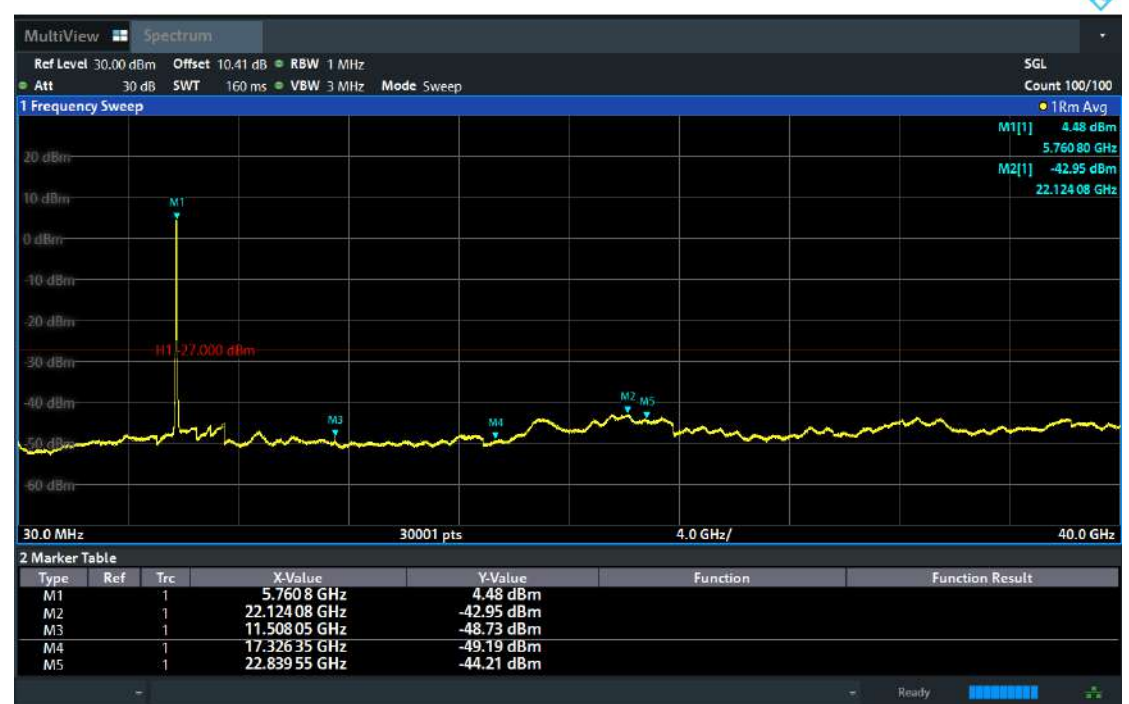
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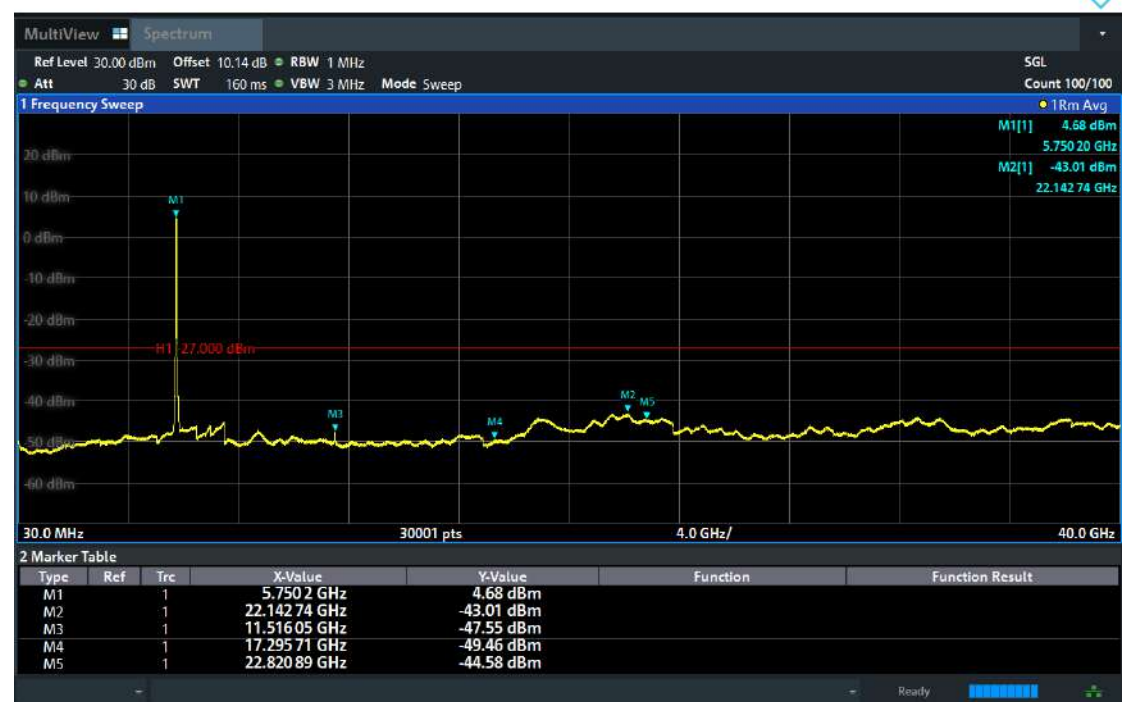
Tx. Spurious NVNT n20 5825MHz Ant2 Emission



Tx. Spurious NVNT n40 5755MHz Ant1 Emission



Tx. Spurious NVNT n40 5755MHz Ant2 Emission



Tx. Spurious NVNT n40 5795MHz Ant1 Emission



Tx. Spurious NVNT n40 5795MHz Ant2 Emission



Tx. Spurious NVNT ac20 5745MHz Ant1 Emission



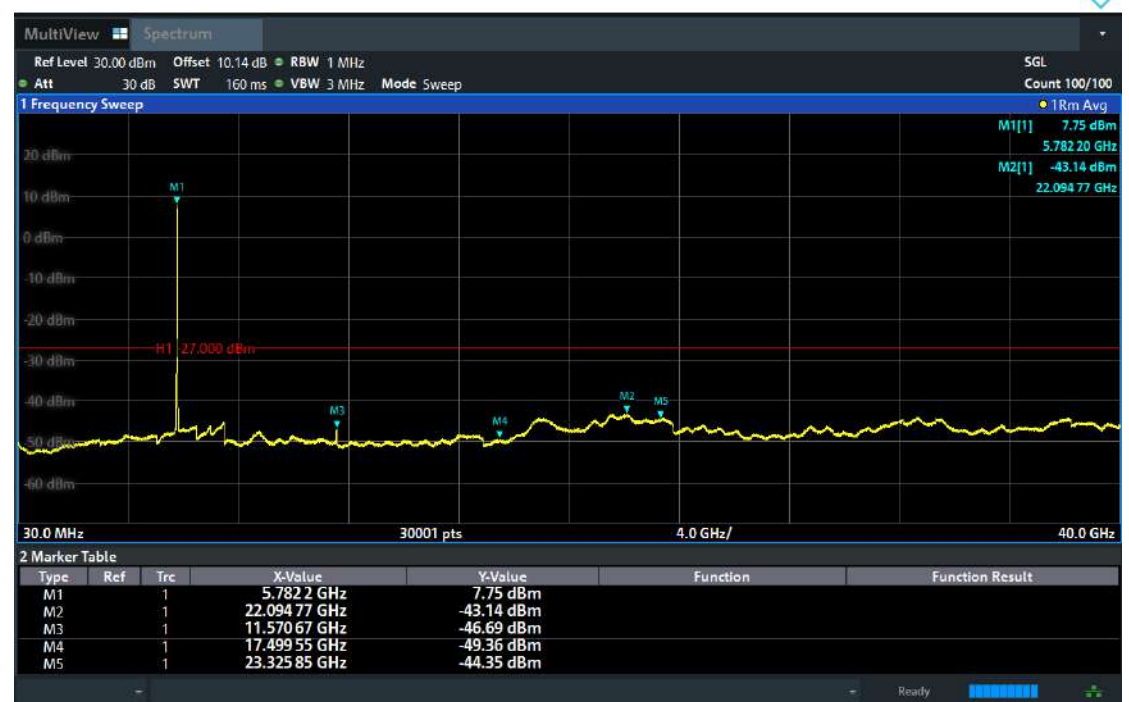
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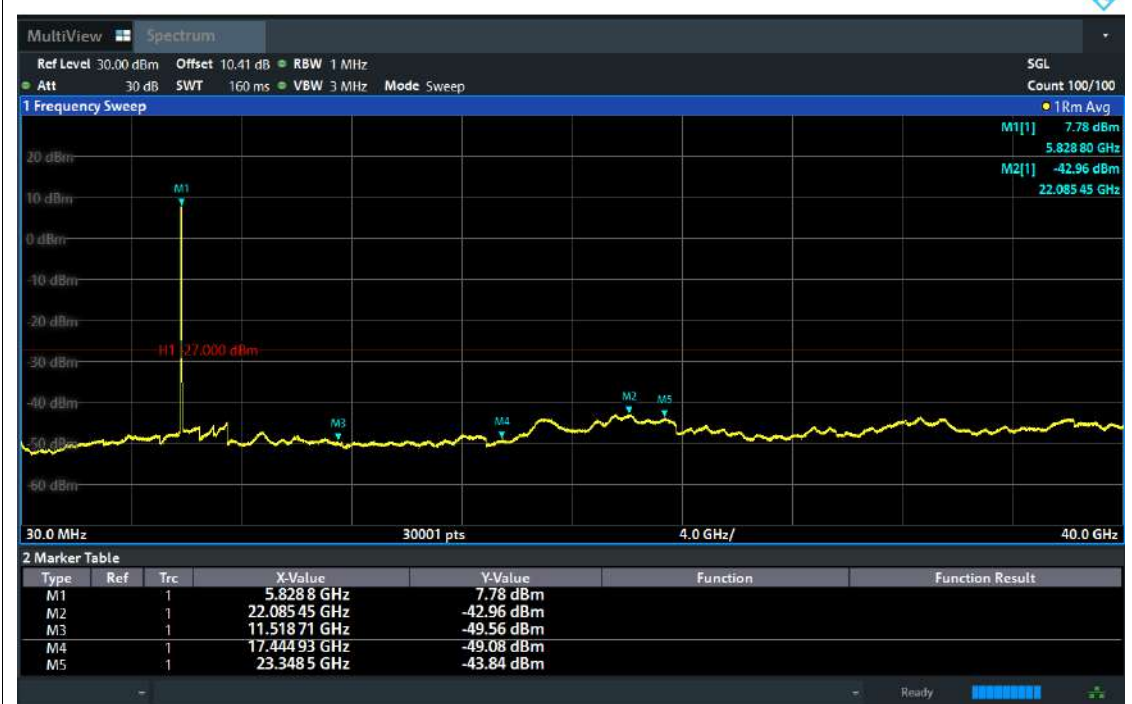
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Tx. Spurious NVNT ac20 5785MHz Ant2 Emission



Tx. Spurious NVNT ac20 5825MHz Ant1 Emission



Tx. Spurious NVNT ac20 5825MHz Ant2 Emission



Tx. Spurious NVNT ac40 5755MHz Ant1 Emission



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Tx. Spurious NVNT ac40 5795MHz Ant1 Emission



Tx. Spurious NVNT ac40 5795MHz Ant2 Emission



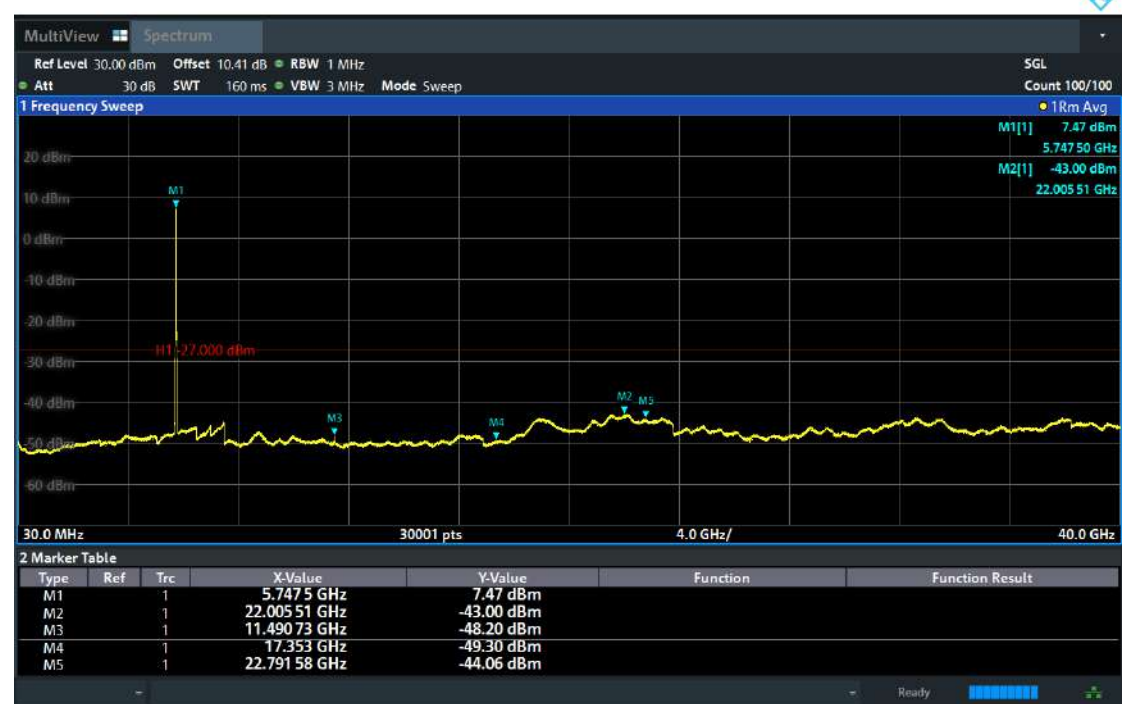
Tx. Spurious NVNT ac80 5775MHz Ant1 Emission



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Tx. Spurious NVNT ax20 5745MHz Ant1 Emission



Tx. Spurious NVNT ax20 5745MHz Ant2 Emission



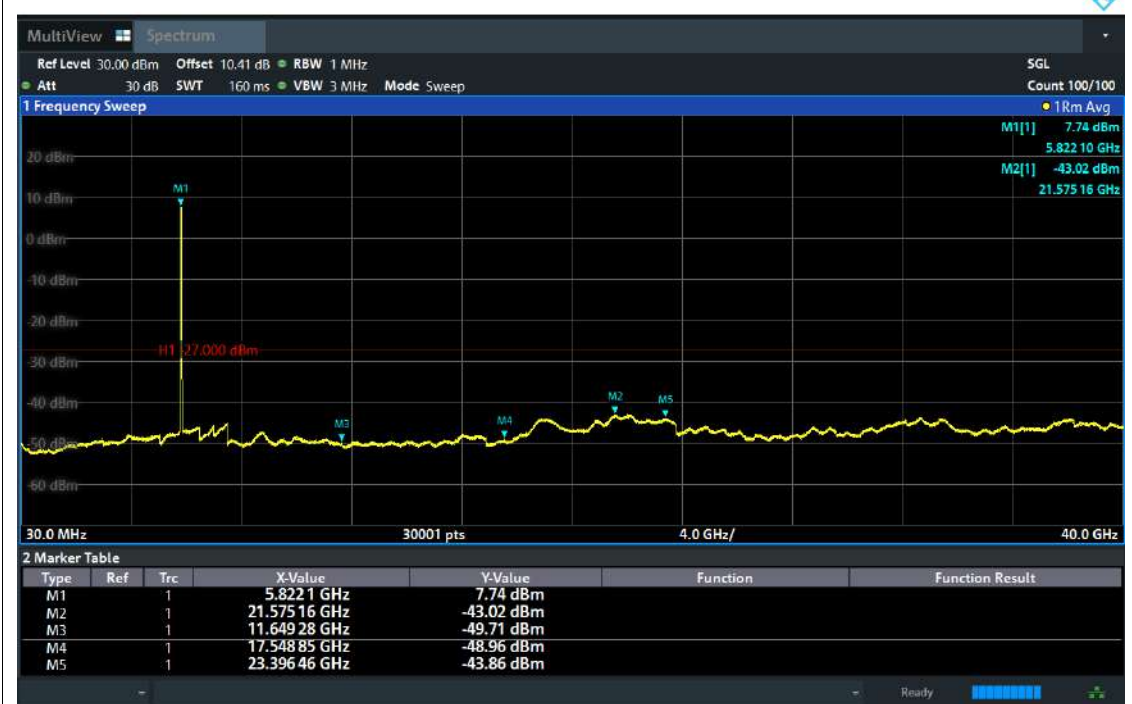
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Tx. Spurious NVNT ax20 5825MHz Ant1 Emission



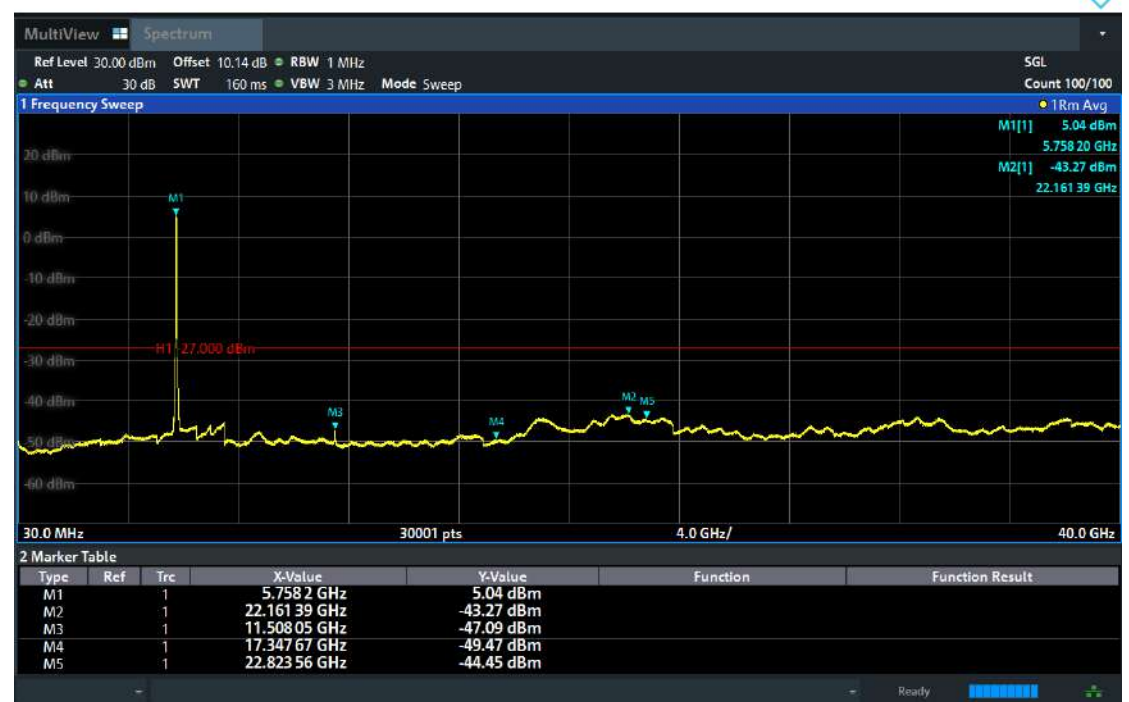
Tx. Spurious NVNT ax20 5825MHz Ant2 Emission



Tx. Spurious NVNT ax40 5755MHz Ant1 Emission



Tx. Spurious NVNT ax40 5755MHz Ant2 Emission



Tx. Spurious NVNT ax40 5795MHz Ant1 Emission



Tx. Spurious NVNT ax40 5795MHz Ant2 Emission



Tx. Spurious NVNT ax80 5775MHz Ant1 Emission



Tx. Spurious NVNT ax80 5775MHz Ant2 Emission



Note: The margin meets the modified requirement of $10\log N$.

5.11 Frequency Stability

5.11.1 Limit

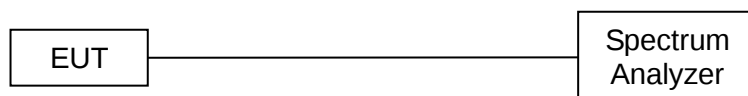
Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

5.11.2 Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than ± 20 ppm (IEEE 802.11n specification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is $-20^\circ\text{C} \sim 70^\circ\text{C}$.

5.11.3 Test Setup



5.11.4 Test Results

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5180.024	5180	0.024	4.57
		V max (V)	8.14	5180.045	5180	0.045	8.66
		V min (V)	6.66	5180.025	5180	0.025	4.86
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5180.011	5180	0.011	2.04
		T (°C)	-10	5180.023	5180	0.023	4.40
		T (°C)	0	5180.029	5180	0.029	5.56
		T (°C)	10	5180.043	5180	0.043	8.30
		T (°C)	20	5180.019	5180	0.019	3.62
		T (°C)	30	5180.022	5180	0.022	4.16
		T (°C)	40	5180.022	5180	0.022	4.17
		T (°C)	50	5180.045	5180	0.045	8.64
		T (°C)	60	5180.000	5180	0.000	0.04
		T (°C)	70	5180.037	5180	0.037	7.23
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5200.007	5200	0.007	1.38
		V max (V)	8.14	5200.036	5200	0.036	6.91
		V min (V)	6.66	5200.031	5200	0.031	5.92
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5200.008	5200	0.008	1.46
		T (°C)	-10	5200.038	5200	0.038	7.22
		T (°C)	0	5200.028	5200	0.028	5.37
		T (°C)	10	5200.049	5200	0.049	9.34
		T (°C)	20	5200.043	5200	0.043	8.21
		T (°C)	30	5200.001	5200	0.001	0.15
		T (°C)	40	5200.019	5200	0.019	3.64
		T (°C)	50	5200.011	5200	0.011	2.07
		T (°C)	60	5200.046	5200	0.046	8.92
		T (°C)	70	5200.044	5200	0.044	8.38
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5240.036	5240	0.036	6.95
		V max (V)	8.14	5240.008	5240	0.008	1.59
		V min (V)	6.66	5240.008	5240	0.008	1.57
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5240.028	5240	0.028	5.37
		T (°C)	-10	5240.045	5240	0.045	8.53
		T (°C)	0	5240.045	5240	0.045	8.60
		T (°C)	10	5240.046	5240	0.046	8.71
		T (°C)	20	5240.018	5240	0.018	3.48
		T (°C)	30	5240.004	5240	0.004	0.79
		T (°C)	40	5240.044	5240	0.044	8.48
		T (°C)	50	5240.043	5240	0.043	8.29
		T (°C)	60	5240.020	5240	0.020	3.73
		T (°C)	70	5240.022	5240	0.022	4.23
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5190MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5190.045	5190	0.045	8.70
		V max (V)	8.14	5190.004	5190	0.004	0.73
		V min (V)	6.66	5190.001	5190	0.001	0.14
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5190MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5190.037	5190	0.037	7.03
		T (°C)	-10	5190.029	5190	0.029	5.59
		T (°C)	0	5190.039	5190	0.039	7.59
		T (°C)	10	5190.021	5190	0.021	4.07
		T (°C)	20	5190.033	5190	0.033	6.31
		T (°C)	30	5190.017	5190	0.017	3.31
		T (°C)	40	5190.011	5190	0.011	2.13
		T (°C)	50	5190.023	5190	0.023	4.44
		T (°C)	60	5190.032	5190	0.032	6.10
		T (°C)	70	5190.021	5190	0.021	4.13
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5230MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5230.029	5230	0.029	5.49
		V max (V)	8.14	5230.039	5230	0.039	7.38
		V min (V)	6.66	5230.008	5230	0.008	1.48
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5230MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5230.042	5230	0.042	7.99
		T (°C)	-10	5230.000	5230	0.000	0.09
		T (°C)	0	5230.020	5230	0.020	3.78
		T (°C)	10	5230.036	5230	0.036	6.95
		T (°C)	20	5230.034	5230	0.034	6.42
		T (°C)	30	5230.043	5230	0.043	8.21
		T (°C)	40	5230.015	5230	0.015	2.84
		T (°C)	50	5230.030	5230	0.030	5.78
		T (°C)	60	5230.046	5230	0.046	8.89
		T (°C)	70	5230.010	5230	0.010	1.89
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5210MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5210.014	5210	0.014	2.78
		V max (V)	8.14	5210.022	5210	0.022	4.31
		V min (V)	6.66	5210.031	5210	0.031	5.94
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5210MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5210.034	5210	0.034	6.51
		T (°C)	-10	5210.048	5210	0.048	9.25
		T (°C)	0	5210.019	5210	0.019	3.66
		T (°C)	10	5210.030	5210	0.030	5.76
		T (°C)	20	5210.025	5210	0.025	4.86
		T (°C)	30	5210.025	5210	0.025	4.73
		T (°C)	40	5210.018	5210	0.018	3.54
		T (°C)	50	5210.037	5210	0.037	7.07
		T (°C)	60	5210.003	5210	0.003	0.59
		T (°C)	70	5210.023	5210	0.023	4.36
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5260.029	5260	0.029	5.49
		V max (V)	8.14	5260.021	5260	0.021	4.07
		V min (V)	6.66	5260.013	5260	0.013	2.45
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5260.021	5260	0.021	3.95
		T (°C)	-10	5260.003	5260	0.003	0.60
		T (°C)	0	5260.003	5260	0.003	0.55
		T (°C)	10	5260.021	5260	0.021	3.95
		T (°C)	20	5260.013	5260	0.013	2.49
		T (°C)	30	5260.001	5260	0.001	0.17
		T (°C)	40	5260.032	5260	0.032	5.99
		T (°C)	50	5260.034	5260	0.034	6.43
		T (°C)	60	5260.017	5260	0.017	3.22
		T (°C)	70	5260.040	5260	0.040	7.55
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5280.048	5280	0.048	9.13
		V max (V)	8.14	5280.012	5280	0.012	2.26
		V min (V)	6.66	5280.010	5280	0.010	1.85
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5280.000	5280	0.000	0.08
		T (°C)	-10	5280.021	5280	0.021	4.03
		T (°C)	0	5280.006	5280	0.006	1.12
		T (°C)	10	5280.039	5280	0.039	7.35
		T (°C)	20	5280.039	5280	0.039	7.30
		T (°C)	30	5280.027	5280	0.027	5.13
		T (°C)	40	5280.011	5280	0.011	2.12
		T (°C)	50	5280.046	5280	0.046	8.66
		T (°C)	60	5280.001	5280	0.001	0.21
		T (°C)	70	5280.019	5280	0.019	3.54
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5320.048	5320	0.048	9.00
		V max (V)	8.14	5320.013	5320	0.013	2.41
		V min (V)	6.66	5320.037	5320	0.037	6.99
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5320.022	5320	0.022	4.15
		T (°C)	-10	5320.037	5320	0.037	6.92
		T (°C)	0	5320.046	5320	0.046	8.61
		T (°C)	10	5320.002	5320	0.002	0.38
		T (°C)	20	5320.046	5320	0.046	8.68
		T (°C)	30	5320.025	5320	0.025	4.62
		T (°C)	40	5320.014	5320	0.014	2.61
		T (°C)	50	5320.027	5320	0.027	5.00
		T (°C)	60	5320.012	5320	0.012	2.31
		T (°C)	70	5320.015	5320	0.015	2.76
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5270MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5270.032	5270	0.032	6.01
		V max (V)	8.14	5270.042	5270	0.042	7.92
		V min (V)	6.66	5270.030	5270	0.030	5.75
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5270MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5270.012	5270	0.012	2.26
		T (°C)	-10	5270.028	5270	0.028	5.37
		T (°C)	0	5270.003	5270	0.003	0.51
		T (°C)	10	5270.002	5270	0.002	0.45
		T (°C)	20	5270.031	5270	0.031	5.93
		T (°C)	30	5270.031	5270	0.031	5.89
		T (°C)	40	5270.046	5270	0.046	8.79
		T (°C)	50	5270.029	5270	0.029	5.56
		T (°C)	60	5270.021	5270	0.021	3.93
		T (°C)	70	5270.044	5270	0.044	8.29
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5310MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5310.047	5310	0.047	8.81
		V max (V)	8.14	5310.003	5310	0.003	0.47
		V min (V)	6.66	5310.034	5310	0.034	6.49
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5310MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5310.042	5310	0.042	7.84
		T (°C)	-10	5310.048	5310	0.048	8.98
		T (°C)	0	5310.046	5310	0.046	8.66
		T (°C)	10	5310.031	5310	0.031	5.81
		T (°C)	20	5310.002	5310	0.002	0.43
		T (°C)	30	5310.044	5310	0.044	8.34
		T (°C)	40	5310.026	5310	0.026	4.93
		T (°C)	50	5310.033	5310	0.033	6.26
		T (°C)	60	5310.028	5310	0.028	5.30
		T (°C)	70	5310.039	5310	0.039	7.29
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5290MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5290.002	5290	0.002	0.37
		V max (V)	8.14	5290.040	5290	0.040	7.64
		V min (V)	6.66	5290.030	5290	0.030	5.75
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5290MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5290.027	5290	0.027	5.18
		T (°C)	-10	5290.041	5290	0.041	7.82
		T (°C)	0	5290.028	5290	0.028	5.29
		T (°C)	10	5290.026	5290	0.026	4.97
		T (°C)	20	5290.043	5290	0.043	8.09
		T (°C)	30	5290.008	5290	0.008	1.50
		T (°C)	40	5290.049	5290	0.049	9.23
		T (°C)	50	5290.039	5290	0.039	7.45
		T (°C)	60	5290.042	5290	0.042	7.88
		T (°C)	70	5290.034	5290	0.034	6.36
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5500.037	5500	0.037	6.79
		V max (V)	8.14	5500.020	5500	0.020	3.62
		V min (V)	6.66	5500.038	5500	0.038	6.98
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5500.030	5500	0.030	5.51
		T (°C)	-10	5500.047	5500	0.047	8.46
		T (°C)	0	5500.022	5500	0.022	4.01
		T (°C)	10	5500.006	5500	0.006	1.13
		T (°C)	20	5500.040	5500	0.040	7.32
		T (°C)	30	5500.035	5500	0.035	6.30
		T (°C)	40	5500.040	5500	0.040	7.28
		T (°C)	50	5500.014	5500	0.014	2.60
		T (°C)	60	5500.002	5500	0.002	0.35
		T (°C)	70	5500.030	5500	0.030	5.37
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5580.047	5580	0.047	8.51
		V max (V)	8.14	5580.046	5580	0.046	8.25
		V min (V)	6.66	5580.002	5580	0.002	0.38
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5580.017	5580	0.017	3.01
		T (°C)	-10	5580.036	5580	0.036	6.48
		T (°C)	0	5580.000	5580	0.000	0.03
		T (°C)	10	5580.020	5580	0.020	3.50
		T (°C)	20	5580.047	5580	0.047	8.42
		T (°C)	30	5580.006	5580	0.006	1.11
		T (°C)	40	5580.018	5580	0.018	3.15
		T (°C)	50	5580.045	5580	0.045	8.15
		T (°C)	60	5580.044	5580	0.044	7.95
		T (°C)	70	5580.006	5580	0.006	1.10
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5700.002	5700	0.002	0.32
		V max (V)	8.14	5700.044	5700	0.044	7.67
		V min (V)	6.66	5700.027	5700	0.027	4.69
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5700.011	5700	0.011	1.92
		T (°C)	-10	5700.038	5700	0.038	6.70
		T (°C)	0	5700.013	5700	0.013	2.33
		T (°C)	10	5700.021	5700	0.021	3.66
		T (°C)	20	5700.026	5700	0.026	4.49
		T (°C)	30	5700.048	5700	0.048	8.35
		T (°C)	40	5700.000	5700	0.000	0.01
		T (°C)	50	5700.023	5700	0.023	4.06
		T (°C)	60	5700.006	5700	0.006	0.99
		T (°C)	70	5700.009	5700	0.009	1.56
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5510MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5510.033	5510	0.033	5.98
		V max (V)	8.14	5510.049	5510	0.049	8.92
		V min (V)	6.66	5510.013	5510	0.013	2.42
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5510MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5510.024	5510	0.024	4.31
		T (°C)	-10	5510.029	5510	0.029	5.27
		T (°C)	0	5510.003	5510	0.003	0.49
		T (°C)	10	5510.004	5510	0.004	0.67
		T (°C)	20	5510.037	5510	0.037	6.80
		T (°C)	30	5510.039	5510	0.039	7.03
		T (°C)	40	5510.029	5510	0.029	5.28
		T (°C)	50	5510.045	5510	0.045	8.21
		T (°C)	60	5510.042	5510	0.042	7.54
		T (°C)	70	5510.036	5510	0.036	6.62
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5550MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5550.048	5550	0.048	8.56
		V max (V)	8.14	5550.040	5550	0.040	7.16
		V min (V)	6.66	5550.003	5550	0.003	0.50
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5550MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5550.021	5550	0.021	3.87
		T (°C)	-10	5550.027	5550	0.027	4.88
		T (°C)	0	5550.026	5550	0.026	4.66
		T (°C)	10	5550.001	5550	0.001	0.18
		T (°C)	20	5550.000	5550	0.000	0.01
		T (°C)	30	5550.041	5550	0.041	7.46
		T (°C)	40	5550.015	5550	0.015	2.70
		T (°C)	50	5550.004	5550	0.004	0.74
		T (°C)	60	5550.000	5550	0.000	0.02
		T (°C)	70	5550.008	5550	0.008	1.52
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5670MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5670.044	5670	0.044	7.84
		V max (V)	8.14	5670.030	5670	0.030	5.22
		V min (V)	6.66	5670.034	5670	0.034	6.05
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5670MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5670.018	5670	0.018	3.25
		T (°C)	-10	5670.010	5670	0.010	1.68
		T (°C)	0	5670.038	5670	0.038	6.69
		T (°C)	10	5670.017	5670	0.017	2.96
		T (°C)	20	5670.042	5670	0.042	7.48
		T (°C)	30	5670.045	5670	0.045	7.85
		T (°C)	40	5670.023	5670	0.023	4.14
		T (°C)	50	5670.016	5670	0.016	2.89
		T (°C)	60	5670.014	5670	0.014	2.55
		T (°C)	70	5670.021	5670	0.021	3.62
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5530MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5530.043	5530	0.043	7.78
		V max (V)	8.14	5530.031	5530	0.031	5.55
		V min (V)	6.66	5530.026	5530	0.026	4.65
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5530MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5530.009	5530	0.009	1.55
		T (°C)	-10	5530.038	5530	0.038	6.96
		T (°C)	0	5530.046	5530	0.046	8.26
		T (°C)	10	5530.003	5530	0.003	0.49
		T (°C)	20	5530.039	5530	0.039	6.96
		T (°C)	30	5530.034	5530	0.034	6.09
		T (°C)	40	5530.044	5530	0.044	7.94
		T (°C)	50	5530.035	5530	0.035	6.36
		T (°C)	60	5530.039	5530	0.039	7.04
		T (°C)	70	5530.005	5530	0.005	0.87
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5610MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5610.044	5610	0.044	7.78
		V max (V)	8.14	5610.037	5610	0.037	6.57
		V min (V)	6.66	5610.026	5610	0.026	4.58
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5610MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5610.020	5610.009	5610	0.009
		T (°C)	-10	5610.022	5610.048	5610	0.048
		T (°C)	0	5610.029	5610.046	5610	0.046
		T (°C)	10	5610.029	5610.038	5610	0.038
		T (°C)	20	5610.026	5610.019	5610	0.019
		T (°C)	30	5610.005	5610.000	5610	0.000
		T (°C)	40	5610.024	5610.028	5610	0.028
		T (°C)	50	5610.029	5610.011	5610	0.011
		T (°C)	60	5610.033	5610.001	5610	0.001
		T (°C)	70	5610.034	5610.009	5610	0.009
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5745.000	5745	0.000	0.06
		V max (V)	8.14	5745.015	5745	0.015	2.56
		V min (V)	6.66	5745.045	5745	0.045	7.79
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5745.046	5745	0.046	8.06
		T (°C)	-10	5745.047	5745	0.047	8.16
		T (°C)	0	5745.030	5745	0.030	5.15
		T (°C)	10	5745.005	5745	0.005	0.80
		T (°C)	20	5745.008	5745	0.008	1.34
		T (°C)	30	5745.008	5745	0.008	1.31
		T (°C)	40	5745.024	5745	0.024	4.18
		T (°C)	50	5745.006	5745	0.006	0.97
		T (°C)	60	5745.043	5745	0.043	7.49
		T (°C)	70	5745.019	5745	0.019	3.26
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5785.019	5785	0.019	3.22
		V max (V)	8.14	5785.024	5785	0.024	4.18
		V min (V)	6.66	5785.000	5785	0.000	0.04
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5785.043	5785	0.043	7.48
		T (°C)	-10	5785.006	5785	0.006	1.09
		T (°C)	0	5785.015	5785	0.015	2.67
		T (°C)	10	5785.039	5785	0.039	6.66
		T (°C)	20	5785.007	5785	0.007	1.26
		T (°C)	30	5785.041	5785	0.041	7.17
		T (°C)	40	5785.025	5785	0.025	4.39
		T (°C)	50	5785.009	5785	0.009	1.57
		T (°C)	60	5785.035	5785	0.035	6.02
		T (°C)	70	5785.038	5785	0.038	6.52
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5825.022	5825	0.022	3.72
		V max (V)	8.14	5825.039	5825	0.039	6.71
		V min (V)	6.66	5825.002	5825	0.002	0.27
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5825.020	5825	0.020	3.50
		T (°C)	-10	5825.032	5825	0.032	5.48
		T (°C)	0	5825.005	5825	0.005	0.86
		T (°C)	10	5825.022	5825	0.022	3.75
		T (°C)	20	5825.009	5825	0.009	1.63
		T (°C)	30	5825.029	5825	0.029	4.94
		T (°C)	40	5825.008	5825	0.008	1.42
		T (°C)	50	5825.016	5825	0.016	2.67
		T (°C)	60	5825.015	5825	0.015	2.50
		T (°C)	70	5825.028	5825	0.028	4.85
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5755MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5755.008	5755	0.008	1.46
		V max (V)	8.14	5755.046	5755	0.046	7.94
		V min (V)	6.66	5755.004	5755	0.004	0.69
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5755MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5755.039	5755	0.039	6.80
		T (°C)	-10	5755.015	5755	0.015	2.64
		T (°C)	0	5755.049	5755	0.049	8.44
		T (°C)	10	5755.039	5755	0.039	6.70
		T (°C)	20	5755.036	5755	0.036	6.26
		T (°C)	30	5755.002	5755	0.002	0.33
		T (°C)	40	5755.036	5755	0.036	6.25
		T (°C)	50	5755.046	5755	0.046	8.05
		T (°C)	60	5755.003	5755	0.003	0.48
		T (°C)	70	5755.040	5755	0.040	6.93
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5795MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5795.020	5795	0.020	3.52
		V max (V)	8.14	5795.030	5795	0.030	5.10
		V min (V)	6.66	5795.045	5795	0.045	7.68
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5795MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5795.022	5795	0.022	3.86
		T (°C)	-10	5795.026	5795	0.026	4.47
		T (°C)	0	5795.021	5795	0.021	3.56
		T (°C)	10	5795.025	5795	0.025	4.32
		T (°C)	20	5795.048	5795	0.048	8.36
		T (°C)	30	5795.004	5795	0.004	0.62
		T (°C)	40	5795.018	5795	0.018	3.13
		T (°C)	50	5795.050	5795	0.050	8.62
		T (°C)	60	5795.037	5795	0.037	6.45
		T (°C)	70	5795.011	5795	0.011	1.91
Limits				± 20 ppm			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5775MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	7.4	5775.024	5775	0.024	4.15
		V max (V)	8.14	5775.004	5775	0.004	0.66
		V min (V)	6.66	5775.034	5775	0.034	5.82
Limits				± 20 ppm			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5775MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	5	T (°C)	-20	5775.025	5775	0.025	4.29
		T (°C)	-10	5775.043	5775	0.043	7.41
		T (°C)	0	5775.041	5775	0.041	7.14
		T (°C)	10	5775.016	5775	0.016	2.84
		T (°C)	20	5775.041	5775	0.041	7.08
		T (°C)	30	5775.028	5775	0.028	4.84
		T (°C)	40	5775.040	5775	0.040	6.98
		T (°C)	50	5775.021	5775	0.021	3.61
		T (°C)	60	5775.017	5775	0.017	3.02
		T (°C)	70	5775.040	5775	0.040	6.86
Limits				± 20 ppm			
Result				Complies			

6 Photographs of the Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



Conducted emission



7 Photographs of the EUT

Please refer to report HB20260713014E-01 for product photos.

******* END OF REPORT *******