

低功率射頻電機試驗報告

申請者	CRESTRON ELECTRONICS, INC.
申請地址	15 VOLVO DRIVE, ROCKLEIGH, NJ 07647, USA
製造廠商	CRESTRON ELECTRONICS, INC.
產品名稱	WIRELESS PRESENTATION SYSTEM
主 型 號	M202018001
系列型號	N/A
該產品樣品試驗 依據之試驗標準	低功率射頻電機技術規範 LP0002 109年版
試驗結果	合格
試驗室名稱:倍科檢驗科技有限公司(新北實驗室) 試驗室地址:新北市汐止區大同路二段 169 巷 70 號 電話:02-2647-6898 / 傳真:02-2647-6895 報告編號:RXZ210924001RF01 案件受理日期: 110 年 09 月 24 日 樣品接收日期: 110 年 09 月 24 日 測試日期: 110 年 09 月 24 日~110 年 10 月 07 日 報告發行日期: 110 年 10 月 28 日 附註: 1. 未經本實驗室書面許可, 不得部份複製本報告內容。 2. 未經授權不得對本報告的內容或外觀進行任何更改, 違者將受到法律追訴。 3. 本報告僅對檢送樣品負責, 且分離使用無效。 4. 本報告有本實驗室報告簽屬人簽名始生效。 5. 測試結果之判定, 無需考量量測不確定度符合性, 除非經由顧客約定、法規或標準文件規範才需要評估。 6. 本實驗室不對申請者所提供之影響測試結果的訊息真實性負責。	

報告發行紀錄:

版次	案號	報告號碼	發行日期	說明	文件人員
0.0	RXZ210924001	RXZ210924001RF01	2021.10.28	報告發行	陳菱蓁

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1. 一般描述

產品名稱	WIRELESS PRESENTATION SYSTEM
主 型 號	M202018001
系列型號	N/A
差異說明	N/A
廠 牌	CRESTRON
申 請 者	CRESTRON ELECTRONICS, INC.
地 址	15 VOLVO DRIVE, ROCKLEIGH, NJ 07647, USA
製造廠商	CRESTRON ELECTRONICS, INC.
製造廠址	15 VOLVO DRIVE, ROCKLEIGH, NJ 07647, USA
使用頻率	IEEE 802.11b/g / IEEE 802.11n HT20 Mode: 2412 ~ 2462 MHz IEEE 802.11ax 20: 2412~2462MHz
使用頻道數	IEEE 802.11b/g / IEEE 802.11n HT20 Mode: 11 Channels IEEE 802.11ax 20: 11 channels
傳輸速率	IEEE 802.11b Mode: 1 - 11 Mbps IEEE 802.11g Mode: 6 - 54Mbps IEEE 802.11n HT 20 Mode: MCS 0~7 IEEE 802.11ax 20 Mode: MCS 0~11
調變方式	IEEE 802.11b Mode: DSSS IEEE 802.11g Mode: OFDM IEEE 802.11n HT20 Mode: OFDM IEEE 802.11ax 20 Mode: OFDMA
EUT供電方式	24V from DC adapter, 48V from POE
備註	無。

2. 測試規範

2.1 符合性聲明

本測試報告之所有項目皆依據國家通訊傳播委員會 LP0002 低功率射頻電機技術規範適用規範及條文。

2.2 適用規範及條文

低功率射頻電機技術規範4.10節(DTS)

項次	測試項目	低功率射頻電機技術規範	測試結果
1	電源線傳導干擾	3.3節	符合規範
2	場強輻射	3.5節& 3.6節	符合規範
3	天線增益之要求	4.10.1.3節	符合規範
4	發射頻寬	4.10.1.6節	符合規範
5	輸出峰值功率	4.10.1.2節	符合規範
6	開放頻帶邊緣之發射	4.10.1.5節	符合規範
7	功率密度	4.10.1.6(2)(B)節	符合規範
8	電波曝露量	6.20.2.2節	符合規範

報告簽署人： 徐士珩

徐士珩

測試者： 李宥陞

李宥陞

報告製作員： 陳蓁蓁

陳蓁蓁

2.3 限制使用之頻帶

根據低功率射頻電機技術規範，任何低功率射頻電機之主波皆不得使用下表所列各頻帶內之頻率；低功率射頻電機落於下表所列頻帶內之混附發射，其電場強度必須符合限制規定。

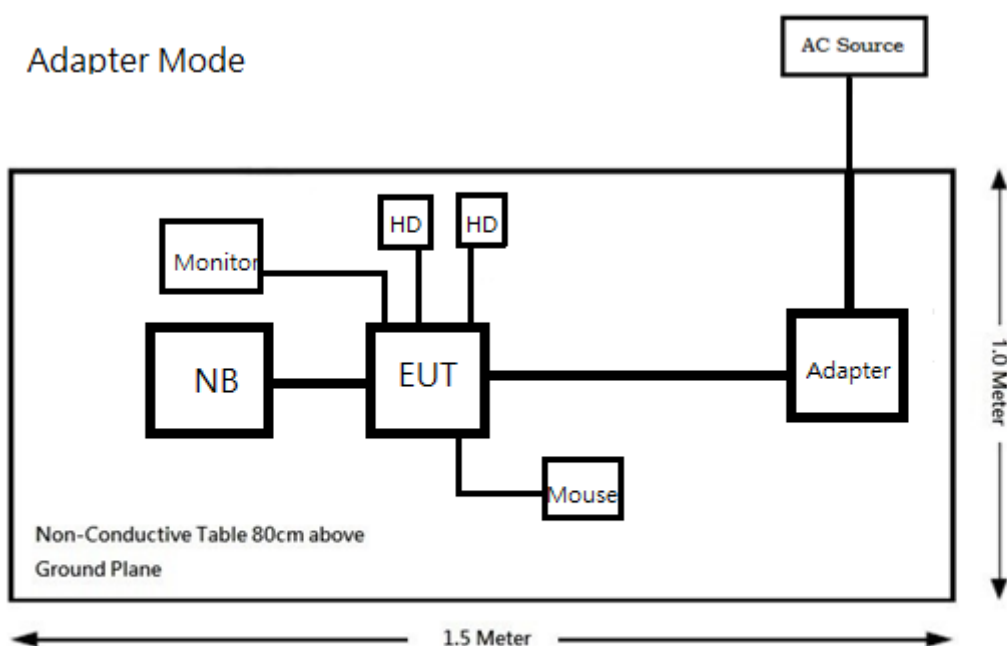
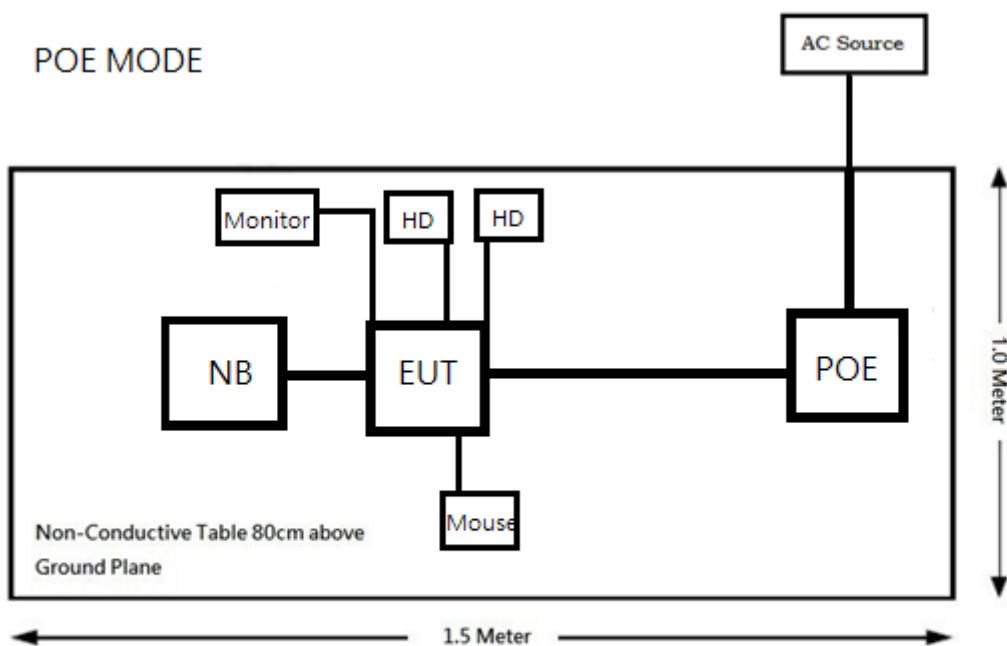
頻率 (MHz)	頻率 (MHz)	頻率 (MHz)
0.090 - 0.110	167.72 - 173.20	3260.0 - 3267.0
0.490 - 0.510	240.00 - 285.00	3332.0 - 3339.0
2.172 - 2.198	322.00 - 335.40	3345.8 - 3358.0
3.013 - 3.033	399.90 - 410.00	3500.0 - 4400.0
4.115 - 4.198	608.00 - 614.00	4500.0 - 5250.0
5.670 - 5.690	703.00 - 748.00	5350.0 - 5460.0
6.200 - 6.300	758.00 - 803.00	7250.0 - 7750.0
8.230 - 8.400	825.00 - 915.00	8025.0 - 8500.0
12.265 - 12.600	930.00 - 1240.0	9000.0 - 9200.0
13.340 - 13.430	1300.0 - 1427.0	9300.0 - 9500.0
14.965 - 15.020	1435.0 - 1626.5	10600 - 12700
16.700 - 16.755	1660.0 - 1785.0	13250 - 13400
19.965 - 20.020	1805.0 - 1880.0	14470 - 14500
25.500 - 25.700	1885.0 - 1900.0	15350 - 16200
37.475 - 38.275	1905.0 - 1985.0	17700 - 21400
73.500 - 75.400	2010.0 - 2025.0	22010 - 23120
108.00 - 138.00	2110.0 - 2170.0	23600 - 24000
149.90 - 150.05	2200.0 - 2300.0	31200 - 31800
156.70 - 156.90	2310.0 - 2390.0	36430 - 36500
162.01 - 167.17	2483.5 - 2900.0	38600 以上

3. 受測裝置之系統說明

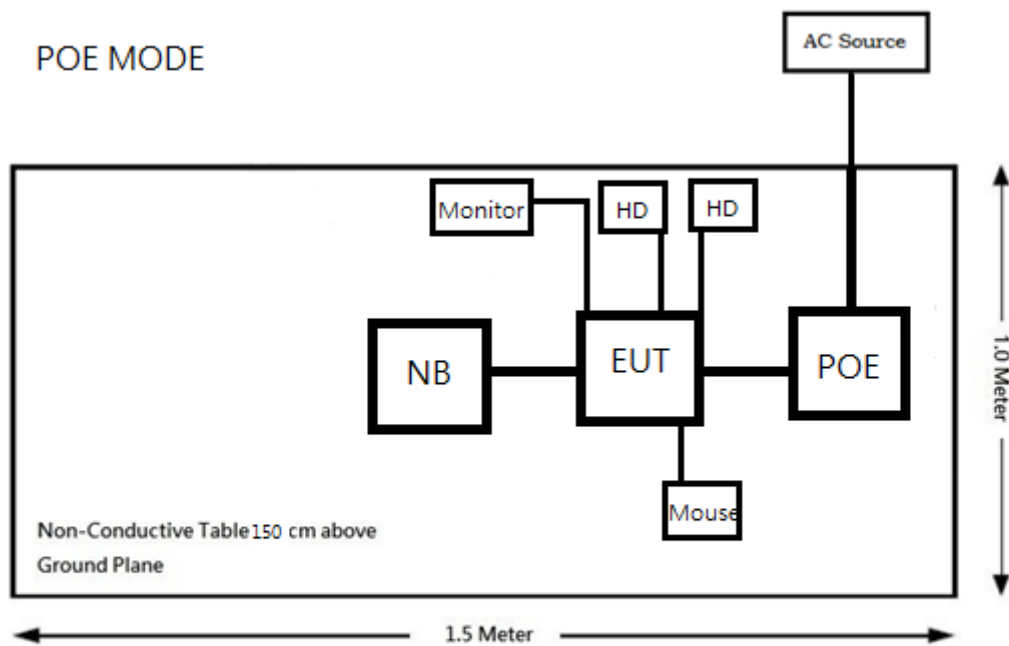
3.1 待測物與測試設備系統圖

Radiation:

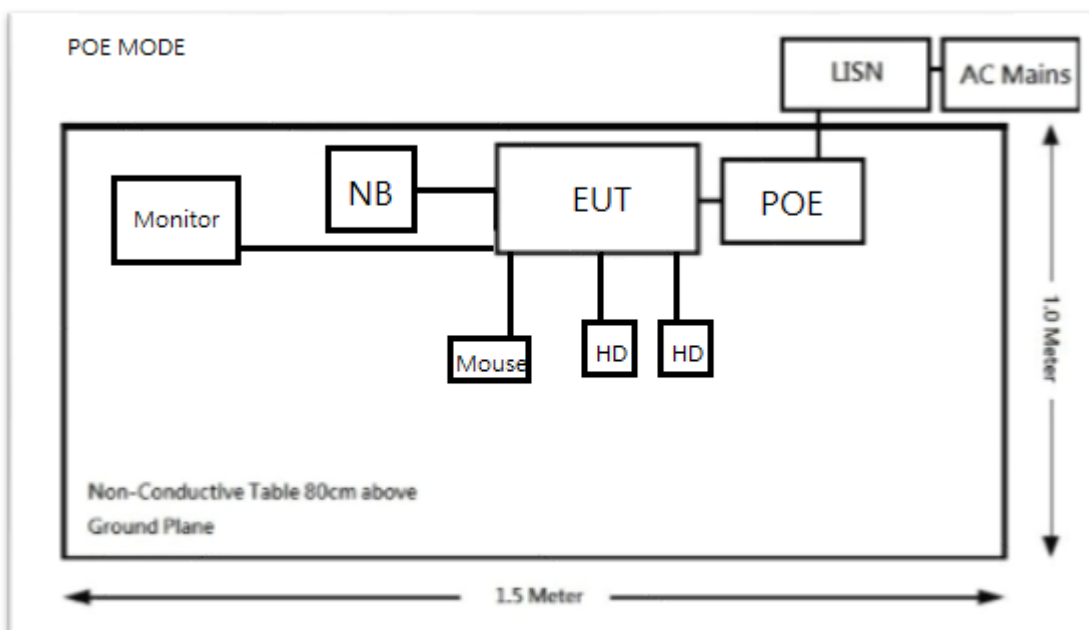
Below 1GHz

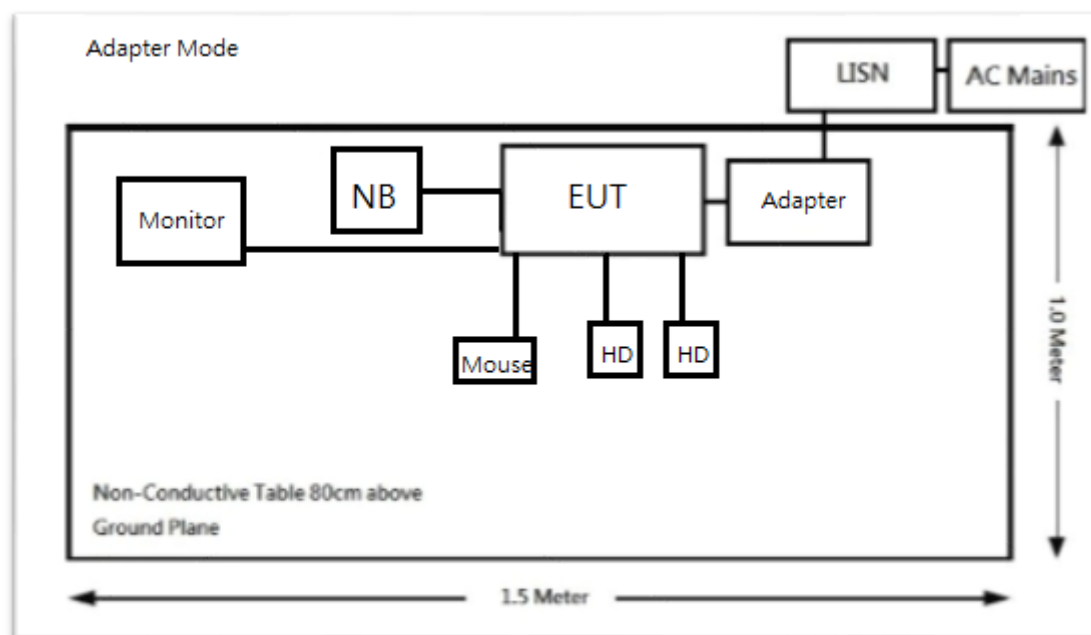


Above 1GHz:

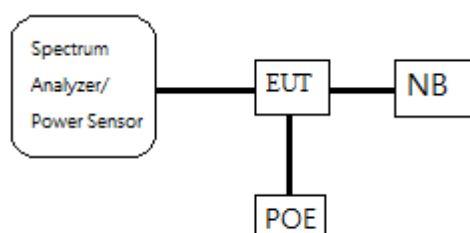


Conduction:





Conducted:



3.2 測試模式

Pre-Scan

Mode 1: Full System (model: M202018001)+POE mode for all test item.

Mode 2: Full System (Adapter mode) for AC Line Conducted Emissions & Radiation below 1G.

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available.

Final Test

Mode 1: Full System (model: M202018001) for all test item.

The worst case and test report is based on Mode 1 to make it.

3.3 測試軟件

Used "Telnet v1.0" software.

Test Frequency		Low	Mid	High
Power Level Setting	B Mode	13	13	13
	G Mode	13	13	13
	n HT 20 Mode	14	14	14
	AX 20 Mode	11	11	11

3.4 隨貨附賣週邊設備名稱描述

序號	設備名稱	廠牌	型號
1	N/A	N/A	N/A

3.5 未隨貨附賣，輔助測試週邊設備名稱描述(實驗室或廠商提供)

序號	設備名稱	廠牌	型號
1	POE	SHENZHEN GOSPELL DIGITAL TECHNOLOGY	G0720-480-050
2	LAN Cable	DEHAO	3.6m
3	LAN Cable	DEHAO	3.6m
4	USB Cable	SURE-FIRE	1.8m
5	NB	DELL	E6410
6	Monitor	DELL	SE2216Hf
7	Adapter	ASTEC	SA45-3129
8	HD	WD	NL-2132
9	HD	HP	1TB
10	MICRO SD Card	RIDATA	8GB
11	MOUSE	ASUS	MOBTUOA
12	HDMI Cable	POLYWELL	1.5m

3.6 測試描述

1.將 EUT 連接到 POE 在連接到筆電之 LAN Port

2.開啟 Telnet 192.168.0.160

3.依照對應的頻率與調製下指令

```
wl pkteng_stop tx
wl down
wl mpc 0
wl country ALL
wl band b
wl mimo_bw_cap 1
wl mimo_txbw -1
wl nrate -m 0
wl txchain 3
wl up
wl 2g_rate -r 11 -b 20
(B:-r 11 G:-r 54 N:-R 7 AX: wl 2g_rate -e 0 -s 1 )
(A: -r 6 AC: -v 0 20/40/80 AX: -e 0 -s 1 -b 20/40/80)
wl channel 1 6 11 (2.4G)
(A/20/AX20:36,40,48,52,60,64,100,118,140,149,157,165)
(AC40/AX40:38,46,54,62,102,118,134,151,159)
(AC80/AX80:42,58,106,122,155)
wl phy_watchdog 0
wl scansuppress 1
wl phy_forcecal 1
wl phy_txpwrctrl 1
wl txpwr1 -1
wl pkteng_start 00:90:4c:14:43:19 tx 100 1000 0
```

3.7 占空比評估

Duty cycle = Tx on(ms)/(Tx on+off(ms))

Duty factor = $10 \cdot \log(1/\text{TXon})$

	B Mode	G Mode	n HT 20 Mode	AX20 Mode
Duty cycle	0.99	0.93	0.87	0.90
Duty factor	0.04	0.32	0.60	0.46

4. 電源線傳導干擾之量測

4.1 適用標準

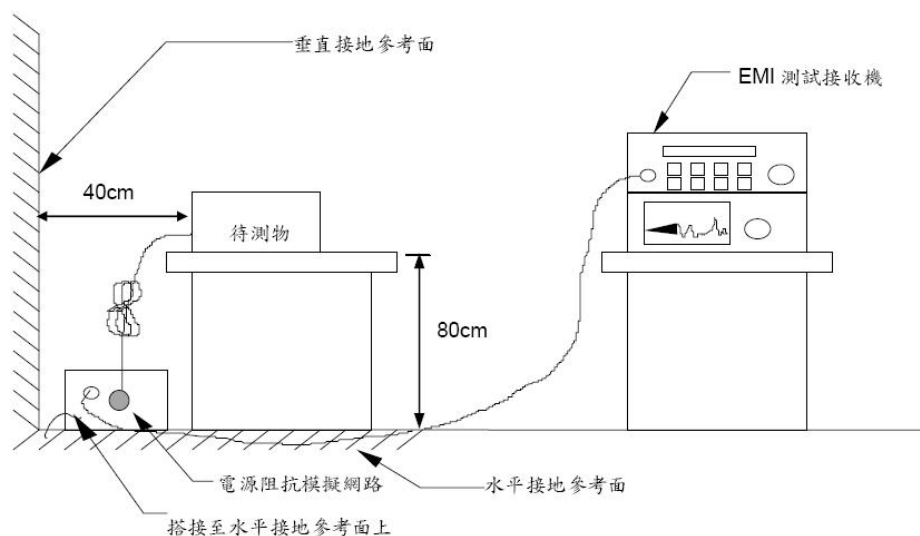
依據低功率射頻電機技術規範，電源傳導干擾之限制要求如下：

頻率 (MHz)	傳導限制值 (dB μ V)	
	準峰值 (Quasi – peak)	平均值(Average)
0.15 – 0.5	66 – 56	56 - 46
0.5 – 5	56	46
5 - 30	60	50

4.2 測試方法

將待測物置於0.8米高的非金屬桌面，使其在工作狀態，待測物電源線接至電源線阻抗穩定網路上，從測試接收機記錄頻率由0.15 MHz至30 MHz之間之電源線傳導放射強度。

4.3 測試場地配置圖



4.4 干擾值之計算

電源傳導干擾電壓之計算公式如下

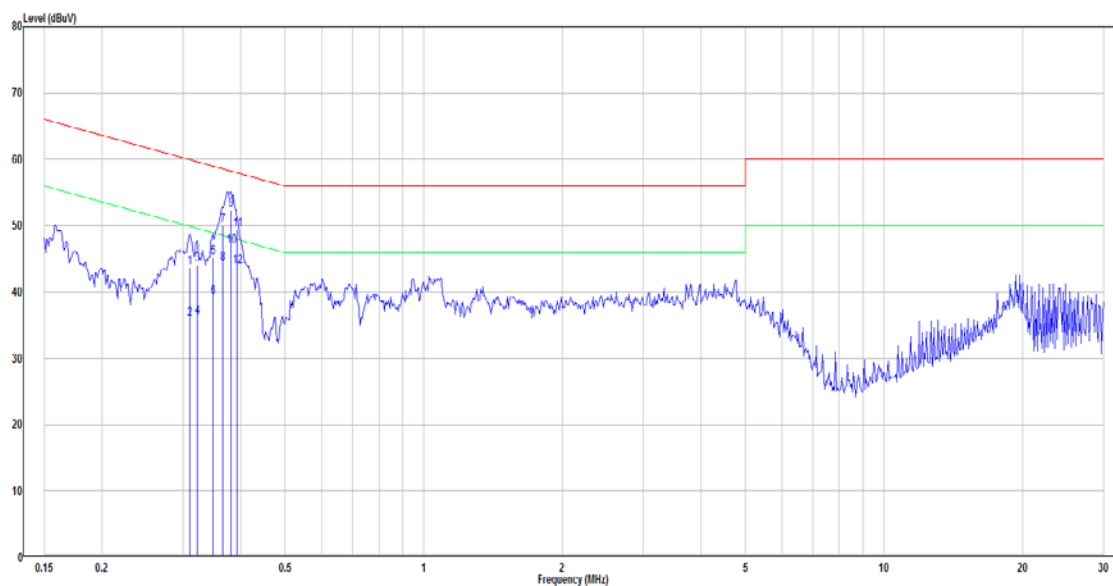
$$\text{干擾值} = \text{讀值} + \text{校正因子}$$

其中校正因子為：饋線損失 + 電源阻抗模擬網路損失

4.5 傳導干擾之量測結果

Job No.:	RXZ210924001	Phase.:	Line
Standard:	limit\RF\NCC LP0002-QP.csv	Power:	AC 110V/60Hz
Test item:	Conduction Test	Test By:	Jason
Temp.(°C)/Hum.(%RH):	26°C/44%		
Description:	2.4G(POE)		

2021-10-04 11:13:56



No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.310	24.10	19.58	43.69	59.97	-16.29	QP
2	0.310	16.25	19.58	35.84	49.97	-14.13	Average
3	0.322	24.61	19.58	44.19	59.66	-15.47	QP
4	0.322	16.63	19.58	36.21	49.66	-13.45	Average
5	0.348	25.61	19.58	45.19	59.00	-13.81	QP
6	0.348	19.59	19.58	39.17	49.00	-9.83	Average
7	0.365	30.41	19.58	50.00	58.61	-8.61	QP
8	0.365	24.65	19.58	44.23	48.61	-4.38	Average
9	0.381	32.81	19.58	52.40	58.25	-5.86	QP
10	0.381	27.20	19.58	46.78	48.25	-1.48	Average
11	0.393	29.76	19.58	49.34	57.99	-8.65	QP
12	0.393	24.26	19.58	43.85	47.99	-4.14	Average

Note:

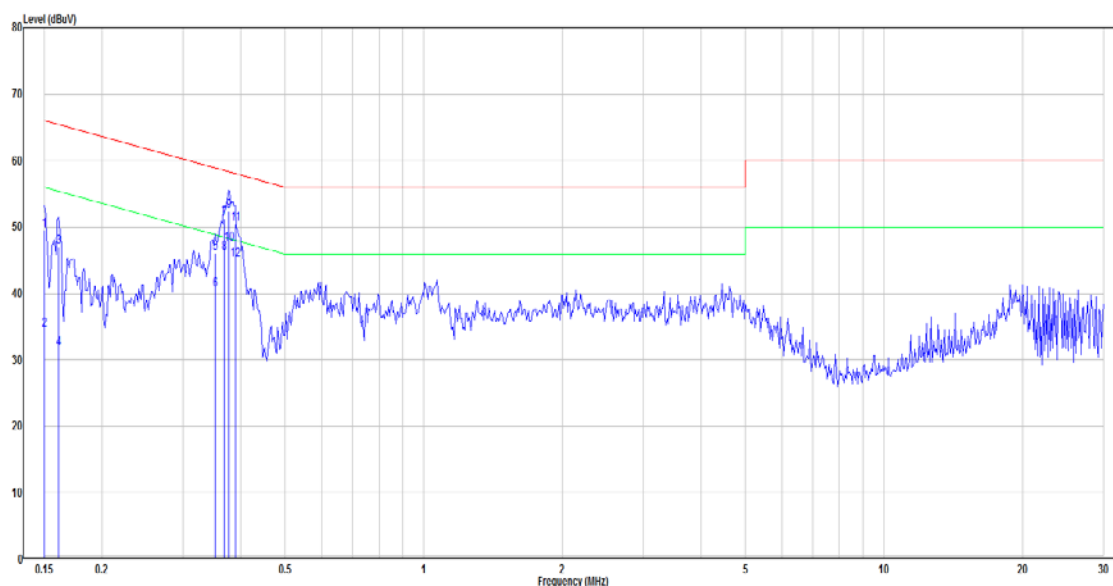
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Job No.:	RXZ210924001	Phase.:	Neutral
Standard:	limit\RF\NCC LP0002-QP.csv	Power:	AC 110V/60Hz
Test item:	Conduction Test	Test By:	Jason
Temp.(°C)/Hum.(%RH):	26°C/44%		
Description:	2.4G(POE)		

2021-10-04 11:18:38



No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.150	29.94	19.60	49.54	66.00	-16.46	QP
2	0.150	14.97	19.60	34.56	56.00	-21.44	Average
3	0.161	27.42	19.59	47.01	65.43	-18.42	QP
4	0.161	12.04	19.59	31.64	55.43	-23.79	Average
5	0.352	26.49	19.58	46.07	58.91	-12.84	QP
6	0.352	20.96	19.58	40.54	48.91	-8.37	Average
7	0.369	31.65	19.58	51.23	58.52	-7.29	QP
8	0.369	26.51	19.58	46.10	48.52	-2.42	Average
9	0.377	32.81	19.58	52.39	58.34	-5.95	QP
10	0.377	27.90	19.58	47.49	48.34	-0.86	Average
11	0.389	30.89	19.58	50.48	58.08	-7.60	QP
12	0.389	25.39	19.58	44.97	48.08	-3.11	Average

Note:

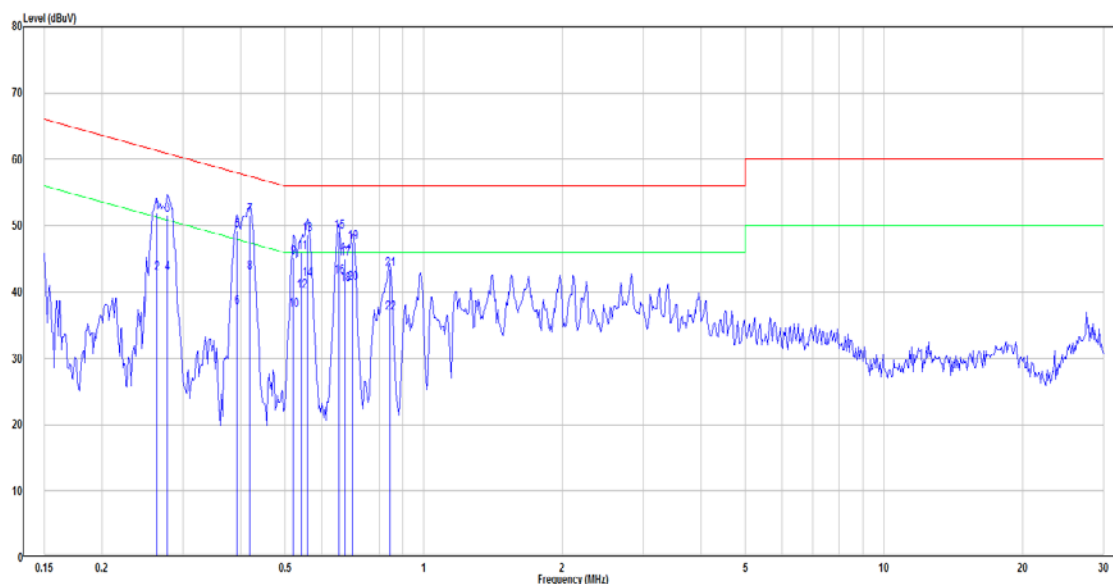
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Job No.:	RXZ210924001	Phase.:	Line
Standard:	limit\RF\NCC LP0002-QP.csv	Power:	AC 110V/60Hz
Test item:	Conduction Test	Test By:	Jason
Temp.(°C)/Hum.(%RH):	26°C/44%		
Description:	2.4G(POWER)		

2021-10-04 10:02:20



No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.263	32.42	19.58	52.00	61.34	-9.34	QP
2	0.263	23.26	19.58	42.84	51.34	-8.50	Average
3	0.277	32.12	19.58	51.70	60.90	-9.20	QP
4	0.277	23.17	19.58	42.75	50.90	-8.14	Average
5	0.393	29.65	19.58	49.23	57.99	-8.76	QP
6	0.393	18.13	19.58	37.72	47.99	-10.27	Average
7	0.419	31.86	19.58	51.45	57.46	-6.02	QP
8	0.419	23.35	19.58	42.93	47.46	-4.53	Average
9	0.521	25.57	19.59	45.16	56.00	-10.84	QP
10	0.521	17.68	19.59	37.27	46.00	-8.73	Average
11	0.544	26.28	19.59	45.87	56.00	-10.13	QP
12	0.544	20.54	19.59	40.13	46.00	-5.87	Average
13	0.558	29.03	19.59	48.62	56.00	-7.38	QP
14	0.558	22.30	19.59	41.89	46.00	-4.11	Average
15	0.654	29.45	19.60	49.04	56.00	-6.96	QP
16	0.654	22.80	19.60	42.39	46.00	-3.61	Average
17	0.675	25.36	19.60	44.95	56.00	-11.05	QP
18	0.675	21.46	19.60	41.05	46.00	-4.95	Average

19	0.701	27.88	19.60	47.48	56.00	-8.52	QP
20	0.701	21.60	19.60	41.20	46.00	-4.80	Average
21	0.844	23.76	19.60	43.37	56.00	-12.63	QP
22	0.844	17.23	19.60	36.84	46.00	-9.16	Average

Note:

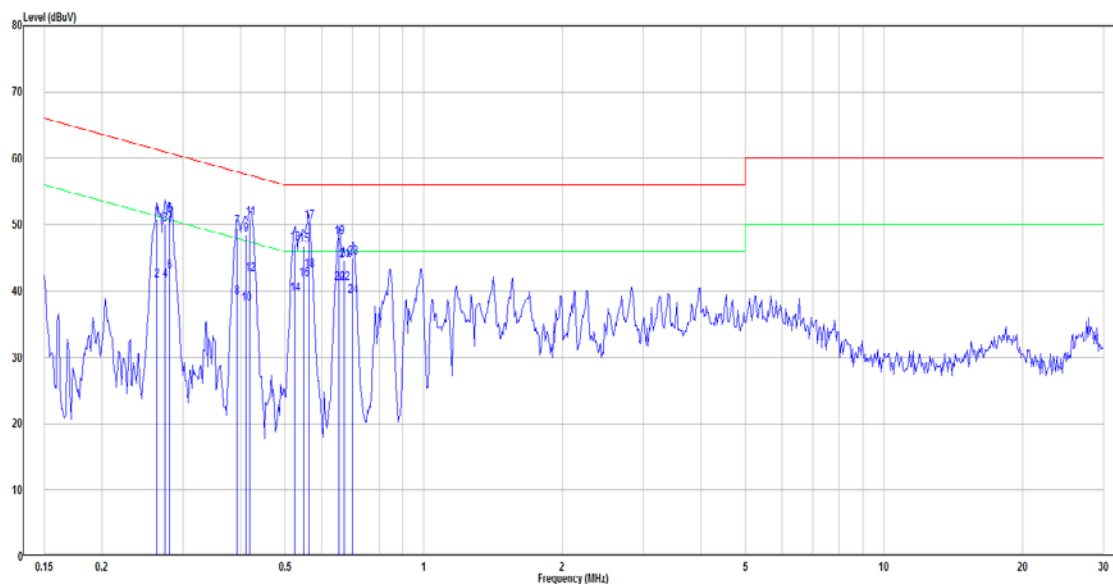
Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Job No.:	RXZ210924001	Phase.:	Neutral
Standard:	limit\RF\NCC LP0002-QP.csv	Power:	AC 110V/60Hz
Test item:	Conduction Test	Test By:	Jason
Temp.(°C)/Hum.(%RH):	26°C/44%		
Description:	2.4G(POWER)		

2021-10-04 10:07:03



No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.263	31.35	19.58	50.93	61.34	-10.40	QP
2	0.263	21.99	19.58	41.57	51.34	-9.76	Average
3	0.274	30.35	19.58	49.93	60.98	-11.05	QP
4	0.274	21.93	19.58	41.51	50.98	-9.48	Average
5	0.280	31.71	19.58	51.29	60.81	-9.52	QP
6	0.280	23.27	19.58	42.85	50.81	-7.95	Average
7	0.393	30.01	19.58	49.60	57.99	-8.39	QP
8	0.393	19.47	19.58	39.06	47.99	-8.93	Average
9	0.410	28.94	19.58	48.53	57.64	-9.11	QP
10	0.410	18.42	19.58	38.00	47.64	-9.64	Average
11	0.419	31.24	19.58	50.83	57.46	-6.63	QP
12	0.419	22.93	19.58	42.51	47.46	-4.95	Average
13	0.524	27.55	19.59	47.14	56.00	-8.86	QP
14	0.524	19.84	19.59	39.43	46.00	-6.57	Average
15	0.549	27.16	19.59	46.75	56.00	-9.25	QP
16	0.549	22.11	19.59	41.70	46.00	-4.30	Average
17	0.564	30.86	19.59	50.46	56.00	-5.54	QP

18	0.564	23.50	19.59	43.09	46.00	-2.91	Average
19	0.654	28.39	19.59	47.99	56.00	-8.01	QP
20	0.654	21.51	19.59	41.10	46.00	-4.90	Average
21	0.672	25.04	19.59	44.64	56.00	-11.36	QP
22	0.672	21.60	19.59	41.19	46.00	-4.81	Average
23	0.701	25.36	19.59	44.96	56.00	-11.04	QP
24	0.701	19.62	19.59	39.21	46.00	-6.79	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

5. 場強輻射之量測

5.1 適用標準

依據低功率射頻電機技術規範，其他開放頻帶外不必要之輻射干擾需符合限制要求。

頻率 (MHz)	測試距離 (m)	干擾限制 ($\mu\text{V/m}$)	干擾限制 (dB $\mu\text{V/m}$)
0.009 – 0.490 (含)	300	2,400/頻率(千赫)	128.5-93.8 (註1)
0.490 (不含) – 1.705 (含)	30	24,000 /頻率(千赫)	73.8-63 (註2)
1.705 (不含) – 30 (不含)	30	30	69.5 (註3)
30 (含) – 88 (含)	3	100	40.0
88 (不含) – 216 (含)	3	150	43.5
216 (不含) – 960 (含)	3	200	46.0
960 (不含)以上	3	500	54.0

註 1: 其干擾限制值 = $20 \cdot \text{LOG}(2400/F) + 40 \cdot \text{LOG}(300/\text{量測距離})$

註 2: 其干擾限制值 = $20 \cdot \text{LOG}(24000/F) + 40 \cdot \text{LOG}(30/\text{量測距離})$

註 3: 其干擾限制值 = $20 \cdot \text{LOG}(30) + 40 \cdot \text{LOG}(30/\text{量測距離})$

5.2 測試方法

將待測物置於0.8 or 1.5米高的非金屬桌面，使其在工作狀態，接收天線置於3米外相同的高度。待測物分別要垂直或水平放置，而且桌面要360度旋轉，另外接收天線也要從1.0米至4.0米升降變化，以找出最大的輻射電場強度，接收天線置於水平、垂直極向各執行測試一次。若量測頻率低於30 MHz時，得於所規定距離以內進行測試，但應盡量避免於近場做測試。當測試距離較規定距離為近時，測試結果應以插補系數換算至規定距離之值：對同一輻射方向最少兩個距離作量測以決定適當的插補系數或線性距離平方反比(40 dB/10倍距離)。

5.3 測試場地配置圖

圖 1:量測頻率9kHz~ 30MHz之測試配置

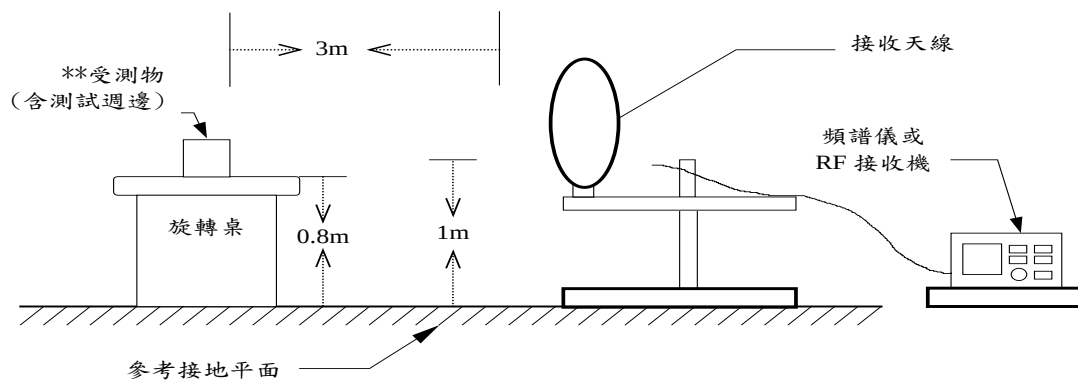


圖 2:量測頻率30 MHz~ 1 GHz之測試配置

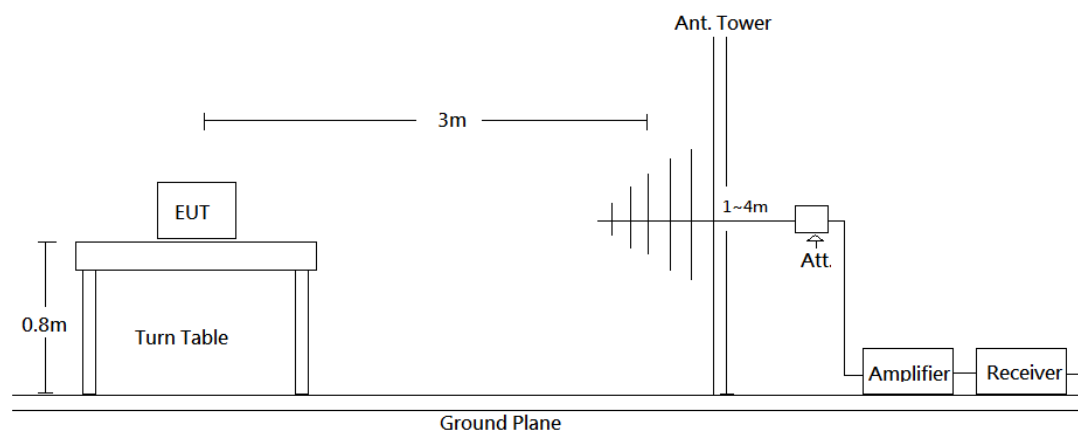
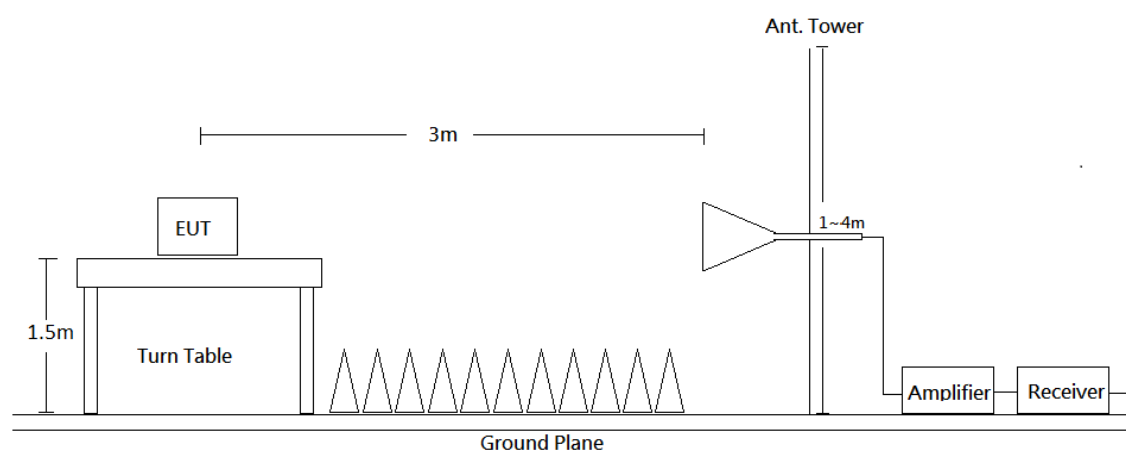


圖 3: 量測頻率1 GHz以上之測試配置



5.4 量測設定

1 GHz以下:

頻譜分析儀設定: Quasi-Peak: RBW = VBW: 120 kHz

1 GHz以上:

頻譜分析儀設定: Peak: RBW: 1 MHz; VBW: 1 MHz

Average: RBW: 1 MHz; VBW: 10 Hz

5.5 場強度之計算

場強之計算公式如

干擾值 = 讀值 + 校正因子

其中校正因子為:

天線因子 + 饋線損失 + 濾波器損失 (若有使用) - 放大器增益 (若有使用)。

5.6 場強輻射之量測結果

發射機 / 接收機 其它不必要之訊號 (9 kHz ~ 30 MHz)

此頻率之干擾值低於限制值20 dB以下，被考量為背景雜訊值並不予記錄。

發射機 / 接收機 其它不必要之訊號 (30 MHz ~ 1 GHz)

此案件測試模式分別為CH Low、Mid、High，經驗證後最差模式為B Mode 2462MHz。

此產品經3軸X、Y、Z，評估X軸為最差。

發射機 其它不必要之訊號 (1 GHz ~ 26.5 GHz)

此案件測試模式分別為CH Low、Mid、High。此產品經3軸X、Y、Z，評估X軸為最差。

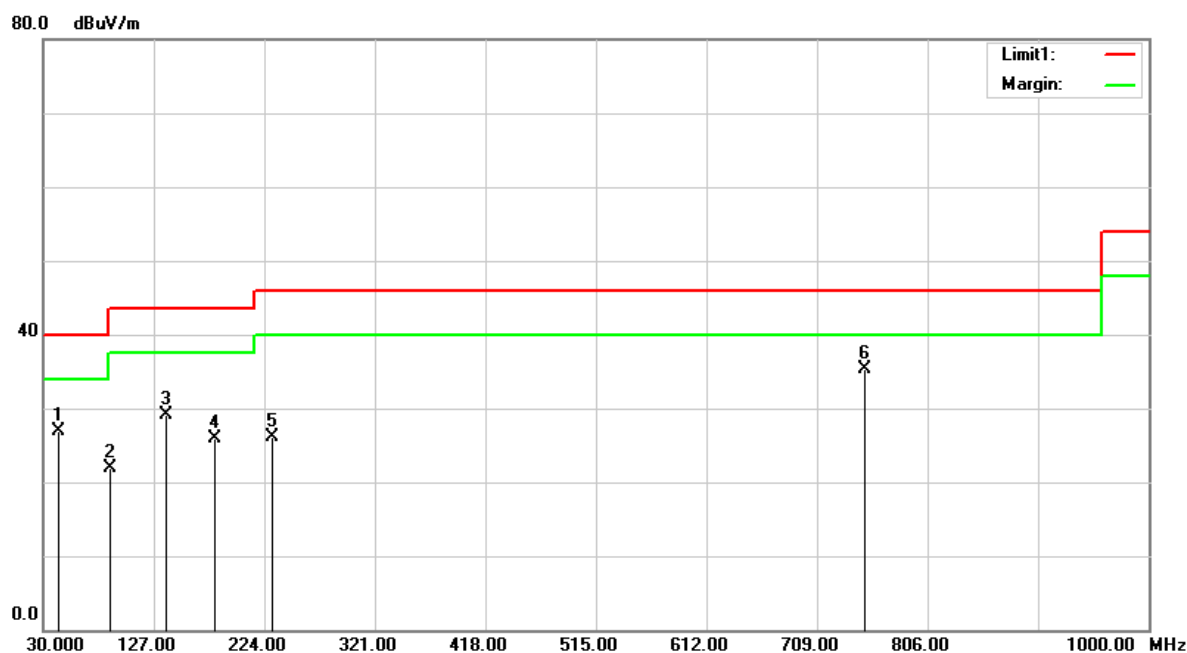
接收機 其它不必要之訊號 (1 GHz ~ 26.5 GHz)

此案件測試模式分別為CH Low、Mid、High，經驗證後最差模式為B Mode 2462MHz。

此產品經3軸X、Y、Z，評估X軸為最差。

場強輻射之量測值 (TX / 1 GHz 以下)

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 _ 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/27	Time:下午 08:16:18
		Test By:	Ken
Description:	B-TX-2437-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
43.5800	39.87	-12.98	26.89	40.00	-13.11	100	113	peak
88.2000	38.69	-16.73	21.96	43.50	-21.54	100	246	peak
137.6700	39.84	-10.66	29.18	43.50	-14.32	100	317	peak
180.3500	38.72	-12.89	25.83	43.50	-17.67	100	300	peak
230.7900	38.77	-12.63	26.14	46.00	-19.86	100	64	peak
750.7100	37.57	-2.28	35.29	46.00	-10.71	100	122	peak

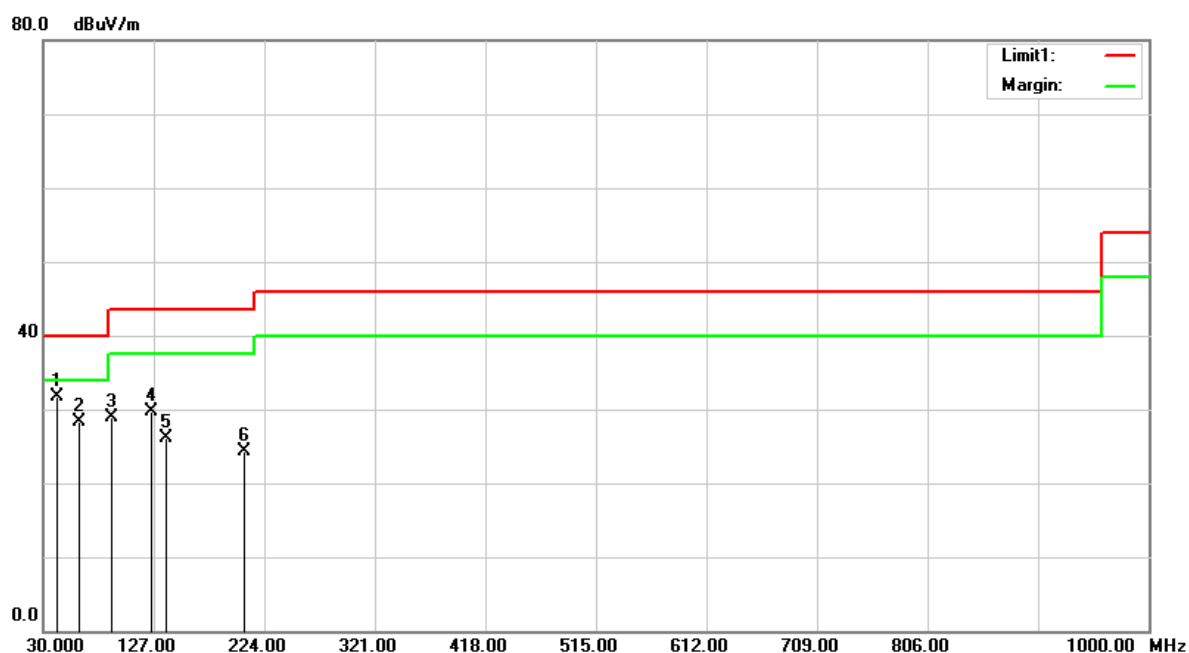
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 _ 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/27	Time:下午 08:20:41
		Test By:	Ken
Description:	B-TX-2437-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
42.6100	43.69	-12.07	31.62	40.00	-8.38	100	77	peak
61.0400	45.24	-17.01	28.23	40.00	-11.77	100	27	peak
90.1400	45.41	-16.53	28.88	43.50	-14.62	100	264	peak
125.0600	39.86	-10.17	29.69	43.50	-13.81	100	271	peak
137.6700	36.79	-10.66	26.13	43.50	-17.37	100	115	peak
206.5400	37.15	-12.91	24.24	43.50	-19.26	100	349	peak

Note:

Result = Reading + Correct Factor

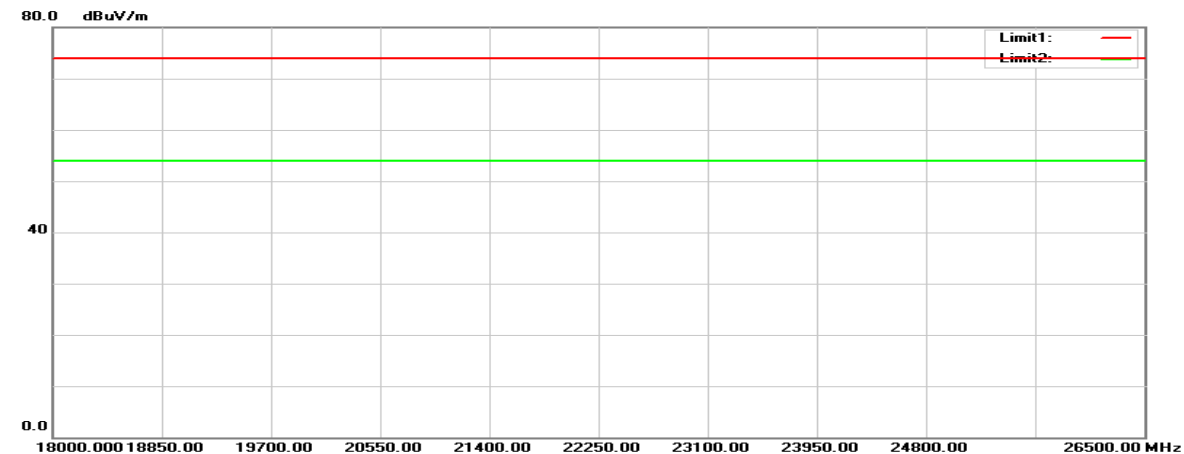
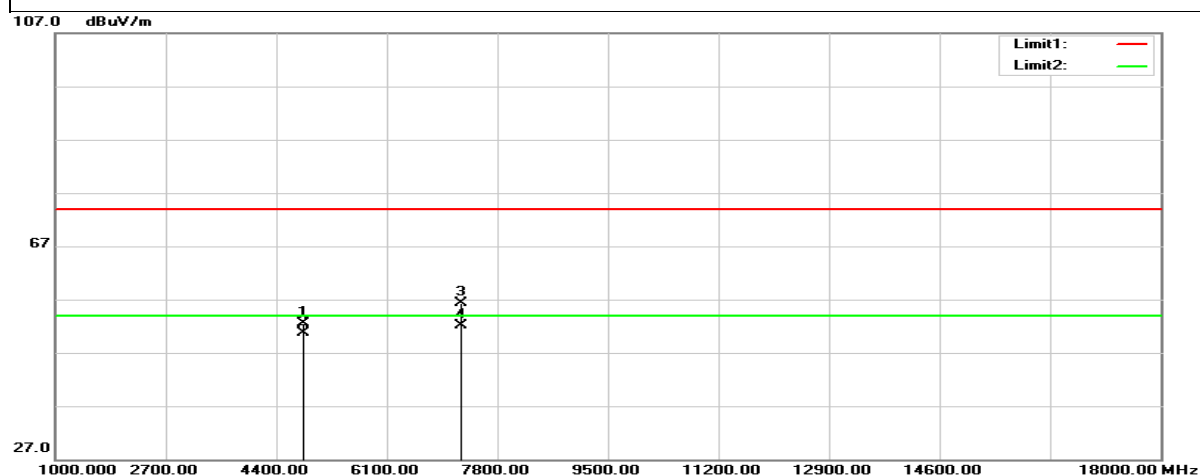
Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射機其它不必要之訊號 (TX / 1 GHz 以上)

場強輻射之量測值

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:20:51
		Test By:	Boris
Description:	B-TX-2412-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
4824.000	55.75	-3.27	52.48	74.00	-21.52	150	34	peak
4824.000	54.05	-3.27	50.78	54.00	-3.22	150	34	AVG
7236.000	52.84	3.48	56.32	74.00	-17.68	150	29	peak
7236.000	48.68	3.48	52.16	54.00	-1.84	150	29	AVG

Note:

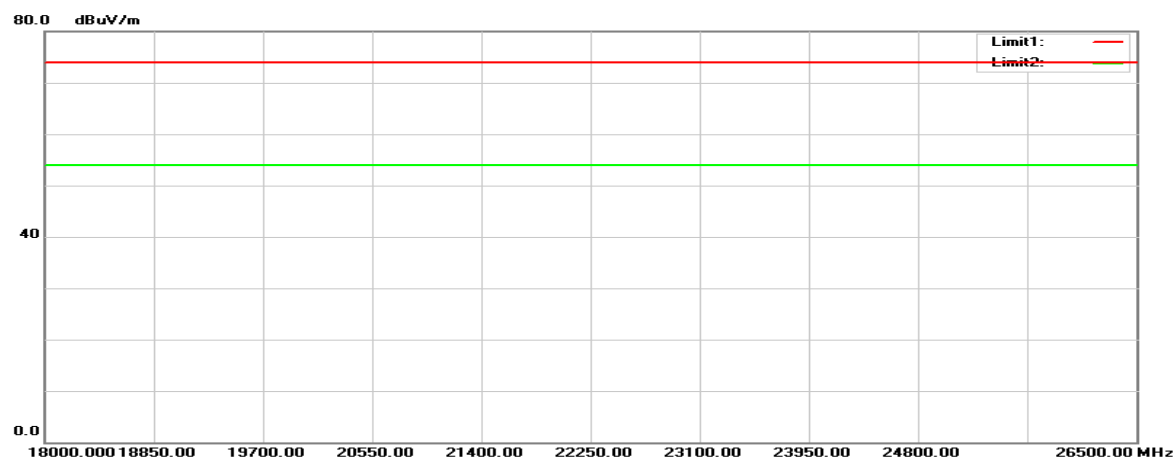
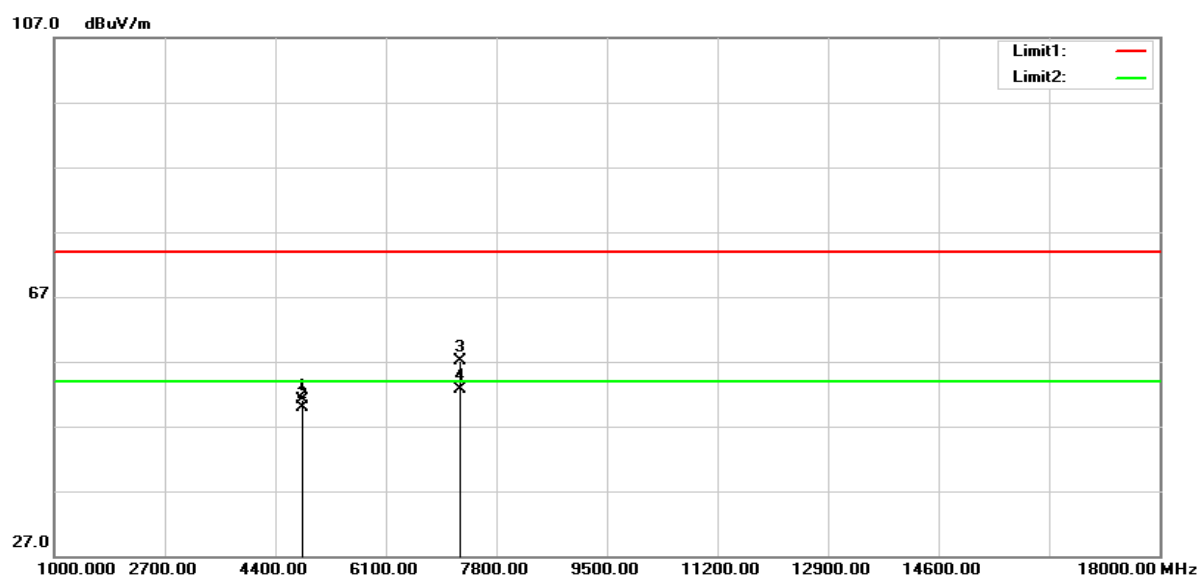
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:25:50
		Test By:	Boris
Description:	B-TX-2412-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
4824.000	54.40	-3.27	51.13	74.00	-22.87	165	87	peak
4824.000	53.26	-3.27	49.99	54.00	-4.01	165	87	AVG
7236.000	53.55	3.48	57.03	74.00	-16.97	165	231	peak
7236.000	49.13	3.48	52.61	54.00	-1.39	165	231	AVG

Note:

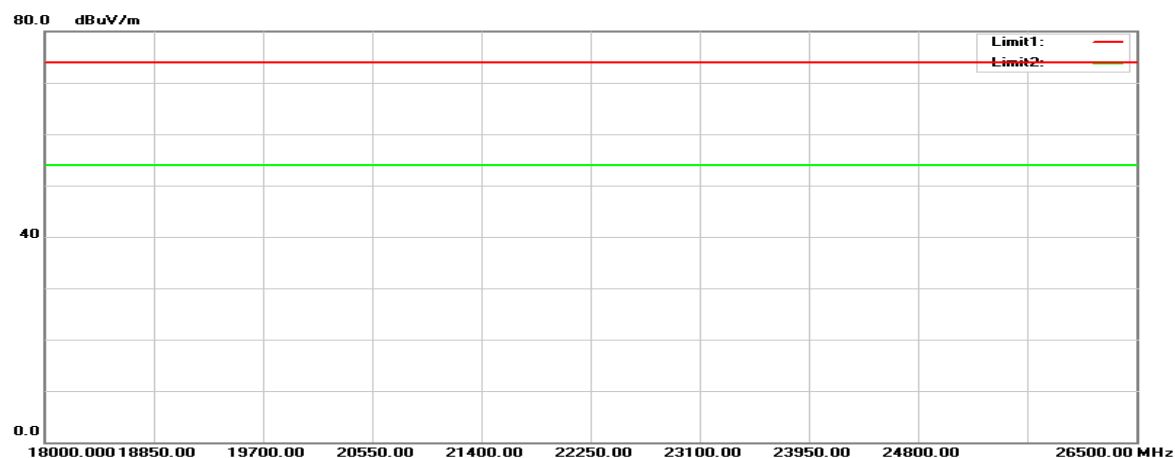
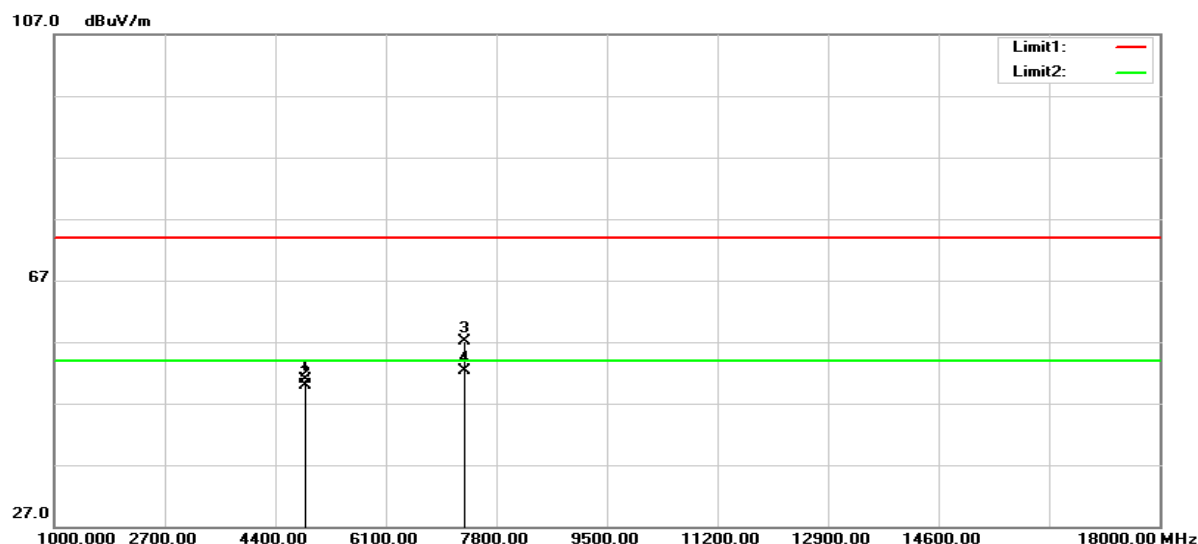
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:31:40
		Test By:	Boris
Description:	B-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	54.01	-3.07	50.94	74.00	-23.06	150	82	peak
4874.000	53.03	-3.07	49.96	54.00	-4.04	150	82	AVG
7311.000	53.16	4.04	57.20	74.00	-16.80	150	94	peak
7311.000	48.28	4.04	52.32	54.00	-1.68	150	94	AVG

Note:

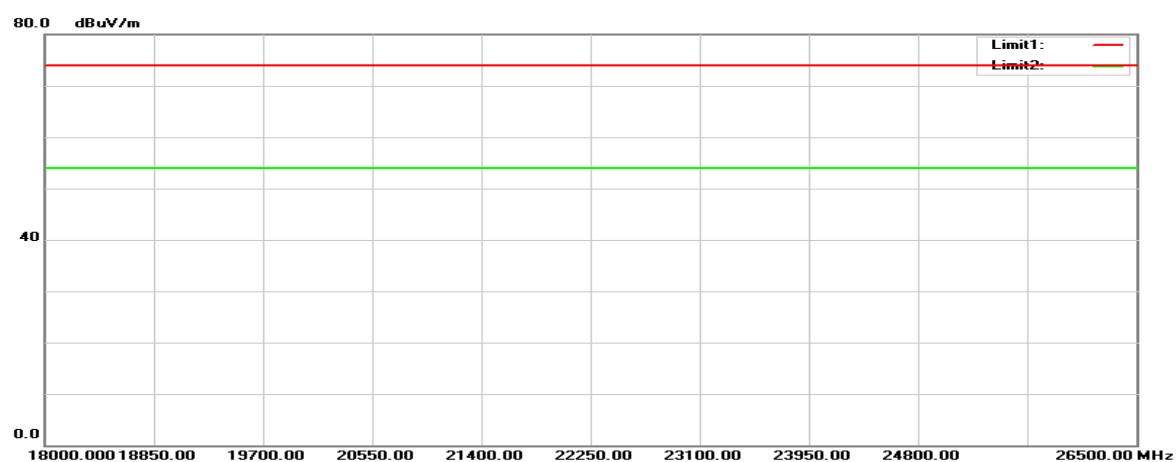
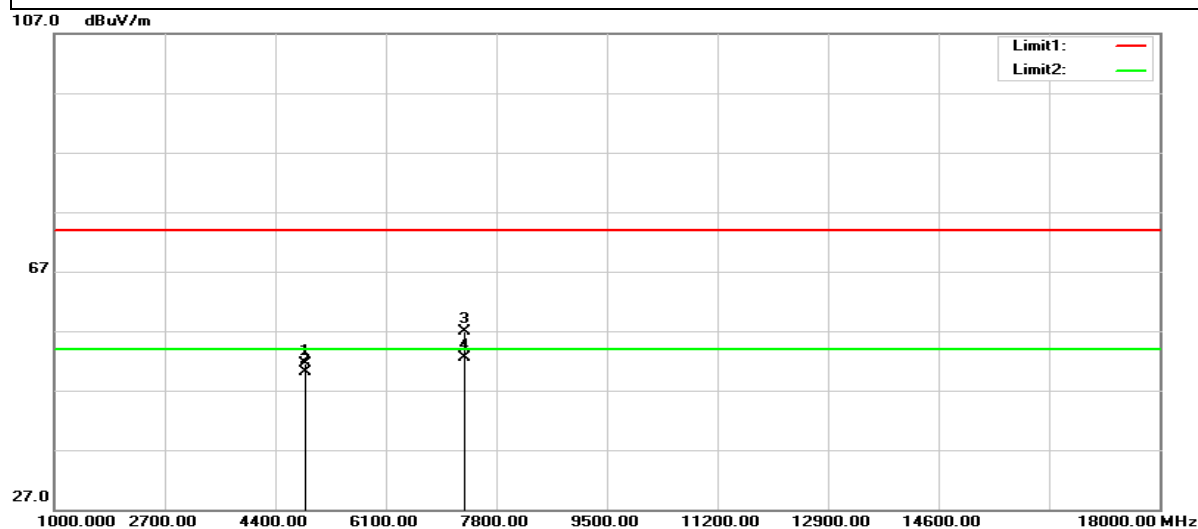
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:36:17
		Test By:	Boris
Description:	B-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	54.63	-3.07	51.56	74.00	-22.44	150	85	peak
4874.000	53.18	-3.07	50.11	54.00	-3.89	150	85	AVG
7311.000	52.83	4.04	56.87	74.00	-17.13	150	234	peak
7311.000	48.45	4.04	52.49	54.00	-1.51	150	234	AVG

Note:

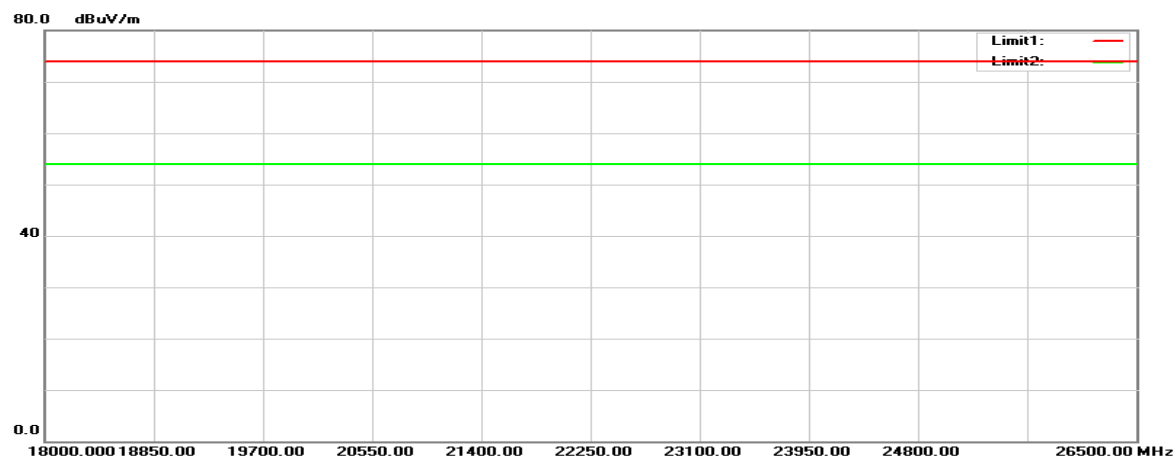
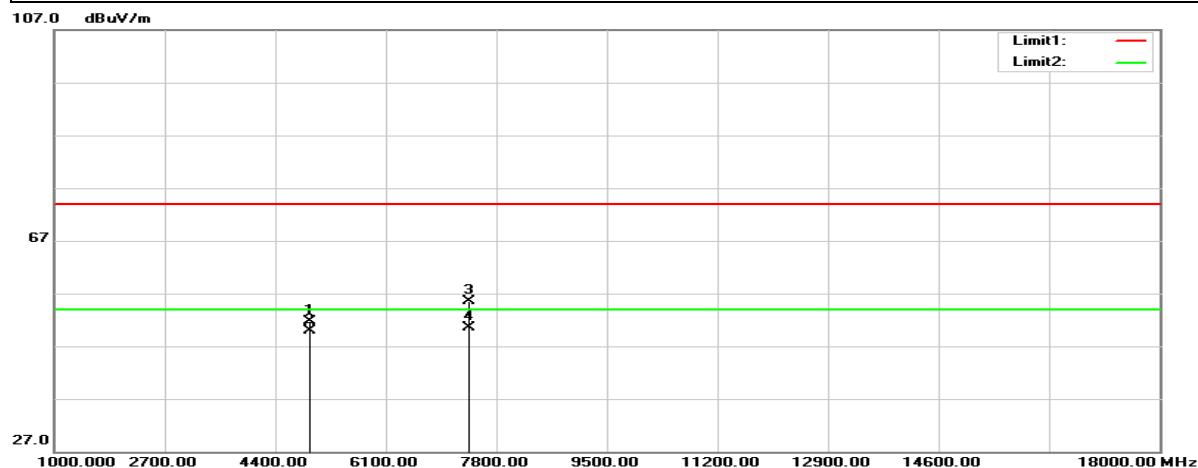
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:39:12
		Test By:	Boris
Description:	B-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	54.55	-2.82	51.73	74.00	-22.27	150	32	peak
4924.000	52.81	-2.82	49.99	54.00	-4.01	150	32	AVG
7386.000	51.36	4.19	55.55	74.00	-18.45	150	32	peak
7386.000	46.35	4.19	50.54	54.00	-3.46	150	32	AVG

Note:

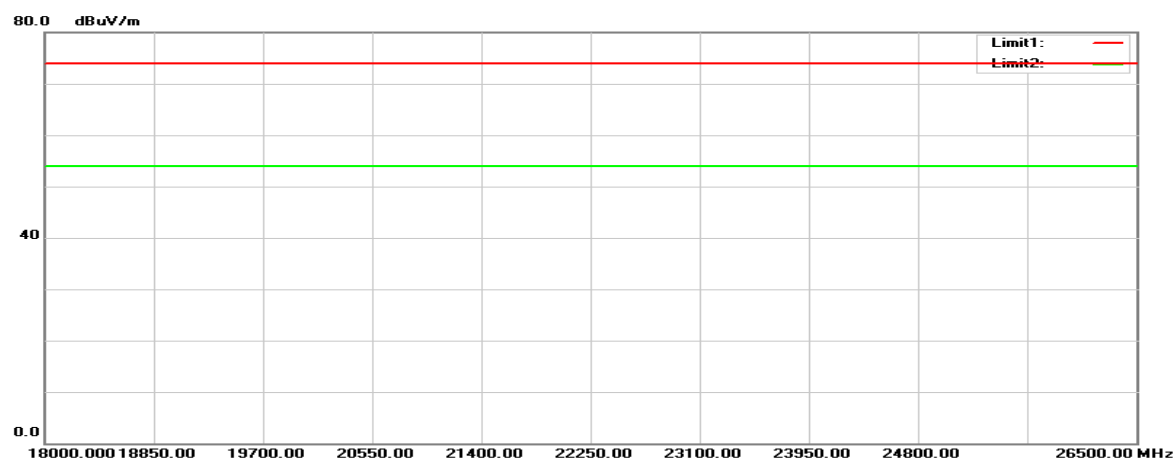
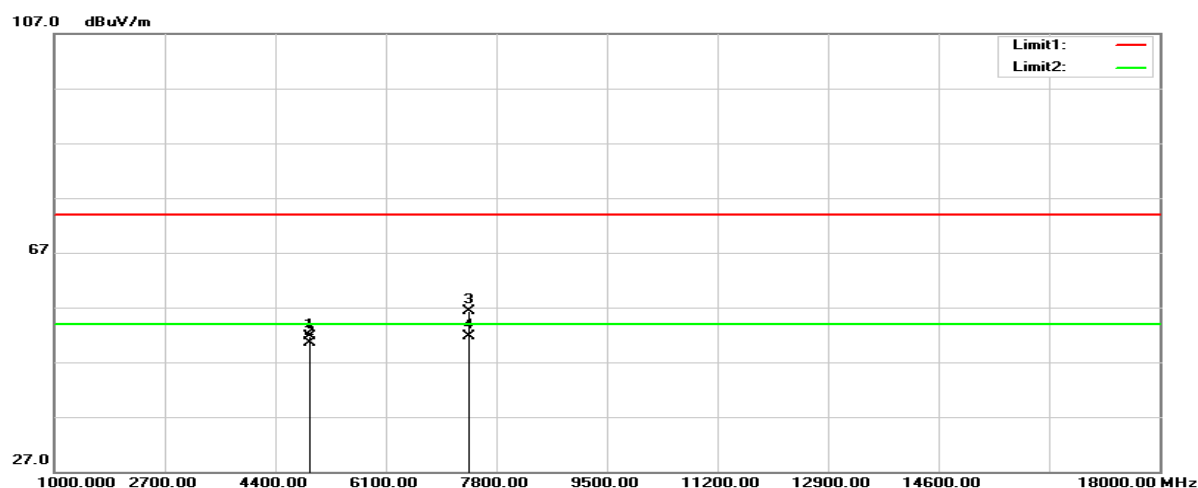
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:42:07
		Test By:	Boris
Description:	B-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	54.50	-2.82	51.68	74.00	-22.32	150	77	peak
4924.000	53.41	-2.82	50.59	54.00	-3.41	150	77	AVG
7386.000	52.03	4.19	56.22	74.00	-17.78	150	97	peak
7386.000	47.61	4.19	51.80	54.00	-2.20	150	97	AVG

Note:

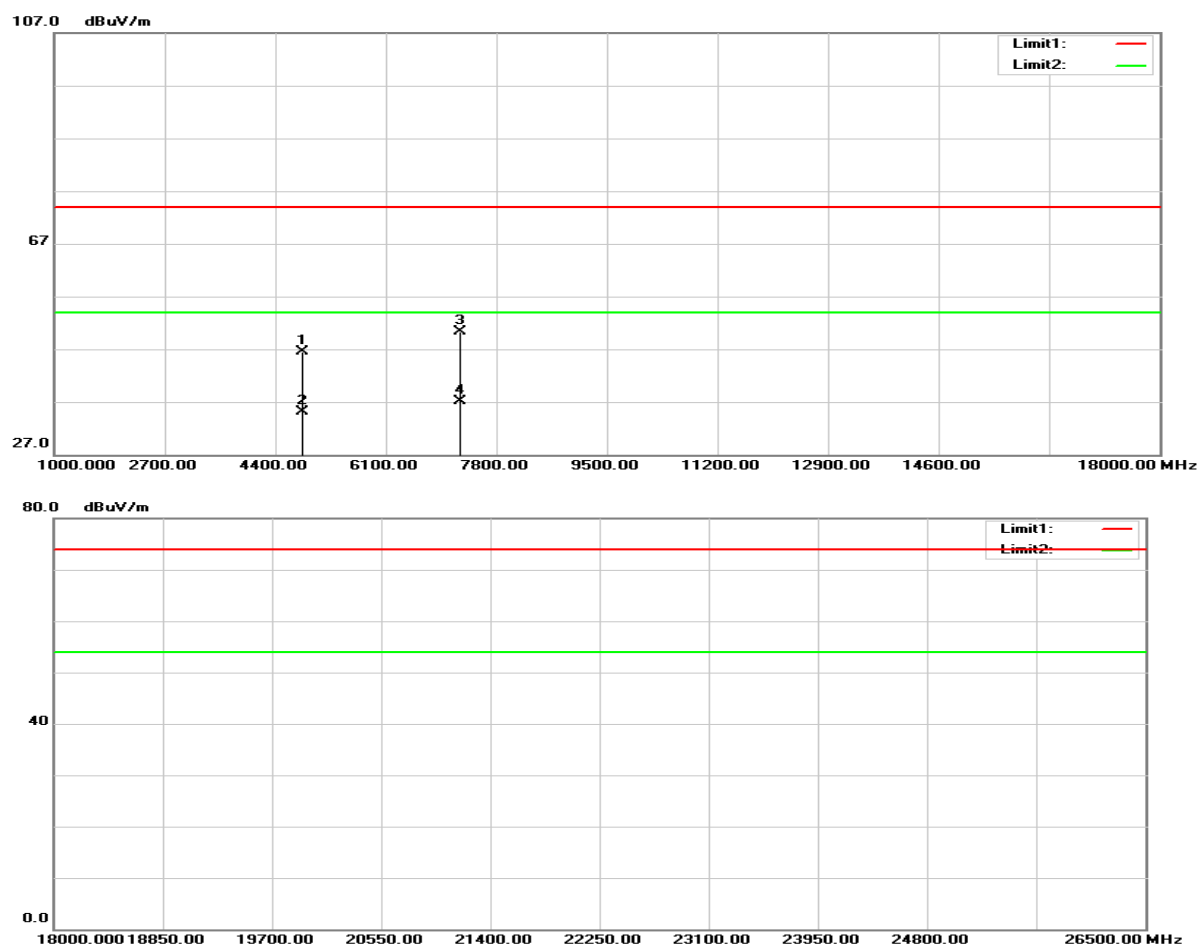
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:47:54
		Test By:	Boris
Description:	G-TX-2412-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
4824.000	49.68	-3.27	46.41	74.00	-27.59	150	55	peak
4824.000	38.43	-3.27	35.16	54.00	-18.84	150	55	AVG
7236.000	46.84	3.48	50.32	74.00	-23.68	150	65	peak
7236.000	33.55	3.48	37.03	54.00	-16.97	150	65	AVG

Note:

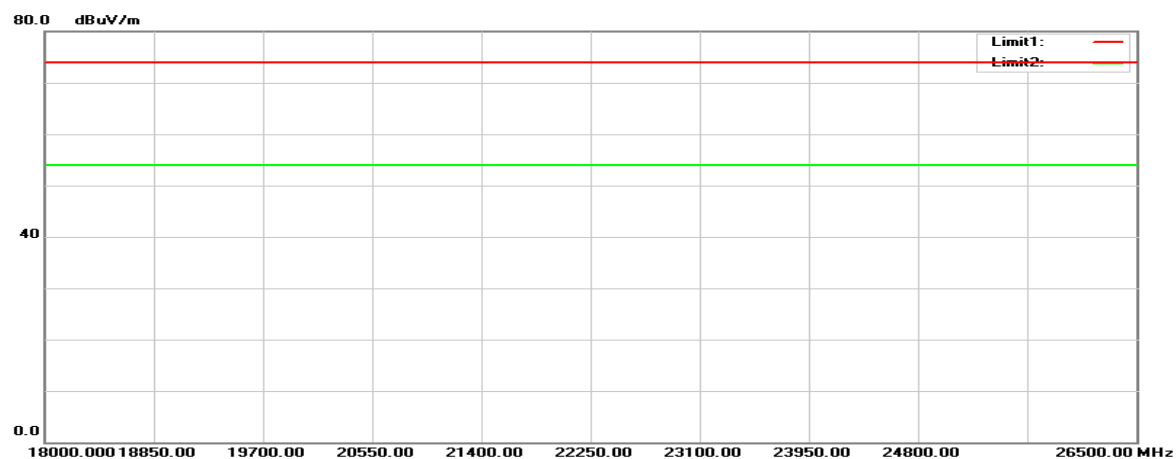
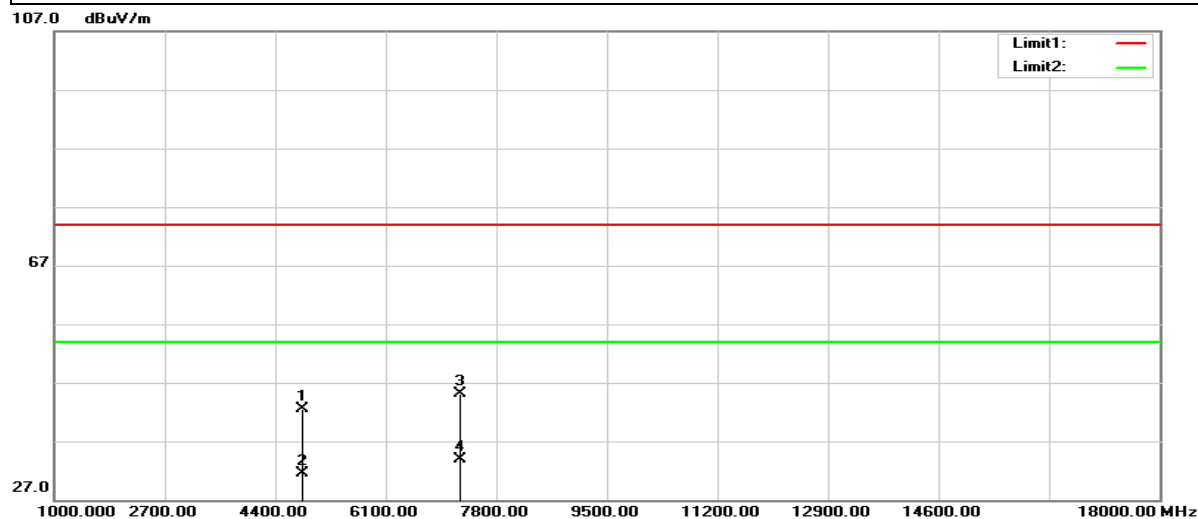
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:52:24
		Test By:	Boris
Description:	G-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4824.000	45.81	-3.27	42.54	74.00	-31.46	150	233	peak
4824.000	34.82	-3.27	31.55	54.00	-22.45	150	233	AVG
7236.000	41.70	3.48	45.18	74.00	-28.82	150	235	peak
7236.000	30.52	3.48	34.00	54.00	-20.00	150	235	AVG

Note:

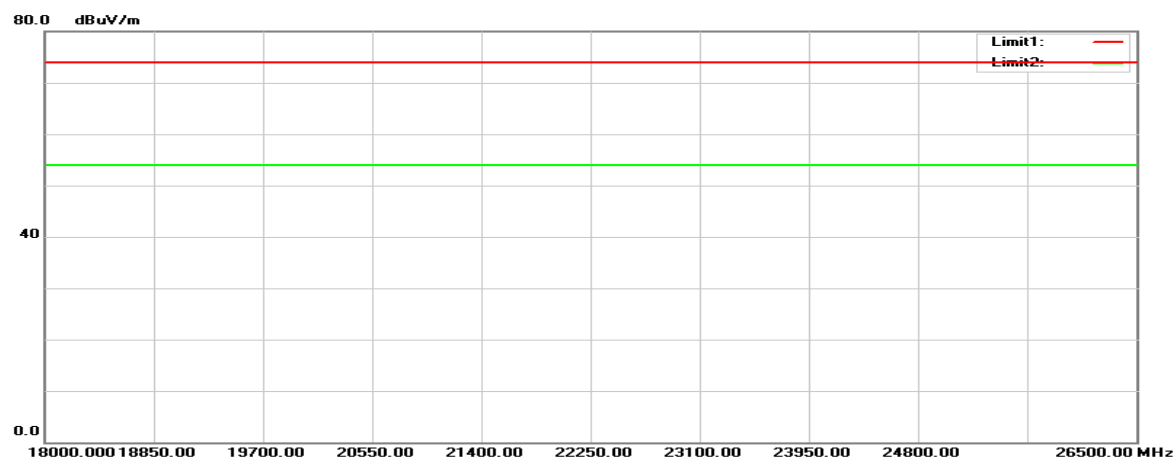
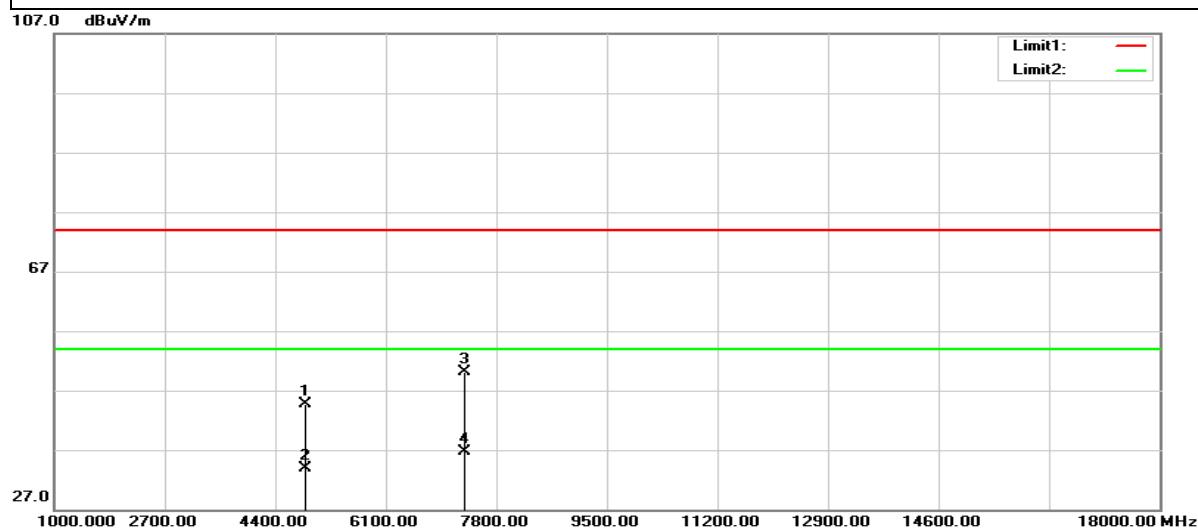
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 03:57:09
		Test By:	Boris
Description:	G-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	47.85	-3.07	44.78	74.00	-29.22	150	42	peak
4874.000	36.91	-3.07	33.84	54.00	-20.16	150	42	AVG
7311.000	45.97	4.04	50.01	74.00	-23.99	150	56	peak
7311.000	32.56	4.04	36.60	54.00	-17.40	150	56	AVG

Note:

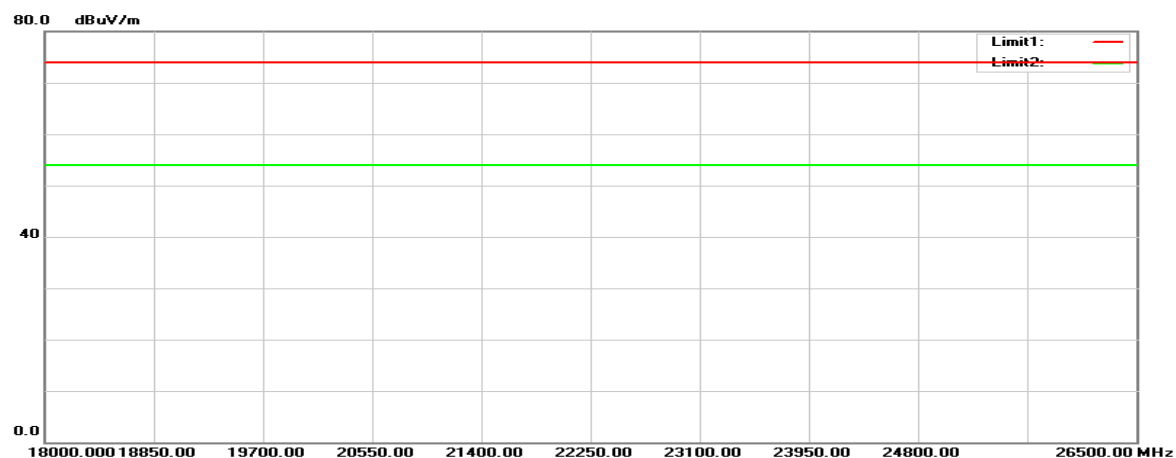
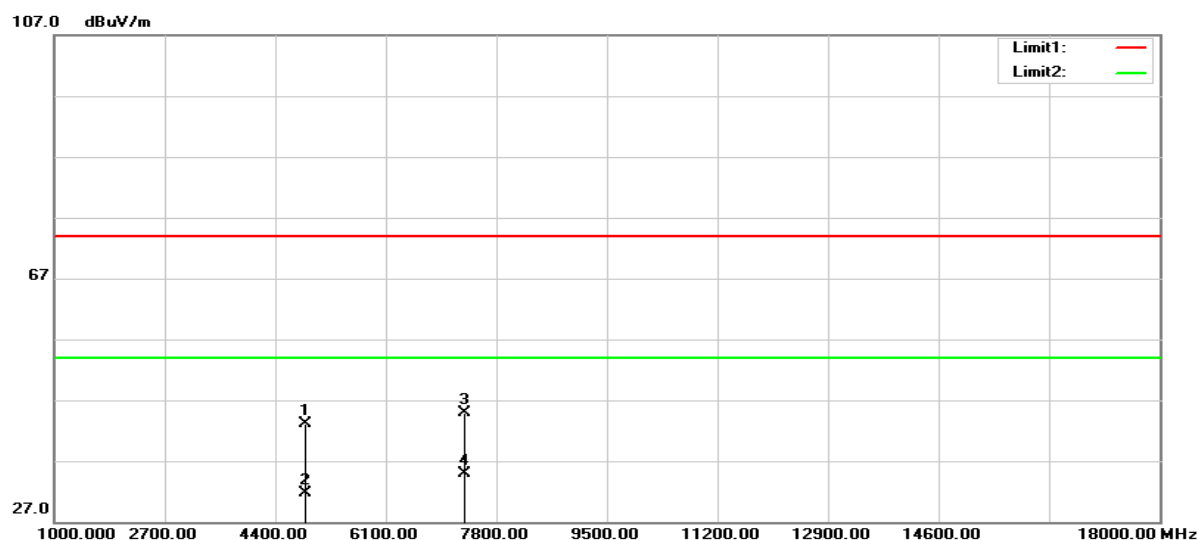
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:02:15
		Test By:	Boris
Description:	G-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	46.12	-3.07	43.05	74.00	-30.95	150	231	peak
4874.000	34.71	-3.07	31.64	54.00	-22.36	150	231	AVG
7311.000	40.96	4.04	45.00	74.00	-29.00	150	232	peak
7311.000	30.94	4.04	34.98	54.00	-19.02	150	232	AVG

Note:

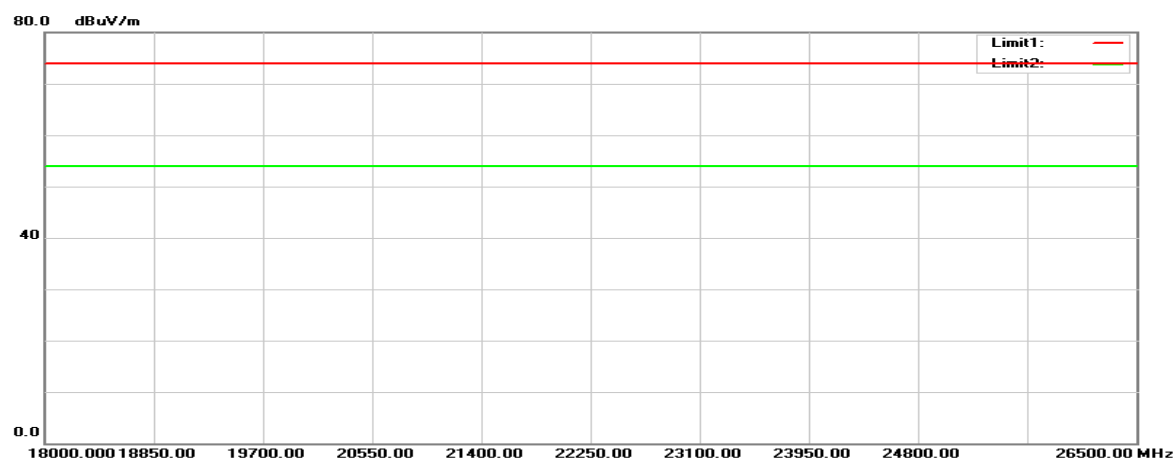
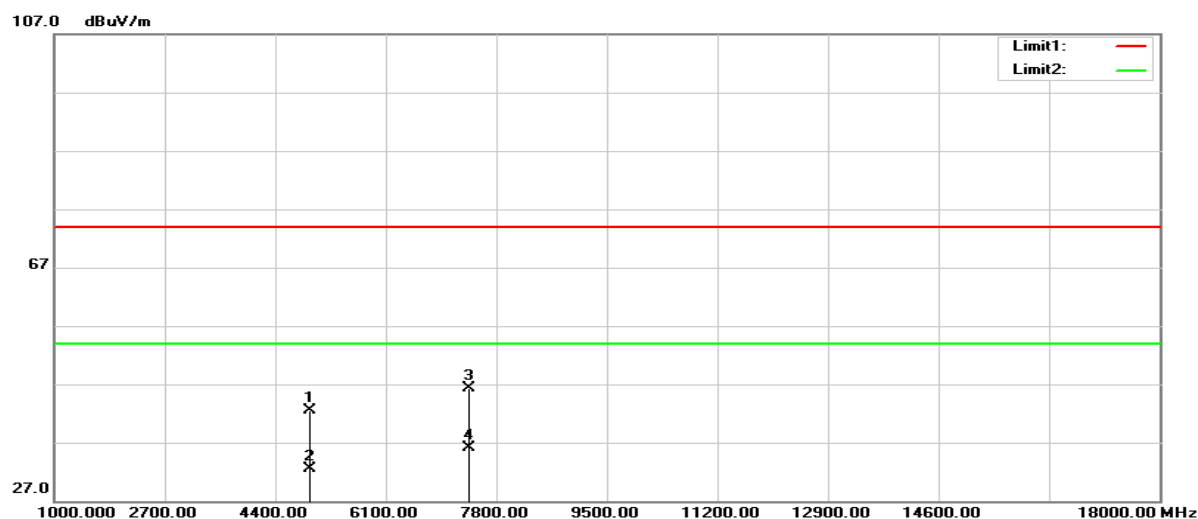
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:05:48
		Test By:	Boris
Description:	G-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	45.29	-2.82	42.47	74.00	-31.53	150	33	peak
4924.000	35.32	-2.82	32.50	54.00	-21.50	150	33	AVG
7386.000	42.14	4.19	46.33	74.00	-27.67	150	41	peak
7386.000	31.84	4.19	36.03	54.00	-17.97	150	41	AVG

Note:

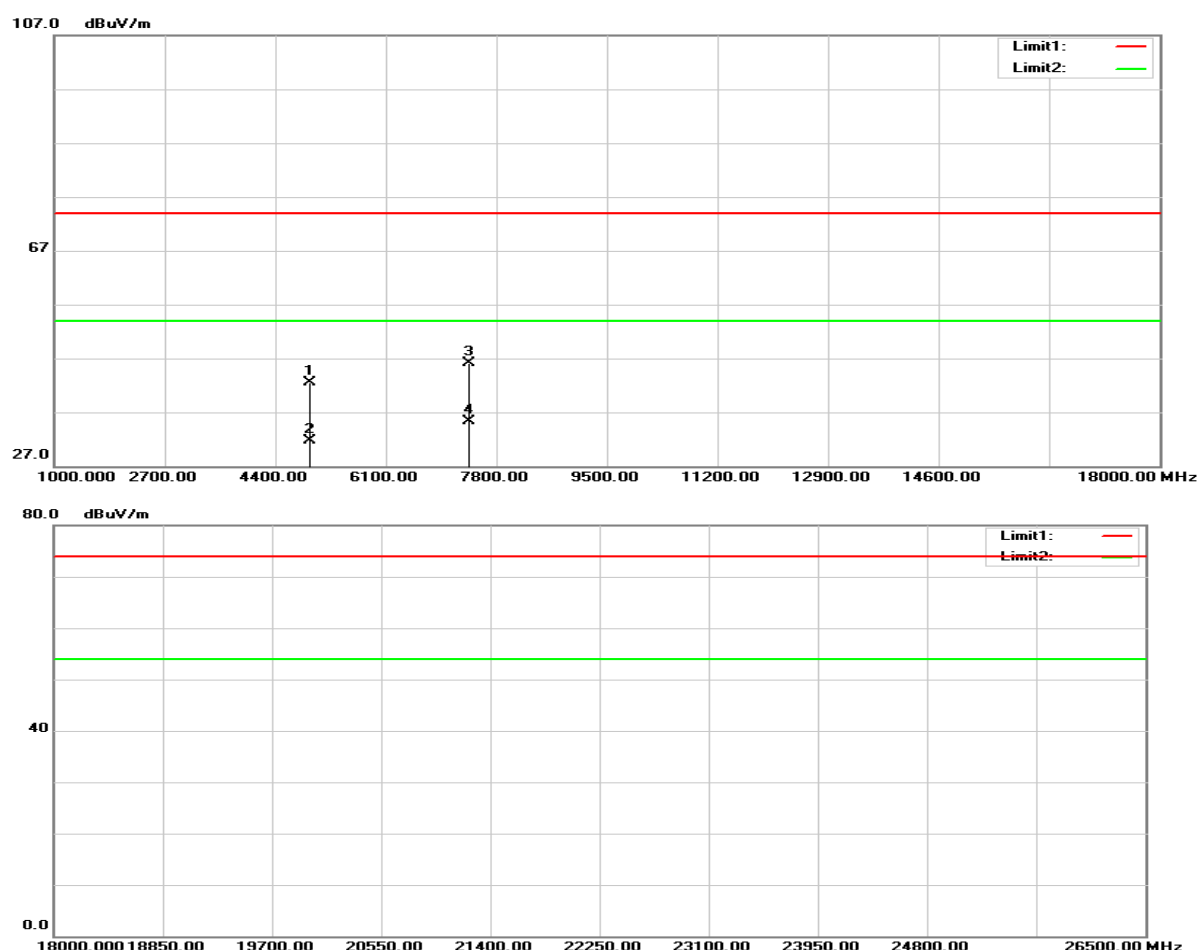
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:09:19
		Test By:	Boris
Description:	G-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	45.28	-2.82	42.46	74.00	-31.54	150	228	peak
4924.000	34.42	-2.82	31.60	54.00	-22.40	150	228	AVG
7386.000	41.96	4.19	46.15	74.00	-27.85	150	211	peak
7386.000	31.20	4.19	35.39	54.00	-18.61	150	211	AVG

Note:

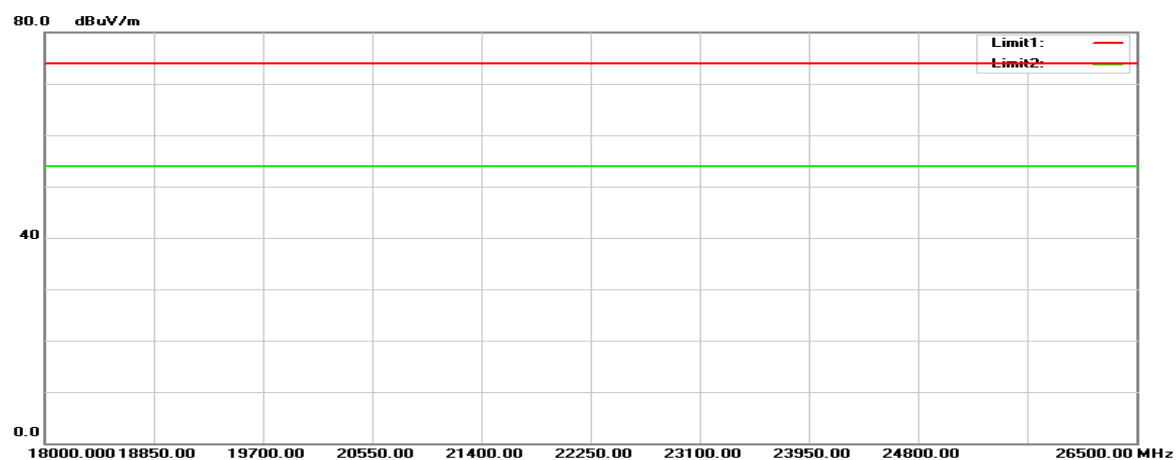
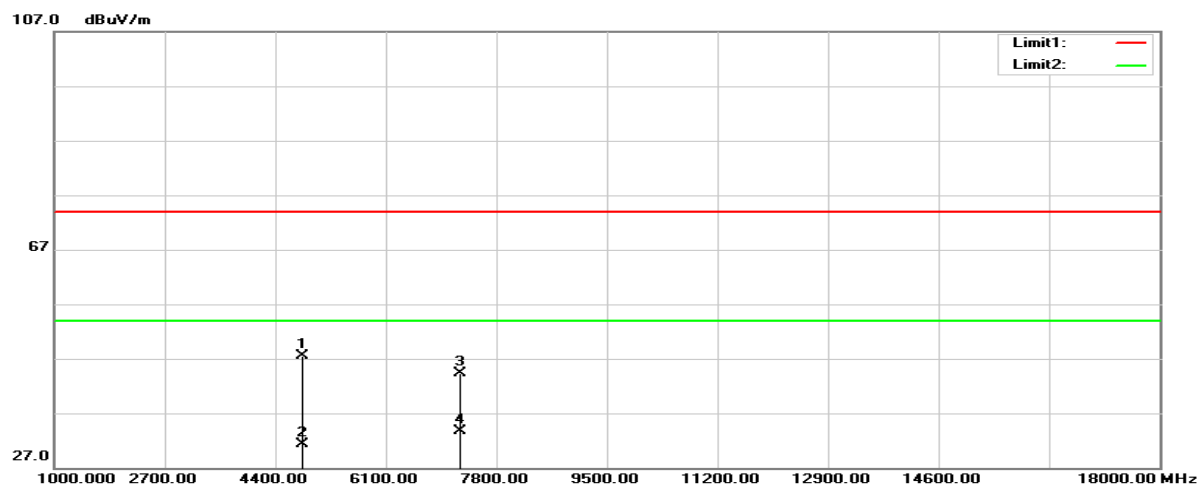
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:14:06
		Test By:	Boris
Description:	N20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4824.000	50.73	-3.27	47.46	74.00	-26.54	150	35	peak
4824.000	34.50	-3.27	31.23	54.00	-22.77	150	35	AVG
7236.000	40.86	3.48	44.34	74.00	-29.66	150	42	peak
7236.000	30.14	3.48	33.62	54.00	-20.38	150	42	AVG

Note:

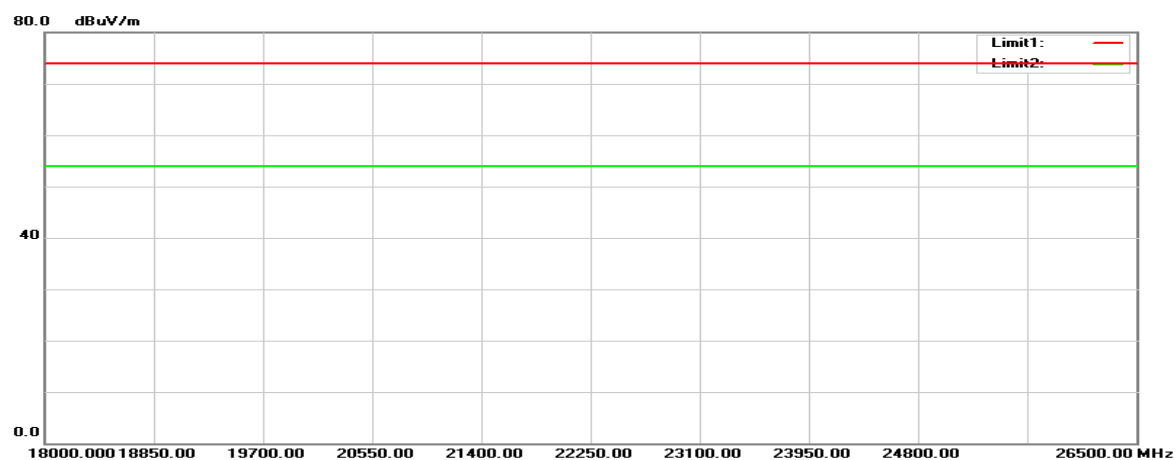
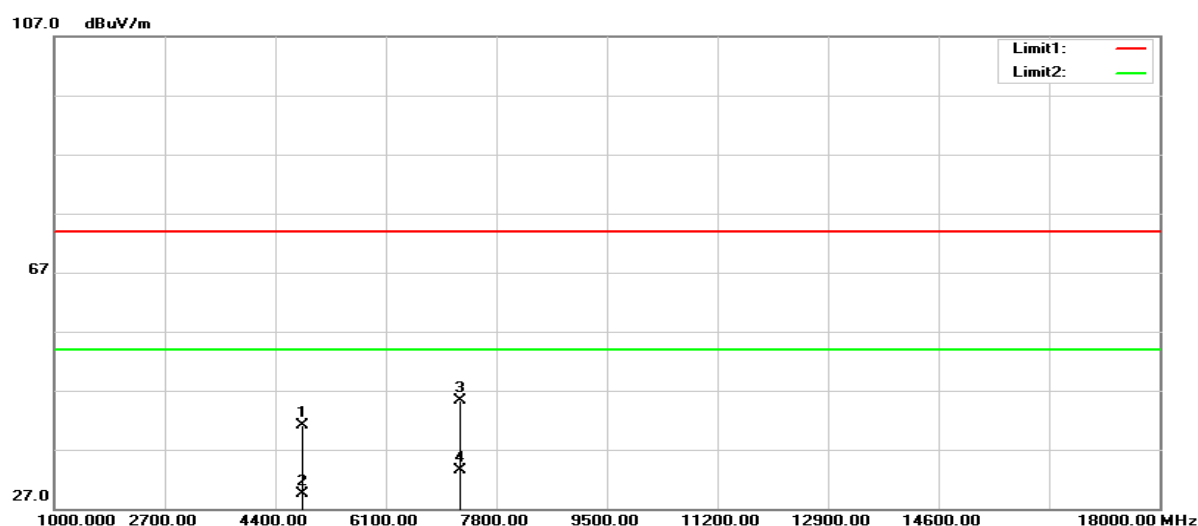
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:18:42
		Test By:	Boris
Description:	N20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4824.000	44.34	-3.27	41.07	74.00	-32.93	150	232	peak
4824.000	32.85	-3.27	29.58	54.00	-24.42	150	232	AVG
7236.000	41.79	3.48	45.27	74.00	-28.73	150	225	peak
7236.000	30.09	3.48	33.57	54.00	-20.43	150	225	AVG

Note:

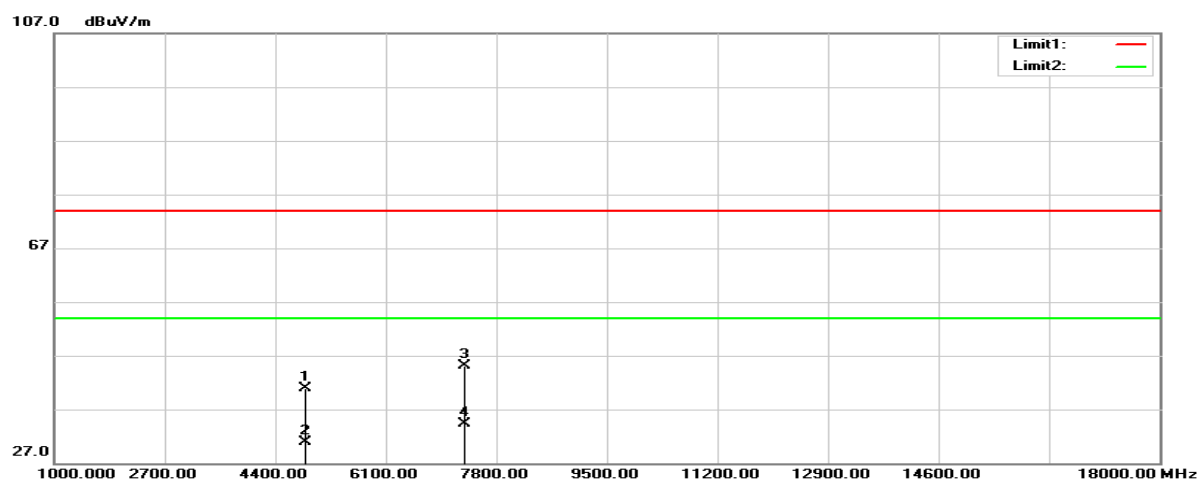
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:24:27
		Test By:	Boris
Description:	N20-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	44.02	-3.07	40.95	74.00	-33.05	150	38	peak
4874.000	33.96	-3.07	30.89	54.00	-23.11	150	38	AVG
7311.000	41.08	4.04	45.12	74.00	-28.88	150	40	peak
7311.000	30.27	4.04	34.31	54.00	-19.69	150	40	AVG

Note:

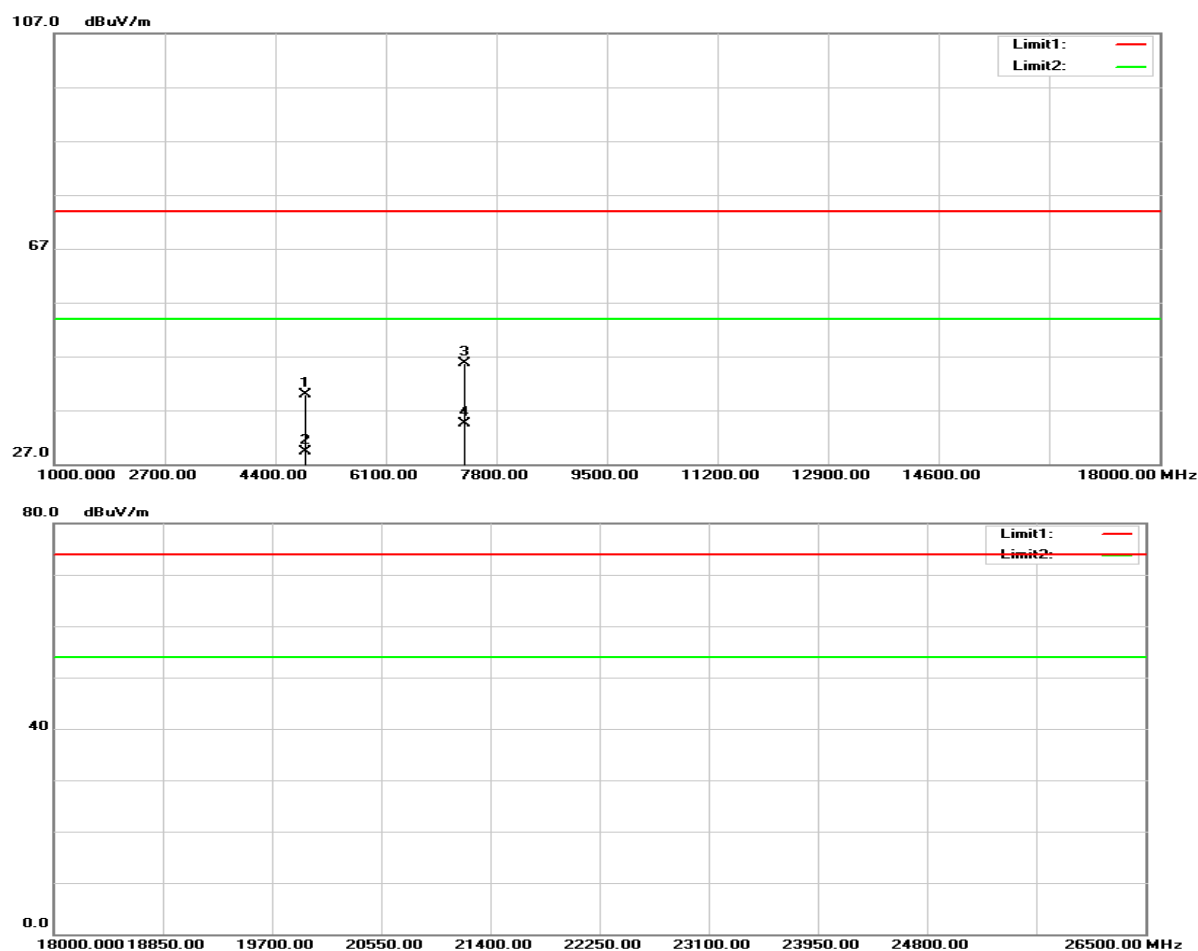
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:29:53
		Test By:	Boris
Description:	N20-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	43.00	-3.07	39.93	74.00	-34.07	150	224	peak
4874.000	32.42	-3.07	29.35	54.00	-24.65	150	224	AVG
7311.000	41.60	4.04	45.64	74.00	-28.36	150	230	peak
7311.000	30.42	4.04	34.46	54.00	-19.54	150	230	AVG

Note:

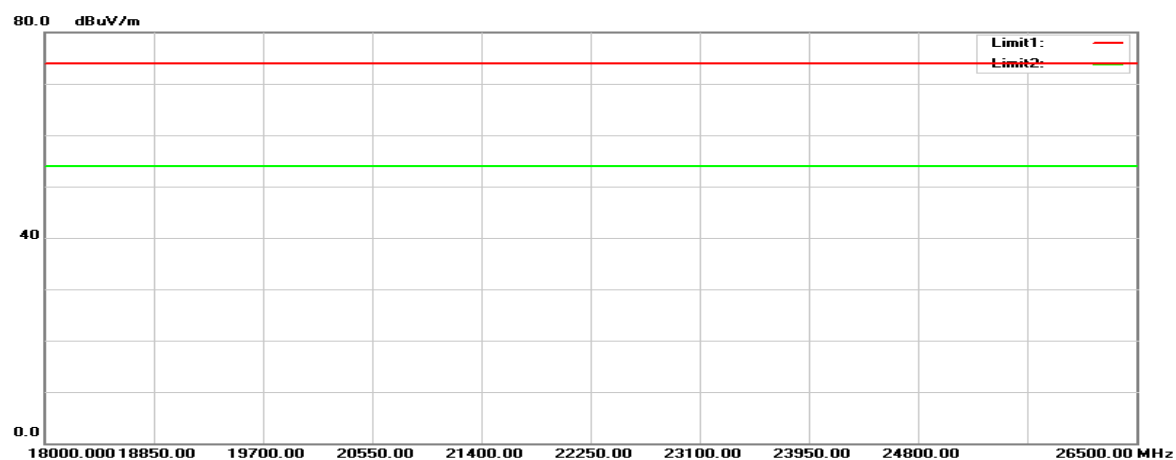
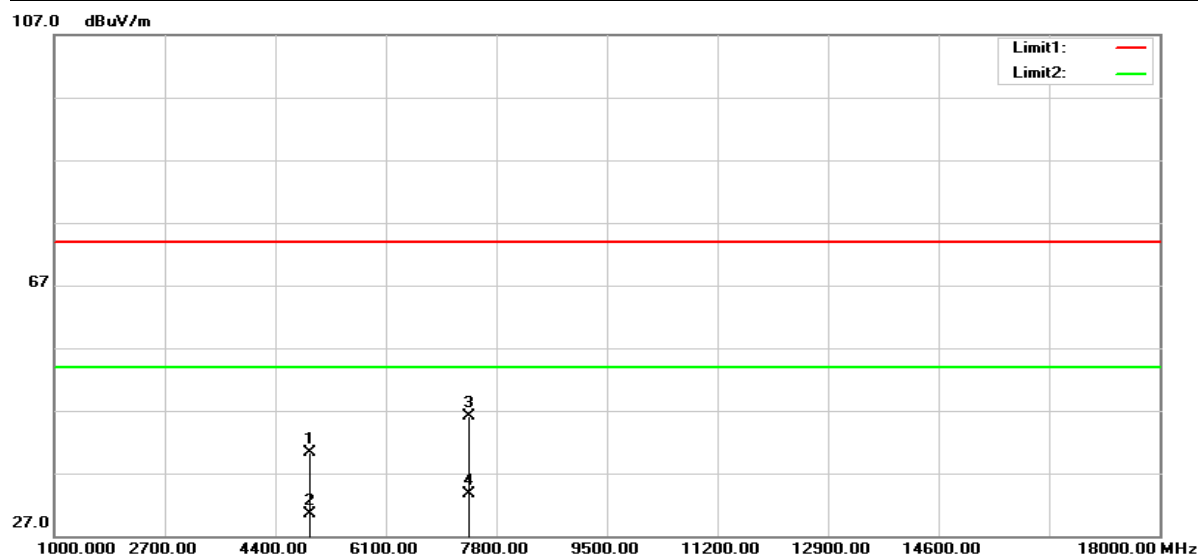
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:33:20
		Test By:	Boris
Description:	N20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	43.18	-2.82	40.36	74.00	-33.64	150	28	peak
4924.000	33.29	-2.82	30.47	54.00	-23.53	150	28	AVG
7386.000	41.93	4.19	46.12	74.00	-27.88	150	33	peak
7386.000	29.46	4.19	33.65	54.00	-20.35	150	33	AVG

Note:

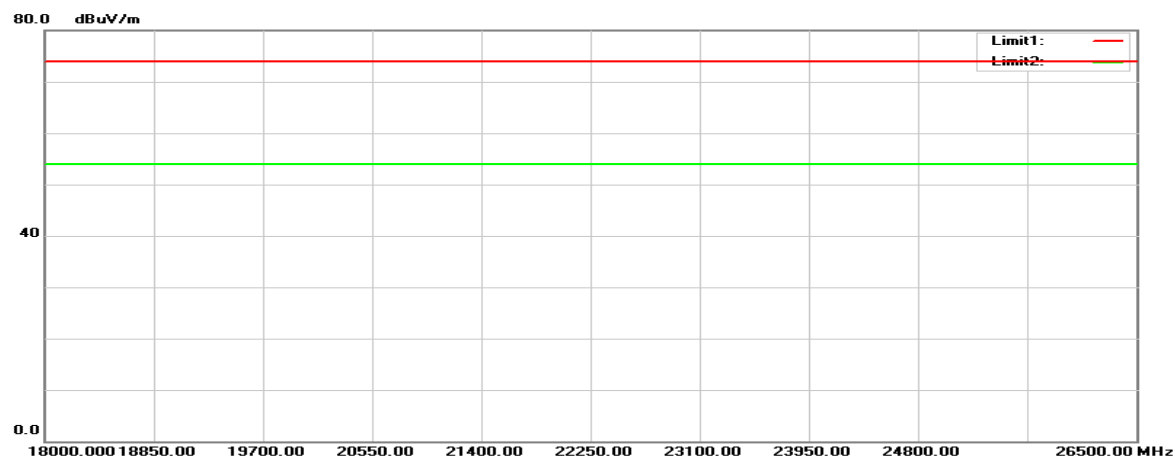
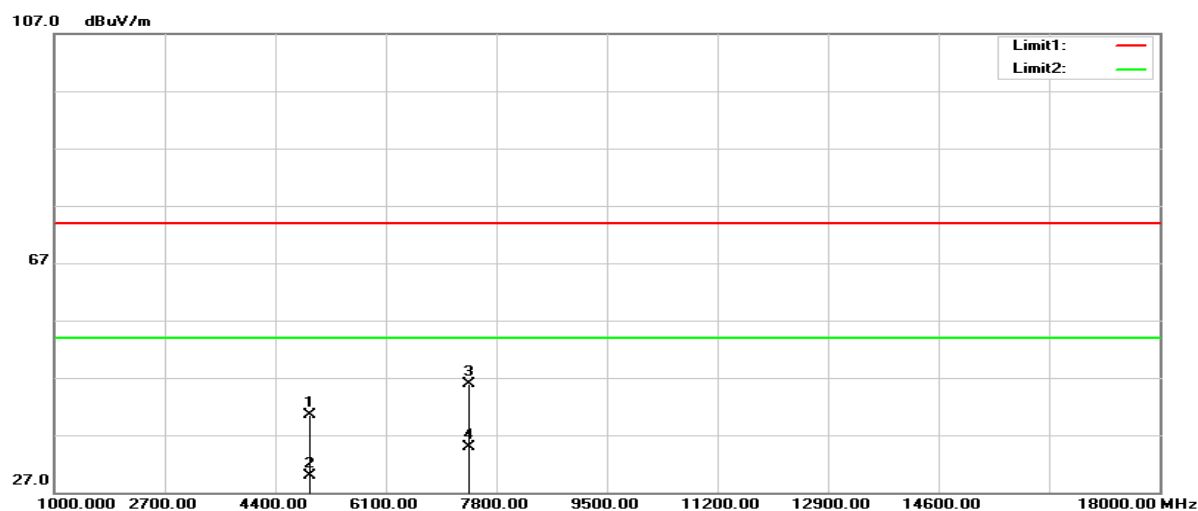
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:38:01
		Test By:	Boris
Description:	N20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	43.40	-2.82	40.58	74.00	-33.42	150	231	peak
4924.000	32.72	-2.82	29.90	54.00	-24.10	150	231	AVG
7386.000	41.72	4.19	45.91	74.00	-28.09	150	229	peak
7386.000	30.69	4.19	34.88	54.00	-19.12	150	229	AVG

Note:

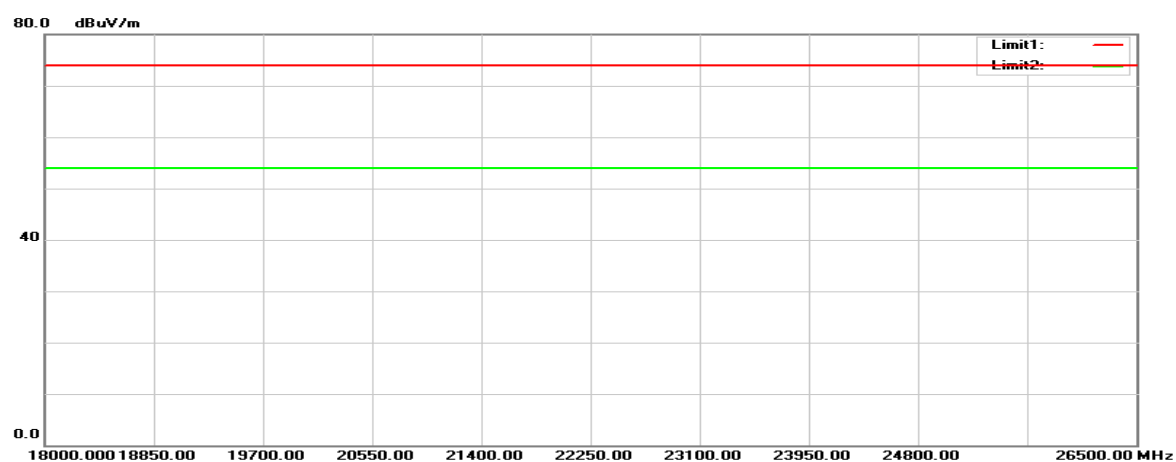
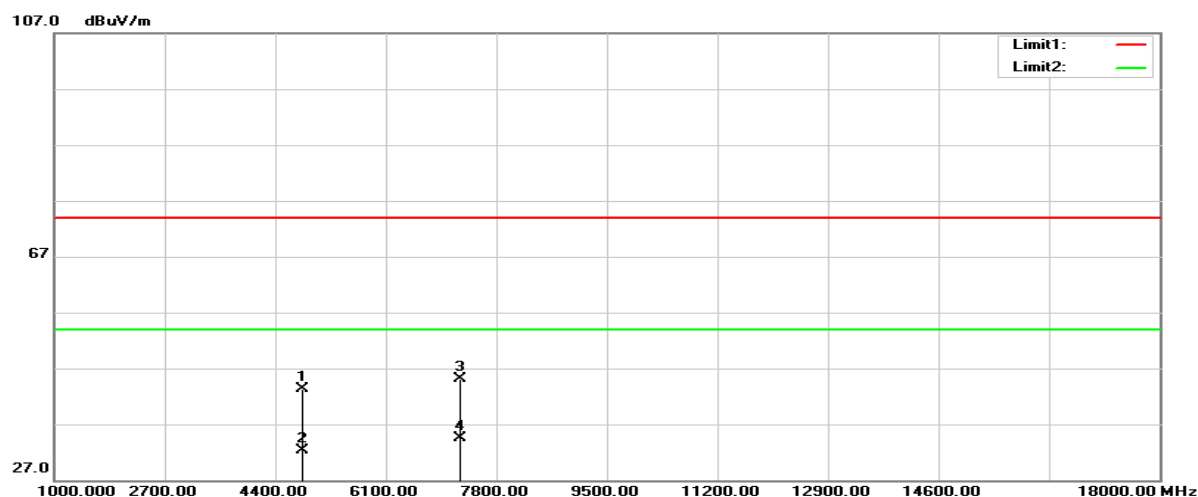
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:42:47
		Test By:	Boris
Description:	AX20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4824.000	46.51	-3.27	43.24	74.00	-30.76	150	38	peak
4824.000	35.61	-3.27	32.34	54.00	-21.66	150	38	AVG
7236.000	41.58	3.48	45.06	74.00	-28.94	150	38	peak
7236.000	30.99	3.48	34.47	54.00	-19.53	150	38	AVG

Note:

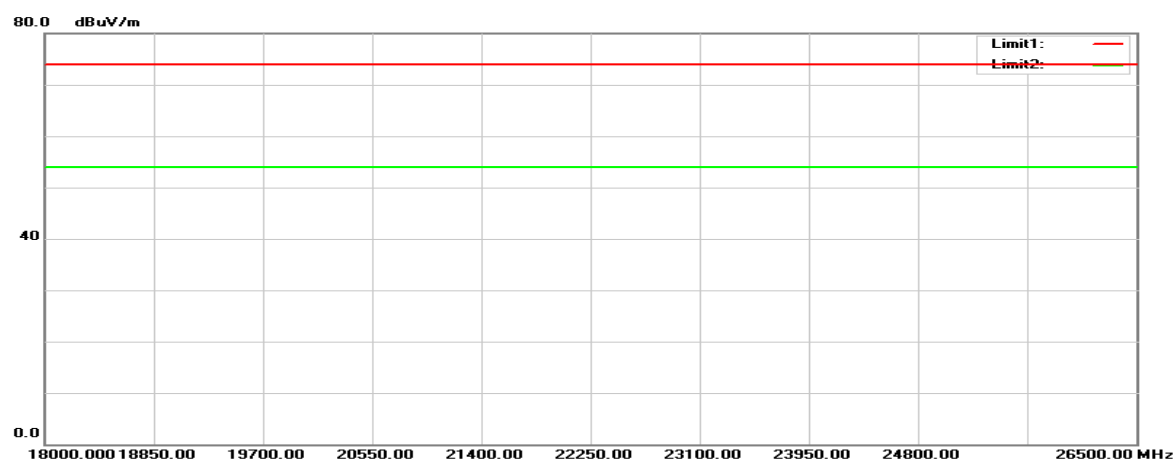
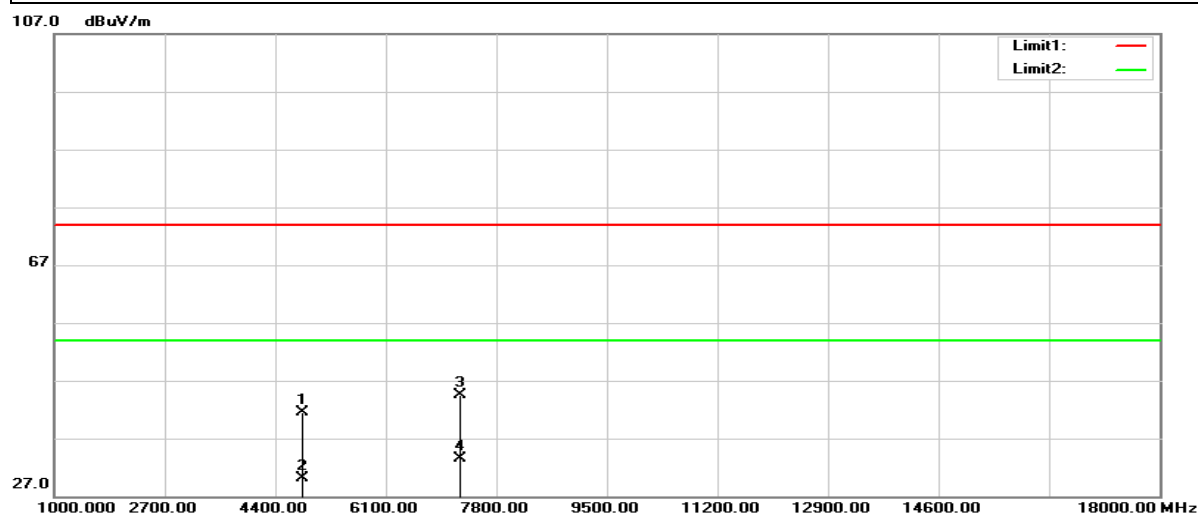
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:46:17
Description:	AX20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4824.000	44.78	-3.27	41.51	74.00	-32.49	150	211	peak
4824.000	33.36	-3.27	30.09	54.00	-23.91	150	211	AVG
7236.000	41.07	3.48	44.55	74.00	-29.45	150	223	peak
7236.000	30.04	3.48	33.52	54.00	-20.48	150	223	AVG

Note:

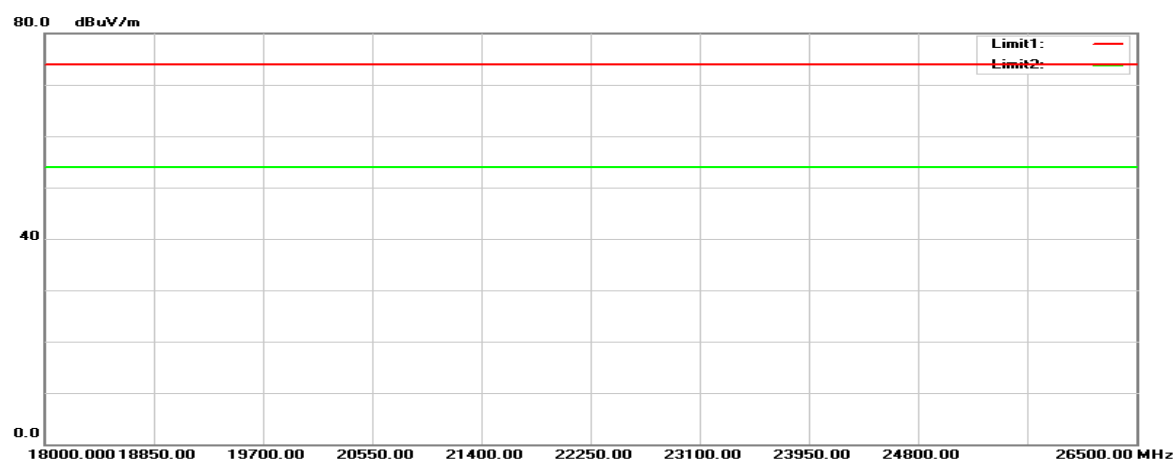
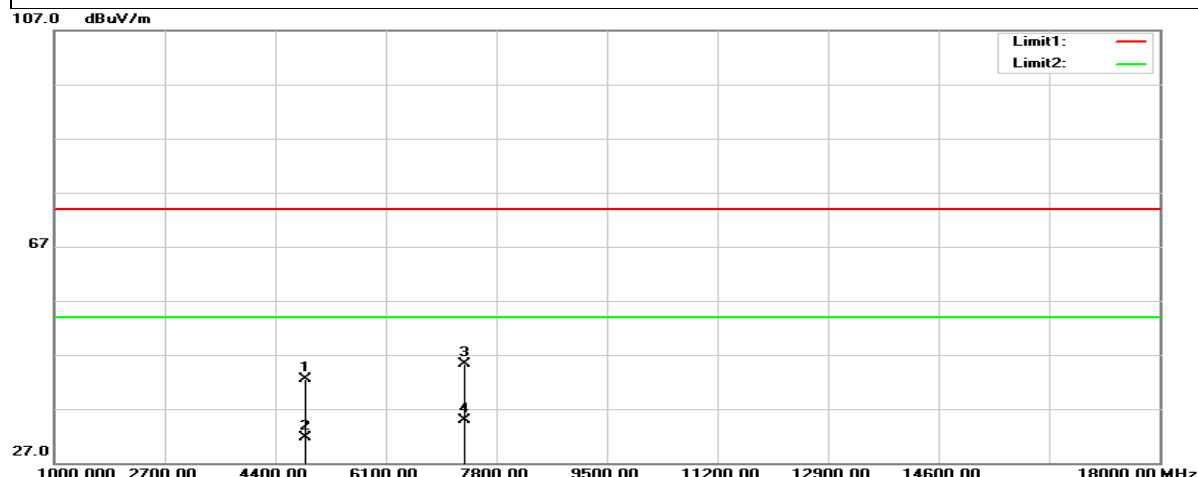
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:50:48
		Test By:	Boris
Description:	AX20-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	45.59	-3.07	42.52	74.00	-31.48	150	29	peak
4874.000	34.68	-3.07	31.61	54.00	-22.39	150	29	AVG
7311.000	41.23	4.04	45.27	74.00	-28.73	150	36	peak
7311.000	30.80	4.04	34.84	54.00	-19.16	150	36	AVG

Note:

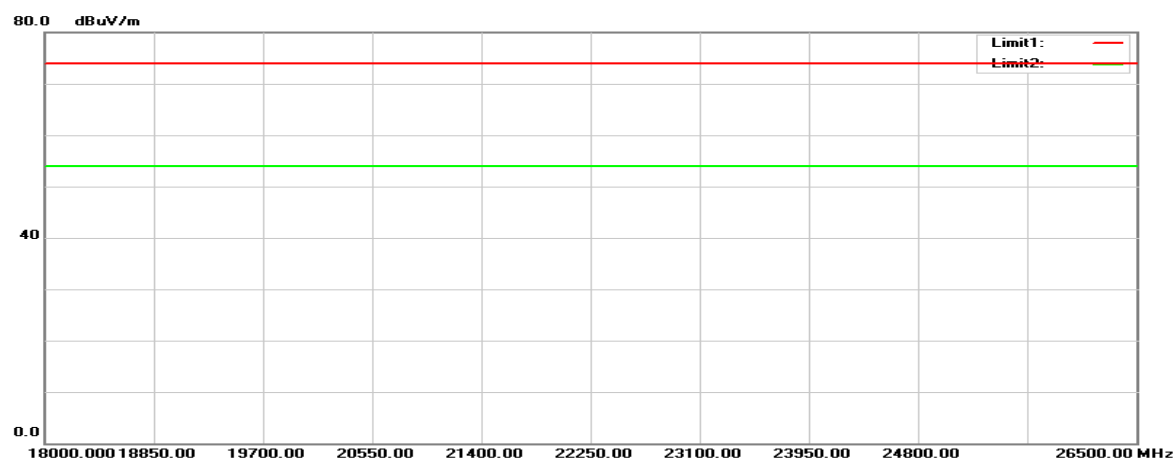
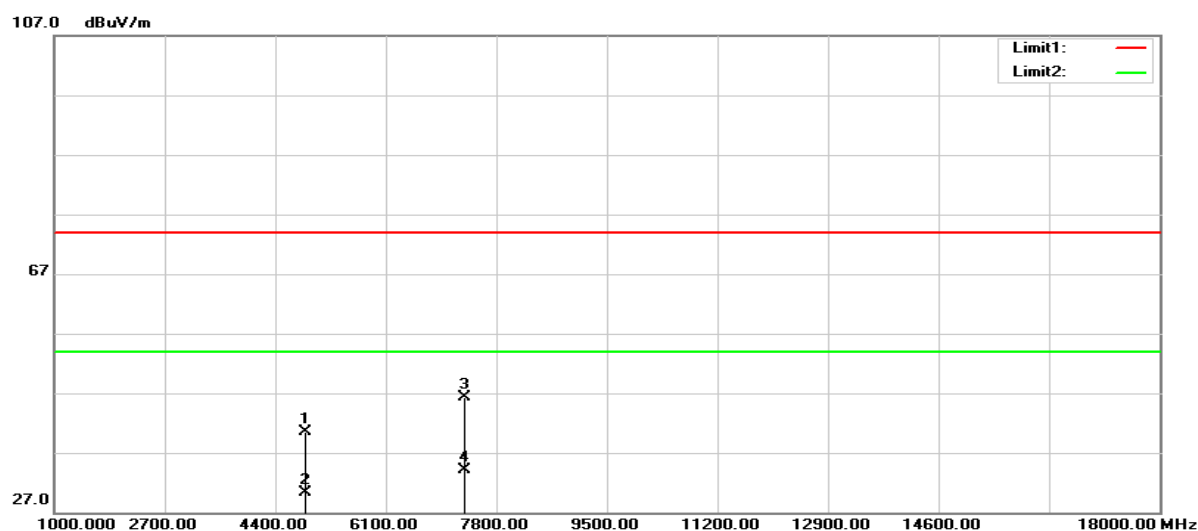
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:55:11
		Test By:	Boris
Description:	AX20-TX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	43.50	-3.07	40.43	74.00	-33.57	150	218	peak
4874.000	33.38	-3.07	30.31	54.00	-23.69	150	218	AVG
7311.000	42.34	4.04	46.38	74.00	-27.62	150	226	peak
7311.000	30.13	4.04	34.17	54.00	-19.83	150	226	AVG

Note:

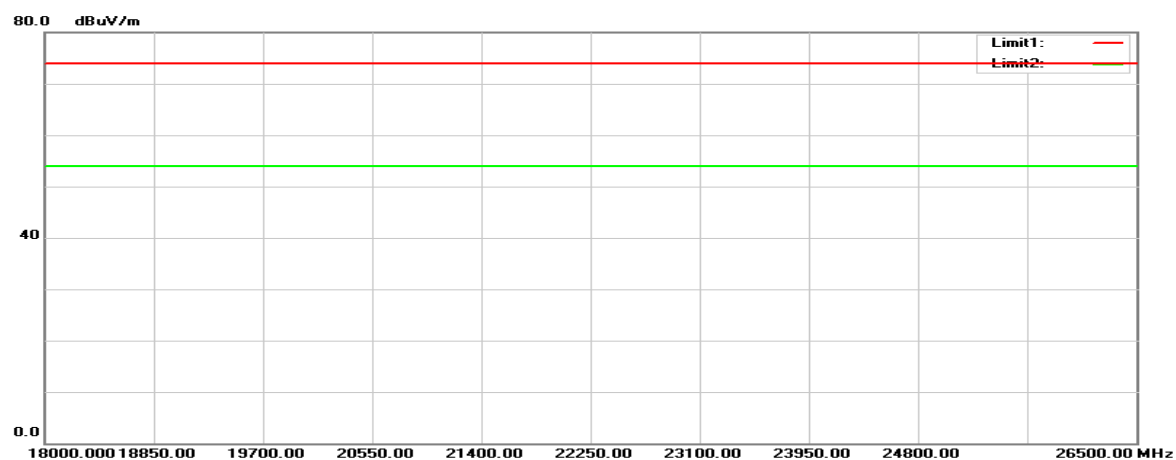
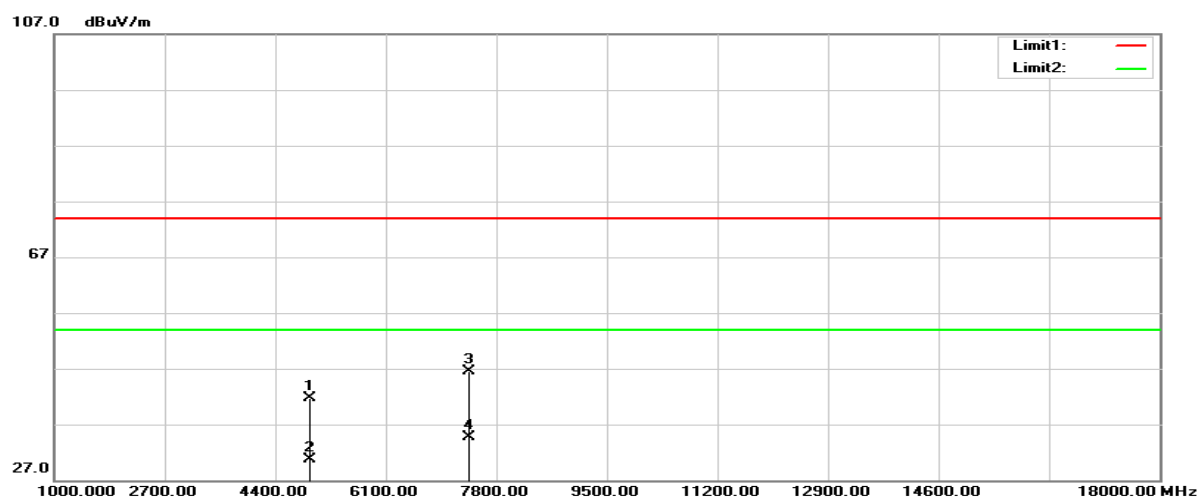
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 04:59:43
		Test By:	Boris
Description:	AX20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	44.43	-2.82	41.61	74.00	-32.39	150	33	peak
4924.000	33.52	-2.82	30.70	54.00	-23.30	150	33	AVG
7386.000	42.25	4.19	46.44	74.00	-27.56	150	40	peak
7386.000	30.55	4.19	34.74	54.00	-19.26	150	40	AVG

Note:

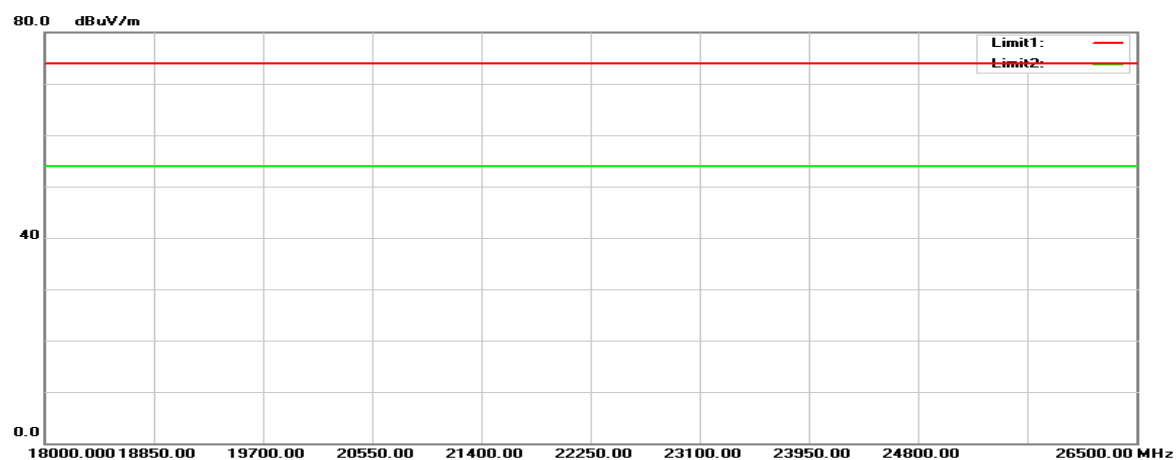
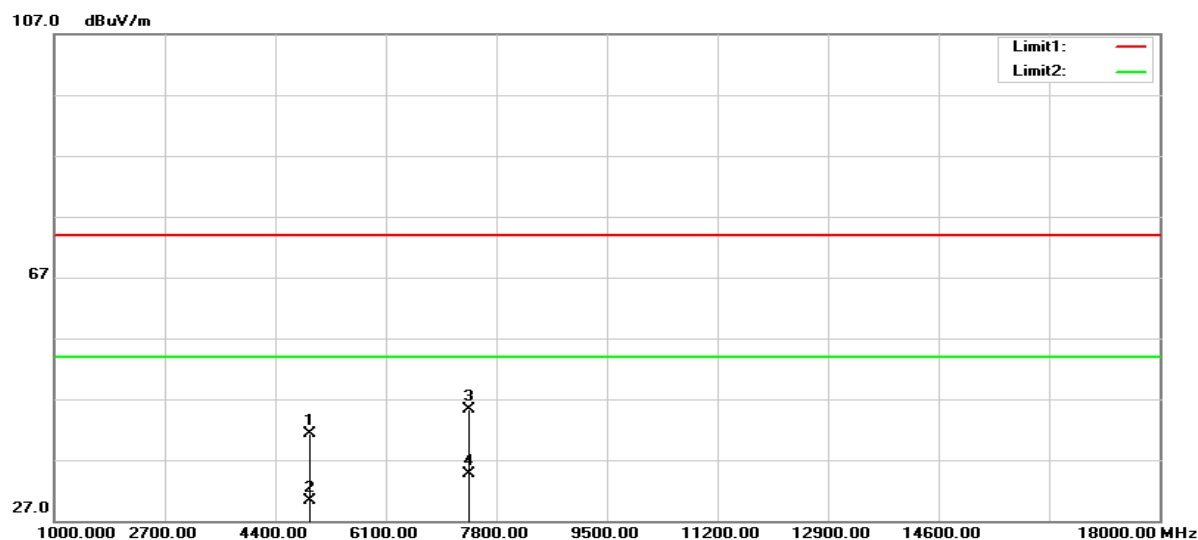
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:03:29
		Test By:	Boris
Description:	AX20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4924.000	44.09	-2.82	41.27	74.00	-32.73	150	221	peak
4924.000	33.18	-2.82	30.36	54.00	-23.64	150	221	AVG
7386.000	41.14	4.19	45.33	74.00	-28.67	150	238	peak
7386.000	30.45	4.19	34.64	54.00	-19.36	150	238	AVG

Note:

Result = Reading + Correct Factor

Margin = Result – Limit

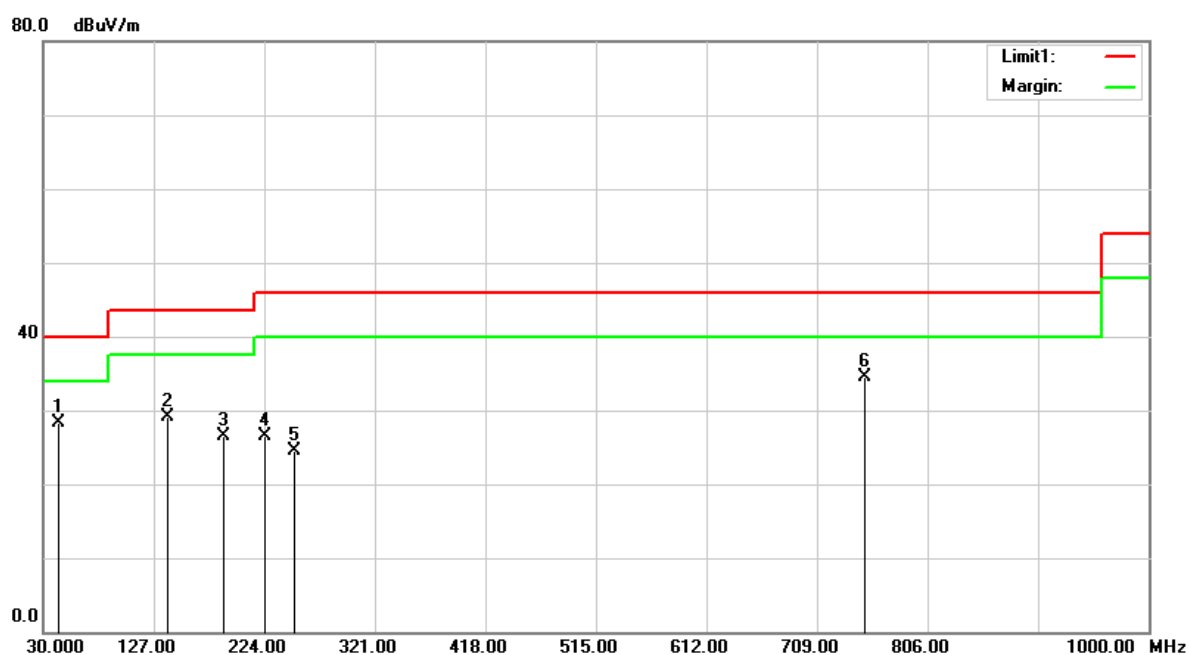
Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

接收機其它不必要之訊號 (RX / 1GHz 以下)

場強輻射之量測值

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 _ 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/27	Time:下午 08:22:36
		Test By:	Ken
Description:	B-RX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
43.5800	41.23	-12.98	28.25	40.00	-11.75	100	104	peak
138.6400	39.79	-10.69	29.10	43.50	-14.40	100	301	peak
188.1100	39.38	-12.87	26.51	43.50	-16.99	100	304	peak
224.9700	39.45	-12.87	26.58	46.00	-19.42	100	57	peak
250.1900	36.75	-12.34	24.41	46.00	-21.59	100	46	peak
750.7100	36.80	-2.28	34.52	46.00	-11.48	100	120	peak

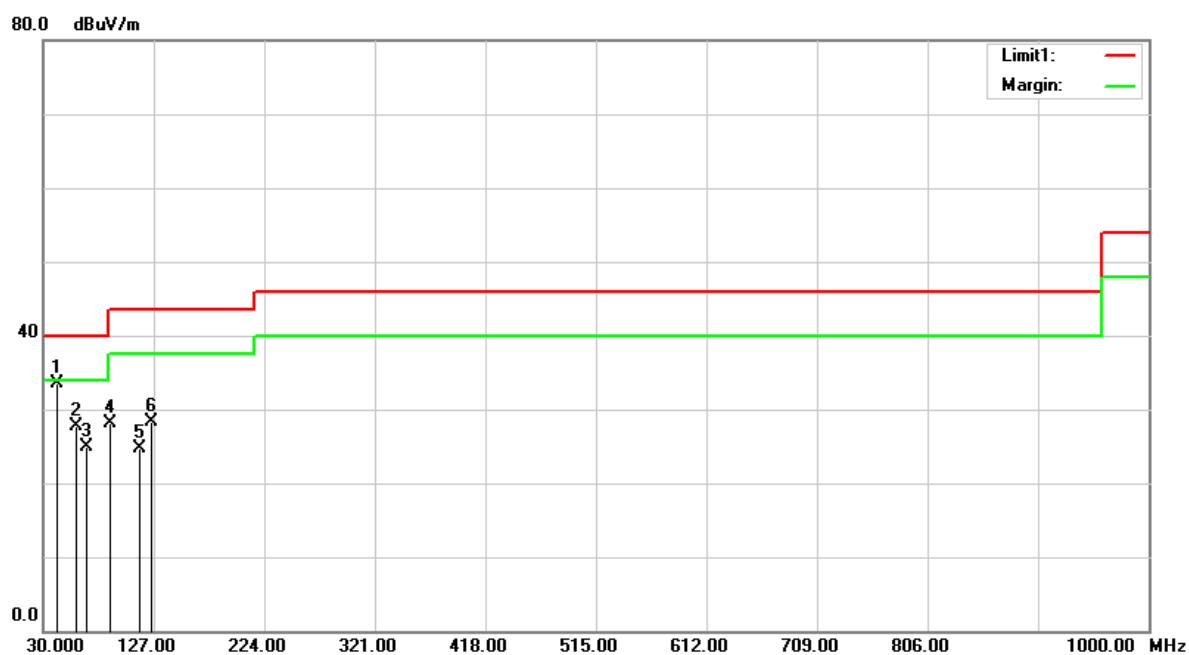
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 _ 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/27	Time:下午 08:26:03
		Test By:	Ken
Description:	B-RX-2437-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
42.6100	45.56	-12.07	33.49	40.00	-6.51	100	230	peak
59.1000	44.93	-17.29	27.64	40.00	-12.36	100	17	peak
67.8300	41.20	-16.28	24.92	40.00	-15.08	100	79	peak
88.2000	44.81	-16.73	28.08	43.50	-15.42	100	323	peak
114.3900	35.76	-11.01	24.75	43.50	-18.75	100	335	peak
125.0600	38.57	-10.17	28.40	43.50	-15.10	100	266	peak

Note:

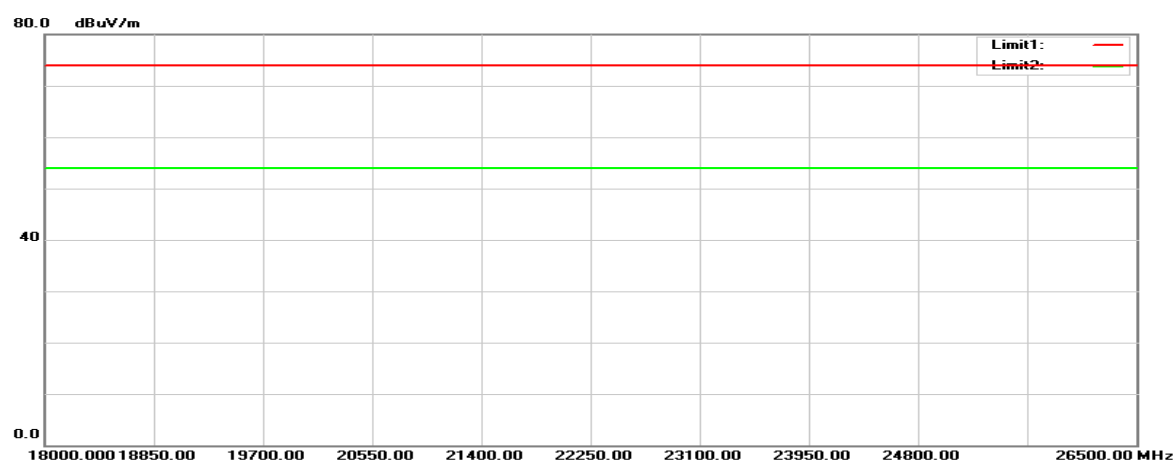
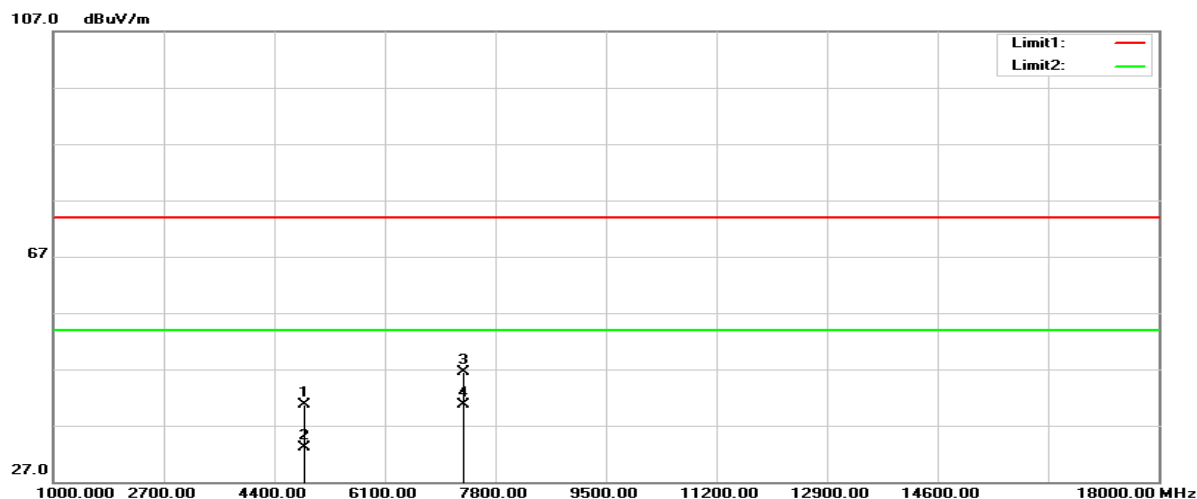
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

場強輻射之量測值 (RX / 1GHz 以上)

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:40:49
		Test By:	Boris
Description:	B-RX-2437-X_Axis		



Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
4874.000	43.83	-3.07	40.76	74.00	-33.24	165	37	peak
4874.000	36.23	-3.07	33.16	54.00	-20.84	165	37	AVG
7311.000	42.51	4.04	46.55	74.00	-27.45	165	3	peak
7311.000	36.57	4.04	40.61	54.00	-13.39	165	3	AVG

Note:

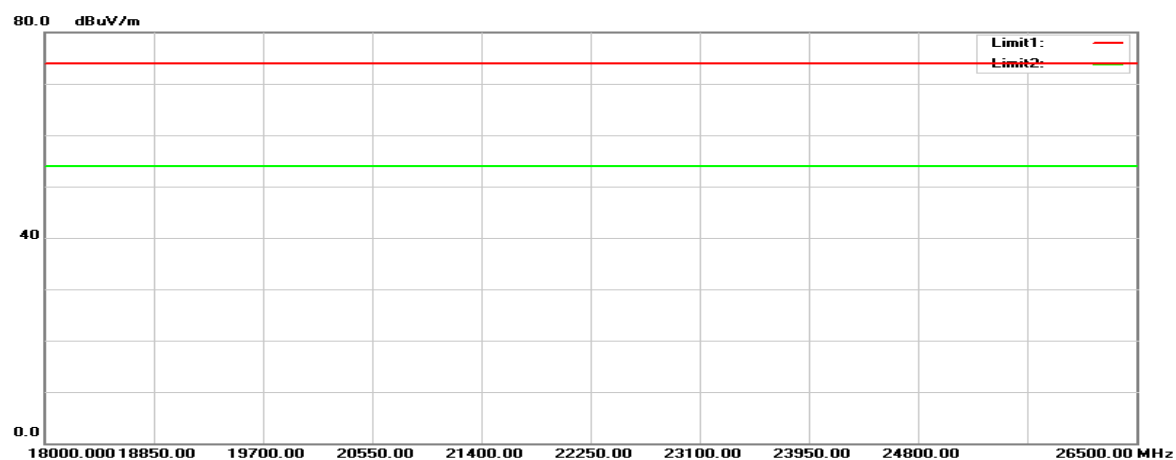
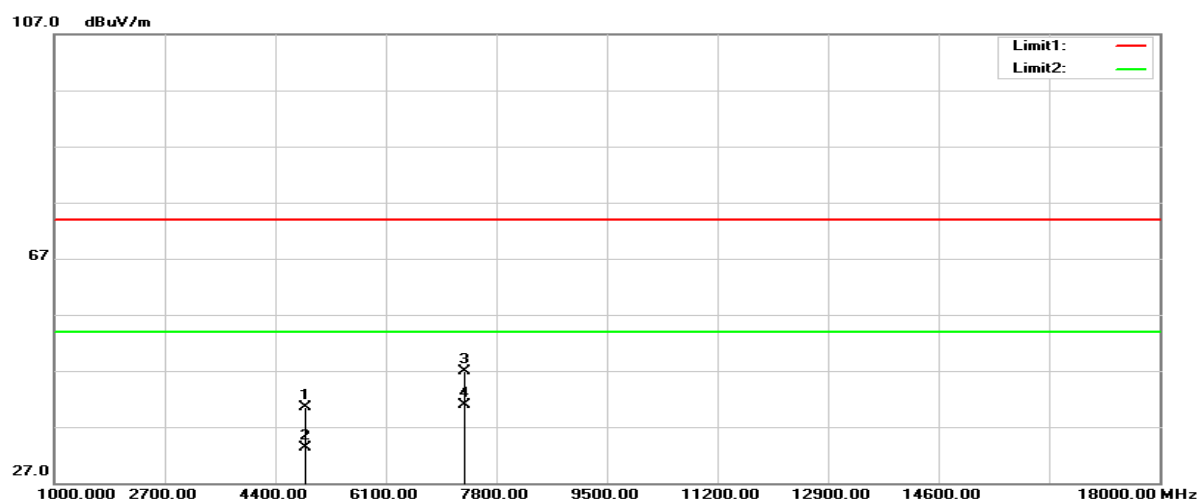
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:39:02
		Test By:	Boris
Description:	B-RX-2437-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
4874.000	43.56	-3.07	40.49	74.00	-33.51	165	3	peak
4874.000	36.30	-3.07	33.23	54.00	-20.77	165	3	AVG
7311.000	42.79	4.04	46.83	74.00	-27.17	165	210	peak
7311.000	36.94	4.04	40.98	54.00	-13.02	165	210	AVG

Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

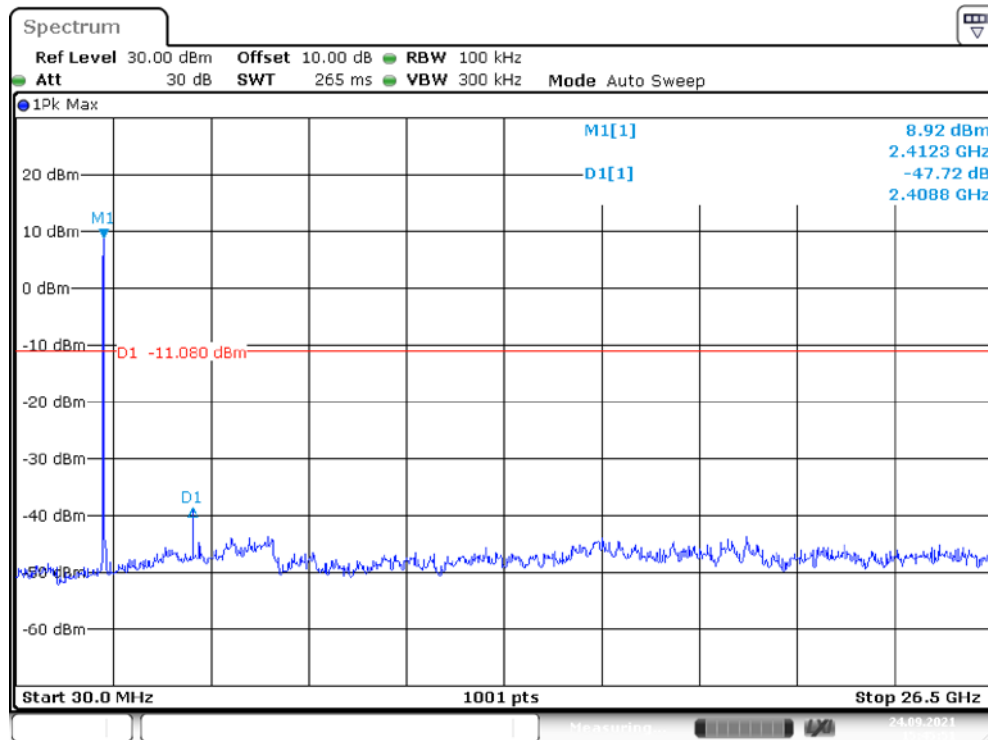
Other emissions from 18GHz~26.5GHz are 20 dB below the limits. No recording in the test.

Conducted Spurious Emissions:

環境溫度	24.5°C	測試日期	2021-09-24
環境濕度	46%	測試人員	李宥陞

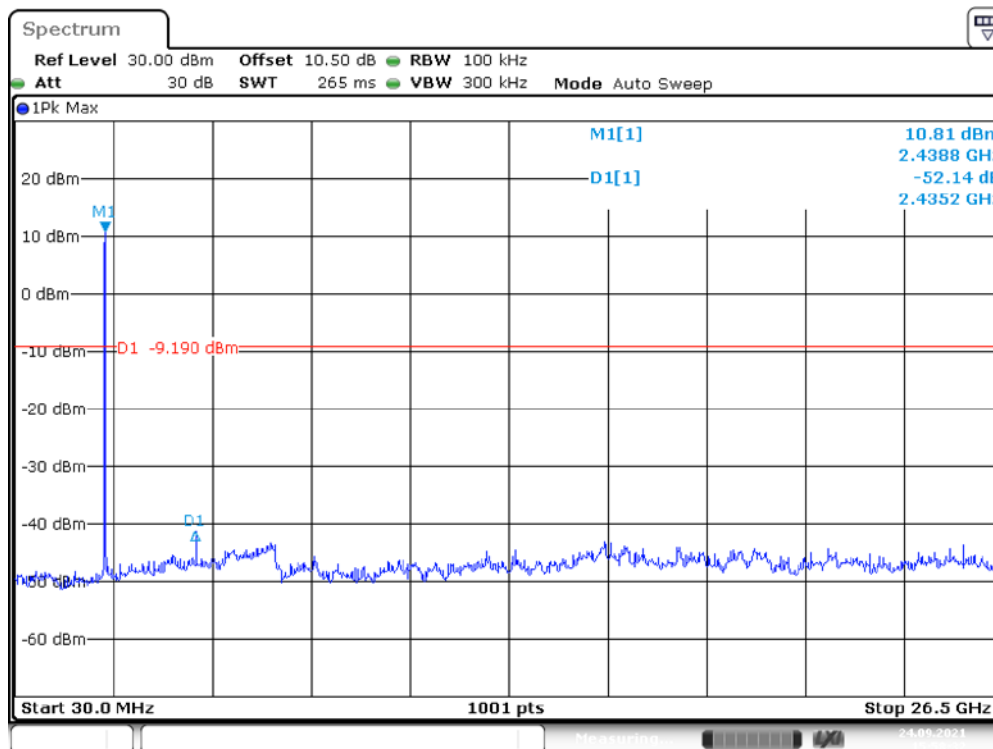
Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)		Limit (dBc)	Result
		Antenna 1	Chain 1		
B mode					
Low	2412	47.72	52.18	≥ 20	PASS
Mid	2437	52.14	53.76	≥ 20	PASS
High	2462	50.7	52.7	≥ 20	PASS
G mode					
Low	2412	48.74	47.65	≥ 20	PASS
Mid	2437	45.96	46.08	≥ 20	PASS
High	2462	46.71	47.09	≥ 20	PASS
n HT20 mode					
Low	2412	49.71	47.65	≥ 20	PASS
Mid	2437	48.31	46.44	≥ 20	PASS
High	2462	49.52	49.21	≥ 20	PASS
AX20 mode					
Low	2422	49.49	46.49	≥ 20	PASS
Mid	2437	49.18	47.82	≥ 20	PASS
High	2452	50.4	47.43	≥ 20	PASS

B Mode Low Channel (chain 0)



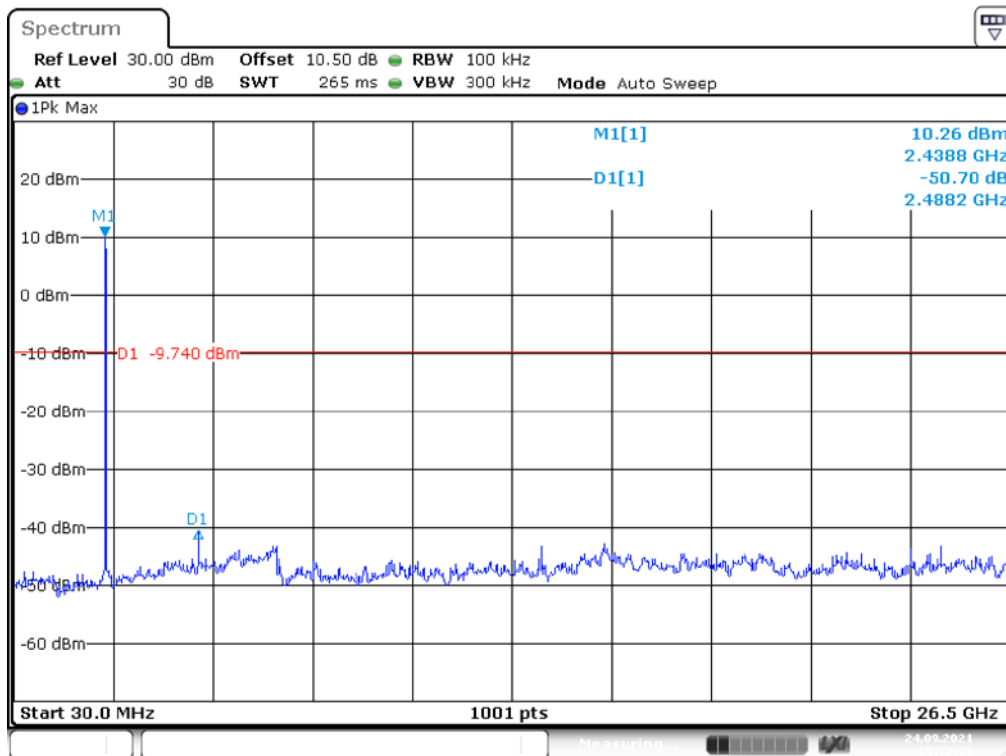
Date: 24.SEP.2021 15:45:52

B Mode Middle Channel(chain 0)



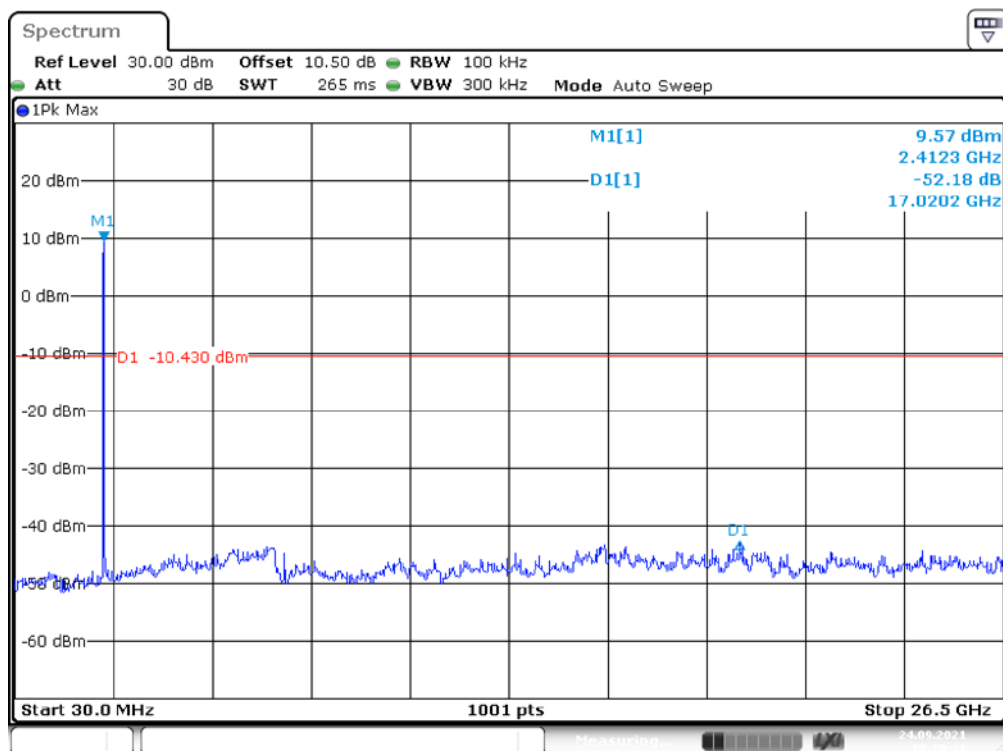
Date: 24.SEP.2021 15:58:32

B Mode High Channel(chain 0)



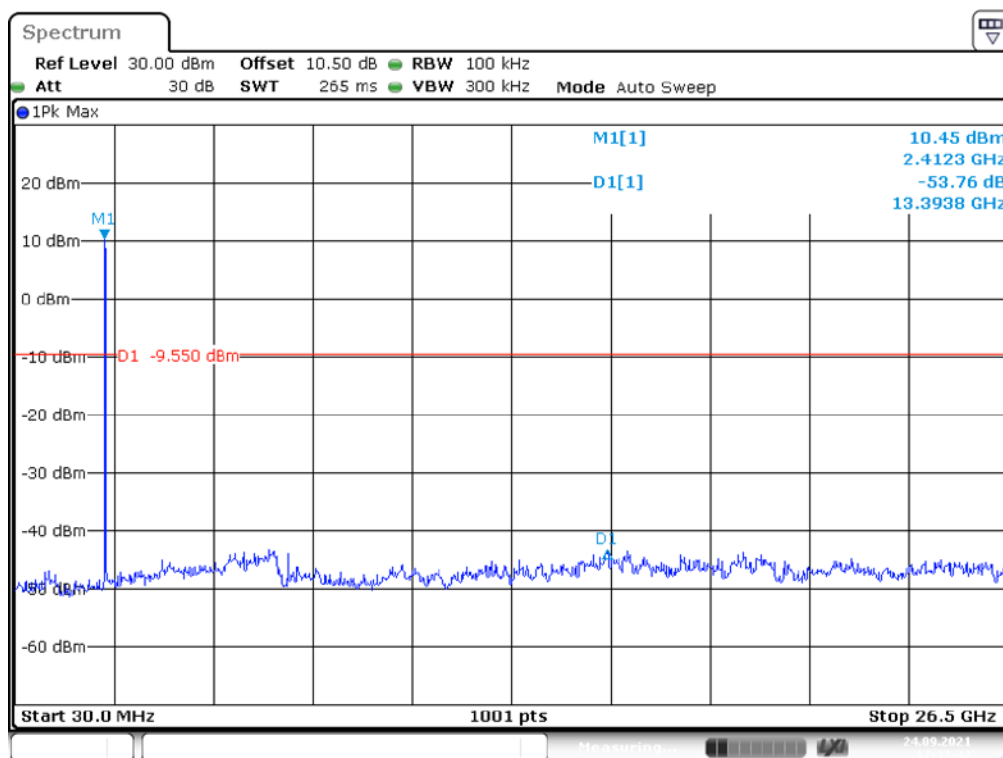
Date: 24.SEP.2021 15:53:00

B Mode Low Channel (Chain 1)



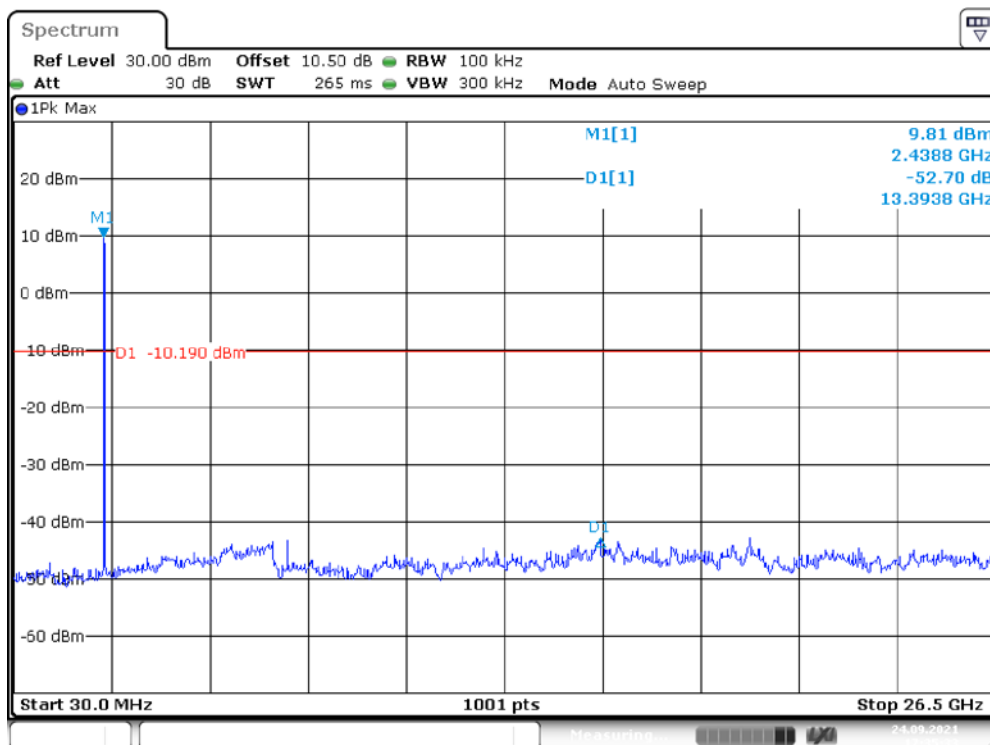
Date: 24.SEP.2021 17:30:32

B Mode Middle Channel (Chain 1)



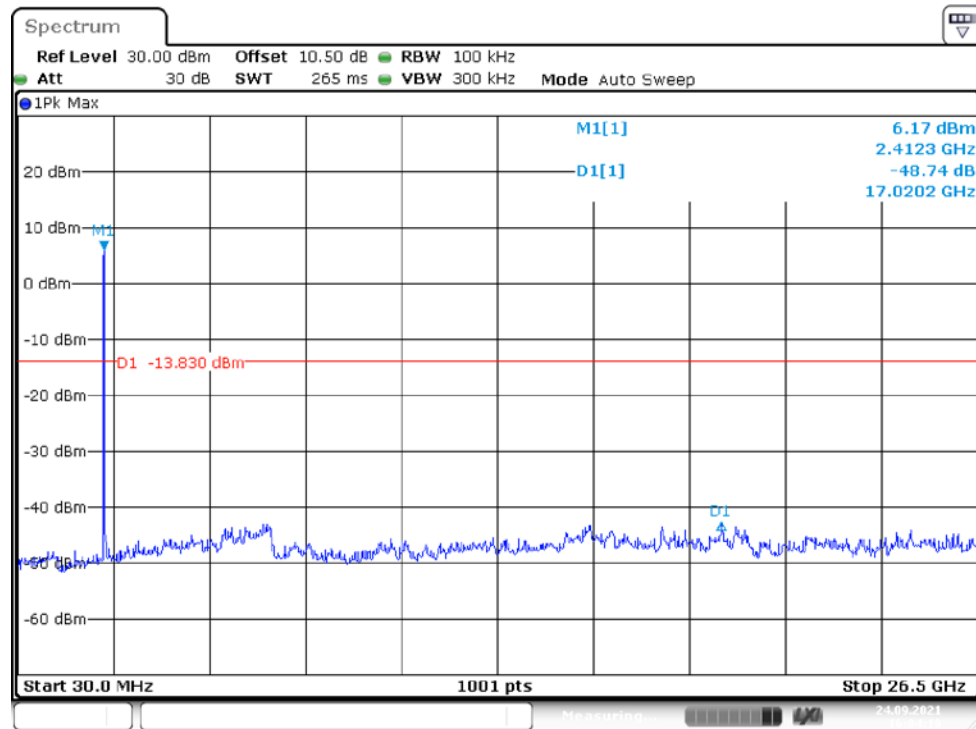
Date: 24.SEP.2021 17:32:42

B Mode High Channel (Chain 1)

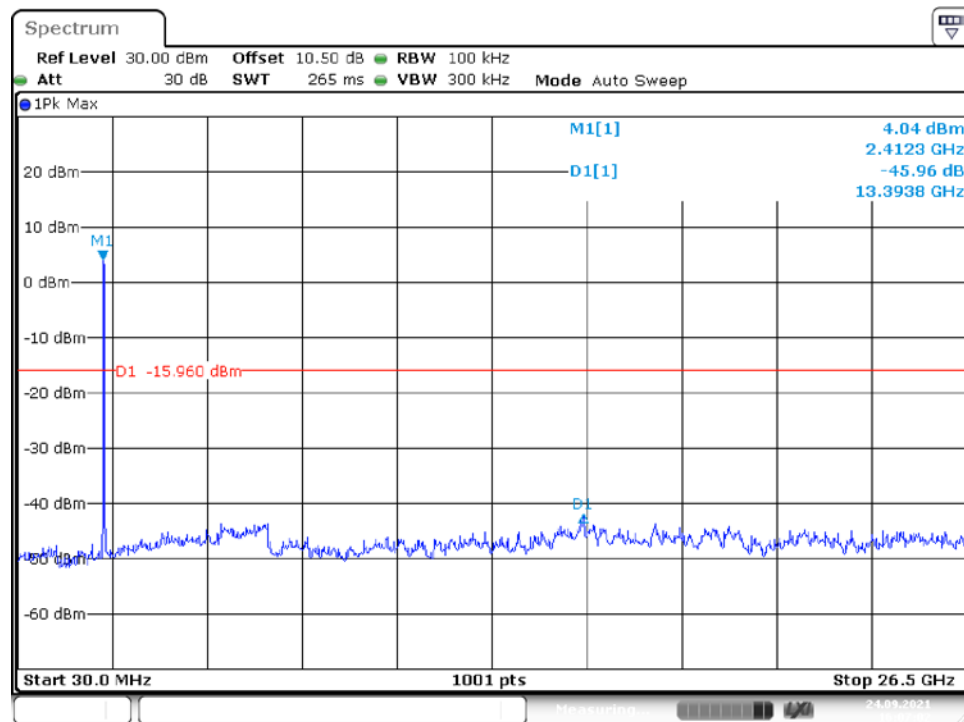


Date: 24.SEP.2021 17:35:34

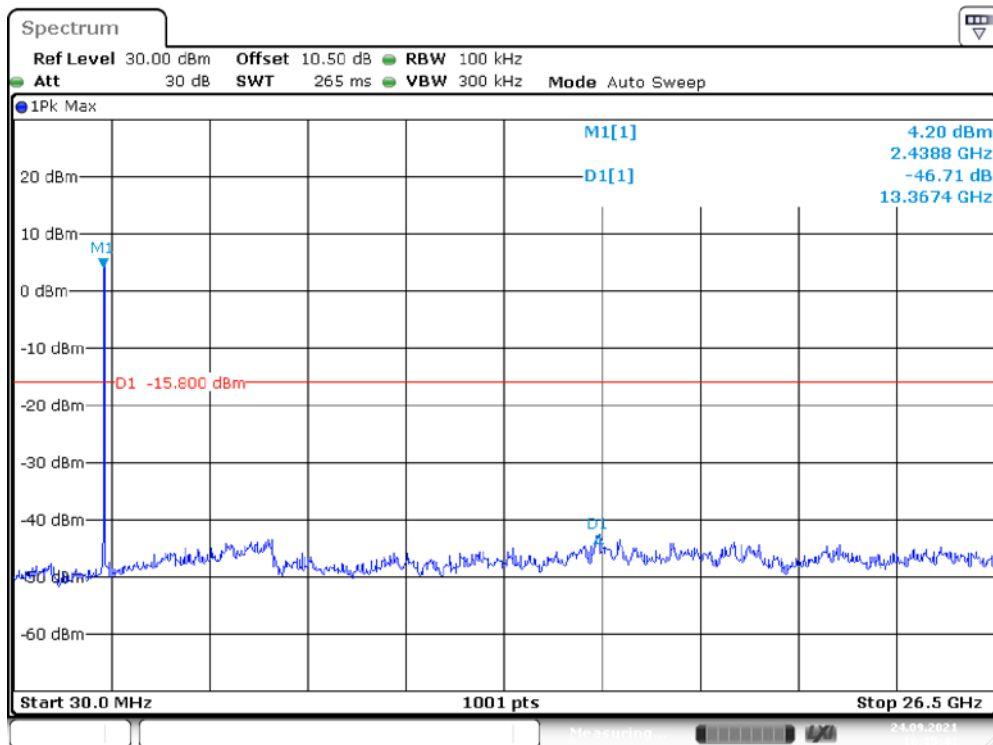
G Mode Low Channel(chain 0)



G Mode Middle Channel(chain 0)

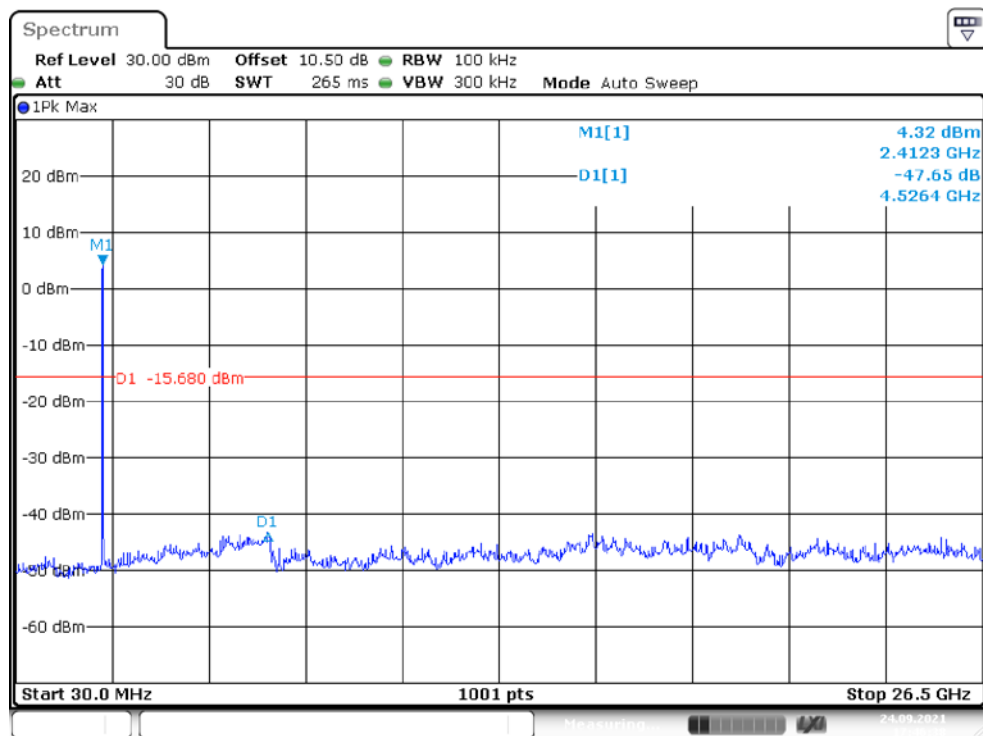


G Mode High Channel(chain 0)



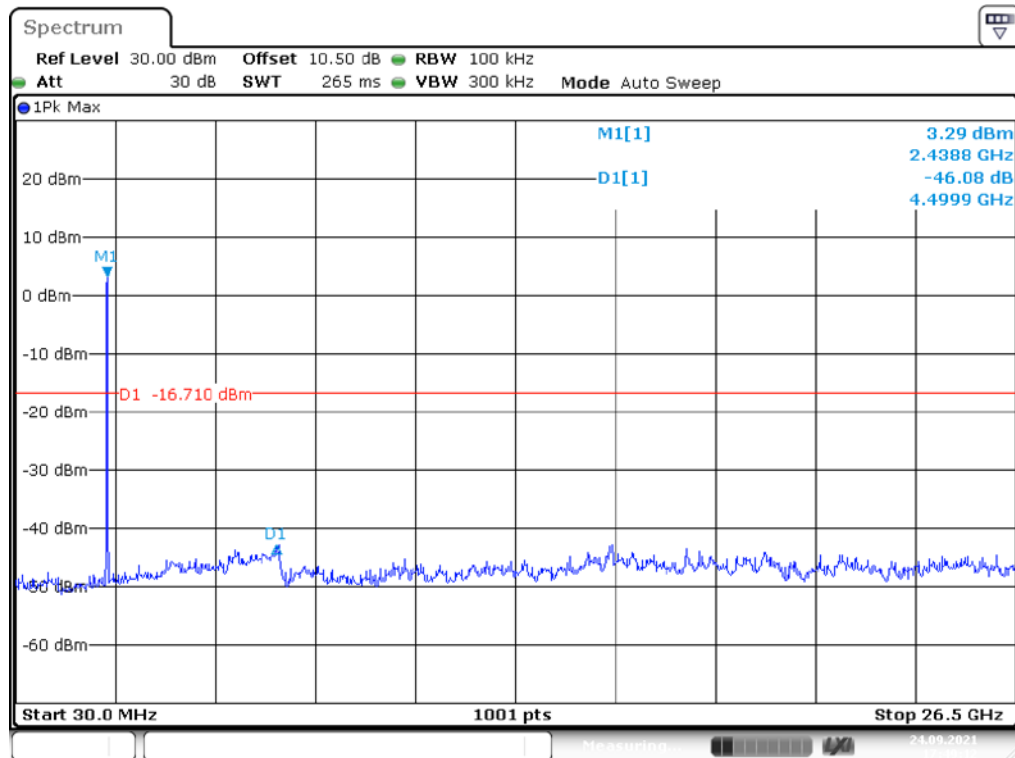
Date: 24.SEP.2021 16:15:44

G Mode Low Channel (Chain 1)



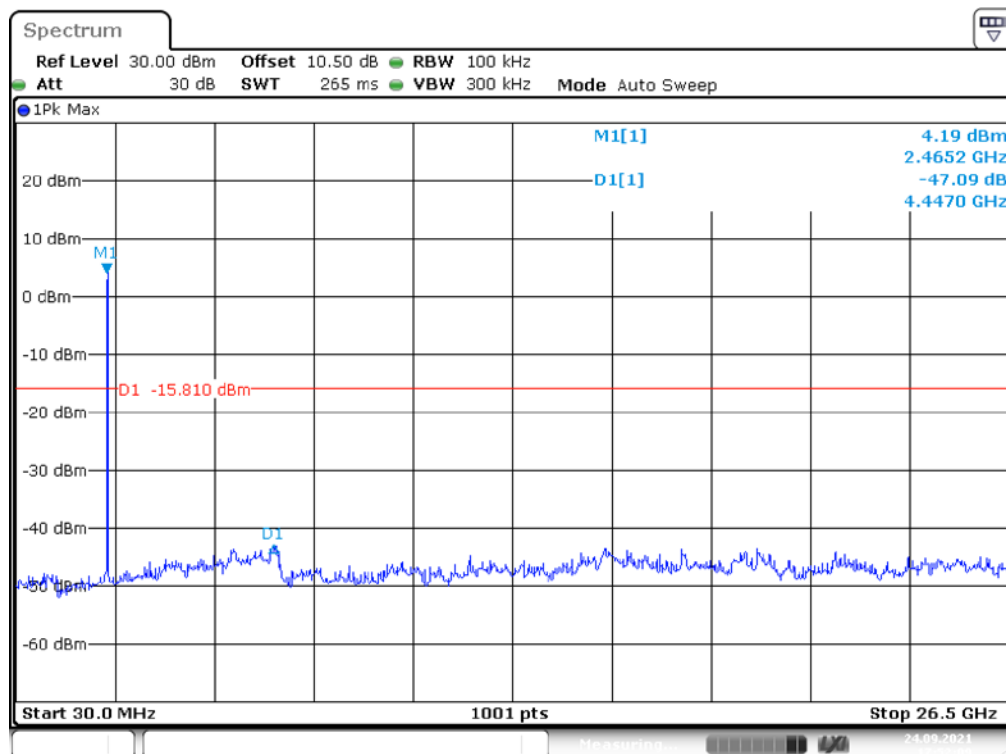
Date: 24.SEP.2021 17:46:39

G Mode Middle Channel (Chain 1)



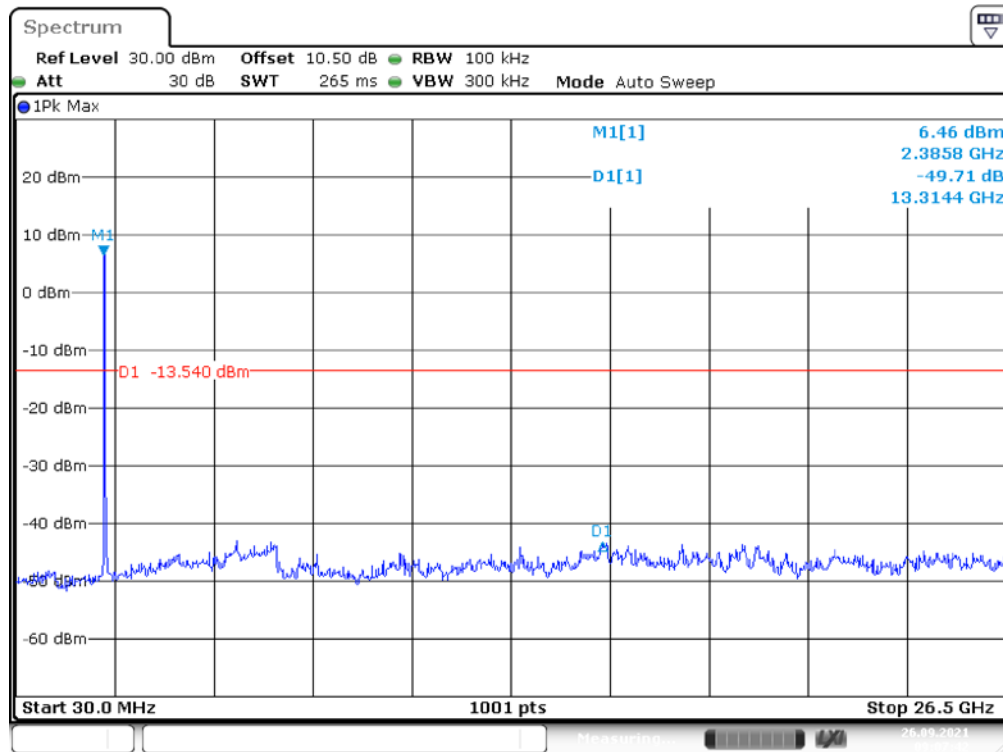
Date: 24.SEP.2021 17:49:12

G Mode High Channel (Chain 1)



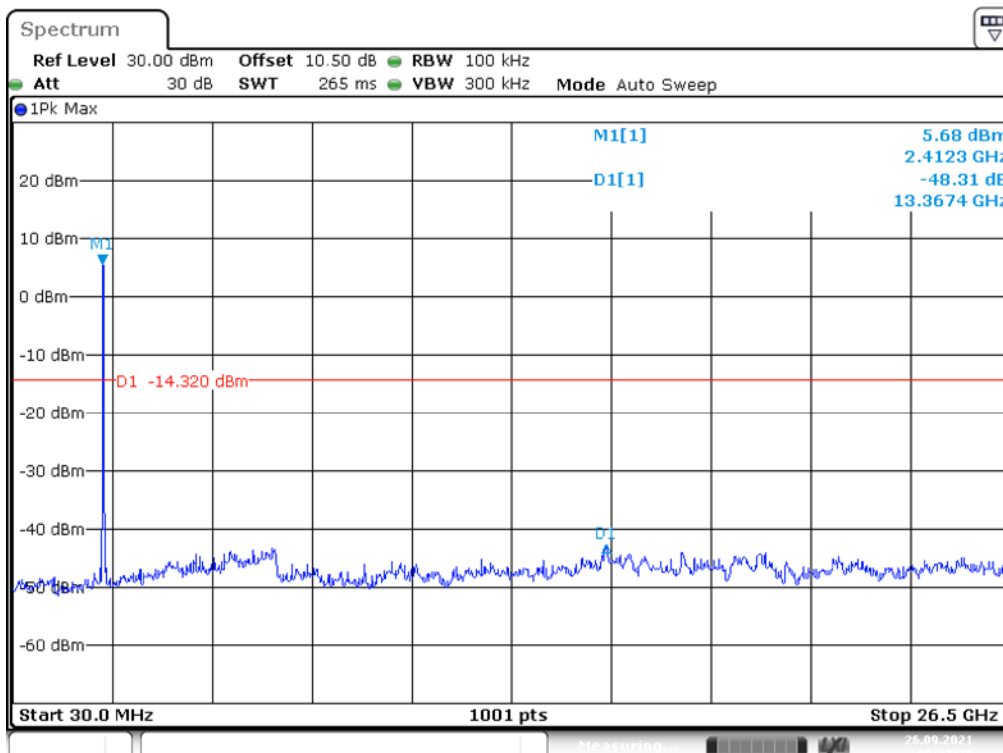
Date: 24.SEP.2021 17:52:10

n HT20 Mode Low Channel (chain 0)



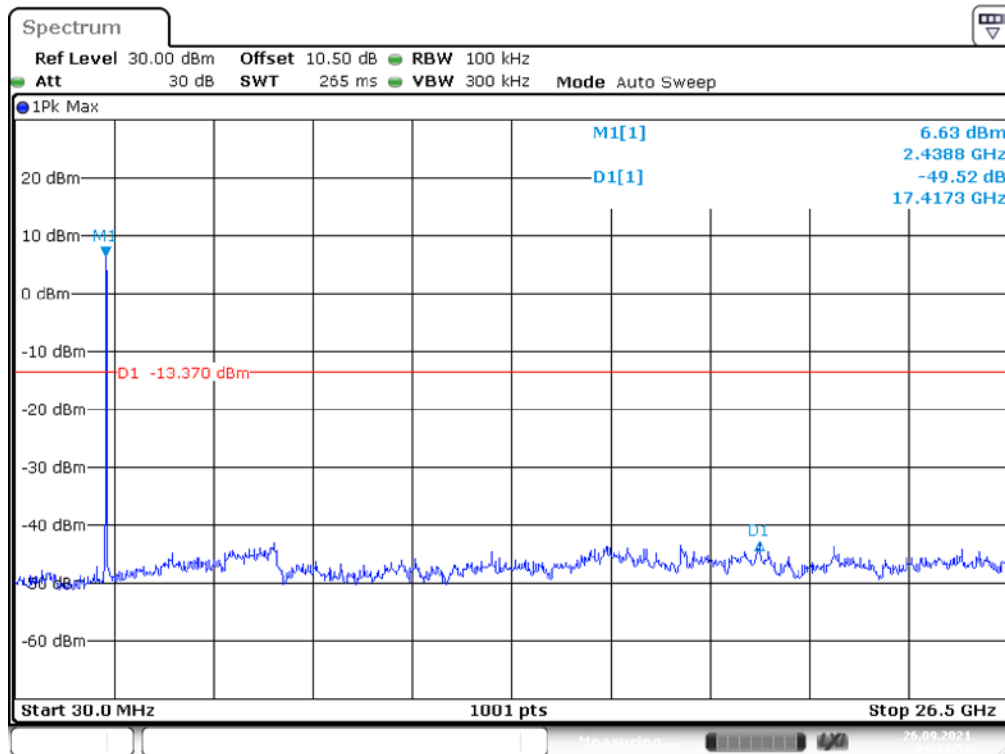
Date: 26.SEP.2021 09:07:42

n HT20 Mode Middle Channel (chain 0)



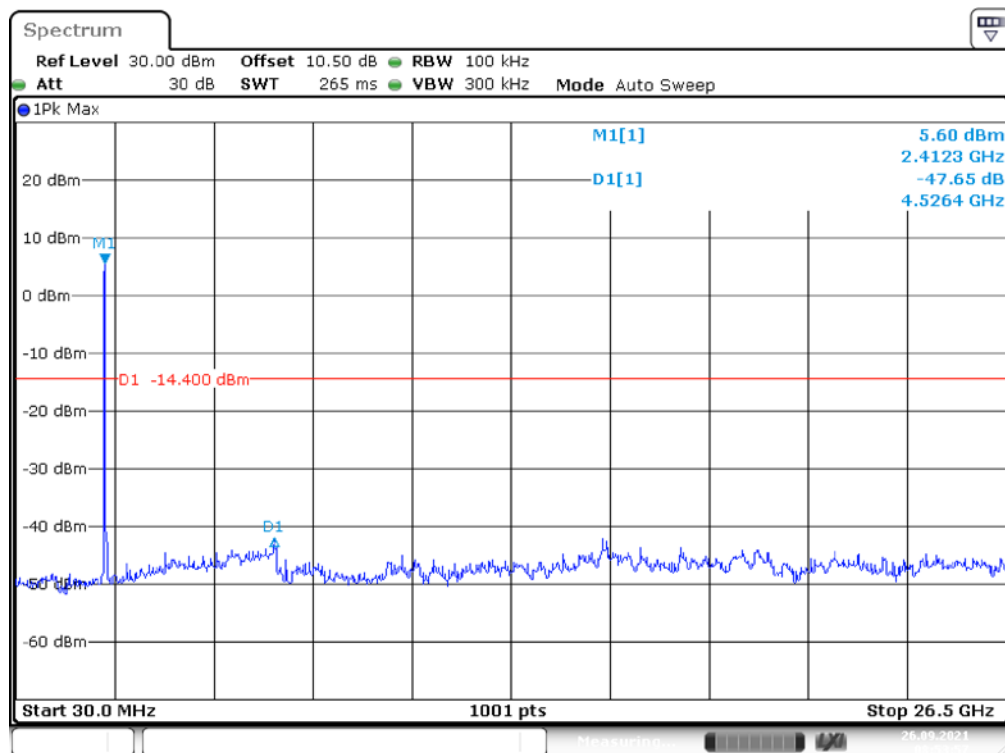
Date: 26.SEP.2021 09:01:38

n HT20 Mode High Channel (chain 0)



Date: 26.SEP.2021 09:03:53

n HT20 Mode Low Channel (Chain 1)

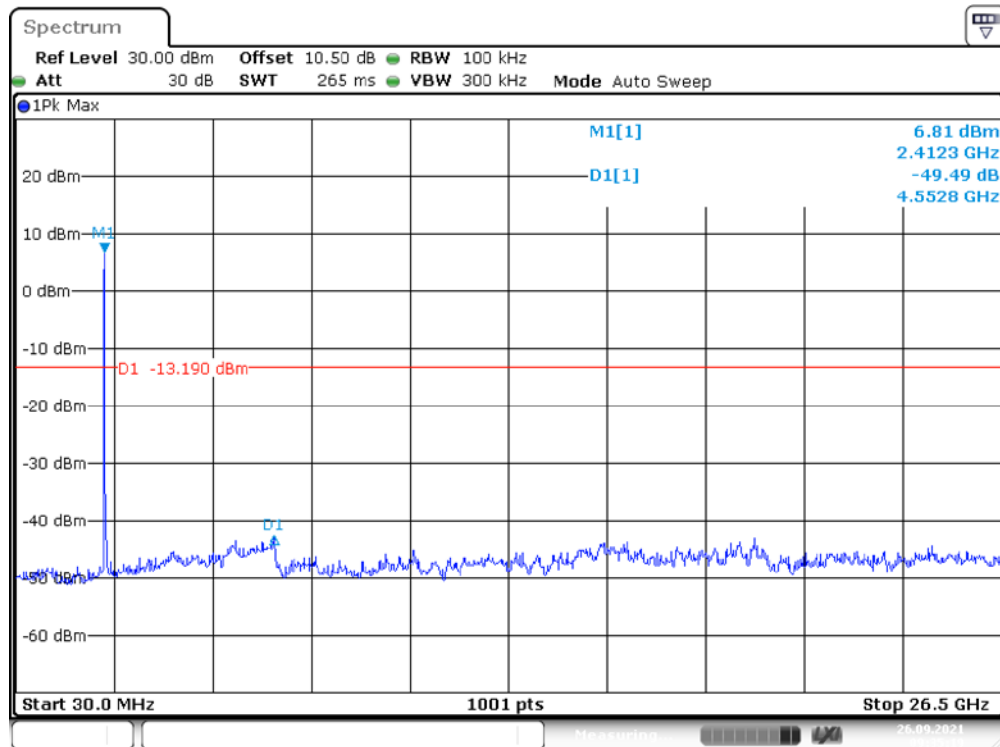


Date: 26.SEP.2021 08:53:58

Date: 26.SEP.2021 08:48:24

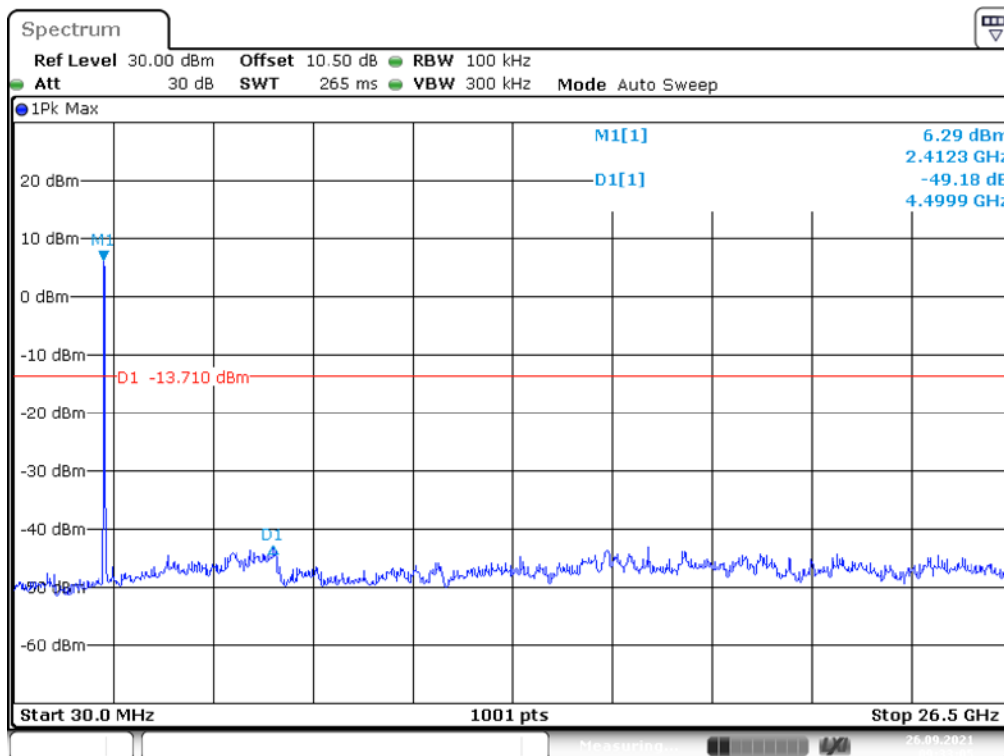
Date: 26.SEP.2021 08:50:43

AX20 Mode Low Channel(chain 0)



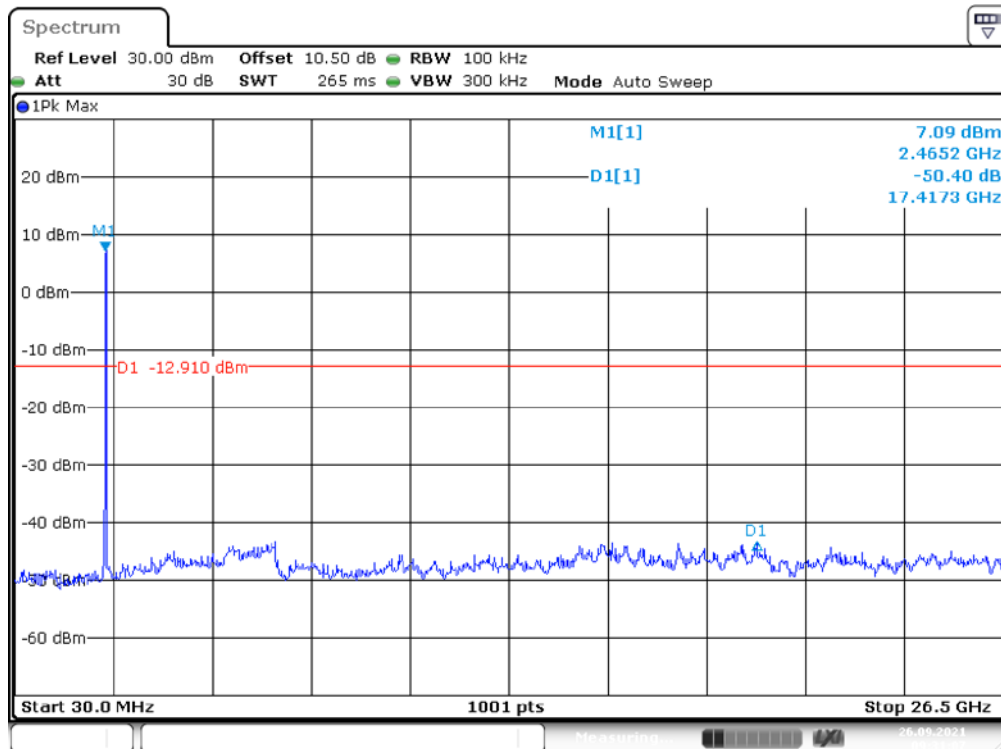
Date: 26.SEP.2021 09:35:20

AX20 Mode Middle Channel(chain 0)



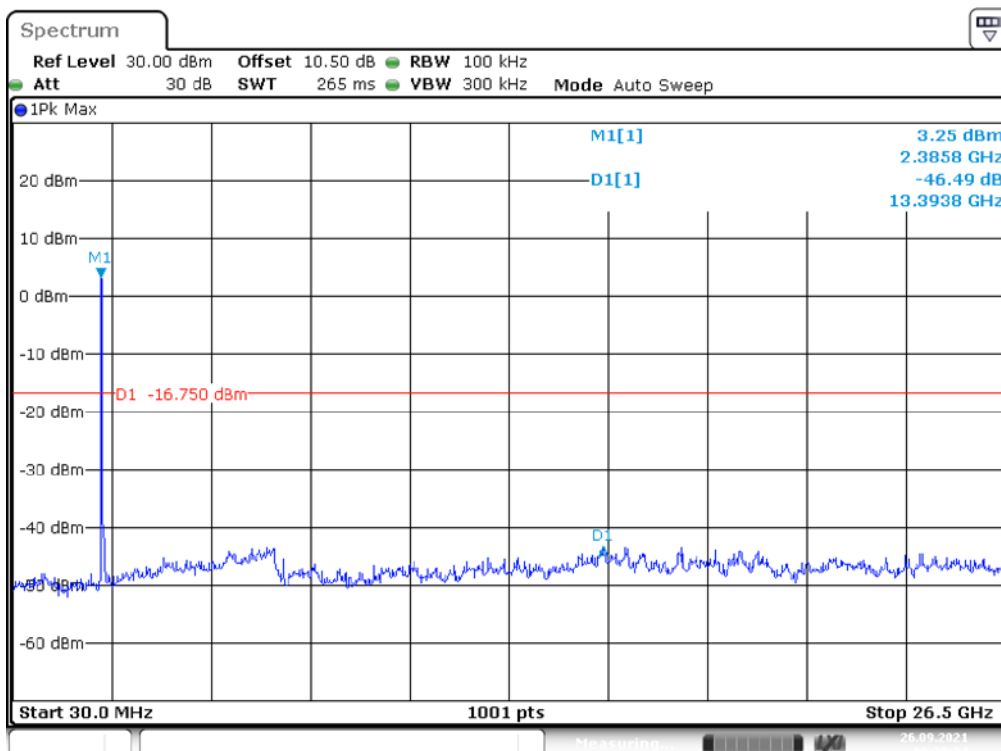
Date: 26.SEP.2021 09:33:06

AX20 Mode High Channel(chain 0)



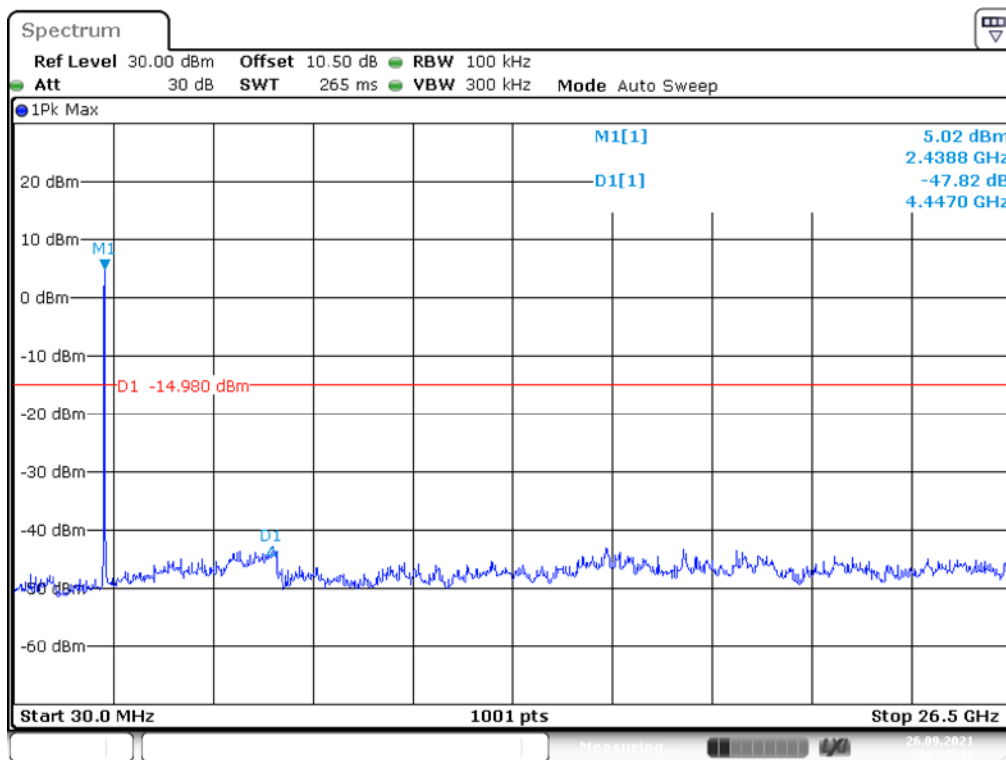
Date: 26.SEP.2021 09:31:07

A20X Mode Low Channel (Chain 1)



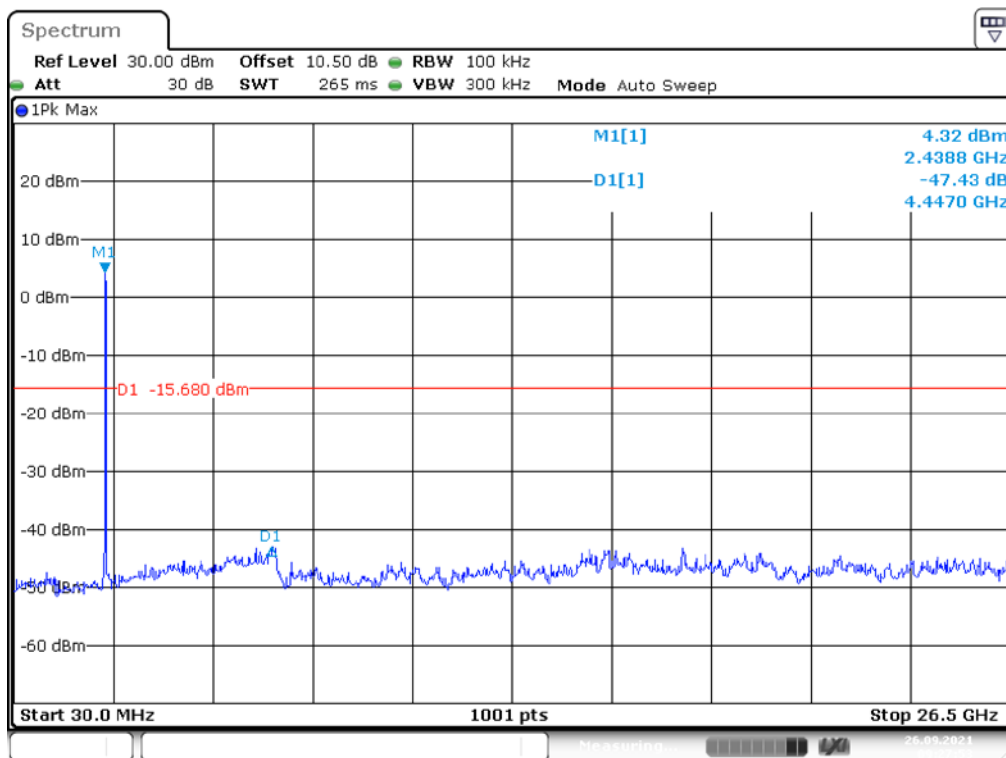
Date: 26.SEP.2021 09:20:35

A20X Mode Middle Channel (Chain 1)



Date: 26.SEP.2021 09:25:19

A20X Mode High Channel (Chain 1)



Date: 26.SEP.2021 09:27:54

6. 天線增益之要求

6.1 適用標準

依據低功率射頻電機技術規範之規定，應符合下列敘述其中之一：

進行固定式點對點操作時，其發射天線之方向性增益超過6 dBi，每超過3 dBi，最大傳導輸出功率限制值應降低1 dB。

操作頻率為5725 MHz ~ 5850 MHz且進行固定式點對點操作時，其發射天線之方向性增益超過6 dBi，不需降低最大傳導輸出功率。

使用超過6 dBi方向增益之發射天線時，應依超過6 dBi天線方向增益的dBi總量，等量減少最大傳導輸出功率限制值。

6.2 天線增益

此裝置使用的天線明細如下：

For 2.4GHz

No.	天線型態	廠牌	型號	Gain
Antenna 1	Dipole Antenna	ELECTRIC CONNECTOR TECHNOLOGY	81800U610	4.42dBi
Antenna 2			81800U611	5dBi

** 其詳細規格資料，請參見：天線規格。

判定結果：符合規範

7. 發射頻寬之要求

7.1 適用標準

對使用跳頻系統之低功率發射機依據低功率射頻電機技術規範之規定，跳頻系統之載波頻率頻道間隔應大於或等於25 kHz或跳頻頻道之20 dB頻寬，兩者取較寬者。但操作頻率為2400 MHz ~ 2483.5 MHz頻段且輸出功率應小於或等於125 mW跳頻系統，其載波頻率頻道間隔不得小於25 kHz或跳頻頻道20 dB頻寬之三分之二，兩者取較寬者。系統之跳頻頻道應依虛擬亂數排列，在各頻率之跳頻頻道上跳躍。每一發射機必須均等的使用每一頻率。系統接收機應具有與發射機跳躍頻道頻寬相匹配之輸入頻寬，且應隨所發射之訊號同步偏移接收頻率。

對使用數位調變技術之低功率發射機，依據低功率射頻電機技術規範之規定，6 dB之頻寬至少應有500 kHz。

7.2 測試方法

測量時，頻譜分析儀之解析頻寬為100kHz，視訊頻寬不小於解析頻寬。為求得精確測量，頻率掃描範圍(Span)遠大於解析頻寬。

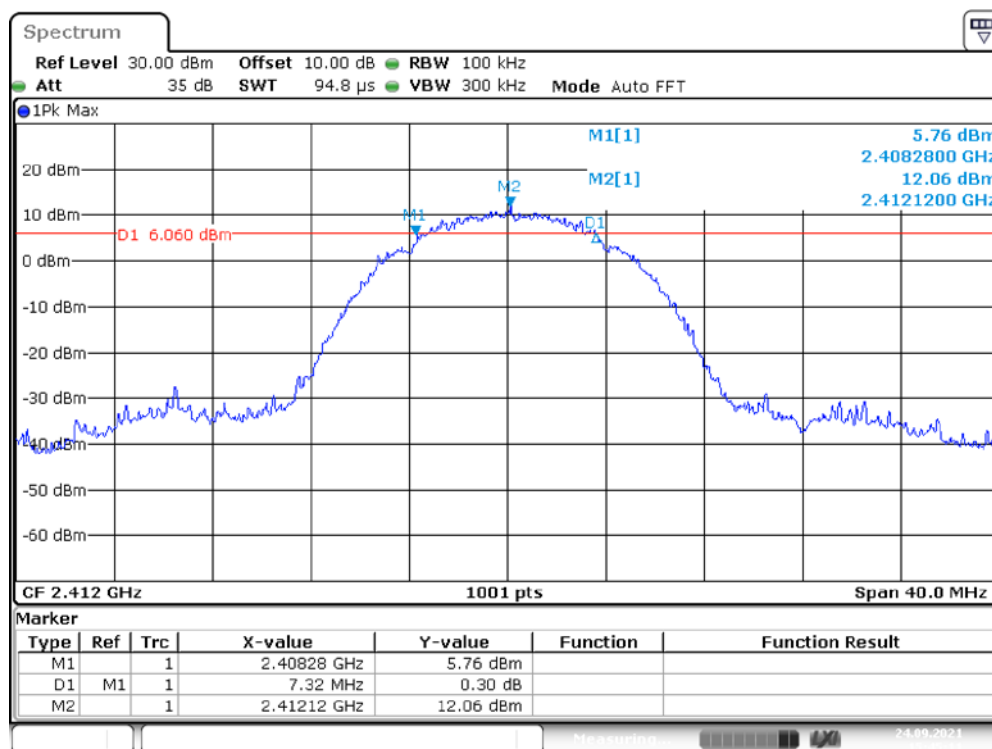
7.3 發射頻寬之量測結果

環境溫度	24.5°C	測試日期	2021-09-24
環境濕度	46%	測試人員	李宥陞

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)		Limit (kHz)	Result
		Antenna 1	Chain 1		
B mode					
Low	2412	7.32	7.08	>500	PASS
Mid	2437	7.12	7.28		PASS
High	2462	7.44	7.28		PASS
G mode					
Low	2412	16.48	16.48	>500	PASS
Mid	2437	16.48	16.48		PASS
High	2462	16.48	16.48		PASS
n HT20 mode					
Low	2412	17.60	17.56	>500	PASS
Mid	2437	17.60	17.56		PASS
High	2462	17.56	17.60		PASS
AX20 mode					
Low	2422	18.92	18.68	>500	PASS
Mid	2437	18.88	18.76		PASS
High	2452	18.76	18.76		PASS

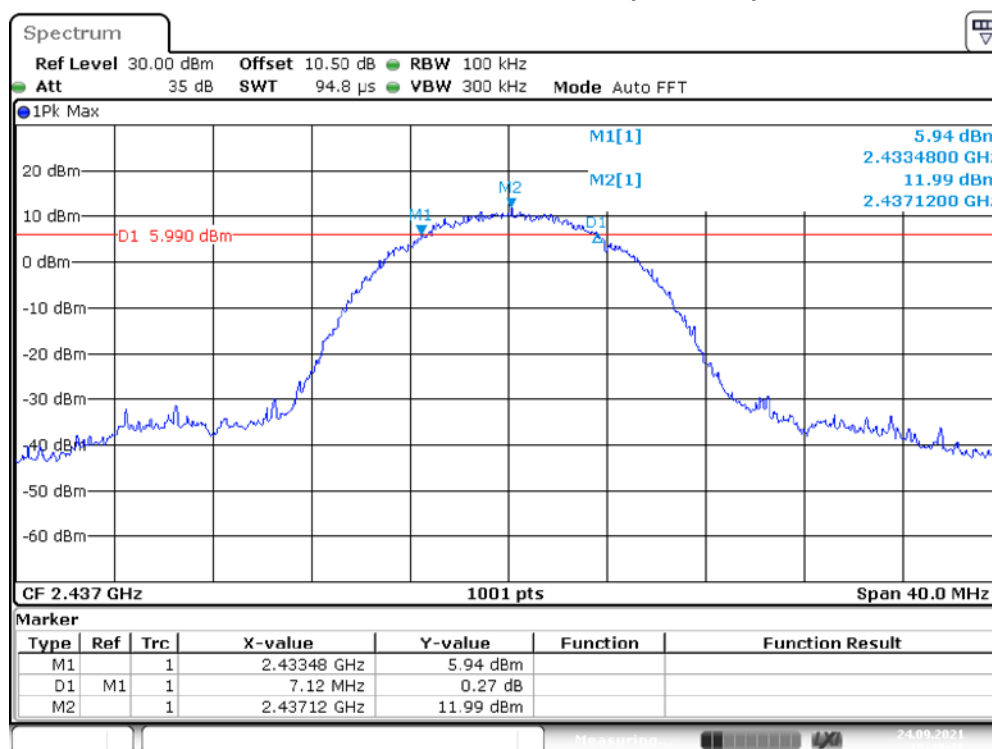
6 dB Emission Bandwidth

B Mode Low Channel(Chain 0)



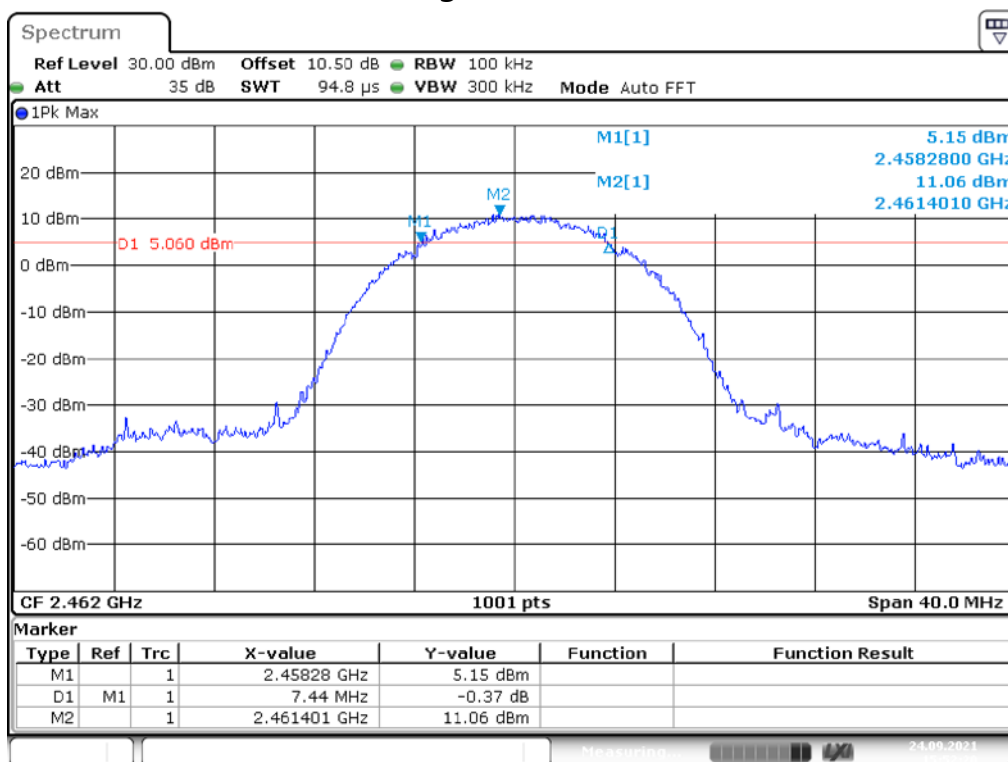
Date: 24.SEP.2021 15:45:11

B Mode Middle Channel(Chain 0)



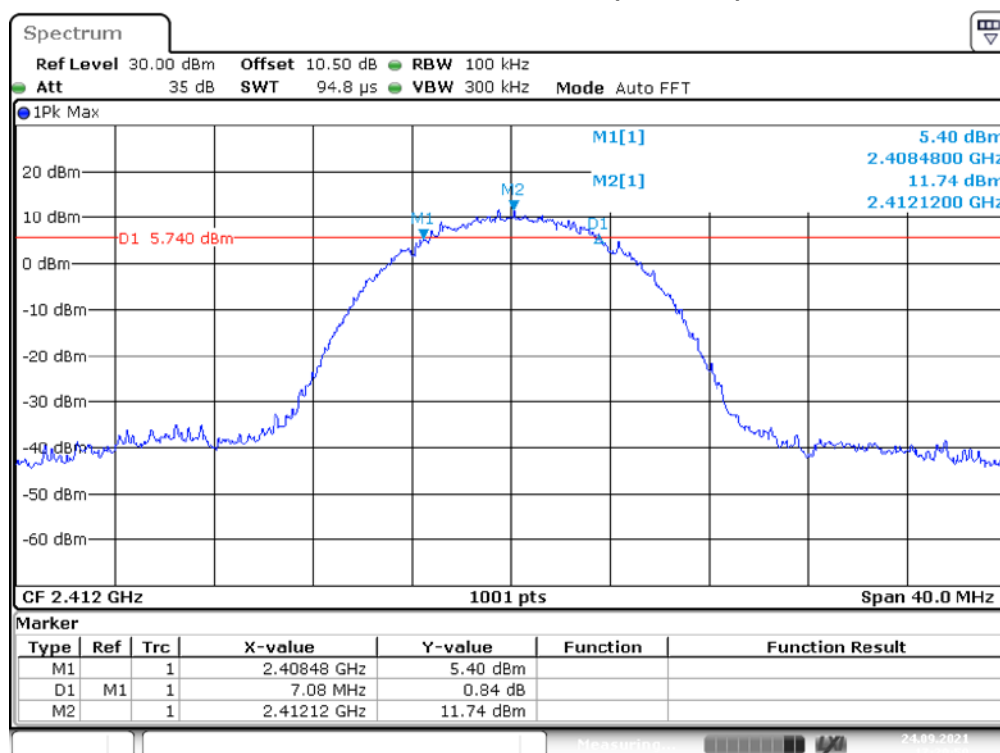
Date: 24.SEP.2021 15:49:38

B Mode High Channel(Chain 0)



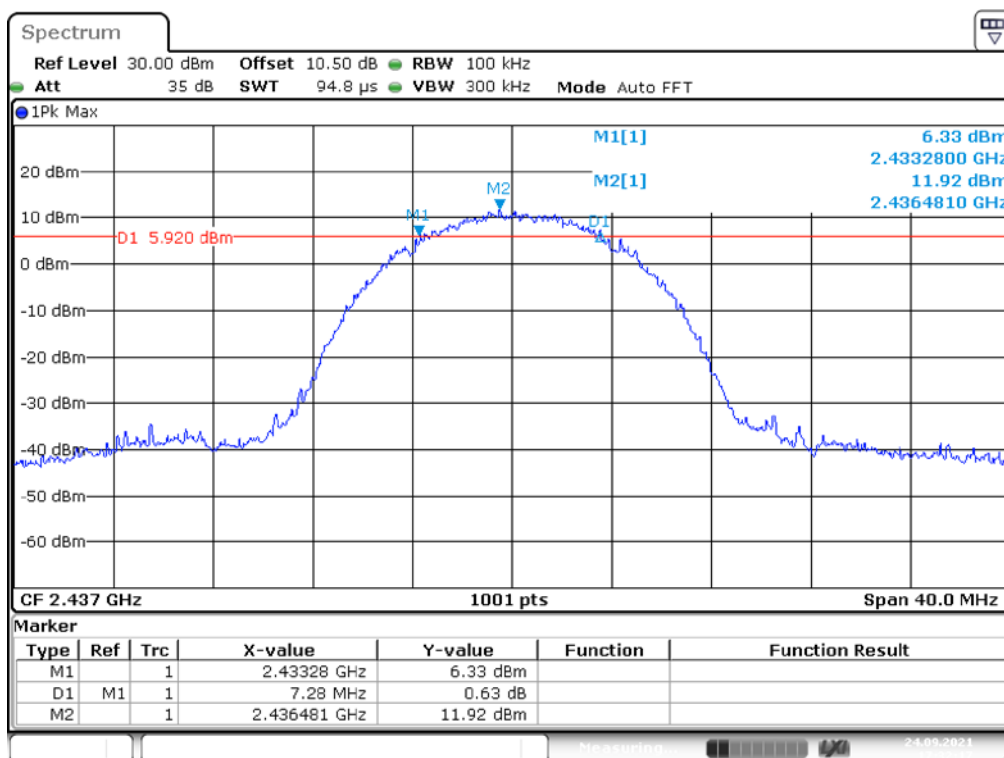
Date: 24.SEP.2021 15:52:20

B Mode Low Channel (Chain 1)



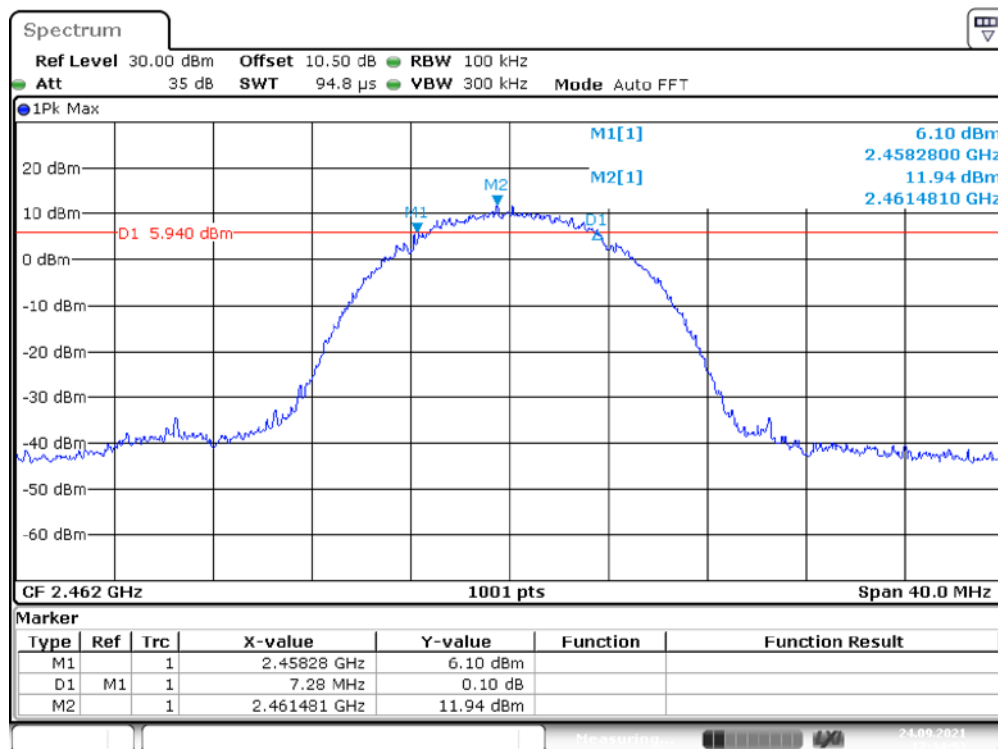
Date: 24.SEP.2021 17:29:51

B Mode Middle Channel (Chain 1)



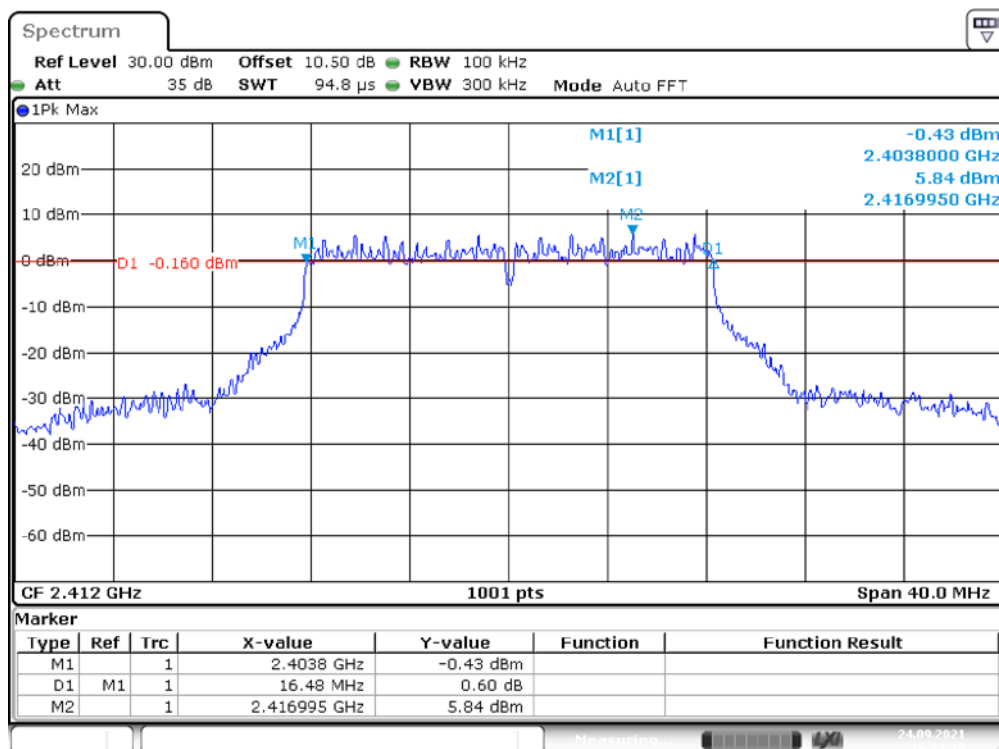
Date: 24.SEP.2021 17:32:17

B Mode High Channel (Chain 1)



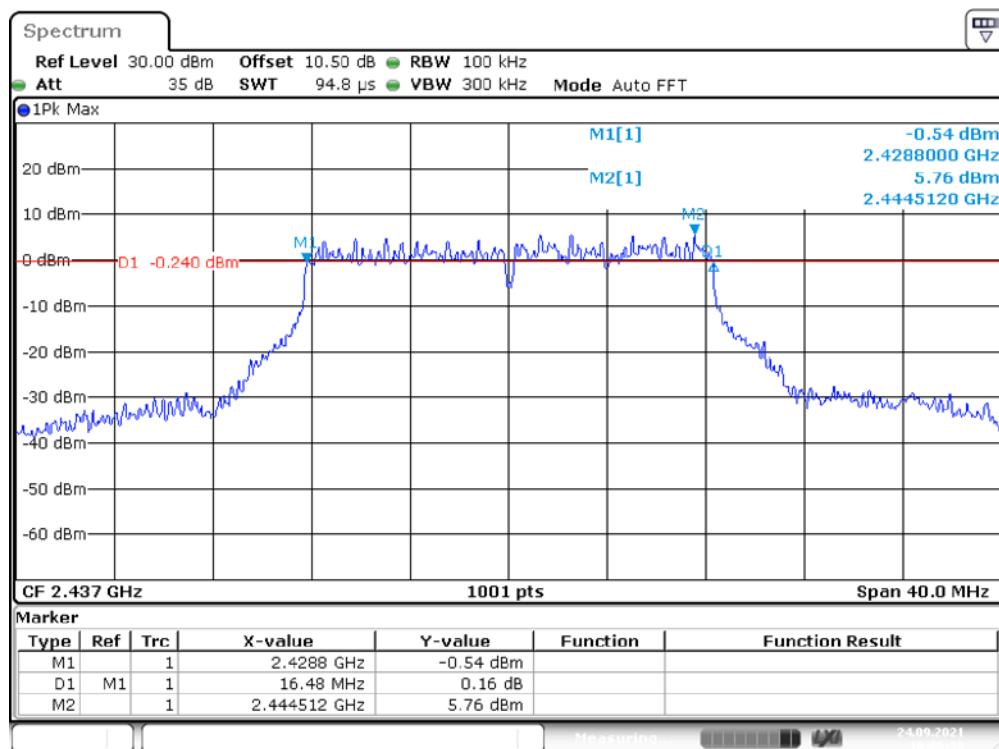
Date: 24.SEP.2021 17:34:53

G Mode Low Channel (Chain 0)



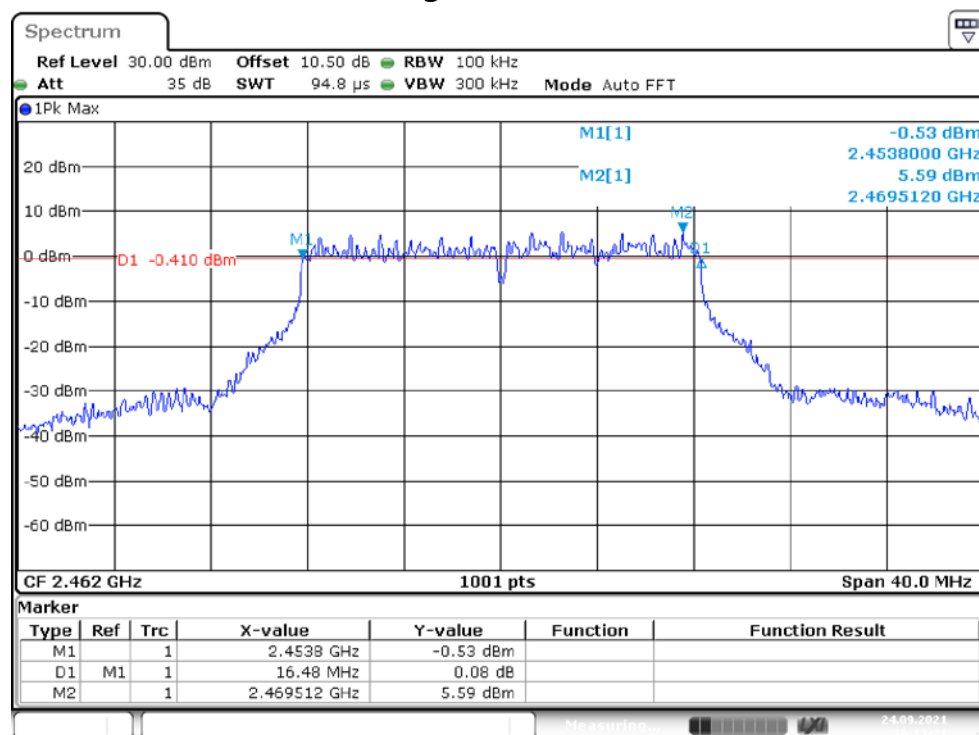
Date: 24.SEP.2021 16:03:30

G Mode Middle Channel (Chain 0)



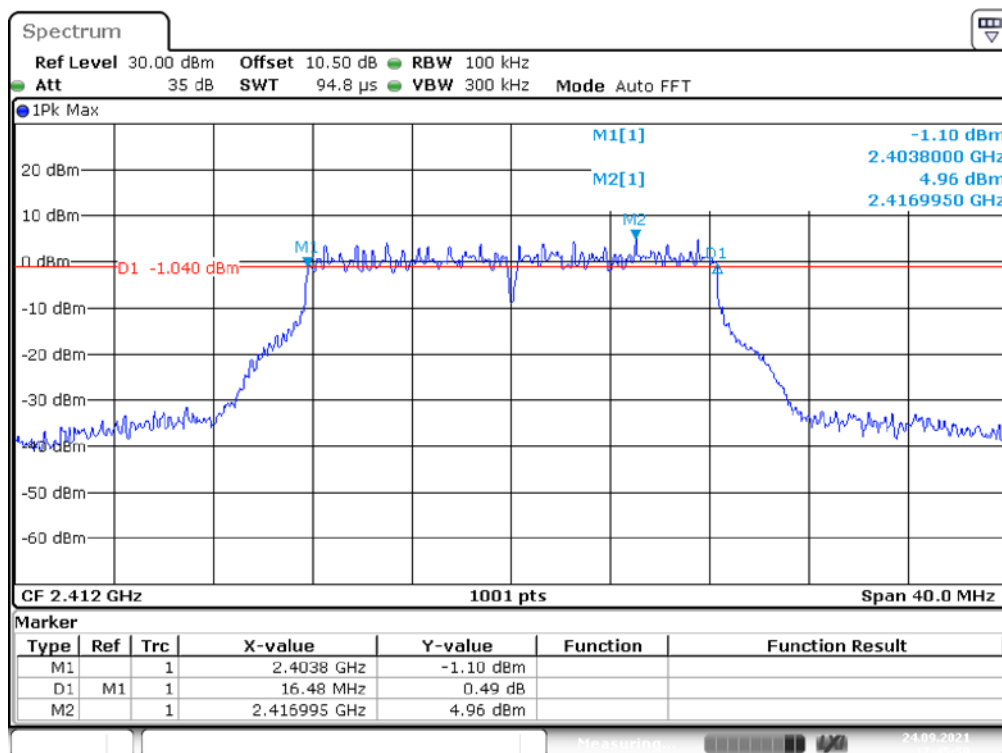
Date: 24.SEP.2021 16:06:38

G Mode High Channel (Chain 1)



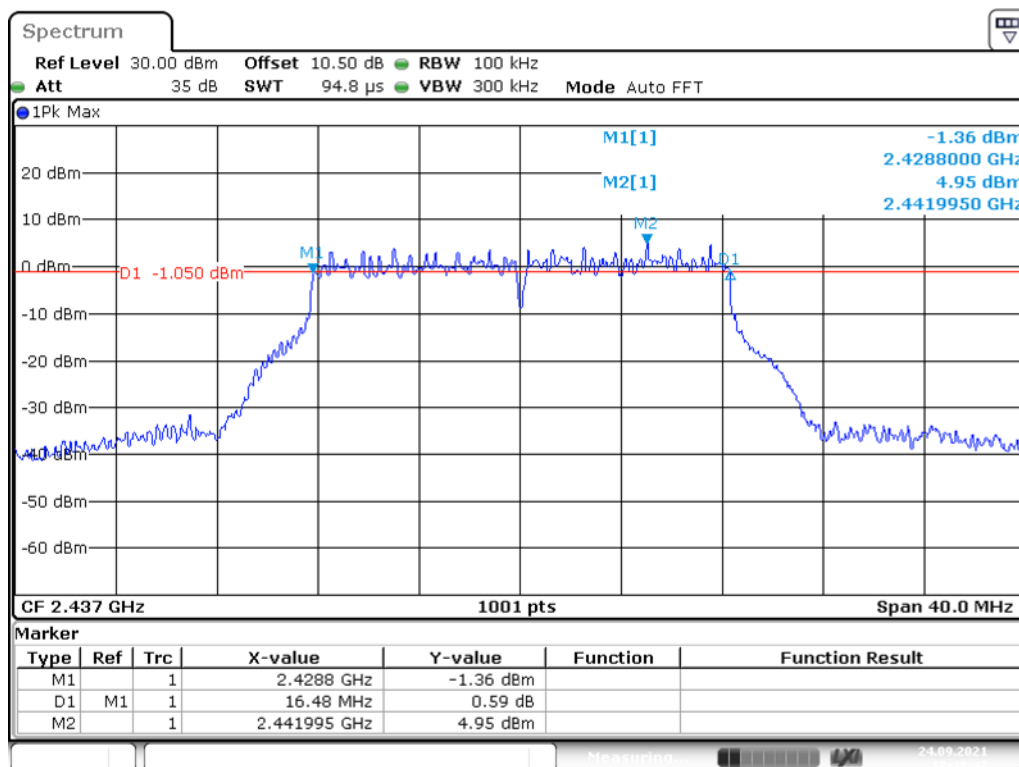
Date: 24.SEP.2021 16:13:22

G Mode Low Channel(Chain 1)



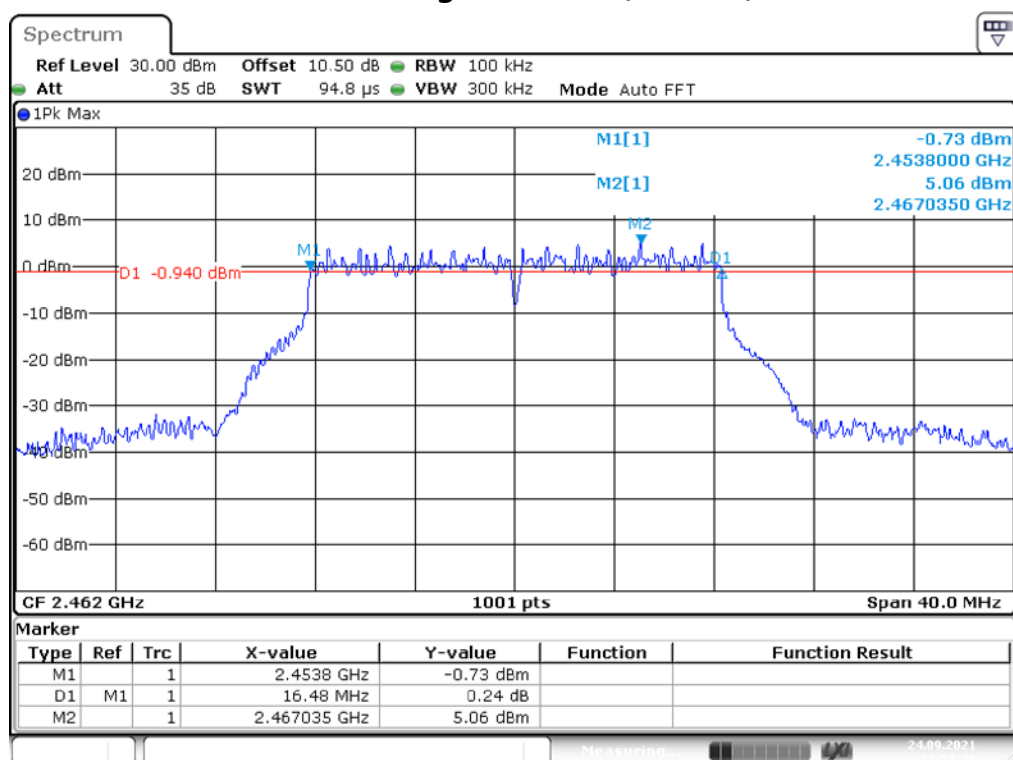
Date: 24.SEP.2021 17:45:59

G Mode Middle Channel (Chain 1)



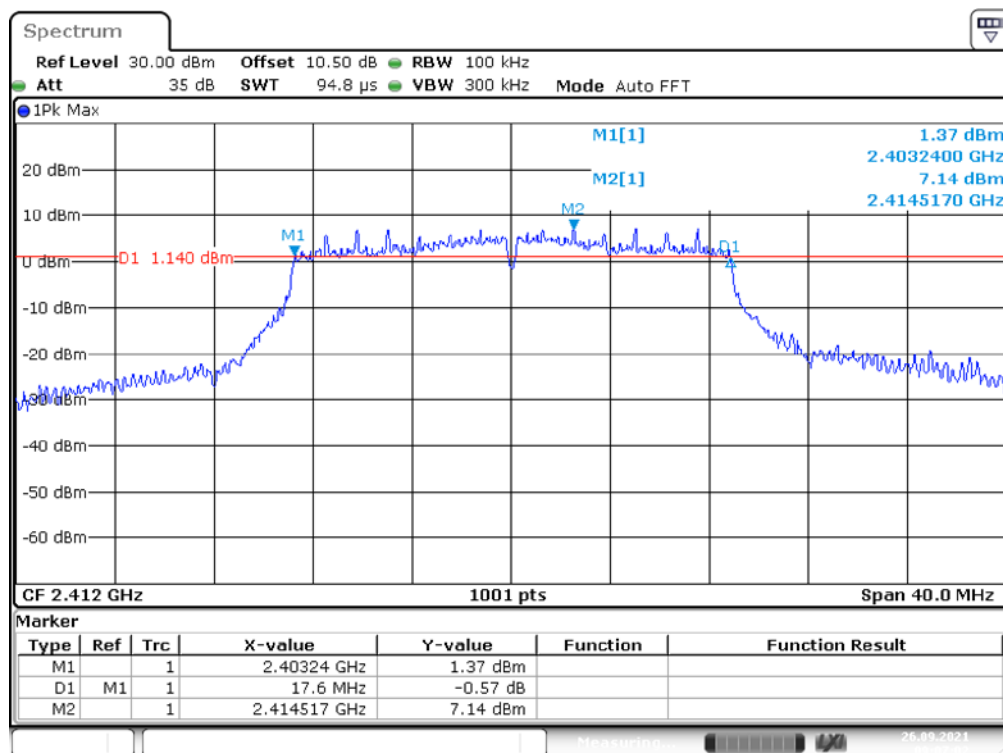
Date: 24.SEP.2021 17:48:47

G Mode High Channel (Chain 1)



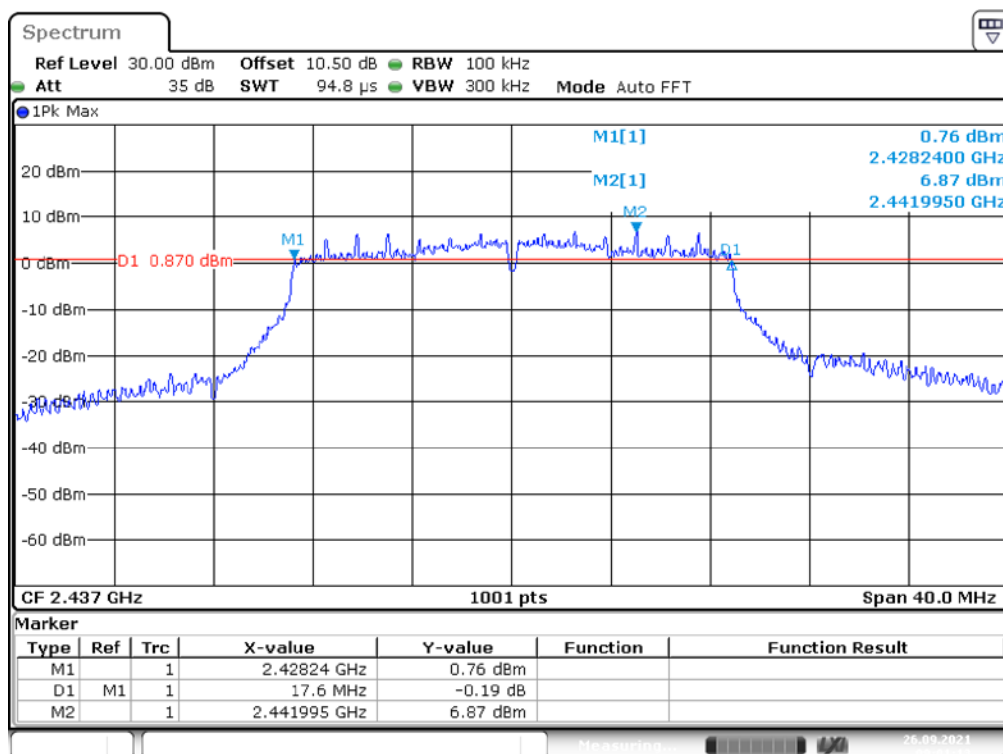
Date: 24.SEP.2021 17:51:30

n HT20 Mode Low Channel(Chain 0)



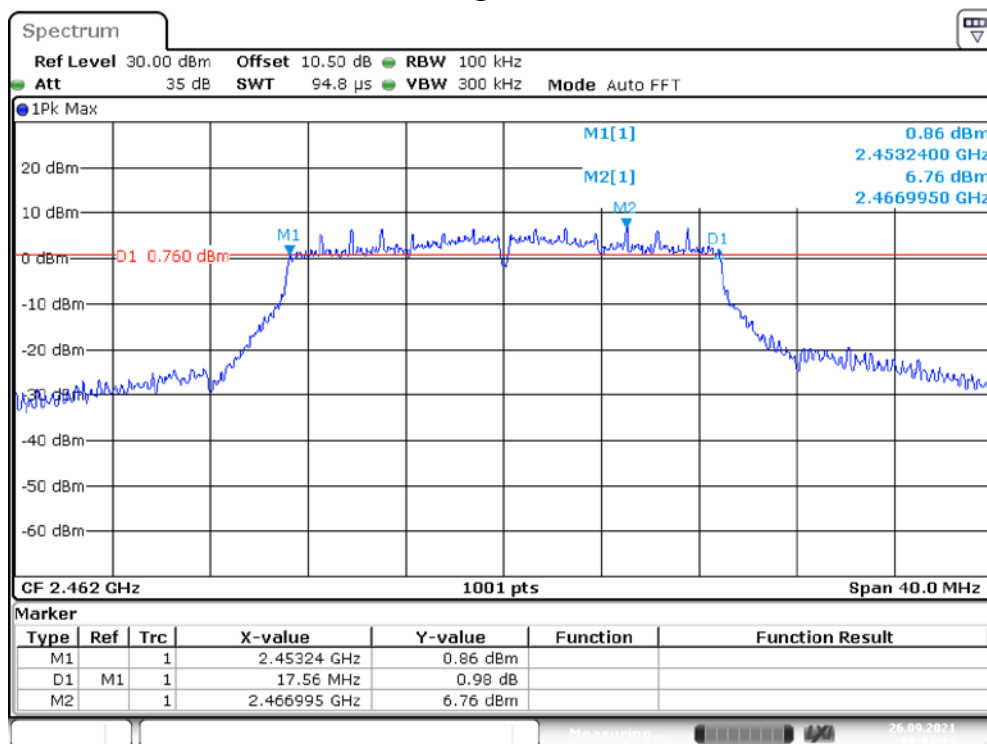
Date: 26.SEP.2021 09:07:02

n HT20 Mode Middle Channel(Chain 0)



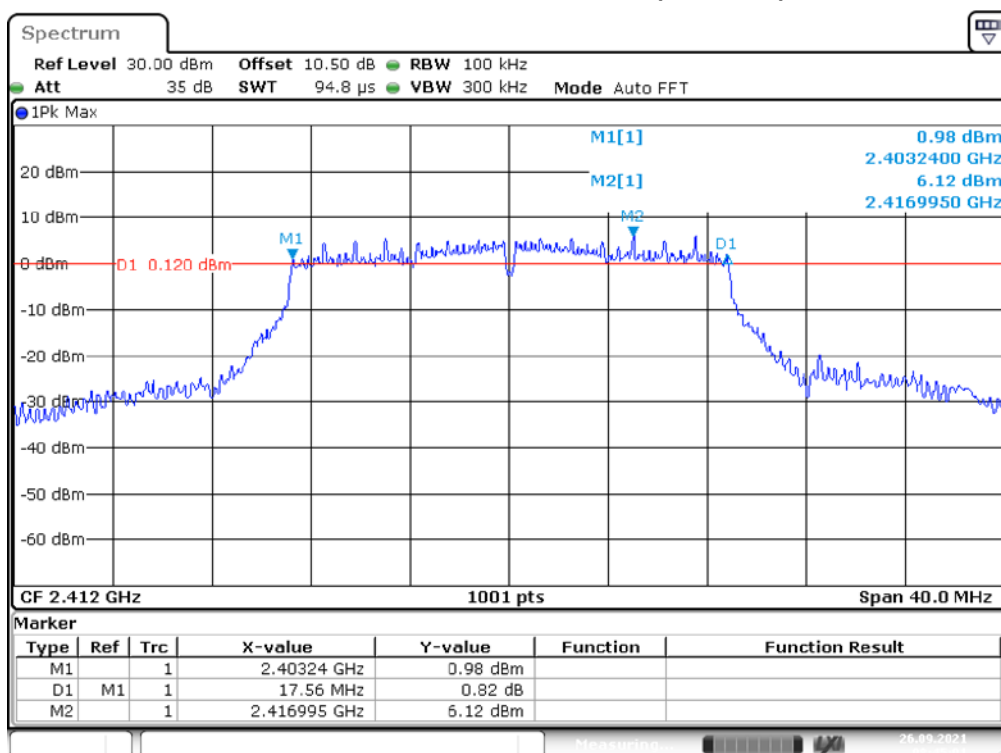
Date: 26.SEP.2021 09:01:14

n HT20 Mode High Channel(Chain 0)



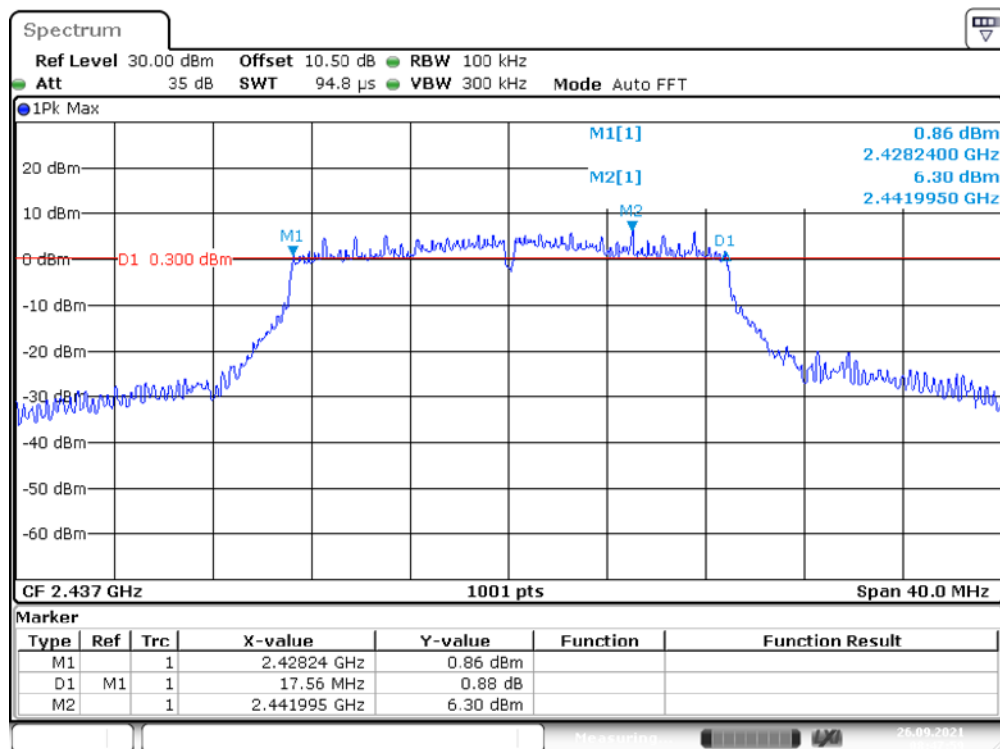
Date: 26.SEP.2021 09:03:13

n HT20 Mode Low Channel (Chain 1)



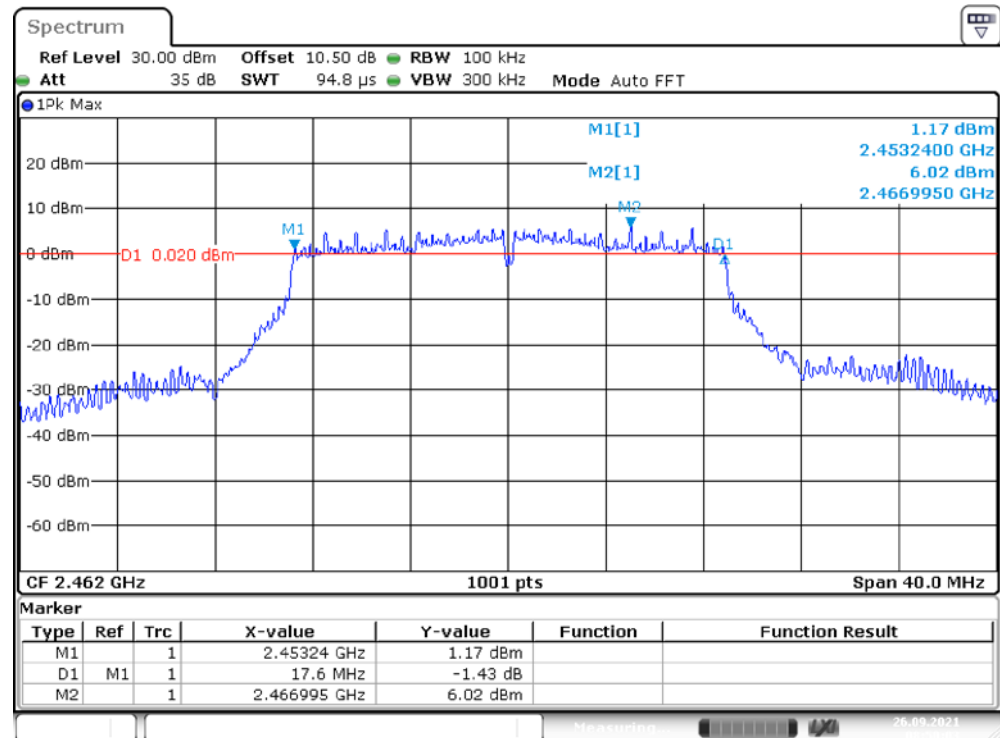
Date: 26.SEP.2021 08:45:01

n HT20 Mode Middle Channel (Chain 1)



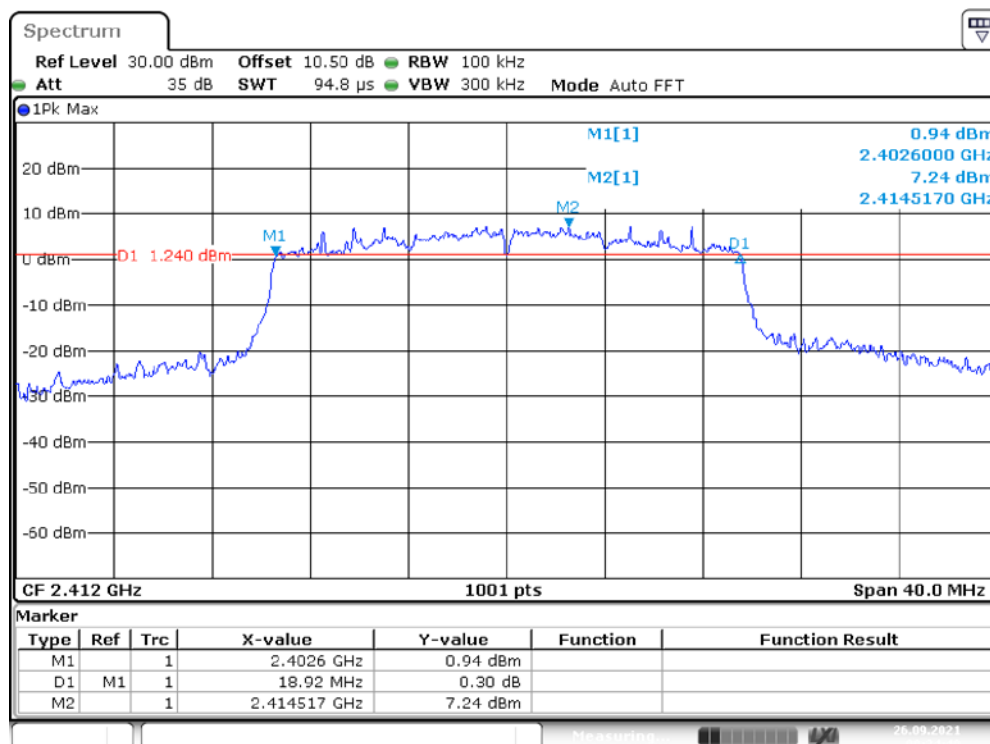
Date: 26.SEP.2021 08:48:00

n HT20 Mode High Channel (Chain 1)



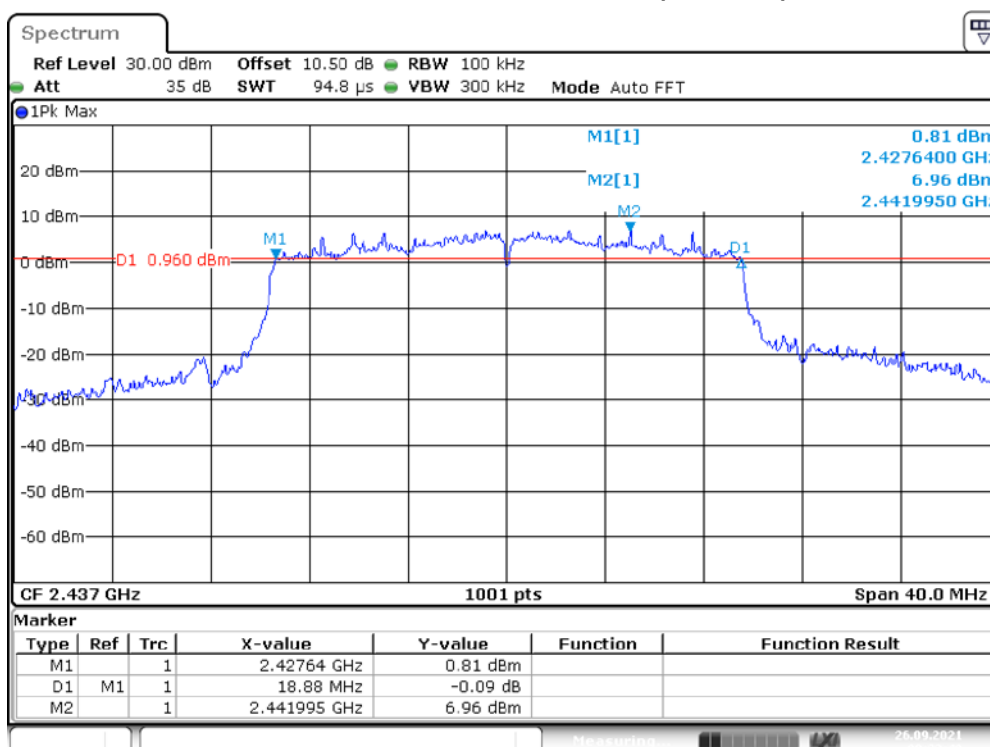
Date: 26.SEP.2021 08:50:03

AX20 Mode Low Channel(Chain 0)



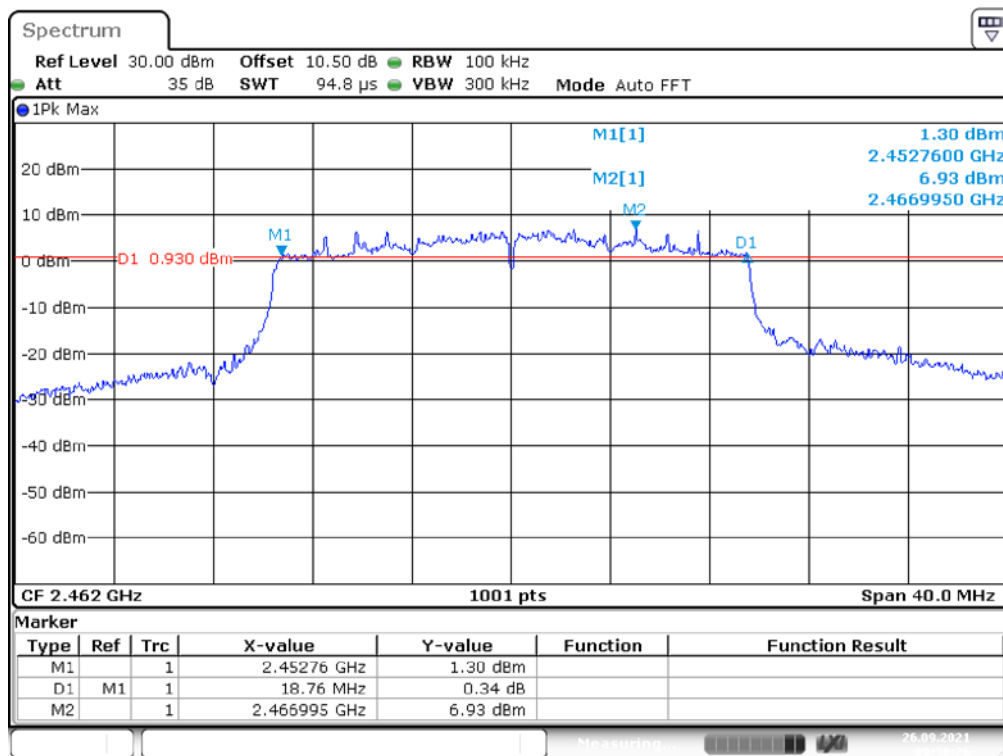
Date: 26.SEP.2021 09:34:40

AX20 Mode Middle Channel(Chain 0)



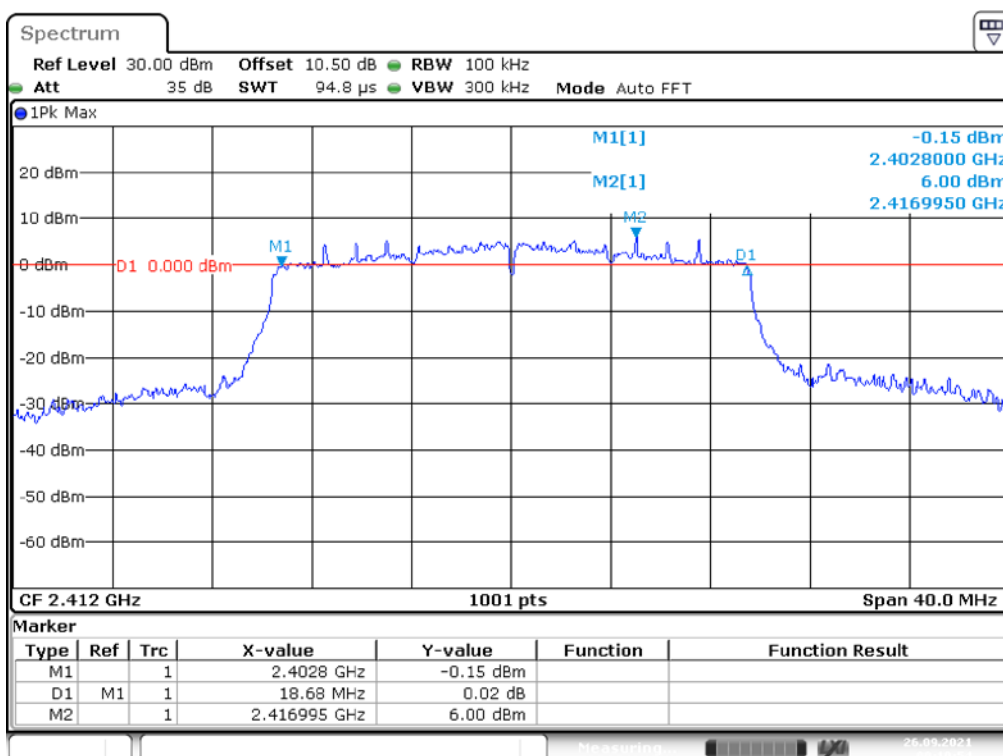
Date: 26.SEP.2021 09:32:41

AX20 Mode High Channel(Chain 0)



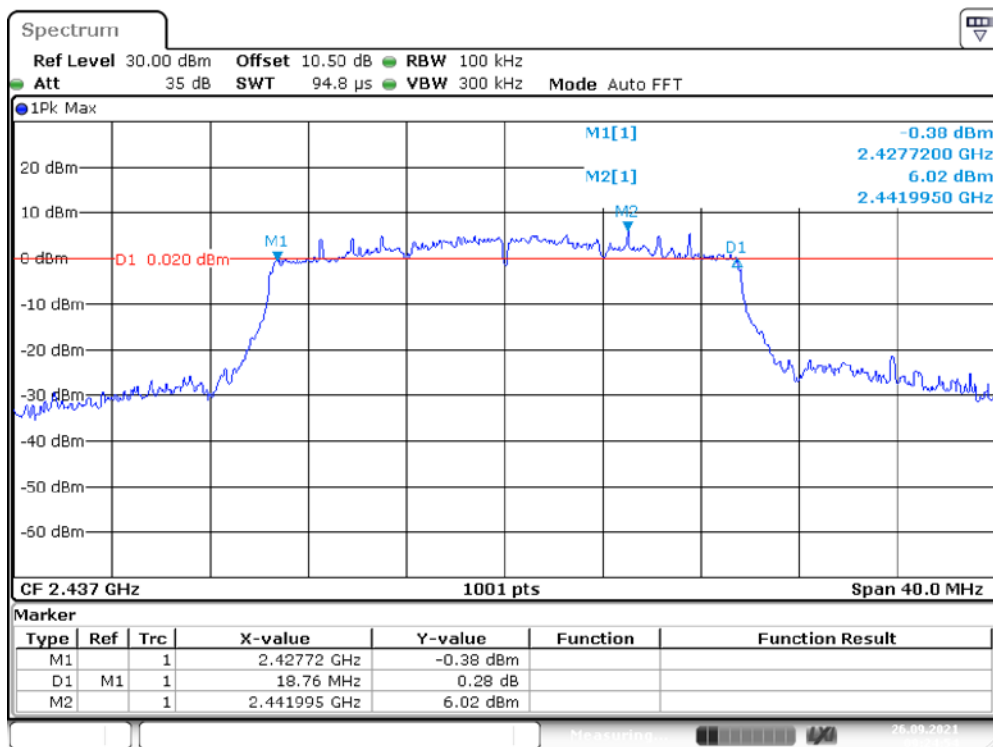
Date: 26.SEP.2021 09:30:27

AX20 Mode Low Channel (Chain 1)



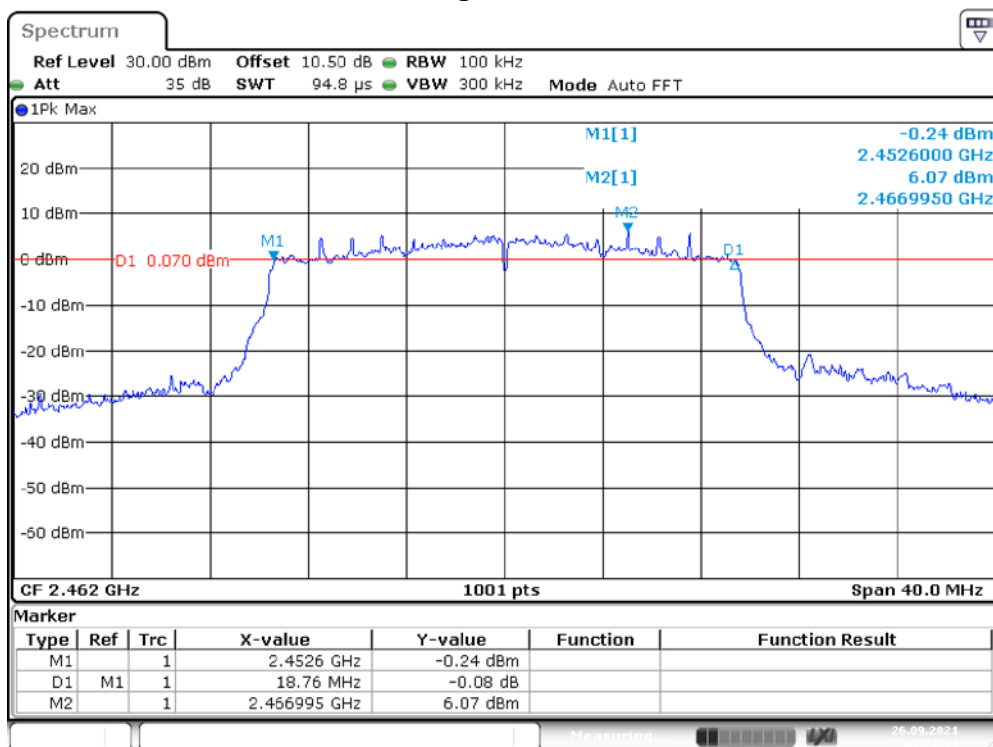
Date: 26.SEP.2021 09:19:55

AX20 Mode Middle Channel (Chain 1)



Date: 26.SEP.2021 09:24:54

AX20 Mode High Channel (Chain 1)



Date: 26.SEP.2021 09:27:14

8. 輸出峰值功率之量測

8.1 適用標準

依據低功率射頻電機技術規範之規定，跳頻系統至少使用75個跳頻頻道：1 W(含)以下；跳頻系統依規定操作於2400 MHz ~ 2483.5 MHz之展頻跳頻系統，須使用至少15個無重疊的頻道，在0.4秒乘以跳頻頻道數之週期內，任一頻率占用之平均時間應小於或等於0.4秒，應使用智慧型跳頻技術：0.125 W(含)以下；數位調變技術系統：1 W(含)以下。

8.2 測試方法

1. 將受測物的RF埠經由一條50歐姆纜線連接至功率分析儀。
2. 設定量測頻率為量測頻道。
3. 紀錄最大峰值輸出功率。

上述之測試步驟應注意外接之衰減與纜線損失。

8.3 輸出功率之量測結果

環境溫度	24.5°C	測試日期	2021-09-24
環境濕度	46%	測試人員	錯誤! 找不到參照來源。

Peak Power

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Chain 0	Chain 1	Total			
B mode							
Low	2412	22.97	21.99	25.52	0.356	28.27	PASS
Mid	2437	22.51	22.19	25.36	0.344	28.27	PASS
High	2462	22.28	22.01	25.16	0.328	28.27	PASS
G mode							
Low	2412	25.53	24.78	28.18	0.658	28.27	PASS
Mid	2437	25.41	24.96	28.2	0.661	28.27	PASS
High	2462	25.25	25.1	28.19	0.659	28.27	PASS
n HT20 mode							
Low	2412	25.57	24.86	28.24	0.667	28.27	PASS
Mid	2437	25.46	24.92	28.21	0.662	28.27	PASS
High	2462	25.38	25.02	28.21	0.662	28.27	PASS
AX20 mode							
Low	2422	25.27	25.15	28.22	0.664	28.27	PASS
Mid	2437	25.23	25.11	28.18	0.658	28.27	PASS
High	2452	25.54	24.89	28.24	0.667	28.27	PASS

9. 開放頻帶邊緣 100 kHz 頻寬內之限制

9.1 適用標準

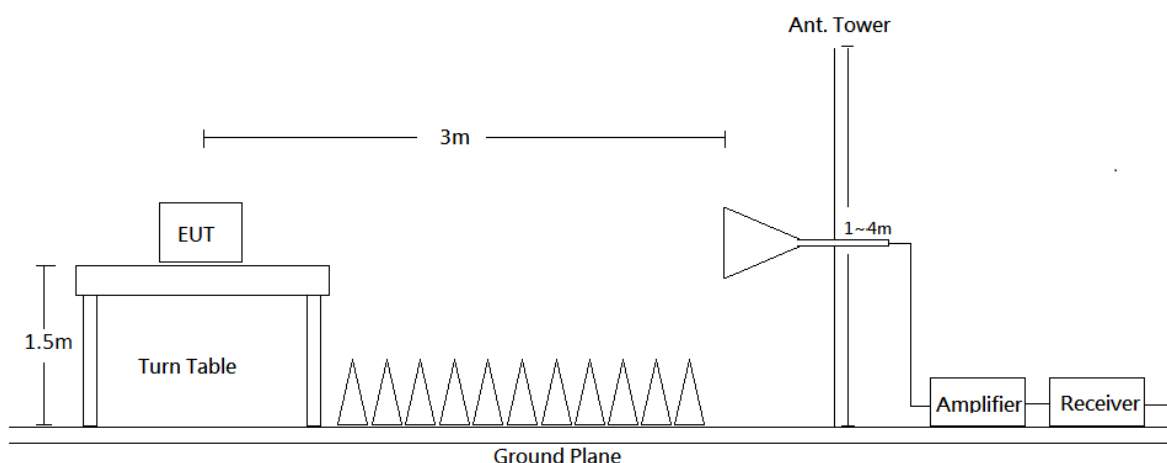
依據低功率射頻電機技術規範之規定，使用頻帶範圍外之任意100 kHz內，發射器所產生的射頻功率相較於使用頻帶範圍中包含最高所需功率之100 kHz內的射頻功率，峰值輸出功率方式測量者須衰減20分貝(dB)，以射頻傳導或輻射方式測量。最大傳導輸出功率測量方式者，至少須衰減30 dB。此外，落於禁用頻段之輻射發射，應符合規定。

9.2 測試方法

1. 頻率掃描範圍足以涵蓋操作在最靠近頻帶邊緣之頻道的發射波峰位準以及任何落於許可頻帶外之調變產物。
2. 解析頻寬大於1%頻率掃描範圍寬度，視訊頻寬不小於解析頻寬。掃描時間為自動，檢波功能為峰值，訊號軌跡為最大保留(Max Hold)。
3. 將標記設定於在頻帶邊緣上的發射，或將標記設定於最大之頻帶外調變產物上若其位準大於頻帶邊緣上的發射。啟動標記差值之功能，利用標記至波峰功能(Marker to Peak)功能以標記頻帶內發射之波峰，所顯示之標記差值必須符合指定之限制值。

以上述相同的步驟決定由跳頻功能所產生的任何混附波是否亦符合規定之限制值。

9.3 測試場地配置圖



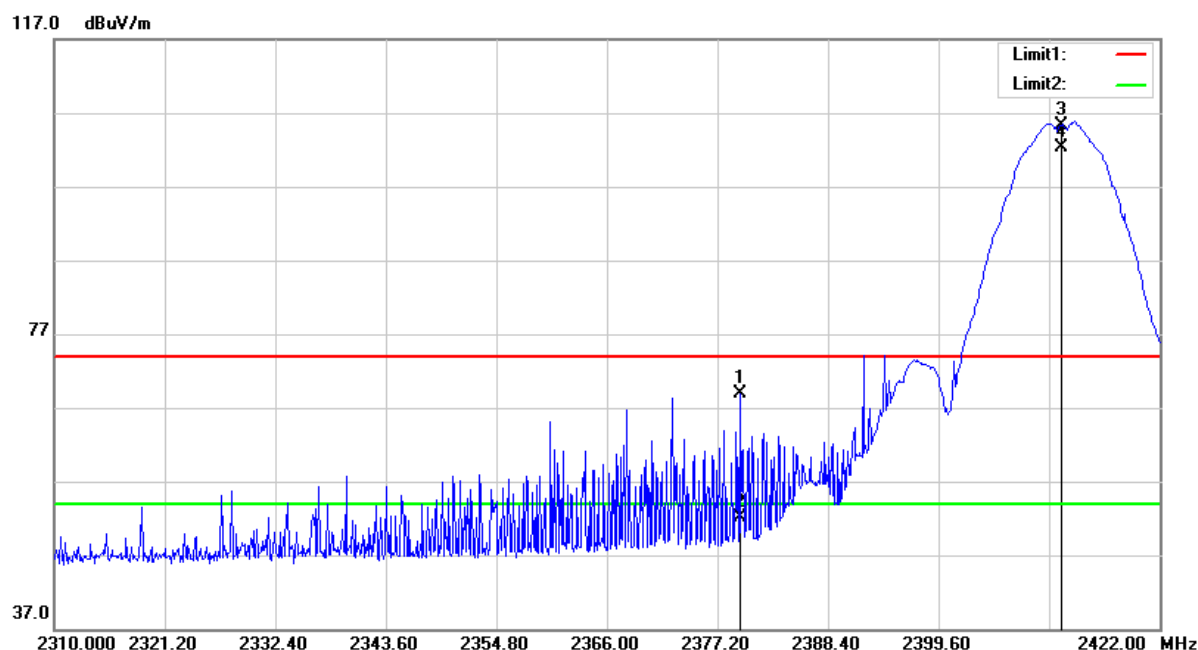
9.4 開放頻帶邊緣之量測結果

請參考附圖

判定結果: 符合規範

發射限制測試 B Mode / CH Low

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:30:17
		Test By:	Boris
Description:	B-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2379.440	79.30	-10.31	68.99	74.00	-5.01	139	76	peak
2379.440	62.49	-10.31	52.18	54.00	-1.82	139	76	AVG
2412.032	115.45	-10.06	105.39	N/A	N/A	139	76	peak
2412.032	112.39	-10.06	102.33	N/A	N/A	139	76	AVG

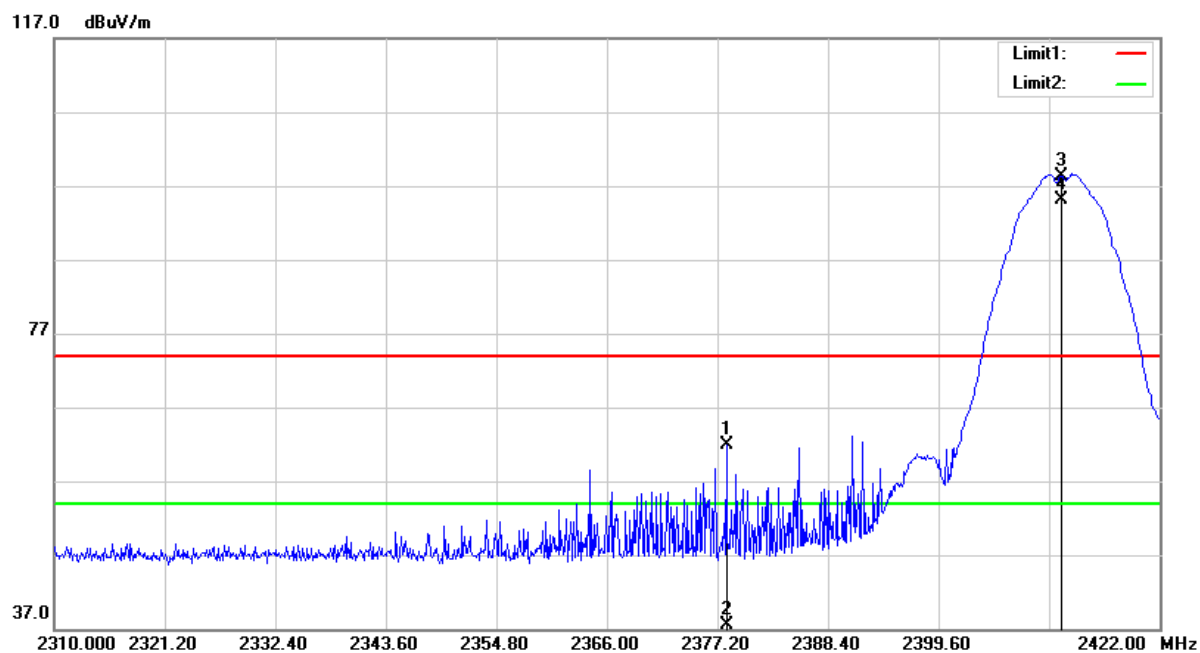
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:32:10
		Test By:	Boris
Description:	B-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2378.096	72.19	-10.33	61.86	74.00	-12.14	151	87	peak
2378.096	47.81	-10.33	37.48	54.00	-16.52	151	87	AVG
2412.032	108.38	-10.06	98.32	N/A	N/A	151	87	peak
2412.032	105.20	-10.06	95.14	N/A	N/A	151	87	AVG

Note:

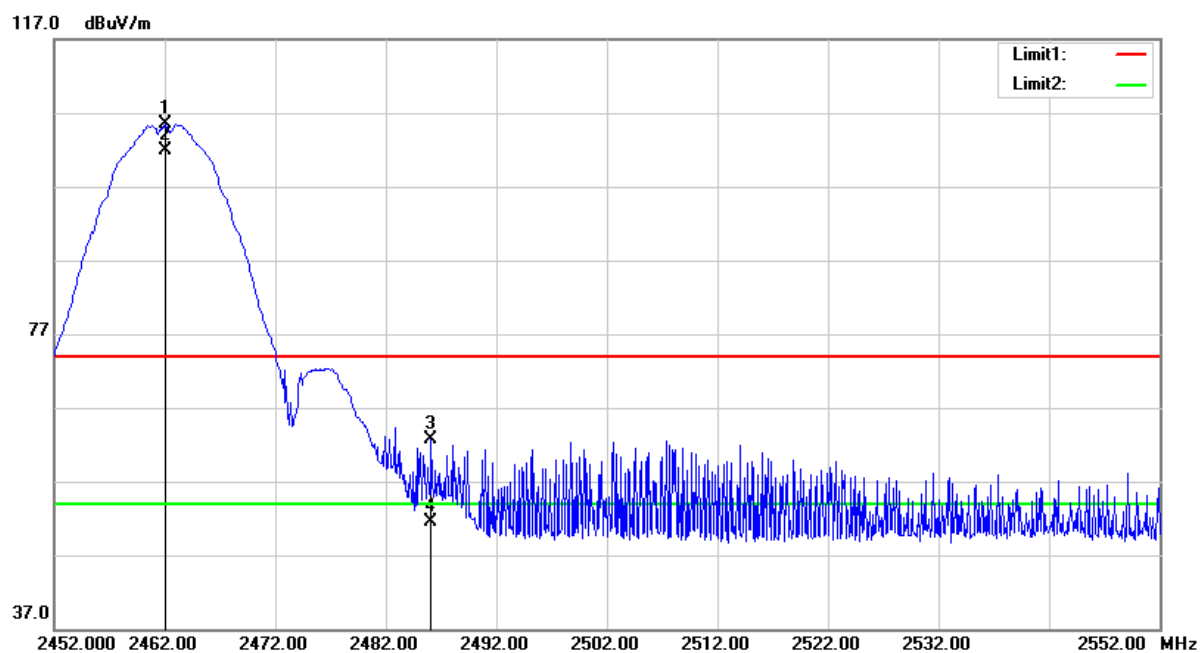
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 B Mode / CH High

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:20:41
		Test By:	Boris
Description:	B-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2462.000	115.05	-9.56	105.49	N/A	N/A	144	58	peak
2462.000	111.47	-9.56	101.91	N/A	N/A	144	58	AVG
2486.100	71.89	-9.22	62.67	74.00	-11.33	144	58	peak
2486.100	60.82	-9.22	51.60	54.00	-2.40	144	58	AVG

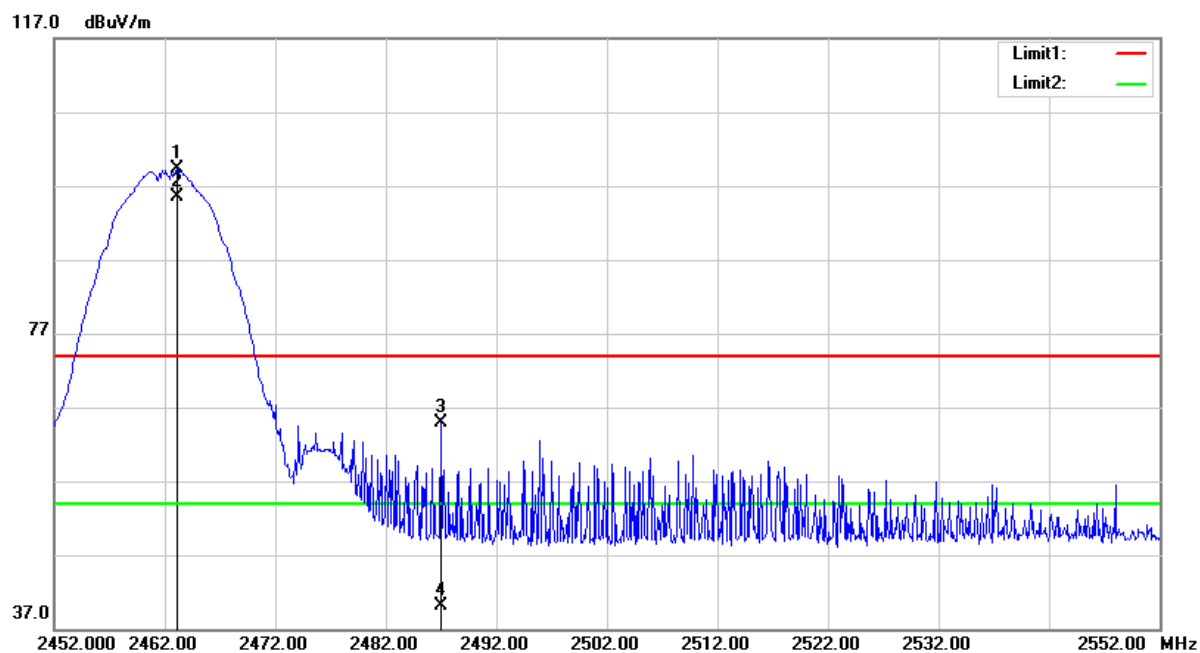
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.9(°C)/64%RH	Date:2021/9/26	Time:下午 05:25:01
		Test By:	Boris
Description:	B-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2463.100	108.88	-9.54	99.34	N/A	N/A	152	51	peak
2463.100	105.04	-9.54	95.50	N/A	N/A	152	51	AVG
2487.000	74.09	-9.21	64.88	74.00	-9.12	152	51	peak
2487.000	49.37	-9.21	40.16	54.00	-13.84	152	51	AVG

Note:

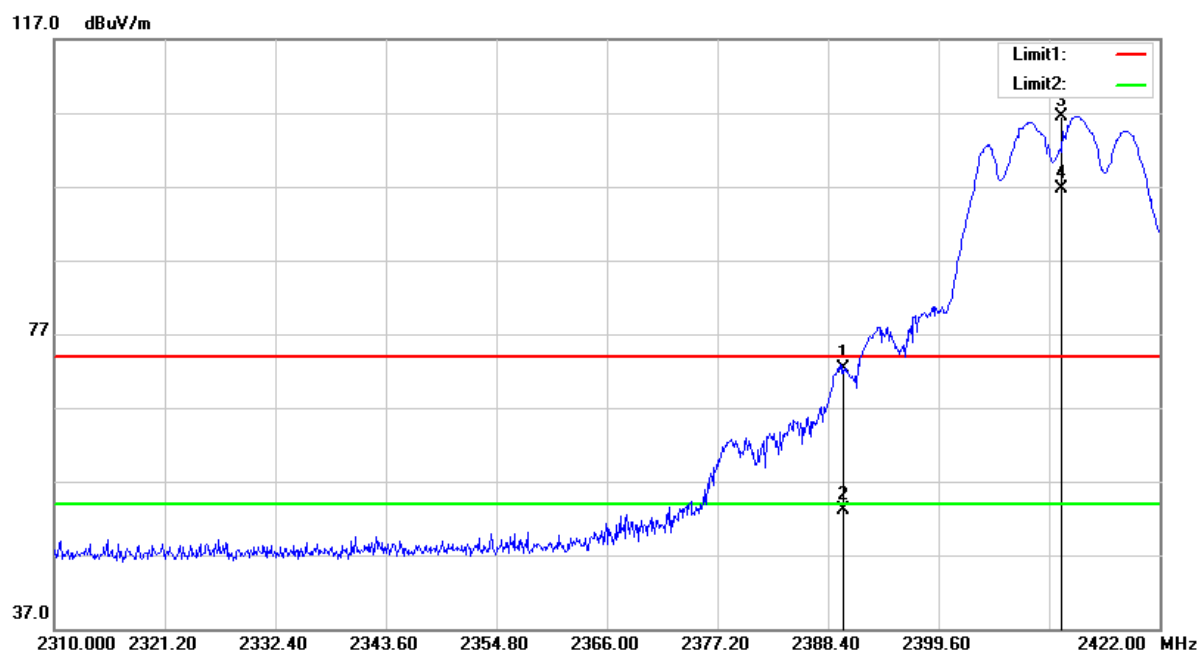
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 G Mode / CH Low

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 10:14:30
		Test By:	Boris
Description:	G-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2390.000	82.54	-10.23	72.31	74.00	-1.69	163	35	peak
2390.000	63.40	-10.23	53.17	54.00	-0.83	163	35	AVG
2412.000	116.54	-10.06	106.48	N/A	N/A	163	35	peak
2412.000	106.79	-10.06	96.73	N/A	N/A	163	35	AVG

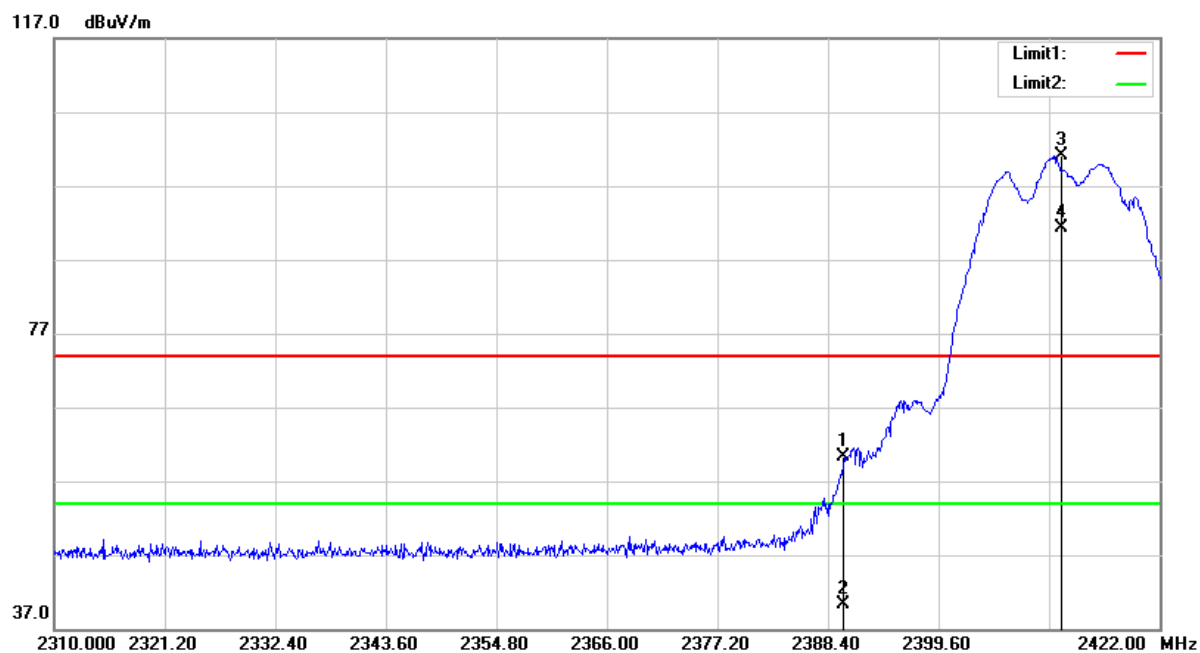
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 10:18:10
		Test By:	Boris
Description:	G-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2390.000	70.43	-10.23	60.20	74.00	-13.80	144	114	peak
2390.000	50.60	-10.23	40.37	54.00	-13.63	144	114	AVG
2412.000	111.14	-10.06	101.08	N/A	N/A	144	114	peak
2412.000	101.39	-10.06	91.33	N/A	N/A	144	114	AVG

Note:

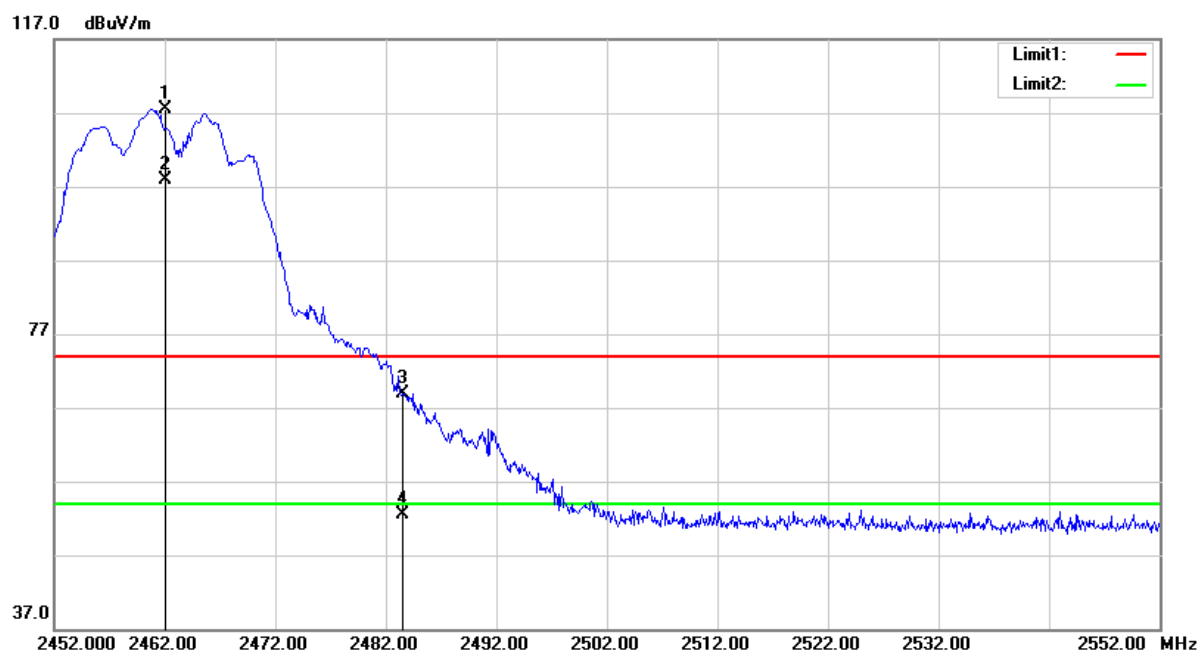
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 G Mode / CH High

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 11:14:32
		Test By:	Boris
Description:	G-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2462.000	116.99	-9.56	107.43	N/A	N/A	166	66	peak
2462.000	107.42	-9.56	97.86	N/A	N/A	166	66	AVG
2483.500	78.20	-9.26	68.94	74.00	-5.06	166	66	peak
2483.500	61.86	-9.26	52.60	54.00	-1.40	166	66	AVG

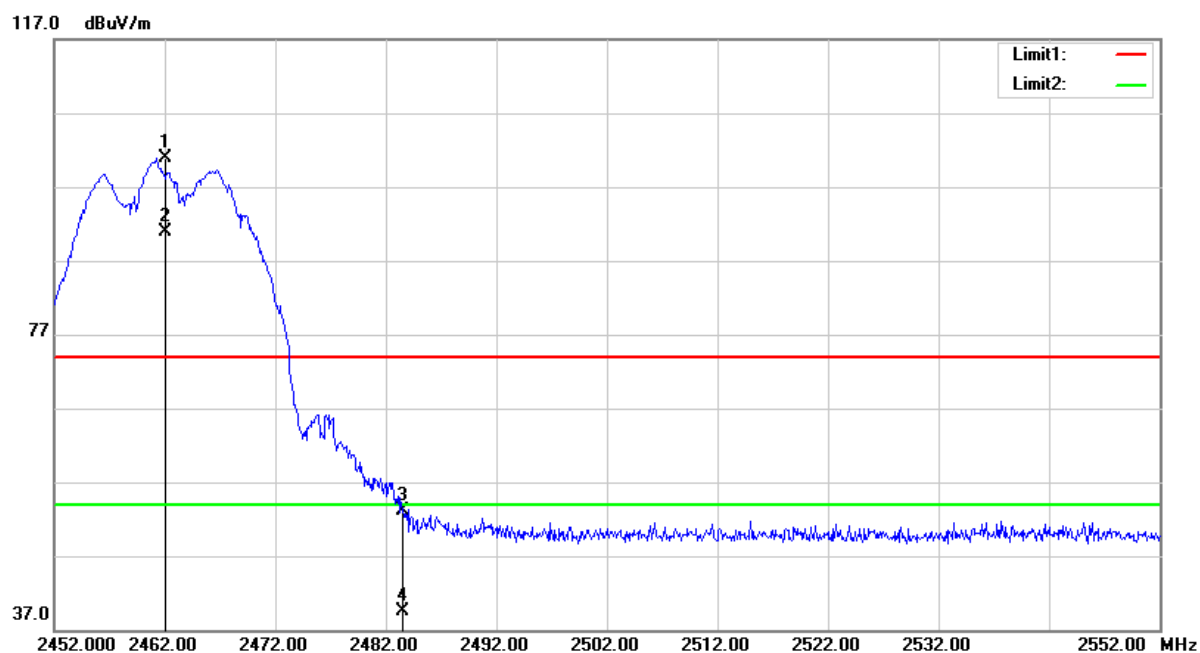
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 11:18:50
		Test By:	Boris
Description:	G-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2462.000	110.49	-9.56	100.93	N/A	N/A	152	47	peak
2462.000	100.41	-9.56	90.85	N/A	N/A	152	47	AVG
2483.500	62.37	-9.26	53.11	74.00	-20.89	152	47	peak
2483.500	48.70	-9.26	39.44	54.00	-14.56	152	47	AVG

Note:

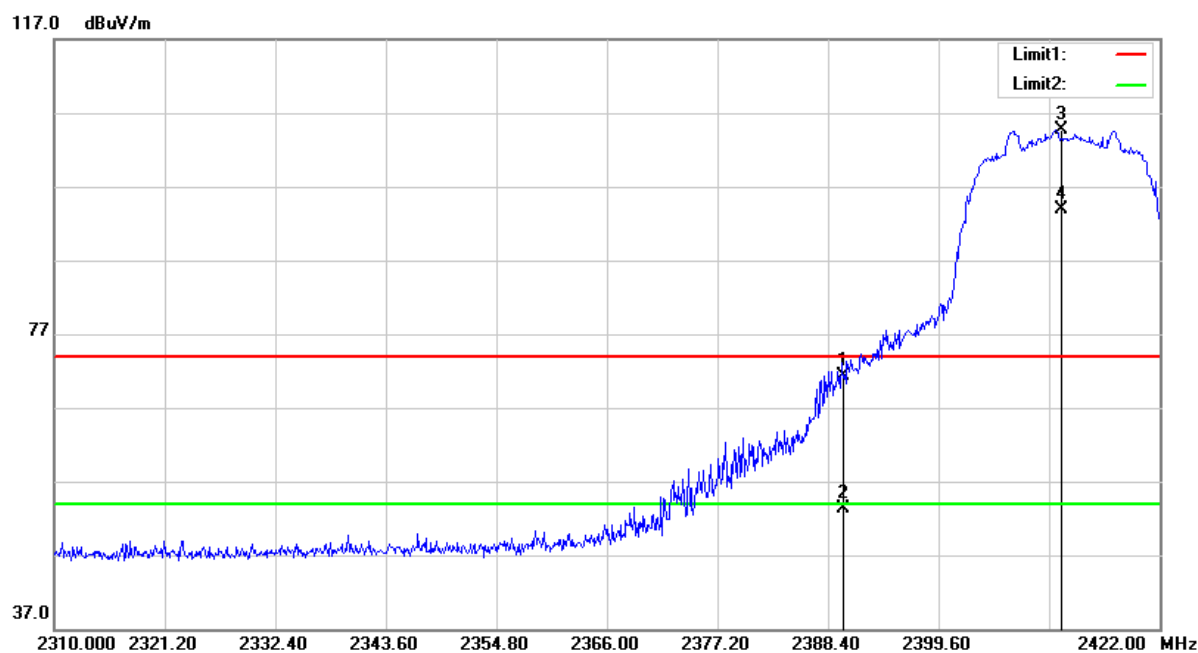
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 n HT20 Mode / CH Low

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 10:21:40
		Test By:	Boris
Description:	N20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2390.000	81.46	-10.23	71.23	74.00	-2.77	160	19	peak
2390.000	63.52	-10.23	53.29	54.00	-0.71	160	19	AVG
2412.000	114.73	-10.06	104.67	N/A	N/A	160	19	peak
2412.000	103.94	-10.06	93.88	N/A	N/A	160	19	AVG

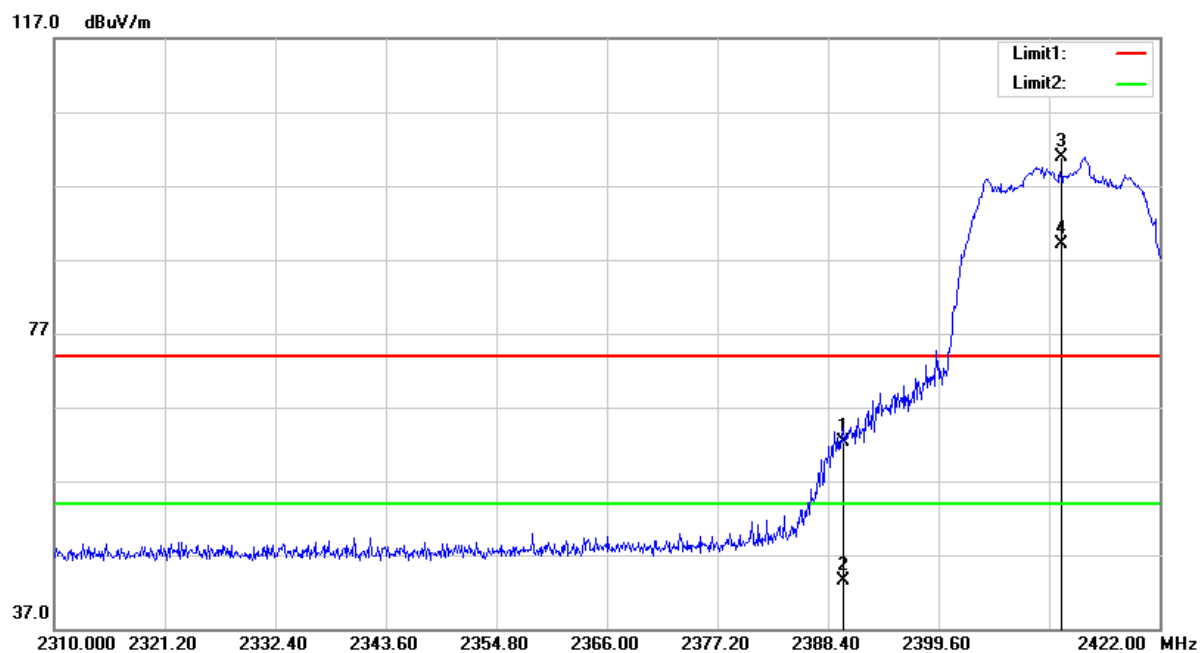
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 10:24:53
		Test By:	Boris
Description:	N20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2390.000	72.43	-10.23	62.20	74.00	-11.80	161	27	peak
2390.000	53.68	-10.23	43.45	54.00	-10.55	161	27	AVG
2412.000	110.90	-10.06	100.84	N/A	N/A	161	27	peak
2412.000	99.07	-10.06	89.01	N/A	N/A	161	27	AVG

Note:

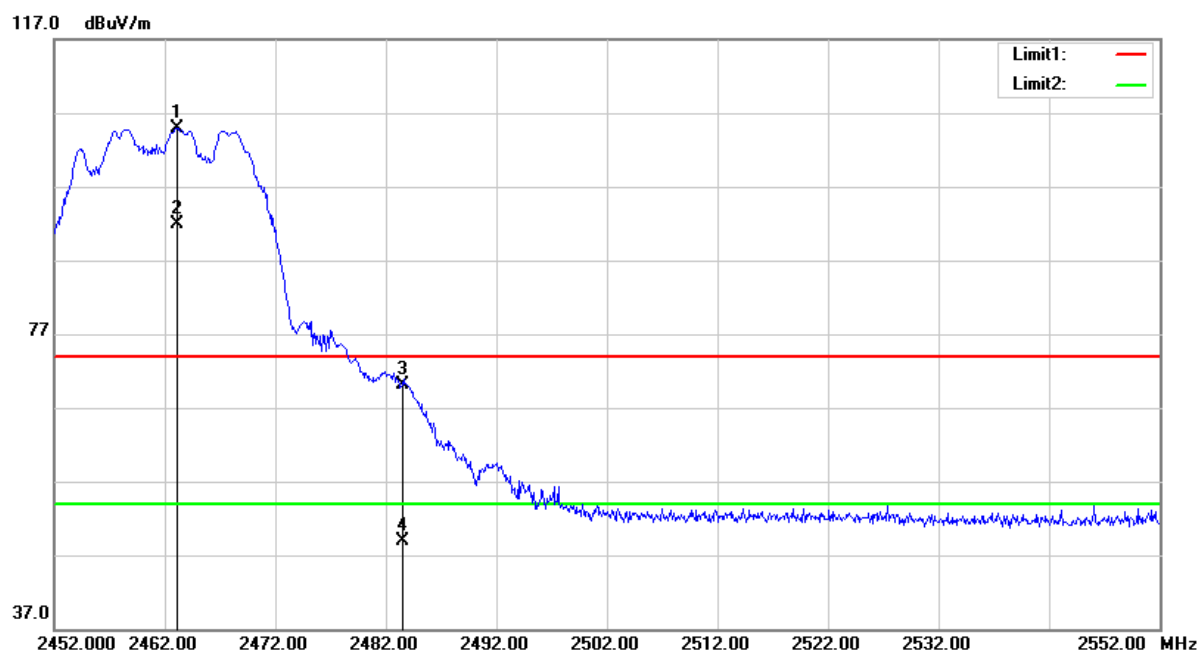
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 N20 Mode / CH High

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 11:22:33
		Test By:	Boris
Description:	N20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2463.100	114.44	-9.54	104.90	N/A	N/A	165	68	peak
2463.100	101.35	-9.54	91.81	N/A	N/A	165	68	AVG
2483.500	79.44	-9.26	70.18	74.00	-3.82	165	68	peak
2483.500	58.16	-9.26	48.90	54.00	-5.10	165	68	AVG

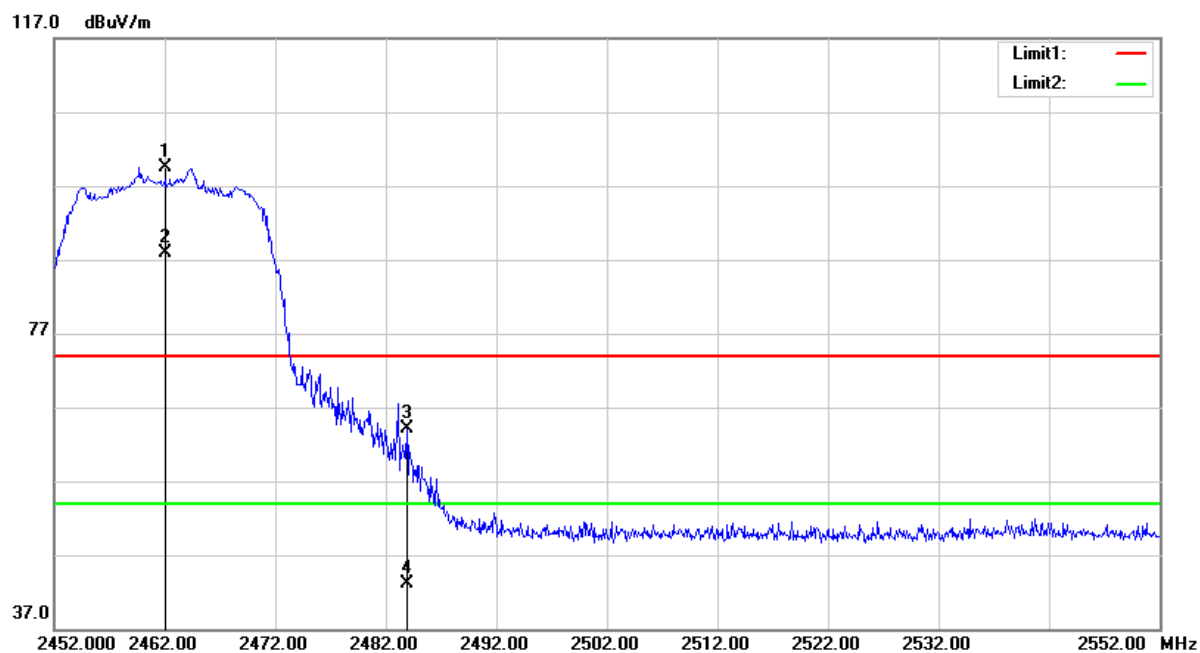
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 11:26:44
		Test By:	Boris
Description:	N20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2462.000	109.00	-9.56	99.44	N/A	N/A	153	41	peak
2462.000	97.54	-9.56	87.98	N/A	N/A	153	41	AVG
2483.900	73.37	-9.25	64.12	74.00	-9.88	153	41	peak
2483.900	52.26	-9.25	43.01	54.00	-10.99	153	41	AVG

Note:

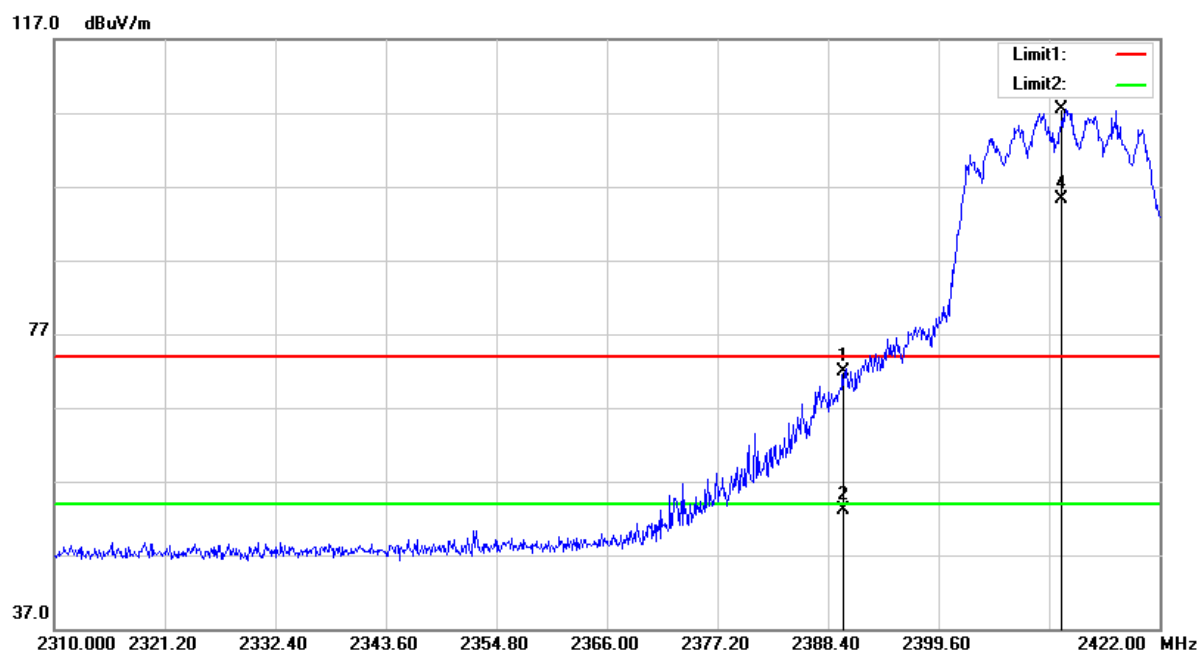
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 AX20 Mode / CH Low

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 10:27:44
		Test By:	Boris
Description:	AX20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2390.000	82.15	-10.23	71.92	74.00	-2.08	165	72	peak
2390.000	63.38	-10.23	53.15	54.00	-0.85	165	72	AVG
2412.000	117.47	-10.06	107.41	N/A	N/A	165	72	peak
2412.000	105.35	-10.06	95.29	N/A	N/A	165	72	AVG

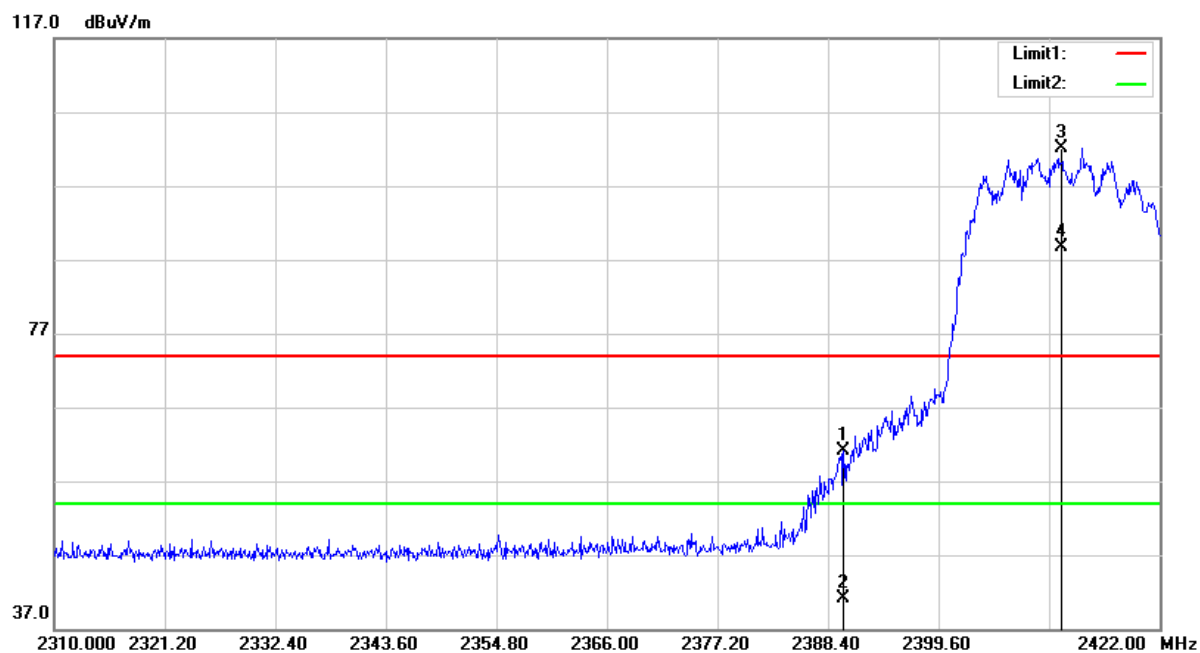
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 10:37:20
		Test By:	Boris
Description:	AX20-TX-2412-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2389.968	71.24	-10.23	61.01	74.00	-12.99	151	42	peak
2389.968	51.36	-10.23	41.13	74.00	-32.87	151	42	peak
2412.000	112.09	-10.06	102.03	N/A	N/A	151	42	peak
2412.000	98.83	-10.06	88.77	N/A	N/A	151	42	AVG

Note:

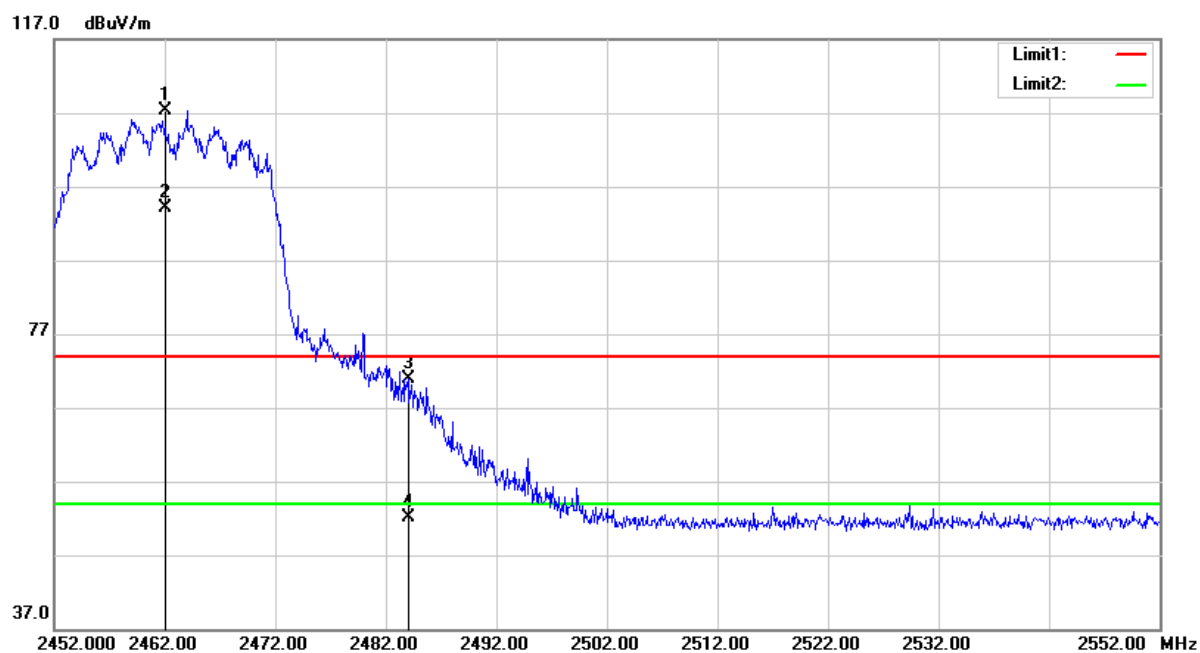
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

發射限制測試 N40 Mode / CH High

Job No.:	RXZ210924001	Ant.Polar.:	Horizontal
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 11:30:00
		Test By:	Boris
Description:	AX20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2462.000	116.91	-9.56	107.35	N/A	N/A	162	29	peak
2462.000	103.58	-9.56	94.02	N/A	N/A	162	29	AVG
2484.000	80.16	-9.25	70.91	74.00	-3.09	162	29	peak
2484.000	61.38	-9.25	52.13	54.00	-1.87	162	29	AVG

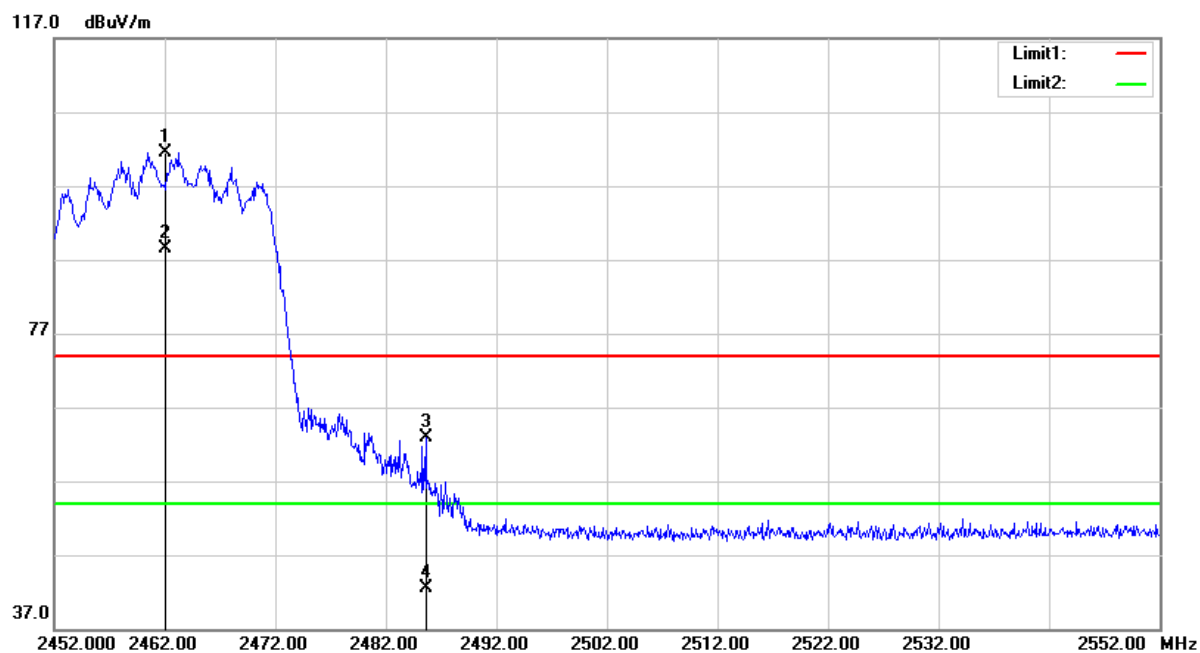
Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Job No.:	RXZ210924001	Ant.Polar.:	Vertical
Standard:	NCC LP0002 4.10.1 Peak 3m	Test Distance:	3m
Test item:	Radiation Test	Power:	AC 110V/60Hz
Temp.(°C)/Hum.(%RH):	24.5(°C)/62%RH	Date:2021/9/26	Time:上午 11:34:14
		Test By:	Boris
Description:	AX20-TX-2462-X_Axis		



Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
2462.000	111.07	-9.56	101.51	N/A	N/A	153	39	peak
2462.000	98.00	-9.56	88.44	N/A	N/A	153	39	AVG
2485.600	72.06	-9.23	62.83	74.00	-11.17	153	39	peak
2485.600	51.64	-9.23	42.41	54.00	-11.59	153	39	AVG

Note:

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

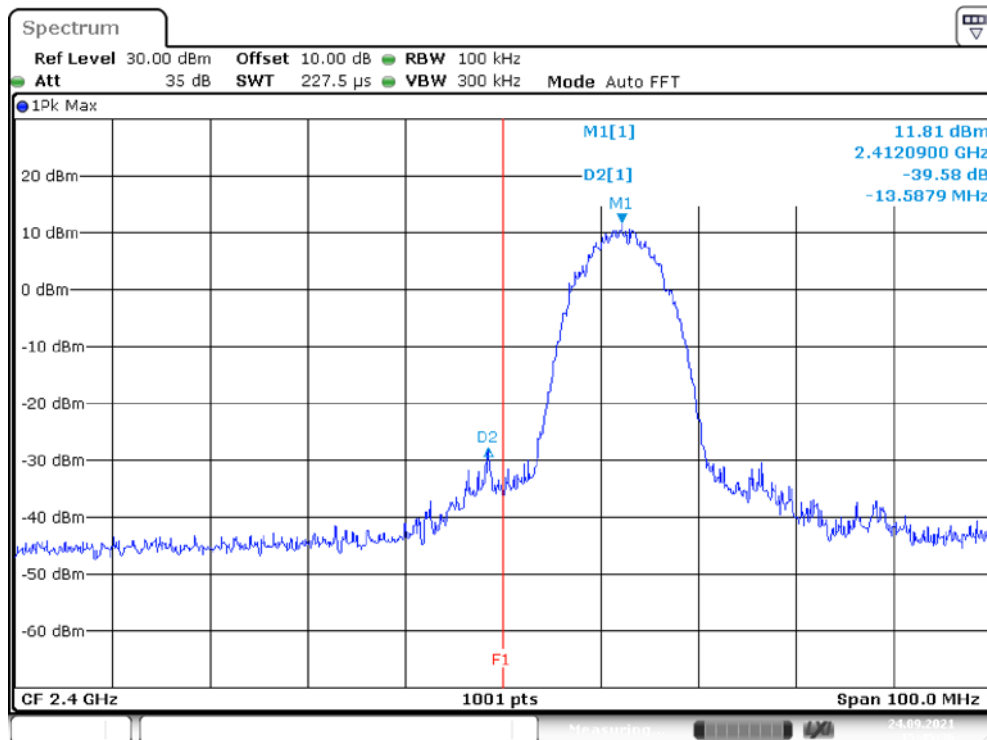
Conducted Bandedge

環境溫度	24.5~25℃	測試日期	2021-09-24~26
環境濕度	46~47%	測試人員	李宥陞

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)		Limit (dBc)	Result
		Chain 0	Chain 1		
B mode					
Low	2412	39.58	45.87	≥ 20	PASS
High	2462	52.14	51.12	≥ 20	PASS
G mode					
Low	2412	33.82	37.05	≥ 20	PASS
High	2462	42.05	45.04	≥ 20	PASS
n HT20 mode					
Low	2412	29.57	33.09	≥ 20	PASS
High	2462	35.97	37.16	≥ 20	PASS
AX20 mode					
Low	2422	30.15	31.95	≥ 20	PASS
High	2452	34.72	40.09	≥ 20	PASS

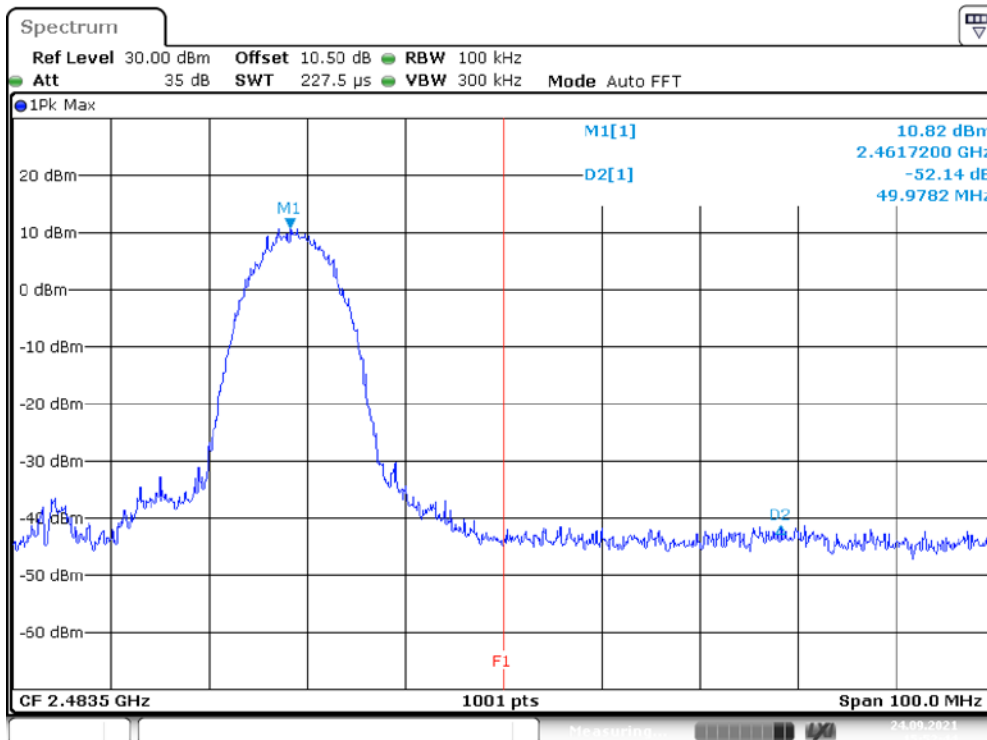
Conducted Band Edges

B Mode Low Channel(Chain 0)



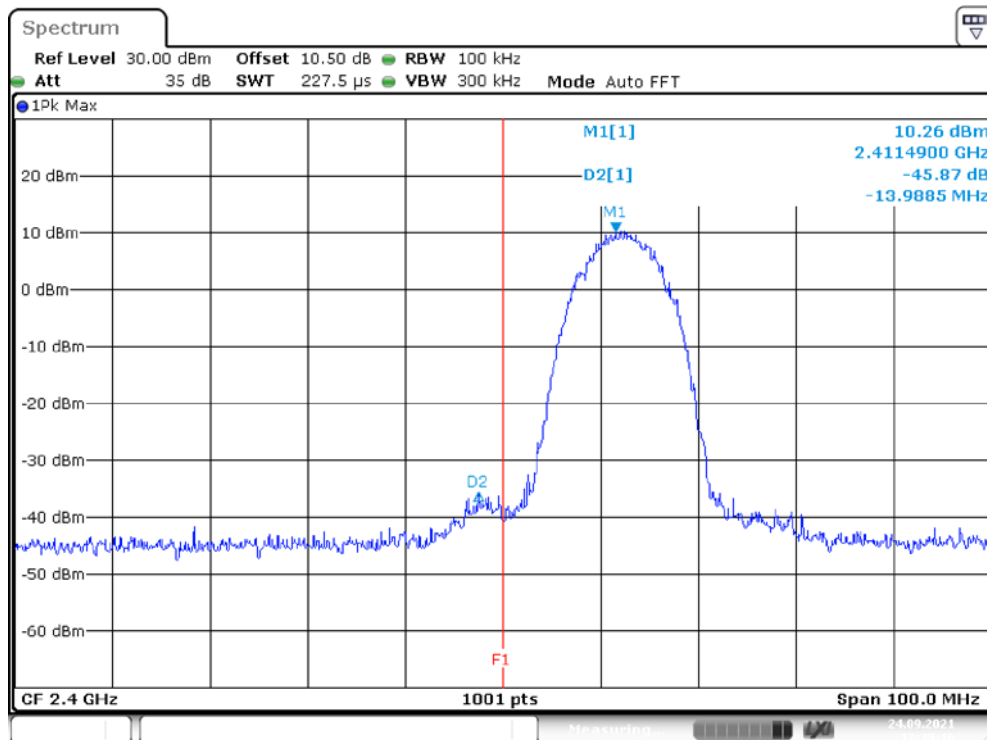
Date: 24.SEP.2021 15:45:36

B Mode High Channel (Chain 0)



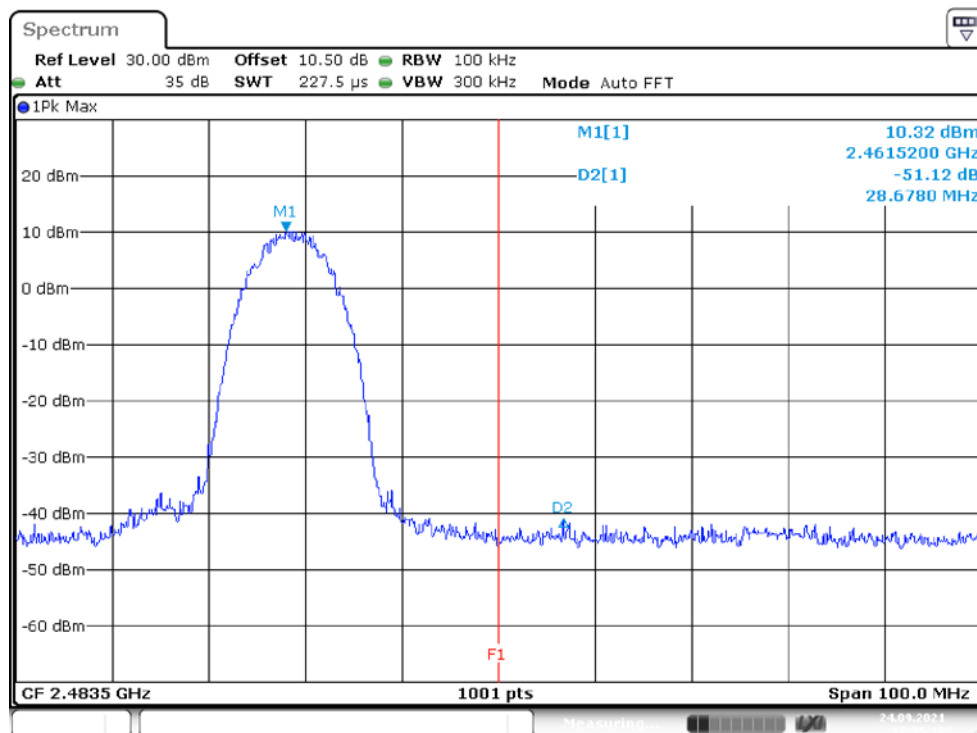
Date: 24.SEP.2021 15:52:45

B Mode Low Channel (Chain 1)



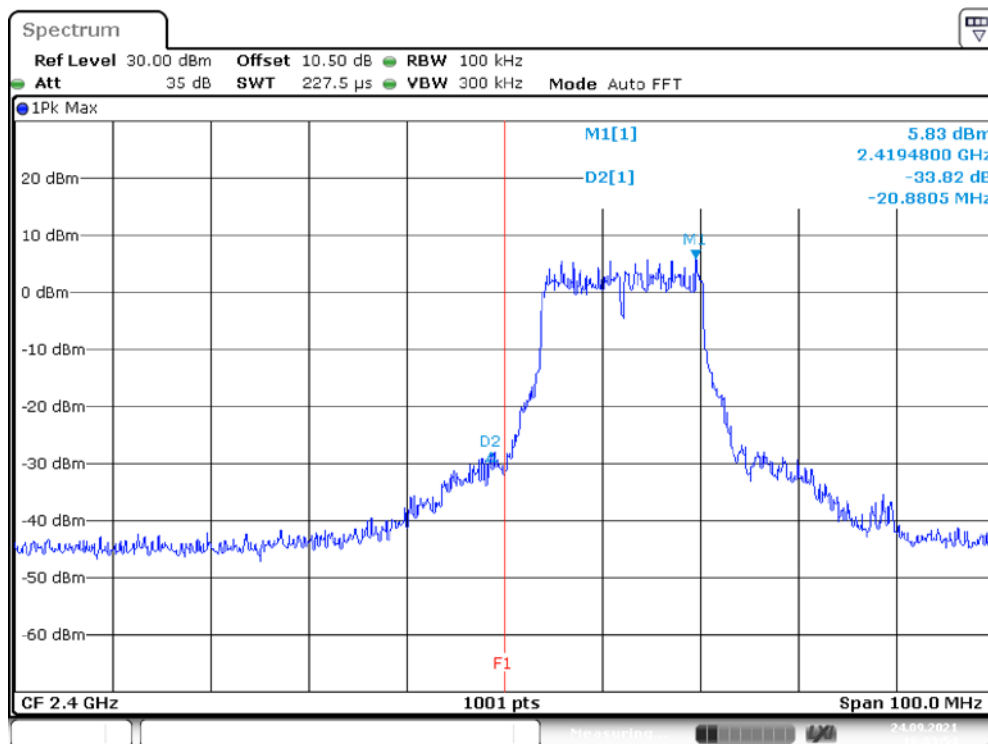
Date: 24.SEP.2021 17:30:16

B Mode High Channel (Chain 1)



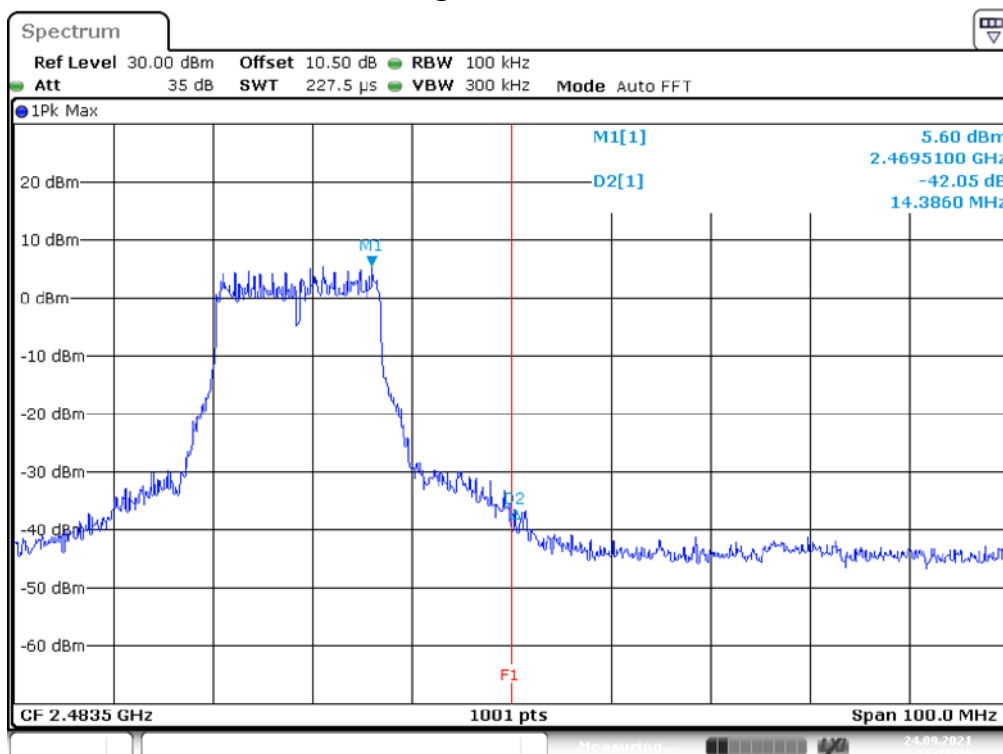
Date: 24.SEP.2021 17:35:18

G Mode Low Channel(Chain 0)



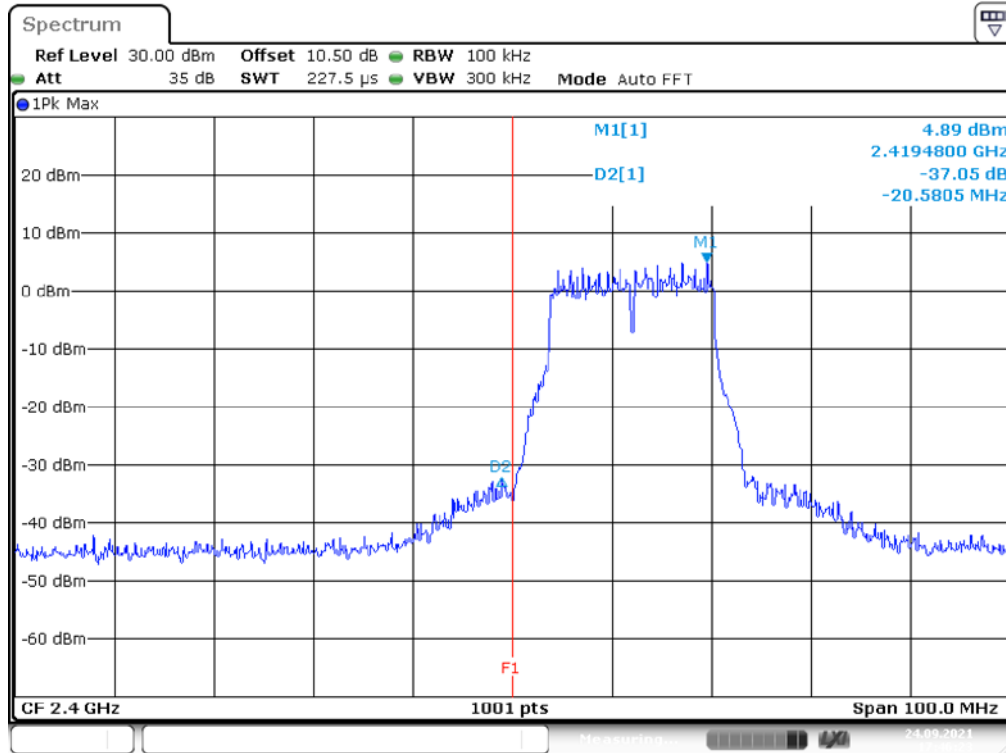
Date: 24.SEP.2021 16:03:55

G Mode High Channel (Chain 0)



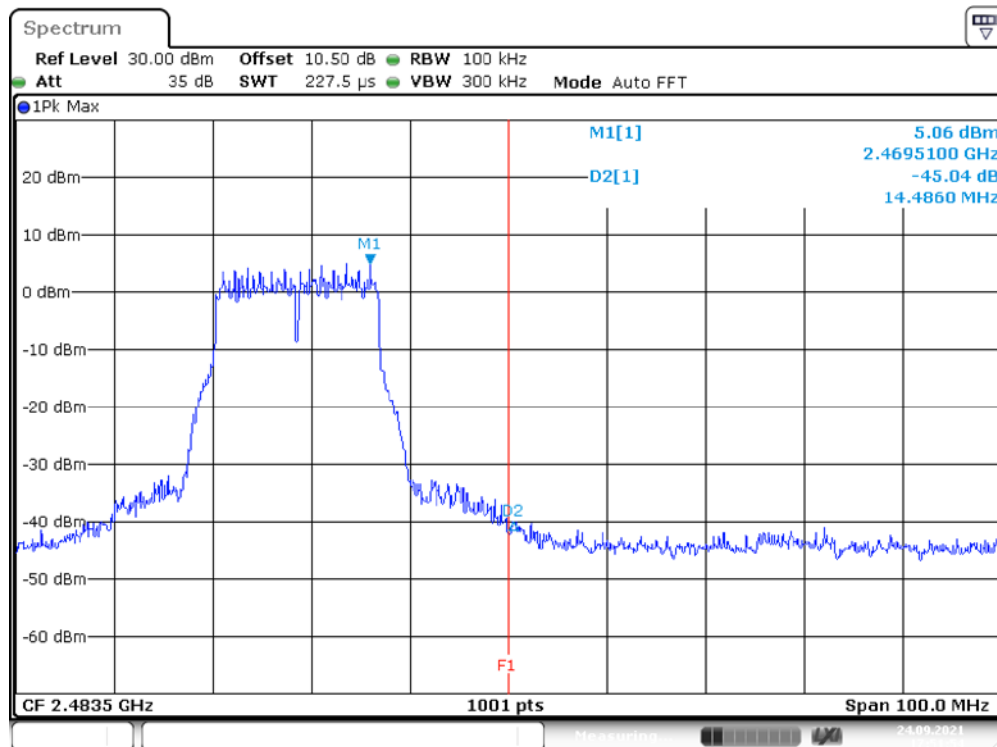
Date: 24.SEP.2021 16:13:46

G Mode Low Channel (Chain 1)



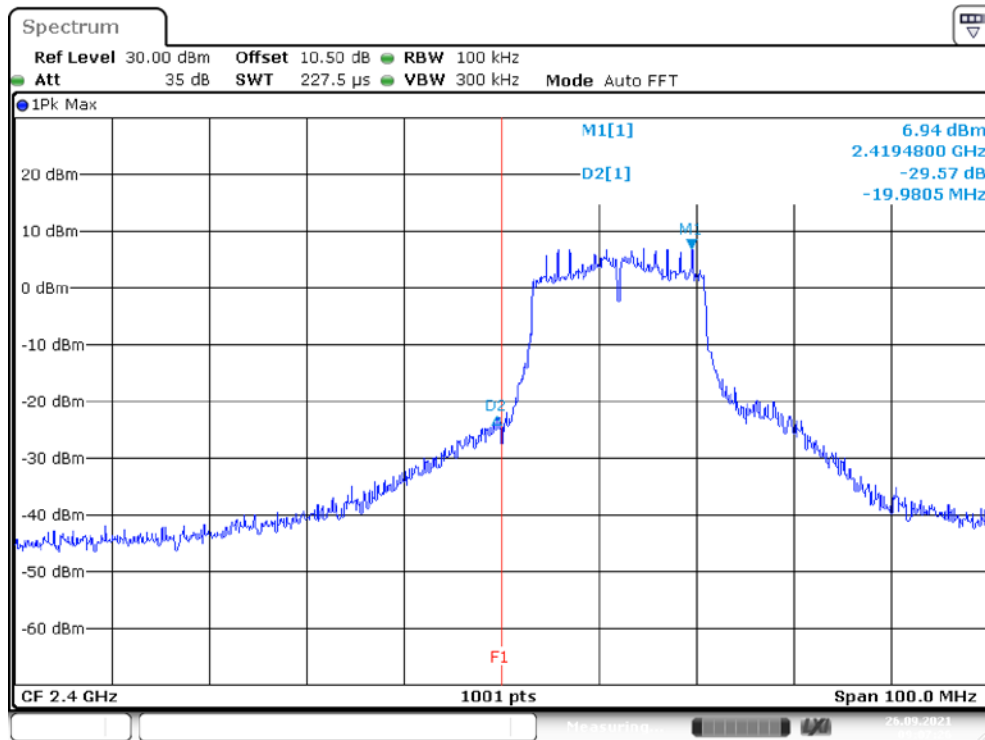
Date: 24.SEP.2021 17:46:24

G Mode High Channel (Chain 1)



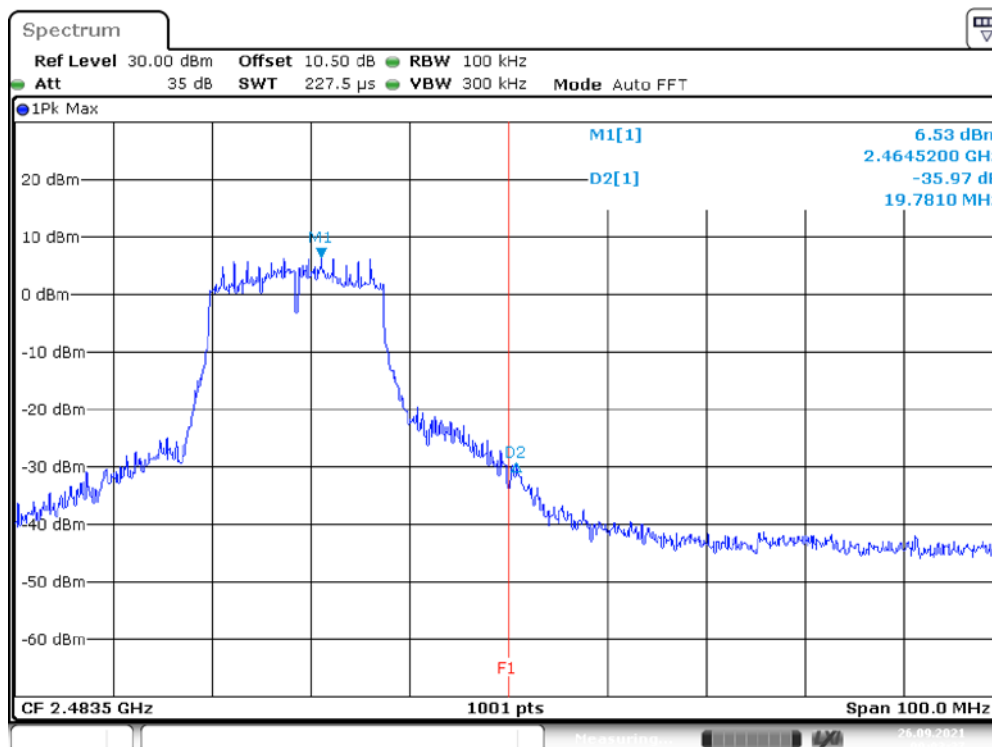
Date: 24.SEP.2021 17:51:54

n HT20 Mode Low Channel(Chain 0)



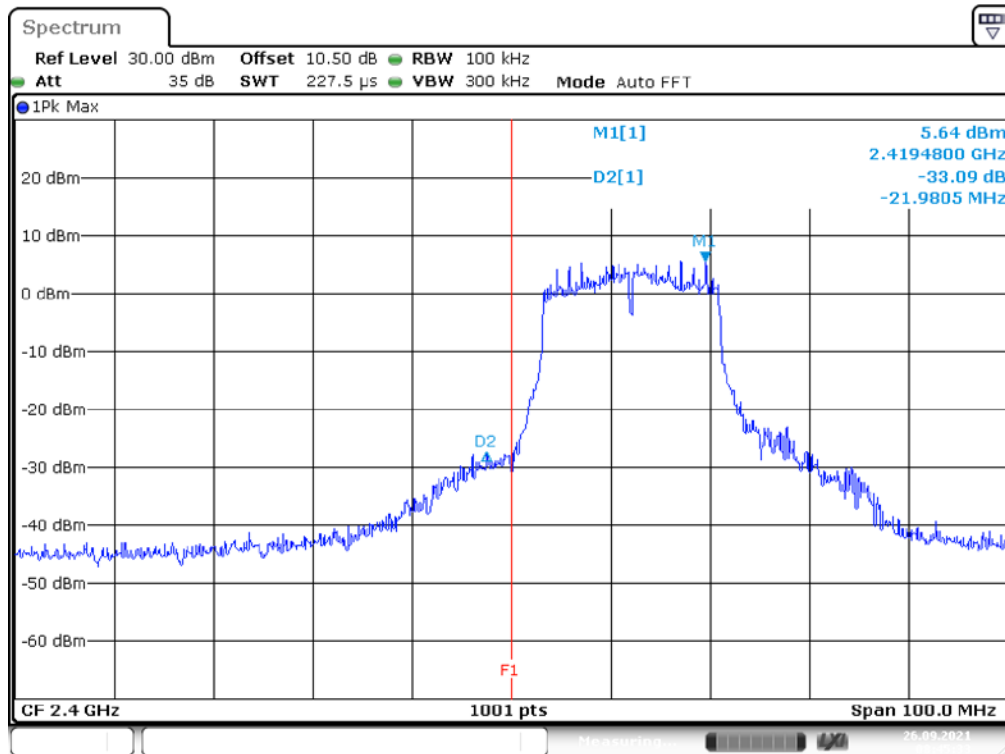
Date: 26.SEP.2021 09:07:27

n HT20 Mode High Channel(Chain 0)



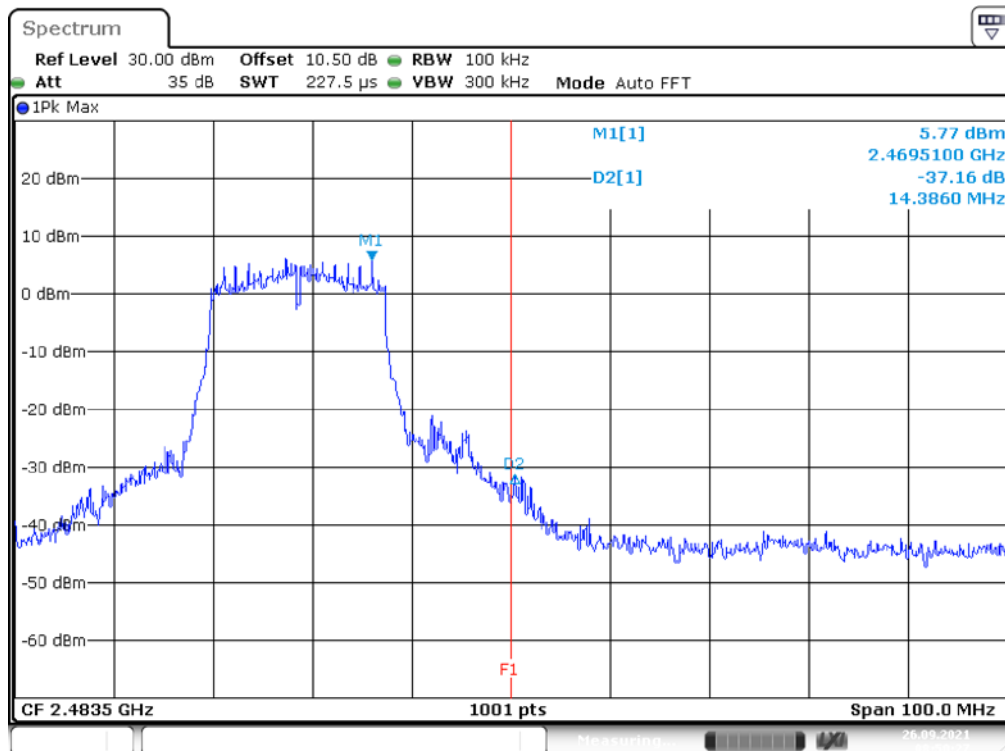
Date: 26.SEP.2021 09:03:37

n HT20 Mode Low Channel (Chain 1)



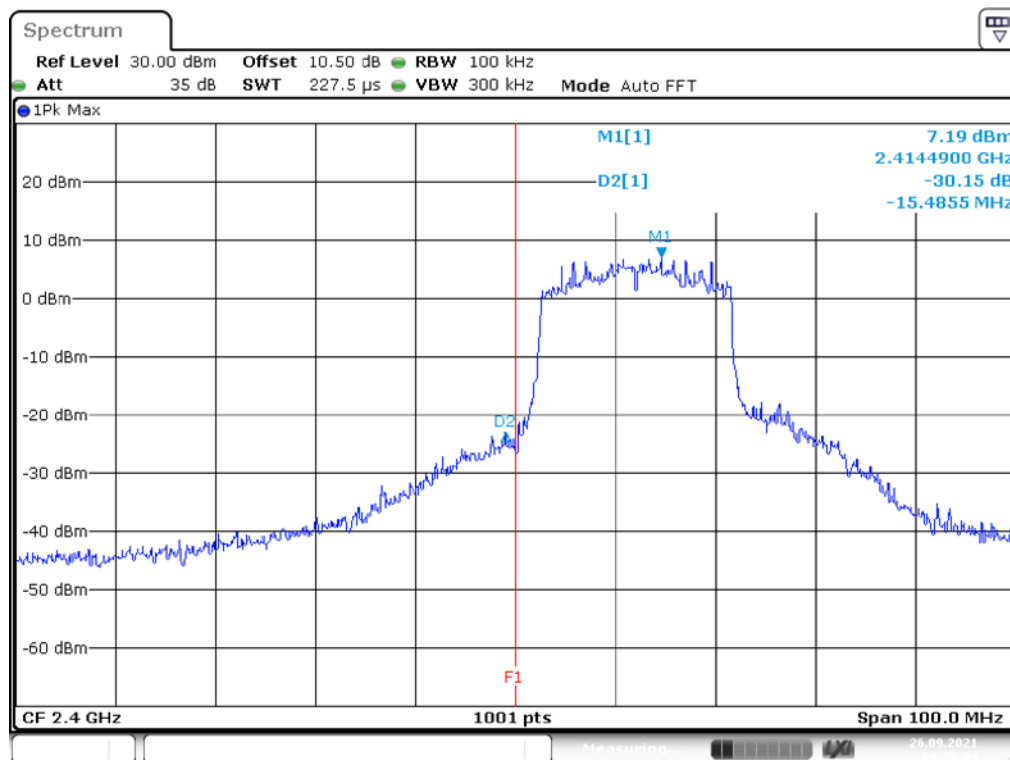
Date: 26.SEP.2021 08:45:33

n HT20 Mode High Channel (Chain 1)



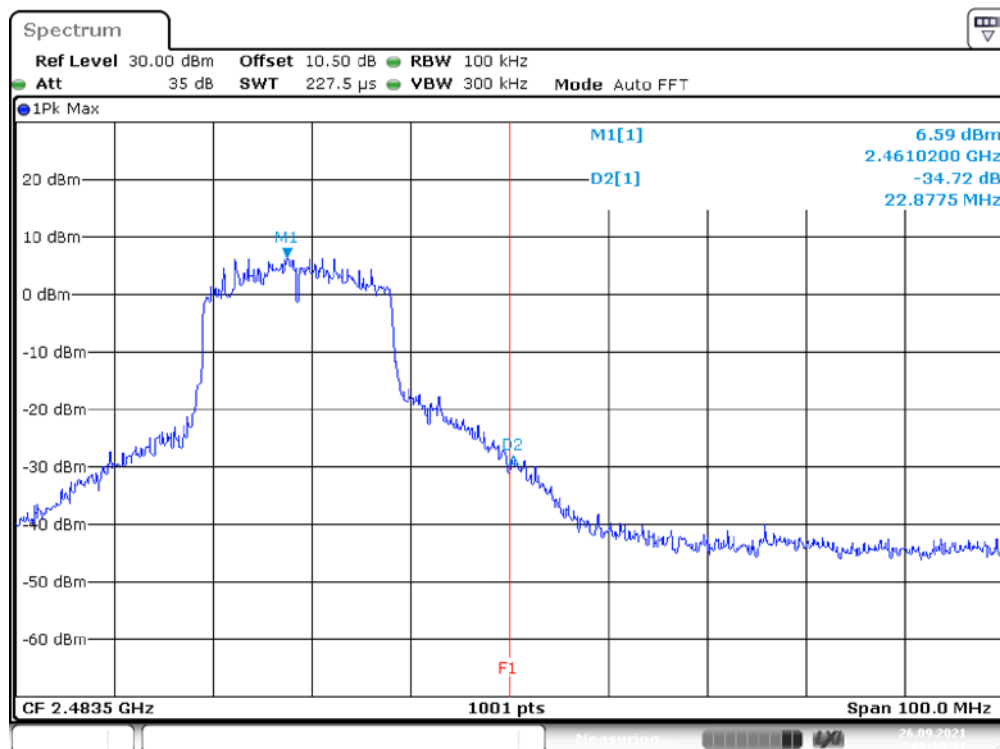
Date: 26.SEP.2021 08:50:28

AX20 Mode Low Channel(Chain 0)



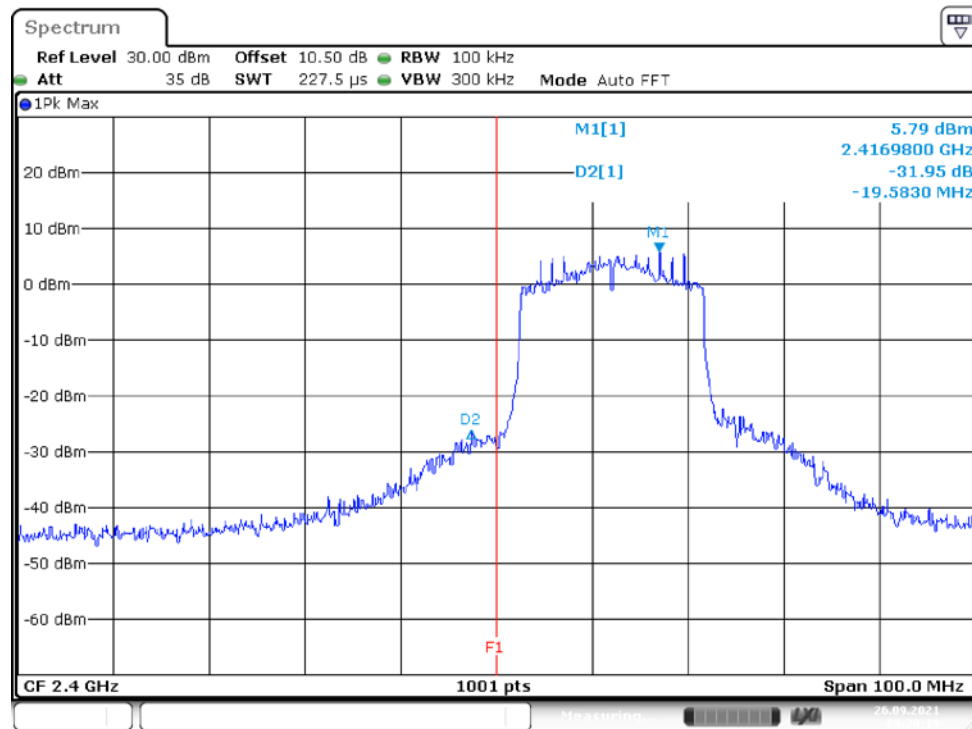
Date: 26.SEP.2021 09:35:05

AX20 Mode High Channel(Chain 0)



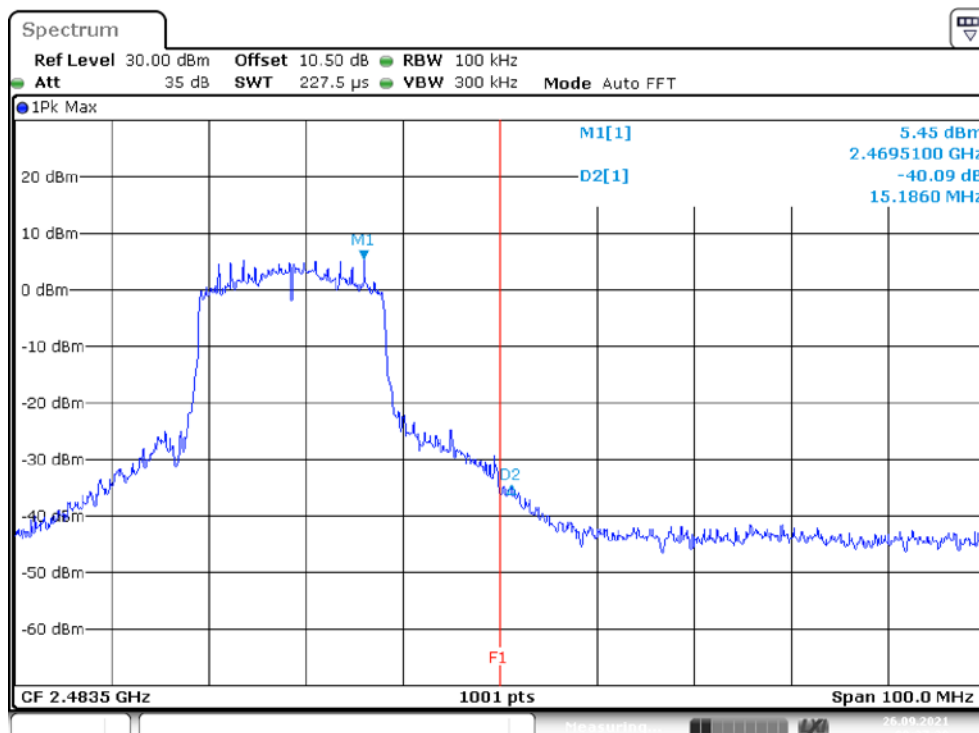
Date: 26.SEP.2021 09:30:52

AX20 Mode Low Channel (Chain 1)



Date: 26.SEP.2021 09:20:19

AX20 Mode High Channel (Chain 1)



Date: 26.SEP.2021 09:27:38

10. 功率密度之量測

10.1 適用標準

依據低功率射頻電機技術規範規定，在使用頻率範圍之任一 3kHz頻寬內，由發射機傳導至天線之功率頻譜密度在任意傳輸期間內，皆小於或等於8毫分貝(dBm)，且應依規定方式降低功率頻譜密度限制值。

10.2 測試方法

1. 將發射機之天線埠經由適當之衰減直接連至測試儀器。找出發射峰值並擴展於通帶內，設定解析頻寬為3 kHz，視訊頻寬大於解析頻寬，掃描時間為頻率掃描範圍除以3 kHz。所測得之峰值位準必須應小於或等於8dBm。
2. 若受測裝置之頻譜線間隔小於3 kHz，測量時應將解析頻寬降低以使頻譜線間隔大於3 kHz，所測得之數據再藉加總3 kHz頻帶內所有個別頻譜線之功率(即標準化至3 kHz)以決定是否符合規定。

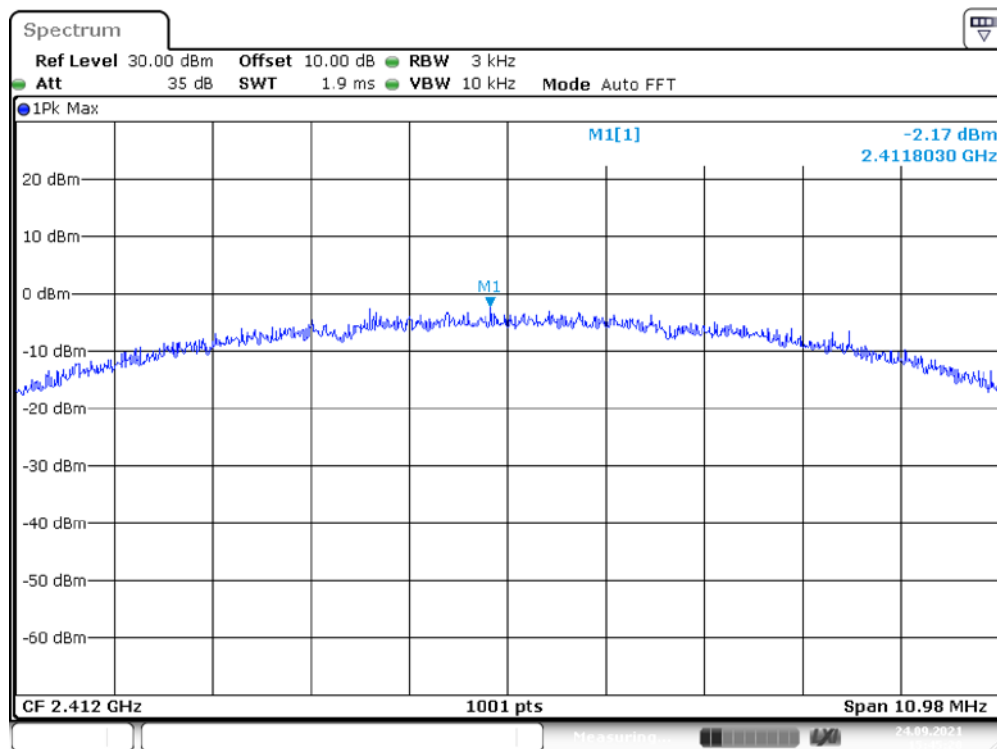
10.3 功率密度之量測結果

環境溫度	26°C	測試日期	2021-09-26
環境濕度	47%	測試人員	李宥陞

Channel	Frequency (MHz)	PSD (dBm)			Limit (dBm)	Result
		Chain 0	Chain 1	Total		
B mode						
Low	2412	-2.17	-2.44	0.71	6.27	PASS
Mid	2437	-1.95	-2.24	0.92		PASS
High	2462	-2.25	-2.53	0.62		PASS
G mode						
Low	2412	-9.94	-11.14	-7.49	6.27	PASS
Mid	2437	-10.3	-11.18	-7.71		PASS
High	2462	-10.31	-10.8	-7.54		PASS
n HT20 mode						
Low	2412	-4.63	-6.51	-2.46	6.27	PASS
Mid	2437	-4.91	-6.4	-2.58		PASS
High	2462	-5.13	-6.08	-2.57		PASS
AX20 mode						
Low	2422	-5.2	-6.38	-2.74	6.27	PASS
Mid	2437	-5.7	-6.37	-3.01		PASS
High	2452	-6.15	-4.81	-2.42		PASS

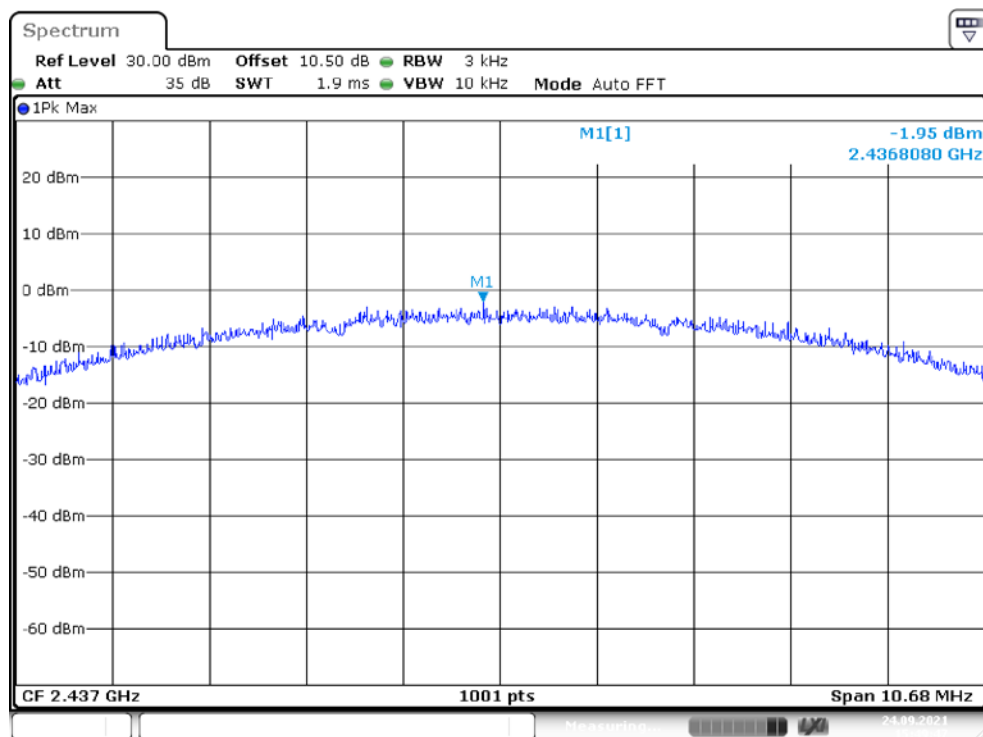
PSD

B Mode Low Channel (Chain 0)



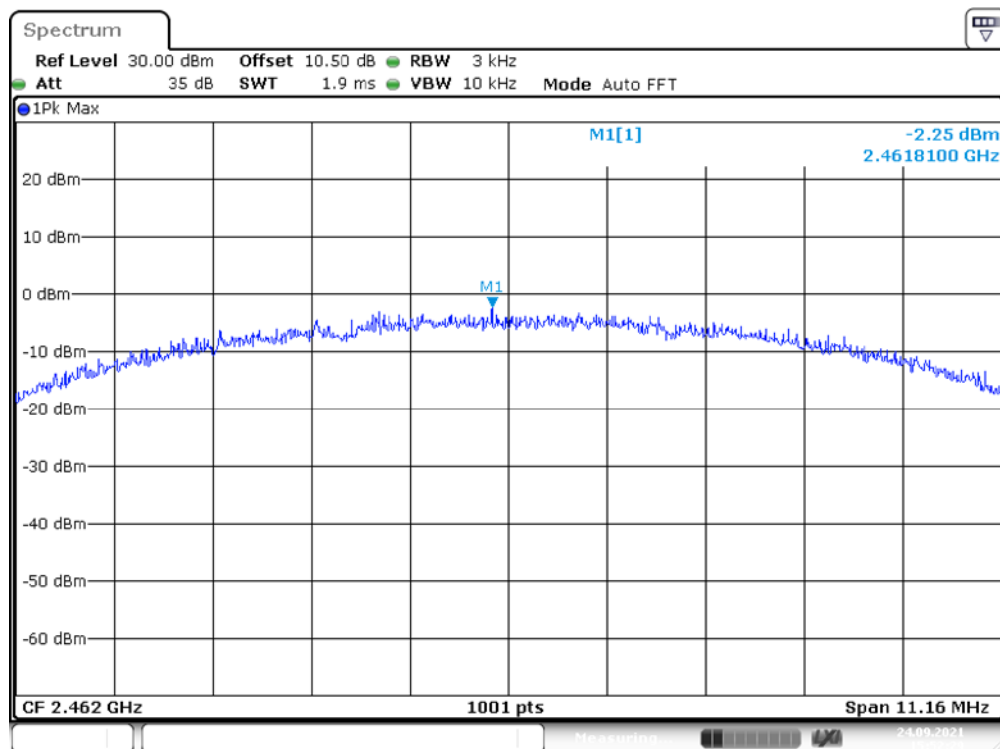
Date: 24.SEP.2021 15:45:20

B Mode Middle Channel (Chain 0)



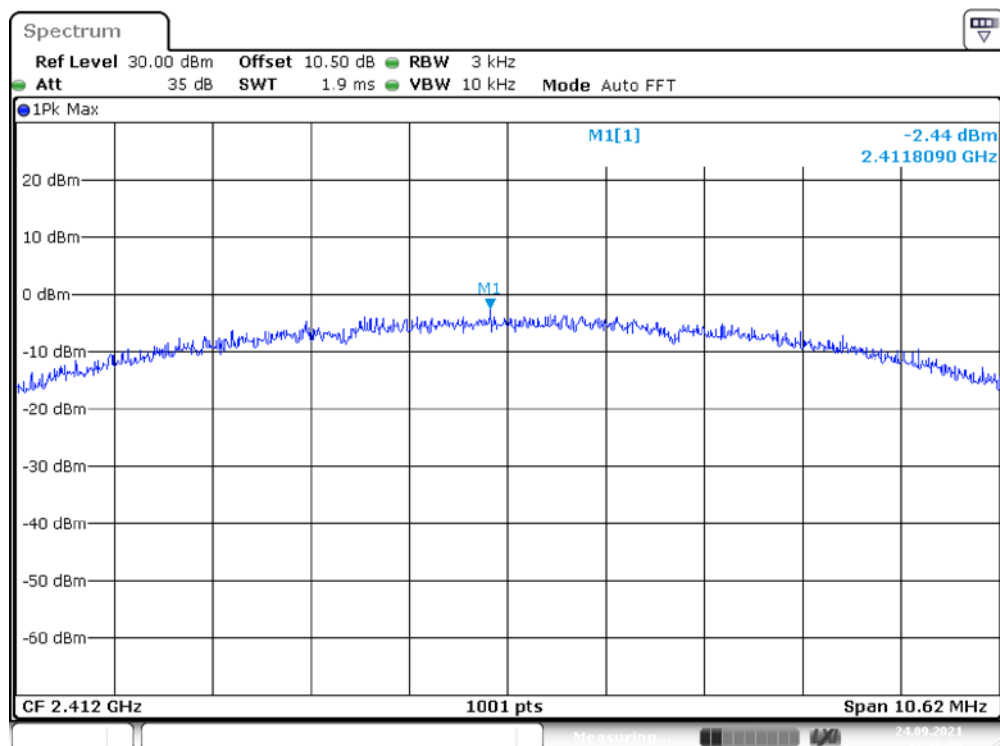
Date: 24.SEP.2021 15:49:47

B Mode High Channel (Chain 0)



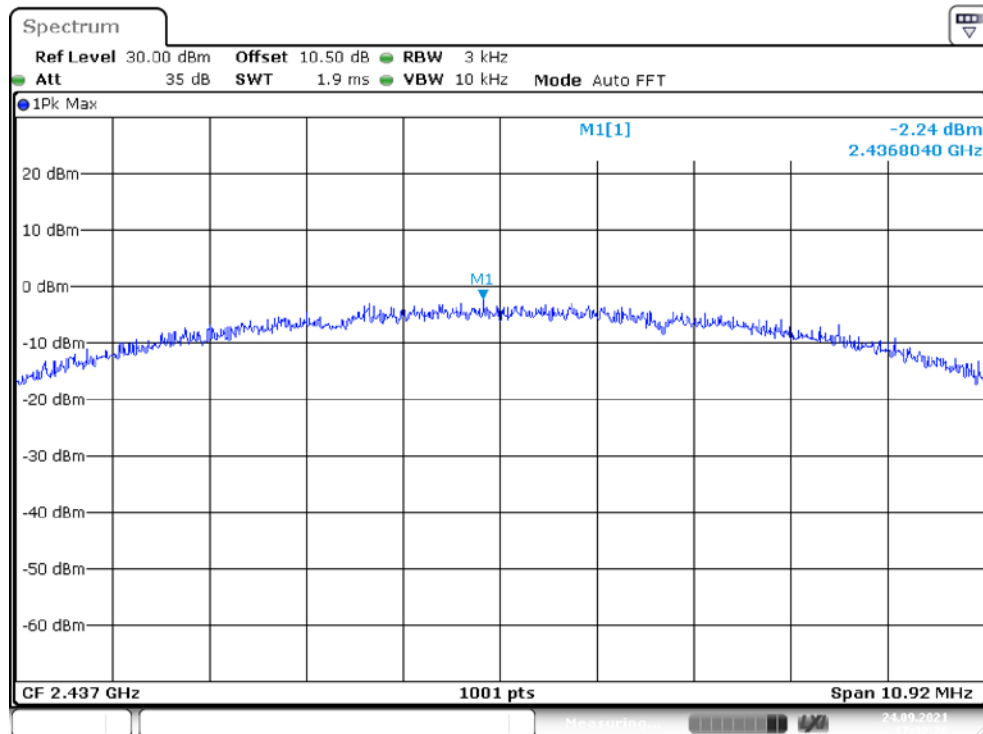
Date: 24.SEP.2021 15:52:29

B Mode Low Channel (Chain 1)



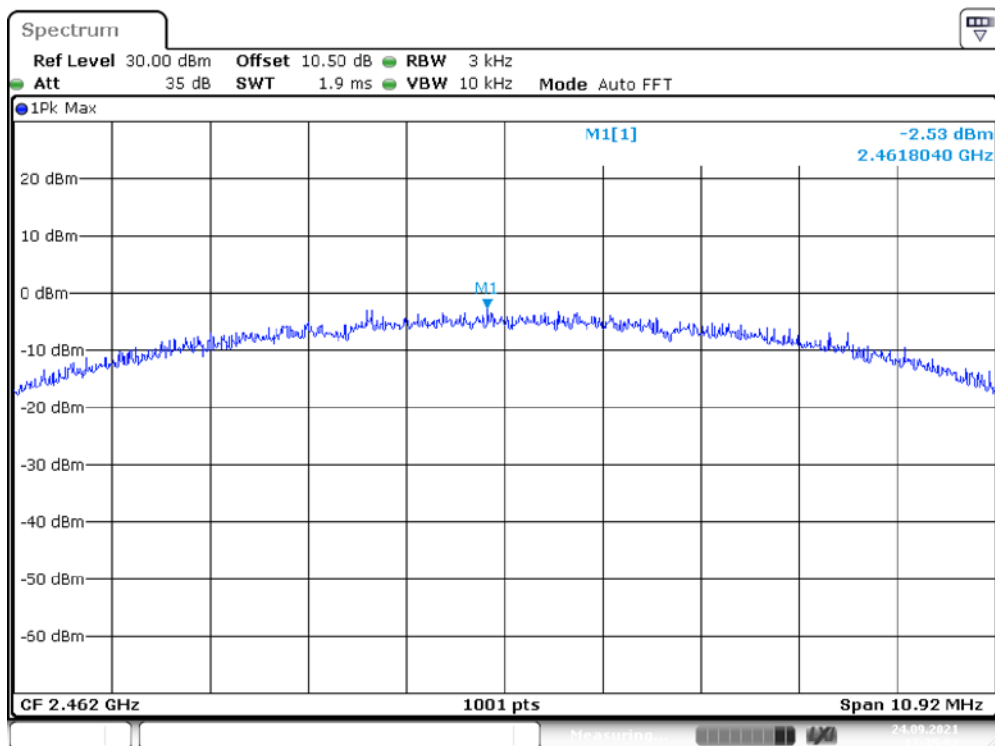
Date: 24.SEP.2021 17:30:00

B Mode Middle Channel (Chain 1)



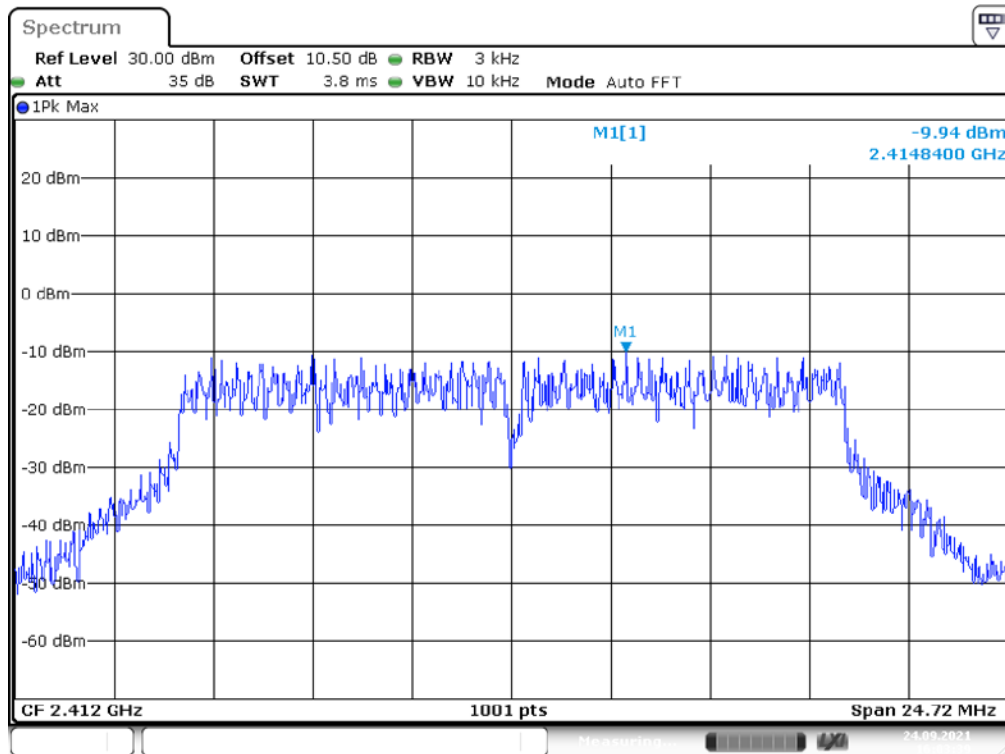
Date: 24.SEP.2021 17:32:26

B Mode High Channel (Chain 1)



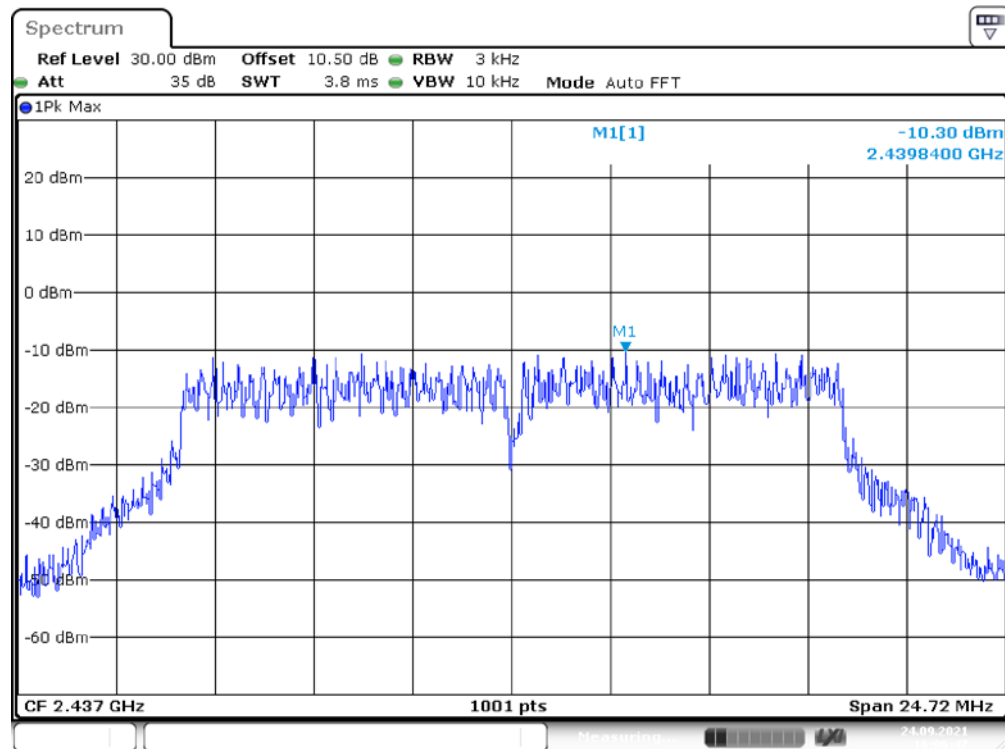
Date: 24.SEP.2021 17:35:02

G Mode Low Channel(Chain 0)



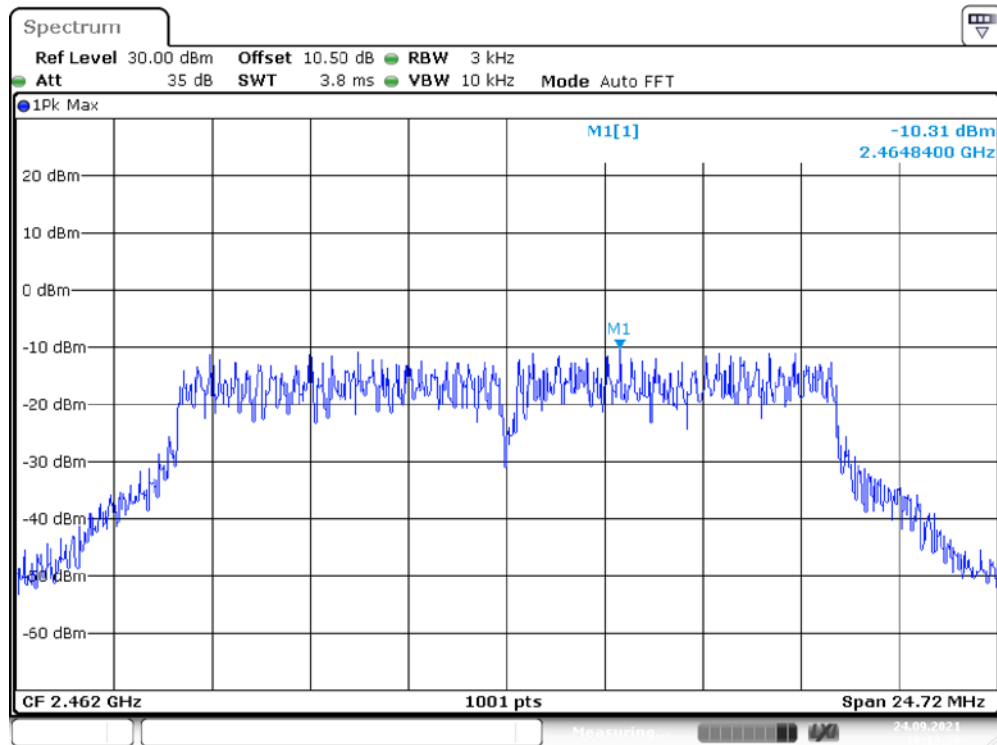
Date: 24.SEP.2021 16:03:39

G Mode Middle Channel(Chain 0)



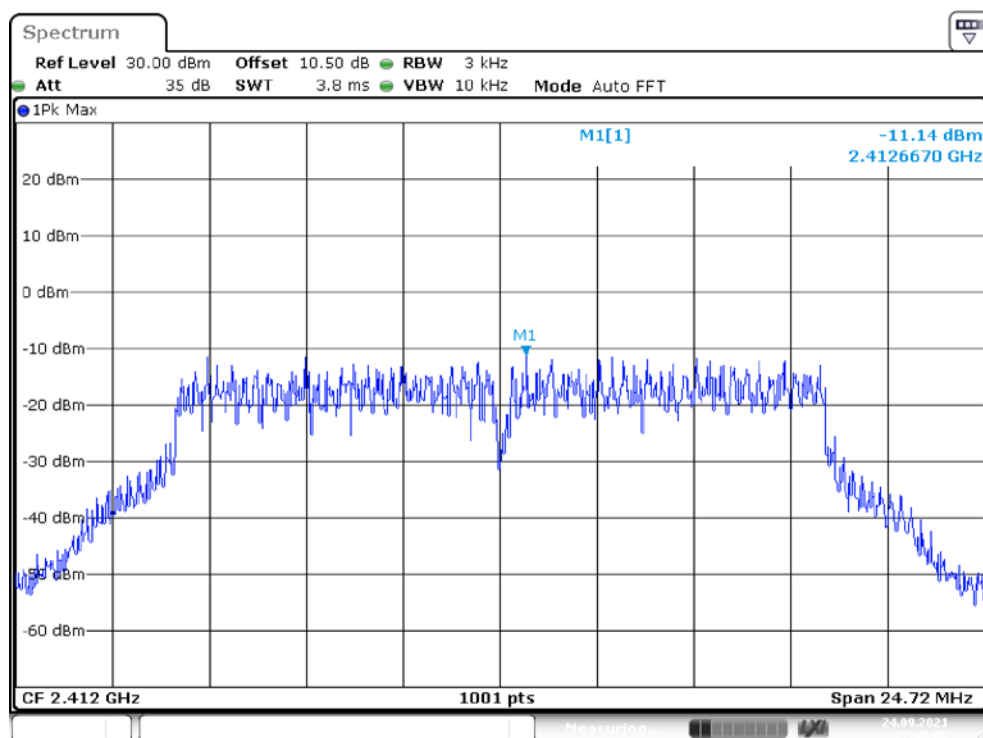
Date: 24.SEP.2021 16:06:47

G Mode High Channel(Chain 0)



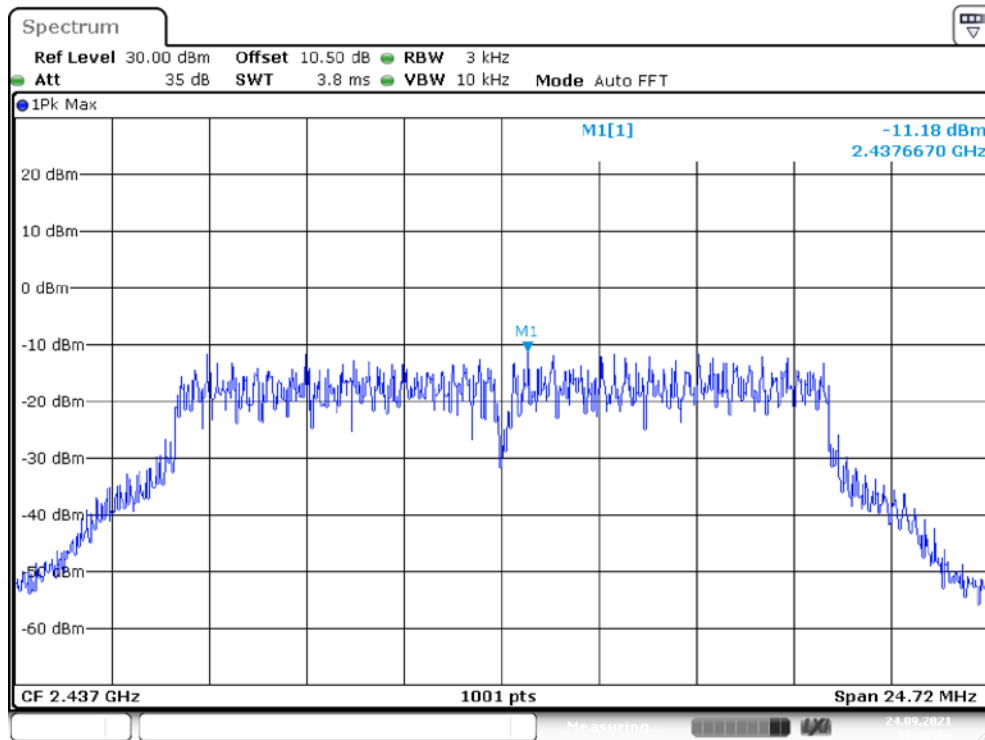
Date: 24.SEP.2021 16:13:31

G Mode Low Channel (Chain 1)



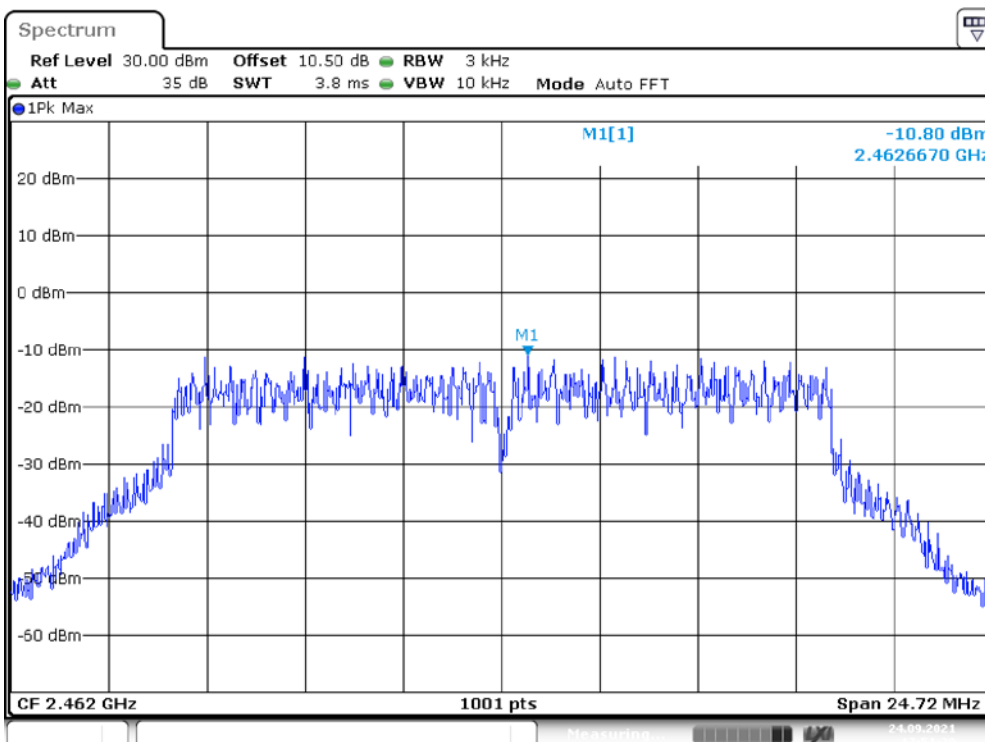
Date: 24.SEP.2021 17:46:08

G Mode Middle Channel (Chain 1)



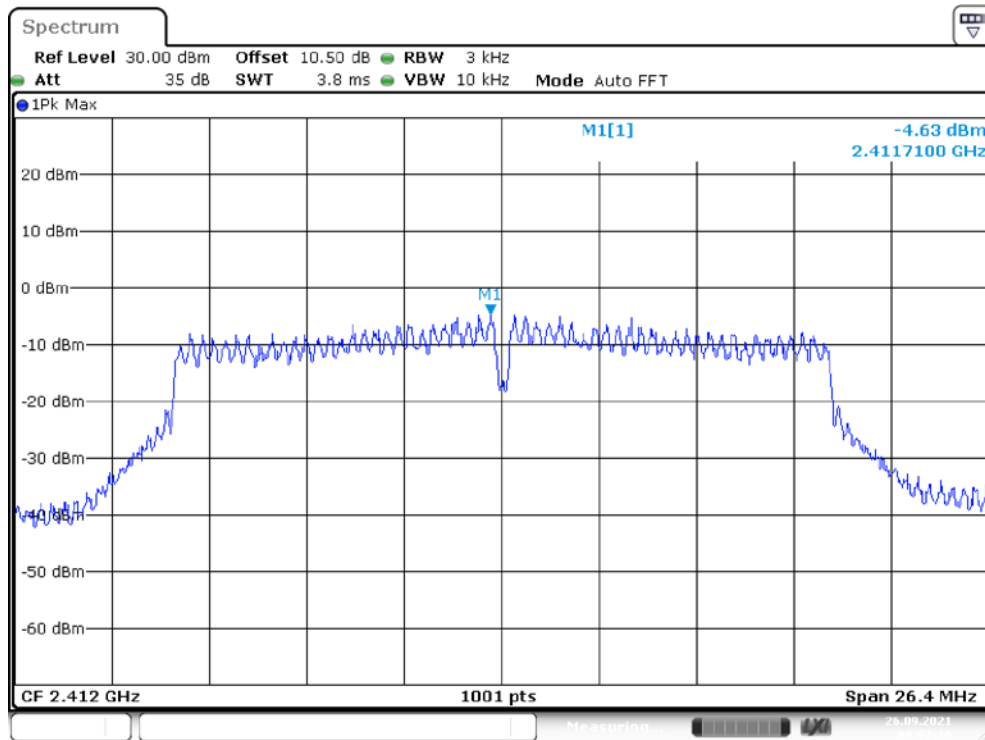
Date: 24.SEP.2021 17:48:56

G Mode High Channel (Chain 1)



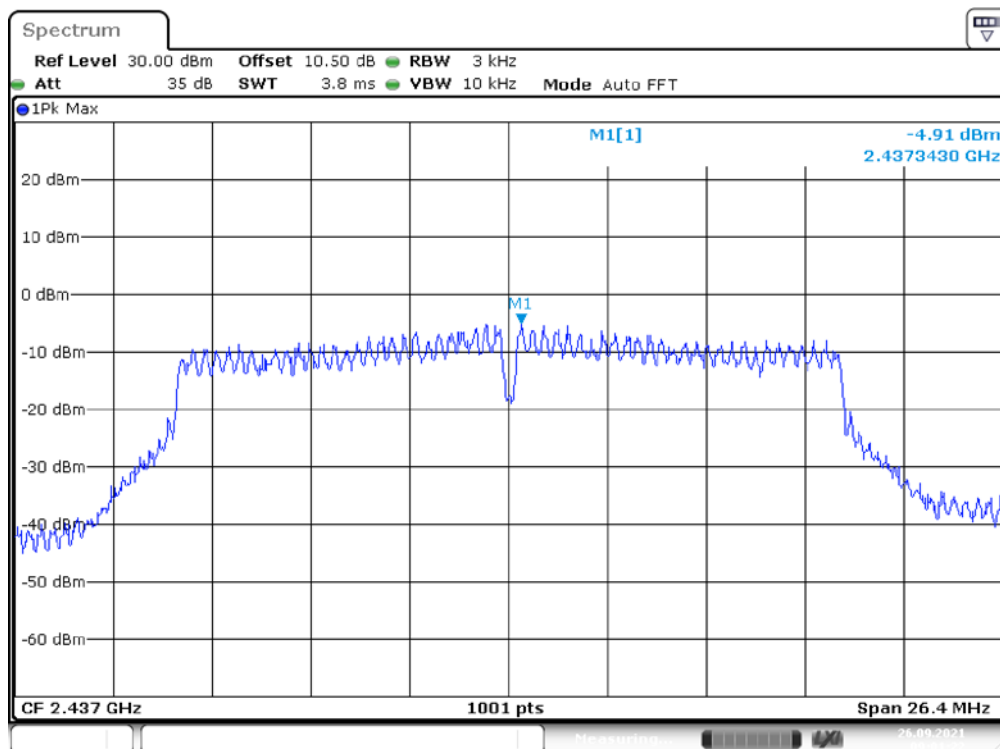
Date: 24.SEP.2021 17:51:39

n HT20 Mode Low Channel(Chain 0)



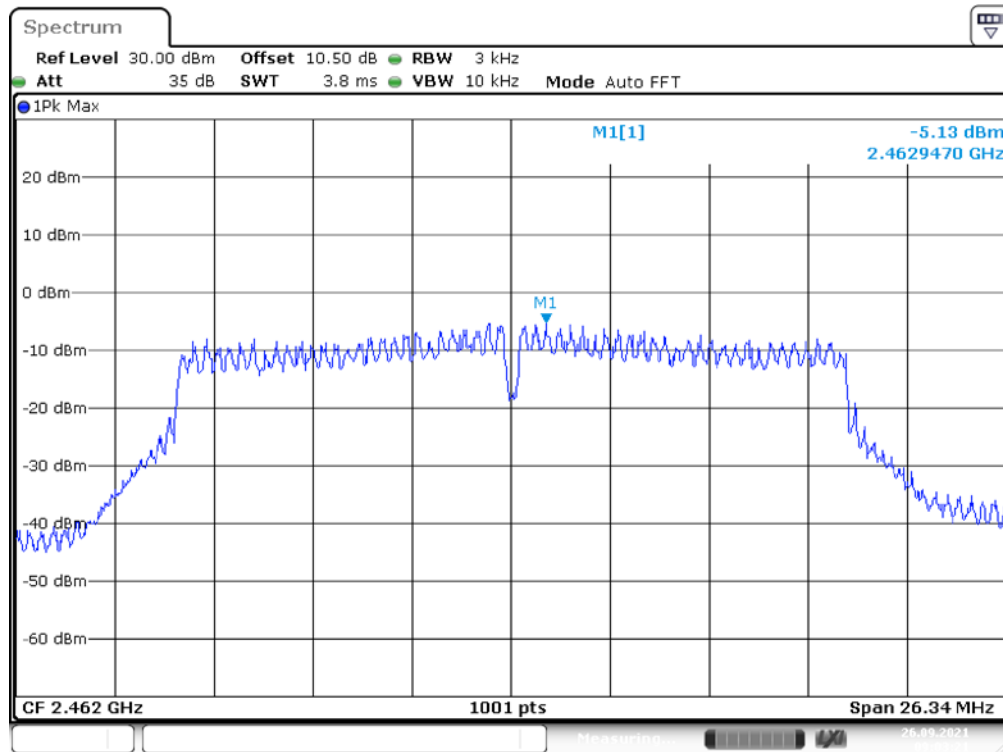
Date: 26.SEP.2021 09:07:11

n HT20 Mode Middle Channel(Chain 0)



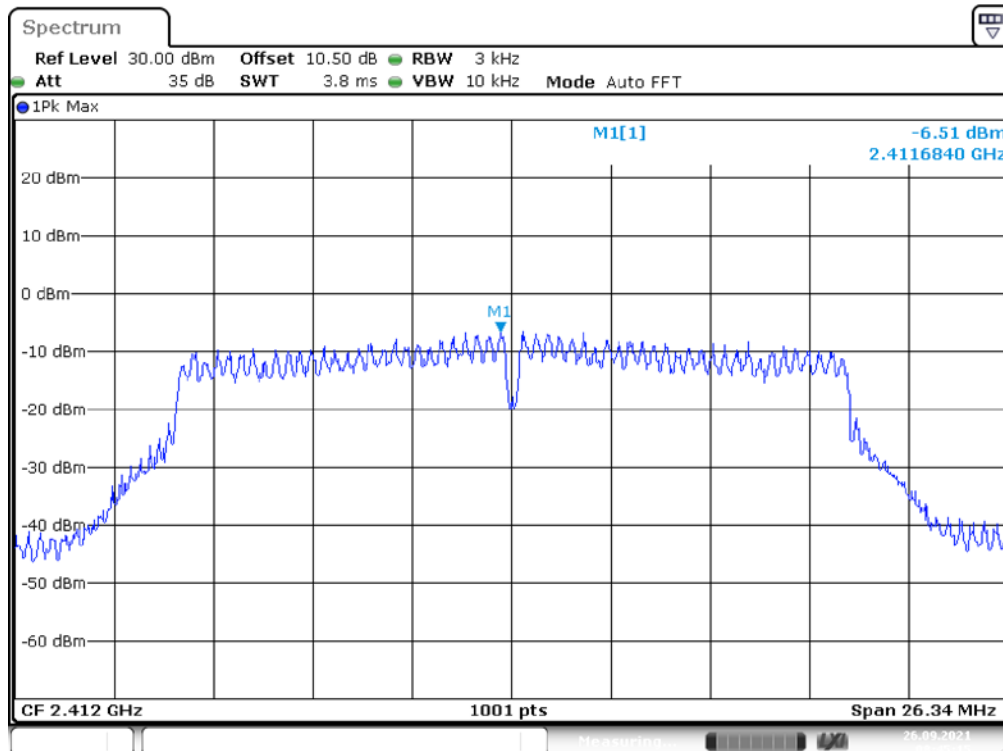
Date: 26.SEP.2021 09:01:23

n HT20 Mode High Channel(Chain 0)



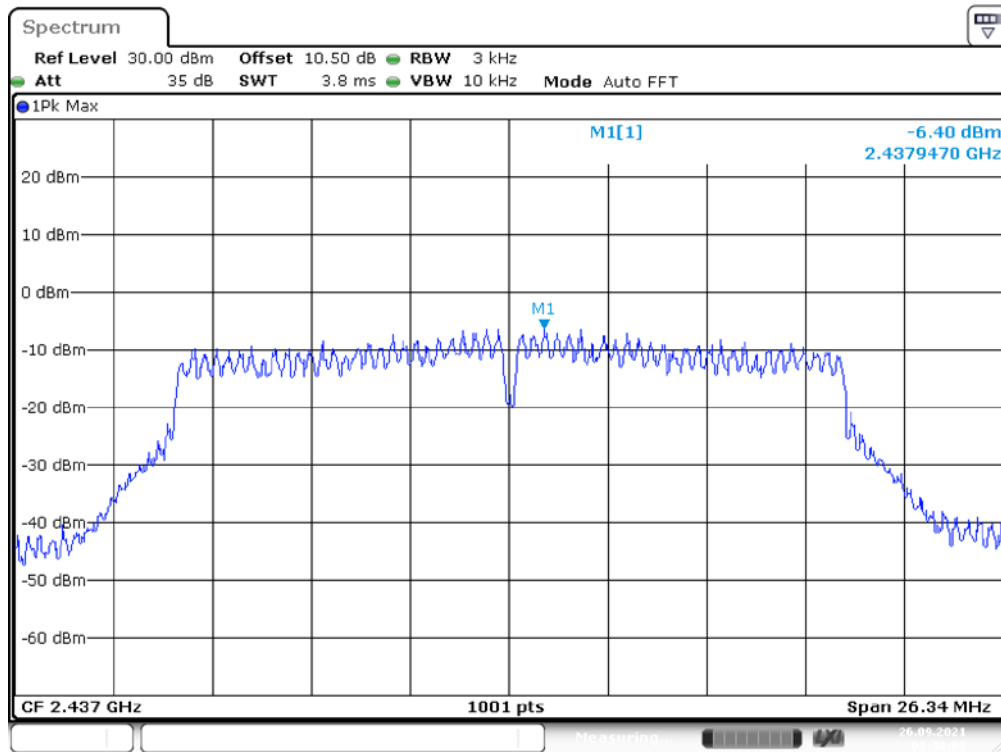
Date: 26.SEP.2021 09:03:22

n HT20 Mode Low Channel (Chain 1)

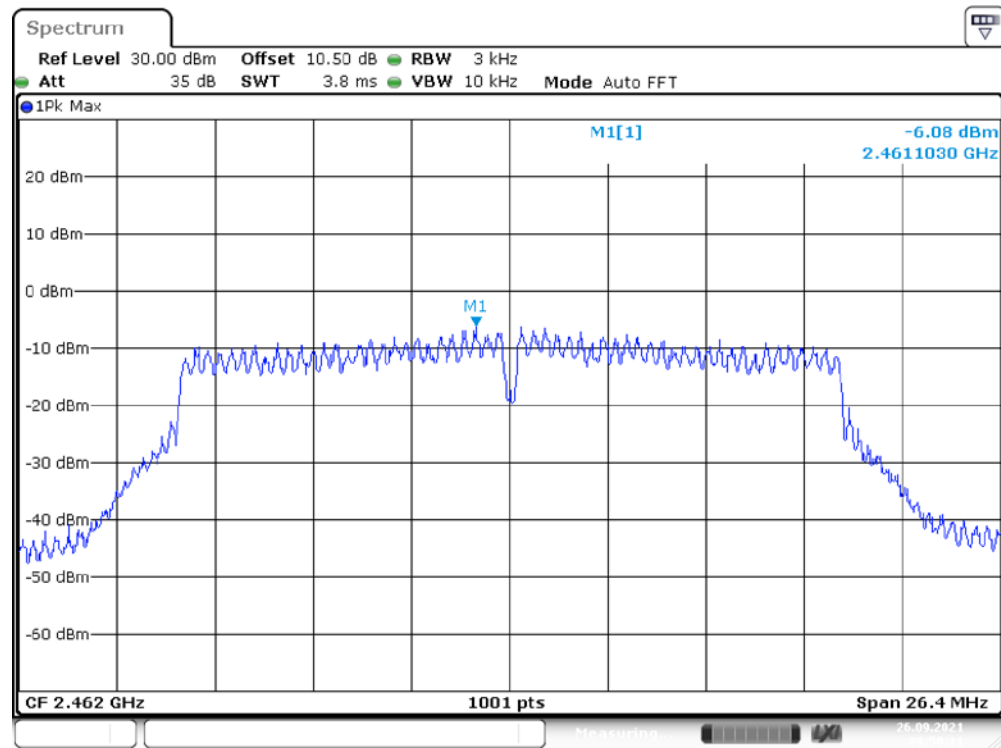


Date: 26.SEP.2021 08:45:15

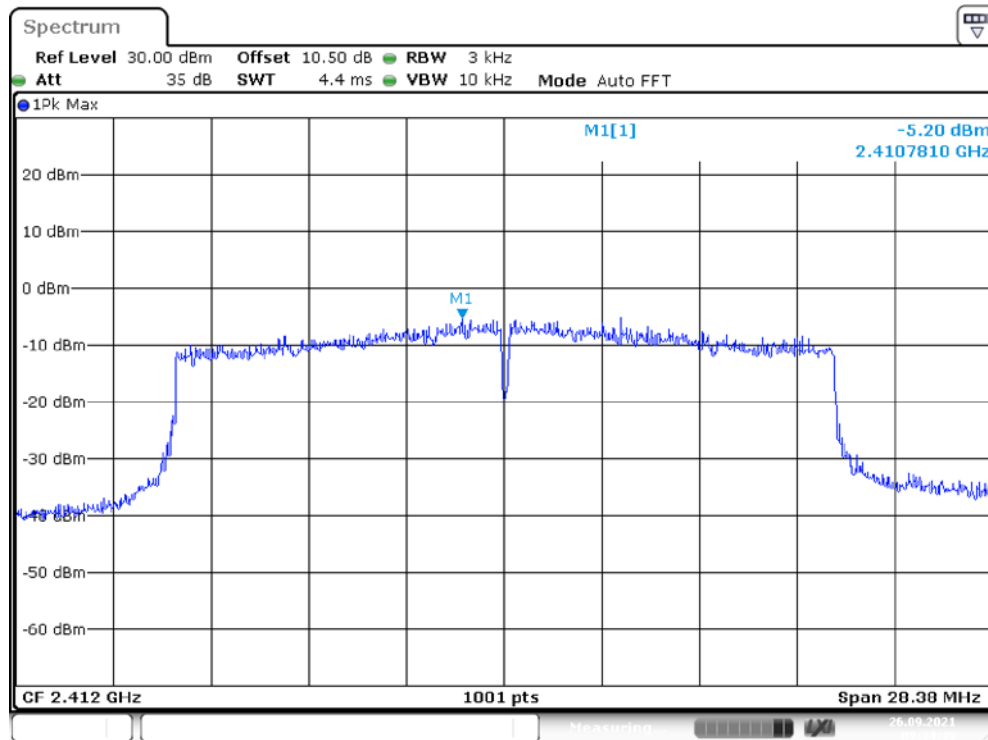
n HT20 Mode Middle Channel (Chain 1)



n HT20 Mode High Channel (Chain 1)

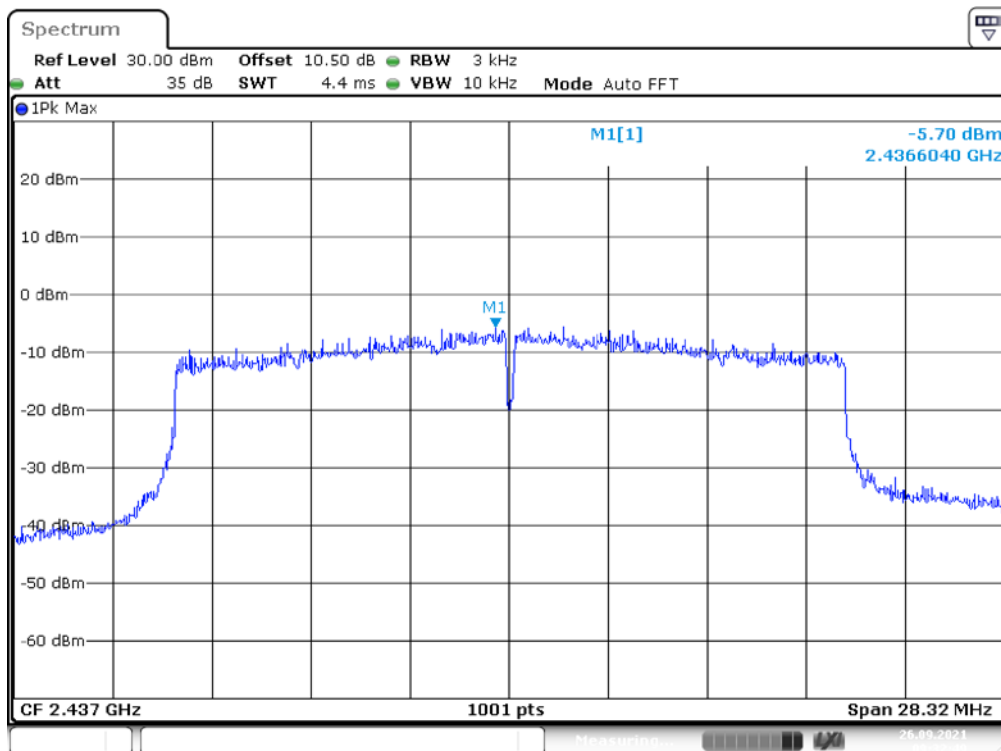


AX20 Mode Low Channel (Chain 0)



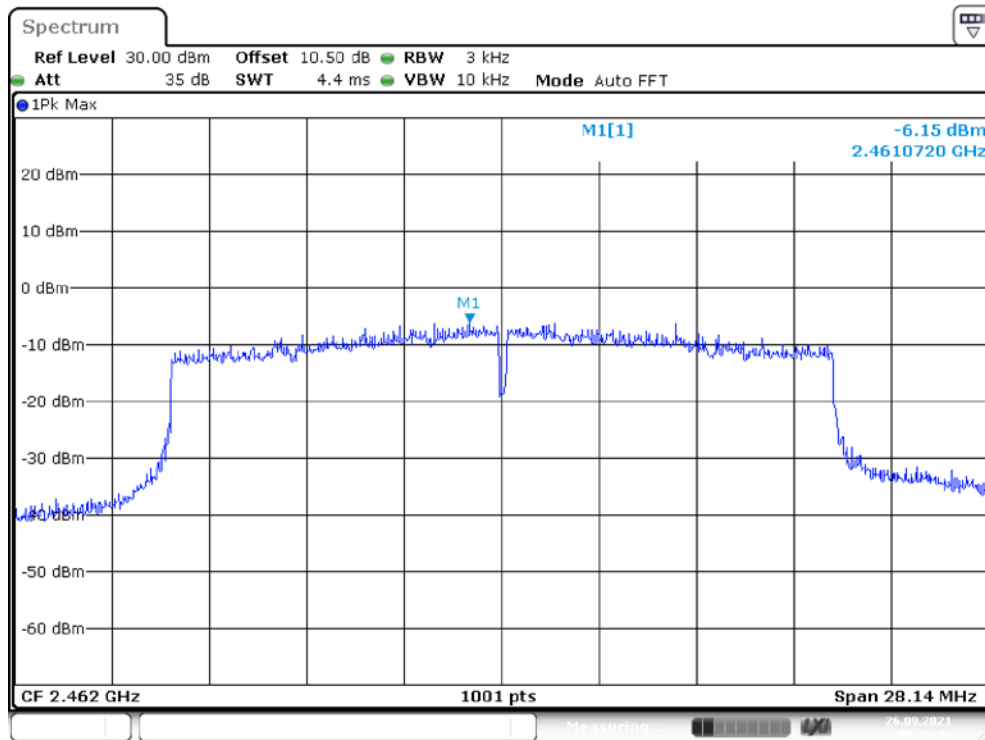
Date: 26.SEP.2021 09:34:49

AX20 Mode Middle Channel (Chain 0)



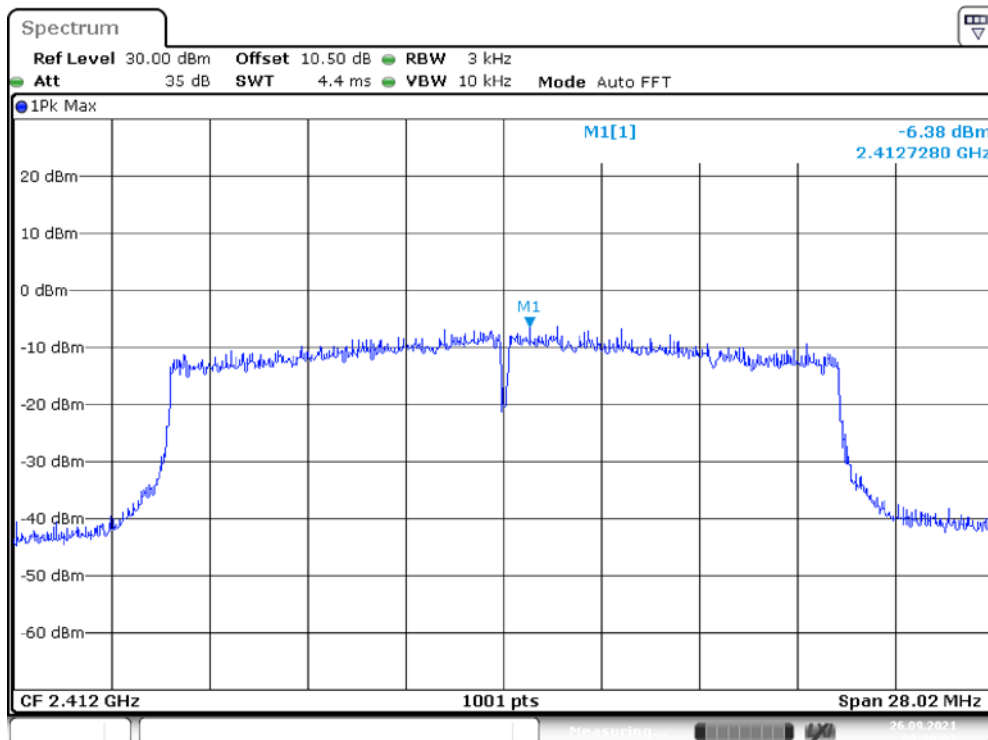
Date: 26.SEP.2021 09:32:50

AX20 Mode High Channel (Chain 0)



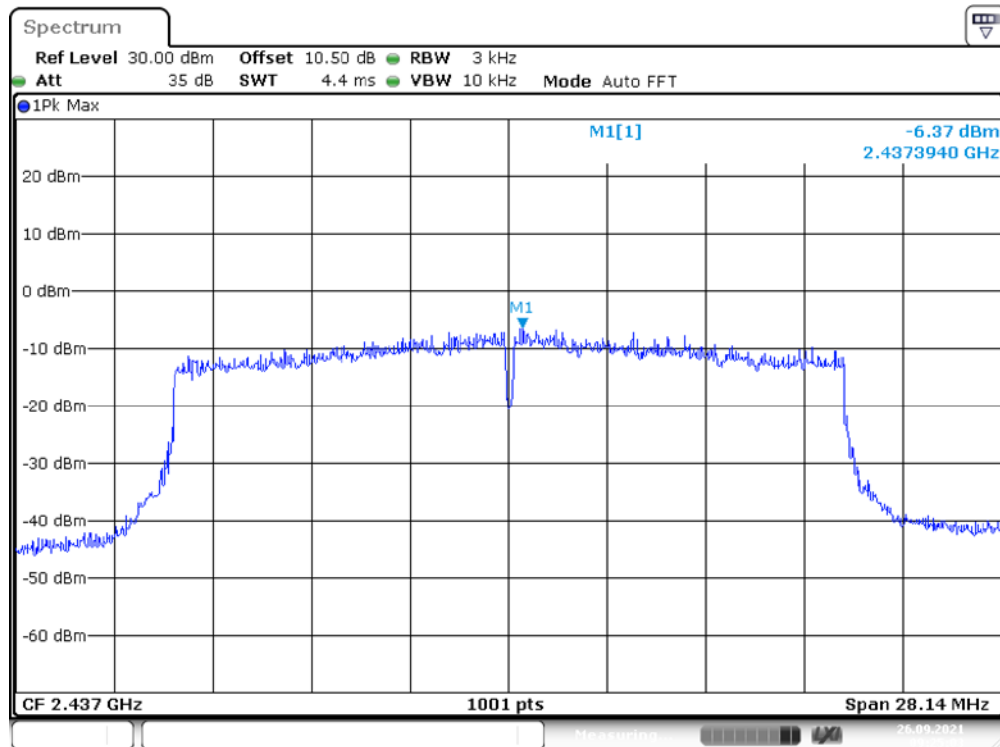
Date: 26.SEP.2021 09:30:36

AX20 Mode Low Channel (Chain 1)



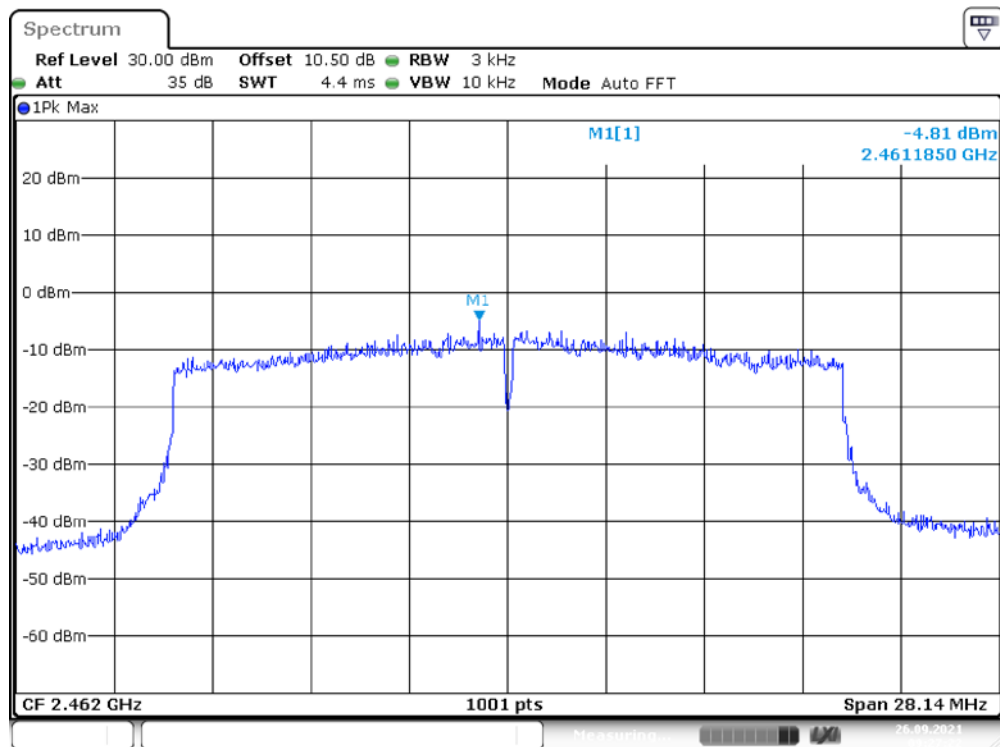
Date: 26.SEP.2021 09:20:04

AX20 Mode Middle Channel (Chain 1)



Date: 26.SEP.2021 09:25:03

AX20 Mode High Channel (Chain 1)



Date: 26.SEP.2021 09:27:23

11. 電波曝露量之評估

11.1 適用標準

依據低功率射頻電機技術規範之規定，若受測物於正常操作模式下，其發射機距離人體 20 公分以上者，可測試最大曝露允許值(Maximum Permissible Exposure，MPE)以證明其符合電波曝露量之要求。

限制值

5.20.2.2 一般人/不可控制之曝露

頻率範圍 (MHz)	電場強度 (V/m)	磁場強度 (A/m)	功率密度 (mW/cm ²)	平均時間 (分)
0.3~1.34	614	1.63	*100	30
1.34~30	824/f	2.19/f	*180/f ²	30
30~300	27.5	0.073	0.2	30
300~1,500	-	-	f/1500	30
1,500~100,000	-	-	1.0	30

註 1：標記*表平面波等效功率密度。

註 2：f 表測試頻率，單位：MHz。

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

11.2 電波曝露量之結果

Test mode: WLAN 2.4G mode

Frequency (MHz)	Power		Antenna Gain		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
	(dBm)	(mW)	(dBi)	(numeric.)			
2412-2462	28.24	666.806769	5	3.16227766	20	0.4195	1

電磁波曝露量 MPE 標準值

1mW/cm²，送測產品實測值為：0.4195 mW/cm²

12. 量測儀器一覽表

儀器名稱	廠商	型號	序號	校驗日期	下次校驗日期
AC Line Conduction Room (CON-A)					
LISN	Rohde & Schwarz	ENV216	101612	2020/12/30	2021/12/29
LISN	Rohde & Schwarz	ENV216	101248	2021/6/8	2022/6/7
LISN	COM-POWER	LI-550A	211726	2020/12/30	2021/12/29
LISN	COM-POWER	LI-550A	211727	2020/12/30	2021/12/29
DC LISN	COM-POWER	LIN-115	241113	2020/11/17	2021/11/16
EMI Test Receiver	Rohde & Schwarz	ESR3	102099	2021/6/9	2022/6/8
Pulse Limiter	Rohde & Schwarz	ESH3Z2	TXZEM104	2021/7/29	2022/7/29
RF Cable	EMEC	EM-CB5D	1	2021/6/11	2022/6/11
Software	AUDIX	E3	V9.150826k	N.C.R	N.C.R
Radiation 3M Room (966-A)					
Active Loop Antenna	ETS-Lindgren	6502	35796	2021/3/16	2022/3/15
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & MINI-CIRCUITS	JB6/UNAT-6+	A050115/155 42_01	2021/1/19	2022/1/18
EMI Test Receiver	Rohde & Schwarz	ESR7	101419	2020/11/12	2021/11/11
Horn Antenna	EMCO	SAS-571	1020	2021/4/23	2022/4/22
Horn Antenna	ETS-Lindgren	3116	62638	2021/8/11	2022/8/10
Preamplifier	Sonoma	310N	130602	2021/6/8	2022/6/7
Preamplifier	A.H. system Inc.	PAM-0118P	466	2020/11/5	2021/11/4
Microwave Preamplifier	EM Electronics Corporation	EM18G40G	60656	2020/12/30	2021/12/29

Spectrum Analyzer	Rohde & Schwarz	FSV40	101435	2021/1/7	2022/1/6
Micro flex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2021/2/1	2022/1/31
Coaxial Cable 同軸電纜	COMMATE	PEWC	8Dr	2020/12/25	2021/12/24
Coaxial Cable 同軸電纜	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2021/2/1	2022/1/31
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2020/12/25	2021/12/24
Cable	EMC	EMC105-SM-SM-10000	201003	2021/2/3	2022/2/2
Software	Farad	EZ_EMCC	BACL-03A1	N.C.R	N.C.R
Conducted Room					
Spectrum Analyzer	Rohde & Schwarz	FSV40	101140	2021/1/7	2022/1/6
Cable	UTIFLEX	UFA210A	9435	2020/10/8	2021/10/7
Power Sensor	KEYSIGHT	U2021XA	MY54080018	2021/1/28	2022/1/27
Attenuator	MINI-CIRCUITS	BW-S10W5+	1419	2021/1/28	2022/1/27

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements.

13. 試驗室之測試不確定度

測試項目	測試場地 / 測試頻率	不確定度
傳導干擾電壓量測	AC Line Conduction	± 3.82 (dB)
輻射干擾場強量測 (測試距離: 3m)	3M Chamber / 30~1000MHz	± 5.46 (dB)
	3M Chamber / 1~6GHz	± 5.24 (dB)
	3M Chamber / 6~18GHz	± 5.62 (dB)
	3M Chamber / 18~40GHz	± 5.86 (dB)
佔用頻寬	Conducted	± 0.35 (MHz)
輸出功率	Conducted	± 0.93 (dB)
直量雜散	Conducted	± 1.69 (dB)
功率密度	Conducted	± 0.93 (dBm/kHz)

- a) 必要為試驗結果作解釋時，依 ISO/IEC 17025 第 7.8.3.1 要求，實驗室得決定是否在測試報告上包含量測不確定度評估結果。
- b) 測試證書/報告中提供量測不確定度資訊時，通常應使用 “ $y \pm U$ (y 和 U 的單位)” 或類似的表述方式；量測結果的數值與其量測不確定度亦可以列表方式表達。視需要，擴充不確定度也可以用相對擴充不確定度 $U/|y|$ 的方式表達，如指數或百分比。應在證書/報告中註明不確定度的涵蓋因子及涵蓋機率(或信賴水準)，可以使用以下文字描述：
- 「本報告的擴充不確定度，係以組合標準不確定度乘以涵蓋因子 k ($k=2$) 來表示，相應之涵蓋機率(或信賴水準)約為 95 %。」

***** END OF REPORT *****