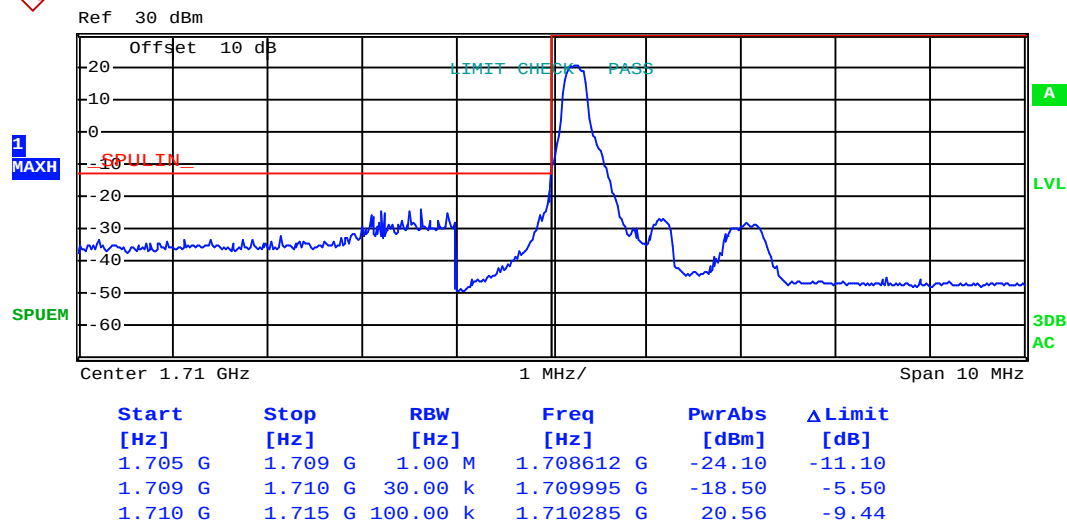


Band edge emission:

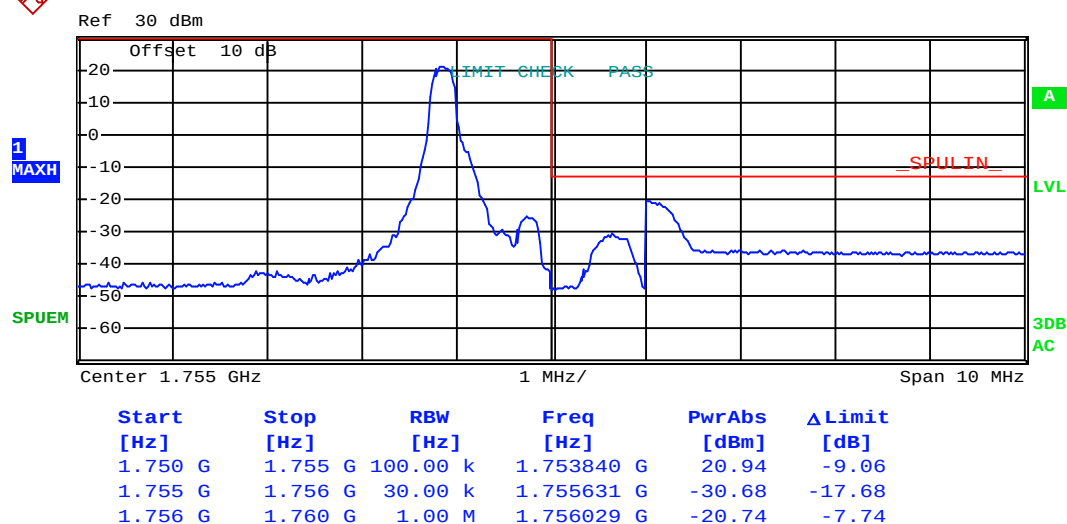
LTE band 4 part:

1.4MHz:

RB Size 1 & RB Offset 0-16QAM

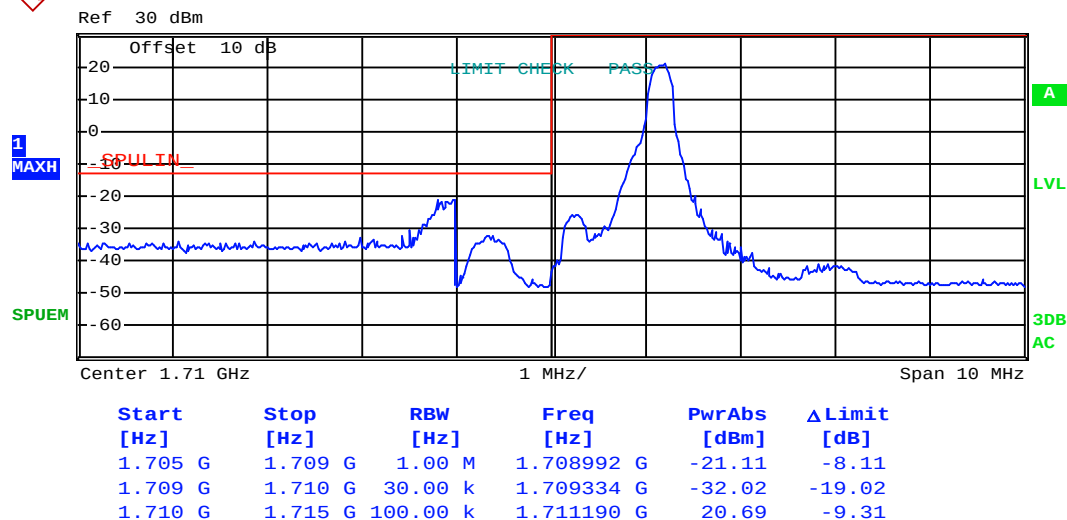


Lowest channel

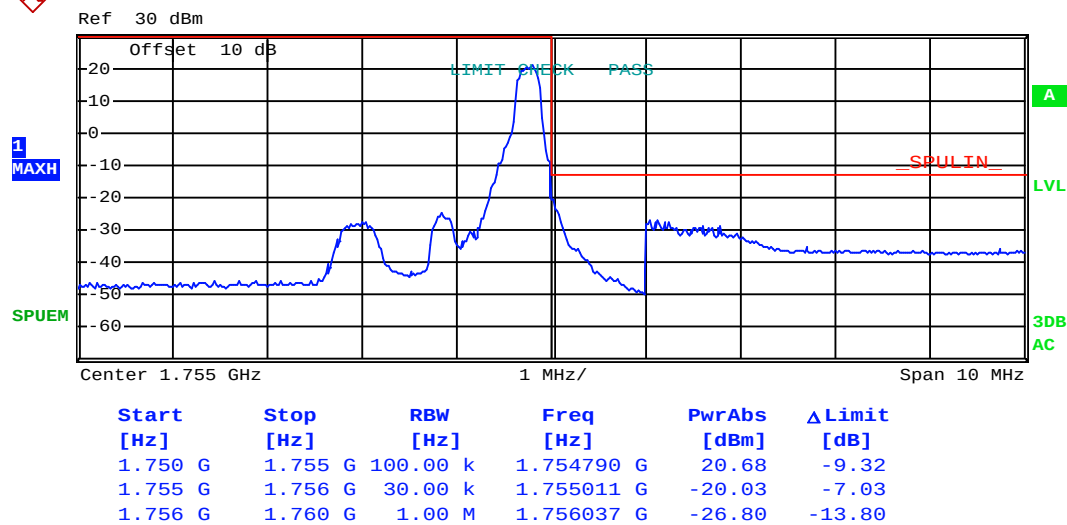


Highest channel

RB Size 1 & RB Offset 5-16QAM

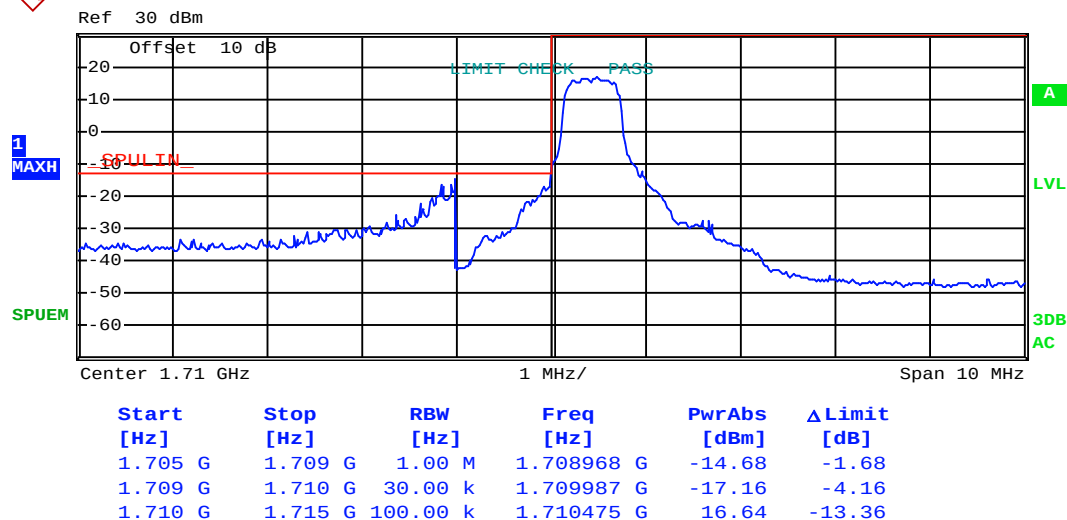


Lowest channel

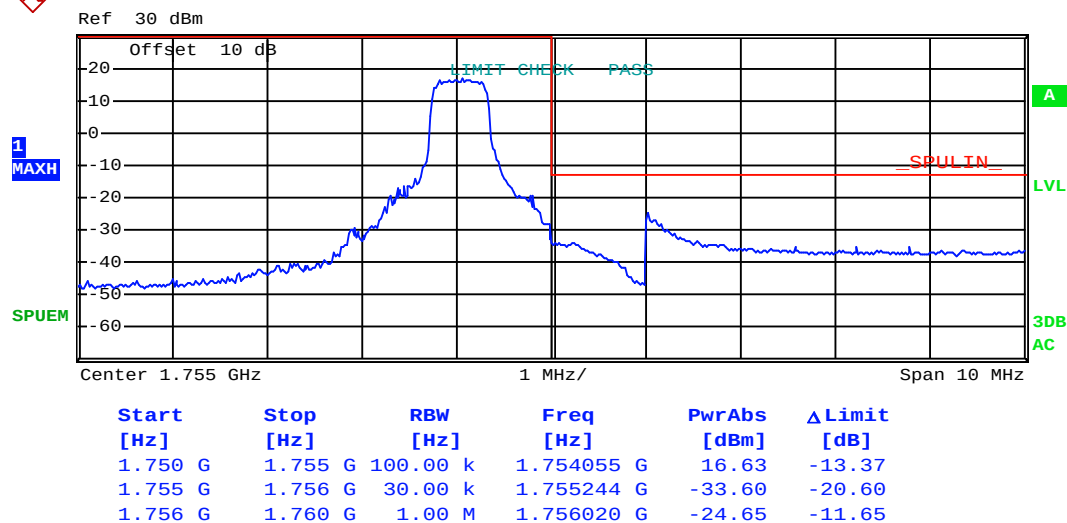


Highest channel

RB Size 3 & RB Offset 0-16QAM

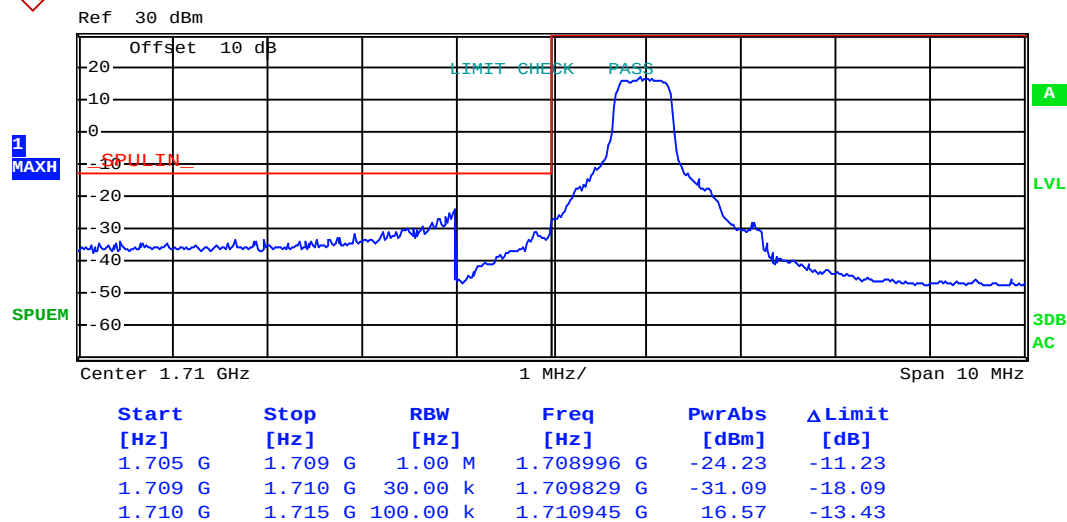


Lowest channel

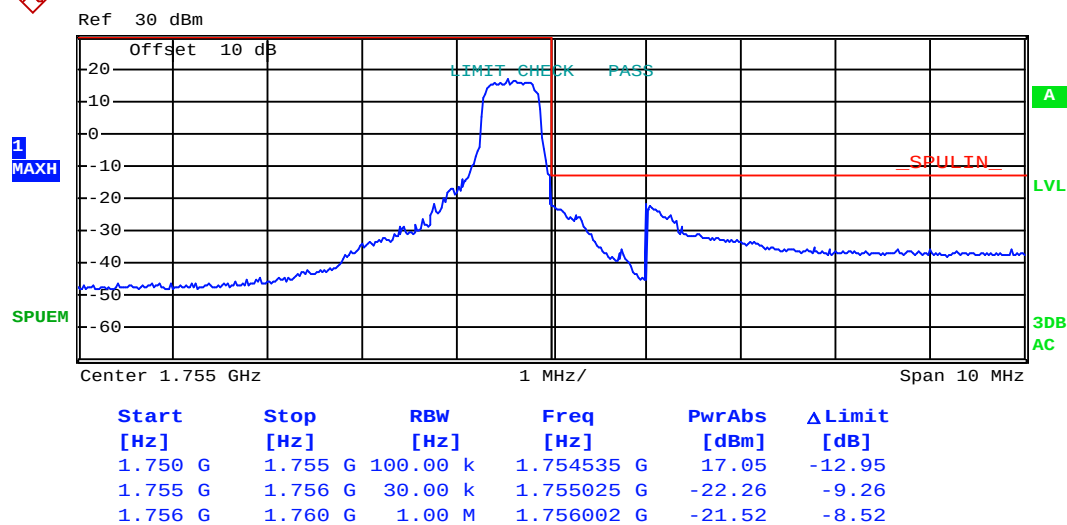


Highest channel

RB Size 3 & RB Offset 2-16QAM

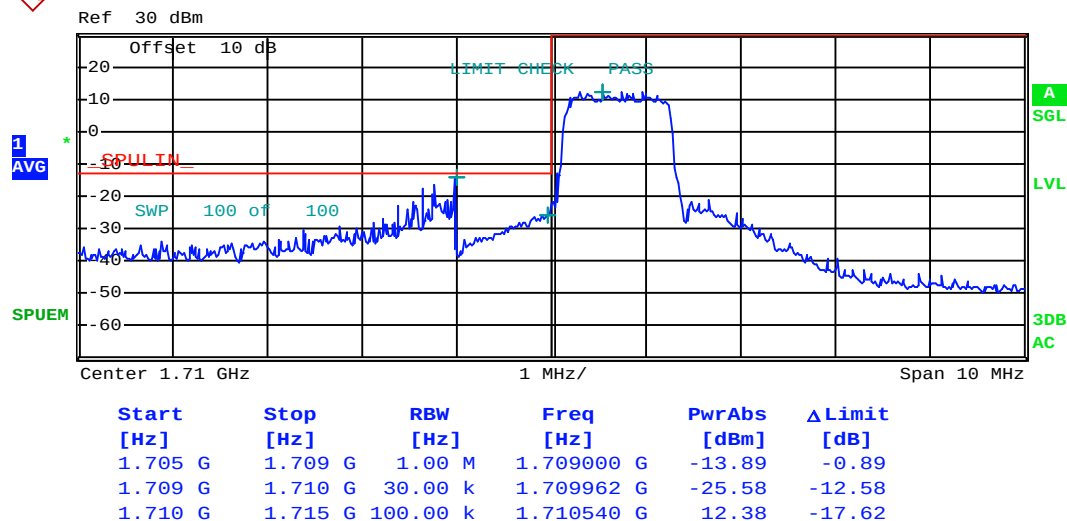


Lowest channel

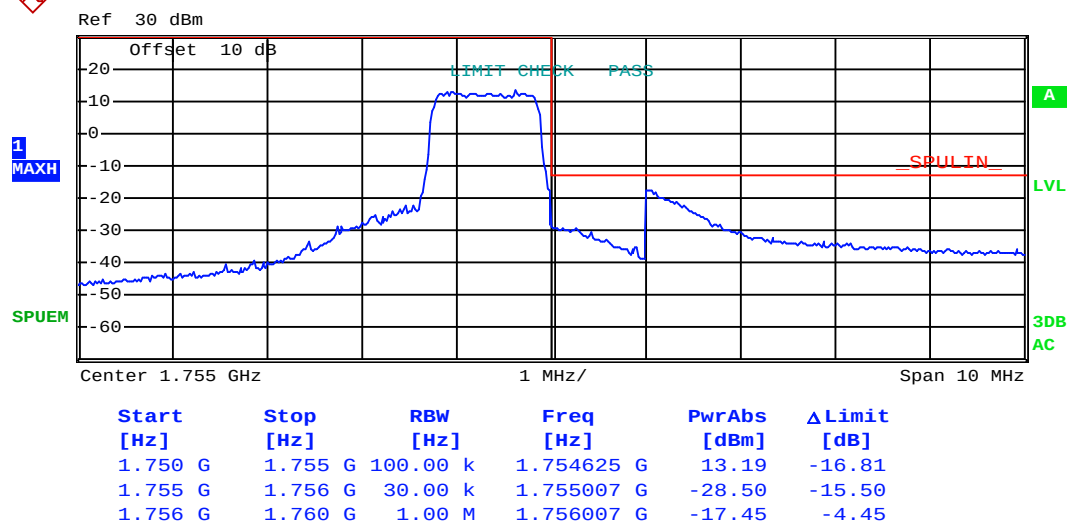


Highest channel

RB Size 6 & RB Offset 0-16QAM

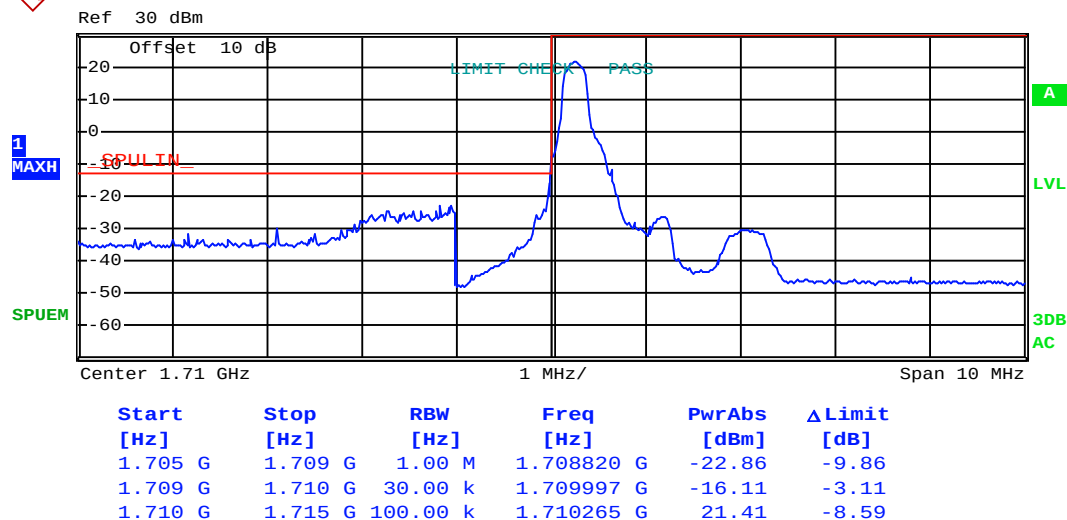


Lowest channel

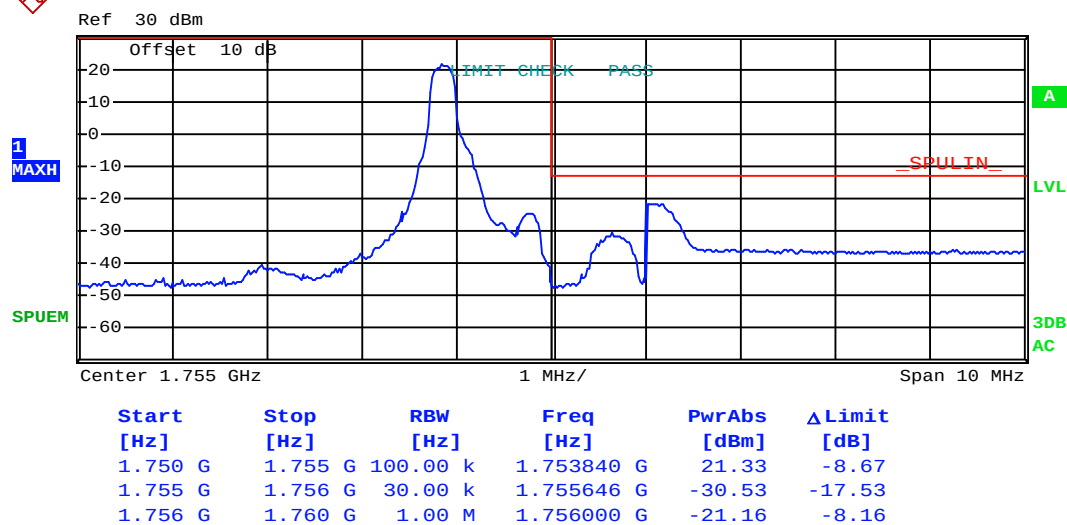


Highest channel

RB Size 1 & RB Offset 0-QPSK

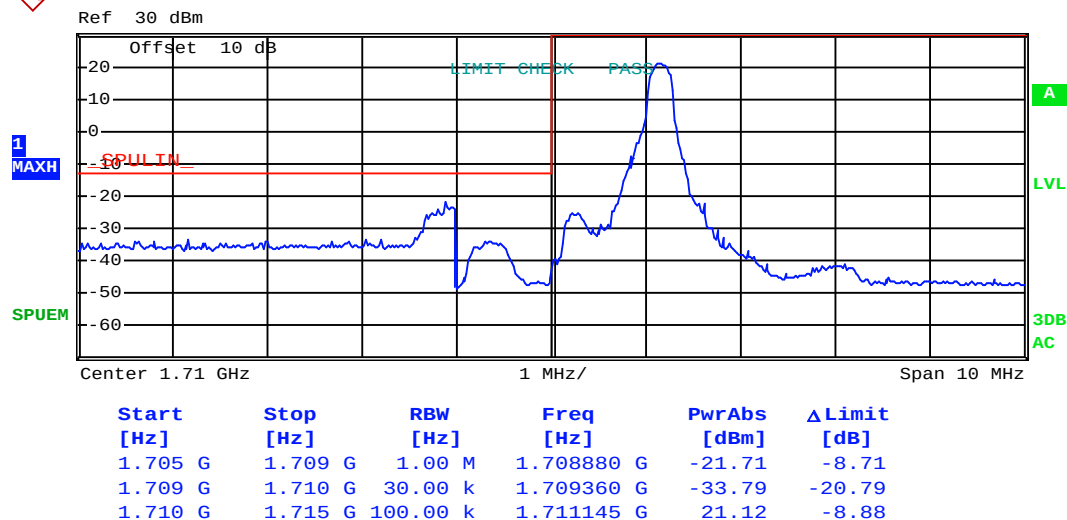


Lowest channel

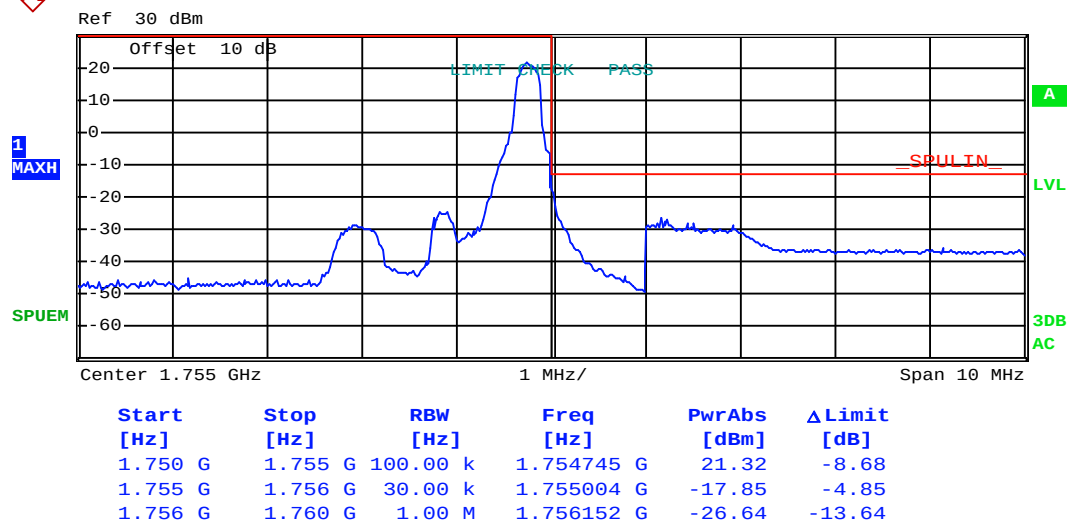


Highest channel

RB Size 1 & RB Offset 5-QPSK

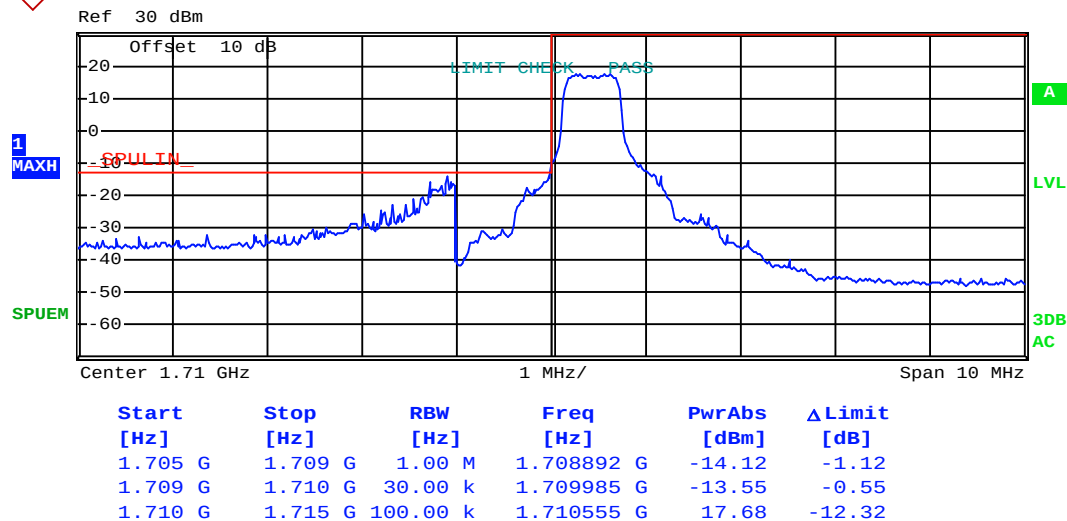


Lowest channel

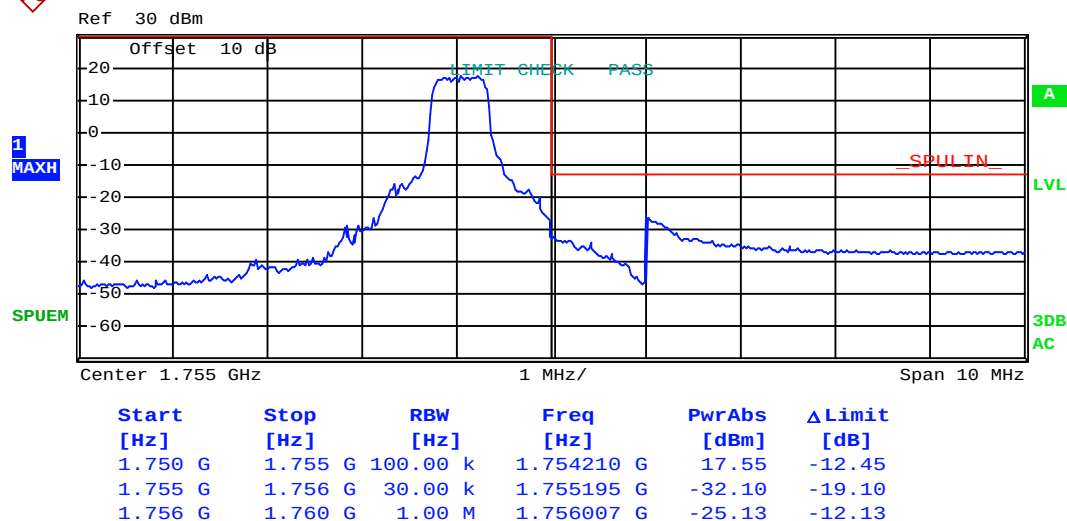


Highest channel

RB Size 3 & RB Offset 0-QPSK

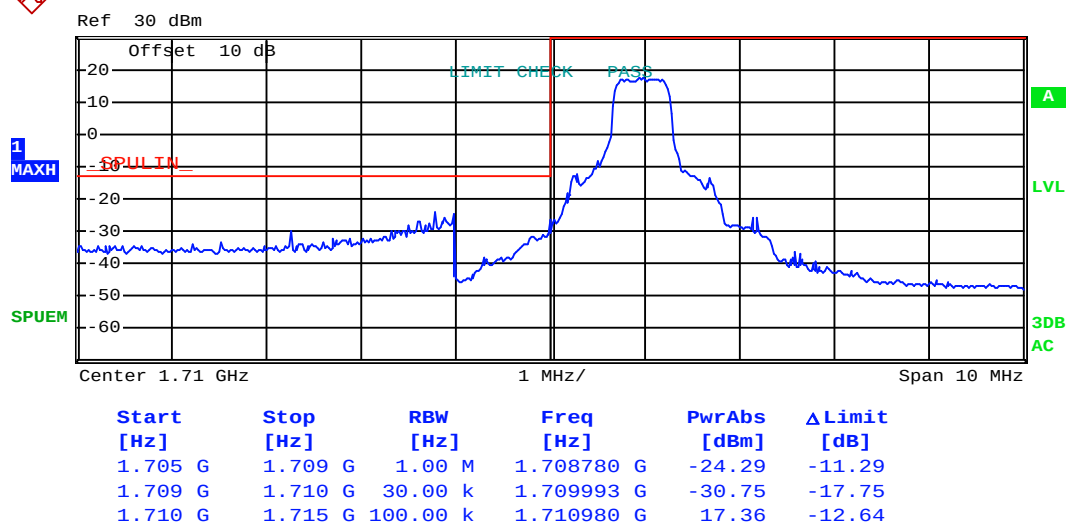


Lowest channel

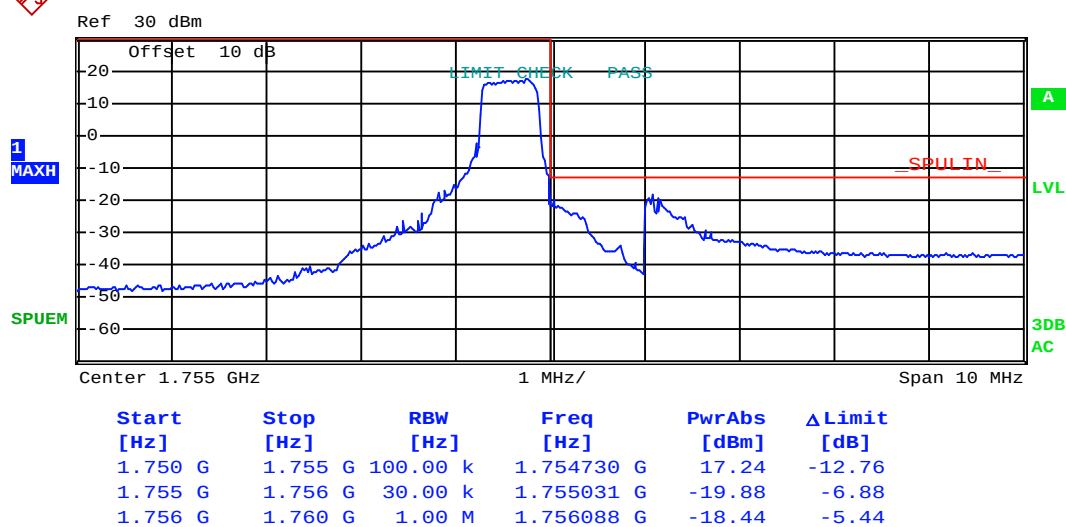


Highest channel

RB Size 3 & RB Offset 2-QPSK

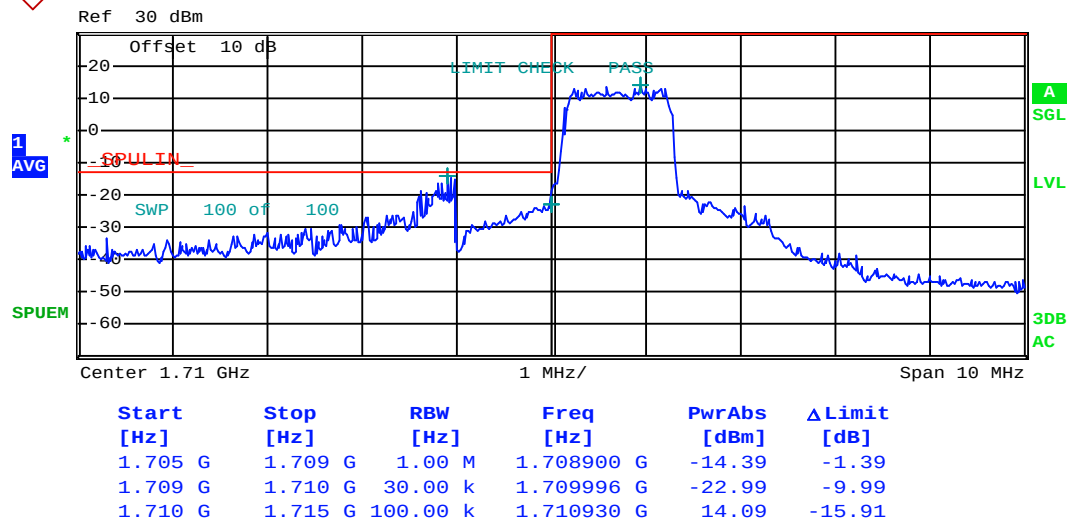


Lowest channel

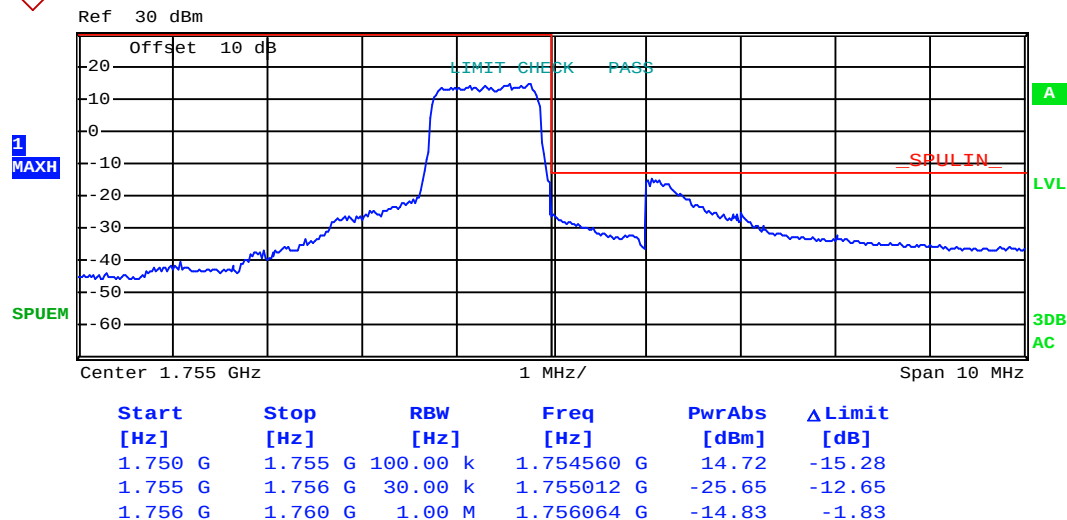


Highest channel

RB Size 6 & RB Offset 0-QPSK



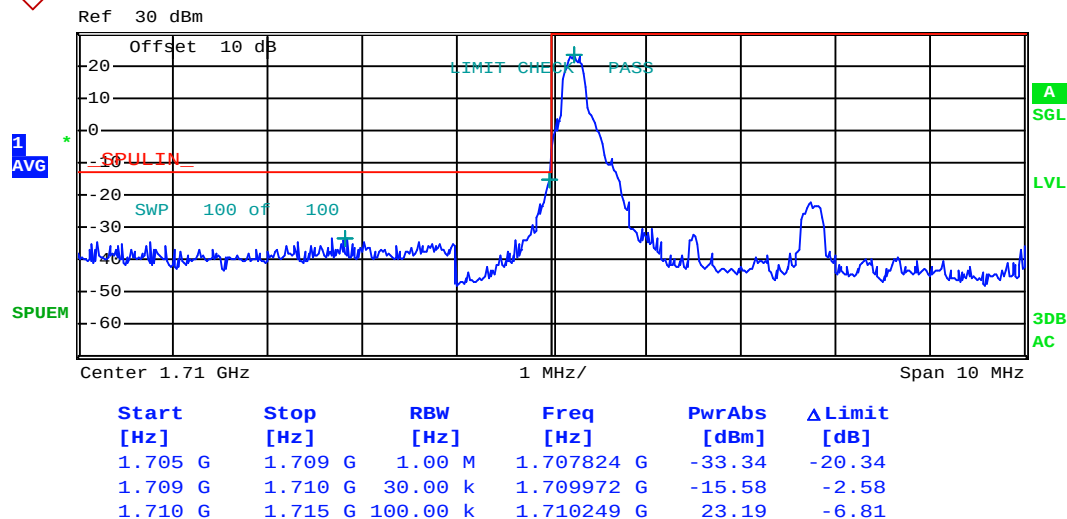
Lowest channel



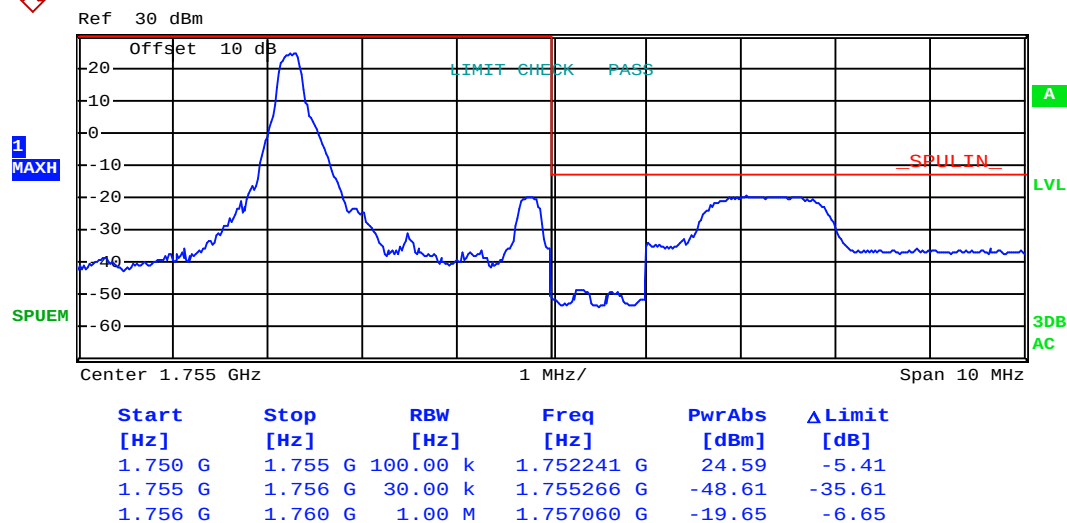
Highest channel

3MHz:

RB Size 1 & RB Offset 0-16QAM

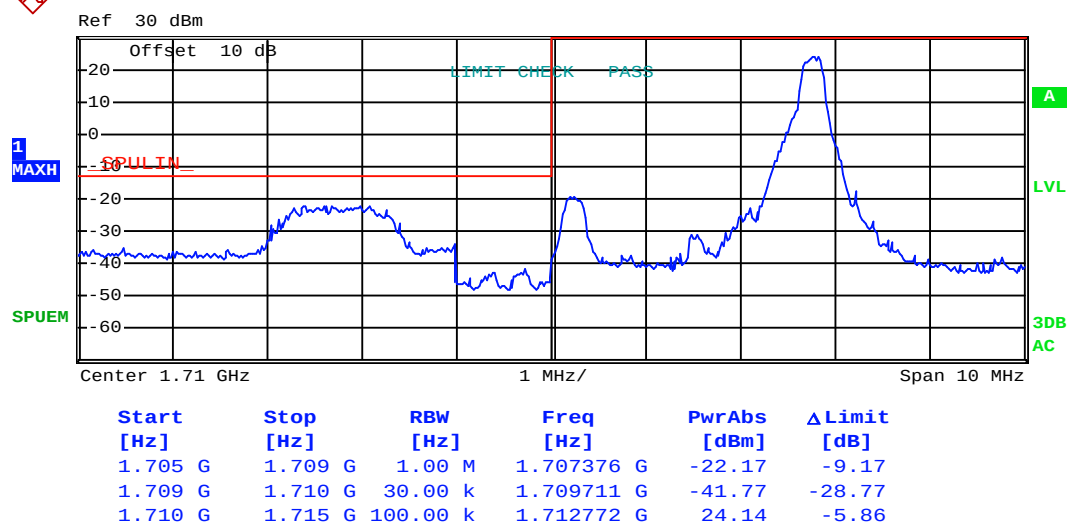


Lowest channel

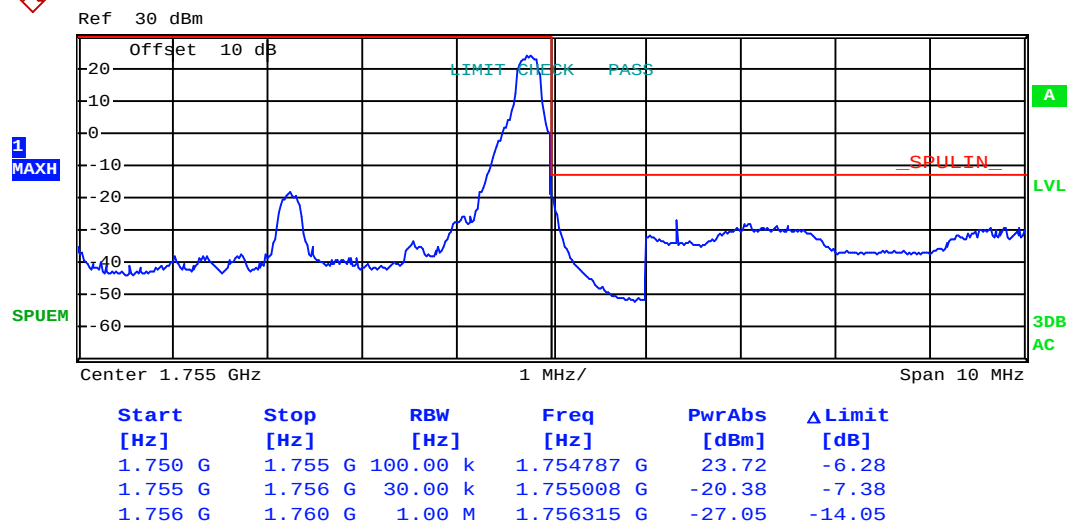


Highest channel

RB Size 1 & RB Offset 14-16QAM

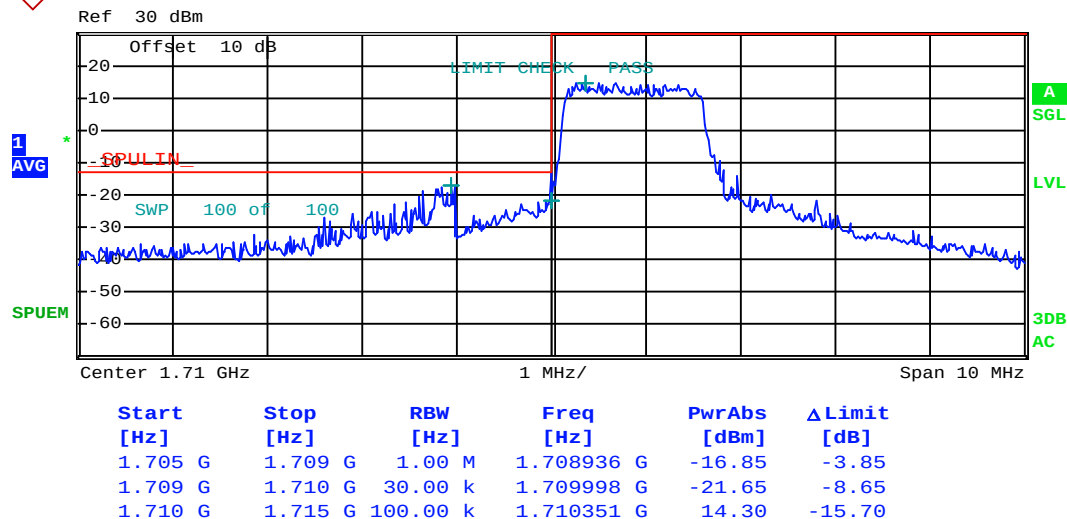


Lowest channel

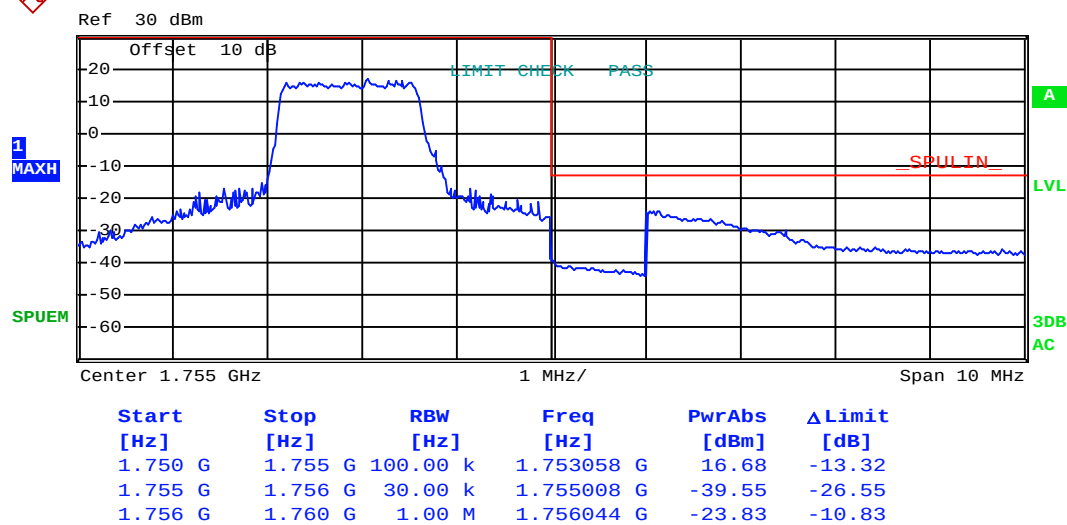


Highest channel

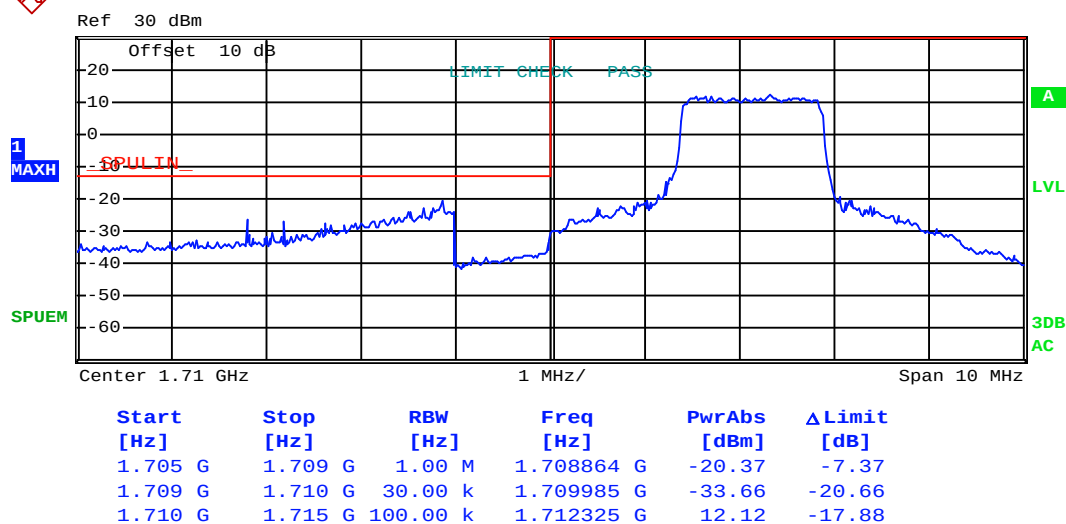
RB Size 8 & RB Offset 0-16QAM



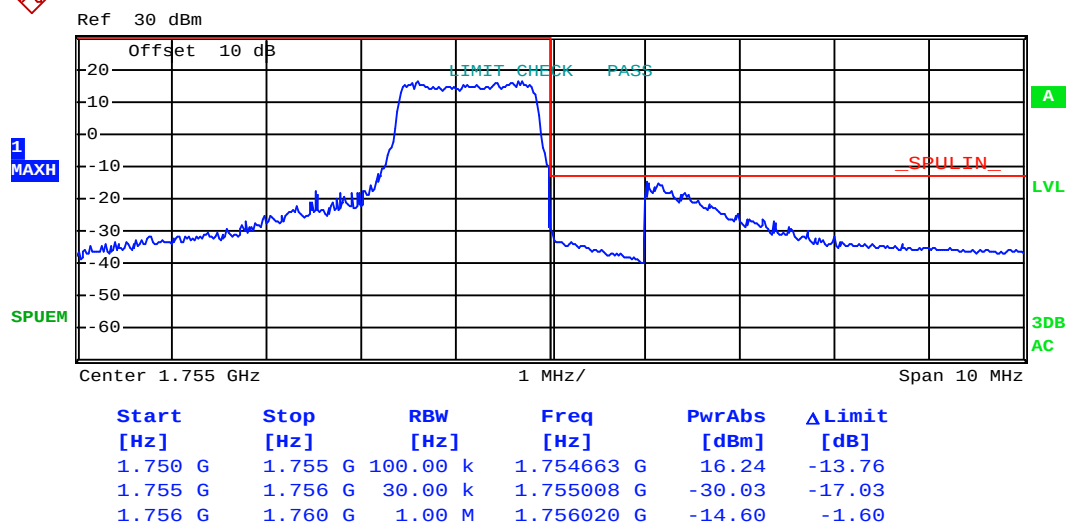
Lowest channel



RB Size 8 & RB Offset 7-16QAM

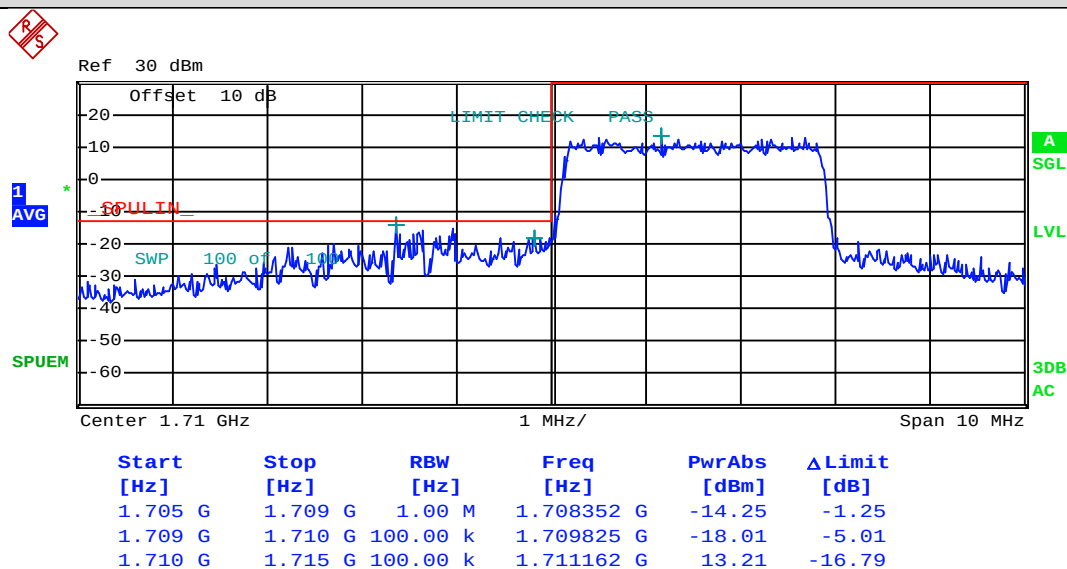


Lowest channel

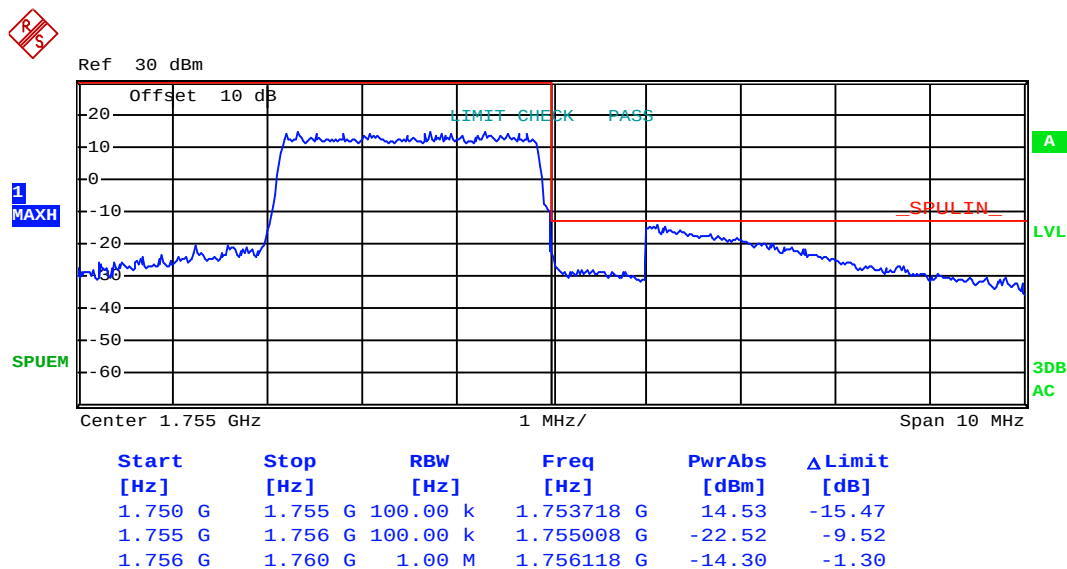


Highest channel

RB Size 15 & RB Offset 0-16QAM

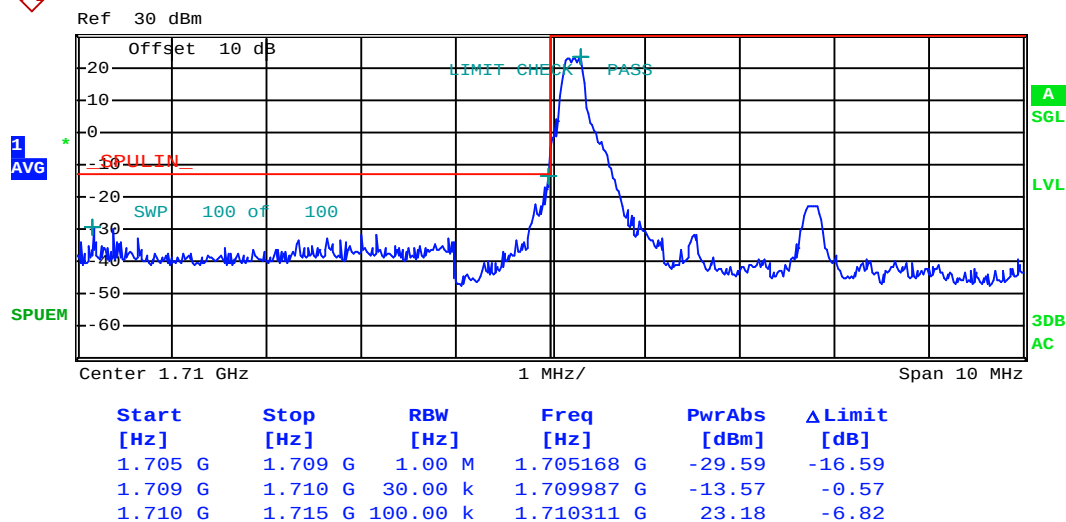


Lowest channel

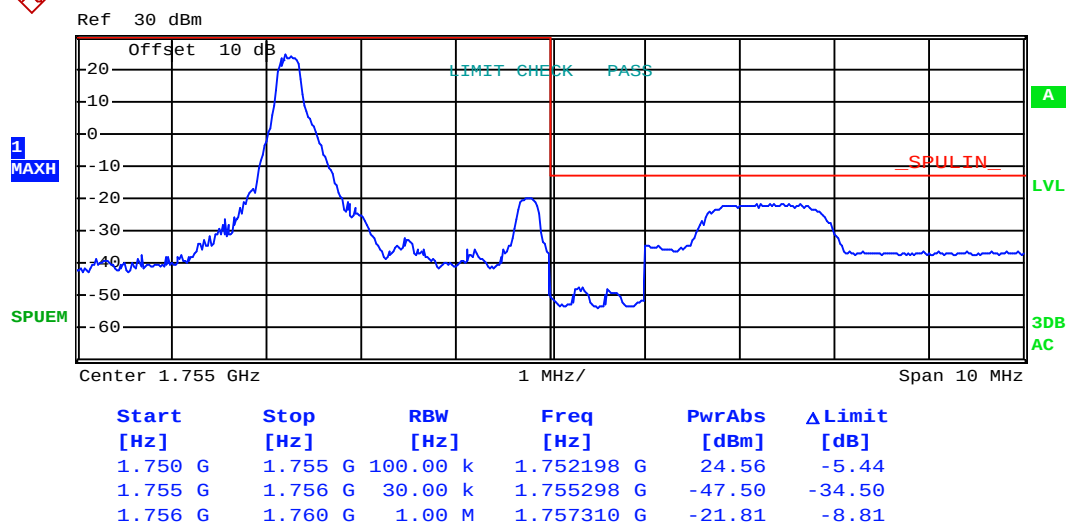


Highest channel

RB Size 1 & RB Offset 0-QPSK

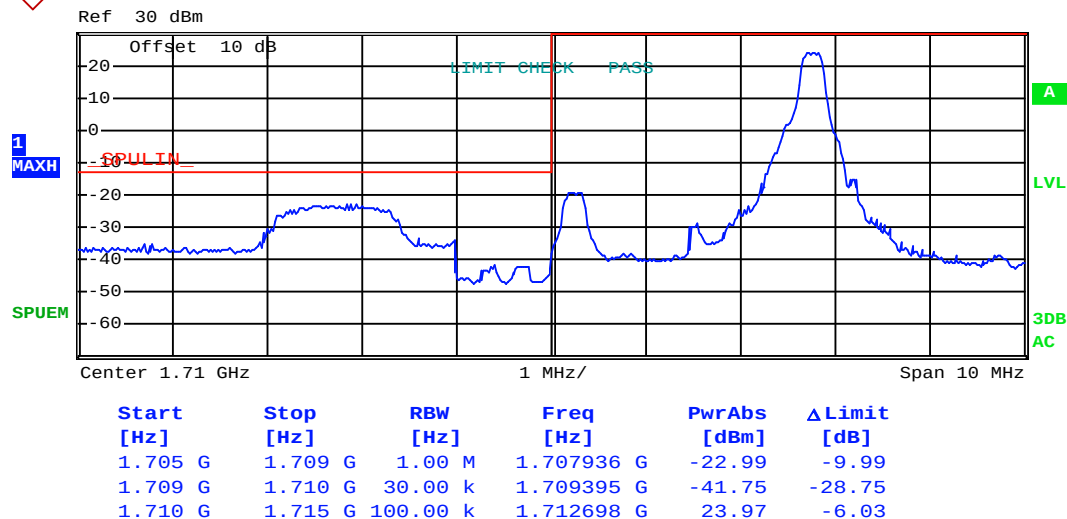


Lowest channel

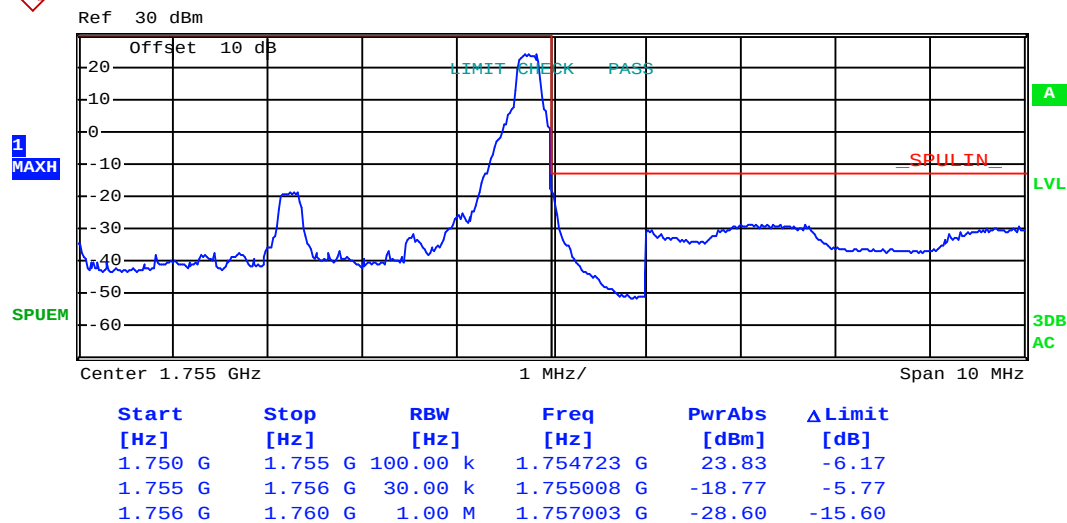


Highest channel

RB Size 1 & RB Offset 14-QPSK

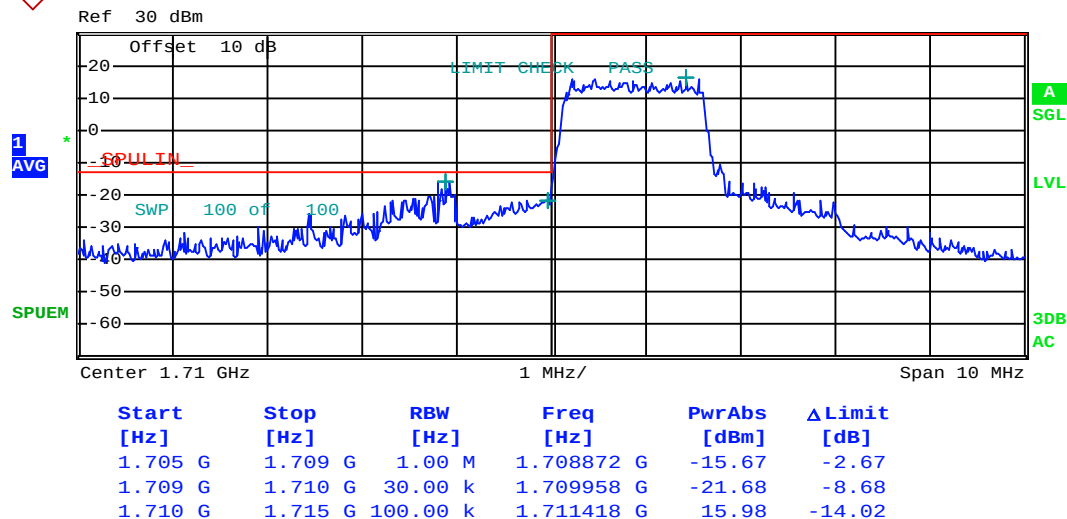


Lowest channel

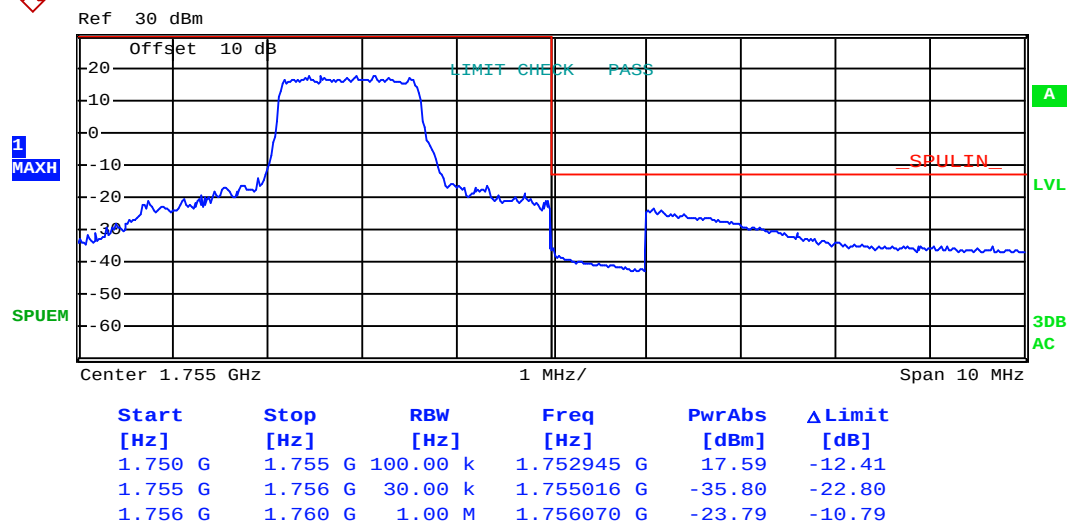


Highest channel

RB Size 8 & RB Offset 0-QPSK

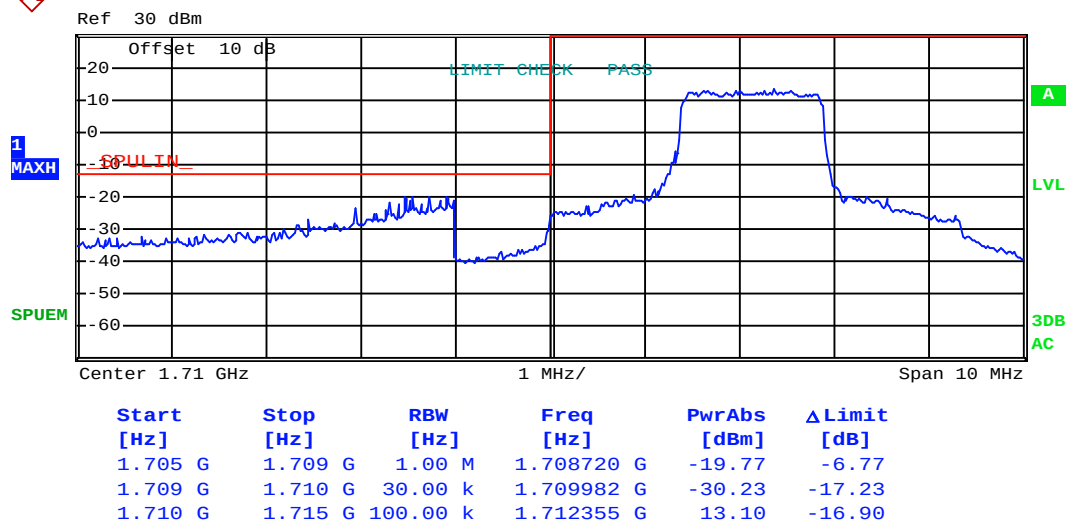


Lowest channel

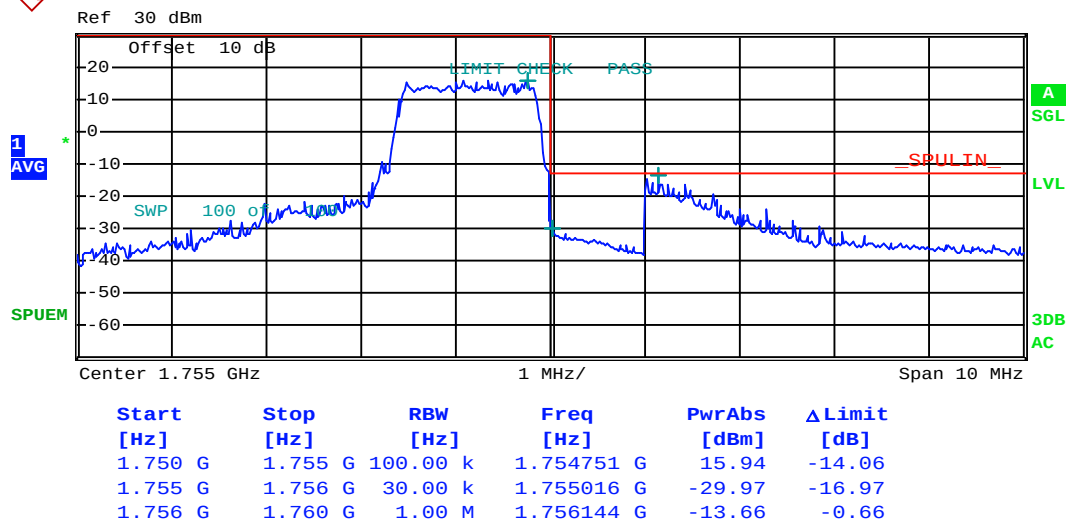


Highest channel

RB Size 8 & RB Offset 7-QPSK

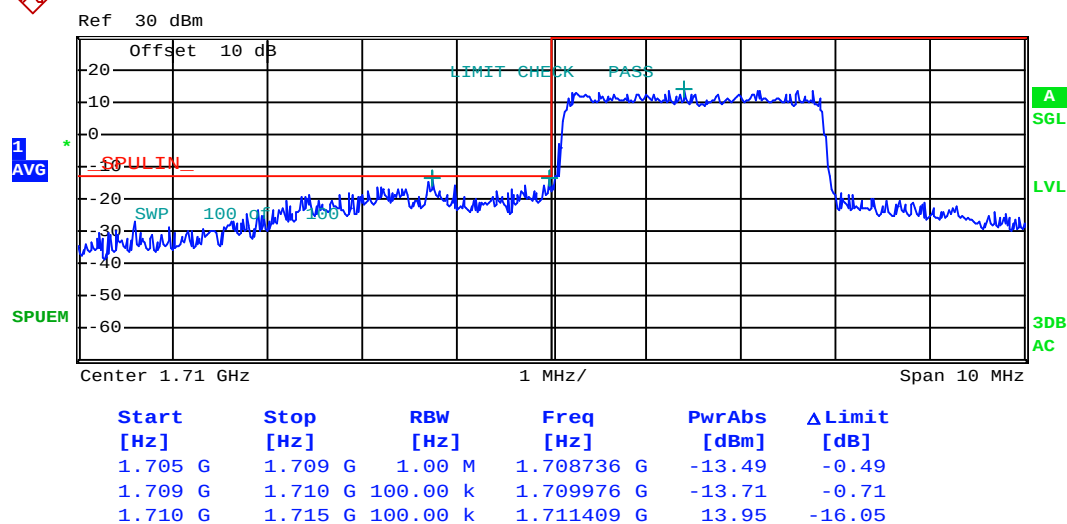


Lowest channel

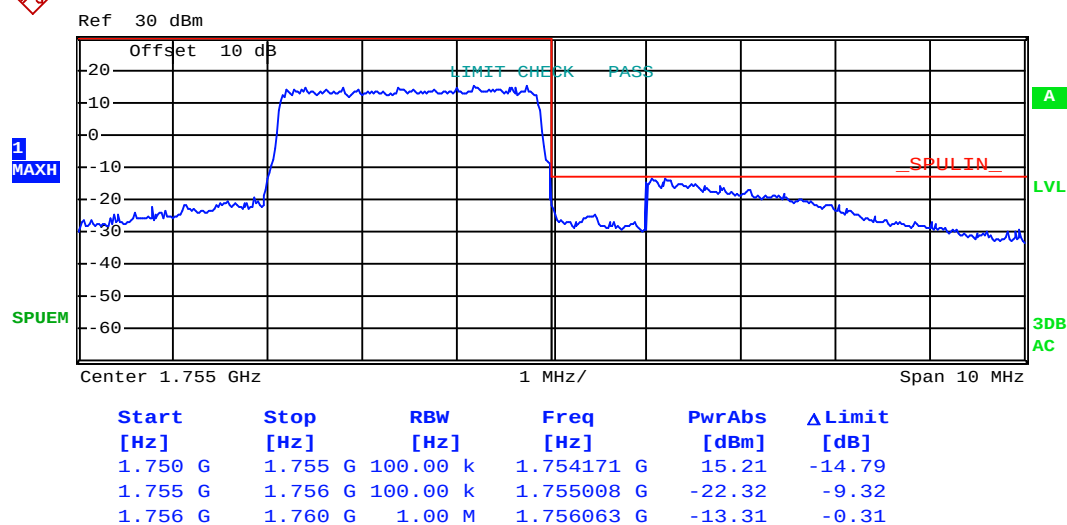


Highest channel

RB Size 15 & RB Offset 0-QPSK



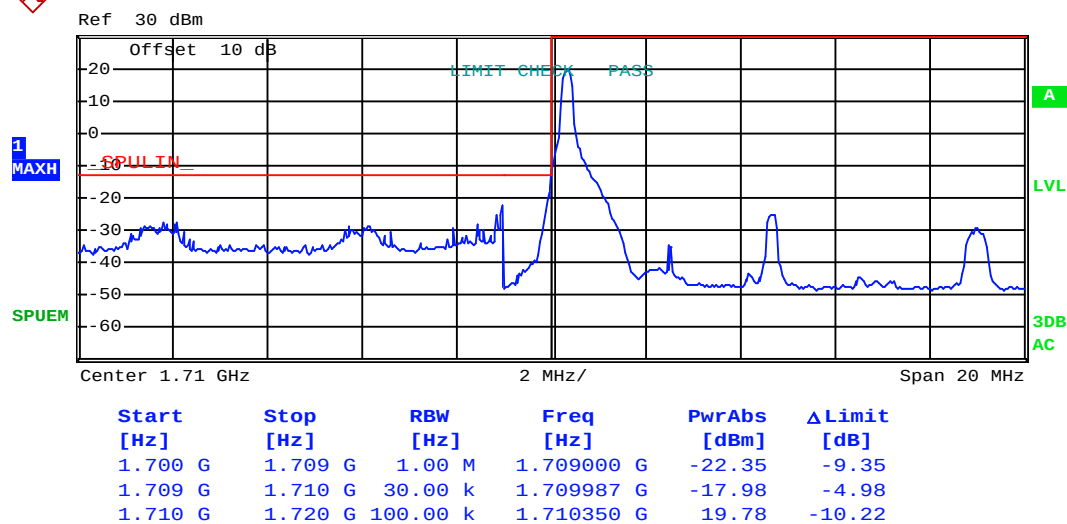
Lowest channel



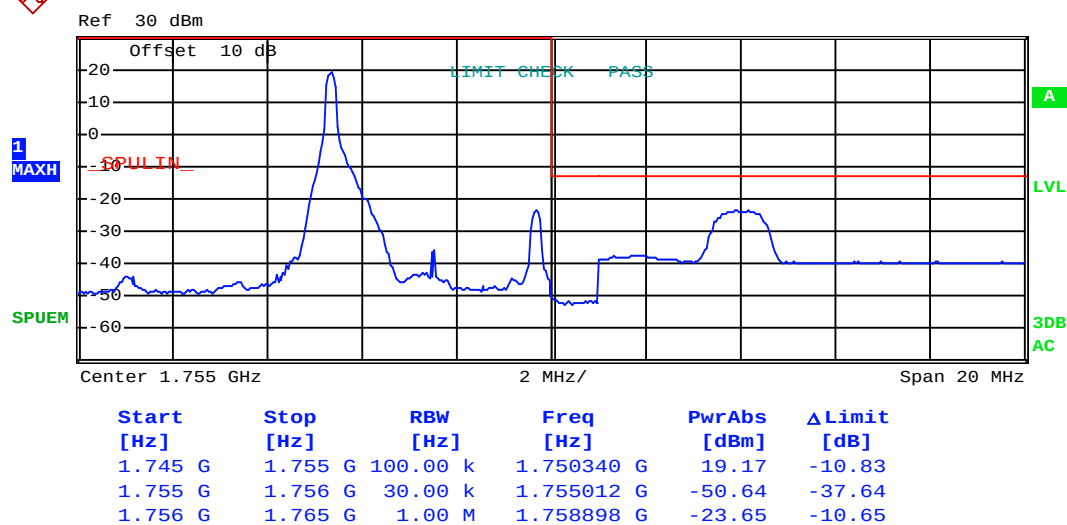
Highest channel

5MHz:

RB Size 1 & RB Offset 0-16QAM

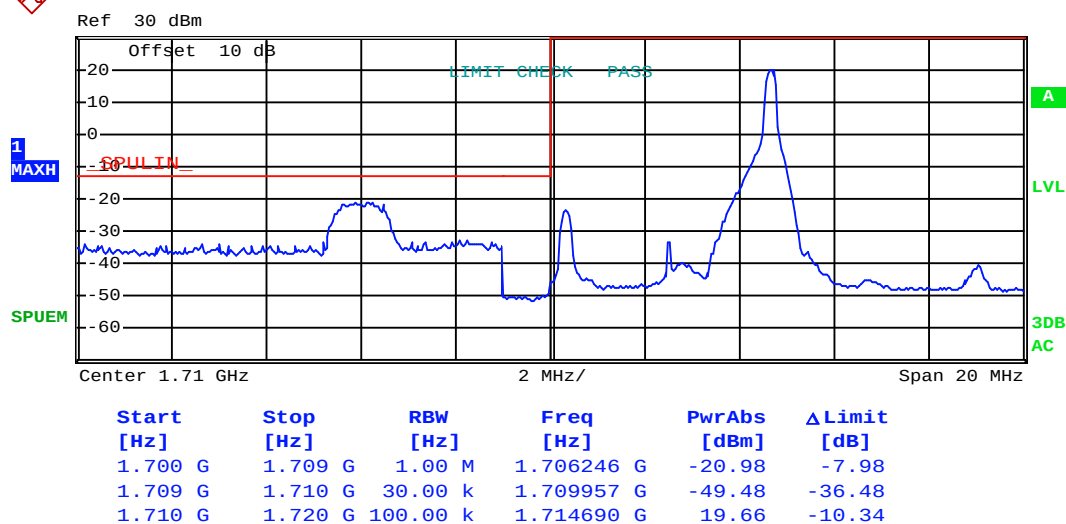


Lowest channel

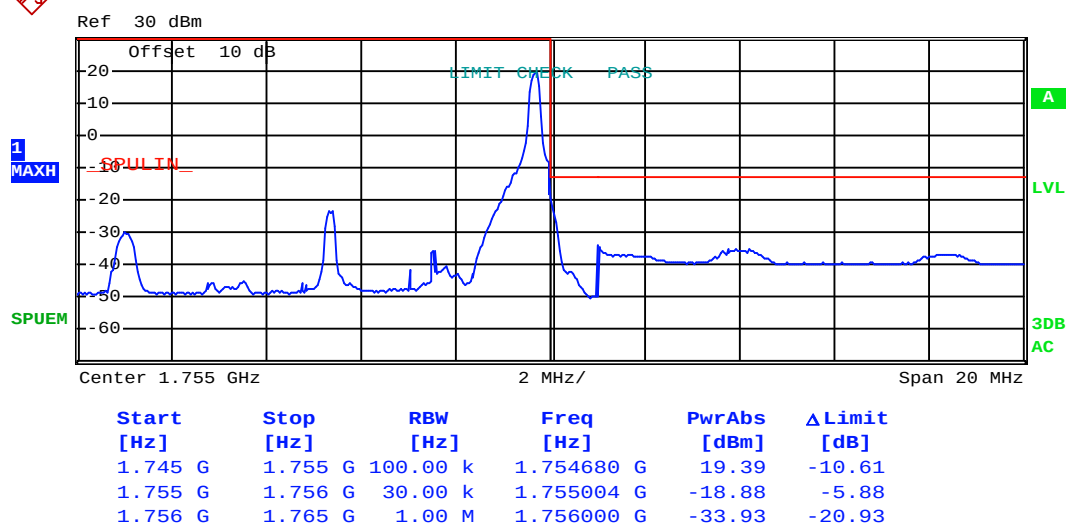


Highest channel

RB Size 1 & RB Offset 24-16QAM

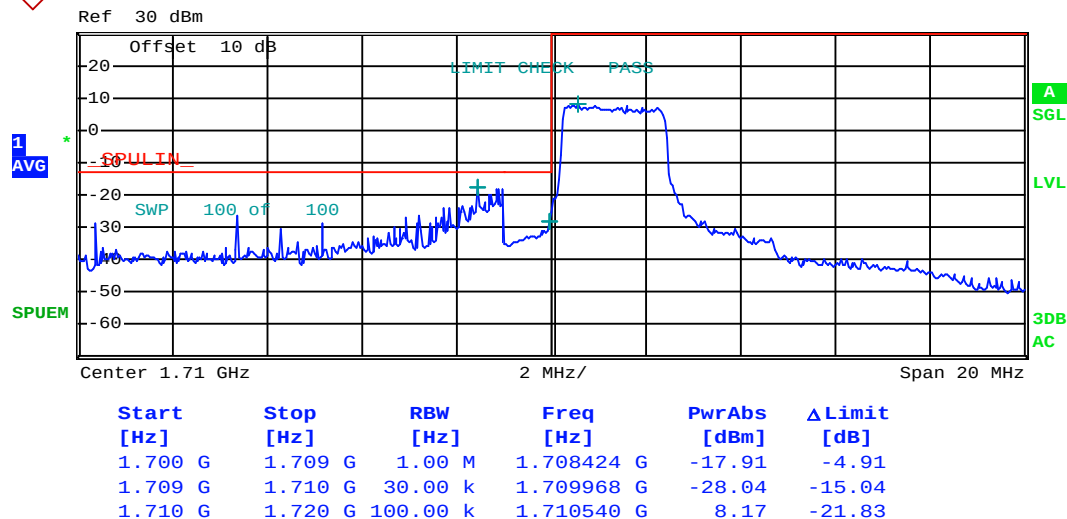


Lowest channel

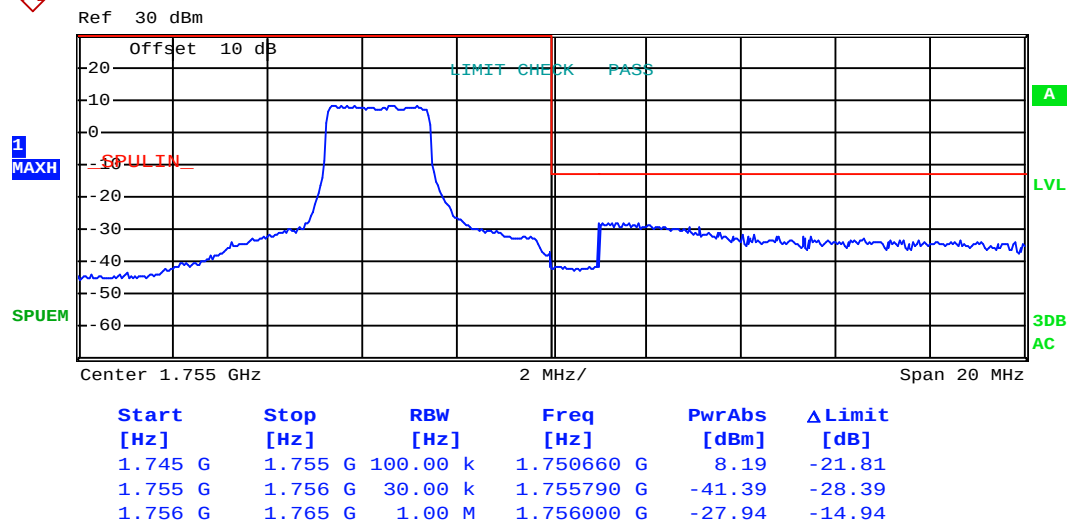


Highest channel

RB Size 12 & RB Offset 0-16QAM

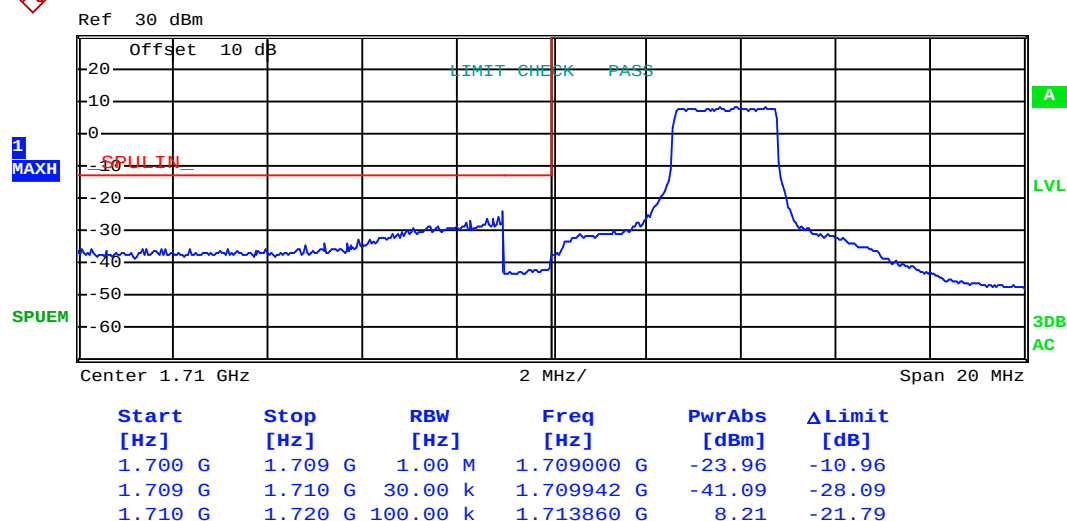


Lowest channel

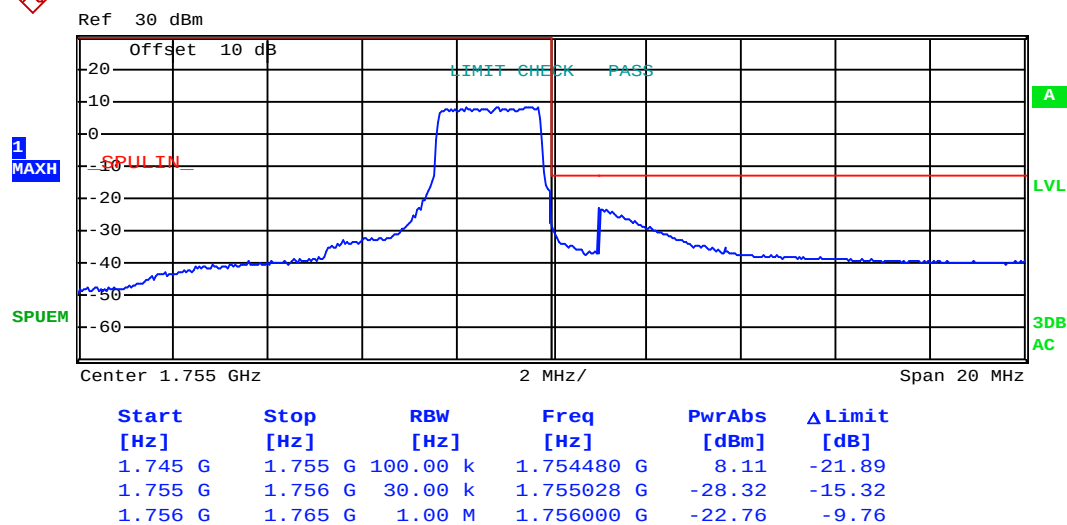


Highest channel

RB Size 12 & RB Offset 11-16QAM

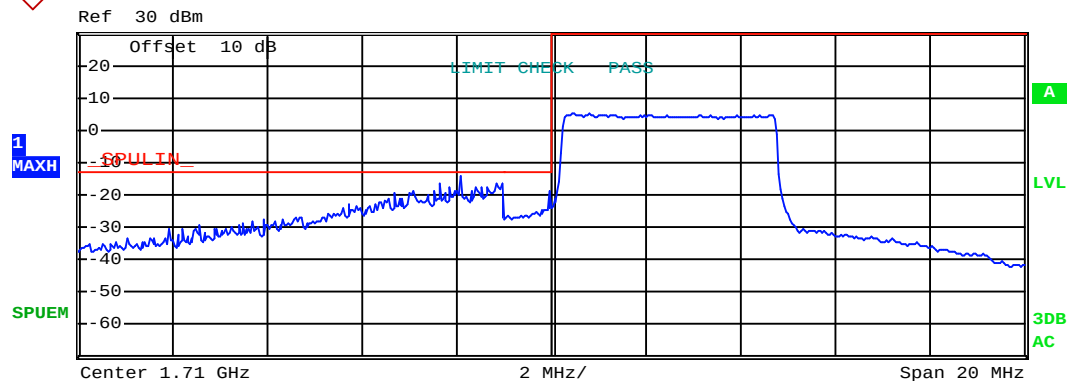


Lowest channel



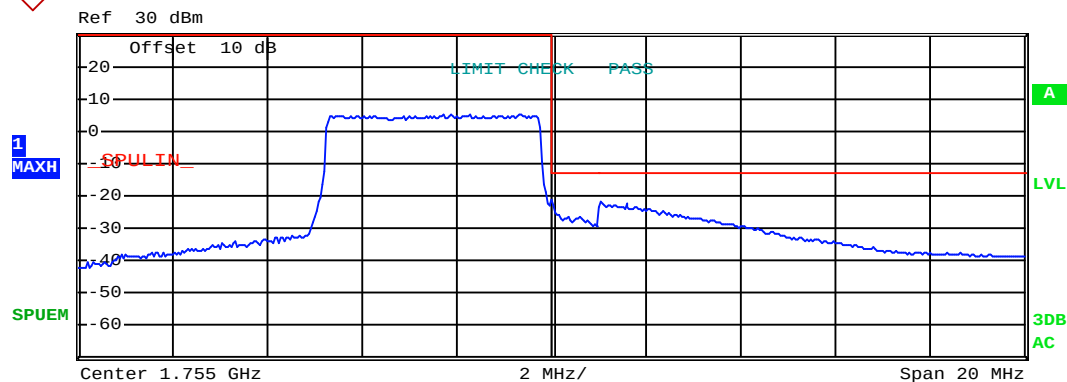
Highest channel

RB Size 25 & RB Offset 0-16QAM



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.700 G	1.709 G	1.00 M	1.708064 G	-14.40	-1.40
1.709 G	1.710 G	100.00 k	1.709998 G	-20.29	-7.29
1.710 G	1.720 G	100.00 k	1.710800 G	5.03	-24.97

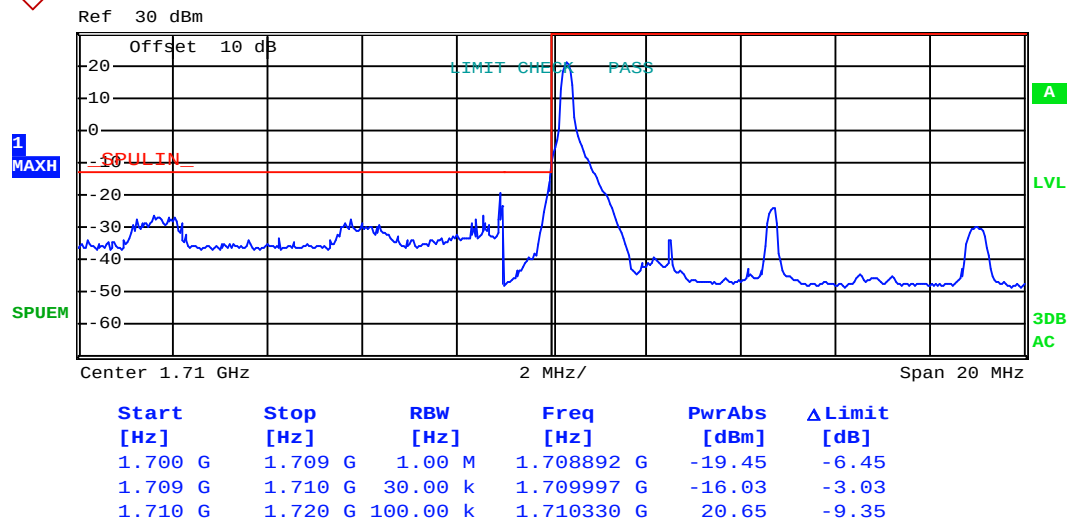
Lowest channel



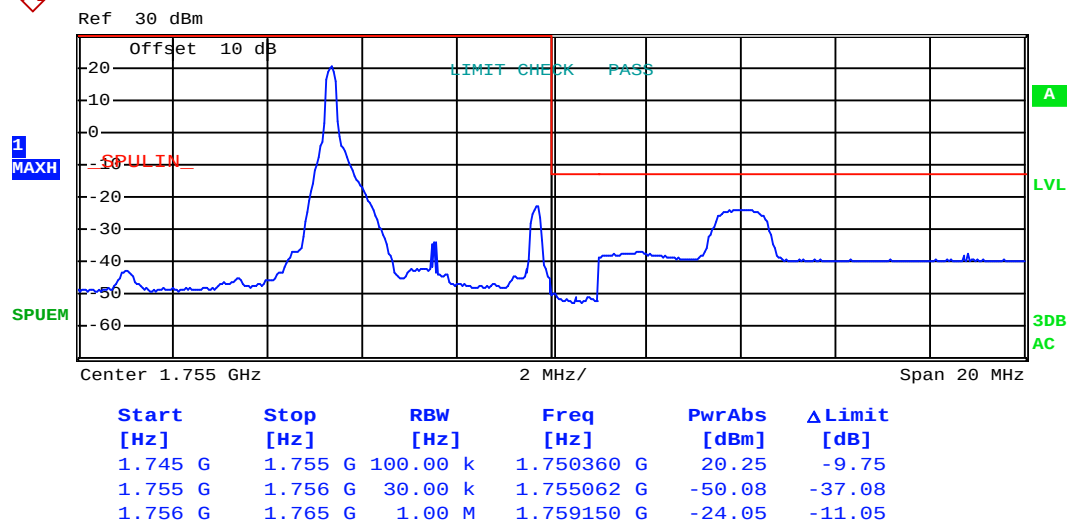
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.745 G	1.755 G	100.00 k	1.752700 G	5.24	-24.76
1.755 G	1.756 G	100.00 k	1.755010 G	-21.22	-8.22
1.756 G	1.765 G	1.00 M	1.756018 G	-21.98	-8.98

Highest channel

RB Size 1 & RB Offset 0-QPSK

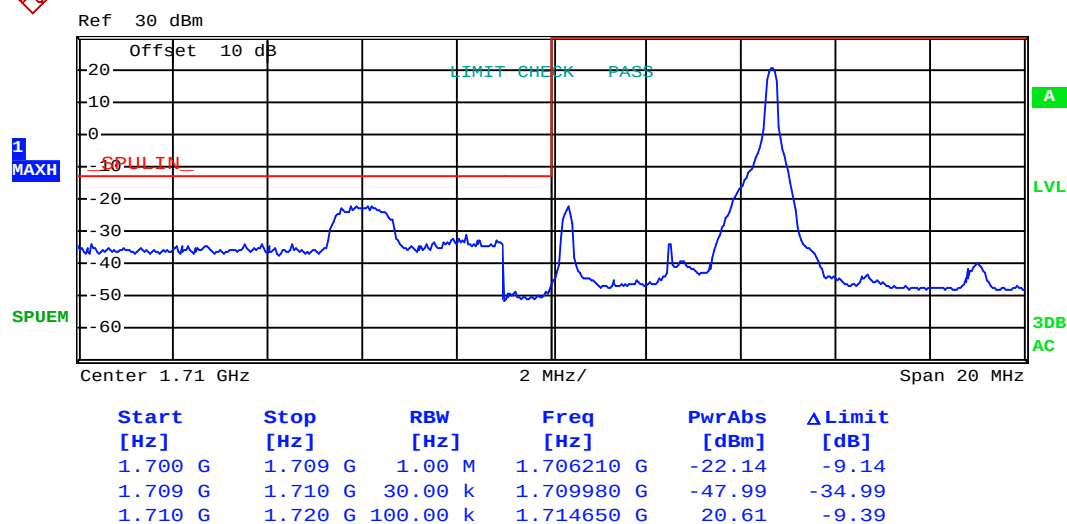


Lowest channel

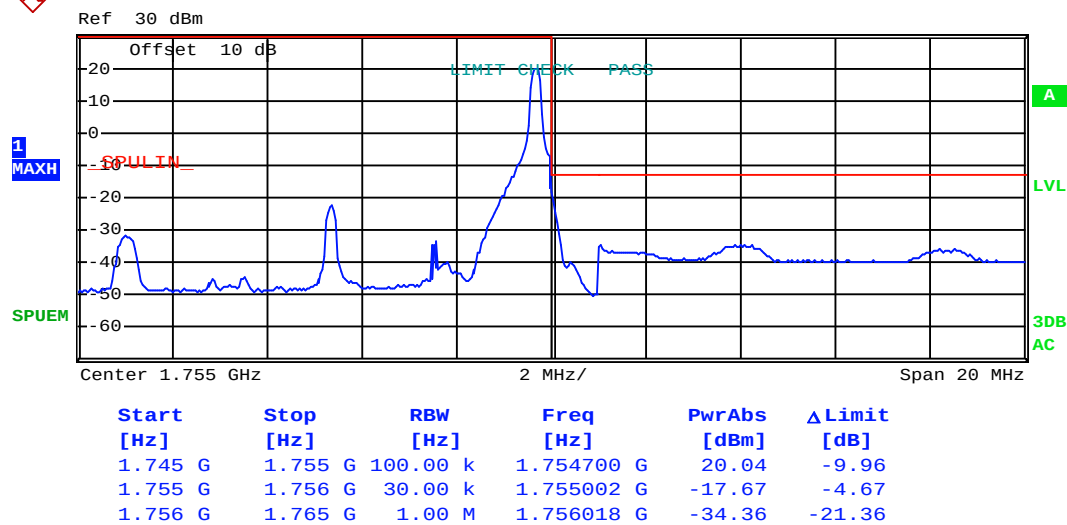


Highest channel

RB Size 1 & RB Offset 24-QPSK

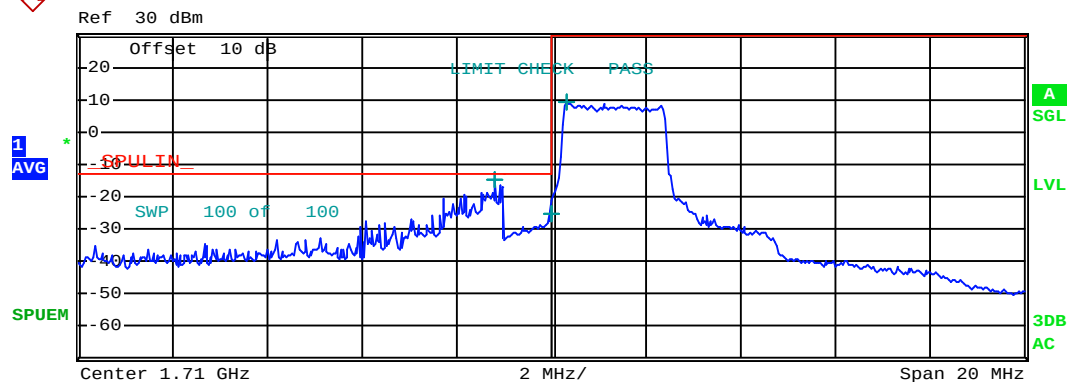


Lowest channel



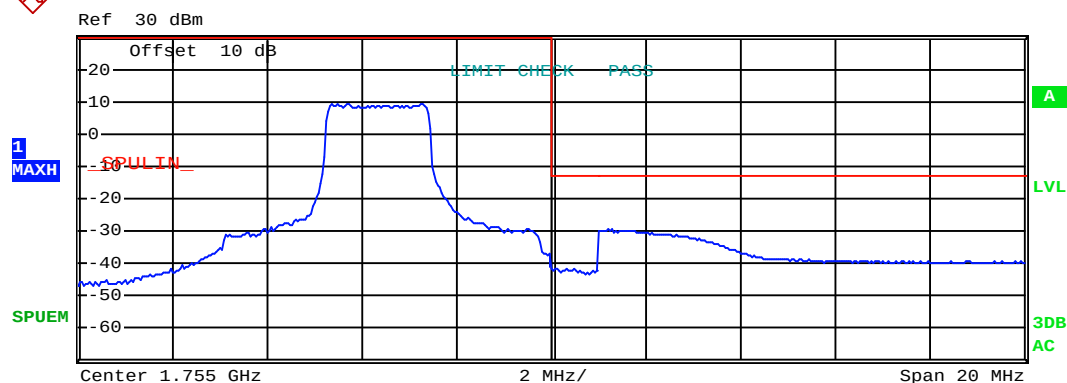
Highest channel

RB Size 12 & RB Offset 0-QPSK



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.700 G	1.709 G	1.00 M	1.708802 G	-14.52	-1.52
1.709 G	1.710 G	30.00 k	1.709994 G	-25.32	-12.32
1.710 G	1.720 G	100.00 k	1.710320 G	8.97	-21.03

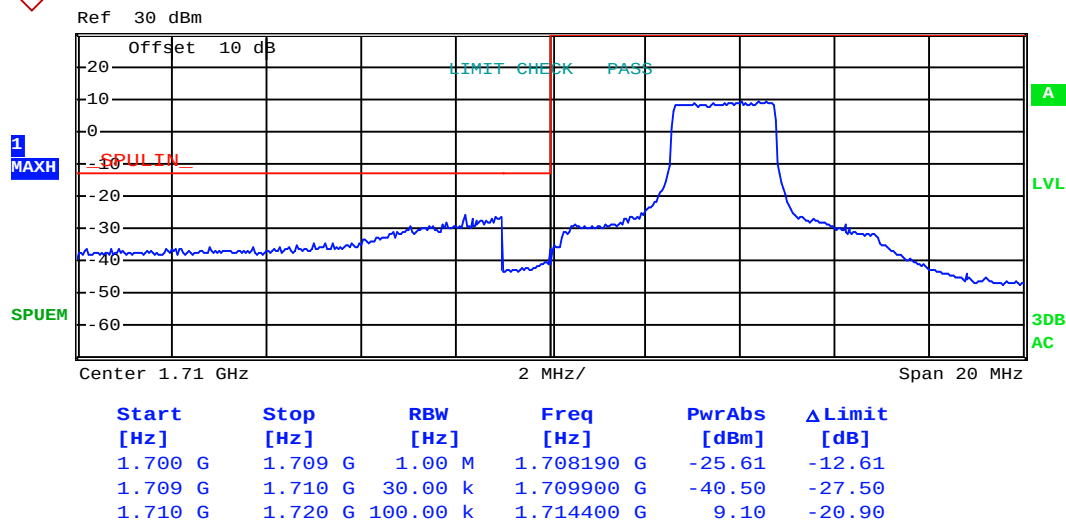
Lowest channel



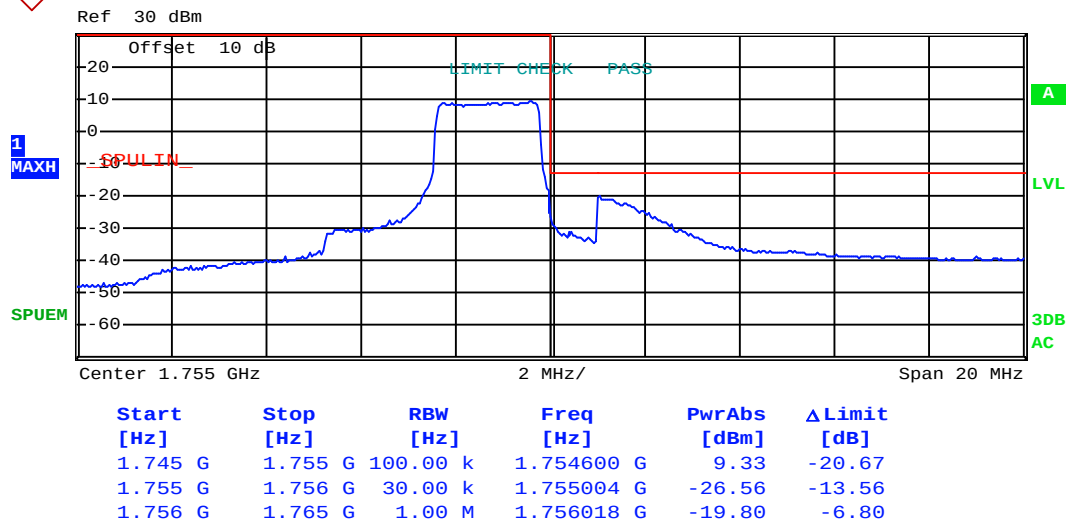
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.745 G	1.755 G	100.00 k	1.750700 G	9.05	-20.95
1.755 G	1.756 G	30.00 k	1.755080 G	-41.10	-28.10
1.756 G	1.765 G	1.00 M	1.756252 G	-29.62	-16.62

Highest channel

RB Size 12 & RB Offset 11-QPSK

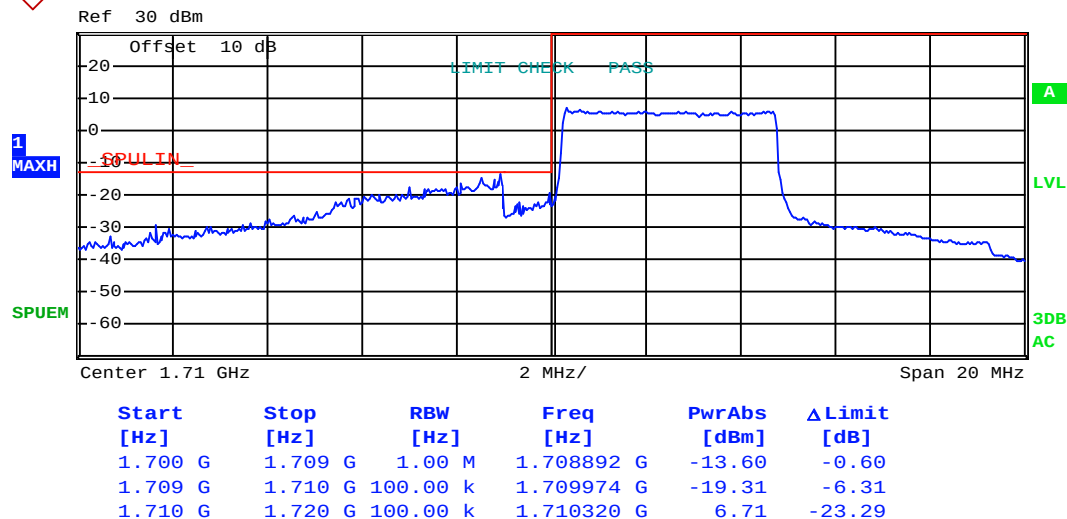


Lowest channel

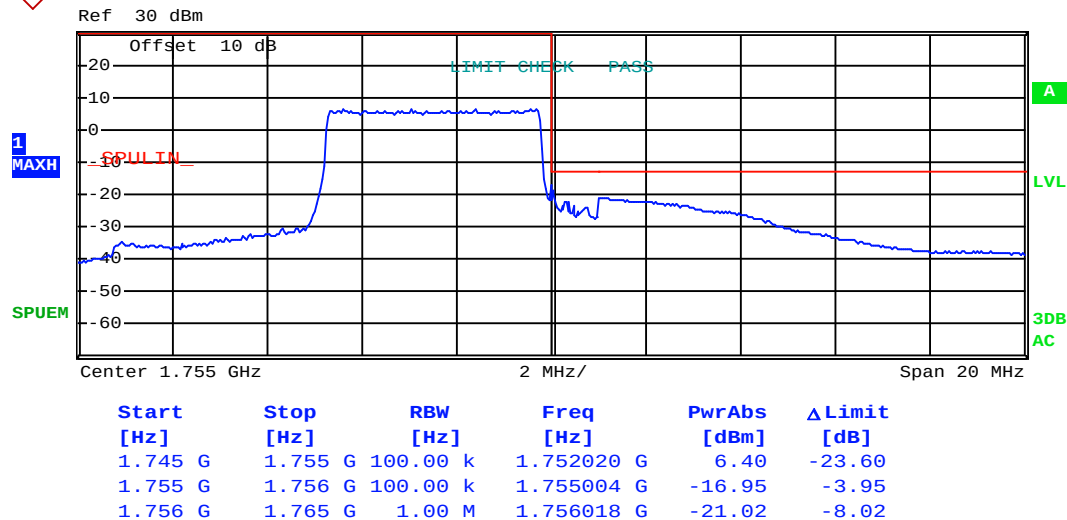


Highest channel

RB Size 25 & RB Offset 0-QPSK



Lowest channel



Highest channel

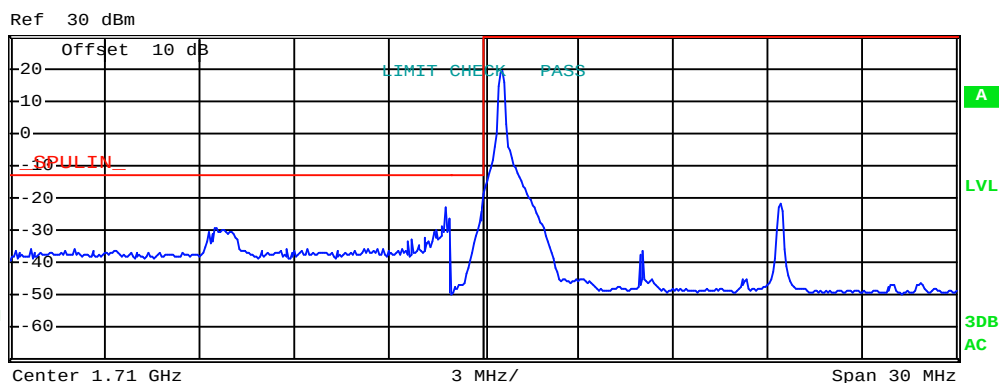
10MHz:

RB Size 1 & RB Offset 0-16QAM



1
MAXH

SPUEM



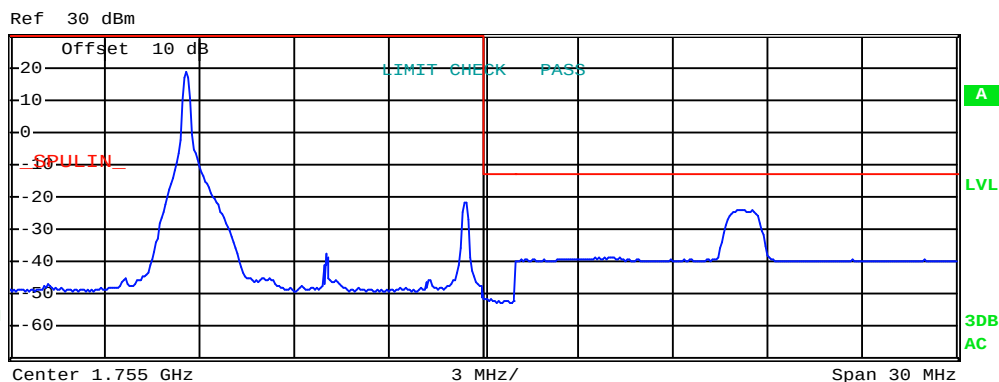
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.695 G	1.709 G	1.00 M	1.708776 G	-23.05	-10.05
1.709 G	1.710 G	30.00 k	1.709996 G	-23.93	-10.93
1.710 G	1.725 G	100.00 k	1.710570 G	18.95	-11.05

Lowest channel



1
MAXH

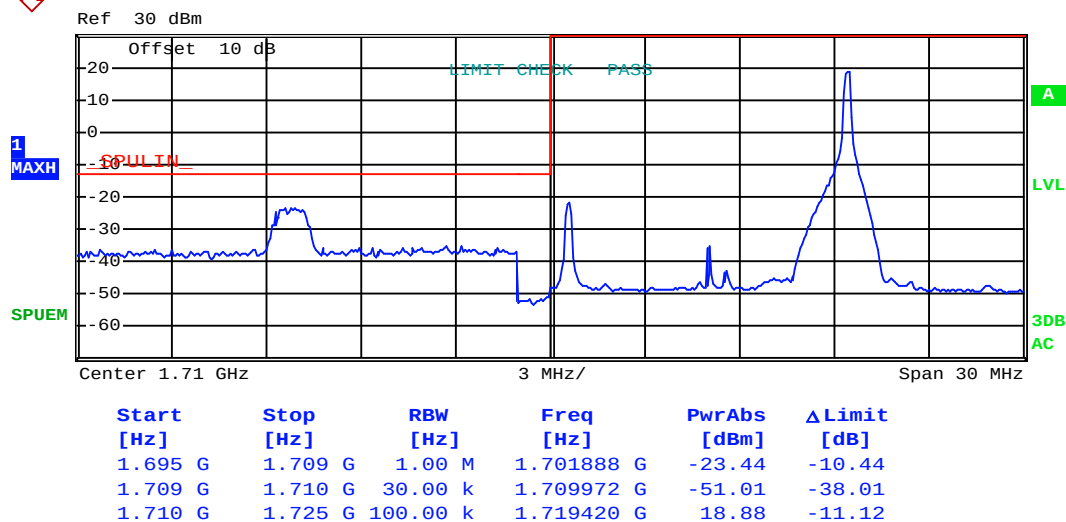
SPUEM



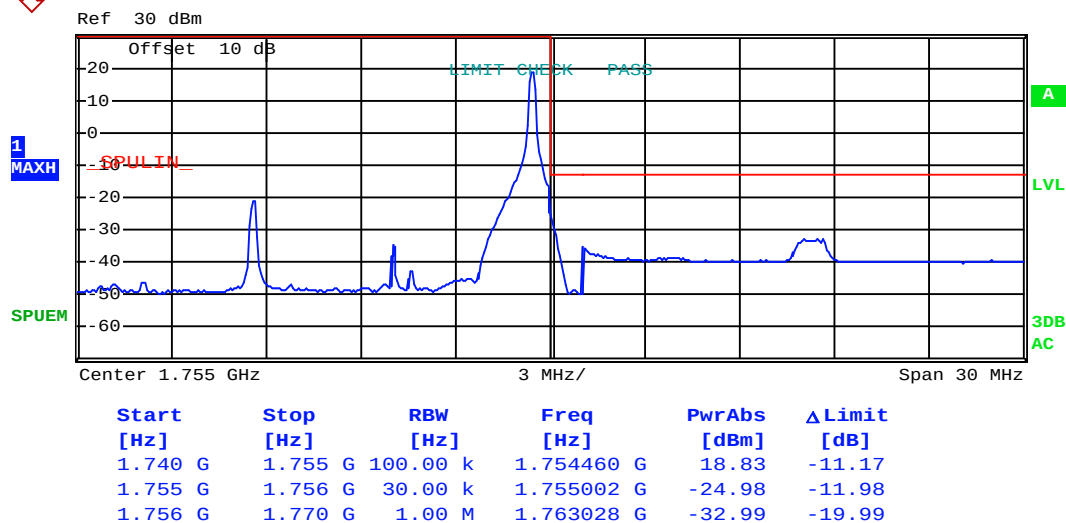
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.740 G	1.755 G	100.00 k	1.745580 G	18.38	-11.62
1.755 G	1.756 G	30.00 k	1.755110 G	-50.90	-37.90
1.756 G	1.770 G	1.00 M	1.763140 G	-24.02	-11.02

Highest channel

RB Size 1 & RB Offset 49-16QAM

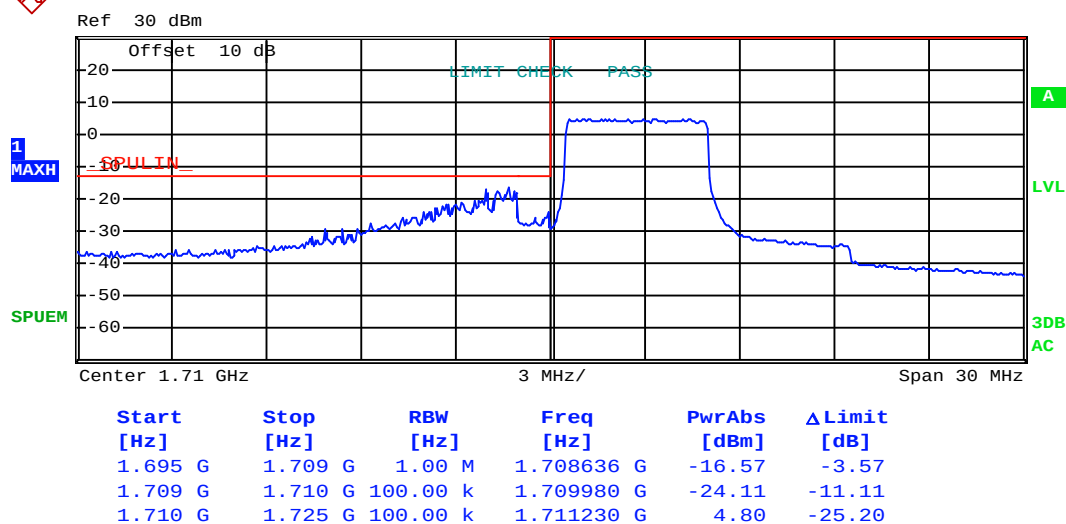


Lowest channel

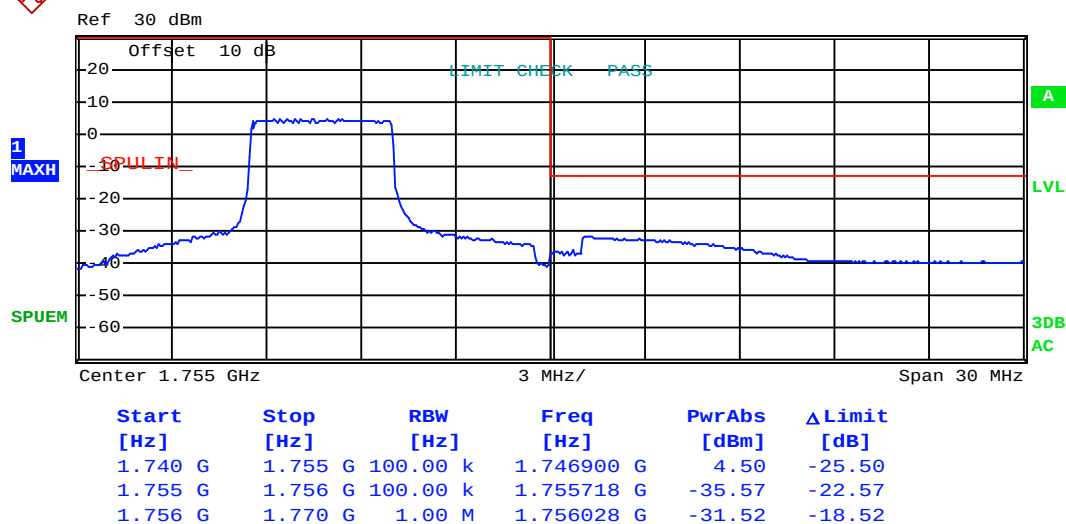


Highest channel

RB Size 25 & RB Offset 0-16QAM

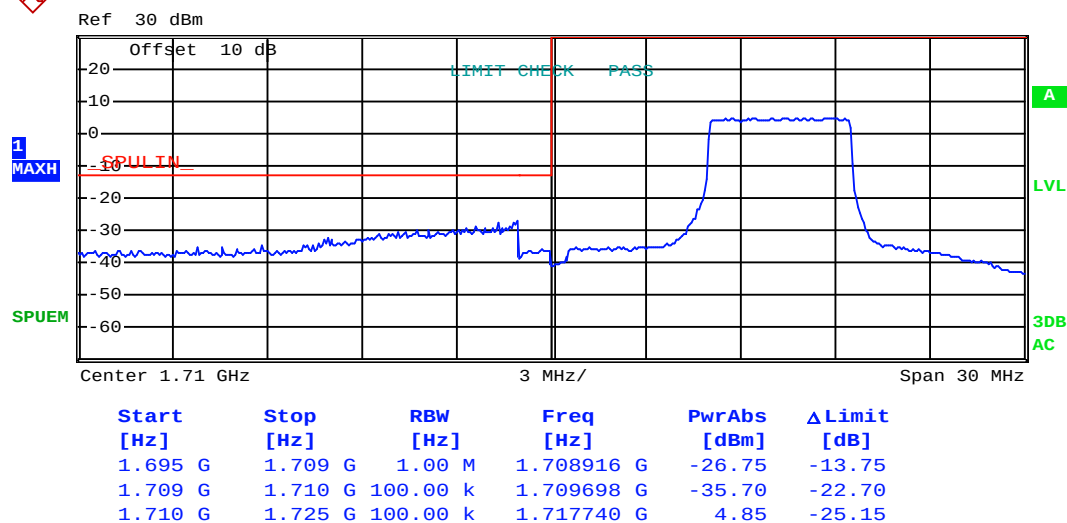


Lowest channel

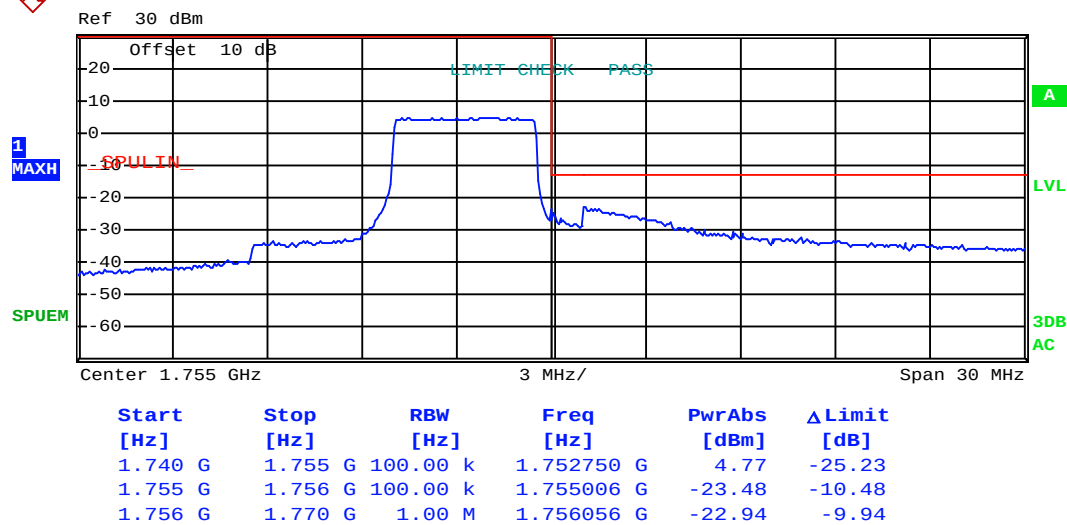


Highest channel

RB Size 25 & RB Offset 24-16QAM

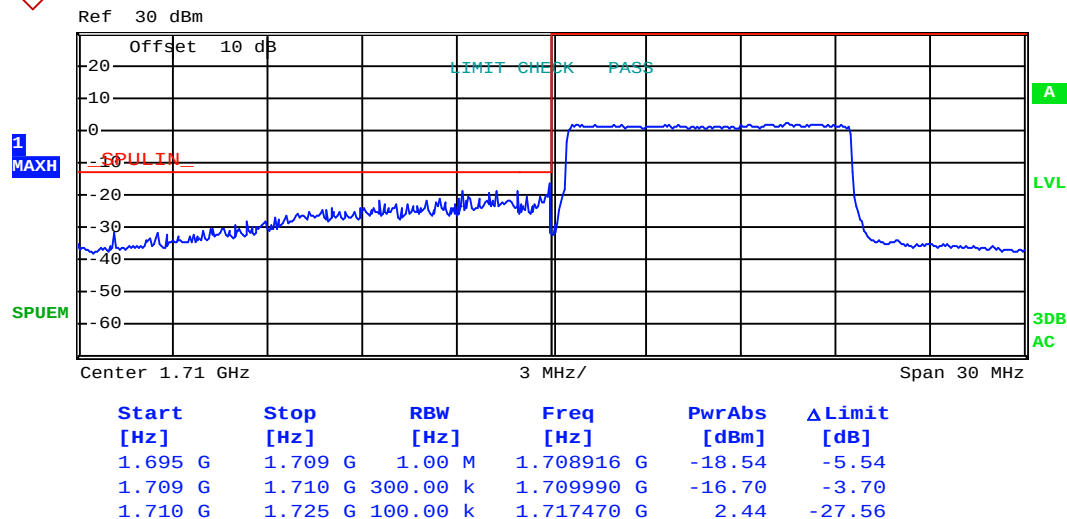


Lowest channel

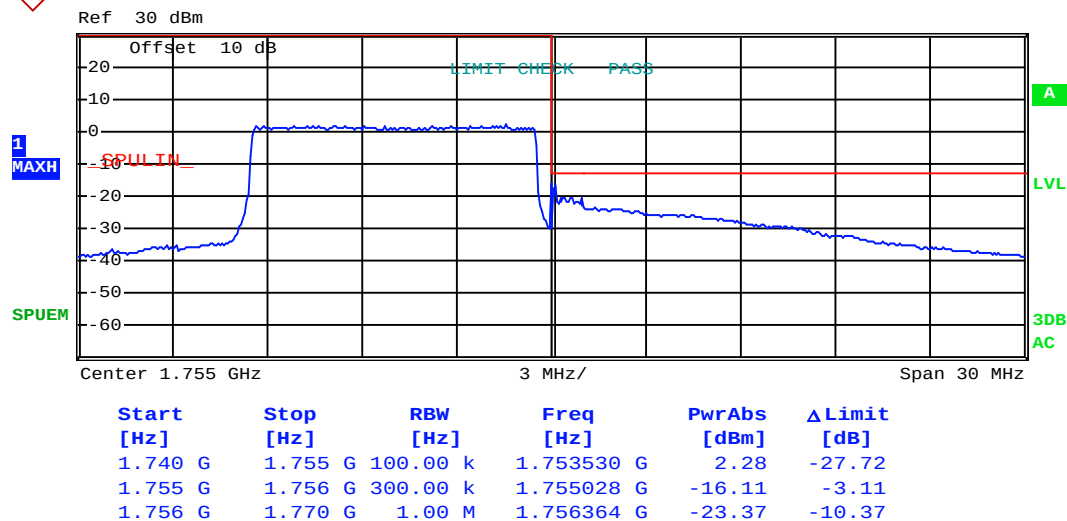


Highest channel

RB Size 50 & RB Offset 0-16QAM

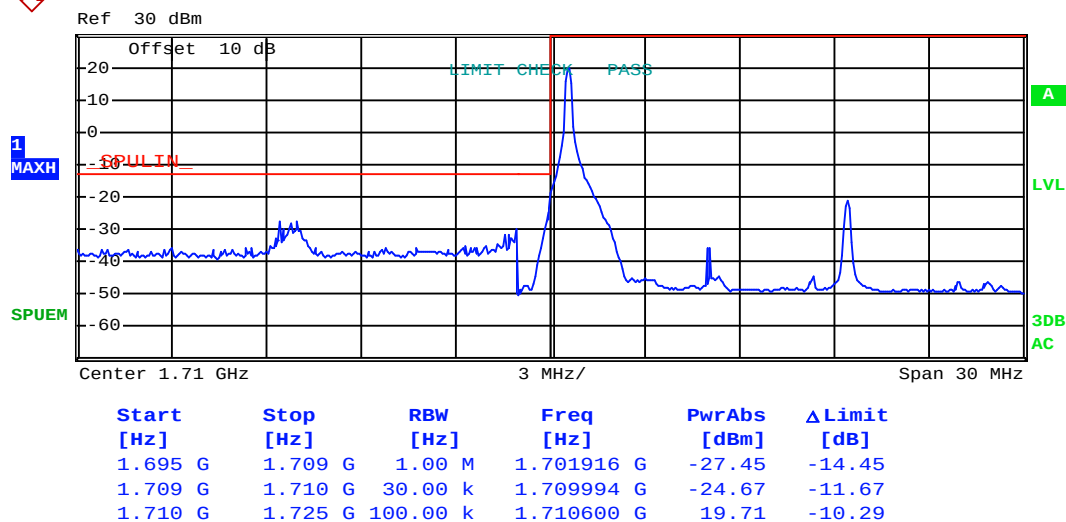


Lowest channel

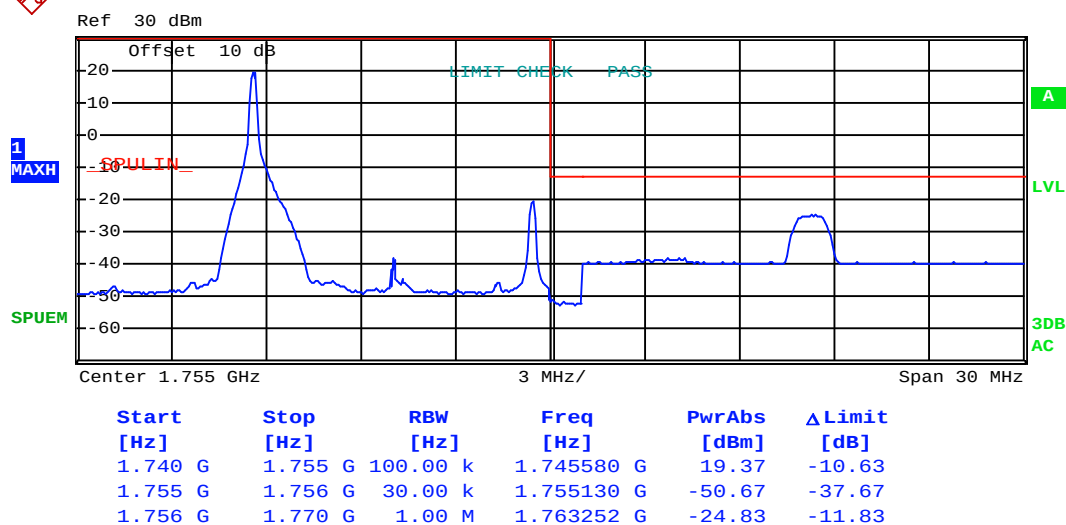


Highest channel

RB Size 1 & RB Offset 0-QPSK

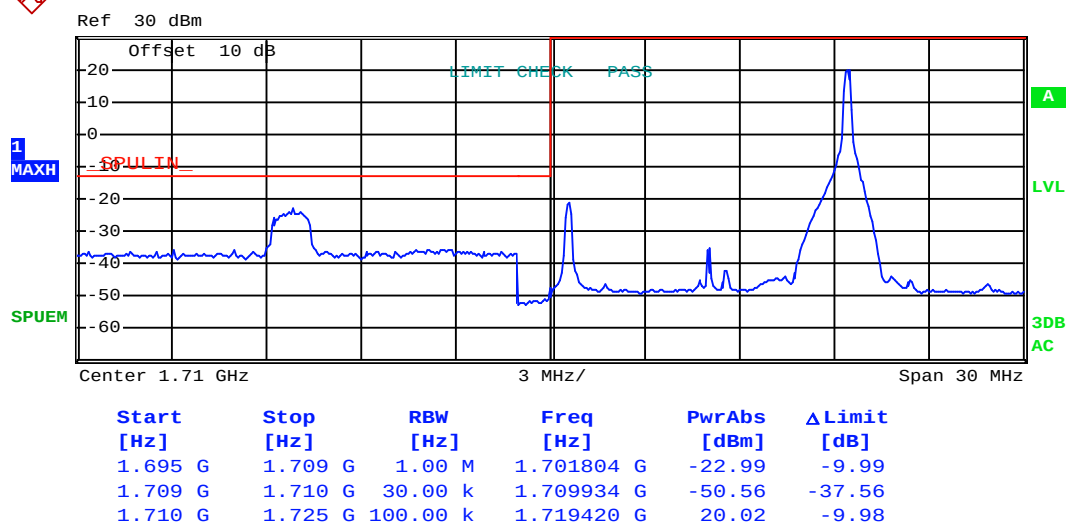


Lowest channel

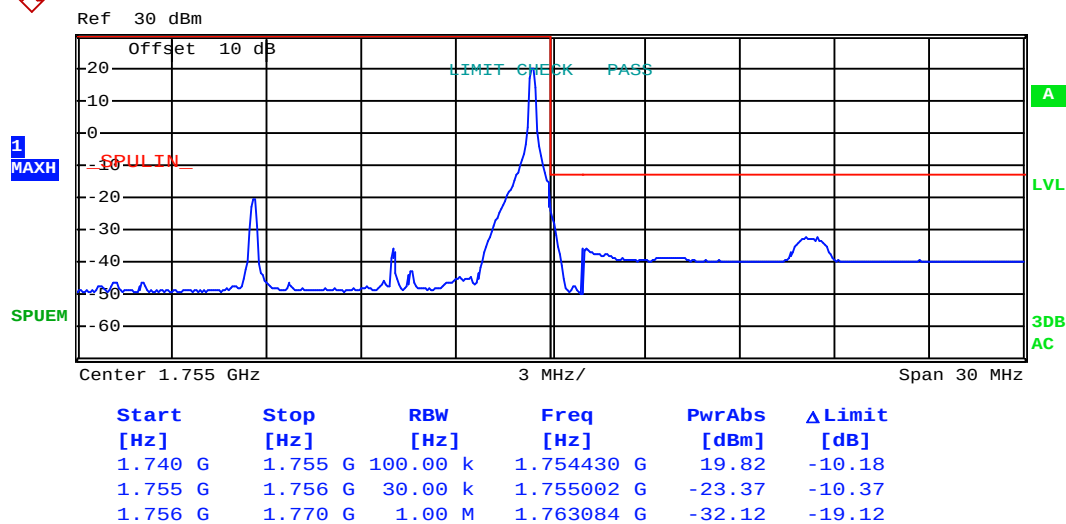


Highest channel

RB Size 1 & RB Offset 49-QPSK

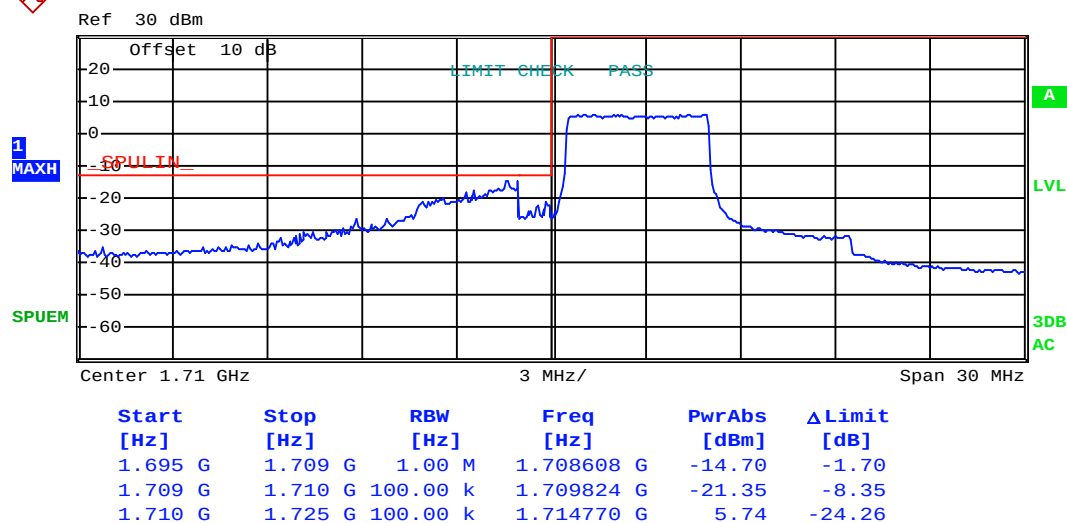


Lowest channel

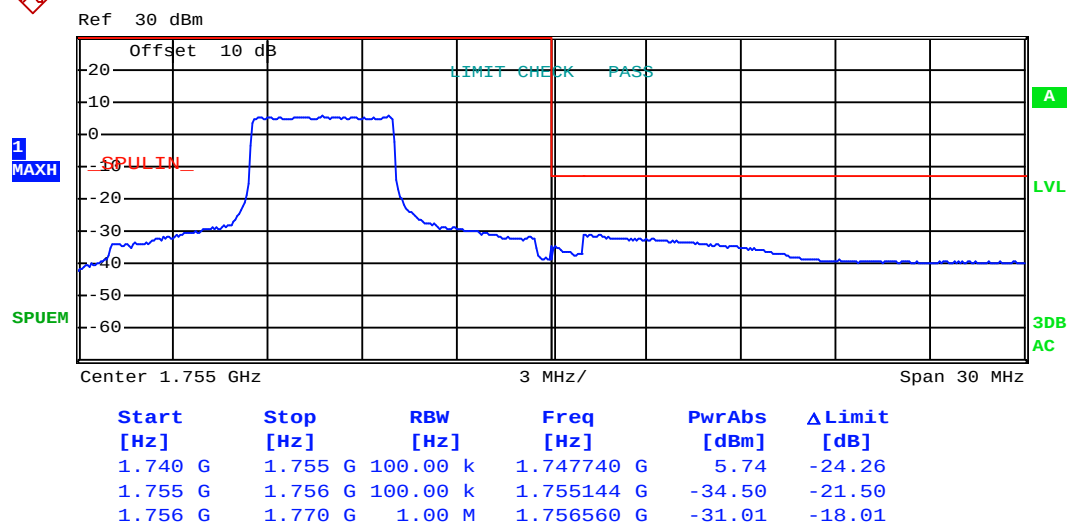


Highest channel

RB Size 25 & RB Offset 0-QPSK

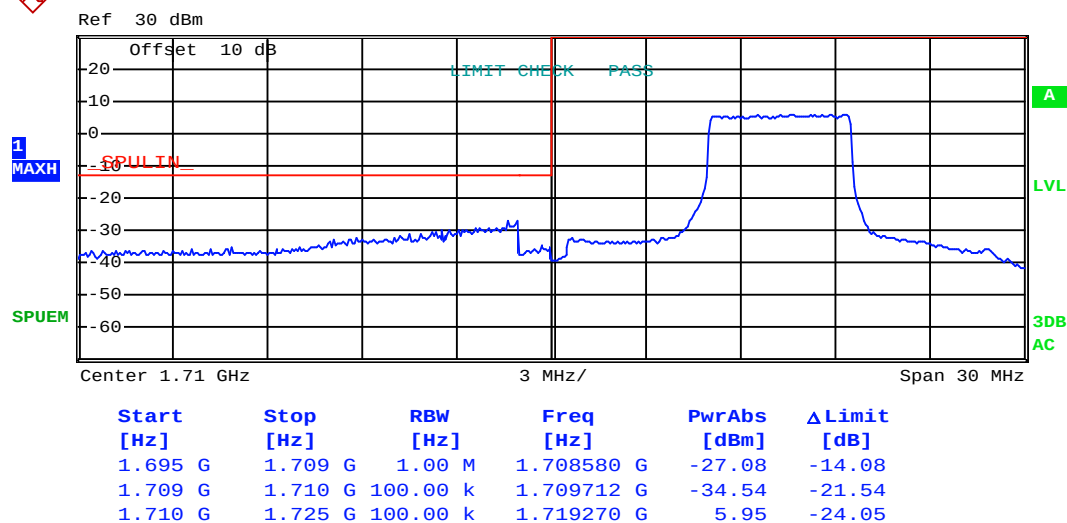


Lowest channel

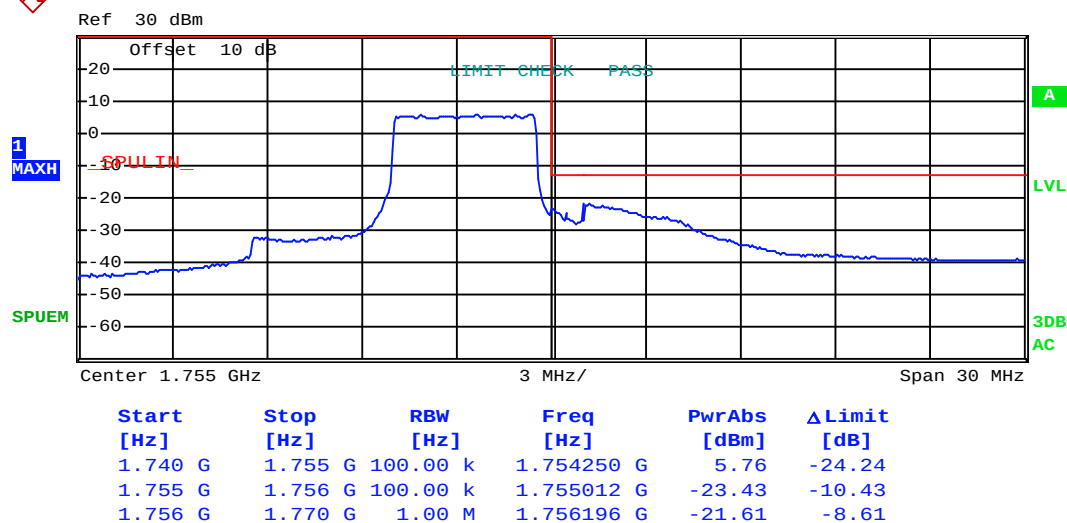


Highest channel

RB Size 25 & RB Offset 24-QPSK

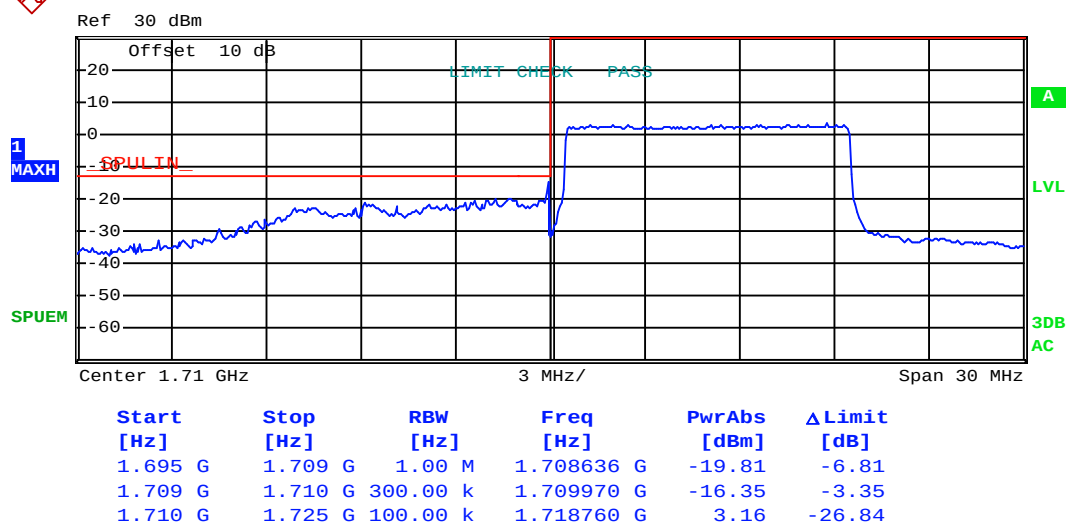


Lowest channel

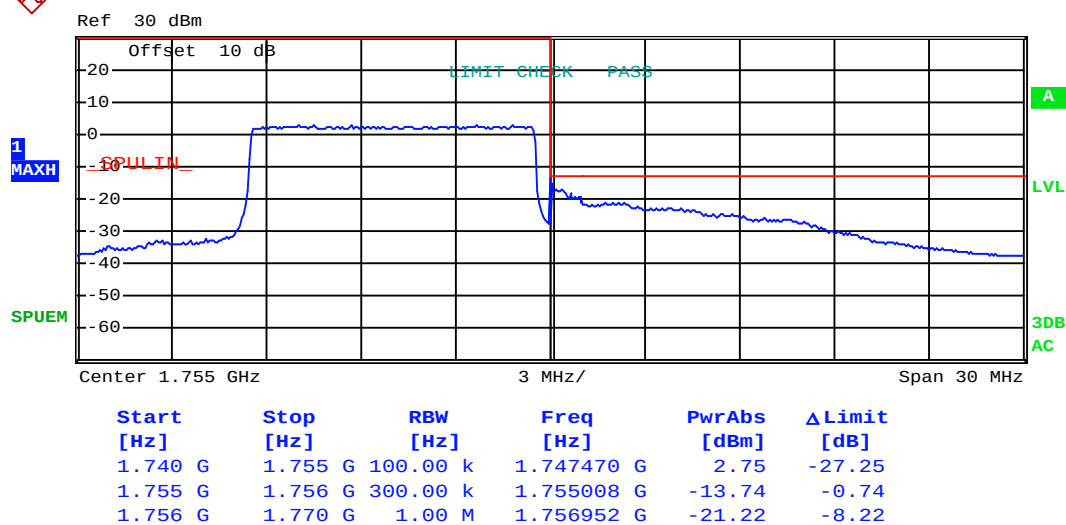


Highest channel

RB Size 50 & RB Offset 0-QPSK



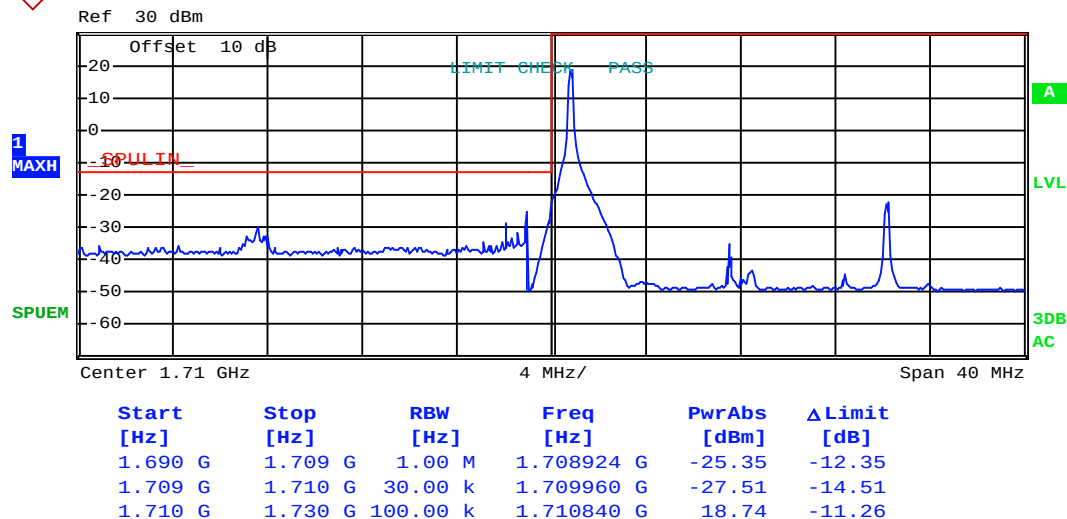
Lowest channel



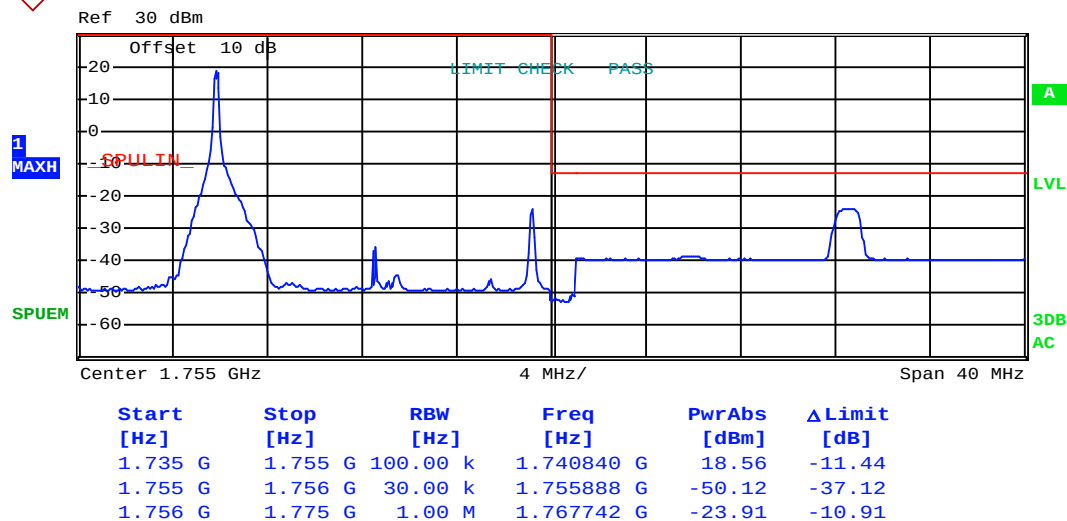
Highest channel

15MHz:

RB Size 1 & RB Offset 0-16QAM

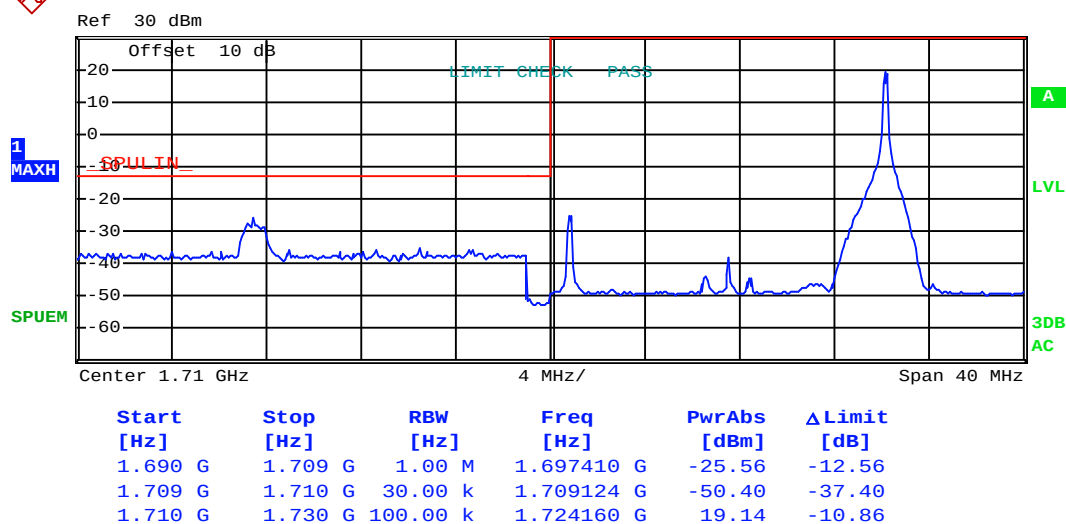


Lowest channel

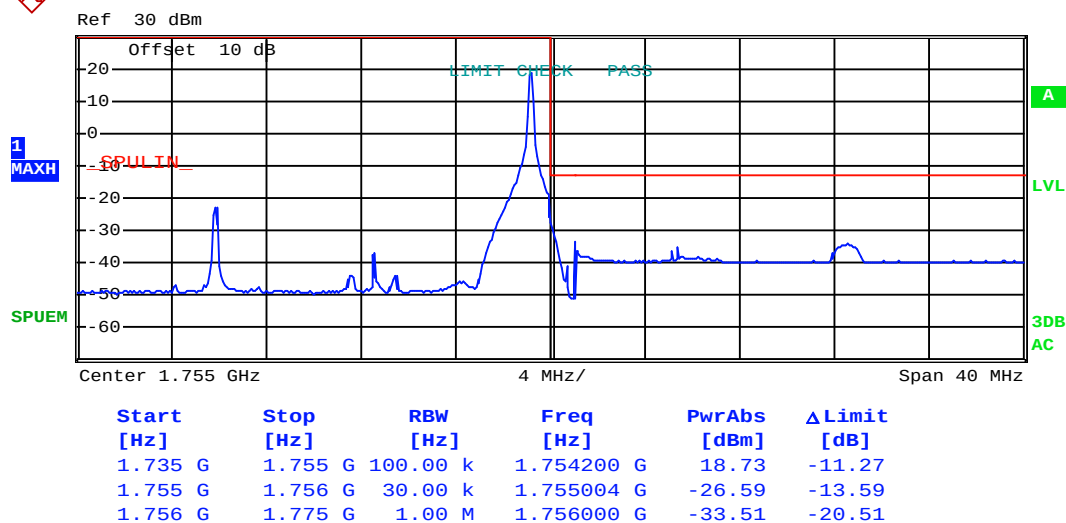


Highest channel

RB Size 1 & RB Offset 74-16QAM

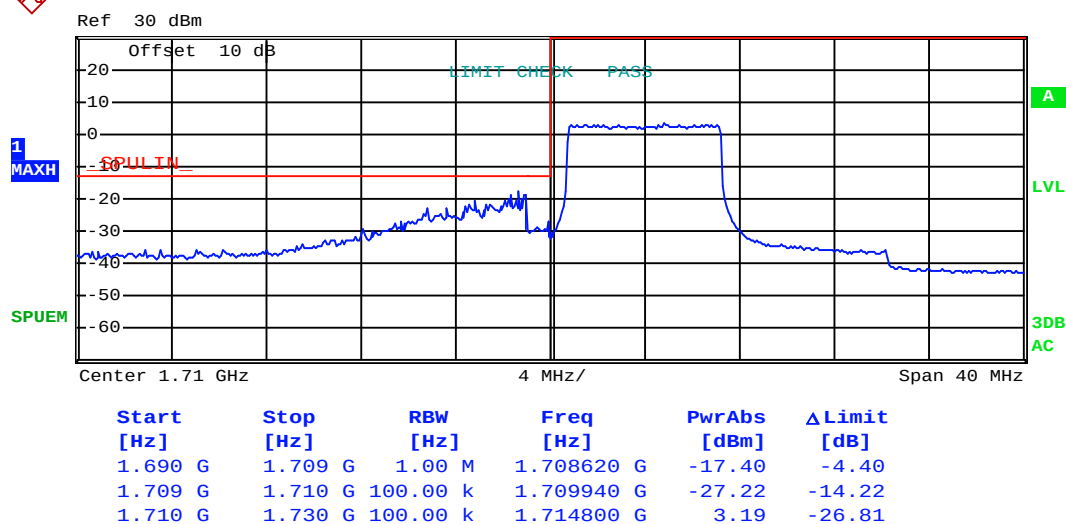


Lowest channel

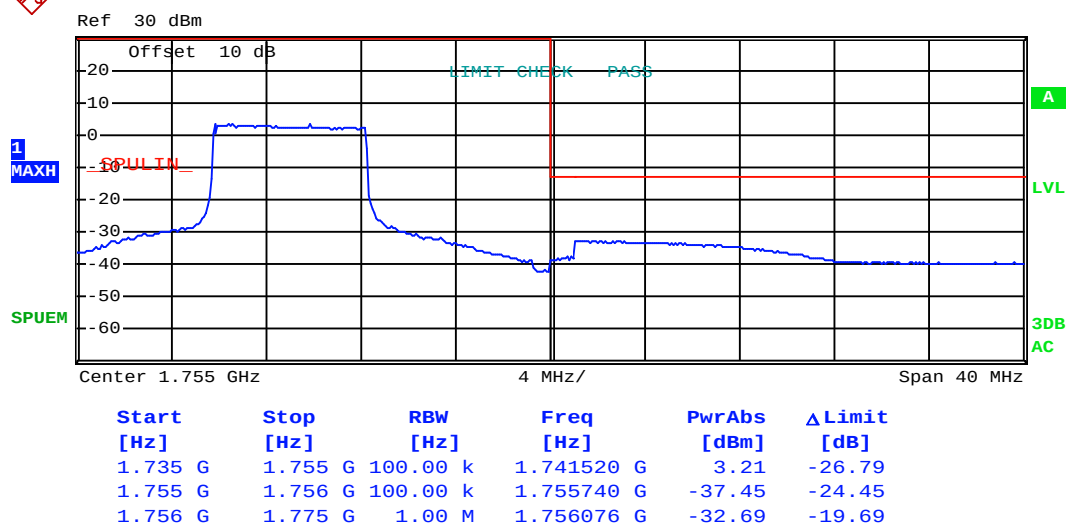


Highest channel

RB Size 36 & RB Offset 0-16QAM

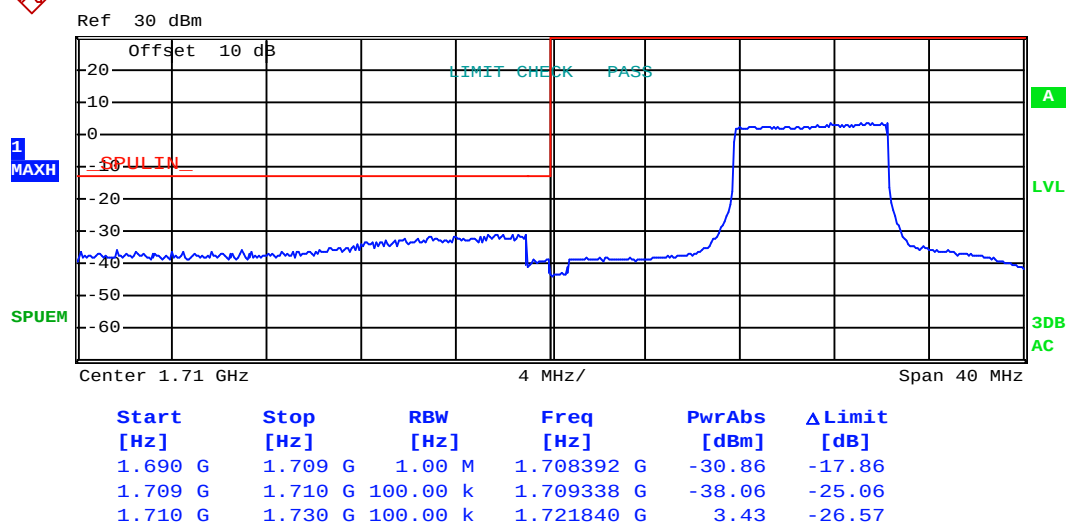


Lowest channel

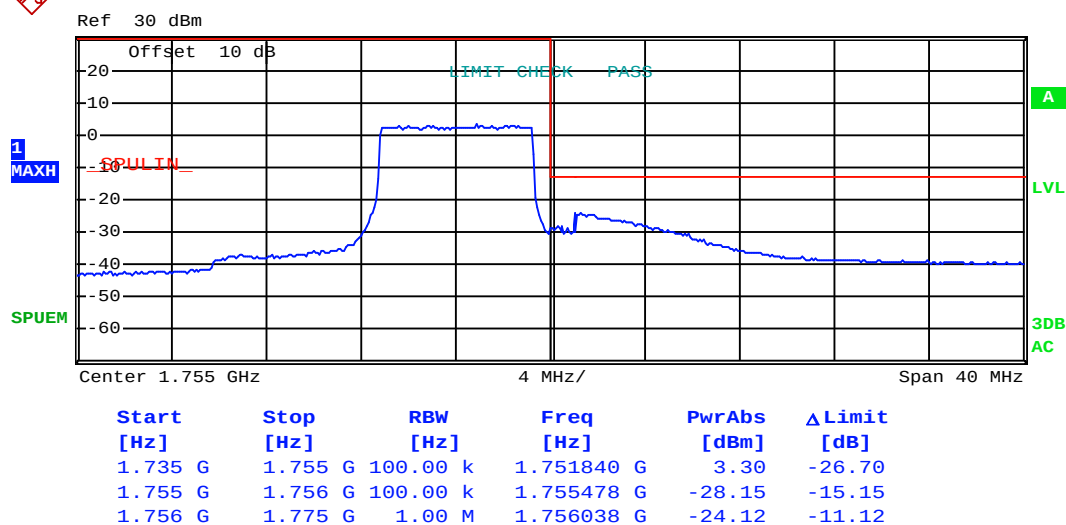


Highest channel

RB Size 36 & RB Offset 37-16QAM

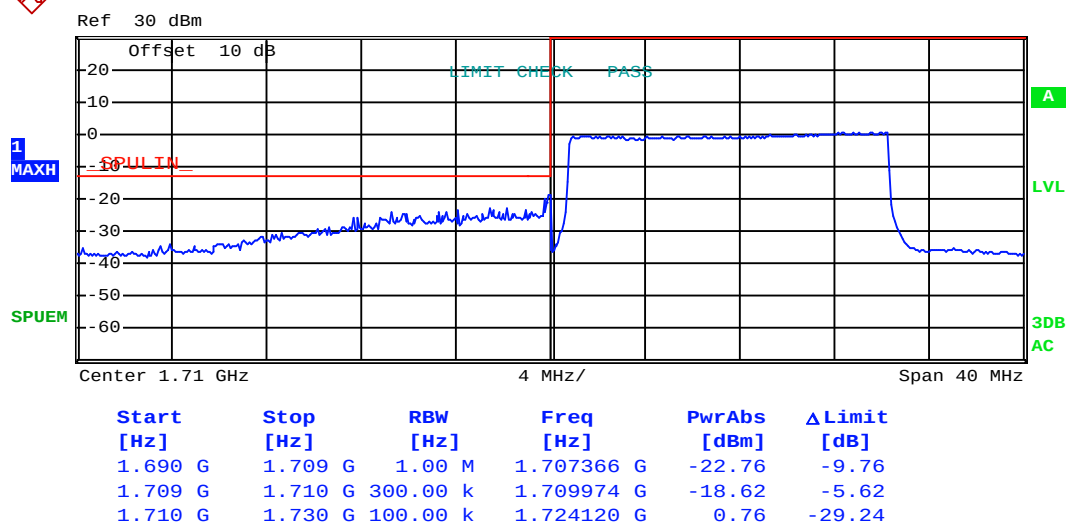


Lowest channel

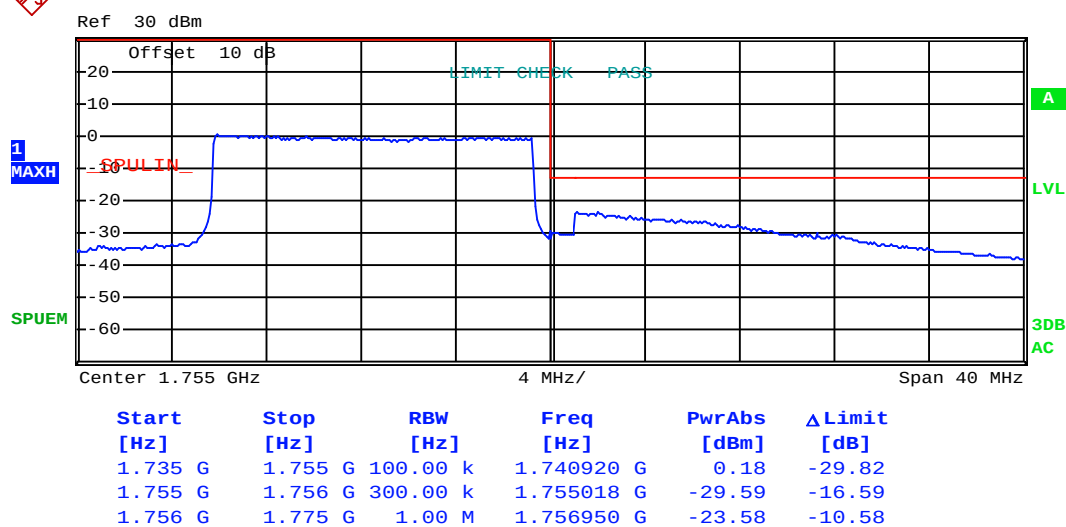


Highest channel

RB Size 75 & RB Offset 0-16QAM

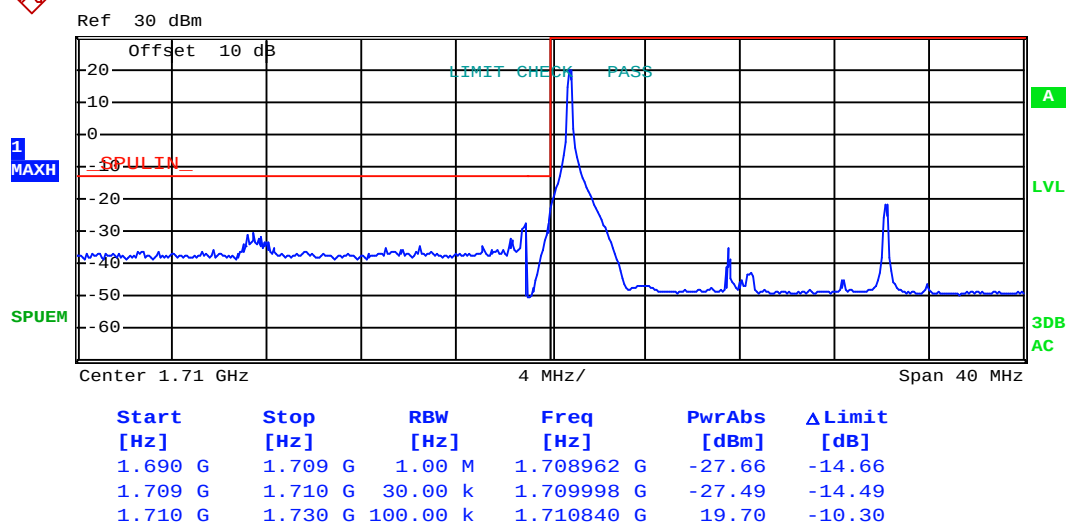


Lowest channel

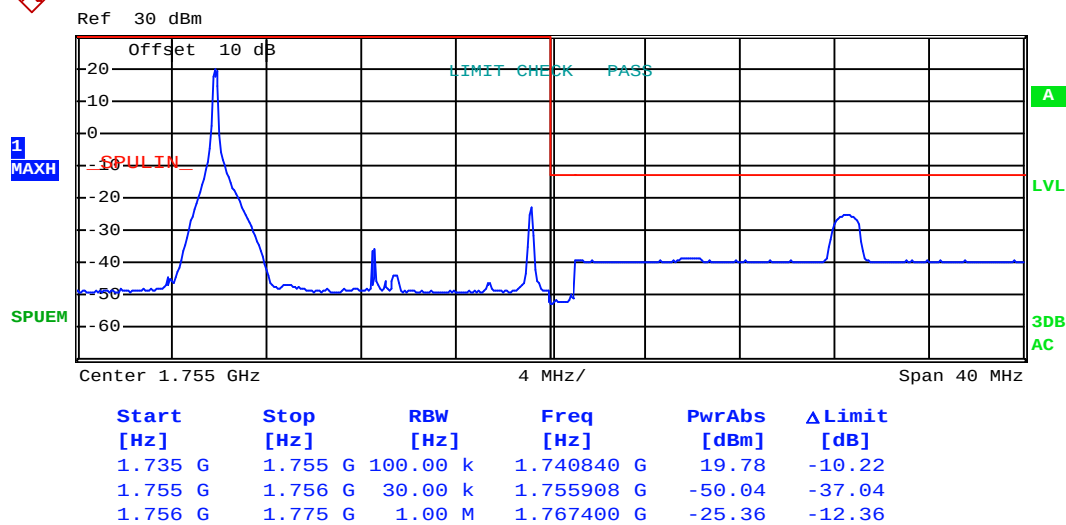


Highest channel

RB Size 1 & RB Offset 0-QPSK

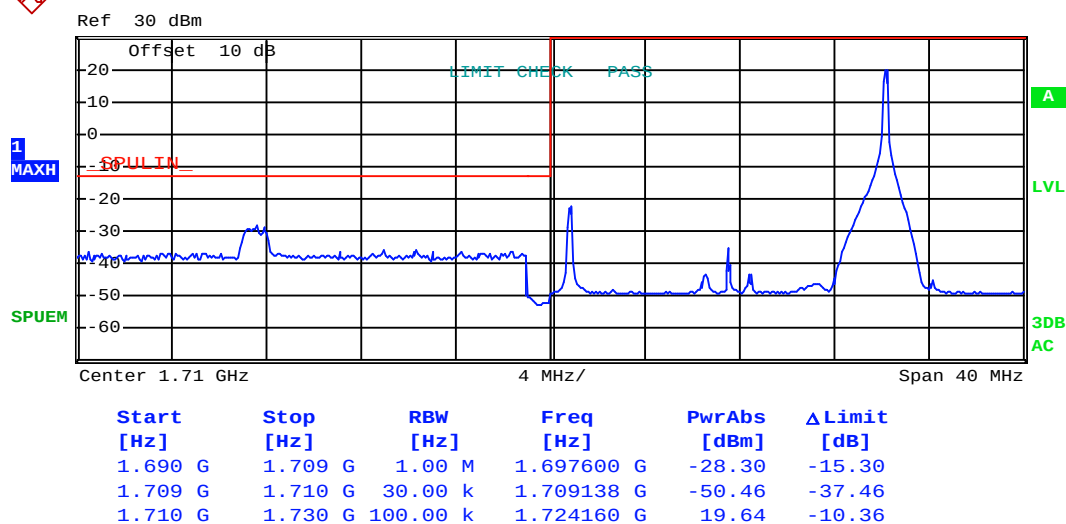


Lowest channel

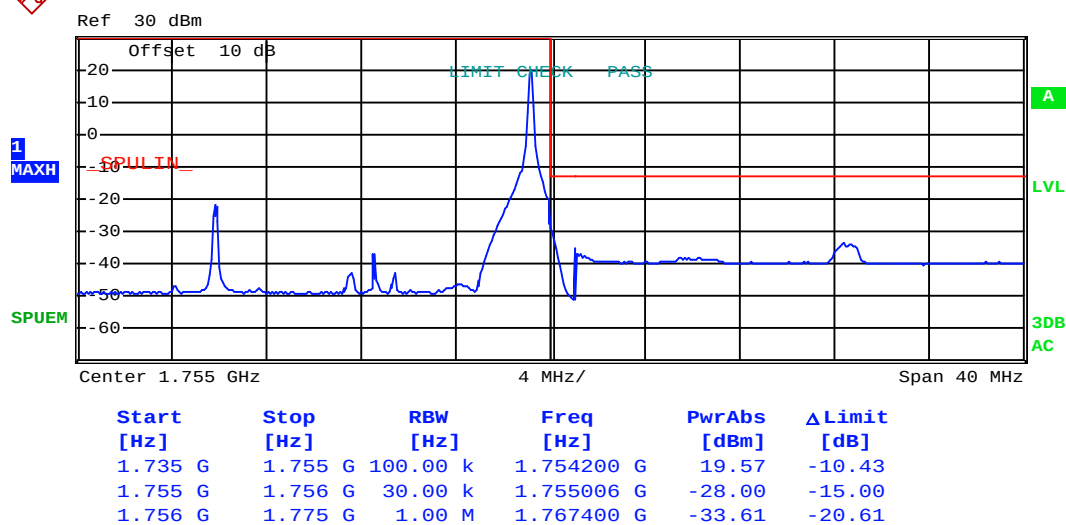


Highest channel

RB Size 1 & RB Offset 74-QPSK

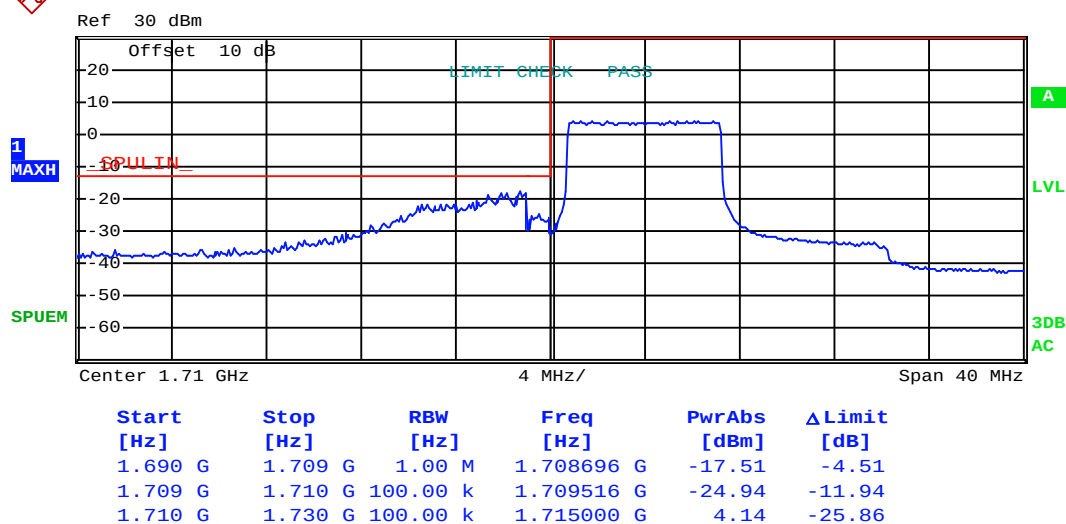


Lowest channel

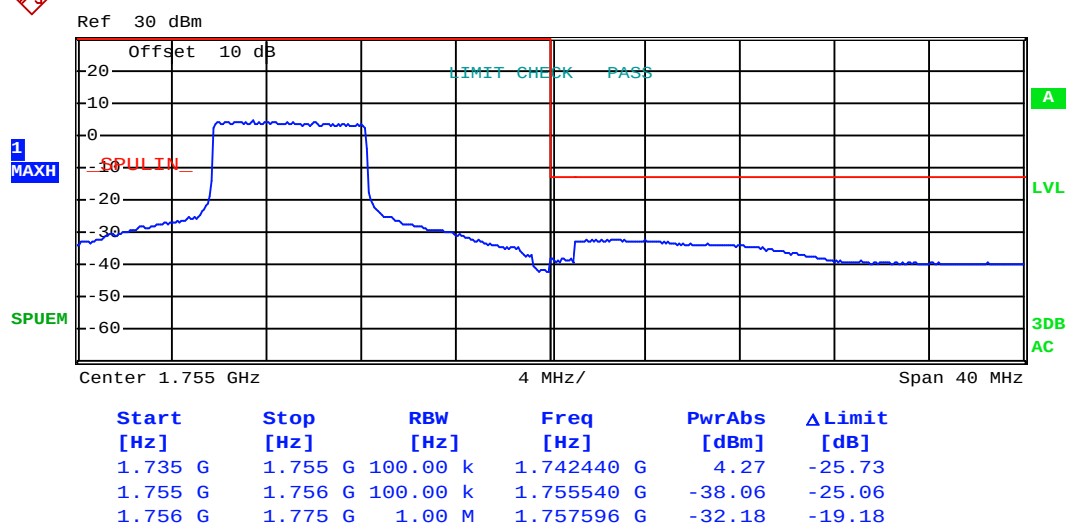


Highest channel

RB Size 36 & RB Offset 0-QPSK

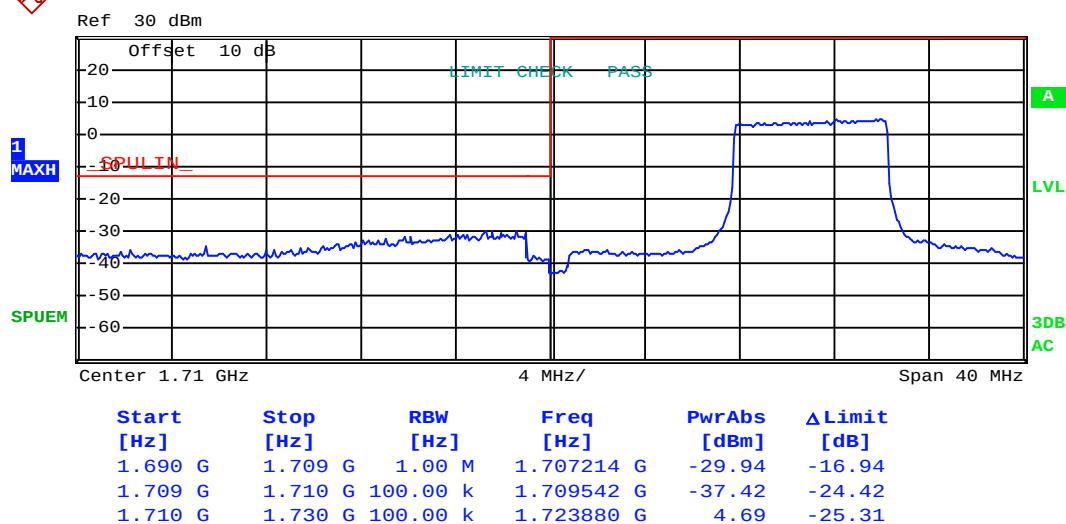


Lowest channel

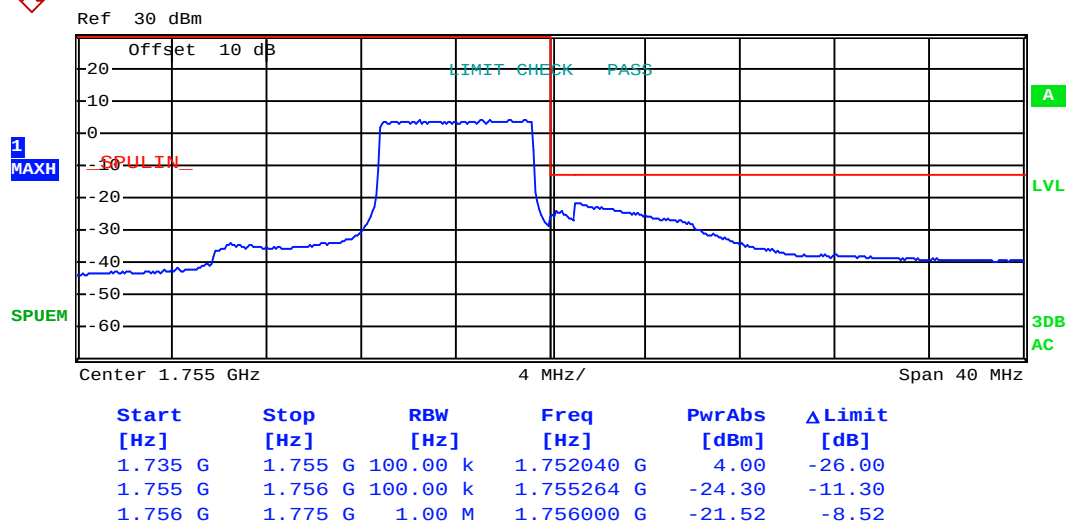


Highest channel

RB Size 36 & RB Offset 37-QPSK

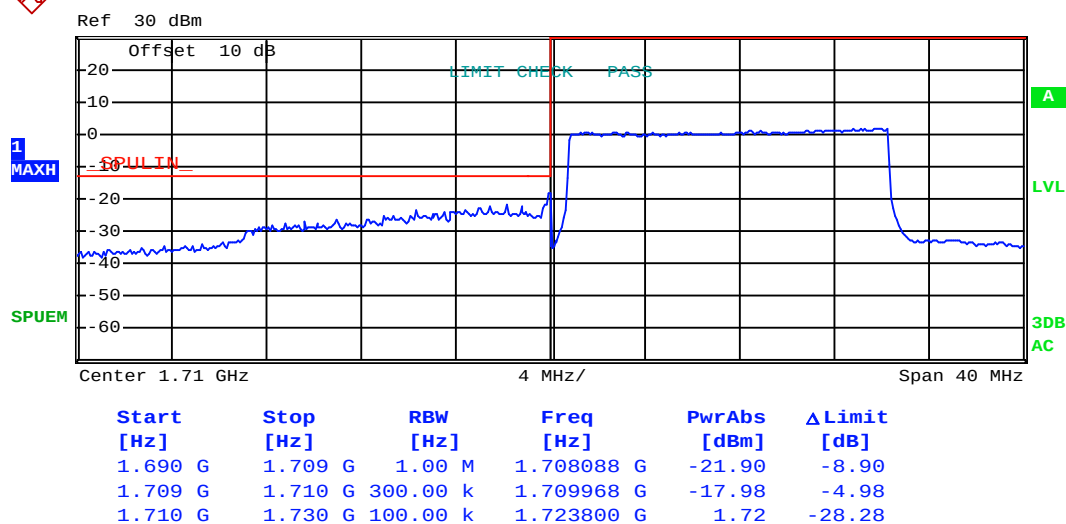


Lowest channel

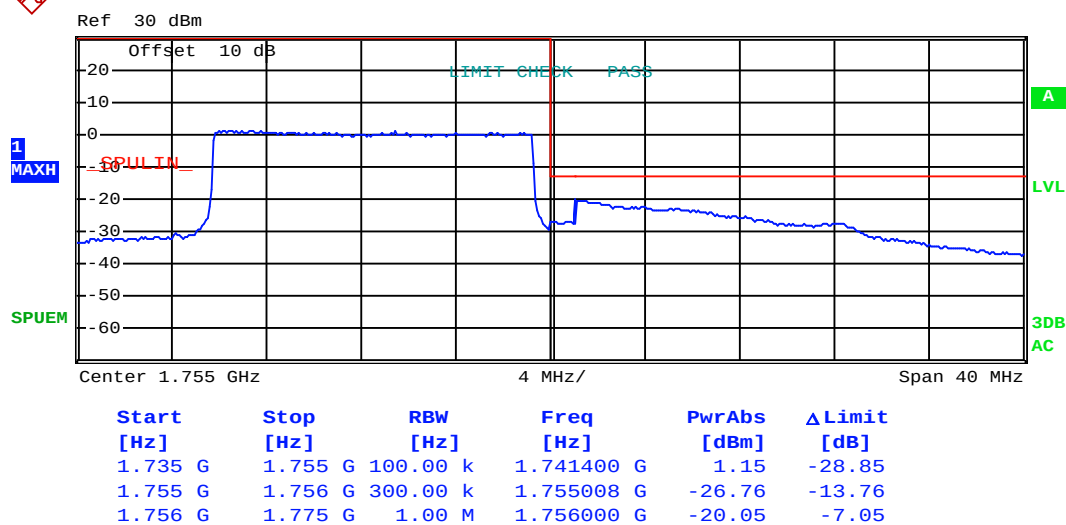


Highest channel

RB Size 75 & RB Offset 0-QPSK



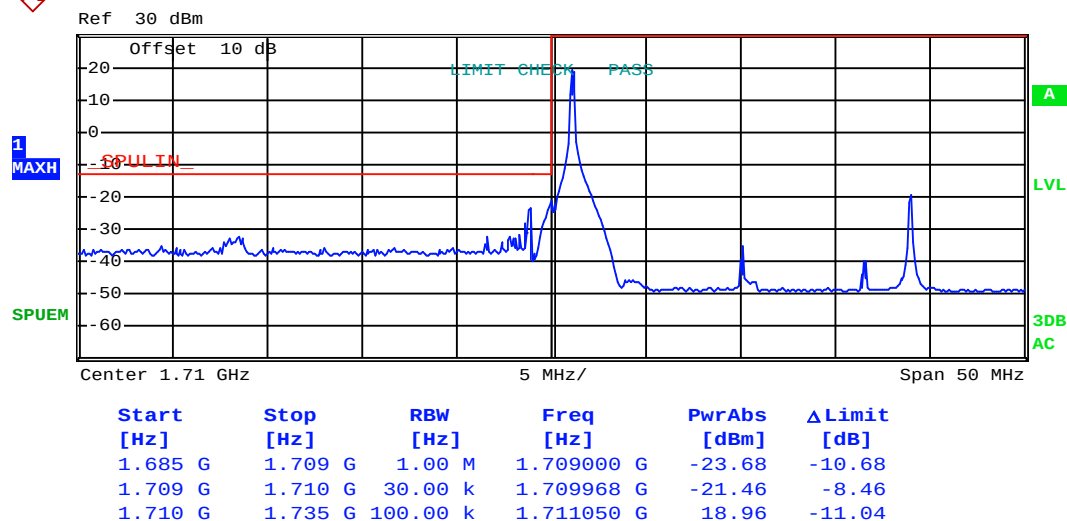
Lowest channel



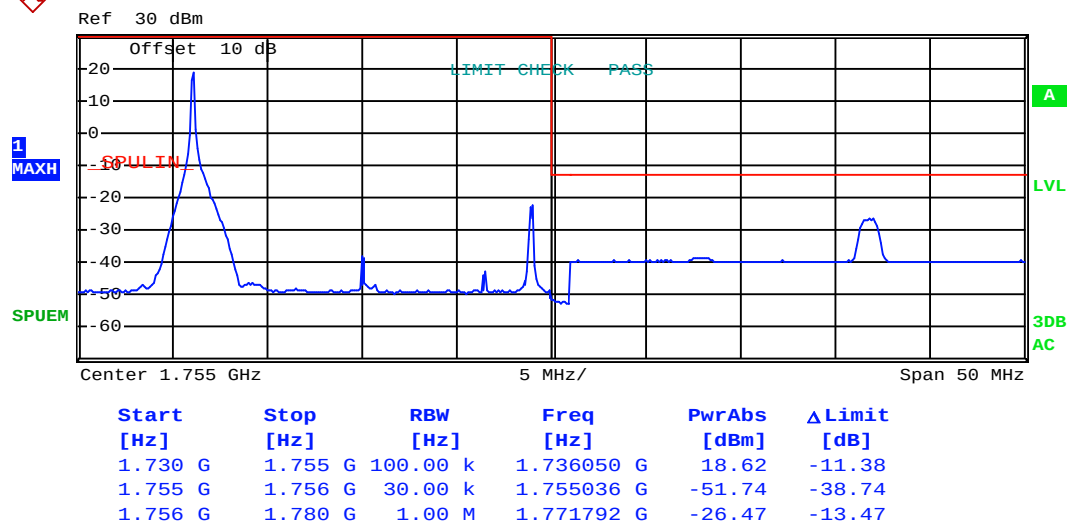
Highest channel

20MHz:

RB Size 1 & RB Offset 0-16QAM

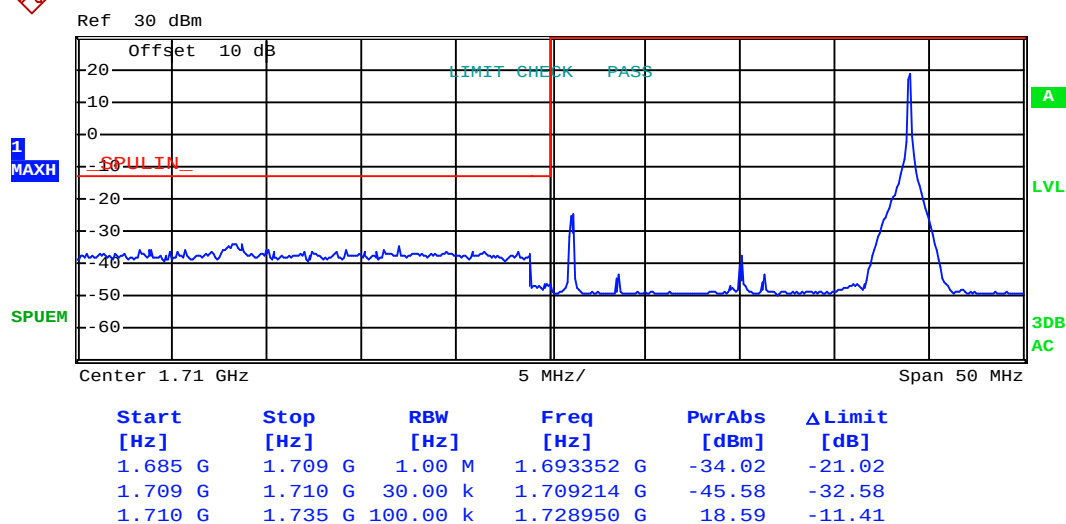


Lowest channel

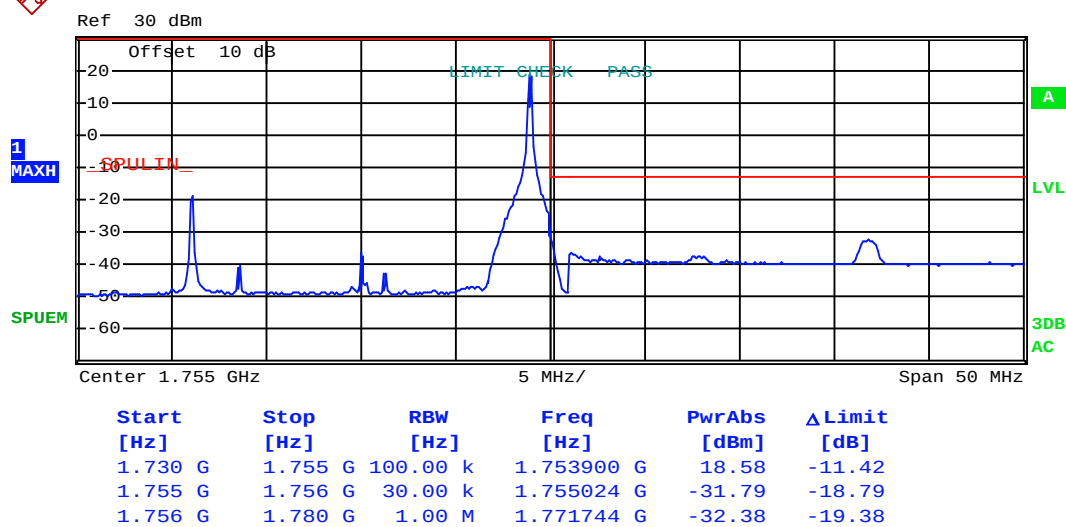


Highest channel

RB Size 1 & RB Offset 99-16QAM

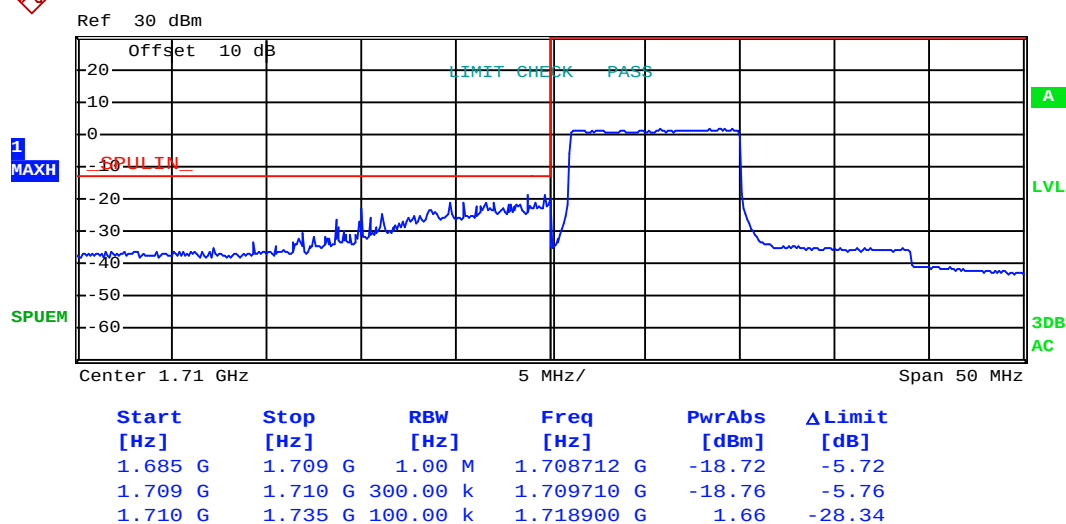


Lowest channel

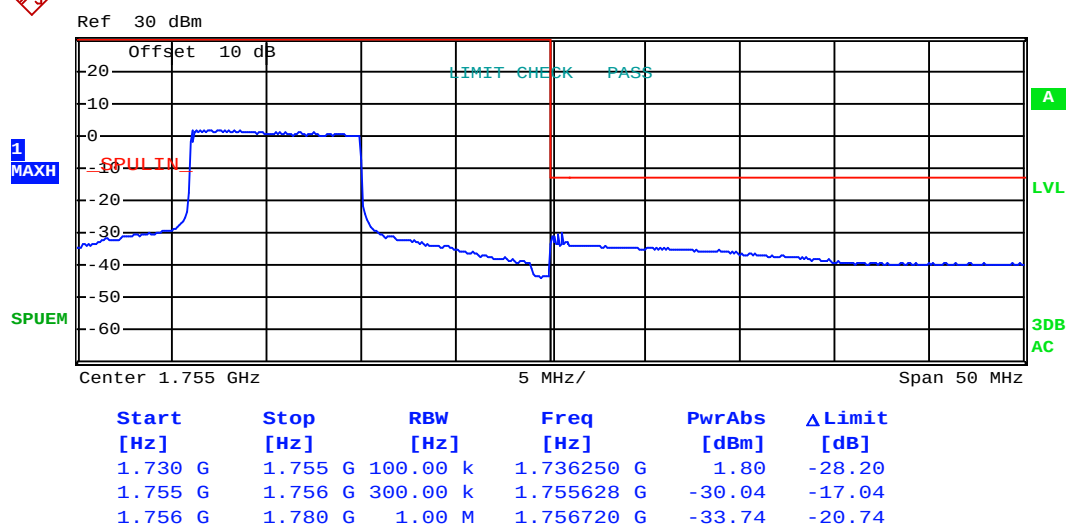


Highest channel

RB Size 50 & RB Offset 0-16QAM

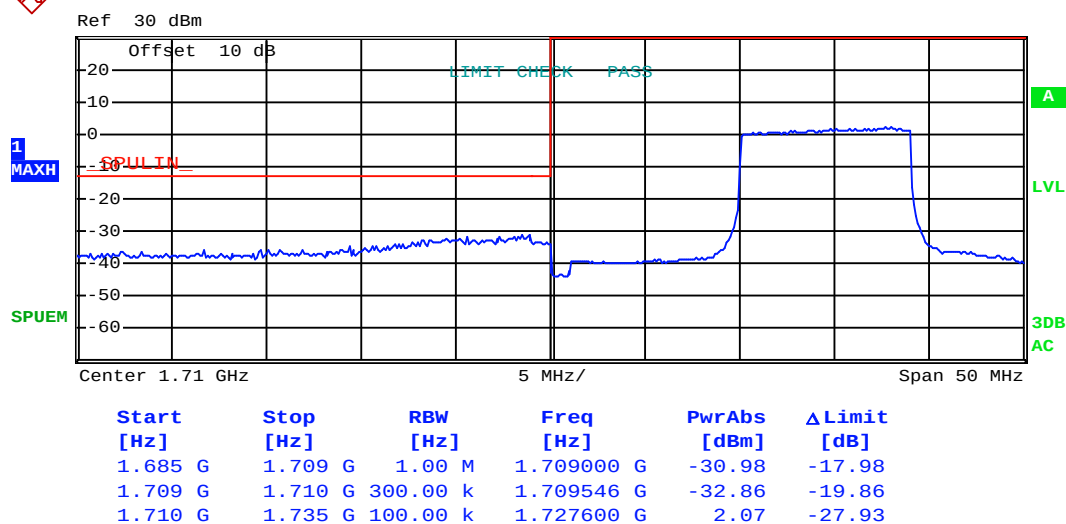


Lowest channel

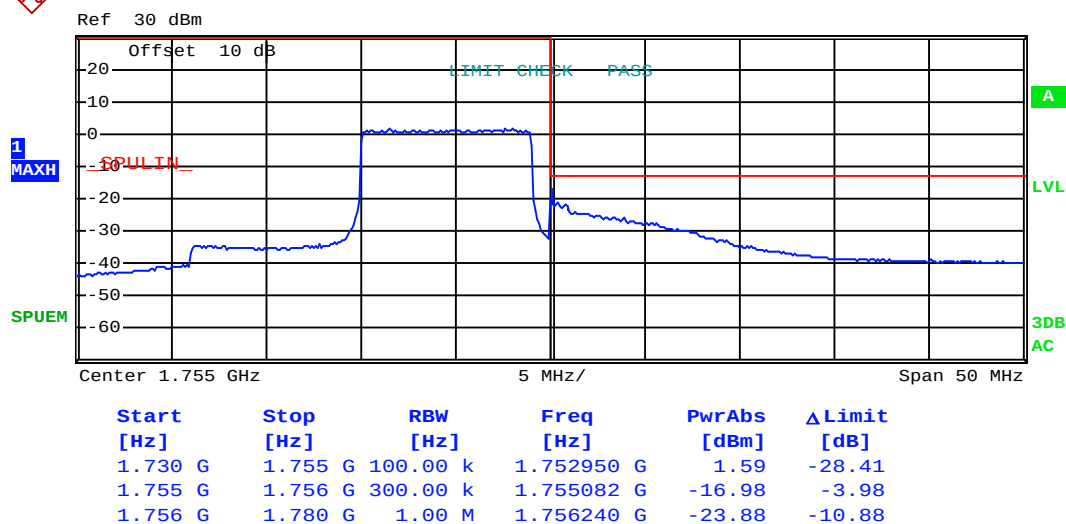


Highest channel

RB Size 50 & RB Offset 49-16QAM

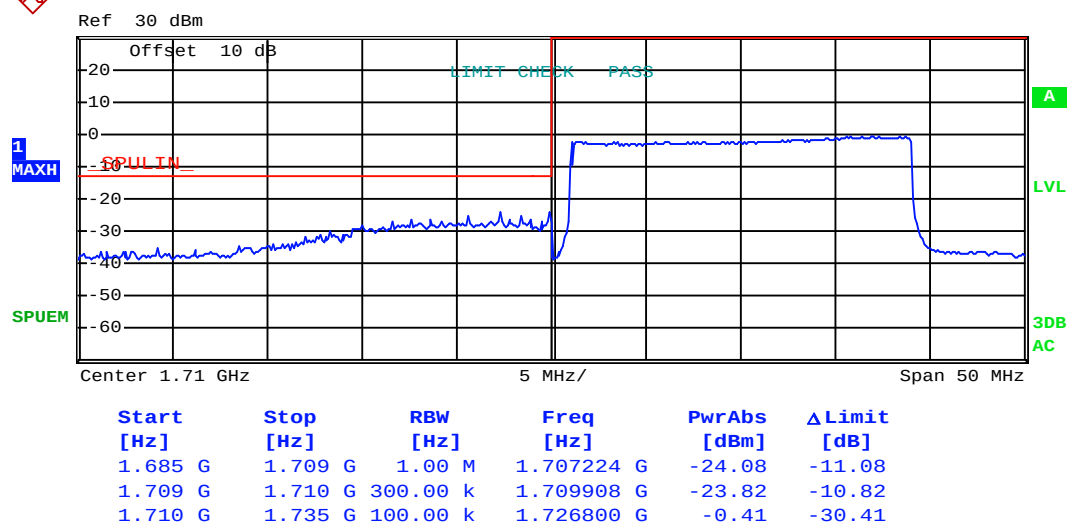


Lowest channel

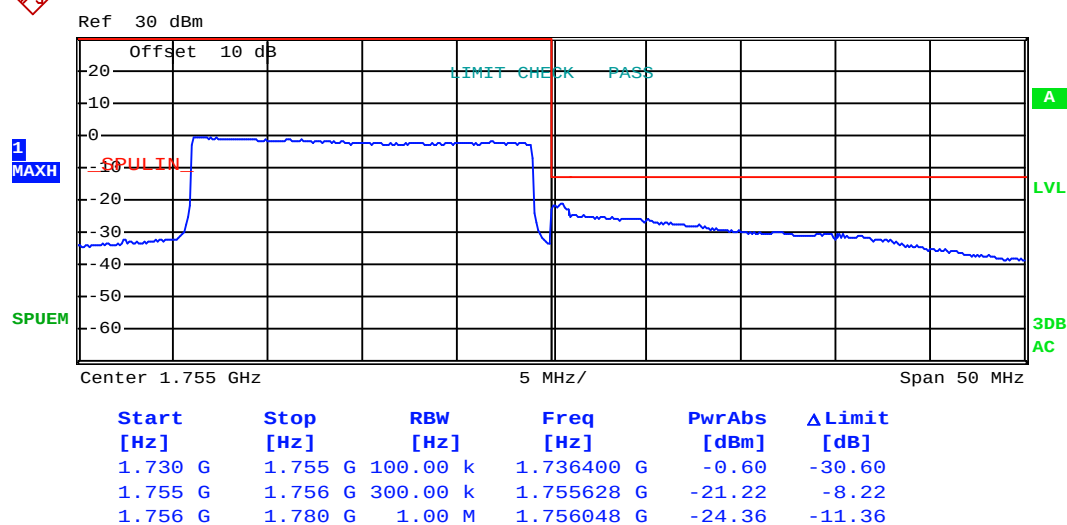


Highest channel

RB Size 100 & RB Offset 0-16QAM

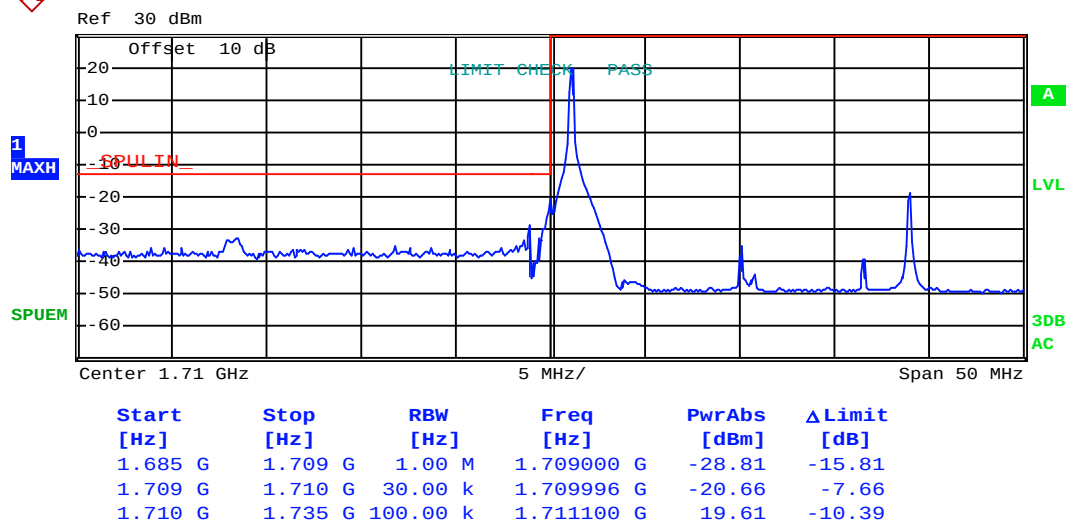


Lowest channel

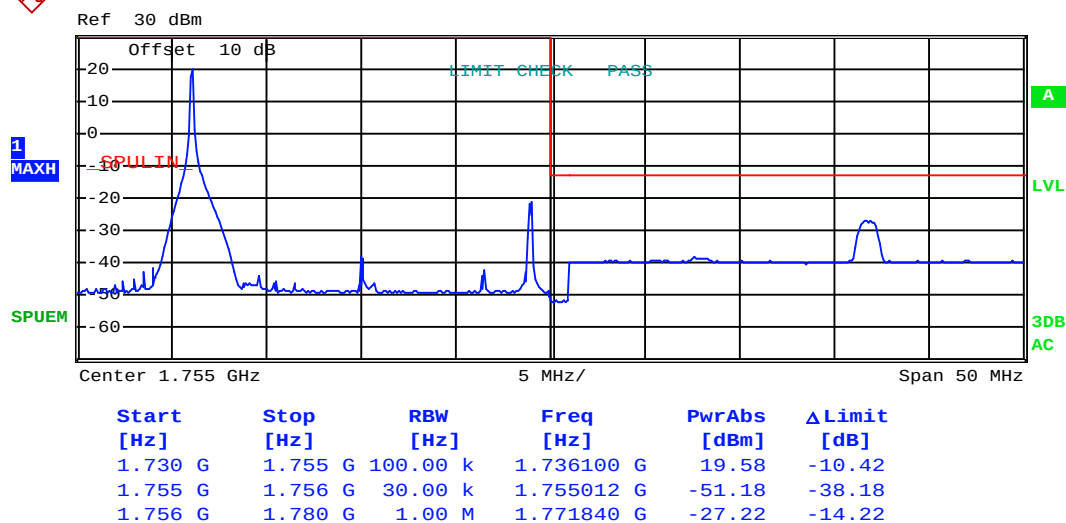


Highest channel

RB Size 1 & RB Offset 0-QPSK

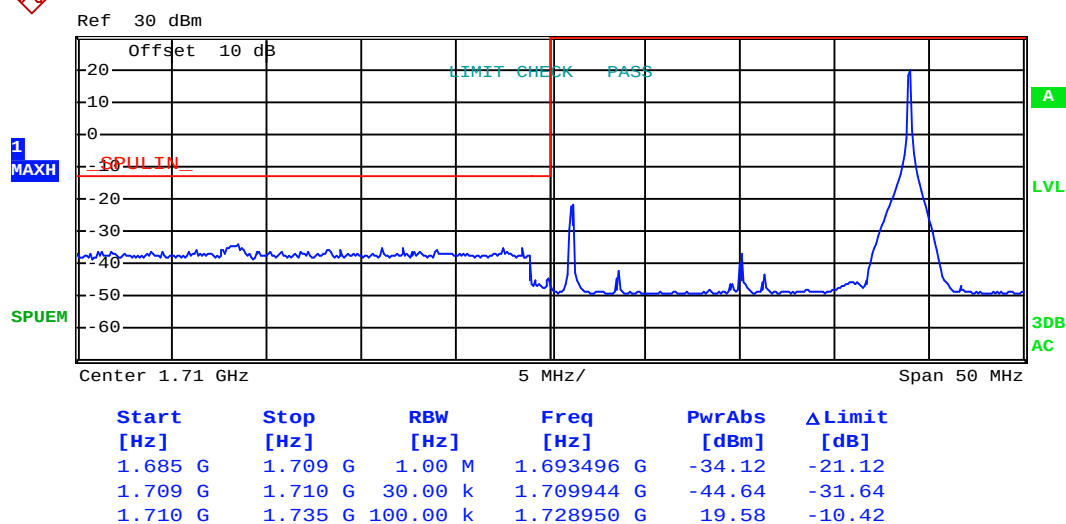


Lowest channel

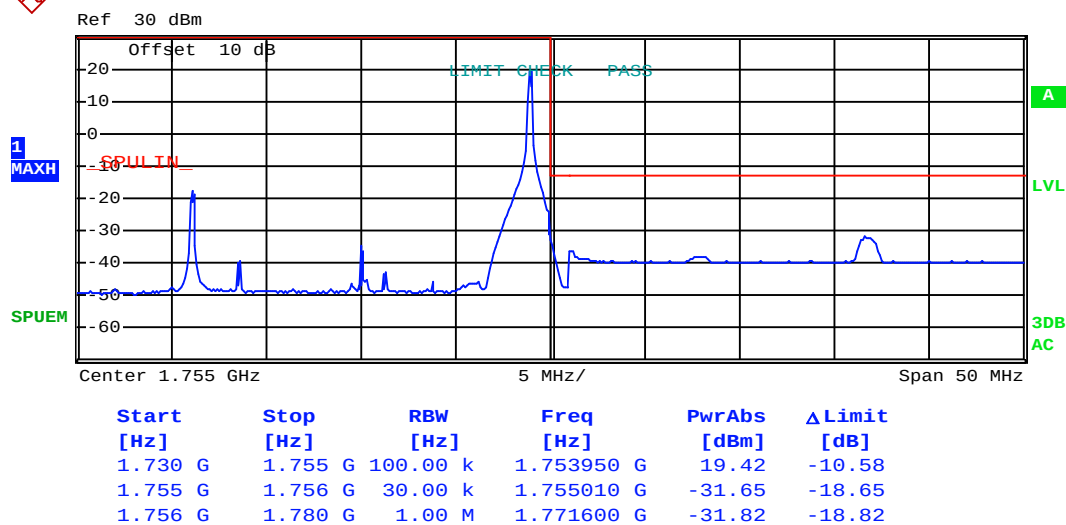


Highest channel

RB Size 1 & RB Offset 99-QPSK

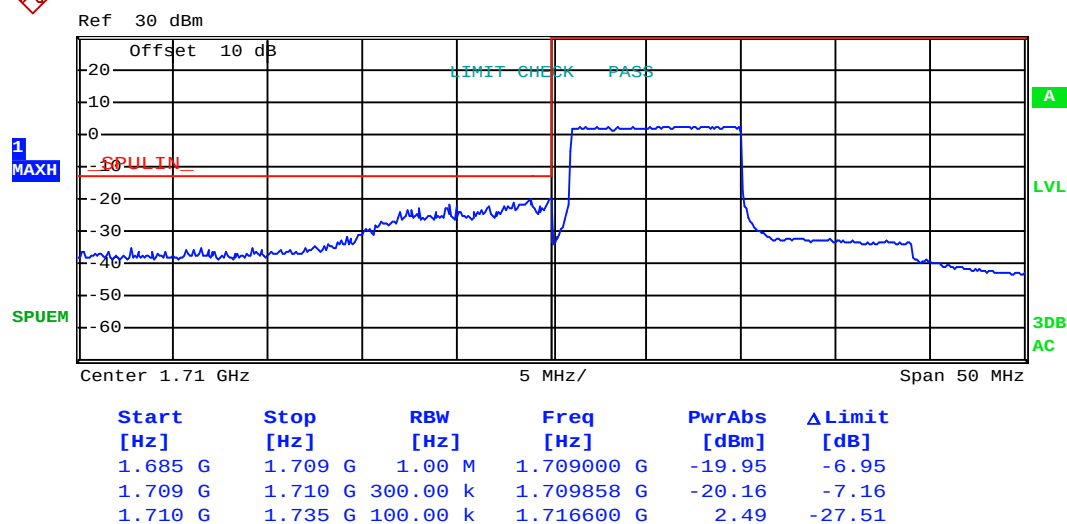


Lowest channel

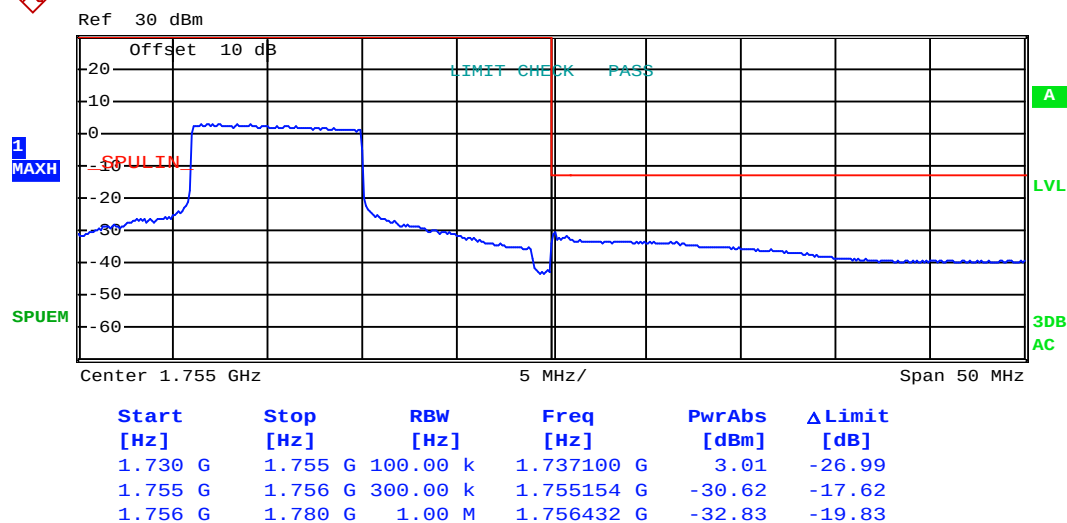


Highest channel

RB Size 50 & RB Offset 0-QPSK

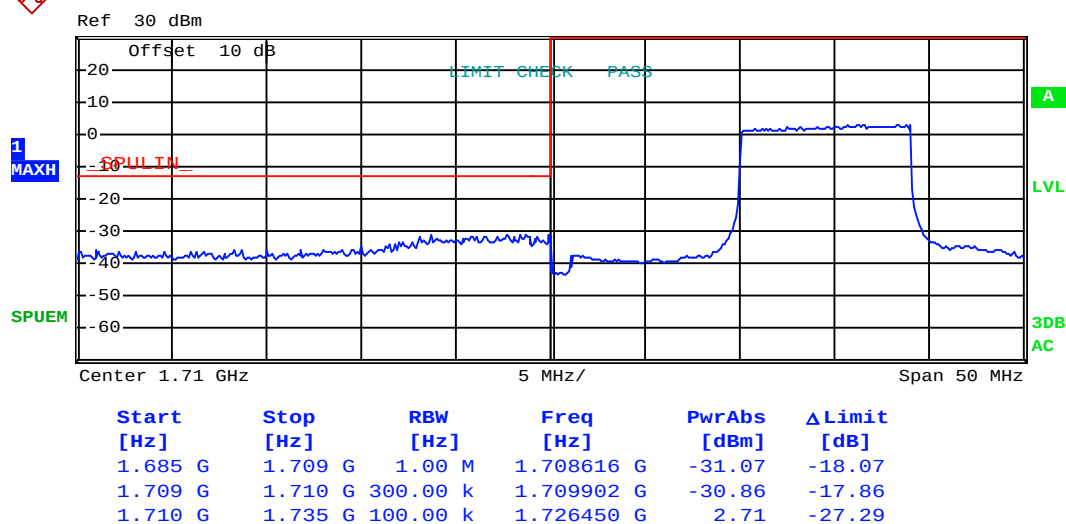


Lowest channel

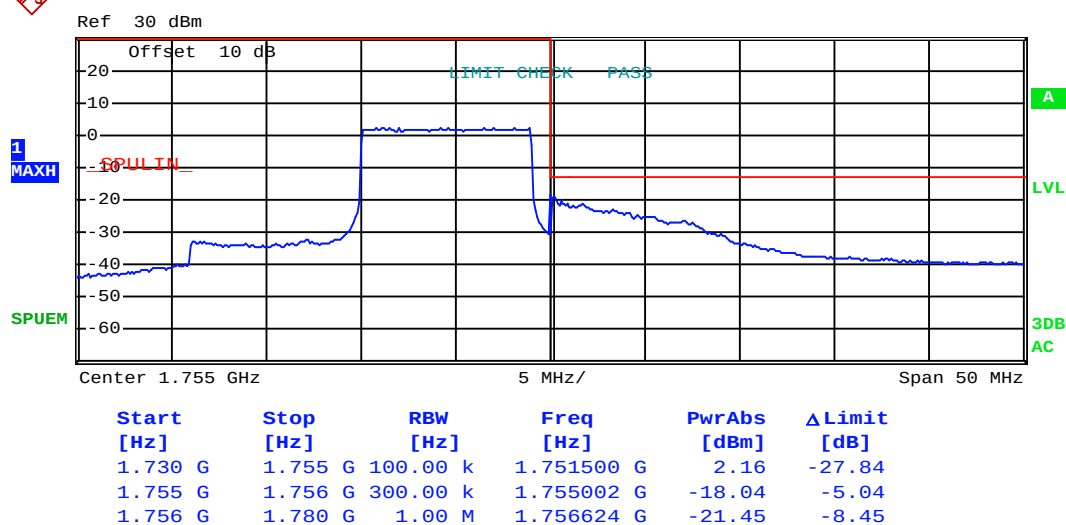


Highest channel

RB Size 50 & RB Offset 49-QPSK

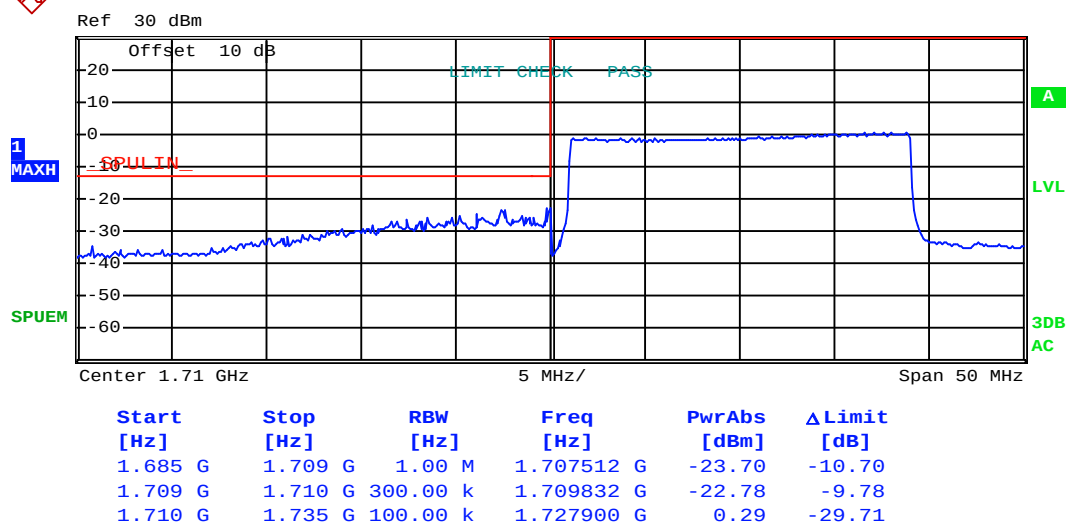


Lowest channel

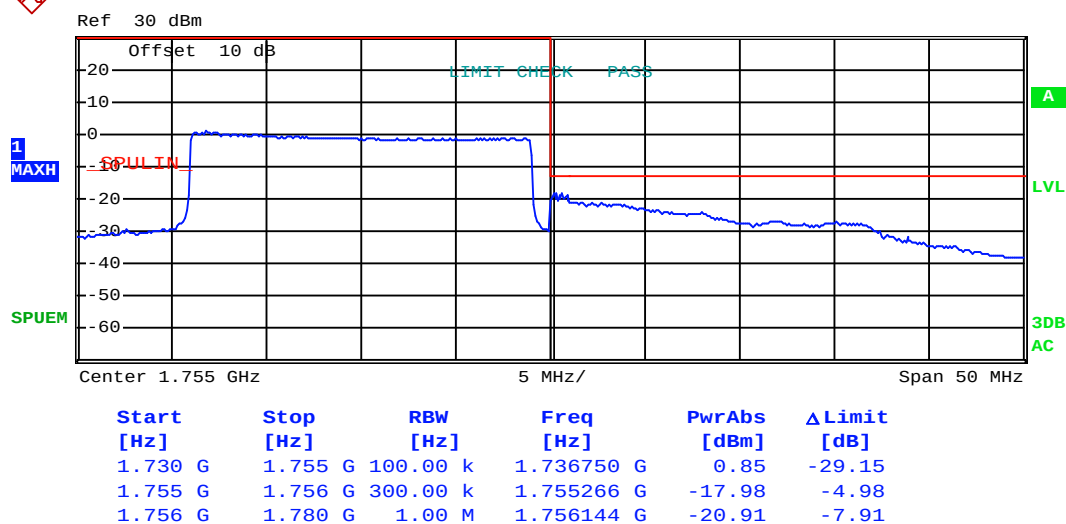


Highest channel

RB Size 100 & RB Offset 0-QPSK



Lowest channel



Highest channel

LTE band 7 part:

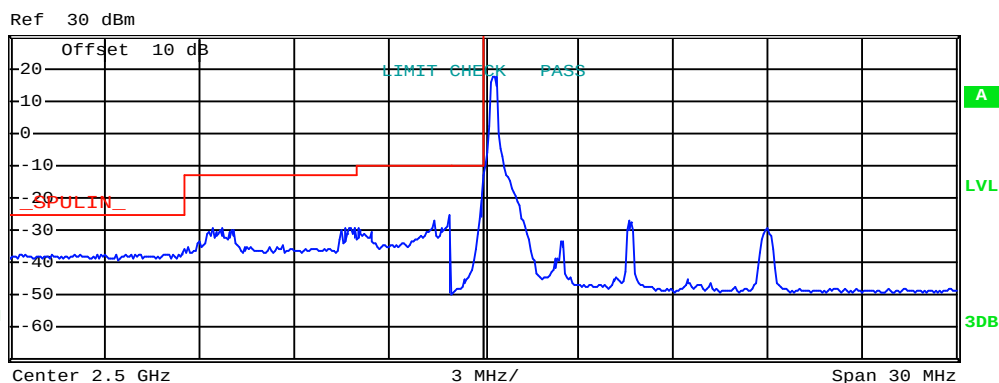
5MHz:

RB Size 1 & RB Offset 0-16QAM



1
MAXH

SPUEM



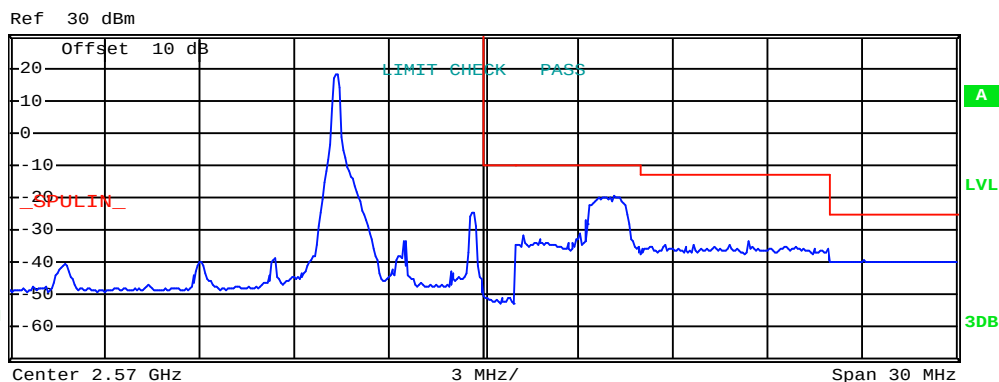
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.485 G	2.490 G	1.00 M	2.490456 G	-37.13	-12.13
2.490 G	2.496 G	1.00 M	2.495582 G	-29.18	-16.18
2.496 G	2.499 G	1.00 M	2.498952 G	-25.28	-15.28
2.499 G	2.500 G	30.00 k	2.499996 G	-20.31	-10.31
2.500 G	2.515 G	100.00 k	2.500360 G	17.62	-15.38

Lowest channel



1
MAXH

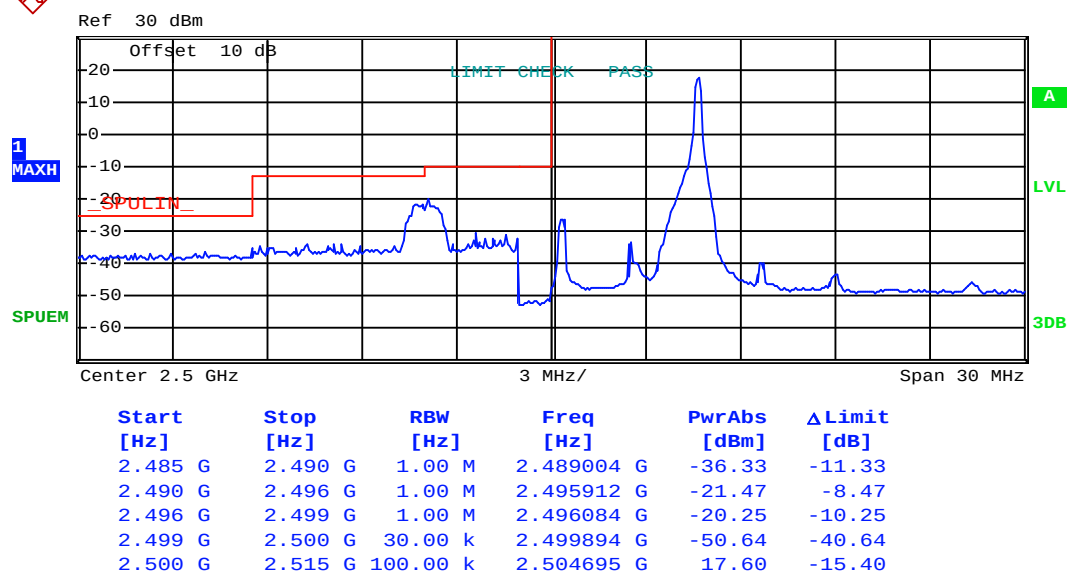
SPUEM



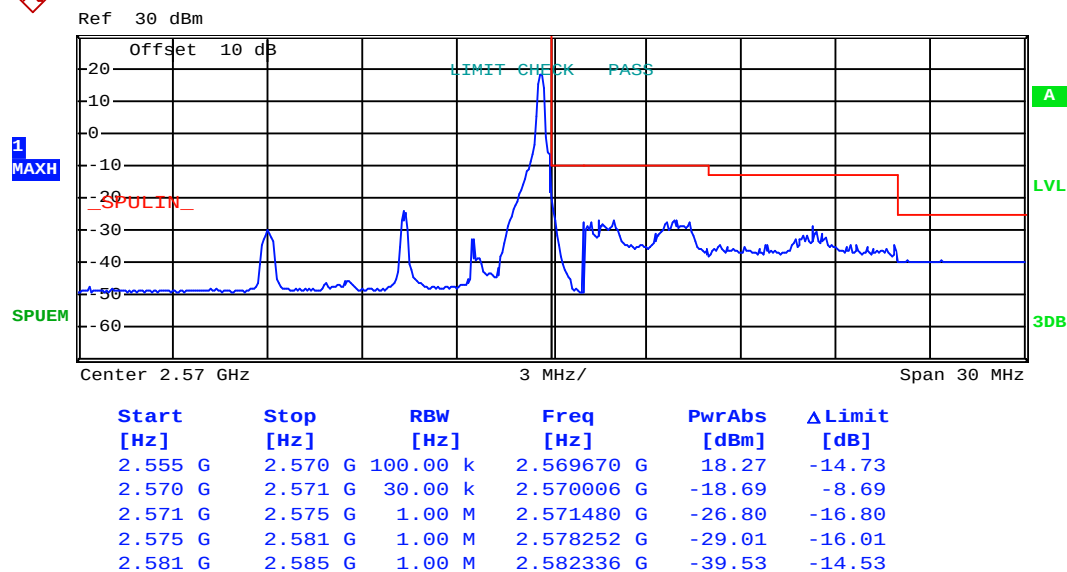
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.555 G	2.570 G	100.00 k	2.565335 G	17.81	-15.19
2.570 G	2.571 G	30.00 k	2.570006 G	-49.71	-39.71
2.571 G	2.575 G	1.00 M	2.574128 G	-19.64	-9.64
2.575 G	2.581 G	1.00 M	2.578384 G	-33.52	-20.52
2.581 G	2.585 G	1.00 M	2.582024 G	-39.58	-14.58

Highest channel

RB Size 1 & RB Offset 24-16QAM

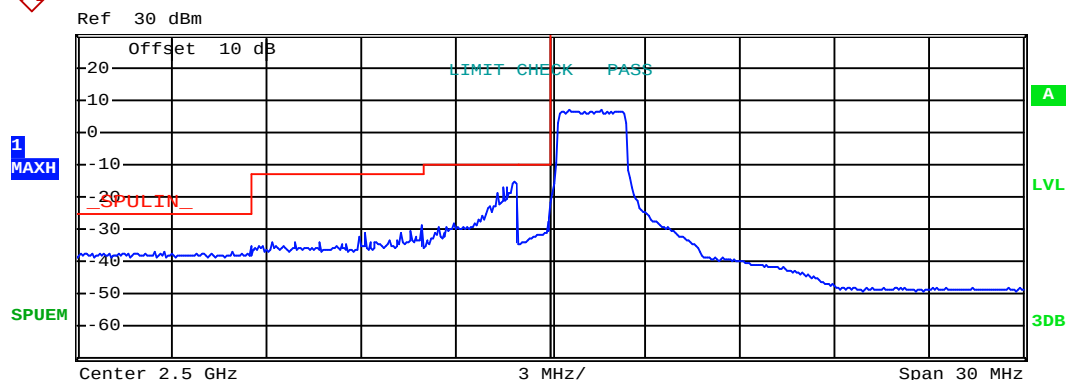


Lowest channel



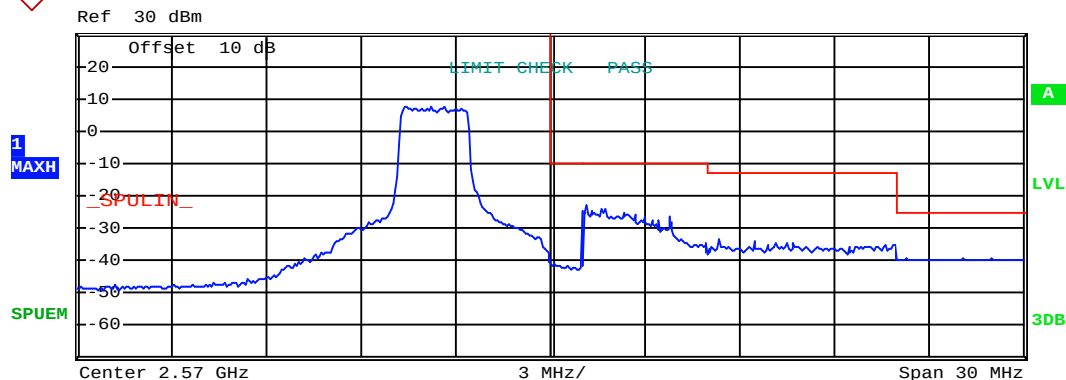
Highest channel

RB Size 12 & RB Offset 0-16QAM



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.485 G	2.490 G	1.00 M	2.487431 G	-36.82	-11.82
2.490 G	2.496 G	1.00 M	2.495912 G	-28.98	-15.98
2.496 G	2.499 G	1.00 M	2.498855 G	-15.19	-5.19
2.499 G	2.500 G	30.00 k	2.499972 G	-27.54	-17.54
2.500 G	2.515 G	100.00 k	2.501620 G	6.69	-26.31

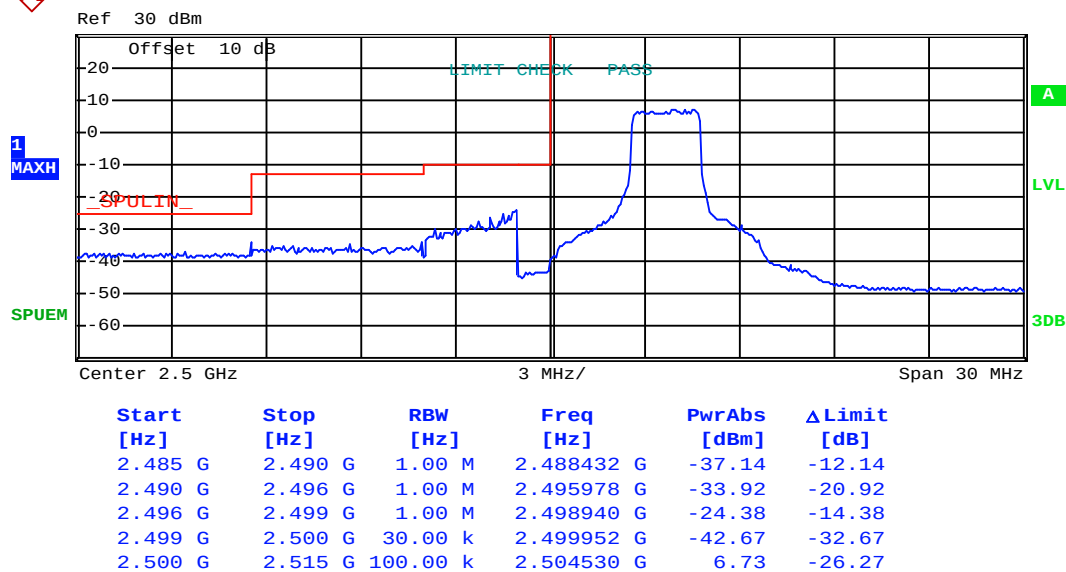
Lowest channel



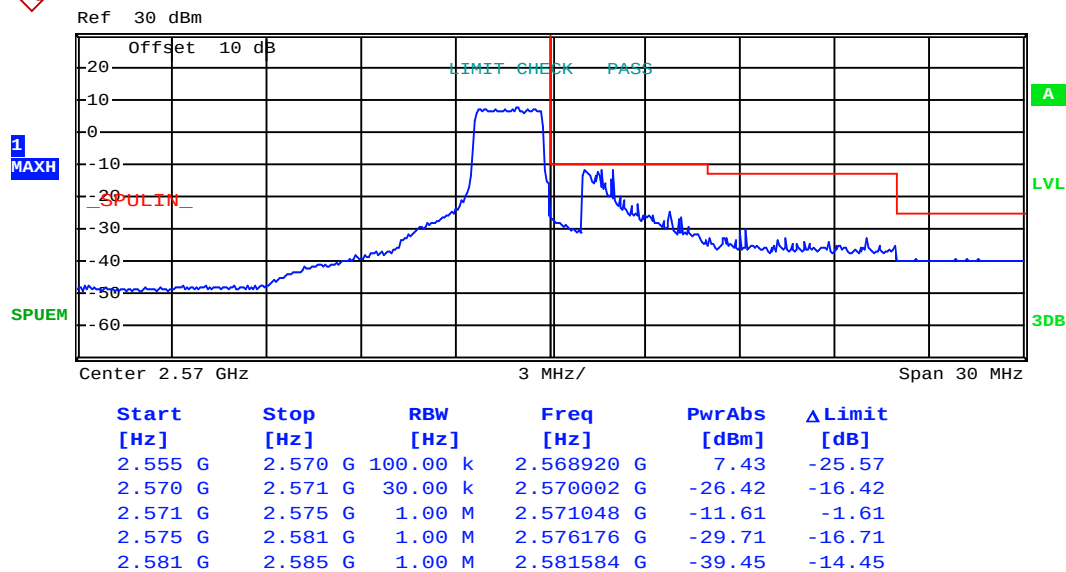
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.555 G	2.570 G	100.00 k	2.565380 G	7.53	-25.47
2.570 G	2.571 G	30.00 k	2.570090 G	-40.83	-30.83
2.571 G	2.575 G	1.00 M	2.571136 G	-23.16	-13.16
2.575 G	2.581 G	1.00 M	2.575348 G	-33.43	-20.43
2.581 G	2.585 G	1.00 M	2.583976 G	-39.51	-14.51

Highest channel

RB Size 12 & RB Offset 11-16QAM

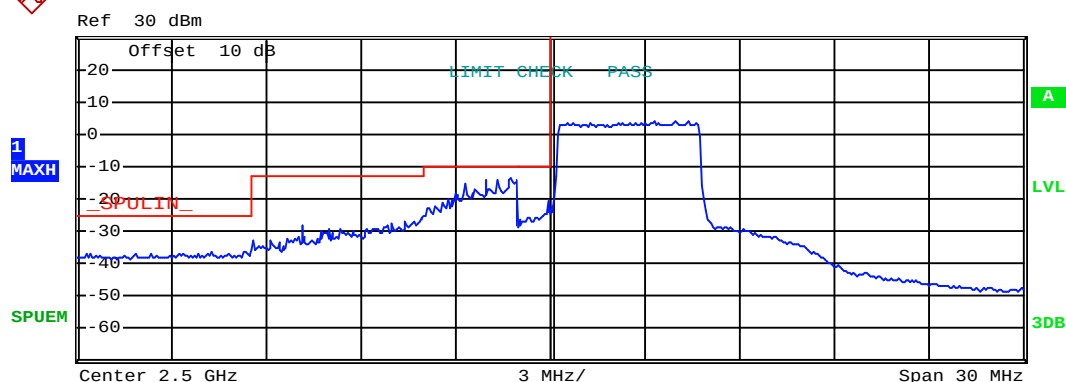


Lowest channel



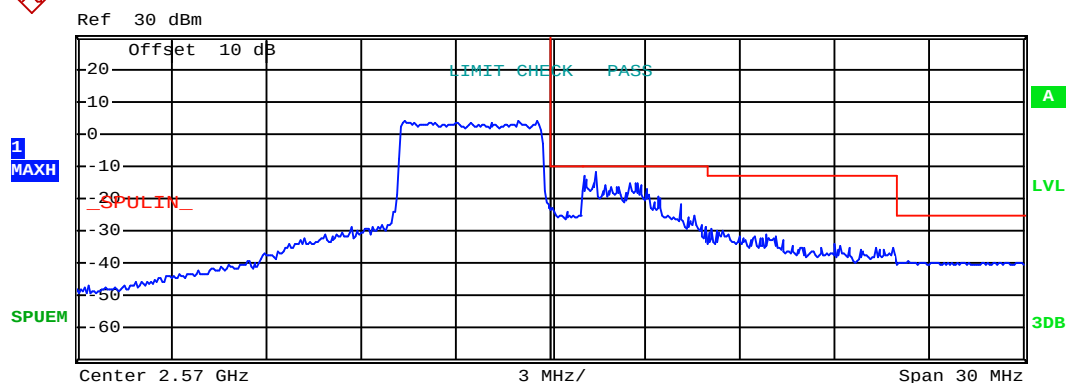
Highest channel

RB Size 25 & RB Offset 0-16QAM



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.485 G	2.490 G	1.00 M	2.489257 G	-36.41	-11.41
2.490 G	2.496 G	1.00 M	2.495901 G	-26.01	-13.01
2.496 G	2.499 G	1.00 M	2.498742 G	-13.32	-3.32
2.499 G	2.500 G	100.00 k	2.499984 G	-20.82	-10.82
2.500 G	2.515 G	100.00 k	2.503270 G	4.13	-28.87

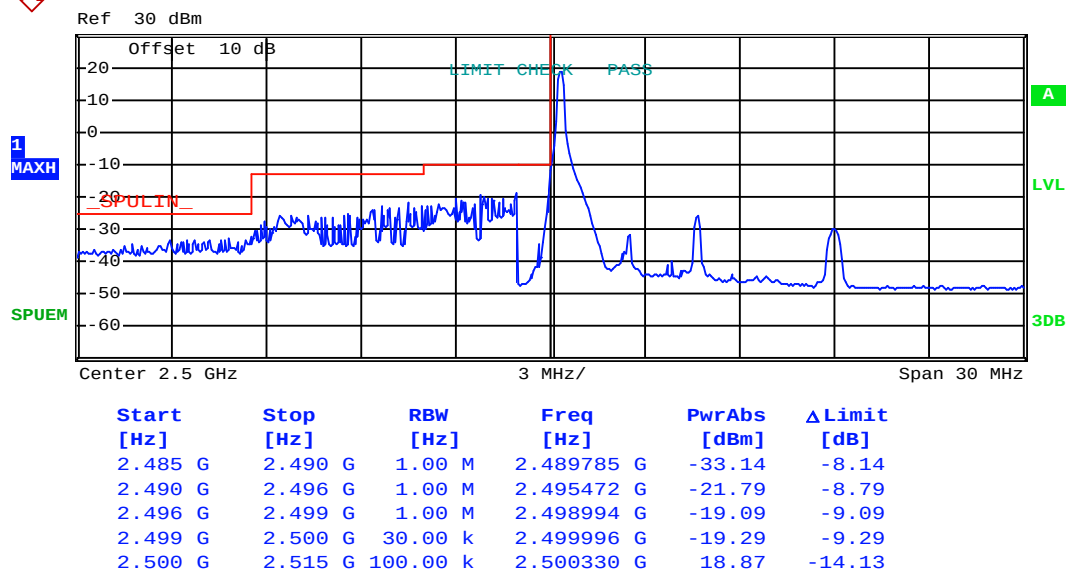
Lowest channel



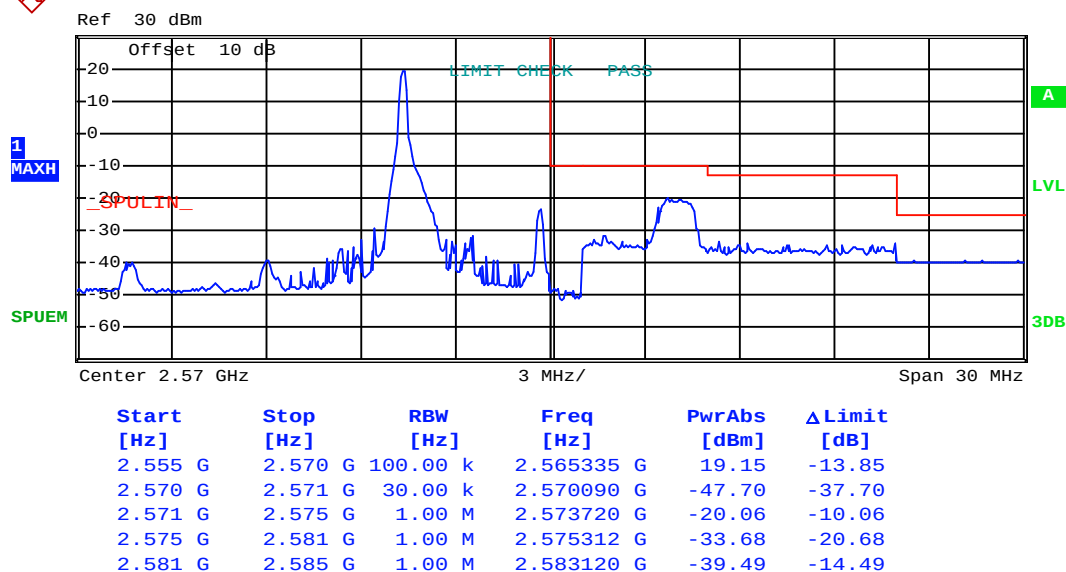
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.555 G	2.570 G	100.00 k	2.568965 G	3.86	-29.14
2.570 G	2.571 G	100.00 k	2.570120 G	-22.68	-12.68
2.571 G	2.575 G	1.00 M	2.571448 G	-11.98	-1.98
2.575 G	2.581 G	1.00 M	2.575084 G	-29.65	-16.65
2.581 G	2.585 G	1.00 M	2.581320 G	-39.58	-14.58

Highest channel

RB Size 1 & RB Offset 0-QPSK

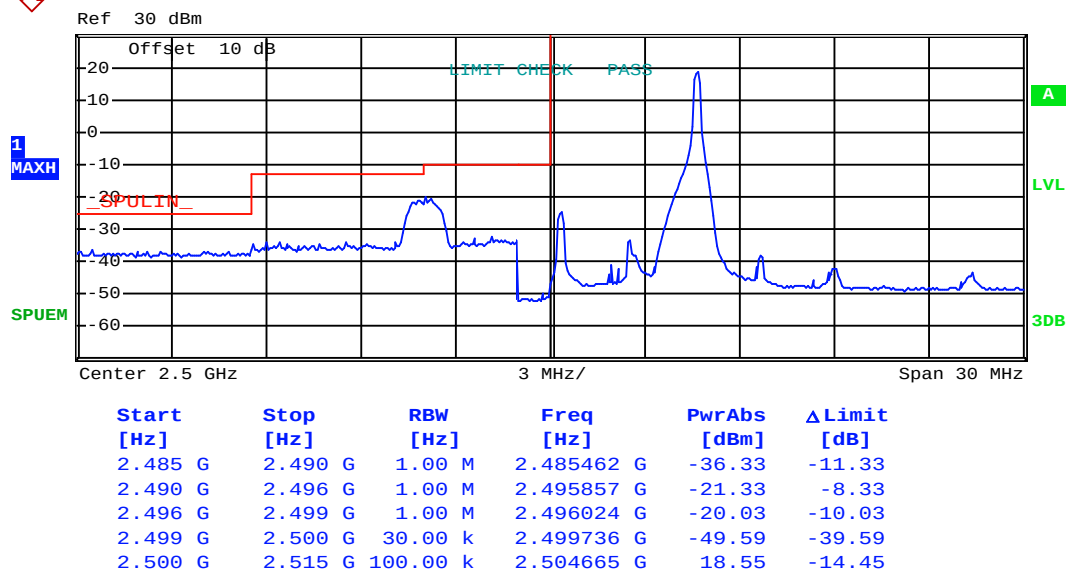


Lowest channel

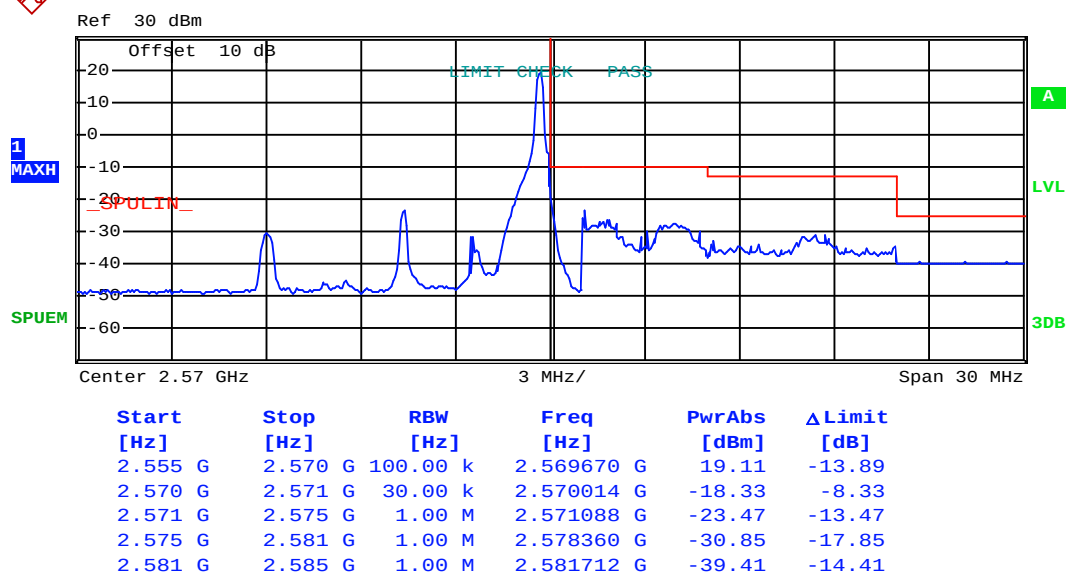


Highest channel

RB Size 1 & RB Offset 24-QPSK

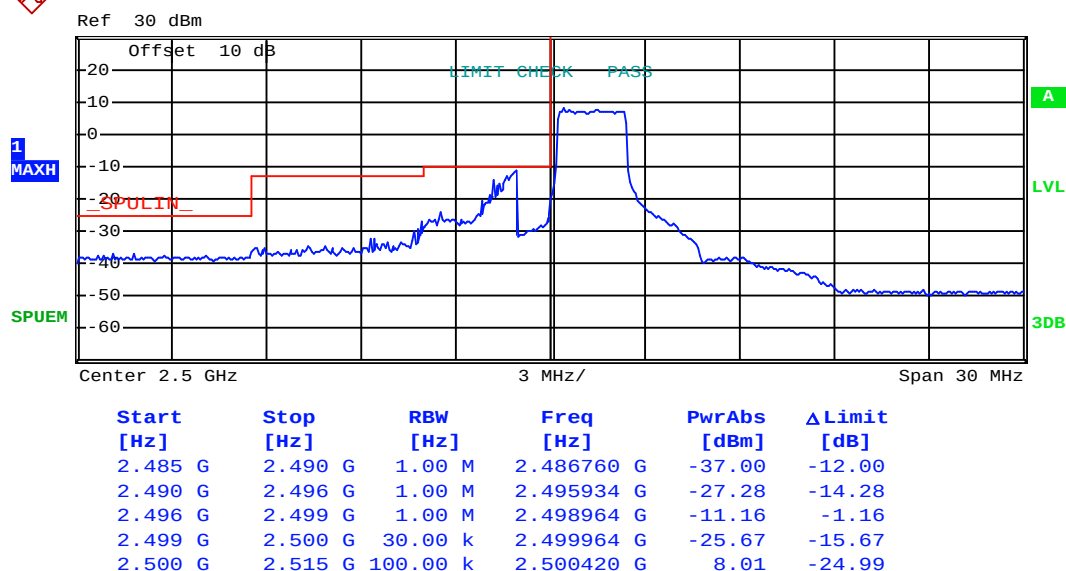


Lowest channel

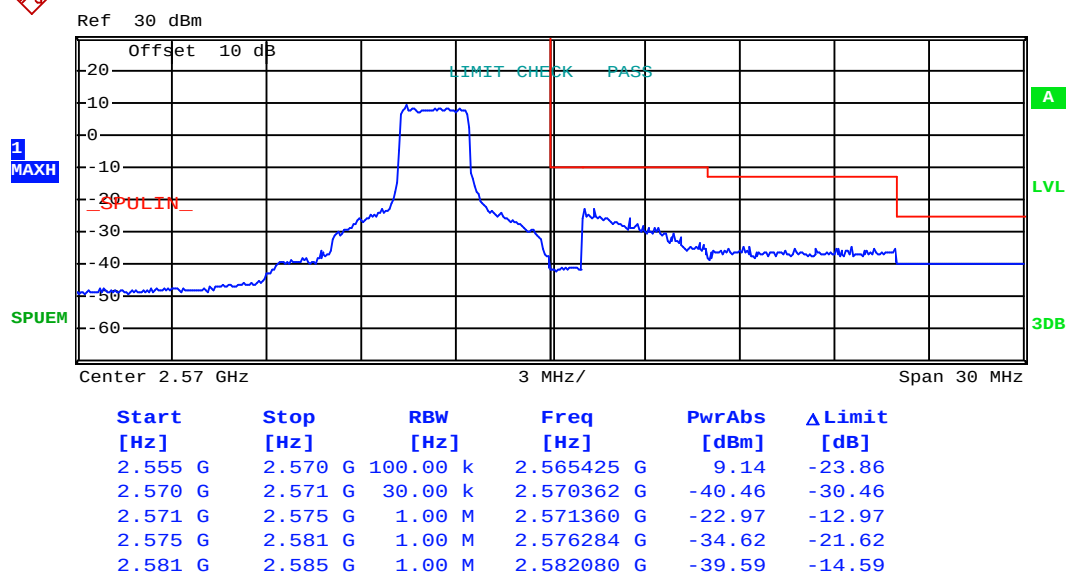


Highest channel

RB Size 12 & RB Offset 0-QPSK

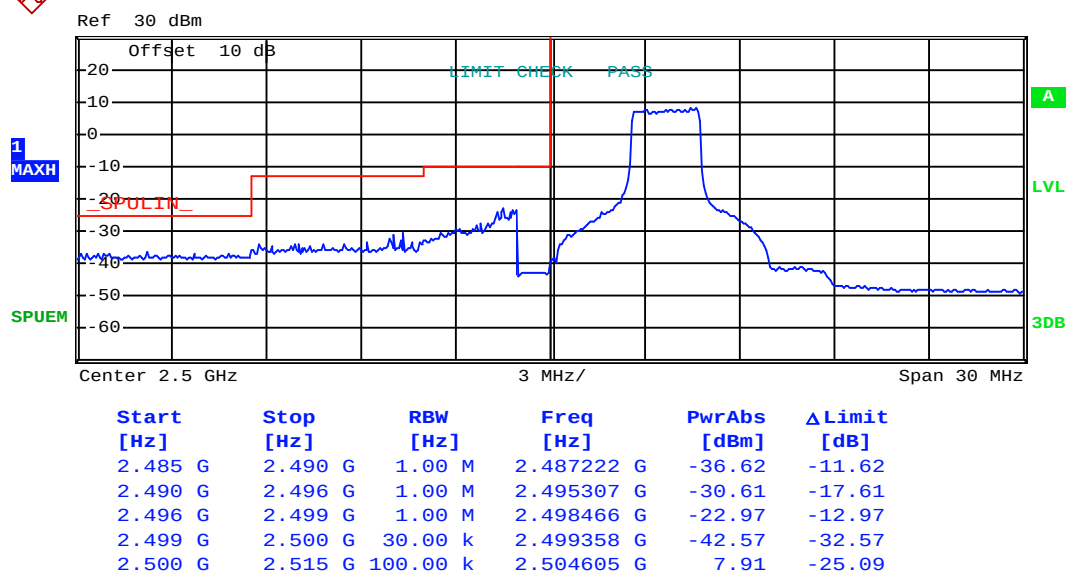


Lowest channel

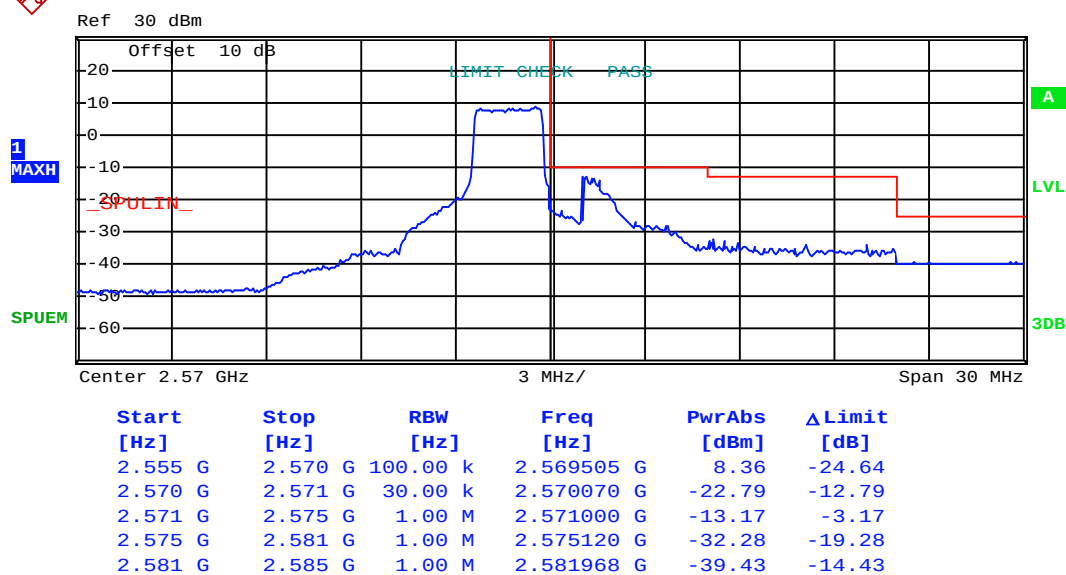


Highest channel

RB Size 12 & RB Offset 11-QPSK

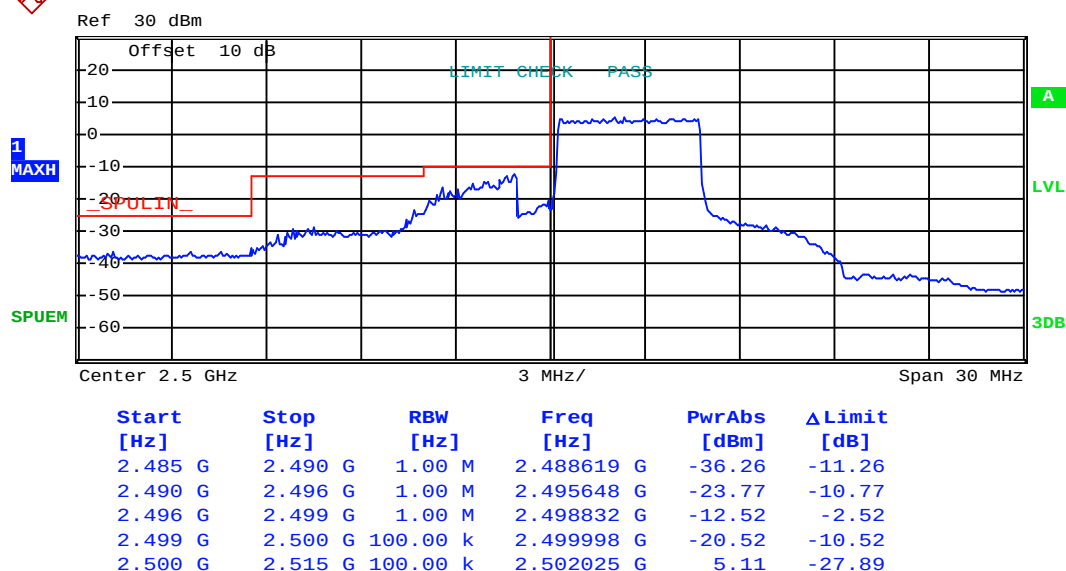


Lowest channel

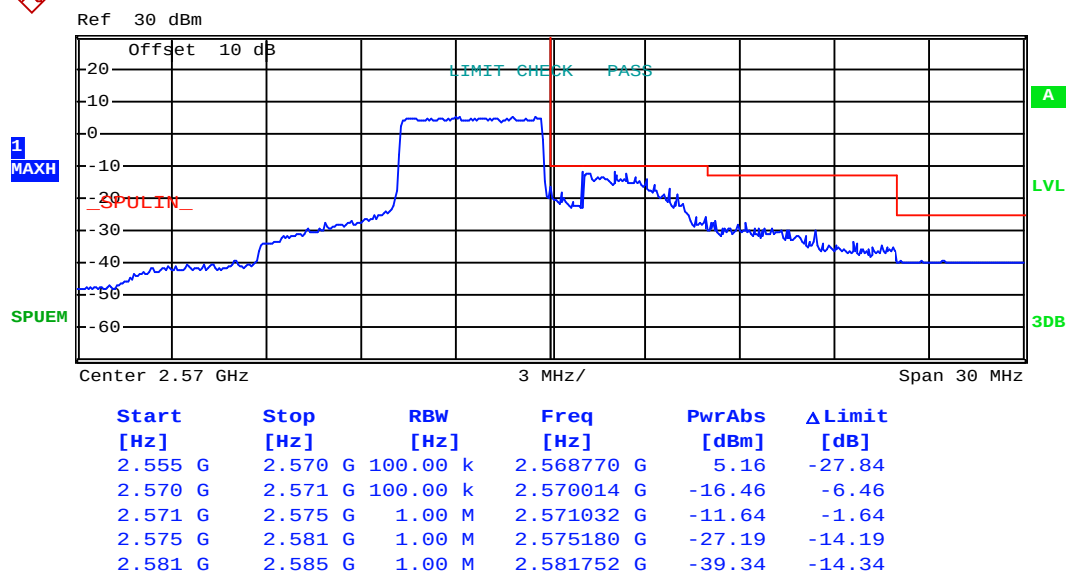


Highest channel

RB Size 25 & RB Offset 0-QPSK



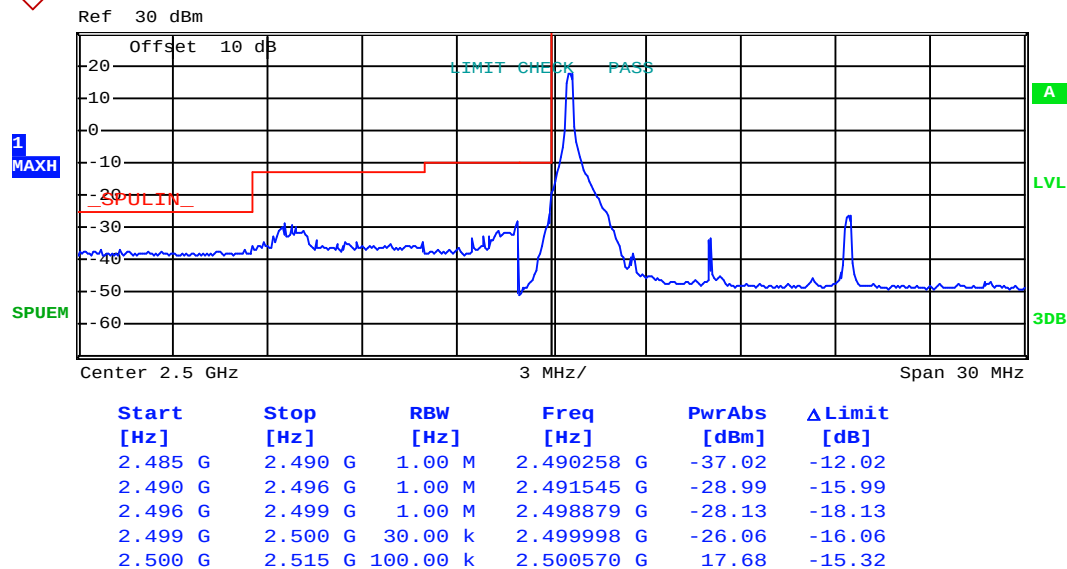
Lowest channel



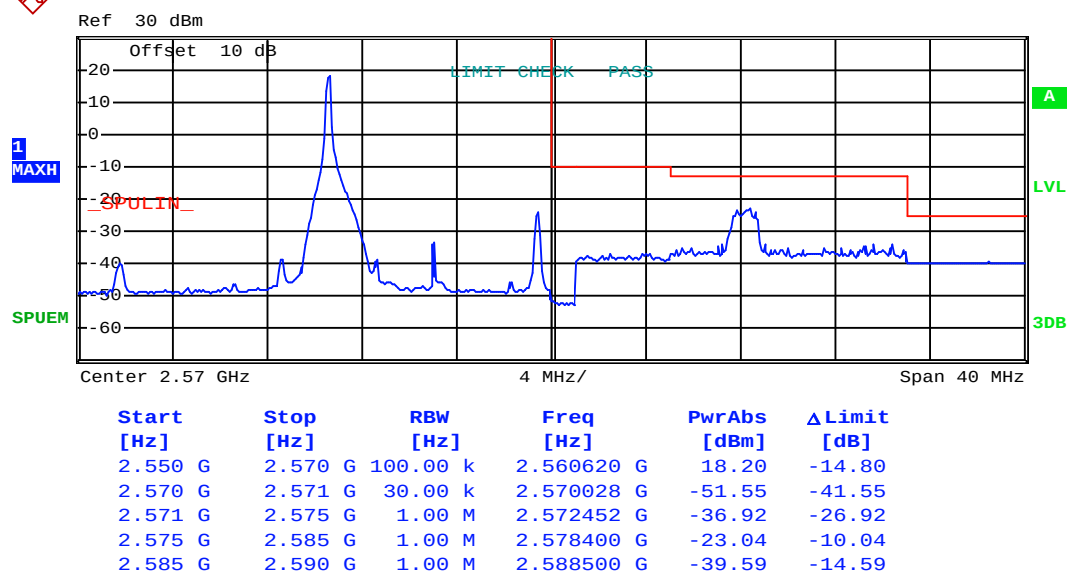
Highest channel

10MHz:

RB Size 1 & RB Offset 0-16QAM

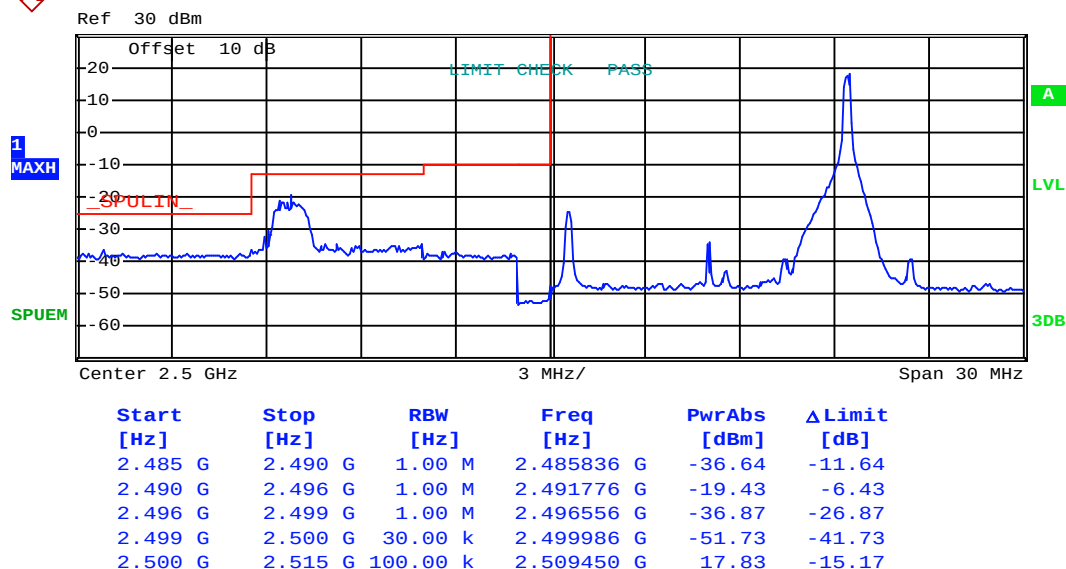


Lowest channel

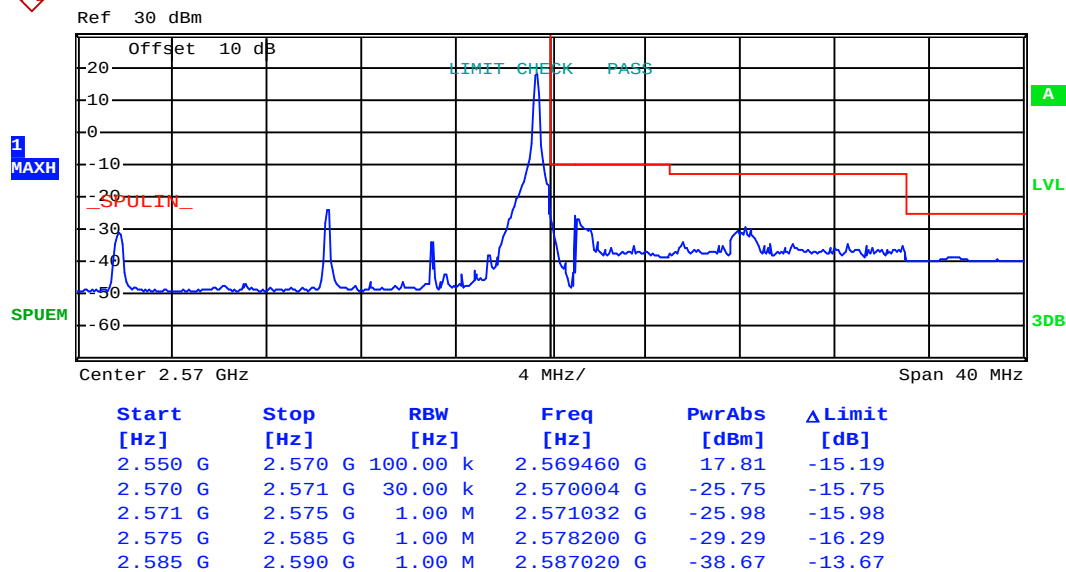


Highest channel

RB Size 1 & RB Offset 49-16QAM

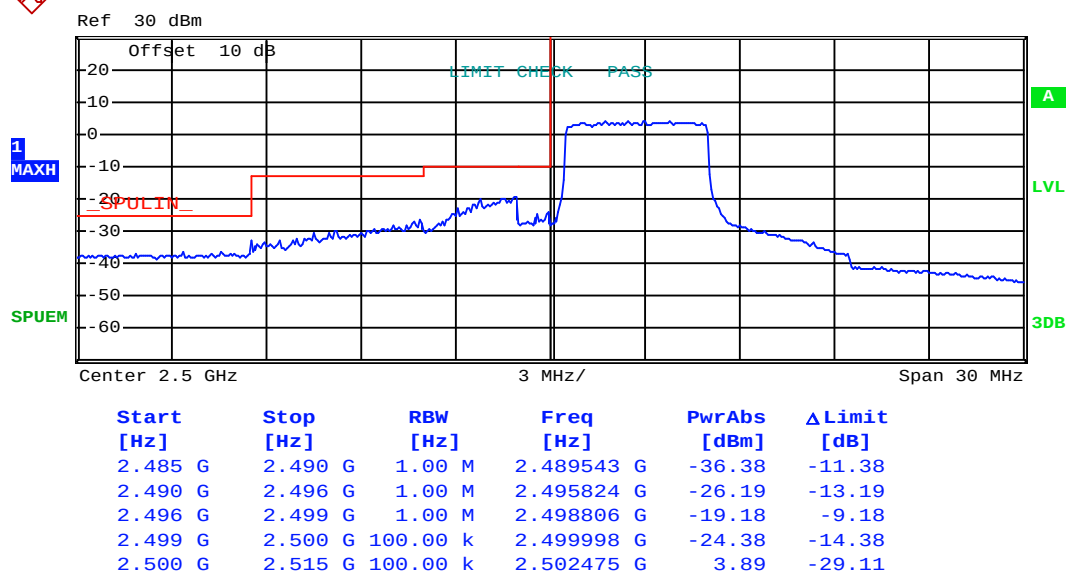


Lowest channel

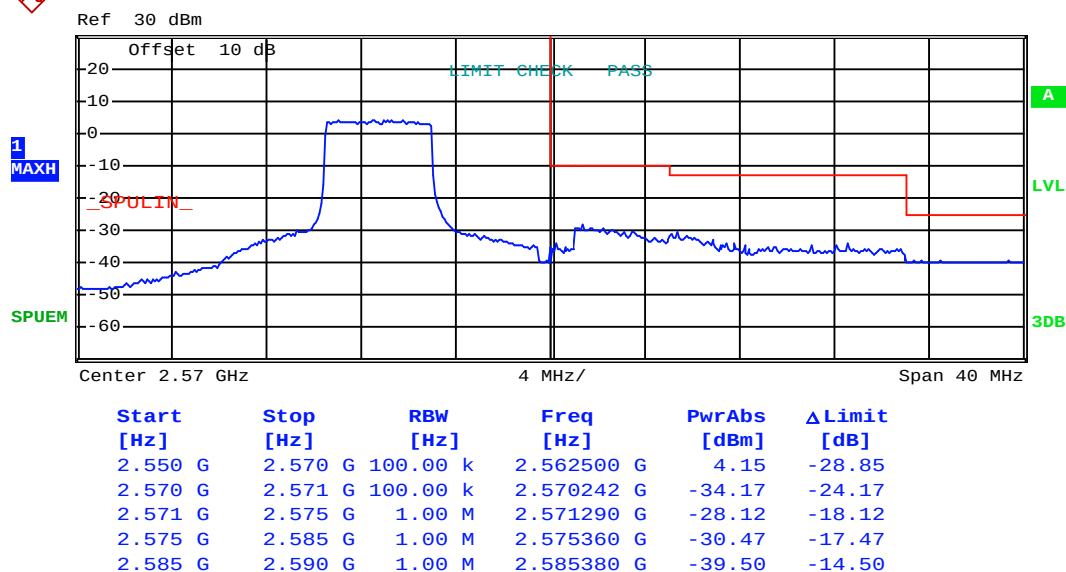


Highest channel

RB Size 25 & RB Offset 0-16QAM

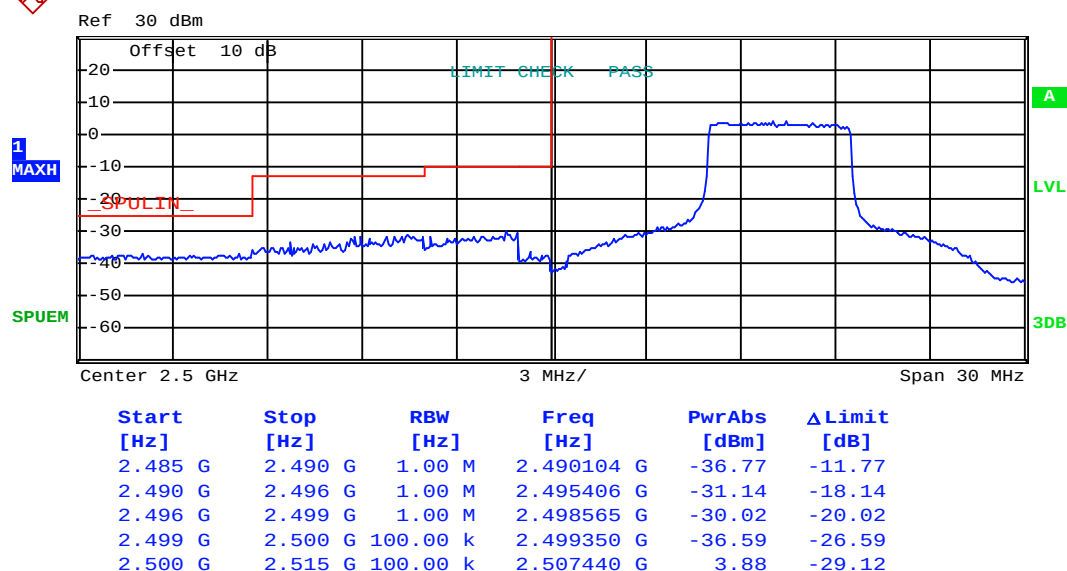


Lowest channel

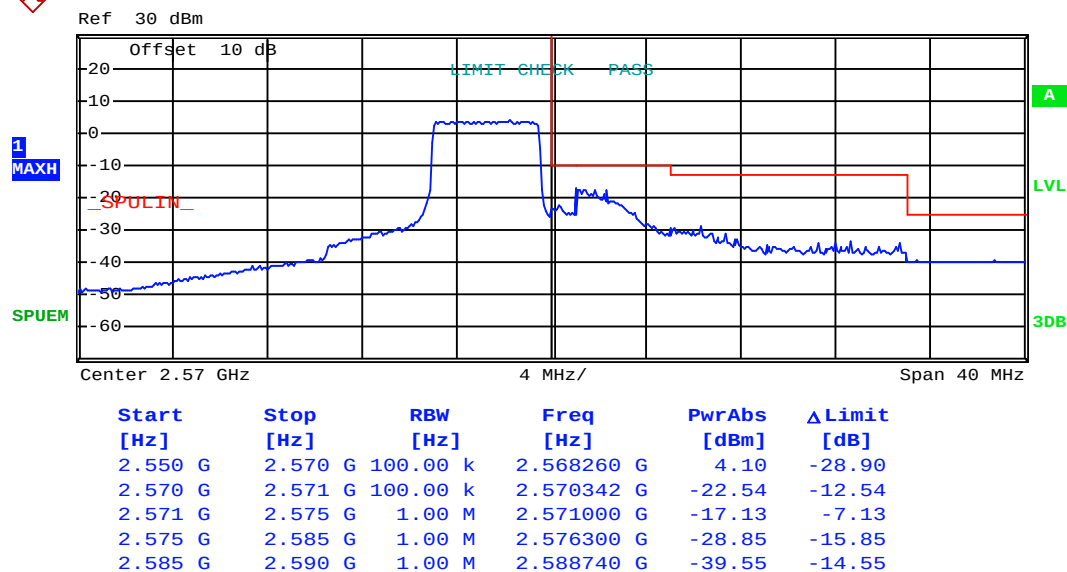


Highest channel

RB Size 25 & RB Offset 24-16QAM

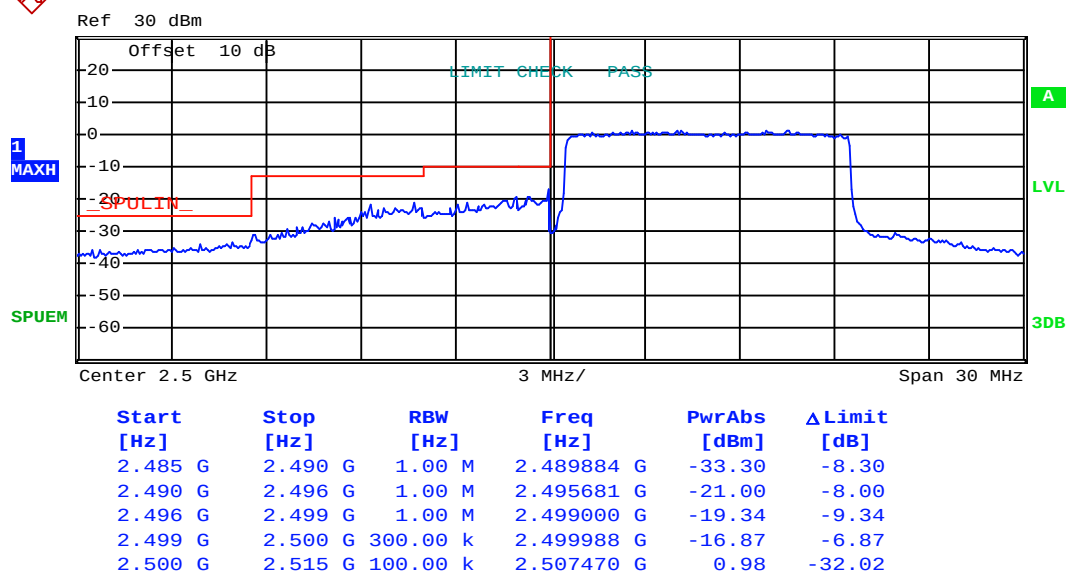


Lowest channel

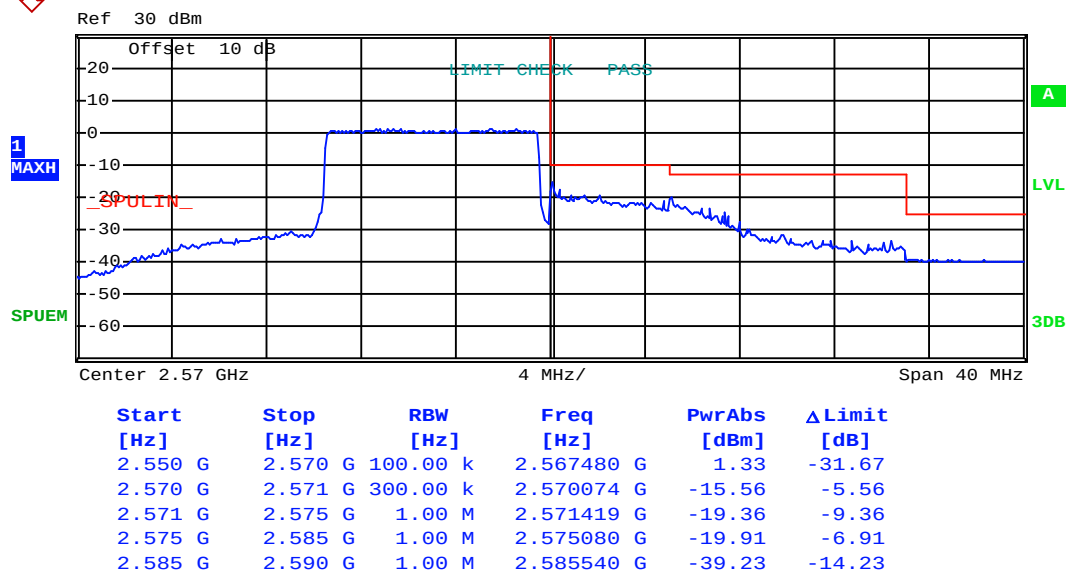


Highest channel

RB Size 50 & RB Offset 0-16QAM

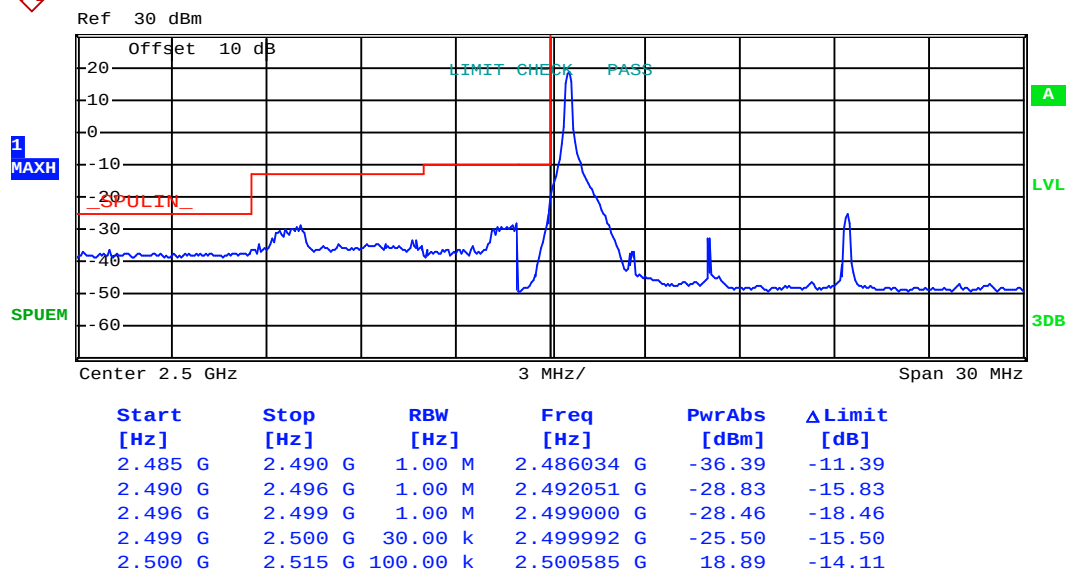


Lowest channel

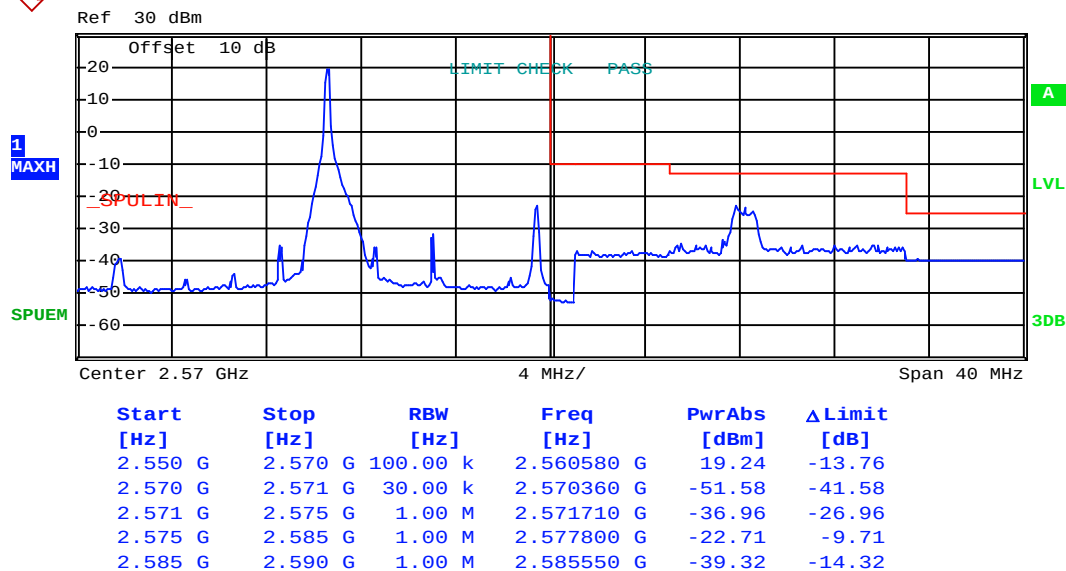


Highest channel

RB Size 1 & RB Offset 0-QPSK

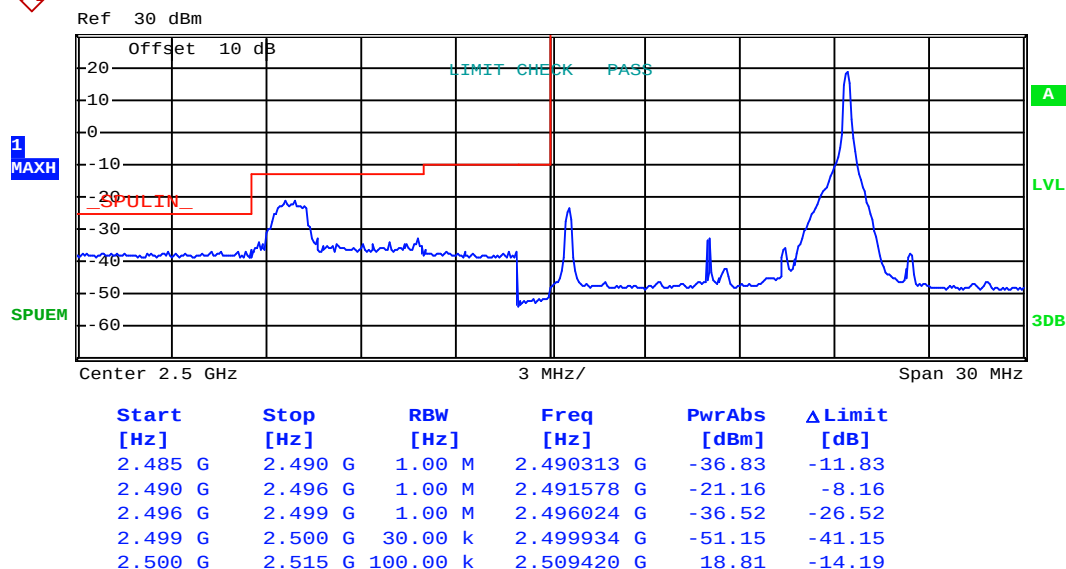


Lowest channel

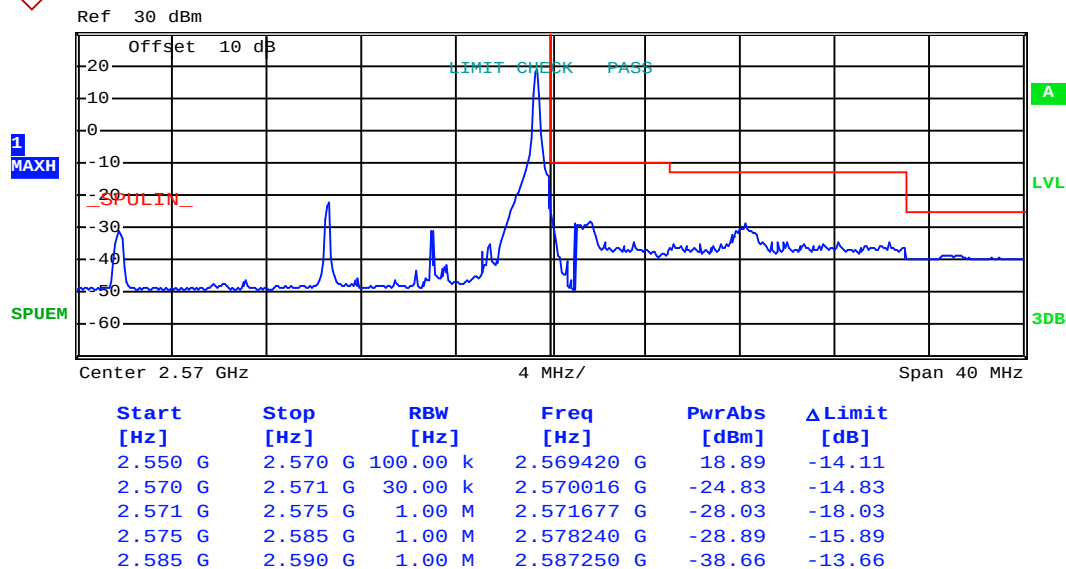


Highest channel

RB Size 1 & RB Offset 49-QPSK

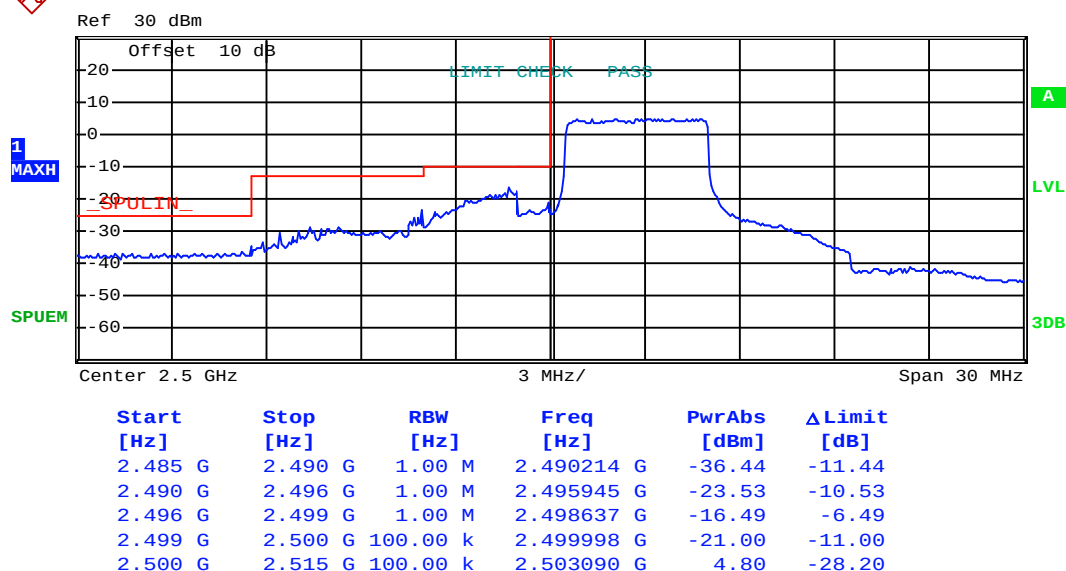


Lowest channel

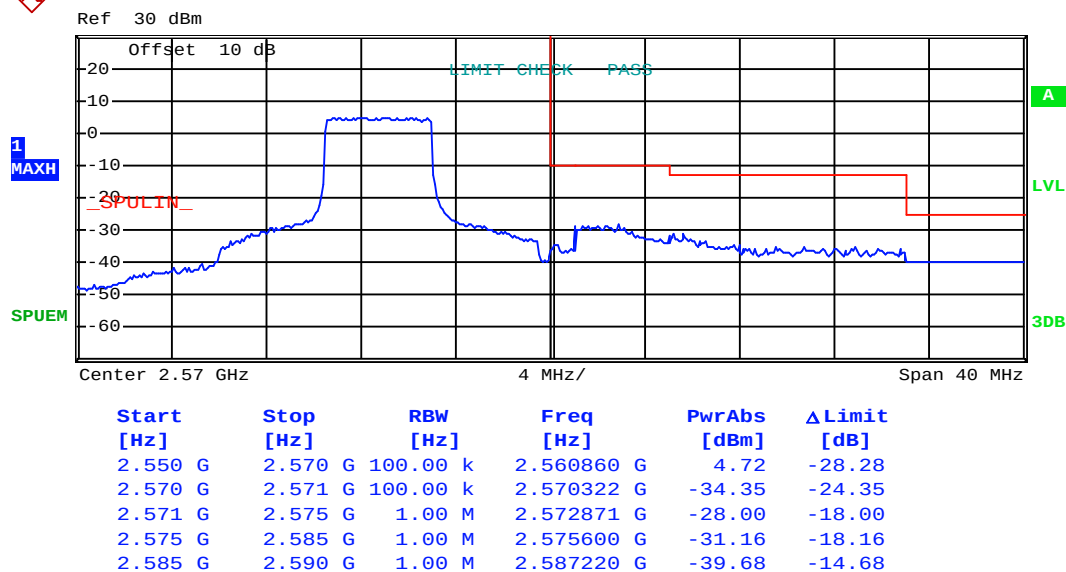


Highest channel

RB Size 25 & RB Offset 0-QPSK

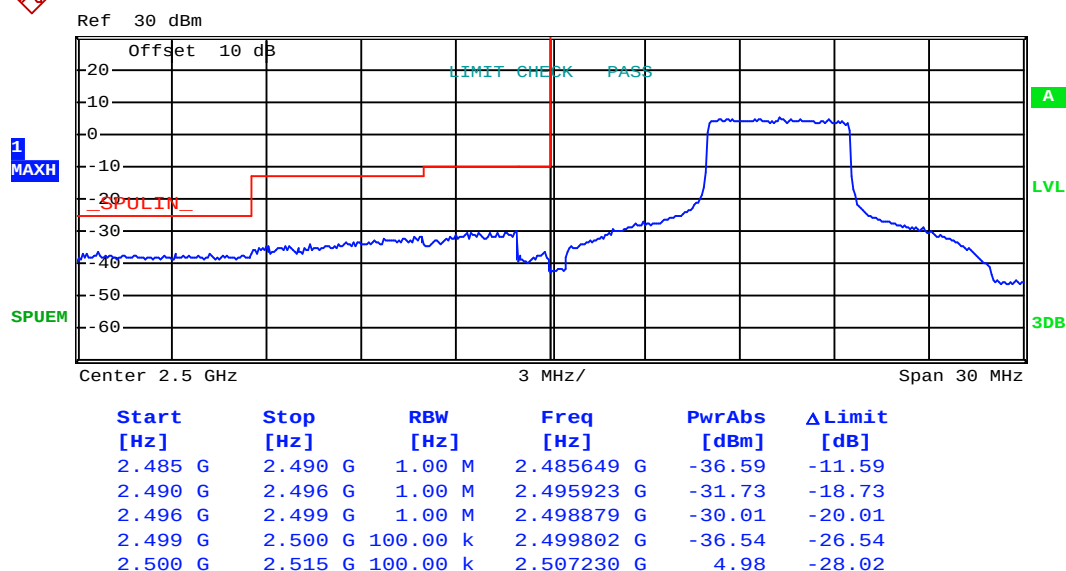


Lowest channel

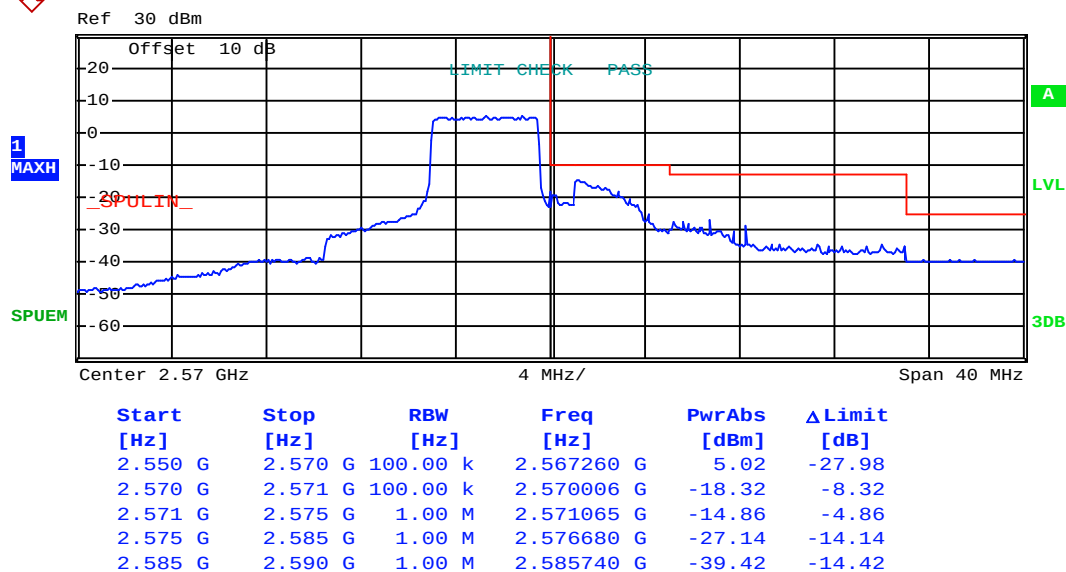


Highest channel

RB Size 25 & RB Offset 24-QPSK

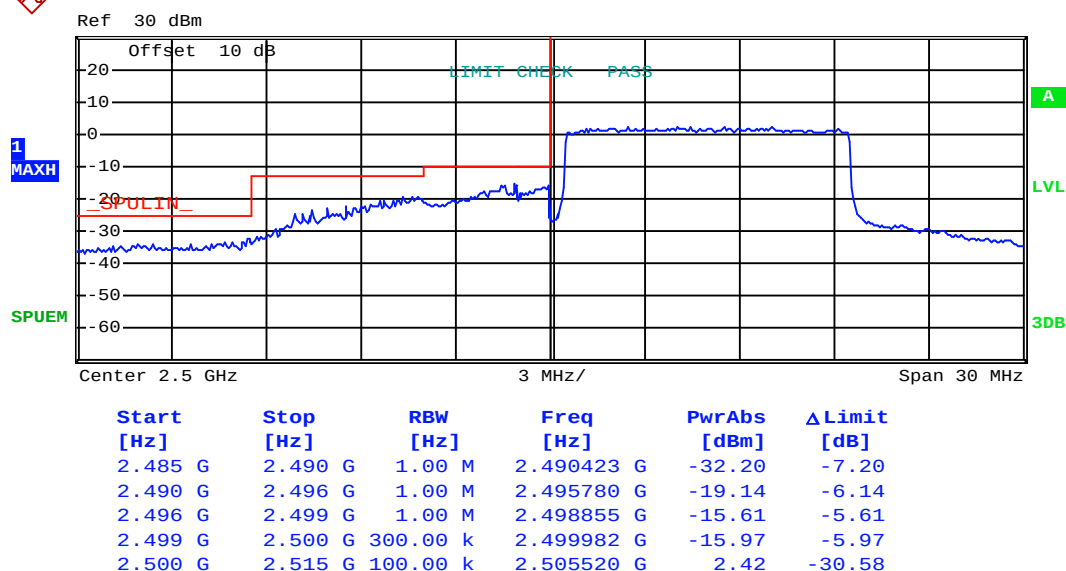


Lowest channel

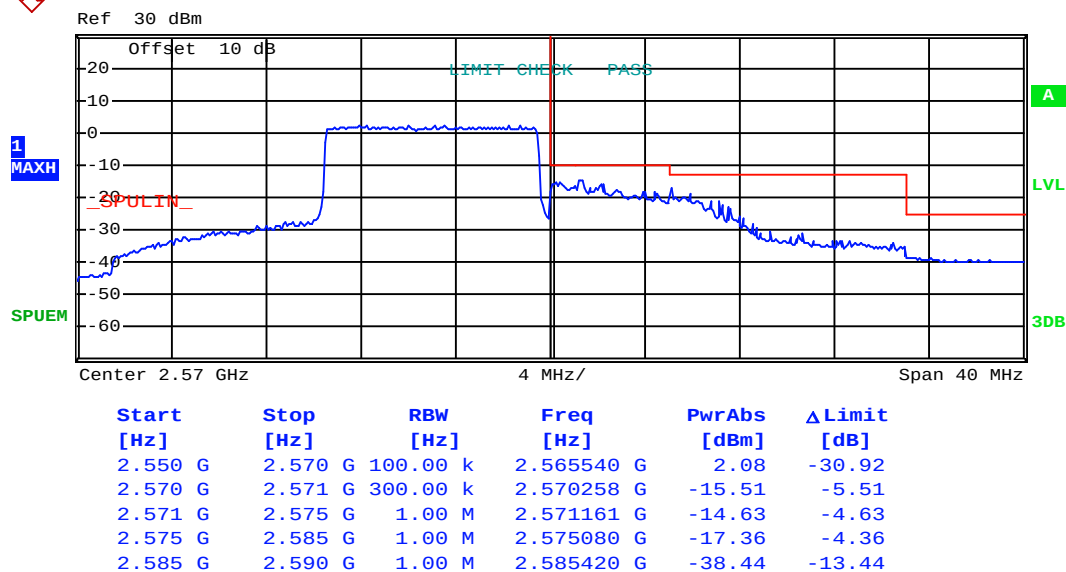


Highest channel

RB Size 50 & RB Offset 0-QPSK



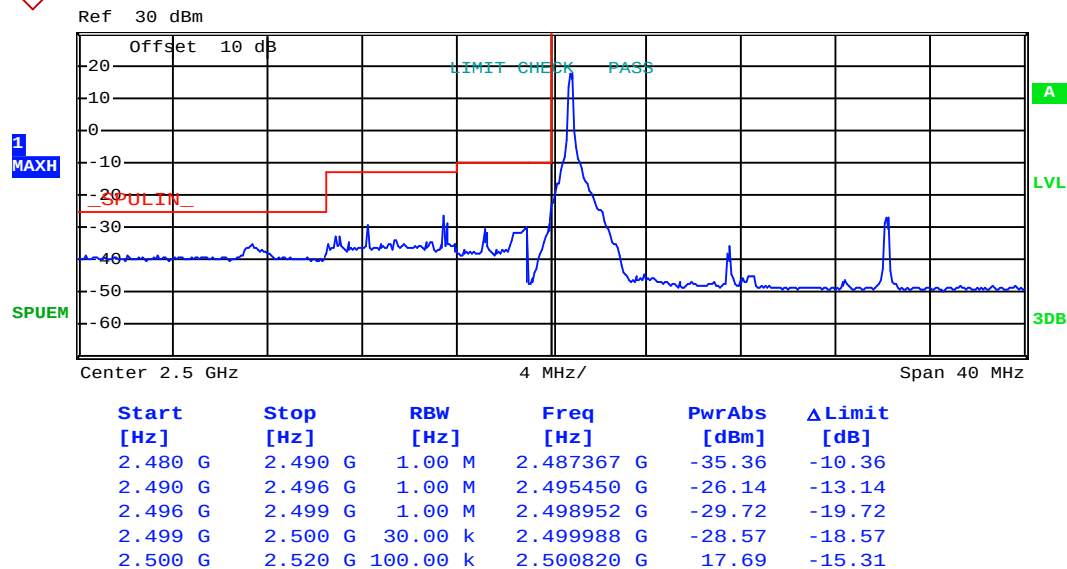
Lowest channel



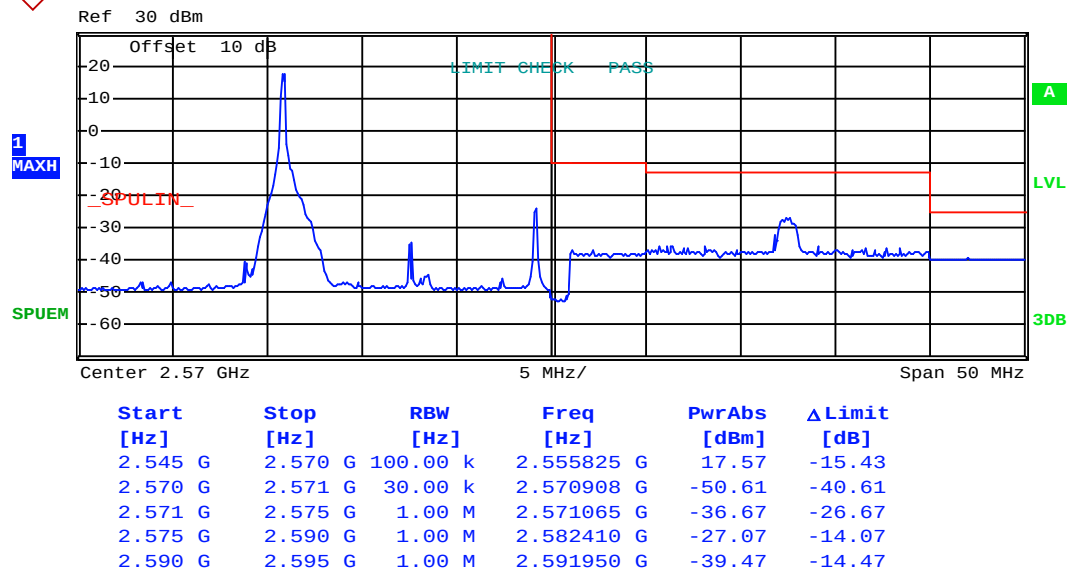
Highest channel

15MHz:

RB Size 1 & RB Offset 0-16QAM

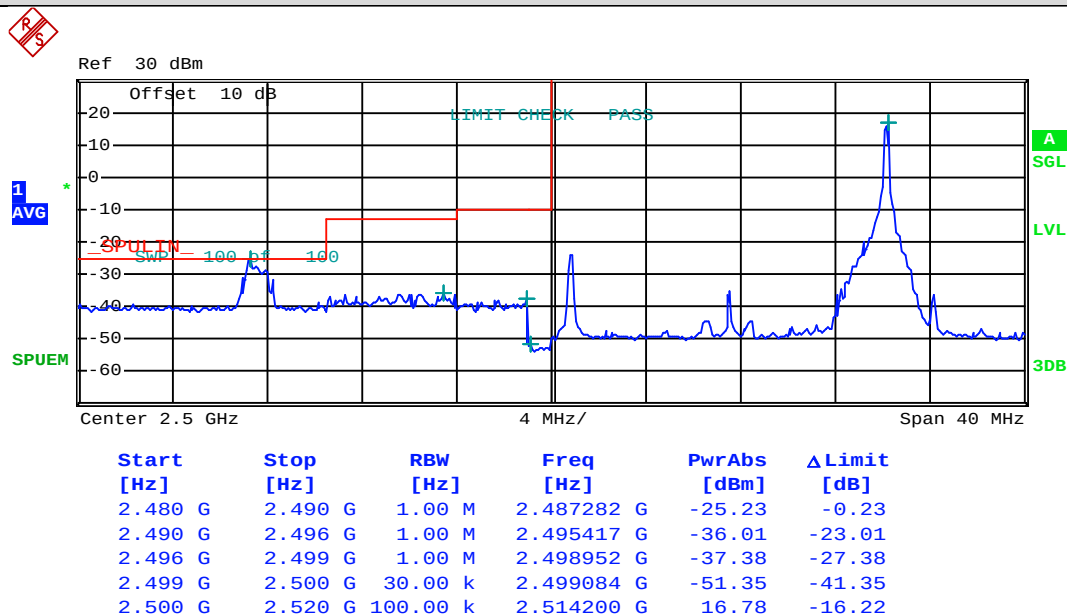


Lowest channel

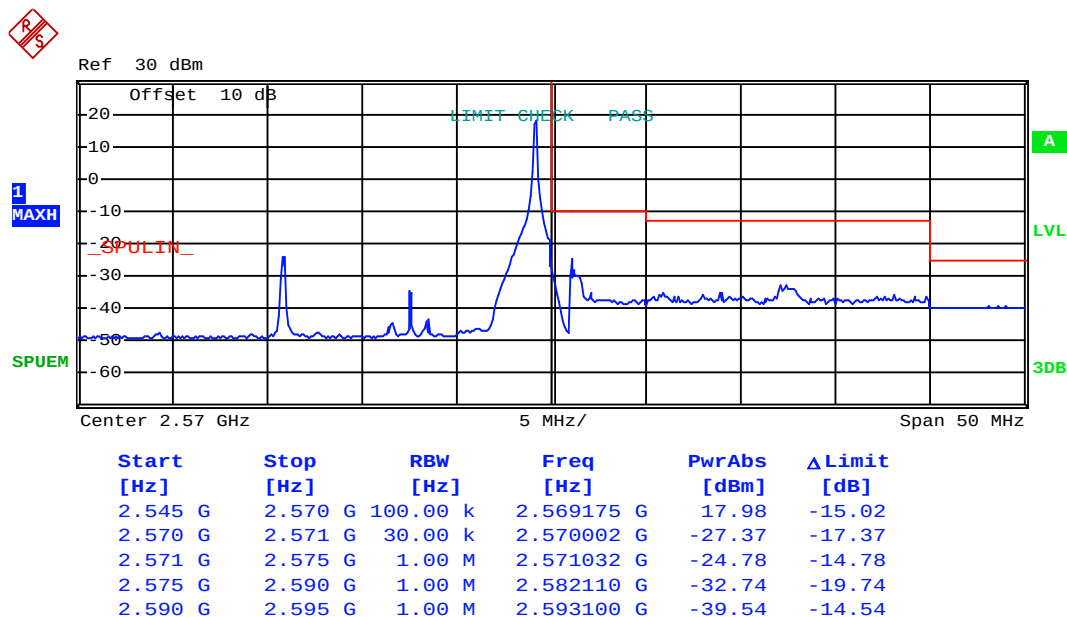


Highest channel

RB Size 1 & RB Offset 74-16QAM

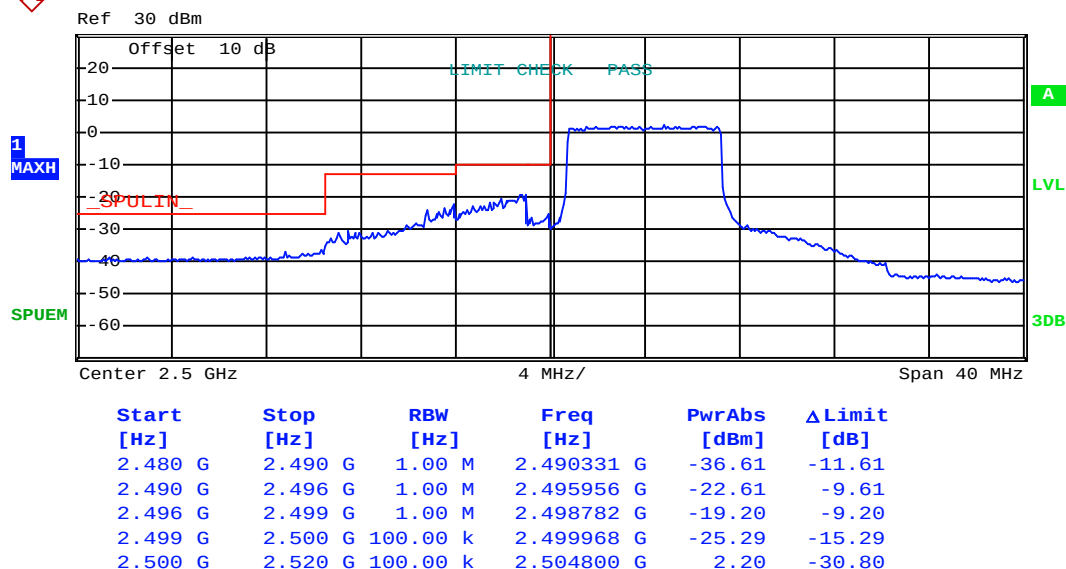


Lowest channel

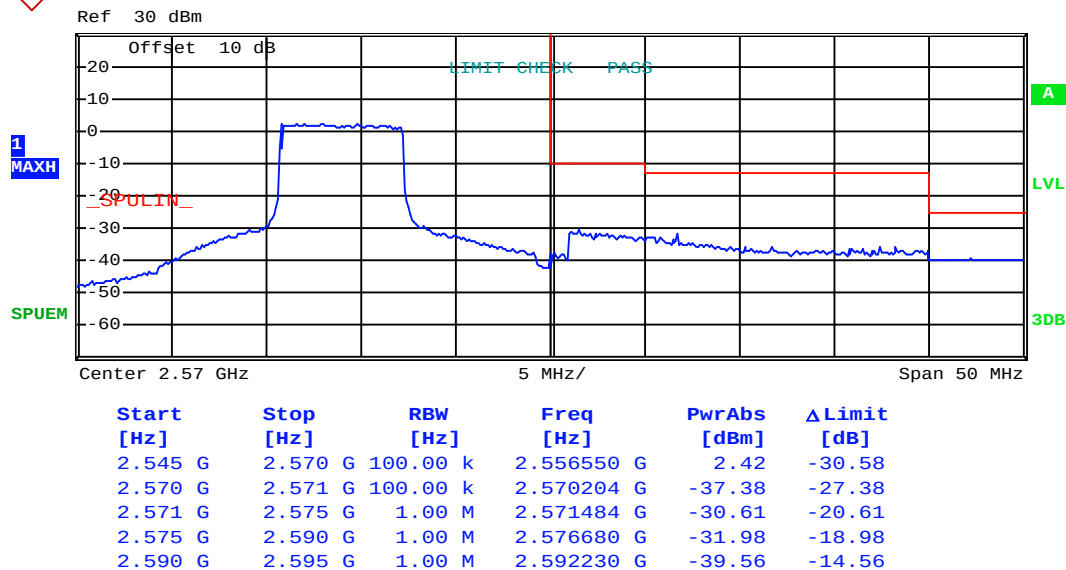


Highest channel

RB Size 36 & RB Offset 0-16QAM

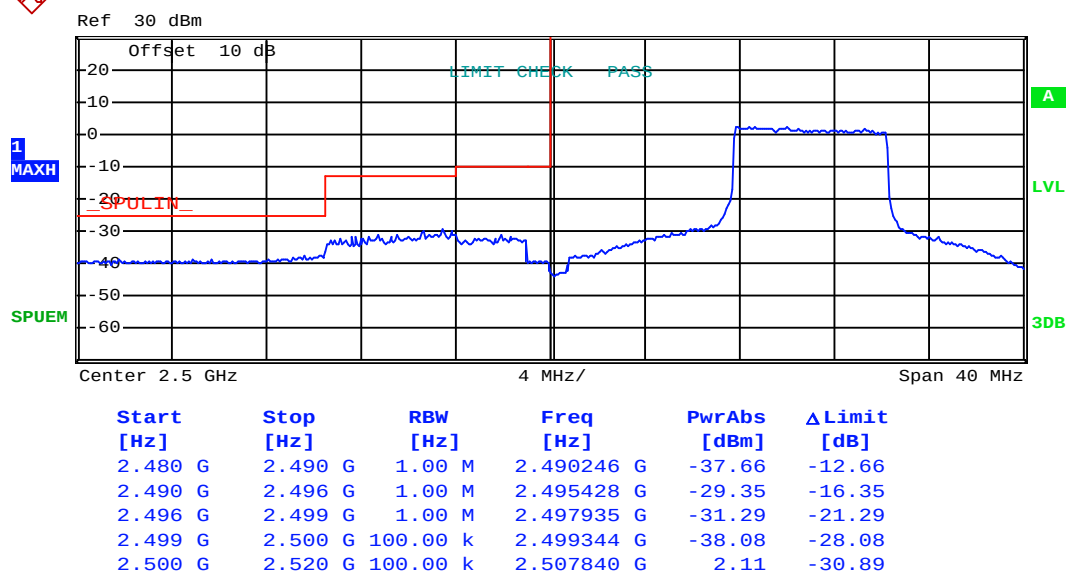


Lowest channel

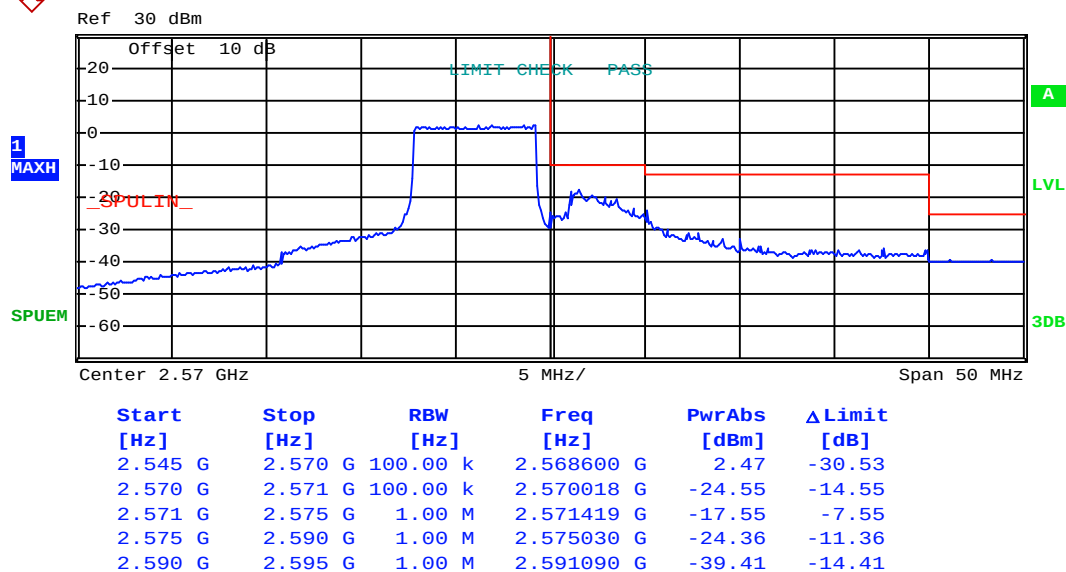


Highest channel

RB Size 36 & RB Offset 37-16QAM

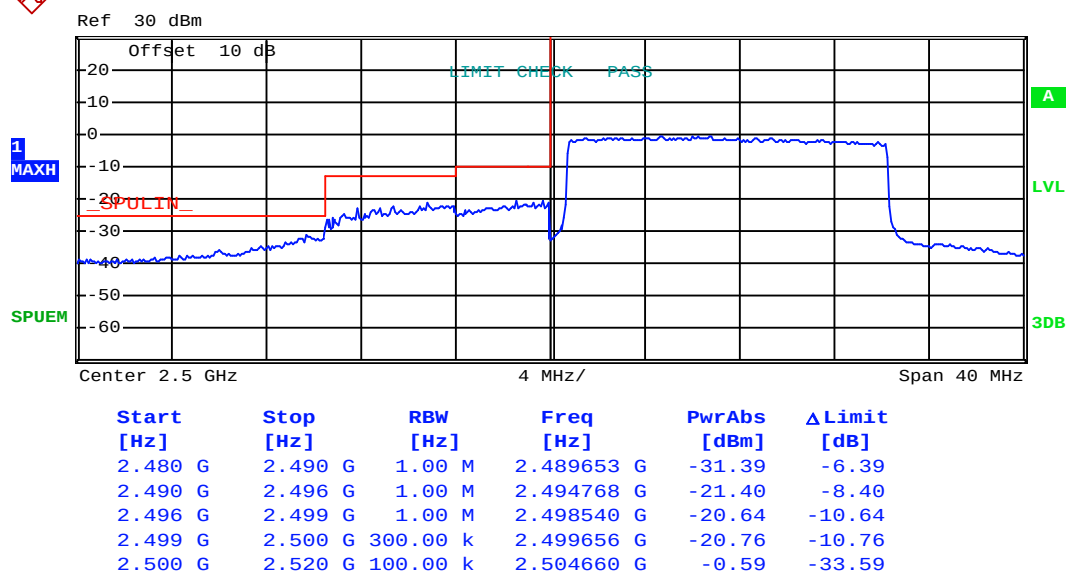


Lowest channel

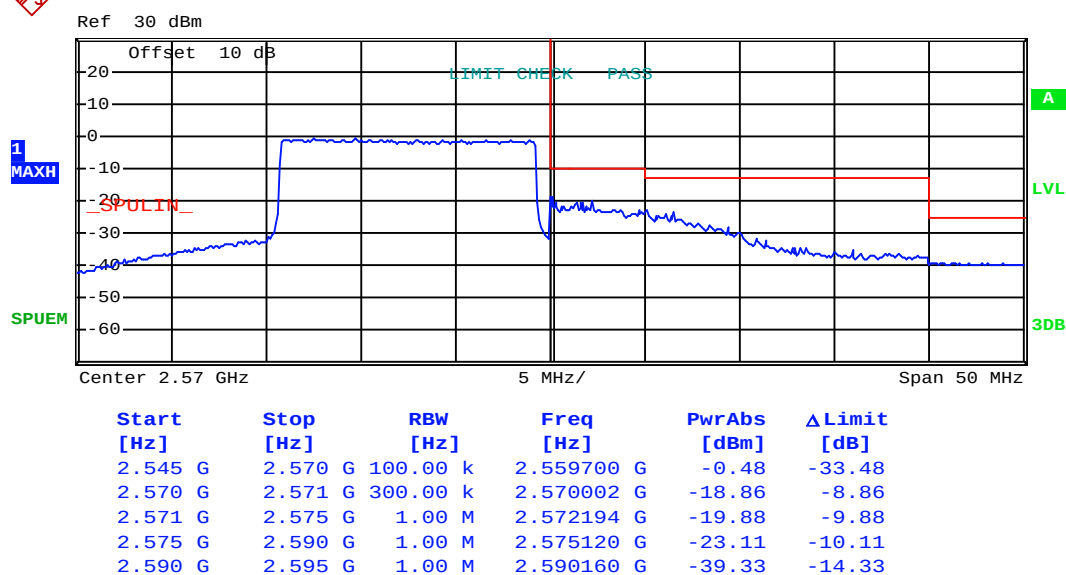


Highest channel

RB Size 75 & RB Offset 0-16QAM

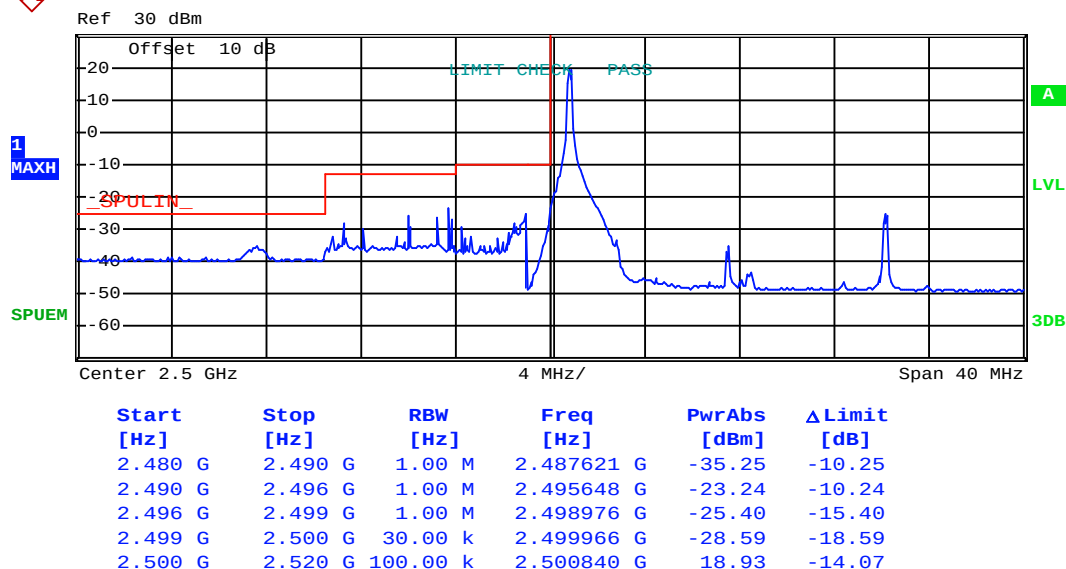


Lowest channel

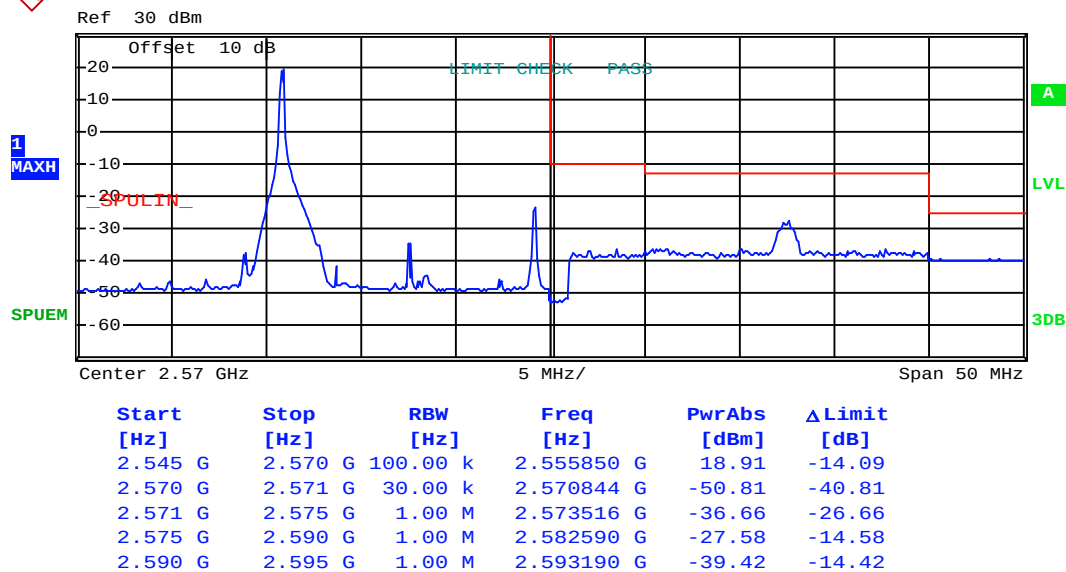


Highest channel

RB Size 1 & RB Offset 0-QPSK

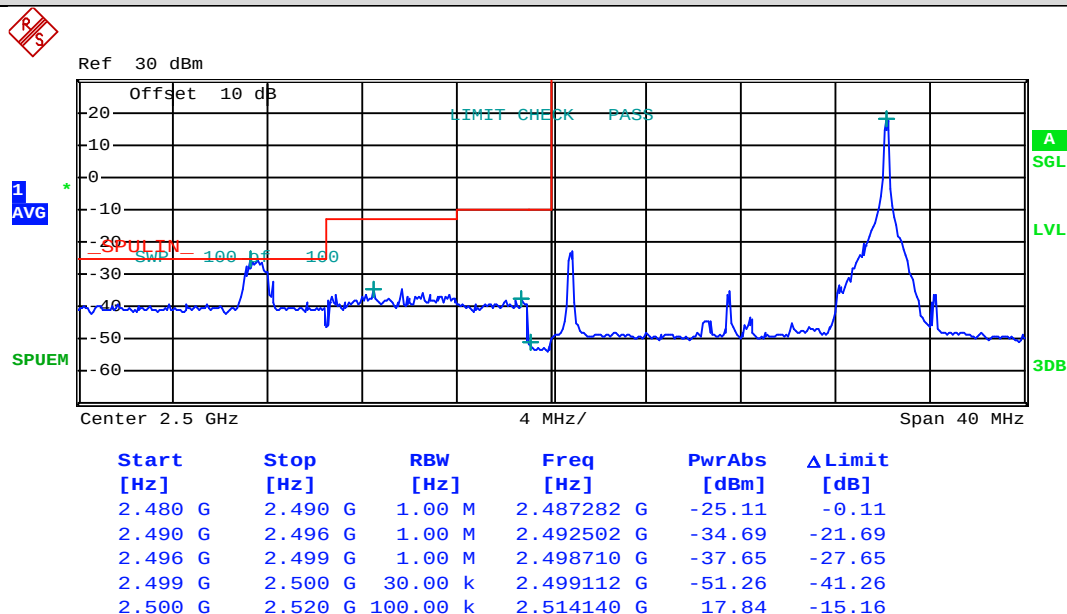


Lowest channel

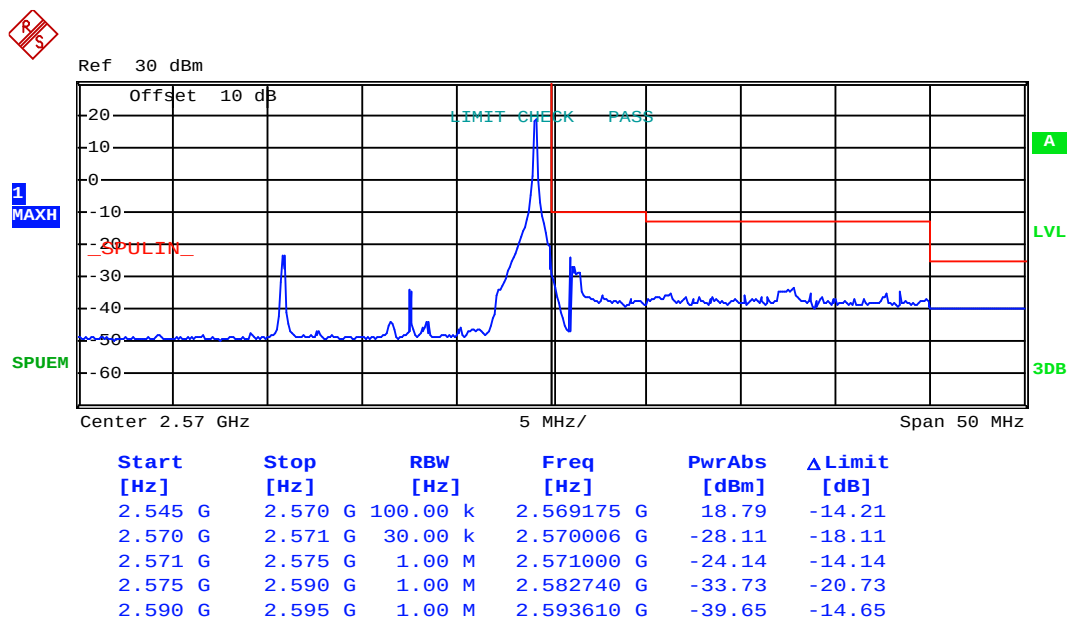


Highest channel

RB Size 1 & RB Offset 74-QPSK

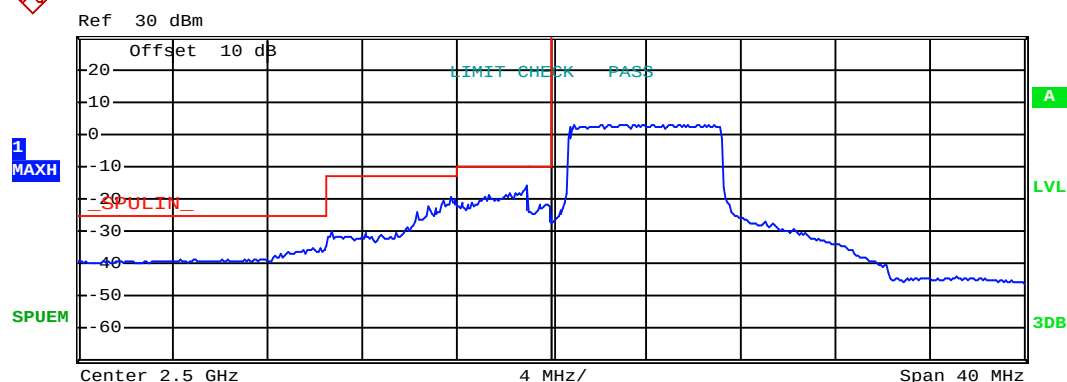


Lowest channel



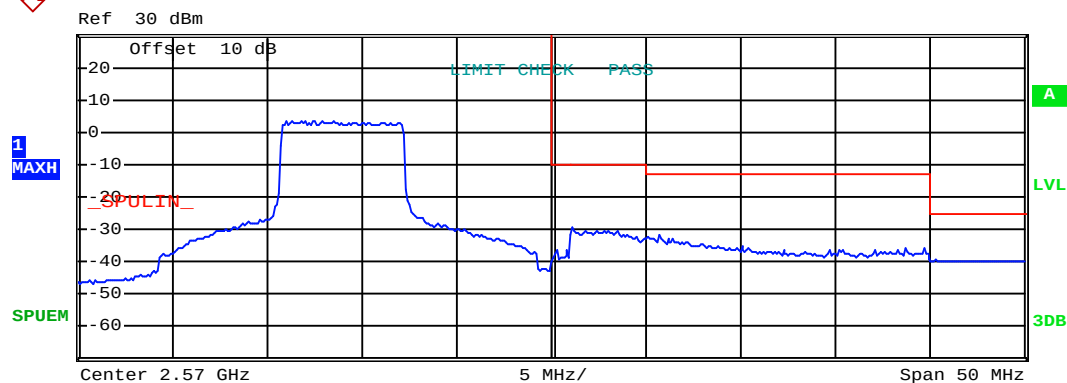
Highest channel

RB Size 36 & RB Offset 0-QPSK



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.480 G	2.490 G	1.00 M	2.489907 G	-35.24	-10.24
2.490 G	2.496 G	1.00 M	2.495780 G	-19.61	-6.61
2.496 G	2.499 G	1.00 M	2.498927 G	-15.97	-5.97
2.499 G	2.500 G	100.00 k	2.499846 G	-21.85	-11.85
2.500 G	2.520 G	100.00 k	2.502420 G	3.04	-29.96

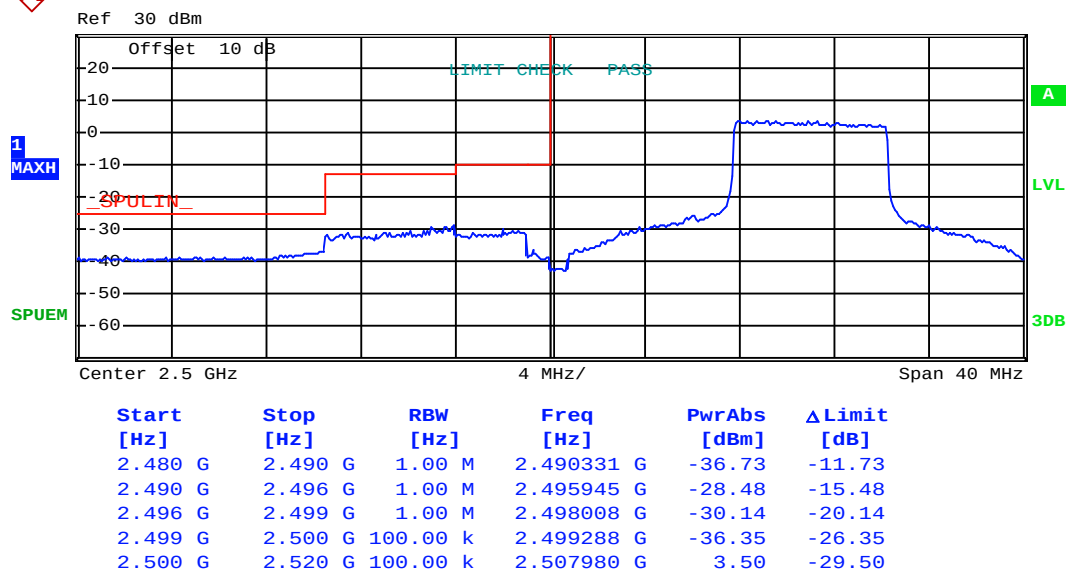
Lowest channel



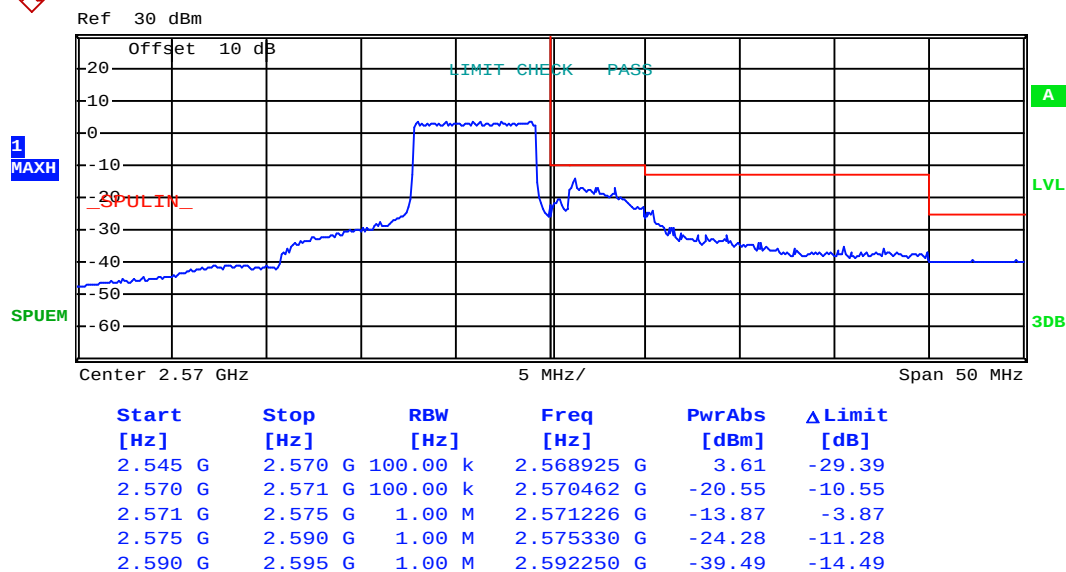
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.545 G	2.570 G	100.00 k	2.557425 G	3.66	-29.34
2.570 G	2.571 G	100.00 k	2.570254 G	-36.55	-26.55
2.571 G	2.575 G	1.00 M	2.571065 G	-29.59	-19.59
2.575 G	2.590 G	1.00 M	2.575630 G	-31.75	-18.75
2.590 G	2.595 G	1.00 M	2.590320 G	-39.53	-14.53

Highest channel

RB Size 36 & RB Offset 37-QPSK

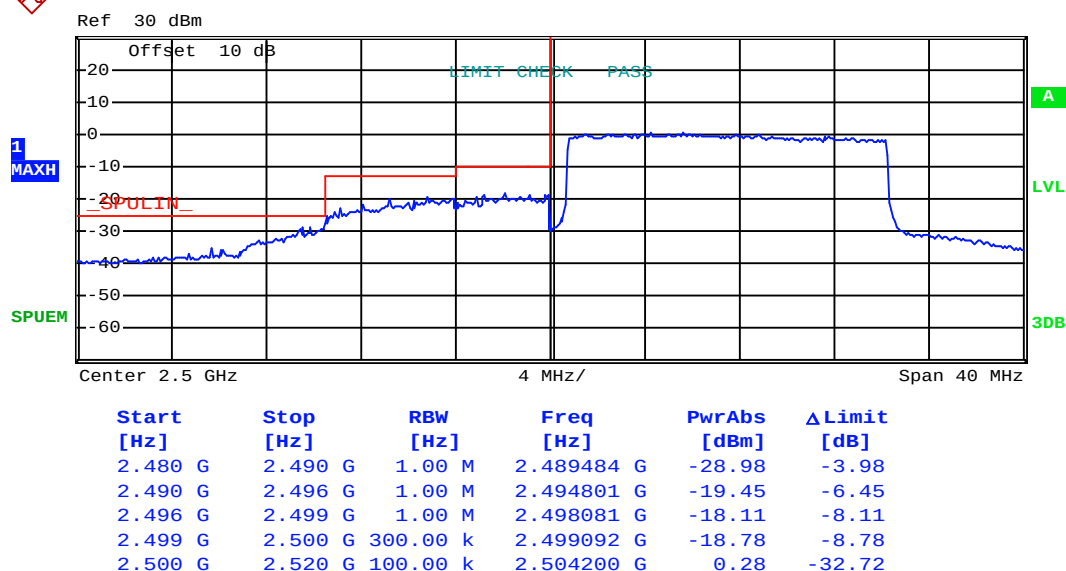


Lowest channel

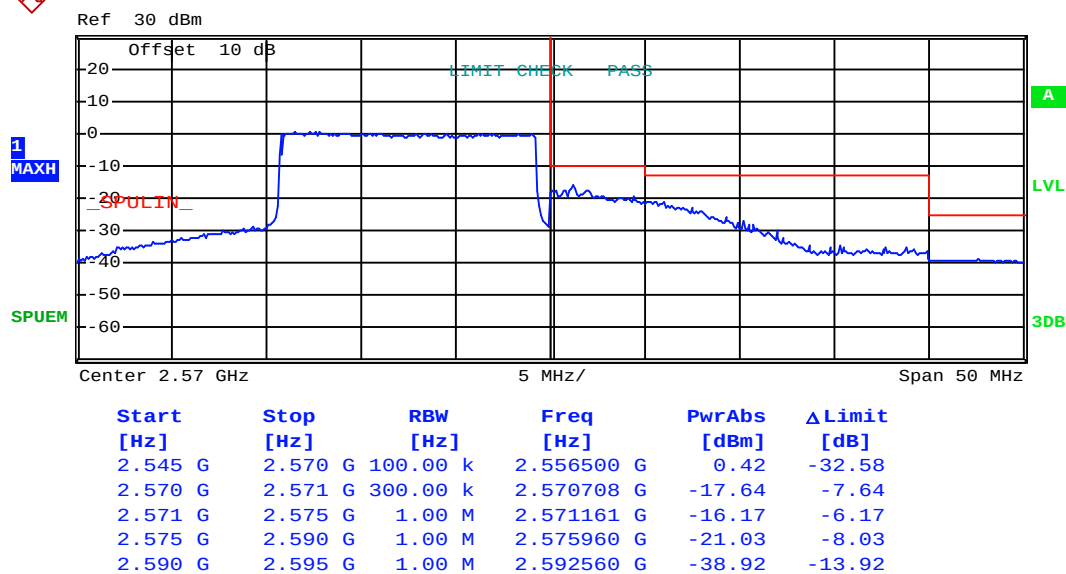


Highest channel

RB Size 75 & RB Offset 0-QPSK



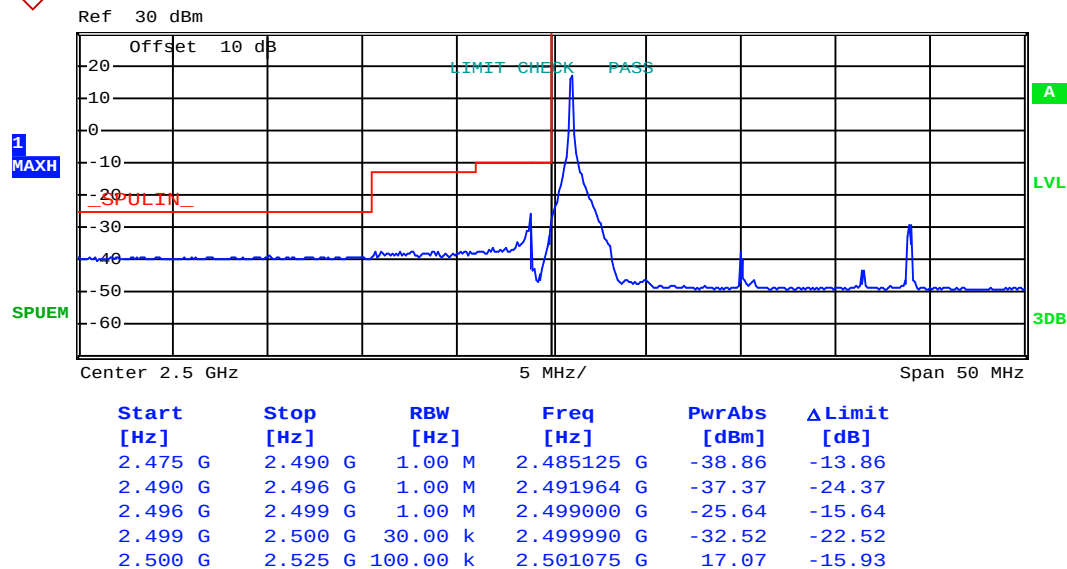
Lowest channel



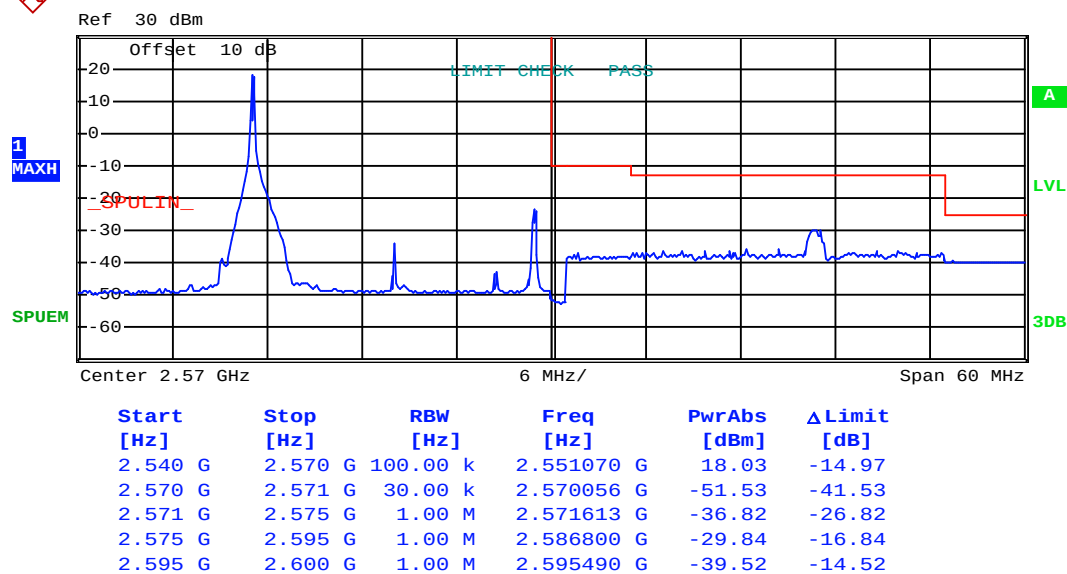
Highest channel

20MHz:

RB Size 1 & RB Offset 0-16QAM

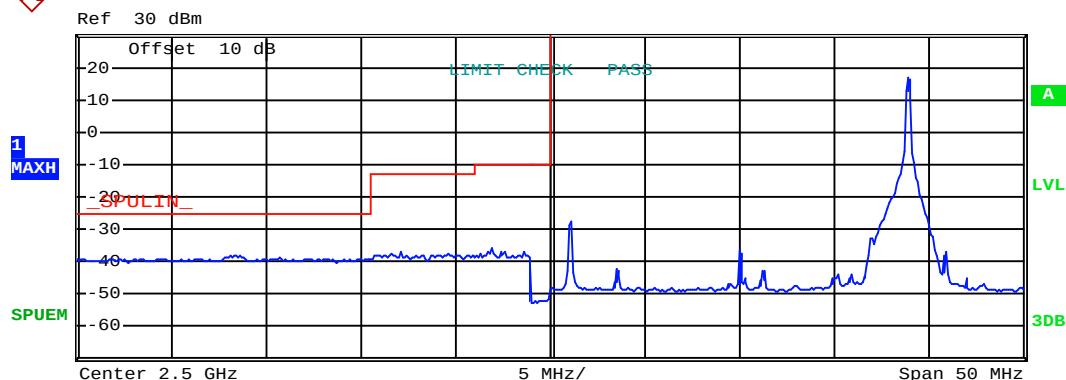


Lowest channel



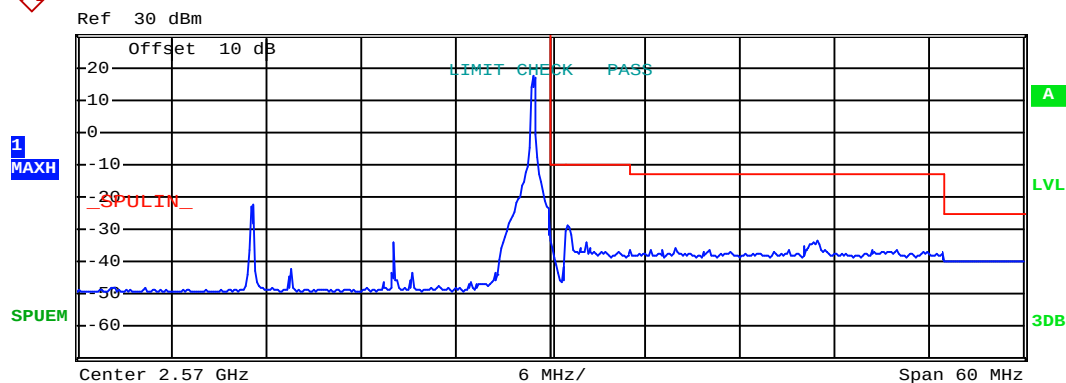
Highest channel

RB Size 1 & RB Offset 99-16QAM



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.475 G	2.490 G	1.00 M	2.483375 G	-38.13	-13.13
2.490 G	2.496 G	1.00 M	2.492052 G	-37.24	-24.24
2.496 G	2.499 G	1.00 M	2.496847 G	-35.96	-25.96
2.499 G	2.500 G	30.00 k	2.499882 G	-51.57	-41.57
2.500 G	2.525 G	100.00 k	2.518925 G	16.60	-16.40

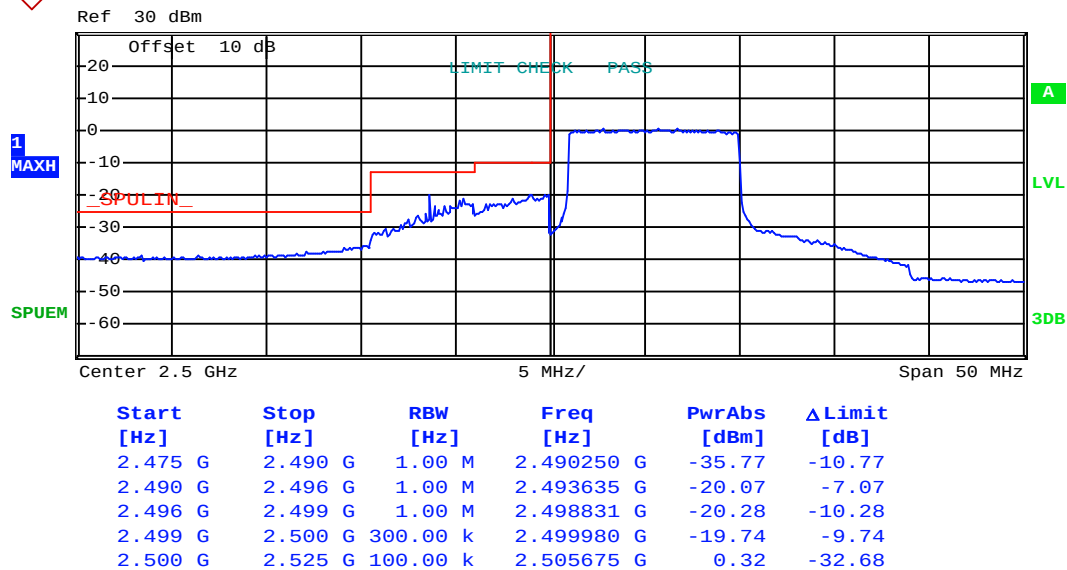
Lowest channel



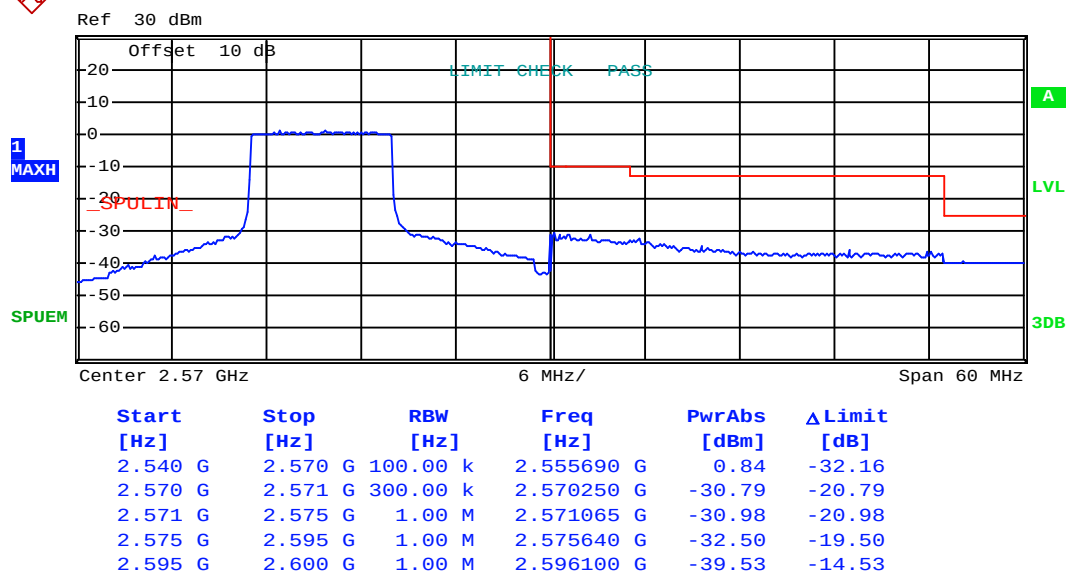
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.540 G	2.570 G	100.00 k	2.568920 G	17.47	-15.53
2.570 G	2.571 G	30.00 k	2.570016 G	-32.57	-22.57
2.571 G	2.575 G	1.00 M	2.571097 G	-28.72	-18.72
2.575 G	2.595 G	1.00 M	2.586880 G	-33.71	-20.71
2.595 G	2.600 G	1.00 M	2.596290 G	-39.63	-14.63

Highest channel

RB Size 50 & RB Offset 0-16QAM

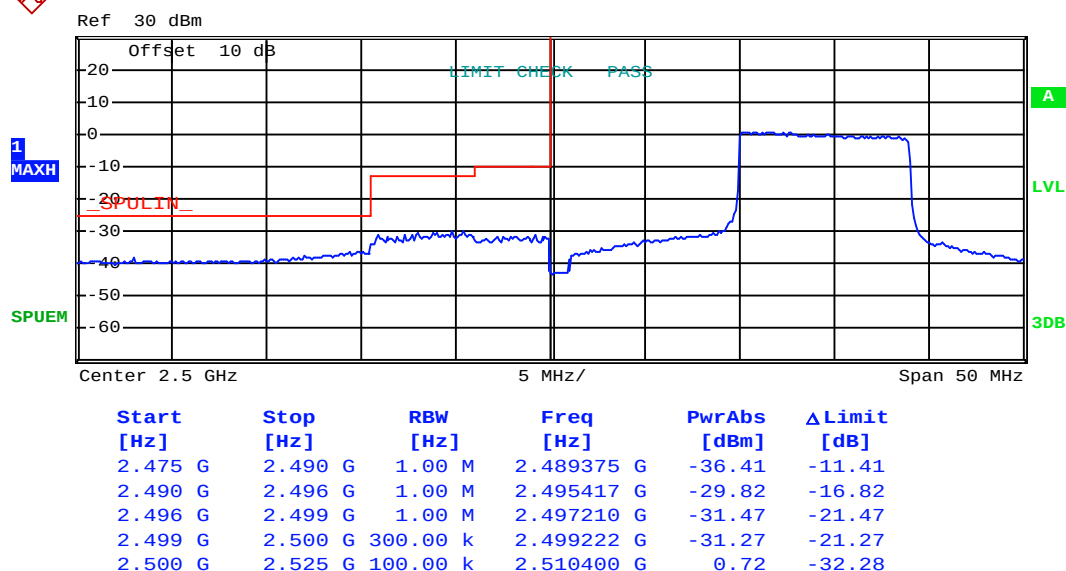


Lowest channel

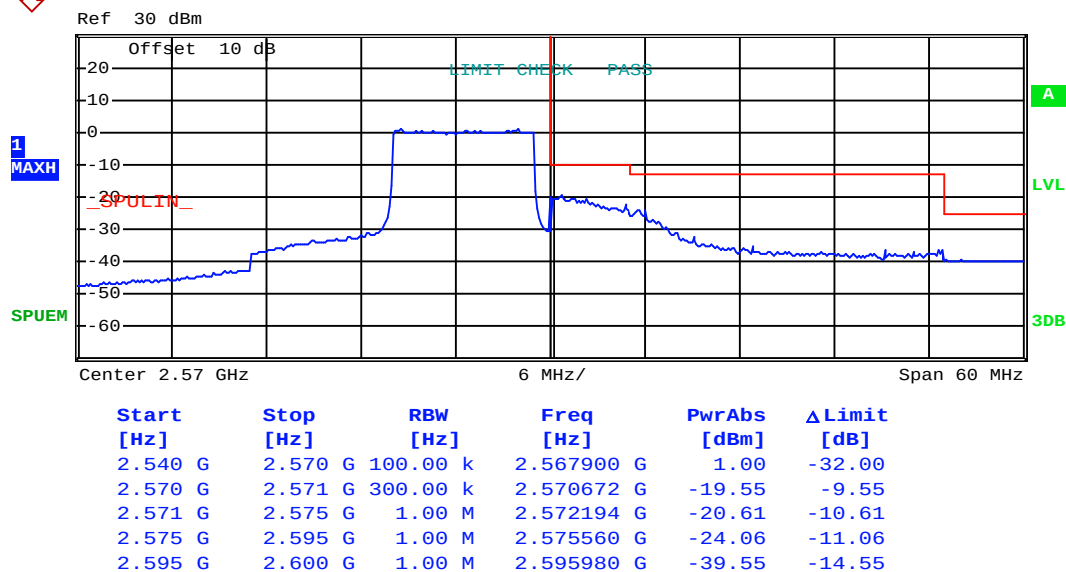


Highest channel

RB Size 50 & RB Offset 49-16QAM

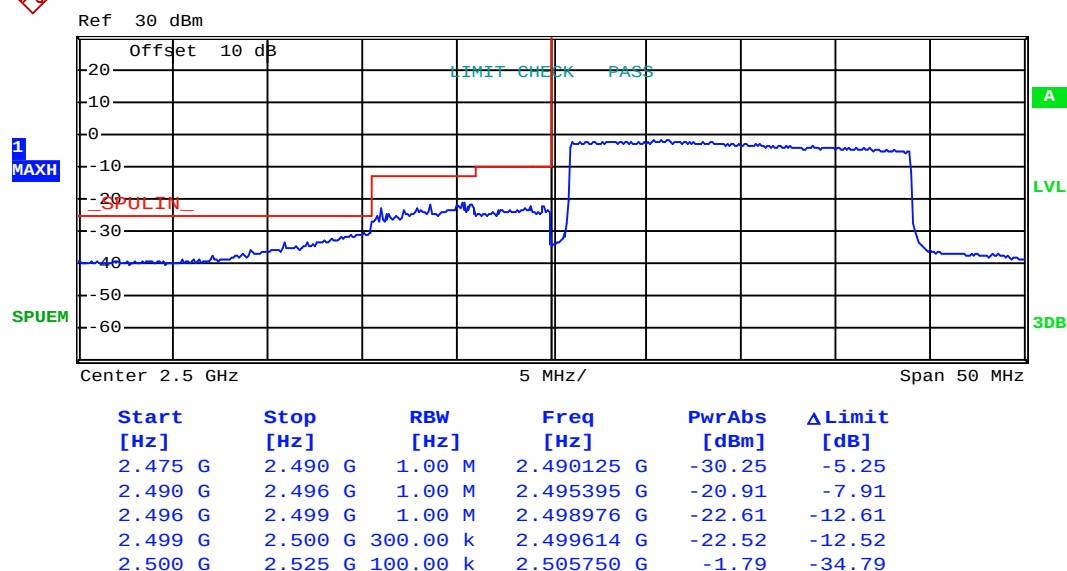


Lowest channel

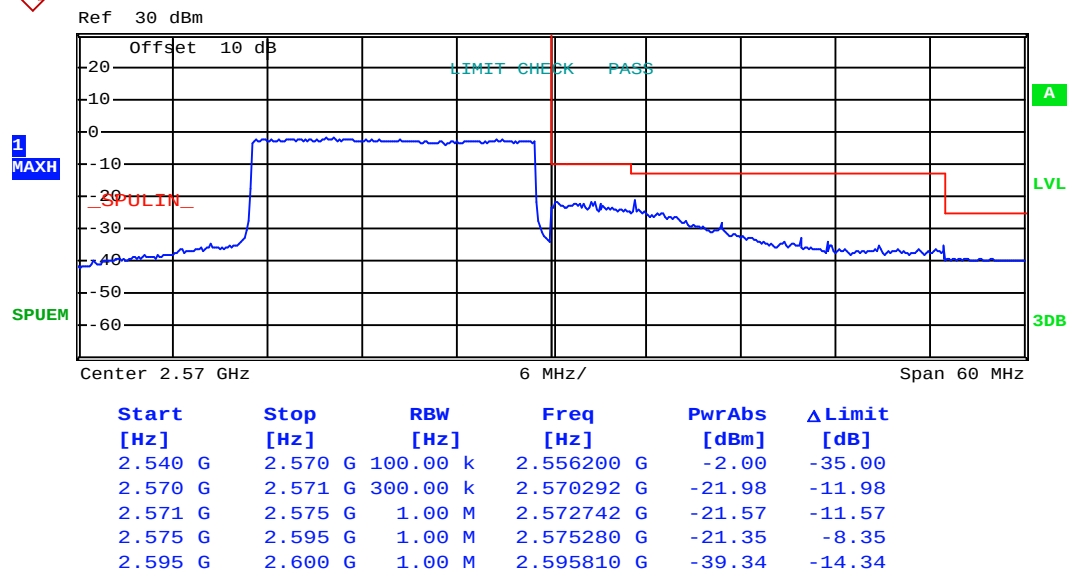


Highest channel

RB Size 100 & RB Offset 0-16QAM

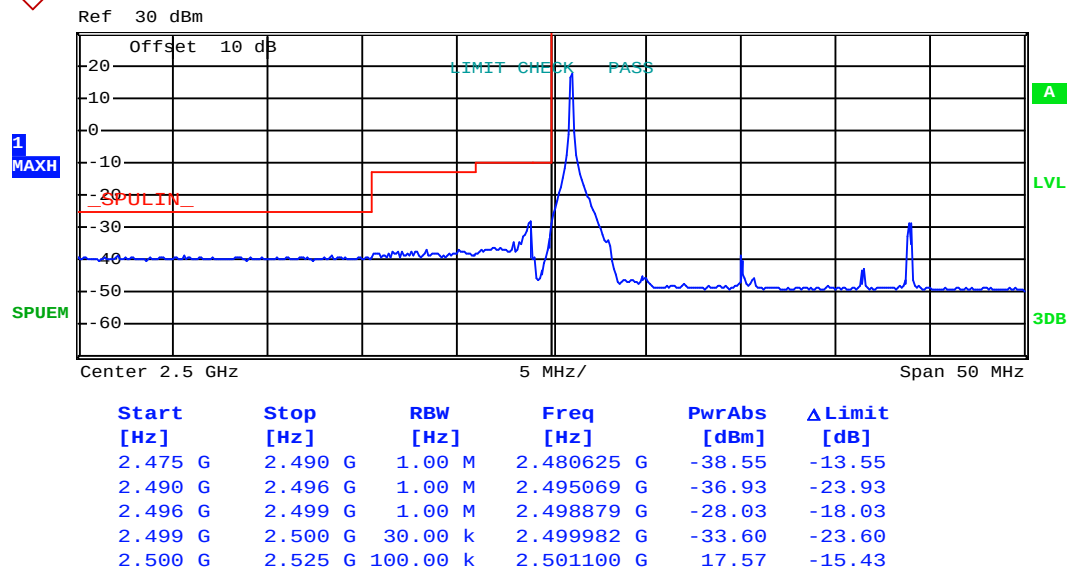


Lowest channel

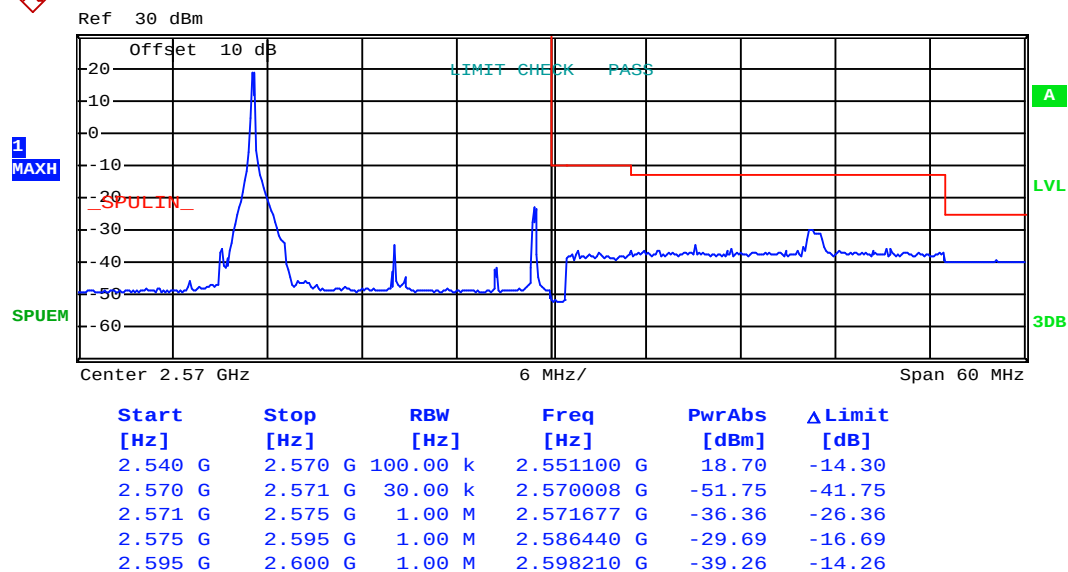


Highest channel

RB Size 1 & RB Offset 0-QPSK

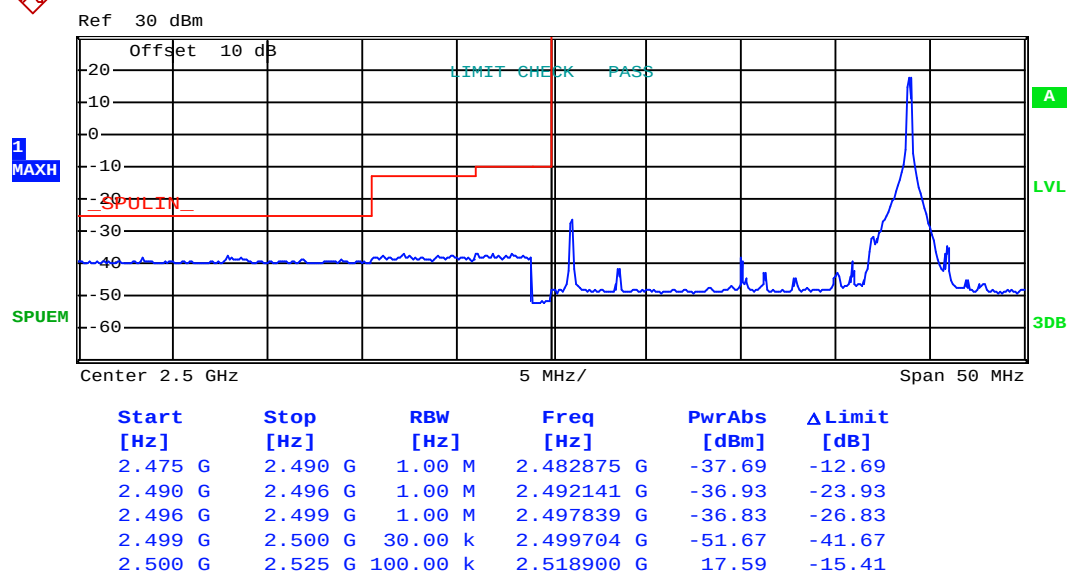


Lowest channel

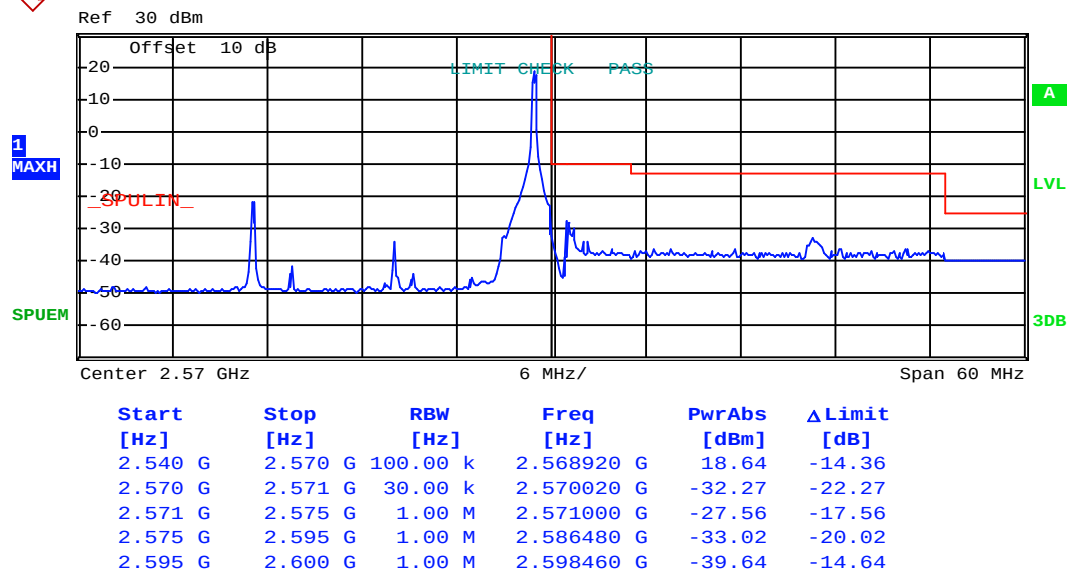


Highest channel

RB Size 1 & RB Offset 99-QPSK

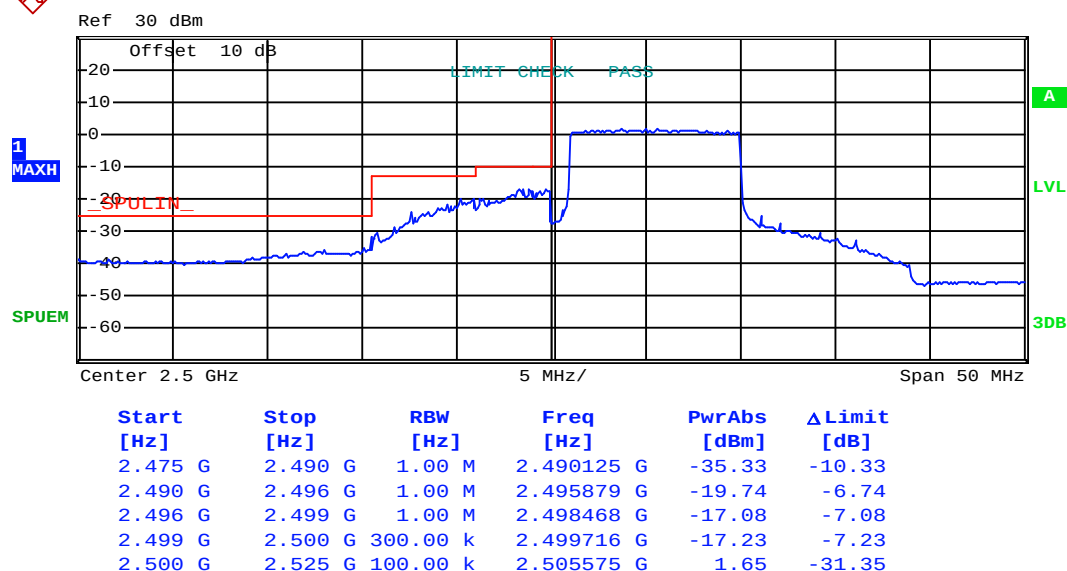


Lowest channel

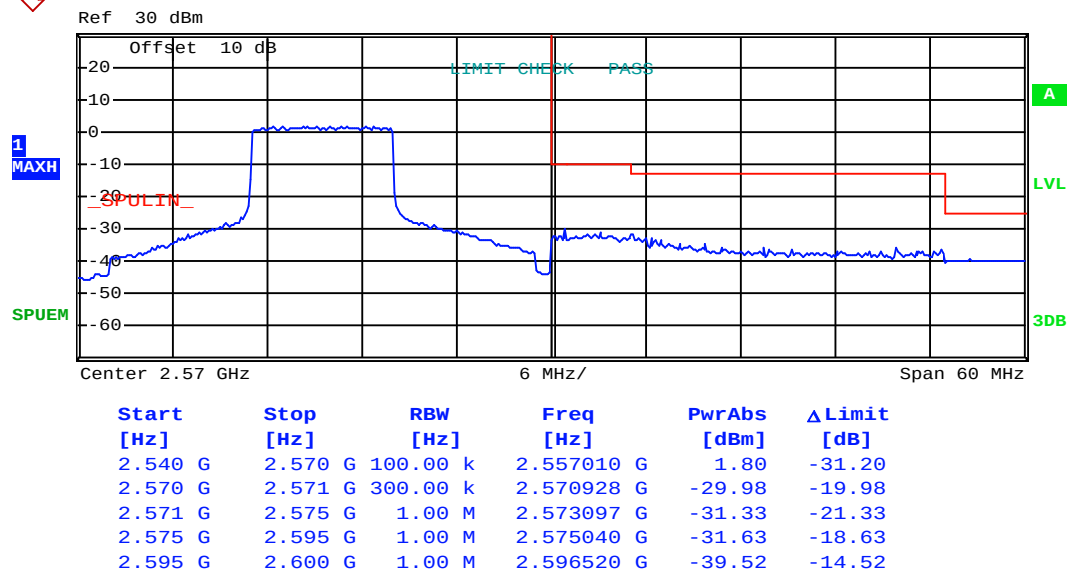


Highest channel

RB Size 50 & RB Offset 0-QPSK

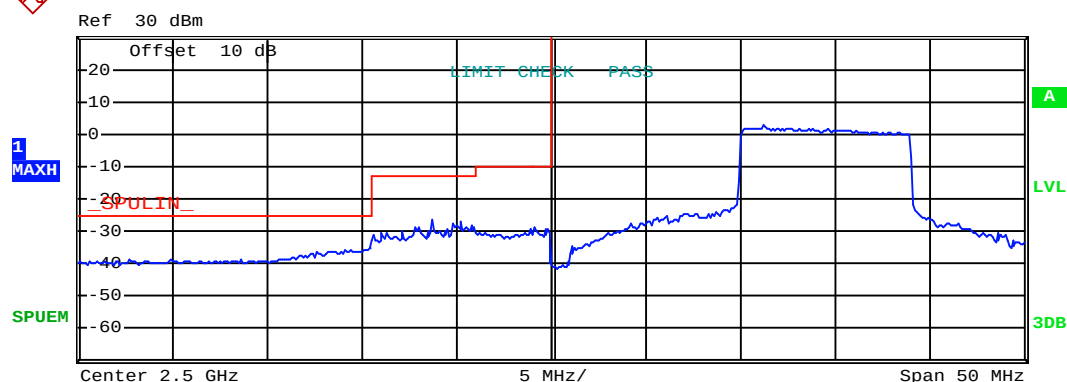


Lowest channel



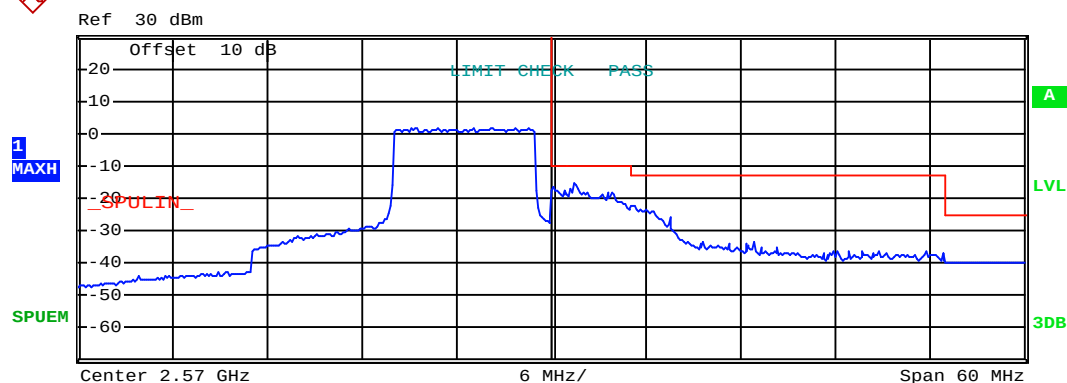
Highest channel

RB Size 50 & RB Offset 49-QPSK



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.475 G	2.490 G	1.00 M	2.489125 G	-35.79	-10.79
2.490 G	2.496 G	1.00 M	2.493646 G	-26.70	-13.70
2.496 G	2.499 G	1.00 M	2.499000 G	-29.42	-19.42
2.499 G	2.500 G	300.00 k	2.499106 G	-28.50	-18.50
2.500 G	2.525 G	100.00 k	2.511175 G	2.54	-30.46

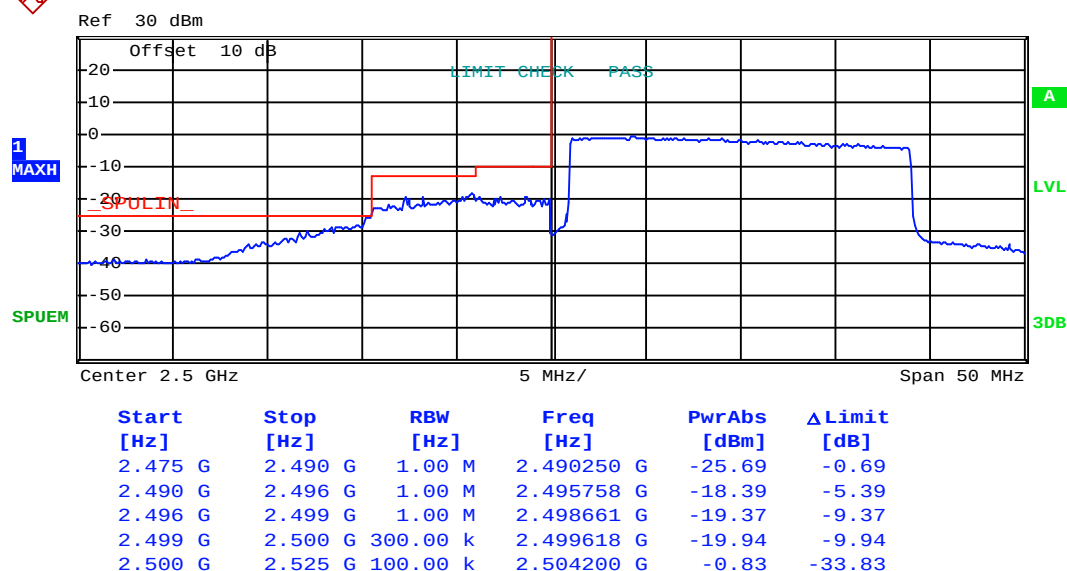
Lowest channel



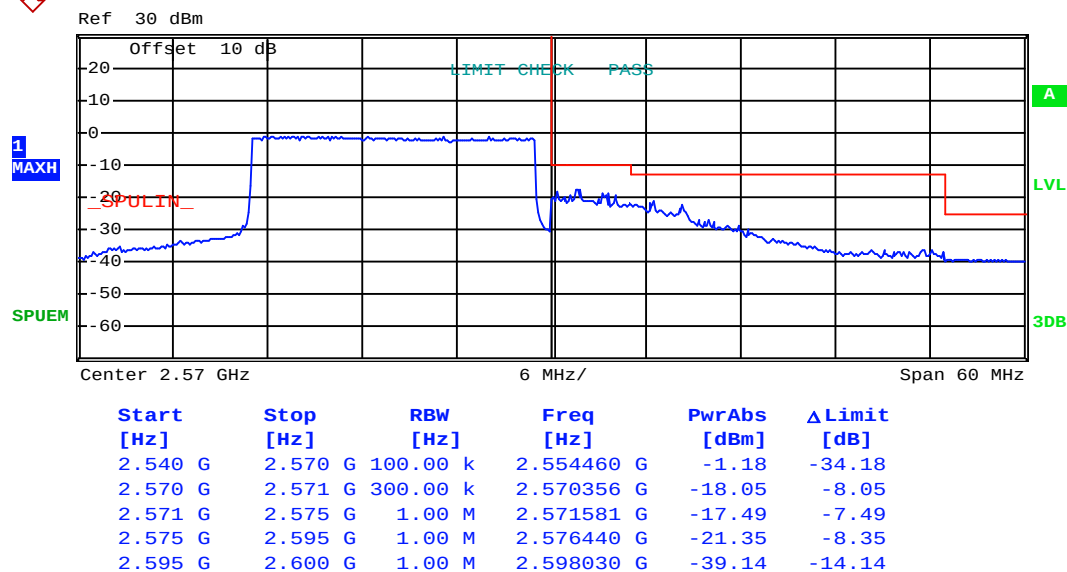
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.540 G	2.570 G	100.00 k	2.561150 G	1.53	-31.47
2.570 G	2.571 G	300.00 k	2.570090 G	-16.26	-6.26
2.571 G	2.575 G	1.00 M	2.571419 G	-15.23	-5.23
2.575 G	2.595 G	1.00 M	2.575160 G	-22.33	-9.33
2.595 G	2.600 G	1.00 M	2.595620 G	-39.66	-14.66

Highest channel

RB Size 100 & RB Offset 0-QPSK

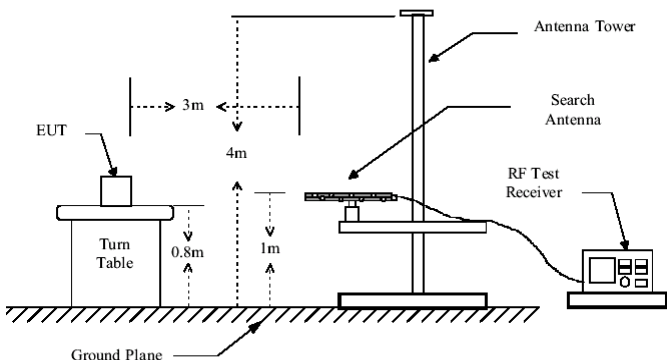
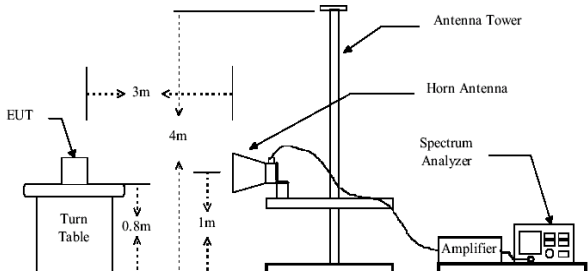
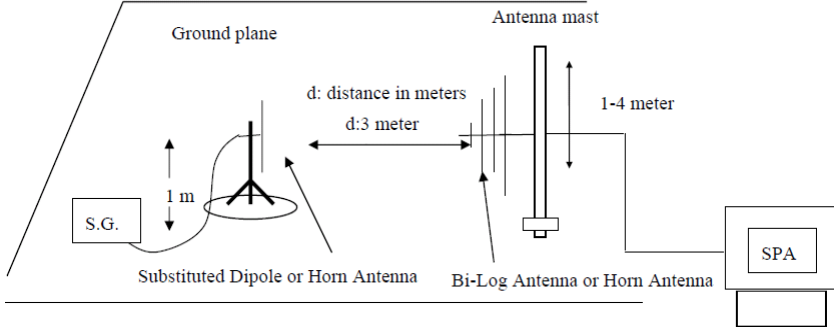


Lowest channel



Highest channel

6.10 ERP, EIRP Measurement

Test Requirement:	FCC part 27.50(d) and FCC part 27.50(h)
Test Method:	FCC part 2.1046
Limit:	LTE Band 4: 1W EIRP LTE Band 7: 2W EIRP
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 

Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated. 3. ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows: $\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)}$ 4. EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: $\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$ 5. The worse case was relating to the conducted output power.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case)

LTE band 4 part

Lowest channel

1.4MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	20.71	30.00	Pass
					H	16.98		
1710.70	19957	16QAM	1.4	H	V	20.89		
					H	17.33		

1.4MHz(RB size 3 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	21.08	30.00	Pass
					H	17.48		
1710.70	19957	16QAM	1.4	H	V	21.57		
					H	17.37		

1.4MHz(RB size 6 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	19.76	30.00	Pass
					H	16.00		
1710.70	19957	16QAM	1.4	H	V	20.70		
					H	15.68		

Middle channel

1.4MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	20.69	30.00	Pass
					H	14.29		
1710.70	19957	16QAM	1.4	H	V	20.53		
					H	14.39		

1.4MHz(RB size 3 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	20.61	30.00	Pass
					H	14.22		
1710.70	19957	16QAM	1.4	H	V	20.56		
					H	14.38		

1.4MHz(RB size 6 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	19.90	30.00	Pass
					H	13.47		
1710.70	19957	16QAM	1.4	H	V	20.22		
					H	13.93		

Highest channel

1.4MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	24.27	30.00	Pass
					H	18.43		
1710.70	19957	16QAM	1.4	H	V	24.14		
					H	18.20		

1.4MHz(RB size 3 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	24.60	30.00	Pass
					H	18.70		
1710.70	19957	16QAM	1.4	H	V	24.61		
					H	18.94		

1.4MHz(RB size 6 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1710.70	19957	QPSK	1.4	H	V	22.92	30.00	Pass
					H	16.64		
1710.70	19957	16QAM	1.4	H	V	23.06		
					H	16.95		

Lowest channel

20MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1720.00	20050	QPSK	20.0	H	V	21.93	30.00	Pass
					H	14.87		
1720.00	20050	16QAM	20.0	H	V	22.06		
					H	14.77		

20MHz(RB size 50 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1720.00	20050	QPSK	20.0	H	V	21.93	30.00	Pass
					H	14.91		
1720.00	20050	16QAM	20.0	H	V	22.13		
					H	14.61		

20MHz(RB size 100 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1720.00	20050	QPSK	20.0	H	V	21.88	30.00	Pass
					H	13.77		
1720.00	20050	16QAM	20.0	H	V	21.22		
					H	14.25		

Middle channel

20MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1732.50	20175	QPSK	20.0	H	V	23.61	30.00	Pass
					H	16.45		
1732.50	20175	16QAM	20.0	H	V	23.66		
					H	16.86		

20MHz(RB size 50 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1732.50	20175	QPSK	20.0	H	V	21.99	30.00	Pass
					H	15.07		
1732.50	20175	16QAM	20.0	H	V	22.03		
					H	14.78		

20MHz(RB size 100 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1732.50	20175	QPSK	20.0	H	V	22.06	30.00	Pass
					H	15.48		
1732.50	20175	16QAM	20.0	H	V	21.36		
					H	15.97		

High channel

20MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1745.00	20300	QPSK	20.0	H	V	20.42	30.00	Pass
					H	15.86		
1745.00	20300	16QAM	20.0	H	V	20.53		
					H	16.30		

20MHz(RB size 50 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1745.00	20300	QPSK	20.0	H	V	18.41	30.00	Pass
					H	14.43		
1745.00	20300	16QAM	20.0	H	V	18.96		
					H	15.19		

20MHz(RB size 100 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1745.00	20300	QPSK	20.0	H	V	19.12	30.00	Pass
					H	14.15		
1745.00	20300	16QAM	20.0	H	V	18.70		
					H	13.95		

LTE band 7 part lowest channel

5MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2502.50	20775	QPSK	5.0	H	V	22.09	33.00	Pass
					H	22.35		
2502.50	20775	16QAM	5.0	H	V	21.82		
					H	22.50		

5MHz(RB size 12 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2502.50	20775	QPSK	5.0	H	V	19.23	33.00	Pass
					H	19.28		
2502.50	20775	16QAM	5.0	H	V	19.38		
					H	20.02		

5MHz(RB size 25 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2502.50	20775	QPSK	5.0	H	V	17.67	33.00	Pass
					H	18.20		
2502.50	20775	16QAM	5.0	H	V	18.56		
					H	18.79		

Middle channel

5MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2535.00	21100	QPSK	5.0	H	V	20.94	33.00	Pass
					H	21.65		
2535.00	21100	16QAM	5.0	H	V	21.24		
					H	21.27		

5MHz(RB size 12 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2535.00	21100	QPSK	5.0	H	V	18.86	33.00	Pass
					H	19.15		
2535.00	21100	16QAM	5.0	H	V	19.44		
					H	19.27		

5MHz(RB size 25 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2535.00	21100	QPSK	5.0	H	V	17.64	33.00	Pass
					H	17.90		
2535.00	21100	16QAM	5.0	H	V	17.80		
					H	17.83		

Highest channel

5MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2567.50	21425	QPSK	5.0	H	V	22.65	33.00	Pass
					H	23.04		
2567.50	21425	16QAM	5.0	H	V	22.83		
					H	22.55		

5MHz(RB size 12 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2567.50	21425	QPSK	5.0	H	V	19.89	33.00	Pass
					H	20.04		
2567.50	21425	16QAM	5.0	H	V	20.34		
					H	19.98		

5MHz(RB size 25 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2567.50	21425	QPSK	5.0	H	V	18.85	33.00	Pass
					H	19.43		
2567.50	21425	16QAM	5.0	H	V	18.72		
					H	18.26		

Lowest channel

20MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2510.00	20850	QPSK	20.0	H	V	20.98	33.00	Pass
					H	21.86		
2510.00	20850	16QAM	20.0	H	V	21.41		
					H	21.26		

20MHz(RB size 50 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2510.00	20850	QPSK	20.0	H	V	18.37	33.00	Pass
					H	18.79		
2510.00	20850	16QAM	20.0	H	V	18.86		
					H	18.55		

20MHz(RB size 100 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2510.00	20850	QPSK	20.0	H	V	17.52	33.00	Pass
					H	18.37		
2510.00	20850	16QAM	20.0	H	V	18.12		
					H	17.03		

Middle channel

20MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2535.00	21100	QPSK	20.0	H	V	20.67	33.00	Pass
					H	21.16		
2535.00	21100	16QAM	20.0	H	V	20.91		
					H	20.59		

20MHz(RB size 50 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2535.00	21100	QPSK	20.0	H	V	18.54	33.00	Pass
					H	18.52		
2535.00	21100	16QAM	20.0	H	V	18.48		
					H	17.98		

20MHz(RB size 100 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2535.00	21100	QPSK	20.0	H	V	18.14	33.00	Pass
					H	18.07		
2535.00	21100	16QAM	20.0	H	V	17.73		
					H	16.85		

Highest channel

20MHz(RB size 1 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2560.00	21350	QPSK	20.0	H	V	20.87	33.00	Pass
					H	21.71		
2560.00	21350	16QAM	20.0	H	V	21.25		
					H	21.29		

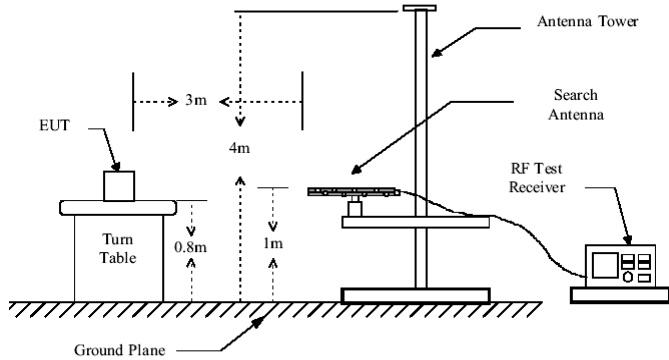
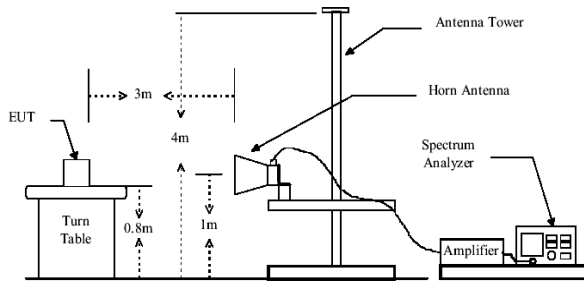
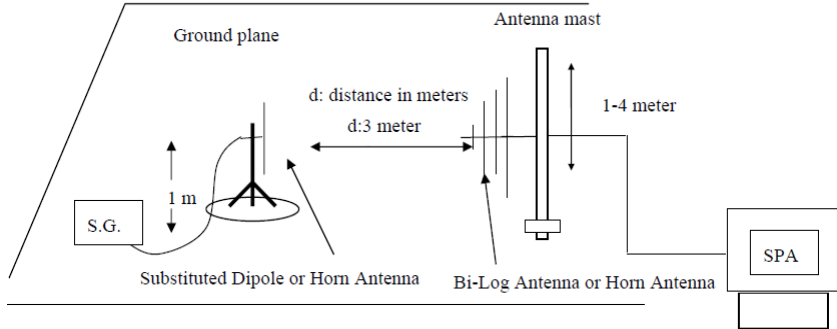
20MHz(RB size 50 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2560.00	21350	QPSK	20.0	H	V	18.81	33.00	Pass
					H	19.81		
2560.00	21350	16QAM	20.0	H	V	19.18		
					H	19.27		

20MHz(RB size 100 & RB offset 0)

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
2560.00	21350	QPSK	20.0	H	V	18.35	33.00	Pass
					H	17.96		
2560.00	21350	16QAM	20.0	H	V	17.63		
					H	17.67		

6.11 Field strength of spurious radiation measurement

Test Requirement:	FCC part 27.53(h) and FCC part 27.53(m)
Test Method:	FCC part 2.1053
Limit:	LTE Band 4: -13dBm and LTE Band 7: -25dBm
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 
Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

	4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data (worst case)**Below 1GHz:**

The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

Above 1GHz

3MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3423.00	Vertical	-41.49	-13	Pass
6846.00	V	-28.69		
3423.00	Horizontal	-36.25		
6846.00	H	-20.68		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.96	-13	Pass
6930.00	V	-22.66		
3465.00	Horizontal	-36.67		
6930.00	H	-17.63		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3507.00	Vertical	-44.65	-13	Pass
7014.00	V	-24.65		
3507.00	Horizontal	-41.49		
7014.00	H	-20.85		

5MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3425.00	Vertical	-42.03	-13	Pass
6850.00	V	-30.09		
3425.00	Horizontal	-39.62		
6850.00	H	-24.56		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-42.75	-13	Pass
6930.00	V	-25.36		
3465.00	Horizontal	-37.29		
6930.00	H	-22.35		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3505.00	Vertical	-39.02	-13	Pass
7010.00	V	-28.69		
3505.00	Horizontal	-40.88		
7010.00	H	-22.35		

10MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3430.00	Vertical	-43.65	-13	Pass
6860.00	V	-30.25		
3430.00	Horizontal	-37.17		
6860.00	H	-25.51		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.87	-13	Pass
6930.00	V	-28.34		
3465.00	Horizontal	-38.52		
6930.00	H	-20.90		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3500.00	Vertical	-40.36	-13	Pass
7000.00	V	-28.31		
3500.00	Horizontal	-39.43		
7000.00	H	-20.89		

15MHz(RB size 1 & RB offset0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3435.00	Vertical	-39.96	-13	Pass
5152.50	V	-29.35		
3435.00	Horizontal	-37.53		
6870.00	H	-27.54		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-43.94	-13	Pass
6930.00	V	-24.65		
3465.00	Horizontal	-39.69		
6930.00	H	-20.58		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3495.00	Vertical	-40.67	-13	Pass
6990.00	V	-28.69		
3495.00	Horizontal	-34.50		
6990.00	H	-20.93		

20MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3440.00	Vertical	-46.29	-13	Pass
6880.00	V	-33.65		
3440.00	Horizontal	-35.86		
6880.00	H	-24.65		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.63	-13	Pass
6930.00	V	-30.24		
3465.00	Horizontal	-40.05		
6930.00	H	-20.05		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3490.00	Vertical	-43.18	-13	Pass
6980.00	V	-30.52		
3490.00	Horizontal	-40.94		
6980.00	H	-25.91		

LTE band 7 part:

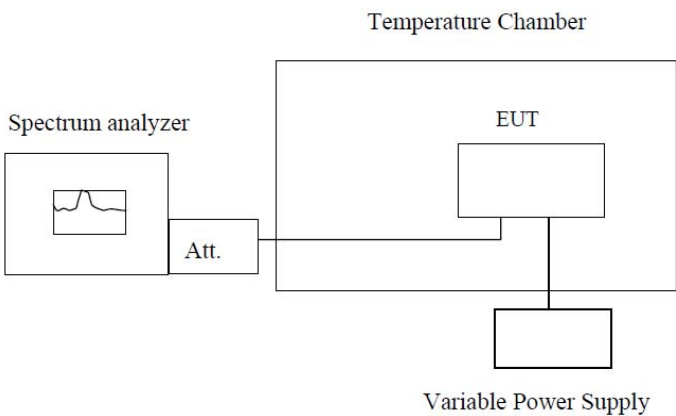
5MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5005.00	Vertical	-40.84	-25	Pass
7507.50	V	-34.41		
5005.00	Horizontal	-38.98		
7507.50	H	-29.47		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5070.00	Vertical	-40.11	-25	Pass
7605.00	V	-33.66		
5070.00	Horizontal	-36.41		
7605.00	H	-30.01		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5135.00	Vertical	-34.58	-25	Pass
7702.50	V	-32.15		
5135.00	Horizontal	-32.27		
7702.50	H	-27.98		

10MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5010.00	Vertical	-40.81	-25	Pass
7515.00	V	-32.99		
5010.00	Horizontal	-37.91		
7515.00	H	-30.46		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5070.00	Vertical	-38.79	-25	Pass
7605.00	V	-33.97		
5070.00	Horizontal	-37.09		
7605.00	H	-30.65		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5130.00	Vertical	-37.57	-25	Pass
7695.00	V	-33.82		
5130.00	Horizontal	-33.63		
7695.00	H	-30.84		

15MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5015.00	Vertical	-40.70	-25	Pass
7522.50	V	-33.51		
5015.00	Horizontal	-37.93		
7522.50	H	-27.71		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5070.00	Vertical	-40.40	-25	Pass
7605.00	V	-34.65		
5070.00	Horizontal	-38.24		
7605.00	H	-29.99		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5125.00	Vertical	-36.30	-25	Pass
7687.50	V	-30.90		
5125.00	Horizontal	-32.35		
7687.50	H	-27.58		

20MHz(RB size 1 & RB offset 0) for QPSK				
Lowest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5020.00	Vertical	-37.70	-25	Pass
7530.00	V	-29.31		
5020.00	Horizontal	-38.21		
7530.00	H	-33.56		
Middle channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5070.00	Vertical	-40.23	-25	Pass
7605.00	V	-35.82		
5070.00	Horizontal	-38.33		
7605.00	H	-35.80		
Highest channel				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
5120.00	Vertical	-39.45	-25	Pass
7680.00	V	-29.63		
5120.00	Horizontal	-34.28		
7680.00	H	-26.21		

6.12 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part 2.1055(a)(1)(b)
Test Method:	FCC Part 2.1055(a)(1)(b)
Limit:	±2.5 ppm
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.

Measurement Data (the worst channel):

LTE Band 4(QPSK):

Reference Frequency: LTE Band 4(1.4MHz) Middle Channel =20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	112	0.064646	±2.5	Pass
	-20	130	0.075036		
	-10	120	0.069264		
	0	137	0.079076		
	10	122	0.070418		
	20	152	0.087734		
	30	134	0.077345		
	40	136	0.078499		
	50	128	0.073882		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	116	0.066955	±2.5	Pass
	-20	124	0.071573		
	-10	132	0.076190		
	0	97	0.055988		
	10	85	0.049062		
	20	107	0.061760		
	30	136	0.078499		
	40	140	0.080808		
	50	150	0.086580		
Reference Frequency: LTE Band 4(5MHz) Middle Frequency=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	120	0.069264	±2.5	Pass
	-20	117	0.067532		
	-10	108	0.062338		
	0	96	0.055411		
	10	85	0.049062		
	20	74	0.042713		
	30	85	0.049062		
	40	93	0.053680		
	50	105	0.060606		

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	87	0.050216	±2.5	Pass
	-20	106	0.061183		
	-10	88	0.050794		
	0	74	0.042713		
	10	116	0.066955		
	20	105	0.060606		
	30	96	0.055411		
	40	68	0.039250		
	50	74	0.042713		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	108	0.062338	±2.5	Pass
	-20	103	0.059452		
	-10	96	0.055411		
	0	117	0.067532		
	10	108	0.062338		
	20	67	0.038672		
	30	75	0.043290		
	40	85	0.049062		
	50	74	0.042713		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	156	0.090043	±2.5	Pass
	-20	130	0.075036		
	-10	112	0.064646		
	0	108	0.062338		
	10	96	0.055411		
	20	74	0.042713		
	30	85	0.049062		
	40	67	0.038672		
	50	85	0.049062		

LTE Band 4(16QAM):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	180	0.103896	±2.5	Pass
	-20	170	0.098124		
	-10	136	0.078499		
	0	107	0.061760		
	10	108	0.062338		
	20	99	0.057143		
	30	107	0.061760		
	40	150	0.086580		
	50	87	0.050216		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	87	0.050216	±2.5	Pass
	-20	96	0.055411		
	-10	108	0.062338		
	0	85	0.049062		
	10	96	0.055411		
	20	125	0.072150		
	30	130	0.075036		
	40	120	0.069264		
	50	99	0.057143		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	52	0.030014	±2.5	Pass
	-20	74	0.042713		
	-10	106	0.061183		
	0	120	0.069264		
	10	130	0.075036		
	20	98	0.056566		
	30	82	0.047330		
	40	120	0.069264		
	50	136	0.078499		

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	74	0.042713	±2.5	Pass
	-20	96	0.055411		
	-10	85	0.049062		
	0	105	0.060606		
	10	132	0.076190		
	20	88	0.050794		
	30	74	0.042713		
	40	102	0.058874		
	50	85	0.049062		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	96	0.055411	±2.5	Pass
	-20	92	0.053102		
	-10	80	0.046176		
	0	130	0.075036		
	10	125	0.072150		
	20	102	0.058874		
	30	85	0.049062		
	40	130	0.075036		
	50	140	0.080808		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 Frequency=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	174	0.100433	±2.5	Pass
	-20	130	0.075036		
	-10	140	0.080808		
	0	152	0.087734		
	10	95	0.054834		
	20	85	0.049062		
	30	96	0.055411		
	40	101	0.058297		
	50	75	0.043290		

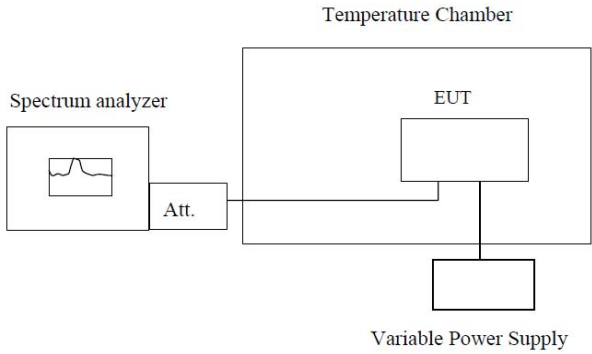
LTE Band 7(QPSK):

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	130	0.051282	±2.5	Pass
	-20	162	0.063905		
	-10	120	0.047337		
	0	74	0.029191		
	10	96	0.037870		
	20	104	0.041026		
	30	102	0.040237		
	40	85	0.033531		
	50	74	0.029191		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	96	0.037870	±2.5	Pass
	-20	120	0.047337		
	-10	127	0.050099		
	0	132	0.052071		
	10	96	0.037870		
	20	85	0.033531		
	30	89	0.035108		
	40	115	0.045365		
	50	126	0.049704		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	140	0.055227	±2.5	Pass
	-20	120	0.047337		
	-10	85	0.033531		
	0	87	0.034320		
	10	125	0.049310		
	20	141	0.055621		
	30	96	0.037870		
	40	82	0.032347		
	50	90	0.035503		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	136	0.053649	±2.5	Pass
	-20	74	0.029191		
	-10	85	0.033531		
	0	63	0.024852		
	10	102	0.040237		
	20	102	0.040237		
	30	96	0.037870		
	40	90	0.035503		
	50	85	0.033531		

LTE Band 7(16QAM):

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	96	0.037870	±2.5	Pass
	-20	74	0.029191		
	-10	102	0.040237		
	0	163	0.064300		
	10	171	0.067456		
	20	96	0.037870		
	30	85	0.033531		
	40	166	0.065483		
	50	168	0.066272		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	85	0.033531	±2.5	Pass
	-20	74	0.029191		
	-10	96	0.037870		
	0	130	0.051282		
	10	63	0.024852		
	20	85	0.033531		
	30	74	0.029191		
	40	106	0.041815		
	50	124	0.048915		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	163	0.064300	2.5	Pass
	-20	140	0.055227		
	-10	98	0.038659		
	0	102	0.040237		
	10	75	0.029586		
	20	96	0.037870		
	30	85	0.033531		
	40	75	0.029586		
	50	70	0.027613		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	158	0.062327	2.5	Pass
	-20	96	0.037870		
	-10	102	0.040237		
	0	141	0.055621		
	10	99	0.039053		
	20	85	0.033531		
	30	67	0.026430		
	40	78	0.030769		
	50	96	0.037870		

6.13 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part 2.1055(d)(1)(2)
Test Method:	FCC Part 2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test procedure:	1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.
Test results:	Passed

Measurement Data (the worst channel):

LTE Band 4(QPSK):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	63	0.036364	±2.5	Pass
	3.70	74	0.042713		
	3.40	85	0.049062		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	96	0.055411	±2.5	Pass
	3.70	52	0.030014		
	3.40	67	0.038672		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	55	0.031746	±2.5	Pass
	3.70	52	0.030014		
	3.40	74	0.042713		
Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	85	0.049062	±2.5	Pass
	3.70	69	0.039827		
	3.40	66	0.038095		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	85	0.049062	±2.5	Pass
	3.70	97	0.055988		
	3.40	63	0.036364		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	58	0.033478	±2.5	Pass
	3.70	55	0.031746		
	3.40	63	0.036364		

LTE Band 4(16QAM):

Reference Frequency: LTE Band 4(1.4MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	74	0.042713	±2.5	Pass
	3.70	96	0.055411		
	3.40	85	0.049062		
Reference Frequency: LTE Band 4(3MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	66	0.038095	±2.5	Pass
	3.70	85	0.049062		
	3.40	74	0.042713		
Reference Frequency: LTE Band 4(5MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	96	0.055411	±2.5	Pass
	3.70	82	0.047330		
	3.40	71	0.040981		
Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	85	0.049062	±2.5	Pass
	3.70	90	0.051948		
	3.40	63	0.036364		
Reference Frequency: LTE Band 4(15MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	52	0.030014	±2.5	Pass
	3.70	74	0.042713		
	3.40	59	0.034055		
Reference Frequency: LTE Band 4(20MHz) Middle channel=20175 Frequency=1732.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	74	0.042713	±2.5	Pass
	3.70	85	0.049062		
	3.40	72	0.041558		

LTE Band 7(QPSK):

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	74	0.029191	±2.5	Pass
	3.70	63	0.024852		
	3.40	38	0.014990		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	96	0.037870	±2.5	Pass
	3.70	57	0.022485		
	3.40	48	0.018935		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	82	0.032347	±2.5	Pass
	3.70	74	0.029191		
	3.40	58	0.022880		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	63	0.024852	±2.5	Pass
	3.70	72	0.028402		
	3.40	90	0.035503		

LTE Band 7(16QAM):

Reference Frequency: LTE Band 7(5MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	82	0.032347	±2.5	Pass
	3.70	85	0.033531		
	3.40	67	0.026430		
Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	39	0.015385	±2.5	Pass
	3.70	88	0.034714		
	3.40	105	0.041420		
Reference Frequency: LTE Band 7(15MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	67	0.026430	±2.5	Pass
	3.70	49	0.019329		
	3.40	88	0.034714		
Reference Frequency: LTE Band 7(20MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.25	98	0.038659	±2.5	Pass
	3.70	96	0.037870		
	3.40	58	0.022880		