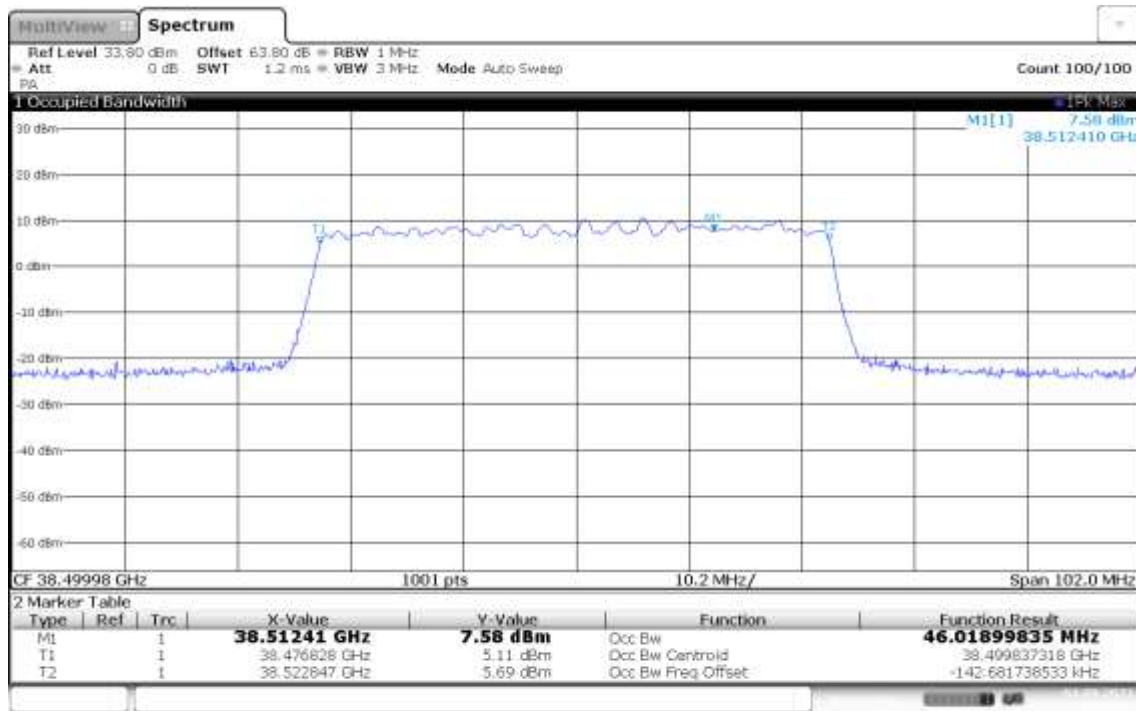
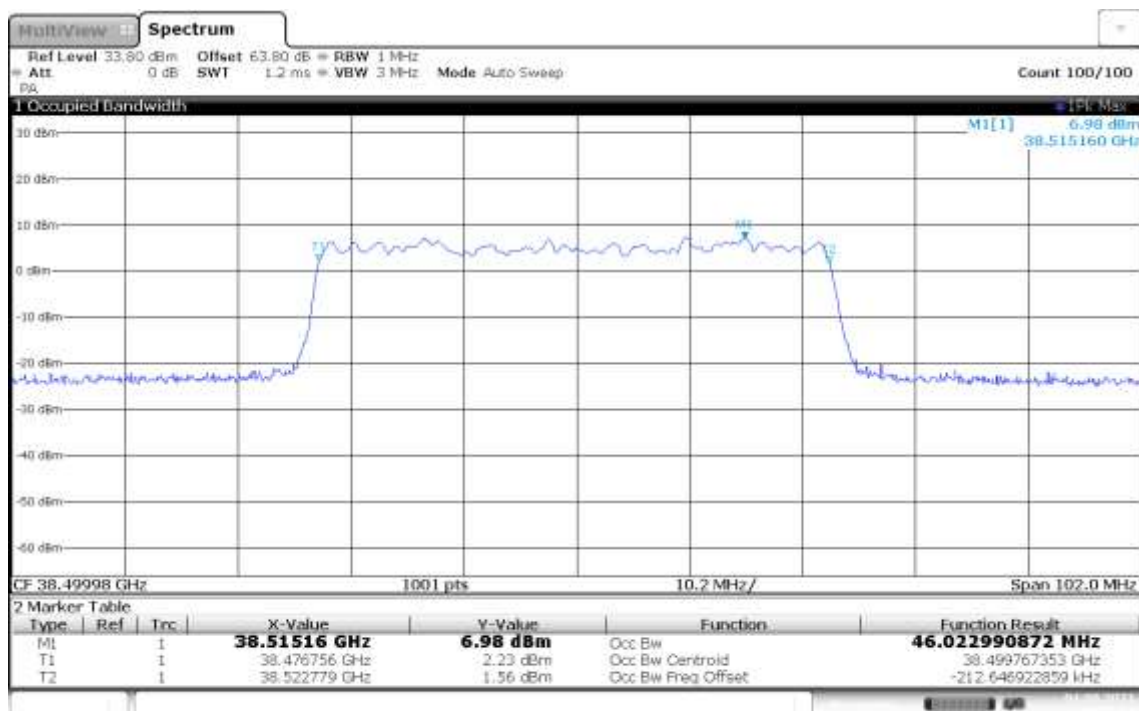


n260, 50MHz Bandwidth, 16QAM (99% BW)



15:51:21 04.09.2021

n260, 50MHz Bandwidth, 64QAM (99% BW)



16:03:47 04.09.2021

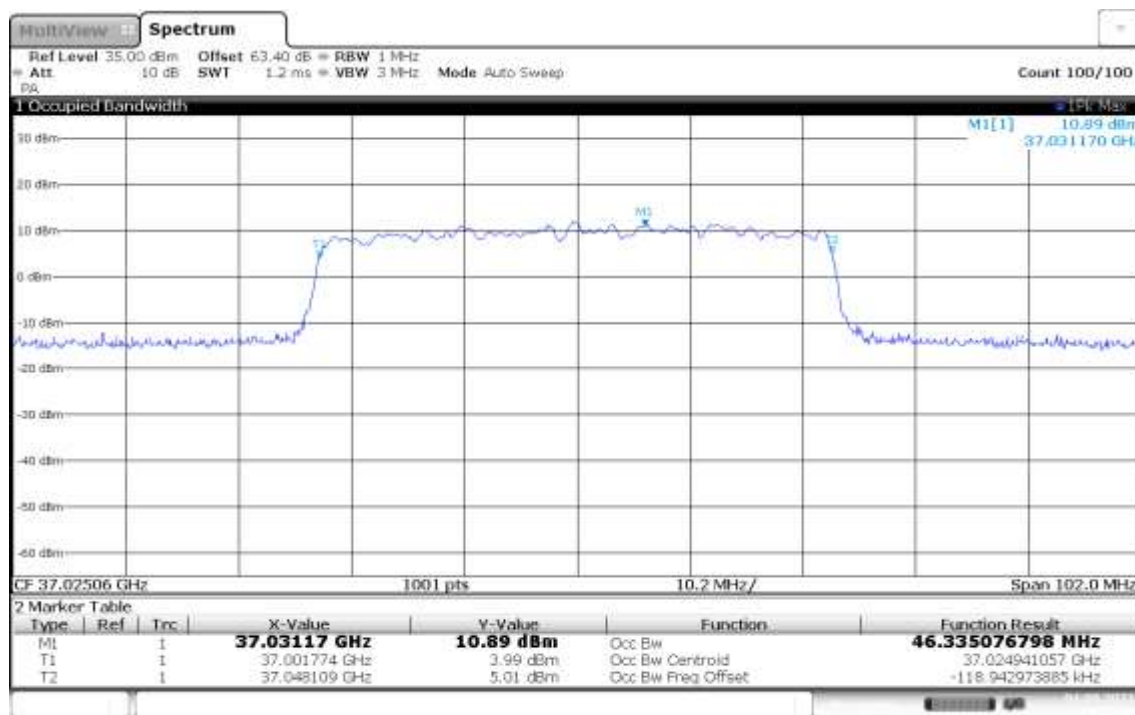
Note: The worst modulation is QPSK, and we test follow setups used QPSK.

n260, 50MHz (99%)

LOW CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37025.04	QPSK	16QAM	64QAM
	46.34	/	/

n260, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



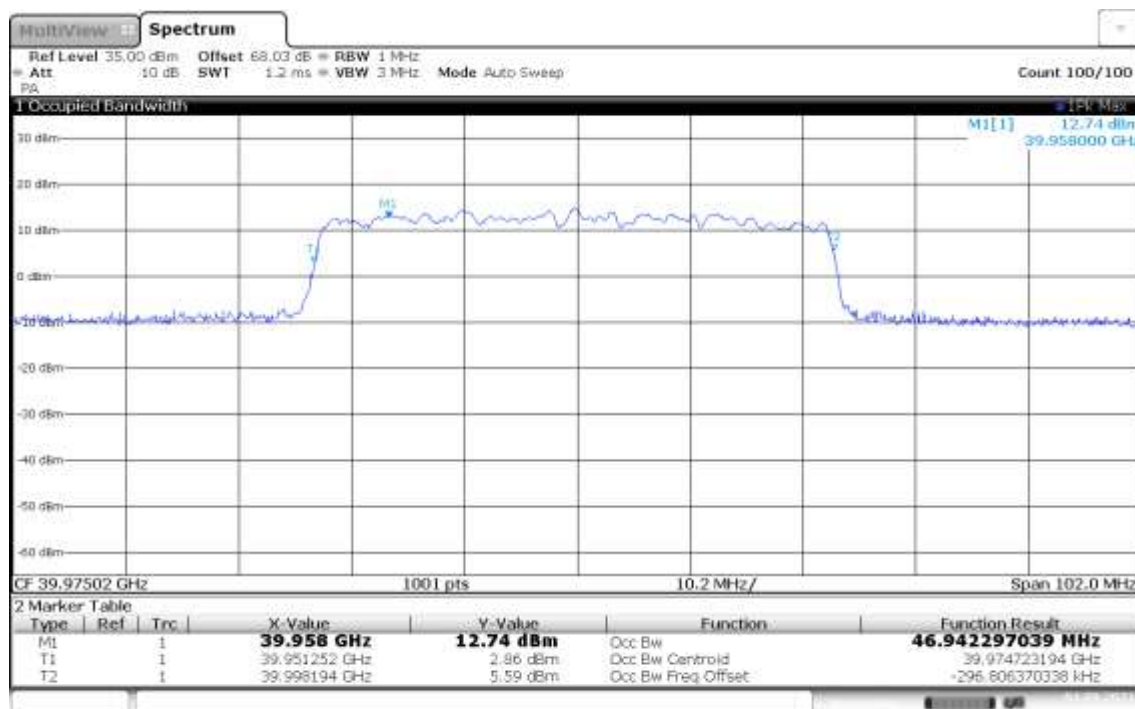
19:17:41 04.09.2021

n260, 50MHz (99%)

HIGH CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
39975	QPSK	16QAM	64QAM
	46.94	/	/

n260, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



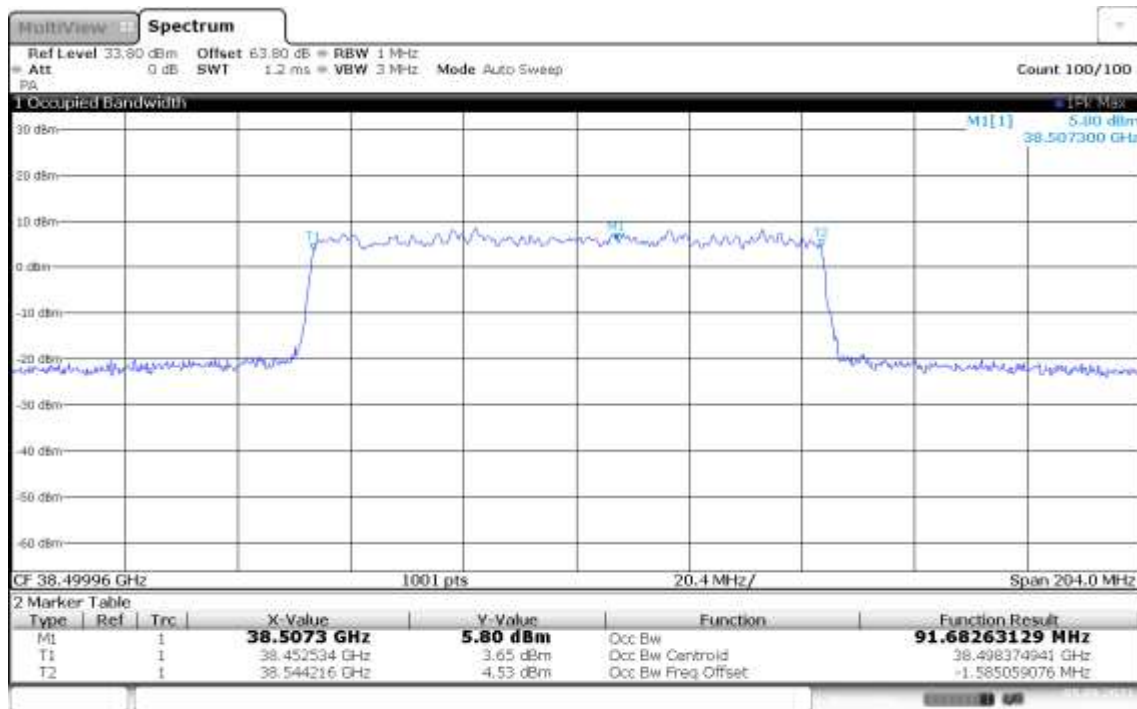
19:07:59 04.09.2021

n260, 100MHz (99%)

MID CHANNEL

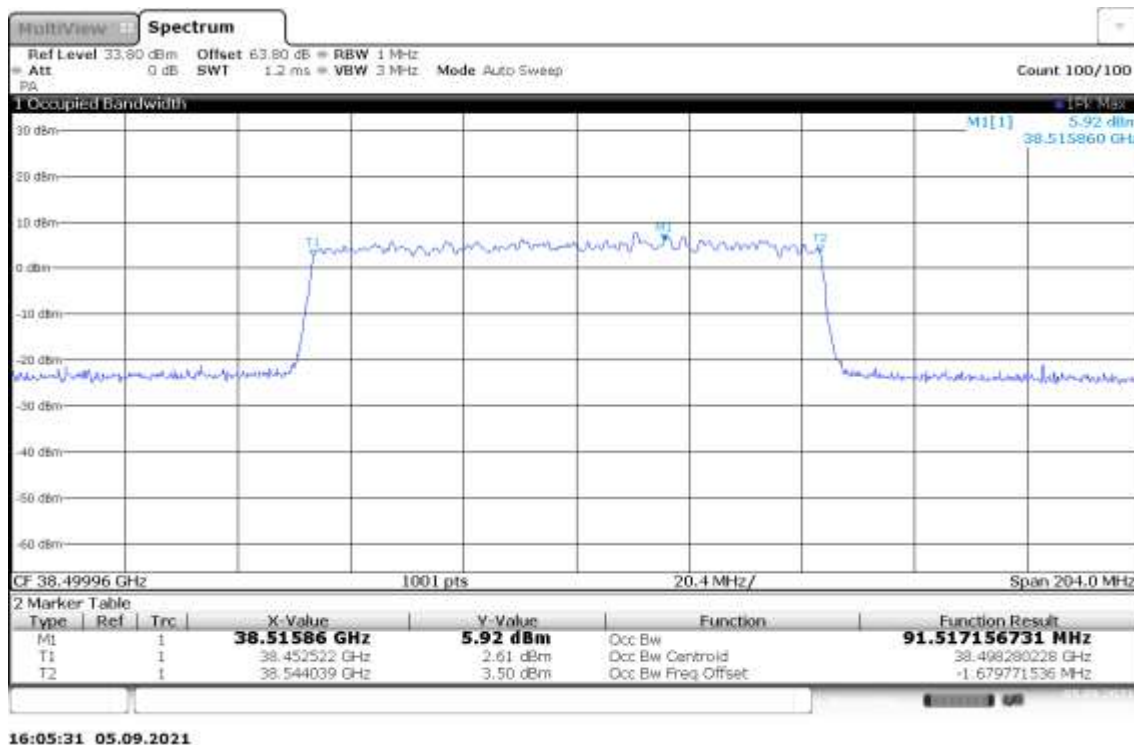
Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	91.68	91.51	91.59

n260, 100MHz Bandwidth, MID CHANNEL, QPSK (99% BW)

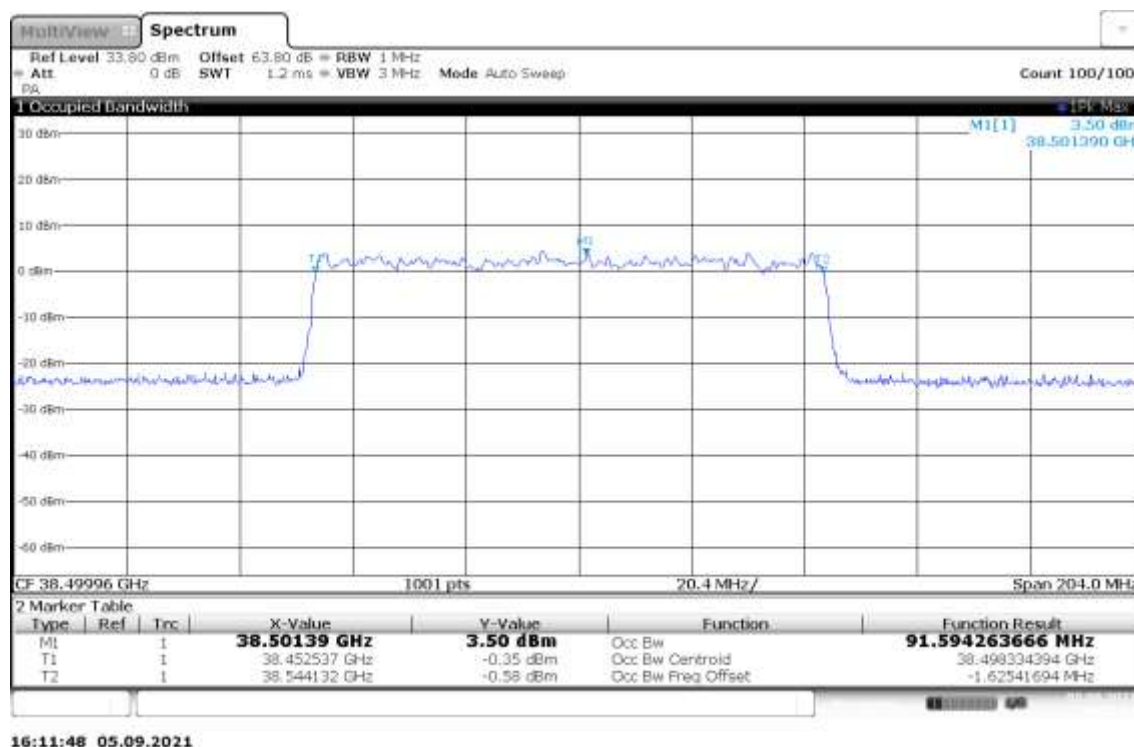


16:00:07 05.09.2021

n260, 100MHz Bandwidth, MID CHANNEL, 16QAM (99% BW)



n260, 100MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



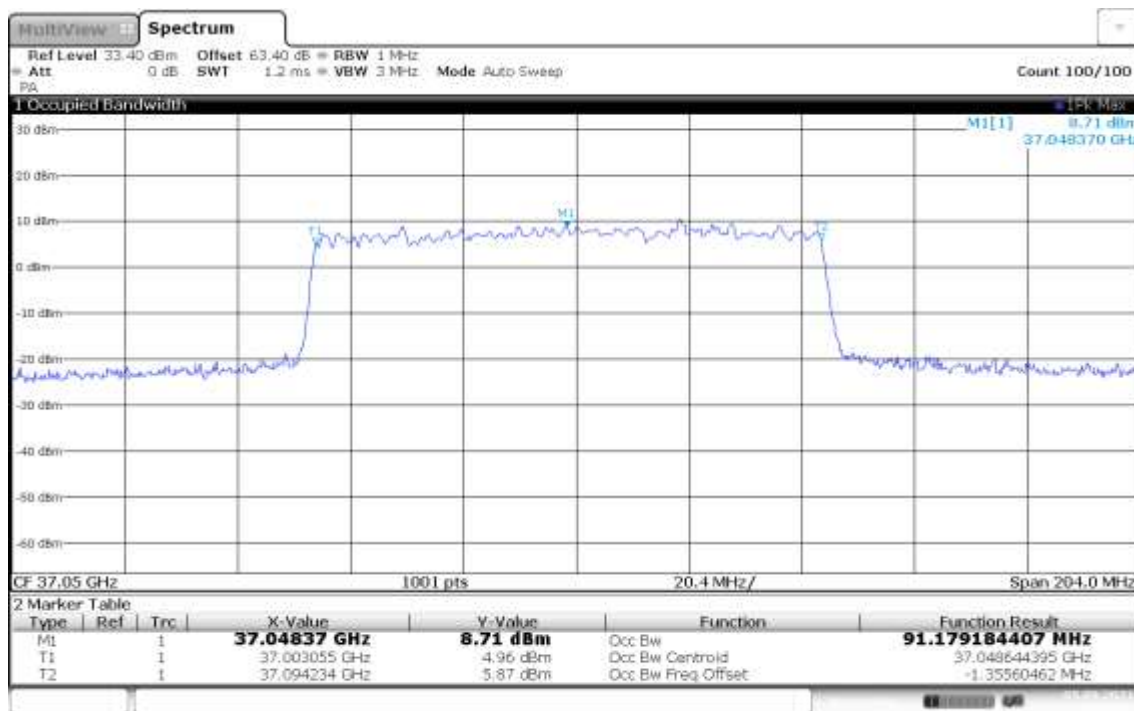
Note: The worst modulation is QPSK, and we test follow setups used QPSK.

n260, 100MHz (99%)

LOW CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37050	QPSK	16QAM	64QAM
	91.18	/	/

n260, 100MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



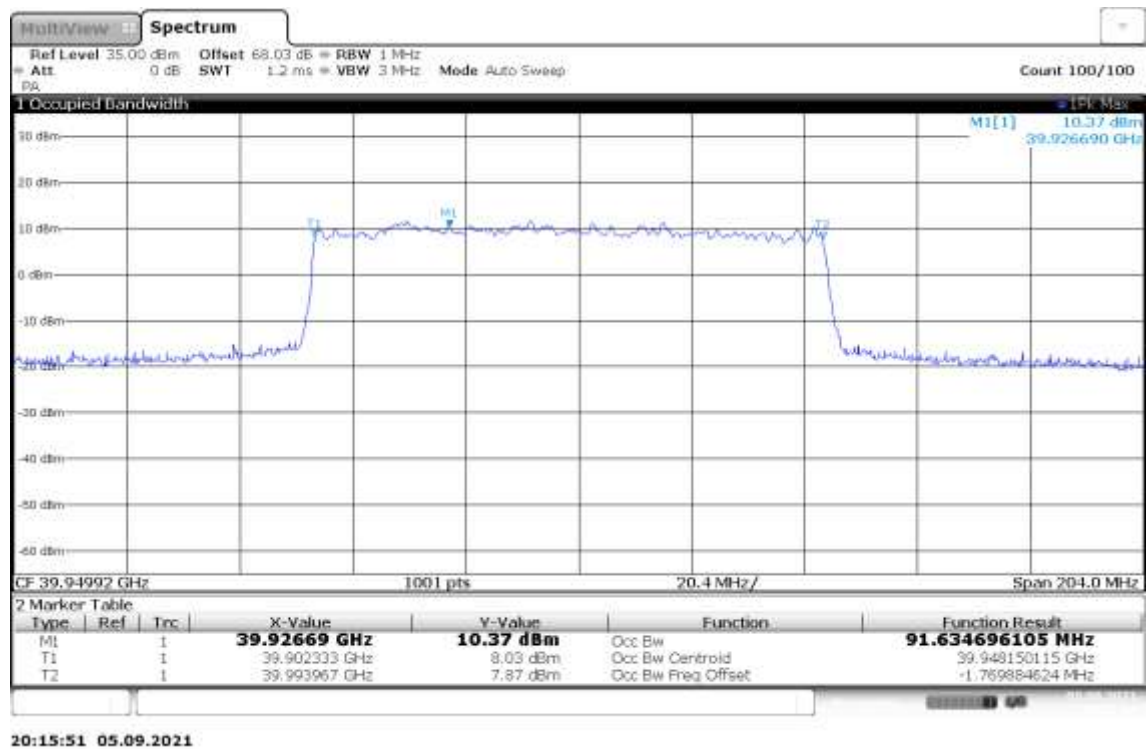
19:26:57 05.09.2021

n260, 100MHz (99%)

HIGH CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
39949.92	QPSK	16QAM	64QAM
	91.63	/	/

n260, 100MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



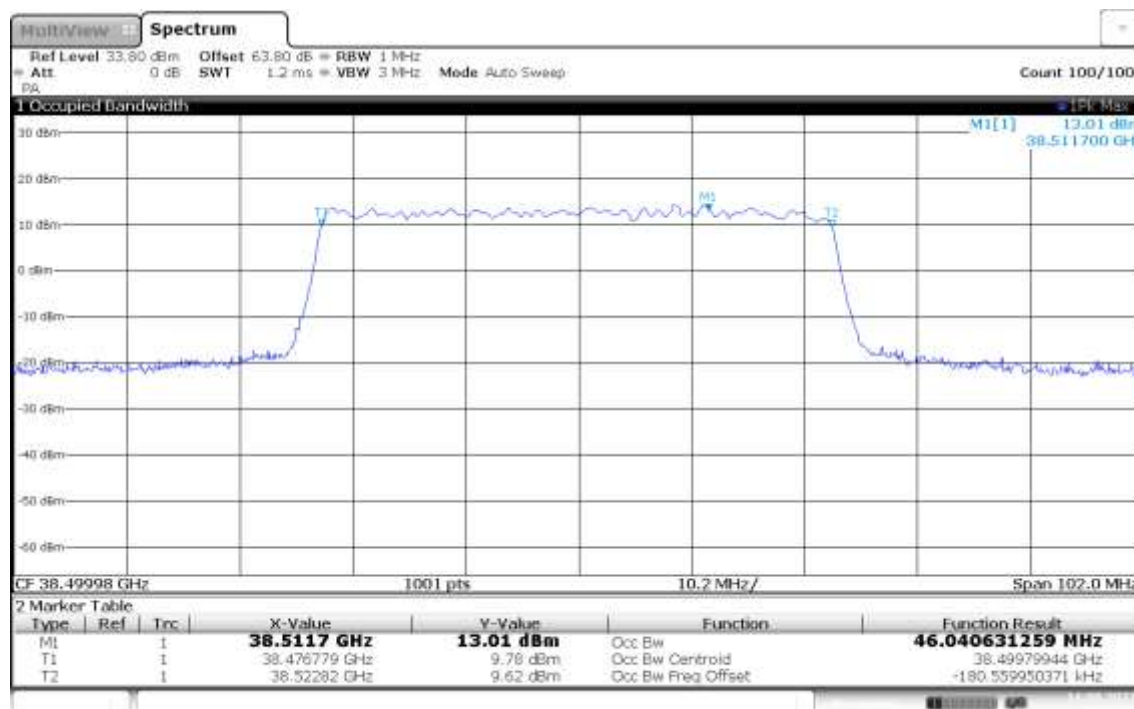
NOTE: Note: The worst modulation is QPSK, and we test follow setups used QPSK.

n260, 50MHz (99%)

MID CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	46.04	/	/

n260, 50MHz Bandwidth, MID CHANNEL, QPSK (99% BW)

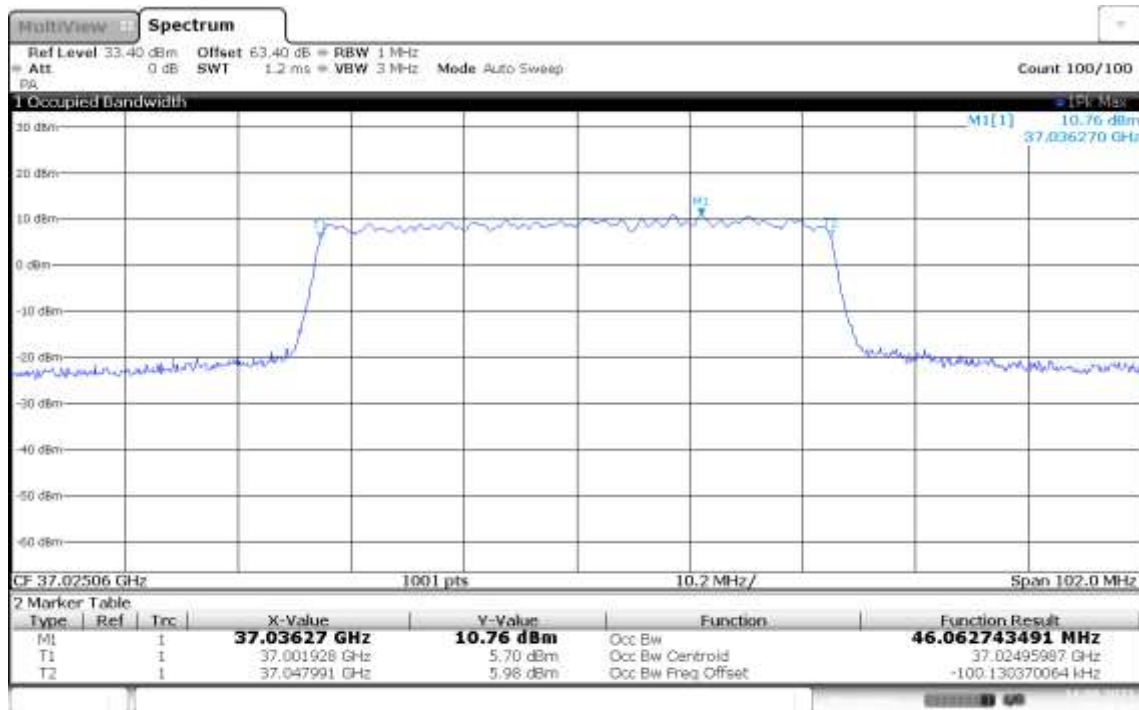


04:49:56 14.09.2021

LOW CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37025.04	QPSK	16QAM	64QAM
	46.06	/	/

n260, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)

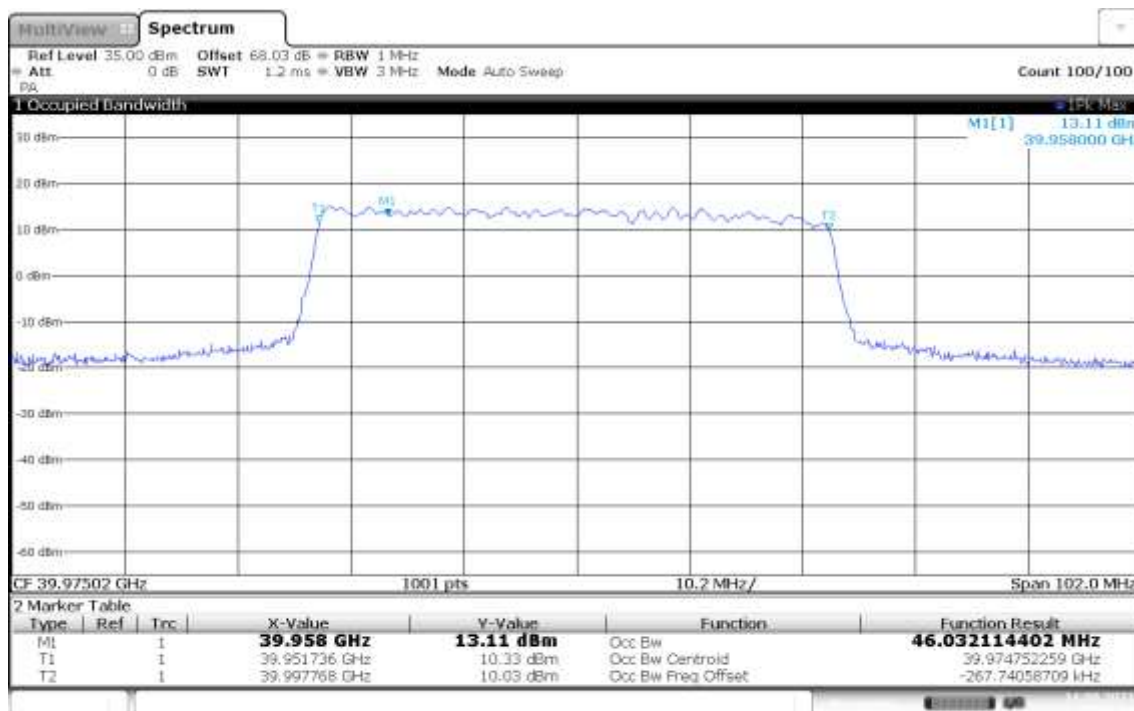


05:19:52 14.09.2021

HIGH CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37025.04	QPSK	16QAM	64QAM
	46.03	/	/

n260, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



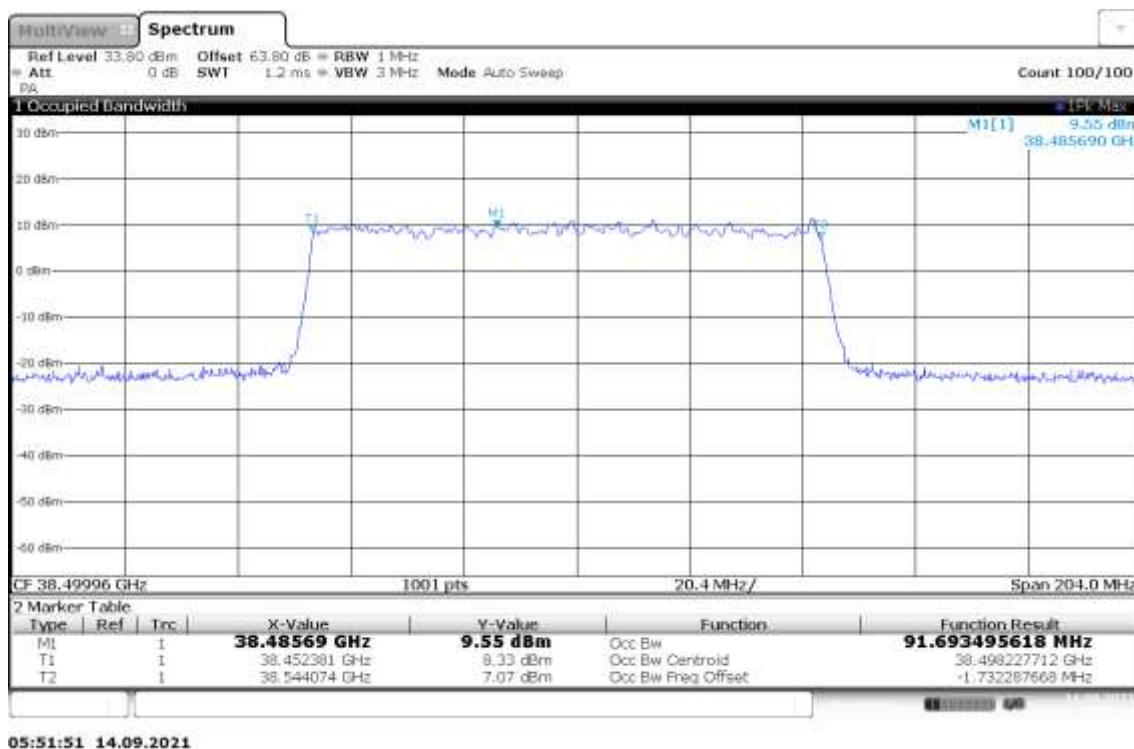
05:26:31 14.09.2021

n260, 100MHz (99%)

MID CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	91.69	/	/

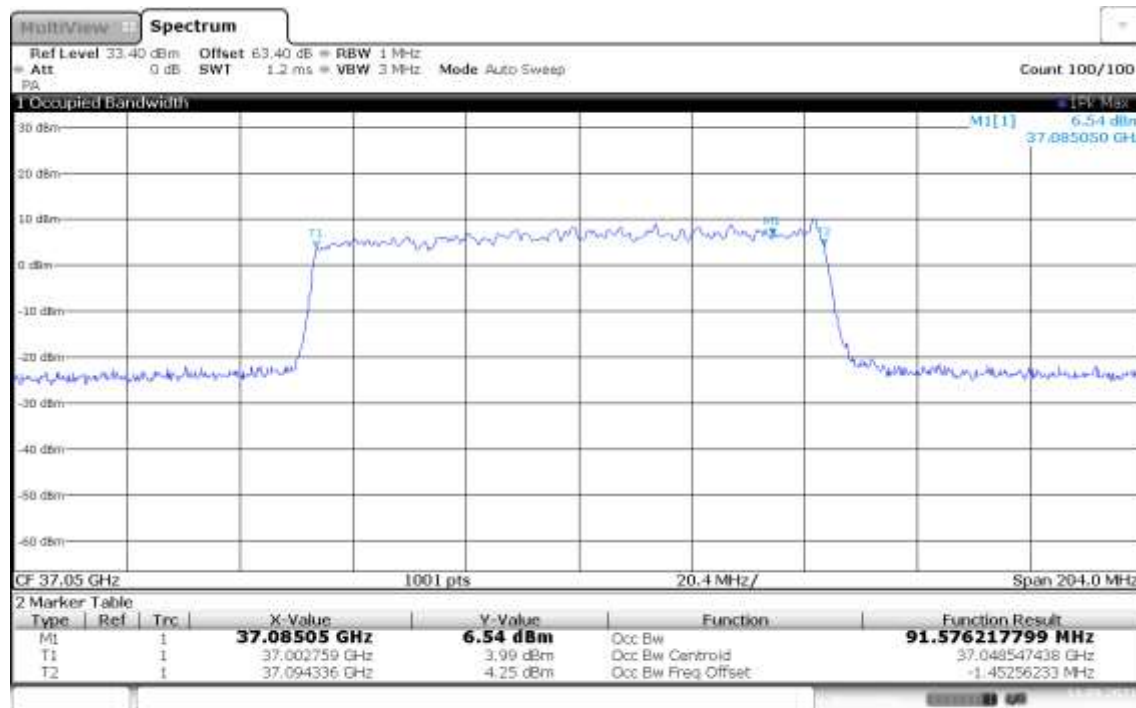
n260, 100MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



LOW CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37050	QPSK	16QAM	64QAM
	91.58	/	/

n260, 100MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)

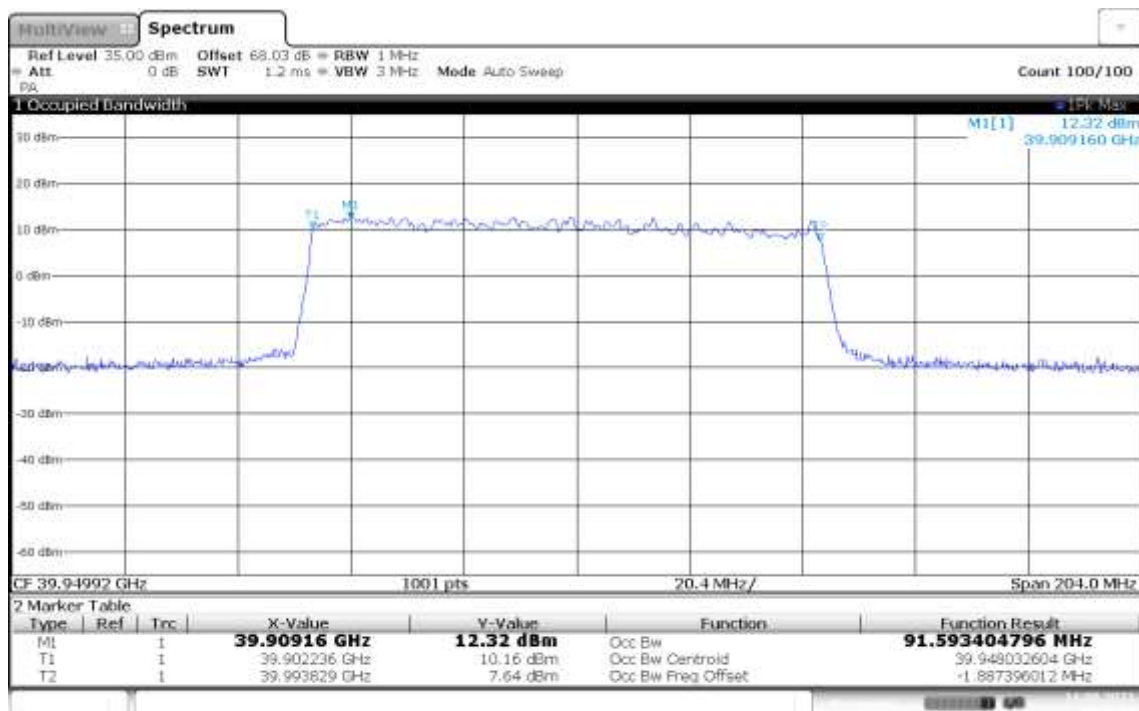


07:51:42 14.09.2021

HIGH CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
39949.92	QPSK	16QAM	64QAM
	91.59	/	/

n260, 100MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



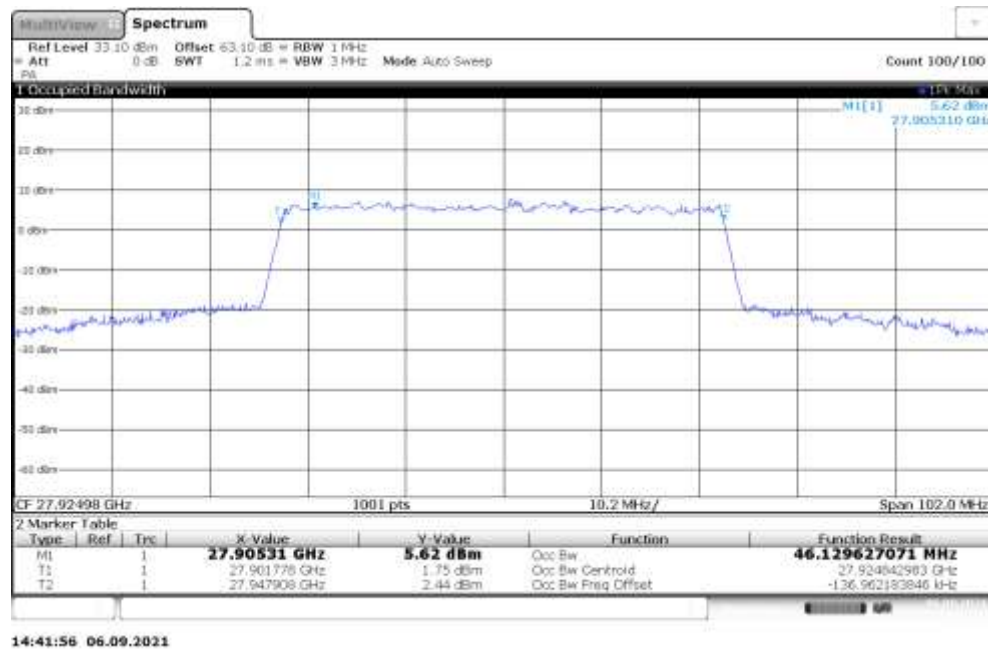
08:16:05 14.09.2021

n261, 50MHz (99%)

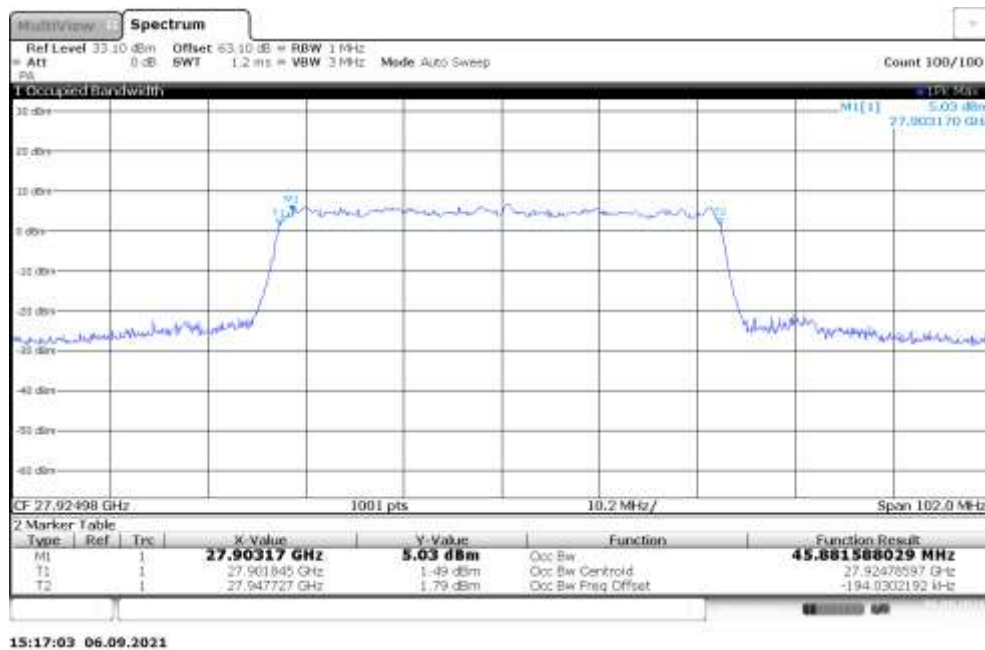
MID CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27924.96	QPSK	16QAM	64QAM
	46.13	45.88	45.99

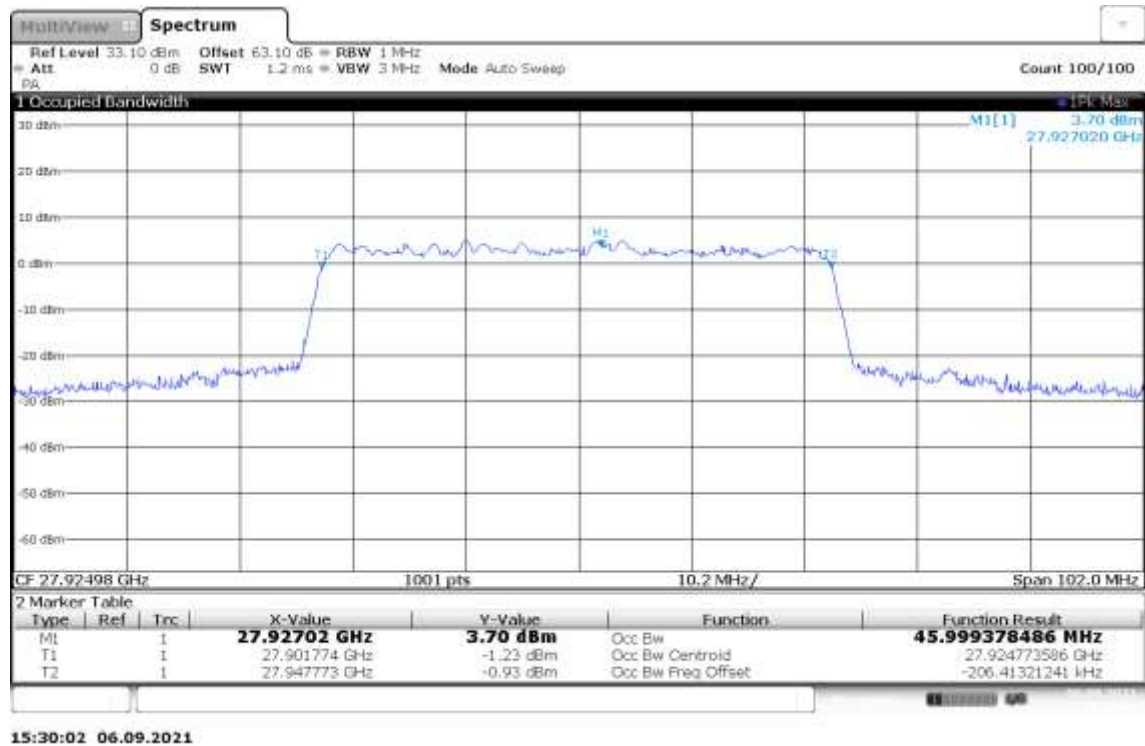
n261, 50MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



n261, 50MHz Bandwidth, MID CHANNEL, 16QAM (99% BW)



n261, 50MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



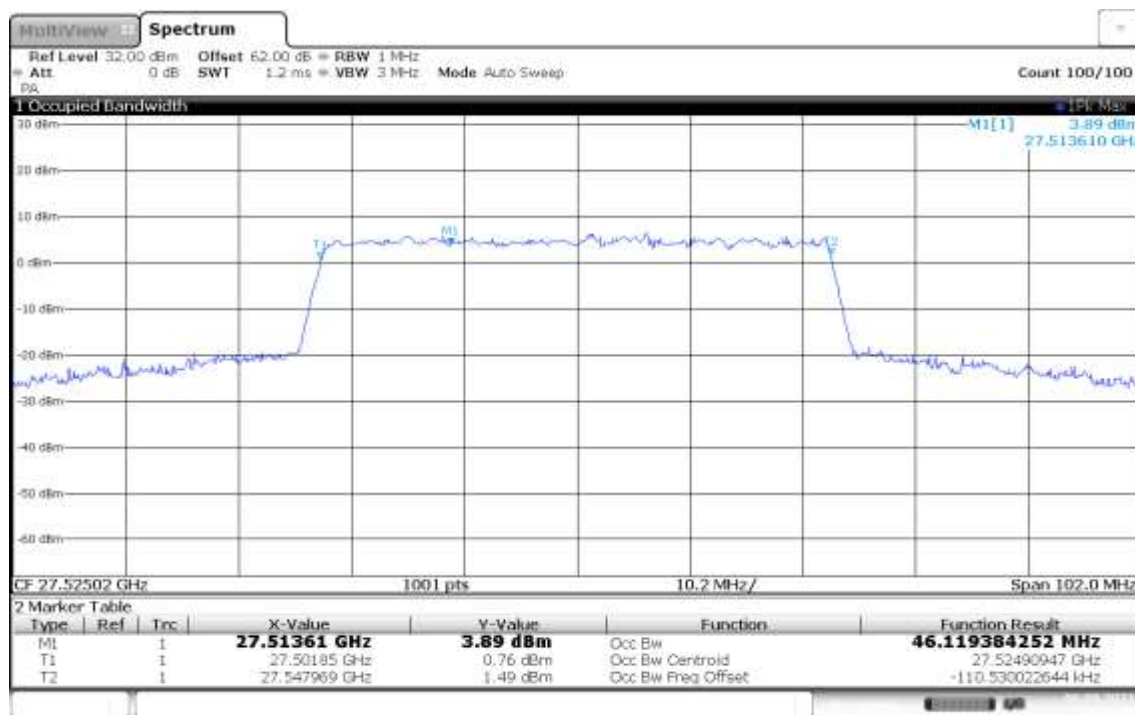
Note: The worst modulation is QPSK, and we test follow setups used QPSK.

n261, 50MHz (99%)

LOW CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27525	QPSK	16QAM	64QAM
	64.12	/	/

n261, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



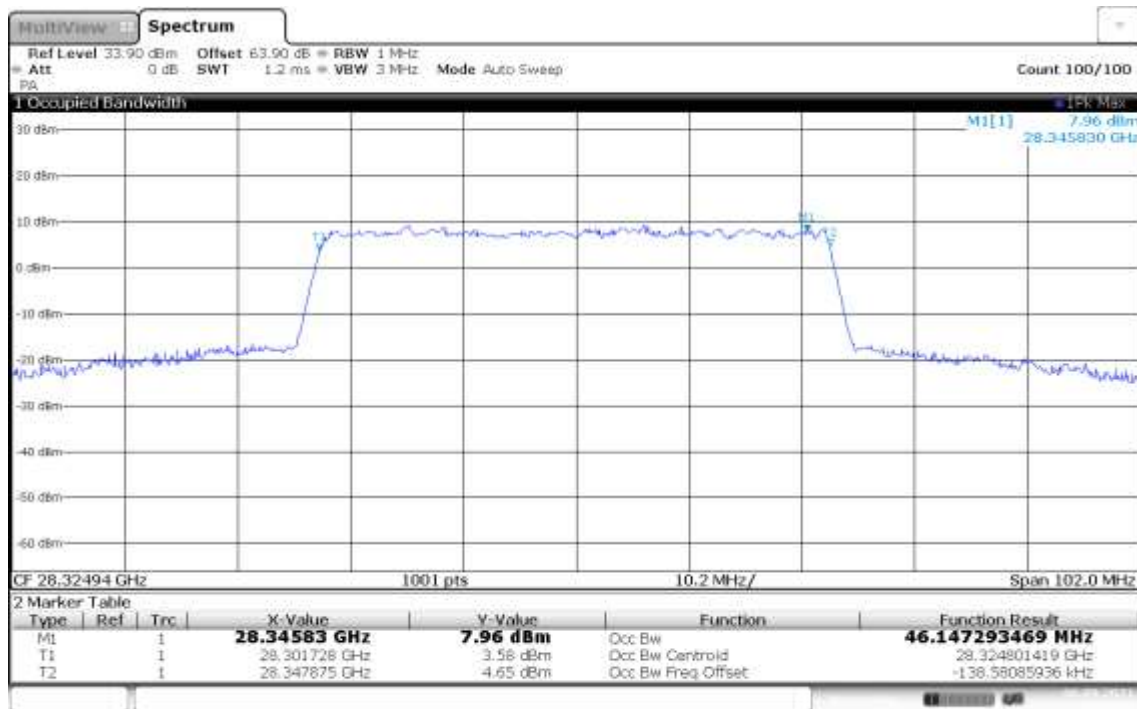
15:41:29 06.09.2021

n261, 50MHz (99%)

HIGH CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
28324.92	QPSK	16QAM	64QAM
	46.15	/	/

n261, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



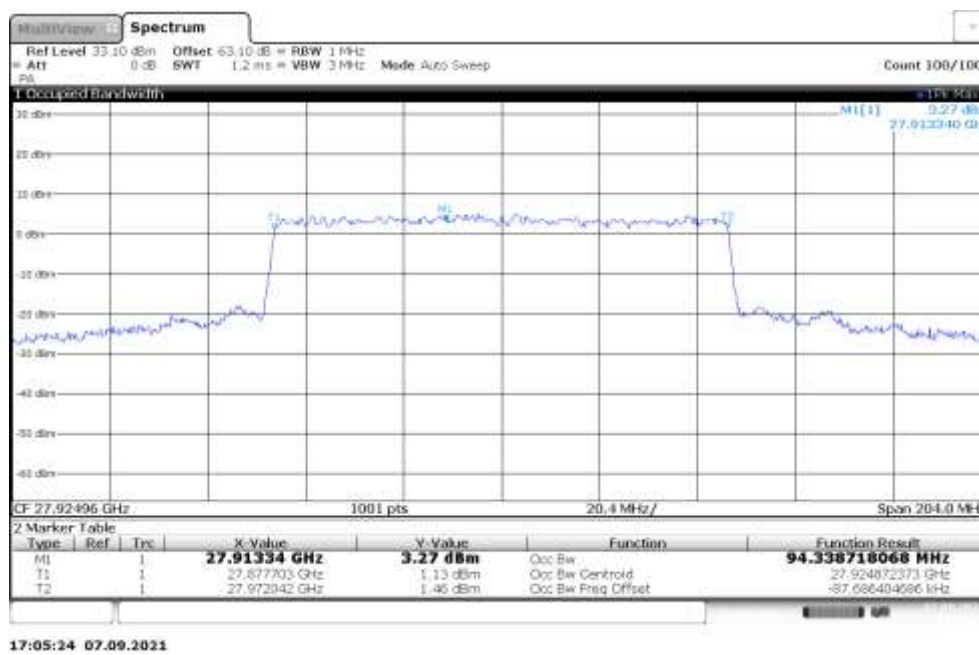
16:02:44 06.09.2021

n261, 100MHz (99%)

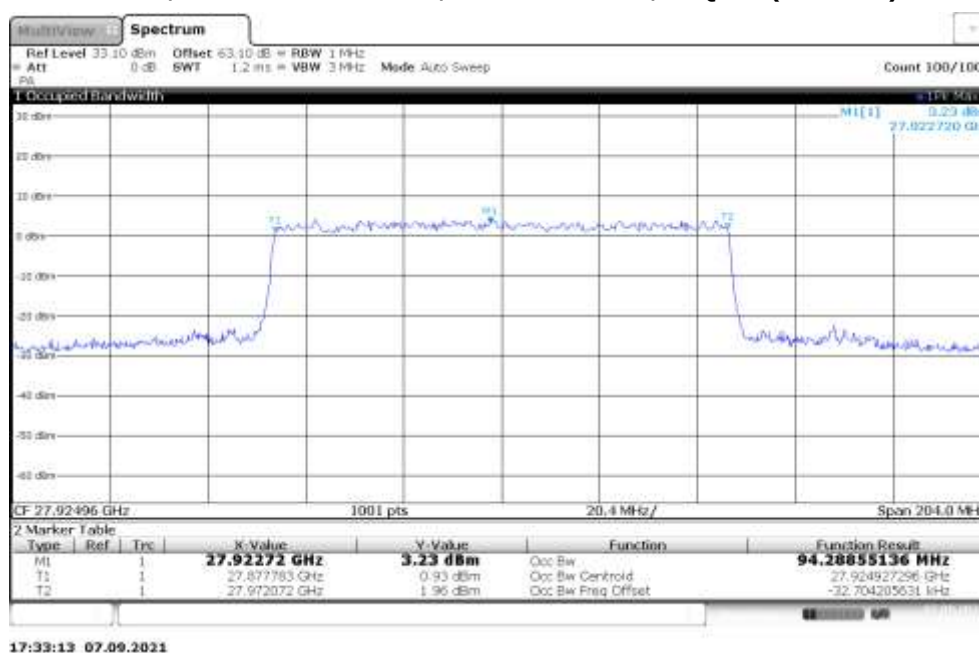
MID CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27924.96	QPSK	16QAM	64QAM
	94.34	94.29	94.37

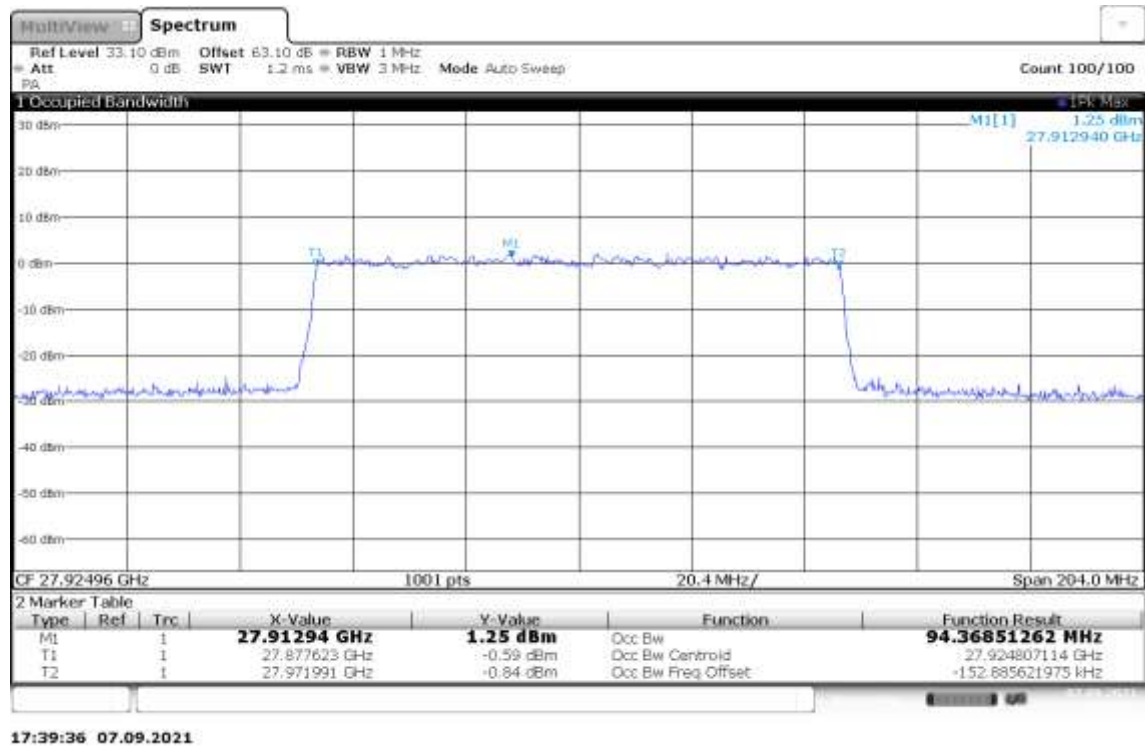
n261, 100MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



n261, 100MHz Bandwidth, MID CHANNEL, 16QAM (99% BW)



n261, 100MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



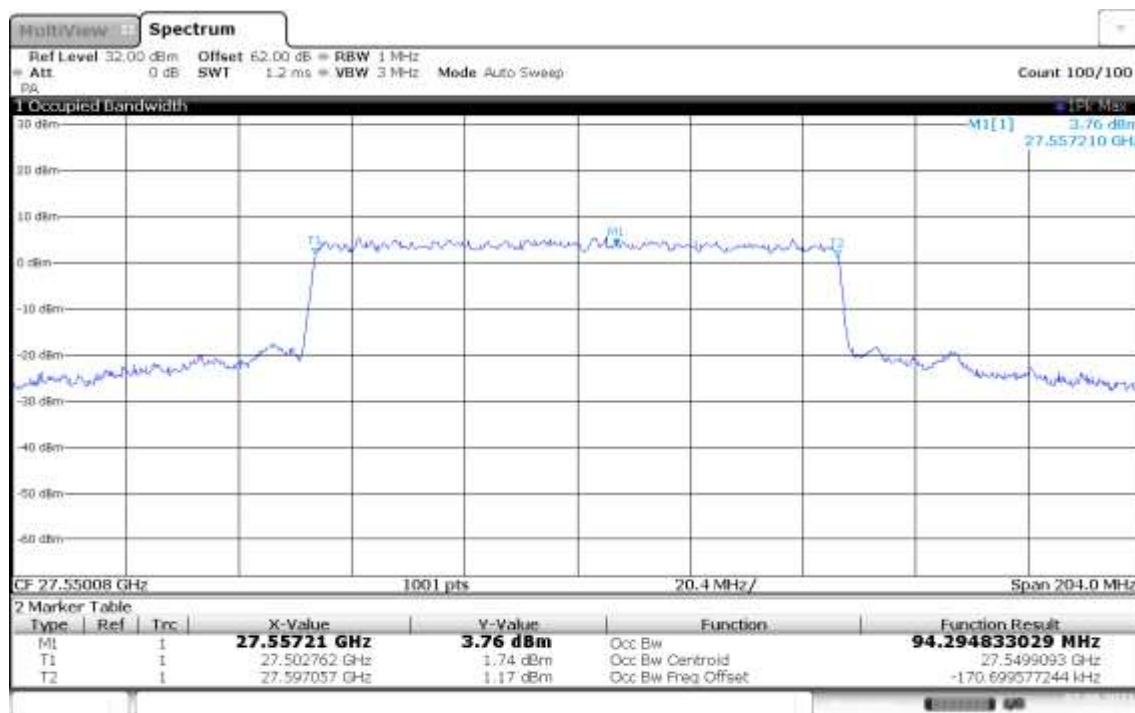
Note: The worst modulation is 64QAM, and we test follow setups used 64QAM.

n261, 100MHz (99%)

LOW CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27550.08	QPSK	16QAM	64QAM
	/	/	94.29

n261, 100MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



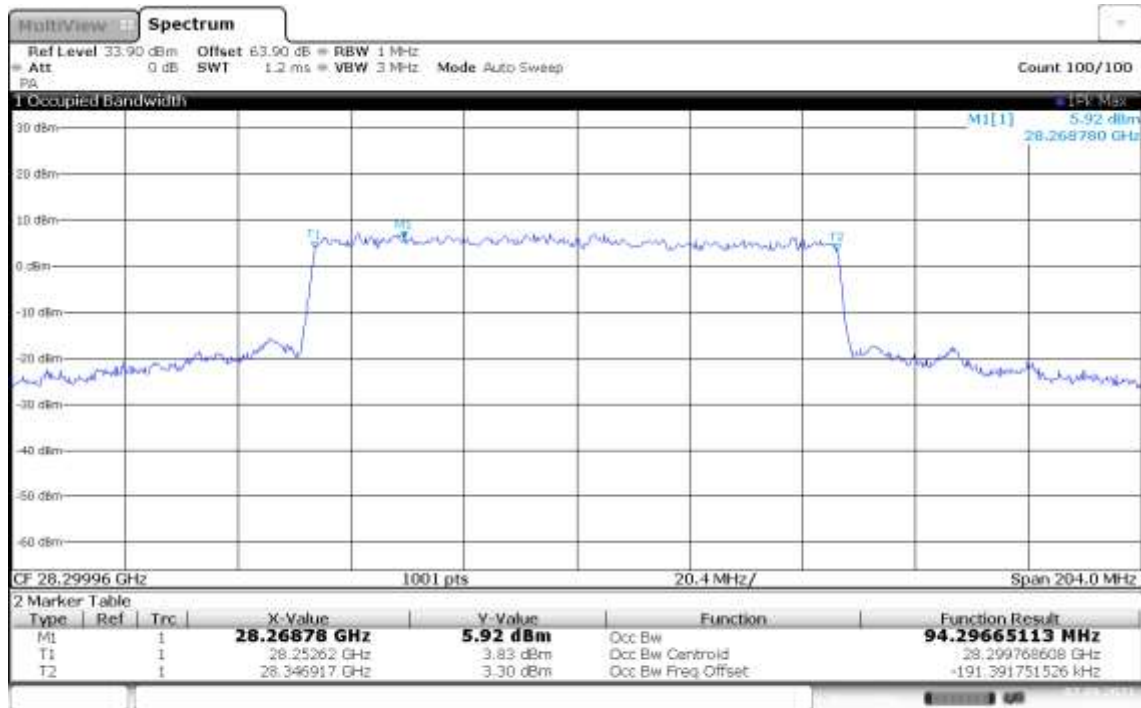
17:49:51 07.09.2021

n261, 100MHz (99%)

HIGH CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
28299.96	QPSK	16QAM	64QAM
	/	/	94.30

n261, 100MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



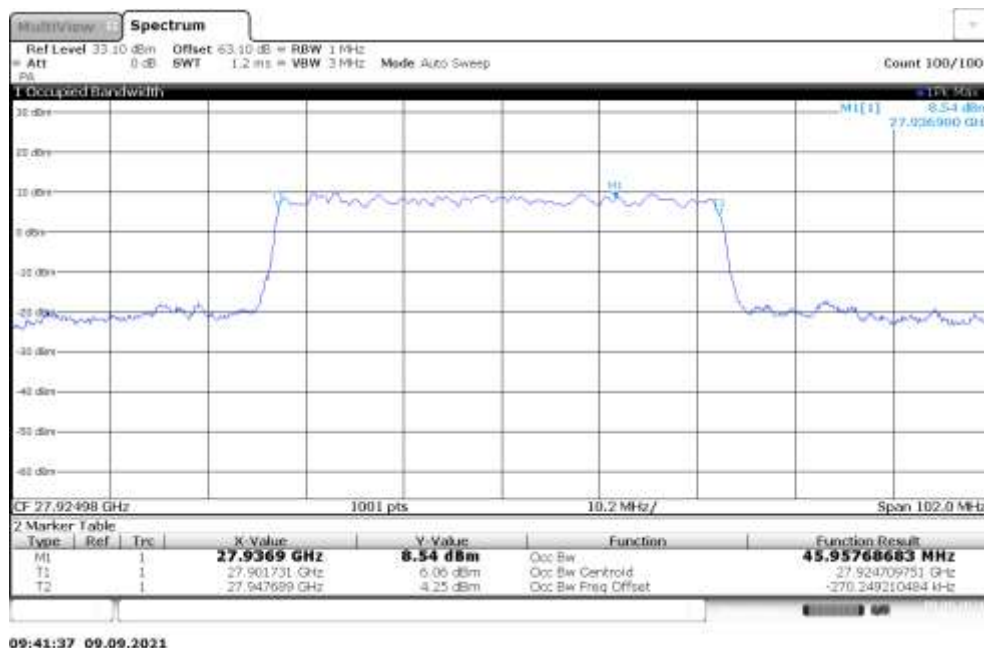
18:01:27 07.09.2021

n261, 50MHz (99%)

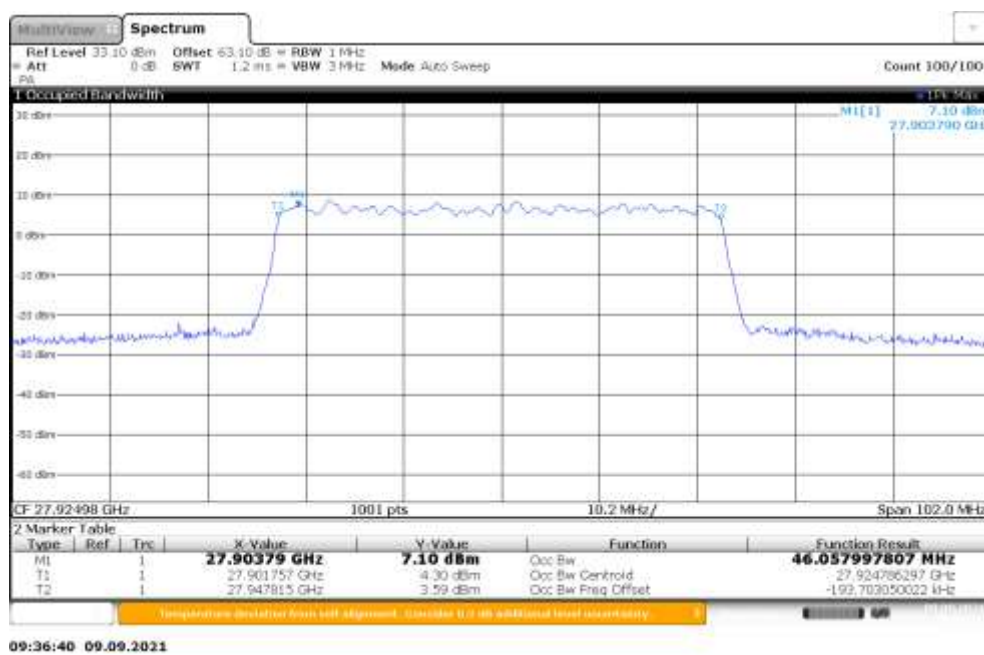
MID CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27924.96	QPSK	16QAM	64QAM
	45.96	46.06	45.94

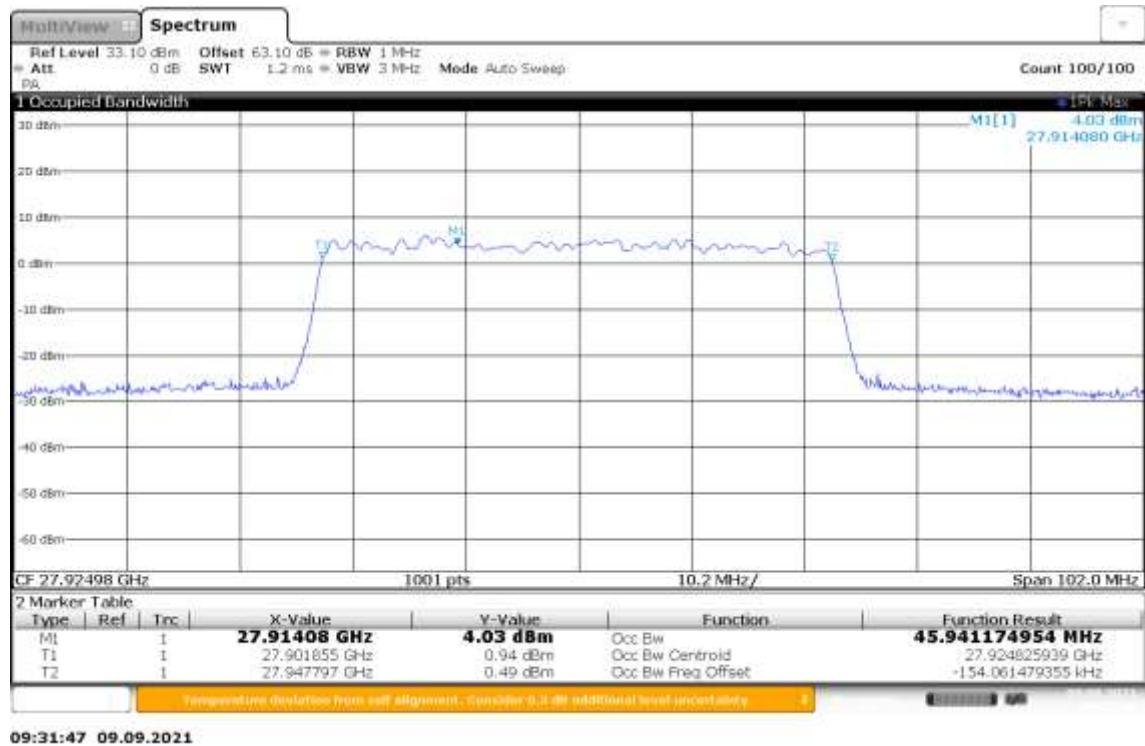
n261, 50MHz Bandwidth, MID CHANNEL,QPSK (99% BW)



n261, 50MHz Bandwidth, MID CHANNEL,16QAM (99% BW)



n261, 50MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



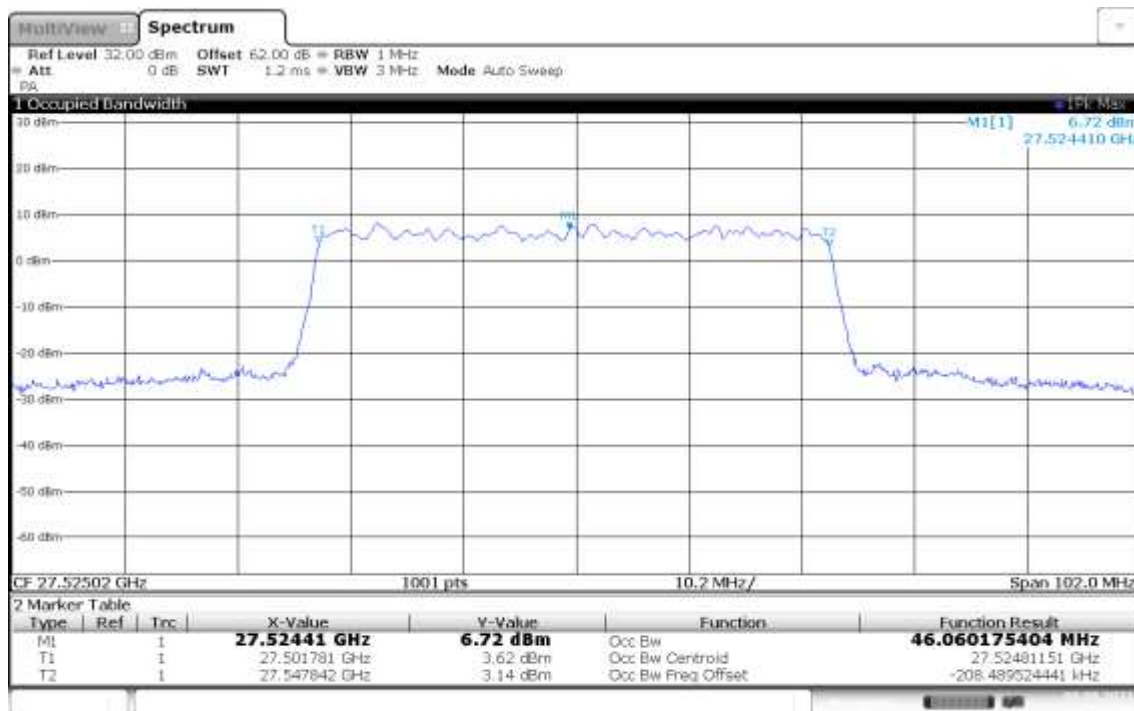
Note: The worst modulation is 16QAM, and we test follow setups used 16QAM.

n261, 50MHz (99%)

LOW CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27525	QPSK	16QAM	64QAM
	/	46.06	/

n261, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



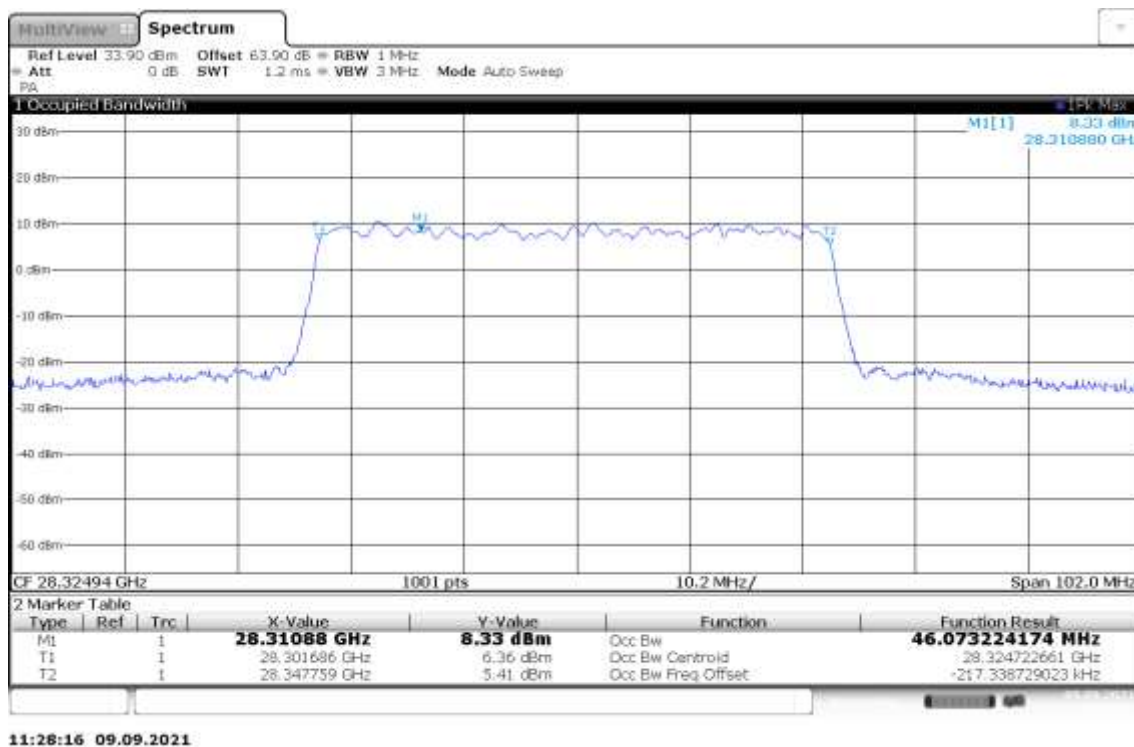
11:01:27 09.09.2021

n261, 50MHz (99%)

HIGH CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
28324.92	QPSK	16QAM	64QAM
	/	46.07	/

n261, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)

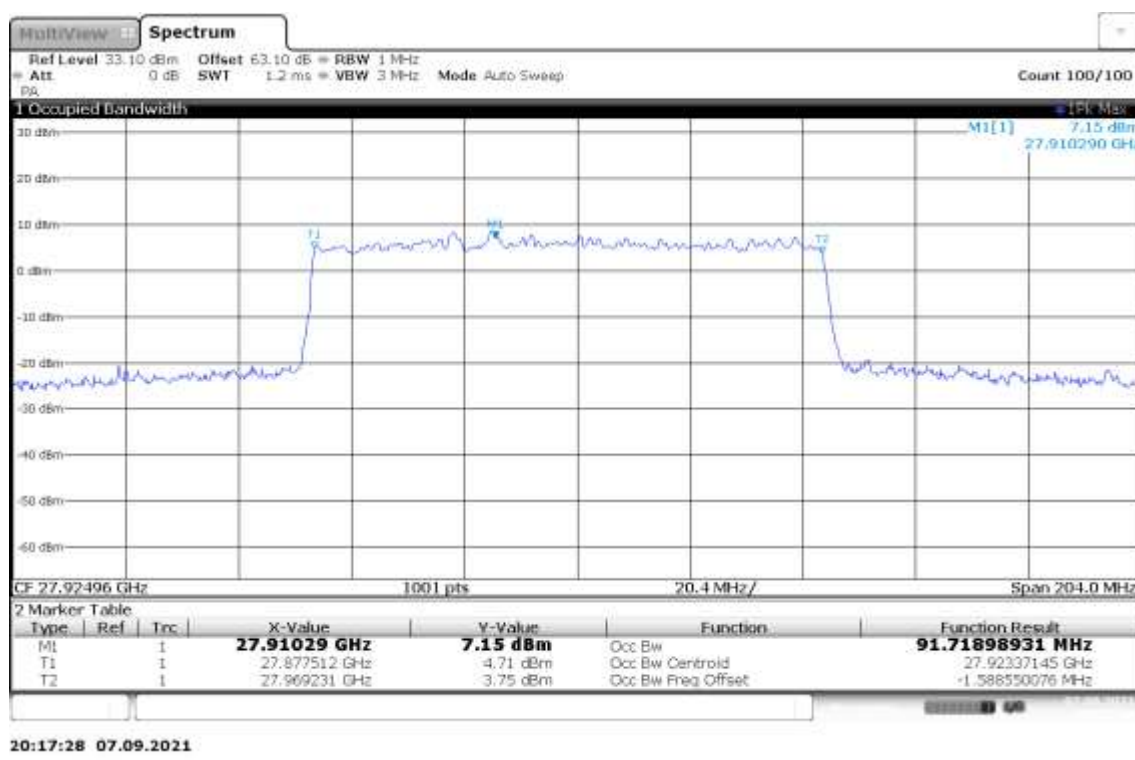


n261, 100MHz (99%)

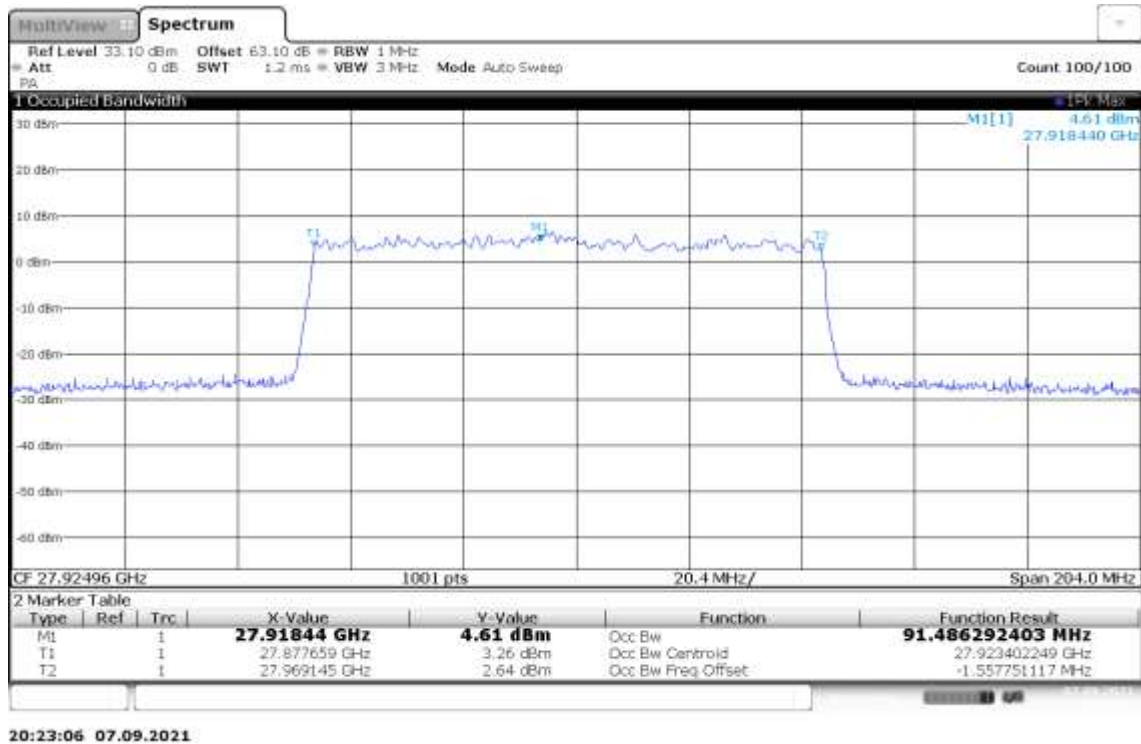
MID CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27924.96	QPSK	16QAM	64QAM
	91.72	91.49	91.56

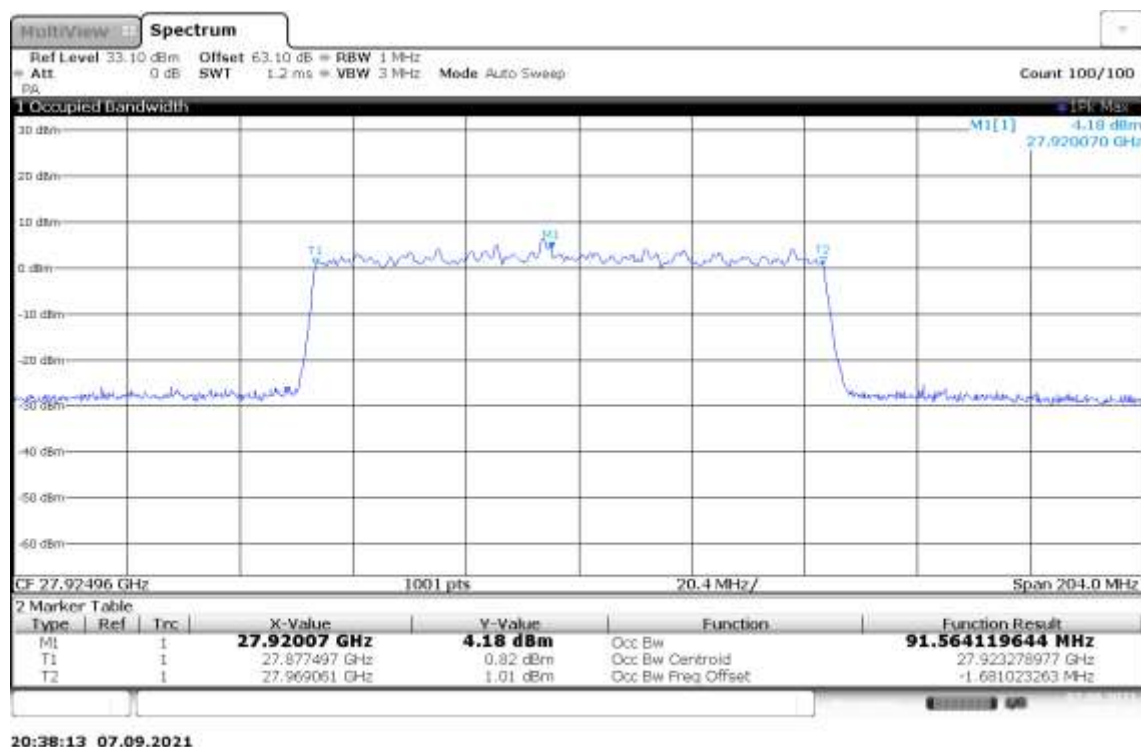
n261, 100MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



n261, 100MHz Bandwidth, MID CHANNEL, 16QAM (99% BW)



n261, 100MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



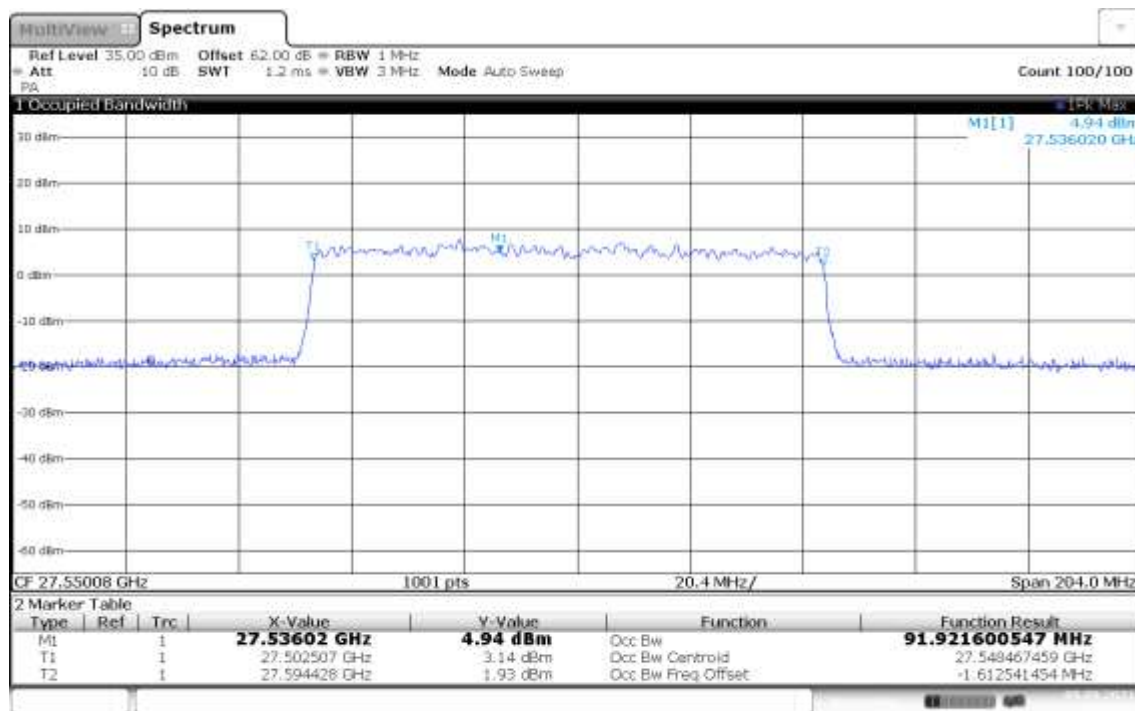
Note: The worst modulation is QPSK, and we test follow setups used QPSK.

n261, 100MHz (99%)

LOW CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27550.08	QPSK	16QAM	64QAM
	91.92	/	/

n261, 100MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



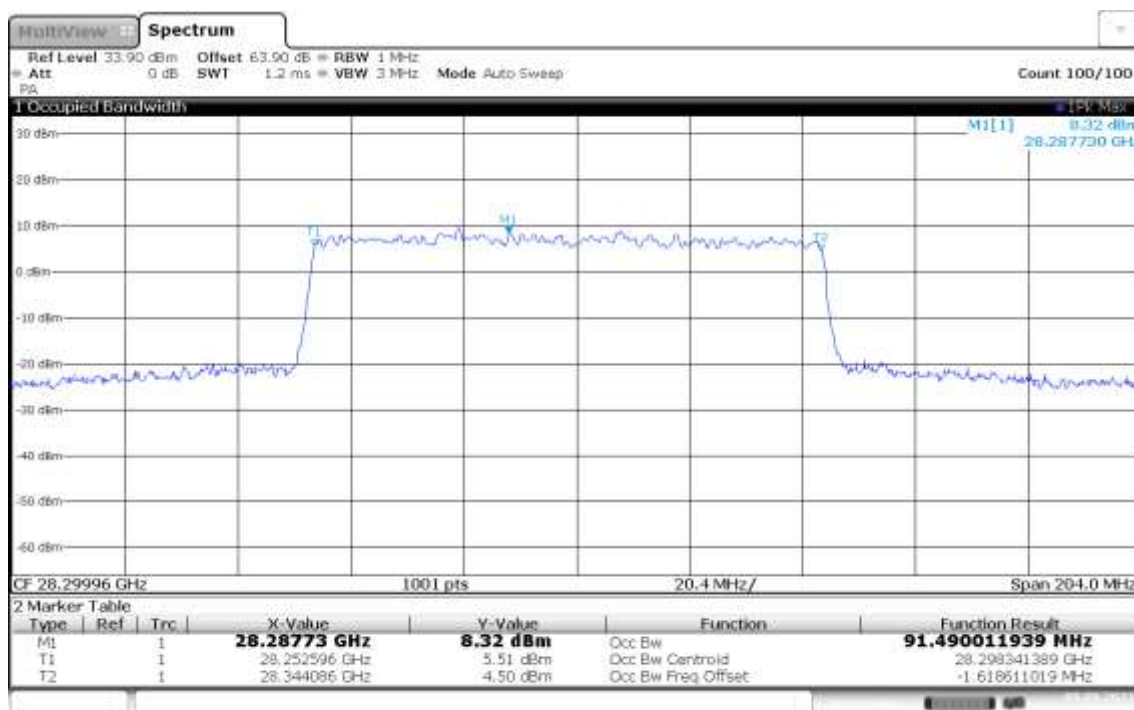
19:23:13 09.09.2021

n261, 100MHz (99%)

HIGH CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
28299.96	QPSK	16QAM	64QAM
	91.49	/	/

n261, 100MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



18:33:24 09.09.2021

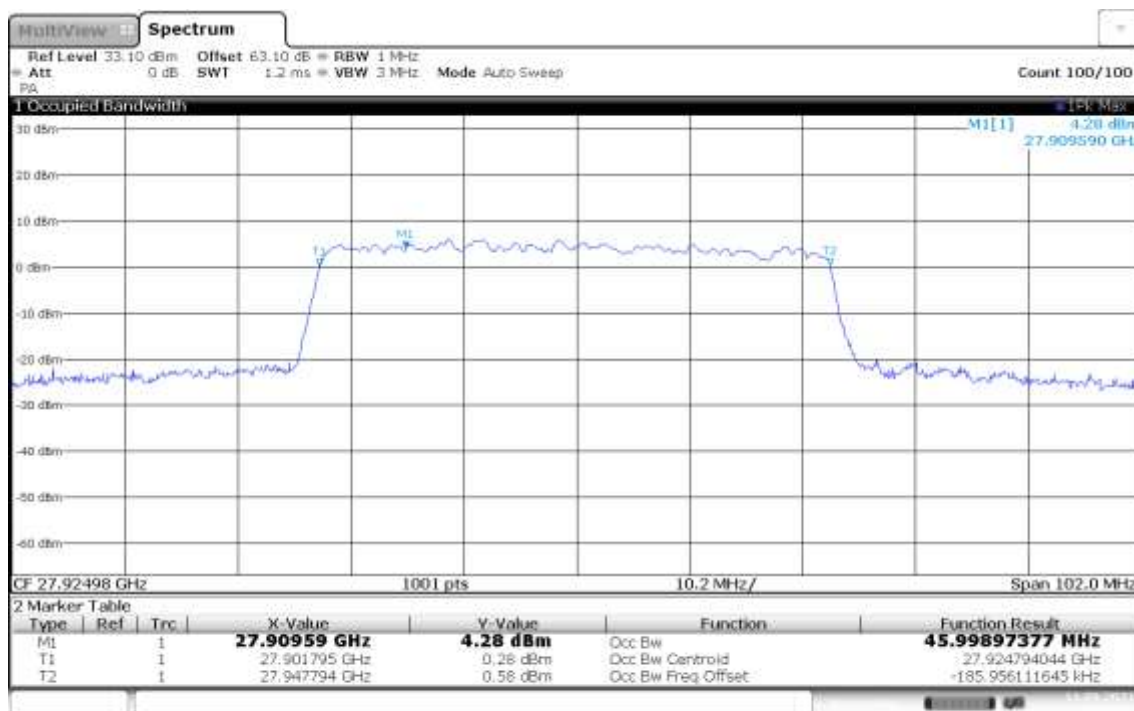
NOTE: Note: The worst modulation is QPSK, and we test follow setups used QPSK.

n261, 50MHz (99%)

MID CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27924.96	QPSK	16QAM	64QAM
	46.00	/	/

n261, 50MHz Bandwidth, MID CHANNEL, QPSK (99% BW)

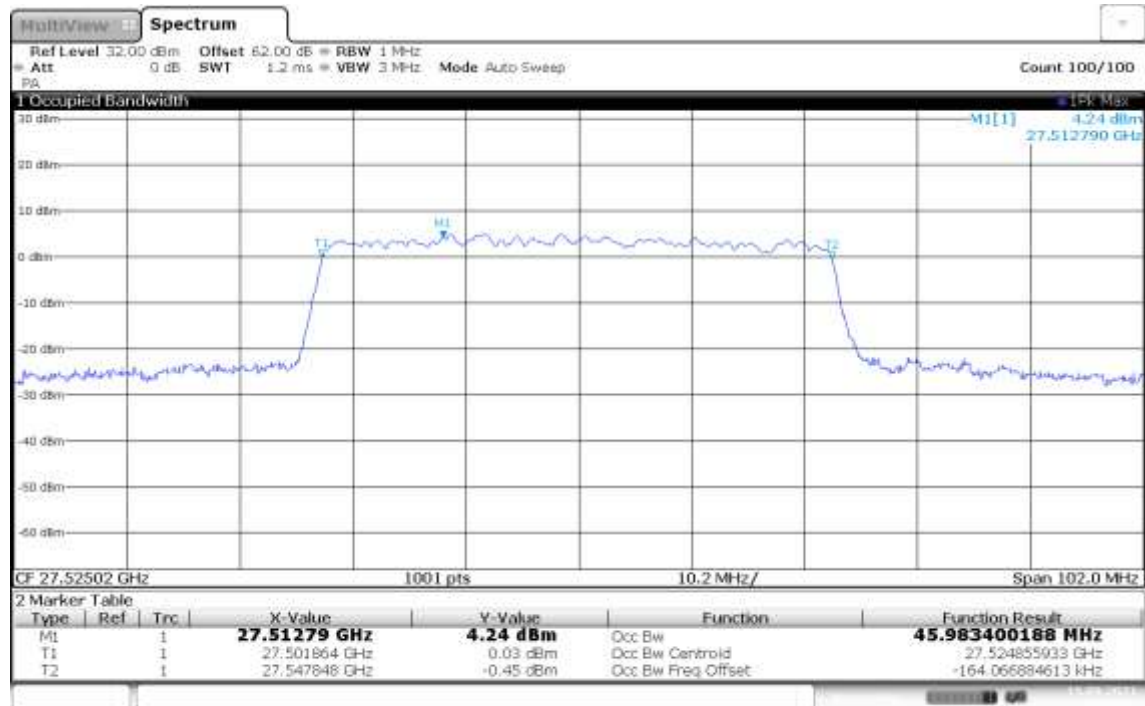


23:54:23 14.09.2021

LOW CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27525	QPSK	16QAM	64QAM
		/	/

n261, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)

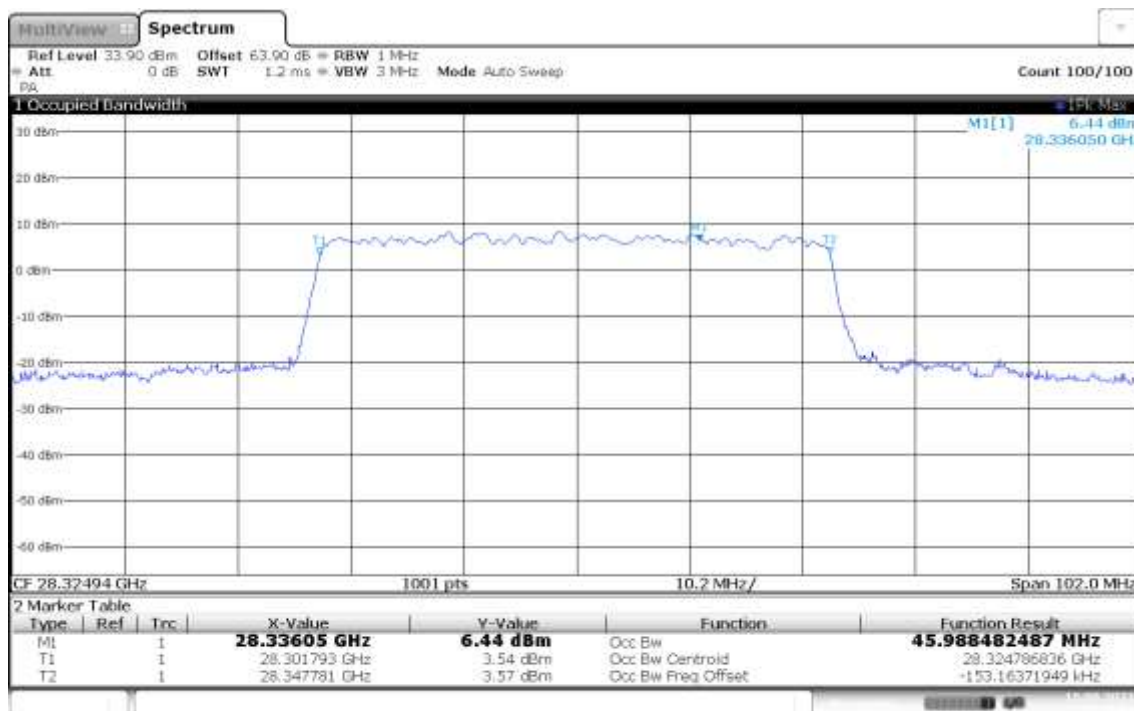


00:59:51 15.09.2021

HIGH CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
28324.92	QPSK	16QAM	64QAM
	45.99	/	/

n261, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



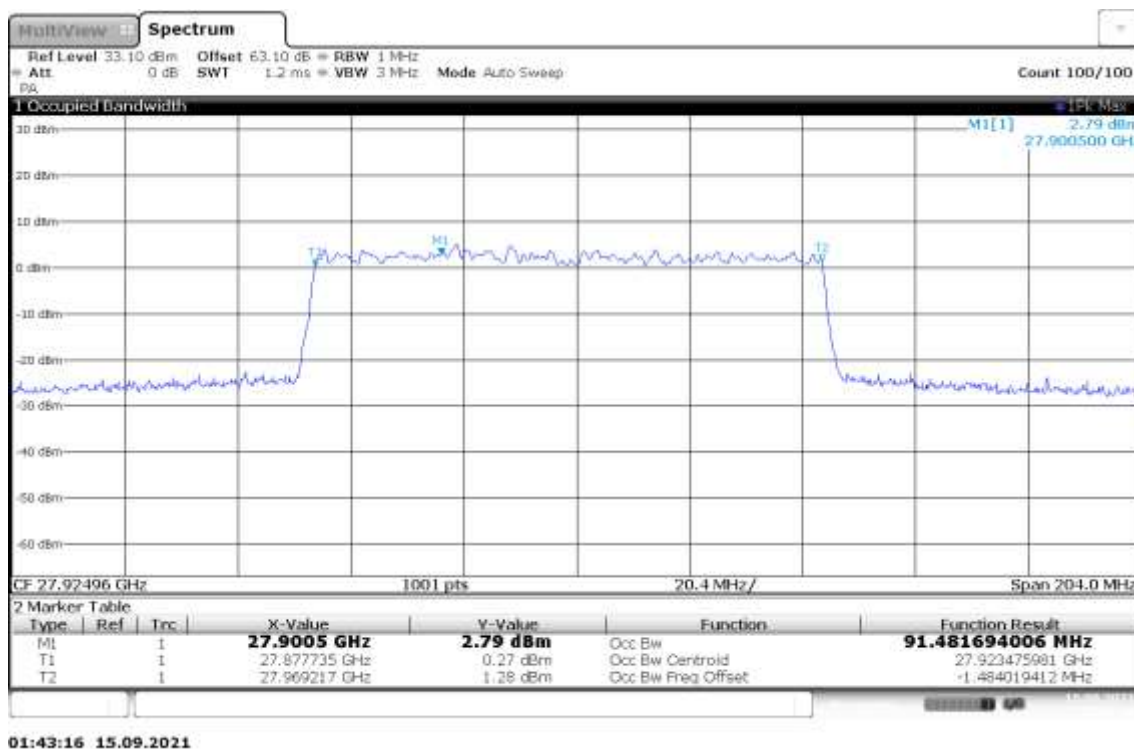
01:30:02 15.09.2021

n261, 100MHz (99%)

MID CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27924.96	QPSK	16QAM	64QAM
	91.48	/	/

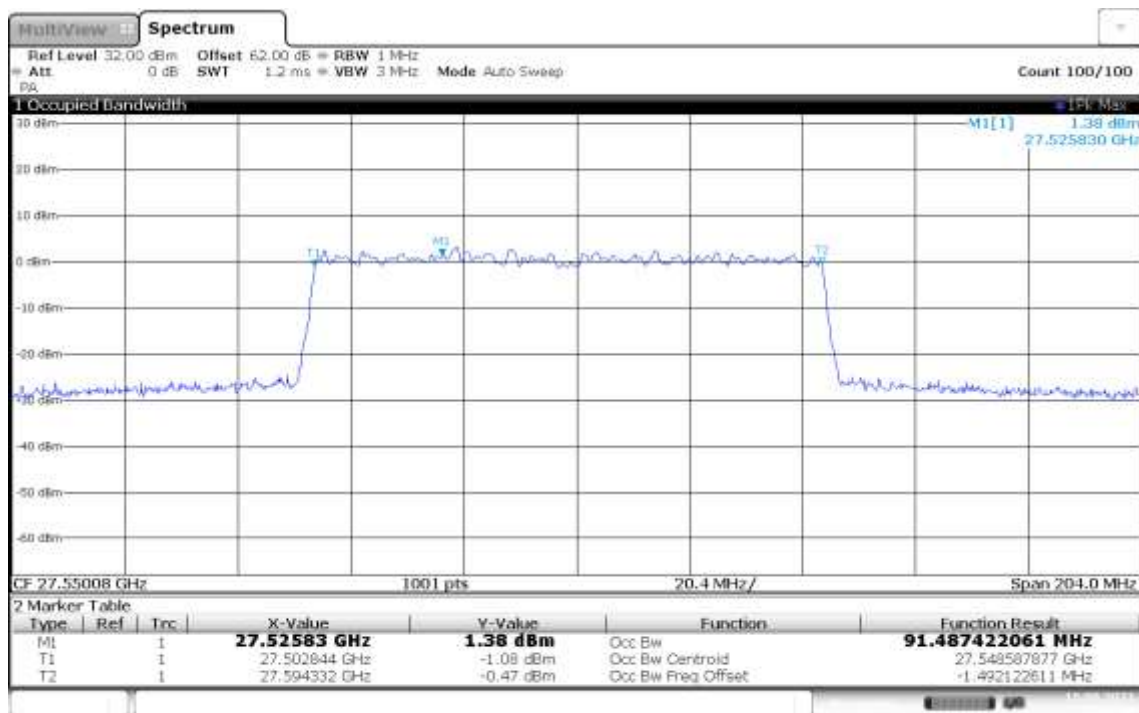
n261, 100MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



LOW CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
27550.08	QPSK	16QAM	64QAM
	91.49	/	/

n261, 100MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)

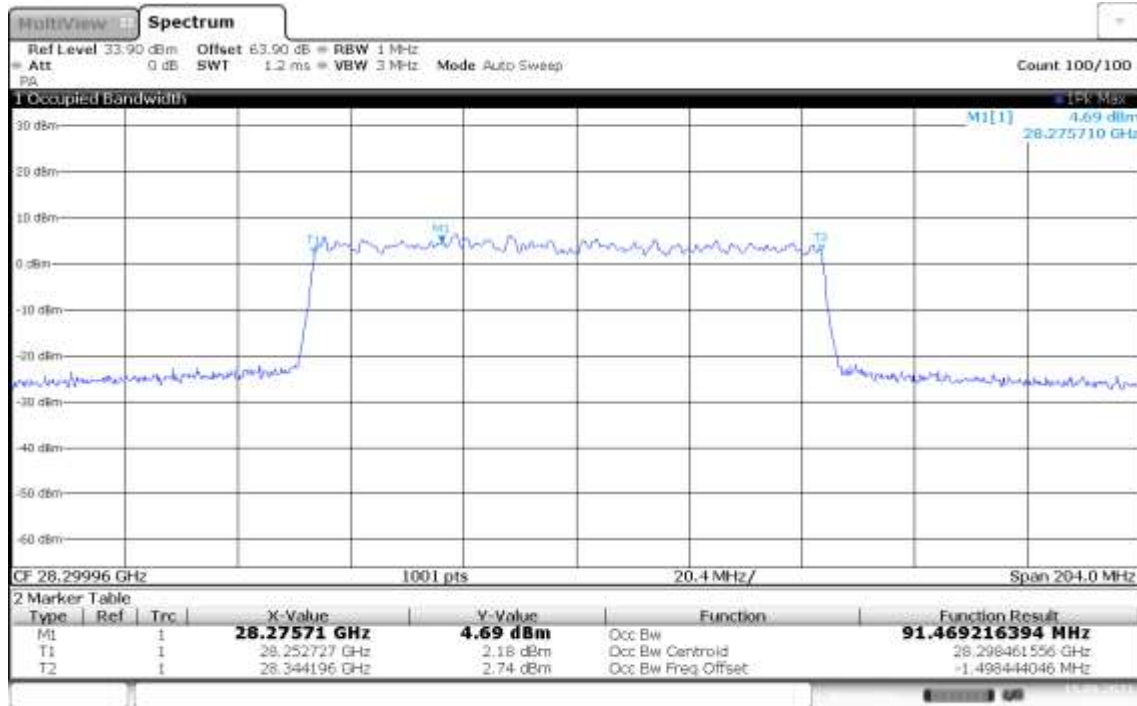


02:34:58 15.09.2021

HIGH CHANNEL

Module1, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
28299.96	QPSK	16QAM	64QAM
	91.47	/	/

n261, 100MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



02:04:36 15.09.2021

A.5 Band Edge Compliance

A.5.1 Measurement limit

Part 30.203 the total radiated power of any emission outside a licensee's frequency block shall be -13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower.

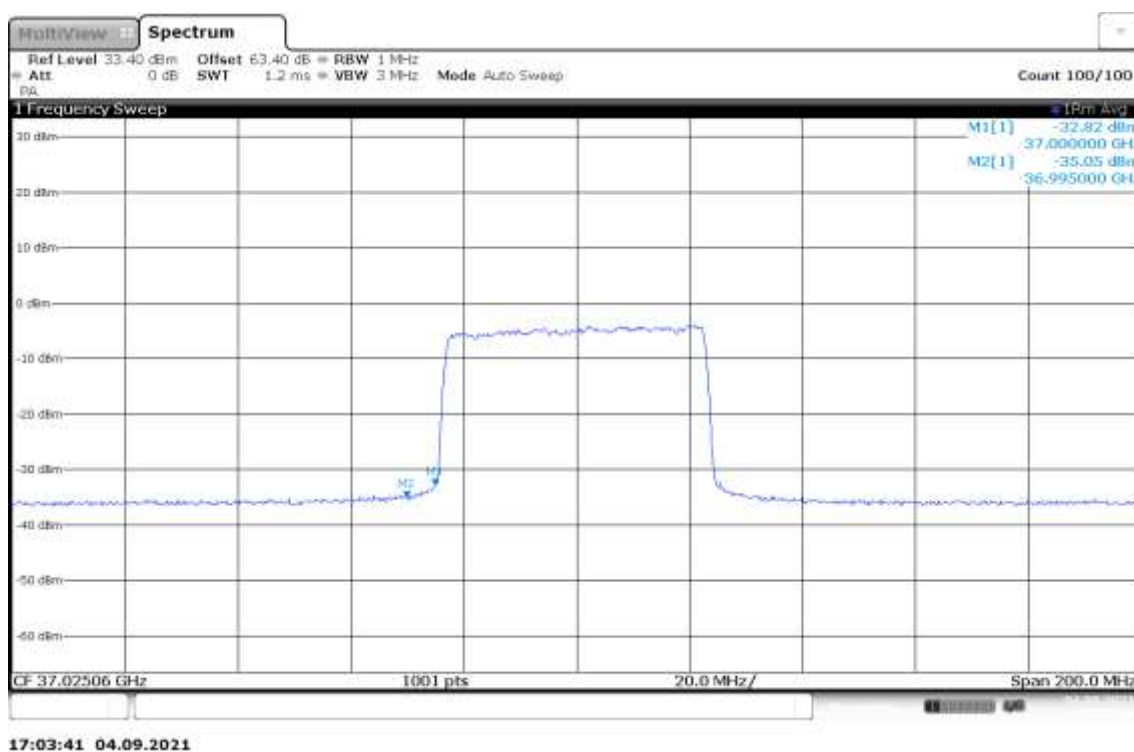
A.5.2 Measurement result

Only the worst case result is given below

n260

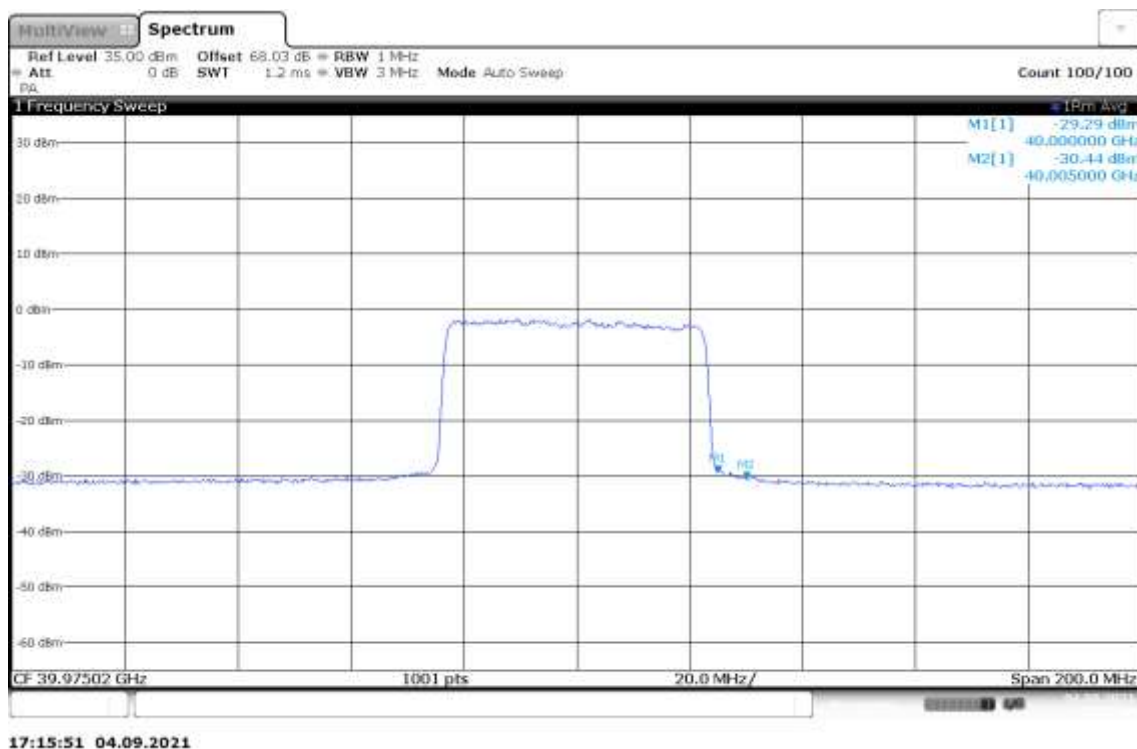
LOW BAND EDGE BLOCK-50MHz-100%RB

Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	37025.04	LOW	120kHz	64QAM	-32.82	-5
n260	50MHz	37025.04	LOW	120kHz		-35.05	-13



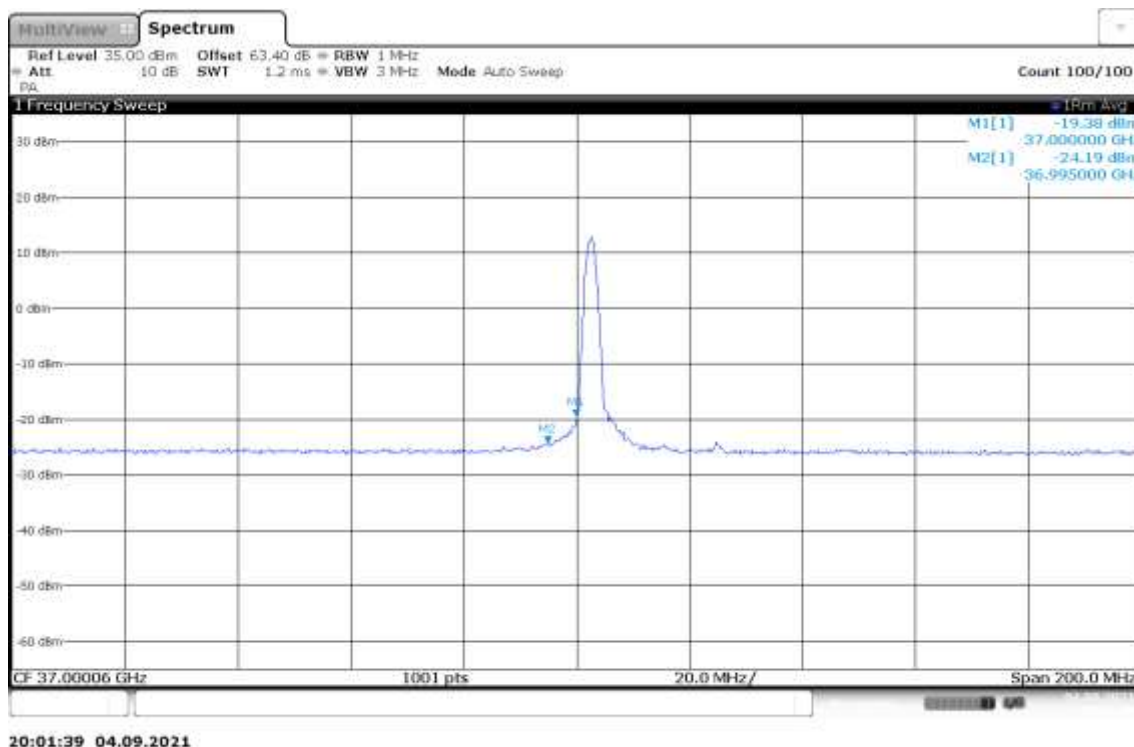
HIGH BAND EDGE BLOCK-50MHz-100%RB

Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	39975	HIGH	120kHz	64QAM	-29.29	-5
n260	50MHz	39975	HIGH	120kHz		-30.44	-13



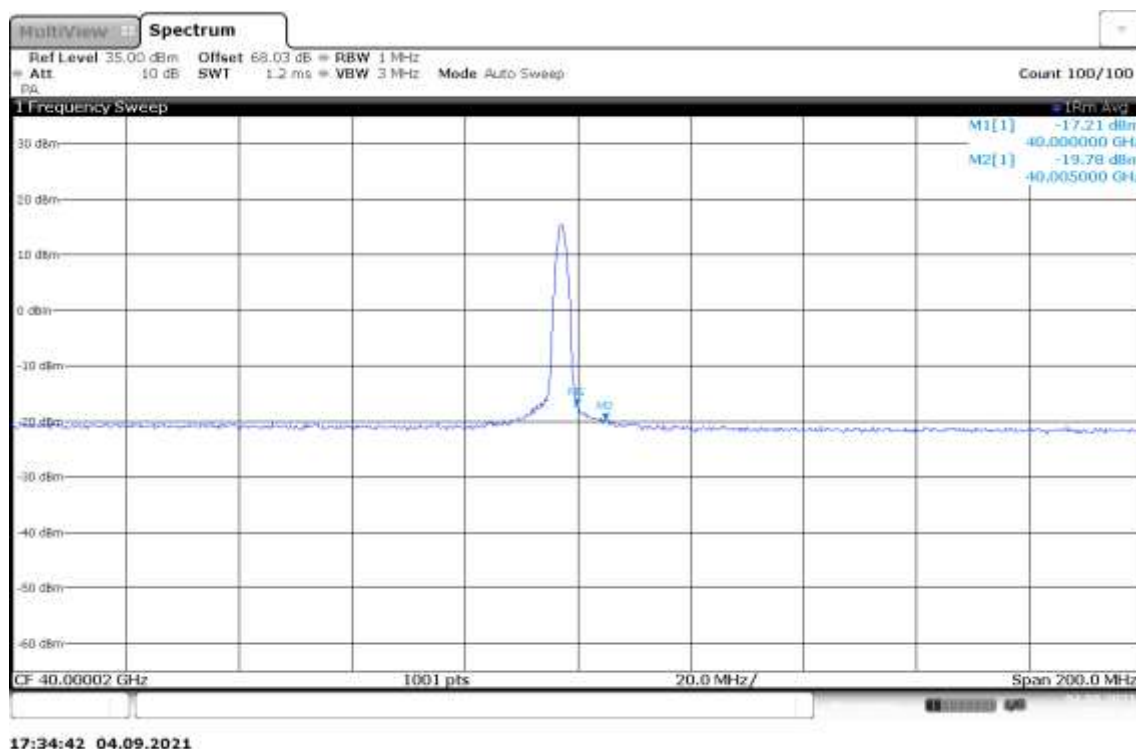
LOW BAND EDGE BLOCK-50MHz-1RB

Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	37025.04	LOW	120kHz	QPSK	-19.38	-5
n260	50MHz	37025.04	LOW	120kHz		-24.19	-13



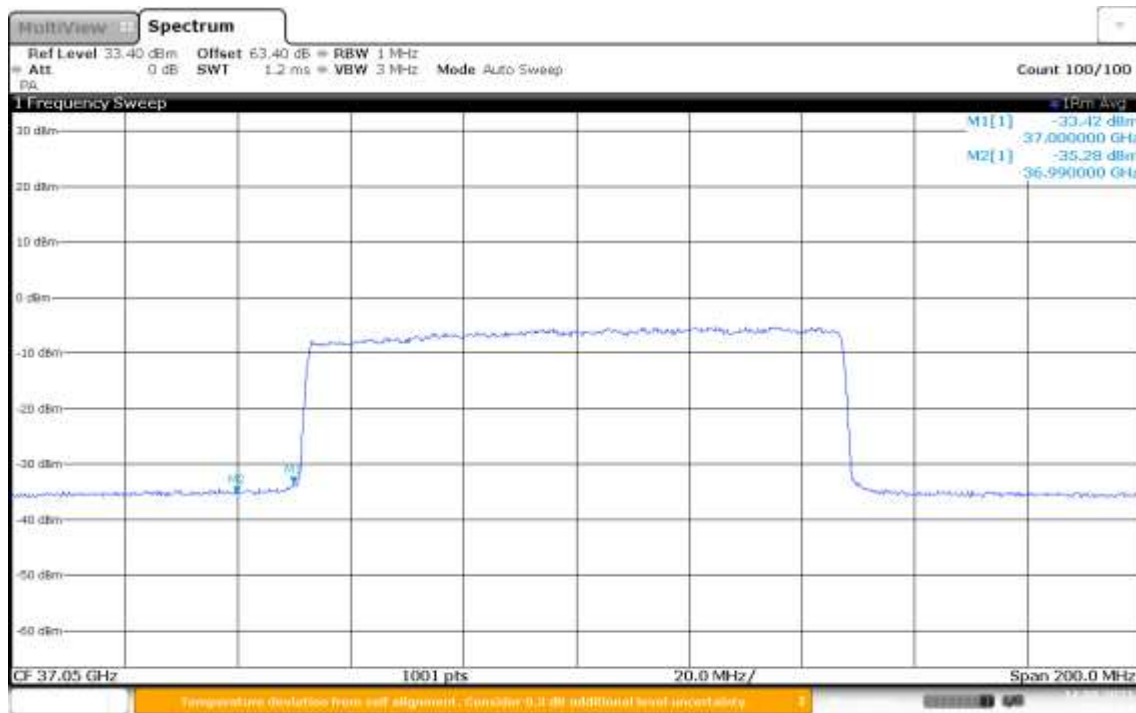
HIGH BAND EDGE BLOCK-50MHz-1RB

Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	39975	HIGH	120kHz	QPSK	-17.21	-5
n260	50MHz	39975	HIGH	120kHz		-19.78	-13



LOW BAND EDGE BLOCK-100MHz-100%RB

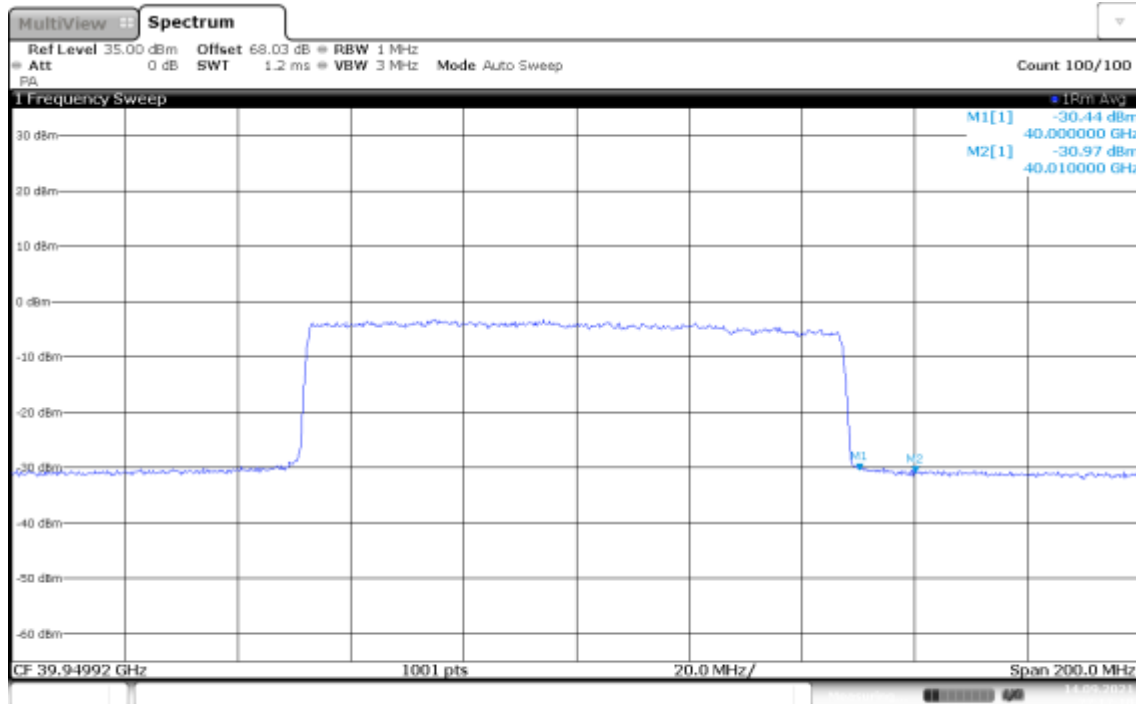
Module0, CP-OFDM							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dB m)
n260	100MHz	37050	LOW	120kHz	64QAM	-33.42	-5
n260	100MHz	37050	LOW	120kHz		-35.28	-13



22:09:25 14.09.2021

HIGH BAND EDGE BLOCK-100MHz-100%RB

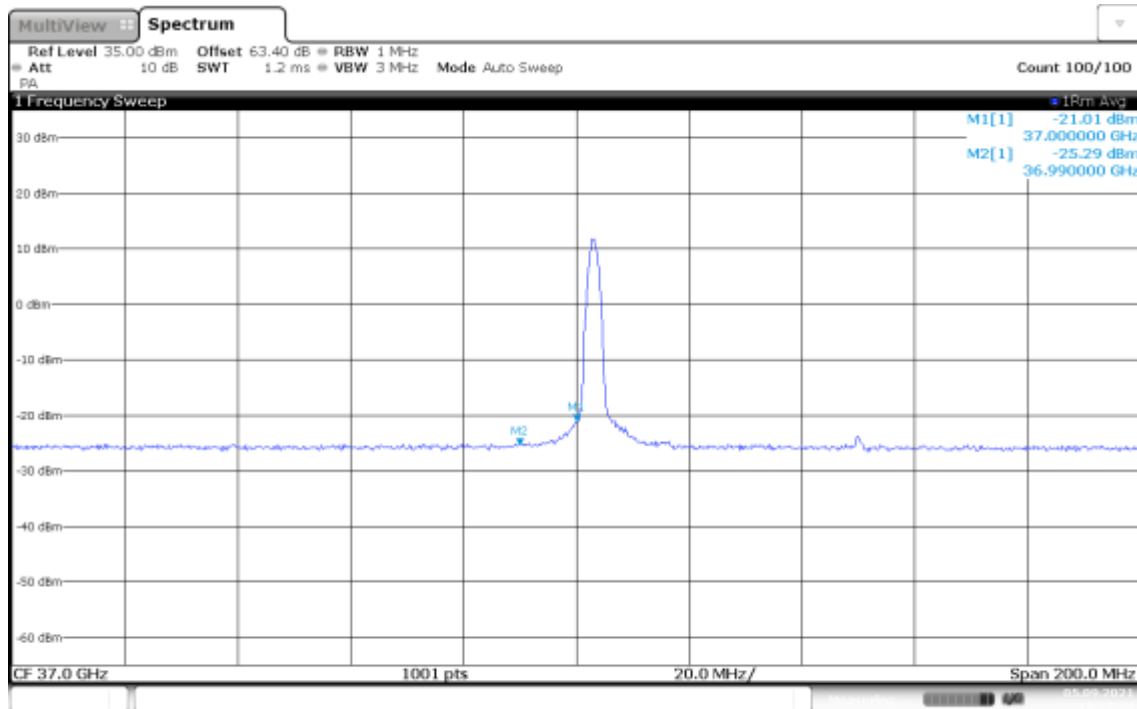
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	100MHz	39949.92	HIGH	120kHz	64QAM	-30.44	-5
n260	100MHz	39949.92	HIGH	120kHz		-30.97	-13



22:17:18 14.09.2021

LOW BAND EDGE BLOCK-100MHz-1RB

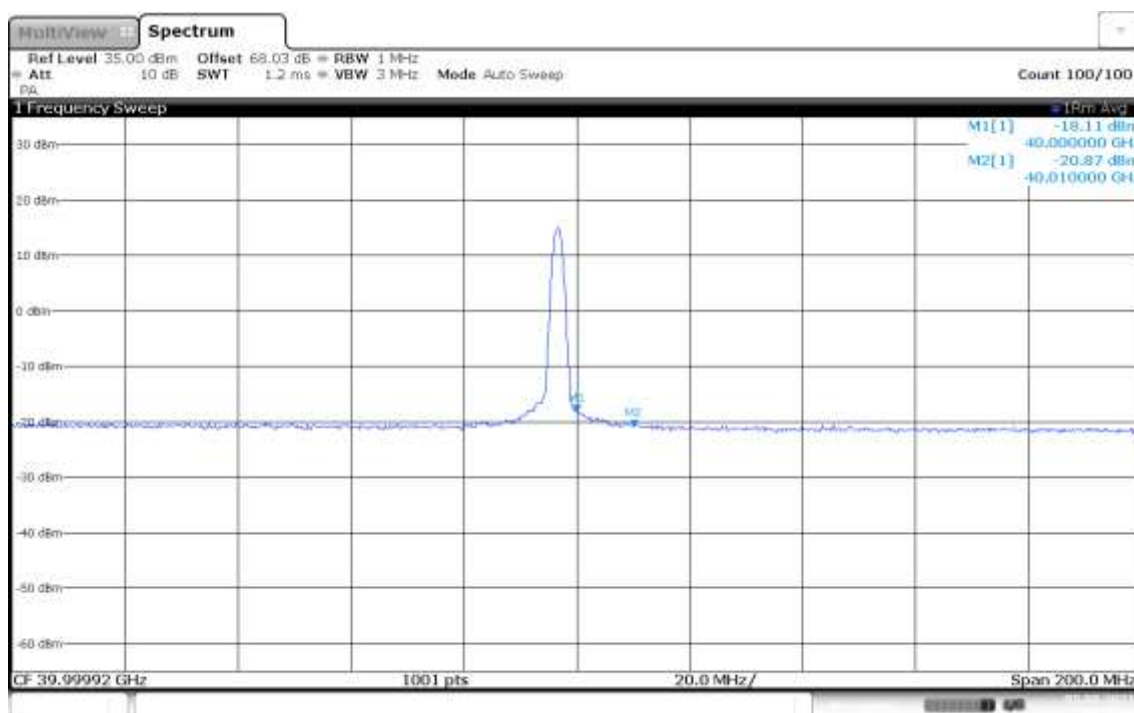
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	100MHz	37050	LOW	120kHz	QPSK	-21.01	-5
n260	100MHz	37050	LOW	120kHz		-25.29	-13



19:22:51 05.09.2021

HIGH BAND EDGE BLOCK-100MHz-1RB

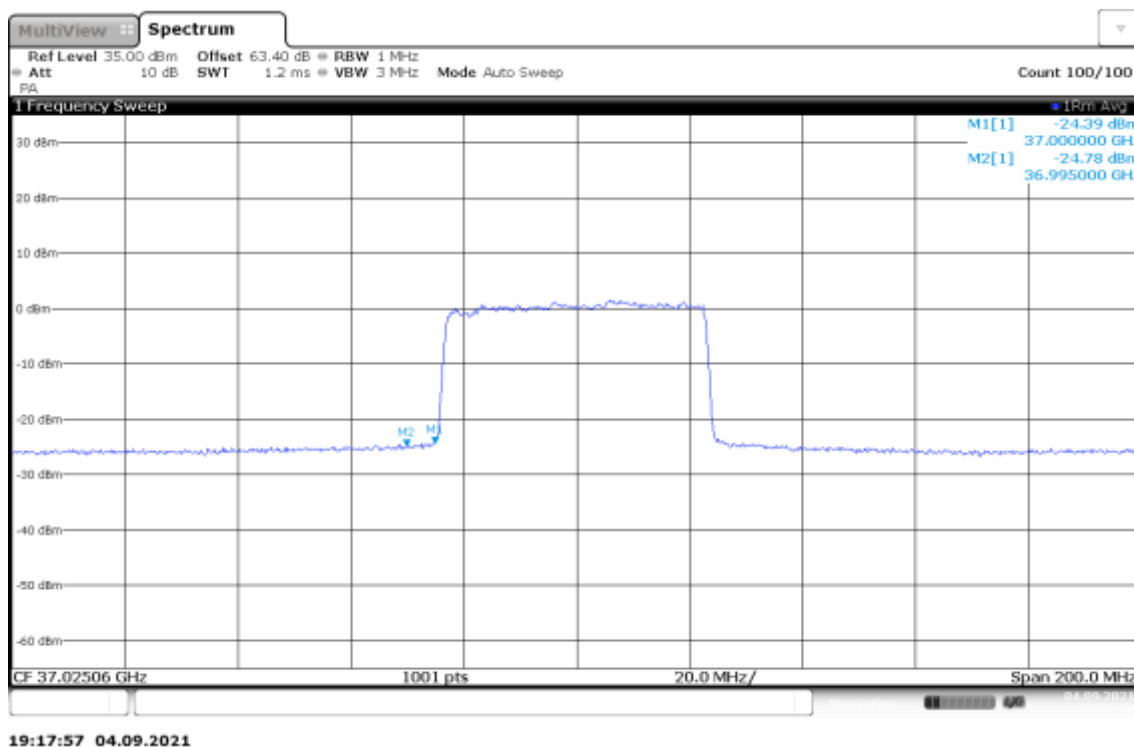
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	100MHz	39949.92	HIGH	120kHz	QPSK	-18.11	-5
n260	100MHz	39949.92	HIGH	120kHz		-20.87	-13



20:38:06 05.09.2021

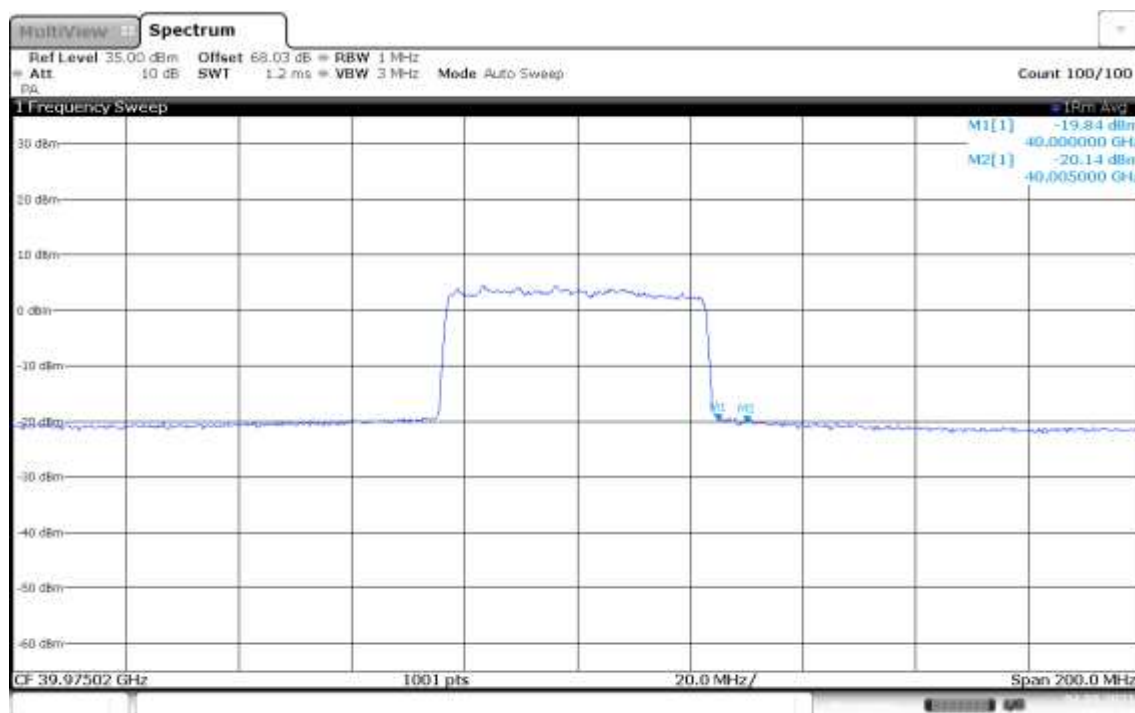
LOW BAND EDGE BLOCK-50MHz-100%RB

Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	37025.04	LOW	120kHz	QPSK	-24.39	-5
n260	50MHz	37025.04	LOW	120kHz		-24.78	-13



HIGH BAND EDGE BLOCK-50MHz-100%RB

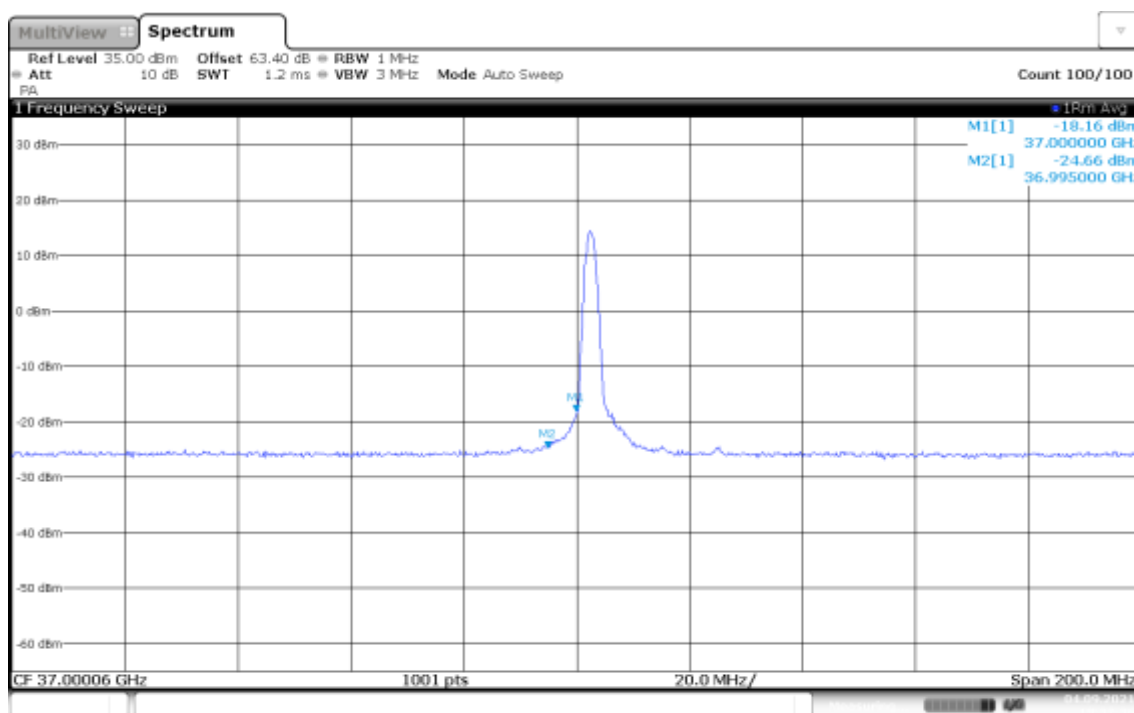
Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	39975	HIGH	120kHz	QPSK	-19.84	-5
n260	50MHz	39975	HIGH	120kHz		-20.14	-13



19:08:15 04.09.2021

LOW BAND EDGE BLOCK-50MHz-1RB

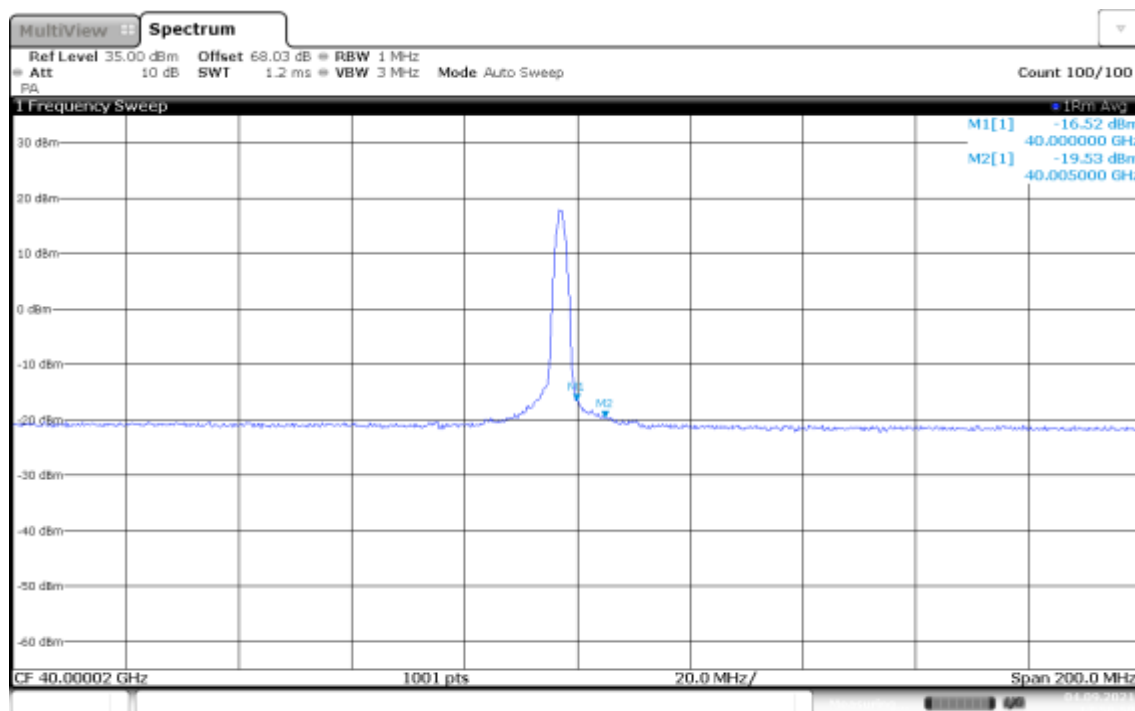
Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	37025.04	LOW	120kHz	QPSK	-18.16	-5
n260	50MHz	37025.04	LOW	120kHz		-24.66	-13



19:37:37 04.09.2021

HIGH BAND EDGE BLOCK-50MHz-1RB

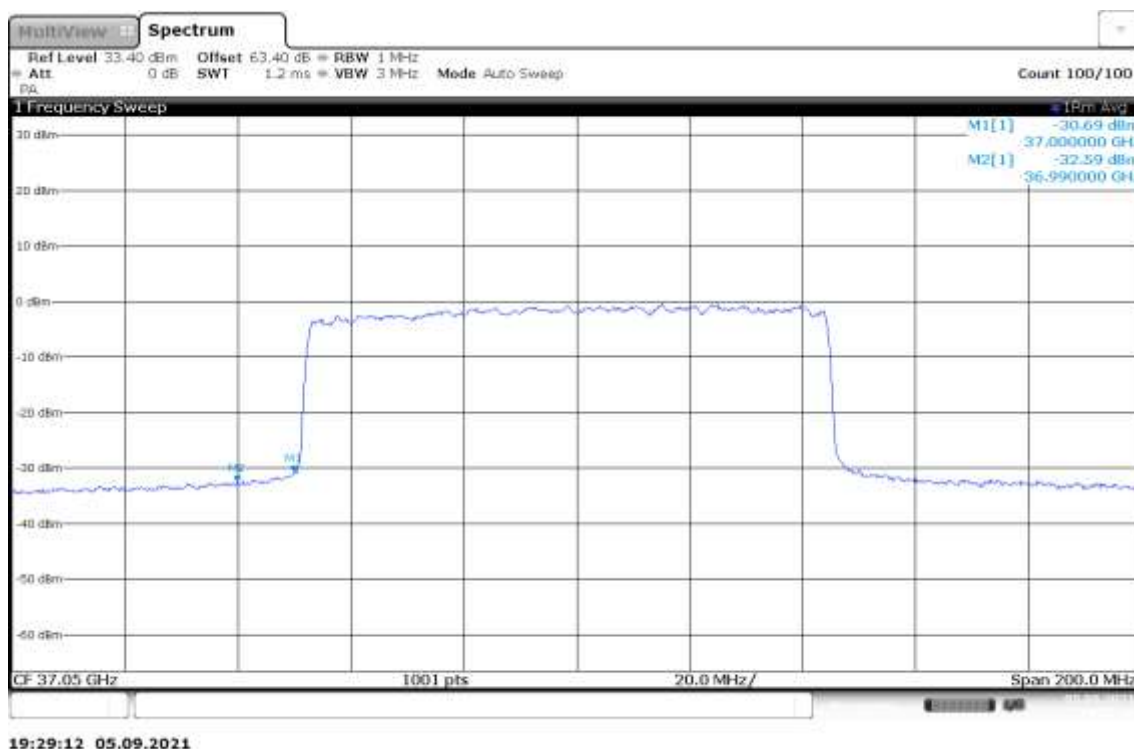
Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	50MHz	39975	HIGH	120kHz	QPSK	-16.52	-5
n260	50MHz	39975	HIGH	120kHz		-19.53	-13



17:58:59 04.09.2021

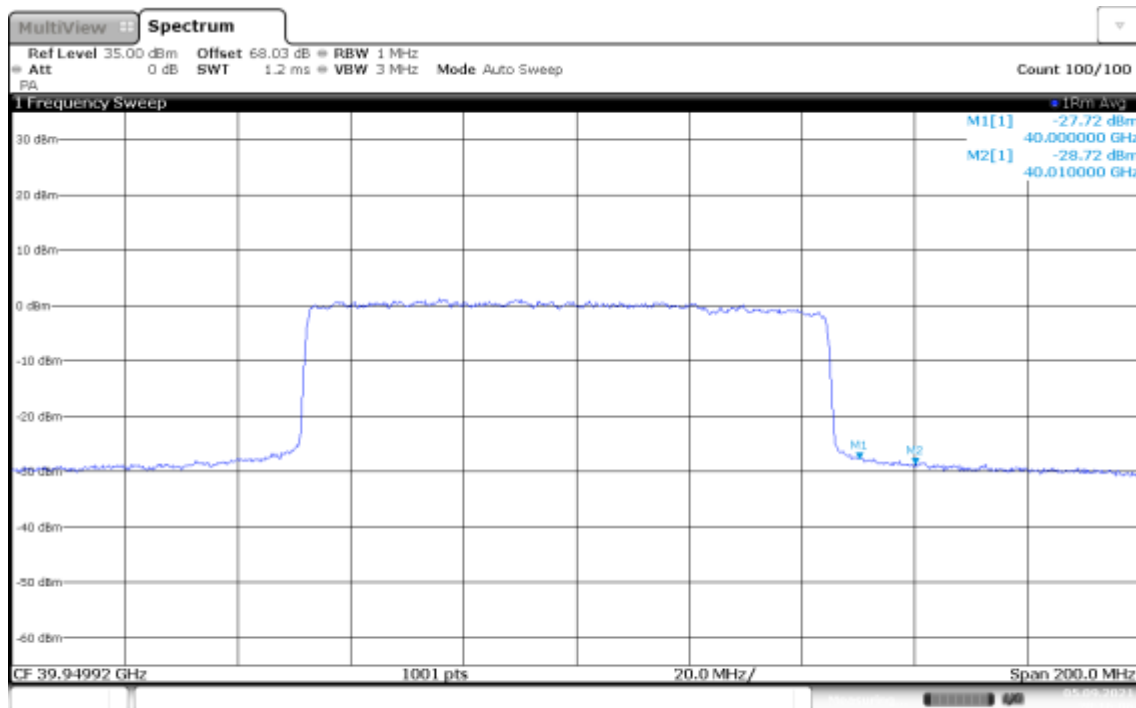
LOW BAND EDGE BLOCK-100MHz-100%RB

Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	100MHz	37050	LOW	120kHz	QPSK	-30.69	-5
n260	100MHz	37050	LOW	120kHz		-32.59	-13



HIGH BAND EDGE BLOCK-100MHz-100%RB

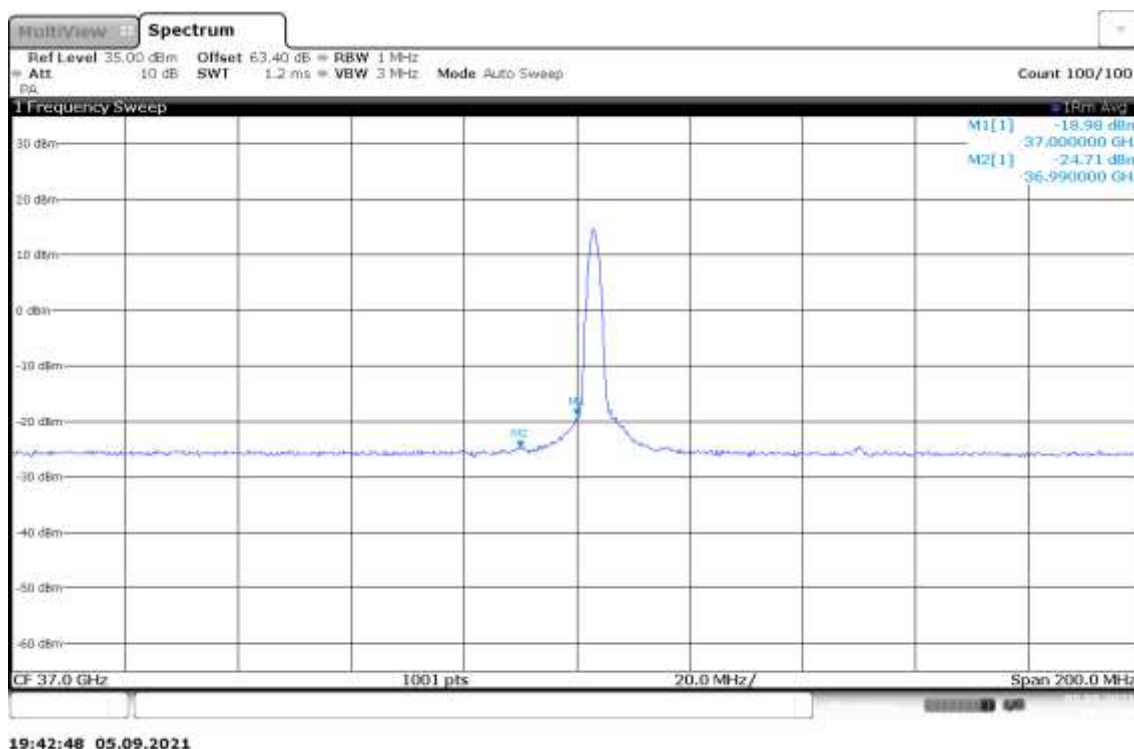
Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	100MHz	39949.92	HIGH	120kHz	QPSK	-27.72	-5
n260	100MHz	39949.92	HIGH	120kHz		-28.72	-13



20:16:06 05.09.2021

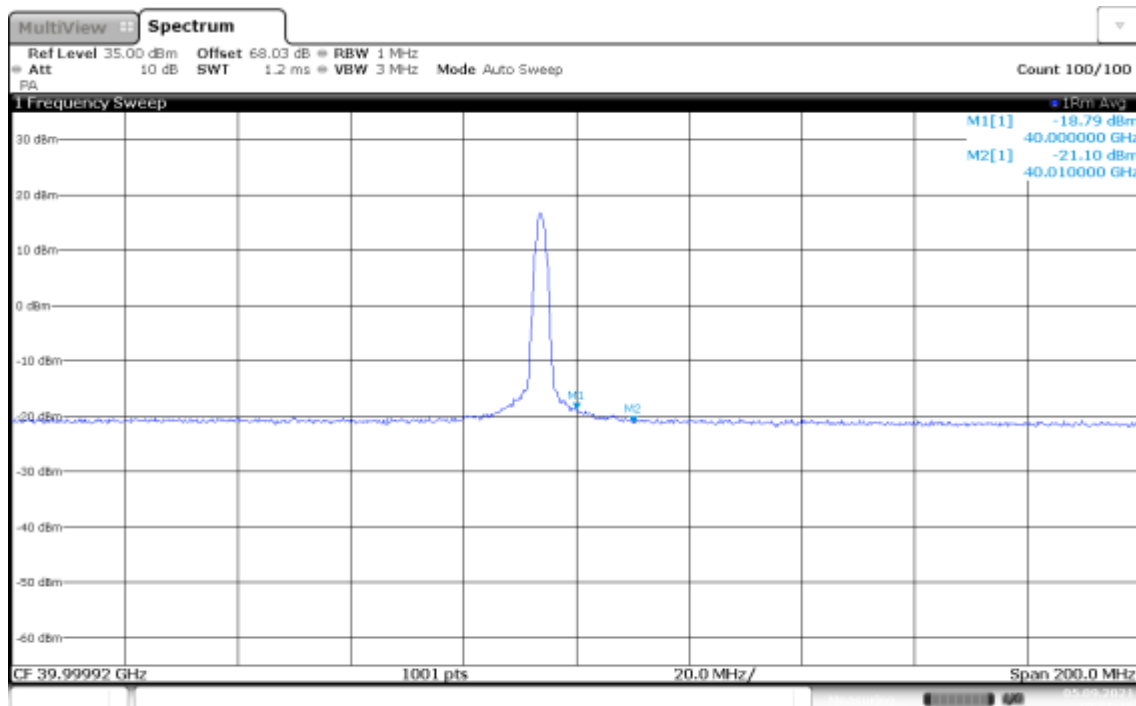
LOW BAND EDGE BLOCK-50MHz-1RB

Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dB m)
n260	100MHz	37050	LOW	120kHz	QPSK	-18.98	-5
n260	100MHz	37050	LOW	120kHz		-24.71	-13



HIGH BAND EDGE BLOCK-100MHz-1RB

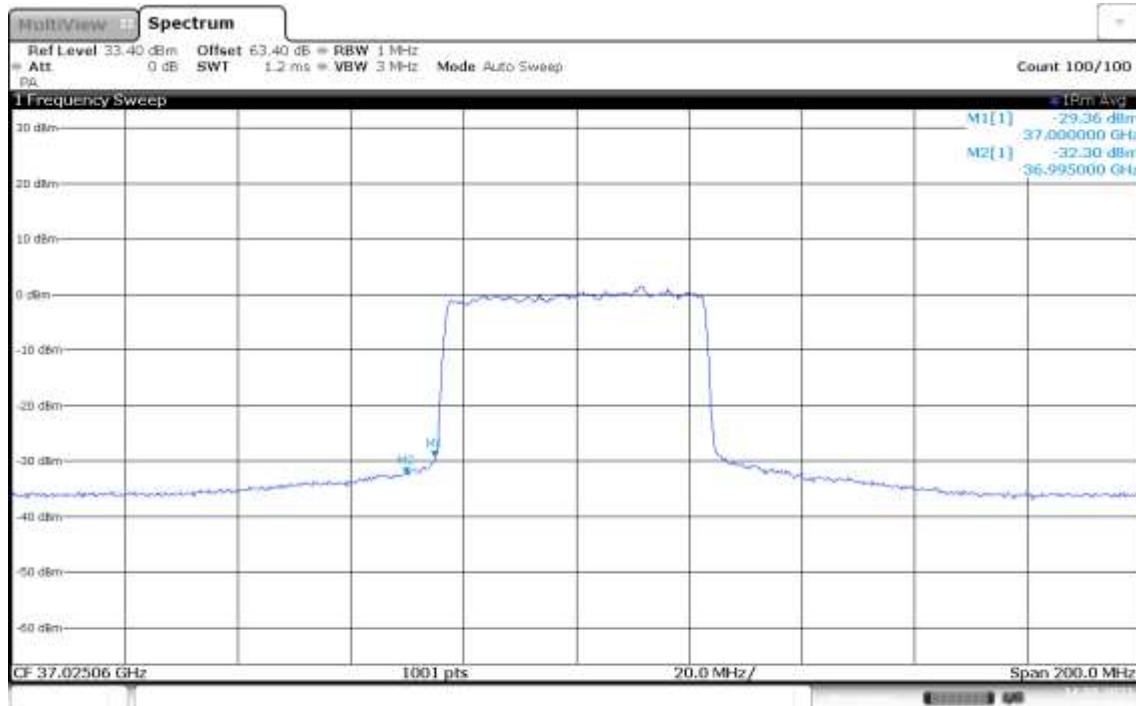
Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	100MHz	39949.92	HIGH	120kHz	QPSK	-18.79	-5
n260	100MHz	39949.92	HIGH	120kHz		-21.10	-13



19:51:46 05.09.2021

LOW BAND EDGE BLOCK-50MHz-100%RB

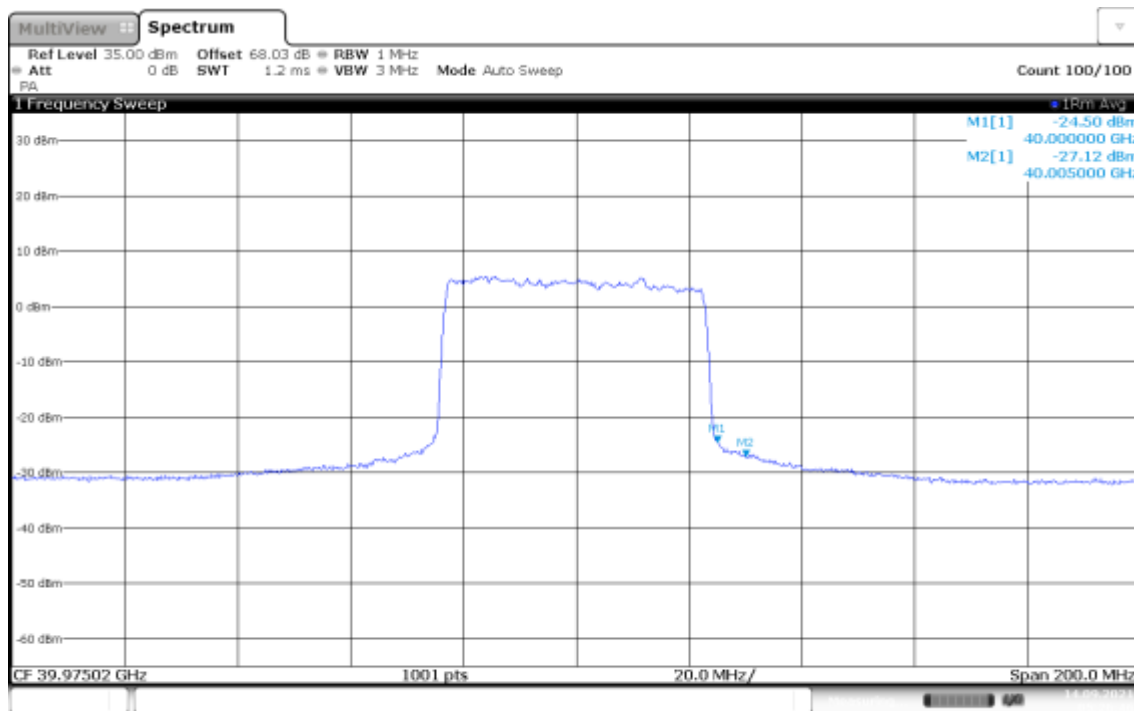
Module1, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	37025.04	LOW	120kHz	QPSK	-29.36	-5
n260	50MHz	37025.04	LOW	120kHz		-32.30	-13



05:20:07 14.09.2021

HIGH BAND EDGE BLOCK-50MHz-100%RB

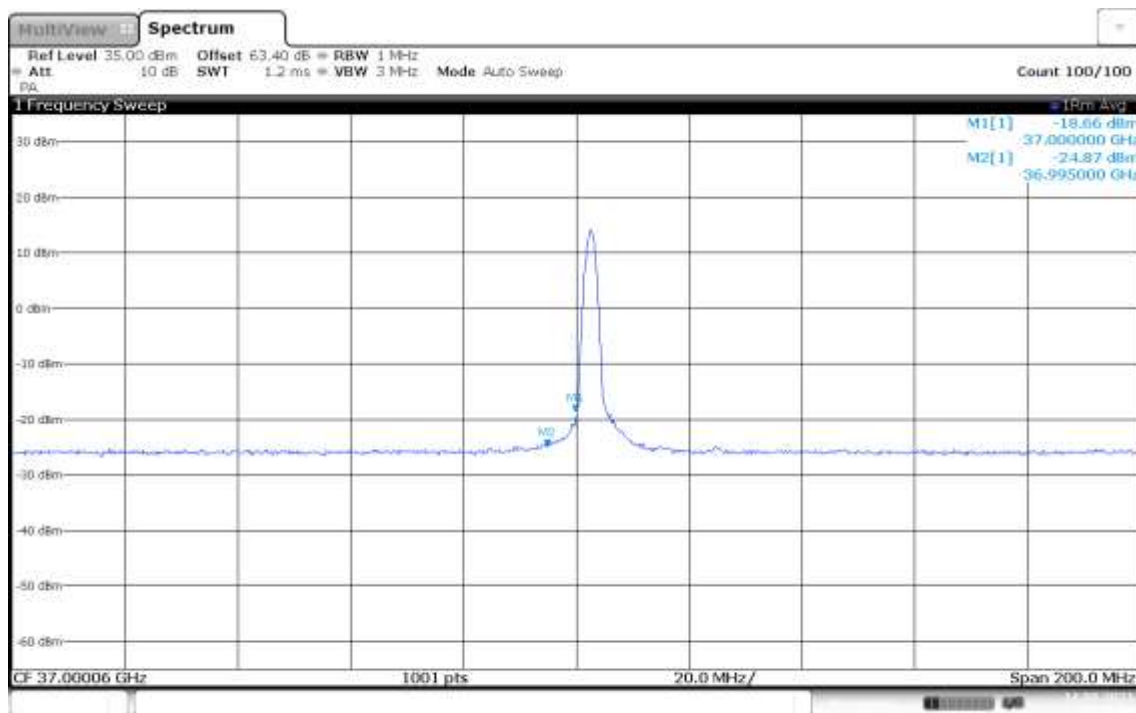
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	50MHz	39975	LOW	120kHz	QPSK	-24.50	-5
n260	50MHz	39975	LOW	120kHz		-27.12	-13



05:26:47 14.09.2021

LOW BAND EDGE BLOCK-50MHz-1RB

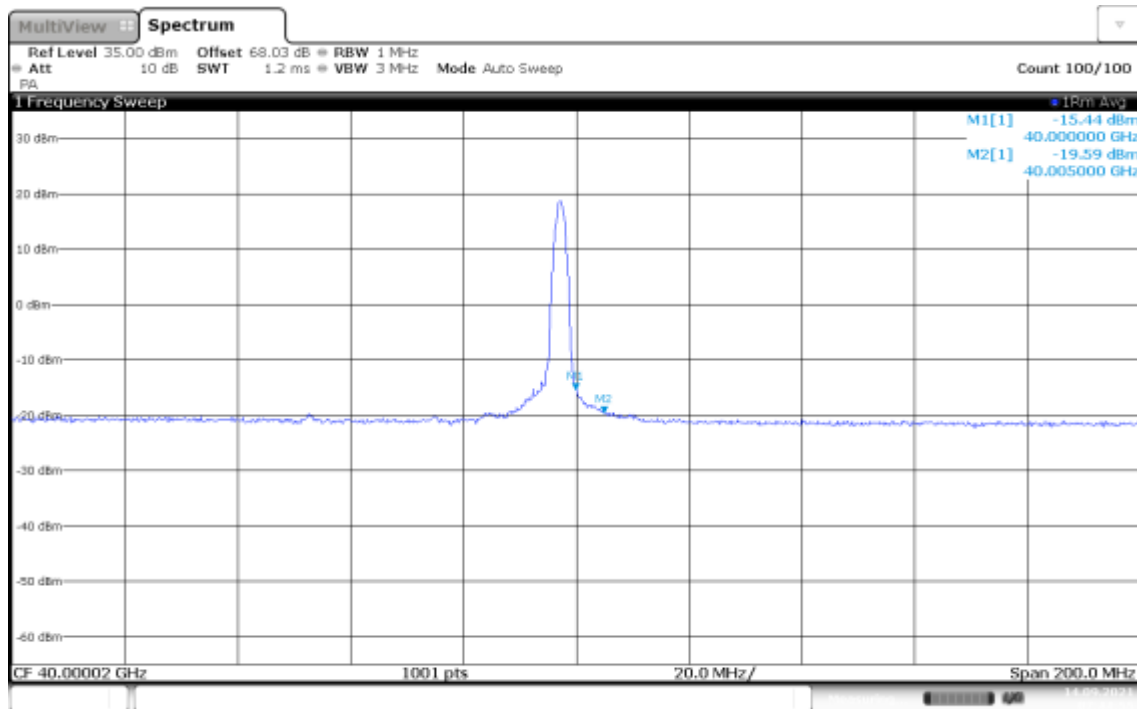
Module1, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	50MHz	37025.04	LOW	120kHz	QPSK	-18.66	-5
n260	50MHz	37025.04	LOW	120kHz		-24.87	-13



07:38:09 14.09.2021

HIGH BAND EDGE BLOCK-50MHz-1RB

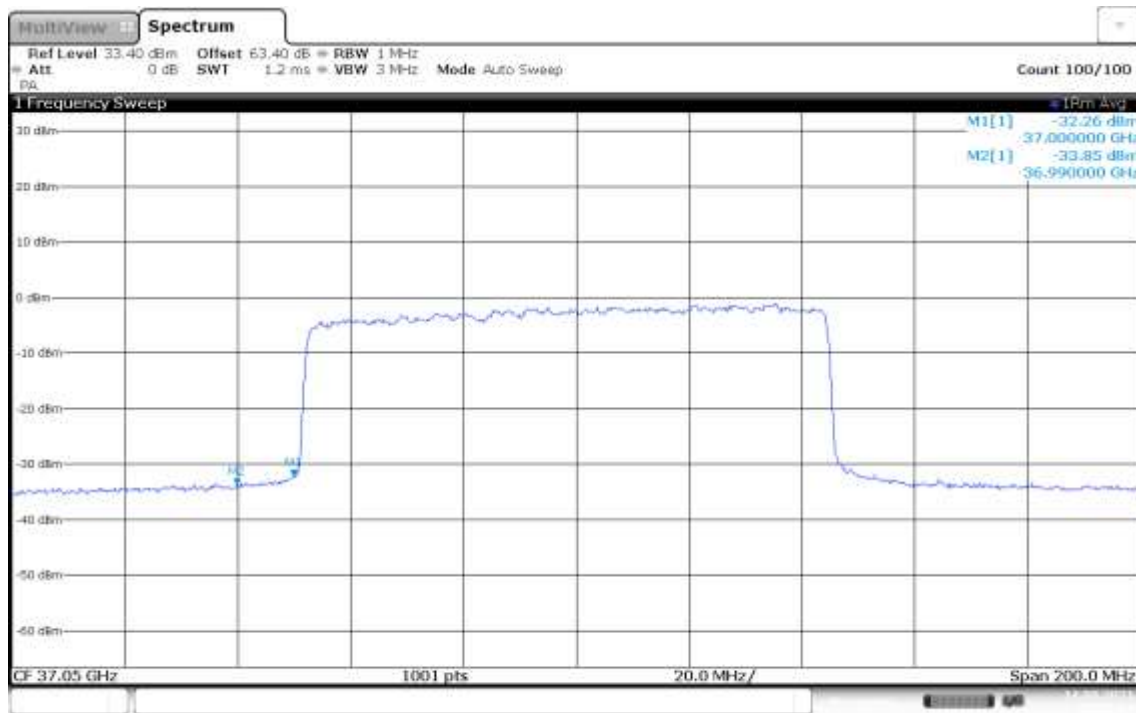
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	50MHz	39975	LOW	120kHz	QPSK	-15.44	-5
n260	50MHz	39975	LOW	120kHz		-19.59	-13



07:44:56 14.09.2021

LOW BAND EDGE BLOCK-100MHz-100%RB

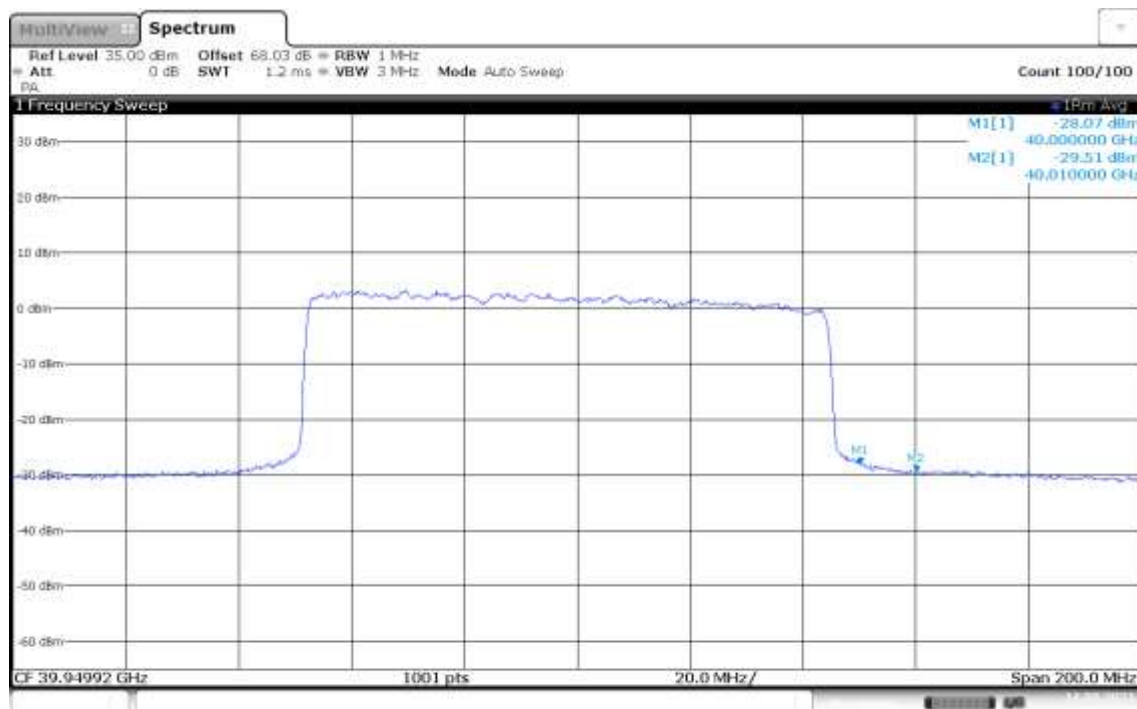
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	100MHz	37050	LOW	120kHz	QPSK	-32.29	-5
n260	100MHz	37050	LOW	120kHz		-33.85	-13



07:51:58 14.09.2021

HIGH BAND EDGE BLOCK-100MHz-100%RB

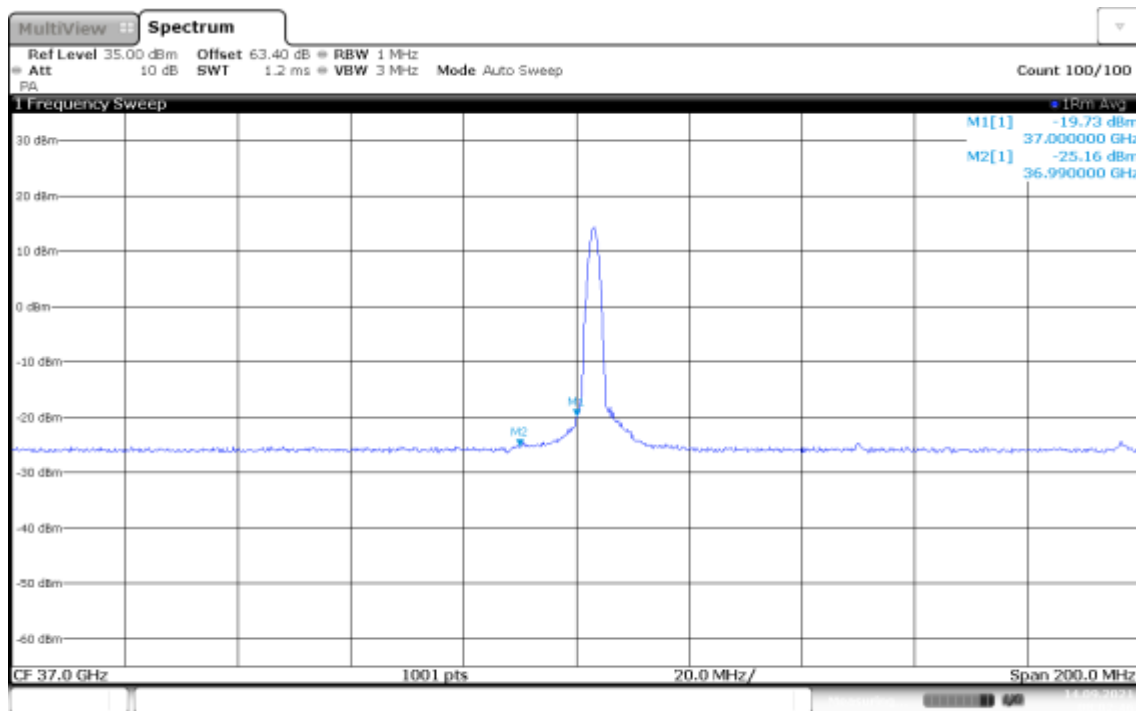
Module1, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n260	100MHz	39949.92	HIGH	120kHz	QPSK	-28.07	-5
n260	100MHz	39949.92	HIGH	120kHz		-29.51	-13



08:16:20 14.09.2021

LOW BAND EDGE BLOCK-100MHz-1RB

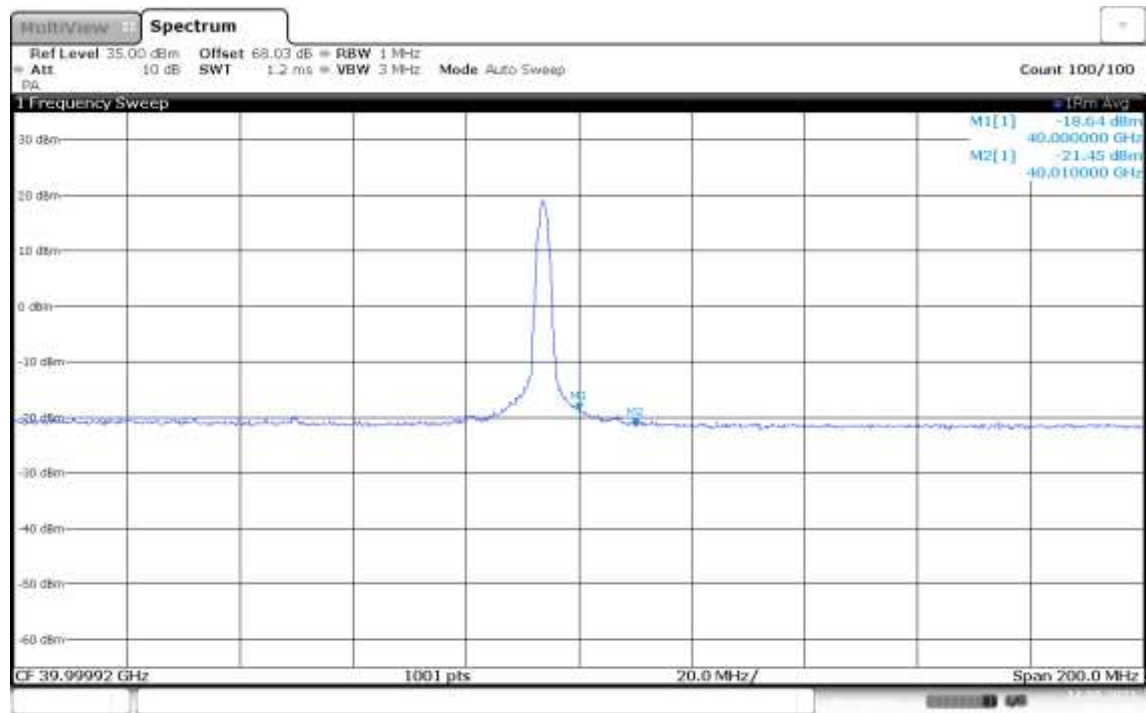
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	100MHz	37050	LOW	120kHz	QPSK	-19.73	-5
n260	100MHz	37050	LOW	120kHz		-25.16	-13



08:02:47 14.09.2021

HIGH BAND EDGE BLOCK-100MHz-11RB

Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n260	100MHz	39949.92	HIGH	120kHz	QPSK	-18.64	-5
n260	100MHz	39949.92	HIGH	120kHz		-21.45	-13

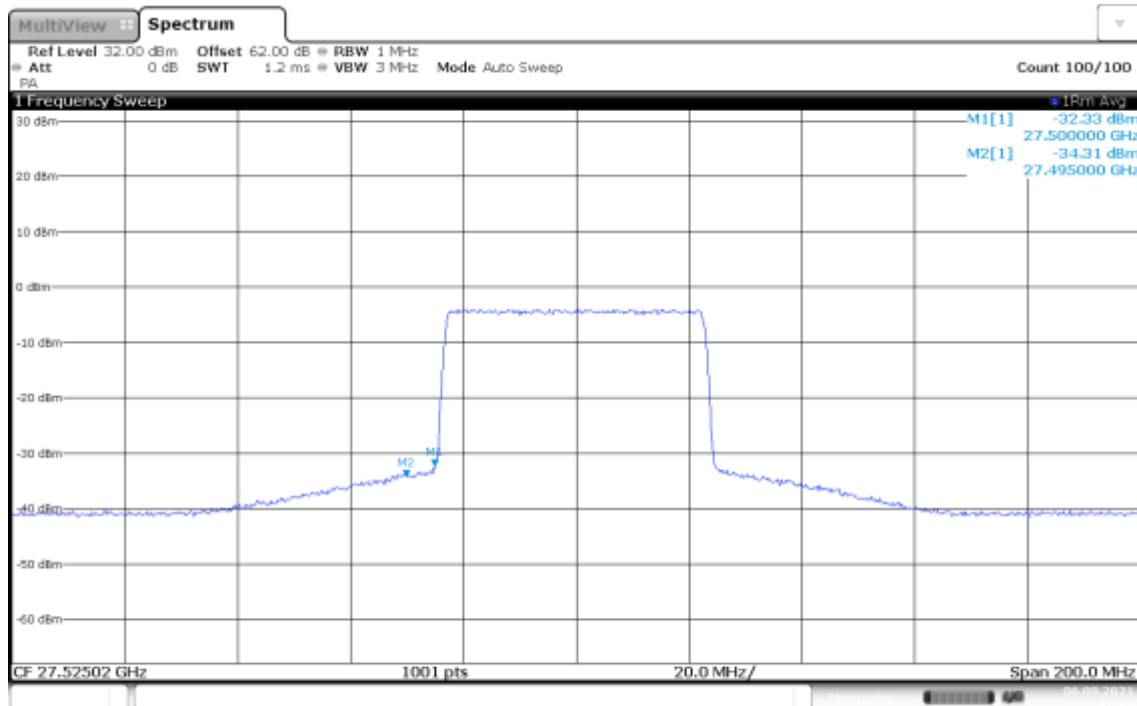


22:54:32 14.09.2021

n261

LOW BAND EDGE BLOCK-50MHz-100%RB

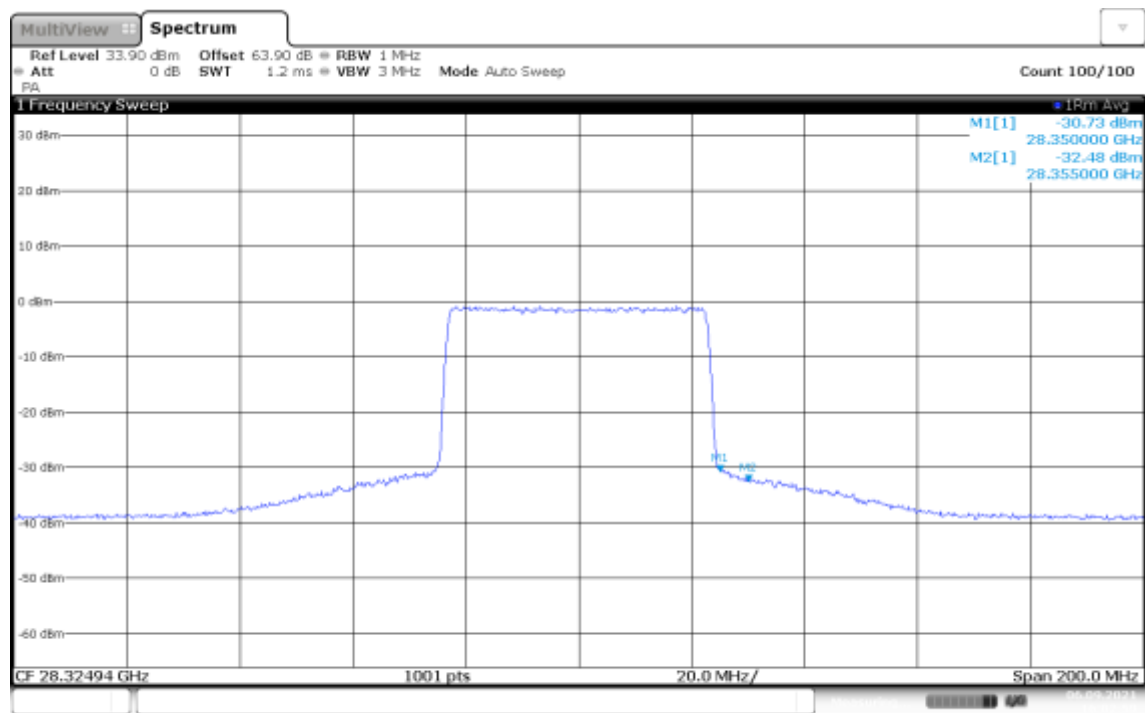
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	27525	LOW	120kHz	QPSK	-32.33	-5
n261	50MHz	27525	LOW	120kHz		-34.31	-13



15:41:45 06.09.2021

HIGH BAND EDGE BLOCK-50MHz-100%RB

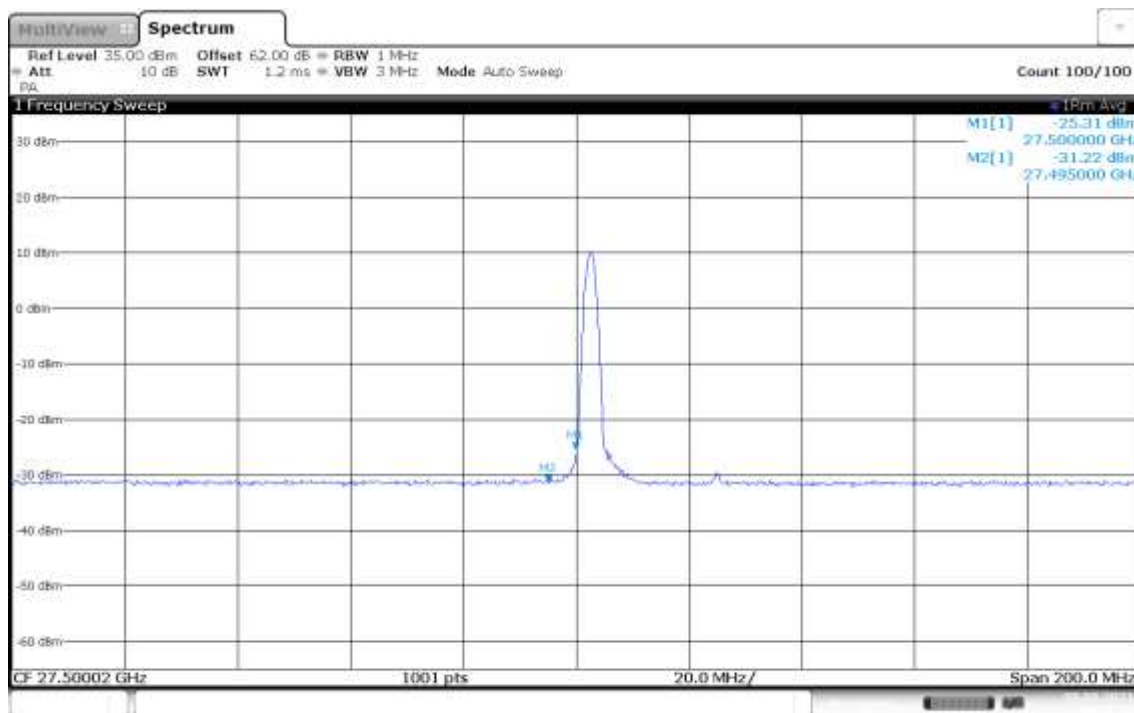
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	28324.92	HIGH	120kHz	QPSK	-30.73	-5
n261	50MHz	28324.92	HIGH	120kHz		-32.48	-13



16:02:59 06.09.2021

LOW BAND EDGE BLOCK-50MHz-1RB

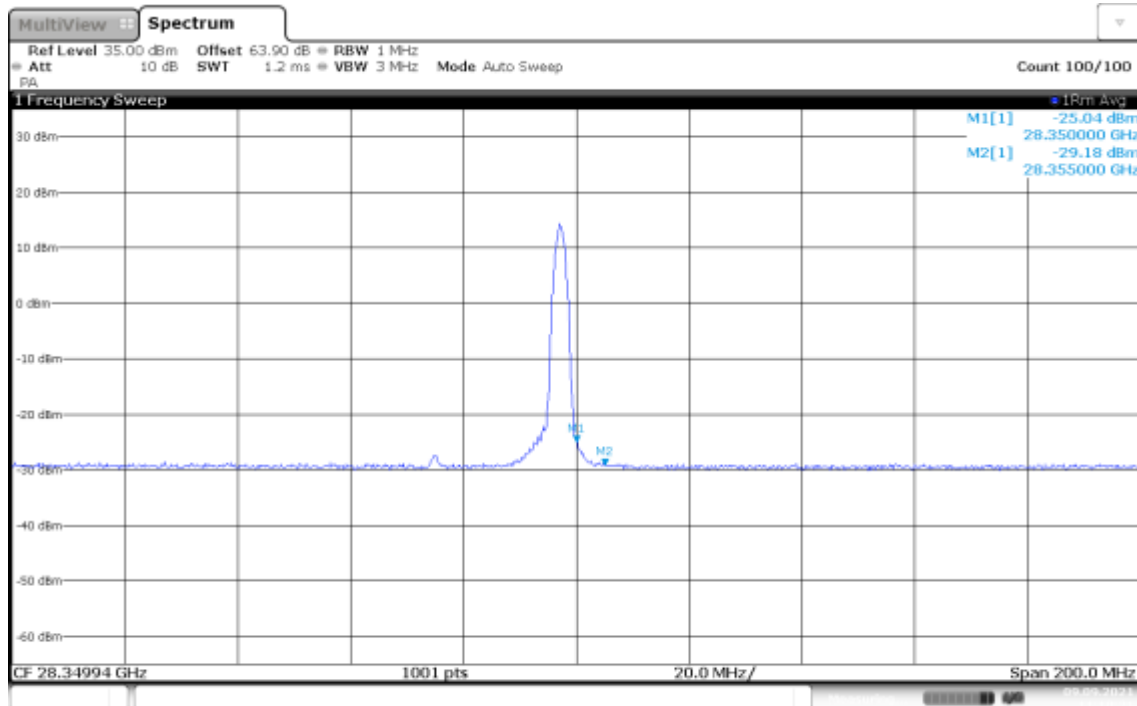
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	27525	LOW	120kHz	QPSK	-25.31	-5
n261	50MHz	27525	LOW	120kHz		-31.22	-13



10:28:23 09.09.2021

HIGH BAND EDGE BLOCK-50MHz-1RB

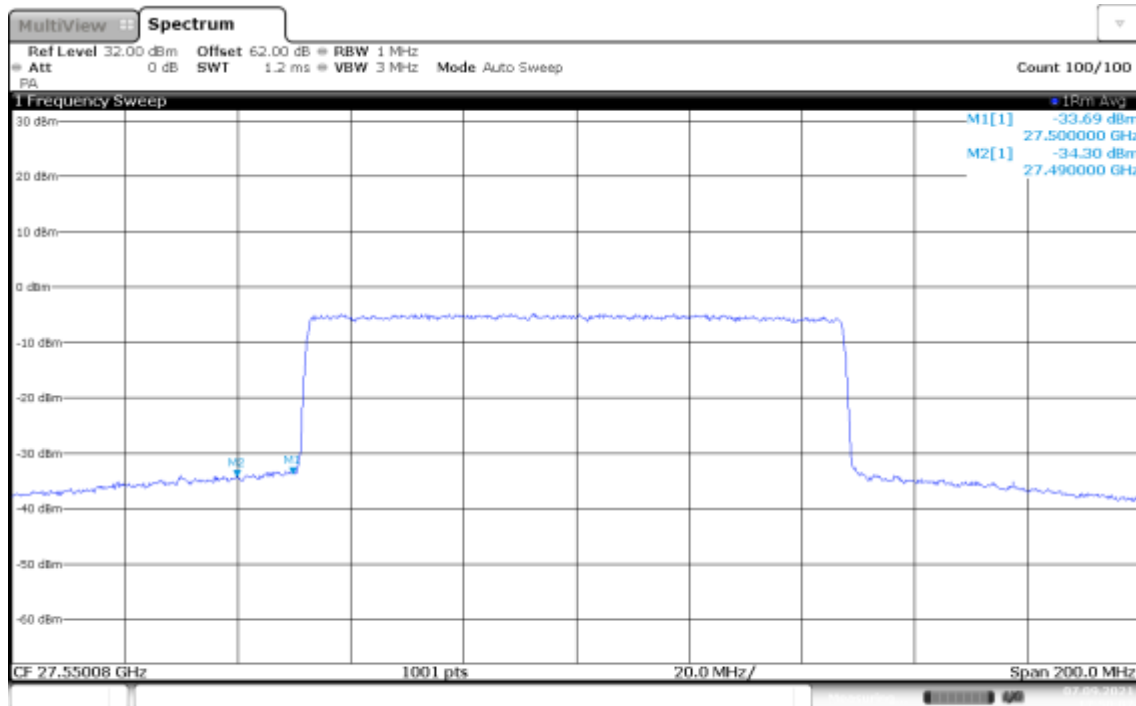
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	28324.92	HIGH	120kHz	QPSK	-25.04	-5
n261	50MHz	28324.92	HIGH	120kHz		-29.18	-13



11:10:21 09.09.2021

LOW BAND EDGE BLOCK-100MHz-100%RB

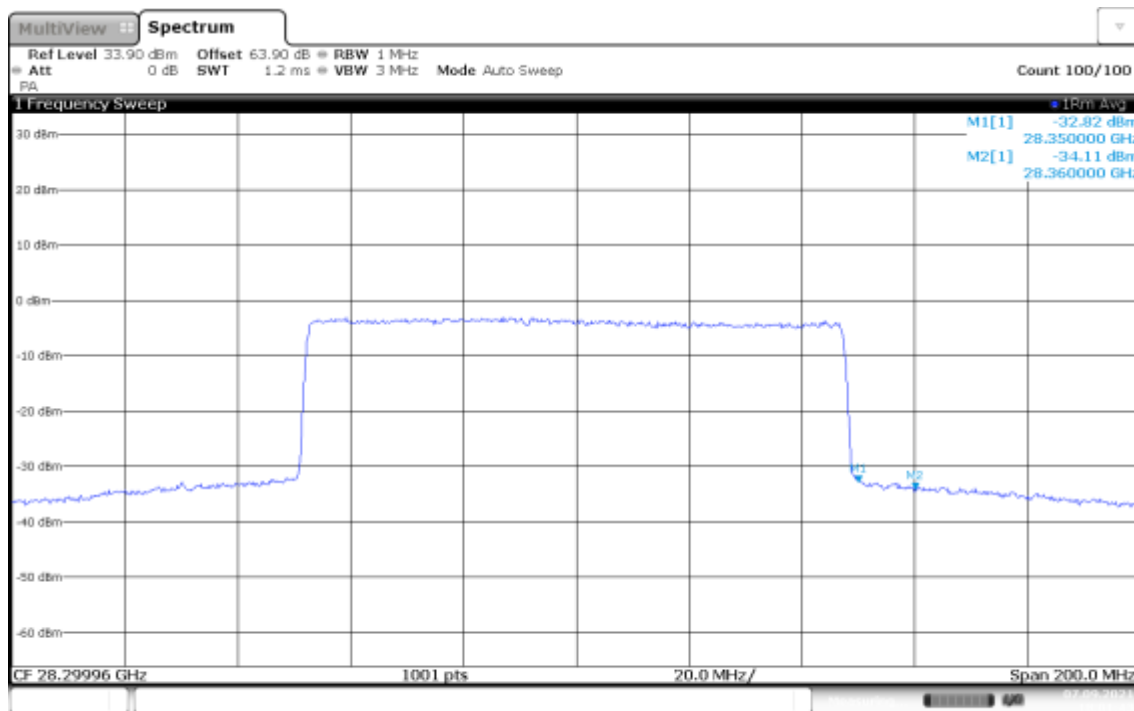
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	100MHz	27550.08	LOW	120kHz	QPSK	-33.69	-5
n261	100MHz	27550.08	LOW	120kHz		-34.30	-13



17:50:07 07.09.2021

HIGH BAND EDGE BLOCK-100MHz-100%RB

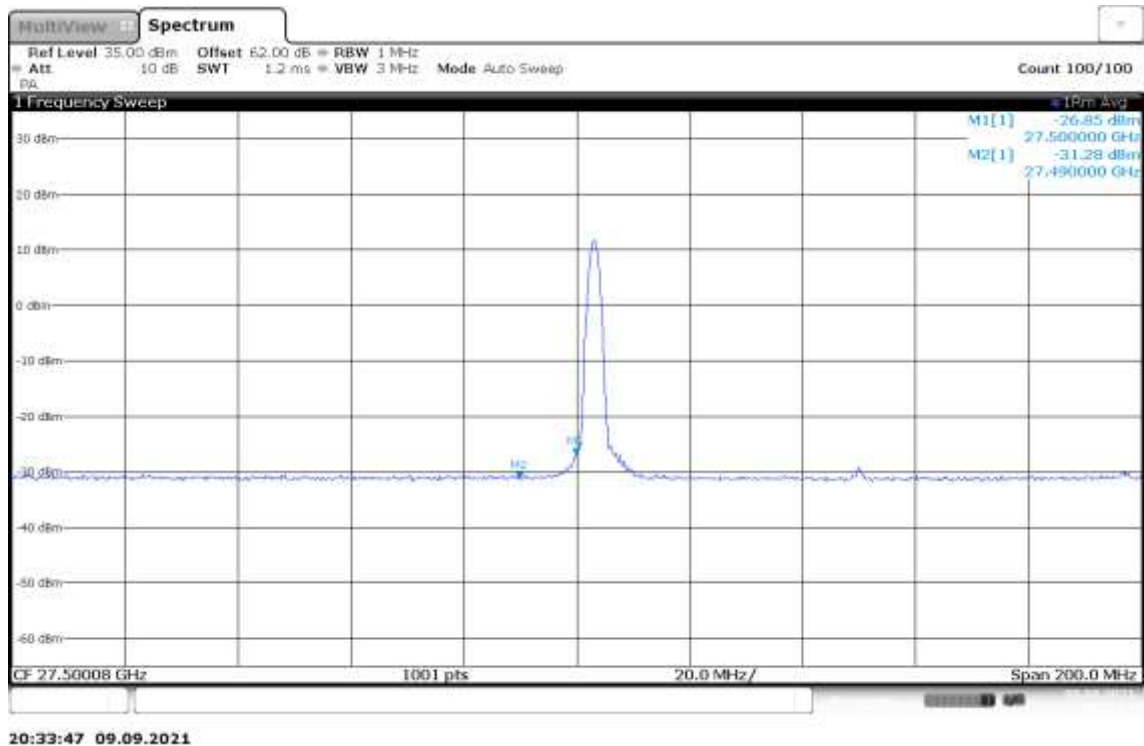
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	100MHz	28299.96	HIGH	120kHz	QPSK	-32.82	-5
n261	100MHz	28299.96	HIGH	120kHz		-34.11	-13



18:01:43 07.09.2021

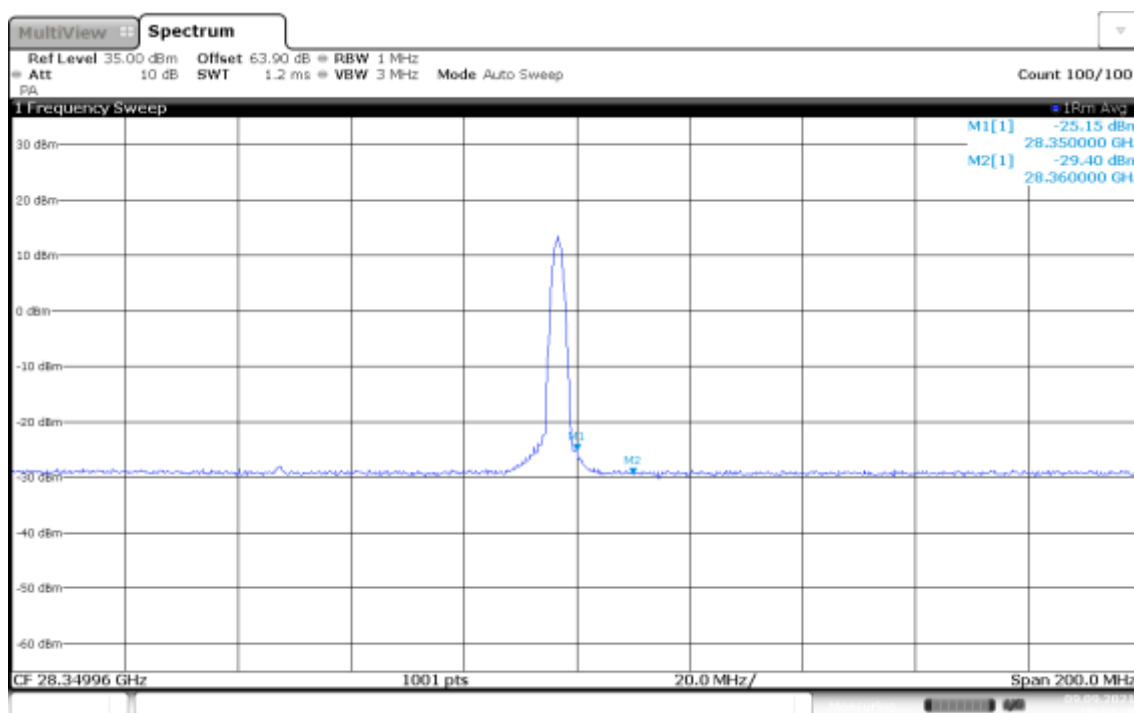
LOW BAND EDGE BLOCK-100MHz-1RB

Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	100MHz	27550.08	LOW	120kHz	QPSK	-26.85	-5
n261	100MHz	27550.08	LOW	120kHz		-31.28	-13



HIGH BAND EDGE BLOCK-100MHz-1RB

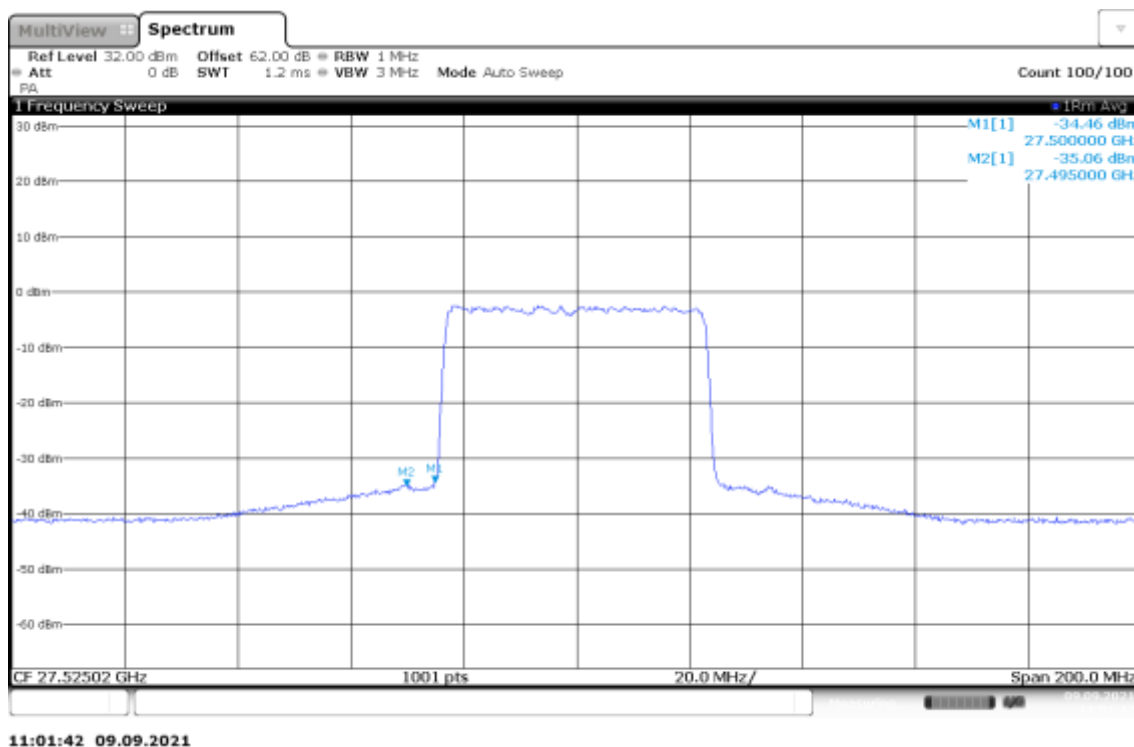
Module0, CP-OFDM							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	100MHz	28299.96	HIGH	120kHz	QPSK	-25.15	-5
n261	100MHz	28299.96	HIGH	120kHz		-29.40	-13



19:48:29 09.09.2021

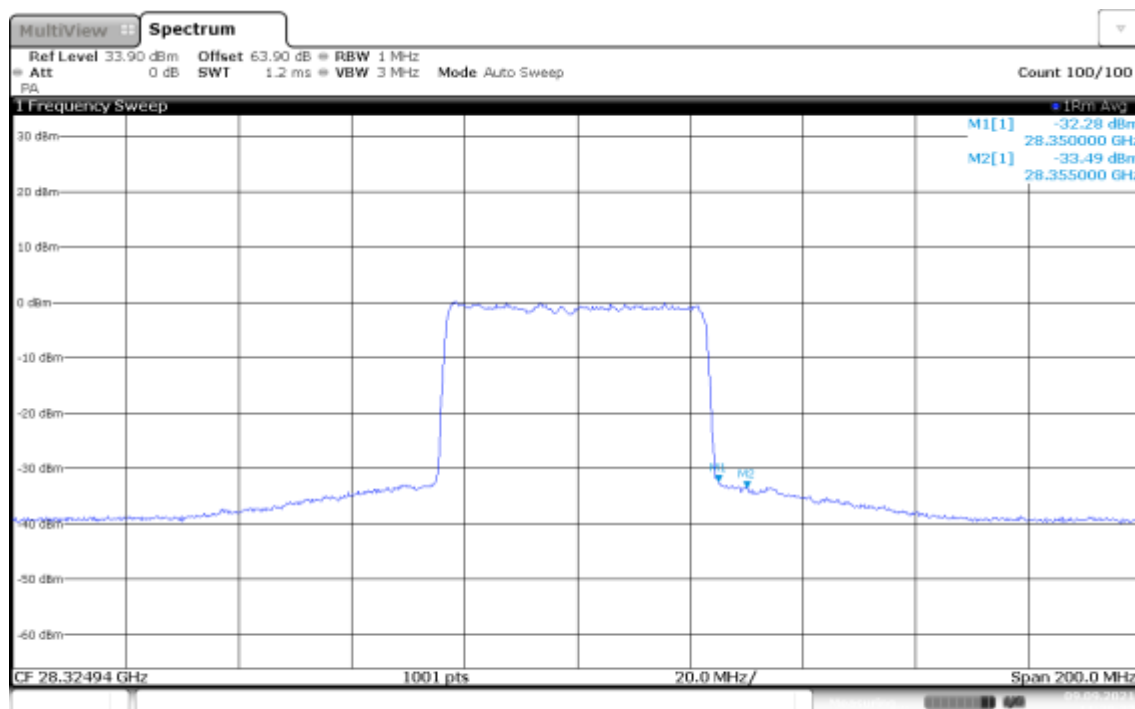
LOW BAND EDGE BLOCK-50MHz-100%RB

Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	27525	LOW	120kHz	16AQM	-34.46	-5
n261	50MHz	27525	LOW	120kHz		-35.06	-13



HIGH BAND EDGE BLOCK-50MHz-100%RB

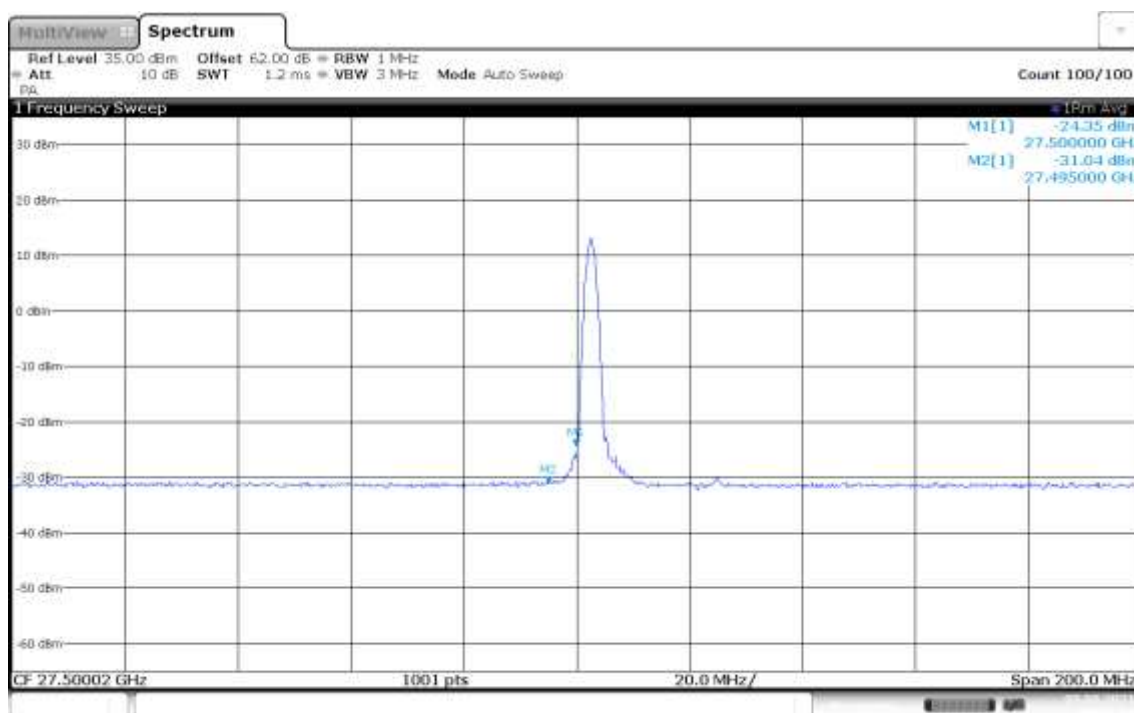
Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	28324.92	HIGH	120kHz	16QAM	-32.28	-5
n261	50MHz	28324.92	HIGH	120kHz		-33.49	-13



11:28:32 09.09.2021

LOW BAND EDGE BLOCK-50MHz-1RB

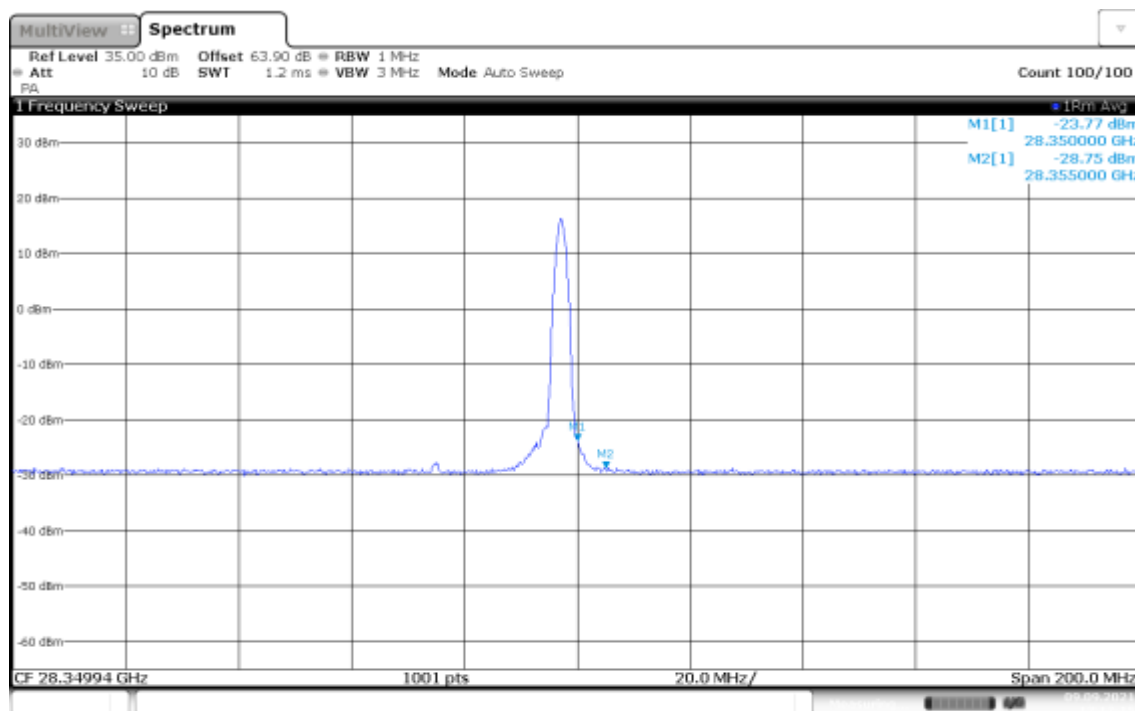
Module0, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	27525	LOW	120kHz	QPSK	-24.35	-5
n261	50MHz	27525	LOW	120kHz		-31.04	-13



09:56:37 09.09.2021

HIGH BAND EDGE BLOCK-50MHz-1RB

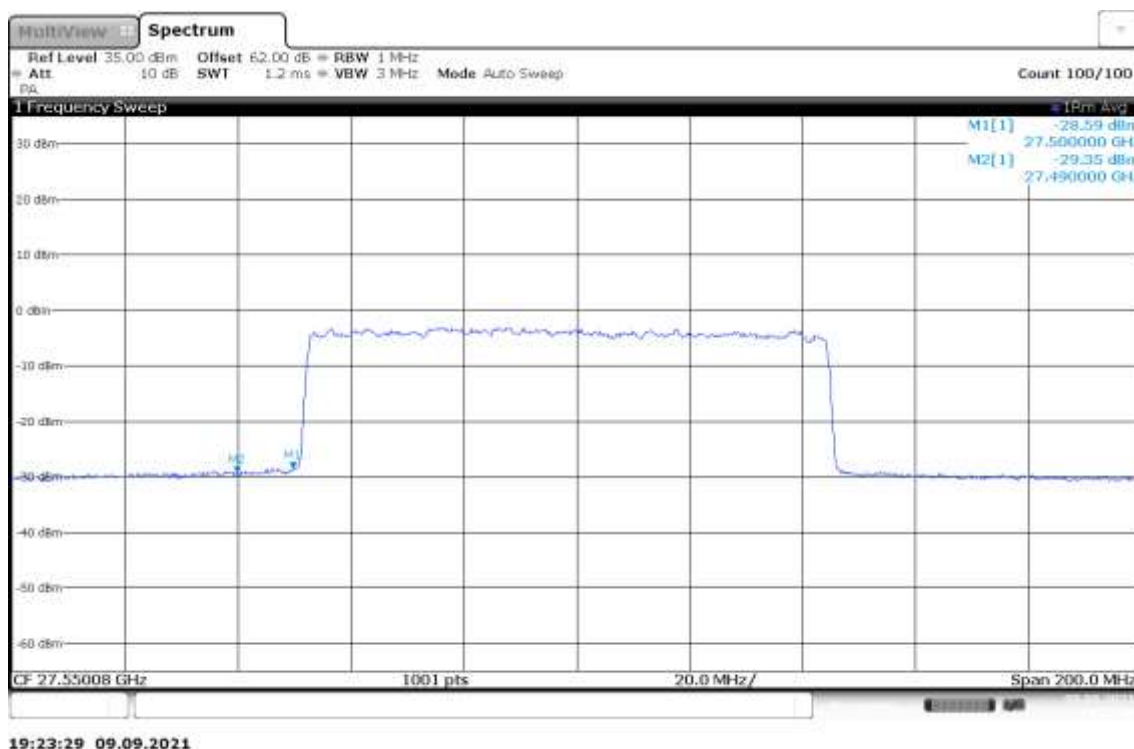
Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	50MHz	28324.92	HIGH	120kHz	QPSK	-23.77	-5
n261	50MHz	28324.92	HIGH	120kHz		-28.75	-13



12:17:16 09.09.2021

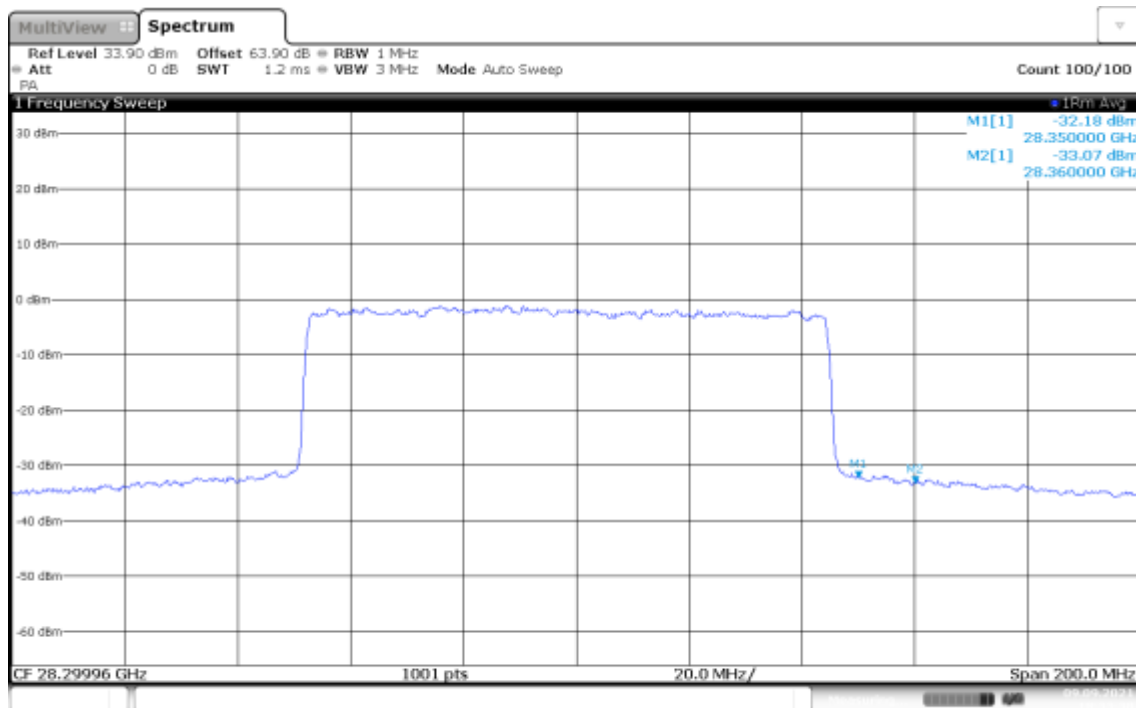
LOW BAND EDGE BLOCK-100MHz-100%RB

Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	100MHz	27550.08	LOW	120kHz	QPSK	-28.59	-5
n261	100MHz	27550.08	LOW	120kHz		-29.35	-13



HIGH BAND EDGE BLOCK-100MHz-100%RB

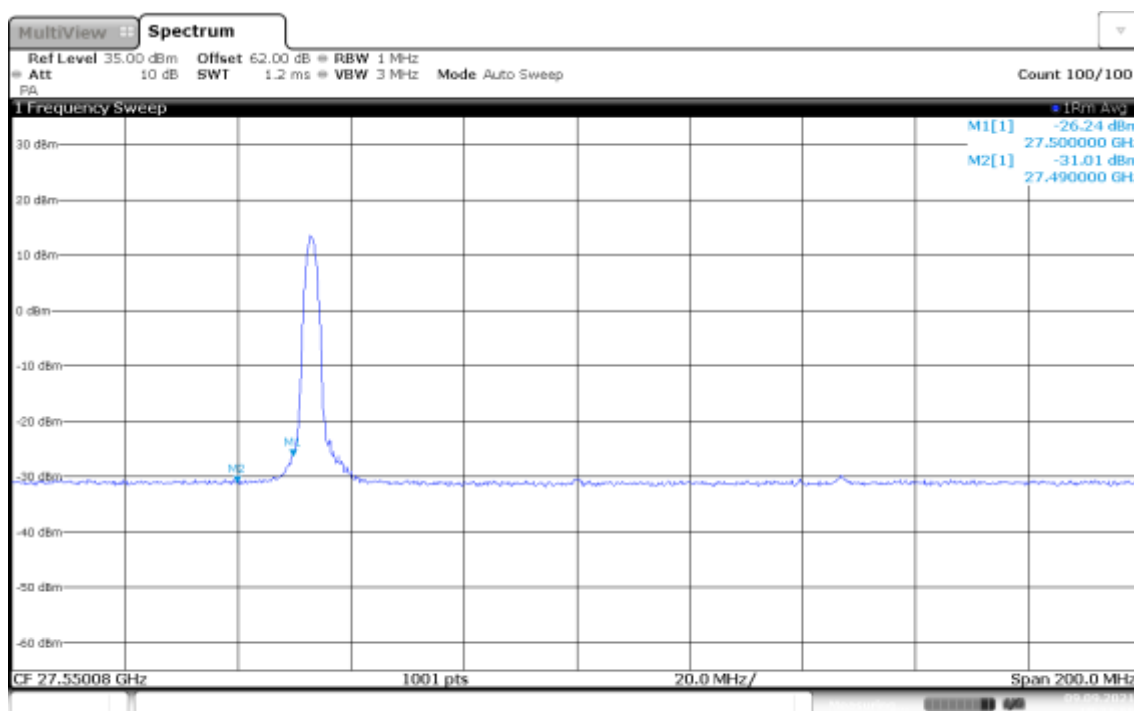
Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	100MHz	28299.96	HIGH	120kHz	QPSK	-32.18	-5
n261	100MHz	28299.96	HIGH	120kHz		-33.07	-13



18:33:39 09.09.2021

LOW BAND EDGE BLOCK-50MHz-1RB

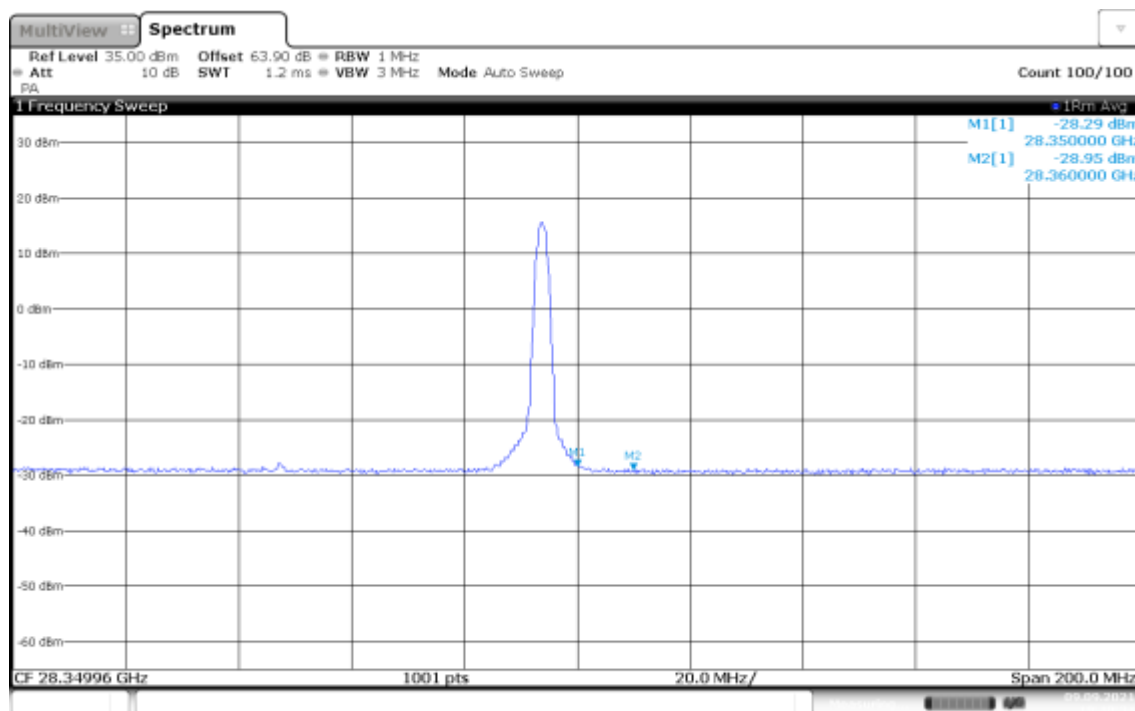
Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dB m)
n261	100MHz	27550.08	LOW	120kHz	QPSK	-26.24	-5
n261	100MHz	27550.08	LOW	120kHz		-31.01	-13



19:34:56 09.09.2021

HIGH BAND EDGE BLOCK-100MHz-1RB

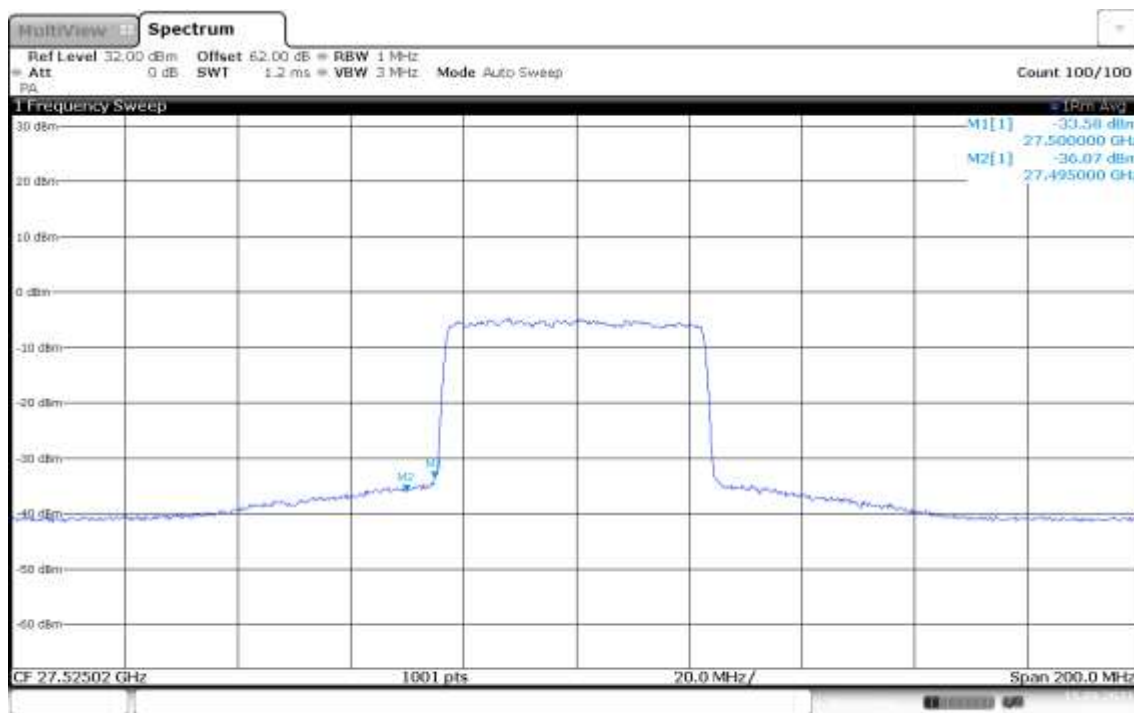
Module0, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	100MHz	28299.96	HIGH	120kHz	QPSK	-28.29	-5
n261	100MHz	28299.96	HIGH	120kHz		-28.95	-13



19:40:34 09.09.2021

LOW BAND EDGE BLOCK-50MHz-100%RB

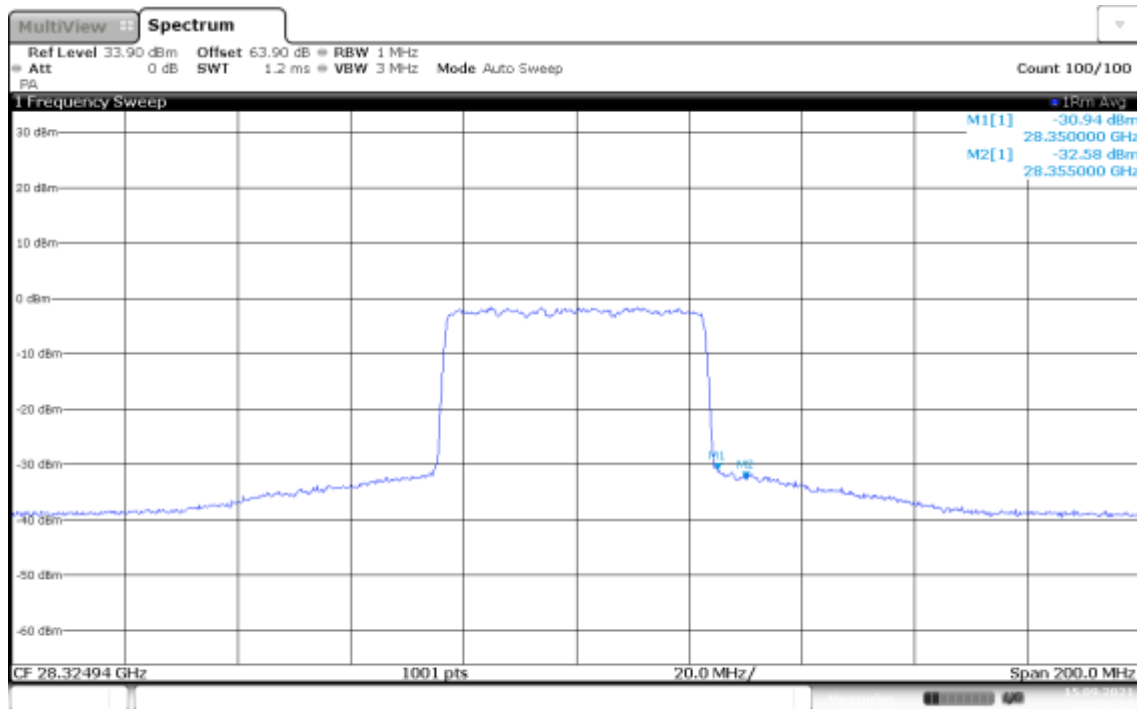
Module1, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	50MHz	27525	LOW	120kHz	QPSK	-33.58	-5
n261	50MHz	27525	LOW	120kHz		-36.07	-13



01:00:07 15.09.2021

HIGH BAND EDGE BLOCK-50MHz-100%RB

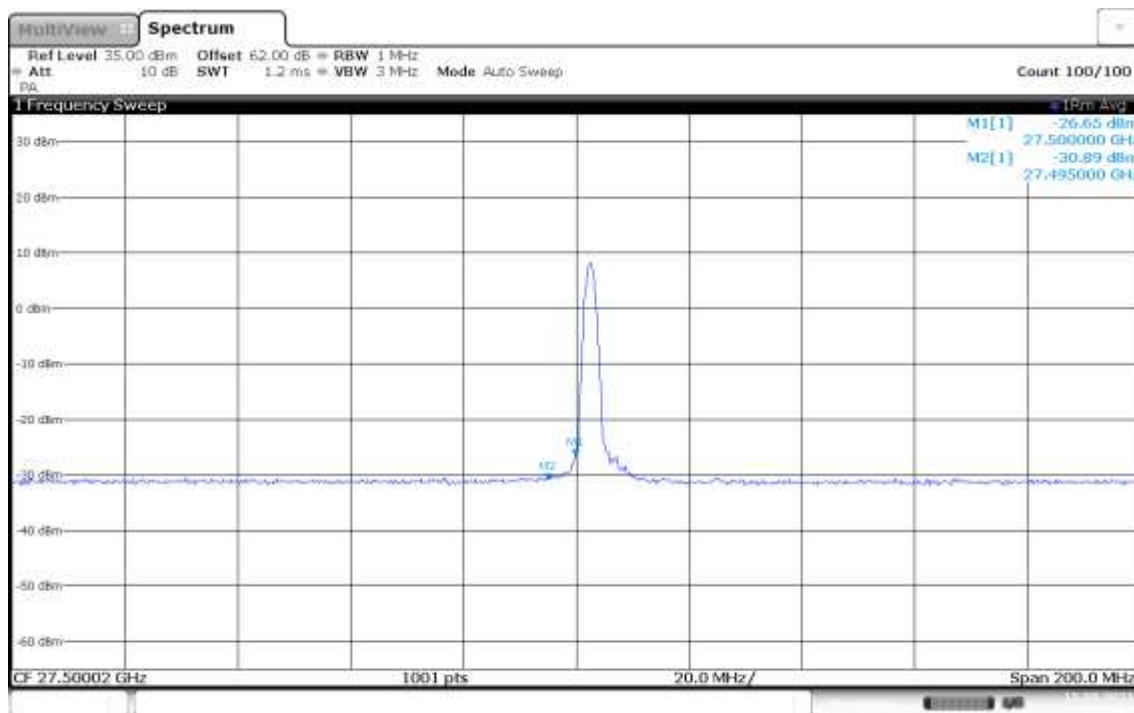
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	50MHz	28324.92	HIGH	120kHz	QPSK	-30.94	-5
n261	50MHz	28324.92	HIGH	120kHz		-32.58	-13



01:30:18 15.09.2021

LOW BAND EDGE BLOCK-50MHz-1RB

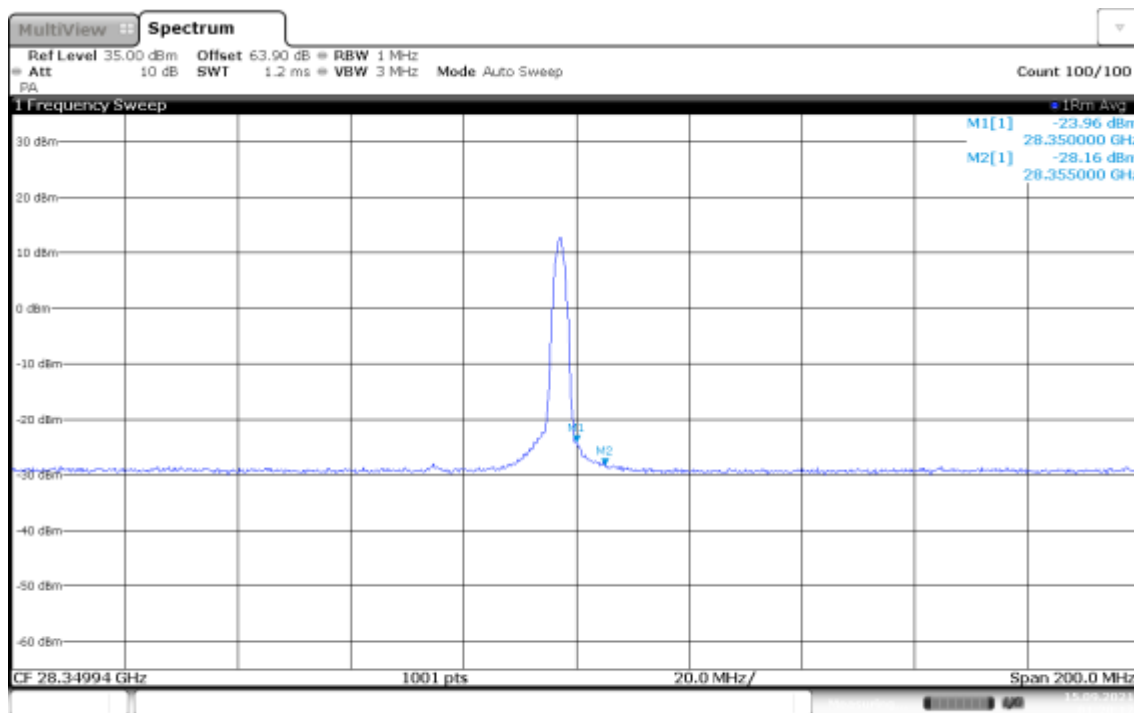
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	50MHz	27525	LOW	120kHz	QPSK	-26.65	-5
n261	50MHz	27525	LOW	120kHz		-30.89	-13



01:37:07 15.09.2021

HIGH BAND EDGE BLOCK-50MHz-1RB

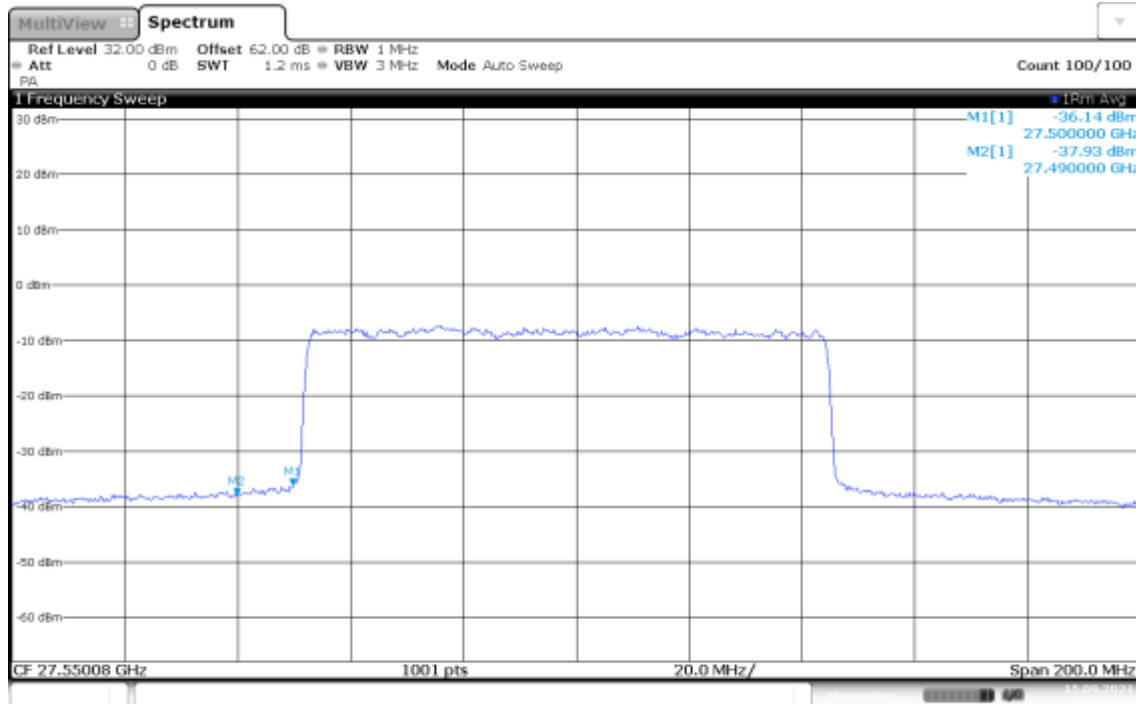
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	50MHz	28324.92	HIGH	120kHz	QPSK	-23.96	-5
n261	50MHz	28324.92	HIGH	120kHz		-28.16	-13



01:20:18 15.09.2021

LOW BAND EDGE BLOCK-100MHz-100%RB

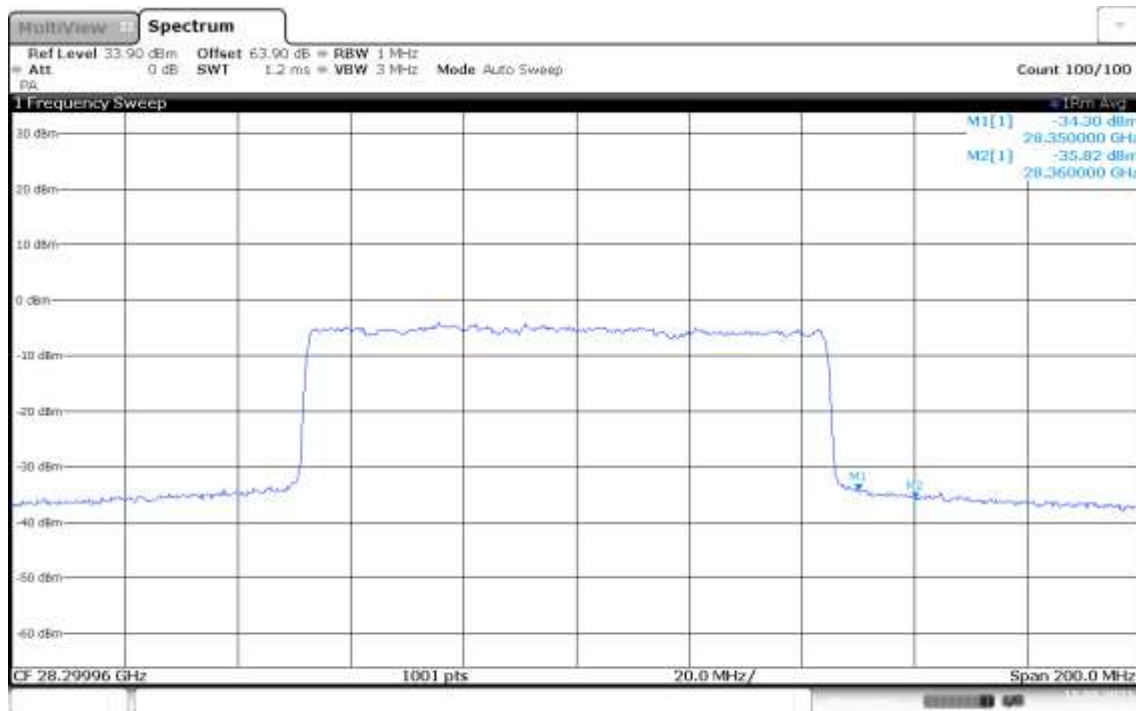
Module1, PUSCH DFT							
	BANDWIDTH	FREQUENCY (MHz)	CHANNEL	SCS	MODULATION	Peak (dBm)	Limit (dBm)
n261	100MHz	27550.08	LOW	120kHz	QPSK	-36.14	-5
n261	100MHz	27550.08	LOW	120kHz		-37.93	-13



02:35:14 15.09.2021

HIGH BAND EDGE BLOCK-100MHz-100%RB

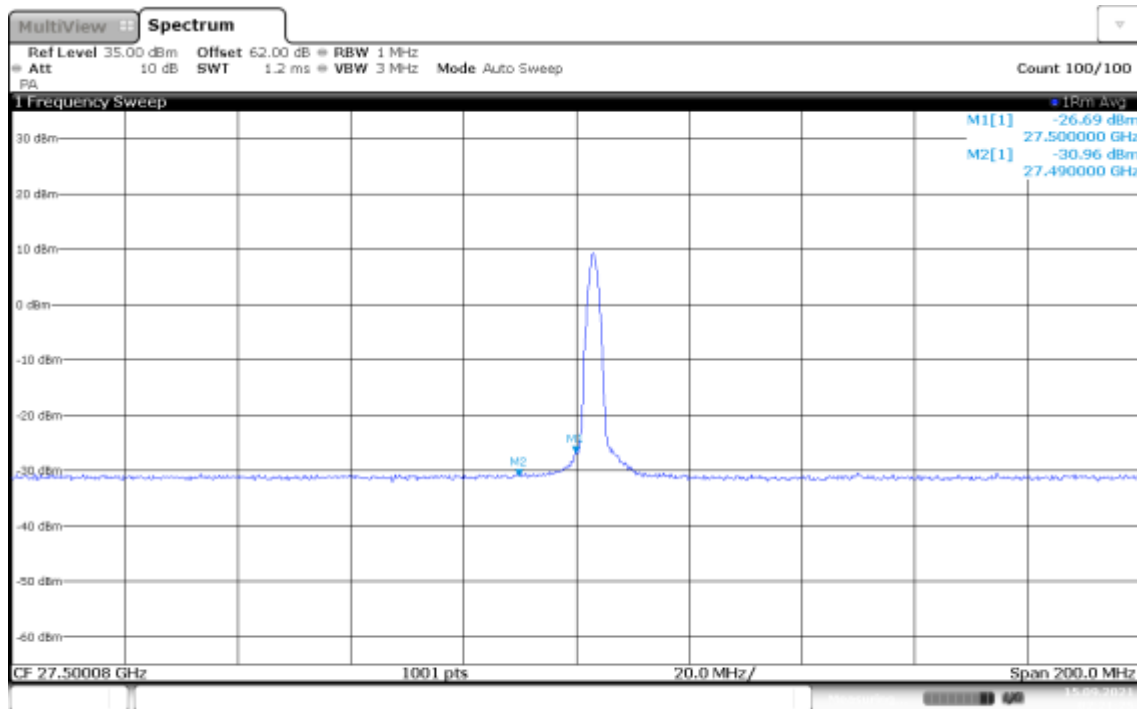
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	100MHz	28299.96	HIGH	120kHz	QPSK	-34.30	-5
n261	100MHz	28299.96	HIGH	120kHz		-35.82	-13



02:04:52 15.09.2021

LOW BAND EDGE BLOCK-100MHz-1RB

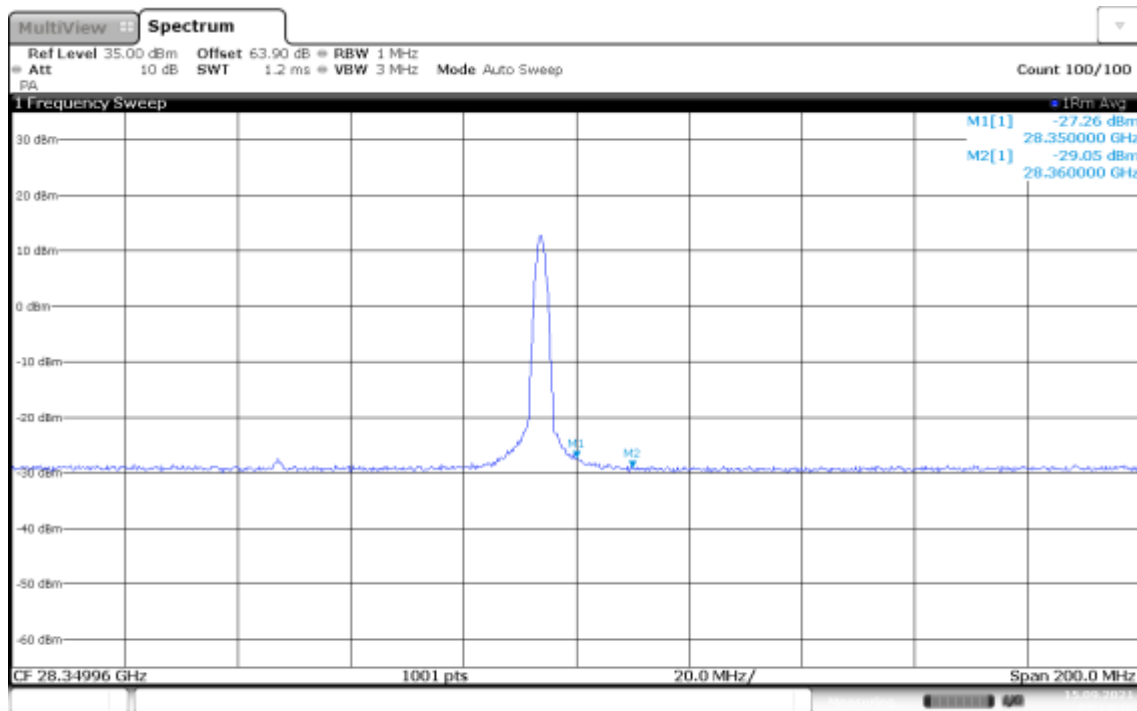
Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	100MHz	27550.08	LOW	120kHz	QPSK	-26.69	-5
n261	100MHz	27550.08	LOW	120kHz		-30.96	-13



02:21:26 15.09.2021

HIGH BAND EDGE BLOCK-100MHz-1RB

Module1, PUSCH DFT							
	BANDWID TH	FREQUENC Y (MHz)	CHAN NEL	SCS	MODULATI ON	Peak (dBm)	Limit (dBm)
n261	100MHz	28299.96	HIGH	120kHz	QPSK	-27.26	-5
n261	100MHz	28299.96	HIGH	120kHz		-29.05	-13



02:14:47 15.09.2021

Annex B: Calibration Certificates List

Signal Generator	SMF100A	104940	R&S	2021-12-09	1 year
------------------	---------	--------	-----	------------	--------



校准证书

证书编号: J20X12055

客户名称 中国泰尔实验室

客户地址 北京市海淀区花园北路 52 号

器具名称 信号发生器

型号/规格 SMF100A

出厂编号 104940

制造单位 ROHDE&SCHWARZ 公司

校准日期 2020 年 12 月 10 日

所测数据符合该仪表说明书技术指标要求。



批准人: 国峰

核验员: 董修年

校准员: 成铭

地址: 北京海淀区花园北路 52 号通信计量中心

邮编: 100191

网址: www.chinatell.com

电话: +86-10-62301383

传真: +86-10-62304104

Email: cal@caict.ac.cn

Signal Generator	E8257D (60GHz)	MY59140557	Keysight	2022-01-19	1 year
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No. RAG202101178 第 1 页 共 8 页
Page 1 This certificate include 8 Pages

北京无线电计量测试研究所
Beijing Institute of Radio Metrology and Measurement

中国认可 中国航天科工集团第二研究院二〇三所
校准 CALIBRATION 国防科技工业第二计量测试研究中心
CNAS L1665

校准证书
Certificate of Calibration

委托单位: 中国泰尔实验室
Customer

地址: 海淀区花园北路 52 号
Address

被测样品: 信号发生器
EUT/DUT

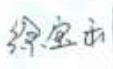
编号: MY59140557
No.

型号: E8257D
Type

制造商: 是德
Manufacturer

校准人: 
Operator

接收日期: 2021 年 1 月 18 日
Acceptance date Year Month Day

核验人: 
Inspector

校准日期: 2021 年 1 月 20 日
Calibration date Year Month Day

批准人: 
Approver

发证单位: 
Issued by (stamp)

本实验室地址(Add): 北京市海淀区永定路 50 号
No.50 Yongding Road, Haidian District, Beijing

通信地址: 北京 142 信箱 408 分箱
P. O. Box: 3930, Beijing China

服务电话(Tel): 010-68385358 监督电话(Tel): 010-68387448
邮政编码(Post Code): 100854 传真(Fax): 86-10-68385470

Antenna	VULB 9163	483	SCHWARZBE CK	2021/8/27	1 year
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中国计量科学研究院

校准证书

Calibration Certificate

证书编号 XDtx2020-01130
Certificate No.

客户名称
Client 中国泰尔实验室

器具名称
Instrument Hybrid Antenna

型号/规格
Type/Model VULB 9163

出厂编号
Serial No. 483

生产厂商
Manufacturer SCHWARZBECK

联络信息
Contact Information 北京市海淀区花园北路 52 号

校准日期
Date of Calibration 2020-08-28

接收日期
Date of Receiving 2020-08-14

批准人: 刘科
Approved by

发布日期: 2020 年 8 月 28 日
Date of Issue

地址: 中国北京北三环东路 18 号
Address: No.18 Bei San Huan Dong Lu, Beijing, P.R.China

电话: +86-10-64525569/74
Tel

网址: <http://www.nim.ac.cn>
Website

邮编: 100029
Post Code

传真: +86-10-64271948
Fax

电子邮箱: kehufuwu@nim.ac.cn
Email

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Page of

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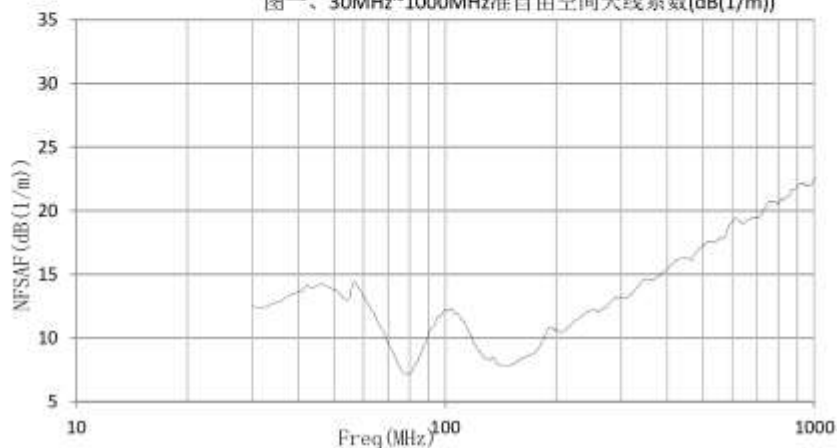
证书编号 XDtx2020-01130
Certificate No.

校准结果

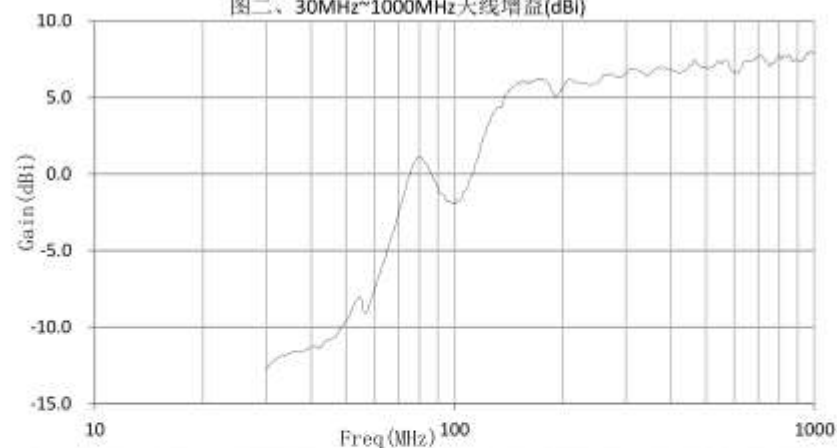
Calibration Results

四、数据曲线 Data Curves

图一、30MHz~1000MHz准自由空间天线系数(dB(1/m))



图二、30MHz~1000MHz天线增益(dBi)



—以下空白—

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Antenna	3116	2661	ETS-Lindgren	2022-01-05	1 year
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中国计量科学研究院

中国认可
国际互认
校准
CALIBRATION
CNAS L0502

校准证书

Calibration Certificate

证书编号 XDtx2021-00015
Certificate No.

客户名称 Client	中国泰尔实验室
器具名称 Instrument	喇叭天线
型号/规格 Type/Model	3116
出厂编号 Serial No.	2661
生产厂商 Manufacturer	/
联络信息 Contact Information	北京市海淀区花园北路 52 号
校准日期 Date of Calibration	2021-01-06
接收日期 Date of Receiving	2020-12-30

批准人: 郭晓涛

Approved by

发布日期: 2021 年 1 月 15 日

Date of Issue

地址: 中国北京北三环东路 18 号

Address: No.18 Bei San Huan Dong Lu, Beijing, P.R.China

电话: +86-10-64525569/74

Tel

网址: <http://www.nim.ac.cn>

Website

邮编: 100029

Post Code

传真: +86-10-64271948

Fax

电子邮箱: kehufuwu@nim.ac.cn

Email

第1页共7页

Page of

2019-jz-R0520

中国计量科学研究院



证书编号 XDTx2021-00015
Certificate No.

校准结果 Calibration Results

表 1. 校准数据

Table 1 Calibration Results

频率 Frequency (GHz)	天线系数 AF dB(1/m)	增益 Gain (dBi)	驻波比 SWR (/)
18	43.9	11.5	1.35
18.5	44.2	11.4	1.42
19	44.5	11.3	1.46
19.5	44.9	11.1	1.48
20	45.2	11.0	1.56
20.5	45.3	11.1	1.60
21	45.9	10.8	1.55
21.5	46.0	10.9	1.51
22	46.0	11.1	1.53
22.5	46.1	11.2	1.48
23	45.8	11.7	1.46
23.5	45.8	11.8	1.53
24	45.8	12.0	1.56
24.5	45.8	12.2	1.52
25	46.1	12.1	1.51
25.5	46.2	12.2	1.48
26	46.3	12.2	1.38
26.5	46.6	12.1	1.31
27	46.8	12.0	1.30
27.5	47.3	11.7	1.39
28	47.9	11.3	1.64
28.5	48.2	11.1	1.89
29	48.1	11.3	2.00
29.5	47.8	11.8	1.96
30	47.5	12.3	1.78

中国计量科学研究院



证书编号 XDTx2021-00015
Certificate No.

校准结果

Calibration Results

频率 Frequency (GHz)	天线系数 AF dB(1/m)	增益 Gain (dBi)	驻波比 SWR (/)
30.5	47.2	12.7	1.56
31	47.1	12.9	1.37
31.5	47.3	12.9	1.20
32	47.7	12.7	1.12
32.5	47.9	12.6	1.15
33	48.4	12.2	1.23
33.5	49.1	11.6	1.40
34	49.7	11.1	1.56
34.5	49.9	11.0	1.74
35	50.2	10.9	1.89
35.5	49.9	11.3	1.98
36	49.4	12.0	1.99
36.5	48.7	12.7	1.96
37	48.0	13.6	1.84
37.5	47.5	14.2	1.69
38	47.3	14.5	1.56
38.5	47.0	14.9	1.43
39	46.9	15.1	1.28
39.5	47.3	14.9	1.30
40	48.1	14.2	1.51

Upconverter(50GHz-75GHz)	SMZ-75	101309	R&S	2022-01-14	1 year
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中国计量科学研究院



中国认可
国际互认
校准
CALIBRATION
CNAS L0502

校准证书

证书编号 XDxh2021-10059

客户名称 中国泰尔实验室

器具名称 SMZ75 倍频源

型号/规格 SMZ75

出厂编号 101309

生产厂商 Rohde & Schwarz

联络信息 北京市海淀区花园北路 52 号

校准日期 2021-01-15

接收日期 2021-01-08

批准人: 何昭



发布日期: 2021 年 03 月 16 日

地址: 北京北三环东路 18 号

邮编: 100029

电话: 010-64525569/74

传真: 010-64271948

网址: <http://www.nim.ac.cn>

电子邮箱: kehufuwu@nim.ac.cn

2019-jz-R0520

第1页共4页

Upconverter(75GHz-110GHz)	SMZ-110	101357	R&S	2022-01-14	1 year
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中国认可
国际互认
校准
CALIBRATION
CNAS L0502

校准证书

证书编号 XDxh2021-10060

客户名称 中国泰尔实验室

器具名称 SMZ110 倍频源

型号/规格 SMZ110

出厂编号 101357

生产厂商 Rohde & Schwarz

联络信息 北京市海淀区花园北路 52 号

校准日期 2021-01-15

接收日期 2021-01-08

批准人:

何昭



发布日期: 2021 年 03 月 16 日

地址: 北京北三环东路 18 号

邮编: 100029

电话: 010-64525569/74

传真: 010-64271948

网址: <http://www.nim.ac.cn>

电子邮箱: kehufuwu@nim.ac.cn

2019-jz-R0520

第1页共4页

Upconverter(110GHz-170GHz)/	82406B	ZEI00141	Ceyear	2022-02-04	1 year
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中国认可
国际互认
校准
CALIBRATION
CNAS L0902

校准证书

证书编号 XDgp2021-10237

客户名称 中国泰尔实验室

器具名称 信号源倍频器

型号/规格 82406B

出厂编号 ZEI00141

生产厂商 中电科仪器仪表有限公司

联络信息 北京市海淀区花园北路 52 号

校准日期 2021 年 02 月 05 日

接收日期 2021 年 01 月 08 日

批准人：

赵科佳



发布日期： 2021 年 02 月 08 日

地址：北京北三环东路 18 号

邮编：100029

电话：010-64525569/74

传真：010-64271948

网址：<http://www.nim.ac.cn>

电子邮箱：kehufuwu@nim.ac.cn

2019-jz-R0520

第1页共6页

Upconverter(170GHz-220GHz)/	82406C	ZEI00164	Ceyear	2022-02-04	1 year
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中国计量科学研究院

中国认可
国际互认
校准
CALIBRATION
CNAS L0502

校准证书

证书编号 XDgp2021-10238

客户名称 中国泰尔实验室

器具名称 信号源倍频器

型号/规格 82406C

出厂编号 ZEI00164

生产厂商 中电科仪器仪表有限公司

联络信息 北京市海淀区花园北路 52 号

校准日期 2021 年 02 月 05 日

接收日期 2021 年 01 月 08 日

批准人: 赵科佳



发布日期: 2021 年 02 月 08 日

地址: 北京北三环东路 18 号

邮编: 100029

电话: 010-64525569/74

传真: 010-64271948

网址: <http://www.nim.ac.cn>电子邮箱: kehufuwu@nim.ac.cn

2019-jz-R0520

第1页共5页

Spectrum Analyzer

FSW67

103290

R&S

2022-02-04

1 year

No. RSA202101150

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Page 1 This certificate include 11 Pages

北京无线电计量测试研究所

Beijing Institute of Radio Metrology and Measurement

中国航天科工集团第二研究院二〇三所

国防科技工业第二计量测试研究中心


中国认可
校准

校准证书

CALIBRATION Certificate of Calibration

CNAS L1665

委托单位: 中国泰尔实验室
Customer

地址: 海淀区花园北路 52 号
Address

被测样品: 频谱分析仪
EUT/DUT

编号: 103290
No.

型号: FSW67
Type

制造商: R/S
Manufacturer

校准人: 武平
Operator

接收日期: 2021 年 1 月 18 日
Acceptance date Year Month Day

核验人: 吴远任
Inspector

校准日期: 2021 年 1 月 20 日
Calibration date Year Month Day

批准人: 陈云梅
Approver

发证单位:
Issued by (stamp)

本实验室地址(Add): 北京市海淀区永定路 50 号
No.50 Yongding Road, Haidian District, Beijing

通信地址: 北京 142 信箱 408 分箱
P. O. Box: 3930, Beijing China

服务电话(Tel): 010-68385358

监督电话(Tel): 010-68387448

邮政编码(Post Code): 100854

传真(Fax): 86-10-68385470



(downconverter)Harmonic Mixer(60GHz-90GHz)	FS-Z90	101655	R&S	2022-02-04	1 year
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中国计量科学研究院

校准证书



证书编号 XDxh2021-10057

客户名称 中国泰尔实验室

器具名称 FS-Z90 混频器

型号/规格 FS-Z90

出厂编号 101655

生产厂商 Rohde & Schwarz

联络信息 北京市海淀区花园北路 52 号

校准日期 2021-01-15

接收日期 2021-01-08

批准人：

何昭



发布日期： 2021 年 01 月 20 日

地址：北京北三环东路 18 号

邮编：100029

电话：010-64525569/74

传真：010-64271948

网址：<http://www.nim.ac.cn>

电子邮箱：kehufuwu@nim.ac.cn

2019-jz-R0520

第1页共4页

(downconverter)Harmonic Mixer(75GHz-110GHz)	FS-Z110	101463	R&S	2022-01-19	1 year
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中国计量科学研究院 校准证书



证书编号 XDxh2021-10058

客户名称 中国泰尔实验室

器具名称 FS-Z110 混频器

型号/规格 FS-Z110

出厂编号 101463

生产厂商 Rohde & Schwarz

联络信息 北京市海淀区花园北路 52 号

校准日期 2021-01-15

接收日期 2021-01-08

批准人：

何明



发布日期： 2021 年 01 月 20 日

地址：北京北三环东路 18 号

邮编：100029

电话：010-64525569/74

传真：010-64271948

网址：<http://www.nim.ac.cn>

电子邮箱：kehufuwu@nim.ac.cn

2019-jz-R0520

第1页共4页

(downconverter)Harmonic Mixer(110GHz-170GHz)/	FS-Z170	101008	R&S	2022-02-17	1 year
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Radiometer Physics
A Rohde & Schwarz Company

Calibration Certificate

Kalibrierschein

Certificate Number 24-0170-101008-01

Zertifikatsnummer

Unit Data

Item
Gegenstand
Harmonic Mixer, 110 GHz to 170 GHz

Manufacturer
Hersteller
RPG Radiometer-Physics GmbH

Type
Typ
RPG FS-Z170

Material Number
Materialnummer
3622.0714.02

Serial Number
Seriennummer
101008

Asset Number
Inventarnummer

This calibration certificate documents, that the named item is tested and measured against defined specifications. Measurement results are located usually in the corresponding interval with a probability of approx. 95% (coverage factor $k = 2$). Calibration is performed with test equipment and standards directly or indirectly traceable by means of approved calibration techniques to the PTB/DKD or other national/international standards, which realize the physical units of measurement according to the International System of Units (SI). In all cases where no standards are available, measurements are referenced to standards of the R&S laboratories. Principles and methods of calibration correspond with EN ISO/IEC 17025. This calibration certificate may not be reproduced other than in full. Calibration certificates without signatures are not valid. The user is obliged to have the object recalibrated at appropriate intervals.

Order Data

Customer
Auftraggeber

Order Number
Bestellnummer

Date of Receipt
Eingangsdatum

Performance

Place and Date of Calibration
Ort und Datum der Kalibrierung

Scope of Calibration
Umfang der Kalibrierung

Statement of Compliance
(Incoming)
Konformitätsaussage
(Anlieferung)

Statement of Compliance
(Outgoing)
Konformitätsaussage
(Auslieferung)

Extend of Calibration Documents
Umfang des Kalibrierdokuments

Meckenheim, 2021-02-18

Standard Calibration

New device

All measured values are within the data sheet specifications.

**2 pages Calibration Certificate
4 pages Outgoing Results**

Dieser Kalibrierschein dokumentiert, dass der genannte Gegenstand nach festgelegten Vorgaben geprüft und gemessen wurde. Die Messwerte lagen im Regelfall mit einer Wahrscheinlichkeit von annähernd 95% im zugeordneten Wertintervall (Erweiterte Messunsicherheit mit $k = 2$). Die Kalibrierung erfolgte mit Messmitteln und Normale, die direkt oder indirekt durch Ableitung mittels anerkannter Kalibriertechniken rückgeführt sind auf Normale der PTB/DKD oder anderer nationaler/internationaler Standards zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem internationalen Einheitensystem (SI). Wenn keine Normale existieren, erfolgt die Rückführung auf Bezugsnormale der R&S-Laboratorien. Grundsätze und Verfahren der Kalibrierung beziehen sich auf EN ISO/IEC 17025. Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Kalibrierscheine ohne Unterschriften sind ungültig. Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

RPG Radiometer-Physics GmbH; Meckenheim

Date of Issue
Ausstellungsdatum

2021-02-22

Head of Laboratory
Laborleitung

Schulze

Person Responsible
Bearbeiter

Heinze

Page (Seite) 1/2
Vers2010-05-05/
RPG2014-02-28

RPG Radiometer-Physics GmbH • Werner-von-Siemens-Str. 4 • 53340 Meckenheim • Telephone national: 02225/99981-0 international: 0049 2225-99981-0
Fax: 02225/99981-99 • Managing Director: Achim Walber • Company's Place of Business: Meckenheim
Commercial Register No.: Bonn, HRB 10291 • VAT identification No.: DE 123 377 395

(downconverter)Harmonic Mixer(170GHz-220GHz)/	FS-Z220	101054	R&S	2021-12-14	1 year
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Radiometer Physics
A Rohde & Schwarz Company

Calibration Certificate

Kalibrierschein

Certificate Number 24-0220-101054-01

Zertifikatsnummer

Unit Data

Item: Harmonic Mixer, 140 GHz to 220 GHz
Gegenstand:
Manufacturer: RPG Radiometer-Physics GmbH
Hersteller:
Type: RPG FS-Z220
Typ:
Material Number: 3593.3250.02
Materialnummer:
Serial Number: 101054
Seriennummer:
Asset Number:
Inventarnummer:

This calibration certificate documents, that the named item is tested and measured against defined specifications. Measurement results are located usually in the corresponding interval with a probability of approx. 95% (coverage factor $k = 2$). Calibration is performed with test equipment and standards directly or indirectly traceable by means of approved calibration techniques to the PTB/DKD or other national/international standards, which realize the physical units of measurement according to the International System of Units (SI). In all cases where no standards are available, measurements are referenced to standards of the R&S laboratories. Principles and methods of calibration correspond with EN ISO/IEC 17025. This calibration certificate may not be reproduced other than in full. Calibration certificates without signatures are not valid. The user is obliged to have the object recalibrated at appropriate intervals.

Order Data

Customer:
Auftraggeber:

Order Number:
Bestellnummer:

Date of Receipt:
Eingangsdatum:

Performance

Place and Date of Calibration:
Ort und Datum der Kalibrierung:

Scope of Calibration:
Umfang der Kalibrierung:

Statement of Compliance (Incoming):
Konformitätsaussage (Anlieferung):

Statement of Compliance (Outgoing):
Konformitätsaussage (Auslieferung):

Extend of Calibration Documents:
Umfang des Kalibrierdokuments:

Meckenheim, 2020-12-15

Standard Calibration

New device

All measured values are within the data sheet specifications.

**2 pages Calibration Certificate
4 pages Outgoing Results**

Dieser Kalibrierschein dokumentiert, dass der genannte Gegenstand nach festgelegten Vorgaben geprüft und gemessen wurde. Die Messwerte lagen im Regelfall mit einer Wahrscheinlichkeit von annähernd 95% im zugeordneten Wertintervall (Erweiterte Messunsicherheit mit $k = 2$). Die Kalibrierung erfolgte mit Messmitteln und Normale, die direkt oder indirekt durch Ableitung mittels anerkannter Kalibriertechniken rückgeführt sind auf Normale der PTB/DKD oder anderer nationaler/internationaler Standards zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem internationalen Einheitensystem (SI). Wenn keine Normale existieren, erfolgt die Rückführung auf Bezugsnormale der R&S-Laboratorien. Grundsätze und Verfahren der Kalibrierung beziehen sich auf EN ISO/IEC 17025. Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Kalibrierscheine ohne Unterschriften sind ungültig. Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

RPG Radiometer-Physics GmbH; Meckenheim

Date of Issue:
Ausstellungsdatum:

2020-12-17

Head of Laboratory:
Laborleitung:

Schulze

Person Responsible:
Bearbeiter:

Dick

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Vers2010-05-05/
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RPG Radiometer-Physics GmbH • Werner-von-Siemens-Str. 4 • 53340 Meckenheim • Telephone national: 02225/99981-0 international: 0049 2225-99981-0
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Commercial Register No.: Bonn, HRB 10291 • VAT Identification No.: DE 123 377 395

Standard Gain Horn (40GHz-60GHz)	LB-19-25	J202024086	A-INFO	2022-01-14	1 year
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A-INFO 英联微波

LB-19-25
40.0 - 60.0GHz 标准增益喇叭天线

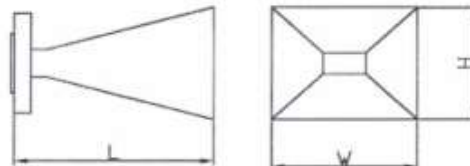
技术指标



频率(GHz)	A 型, 波导输出	40.0 - 60.0
	C 型, 2.4mm-50K 输出	40.0 - 50.0
	C 型, 1.85mm-50K 输出	40.0 - 60.0
增益(dB)	25 典型值	
驻波	1.6 最大值	
3dB 波束宽度(°)	10 典型值	
波导型号	BJ500(WR19)	
材料	铜	
输出形式	A 型	FUGP500
	C 型	2.4mm-50K 或 1.85mm-50K
尺寸(mm) 宽 x 高 x 长	A 型, 波导输出	49x41x130
	C 型, 2.4mm-50K 输出	49x41x155
	C 型, 1.85mm-50K 输出	49x41x157
净重(Kg)	A 型, 波导输出	约 0.15
	C 型, 2.4mm-50K 输出	约 0.18
	C 型, 1.85mm-50K 输出	约 0.18

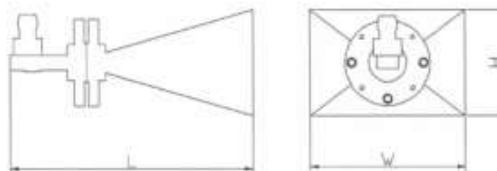
外形图 (尺寸: mm)

A 型



宽 x 高 x 长: 49x41x130

C 型



宽 x 高 x 长: 49x41x157

英联微波

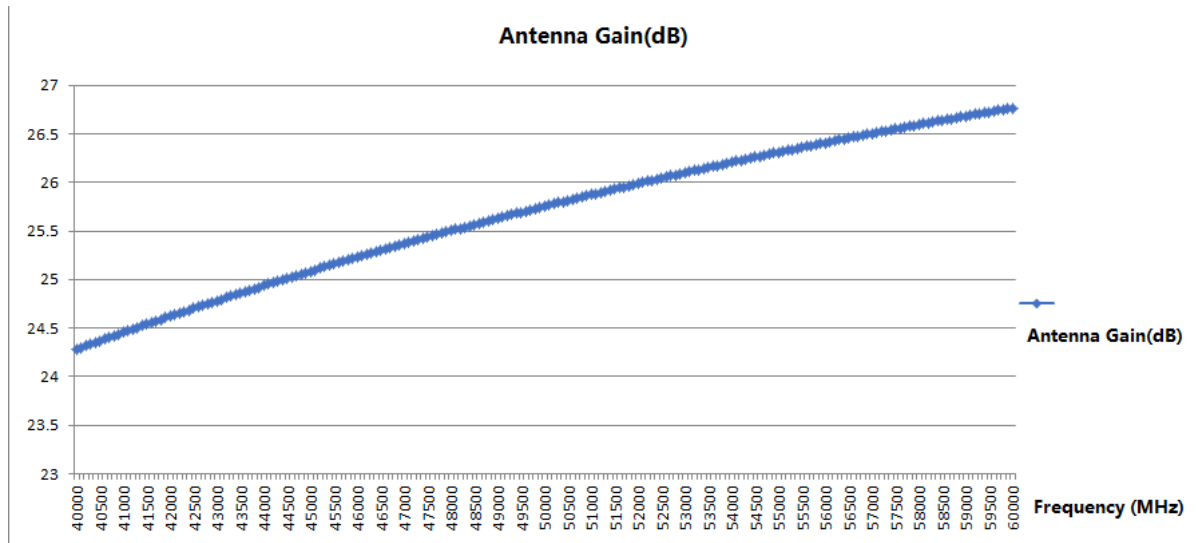
第 1 页 / 共 7 页

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Standard Gain Horn (40GHz-60GHz)	LB-19-25	J202024087	A-INFO	2022-01-14	1 year
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A-INFO 英联微波

LB-19-25
40.0 - 60.0GHz 标准增益喇叭天线

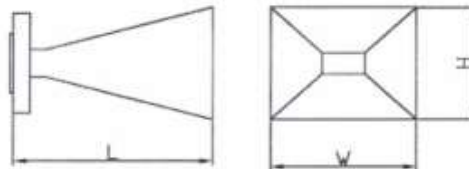
技术指标



频率(GHz)	A 型, 波导输出	40.0 - 60.0
	C 型, 2.4mm-50K 输出	40.0 - 50.0
	C 型, 1.85mm-50K 输出	40.0 - 60.0
增益(dB)	25 典型值	
驻波	1.6 最大值	
3dB 波束宽度(°)	10 典型值	
波导型号	BJ500(WR19)	
材料	铜	
输出形式	A 型	FUGP500
	C 型	2.4mm-50K 或 1.85mm-50K
尺寸(mm) 宽 x 高 x 长	A 型, 波导输出	49x41x130
	C 型, 2.4mm-50K 输出	49x41x155
	C 型, 1.85mm-50K 输出	49x41x157
净重(Kg)	A 型, 波导输出	约 0.15
	C 型, 2.4mm-50K 输出	约 0.18
	C 型, 1.85mm-50K 输出	约 0.18

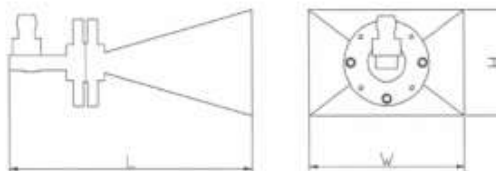
外形图 (尺寸: mm)

A 型



宽 x 高 x 长: 49x41x130

C 型



宽 x 高 x 长: 49x41x157

英联微波

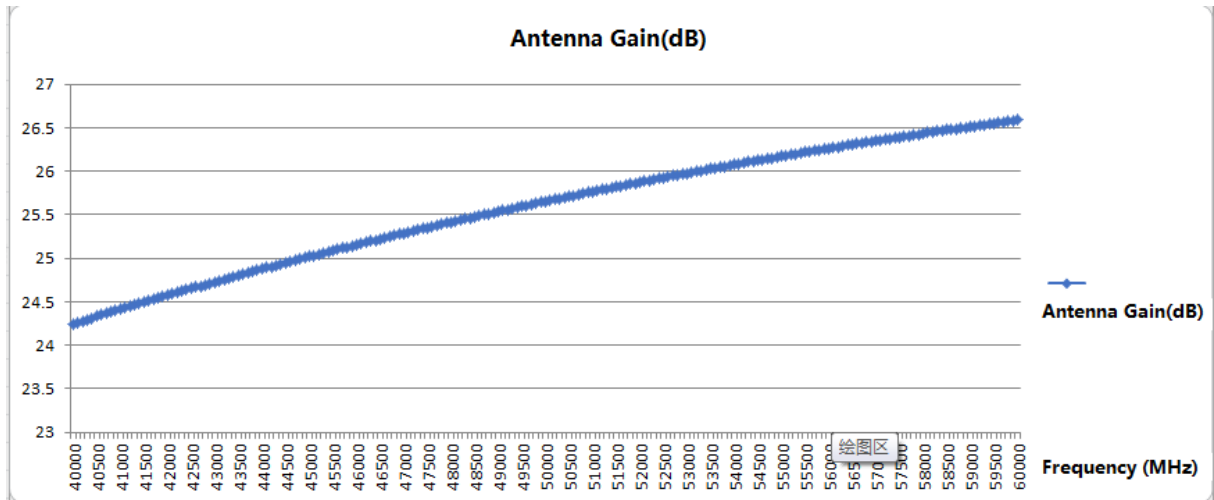
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Standard Gain Horn (50GHz-75GHz)	LB-15-25	J202062019	A-INFO	2021-12-14	1 year
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A-INFO 英联微波

LB-15-25
50.0 - 75.0GHz 标准增益喇叭天线

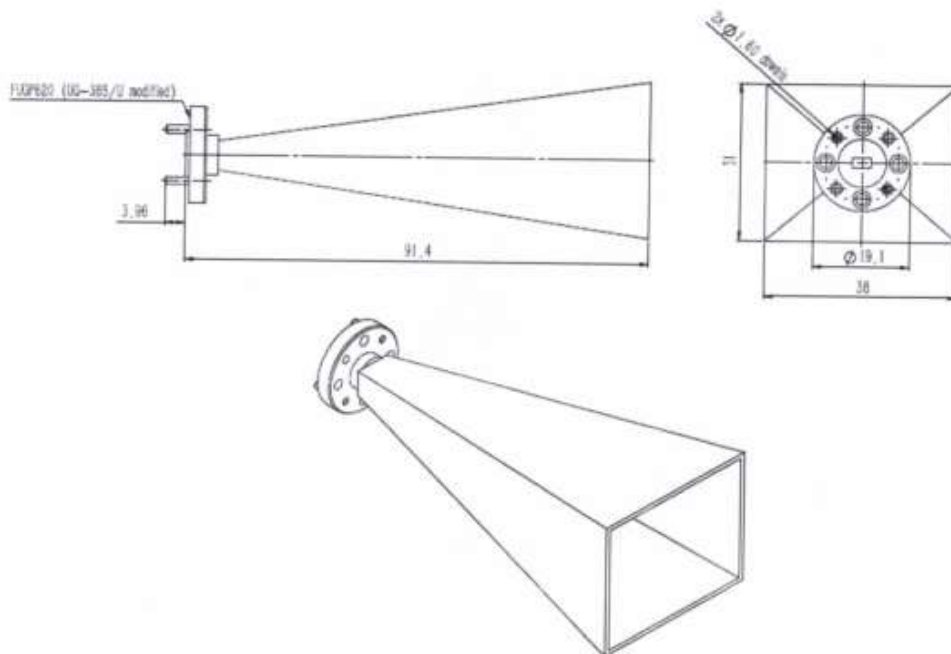
技术指标



频率(GHz)	A 型, 波导输出	50.0 - 75.0
	C 型, 1.85mm-50K 输出	50.0 - 65.0
增益(dB)	25 典型值	
驻波	1.6 最大值	
3dB 波束宽度(°)	10 典型值	
波导型号	BJ620(WR15)	
材料	铜	
输出形式	A 型	FUGP620
	C 型	1.85mm-50K
尺寸(mm) 宽 x 高 x 长	A 型, 波导输出	38x31x91.4
	C 型, 1.85mm-50K 输出	38x32.6x118.4
净重(Kg)	A 型, 波导输出	约 0.07
	C 型, 1.85mm-50K 输出	约 0.10

外形图 (尺寸: mm)

A 型(FUGP620 法兰输出)



英联微波

第 1 页 / 共 8 页

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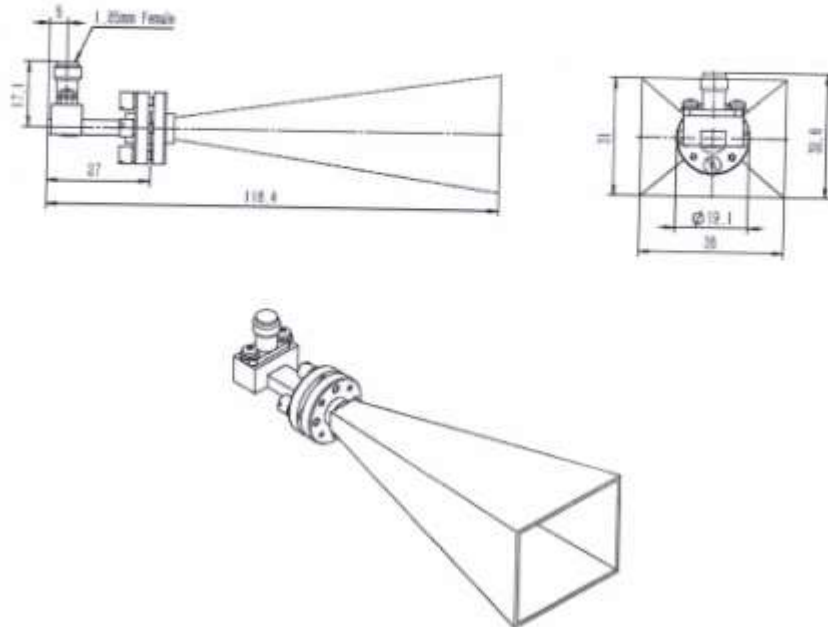
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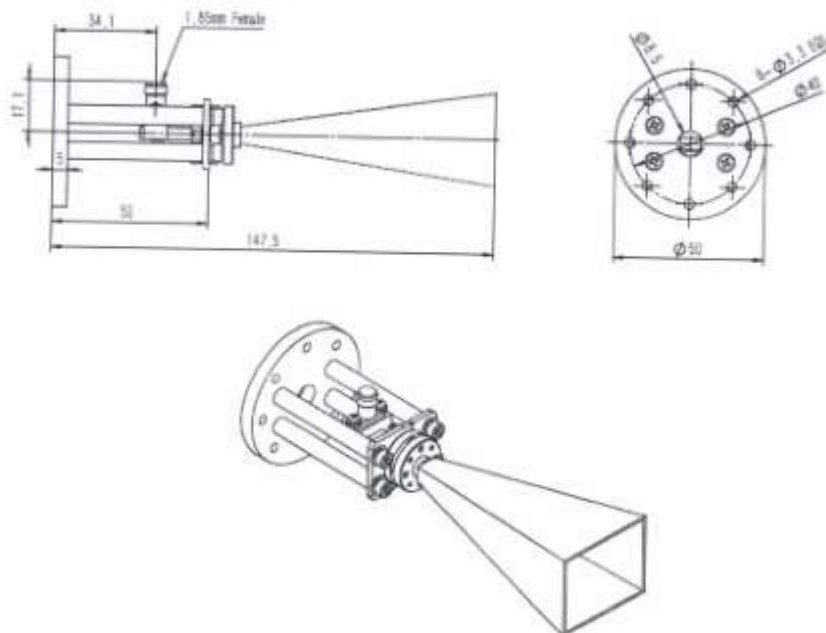
A-INFO 英联微波

LB-15-25
50.0 - 75.0GHz 标准增益喇叭天线

C 型(1.85mm-50K 输出)



C 型(1.85mm-50K 输出, 配圆形背夹)



英联微波

第 2 页 / 共 8 页

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传真: 028-8519-3068

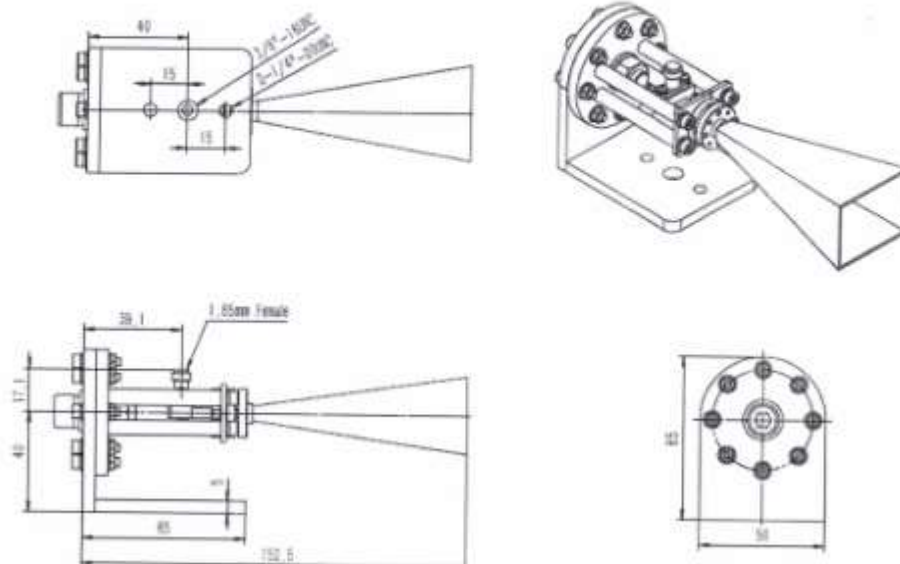
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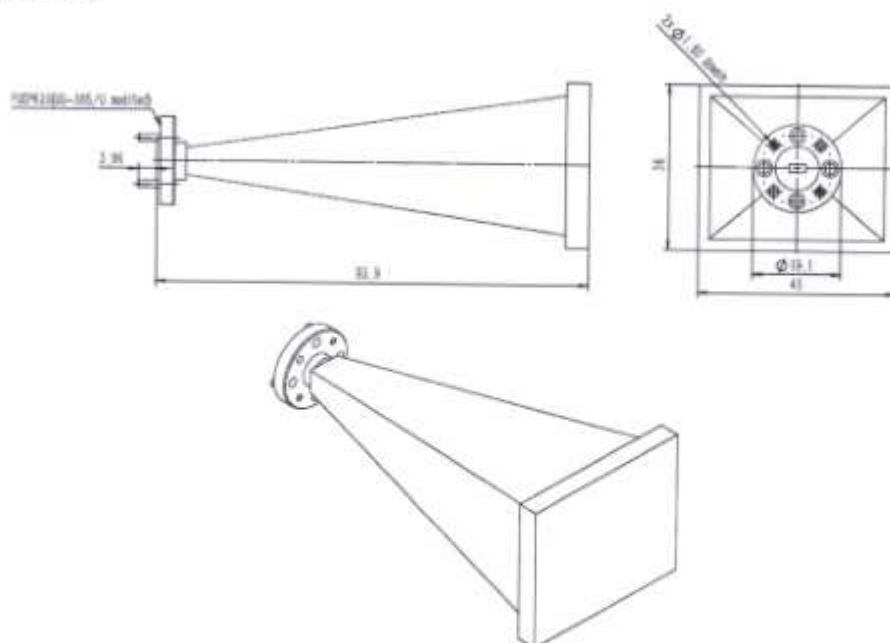
A-INFO 英联微波

LB-15-25
50.0 - 75.0GHz 标准增益喇叭天线

C 型(1.85mm-50K 輸出, 配 L 形背夾)



A 型(配天线罩)



英联微波

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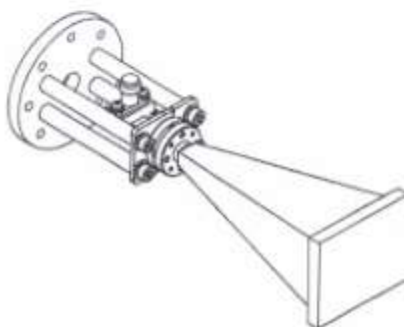
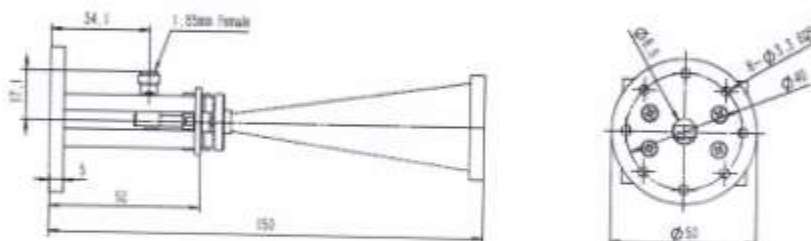
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测试报告仅供参考。详情请咨询: Sales@ainfoinc.com

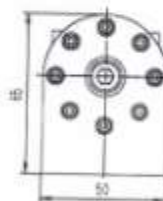
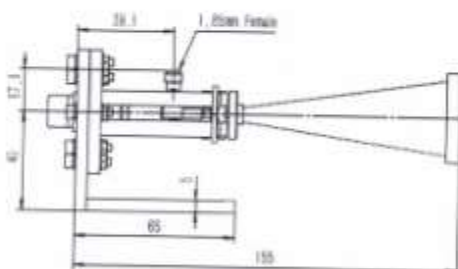
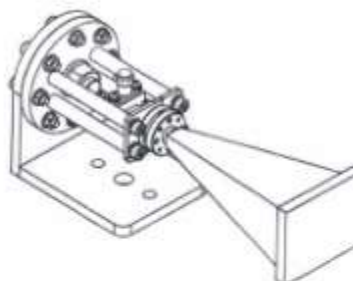
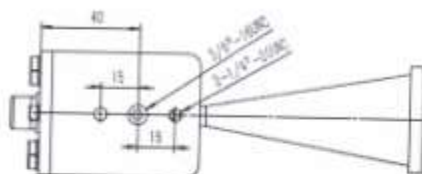
A-INFO 英联微波

LB-15-25
50.0 - 75.0GHz 标准增益喇叭天线

C 型(1.85mm-50K 输出, 配圆形背夹和天线罩)



C 型(1.85mm-50K 输出, 配 L 形背夹和天线罩)



英联微波

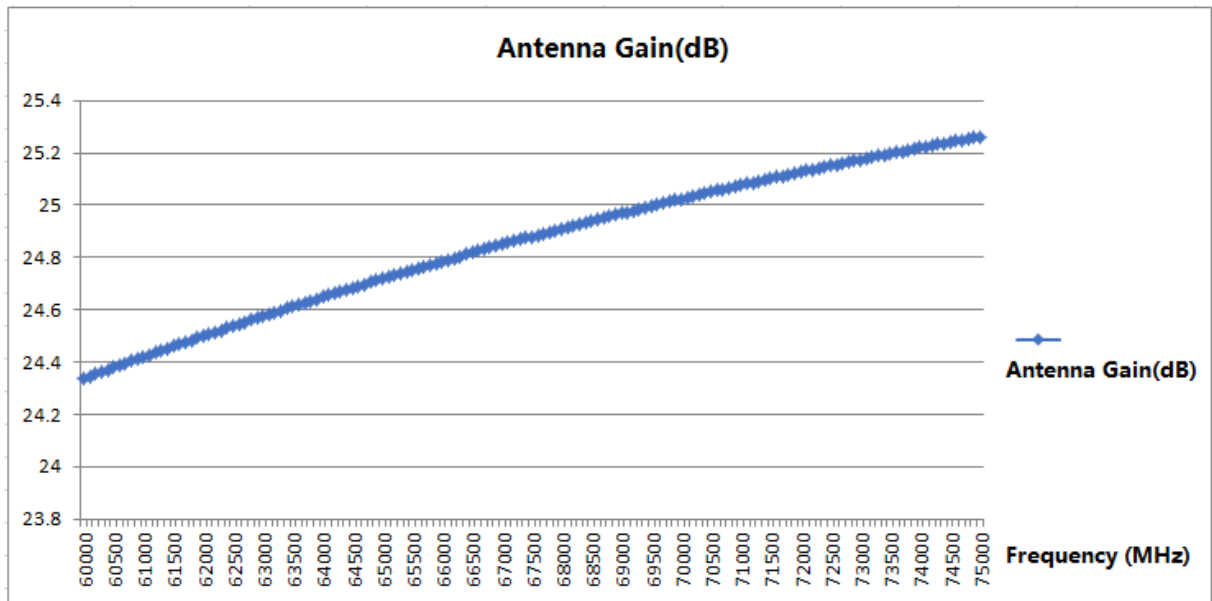
第 4 页 / 共 8 页

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Standard Gain Horn (60GHz-90GHz)	LB-12-25	J202062912	A-INFO	2022-02-17	1 year
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A-INFO 英联微波

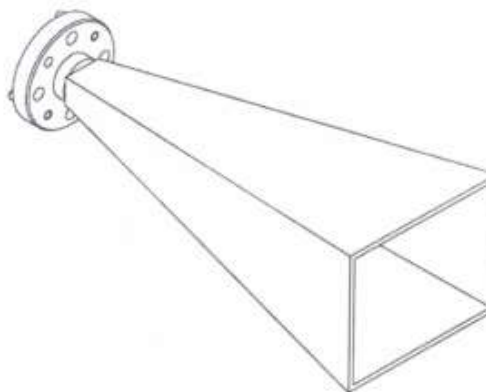
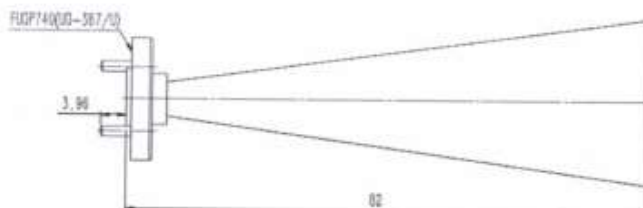
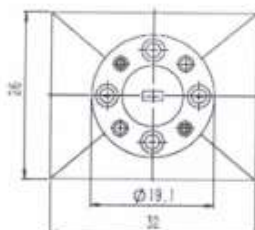
LB-12-25
60.0 - 90.0GHz 标准增益喇叭天线

技术指标



频率(GHz)	60.0 - 90.0
增益(dBi)	25 典型值
驻波	1.6 最大值
3dB 波束宽度(°)	10 典型值
波导型号	BJ740(WR12)
材料	铜
输出形式	A 型: FUGP740
尺寸(mm) 宽 x 高 x 长	A 型: 32x26x82
净重(Kg)	A 型: 约 0.05

外形图 (尺寸: mm)



英联微波

第 1 页 / 共 4 页

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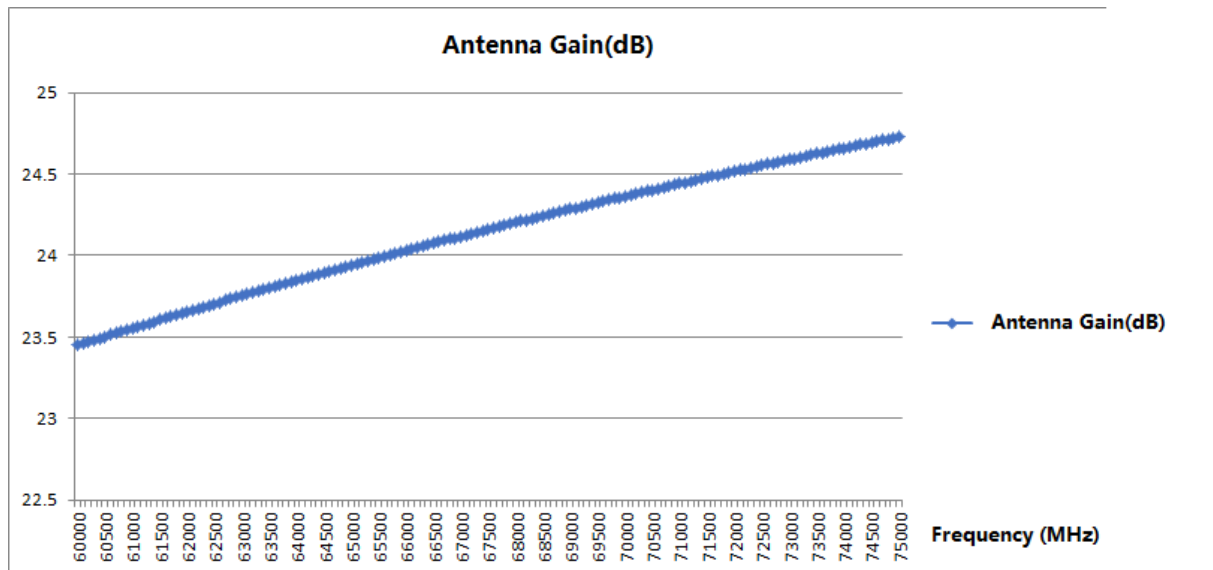
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Standard Gain Horn (75GHz-110GHz)	LB-10-25	J202023231	A-INFO	2022-01-27	1 year
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A-INFO 英联微波

LB-10-25
75.0 - 110.0GHz 标准增益喇叭天线

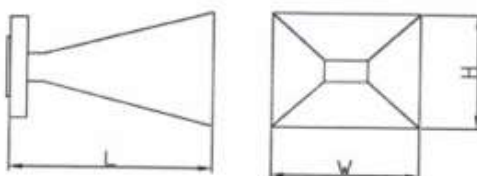
技术指标



频率(GHz)	75.0 - 110.0
增益(dB)	25 典型值
驻波	1.6 最大值
3dB 波束宽度(°)	10 典型值
波导型号	BJ900(WR10)
材料	铜
输出形式	A 型: FUGP900
尺寸(mm) 宽 x 高 x 长	A 型: 28x22x70
净重(Kg)	A 型: 约 0.05

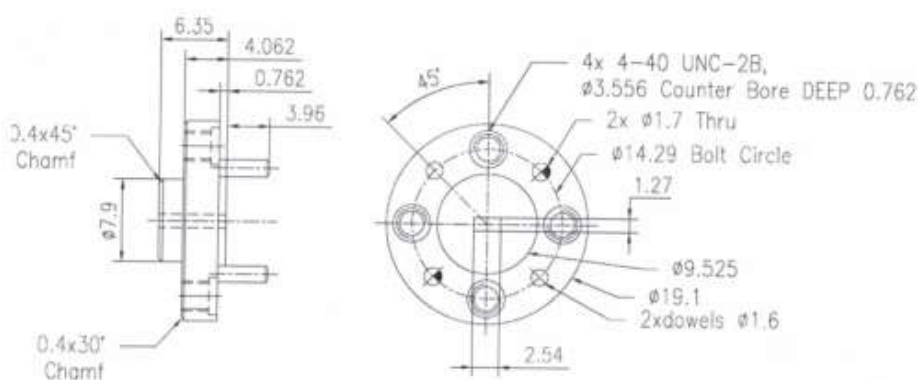
外形图 (尺寸: mm)

A 型



宽 x 高 x 长: 28x22x70

法兰外形图 (尺寸: mm)



FUGP900
(equivalent to UG-387/U modified)

英联微波

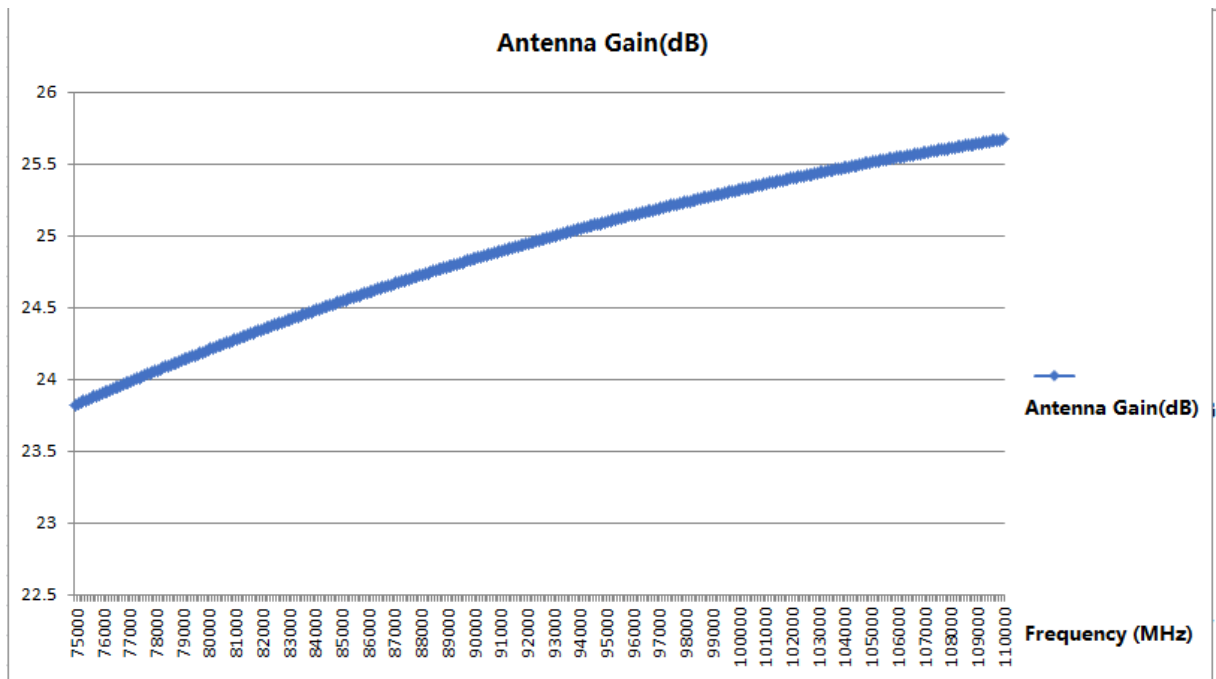
第 1 页 / 共 6 页

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Standard Gain Horn (75GHz-110GHz)	LB-10-25	J202023232	A-INFO	2022-01-27	1 year
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A-INFO 英联微波

LB-10-25
75.0 - 110.0GHz 标准增益喇叭天线

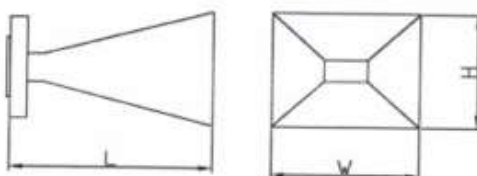
技术指标



频率(GHz)	75.0 - 110.0
增益(dB)	25 典型值
驻波	1.6 最大值
3dB 波束宽度(°)	10 典型值
波导型号	BJ900(WR10)
材料	铜
输出形式	A 型: FUGP900
尺寸(mm) 宽 x 高 x 长	A 型: 28x22x70
净重(Kg)	A 型: 约 0.05

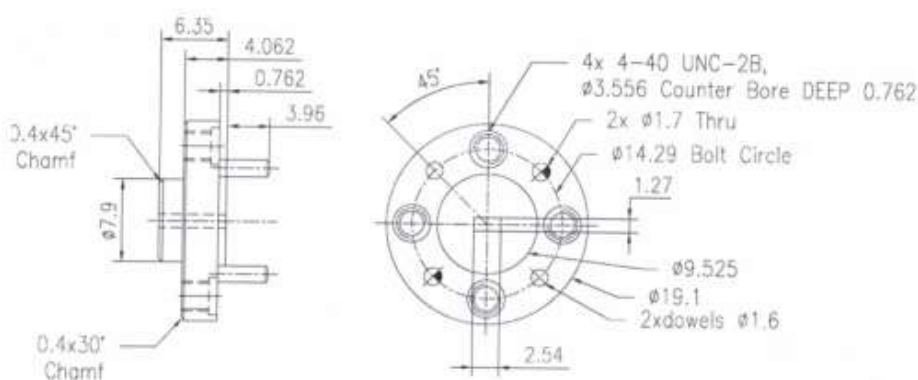
外形图 (尺寸: mm)

A 型



宽 x 高 x 长: 28x22x70

法兰外形图 (尺寸: mm)



FUGP900
(equivalent to UG-387/U modified)

英联微波

第 1 页 / 共 6 页

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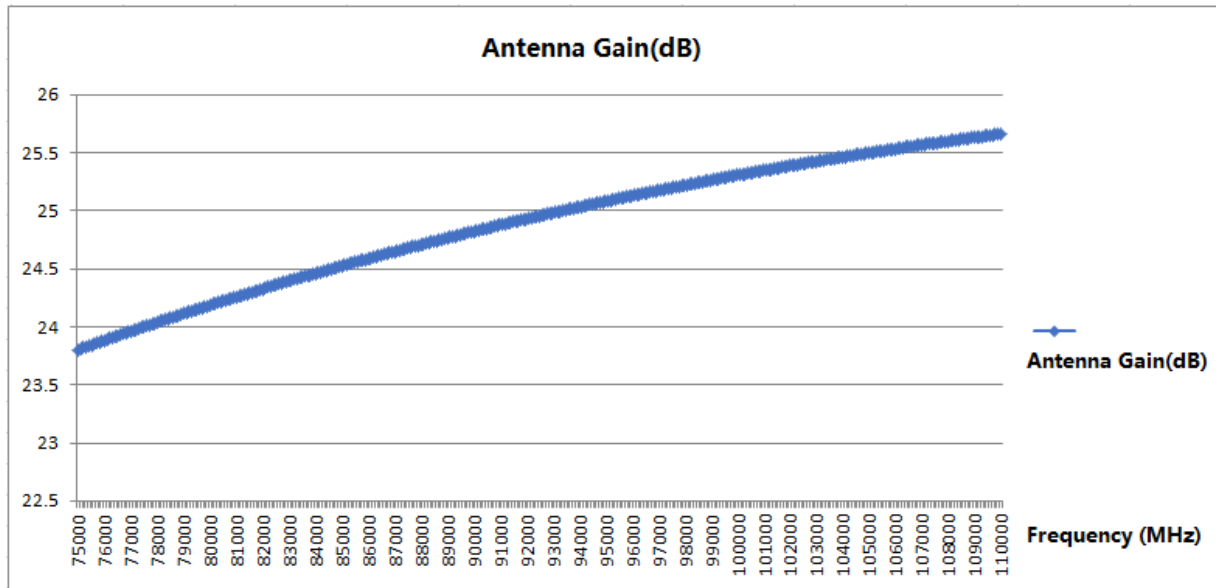
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传真: 028-8519-3068

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