Appendix for WCDMA Band 5

Product Name: 5G Window CPE
Model No: TITAN 5100

AppendixA: Average Power Output Data

Test Result

WCDMA

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band5	4132	23.95	38.45	PASS
Band5	4182	23.68	38.45	PASS
Band5	4233	23.71	38.45	PASS

HSDPA

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band5	4132	1	22.95	38.5	PASS
Band5	4132	2	22.44	38.5	PASS
Band5	4132	3	22.44	38.5	PASS
Band5	4132	4	22.44	38.5	PASS
Band5	4182	1	22.76	38.5	PASS
Band5	4182	2	22.23	38.5	PASS
Band5	4182	3	22.22	38.5	PASS
Band5	4182	4	22.23	38.5	PASS
Band5	4233	1	22.70	38.5	PASS
Band5	4233	2	22.20	38.5	PASS
Band5	4233	3	22.21	38.5	PASS
Band5	4233	4	22.22	38.5	PASS

HSUPA

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band5	4132	1	22.92	38.5	PASS
Band5	4132	2	20.96	38.5	PASS
Band5	4132	3	21.88	38.5	PASS
Band5	4132	4	20.97	38.5	PASS
Band5	4132	5	23.00	38.5	PASS
Band5	4182	1	22.77	38.5	PASS
Band5	4182	2	20.73	38.5	PASS
Band5	4182	3	21.74	38.5	PASS
Band5	4182	4	20.69	38.5	PASS

Band5	4182	5	22.74	38.5	PASS
Band5	4233	1	22.74	38.5	PASS
Band5	4233	2	20.68	38.5	PASS
Band5	4233	3	21.64	38.5	PASS
Band5	4233	4	20.71	38.5	PASS
Band5	4233	5	22.72	38.5	PASS

AppendixB:Peak-to-Average Ratio

Test Result

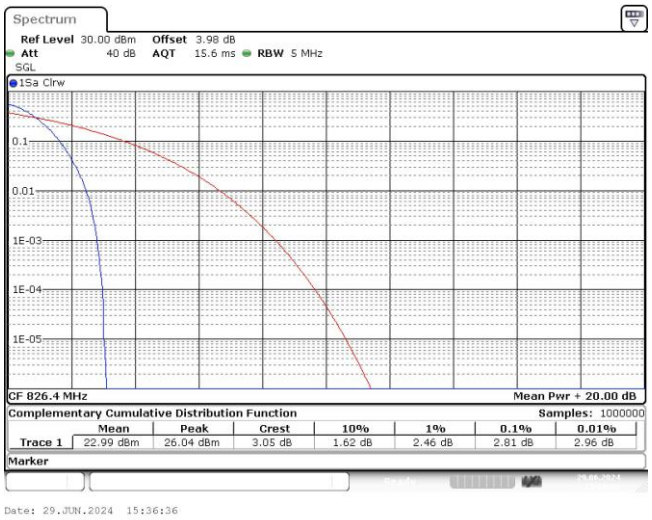
Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band5	4132	2.81	13	PASS
Band5	4182	3.33	13	PASS
Band5	4233	3.16	13	PASS

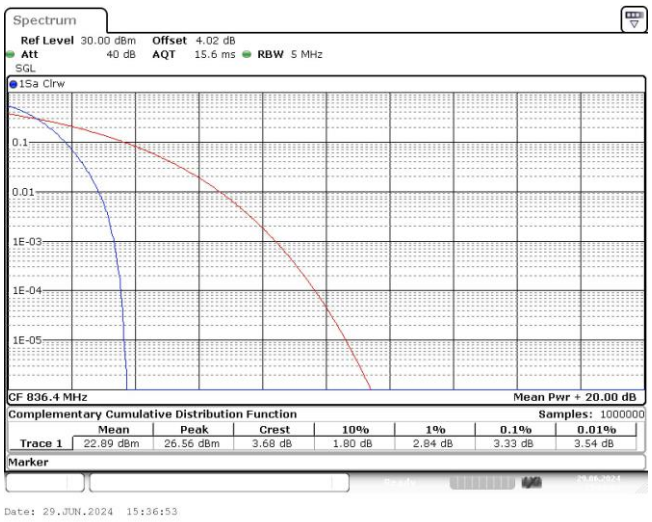
Band	Channel	SubTest	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band5	4132	1	3.1	13	PASS
Band5	4132	2	3.3	13	PASS
Band5	4132	3	3.45	13	PASS
Band5	4132	4	3.48	13	PASS
Band5	4182	1	3.48	13	PASS
Band5	4182	2	3.65	13	PASS
Band5	4182	3	3.8	13	PASS
Band5	4182	4	3.86	13	PASS
Band5	4233	1	3.42	13	PASS
Band5	4233	2	3.57	13	PASS
Band5	4233	3	3.71	13	PASS
Band5	4233	4	3.77	13	PASS

Band	Channel	SubTest	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band5	4132	1	4.09	13	PASS
Band5	4132	2	5.16	13	PASS
Band5	4132	3	4.9	13	PASS
Band5	4132	4	5.22	13	PASS
Band5	4132	5	3.86	13	PASS
Band5	4182	1	4.75	13	PASS
Band5	4182	2	5.59	13	PASS
Band5	4182	3	5.51	13	PASS
Band5	4182	4	5.62	13	PASS
Band5	4182	5	4.46	13	PASS
Band5	4233	1	4.55	13	PASS
Band5	4233	2	5.48	13	PASS

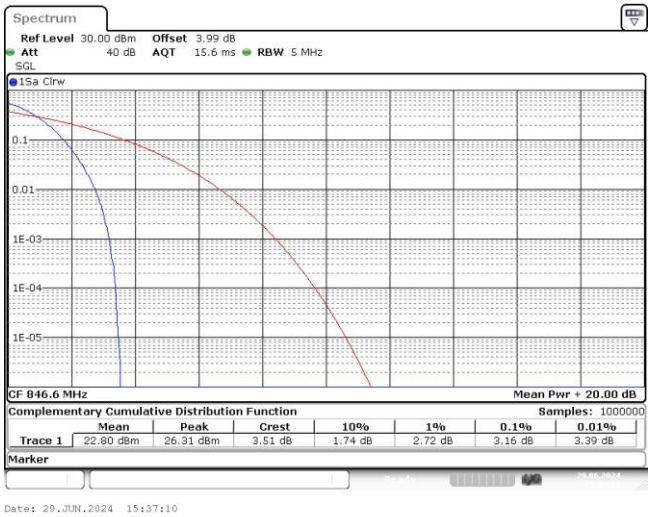
Band5	4233	3	5.36	13	PASS
Band5	4233	4	3.51	13	PASS
Band5	4233	5	4.29	13	PASS

Test Graphs

Band5-4132


Band5-4182


Band5-4233



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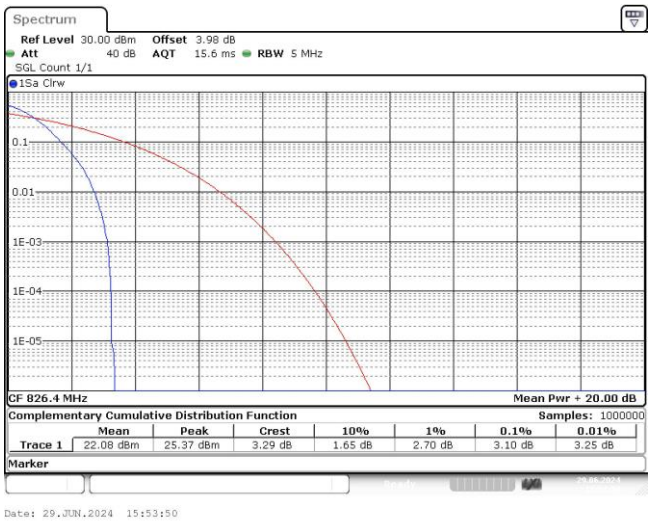
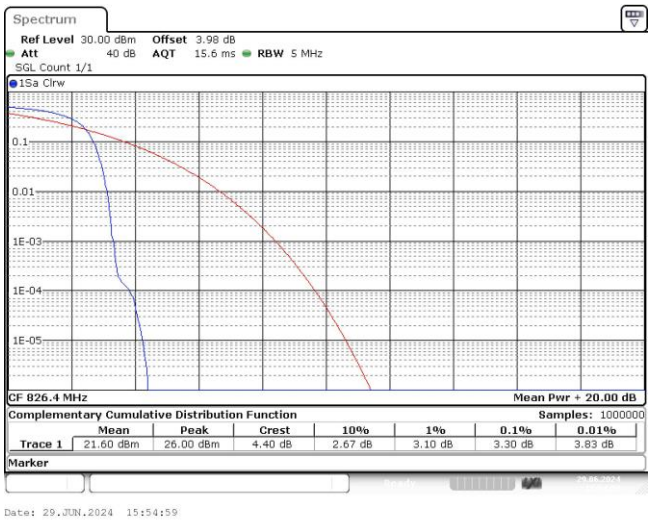
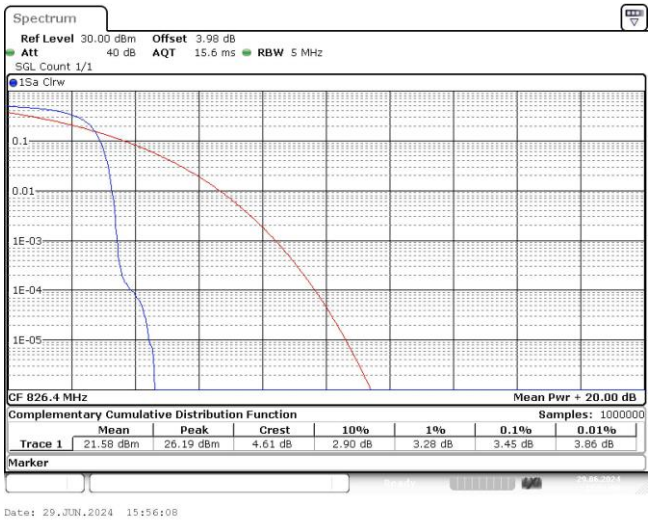


Band5-4132-2

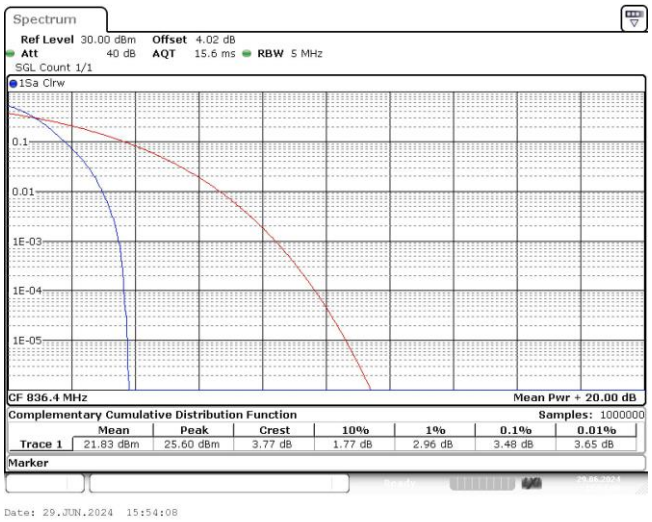


Band5-4132-3



Band5-4132-4

Band5-4182-1



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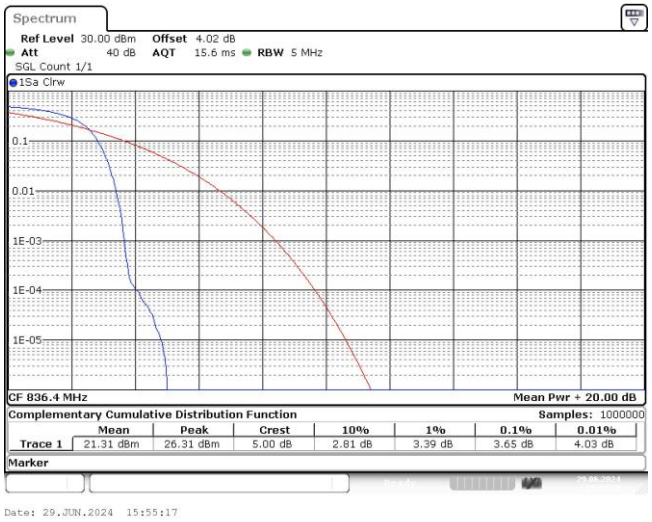
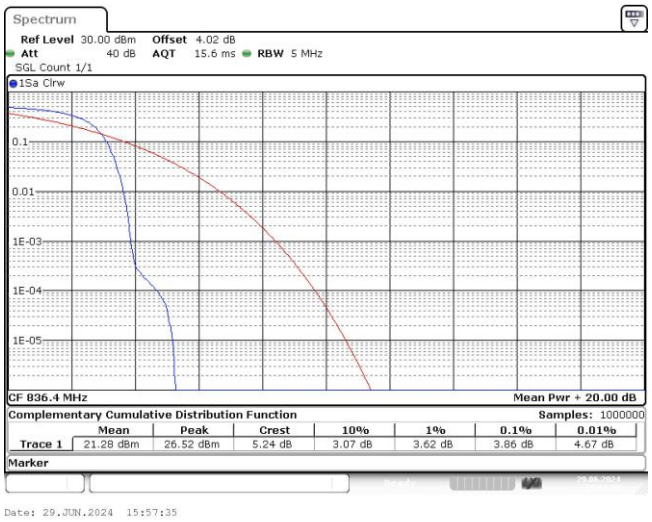
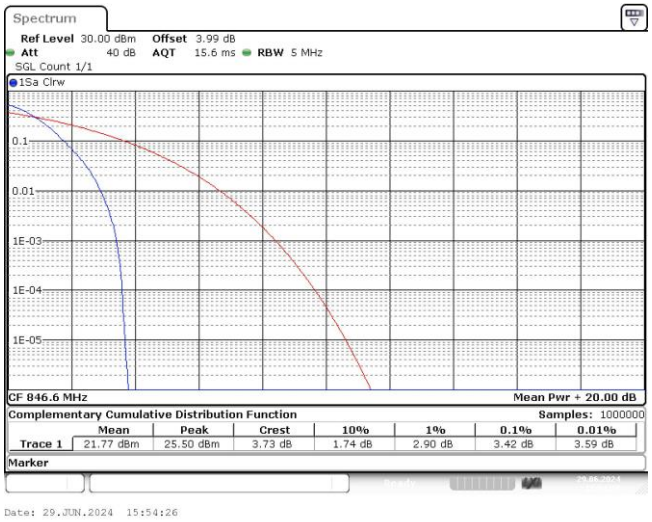


Band5-4182-3

Band5-4182-4



Band5-4233-1



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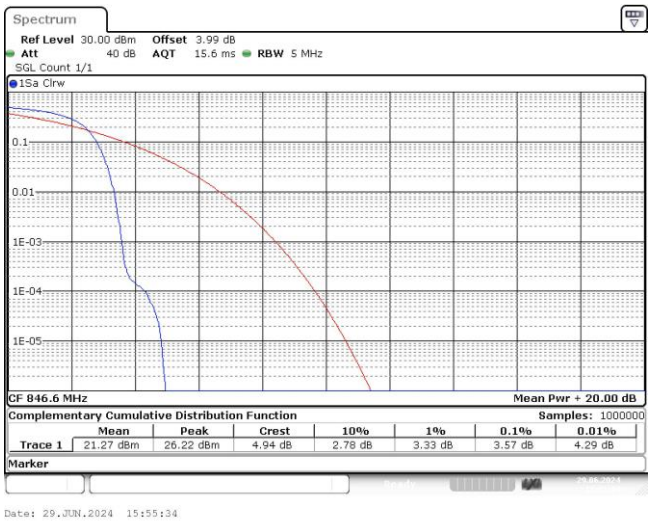
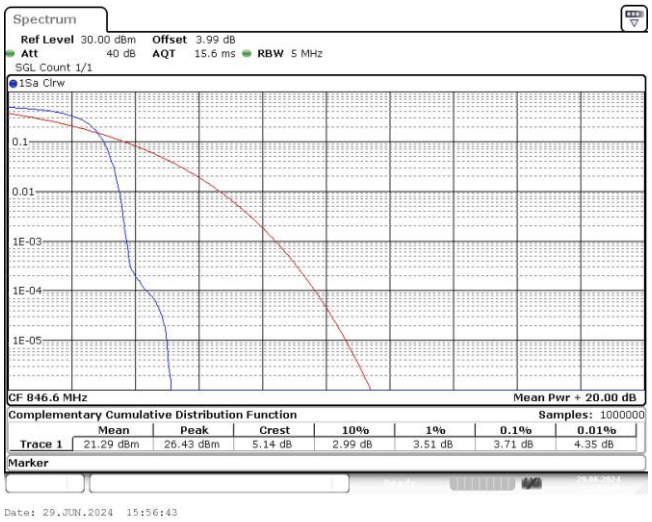
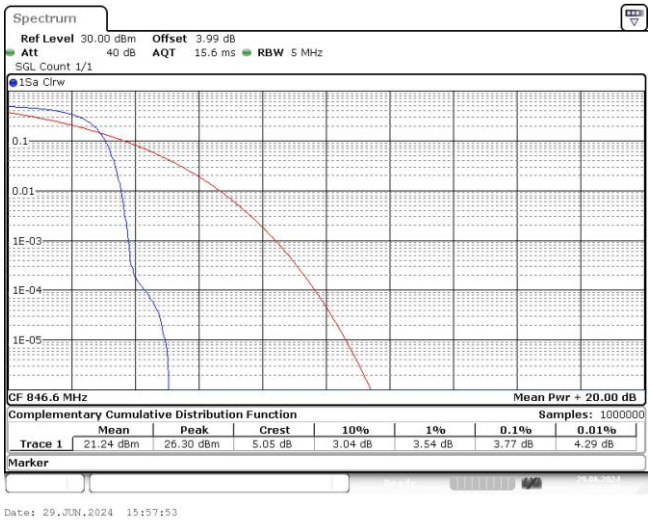


Band5-4233-3

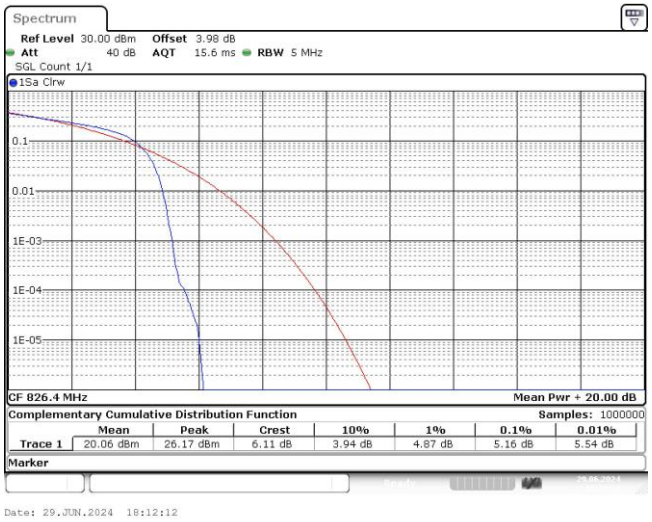


Band5-4233-4



Band5-4132-1

Band5-4132-2



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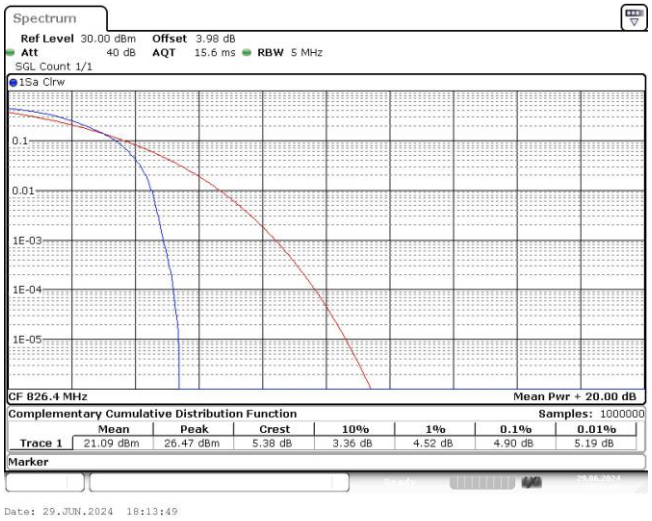

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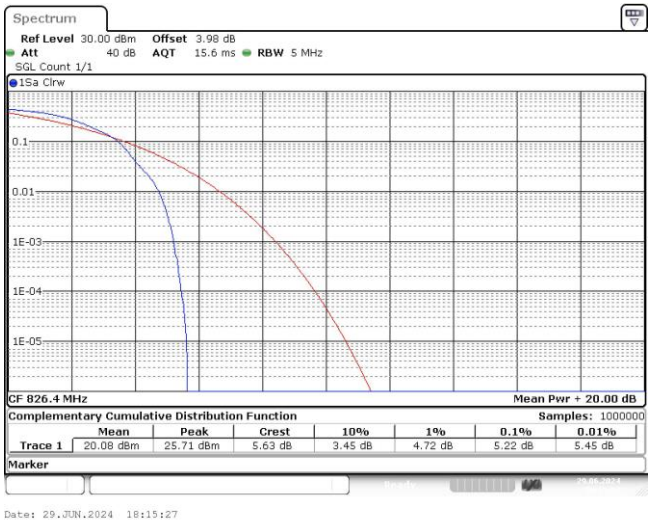

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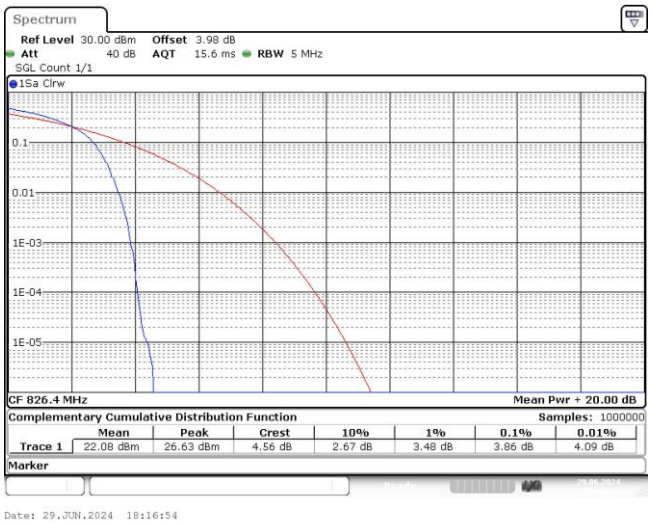
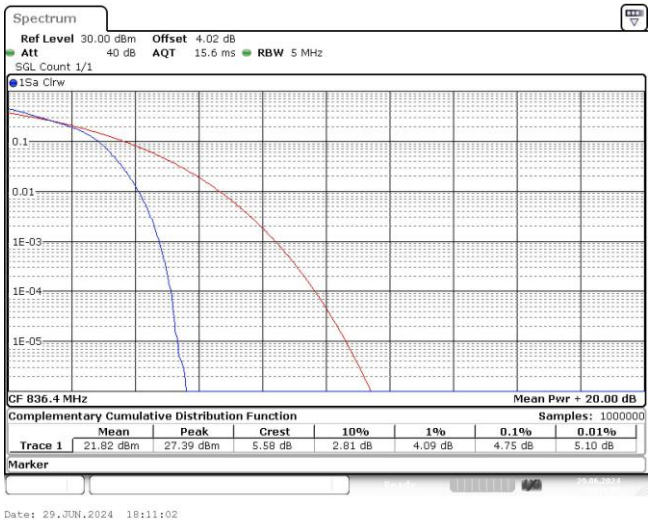


Band5-4182-1



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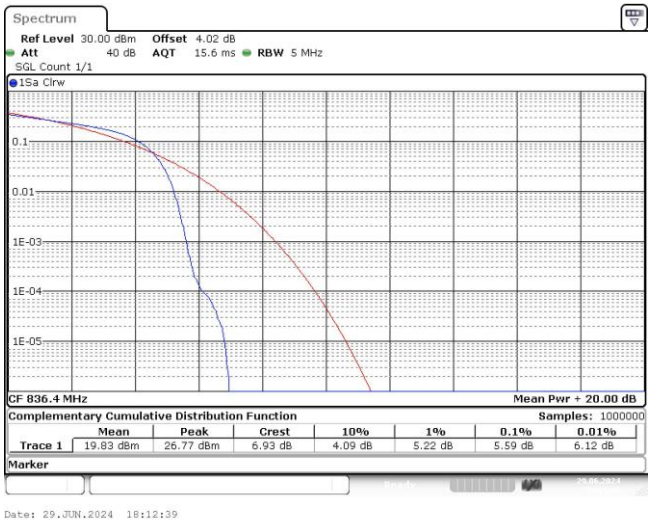
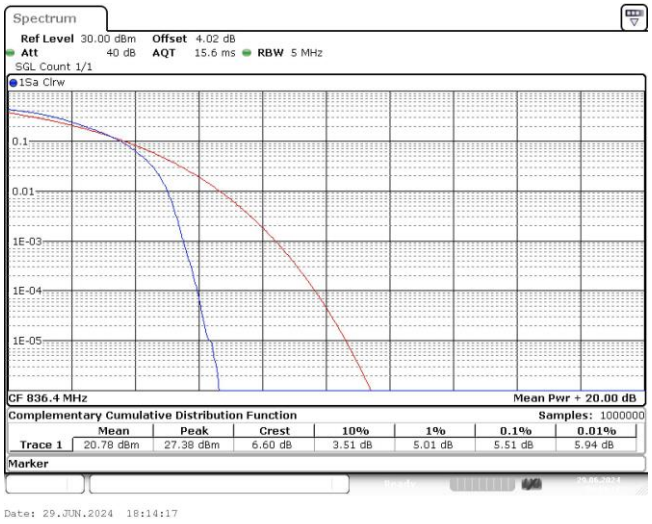
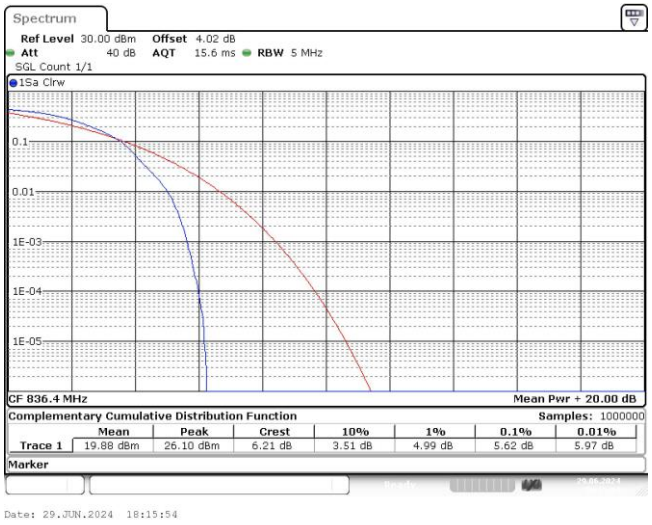


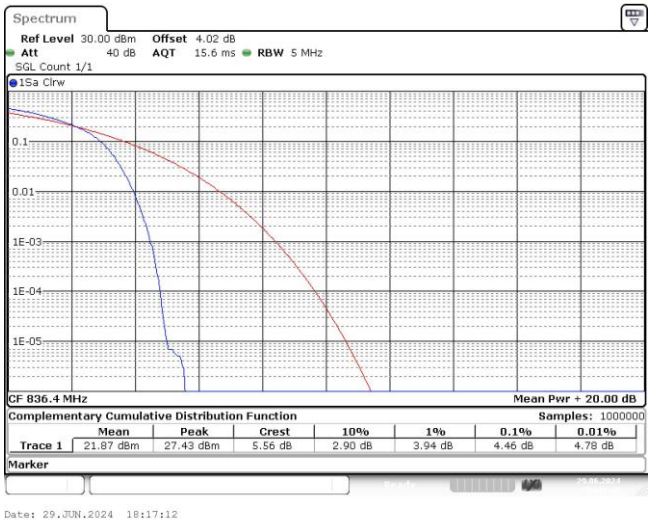
Band5-4182-3



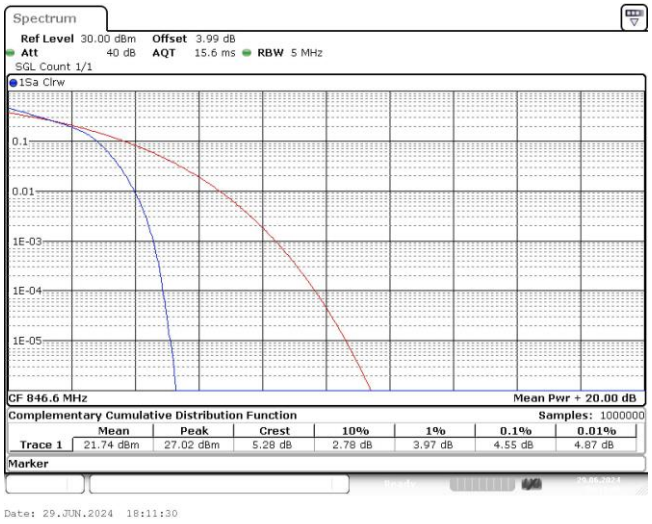
Band5-4182-4



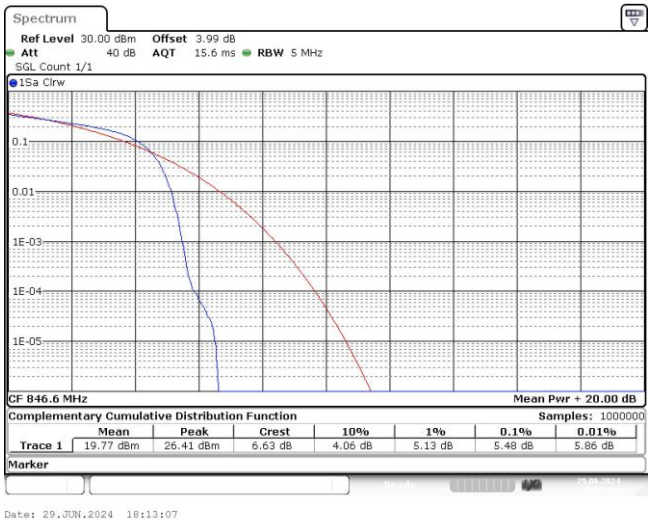
Band5-4182-5



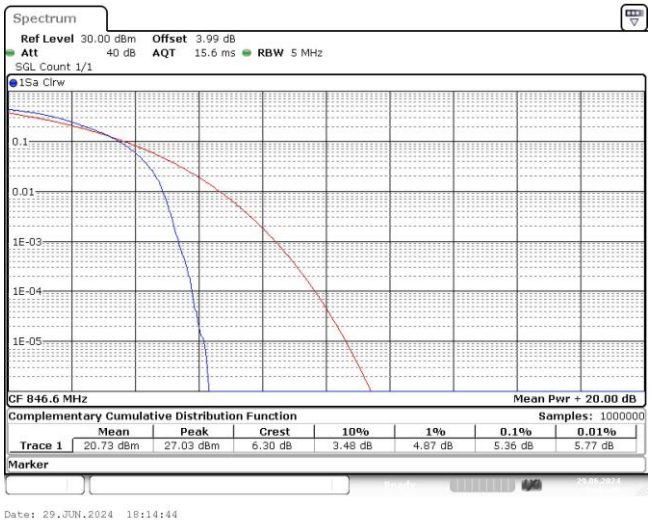
Band5-4233-1



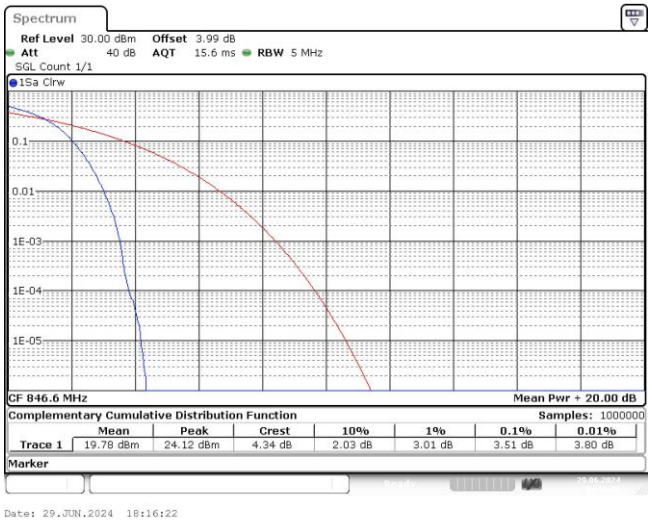
Band5-4233-2



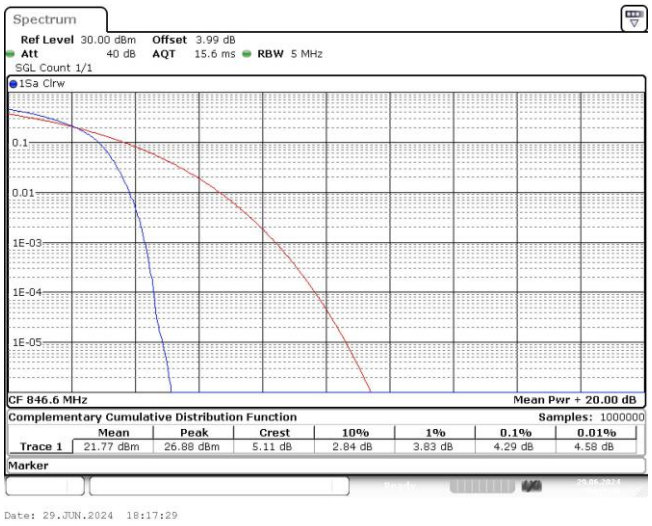
Band5-4233-3



Band5-4233-4



Band5-4233-5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1Sa Clrw
0.1
0.01
1E-03
1E-04
1E-05
CF 846.6 MHz
Mean Pwr + 20.00 dB
Complementary Cumulative Distribution Function
Samples: 1000000
Mean Peak Crest 10% 1% 0.1% 0.01%
Trace 1 21.77 dBm 26.88 dBm 5.11 dB 2.84 dB 3.83 dB 4.29 dB 4.58 dB
Marker
Date: 29.JUN.2024 18:17:29

AppendixC:26dB Bandwidth andOccupied Bandwidth

Test Result

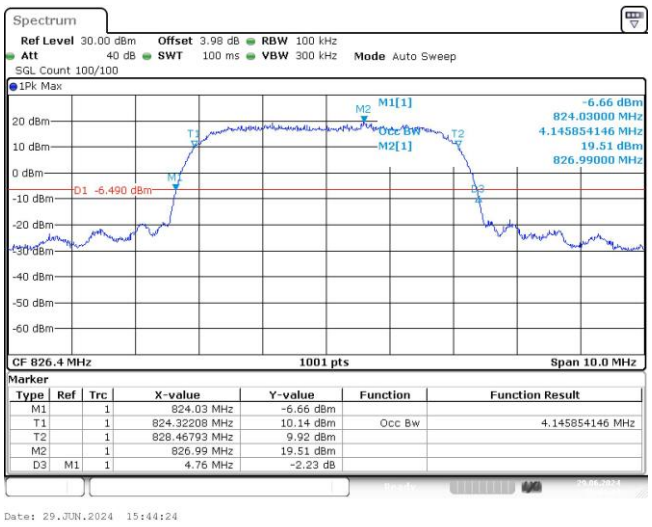
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band5	4132	4.146	4.76	---	PASS
Band5	4182	4.136	4.72	---	PASS
Band5	4233	4.146	4.74	---	PASS

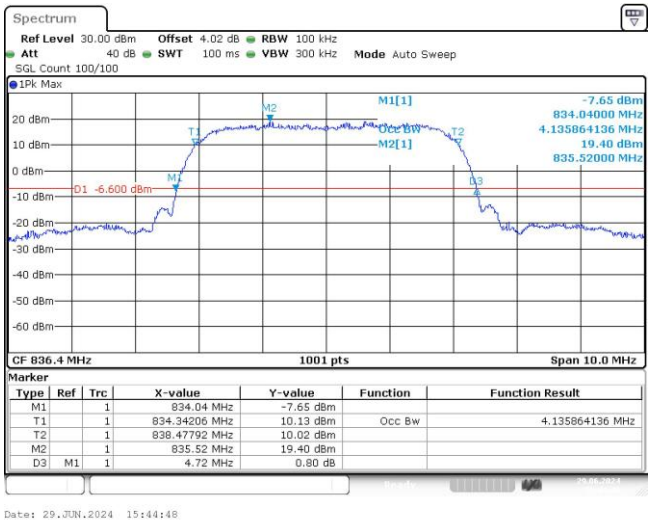
Band	Channel	SubTest	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band5	4132	1	4.136	4.72	---	PASS
Band5	4132	2	4.136	4.72	---	PASS
Band5	4132	3	4.126	4.73	---	PASS
Band5	4132	4	4.126	4.72	---	PASS
Band5	4182	1	4.146	4.71	---	PASS
Band5	4182	2	4.146	4.75	---	PASS
Band5	4182	3	4.146	4.75	---	PASS
Band5	4182	4	4.156	4.77	---	PASS
Band5	4233	1	4.146	4.72	---	PASS
Band5	4233	2	4.156	4.75	---	PASS
Band5	4233	3	4.156	4.75	---	PASS
Band5	4233	4	4.156	4.75	---	PASS

Band	Channel	SubTest	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band5	4132	1	4.156	4.74	---	PASS
Band5	4132	2	4.156	4.74	---	PASS
Band5	4132	3	4.156	4.74	---	PASS
Band5	4132	4	4.156	4.74	---	PASS
Band5	4132	5	4.136	4.74	---	PASS
Band5	4182	1	4.166	4.74	---	PASS
Band5	4182	2	4.166	4.76	---	PASS
Band5	4182	3	4.176	4.75	---	PASS
Band5	4182	4	4.166	4.76	---	PASS
Band5	4182	5	4.146	4.72	---	PASS

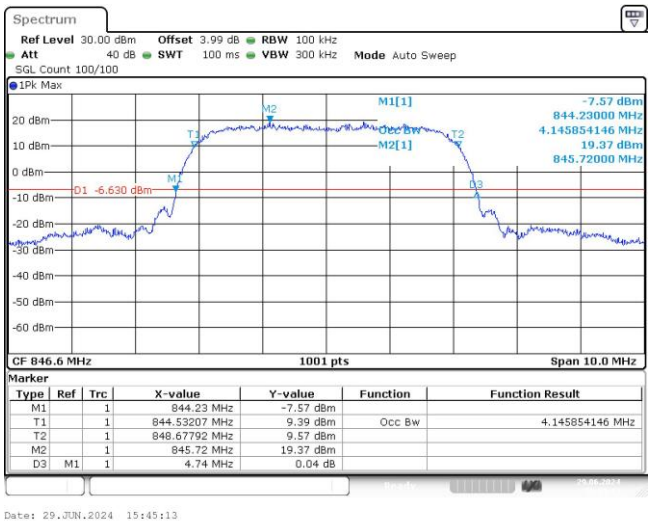
Band5	4233	1	4.176	4.73	---	PASS
Band5	4233	2	4.166	4.80	---	PASS
Band5	4233	3	4.186	4.77	---	PASS
Band5	4233	4	4.176	4.77	---	PASS
Band5	4233	5	4.156	4.72	---	PASS

Test Graphs

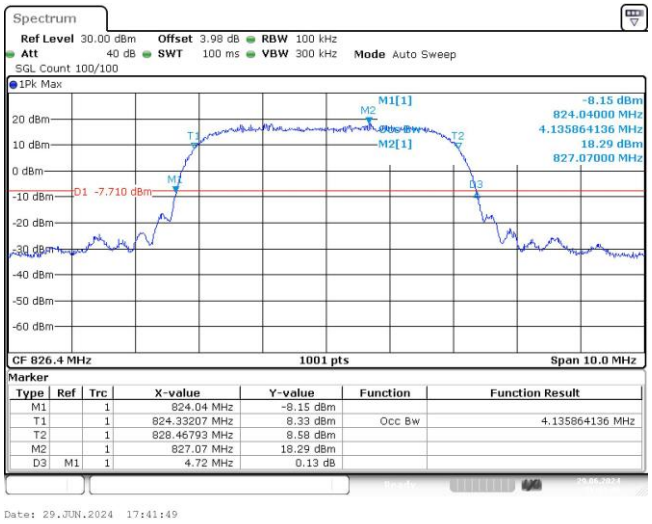
Band5-4132


Band5-4182


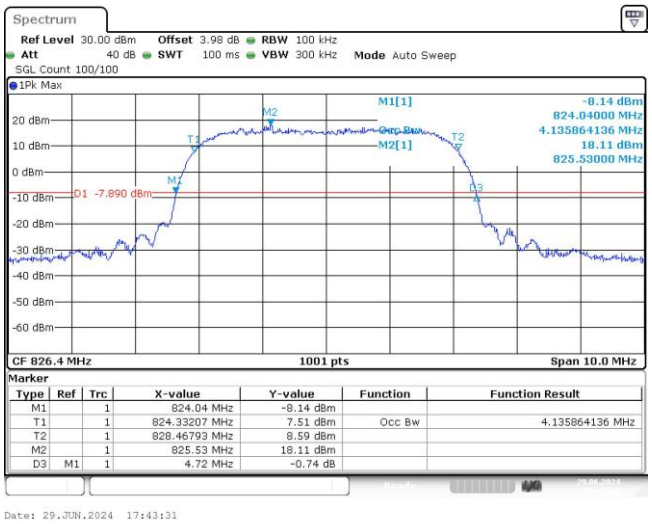
Band5-4233



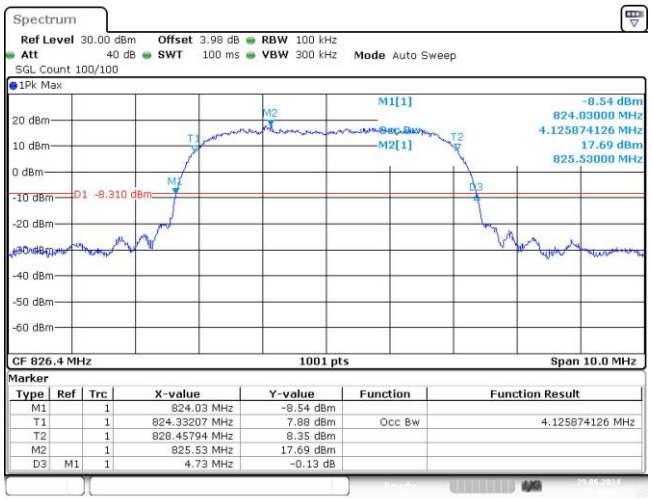
Band5-4132-1



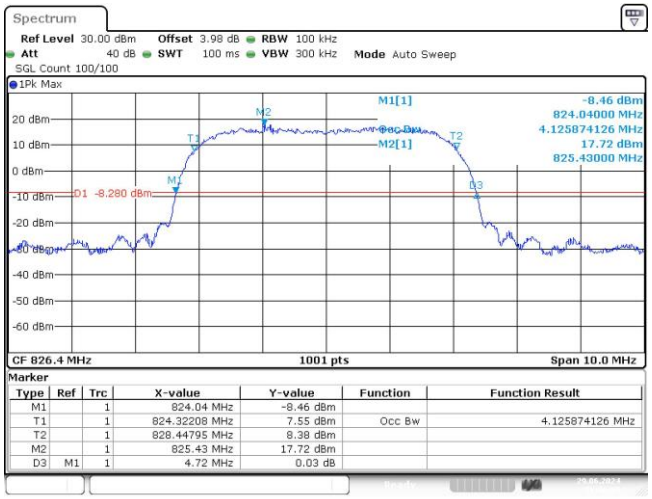
Band5-4132-2



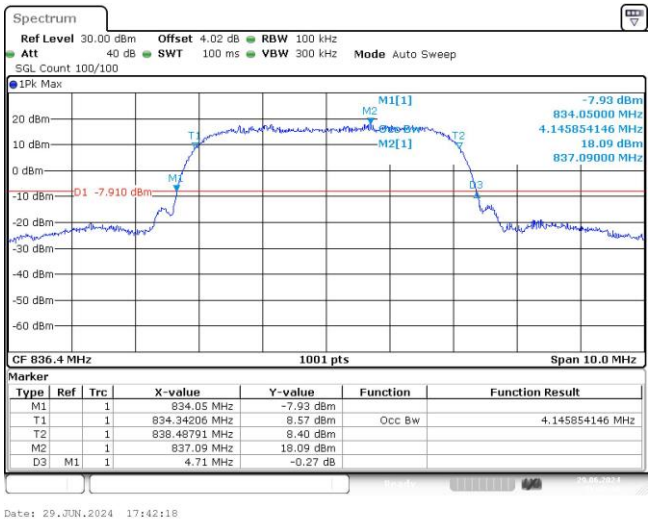
Band5-4132-3



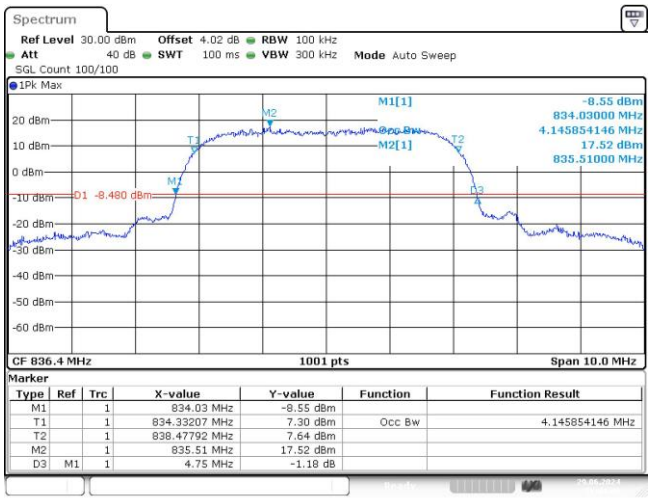
Band5-4132-4



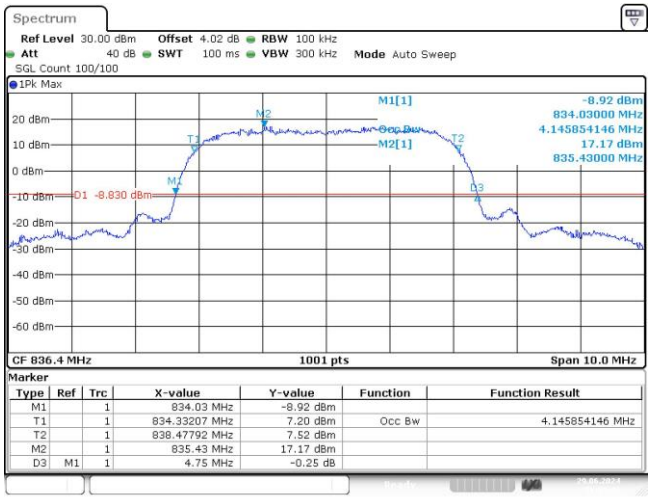
Band5-4182-1



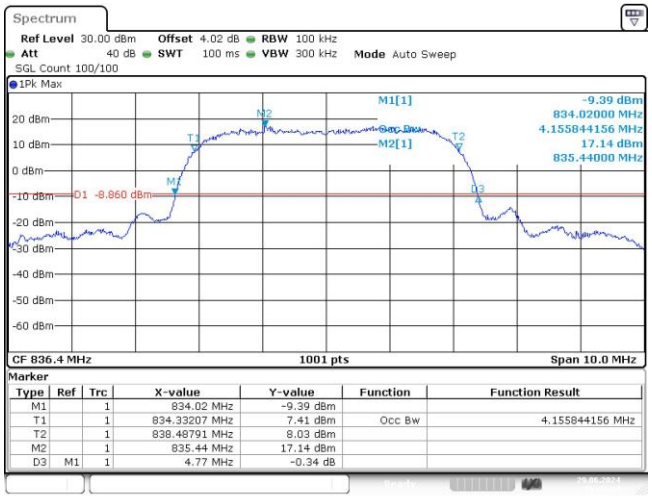
Band5-4182-2



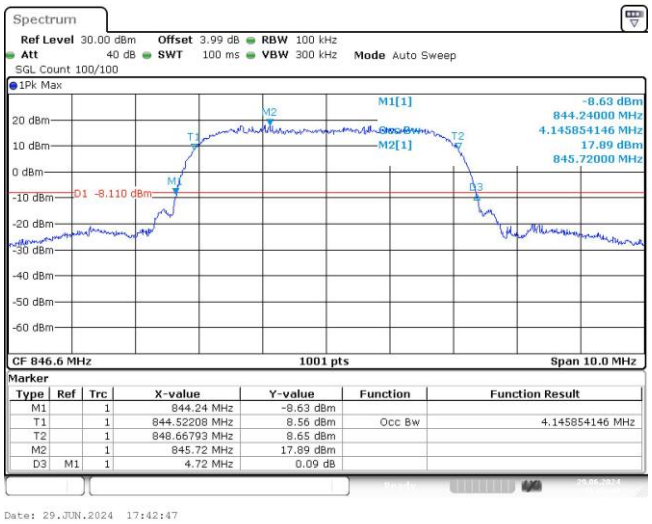
Band5-4182-3



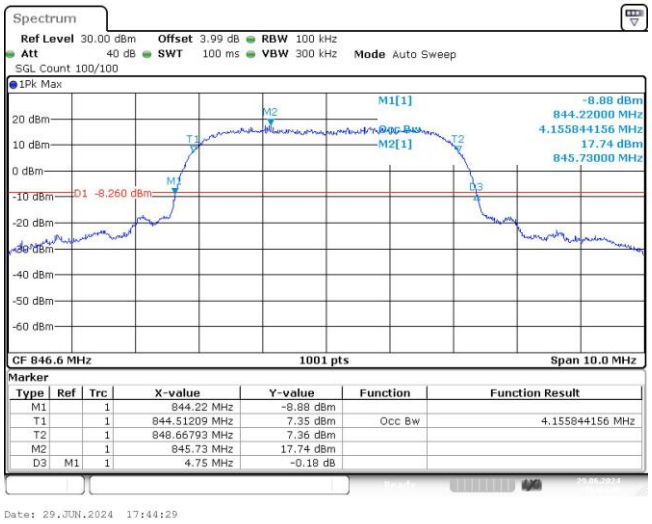
Band5-4182-4



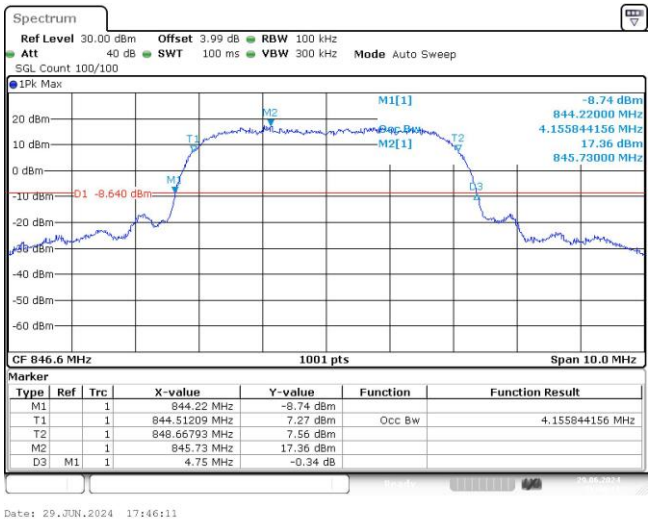
Band5-4233-1



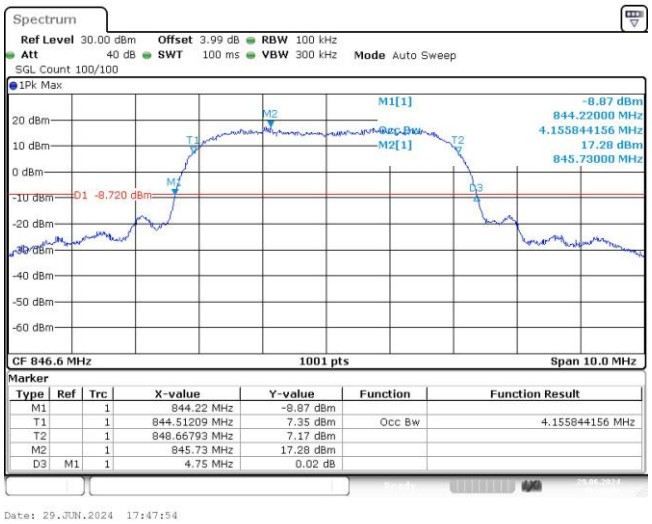
Band5-4233-2



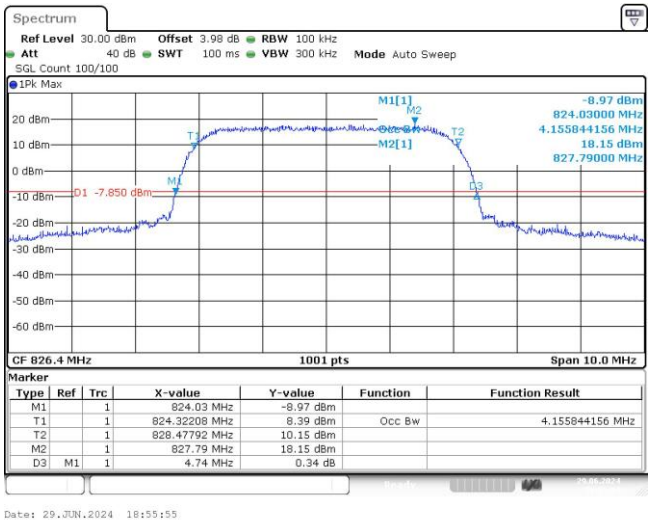
Band5-4233-3



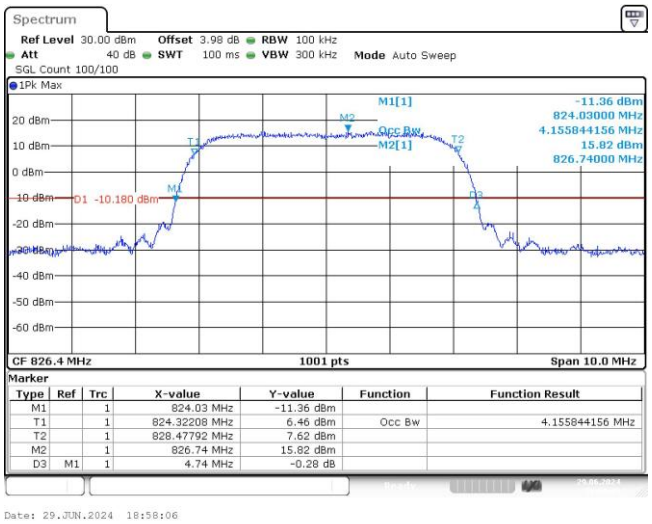
Band5-4233-4



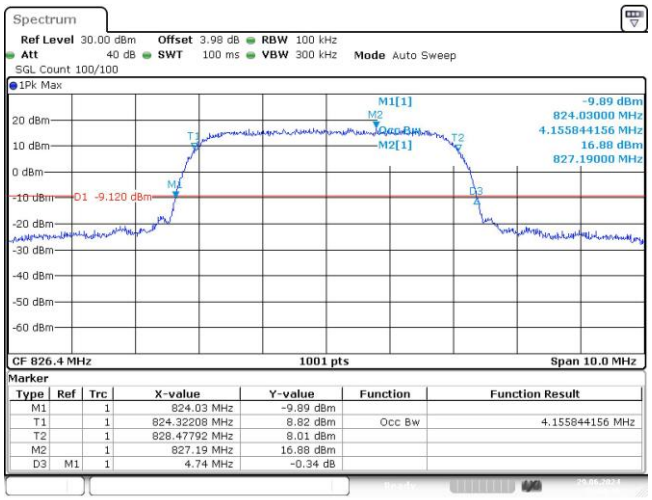
Band5-4132-1



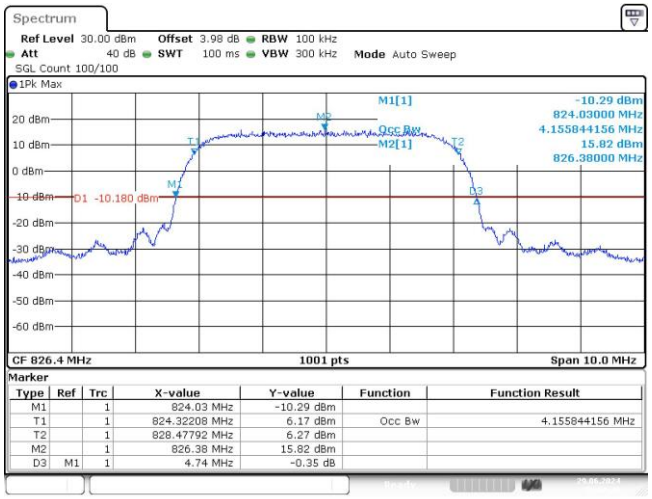
Band5-4132-2



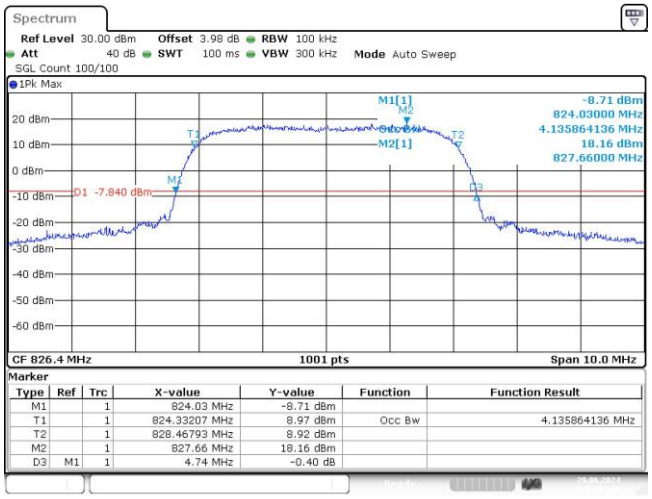
Band5-4132-3



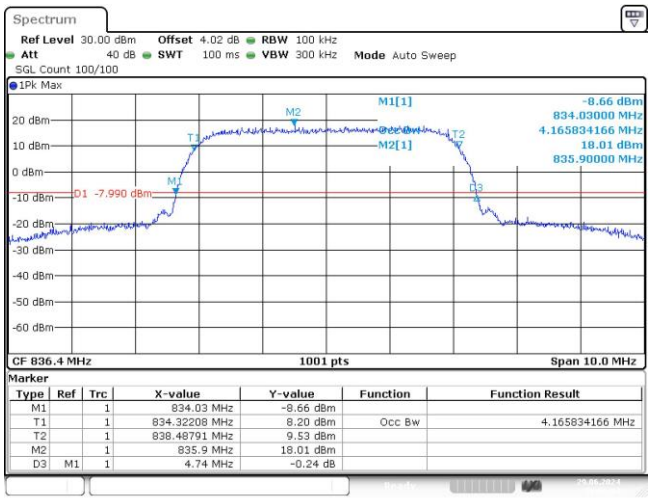
Band5-4132-4



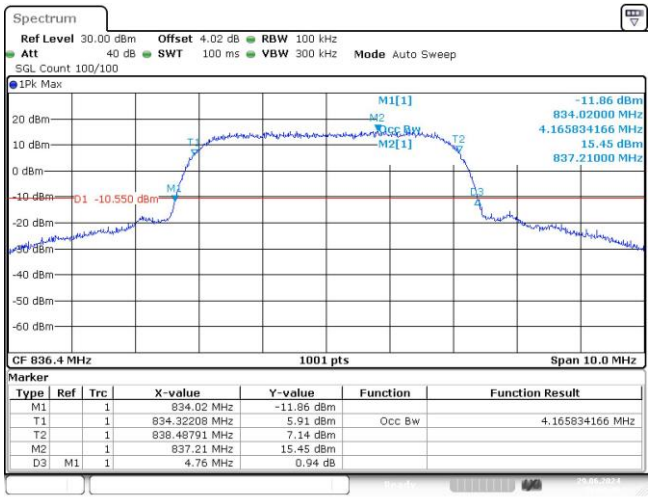
Band5-4132-5



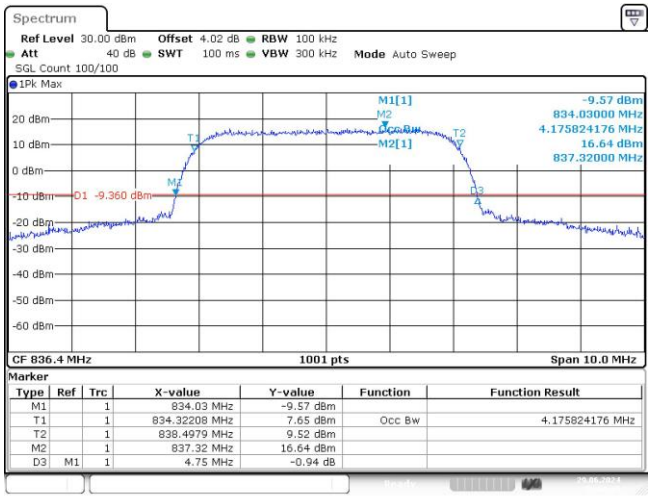
Band5-4182-1



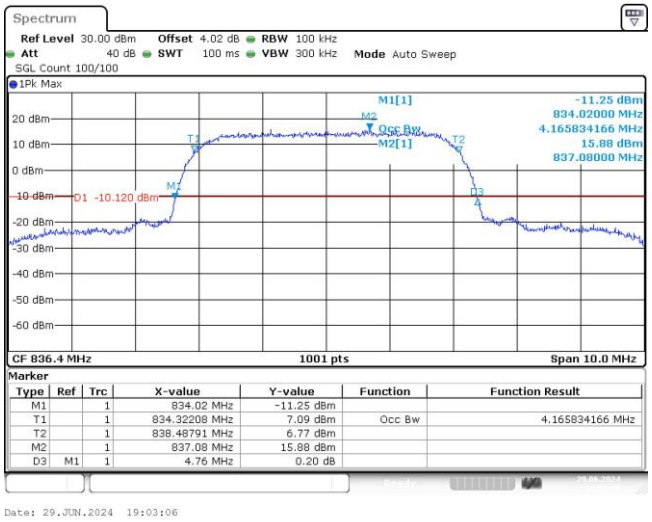
Band5-4182-2



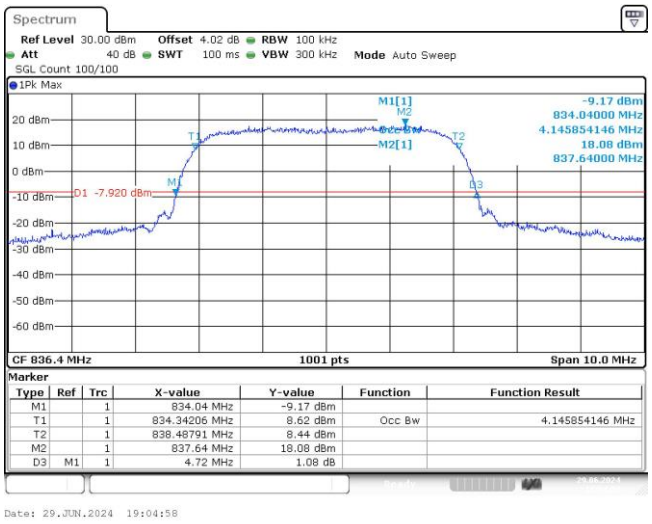
Band5-4182-3



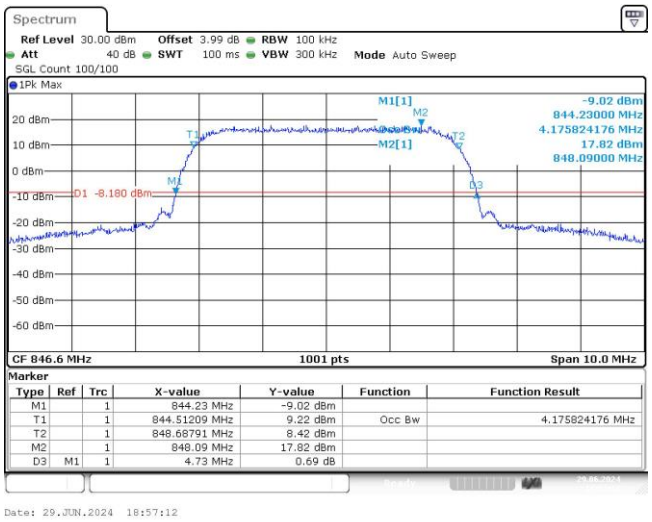
Band5-4182-4



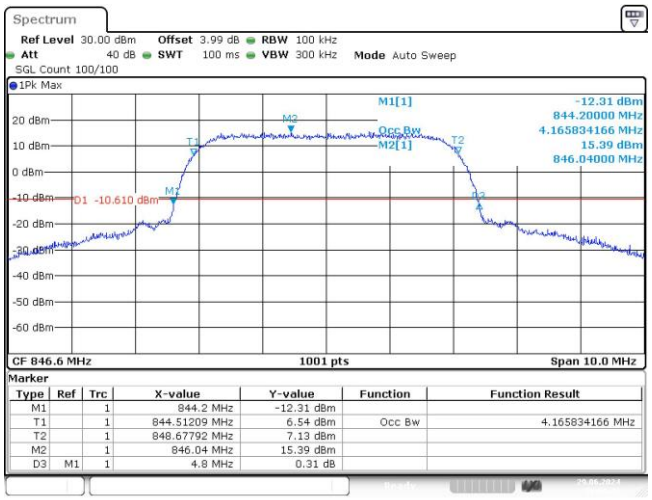
Band5-4182-5



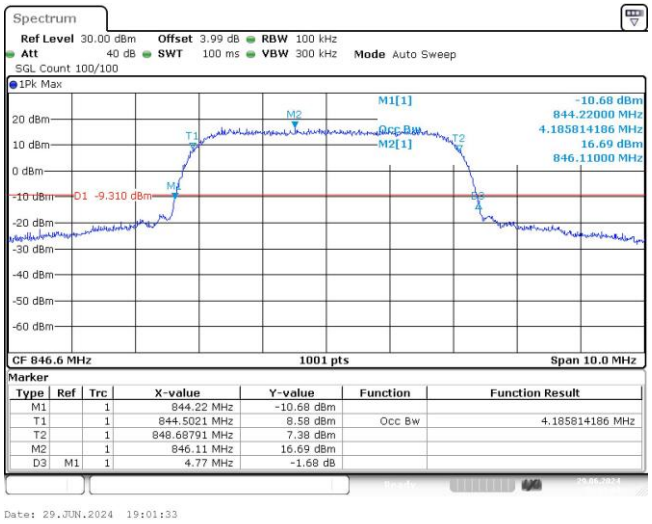
Band5-4233-1



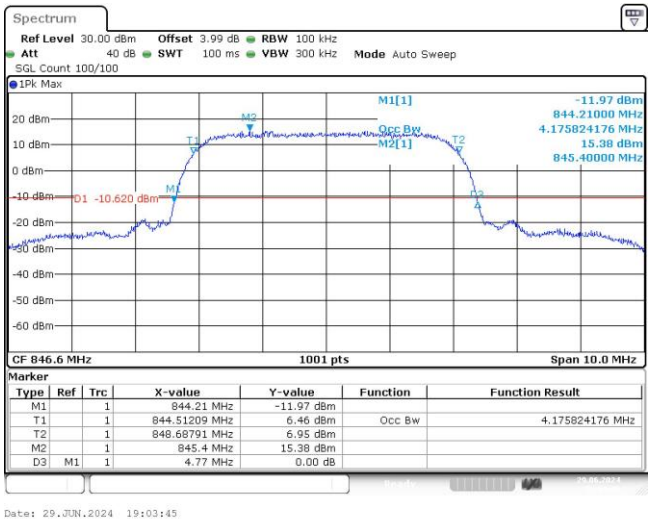
Band5-4233-2



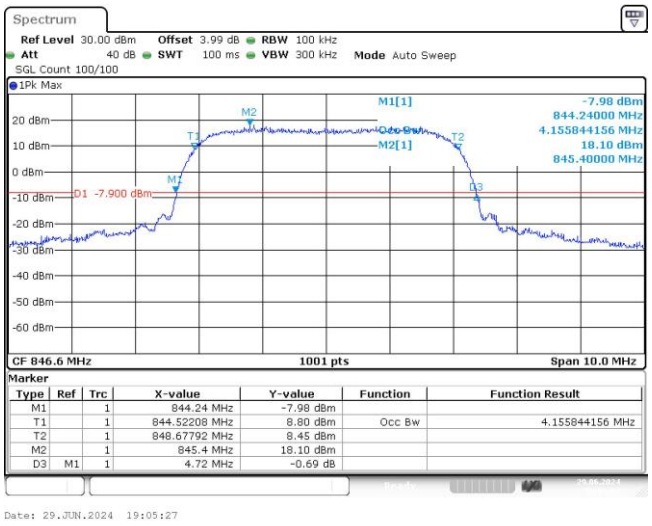
Band5-4233-3



Band5-4233-4



Band5-4233-5


Spectrum
Ref Level 30.00 dBm Offset 3.99 dB RBW 100 kHz
Att 40 dB SWT 100 ms VBW 300 kHz Mode Auto Sweep
SGL Count 100/100
1Pk Max
M1[1] -7.98 dBm
844.24000 MHz
Occ Bw 4.155844156 MHz
M2[1] 18.10 dBm
845.40000 MHz
D1 -7.900 dBm
CF 846.6 MHz
1001 pts
Span 10.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 844.24 MHz -7.98 dBm
T1 1 844.52208 MHz 8.80 dBm Occ Bw 4.155844156 MHz
T2 1 848.67792 MHz 8.45 dBm
M2 1 845.4 MHz 18.10 dBm
D3 M1 1 4.72 MHz -0.69 dB
Date: 29.JUN.2024 19:05:27

AppendixD:Band Edge

Test Result

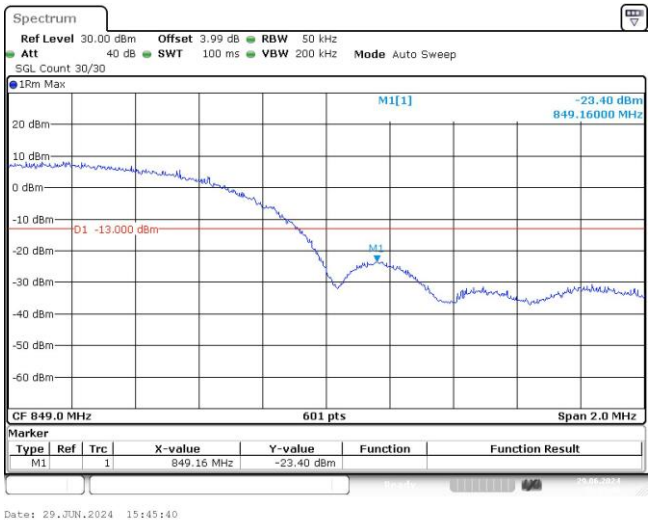
Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band5	4132	824.00	-21.62	-13	PASS
Band5	4233	849.16	-23.40	-13	PASS

Band	Channel	SubTest	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band5	4132	1	824.00	-25.37	-13	PASS
Band5	4132	2	824.00	-24.97	-13	PASS
Band5	4132	3	824.00	-25.00	-13	PASS
Band5	4132	4	824.00	-25.43	-13	PASS
Band5	4233	1	849.12	-23.33	-13	PASS
Band5	4233	2	849.00	-22.88	-13	PASS
Band5	4233	3	849.00	-22.45	-13	PASS
Band5	4233	4	849.00	-21.92	-13	PASS

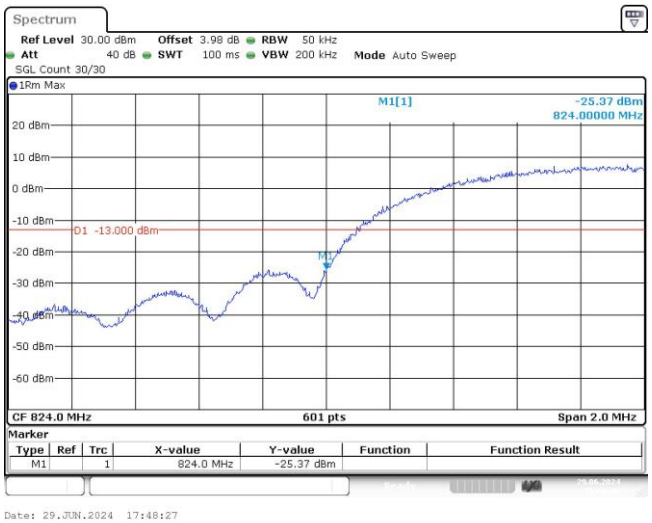
Band	Channel	SubTest	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band5	4132	1	824.00	-24.59	-13	PASS
Band5	4132	2	824.00	-27.79	-13	PASS
Band5	4132	3	824.00	-25.23	-13	PASS
Band5	4132	4	824.00	-26.54	-13	PASS
Band5	4132	5	824.00	-24.85	-13	PASS
Band5	4233	1	849.19	-24.40	-13	PASS
Band5	4233	2	849.00	-23.99	-13	PASS
Band5	4233	3	849.00	-25.00	-13	PASS
Band5	4233	4	849.00	-25.21	-13	PASS
Band5	4233	5	849.14	-24.56	-13	PASS

Test Graphs

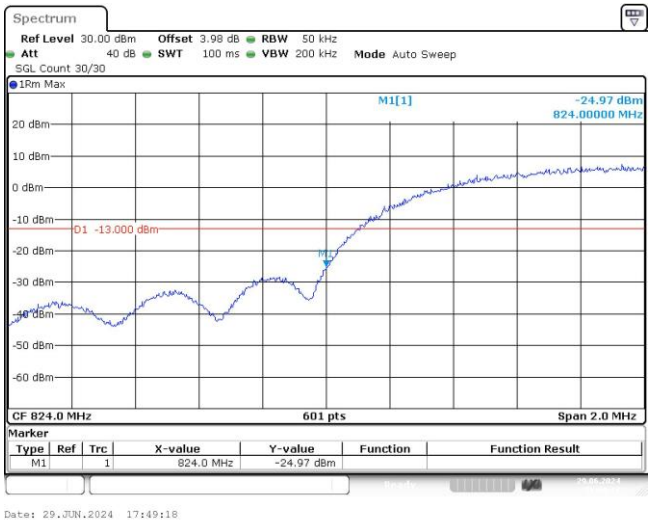
Band5-4132

Band5-4233


Band5-4132-1

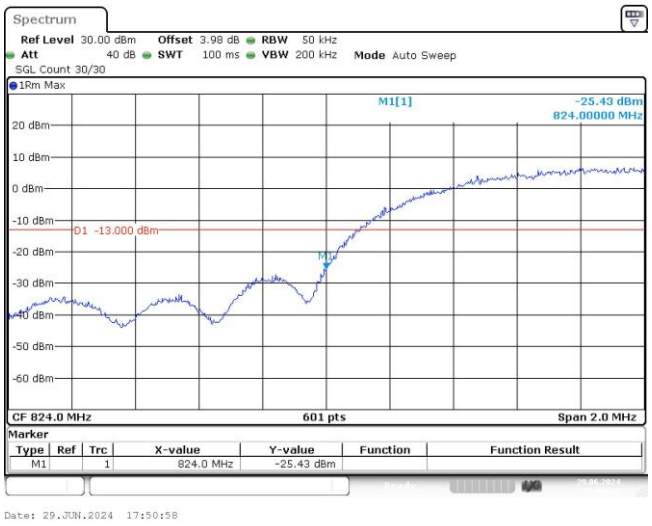


Band5-4132-2



Band5-4132-3

Band5-4132-4



Band5-4233-1

Band5-4233-2

Band5-4233-3

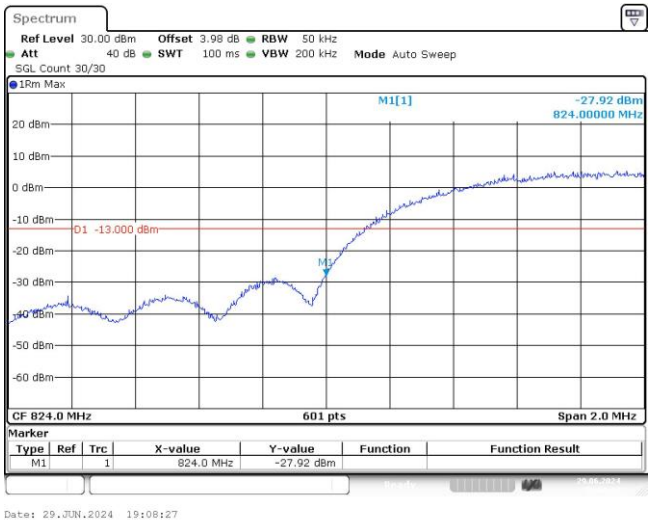
Spectrum
Ref Level 30.00 dBm Offset 3.99 dB RBW 50 kHz
Att 40 dB SWT 100 ms VBW 200 kHz Mode Auto Sweep
SGL Count 30/30
1Rm Max
M1[1] -23.74 dBm
849.00000 MHz
D1 -13.000 dBm
CF 849.0 MHz 601 pts Span 2.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 849.0 MHz -23.74 dBm
Date: 29.JUN.2024 17:50:24

Band5-4233-4

Spectrum
Ref Level 30.00 dBm Offset 3.99 dB RBW 50 kHz
Att 40 dB SWT 100 ms VBW 200 kHz Mode Auto Sweep
SGL Count 30/30
1Rm Max
M1[1] -22.43 dBm
849.00000 MHz
D1 -13.000 dBm
CF 849.0 MHz 601 pts Span 2.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 849.0 MHz -22.43 dBm
Date: 29.JUN.2024 17:51:15

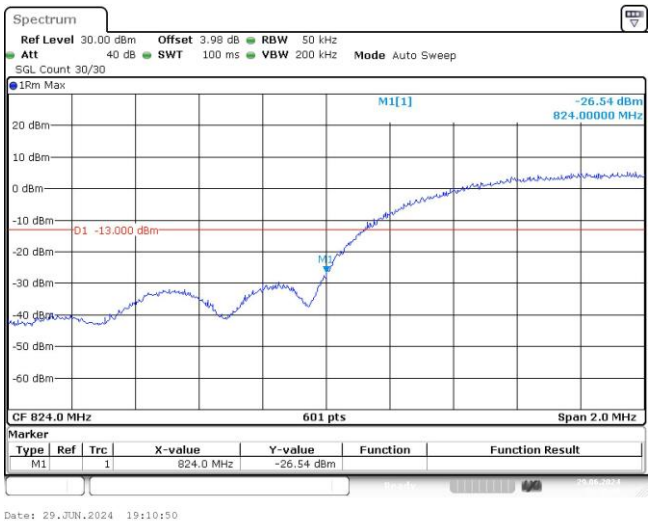
Band5-4132-1

Band5-4132-2



Band5-4132-3

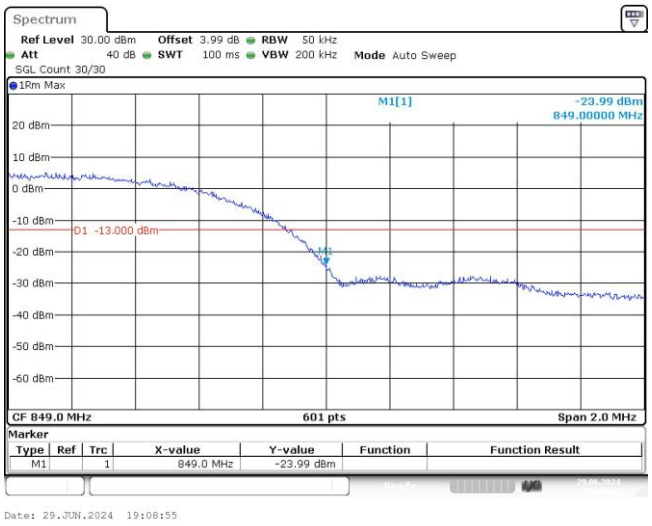
Band5-4132-4



Band5-4132-5

Band5-4233-1

Band5-4233-2



Band5-4233-3

Band5-4233-4

Band5-4233-5

Spectrum
Ref Level 30.00 dBm Offset 3.99 dB RBW 50 kHz
Att 40 dB SWT 100 ms VBW 200 kHz Mode Auto Sweep
SGL Count 30/30
1Rm Max
M1[1] -26.05 dBm
849.14000 MHz
20 dBm
10 dBm
0 dBm
-10 dBm
D1 -13.000 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
M1
CF 849.0 MHz
601 pts
Span 2.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 849.14 MHz -26.05 dBm
Date: 29.JUN.2024 19:12:06

AppendixE: Conducted SpuriousEmission

Test Result

Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band5	4132	0.009~0.15MHz	0.01	-76.25	-33	PASS
Band5	4132	0.15~30MHz	0.2	-72.86	-23	PASS
Band5	4132	30~1000MHz	946.17	-62.54	-13	PASS
Band5	4132	1000~10000MHz	6908.43	-42.69	-13	PASS
Band5	4182	0.009~0.15MHz	0.01	-76.46	-33	PASS
Band5	4182	0.15~30MHz	0.17	-71.77	-23	PASS
Band5	4182	30~1000MHz	952.47	-62.88	-13	PASS
Band5	4182	1000~10000MHz	6789.64	-43.04	-13	PASS
Band5	4233	0.009~0.15MHz	0.01	-76.64	-33	PASS
Band5	4233	0.15~30MHz	19.28	-73.19	-23	PASS
Band5	4233	30~1000MHz	984.97	-62.99	-13	PASS
Band5	4233	1000~10000MHz	6851.73	-43.05	-13	PASS

Band	Channel	SubTest	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band5	4132	1	0.15~30MHz	0.23	-72.36	-23	PASS
Band5	4132	1	30~1000MHz	965.08	-62.8	-13	PASS
Band5	4132	1	1000~10000MHz	6535.4	-42.99	-13	PASS
Band5	4132	1	0.009~0.15MHz	0.01	-76.51	-33	PASS
Band5	4132	2	0.15~30MHz	0.17	-71.79	-23	PASS
Band5	4132	2	30~1000MHz	977.69	-62.85	-13	PASS
Band5	4132	2	1000~10000MHz	6876.48	-43.05	-13	PASS
Band5	4132	2	0.009~0.15MHz	0.01	-76.42	-33	PASS
Band5	4132	3	0.15~30MHz	0.2	-70.83	-23	PASS
Band5	4132	3	0.009~0.15MHz	0.01	-76.6	-33	PASS
Band5	4132	3	1000~10000MHz	6893.13	-43.09	-13	PASS
Band5	4132	3	30~1000MHz	994.18	-62.94	-13	PASS
Band5	4132	4	0.15~30MHz	0.17	-72.86	-23	PASS
Band5	4132	4	1000~10000MHz	6574.1	-43.08	-13	PASS
Band5	4132	4	0.009~0.15MHz	0.01	-76.25	-33	PASS
Band5	4132	4	30~1000MHz	979.15	-62.57	-13	PASS
Band5	4182	1	1000~10000MHz	6806.28	-43.14	-13	PASS
Band5	4182	1	30~1000MHz	975.27	-62.7	-13	PASS
Band5	4182	1	0.009~0.15MHz	0.01	-76.44	-33	PASS
Band5	4182	1	0.15~30MHz	0.46	-72.61	-23	PASS

Band5	4182	2	0.15~30MHz	0.17	-72.59	-23	PASS
Band5	4182	2	30~1000MHz	987.88	-62.87	-13	PASS
Band5	4182	2	0.009~0.15MHz	0.01	-76.58	-33	PASS
Band5	4182	2	1000~10000MHz	6539	-43.04	-13	PASS
Band5	4182	3	30~1000MHz	986.42	-63	-13	PASS
Band5	4182	3	0.15~30MHz	0.2	-72.56	-23	PASS
Band5	4182	3	1000~10000MHz	6911.58	-43.11	-13	PASS
Band5	4182	3	0.009~0.15MHz	0.01	-76.44	-33	PASS
Band5	4182	4	0.009~0.15MHz	0.01	-76.43	-33	PASS
Band5	4182	4	0.15~30MHz	0.2	-72.75	-23	PASS
Band5	4182	4	30~1000MHz	987.39	-62.93	-13	PASS
Band5	4182	4	1000~10000MHz	6582.65	-43.07	-13	PASS
Band5	4233	1	0.15~30MHz	18.65	-72.83	-23	PASS
Band5	4233	1	30~1000MHz	988.85	-62.72	-13	PASS
Band5	4233	1	1000~10000MHz	6852.63	-42.62	-13	PASS
Band5	4233	1	0.009~0.15MHz	0.01	-76.3	-33	PASS
Band5	4233	2	0.009~0.15MHz	0.01	-76.26	-33	PASS
Band5	4233	2	0.15~30MHz	20.98	-72.13	-23	PASS
Band5	4233	2	1000~10000MHz	6533.15	-42.86	-13	PASS
Band5	4233	2	30~1000MHz	994.18	-62.43	-13	PASS
Band5	4233	3	0.009~0.15MHz	0.01	-76.37	-33	PASS
Band5	4233	3	0.15~30MHz	18.59	-72.83	-23	PASS
Band5	4233	3	30~1000MHz	972.84	-62.41	-13	PASS
Band5	4233	3	1000~10000MHz	6820.68	-43.09	-13	PASS
Band5	4233	4	1000~10000MHz	6782.44	-43.04	-13	PASS
Band5	4233	4	0.009~0.15MHz	0.01	-76.38	-33	PASS
Band5	4233	4	0.15~30MHz	0.2	-72.79	-23	PASS
Band5	4233	4	30~1000MHz	980.12	-62.78	-13	PASS

Band	Channel	SubTest	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band5	4132	1	0.15~30MHz	29.15	-72.83	-23	PASS
Band5	4132	1	30~1000MHz	960.23	-62.64	-13	PASS
Band5	4132	1	1000~10000MHz	6853.53	-42.89	-13	PASS
Band5	4132	1	0.009~0.15MHz	0.01	-76.54	-33	PASS
Band5	4132	2	30~1000MHz	931.62	-62.85	-13	PASS
Band5	4132	2	1000~10000MHz	6552.5	-42.9	-13	PASS
Band5	4132	2	0.15~30MHz	21.28	-72.82	-23	PASS
Band5	4132	2	0.009~0.15MHz	0.01	-76.55	-33	PASS
Band5	4132	3	1000~10000MHz	6516.5	-43.07	-13	PASS
Band5	4132	3	0.009~0.15MHz	0.01	-76.37	-33	PASS