

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 4

RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1710.7	19957	1.4	1	0	23.3
				1	3	23.3
				1	5	23.2
				3	0	23.3
				3	1	23.3
				3	3	23.3
	6	0		22.2		
	1732.5	20175		1	0	22.9
				1	3	23.0
				1	5	23.0
				3	0	23.0
				3	1	23.0
				3	3	23.0
	6	0		21.9		
	1754.3	20393		1	0	23.0
				1	3	23.0
				1	5	23.0
				3	0	23.0
3			1	22.9		
3			3	22.9		
16QAM	1710.7	19957	6	0	21.8	
			1	0	23.1	
			1	3	23.0	
			1	5	23.1	
			3	0	22.4	
			3	1	22.3	
	3	3	22.3			
	1732.5	20175	6	0	21.3	
			1	0	22.2	
			1	3	22.8	
			1	5	22.7	
			3	0	21.9	
			3	1	21.8	
	3	3	21.9			
	1754.3	20393	6	0	21.3	
			1	0	21.7	
			1	3	22.0	
			1	5	22.0	
3			0	21.9		
3			1	21.7		
3	3	21.7				
6	0	21.1				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	1710.7	19957	1.4	1	0	21.4
				1	3	21.3
				1	5	21.4
				3	0	21.4
				3	1	21.4
				3	3	21.4
	6	0		21.4		
	1732.5	20175		1	0	21.2
				1	3	21.0
				1	5	21.0
				3	0	21.1
				3	1	21.0
				3	3	21.3
	6	0		21.3		
	1754.3	20393		1	0	21.2
				1	3	21.2
				1	5	21.2
				3	0	21.2
				3	1	21.2
				3	3	21.2
				6	0	21.2

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1711.5	19965	3	1	0	23.2
				1	8	23.2
				1	14	23.1
				8	0	22.3
				8	4	22.1
				8	7	22.1
	15	0		22.2		
	1732.5	20175		1	0	22.9
				1	8	23.0
				1	14	22.9
				8	0	21.9
				8	4	22.0
				8	7	22.0
	15	0		21.9		
	1753.5	20385		1	0	22.9
1			8	23.0		
1			14	22.9		
8			0	21.8		
8			4	21.9		
8			7	21.9		
15	0	21.9				
16QAM	1711.5	19965	1	0	22.5	
			1	8	22.6	
			1	14	22.6	
			8	0	21.7	
			8	4	21.5	
			8	7	21.6	
	15	0	21.4			
	1732.5	20175	1	0	22.7	
			1	8	22.6	
			1	14	22.8	
			8	0	20.9	
			8	4	20.8	
			8	7	21.0	
	15	0	20.9			
	1753.5	20385	1	0	21.7	
1			8	21.7		
1			14	22.0		
8			0	21.2		
8			4	21.1		
8			7	21.1		
15	0	20.9				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	1711.5	19965	3	1	0	21.4
				1	8	21.5
				1	14	21.5
				8	0	21.4
				8	4	21.4
				8	7	21.4
	1732.5	20175		15	0	21.4
				1	0	21.2
				1	8	21.0
				1	14	21.2
				8	0	21.0
				8	4	21.2
	1753.5	20385		8	7	21.2
				15	0	21.2
				1	0	20.9
				1	8	21.1
				1	14	20.9
				8	0	21.1
			8	4	21.1	
			8	7	21.1	
			15	0	20.9	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1712.5	19975	5	1	0	23.2
				1	12	23.0
				1	24	23.0
				12	0	22.3
				12	7	22.2
				12	13	22.2
	25	0		22.1		
	1732.5	20175		1	0	23.1
				1	12	23.0
				1	24	23.0
				12	0	22.0
				12	7	22.0
				12	13	22.0
	25	0		21.9		
	1752.5	20375		1	0	22.6
1			12	22.7		
1			24	22.6		
12			0	21.8		
12			7	21.8		
12			13	21.8		
25	0	21.9				
16QAM	1712.5	19975	1	0	21.5	
			1	12	21.3	
			1	24	21.4	
			12	0	21.4	
			12	7	21.2	
			12	13	21.3	
	25	0	21.3			
	1732.5	20175	1	0	22.2	
			1	12	21.9	
			1	24	21.9	
			12	0	20.9	
			12	7	21.0	
			12	13	21.0	
	25	0	21.0			
	1752.5	20375	1	0	21.9	
1			12	21.9		
1			24	21.9		
12			0	20.9		
12			7	21.0		
12			13	20.9		
25	0	21.0				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	1712.5	19975	5	1	0	21.3
				1	12	21.3
				1	24	21.3
				12	0	21.3
				12	7	21.3
				12	13	21.3
	1732.5	20175		25	0	21.3
				1	0	21.0
				1	12	21.0
				1	24	21.0
				12	0	21.0
				12	7	21.2
	1752.5	20375		12	13	21.2
				25	0	21.3
				1	0	21.0
				1	12	20.8
				1	24	20.8
				12	0	20.8
			12	7	20.8	
			12	13	20.8	
			25	0	20.8	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1715	20000	10	1	0	23.2
				1	25	23.0
				1	49	23.0
				25	0	22.2
				25	12	22.1
				25	25	22.1
	1732.5	20175		50	0	22.1
				1	0	23.0
				1	25	23.0
				1	49	23.0
				25	0	21.9
				25	12	21.8
	1750	20350		25	25	21.8
				50	0	22.0
				1	0	22.9
1			25	23.0		
1			49	23.0		
25			0	21.9		
16QAM	1715	20000	25	12	21.8	
			25	25	21.8	
			50	0	21.8	
			1	0	22.6	
			1	25	22.3	
			1	49	22.6	
	1732.5	20175	25	0	21.3	
			25	12	21.2	
			25	25	21.3	
			50	0	21.2	
			1	0	22.8	
			1	25	22.7	
	1750	20350	1	49	22.8	
			25	0	21.3	
			25	12	21.0	
25			25	21.1		
50			0	21.2		
1			0	21.7		
			1	25	21.6	
			1	49	21.6	
			25	0	21.0	
			25	12	21.0	
			25	25	21.1	
			50	0	21.0	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	1715	20000	10	1	0	21.2
				1	25	21.2
				1	49	21.2
				25	0	21.2
				25	12	21.2
				25	25	21.2
	1732.5	20175		50	0	21.2
				1	0	21.1
				1	25	21.2
				1	49	21.1
				25	0	21.2
				25	12	21.1
	1750	20350		25	25	21.2
				50	0	21.2
				1	0	21.0
				1	25	21.0
				1	49	21.0
				25	0	21.0
			25	12	21.0	
			25	25	21.0	
			50	0	21.0	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1717.5	20025	15	1	0	23.2
				1	37	22.9
				1	74	23.0
				36	0	22.1
				36	29	22.1
				36	30	22.1
	1732.5	20175		75	0	22.1
				1	0	23.1
				1	37	22.9
				1	74	22.9
				36	0	21.9
				36	29	21.8
	1747.5	20325		36	30	21.8
				75	0	22.0
				1	0	23.0
1			37	22.9		
1			74	22.9		
36			0	22.0		
16QAM	1717.5	20025	36	29	21.9	
			36	30	21.9	
			75	0	21.9	
			1	0	22.7	
			1	37	22.3	
			1	74	22.3	
	1732.5	20175	36	0	21.2	
			36	29	21.1	
			36	30	21.1	
			75	0	21.1	
			1	0	22.8	
			1	37	22.8	
	1747.5	20325	1	74	22.7	
			36	0	21.0	
			36	29	21.0	
36			30	21.1		
75			0	21.1		
1			0	22.4		
			1	37	22.4	
			1	74	22.4	
			36	0	21.1	
			36	29	21.0	
			36	30	21.0	
			75	0	20.9	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	1717.5	20025	15	1	0	21.1
				1	37	21.1
				1	74	21.1
				36	0	21.1
				36	29	21.4
				36	30	21.4
	1732.5	20175		75	0	21.3
				1	0	21.1
				1	37	21.1
				1	74	21.1
				36	0	21.1
				36	29	21.1
	1747.5	20325		36	30	21.1
				75	0	21.1
				1	0	20.9
				1	37	20.9
				1	74	20.9
				36	0	20.9
			36	29	21.0	
			36	30	21.0	
			75	0	20.9	

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	1720	20050	20	1	0	23.4
				1	49	23.0
				1	99	23.0
				50	0	22.0
				50	24	21.9
				50	50	21.9
	100	0		22.1		
	1732.5	20175		1	0	23.3
				1	49	23.1
				1	99	23.1
				50	0	22.1
				50	24	22.0
				50	50	22.0
	1745	20300		100	0	22.0
				1	0	23.1
				1	49	23.0
				1	99	23.0
				50	0	21.8
50			24	21.9		
16QAM	1720	20050	50	50	21.9	
			100	0	21.9	
			1	0	22.5	
			1	49	22.2	
			1	99	22.2	
			50	0	21.3	
	1732.5	20175	50	24	21.2	
			50	50	21.1	
			100	0	21.2	
			1	0	22.6	
			1	49	22.3	
			1	99	22.4	
	1745	20300	50	0	21.1	
			50	24	21.0	
			50	50	21.0	
			100	0	21.1	
			1	0	22.5	
			1	49	22.8	
1	99	22.8				
50	0	21.0				
50	24	21.0				
50	50	21.0				
100	0	21.1				

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
64QAM	1720	20050	20	1	0	21.1
				1	49	21.1
				1	99	21.2
				50	0	21.2
				50	24	21.2
				50	50	21.2
	100	0		21.2		
	1732.5	20175		1	0	21.1
				1	49	21.1
				1	99	21.1
				50	0	21.1
				50	24	21.1
				50	50	21.1
	100	0		21.1		
	1745	20300		1	0	21.1
				1	49	21.1
				1	99	21.1
				50	0	21.1
50			24	21.1		
50			50	21.1		
100	0	21.1				

Occupied Bandwidth
Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)					
						QPSK		16-QAM		64-QAM	
4	1710.7	19957	1.4	6	0	1.088	Fig.1	1.094	Fig.2	1.100	Fig.3
	1732.5	20175		6	0	1.094	Fig.4	1.088	Fig.5	1.094	Fig.6
	1754.3	20393		6	0	1.094	Fig.7	1.088	Fig.8	1.094	Fig.9
	1711.5	19965	3	15	0	2.735	Fig.10	2.748	Fig.11	2.748	Fig.12
	1732.5	20175		15	0	2.735	Fig.13	2.735	Fig.14	2.761	Fig.15
	1753.5	20385		15	0	2.761	Fig.16	2.735	Fig.17	2.748	Fig.18
	1712.5	19975	5	25	0	4.515	Fig.19	4.493	Fig.20	4.515	Fig.21
	1732.5	20175		25	0	4.515	Fig.22	4.515	Fig.23	4.515	Fig.24
	1752.5	20375		25	0	4.515	Fig.25	4.515	Fig.26	4.493	Fig.27
	1715	20000	10	50	0	9.030	Fig.28	9.030	Fig.29	9.074	Fig.30
	1732.5	20175		50	0	9.030	Fig.31	9.030	Fig.32	9.030	Fig.33
	1750	20350		50	0	9.074	Fig.34	9.030	Fig.35	9.030	Fig.36
	1717.5	20025	15	75	0	13.480	Fig.37	13.480	Fig.38	13.480	Fig.39
	1732.5	20175		75	0	13.480	Fig.40	13.480	Fig.41	13.480	Fig.42
	1747.5	20325		75	0	13.415	Fig.43	13.480	Fig.44	13.480	Fig.45
	1720	20050	20	100	0	17.974	Fig.46	17.887	Fig.47	17.887	Fig.48
1732.5	20175	100		0	17.974	Fig.49	17.887	Fig.50	17.974	Fig.51	
1745	20300	100		0	17.974	Fig.52	17.887	Fig.53	17.974	Fig.54	

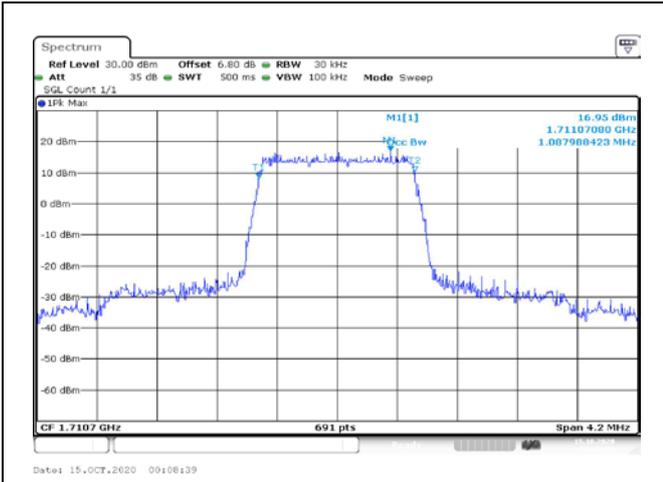


Fig.1

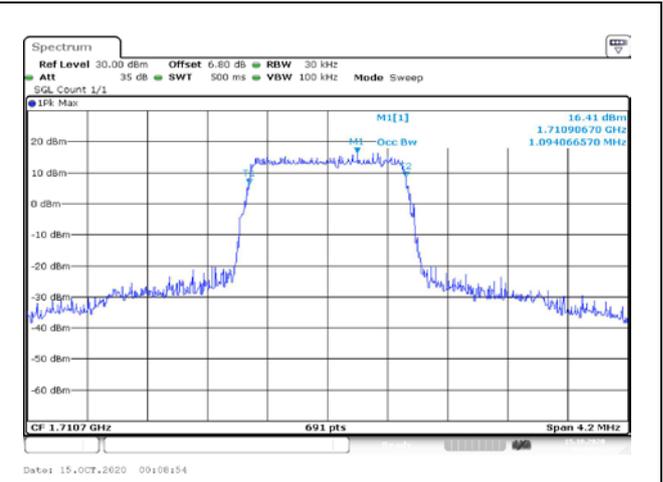


Fig.2

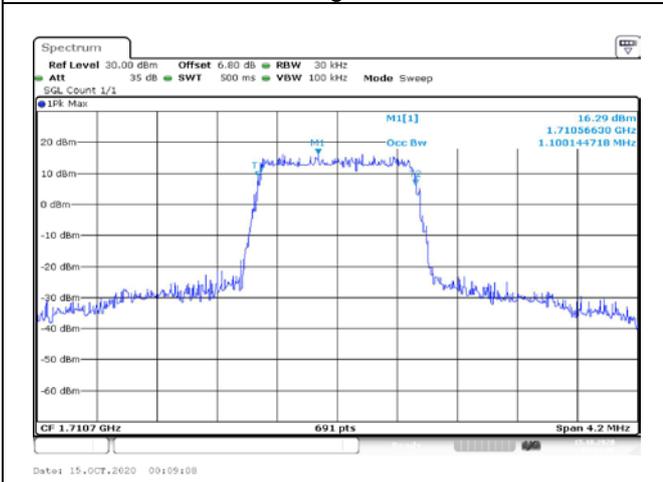


Fig.3

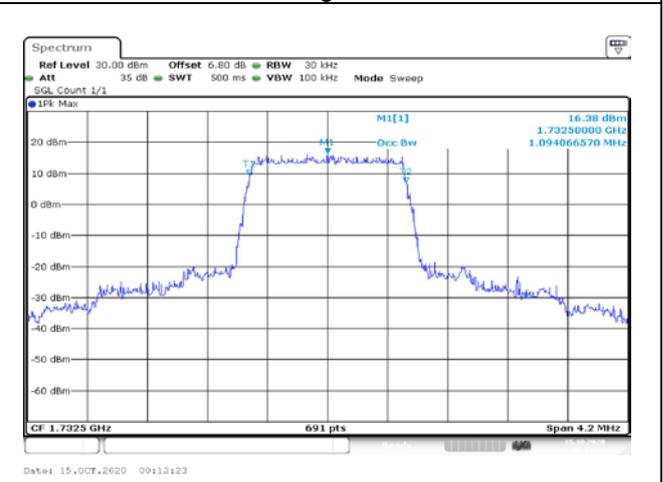


Fig.4

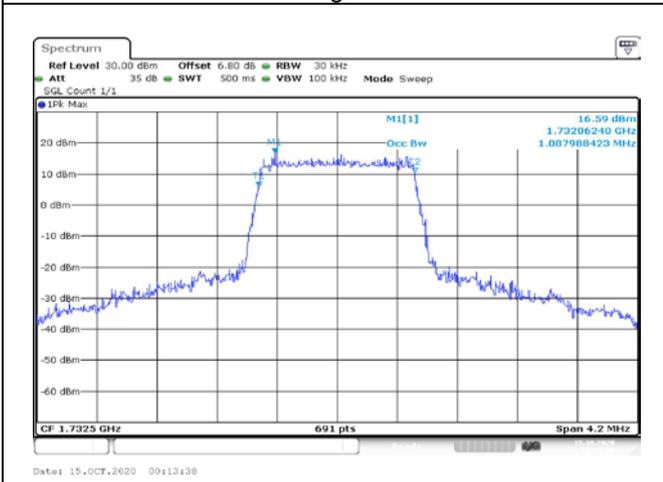


Fig.5

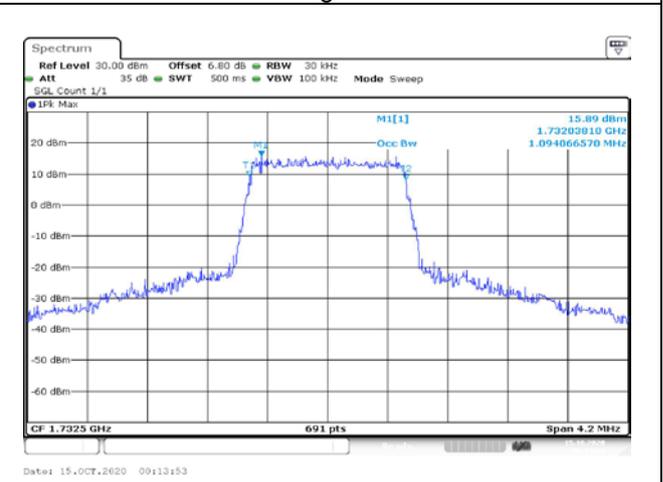


Fig.6

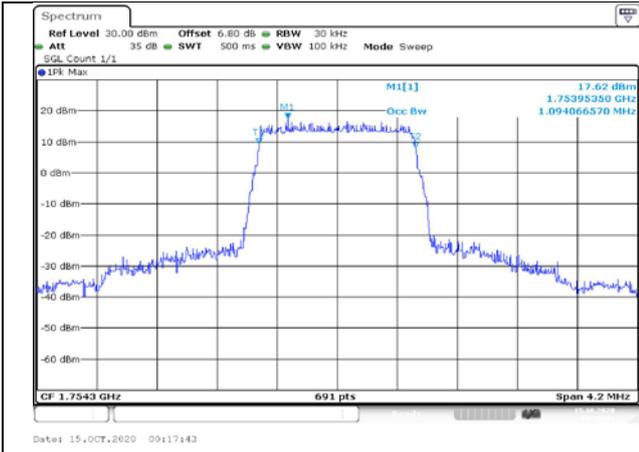


Fig.7

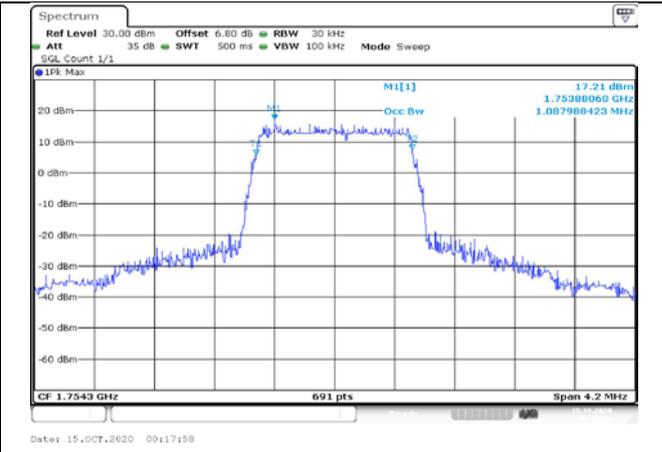


Fig.8

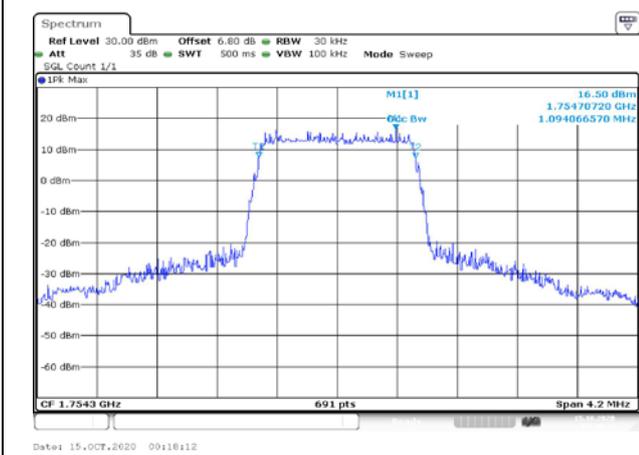


Fig.9

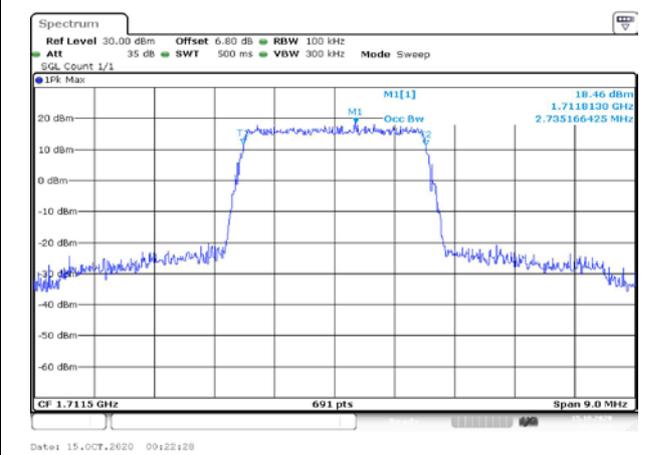


Fig.10

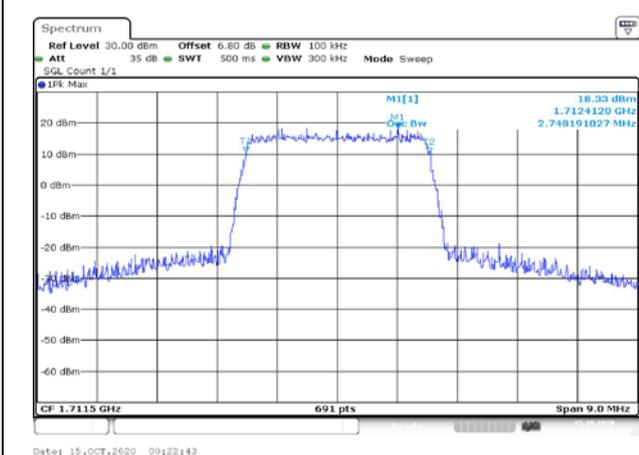


Fig.11

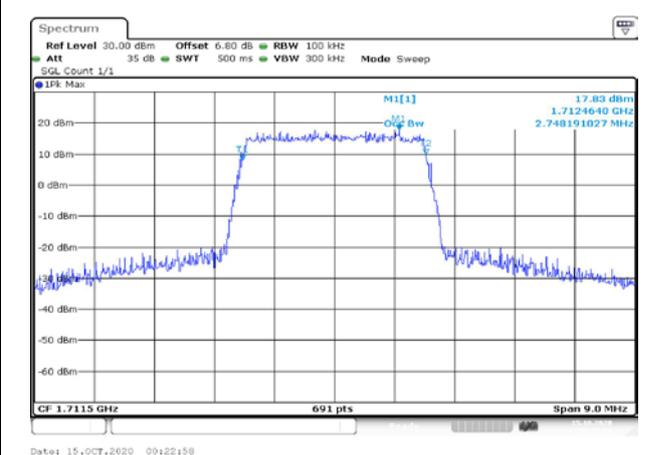


Fig.12

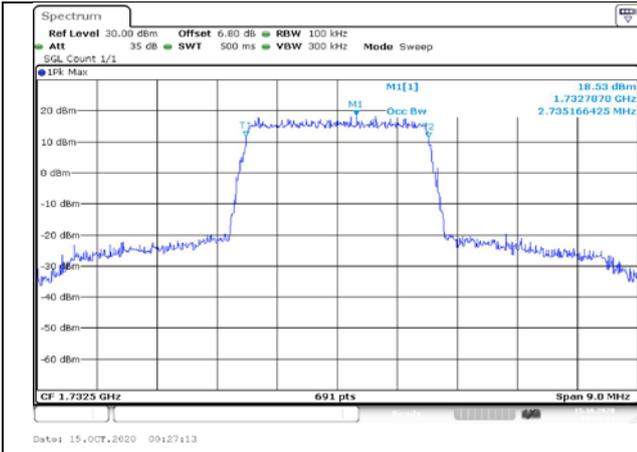


Fig.13

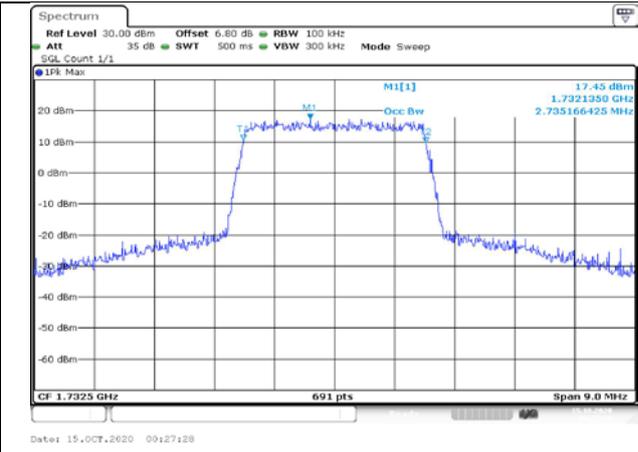


Fig.14

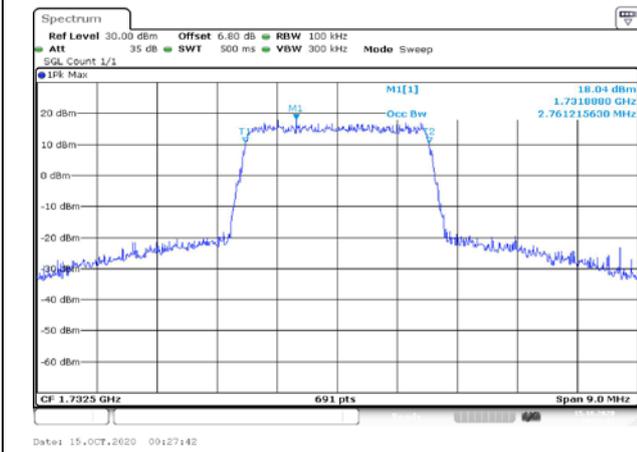


Fig.15

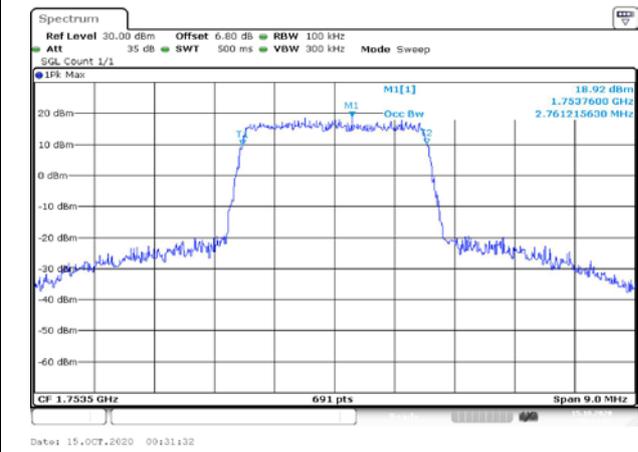


Fig.16

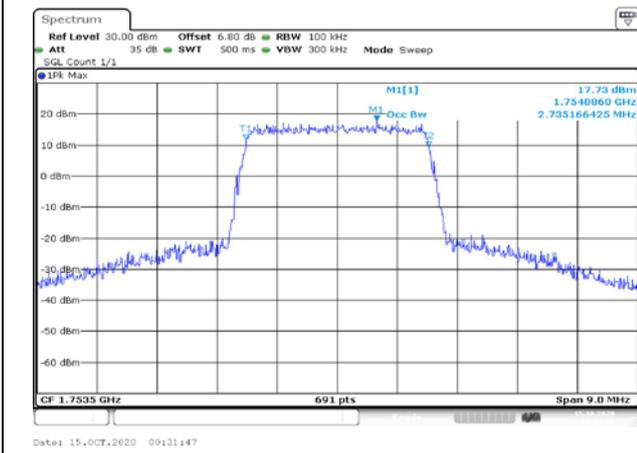


Fig.17

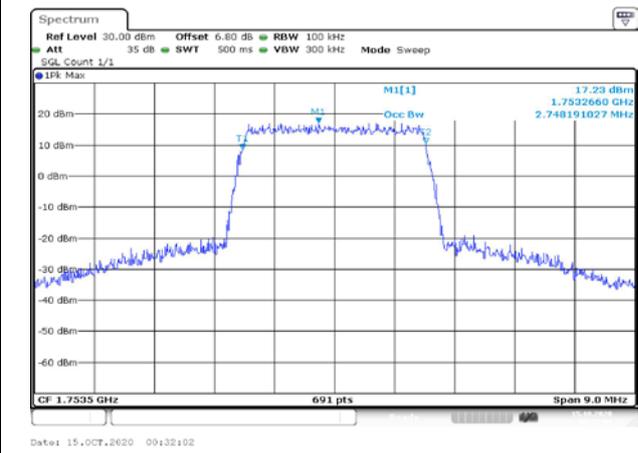


Fig.18

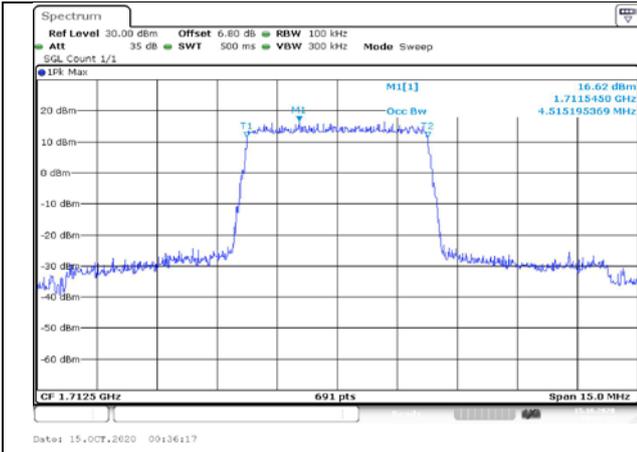


Fig.19

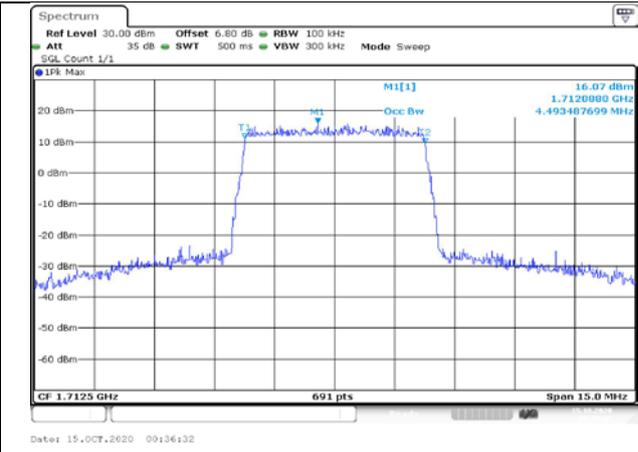


Fig.20

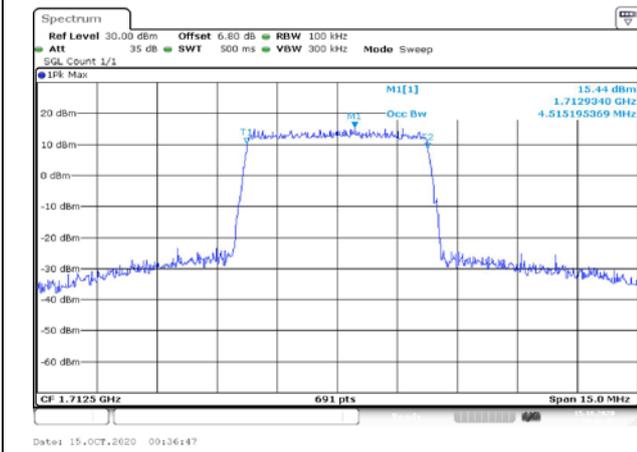


Fig.21

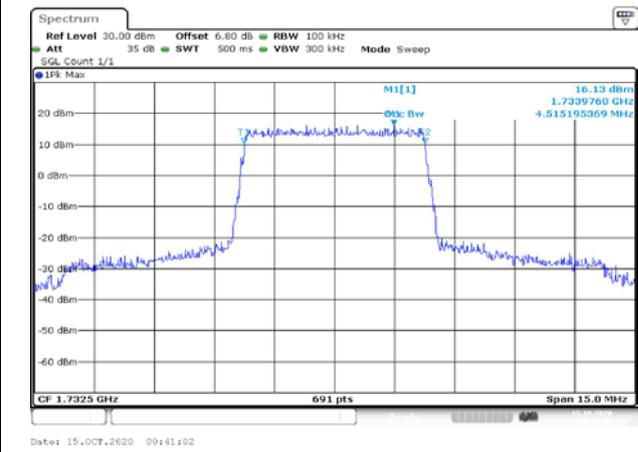


Fig.22

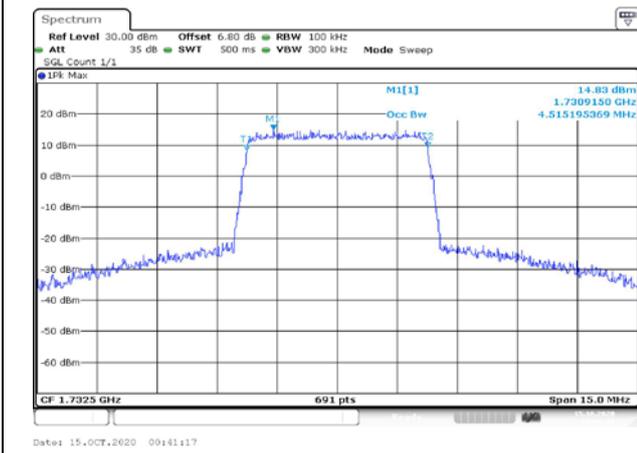


Fig.23

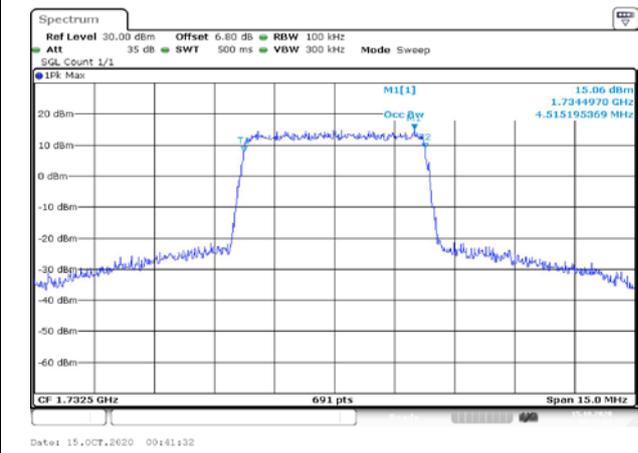


Fig.24

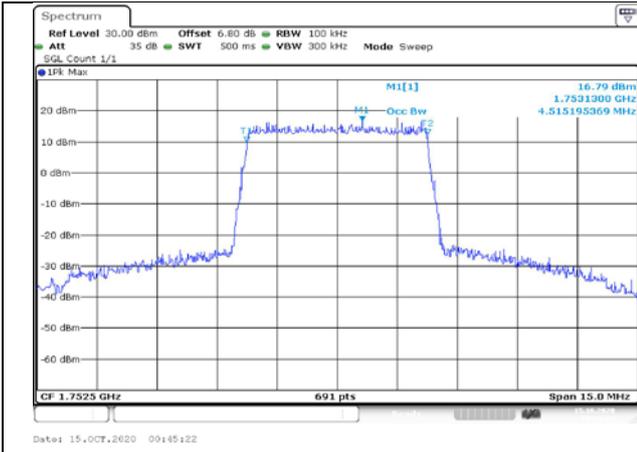


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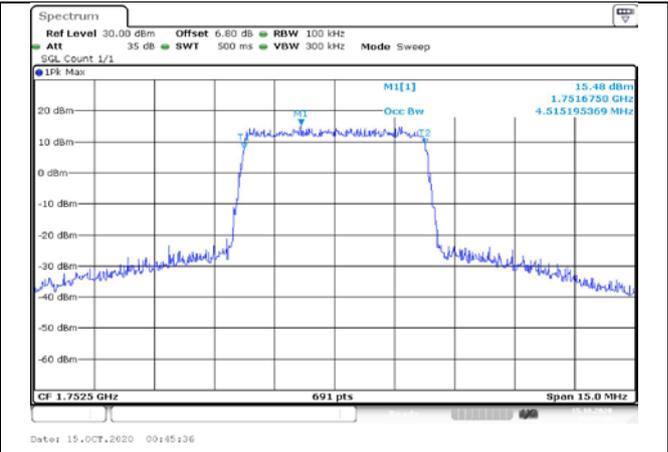


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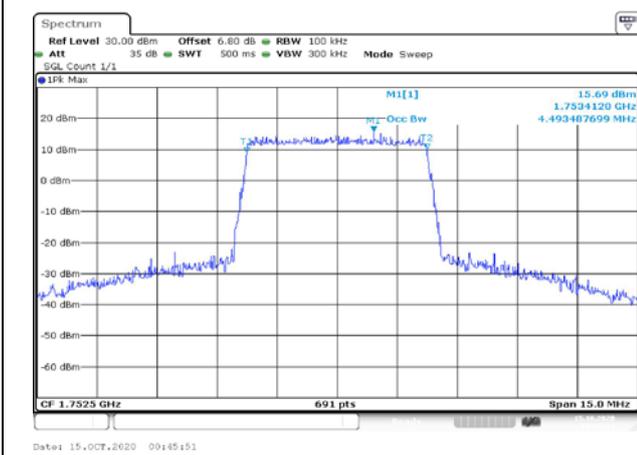


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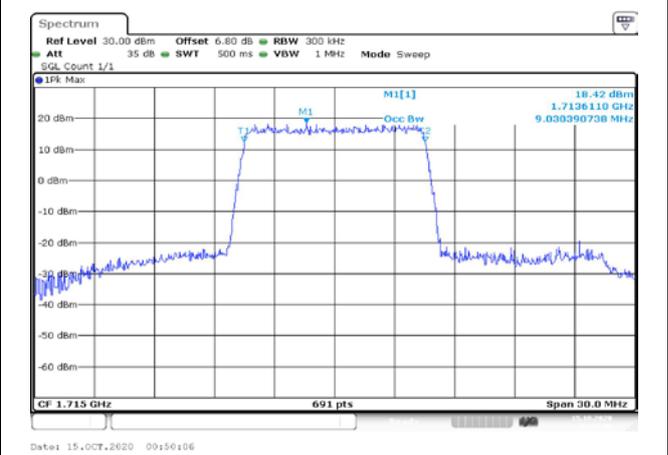


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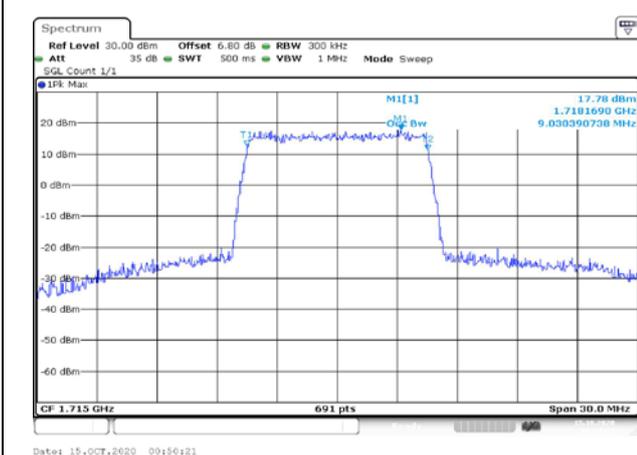


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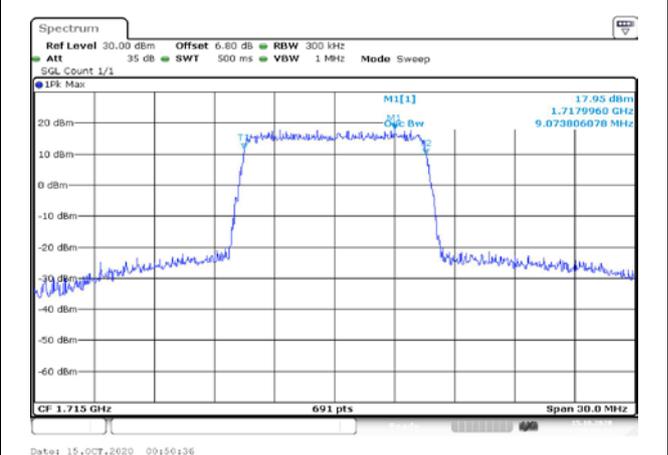


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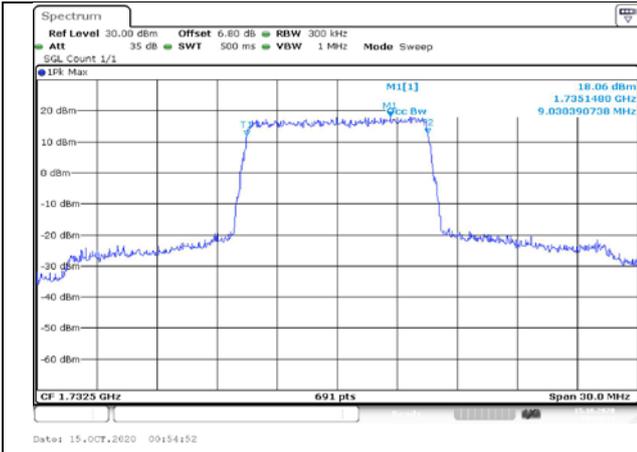


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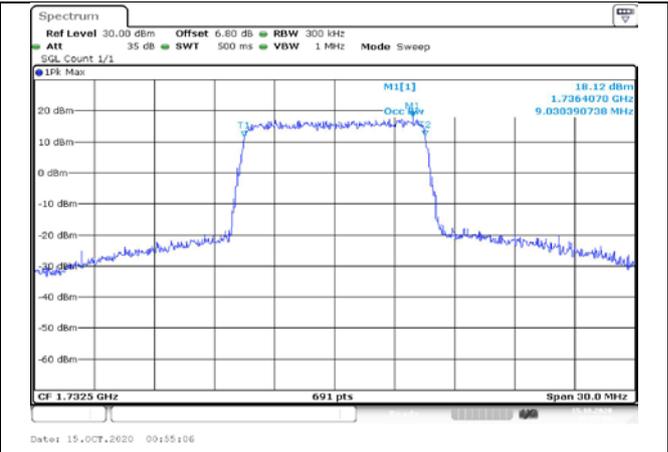


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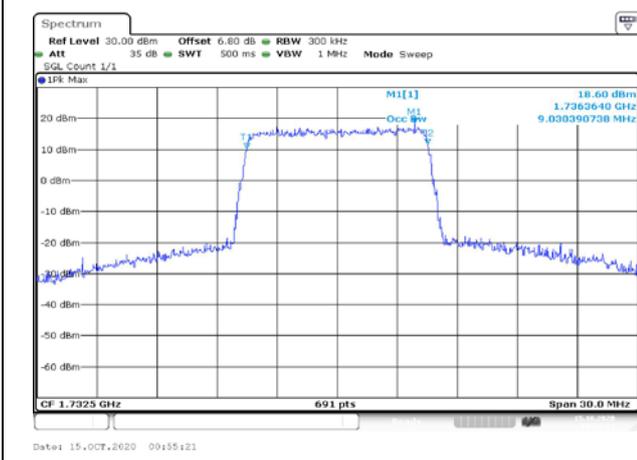


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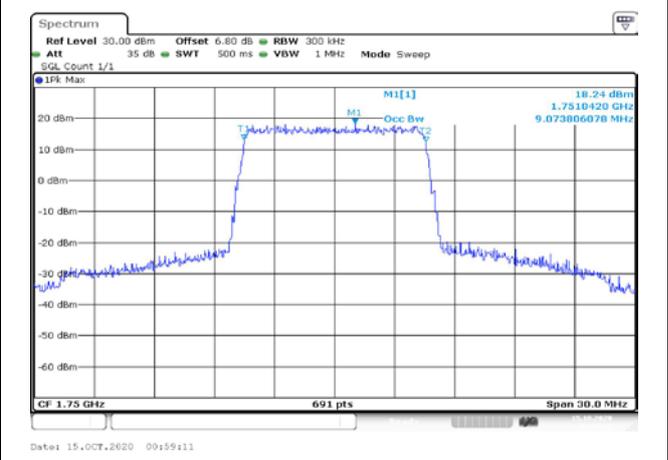


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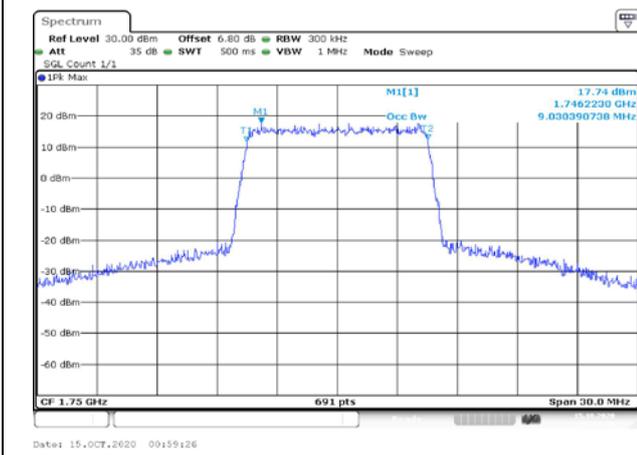


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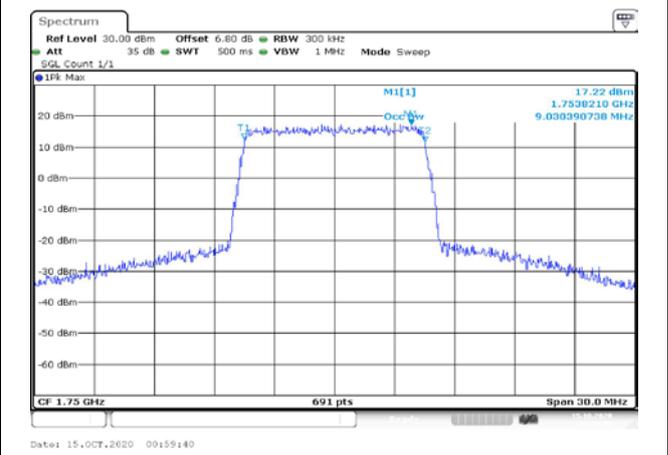


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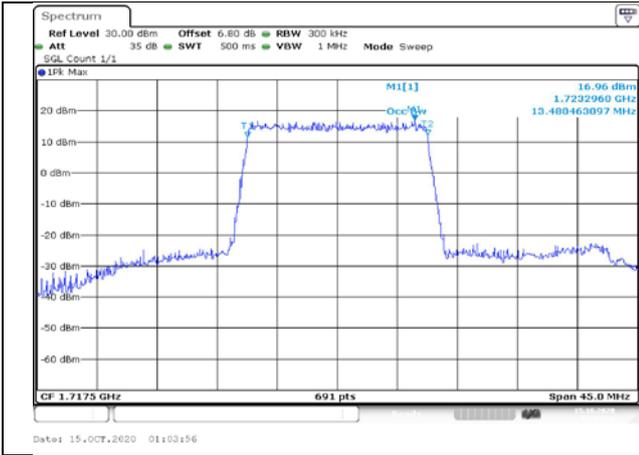


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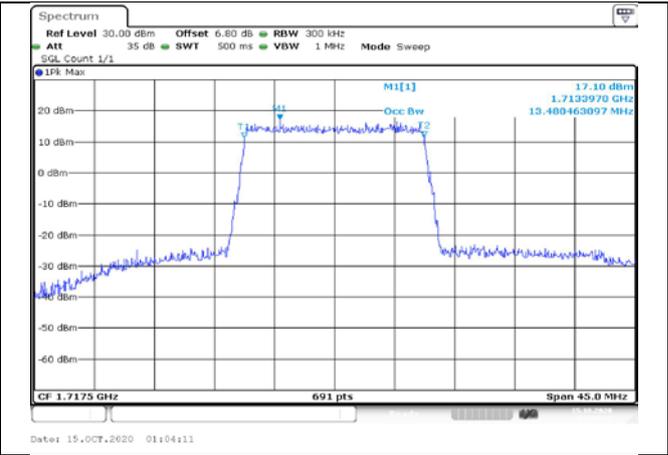


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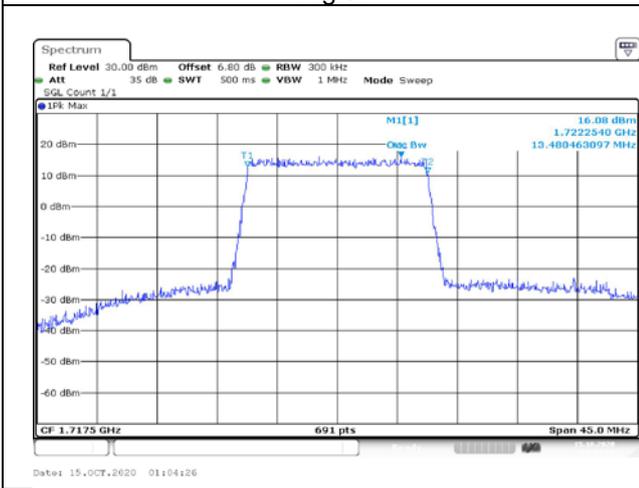


Fig.39

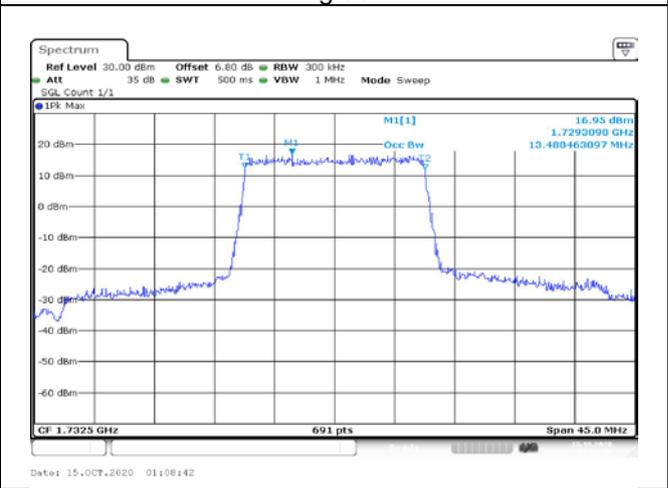


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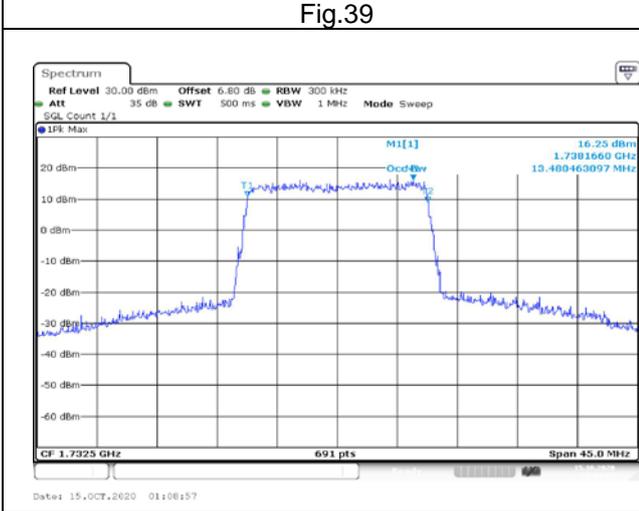


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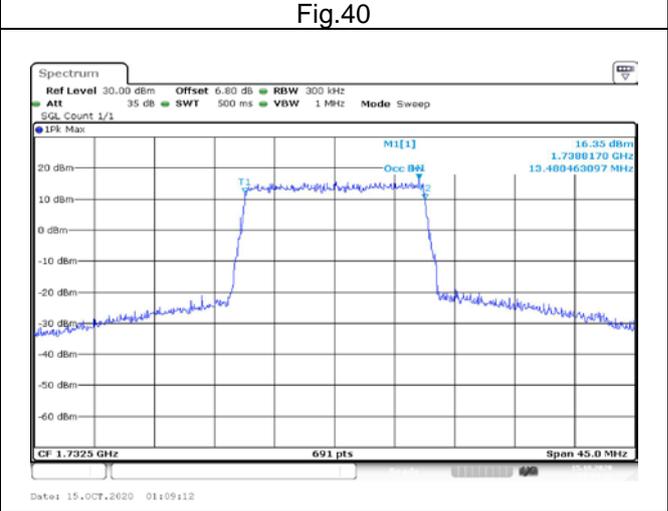


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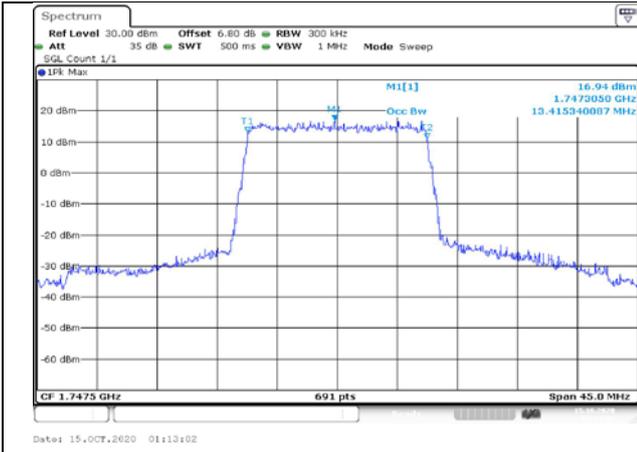


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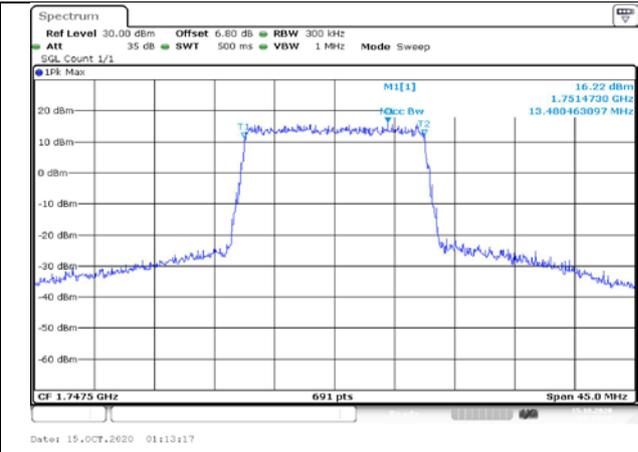


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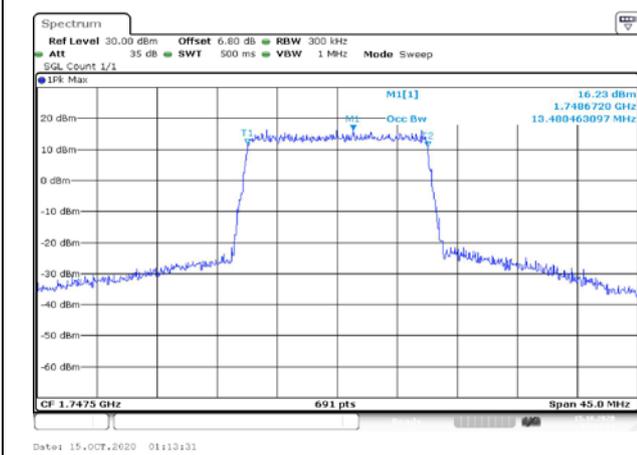


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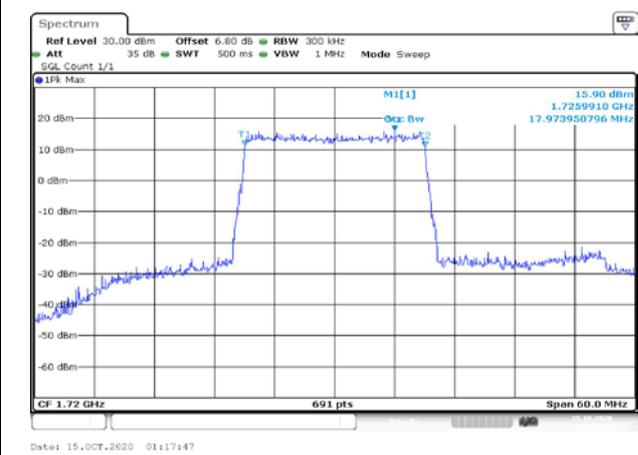


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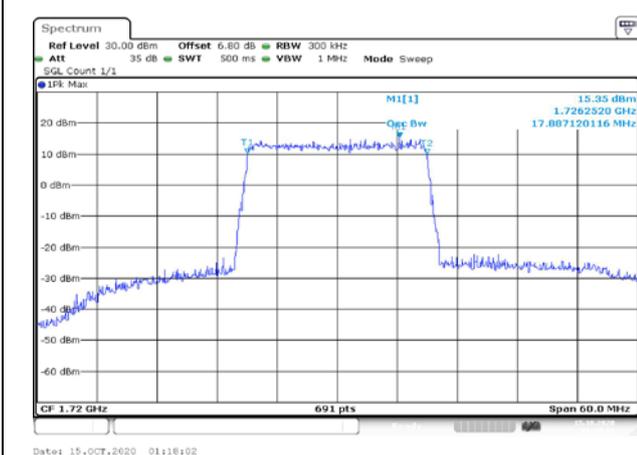


Fig.47

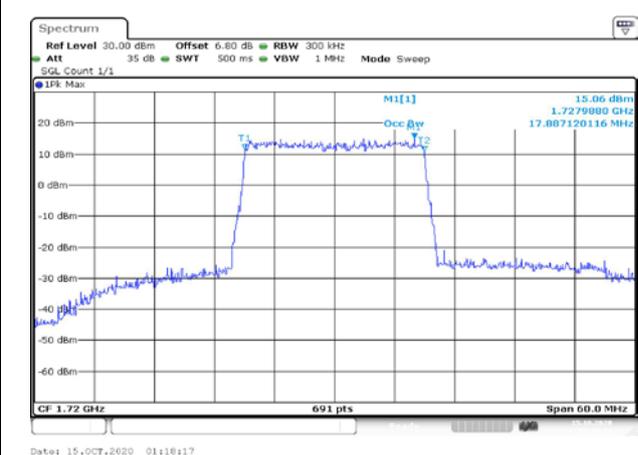
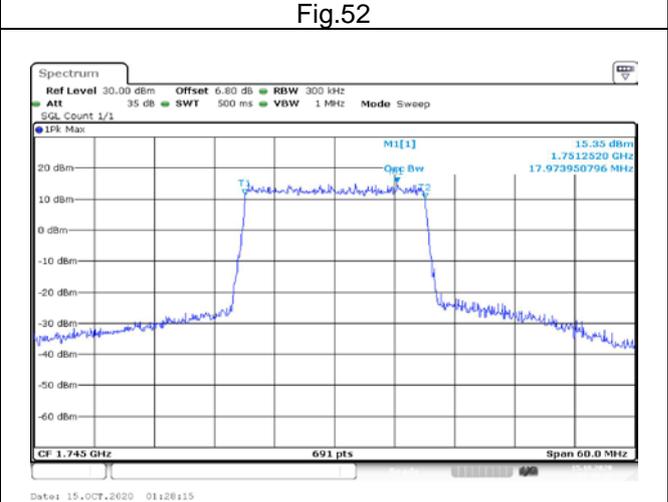
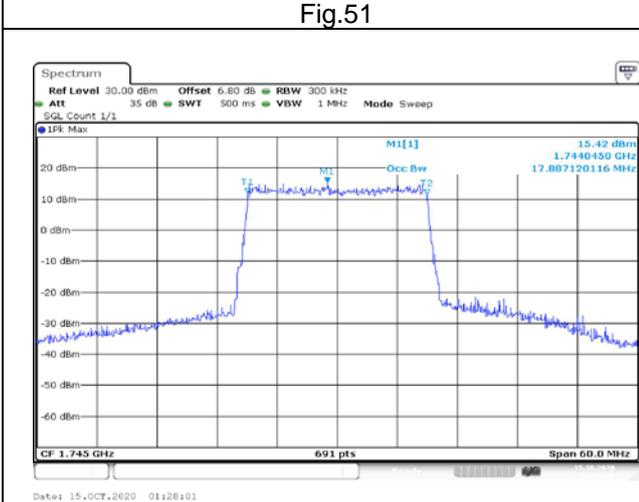
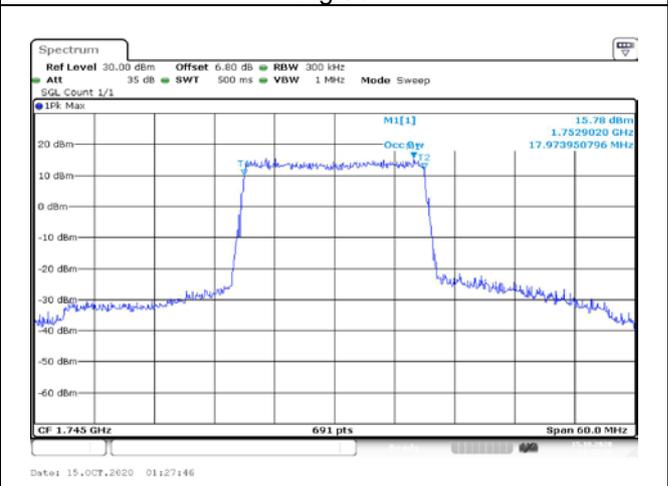
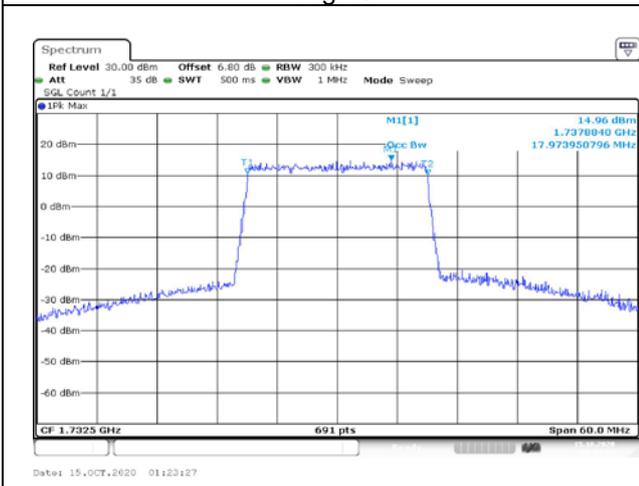
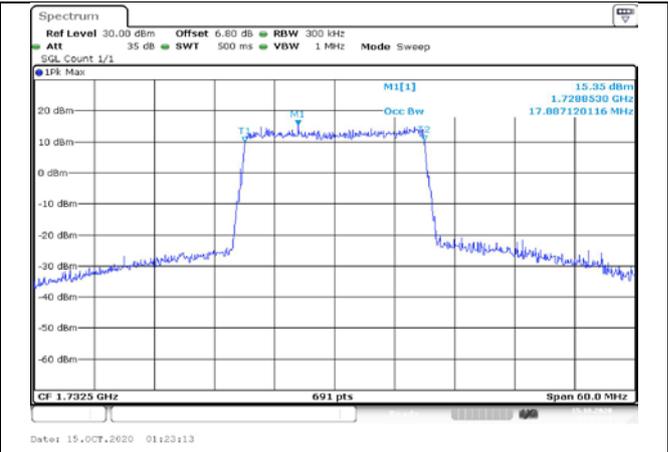
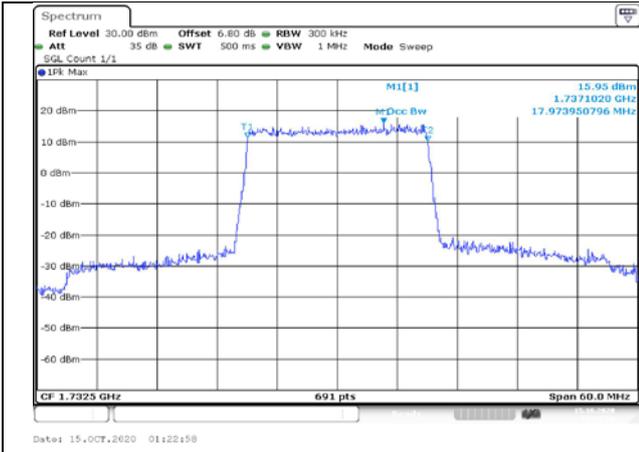


Fig.48



Emission Bandwidth
Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)					
						QPSK		16-QAM		64-QAM	
4	1710.7	19957	1.4	6	0	1.228	Fig.1	1.240	Fig.2	1.246	Fig.3
	1732.5	20175		6	0	1.240	Fig.4	1.234	Fig.5	1.240	Fig.6
	1754.3	20393		6	0	1.234	Fig.7	1.234	Fig.8	1.240	Fig.9
	1711.5	19965	3	15	0	3.061	Fig.10	3.074	Fig.11	3.074	Fig.12
	1732.5	20175		15	0	3.074	Fig.13	3.061	Fig.14	3.087	Fig.15
	1753.5	20385		15	0	3.100	Fig.16	3.074	Fig.17	3.074	Fig.18
	1712.5	19975	5	25	0	4.906	Fig.19	4.906	Fig.20	4.928	Fig.21
	1732.5	20175		25	0	4.949	Fig.22	4.949	Fig.23	4.949	Fig.24
	1752.5	20375		25	0	4.906	Fig.25	4.949	Fig.26	4.906	Fig.27
	1715	20000	10	50	0	9.986	Fig.28	9.986	Fig.29	10.029	Fig.30
	1732.5	20175		50	0	10.029	Fig.31	9.942	Fig.32	10.029	Fig.33
	1750	20350		50	0	10.072	Fig.34	9.986	Fig.35	10.029	Fig.36
	1717.5	20025	15	75	0	14.913	Fig.37	14.978	Fig.38	14.783	Fig.39
	1732.5	20175		75	0	14.913	Fig.40	14.783	Fig.41	14.718	Fig.42
	1747.5	20325		75	0	14.913	Fig.43	14.848	Fig.44	14.783	Fig.45
	1720	20050	20	100	0	19.450	Fig.46	19.450	Fig.47	19.363	Fig.48
1732.5	20175	100		0	19.537	Fig.49	19.450	Fig.50	19.450	Fig.51	
1745	20300	100		0	19.276	Fig.52	19.190	Fig.53	19.363	Fig.54	

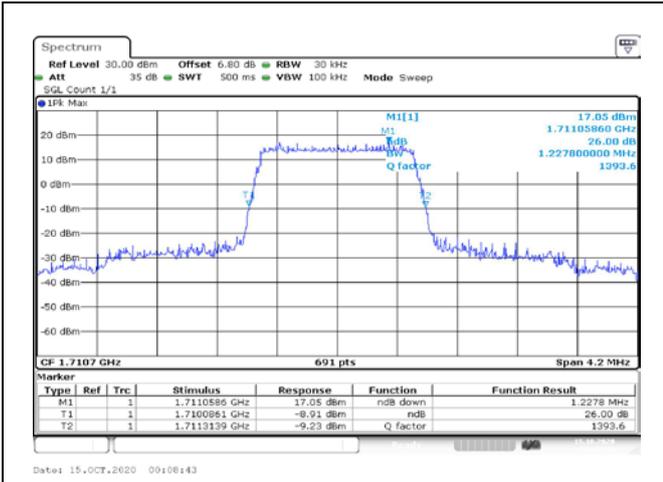


Fig.1

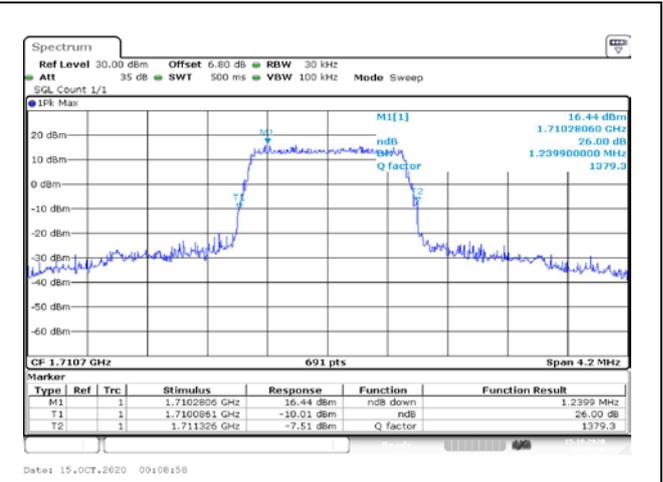


Fig.2

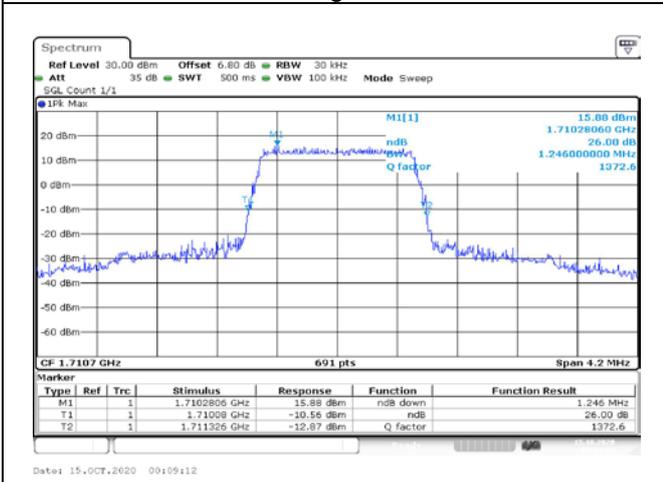


Fig.3

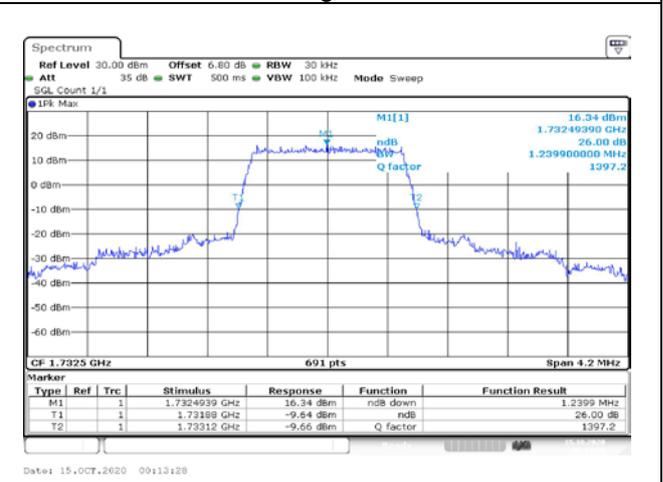


Fig.4

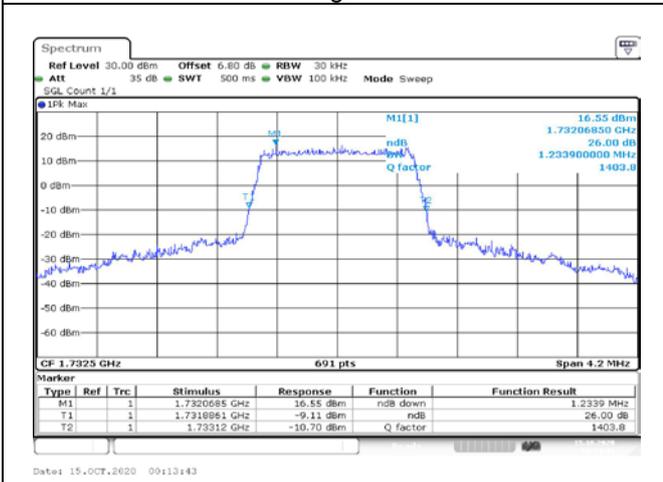


Fig.5

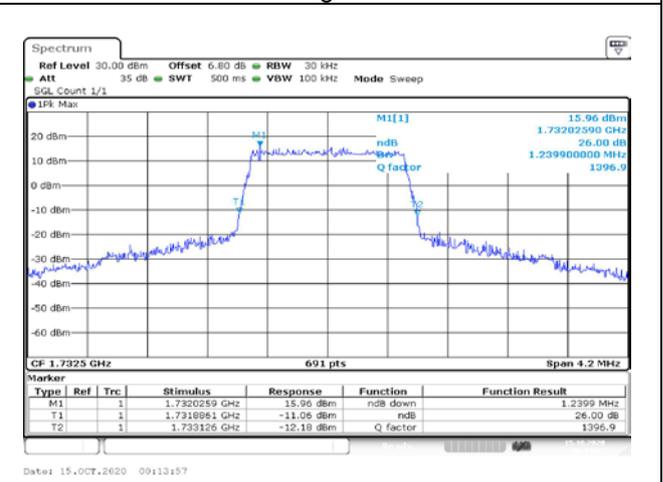


Fig.6

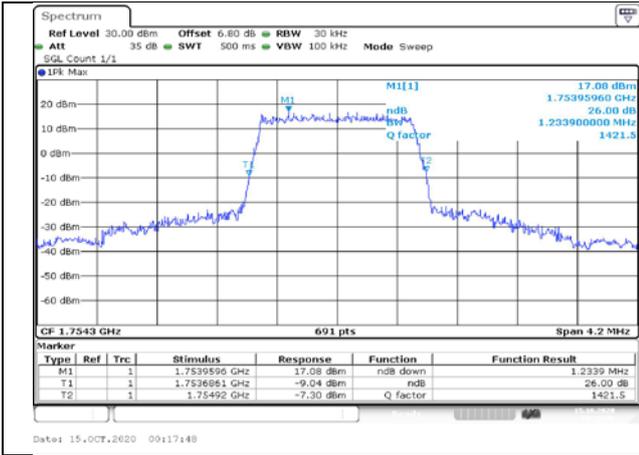


Fig.7

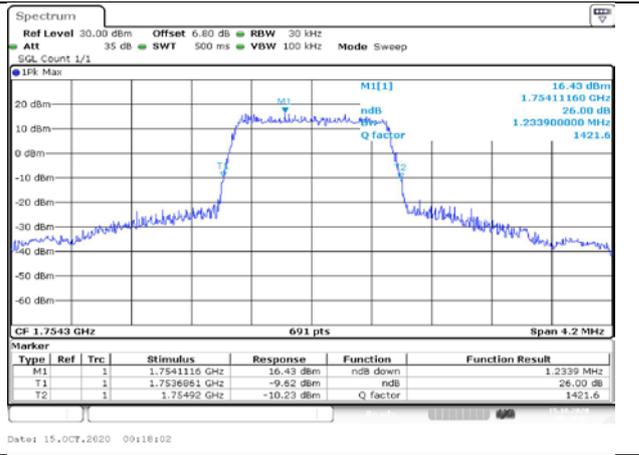


Fig.8

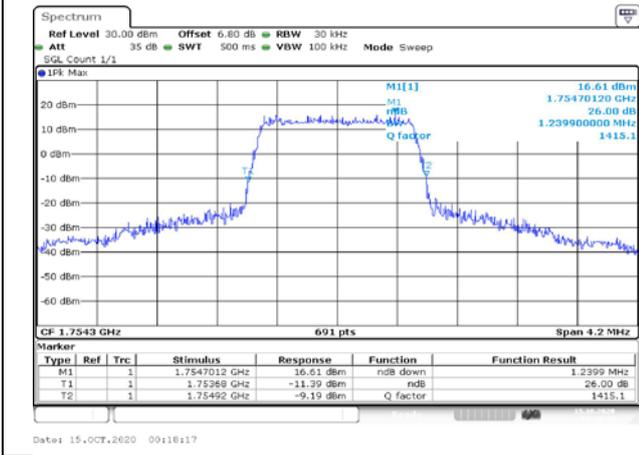


Fig.9

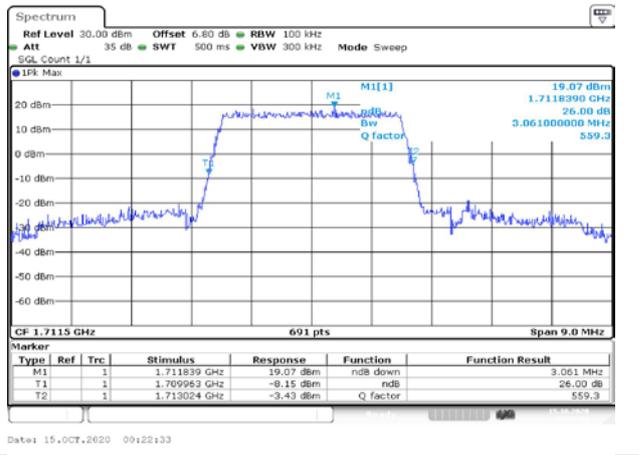


Fig.10

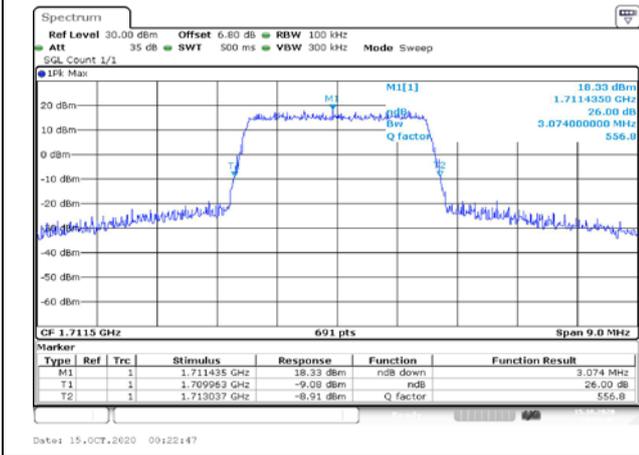


Fig.11

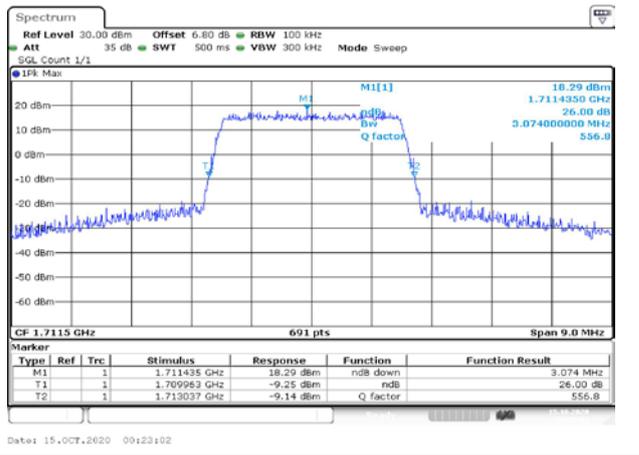


Fig.12

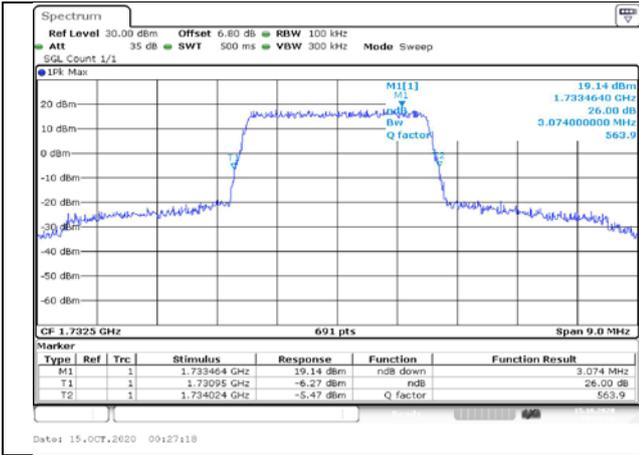


Fig.13

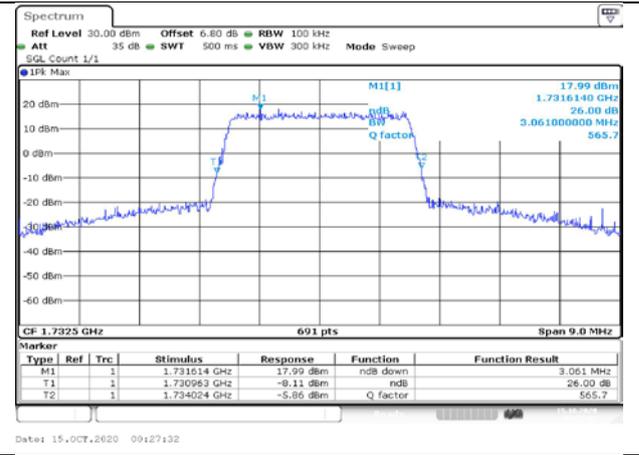


Fig.14

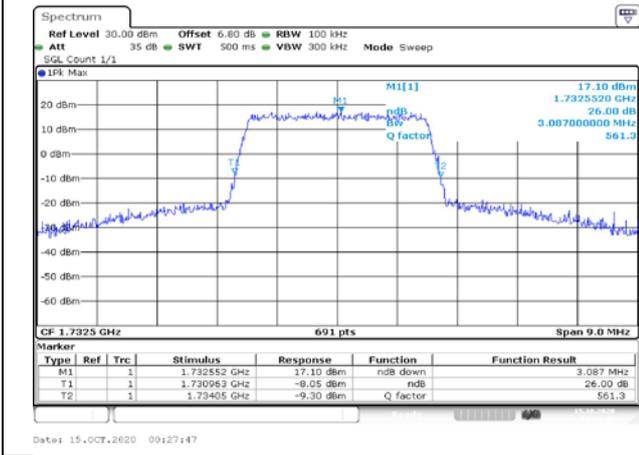


Fig.15

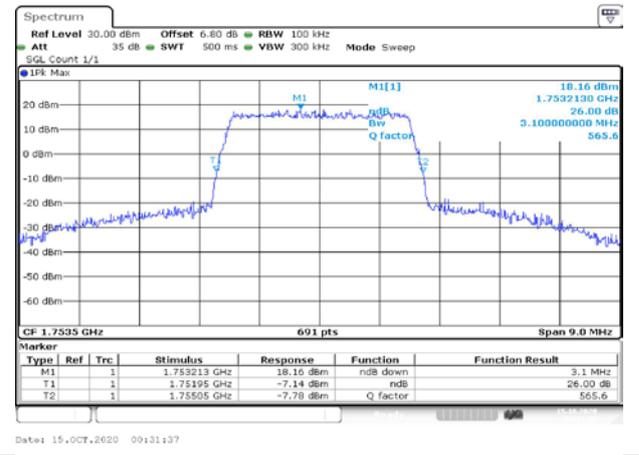


Fig.16

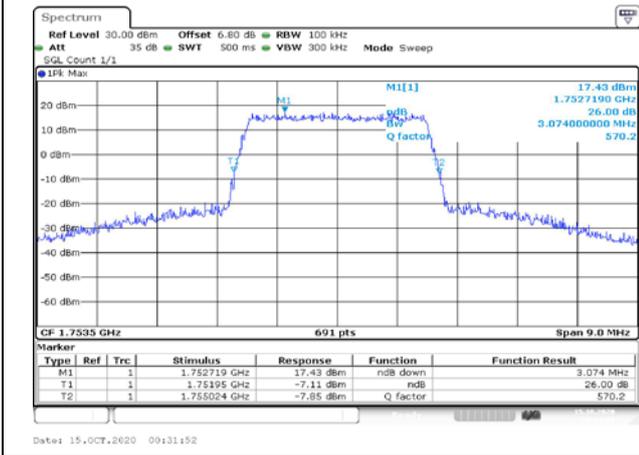


Fig.17

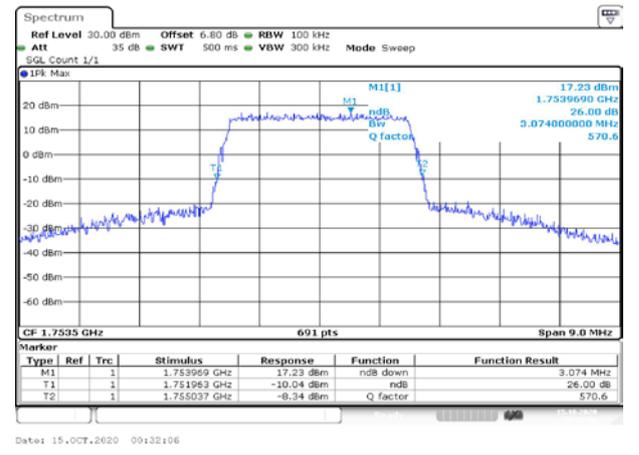


Fig.18

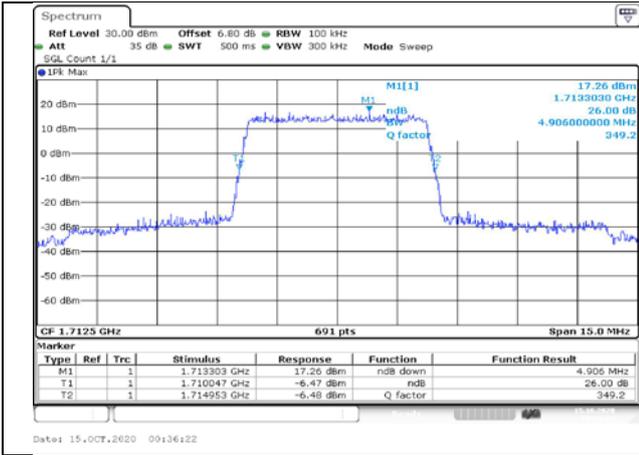


Fig.19

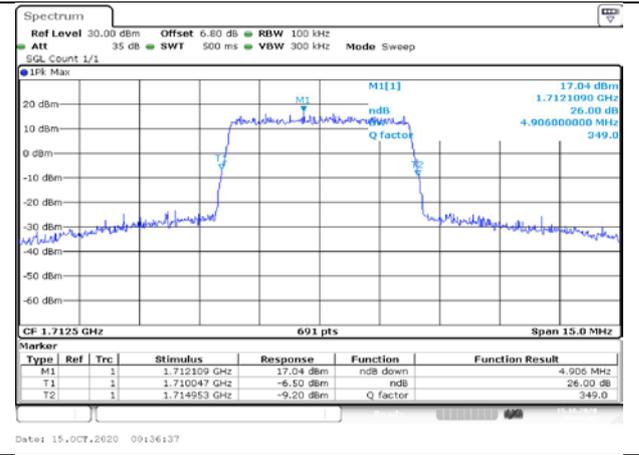


Fig.20

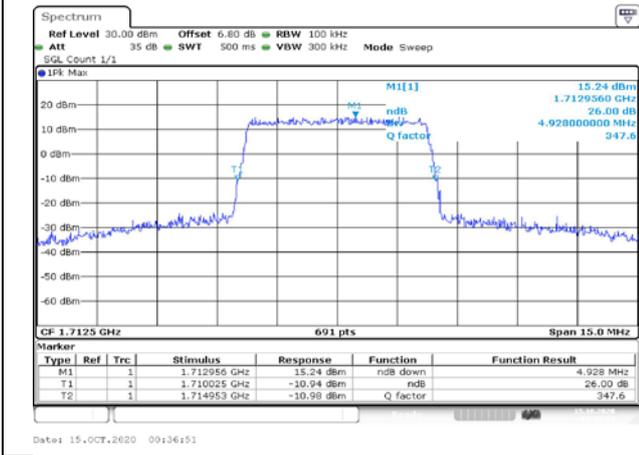


Fig.21

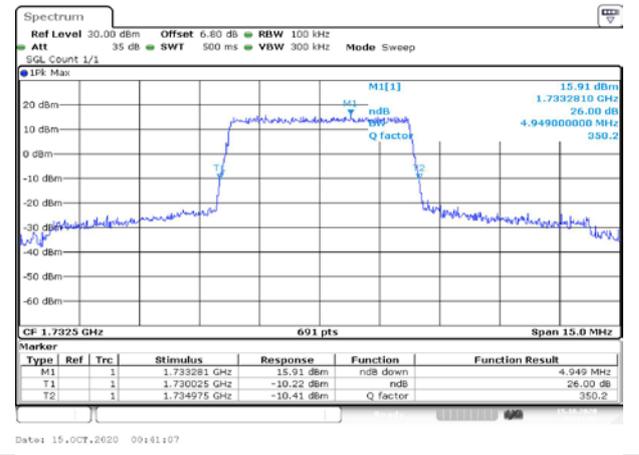


Fig.22

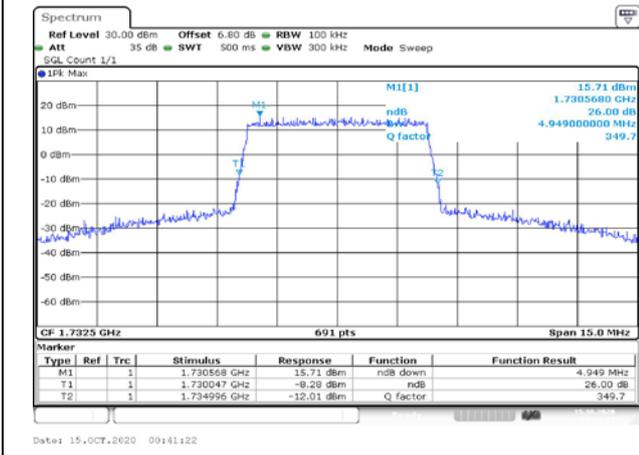


Fig.23

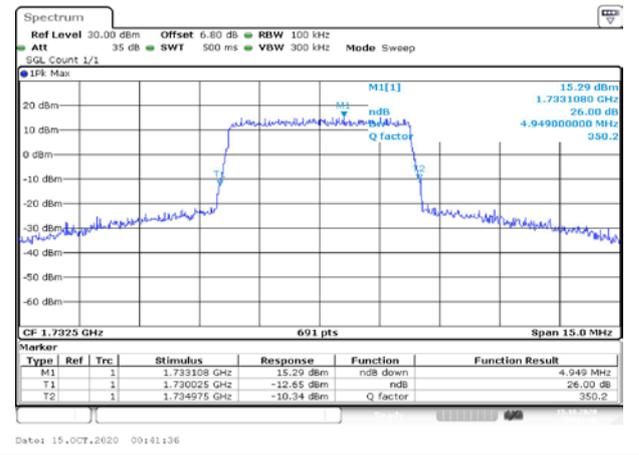


Fig.24

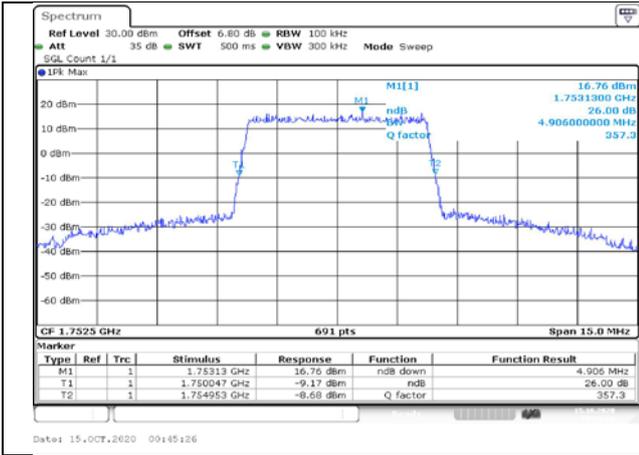


Fig.25

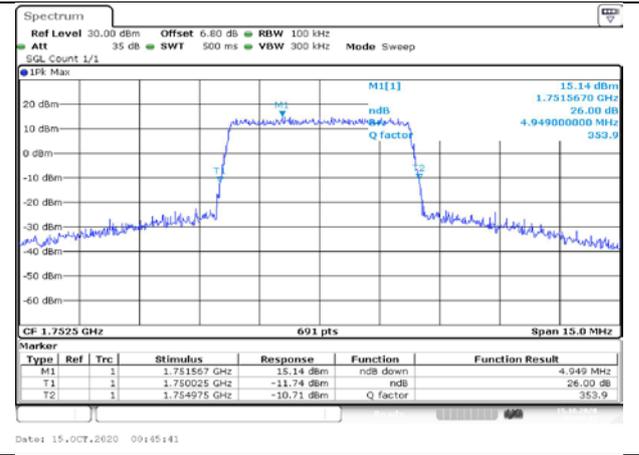


Fig.26

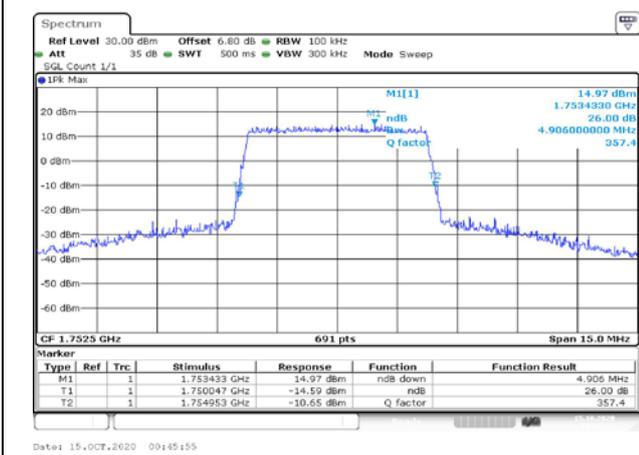


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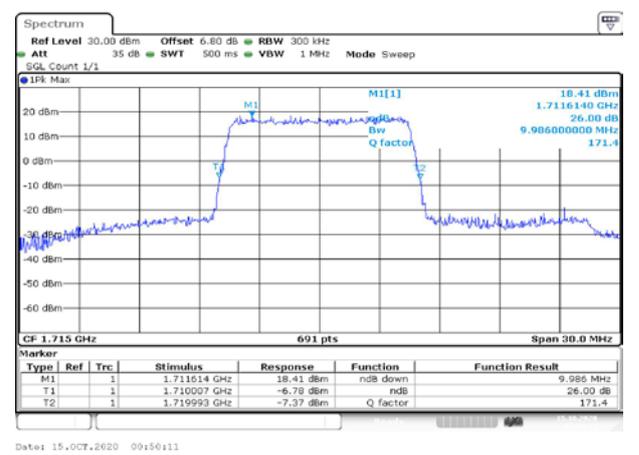


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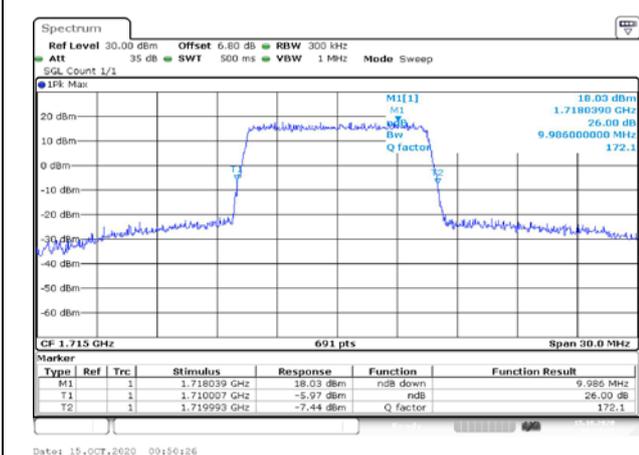


Fig.29

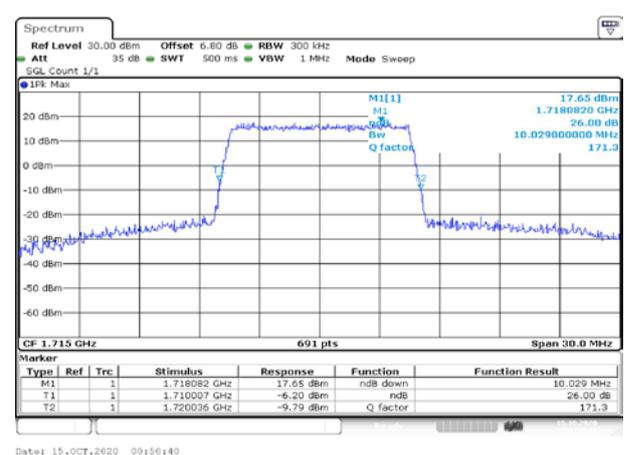


Fig.30