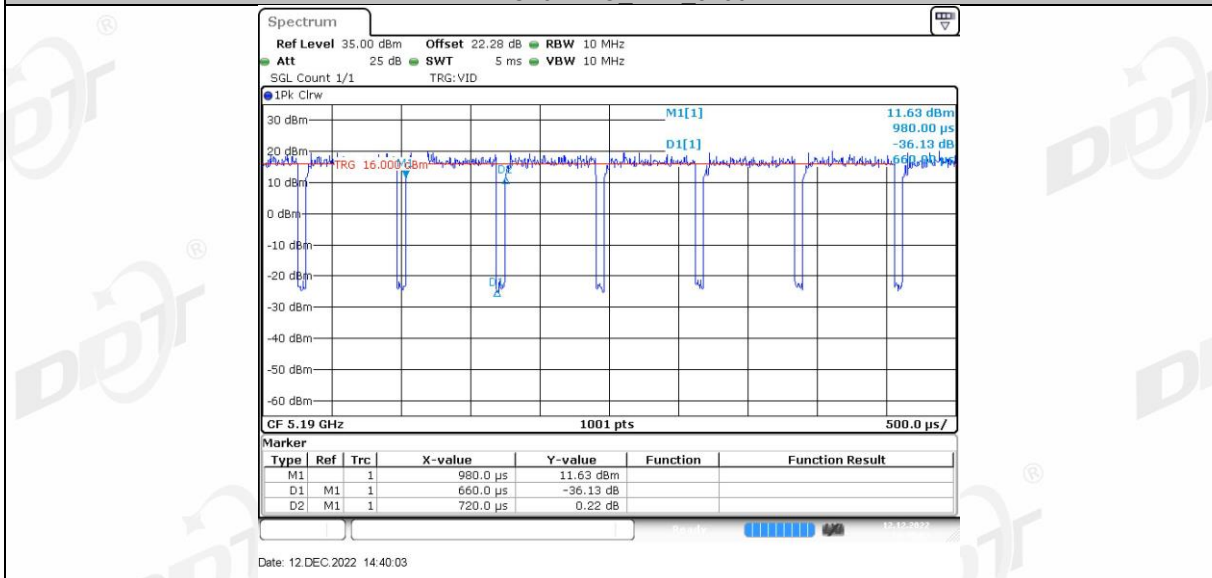
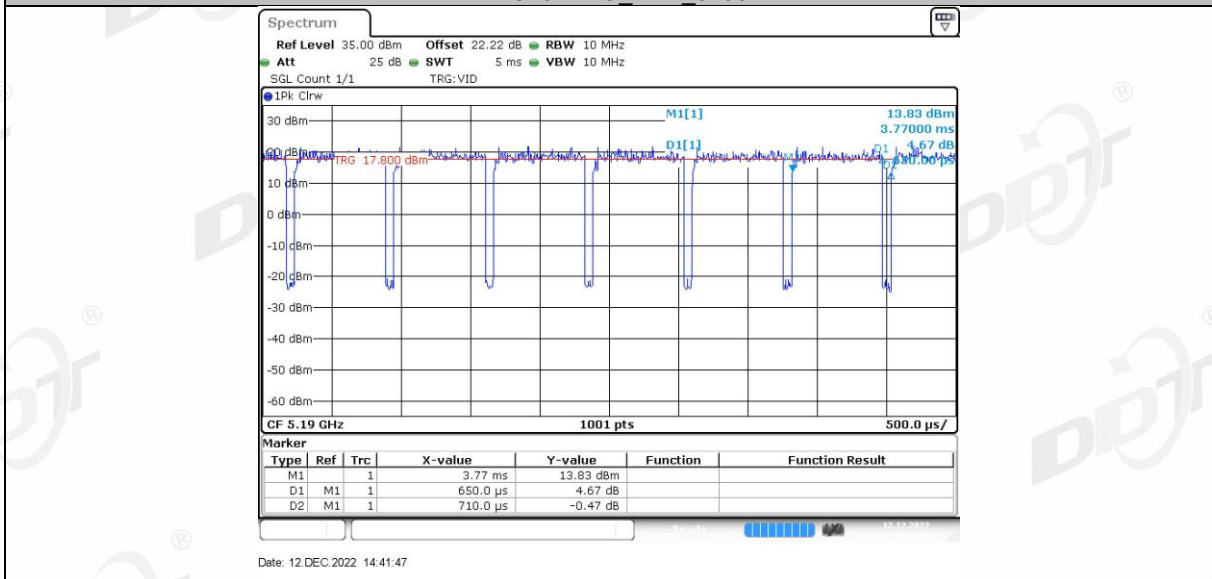


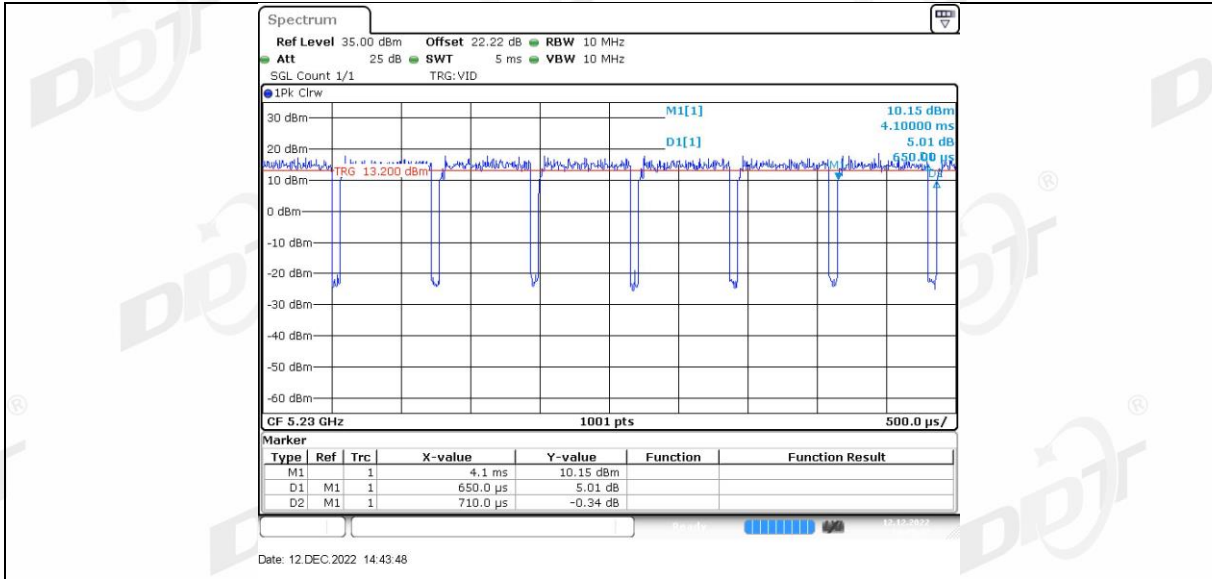
11AC40MIMO Ant1_5190



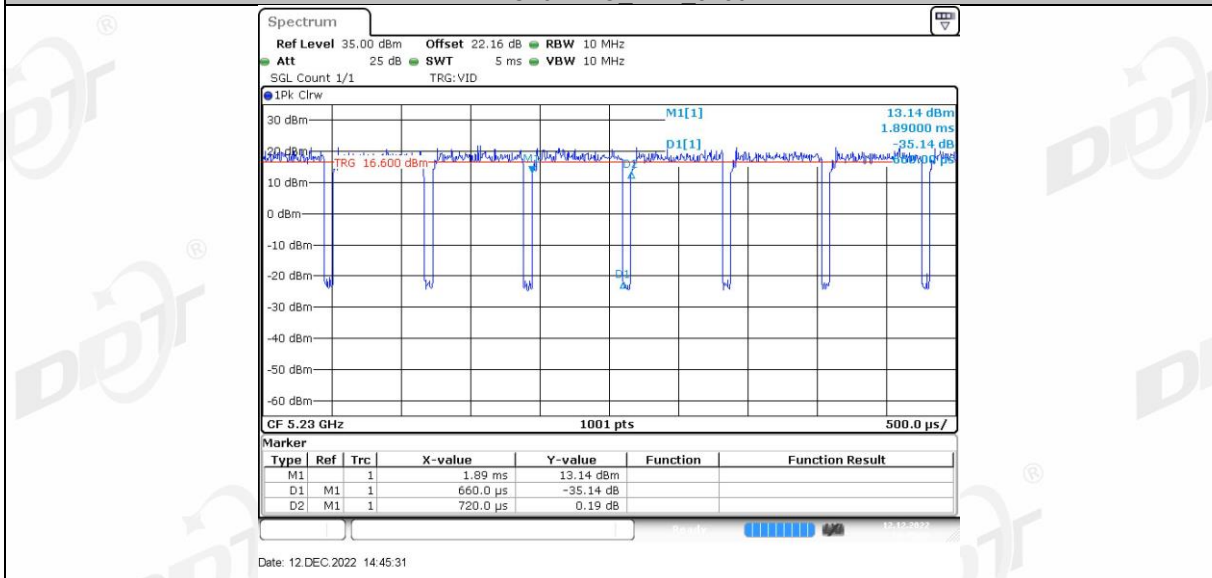
11AC40MIMO Ant2_5190



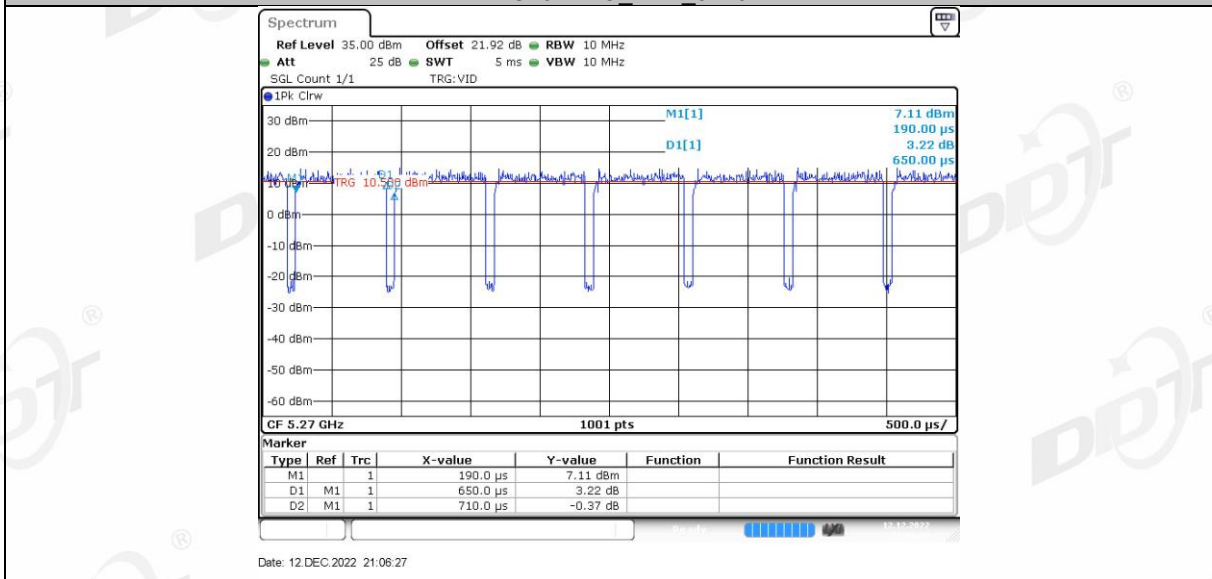
11AC40MIMO Ant1_5230



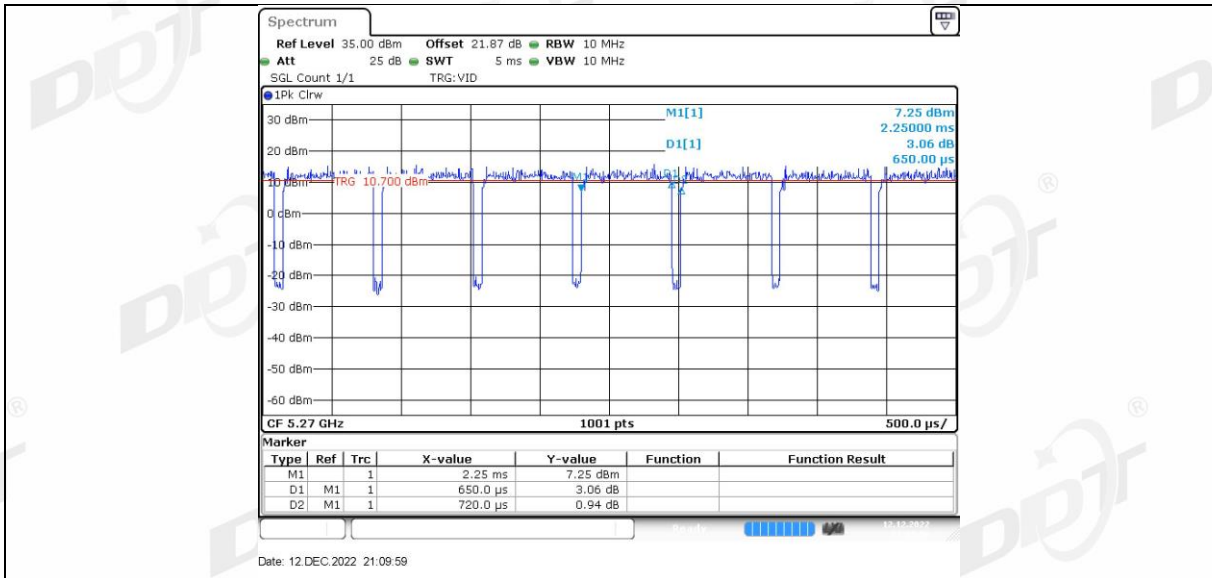
11AC40MIMO Ant2_5230



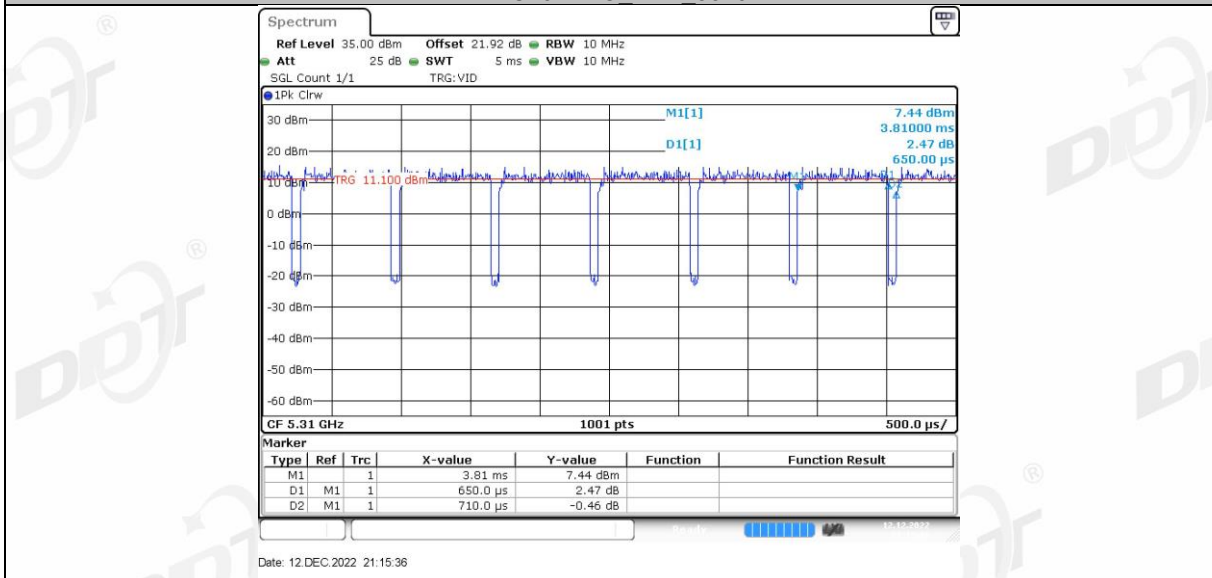
11AC40MIMO Ant1_5270



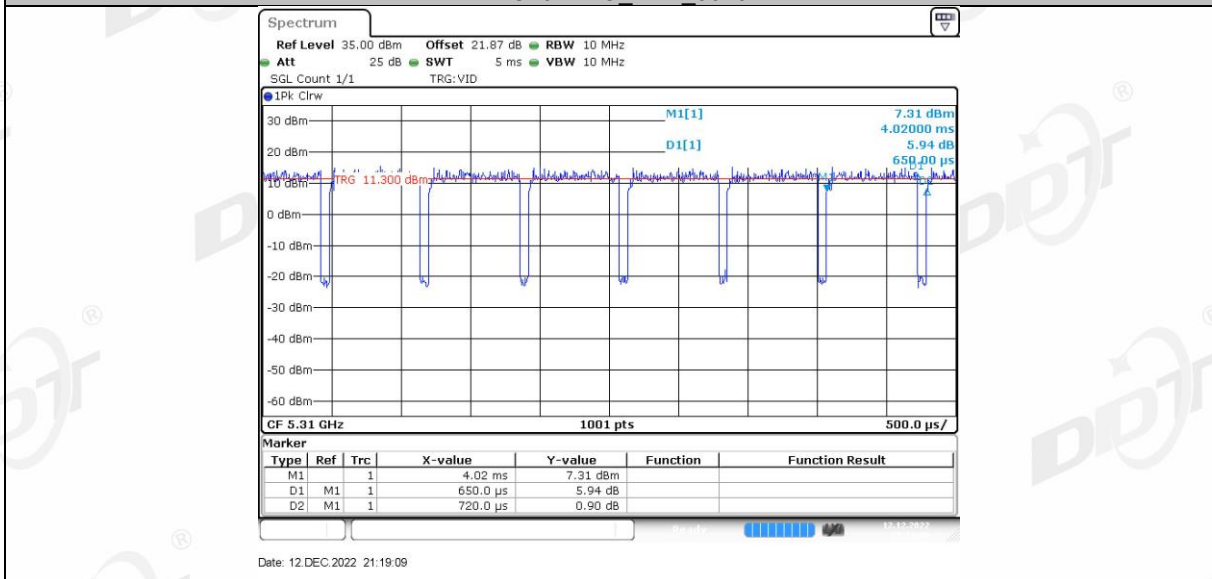
11AC40MIMO Ant2_5270



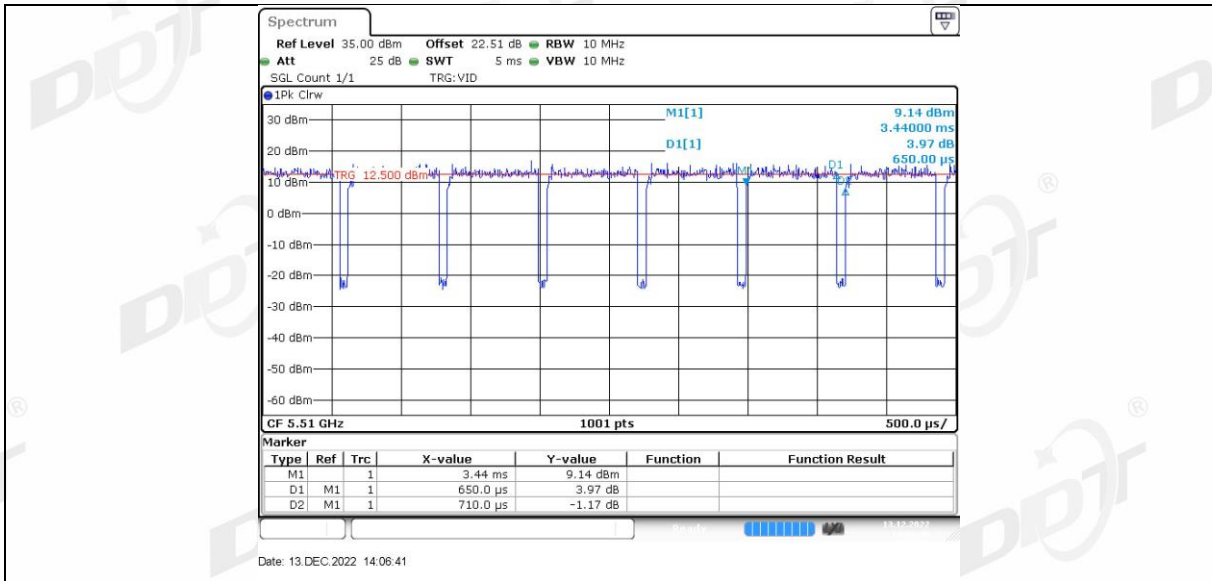
11AC40MIMO Ant1_5310



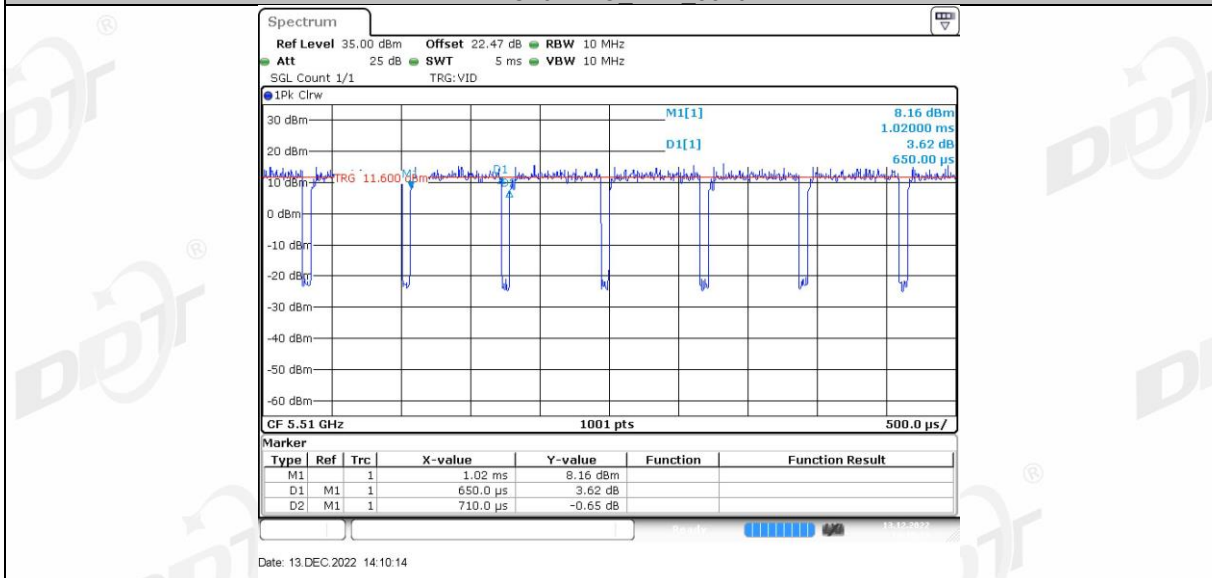
11AC40MIMO Ant2_5310



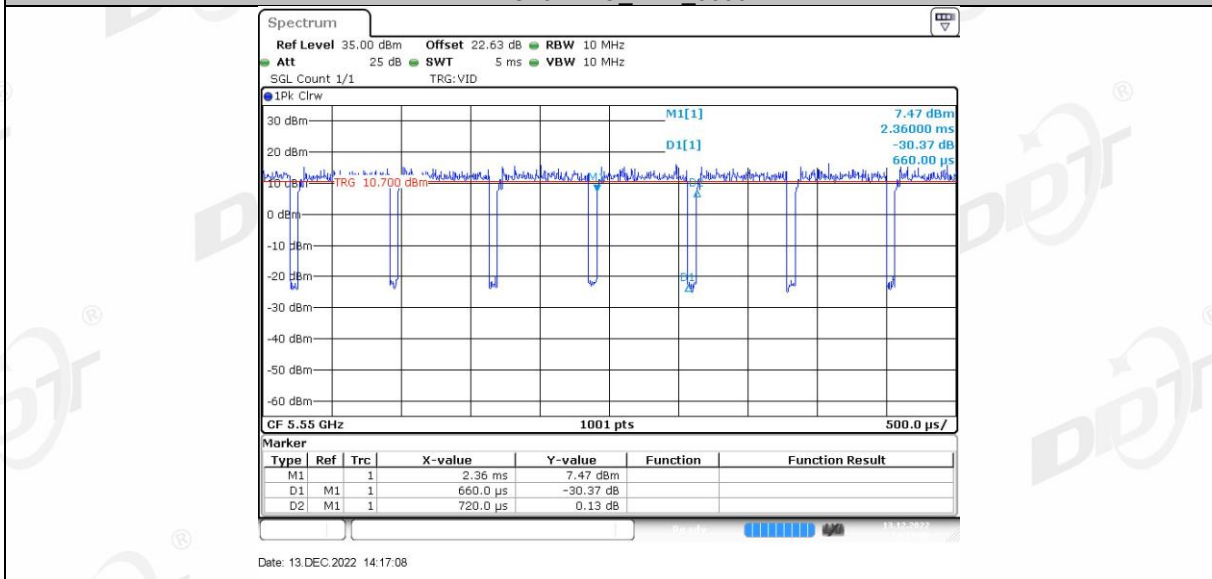
11AC40MIMO Ant1_5510



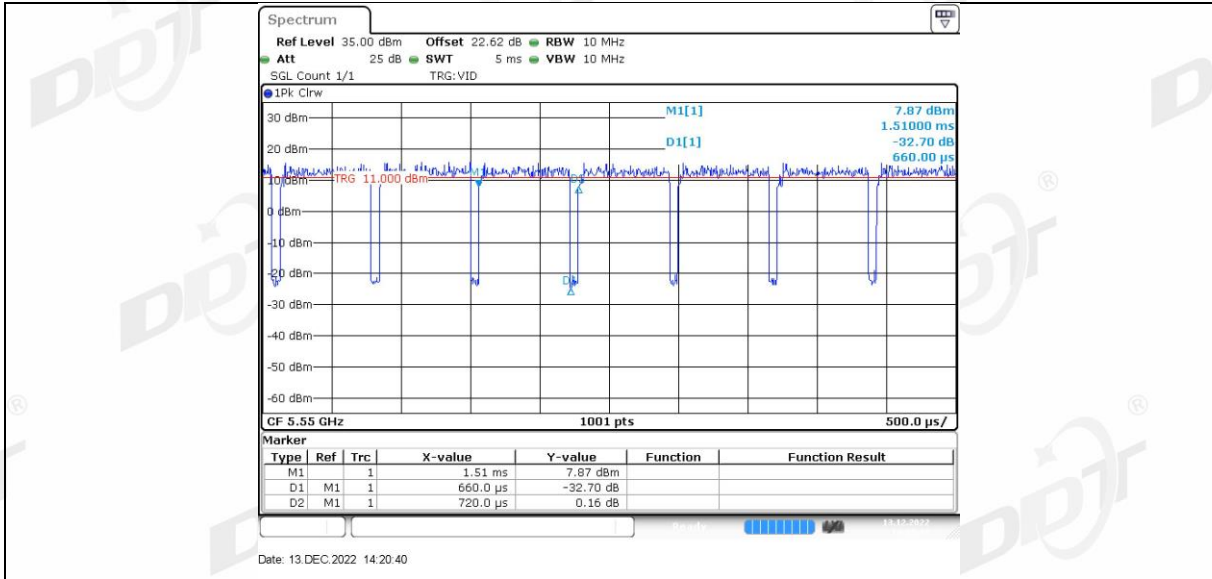
11AC40MIMO Ant2_5510



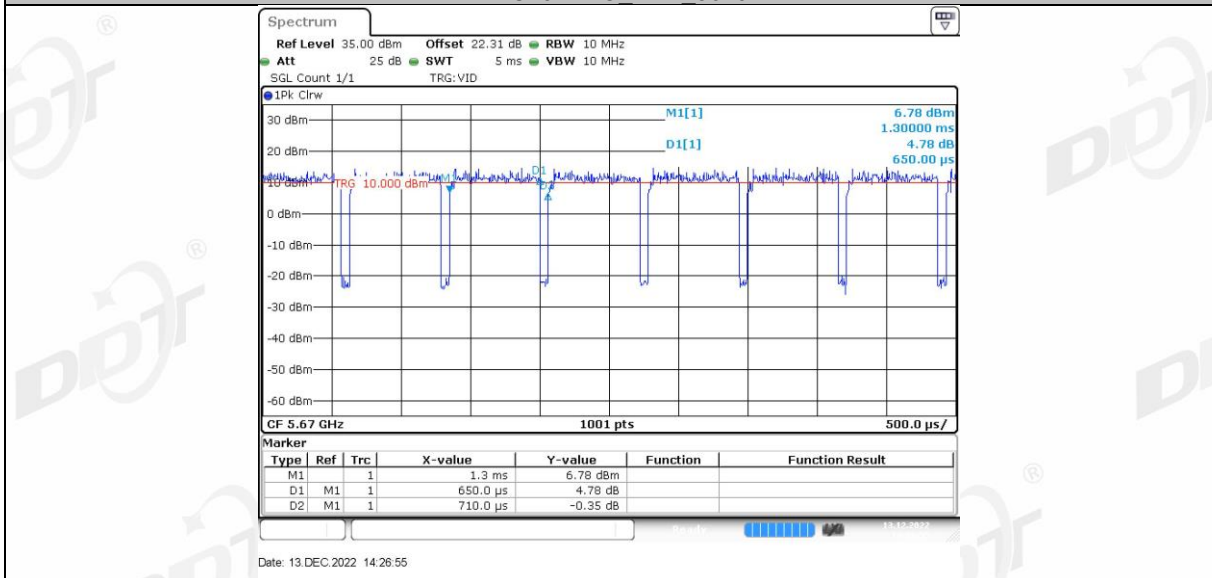
11AC40MIMO Ant1_5550



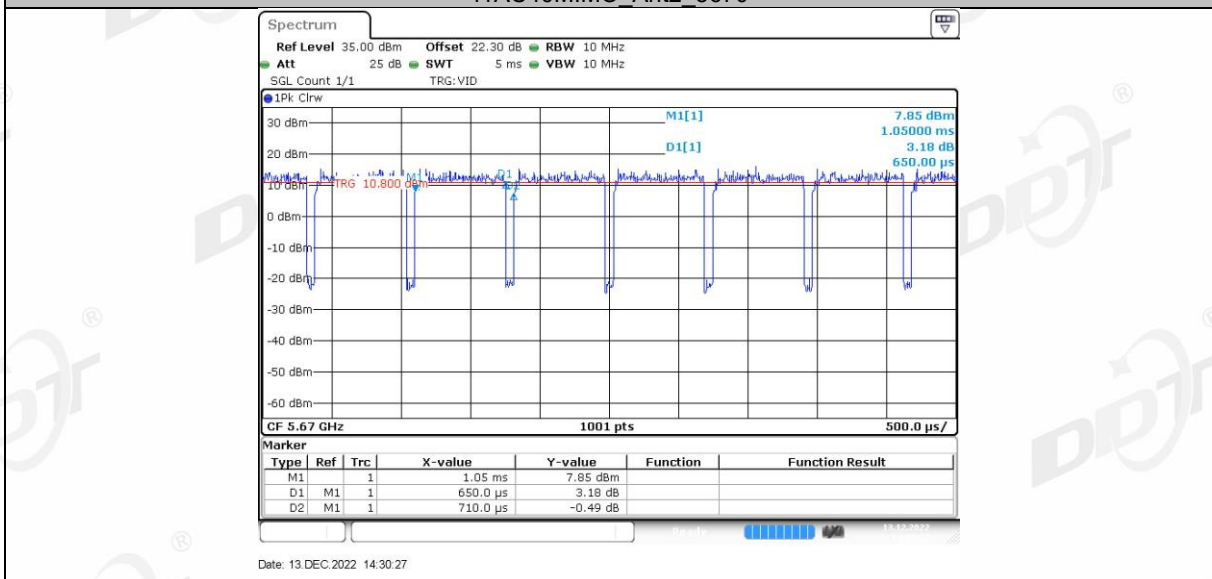
11AC40MIMO Ant2_5550



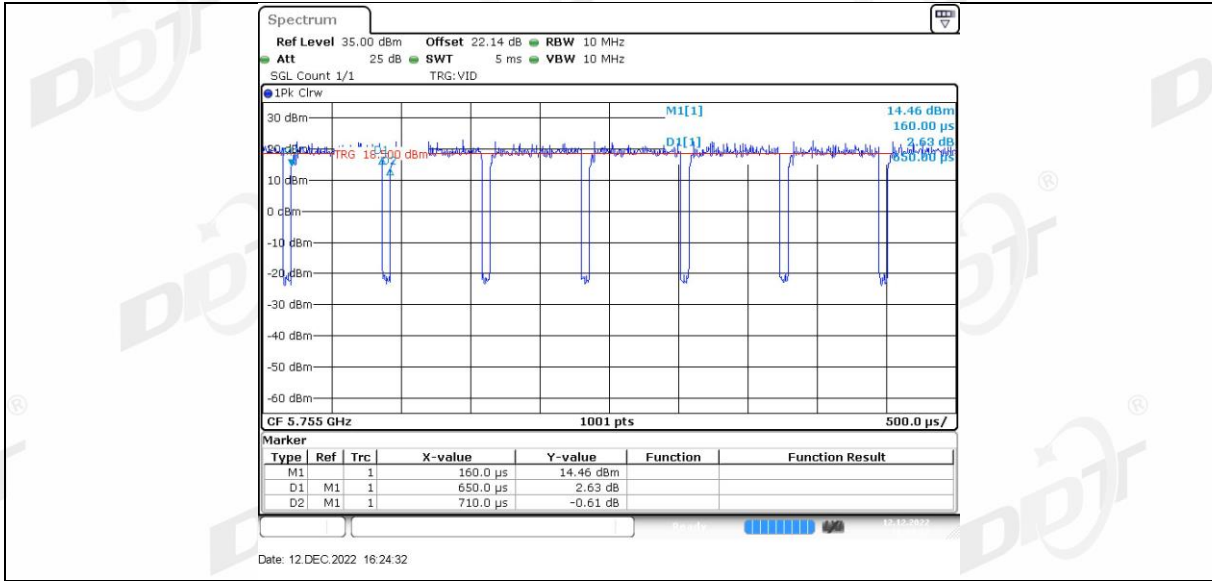
11AC40MIMO Ant1_5670



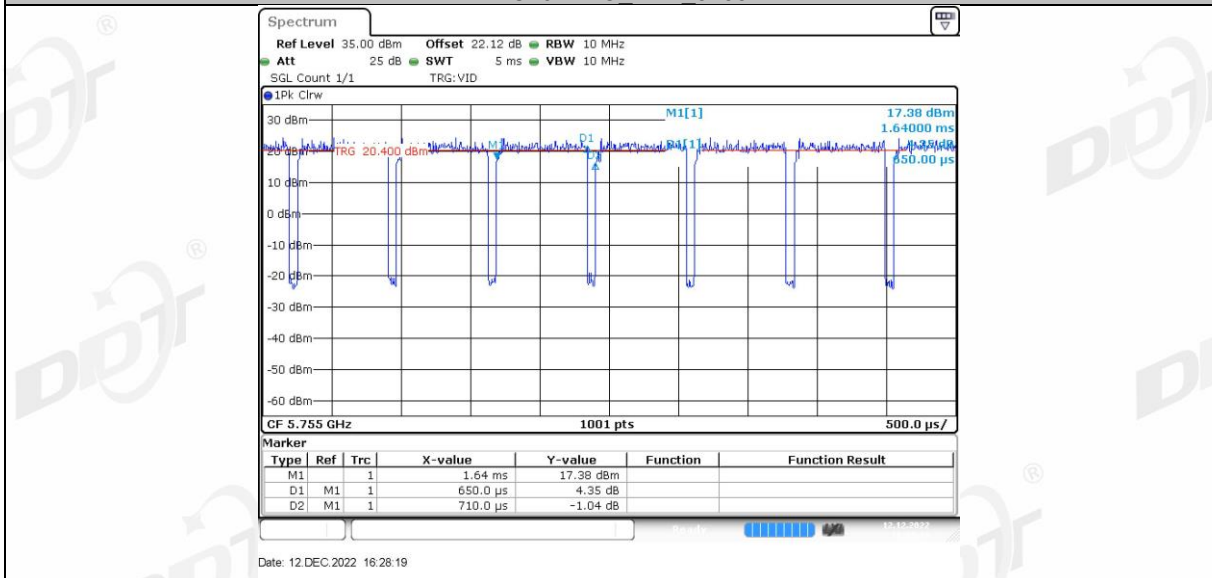
11AC40MIMO Ant2_5670



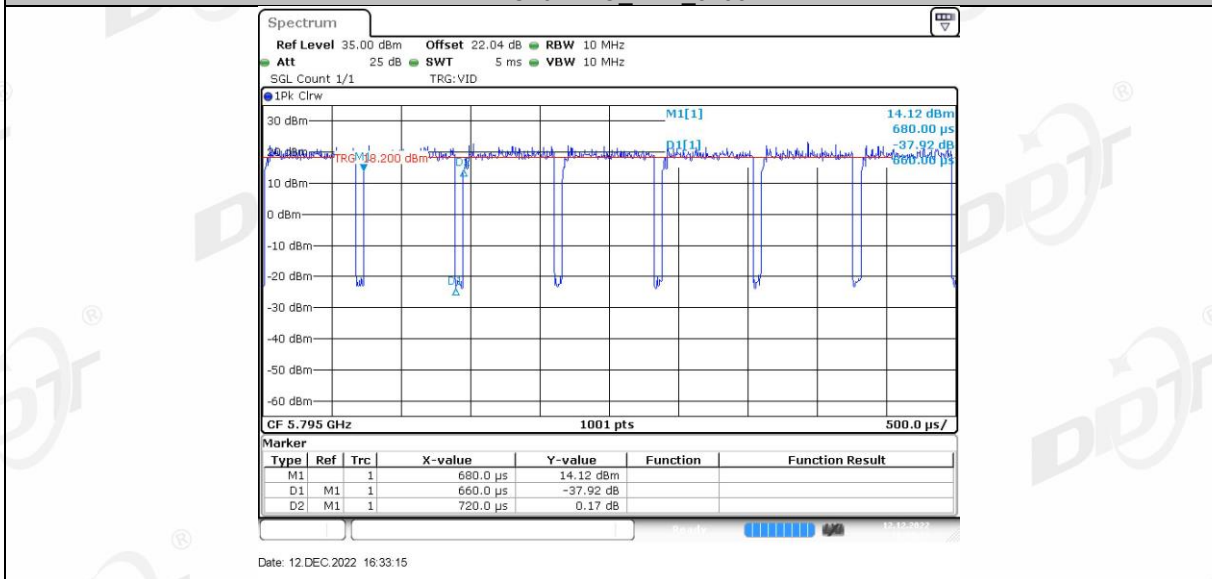
11AC40MIMO Ant1_5755



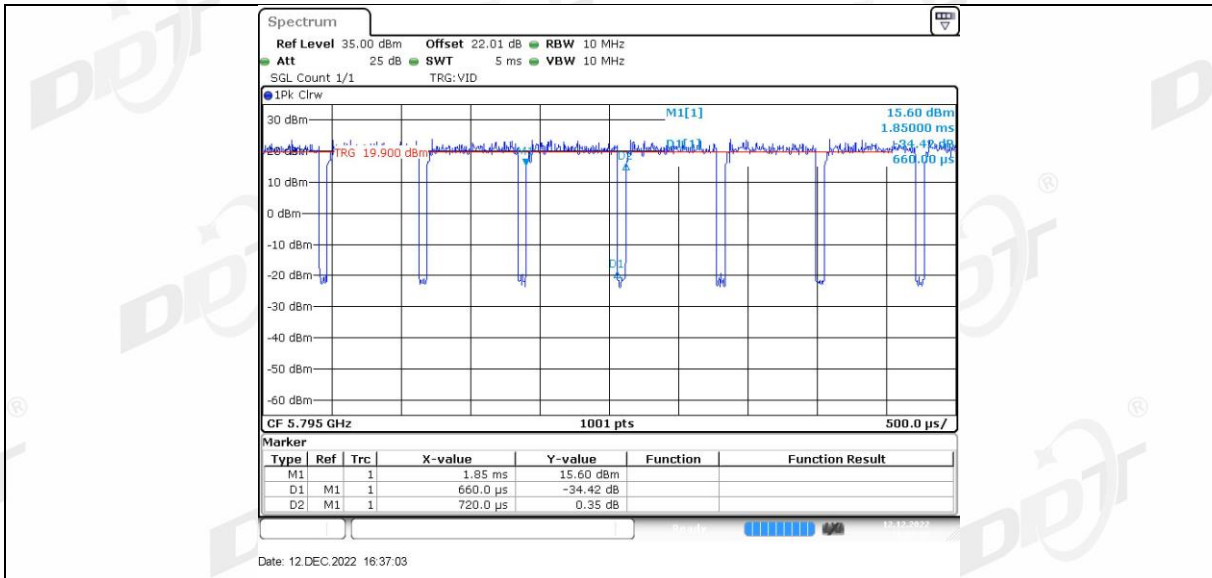
11AC40MIMO Ant2_5755



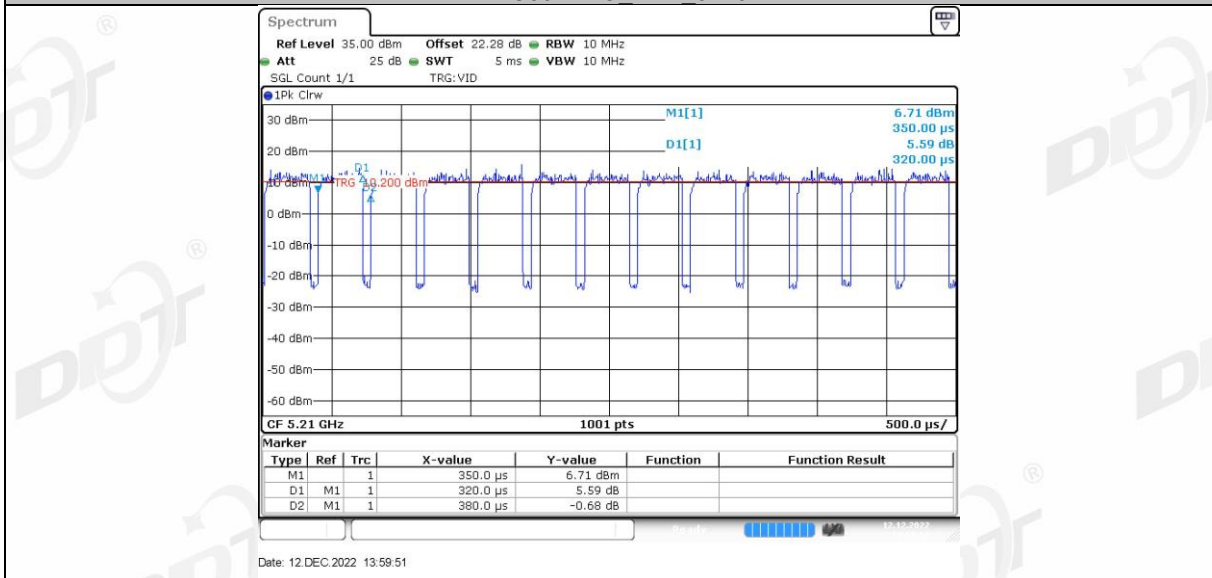
11AC40MIMO Ant1_5795



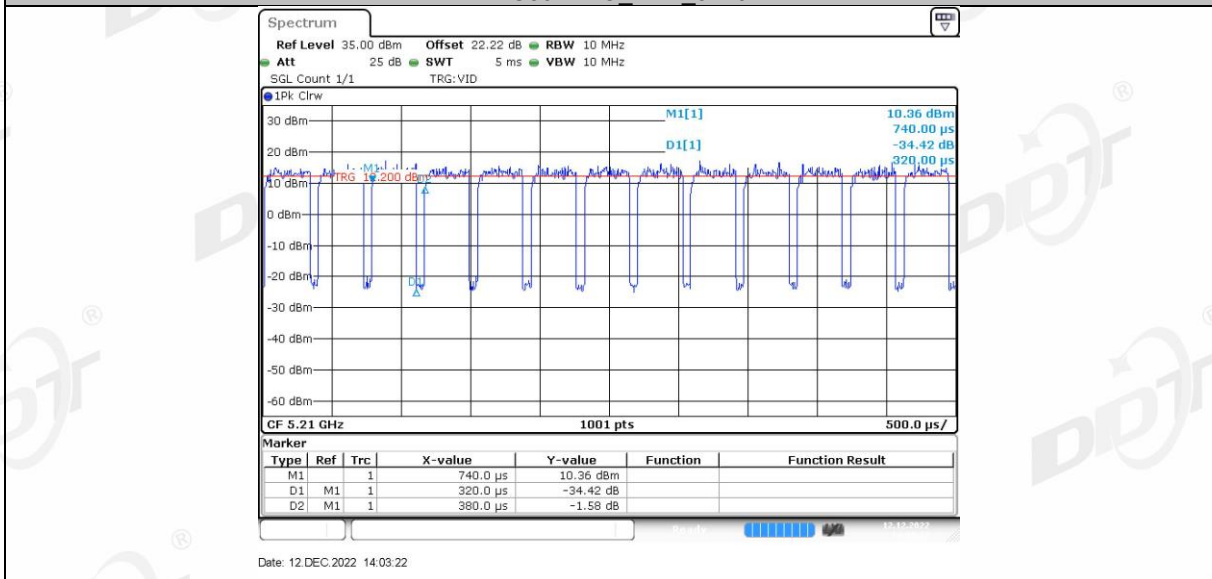
11AC40MIMO Ant2_5795



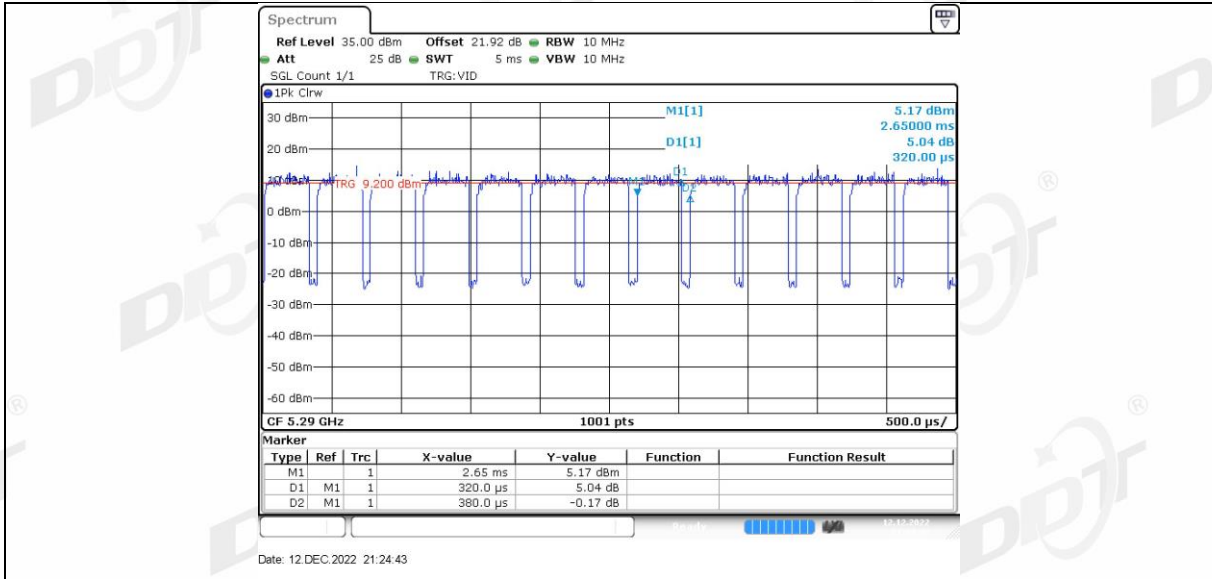
11AC80MIMO Ant1_5210



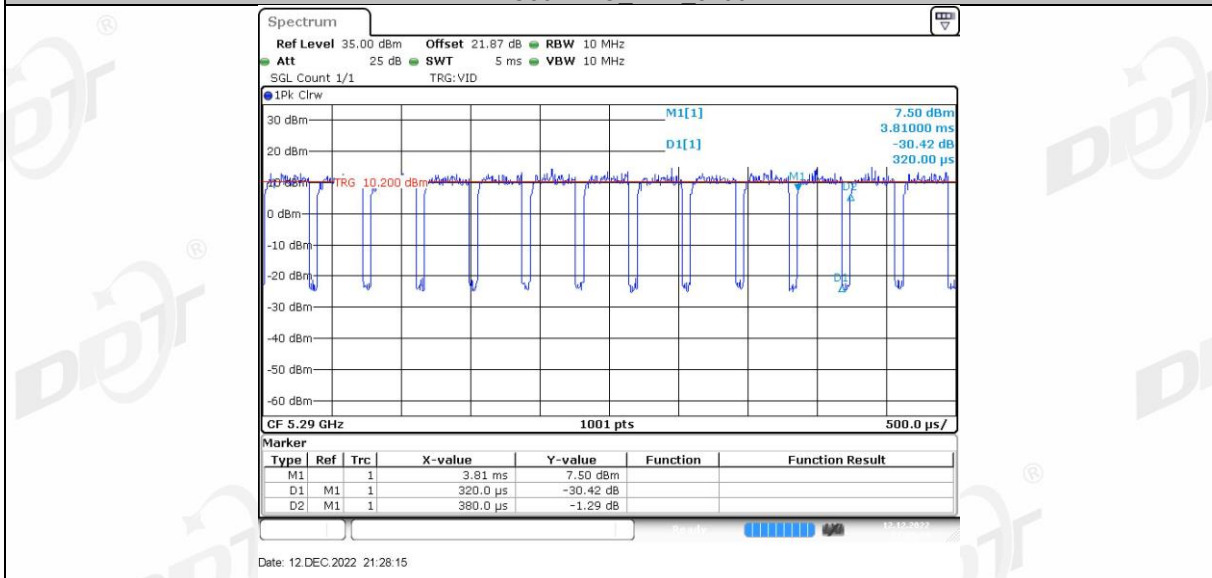
11AC80MIMO Ant2_5210



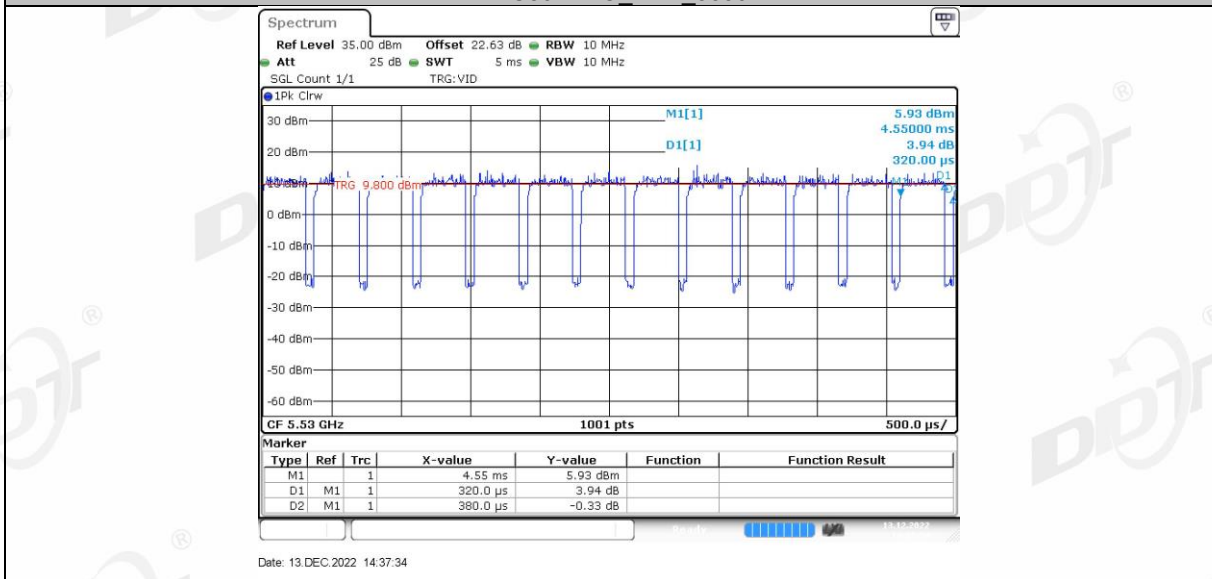
11AC80MIMO Ant1_5290



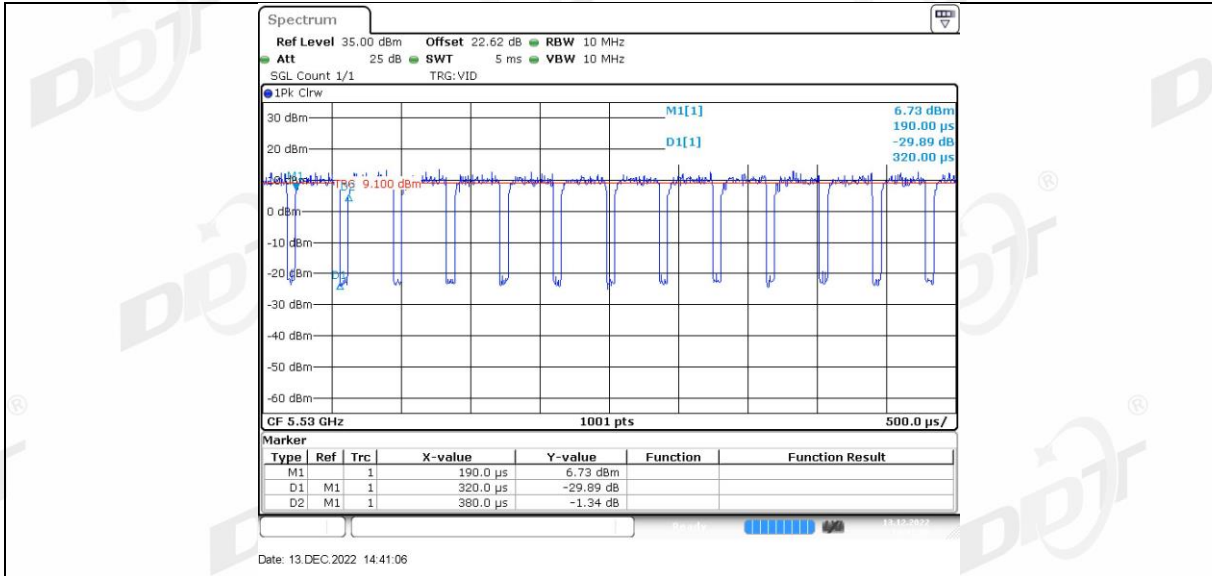
11AC80MIMO Ant2_5290



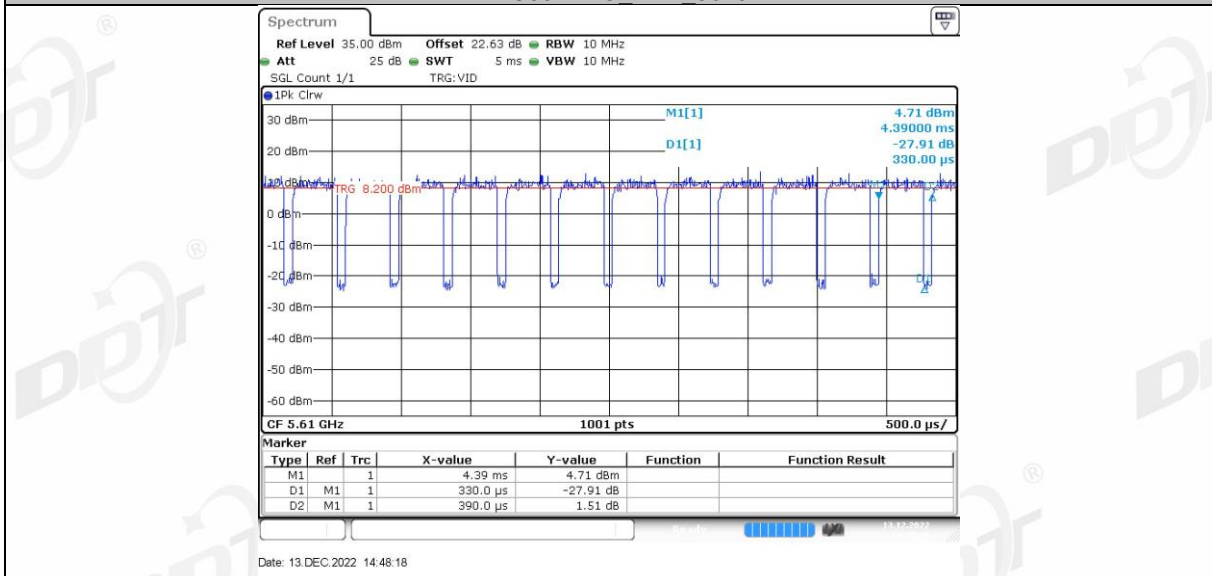
11AC80MIMO Ant1_5530



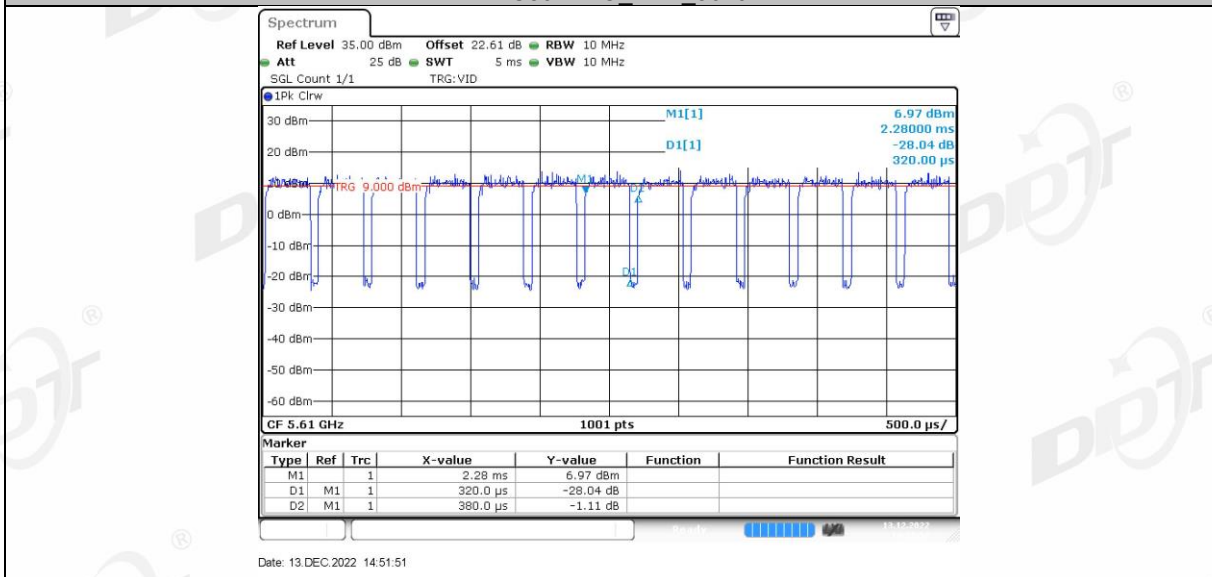
11AC80MIMO Ant2_5530



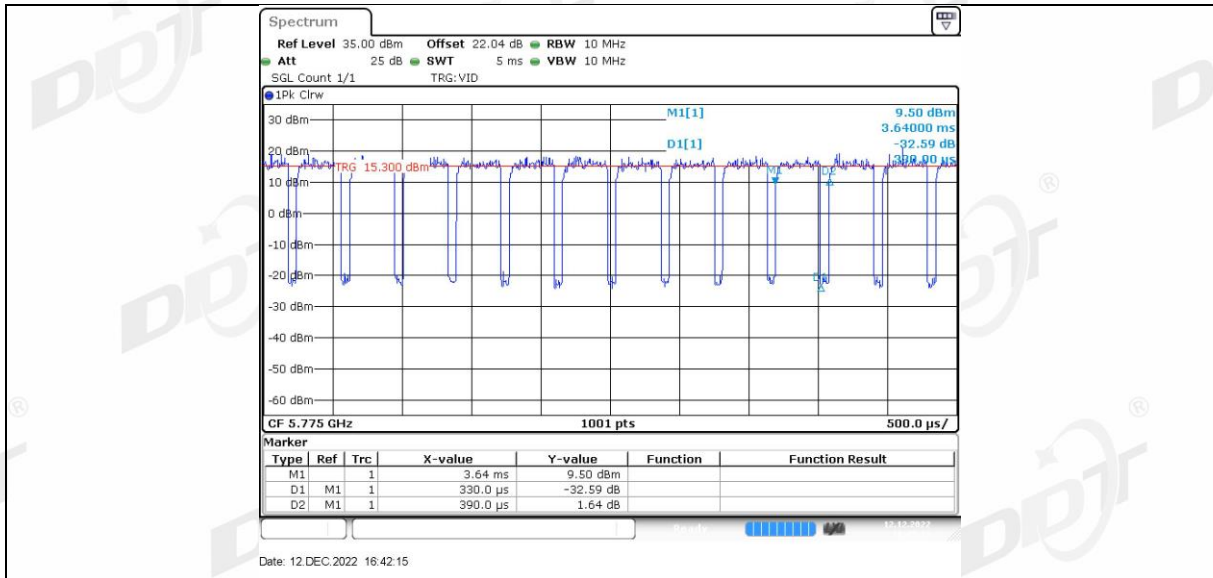
11AC80MIMO Ant1_5610



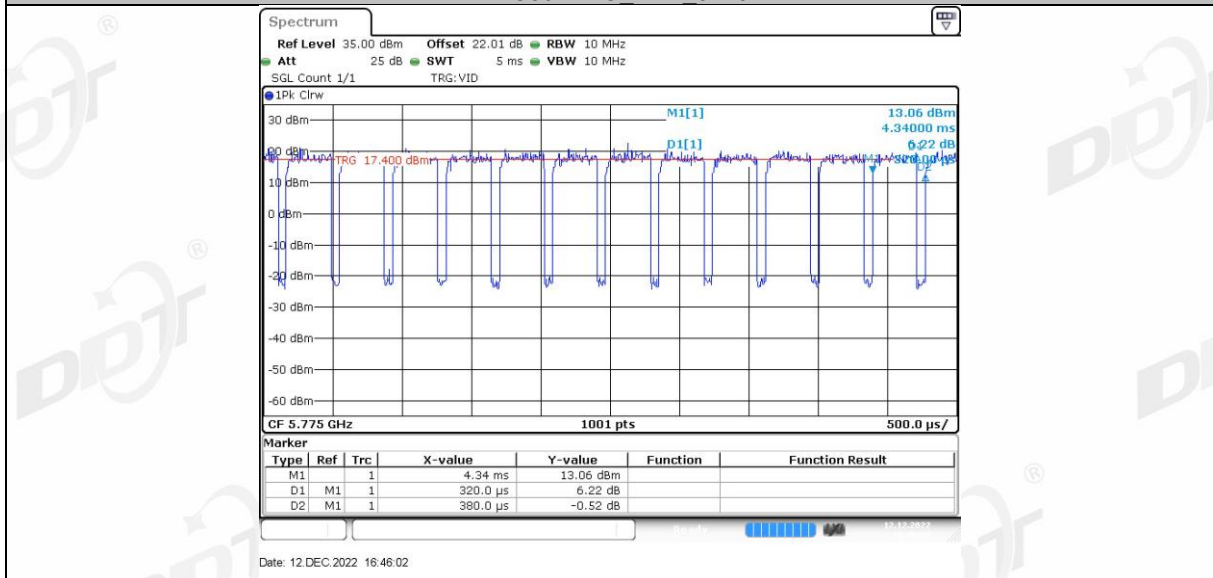
11AC80MIMO Ant2_5610



11AC80MIMO Ant1_5775

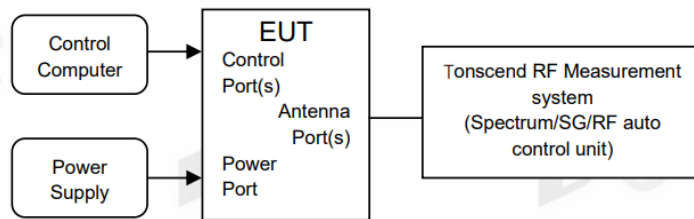


11AC80MIMO Ant2 5775



8. Maximum Output Power

8.1. Block diagram of test setup



8.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Maximum Output Power	For FCC fixed point-to-point access points: 1W (30 dBm)	5150-5250
	For conducted output power :250 mW (24 dBm) or $11 + 10 \log_{10} B$	5250-5350 5470 - 5725
	The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm	
	1 Watt (30 dBm)	5725-5850
Note 1: B=26 bandwidth Note 2: Directional gain = GANT+ Array Gain, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=11.86. For UNII-2A and UNII-2C: The directional antenna gain greater than 6 dBi, so the power limit [250 mW (24dBm) or (11 dBm + 10 log B)]- (11.86-6)dB=18.14 dBm or 5.14 dBm + 10 log B		

8.3. Test procedure

Connect each EUT's antenna output to power sensor by RF cable and attenuator

Measure the output power of each antenna port by power sensor.

8.4. Test result channel power

Test Mode	Antenna	Freq. [MHz]	TPC	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11A-CDD	Ant1	5180		95.86	0.18	19.00	30.00	30.86	---	PASS
	Ant2	5180		95.89	0.18	20.67	30.00	32.53	---	PASS
	total	5180		---	---	22.93	30.00	34.79	---	PASS
	Ant1	5200		95.21	0.21	19.07	30.00	30.93	---	PASS
	Ant2	5200		95.89	0.18	20.68	30.00	32.54	---	PASS
	total	5200		---	---	22.96	30.00	34.82	---	PASS
	Ant1	5240		95.89	0.18	19.1	30.00	30.96	---	PASS
	Ant2	5240		95.89	0.18	20.12	30.00	31.98	---	PASS
	total	5240		---	---	22.65	30.00	34.51	---	PASS
	Ant1	5260	TPC H	95.89	0.18	6.22	18.14	18.08	30.00	PASS
			TPC L	95.89	0.18	-0.25	18.14	11.61	30.00	PASS
	Ant2	5260	TPC H	95.89	0.18	6.68	18.14	18.72	30.00	PASS
			TPC L	95.89	0.18	0.32	18.14	12.18	30.00	PASS
	total	5260	TPC H	---	---	9.47	18.14	21.33	30.00	PASS
			TPC L	---	---	3.05	18.14	14.91	30.00	PASS
	Ant1	5280	TPC H	95.21	0.21	6.55	18.14	18.41	30.00	PASS
			TPC L	95.21	0.21	0.01	18.14	11.87	30.00	PASS
	Ant2	5280	TPC H	95.21	0.21	7.17	18.14	19.03	30.00	PASS
			TPC L	95.21	0.21	0.96	18.14	12.82	30.00	PASS
	total	5280	TPC H	---	---	9.88	18.14	21.74	30.00	PASS
			TPC L	---	---	3.52	18.14	15.38	30.00	PASS
	Ant1	5320	TPC H	95.89	0.18	6.47	18.14	18.33	30.00	PASS
			TPC L	95.89	0.18	-0.07	18.14	11.79	30.00	PASS
	Ant2	5320	TPC H	95.86	0.18	5.86	18.14	17.72	30.00	PASS
			TPC L	95.86	0.18	-0.55	18.14	11.31	30.00	PASS
	total	5320	TPC H	---	---	9.19	18.14	21.05	30.00	PASS
			TPC L	---	---	2.71	18.14	14.57	30.00	PASS
	Ant1	5500	TPC H	95.89	0.18	7.17	18.14	19.03	30.00	PASS
			TPC L	95.89	0.18	-0.07	18.14	11.79	30.00	PASS
	Ant2	5500	TPC H	95.89	0.18	7.26	18.14	19.12	30.00	PASS
			TPC L	95.89	0.18	0.17	18.14	12.03	30.00	PASS
	total	5500	TPC H	---	---	10.21	18.14	22.07	30.00	PASS
			TPC L	---	---	3.06	18.14	14.92	30.00	PASS
	Ant1	5580	TPC H	95.89	0.18	5.87	18.14	17.73	30.00	PASS
			TPC L	95.89	0.18	-1.35	18.14	10.51	30.00	PASS
	Ant2	5580	TPC H	95.89	0.18	7.70	18.14	19.56	30.00	PASS
			TPC L	95.89	0.18	0.89	18.14	12.75	30.00	PASS
	total	5580	TPC H	---	---	9.89	18.14	21.75	30.00	PASS
			TPC L	---	---	2.92	18.14	14.78	30.00	PASS
	Ant1	5700	TPC H	95.89	0.18	5.47	18.14	17.33	30.00	PASS
			TPC L	95.89	0.18	-1.68	18.14	10.18	30.00	PASS
	Ant2	5700	TPC H	95.89	0.18	6.61	18.14	18.47	30.00	PASS
			TPC L	95.89	0.18	-0.47	18.14	11.39	30.00	PASS
	total	5700	TPC H	---	---	9.09	18.14	20.95	30.00	PASS
			TPC L	---	---	1.98	18.14	13.84	30.00	PASS
	Ant1	5745		95.86	0.18	17.01	30.00	28.87	---	PASS
	Ant2	5745		95.89	0.18	19.05	30.00	30.91	---	PASS
	total	5745		---	---	21.16	30.00	33.02	---	PASS
Ant1	5785		95.21	0.21	16.98	30.00	28.84	---	PASS	
Ant2	5785		95.89	0.18	18.63	30.00	30.49	---	PASS	
total	5785		---	---	20.89	30.00	32.75	---	PASS	
Ant1	5825		95.21	0.21	17.29	30.00	29.15	---	PASS	
Ant2	5825		95.89	0.18	18.41	30.00	30.27	---	PASS	
total	5825		---	---	20.9	30.00	32.76	---	PASS	
11N20MIMO	Ant1	5180		91.89	0.37	19.39	30.00	31.25	---	PASS
	Ant2	5180		90.54	0.43	20.87	30.00	32.73	---	PASS
	total	5180		---	---	23.20	30.00	35.06	---	PASS
	Ant1	5200		90.54	0.43	19.12	30.00	30.98	---	PASS
	Ant2	5200		91.89	0.37	20.71	30.00	32.57	---	PASS

	total	5200		---	---	23.00	30.00	34.86	---	PASS
	Ant1	5240		91.89	0.37	18.71	30.00	30.57	---	PASS
	Ant2	5240		90.54	0.43	18.75	30.00	30.61	---	PASS
	total	5240		---	---	21.74	30.00	33.60	---	PASS
	Ant1	5260	TPC H	91.78	0.37	6.30	18.14	18.16	30.00	PASS
			TPC L	91.78	0.37	-0.20	18.14	11.66	30.00	PASS
	Ant2	5260	TPC H	90.54	0.43	7.43	18.14	19.29	30.00	PASS
			TPC L	90.54	0.43	1.15	18.14	19.29	30.00	PASS
	total	5260	TPC H	---	---	9.91	18.14	21.77	30.00	PASS
			TPC L	---	---	3.54	18.14	15.40	30.00	PASS
	Ant1	5280	TPC H	90.54	0.43	6.59	18.14	18.45	30.00	PASS
			TPC L	90.54	0.43	0.09	18.14	11.95	30.00	PASS
	Ant2	5280	TPC H	91.89	0.37	6.72	18.14	18.58	30.00	PASS
			TPC L	91.89	0.37	0.47	18.14	12.33	30.00	PASS
	total	5280	TPC H	---	---	9.67	18.14	21.53	30.00	PASS
			TPC L	---	---	3.29	18.14	15.15	30.00	PASS
	Ant1	5320	TPC H	91.89	0.37	6.49	18.14	18.35	30.00	PASS
			TPC L	91.89	0.37	-0.07	18.14	11.79	30.00	PASS
	Ant2	5320	TPC H	91.89	0.37	6.03	18.14	17.89	30.00	PASS
			TPC L	91.89	0.37	-0.36	18.14	11.50	30.00	PASS
	total	5320	TPC H	---	---	9.28	18.14	21.14	30.00	PASS
			TPC L	---	---	2.80	18.14	14.66	30.00	PASS
	Ant1	5500	TPC H	91.89	0.37	6.91	18.14	18.77	30.00	PASS
			TPC L	91.89	0.37	-0.06	18.14	11.80	30.00	PASS
	Ant2	5500	TPC H	90.54	0.43	5.81	18.14	17.67	30.00	PASS
			TPC L	90.54	0.43	-0.80	18.14	11.06	30.00	PASS
	total	5500	TPC H	---	---	9.41	18.14	21.27	30.00	PASS
			TPC L	---	---	2.60	18.14	14.46	30.00	PASS
	Ant1	5580	TPC H	90.54	0.43	5.96	18.14	17.82	30.00	PASS
			TPC L	90.54	0.43	-1.16	18.14	10.70	30.00	PASS
	Ant2	5580	TPC H	90.54	0.43	7.13	18.14	18.99	30.00	PASS
			TPC L	90.54	0.43	0.12	18.14	11.98	30.00	PASS
	total	5580	TPC H	---	---	9.59	18.14	21.45	30.00	PASS
			TPC L	---	---	2.54	18.14	14.40	30.00	PASS
	Ant1	5700	TPC H	90.54	0.43	5.53	18.14	17.39	30.00	PASS
			TPC L	90.54	0.43	-1.62	18.14	10.24	30.00	PASS
	Ant2	5700	TPC H	91.89	0.37	5.71	18.14	17.57	30.00	PASS
			TPC L	91.89	0.37	-1.35	18.14	10.51	30.00	PASS
	total	5700	TPC H	---	---	8.63	18.14	20.49	30.00	PASS
			TPC L	---	---	1.53	18.14	13.39	30.00	PASS
	Ant1	5745		90.54	0.43	16.81	30.00	28.67	---	PASS
	Ant2	5745		90.54	0.43	19.04	30.00	30.90	---	PASS
	total	5745		---	---	21.08	30.00	32.94	---	PASS
	Ant1	5785		91.89	0.37	17.01	30.00	28.87	---	PASS
	Ant2	5785		90.54	0.43	18.71	30.00	30.57	---	PASS
	total	5785		---	---	20.95	30.00	32.81	---	PASS
	Ant1	5825		91.89	0.37	17.33	30.00	29.19	---	PASS
	Ant2	5825		90.54	0.43	18.51	30.00	30.37	---	PASS
	total	5825		---	---	20.97	30.00	32.83	---	PASS
11N40MIMO	Ant1	5190		85.00	0.71	14.54	30.00	26.40	---	PASS
	Ant2	5190		85.37	0.69	16.39	30.00	28.25	---	PASS
	total	5190		---	---	18.57	30.00	30.43	---	PASS
	Ant1	5230		85.00	0.71	13.73	30.00	25.59	---	PASS
	Ant2	5230		85.37	0.69	15.37	30.00	27.23	---	PASS
	total	5230		---	---	17.64	30.00	29.50	---	PASS
	Ant1	5270	TPC H	85.37	0.69	9.45	18.14	21.31	30.00	PASS
			TPC L	85.37	0.69	2.47	18.14	14.33	30.00	PASS
	Ant2	5270	TPC H	85.37	0.69	10.01	18.14	21.87	30.00	PASS
			TPC L	85.37	0.69	3.73	18.14	15.59	30.00	PASS
	total	5270	TPC H	---	---	12.75	18.14	24.61	30.00	PASS
			TPC L	---	---	6.16	18.14	18.02	30.00	PASS
	Ant1	5310	TPC H	85.37	0.69	9.60	18.14	21.46	30.00	PASS
			TPC L	85.37	0.69	2.54	18.14	14.40	30.00	PASS
	Ant2	5310	TPC H	85.00	0.71	9.33	18.14	21.19	30.00	PASS

11AC20MIMO	total	5310	TPC L	85.00	0.71	2.94	18.14	14.80	30.00	PASS
			TPC H	---	---	12.48	18.14	23.34	30.00	PASS
			TPC L	---	---	5.75	18.14	17.61	30.00	PASS
	Ant1	5510	TPC H	85.37	0.69	10.7	18.14	22.56	30.00	PASS
			TPC L	85.37	0.69	3.82	18.14	15.68	30.00	PASS
	Ant2	5510	TPC H	85.37	0.69	10.28	18.14	22.14	30.00	PASS
			TPC L	85.37	0.69	3.28	18.14	15.14	30.00	PASS
	total	5510	TPC H	---	---	13.19	18.14	25.05	30.00	PASS
			TPC L	---	---	6.57	18.14	18.43	30.00	PASS
	Ant1	5550	TPC H	85.37	0.69	10.26	18.14	22.06	30.00	PASS
			TPC L	85.37	0.69	3.10	18.14	14.96	30.00	PASS
	Ant2	5550	TPC H	85.37	0.69	10.56	18.14	22.42	30.00	PASS
			TPC L	85.37	0.69	3.49	18.14	15.35	30.00	PASS
	total	5550	TPC H	---	---	13.42	18.14	25.28	30.00	PASS
			TPC L	---	---	6.31	18.14	18.17	30.00	PASS
	Ant1	5670	TPC H	85.37	0.69	9.60	18.14	21.16	30.00	PASS
			TPC L	85.37	0.69	2.31	18.14	14.17	30.00	PASS
	Ant2	5670	TPC H	85.37	0.69	10.25	18.14	22.11	30.00	PASS
			TPC L	85.37	0.69	3.18	18.14	15.04	30.00	PASS
	total	5670	TPC H	---	---	12.95	18.14	24.81	30.00	PASS
			TPC L	---	---	5.78	18.14	17.64	30.00	PASS
	Ant1	5755		82.93	0.81	17.15	30.00	29.01	---	PASS
	Ant2	5755		82.93	0.81	19.16	30.00	31.02	---	PASS
	total	5755		---	---	21.28	30.00	33.14	---	PASS
	Ant1	5795		82.93	0.81	17.14	30.00	29.00	---	PASS
	Ant2	5795		85.00	0.71	18.63	30.00	30.49	---	PASS
	total	5795		---	---	20.96	30.00	32.82	---	PASS
	Ant1	5180		94.93	0.23	19.27	30.00	31.13	---	PASS
	Ant2	5180		95.65	0.19	20.74	30.00	32.60	---	PASS
	total	5180		---	---	23.08	30.00	34.94	---	PASS
	Ant1	5200		94.93	0.23	19.04	30.00	30.90	---	PASS
	Ant2	5200		95.65	0.19	20.60	30.00	32.46	---	PASS
	total	5200		---	---	22.90	30.00	34.76	---	PASS
	Ant1	5240		95.65	0.19	18.75	30.00	30.61	---	PASS
	Ant2	5240		95.65	0.19	19.79	30.00	31.65	---	PASS
	total	5240		---	---	22.31	30.00	34.17	---	PASS
	Ant1	5260	TPC H	95.65	0.19	6.33	18.14	18.19	30.00	PASS
			TPC L	95.65	0.19	-0.25	18.14	11.61	30.00	PASS
	Ant2	5260	TPC H	95.65	0.19	7.01	18.14	18.87	30.00	PASS
			TPC L	95.65	0.19	0.66	18.14	12.52	30.00	PASS
total	5260	TPC H	---	---	9.69	18.14	21.55	30.00	PASS	
		TPC L	---	---	3.24	18.14	15.10	30.00	PASS	
Ant1	5280	TPC H	95.65	0.19	6.51	18.14	18.37	30.00	PASS	
		TPC L	95.65	0.19	-0.09	18.14	11.77	30.00	PASS	
Ant2	5280	TPC H	95.65	0.19	7.46	18.14	19.32	30.00	PASS	
		TPC L	95.65	0.19	1.05	18.14	12.91	30.00	PASS	
total	5280	TPC H	---	---	10.02	18.14	21.88	30.00	PASS	
		TPC L	---	---	3.53	18.14	15.39	30.00	PASS	
Ant1	5320	TPC H	94.93	0.23	6.46	18.14	18.32	30.00	PASS	
		TPC L	94.93	0.23	-0.09	18.14	11.77	30.00	PASS	
Ant2	5320	TPC H	95.62	0.19	6.71	18.14	18.57	30.00	PASS	
		TPC L	95.62	0.19	0.18	18.14	12.04	30.00	PASS	
total	5320	TPC H	---	---	9.6	18.14	21.46	30.00	PASS	
		TPC L	---	---	3.06	18.14	14.92	30.00	PASS	
Ant1	5500	TPC H	95.65	0.19	6.68	18.14	18.54	30.00	PASS	
		TPC L	95.65	0.19	-0.42	18.14	11.44	30.00	PASS	
Ant2	5500	TPC H	95.65	0.19	5.66	18.14	17.52	30.00	PASS	
		TPC L	95.65	0.19	-1.32	18.14	10.54	30.00	PASS	
total	5500	TPC H	---	---	9.21	18.14	21.07	30.00	PASS	
		TPC L	---	---	2.16	18.14	14.02	30.00	PASS	
Ant1	5580	TPC H	95.65	0.19	5.47	18.14	17.33	30.00	PASS	
		TPC L	95.65	0.19	-1.59	18.14	10.27	30.00	PASS	
Ant2	5580	TPC H	94.93	0.23	6.50	18.14	18.36	30.00	PASS	
		TPC L	94.93	0.23	-0.45	18.14	11.41	30.00	PASS	

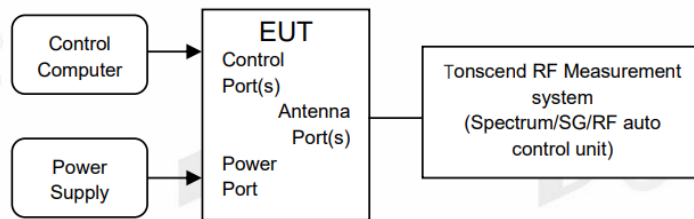
	total	5580	TPC H	---	---	9.03	18.14	20.89	30.00	PASS	
			TPC L	---	---	2.03	18.14	13.89	30.00	PASS	
	Ant1	5700	TPC H	95.65	0.19	5.05	18.14	16.91	30.00	PASS	
			TPC L	95.65	0.19	-2.04	18.14	9.82	30.00	PASS	
	Ant2	5700	TPC H	94.93	0.23	5.15	18.14	17.01	30.00	PASS	
			TPC L	94.93	0.23	-1.84	18.14	10.02	30.00	PASS	
	total	5700	TPC H	---	---	8.11	18.14	19.97	30.00	PASS	
			TPC L	---	---	1.07	18.14	12.93	30.00	PASS	
	Ant1	5745		95.65	0.19	16.87	30.00	28.73	---	PASS	
	Ant2	5745		95.65	0.19	18.91	30.00	30.77	---	PASS	
	total	5745		---	---	21.02	30.00	32.88	---	PASS	
	Ant1	5785		95.65	0.19	16.89	30.00	28.75	---	PASS	
	Ant2	5785		95.65	0.19	18.52	30.00	30.38	---	PASS	
	total	5785		---	---	20.79	30.00	32.65	---	PASS	
	Ant1	5825		95.65	0.19	17.16	30.00	29.02	---	PASS	
	Ant2	5825		94.93	0.23	18.36	30.00	30.22	---	PASS	
	total	5825		---	---	20.81	30.00	32.67	---	PASS	
	11AC40MIMO	Ant1	5190		91.67	0.38	14.06	30.00	25.92	---	PASS
		Ant2	5190		91.55	0.38	16.07	30.00	27.93	---	PASS
		total	5190		---	---	18.19	30.00	30.05	---	PASS
Ant1		5230		91.55	0.38	13.73	30.00	25.59	---	PASS	
Ant2		5230		91.67	0.38	15.32	30.00	27.18	---	PASS	
total		5230		---	---	17.61	30.00	29.47	---	PASS	
Ant1		5270	TPC H	91.55	0.38	9.39	18.14	21.25	30.00	PASS	
			TPC L	91.55	0.38	2.36	18.14	14.22	30.00	PASS	
Ant2		5270	TPC H	90.28	0.44	10.05	18.14	21.91	30.00	PASS	
			TPC L	90.28	0.44	3.23	18.14	15.09	30.00	PASS	
total		5270	TPC H	---	---	12.74	18.14	24.60	30.00	PASS	
			TPC L	---	---	5.83	18.14	17.69	30.00	PASS	
Ant1		5310	TPC H	91.55	0.38	9.49	18.14	21.35	30.00	PASS	
			TPC L	91.55	0.38	2.44	18.14	14.30	30.00	PASS	
Ant2		5310	TPC H	90.28	0.44	9.76	18.14	21.62	30.00	PASS	
			TPC L	90.28	0.44	2.77	18.14	14.63	30.00	PASS	
total		5310	TPC H	---	---	12.64	18.14	24.50	30.00	PASS	
			TPC L	---	---	5.62	18.14	17.48	30.00	PASS	
Ant1		5510	TPC H	91.55	0.38	10.49	18.14	22.35	30.00	PASS	
			TPC L	91.55	0.38	3.46	18.14	15.32	30.00	PASS	
Ant2	5510	TPC H	91.55	0.38	9.65	18.14	21.51	30.00	PASS		
		TPC L	91.55	0.38	2.77	18.14	14.63	30.00	PASS		
total	5510	TPC H	---	---	13.10	18.14	24.96	30.00	PASS		
		TPC L	---	---	6.14	18.14	18.00	30.00	PASS		
Ant1	5550	TPC H	91.67	0.38	9.77	18.14	21.63	30.00	PASS		
		TPC L	91.67	0.38	2.70	18.14	14.56	30.00	PASS		
Ant2	5550	TPC H	91.67	0.38	10.07	18.14	21.93	30.00	PASS		
		TPC L	91.67	0.38	2.97	18.14	14.83	30.00	PASS		
total	5550	TPC H	---	---	12.93	18.14	24.79	30.00	PASS		
		TPC L	---	---	5.85	18.14	17.71	30.00	PASS		
Ant1	5670	TPC H	91.55	0.38	9.23	18.14	21.09	30.00	PASS		
		TPC L	91.55	0.38	2.16	18.14	14.02	30.00	PASS		
Ant2	5670	TPC H	91.55	0.38	10.00	18.14	21.86	30.00	PASS		
		TPC L	91.55	0.38	2.99	18.14	14.85	30.00	PASS		
total	5670	TPC H	---	---	12.64	18.14	24.50	30.00	PASS		
		TPC L	---	---	5.61	18.14	17.47	30.00	PASS		
Ant1	5755		91.55	0.38	16.87	30.00	28.73	---	PASS		
Ant2	5755		91.55	0.38	18.83	30.00	30.69	---	PASS		
total	5755		---	---	20.97	30.00	32.83	---	PASS		
Ant1	5795		91.67	0.38	16.81	30.00	28.67	---	PASS		
Ant2	5795		91.67	0.38	18.41	30.00	30.27	---	PASS		
total	5795		---	---	20.69	30.00	32.55	---	PASS		
11AC80MIMO	Ant1	5210		84.21	0.75	13.19	30.00	25.05	---	PASS	
	Ant2	5210		84.21	0.75	13.80	30.00	25.66	---	PASS	
	total	5210		---	---	16.52	30.00	28.38	---	PASS	
	Ant1	5290	TPC H	84.21	0.75	10.81	18.14	22.67	30.00	PASS	
TPC L			84.21	0.75	3.75	18.14	15.61	30.00	PASS		

Ant2	5290	TPC H	84.21	0.75	11.81	18.14	23.67	30.00	PASS
		TPC L	84.21	0.75	4.81	18.14	16.67	30.00	PASS
total	5290	TPC H	---	---	14.35	18.14	26.21	30.00	PASS
		TPC L	---	---	7.32	18.14	19.18	30.00	PASS
Ant1	5530	TPC H	84.21	0.75	11.55	18.14	23.41	30.00	PASS
		TPC L	84.21	0.75	4.48	18.14	16.34	30.00	PASS
Ant2	5530	TPC H	84.21	0.75	10.96	18.14	22.82	30.00	PASS
		TPC L	84.21	0.75	4.03	18.14	15.89	30.00	PASS
total	5530	TPC H	---	---	14.28	18.14	26.14	30.00	PASS
		TPC L	---	---	7.27	18.14	19.13	30.00	PASS
Ant1	5610	TPC H	84.62	0.73	10.48	18.14	22.34	30.00	PASS
		TPC L	84.62	0.73	3.44	18.14	15.30	30.00	PASS
Ant2	5610	TPC H	84.21	0.75	11.36	18.14	23.22	30.00	PASS
		TPC L	84.21	0.75	4.41	18.14	16.27	30.00	PASS
total	5610	TPC H	---	---	13.95	18.14	25.81	30.00	PASS
		TPC L	---	---	6.96	18.14	18.82	30.00	PASS
Ant1	5775		84.62	0.73	17.01	30.00	28.87	---	PASS
Ant2	5775		84.21	0.75	19.00	30.00	30.86	---	PASS
total	5775		---	---	21.13	30.00	32.99	---	PASS

Note: The Duty Cycle Factor is compensated in the result.

9. Power Spectral Density

9.1. Block diagram of test setup



9.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	17 dBm/MHz	5150-5250
	11 dBm/MHz	5250-5350
	11 dBm/MHz	5470 - 5725
	30 dBm/500 kHz	5725-5850

Note:

This EUT supports CDD, and antenna gains are equal, so Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows:

For power spectral density measurements,

$N_{ANT} = 2, N_{SS} = 1$. So Directional gain = $G_{ANT} + \text{Array Gain} = 10 \log (N_{ANT}/ N_{SS}) \text{ dB} = 11.86 + 10 \log(2/1) \text{ dB} = 14.87$.

For UNII-1: This EUT belong fixed point-to-point U-NII devices as well as the directional antenna gain less than 23dBi, so the maximum power spectral density limit doesn't need to reduce.

For UNII-2A and UNII-2C: The directional antenna gain greater than 6 dBi, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi, so the power spectral density limit $11 \text{ dBm/MHz} - (14.87 - 6) \text{ dB} = 2.13 \text{ dBm/MHz}$

For UNII-3: The power spectral density limit $30 \text{ dBm/500kHz} - (14.87 - 6) = 21.13 \text{ dBm/500kHz}$.

9.3. Test procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW.

Connect the UUT to the spectrum analyser and use the following settings:

5150 MHz~5250 MHz, 5250 MHz~5350 MHz, 5470 MHz~5725 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	$\geq 3 \times \text{RBW}$

Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

5725 MHz-5850 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	500 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

9.4. Test result

Test Mode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A-CDD	Ant1	5180	8.78	≤ 17.00	PASS
	Ant2	5180	10.56	≤ 17.00	PASS
	total	5180	12.77	≤ 17.00	PASS
	Ant1	5200	8.73	≤ 17.00	PASS
	Ant2	5200	10.42	≤ 17.00	PASS
	total	5200	12.67	≤ 17.00	PASS
	Ant1	5240	8.6	≤ 17.00	PASS
	Ant2	5240	9.96	≤ 17.00	PASS
	total	5240	12.34	≤ 17.00	PASS
	Ant1	5260	-4.16	≤ 5.14	PASS
	Ant2	5260	-3.52	≤ 5.14	PASS
	total	5260	-0.82	≤ 2.13	PASS
	Ant1	5280	-3.84	≤ 5.14	PASS
	Ant2	5280	-2.95	≤ 5.14	PASS
	total	5280	-0.36	≤ 2.13	PASS
	Ant1	5320	-3.9	≤ 5.14	PASS
	Ant2	5320	-4.46	≤ 5.14	PASS
	total	5320	-1.16	≤ 2.13	PASS
	Ant1	5500	-2.63	≤ 5.14	PASS
	Ant2	5500	-2.52	≤ 5.14	PASS
	total	5500	0.44	≤ 2.13	PASS
	Ant1	5580	-3.96	≤ 5.14	PASS
	Ant2	5580	-2.05	≤ 5.14	PASS
	total	5580	0.11	≤ 2.13	PASS
	Ant1	5700	-4.19	≤ 5.14	PASS
	Ant2	5700	-2.99	≤ 5.14	PASS
	total	5700	-0.54	≤ 2.13	PASS
	Ant1	5745	3.88	≤ 24.14	PASS
	Ant2	5745	5.94	≤ 24.14	PASS
	total	5745	8.04	≤ 21.13	PASS
Ant1	5785	3.76	≤ 24.14	PASS	
Ant2	5785	5.41	≤ 24.14	PASS	
total	5785	7.67	≤ 21.13	PASS	
Ant1	5825	3.75	≤ 24.14	PASS	
Ant2	5825	4.96	≤ 24.14	PASS	
total	5825	7.41	≤ 21.13	PASS	
11N20MIMO	Ant1	5180	8.97	≤ 17.00	PASS
	Ant2	5180	10.46	≤ 17.00	PASS
	total	5180	12.79	≤ 17.00	PASS

	Ant1	5200	10.91	≤17.00	PASS
	Ant2	5200	11.24	≤17.00	PASS
	total	5200	14.09	≤17.00	PASS
	Ant1	5240	8.12	≤17.00	PASS
	Ant2	5240	9.57	≤17.00	PASS
	total	5240	11.92	≤17.00	PASS
	Ant1	5260	-4.26	≤5.14	PASS
	Ant2	5260	-3.54	≤5.14	PASS
	total	5260	-0.87	≤2.13	PASS
	Ant1	5280	-3.92	≤5.14	PASS
	Ant2	5280	-3.58	≤5.14	PASS
	total	5280	-0.74	≤2.13	PASS
	Ant1	5320	-4.06	≤5.14	PASS
	Ant2	5320	-4.46	≤5.14	PASS
	total	5320	-1.25	≤2.13	PASS
	Ant1	5500	-3	≤5.14	PASS
	Ant2	5500	-3.62	≤5.14	PASS
	total	5500	-0.29	≤2.13	PASS
	Ant1	5580	-4	≤5.14	PASS
	Ant2	5580	-2.77	≤5.14	PASS
	total	5580	-0.33	≤2.13	PASS
	Ant1	5700	-4.26	≤5.14	PASS
	Ant2	5700	-3.92	≤5.14	PASS
	total	5700	-1.08	≤2.13	PASS
	Ant1	5745	3.57	≤24.14	PASS
	Ant2	5745	5.81	≤24.14	PASS
	total	5745	7.84	≤21.13	PASS
	Ant1	5785	3.53	≤24.14	PASS
	Ant2	5785	5.4	≤24.14	PASS
	total	5785	7.58	≤21.13	PASS
	Ant1	5825	3.6	≤24.14	PASS
	Ant2	5825	4.84	≤24.14	PASS
	total	5825	7.27	≤21.13	PASS
	Ant1	5190	1.12	≤17.00	PASS
	Ant2	5190	3.01	≤17.00	PASS
	total	5190	5.18	≤17.00	PASS
	Ant1	5230	0.25	≤17.00	PASS
	Ant2	5230	2.25	≤17.00	PASS
	total	5230	4.37	≤17.00	PASS
	Ant1	5270	-4.02	≤5.14	PASS
	Ant2	5270	-2.9	≤5.14	PASS
	total	5270	-0.41	≤2.13	PASS
	Ant1	5310	-3.82	≤5.14	PASS
	Ant2	5310	-3.55	≤5.14	PASS
	total	5310	-0.67	≤2.13	PASS
	Ant1	5510	-1.72	≤5.14	PASS
	Ant2	5510	-2.44	≤5.14	PASS
	total	5510	0.95	≤2.13	PASS
	Ant1	5550	-2.52	≤5.14	PASS
	Ant2	5550	-2.16	≤5.14	PASS
	total	5550	0.67	≤2.13	PASS
	Ant1	5670	-3.63	≤5.14	PASS
	Ant2	5670	-2.85	≤5.14	PASS
	total	5670	-0.21	≤2.13	PASS
	Ant1	5755	0.94	≤24.14	PASS
	Ant2	5755	2.98	≤24.14	PASS
	total	5755	5.09	≤21.13	PASS
	Ant1	5795	0.68	≤24.14	PASS
	Ant2	5795	2.37	≤24.14	PASS
	total	5795	4.62	≤21.13	PASS
11N40MIMO	Ant1	5180	8.85	≤17.00	PASS
	Ant2	5180	10.27	≤17.00	PASS
	total	5180	12.63	≤17.00	PASS
11AC20MIMO	Ant1	5200	8.52	≤17.00	PASS

	Ant2	5200	10.02	≤17.00	PASS
	total	5200	12.34	≤17.00	PASS
	Ant1	5240	7.98	≤17.00	PASS
	Ant2	5240	9.51	≤17.00	PASS
	total	5240	11.82	≤17.00	PASS
	Ant1	5260	-4.14	≤5.14	PASS
	Ant2	5260	-3.29	≤5.14	PASS
	total	5260	-0.68	≤2.13	PASS
	Ant1	5280	-3.99	≤5.14	PASS
	Ant2	5280	-3.01	≤5.14	PASS
	total	5280	-0.46	≤2.13	PASS
	Ant1	5320	-3.9	≤5.14	PASS
	Ant2	5320	-3.8	≤5.14	PASS
	total	5320	-0.84	≤2.13	PASS
	Ant1	5500	-3.77	≤5.14	PASS
	Ant2	5500	-4.7	≤5.14	PASS
	total	5500	-1.20	≤2.13	PASS
	Ant1	5580	-5.07	≤5.14	PASS
	Ant2	5580	-3.89	≤5.14	PASS
	total	5580	-1.43	≤2.13	PASS
	Ant1	5700	-5.3	≤5.14	PASS
	Ant2	5700	-5.17	≤5.14	PASS
	total	5700	-2.22	≤2.13	PASS
	Ant1	5745	3.58	≤24.14	PASS
	Ant2	5745	5.62	≤24.14	PASS
	total	5745	7.73	≤21.13	PASS
	Ant1	5785	3.45	≤24.14	PASS
	Ant2	5785	5.18	≤24.14	PASS
	total	5785	7.41	≤21.13	PASS
	Ant1	5825	3.4	≤24.14	PASS
	Ant2	5825	4.72	≤24.14	PASS
	total	5825	7.12	≤21.13	PASS
	Ant1	5190	0.71	≤17.00	PASS
	Ant2	5190	2.79	≤17.00	PASS
	total	5190	4.88	≤17.00	PASS
	Ant1	5230	0.15	≤17.00	PASS
	Ant2	5230	2.03	≤17.00	PASS
	total	5230	4.20	≤17.00	PASS
	Ant1	5270	-4.07	≤5.14	PASS
	Ant2	5270	-3.1	≤5.14	PASS
	total	5270	-0.55	≤2.13	PASS
	Ant1	5310	-3.86	≤5.14	PASS
	Ant2	5310	-3.59	≤5.14	PASS
	total	5310	-0.71	≤2.13	PASS
	Ant1	5510	-2.83	≤5.14	PASS
	Ant2	5510	-3.55	≤5.14	PASS
	total	5510	-0.16	≤2.13	PASS
	Ant1	5550	-3.36	≤5.14	PASS
	Ant2	5550	-3.22	≤5.14	PASS
	total	5550	-0.28	≤2.13	PASS
	Ant1	5670	-4.36	≤5.14	PASS
	Ant2	5670	-3.57	≤5.14	PASS
	total	5670	-0.94	≤2.13	PASS
	Ant1	5755	0.49	≤24.14	PASS
	Ant2	5755	2.44	≤24.14	PASS
	total	5755	4.58	≤21.13	PASS
	Ant1	5795	0.3	≤24.14	PASS
	Ant2	5795	2.1	≤24.14	PASS
	total	5795	4.30	≤21.13	PASS
	Ant1	5210	-3.5	≤17.00	PASS
	Ant2	5210	-2.88	≤17.00	PASS
	total	5210	-0.17	≤17.00	PASS
	Ant1	5290	-5.77	≤5.14	PASS
	Ant2	5290	-4.85	≤5.14	PASS

	total	5290	-2.28	≤2.13	PASS
	Ant1	5530	-4.91	≤5.14	PASS
	Ant2	5530	-5.38	≤5.14	PASS
	total	5530	-2.13	≤2.13	PASS
	Ant1	5610	-6.03	≤5.14	PASS
	Ant2	5610	-5.19	≤5.14	PASS
	total	5610	-2.58	≤2.13	PASS
	Ant1	5775	-2.29	≤24.14	PASS
	Ant2	5775	-0.48	≤24.14	PASS
	total	5775	1.72	≤21.13	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
 2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

9.5. Test graphs





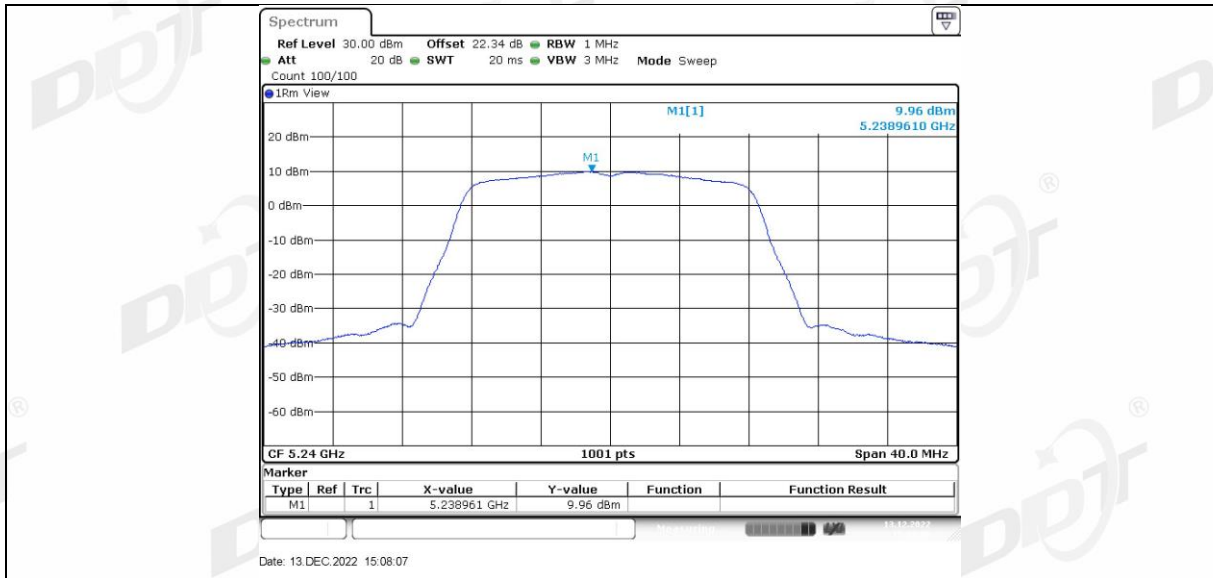
11A-CDD Ant2 5200



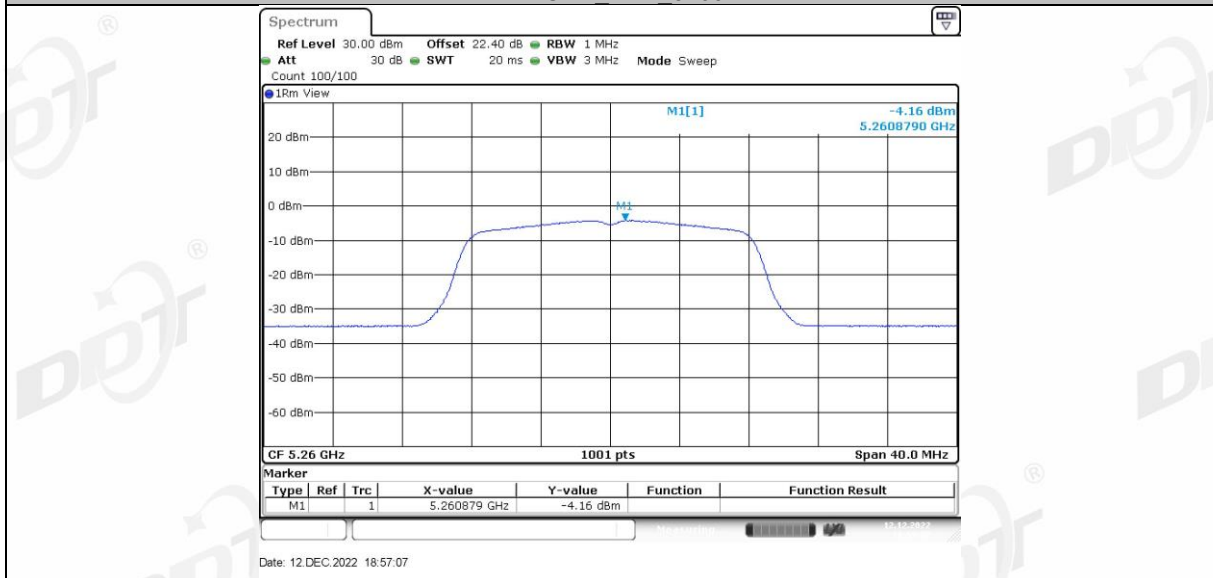
11A-CDD Ant1 5240



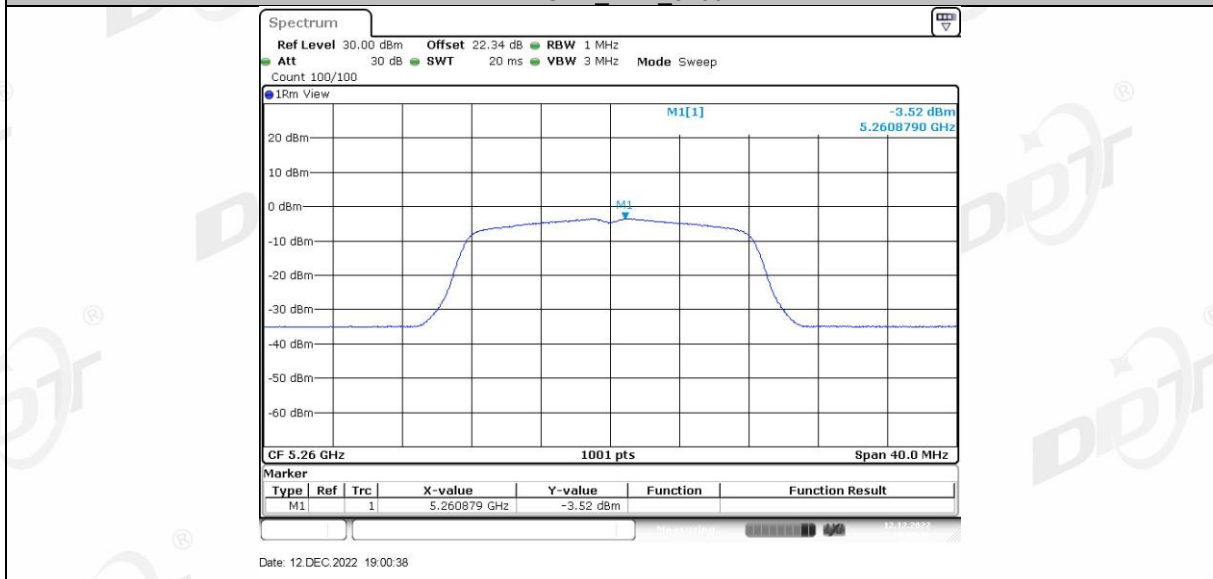
11A-CDD Ant2 5240



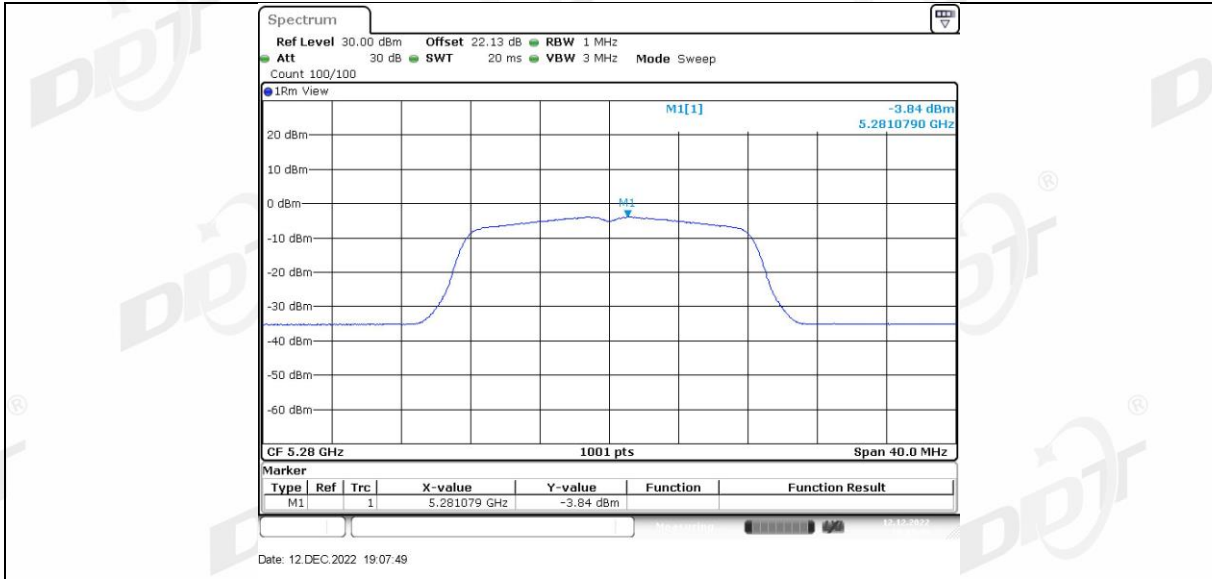
11A-CDD Ant1 5260



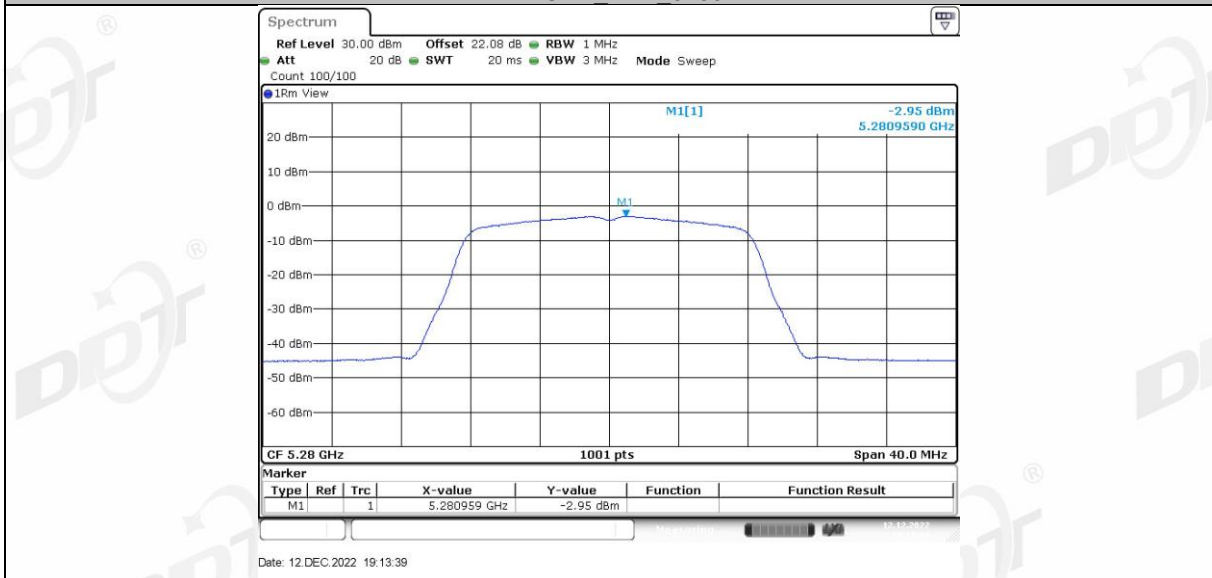
11A-CDD Ant2 5260



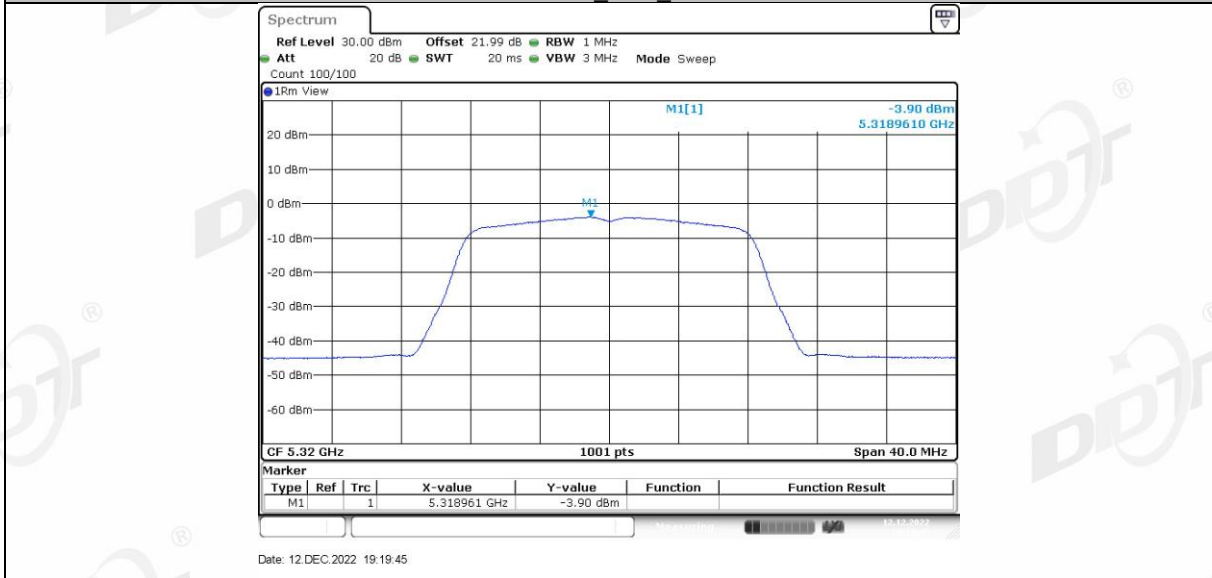
11A-CDD Ant1 5280



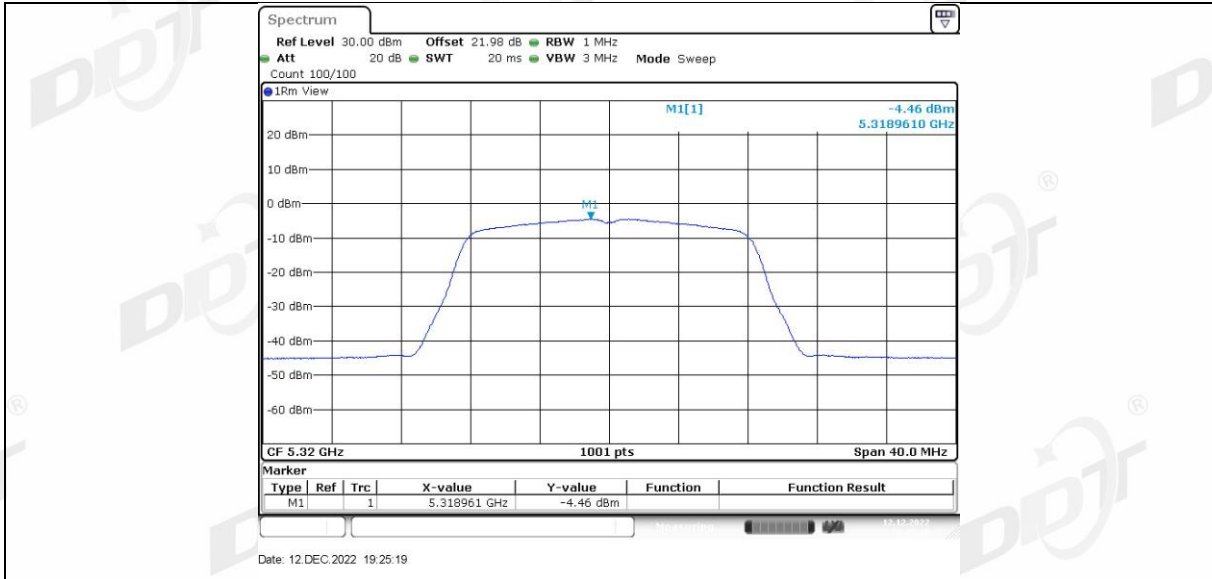
11A-CDD Ant2 5280



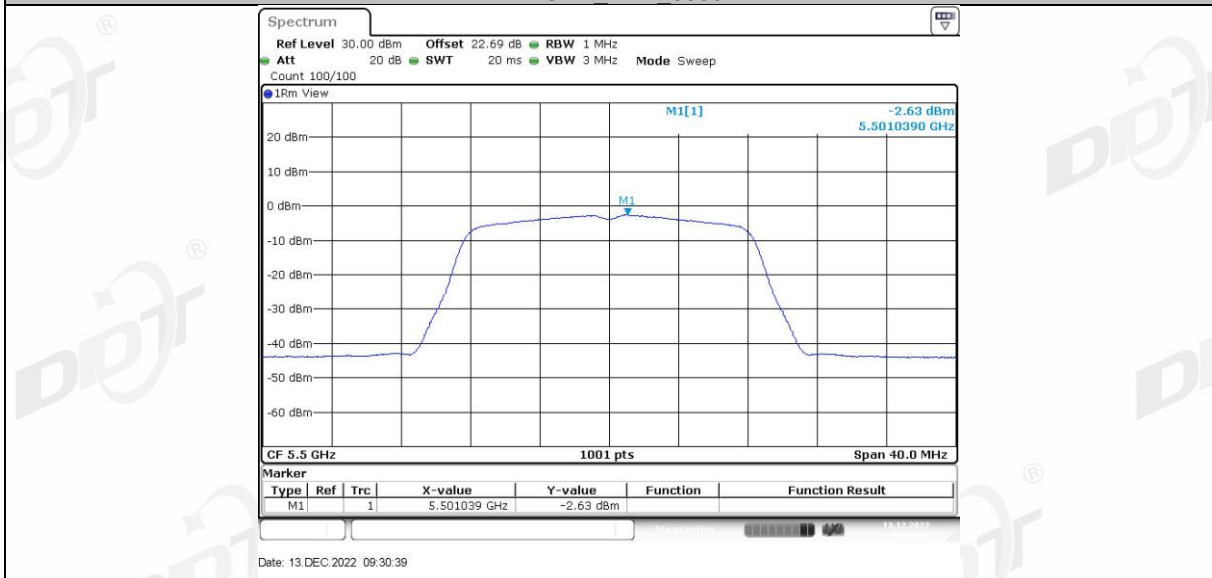
11A-CDD Ant1 5320



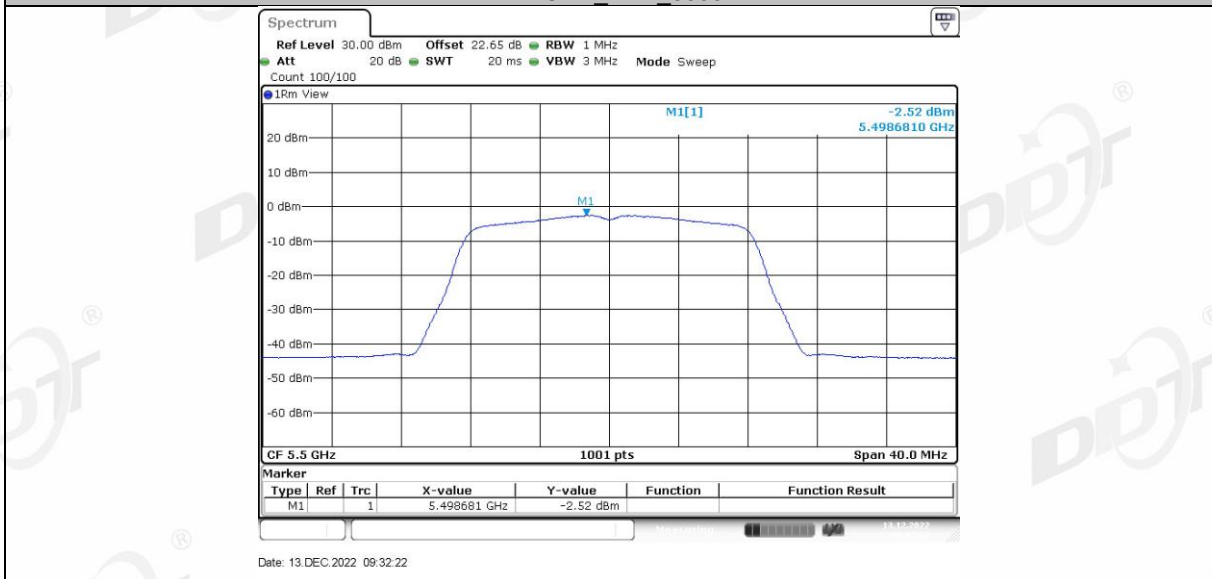
11A-CDD Ant2 5320



11A-CDD Ant1 5500



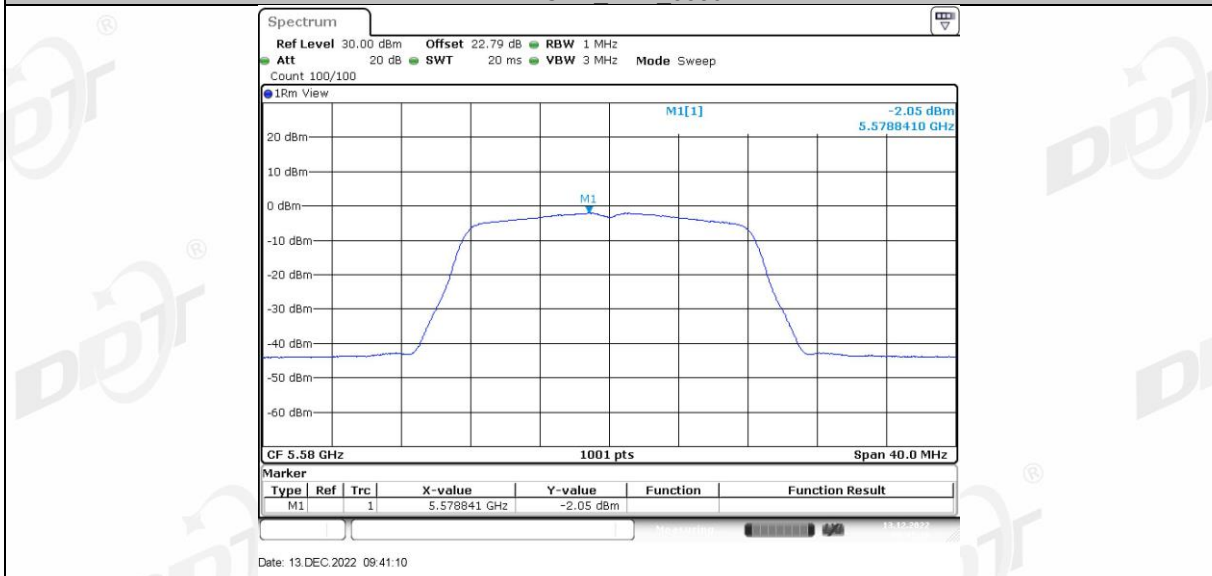
11A-CDD Ant2 5500



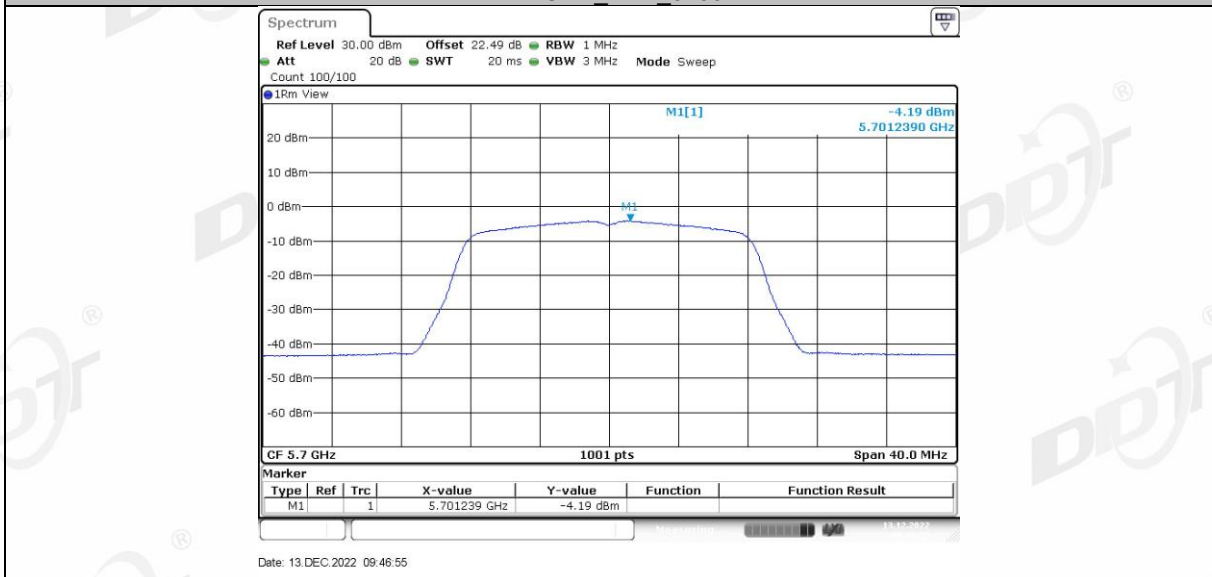
11A-CDD Ant1 5580



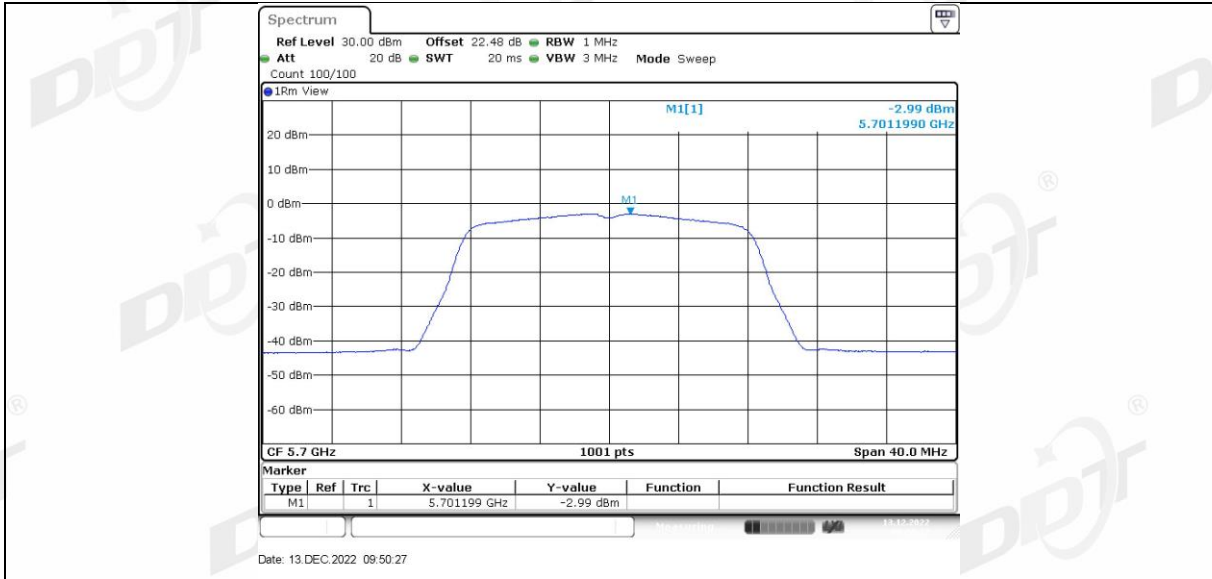
11A-CDD Ant2 5580



11A-CDD Ant1 5700



11A-CDD Ant2 5700



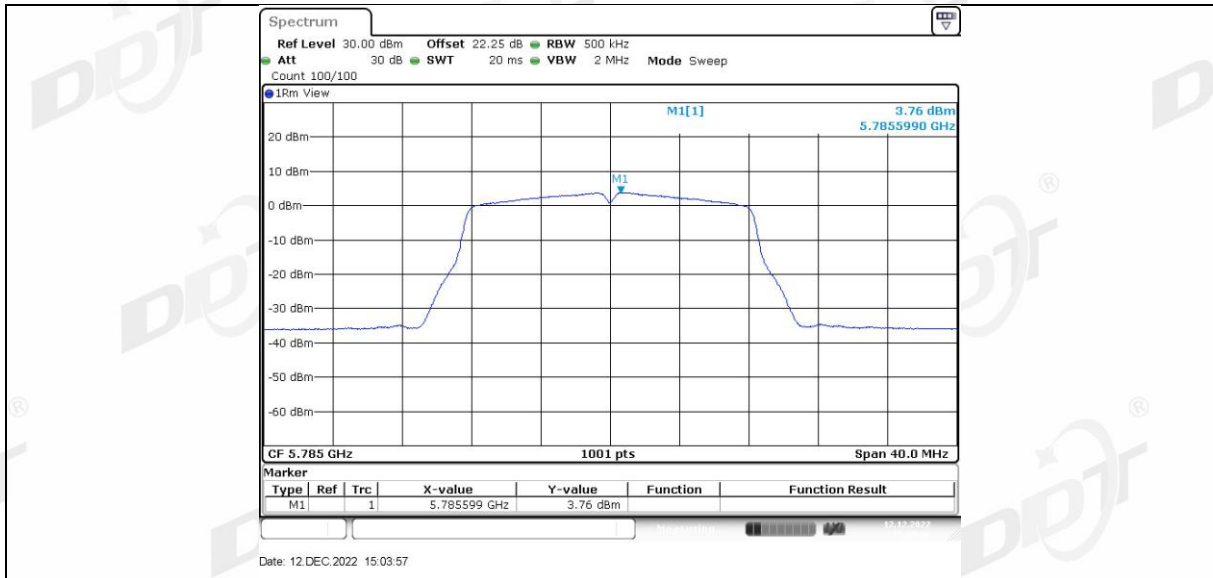
11A-CDD Ant1 5745



11A-CDD Ant2 5745



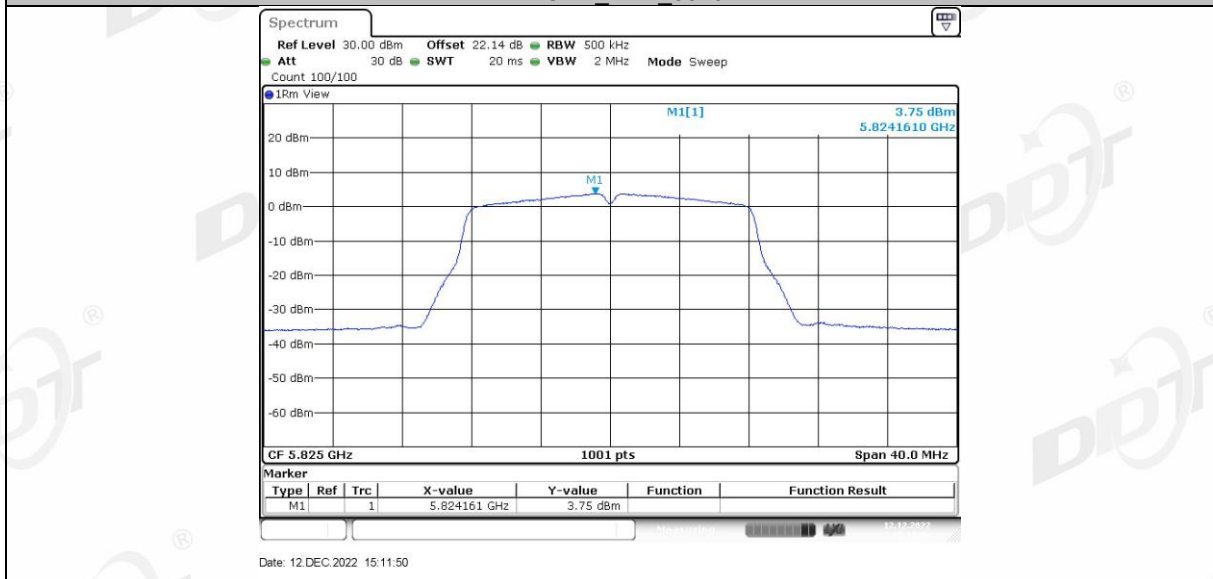
11A-CDD Ant1 5785



11A-CDD Ant2 5785



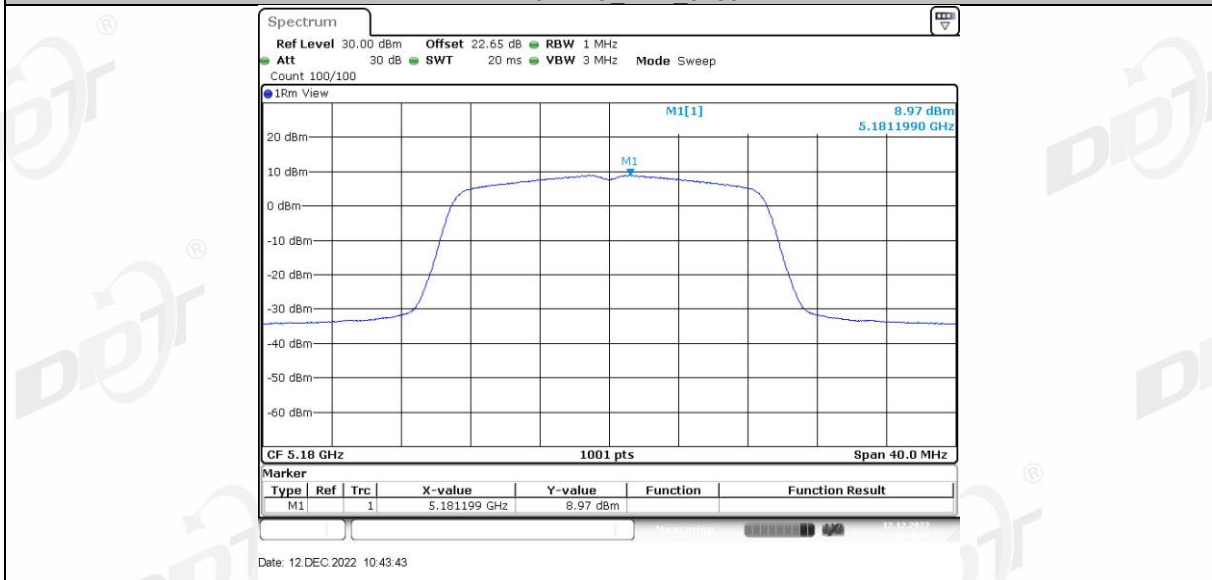
11A-CDD Ant1 5825



11A-CDD Ant2 5825



11N20MIMO Ant1 5180



11N20MIMO Ant2 5180



