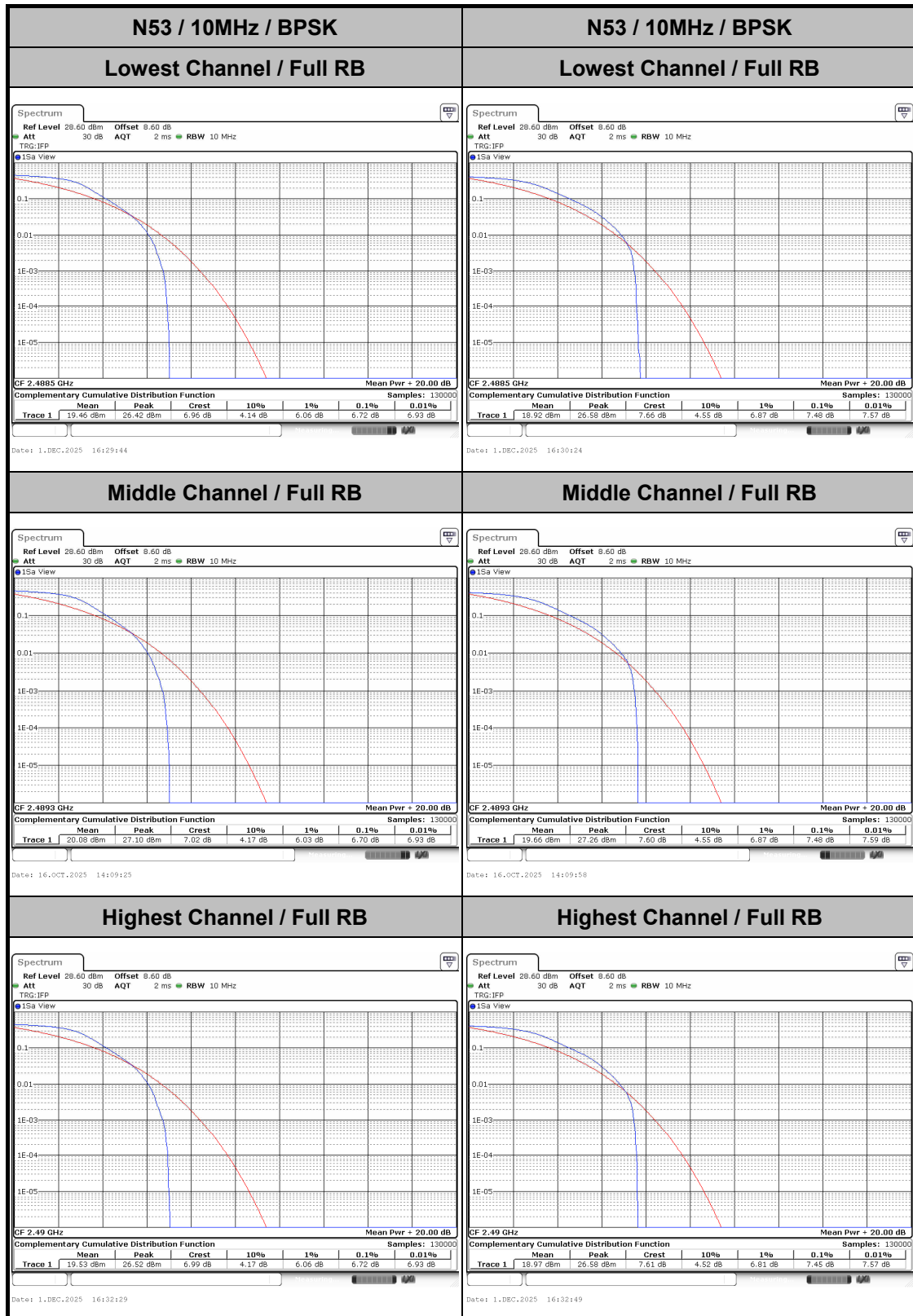
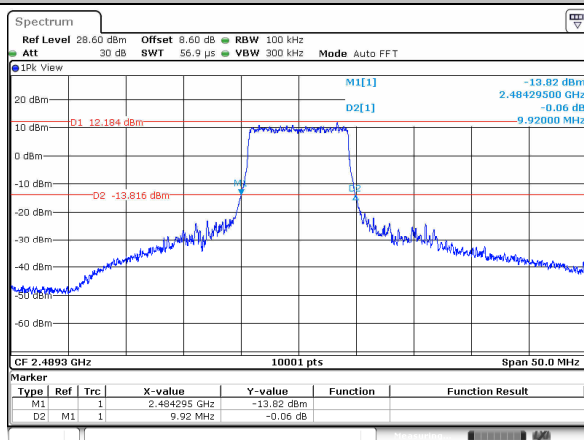
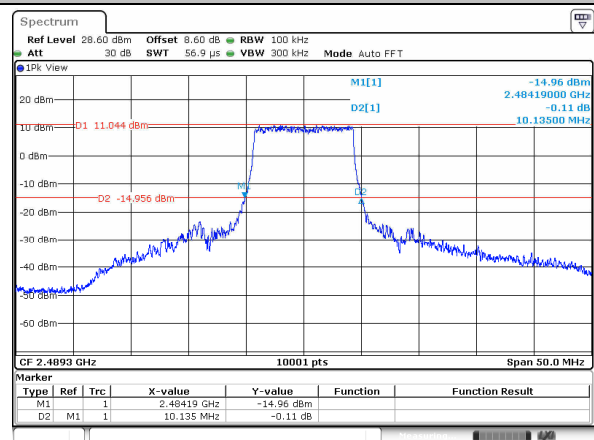
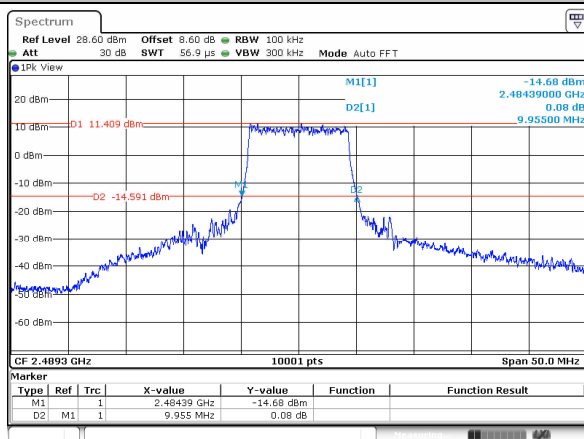
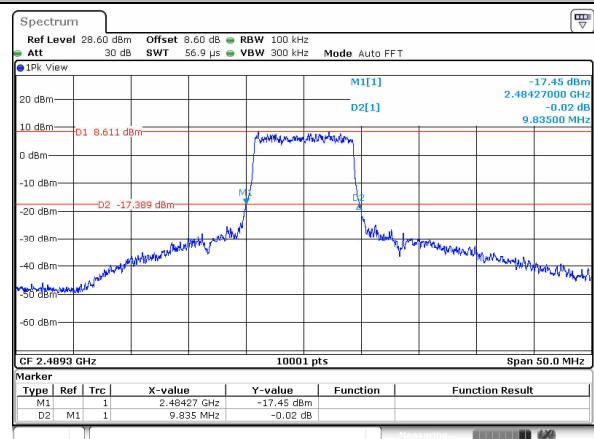




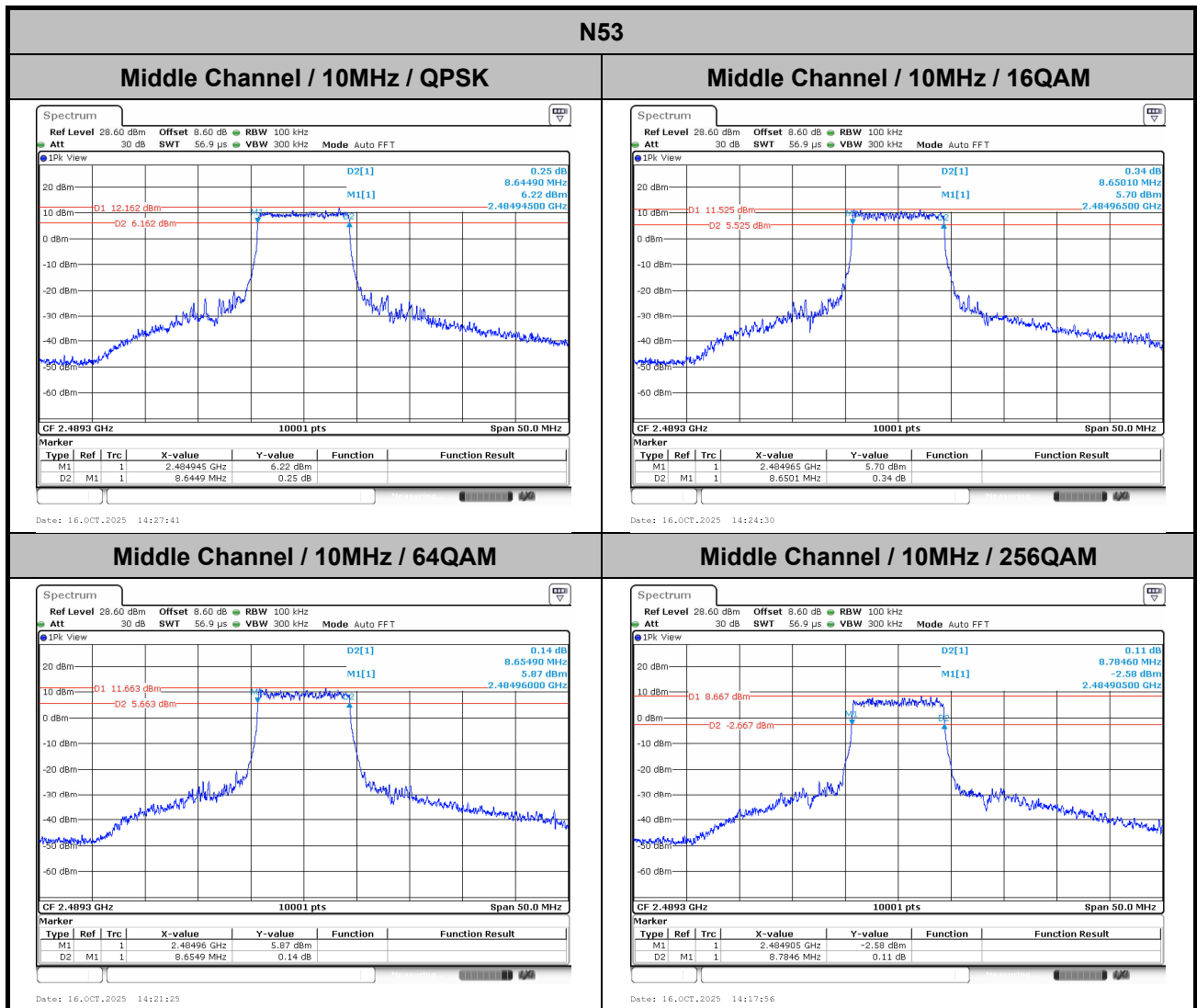
**26dB Bandwidth**

Mode	N53 : 26dB BW(MHz)									
BW	10MHz									
Mod.	QPSK	16QAM	64QAM	256QAM						
Middle CH	9.92	10.14	9.96	9.84						

N53**Middle Channel / 10MHz / QPSK****Middle Channel / 10MHz / 16QAM****Middle Channel / 10MHz / 64QAM****Middle Channel / 10MHz / 256QAM**

6dB Bandwidth

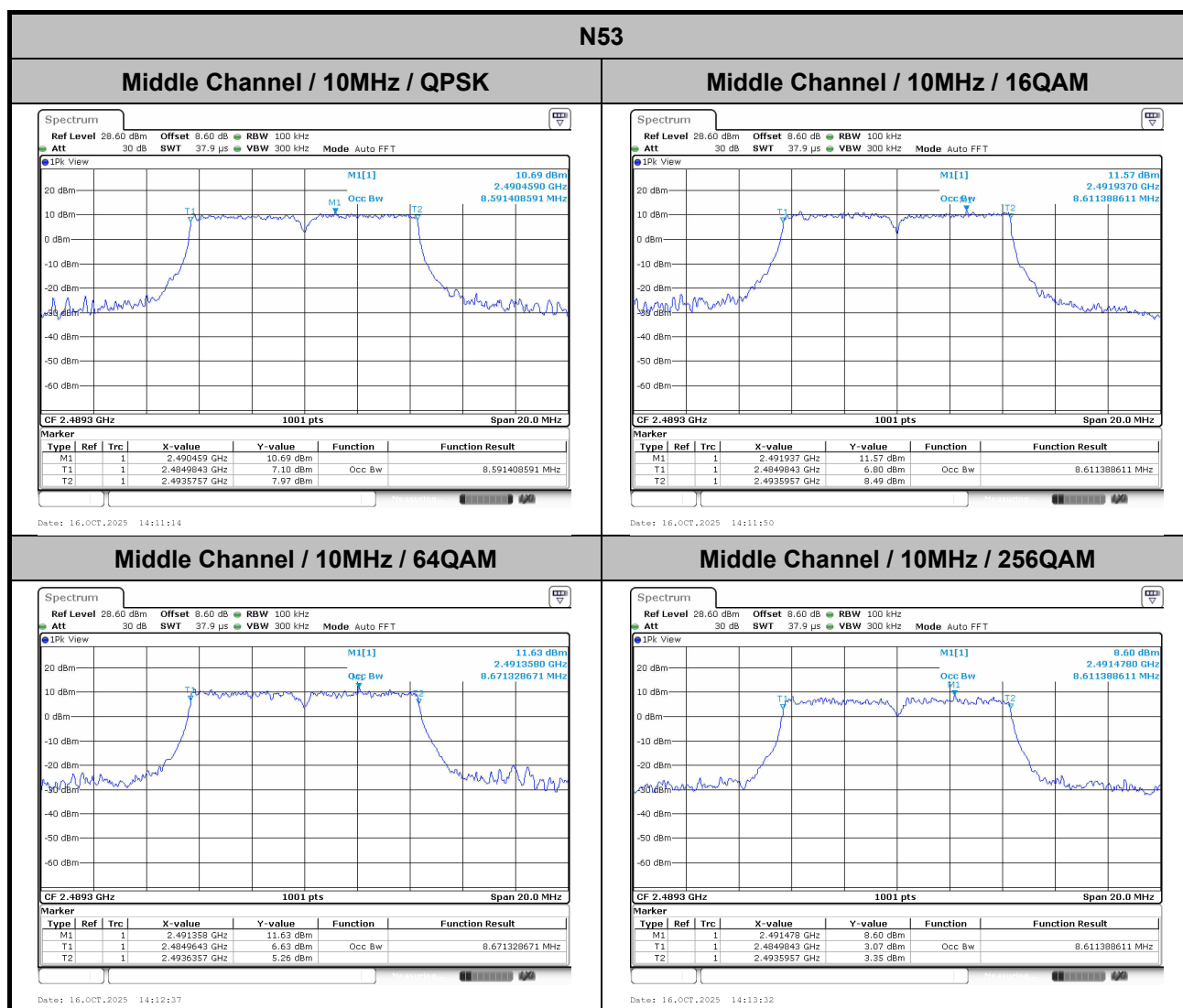
Mode	N53 : 6dB BW(MHz)								
BW	10MHz								Limit:>0.5MHz
Mod.	QPSK	16QAM	64QAM	256QAM					Result
Middle CH	8.64	8.65	8.65	8.78					Pass





Occupied Bandwidth

Mode	N53 : 99%OBW(MHz)											
BW	10MHz											
Mod.	QPSK	16QAM	64QAM	256QAM								
Middle CH	8.59	8.61	8.67	8.61								



Power Spectral Density

BW MHz	Channel	Modulation	RB Allocation/RB Offset	PSD dBm/3KHz	PSD Limit dBm/3KHz	Result
10	Low	BPSK	1/1	7.79	8	PASS
		QPSK	1/1	7.16	8	PASS
	Mid	BPSK	1/1	7.73	8	PASS
		QPSK	1/1	7.59	8	PASS
	High	BPSK	1/1	7.72	8	PASS
		QPSK	1/1	7.4	8	PASS

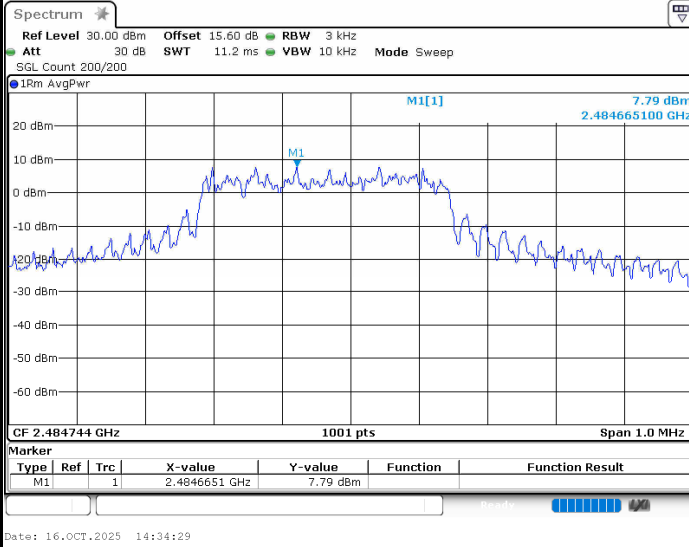
Note : The Duty Cycle Factor is compensated in the graph.



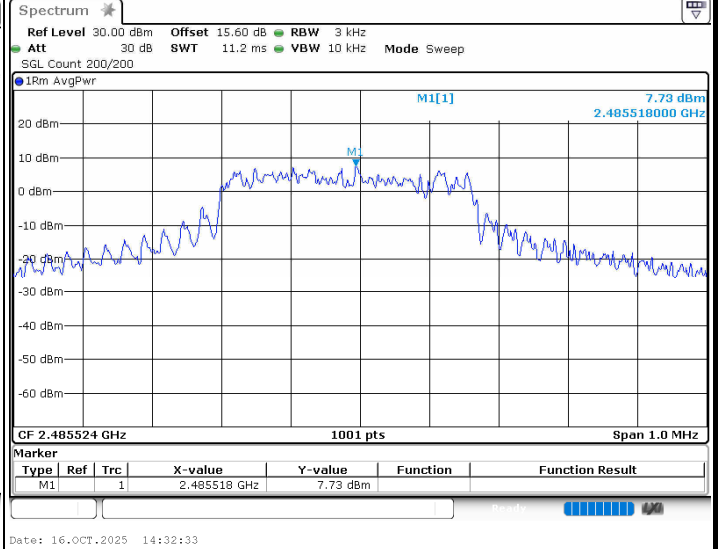
N53 / 10MHz /

BPSK

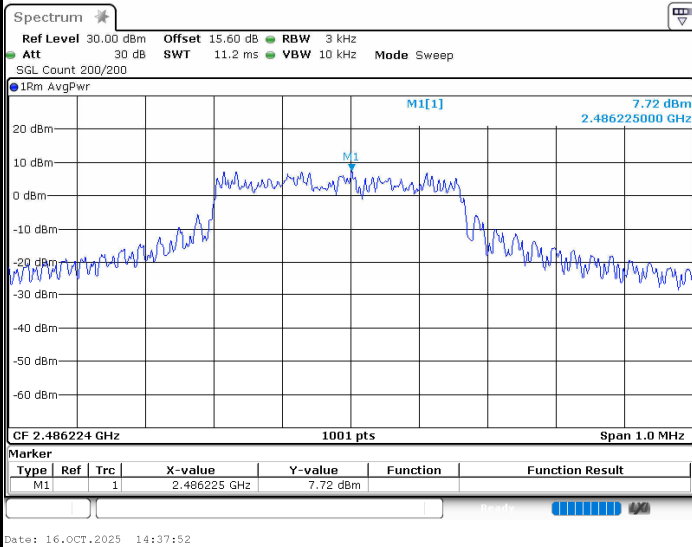
Lowest Band Edge / 1RB



Middle Band Edge / 1RB



Highest Band Edge / 1RB



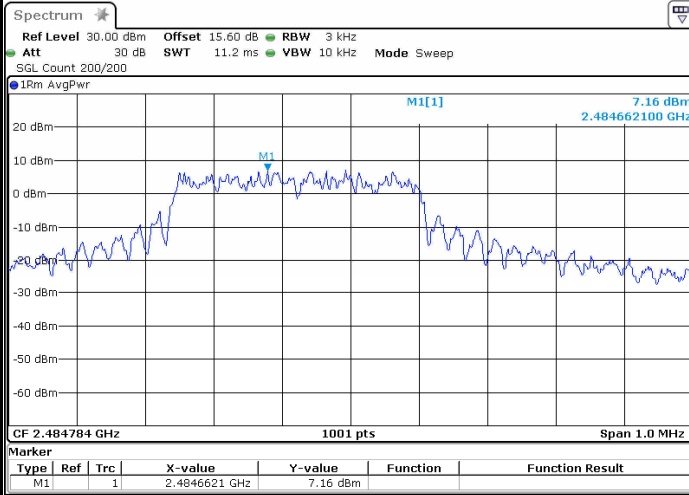
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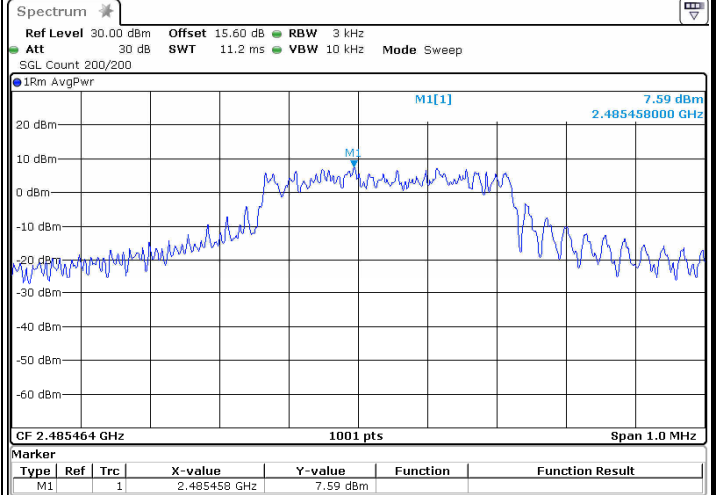
N53 / 10MHz

QPSK

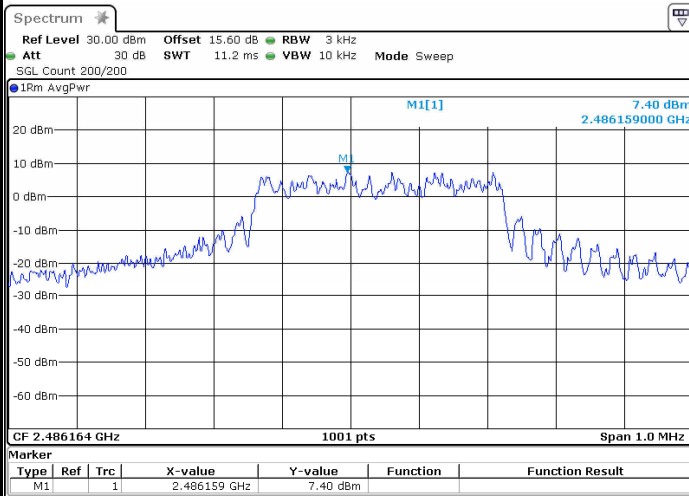
Lowest Band Edge / 1RB



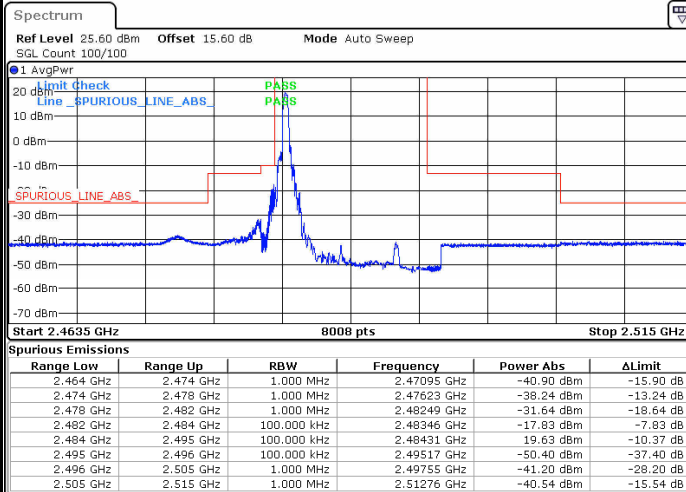
Middle Band Edge / 1RB



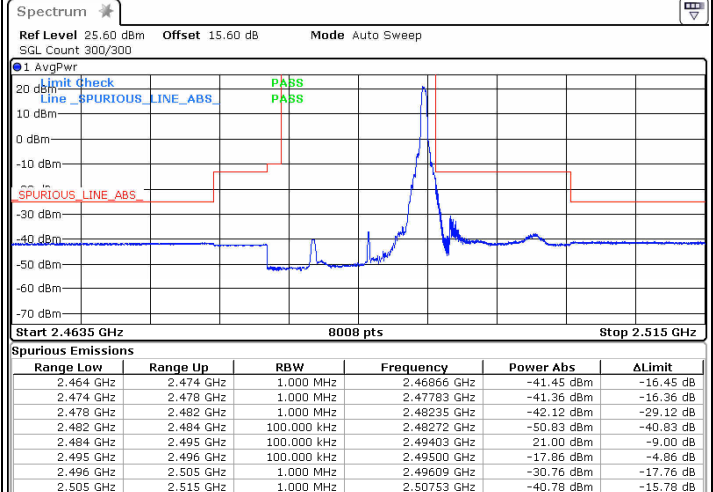
Highest Band Edge / 1RB



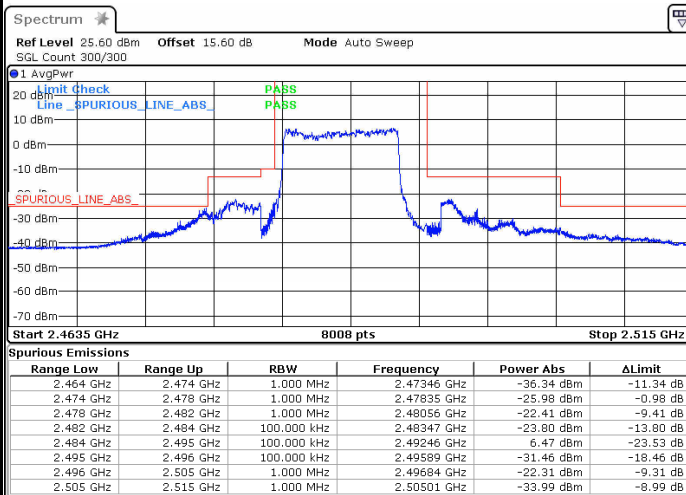
N/A

**Conducted Band Edge****N53 / 10MHz / BPSK****Lowest Band Edge / 1RB**

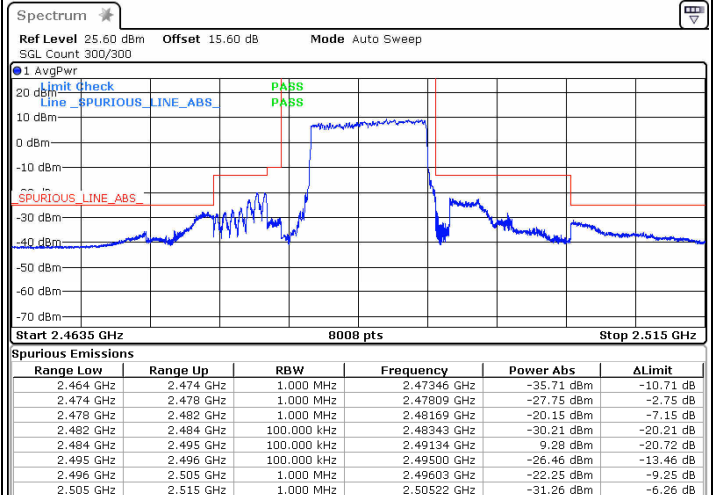
Date: 16.OCT.2025 13:36:00

Highest Band Edge / 1RB

Date: 16.OCT.2025 13:20:16

Lowest Band Edge / Full RB

Date: 16.OCT.2025 13:35:13

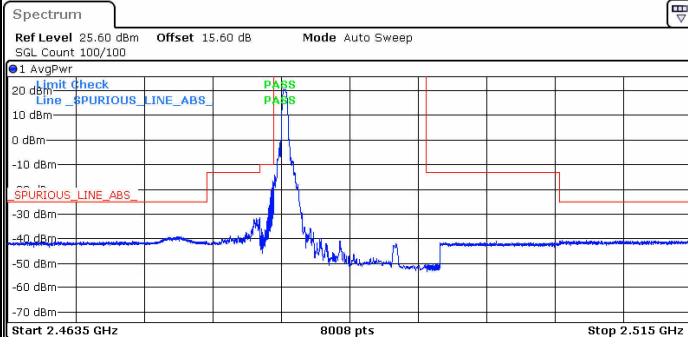
Highest Band Edge / Full RB

Date: 16.OCT.2025 13:21:52



N53 / 10MHz / QPSK

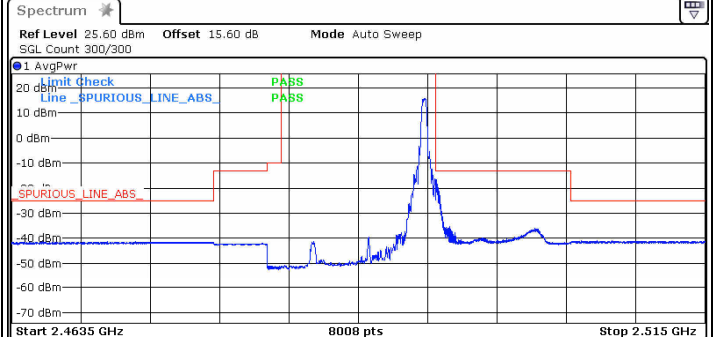
Lowest Band Edge / 1 RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.464 GHz	2.474 GHz	1.000 MHz	2.47291 GHz	-41.04 dBm	-16.04 dB
2.474 GHz	2.478 GHz	1.000 MHz	2.47628 GHz	-39.20 dBm	-14.20 dB
2.478 GHz	2.482 GHz	1.000 MHz	2.48247 GHz	-31.38 dBm	-18.38 dB
2.482 GHz	2.484 GHz	100.000 kHz	2.48345 GHz	-16.64 dBm	-6.64 dB
2.484 GHz	2.495 GHz	100.000 kHz	2.48439 GHz	20.42 dBm	-9.58 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49552 GHz	-50.24 dBm	-37.24 dB
2.496 GHz	2.505 GHz	1.000 MHz	2.50028 GHz	-41.07 dBm	-28.07 dB
2.505 GHz	2.515 GHz	1.000 MHz	2.50703 GHz	-40.60 dBm	-15.60 dB

Date: 16.OCT.2025 13:37:06

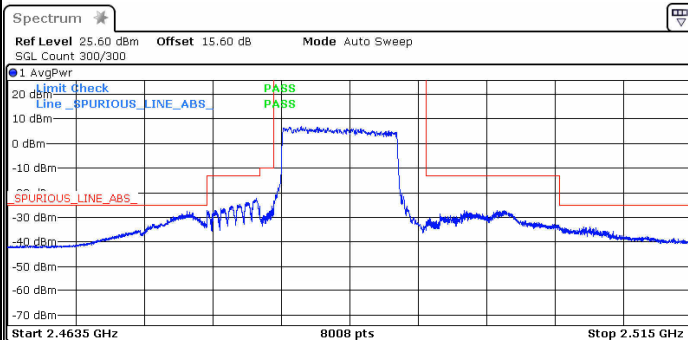
Highest Band Edge / 1 RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.464 GHz	2.474 GHz	1.000 MHz	2.46576 GHz	-41.37 dBm	-16.37 dB
2.474 GHz	2.478 GHz	1.000 MHz	2.47612 GHz	-41.48 dBm	-16.48 dB
2.478 GHz	2.482 GHz	1.000 MHz	2.48214 GHz	-42.10 dBm	-29.10 dB
2.482 GHz	2.484 GHz	100.000 kHz	2.48258 GHz	-51.10 dBm	-41.10 dB
2.484 GHz	2.495 GHz	100.000 kHz	2.49413 GHz	15.91 dBm	-14.09 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49504 GHz	-16.49 dBm	-3.49 dB
2.496 GHz	2.505 GHz	1.000 MHz	2.49604 GHz	-35.47 dBm	-22.47 dB
2.505 GHz	2.515 GHz	1.000 MHz	2.50807 GHz	-41.01 dBm	-16.01 dB

Date: 16.OCT.2025 13:19:30

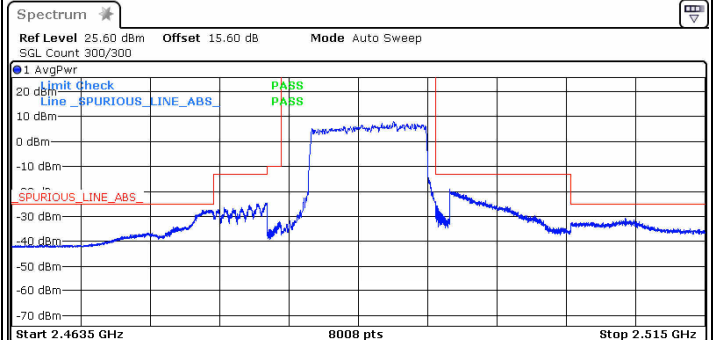
Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.464 GHz	2.474 GHz	1.000 MHz	2.47347 GHz	-35.17 dBm	-10.17 dB
2.474 GHz	2.478 GHz	1.000 MHz	2.47698 GHz	-27.69 dBm	-2.69 dB
2.478 GHz	2.482 GHz	1.000 MHz	2.48219 GHz	-22.42 dBm	-9.42 dB
2.482 GHz	2.484 GHz	100.000 kHz	2.48350 GHz	-25.51 dBm	-15.51 dB
2.484 GHz	2.495 GHz	100.000 kHz	2.48559 GHz	6.93 dBm	-23.07 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49524 GHz	-30.51 dBm	-17.51 dB
2.496 GHz	2.505 GHz	1.000 MHz	2.50083 GHz	-27.22 dBm	-14.22 dB
2.505 GHz	2.515 GHz	1.000 MHz	2.50683 GHz	-34.00 dBm	-9.00 dB

Date: 16.OCT.2025 13:31:00

Highest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.464 GHz	2.474 GHz	1.000 MHz	2.47338 GHz	-37.05 dBm	-12.05 dB
2.474 GHz	2.478 GHz	1.000 MHz	2.47817 GHz	-27.47 dBm	-2.47 dB
2.478 GHz	2.482 GHz	1.000 MHz	2.48244 GHz	-24.74 dBm	-11.74 dB
2.482 GHz	2.484 GHz	100.000 kHz	2.48338 GHz	-32.30 dBm	-22.30 dB
2.484 GHz	2.495 GHz	100.000 kHz	2.49187 GHz	8.02 dBm	-21.98 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49500 GHz	-25.76 dBm	-12.76 dB
2.496 GHz	2.505 GHz	1.000 MHz	2.49604 GHz	-19.16 dBm	-6.16 dB
2.505 GHz	2.515 GHz	1.000 MHz	2.50906 GHz	-30.87 dBm	-5.87 dB

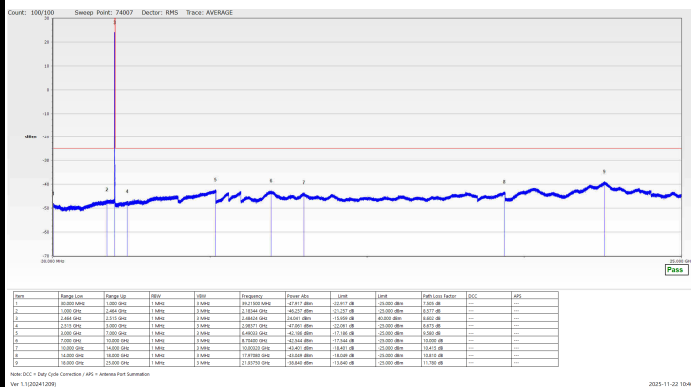
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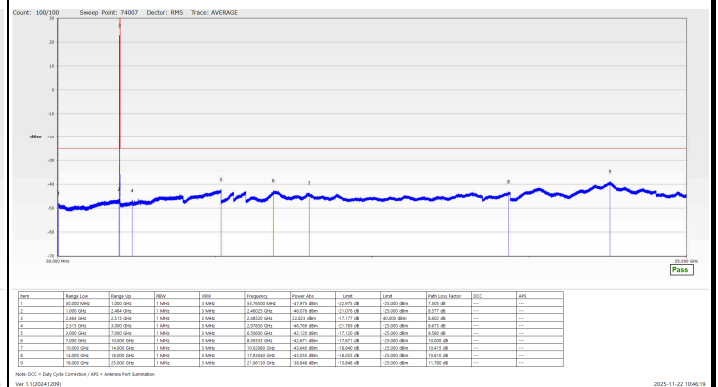
Conducted Spurious Emission

N53 / 10MHz

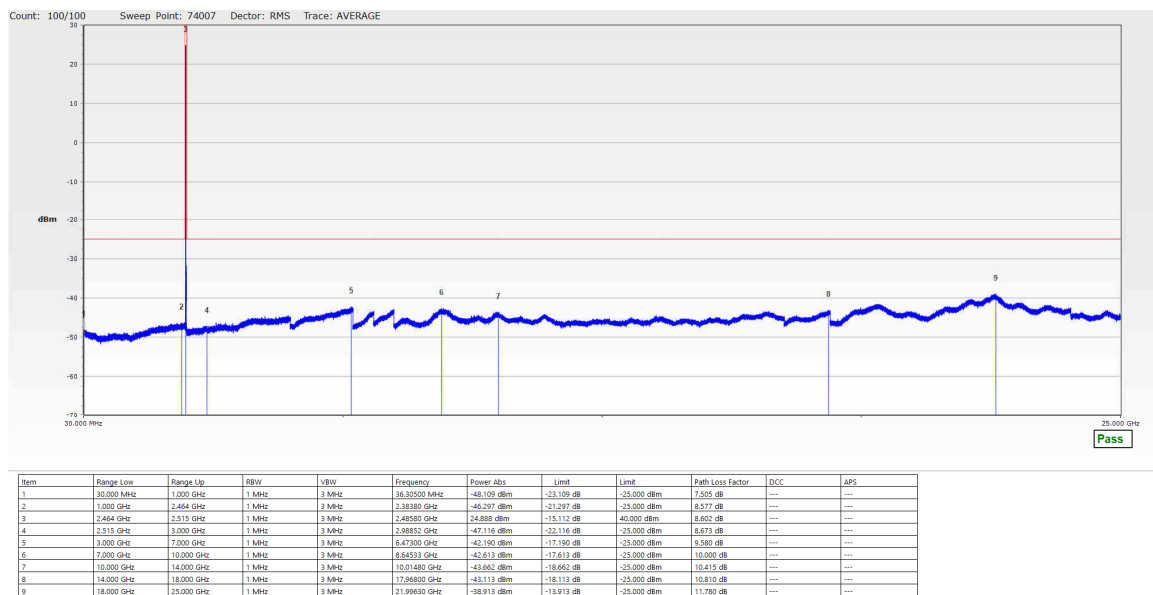
Lowest Channel / BPSK



Middle Channel / BPSK



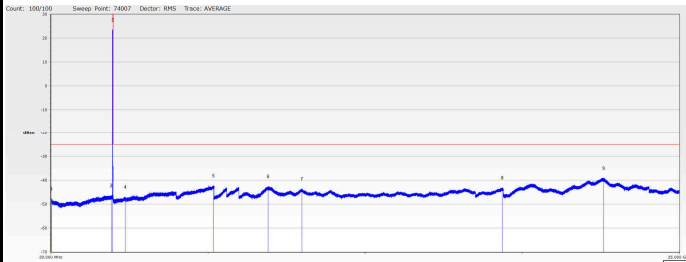
Highest Channel / BPSK





N53 / 10MHz

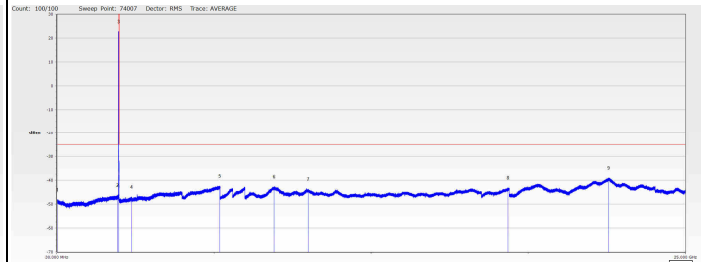
Lowest Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	1.000 GHz	1 MHz	3 MHz	43.42102 MHz	-47.970 dBm	-22.970 dB	-25.000 dBm	7.505 dB	---	---
2	1.000 GHz	2.464 GHz	1 MHz	3 MHz	2.46222 GHz	-46.221 dBm	-21.221 dB	-25.000 dBm	8.577 dB	---	---
3	2.464 GHz	2.515 GHz	1 MHz	3 MHz	2.48580 GHz	-23.330 dBm	-16.670 dB	40.000 dBm	8.602 dB	---	---
4	2.515 GHz	3.000 GHz	1 MHz	3 MHz	2.99122 GHz	-46.934 dBm	-21.934 dB	-25.000 dBm	8.673 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.47200 GHz	-42.287 dBm	-17.287 dB	-25.000 dBm	9.580 dB	---	---
6	7.000 GHz	10.000 GHz	1 MHz	3 MHz	8.86000 GHz	-42.607 dBm	-17.607 dB	-25.000 dBm	10.000 dB	---	---
7	10.000 GHz	14.000 GHz	1 MHz	3 MHz	10.01920 GHz	-43.748 dBm	-18.748 dB	-25.000 dBm	10.415 dB	---	---
8	14.000 GHz	18.000 GHz	1 MHz	3 MHz	17.84680 GHz	-42.968 dBm	-17.968 dB	-25.000 dBm	10.810 dB	---	---
9	18.000 GHz	25.000 GHz	1 MHz	3 MHz	21.93150 GHz	-46.826 dBm	-21.826 dB	-25.000 dBm	11.780 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
Ver 1.1 (2024/1/2025)

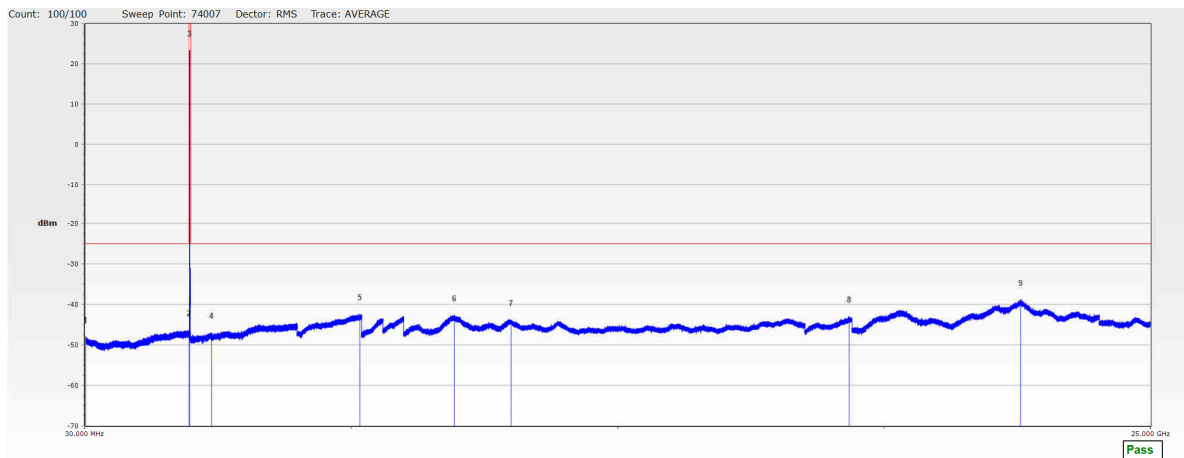
Middle Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	1.000 GHz	1 MHz	3 MHz	43.42102 MHz	-47.970 dBm	-22.970 dB	-25.000 dBm	7.505 dB	---	---
2	1.000 GHz	2.464 GHz	1 MHz	3 MHz	2.46222 GHz	-46.221 dBm	-21.221 dB	-25.000 dBm	8.577 dB	---	---
3	2.464 GHz	2.515 GHz	1 MHz	3 MHz	2.48580 GHz	-23.330 dBm	-16.670 dB	40.000 dBm	8.602 dB	---	---
4	2.515 GHz	3.000 GHz	1 MHz	3 MHz	2.99122 GHz	-46.934 dBm	-21.934 dB	-25.000 dBm	8.673 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.47200 GHz	-42.287 dBm	-17.287 dB	-25.000 dBm	9.580 dB	---	---
6	7.000 GHz	10.000 GHz	1 MHz	3 MHz	8.86000 GHz	-42.607 dBm	-17.607 dB	-25.000 dBm	10.000 dB	---	---
7	10.000 GHz	14.000 GHz	1 MHz	3 MHz	10.01920 GHz	-43.748 dBm	-18.748 dB	-25.000 dBm	10.415 dB	---	---
8	14.000 GHz	18.000 GHz	1 MHz	3 MHz	17.84680 GHz	-42.968 dBm	-17.968 dB	-25.000 dBm	10.810 dB	---	---
9	18.000 GHz	25.000 GHz	1 MHz	3 MHz	21.93150 GHz	-46.826 dBm	-21.826 dB	-25.000 dBm	11.780 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
Ver 1.1 (2024/1/2025)

Highest Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	1.000 GHz	1 MHz	3 MHz	43.33750 MHz	-47.970 dBm	-22.970 dB	-25.000 dBm	7.505 dB	---	---
2	1.000 GHz	2.464 GHz	1 MHz	3 MHz	2.46222 GHz	-46.221 dBm	-21.221 dB	-25.000 dBm	8.577 dB	---	---
3	2.464 GHz	2.515 GHz	1 MHz	3 MHz	2.48580 GHz	-23.330 dBm	-16.670 dB	40.000 dBm	8.602 dB	---	---
4	2.515 GHz	3.000 GHz	1 MHz	3 MHz	2.99122 GHz	-46.934 dBm	-21.934 dB	-25.000 dBm	8.673 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.47200 GHz	-42.287 dBm	-17.287 dB	-25.000 dBm	9.580 dB	---	---
6	7.000 GHz	10.000 GHz	1 MHz	3 MHz	8.86000 GHz	-42.607 dBm	-17.607 dB	-25.000 dBm	10.000 dB	---	---
7	10.000 GHz	14.000 GHz	1 MHz	3 MHz	10.01920 GHz	-43.748 dBm	-18.748 dB	-25.000 dBm	10.415 dB	---	---
8	14.000 GHz	18.000 GHz	1 MHz	3 MHz	17.84680 GHz	-42.968 dBm	-17.968 dB	-25.000 dBm	10.810 dB	---	---
9	18.000 GHz	25.000 GHz	1 MHz	3 MHz	21.93150 GHz	-46.826 dBm	-21.826 dB	-25.000 dBm	11.780 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation

Frequency Stability

Test Conditions		N53 (QPSK) /			Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz			Note 2.
		Frequency Offset (Δf) (Hz)			Result
		Lowest Channel	Middle Channel	Highest Channel	
50	Normal Voltage	11.2	15.4	14.7	PASS
40	Normal Voltage	16.3	19	19	
30	Normal Voltage	14	11.5	15.8	
20(Ref.)	Normal Voltage	10.6	17.5	13.8	
10	Normal Voltage	16.5	17	15	
0	Normal Voltage	11.2	15.6	14.7	
-10	Normal Voltage	13.6	15.1	13.1	
-20	Normal Voltage	17.8	15.6	12.2	
-30	Normal Voltage	15.6	14.2	14.9	
20	Maximum Voltage	12.8	12.5	12.6	
20	Normal Voltage	10.6	17.5	13.8	
20	Battery End Point	11	16.8	18.9	

Note:

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

$$|\text{MAX}(\Delta f)| = 19\text{Hz}$$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	2483.651727	$\geq 2483.5 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	2494.451073	$\leq 2495 \text{ MHz}$	



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	LiangPingZhou	Temperature :	22~25°C
		Relative Humidity :	48~52%

Band 53 / 10MHz / QPSK(ANT8) for Sample 1									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4968.00	-59.78	-13	-46.78	-81.65	-65.34	7.12	12.68	H
	7452.00	-56.46	-13	-43.46	-82.46	-59.79	8.26	11.59	H
	9936.00	-52.46	-13	-39.46	-83.06	-53.99	10.45	11.98	H
	4968.00	-59.62	-13	-46.62	-81.6	-65.18	7.12	12.68	V
	7452.00	-55.96	-13	-42.96	-81.96	-59.29	8.26	11.59	V
	9936.00	-54.13	-13	-41.13	-83.12	-55.66	10.45	11.98	V
Middle	4969.00	-59.30	-13	-46.30	-81.17	-64.86	7.14	12.70	H
	7454.00	-56.08	-13	-43.08	-82.08	-59.38	8.30	11.60	H
	9939.00	-50.49	-13	-37.49	-81.04	-52.01	10.48	12.00	H
	4969.00	-59.73	-13	-46.73	-81.71	-65.29	7.14	12.70	V
	7454.00	-55.89	-13	-42.89	-81.89	-59.19	8.30	11.60	V
	9939.00	-52.85	-13	-39.85	-81.79	-54.37	10.48	12.00	V
Highest	4971.00	-59.72	-13	-46.72	-81.60	-65.28	7.16	12.72	H
	7456.00	-56.29	-13	-43.29	-82.29	-59.59	8.33	11.63	H
	9942.00	-49.67	-13	-36.67	-80.22	-51.27	10.50	12.10	H
	4971.00	-59.76	-13	-46.76	-81.72	-65.32	7.16	12.72	V
	7456.00	-55.85	-13	-42.85	-81.85	-59.15	8.33	11.63	V
	9942.00	-54.11	-13	-41.11	-83.05	-55.71	10.50	12.10	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



N53 SA / NR 10MHz / QPSK(ANT8) for Sample 1									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4969.00	-60.19	-13	-47.19	-82.06	-65.75	7.12	12.68	H
	7453.50	-55.90	-13	-42.90	-81.90	-59.23	8.26	11.59	H
	9938.00	-51.30	-13	-38.30	-81.85	-52.83	10.45	11.98	H
	4969.00	-59.97	-13	-46.97	-81.95	-65.53	7.12	12.68	V
	7453.50	-55.92	-13	-42.92	-81.92	-59.25	8.26	11.59	V
	9938.00	-52.46	-13	-39.46	-81.4	-53.99	10.45	11.98	V
Middle	4970.50	-60.37	-13	-47.37	-82.25	-65.93	7.14	12.70	H
	7455.75	-55.82	-13	-42.82	-81.82	-59.12	8.30	11.60	H
	9941.00	-49.65	-13	-36.65	-80.20	-51.17	10.48	12.00	H
	4970.50	-60.10	-13	-47.10	-82.06	-65.66	7.14	12.70	V
	7455.75	-55.69	-13	-42.69	-81.69	-58.99	8.30	11.60	V
	9941.00	-52.98	-13	-39.98	-81.92	-54.50	10.48	12.00	V
Highest	4972.00	-60.27	-13	-47.27	-82.15	-65.83	7.16	12.72	H
	7458.00	-55.80	-13	-42.80	-81.80	-59.10	8.33	11.63	H
	9944.00	-50.19	-13	-37.19	-80.74	-51.79	10.50	12.10	H
	4972.00	-59.73	-13	-46.73	-81.69	-65.29	7.16	12.72	V
	7458.00	-55.94	-13	-42.94	-81.94	-59.24	8.33	11.63	V
	9944.00	-52.60	-13	-39.60	-81.54	-54.20	10.50	12.10	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

N53 SA / NR 10MHz / QPSK(ANT8) for Sample 2									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4969.00	-60.21	-13	-47.21	-82.08	-65.77	7.12	12.68	H
	7453.50	-55.59	-13	-42.59	-81.59	-58.92	8.26	11.59	H
	9938.00	-50.01	-13	-37.01	-80.56	-51.54	10.45	11.98	H
	4969.00	-60.12	-13	-47.12	-82.1	-65.68	7.12	12.68	V
	7453.50	-54.14	-13	-41.14	-80.14	-57.47	8.26	11.59	V
	9938.00	-53.48	-13	-40.48	-82.42	-55.01	10.45	11.98	V
Middle	4970.50	-60.10	-13	-47.10	-81.98	-65.66	7.14	12.70	H
	7455.75	-55.98	-13	-42.98	-81.98	-59.28	8.30	11.60	H
	9941.00	-50.64	-13	-37.64	-81.19	-52.16	10.48	12.00	H
	4970.50	-60.10	-13	-47.10	-82.06	-65.66	7.14	12.70	V
	7455.75	-54.05	-13	-41.05	-80.05	-57.35	8.30	11.60	V
	9941.00	-52.72	-13	-39.72	-81.66	-54.24	10.48	12.00	V
Highest	4972.00	-60.41	-13	-47.41	-82.29	-65.97	7.16	12.72	H
	7458.00	-55.60	-13	-42.60	-81.60	-58.90	8.33	11.63	H
	9944.00	-50.67	-13	-37.67	-81.22	-52.27	10.50	12.10	H
	4972.00	-60.10	-13	-47.10	-82.06	-65.66	7.16	12.72	V
	7458.00	-53.06	-13	-40.06	-79.06	-56.36	8.33	11.63	V
	9944.00	-52.61	-13	-39.61	-81.55	-54.21	10.50	12.10	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.