



# TEST REPORT

# Applicant: PO FUNG ELECTRONIC (HK) INTERNATONAL GROUP COMPANY LIMITED

Address: Room 1508, 15/F, Office Tower II, Grand Plaza, 625 Nathan Road, Kowloon, Hong Kong

FCC ID: 2AJGM-MP31

# Product Name: GMRS TWO WAY RADIO

# Model Number: MP31, MP31S, MP31X, MP31Pro, MP31Plus

Standard(s): 47 CFR Part 15 Subpart B ANSI C63.4-2014

The above equipment has been tested and found compliance with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number:CR21090045-00BDate Of Issue:2022-02-24Reviewed By:Sun ZhongTitle:ManagerTest Laboratory:China Certification ICT Co., Ltd (Dongguan)<br/>No. 113, Pingkang Road, Dalang Town, Dongguan,<br/>Guangdong, China<br/>Tel: +86-769-82016888

#### **Test Facility**

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

#### Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol " $\blacktriangle$ ". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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# **1. GENERAL INFORMATION**

# **1.1 Product Description for Equipment under Test (EUT)**

EUT Name:	GMRS TWO WAY RADIO		
EUT Model:	MP31		
Multiple models:	MP31S, MP31X, MP31Pro, MP31Plus		
Highest Operation Frequency:	467.7125MHz		
Rated Input Voltage:	DC 3.7V from battery or DC 5V from adapter		
Serial Number:	CR21090045-RF-S1		
EUT Received Date:	2021.9.29		
EUT Received Status:	Good		
Note: The Multiple models are electrically identical with Test model, please refer to the declaration letter for more			
detail, which was provided by manufact	turer.		

## **Accessory Information:**

Accessory Description	Manufacturer	Model	Parameters
Earphone	PO FUNG	Unknown	Unshielding, 1.5m
Charger Base	ELECTRONIC (HK) INTERNATONAL GROUP COMPANY LIMITED	USB-W31	Input 5V(USB) Output: DC 4.2V 0.5A
Adapter	DEE VAN ENTERPRISE CO., LTD.	DSA-5PF07-05 FUS	Input 100-240V 50/60Hz 0.2A OUTPUT: 5V 1A

# **1.2 Description of Test Configuration**

1.2.1 EUT	Operation	Condition:	

EUT Operation Mode:	The system was configured for testing in Typical Use Mode, which was provided by the manufacturer. Test Mode: M1:Receiving 462.6375 MHz M2: Receiving 467.6375 MHz M3: Scanning
<b>Equipment Modifications:</b>	No
EUT Exercise Software:	No

#### **1.2.2 Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
EMCO	Antenna	3121C	9109-753
MICRO-COAX	Coaxial Cable	UFA210B-0-0720- 300300	99G1448
Agilent	Signal Generator	E8247C	MY43321350
Unknown	Earphone	Unknown	Earphone-1

# **1.2.3 Support Cable List and Details**

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	То
Audio cable	No	No	1	Earphone	EUT
Adapter Cable	No	No	1.2	Adapter	Charger

#### 1.2.4 Block Diagram of Test Setup

AC Line Conducted Test:



Radiated Emission Test: Below 1GHz:



### Above 1GHz:



## **1.3 Measurement Uncertainty**

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty		
Unwanted Emissions redicted	30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB,		
Unwanted Emissions, radiated	6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB		
Temperature	$\pm 1^{\circ}\mathbb{C}$		
Humidity	±5%		
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)		

# 2. SUMMARY OF TEST RESULTS

Standard(s) Section	Description of Test	Result
§15.107	Conducted emissions	Compliance
§15.109	Radiated emissions	Compliance
§15.111	Antenna power conduction limits for receivers	Compliance

# **3. REQUIREMENTS AND TEST PROCEDURES**

#### **3.1 AC Line Conducted Emissions**

#### 3.1.1 EUT Setup



The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The adapter was connected to the main LISN with a 120 V/60 Hz AC power source.

#### 3.1.2 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

#### 3.1.3 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT, the report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

All data was recorded in the Quasi-peak and average detection mode.

The report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

#### 3.1.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor Factor = attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit - Result

#### **3.2 Radiation Emissions**

#### 3.2.1 EUT Setup

#### Below 1GHz:



The radiated emission were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was with the FCC Part 15 B Class B limits.

#### 3.2.2 EMI Test Receiver Setup

The system was investigated from 30 MHz to 2 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
	1 MHz	3 MHz	/	Peak
Above 1 GHz	1 MHz	Reduced video bandwidth	/	AVG

If the maximized peak measured value complies with under the limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

#### 3.2.3 Test Procedure

During the radiated emissions, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

All emissions under the average limit and under the noise floor have not recorded in the report.

#### 3.2.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor Factor = Antenna Factor + Cable Loss- Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

#### 3.3 Antenna power conduction limits for receivers

#### **3.3.1 Applicable Standard**

(a) In addition to the radiated emission limits, receivers that operate (tune) in the frequency range 30 to 960 MHz and CB receivers that provide terminals for the connection of an external receiving antenna may be tested to demonstrate compliance with the provisions of §15.109 with the antenna terminals shielded and terminated with a resistive termination equal to the impedance specified for the antenna, provided these receivers also comply with the following: With the receiver antenna terminal connected to a resistive termination equal to the impedance specified or employed for the antenna, the power at the antenna terminal at any frequency within the range of measurements specified in §15.33 shall not exceed 2.0 nanowatts.

(b) CB receivers and receivers that operate (tune) in the frequency range 30 to 960 MHz that are provided only with a permanently attached antenna shall comply with the radiated emission limitations in this part, as measured with the antenna attached

#### 3.3.2 EUT Setup



#### **3.3.3 Test Procedure**

a) Set the center frequency and span to encompass frequency range to be measured.

b) Set the RBW=1kHz(9-150kHz), 10kHz(150kHz-30MHz), 100 kHz(30MHz-1GHz), 1MHz(Above 1GHz).

c) Set the VBW  $\geq$  [3 × RBW].

d) Detector = peak.

e) Sweep time = auto couple.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use the peak marker function to determine the maximum amplitude level.

# 4. TEST DATA AND RESULTS

## 4.1 AC Line Conducted Emissions

Serial Number:	CR21090045-RF-S1	Test Date:	2021-11-05
Test Site:	CE	Test Mode:	M1~M3
Tester:	Nick Tang	Test Result:	Pass

Environmental Conditions:							
Temperature: (°C)	25.4	Relative Humidity: (%)	70	ATM Pressure: (kPa)	100.9		

## **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101132	2021-04-25	2022-04-24
R&S	EMI Test Receiver	ESR3	102726	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2021-08-08	2022-08-07
Audix	Test Software	E3	190306 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

## Test Mode: M1(Worst of M1&M2) Line:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.226	13.27	9.61	22.88	52.59	29.71	Average
2	0.226	23.67	9.61	33.28	62.59	29.30	QP
3	0.336	16.51	9.61	26.12	49.29	23.18	Average
4	0.336	25.72	9.61	35.33	59.29	23.97	QP
5	0.456	18.70	9.61	28.31	46.77	18.46	Average
6	0.456	26.52	9.61	36.13	56.77	20.64	QP
7	1.240	12.19	9.62	21.81	46.00	24.19	Average
8	1.240	22.15	9.62	31.77	56.00	24.23	QP
9	1.801	5.67	9.63	15.30	46.00	30.70	Average
10	1.801	18.71	9.63	28.33	56.00	27.67	QP
11	18.021	7.93	9.75	17.68	50.00	32.32	Average
12	18.021	18.42	9.75	28.17	60.00	31.83	QP

Neutral:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.203	15.08	9.61	24.69	53.50	28.81	Average
2	0.203	23.27	9.61	32.88	63.50	30.62	QP
3	0.348	19.33	9.61	28.94	49.01	20.07	Average
4	0.348	27.32	9.61	36.93	59.01	22.07	QP
5	0.454	28.06	9.61	37.67	46.80	9.13	Average
6	0.454	30.60	9.61	40.21	56.80	16.59	QP
7	1.193	16.52	9.62	26.14	46.00	19.86	Average
8	1.193	26.28	9.62	35.90	56.00	20.10	QP
9	1.840	7.55	9.63	17.18	46.00	28.82	Average
10	1.840	17.38	9.63	27.01	56.00	28.99	QP
11	4.514	10.22	9.66	19.88	46.00	26.12	Average
12	4.514	19.40	9.66	29.05	56.00	26.95	QP

Test Mode: M3 Line:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.159	14.40	9.61	24.01	55.52	31.51	Average
2	0.159	28.19	9.61	37.80	65.52	27.72	QP
3	0.347	17.11	9.61	26.72	49.02	22.31	Average
4	0.347	25.51	9.61	35.12	59.02	23.91	QP
5	0.457	19.36	9.61	28.97	46.75	17.77	Average
6	0.457	27.09	9.61	36.70	56.75	20.05	QP
7	1.206	12.05	9.62	21.67	46.00	24.33	Average
8	1.206	20.18	9.62	29.80	56.00	26.20	QP
9	1.783	5.61	9.63	15.24	46.00	30.76	Average
10	1.783	17.80	9.63	27.43	56.00	28.57	QP
11	18.462	7.65	9.76	17.41	50.00	32.59	Average
12	18.462	18.16	9.76	27.92	60.00	32.08	QP

Neutral:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.159	14.93	9.61	24.54	55.51	30.97	Average
2	0.159	25.66	9.61	35.27	65.51	30.24	QP
3	0.347	19.24	9.61	28.85	49.03	20.17	Average
4	0.347	26.02	9.61	35.63	59.03	23.39	QP
5	0.455	28.20	9.61	37.81	46.79	8.98	Average
6	0.455	30.68	9.61	40.29	56.79	16.50	QP
7	0.917	9.97	9.62	19.59	46.00	26.41	Average
8	0.917	18.58	9.62	28.20	56.00	27.80	QP
9	1.121	15.19	9.62	24.81	46.00	21.19	Average
10	1.121	23.39	9.62	33.01	56.00	22.99	QP
11	4.357	10.18	9.65	19.83	46.00	26.17	Average
12	4.357	19.60	9.65	29.25	56.00	26.75	QP

# 4.2 Radiation Spurious Emissions

Serial Number:	CR21090045-RF-S1	Test Date:	2021-11-12~2021-11-16
Test Site:	966-1, 966-2	Test Mode:	M1~M3
Tester:	Great Qiao, Carl Liang	Test Result:	Pass

Environmental Conditions:							
Temperature: (℃)	22.9~24.6	Relative Humidity: (%)	49~62	ATM Pressure: (kPa)	100.7~101.5		

#### **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020-10-19	2023-10-18
R&S	EMI Test Receiver	ESR3	102724	2021-07-22	2022-07-21
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0470-02	2021-07-18	2022-07-17
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0780-01	2021-07-18	2022-07-17
Sonoma	Amplifier	310N	186165	2021-07-18	2022-07-17
Audix	Test Software	E3	201021 (V9)	N/A	N/A
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020-10-13	2023-10-12
R&S	Spectrum Analyzer	FSV40	101591	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UFA210A-1- 1200-70U300	217423-008	2021-08-08	2022-08-07
MICRO-COAX	Coaxial Cable	UFA210A-1- 2362-300300	235780-001	2021-08-08	2022-08-07
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2021-11-10	2022-11-09

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

# 1) 30MHz-1GHz: **Test Mode:** M1(Worst of M1&M2) **Horizontal:**



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	32.634	29.34	-5.83	23.51	40.00	16.49	Peak
2	59.649	39.39	-17.63	21.76	40.00	18.24	Peak
3	99.528	43.58	-14.69	28.89	43.50	14.61	Peak
4	150.011	36.26	-12.26	24.00	43.50	19.50	Peak
5	219.845	36.56	-12.96	23.61	46.00	22.39	Peak
6	245.951	35.02	-13.15	21.87	46.00	24.13	Peak

### Vertical:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	30.424	36.74	-4.12	32.63	40.00	7.37	Peak
2	45.695	43.40	-14.88	28.53	40.00	11.47	Peak
3	62.871	44.33	-17.36	26.97	40.00	13.03	Peak
4	99.180	37.69	-14.77	22.92	43.50	20.58	Peak
5	150.538	36.60	-12.29	24.31	43.50	19.19	Peak
6	221.392	37.22	-12.98	24.24	46.00	21.76	Peak

## Test Mode: M3 Horizontal:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	59.859	38.10	-17.64	20.46	40.00	19.54	Peak
2	99.528	44.37	-14.69	29.67	43.50	13.83	Peak
3	106.759	41.09	-13.22	27.87	43.50	15.63	Peak
4	148.441	36.35	-12.25	24.10	43.50	19.40	Peak
5	228.490	38.67	-13.12	25.55	46.00	20.45	Peak
6	250.301	38.87	-13.25	25.62	46.00	20.38	Peak

### Vertical:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	30.531	36.83	-4.20	32.63	40.00	7.37	Peak
2	32.067	36.36	-5.37	30.99	40.00	9.01	Peak
3	46.178	43.88	-15.17	28.70	40.00	11.30	Peak
4	52.208	44.96	-17.43	27.53	40.00	12.47	Peak
5	59.232	45.12	-17.62	27.50	40.00	12.50	Peak
6	84.405	41.87	-17.47	24.40	40.00	15.60	Peak

## 2) Above 1GHz Test Mode: M1(Worst of M1~M3) Horizontal:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	1133.427	25.34	-2.12	23.22	54.00	30.78	Average
2	1133.427	37.93	-2.12	35.81	74.00	38.19	Peak
3	1580.116	24.55	0.13	24.68	54.00	29.32	Average
4	1580.116	36.43	0.13	36.56	74.00	37.44	Peak
5	1828.766	24.57	1.63	26.20	54.00	27.80	Average
6	1828.766	36.44	1.63	38.07	74.00	35.93	Peak

#### Vertical:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	1319.864	25.97	-1.22	24.75	54.00	29.25	Average
2	1319.864	37.82	-1.22	36.60	74.00	37.40	Peak
3	1829.566	24.76	1.63	26.39	54.00	27.61	Average
4	1829.566	36.66	1.63	38.29	74.00	35.71	Peak
5	1866.573	24.79	1.79	26.58	54.00	27.42	Average
6	1866.573	37.72	1.79	39.51	74.00	34.49	Peak

# 4.3 Antenna power conduction limits for receivers

Serial Number:	CR21090045-RF-S1	Test Date:	2022/02/24
Test Site:	966-1, 966-2	Test Mode:	M1~M3
Tester:	Jack Zou	Test Result:	Pass

#### **Environmental Conditions:**

Temperature: (℃)	19.8	Relative Humidity: (%)	51	ATM Pressure: (kPa)	102.2

## **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2021/7/22	2022/7/21
Agilent	Signal Generator	E8247C	MY43321350	2021/04/25	2022/04/24
E-Microwave	Two-way Spliter	ODP-1-6	OE0120176	Each Time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data:**



	Spectrum Spectrum 2 (X) Spectrum 2	pectrum 3 (X) Spectrum 4	
	Ref Level -20.00 dBm Offset 0.50 dB .	RBW 1 kHz	
	Att 20 dB SWT 50 ms	VBW 3 kHz Mode Sweep	
		M1[1]	-82.11 dBm
	-30 dBm		11.16080 kHz
	-40 dBm		
	-50 d8m		
	01 .57 000 dBm		
	-60 dBm		
0kHz 150kHz	-70 d8m		
JKIIZ -I JUKIIZ			
	-20 dBm		
	-90 dBm	montemanteman	A some and many many
	-100 dBm		
	-110 dBm		
	Start 9.0 kHz	20000 pts	Stop 150.0 kHz
	S		
		Measuring	24.02.2022 13126:10
	Date: 24.FEB.2022 13:26:11	Neasuring 🕻	24.02.2022 13126110
	Date: 24.FE5.2022 13:26:11	Neasuring	24.02.2022
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum Ref Lavel -20.00 dbm Offset 0.50 db =	Pectrum 3 🛞 Spectrum 4	× 24.02.2822 11126-110
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum Spectrum Control	Neasuring  Pectrum 3 (3) Spectrum 4 RBW 10 KHz VBW 30 KHz Mode Sweep	× 24.82.2842 13.28-18 //
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum Spectrum 2  Spectrum Att 10 dB SWT 29.9 ms  10 dB SWT 29.9 ms	Neasuring	2462.2622 31326:18 ∕∕ ▼ -86.14 dBm
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum 2 S S  Ref Level -20.00 dem Offset 0.50 ds  Att 10 dB SWT 29.9 ms  IPK Max -30 dBm	Neasuring  Pectrum 3 (3) Spectrum 4 RBW 10 Hz VBW 30 Hz Mode Sweep M1[1]	2462.2822 330518 ▼ ▼ -86.14 dBm 158.20 kHz
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum 2 ③ S  Ref Level -20.00 dem Offset 0.50 dB  Att 10 dB SWT 29.9 ms  10 dB SWT 29.9 ms  30 dBm	Neasuring  Pectrum 3 (x) Spectrum 4 RBW 10 kHz VBW 30 kHz Mode Sweep M1[1]	2462.2822 330518 ▼ ▼ -86.14 dBm 158.20 kHz
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum 2 ③ S  Ref Level -20.00 dbm Offset 0.50 db  Att 10 db SWT 29.9 ms  10 db SWT 29.9 ms  10 db SWT 29.9 ms  40 dbm	Neasuring  Pectrum 3  S Spectrum 4 RBW 10 kHz VBW 30 kHz Mode Sweep M1[1]	2462.2822 31326:10 ∕∕ ▼ -86.14 dBm 158.20 kHz
	Date: 24.FEB.2022 13:26:11  Spectrum Spectrum Spectrum 2  Att 10 dB SWT 29.9 ms FFK Max -30 dBm -40 dBm -50 dB	Neasuring  Pectrum 3 (x) Spectrum 4 RBW 10 kHz VBW 30 kHz Mode Sweep M1[1]	2462.2822 31326:10 ∕∕ ▼ -86.14 dBm 156.20 kHz
	Date: 24.FEB.2022 13:26:11   Spectrum Spectrum Spectrum C Spectrum	Neasuring   Pectrum 3 (*) Spectrum 4 RBW 10 Hz VBW 30 Hz Mode Sweep  M1[1]	-86.14 dBm 159.20 kHz
	Date: 24.FEB.2022 13:26:11   Spectrum Spectrum Spectrum C Spectrum	Neasuring   Pectrum 3 (*) Spectrum 4 RBW 10 kHz VBW 30 kHz Mode Sweep  M1[1]	
50kHz 20MHz	Date: 24.FE8.2022 13:26:11	Measuring         Image: Constraint of the system           RBW 10 KHz         Mode Sweep           VBW 30 KHz         Mode Sweep	-86.14 dBm 158.20 kHz
50kHz-30MHz	Date: 24.FEB.2022 13:26:11	Measuring         Image: Constraint of the system           Pectrum 3         (S)         Spectrum 4           RBW 10 HHz         Mode Sweep         Militiant           VBW 30 HHz         Mode Sweep         Militiant	
50kHz-30MHz	Date: 24.FEB.2022 13:26:11	Measuring         Image: Constraint of the system           RBW 10 HHz         YBW 30 HHz         Mode Sweep           VBW 30 HHz         Mode Sweep         M1[1]	
50kHz-30MHz	Date: 24.FEB.2022 13:26:11   Spectrum Spectrum Control	Measuring         Image: Constraint of the system           RBW 10 KHz         YBW 30 KHz         Mode Sweep           VBW 30 KHz         Mode Sweep         M1[1]	
50kHz-30MHz	Date: 24.FEB.2022 13:26:11	Measuring         Image: Control of the system           RBW 10 KHz         Mode Sweep           VBW 30 KHz         Mode Sweep           M1[1]         Image: Control of the system           Image: Control of the system         Image: Control of the system	2482.2892     3305110
50kHz-30MHz	Date: 24.FEB.2022 13:26:11	Neasuring	2482.2892     2492.2892     3305110
50kHz-30MHz	Date: 24.FEB.2022 13:26:11	Measuring         Image: Constraint of the second s	-86.14 dBm -86.14 dBm 150.20 kHz -86.14 dBm 150.20 kHz -86.14 dBm -86.14
50kHz-30MHz	Date:         24.FEB.2022         13:26:11           Spectrum         Spectrum 2         Sp           Ref Level -20.00 dBm         Offset 0.50 dB =           Att         10 dB         SWT 29.9 ms =           IPk Max	Neasuring   Pectrum 3 (2) Spectrum 4  RBW 10 KHz VBW 30 KHz Mode Sweep  M1[1]  M1[1	-86.14 dBm -86.14 dBm 158.20 kHz -86.14 dBm 158.20





	Spectrum	Spectrum 2	X Spectrum 3	(X) Spectrum	4 (8)	E
	Ref Level -2	0.00 dBm Offset	0.50 dB . RBW 1 kHz	Coperation		(*
	Att	20 dB 👜 SWT	50 ms 👜 VBW 3 kHz	Mode Sweep		
	1Pk Max			MILTI		-01 04 d0m
	10000			(unital		10.58270 kHz
	-30 dBm					
	40 d9m			0	·	
	-to doin					
	-50 dBm					_
		-57.000 dBm				_
	-60 dBm					
$01_{2}U_{7}$ 1501_U <sub>7</sub>	-70 dBm					
9KIIZ -I JUKIIZ	and doin					
	BO dBm-					
	Munn	monor	mammina	Andre al	ALL	
	-90 dBm		A COLUMN AND A COLUMN	to alterate and	a reference and and	No Wednesday
	-100 dBm					
	-110 dBm					-
	Start 9.0 kHz		20000	pts	S	top 150.0 kHz
	Spectrum Ref Level -2	Spectrum 2 20.00 dBm Offset	Spectrum 3 0.50 d8 • RBW 10 kH;	Spectrum	4 8	
	Att 1Pk Max	10 dB SWT	29.9 ms 🖷 VBW 30 kHz	Mode Sweep		
	-					
				M1[1]		-86.68 dBm
	-30 dBm			M1[1]		-86.68 dBm 186.60 kHz
	-30 dBm			M1[1]		-86.68 dBm 186.60 kHz
	-30 dBm			M1[1]		-86.68 dBm 186.60 kHz
	-30 dBm			M1[1]		-86.68 dBm 186.60 kHz
	-30 dBm			M1[1]		-86.68 dBm 186.60 kHz
	-30 dBm -40 dBm -50 dBm -60 dBm	-57.000 d8m		M1[1]		-86,68 dBm 186,60 kHz
	-30 dBm -40 dBm -50 dBm -60 dBm	-57.000 dBm		M1[1]		-86,68 d8m 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -60 dBm -70 dBm	-57.000 dBm		M1[1]		-86.60 dBm 186.60 kHz
50kHz-30MHz	-30 dBm	-57.000 d8m		M1[1]		-86.68 d8m 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -50 dBm -70 dBm -70 dBm -90 dBm	-57.000 d8m		M1[1]		-86.68 d8m 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -50 dBm -70 dBm -70 dBm -1 -70 dBm	-97.000 d8m		M1[1]		-86.68 dBm 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm 1 200 dBm 1 200 dBm -7, 11	-57.000 dBm		M1[1]		-86.68 dBm 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm -90 dBm -100 dBm	-57.000 dBm		M1[1]		-86.68 dBm 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm - 1 20 dBm - 1 20 dBm - 1 0 dBm - 10 dBm	-57.000 dBm		M1[1]		-86.68 dBm 186.60 kHz
50kHz-30MHz	-30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -10 dBm -100 dBm -110 dBm	-57.000 d8m		M1[1]		-86.69 dBm 186.60 kHz







	Spectrum			
	Ref Level -20.00 dBm Offset 0.50 d	B 🖶 RBW 100 kHz		
	Att 10 dB SWT 20 m	ns 🖷 VBW 300 kHz Mode Sv	veep	
		MIE	u	-77.33 dBm
	-30 dBm			644.0830 MHz
	-So dan			
	-40 dBm			
	-50 dBm			
	-60 dBm			
SOMHz-IGHz	-70 dBm			
	-80.d8m		July and the second	man hard carboren
	-90 dBm			
	100 dam			
	-100 dbm			
	-110 dBm			
	Start 30.0 MHz	00000 -1-		Ptop 1 0 CHr
	atart outo min	20000 pts		Stop 1.0 GHz
				NO STOP 1.0 GHZ J
	Date: 23.FE8.2022 10:15:42		(and the second se	
	Date: 23.FEB.2022 10:15:42	Spectrum 3 × Sp	ectrum 4 🛞	
	Date: 23.FEB.2022 10:15:42   Spectrum Spectrum 2   Ref Level ~10.00 dBm Offset 0.50 dB	Spectrum 3 Sp	ectrum 4 🛞	(₩ (\vec{v})
	Date: 23.FEB.2022         10:15:42           Spectrum         Spectrum 2         X           Ref Level -10.00 dBm         Offset 0.50 dB         Att           5 dB         SWT         20 md           ● IPk Max         X         X	20000 prs Spectrum 3 × Sp Se RBW 1 MHz WBW 3 MHz Mode Swee	ectrum 4 🛞	(∰)
	Date: 23.FEB.2022         10:15:42           Spectrum         Spectrum 2         X           Ref Level -10.00 dBm         Offset 0.50 dB         Att           5 dB         SWT         20 mid           • IPk Max         Image: State 10 mid         Image: SWT	20000 prs	ectrum 4 ®	-69.77 dBm
	Spectrum         Spectrum         Context           Ref Level         -10.00 dBm         Offset         0.50 dB           Att         5 dB         SWT         20 ms           • IPk Max         -20 dBm         -20 dBm         -20 dBm	Spectrum 3         X         Sp           Se RBW 1 MHz         Mode Sweet         M1[1           VBW 3 MHz         Mode Sweet         M1[1	ectrum 4 ®	-69.77 dBm 4.194900 GHz
	Date: 23.FEB.2022         10:15:42           Spectrum         Spectrum 2         X           Rof Level         -10.00 dBm         Offset 0.50 dE           Att         5 dB         SWT         20 mi           IPk Max         -20 dBm         -20 dBm         -20 dBm	20000 pr     Spectrum 3	ectrum 4 ®	-69.77 dBm 4.494900 GHz
	Date: 23.FEB.2022 10:15:42	Spectrum 3 (Sp B RBW 1 MHz W WW 3 MHz Mode Sweet M1[1	ectrum 4 (E)	-69.77 dBm 4.494900 GHz
	Date: 23.FEB.2022 10:15:42	20000 prs	ectrum 4 (R)	-69.77 dBm 4.494900 GHz
	Date: 23.FEB.2022 10:15:42	20000 pts     Spectrum 3    Sp     e RBW 1 MH2     to de Swee     M1[1	ectrum 4 (R)	-69.77 dBm 4.494900 GHz
	Date: 23.FEB.2022 10:15:42	20000 prs	ectrum 4 (R)	-69.77 dBm 4.494900 GHz
1GHz 5GHz	Date: 23.FEB.2022 10:15:42	-57 dBm	ectrum 4 (R)	-69.77 dBm 4.494900 GHz
1GHz-5GHz	Spectrum         Spectrum 2         X           Ref Level -10.00 dBm         Offset 0.50 dB         Att         5 dB         SWT         20 ms           -20 dBm         -30 dBm         -30 dBm         -40 dBm         -50	-57 dBm	ectrum 4 ®	-69.77 dBm 4.494900 GHz
1GHz-5GHz	Spectrum         Spectrum         Context           Ref Level         -10.00 dBm         Offset         0.50 dBm           -20 dBm         -20 dBm         -30 dBm         -40 dBm         -47.000 dBm           -50 dBm         -20 dBm         -20 dBm         -20 dBm         -20 dBm	-57 dBm		-69.77 dBm 4.494900 GHz
1GHz-5GHz	Spectrum         Spectrum         Spectrum         Context           Att         5 d8         SWT         20 min           • 1Pk Max         -20 d8m         -20 d8m         -30 d8m           -30 d8m         -147.000 d8m         -50 d8m           -60 d8m         -70 d8m         -70 d8m	-57 dBm		-69.77 dBm 4.494900 GHz
1GHz-5GHz	Spectrum         Spectrum         Spectrum         2           Ref Level         10.00 dBm         Offset         0.50 dBm           -20 dBm         -20 dBm         -30 dBm         -30 dBm           -50 dBm         -40 dBm         -47.000 dBm         -50 dBm           -50 dBm         -60 dBm         -70 dBm         -70 dBm	-57 dBm	ectrum 4 (R)	-69.77 dBm 4.494900 GHz
1GHz-5GHz	Spectrum         Spectrum	-57 dBm	ectrum 4 (R)	-69.77 dBm 4.494900 GH2
1GHz-5GHz	Spectrum         Spectrum 2         X           Ref Level -10.00 dBm         Offset 0.50 dB         Att 5 dB         SWT 20 mid           •1Pk Max         -20 dBm         -30 dBm         -40 dBm         -40 dBm           -50 dBm         -50 dBm         -50 dBm         -50 dBm         -60 dBm           -50 dBm         -90 dBm         -90 dBm         -70 dBm         -70 dBm	-57 dBm	ectrum 4 (R)	-69.77 dBm 4.494900 GHz
1GHz-5GHz	Spectrum         Spectrum 2         X           Ref Level -10.00 dBm         Offset 0.50 dB         Att         5 dB         SWT         20 ms           -20 dBm         -30 d	-57 dBm	ectrum 4 (R)	
1GHz-5GHz	Spectrum         Spectrum         Context           Ref Level -10.00 dBm         Offset 0.50 dB         Att         5 dB         SWT         20 ms           -20 dBm         -30 dBm         -	-57 dBm		-69.77 dBm 4.494900 GHz

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