TEST REPORT

Applicant	Yardi Systems Inc.
Address	430 South Fairview Ave Goleta, CA 93117

FCC ID	2BAL9YDIZW
ISED IC	30221-YDIZW
Product	IoT Hub
FVIN	7.19.3
PMN Model/HVIN	RentCafe Home IQ Hub H4P3-TWC
Additional Models & Model Difference	N/A
Date of tests	Aug 30 to Sept 05, 2024
FCC Test Firm DN Canada CABID	US1028 US0106

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Parts 15.247, 15.249, 22.917, 24.238, 27.53,**
☒ **ISED Canada RSS-247 Issue 3, RSS-210 Issue 10, RSS-132 Issue 4, RSS-133 Issue 7, RSS-139 Issue 4**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

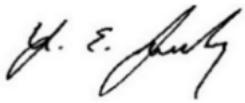
Prepared by Nisha Patel Wireless Engineer I	Approved by Yunus Faziloglu Wireless Manager
	
Report Issue Date: Oct 1, 2024	Issue Number: 2

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED	PREPARED BY	APPROVED BY
1	Original release	Sep 12, 2024	NP	YF
2	To address TCB review comments: - PMN was corrected on cover page	Oct 1, 2024	NP	YF

1 SUMMARY OF TEST RESULTS

The EUT was tested against the following requirements:

STANDARD SECTION		TEST	APPLICABLE	RESULT
FCC	RSS			
22.917 24.238 27.53 15.247 15.249	RSS-210 RSS-247 RSS-132 RSS-133 RSS-139	Radiated Spurious Emissions	Y	Pass

Note 1: This test report includes data to demonstrate compliance with radiated spurious emissions limits for composite devices using previously certified radio modules, per FCC KDB 996369 D04 Module Integration Guide V02, Section 3.

Note 2: Per FCC guidance, the least stringent limit out of all the standards listed above was used in this report.

Note 3: The EUT incorporates three previously certified radio modules as detailed in Section 3.1 of this report.

2 MEASUREMENT UNCERTAINTY

The listed uncertainties are the worst-case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results. Values for measurement uncertainty are calculated per ETSI TR 100 028 (2001).

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radio frequency (@ 2.4GHz)	3.23×10^{-8}	1×10^{-7}
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation: Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	3.4% 0.3dB	5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB
Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
Temperature	0.7°C	1.0°C
Time	4.1%	10%
RF Power Density, Conducted	0.4dB	3dB
DC and low frequency voltages	1.3%	3%
Voltage (AC, <10kHz)	1.3%	2%
Voltage (DC)	0.62%	1%
The above reflects a 95% confidence level		

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	IoT Hub
MODEL NO.	H4P3-TWC
NOMINAL VOLTAGE	12V DC Via External Power Supply
MODULATION TECHNOLOGY TESTED	**Z-Wave:** FSK, GFSK **Zigbee:** OQPSK **BLE:** GFSK **WLAN:** 2.4GHz - DBPSK, 5GHz – BPSK **LTE:** QPSK,16QAM
OPERATING FREQUENCY	**Zwave:** 908.4MHz, 916MHz **Zigbee:** 2405-2480MHz **BLE:** 2402-2480MHz **2.4GHz Wi-Fi:** 2412-2462MHz **5GHz Wi-Fi:** 5180-5825MHz **LTE Band 2:** 1850-1910MHz **LTE Band 4:** 1710-1755MHz **LTE Band 5:** 824-849MHz **LTE Band 12:** 699-716MHz
ANTENNA TYPE	**ZWave:** Surface Mount Patch Antenna with 0.3dBi Peak Gain **Zigbee/BLE:** FPC Antenna with 2.5dBi Peak Gain in 2.4GHz Band **WLAN:** Whip antenna with 2dBi Peak Gain **LTE:** Whip antenna with Peak Gains of 2.42dBi (Band 2), 2.01dBi (Band 4), 2.65dBi (Band 5), 0.72dBi (Band 12)

Previously certified wireless modules in EUT:

Transmitter Module	FCC ID	ISED IC
Zigbee/BLE	2BAL9YDITRZB	30221-YITRZB
2.4/5 GHz Wi-Fi	2ABCB-RPICM4	20953-RPICM4
Cellular	XMR201807EG95NA	10224A-2018EG95NA

EUT Port Information

Port Label	Port Type	No. of Ports	No. of populated	Cable type	Shielded	Ferrites	Length	Max Length
Power	DC Power	1	1	2-Wire	No	No	2m	2m
Ethernet	RJ45	1	1	Cat-6	No	No	5m	100m

Lowest Clock Frequency: 32.768kHz

Highest clock frequency: 5825MHz

Notes:

1. For more detailed information about the EUT, please refer to the manufacturer's specifications or the user's manual.
2. For photos of the EUT, please refer to External and Internal Photo exhibits.

3.2 DESCRIPTION OF TEST MODES

3.2.1. TEST MODE CONFIGURATIONS OF SYSTEM

The product was set to operate in the following simultaneous transmission configurations. These modes were identified by the customer.

Config.	Zwave	Wi-Fi 2.4G	Wi-Fi 5G	BLE	ZigBee	LTE	Tested Frequency Range	Notes
1	CH0 916	802.11b CH7 1Mbps 2442MHz	-	-	CH11 2405MHz	Band2	30MHz-18GHz	1
2	CH0 916	802.11b CH7 1Mbps 2442MHz	-	-	CH11 2405MHz	Band4	30MHz-18GHz	1
3	CH0 916	802.11b CH7 1Mbps 2442MHz	-	-	CH11 2405MHz	Band5	9kHz-25GHz	1,2
4	CH0 916	802.11b CH7 1Mbps 2442MHz	-	-	CH11 2405MHz	Band12	30MHz-18GHz	1
5	CH0 916	-	802.11a CH64 6Mbps 5320MHz	CH0 2402MHz	-	Band2	9kHz-40GHz	1,3
6	CH0 916	-	802.11a CH64 6Mbps 5320MHz	CH0 2402MHz	-	Band4	30MHz-27GHz	1
7	CH0 916	-	802.11a CH64 6Mbps 5320MHz	-	CH11 2405MHz	Band5	30MHz-27GHz	1
8	CH0 916	-	802.11a CH64 6Mbps 5320MHz	-	CH11 2405MHz	Band12	30MHz-27GHz	1

Note 1: Power supply SWI25-12-N was used for Simult Tx Testing, as it was identified as a worst power supply during Zwave certification radiated emission pre-scans. Refer to report EX0965-2.
Note 2: Testing below 30MHz and up to 10th harmonics of highest transmitting frequency was performed on one configuration of 2.4GHz Wi-Fi.
Note 3: Testing below 30MHz and up to 10th harmonics of highest transmitting frequency was performed on one configuration of 5GHz Wi-Fi.

One radiated sample was provided for testing. 12VDC power is supplied by SWI25-12-N power supply to the EUT.

EUT Setup Block Diagram:

The laptop and Linksys Router were outside of the chamber during Simultaneous Tx testing.

Test Conditions:

APPLICABLE TO	Environmental conditions	Input Power	Tested by	DATE OF Test
Config. 1 to 8	22.3°C, 49.3%, 1018mbar 21.0°C, 44.5%, 1016mbar 21.7°C, 46.0%, 1012.5mbar 22.4°C, 47.8%, 1020mbar	12 VDC	Nisha Patel	Aug 30,2024 Sept 03, 2024 Sept 04, 2024 Sept 05,2024

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Parts 22.917, 24.238, 27.53, 15.247, 15.249

RSS-247 Issue 3, RSS-210 Issue 10, RSS-132 Issue 4, RSS-133 Issue 7, RSS-139 Issue 4

ANSI C63.10-2013, ANSI C63.26-2015

Note: All testing was performed and recorded per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

Support Equipment	Model #	Serial #
Router	Linksys WRV200	MMH006806414
Laptop	Dell Latitude E6400	JFT84L1

4 TEST RESULTS

4.1 RADIATED EMISSIONS MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSIONS MEASUREMENT

- **Rule part 22.917(a)** specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power(P) by a factor of at least 43 + 10log(P) dB”.

Limit	-13dBm

- **Rule part 24.238(a)** specifies that “on any frequency outside a licensee’s frequency block, The power of any emission shall be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB”.

Limit	-13dBm

- **Rule part 27.53(h)** specifies that “for operations in the 1695-1710MHz, 1710-1755MHz, 1755-1780MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.
- **Rule part 27.53(g)** For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.
- **Rule part 27.53(f)** For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotopically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

Part 27.53(h)(g) Limit		-13dBm
Part 27.53(f) Limit	Limit out of the band 1559-1610MHz	-13dBm
	Limit in the band 1559-1610MHz	-40dBm

Notes:

1. Lower limit applies at the transition frequencies.
2. As specified in 15.35(b), for frequencies above 1000MHz, field strength limits are based on the use of measurement instrumentation employing an average detector function. However, there is also a limit on the peak level of the emissions that is 20 dB above the maximum permitted average emission limit.
3. Measurements above 6GHz or 18GHz can be performed at distances less than 3m from the EUT due to increased noise floor of the measurement system. Since such measurements produce higher amplitudes than what they would be if they were measured at 3 meters, this would be considered worst-case and no compensation back to 3 meters is needed. Limit conversion above 30MHz is done by using inverse linear distance extrapolation factor (20dB/decade) as allowed in FCC 15.31(f)(1).

   Limit(1m) = Limit(3m) + 20*log(3/1) = Limit(3m) + 9.5

   Limit(0.1m) = Limit(3m) + 20*log(3/0.1) = Limit(3m) + 29.5
4. Limit conversion below 30MHz is done by using the square of an inverse linear distance extrapolation factor (40 dB/decade) as allowed in FCC 15.31(f)(2).

   Limit (3m) = Limit (30m) + 40*log(30/3) = Limit(30m) + 40

   Limit (3m) = Limit (300m) + 40*log(300/3) = Limit (300m) + 80
5. Adjusted Reading (dBuV/m) = Raw Reading (dBuV) + Transducer(Correction) Factor (dB/m)

   Transducer Factor (dB/m) = Antenna Factor (dB/m) – PreAmp Gain (dB) + Cable Loss (dB) + Filter Loss (dB)

   Note: Filter loss only applies if a notch filter is used during testing.
6. RSS-GEN Table 6 H-field limits are 51.5dB lower than FCC 15.209(a) E-field limits. Measurements are performed in terms of magnetic field and converted to electric field using the free space impedance of 377Ω (E-field = H-field + 51.5). Therefore resulting pass/fail margin would be the same if an E-field reading is compared to an H-field limit or an H-field reading is compared to an H-field limit.

4.1.2 TEST EQUIPMENT USED

Rev. 8/12/2024								
Radiated Emissions Sites	**FCC Code**	**IC Code**	**VCCI Code**	**Range**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz	1685	I	11/29/2024	11/29/2022
EMI Chamber 1	719150	2762A-6	A-0015	1-18GHz	1685	I	12/29/2024	12/29/2022
Spectrum Analyzers / Receivers /Preselectors	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Gauss TDEMI Ultra 40	9kHz-40Ghz	TDEMI Ultra 40	Gauss	2305001	2712	1	7/23/2025	7/23/2024
Antennas	**Range**	**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Red-White Bilog	30-2000MHz	JB1	Sunol	A091604-1	1105	I	11/2/2025	11/2/2023
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	3/27/2025	3/27/2023
3116C Horn / PA	18-40GHz	3116C	ETS	258845	2852	I	3/21/2026	3/21/2024
2615 Active Loop Antenna	9KHz-30MHz	6502	EMCO	2049	2615	I	1/18/2025	1/18/2023
Cables	**Range**		**Mfr**			**Cat**	**Calibration Due**	**Calibrated on**
Asset #2608	9KHz-18GHz		Pasternack			II	11/2/2024	11/2/2023
Asset #2595	9KHz-40GHz		Carlisle			II	2/17/2025	2/17/2024
Asset #2681	9KHz-18GHz		Pasternack			II	12/7/2024	12/7/2023
Asset #2690	1-40GHz		Pasternack			II	9/22/2024	8/22/2023
Meteorological Meters/Chambers		**MN**	**Mfr**	**SN**	**Asset**	**Cat**	**Calibration Due**	**Calibrated on**
Asset 2848		SD700	EXTECH	A.115171	2848	I	1/13/2025	1/13/2023
Asset #2847		1235C97	Control Company	200435382	2847	I	8/18/2025	8/18/2022
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.								

4.1.3 TEST PROCEDURES

4 The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber.

5 For below 30MHz, a loop antenna with its lowest point 1m above the ground was placed 3m away from the EUT and it was rotated 0 and 90 degrees around its vertical axis.

6 In 30MHz-1GHz range, a biconilog antenna was mounted on a variable-height antenna tower and placed 3m away from the EUT. Antenna height was varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were investigated. The table was rotated 360 degrees to determine the position of the highest radiation.

7 In 1GHz-18GHz range, a horn antenna was mounted on a variable-height antenna tower and placed 3m away from the EUT. Antenna height was varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were investigated. The table was rotated 360 degrees to determine the position of the highest radiation.

8 In 18-40GHz a smaller horn antenna was used to make measurements at 1m away from the EUT.

9 Following bandwidths were used during emissions testing:

Freq. (MHz)	RBW	VBW	Pre-scan	Final
0.009-0.15	200Hz	1kHz	Peak	Was not required based on Pre-scan results
0.15-30	9kHz	30kHz	Peak	Was not required based on Pre-scan results
30-1000	120kHz	300kHz	Peak	Was not required based on Pre-scan results
>1000	1MHz	3MHz	Peak	Peak Max Hold and RMS Power Avg (Max Hold)

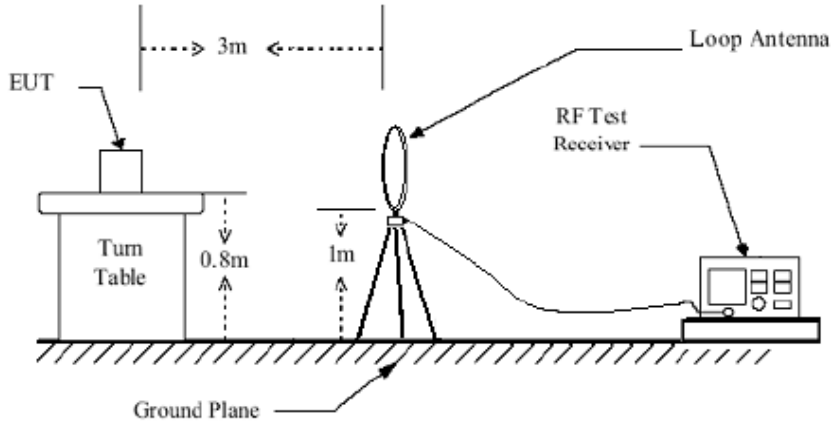
Per FCC §15.209(d), limits §15.209(a) are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. If peak measurements in these frequency bands were below the applicable limits, QPk and RMS measurements were not performed.

4.1.4 DEVIATION

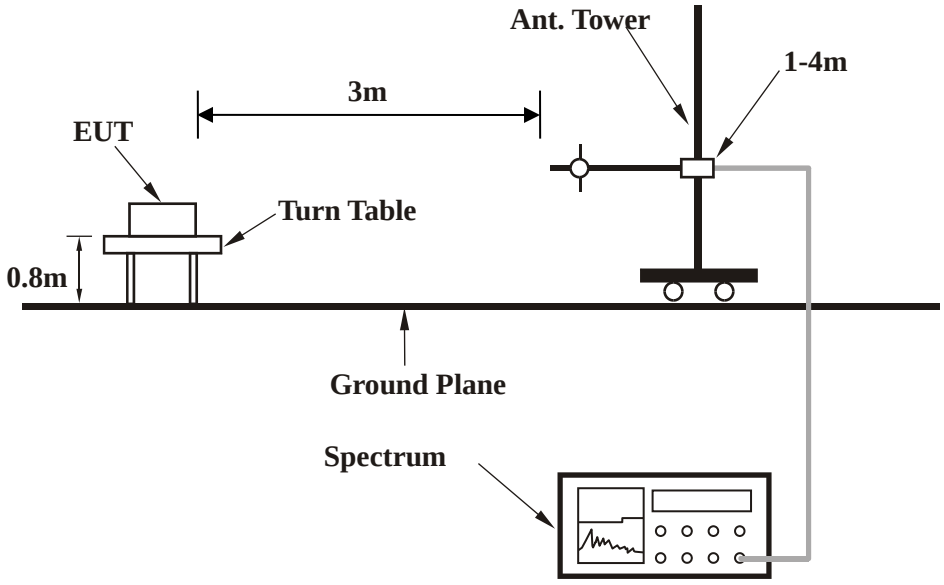
No deviations from the standard.

4.1.5 TEST SETUP

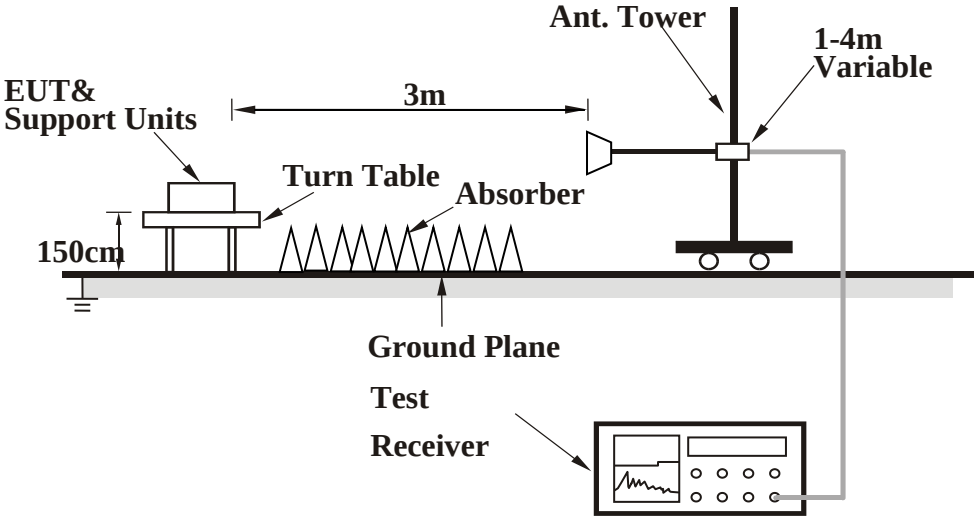
Below 30MHz Test Setup



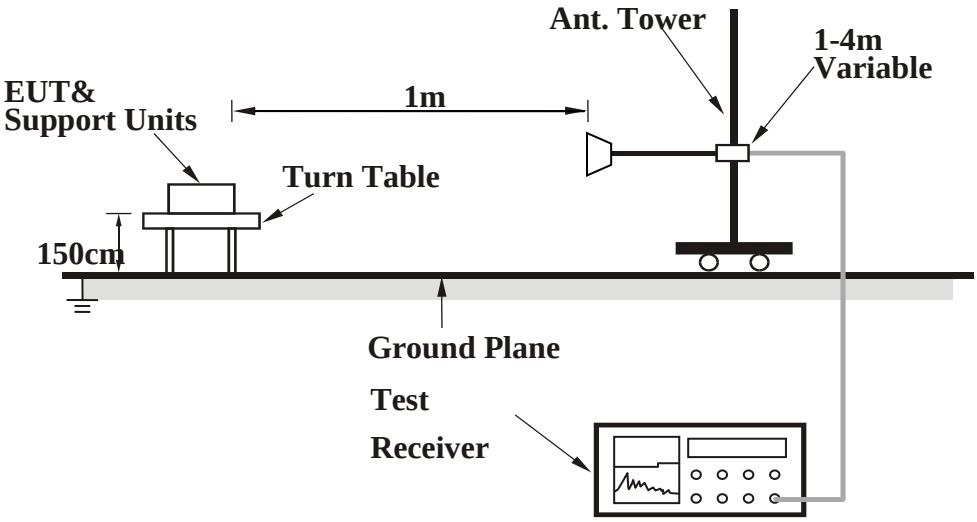
30MHz - 1GHz Test Setup



1GHz – 18GHz Test Setup



18GHz – 40GHz Test Setup



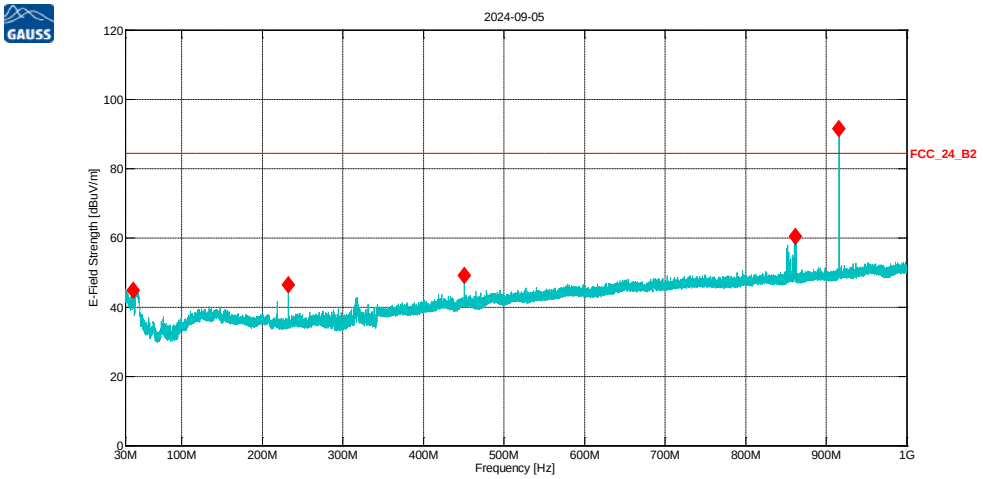
4.1.6 EUT OPERATING CONDITIONS

EUT was operated according to the manufacturer's specifications.

4.1.7 TEST RESULTS

4.1.7.1 Configuration 1

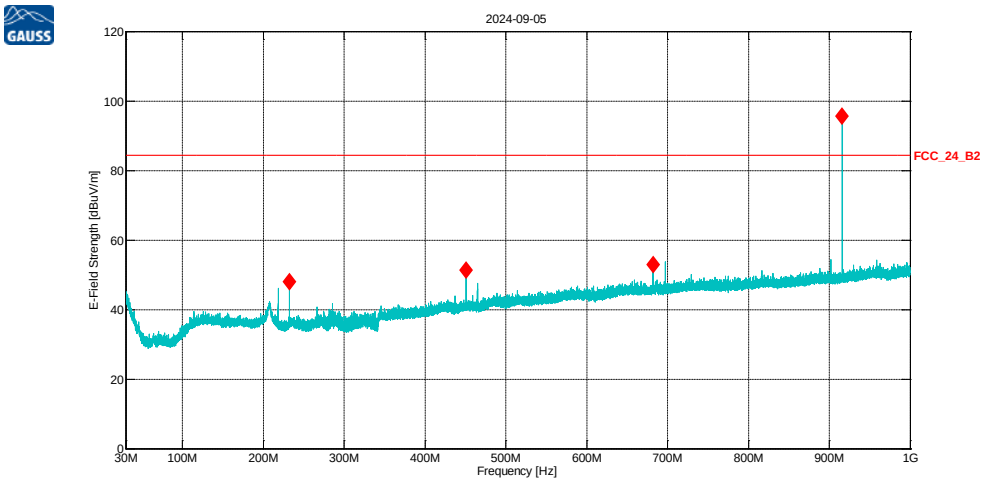
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
39.6 MHz	44.92	84.38	39.46	V	100	4.816	19.94	FCC_24_B2
232.5 MHz	46.47	84.38	37.91	V	300	0.064	17.04	FCC_24_B2
451.025 MHz	49.08	84.38	35.30	V	100	179.591	22.48	FCC_24_B2
861.55 MHz	60.32	84.38	24.06	V	200	54.74	28.16	FCC_24_B2
916.025 MHz	91.58	-	-	V	100	176.06	28.73	Zwave Fundamental

30-1000MHz Vertical Plot and Data Table

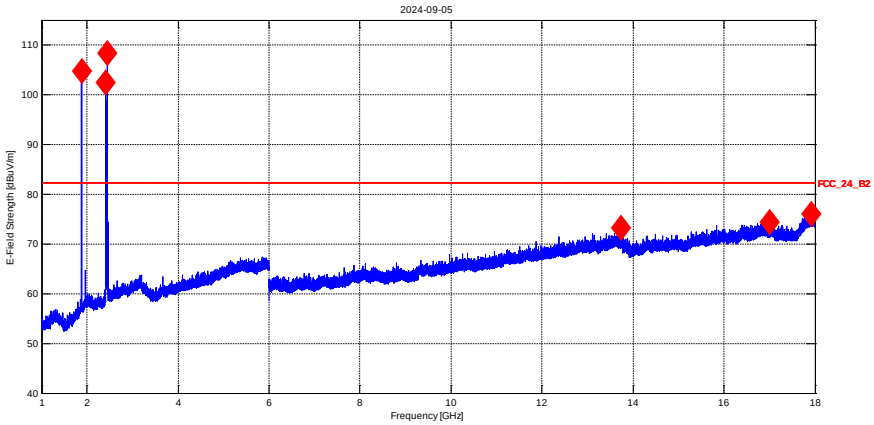


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
232.425 MHz	47.96	84.38	36.42	H	100	351.932	17.04	FCC_24_B2
451.05 MHz	51.28	84.38	33.10	H	300	125.851	22.48	FCC_24_B2
681.975 MHz	52.96	84.38	31.42	H	100	121.82	25.99	FCC_24_B2
915.95 MHz	95.65	-	-	H	100	125.851	28.73	Zwave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



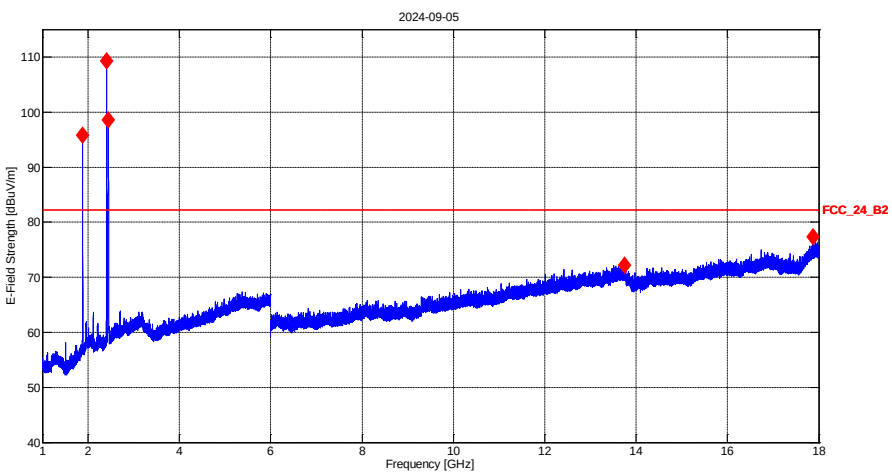
Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
1.88175 GHz	104.67	-	-	V	200	22.064	34.21	LTE Band 2 Fundamental
2.4045 GHz	102.48	-	-	V	300	84.532	34.81	Zigbee Fundamental
2.4445 GHz	108.30	-	-	V	100	11.906	35.19	2.4GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.745 GHz	73.16	82.23	9.07	V	100	37.298	47.88	FCC_24_B2
17.0065 GHz	74.35	82.23	7.88	V	100	234.208	51.22	FCC_24_B2
17.915 GHz	75.98	82.23	6.25	V	100	57.915	53.25	FCC_24_B2

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
1.88175 GHz	95.85	-	-	H	300	70.585	34.21	LTE Band 2 Fundamental
2.405 GHz	109.33	-	-	H	300	197.423	34.81	Zigbee Fundamental
2.443 GHz	98.62	-	-	H	400	112.546	35.19	2.4GHz Wi-Fi Fundamental

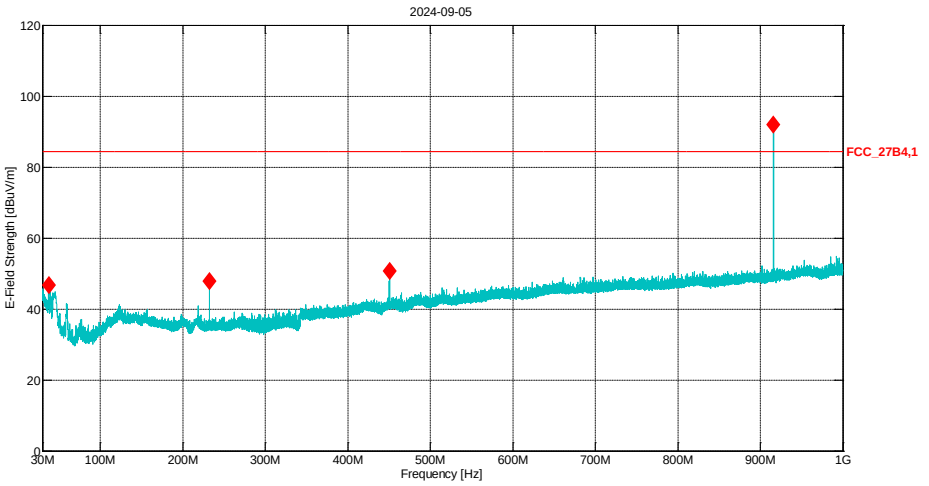
Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.74775 GHz	72.22	82.23	10.01	H	300	278.782	47.87	FCC_24_B2
17.87225 GHz	77.36	82.23	4.87	H	400	0	53.10	FCC_24_B2

1-18GHz Horizontal Plot and Data Table

4.1.7.2 Configuration 2

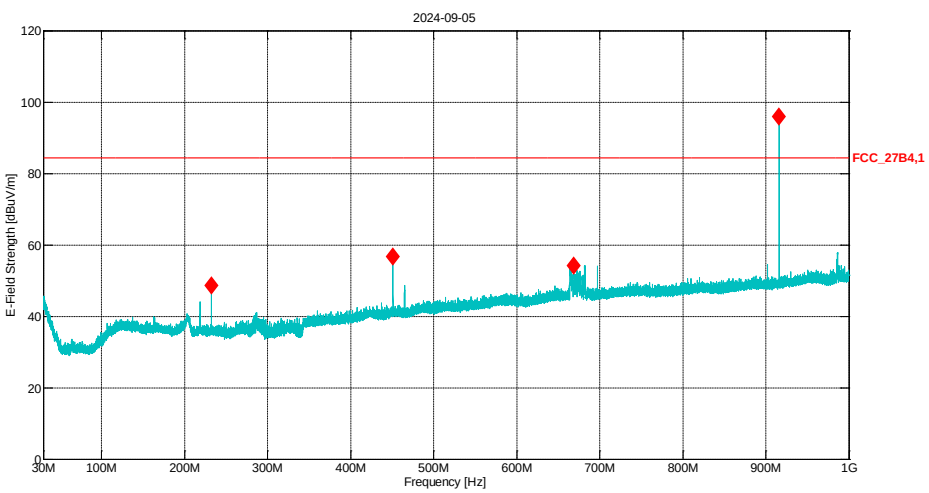
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
37.675 MHz	46.68	84.38	37.70	V	100	248.796	21.30	FCC_27B4,12
232.5 MHz	47.89	84.38	36.49	V	100	226.897	17.04	FCC_27B4,12
451.025 MHz	50.77	84.38	33.61	V	100	190.559	22.48	FCC_27B4,12
916.025 MHz	92.04	-	-	V	100	187.551	28.73	Zwave Fundamental

30-1000MHz Vertical Plot and Data Table

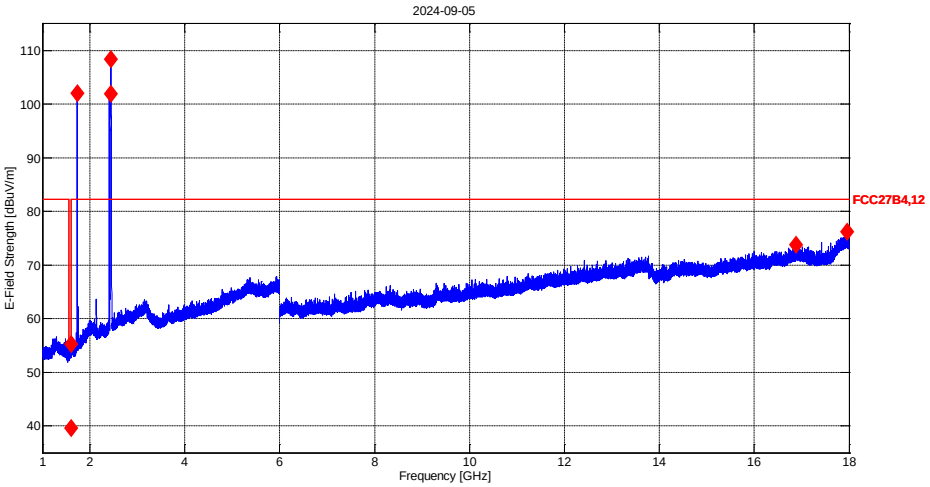


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
232.425 MHz	48.63	84.38	35.75	H	200	337.399	17.04	FCC_27B4,12
451.025 MHz	56.69	84.38	27.69	H	100	121.152	22.48	FCC_27B4,12
668.55 MHz	54.23	84.38	30.15	H	300	267.448	25.88	FCC_27B4,12
916.025 MHz	95.94	-	-	H	100	121.152	28.73	Zwave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.60275 GHz	55.25	-	-	V	300	25.938	30.65	See Final1 data table for average
1.7335 GHz	102.00	-	-	V	200	353.331	31.55	LTE Band 4 Fundamental
2.4405 GHz	108.35	-	-	V	200	7.954	34.76	Zigbee Fundamental
2.437 GHz	101.91	-	-	V	200	7.954	34.75	2.4GHz Wi-Fi Fundamental

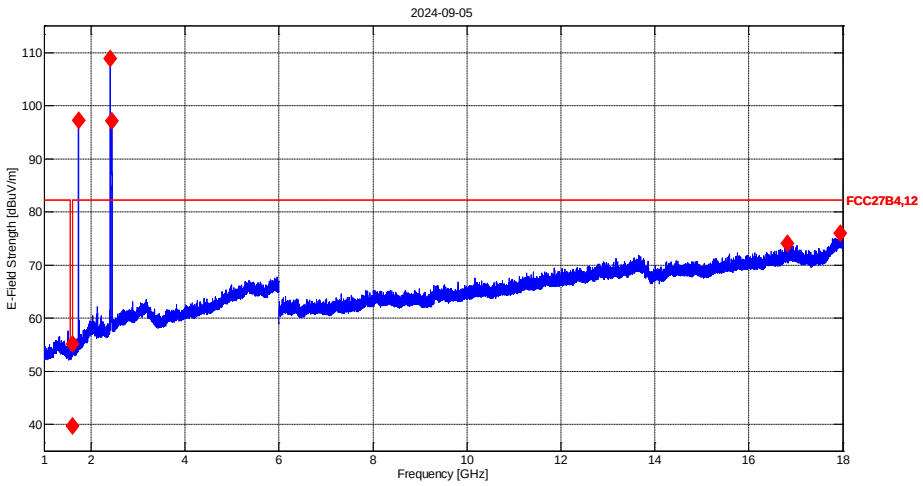
Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
16.881 GHz	73.79	82.23	8.44	V	100	359	50.67	FCC27B4,12
17.959 GHz	76.26	82.23	5.97	V	300	64.833	52.73	FCC27B4,12

Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.60265 GHz	39.63	55.23	15.6	V	25.938	200	30.65	FCC27B4,12

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.6045 GHz	55.12	-	-	H	100	41.458	30.66	See Final1 data table for average
1.7335 GHz	97.31	-	-	H	300	260.325	31.55	LTE Band 4 Fundamental
2.4045 GHz	108.90	-	-	H	300	199.045	34.43	Zigbee Fundamental
2.444 GHz	97.16	-	-	H	400	108.121	34.78	2.4GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
16.82425 GHz	74.10	82.23	8.13	H	100	342.889	50.53	FCC27B4,12
17.951 GHz	76.04	82.23	6.19	H	100	256.989	52.75	FCC27B4,12

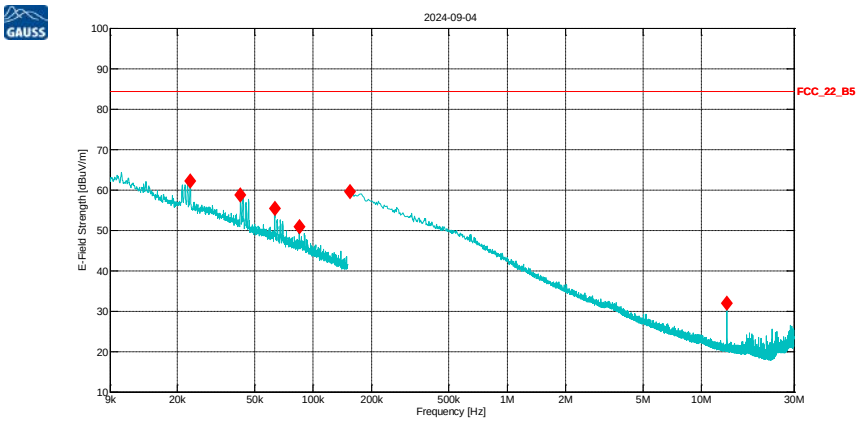
Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.6045 GHz	39.67	55.23	15.56	H	41.458	133.951	30.66	FCC27B4,12

1-18GHz Horizontal Plot and Data Table

4.1.7.3 Configuration 3

Below 30MHz



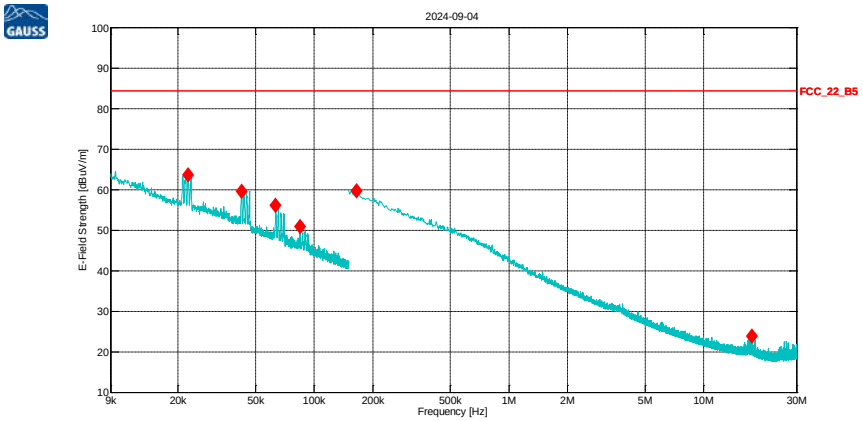
Scan1: 9.0 kHz, 100.0 Hz, 150.0 kHz; IF:200Hz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
23.25 kHz	62.25	84.38	22.13	Perpendicular	100	88.5	13.49	FCC_22_B5
42.25 kHz	58.75	84.38	25.63	Perpendicular	100	89.633	11.69	FCC_22_B5
63.55 kHz	55.40	84.38	28.98	Perpendicular	100	82.944	10.69	FCC_22_B5
84.9 kHz	50.84	84.38	33.54	Perpendicular	100	87.167	10.47	FCC_22_B5

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
155 kHz	59.64	84.38	24.74	Perpendicular	100	283.75	10.01	FCC_22_B5
13.5625 MHz	31.97	84.38	52.41	Perpendicular	100	13.204	10.87	FCC_22_B5

9k-30MHz Perpendicular Plot and Data Table



Scan1: 9.0 kHz, 100.0 Hz, 150.0 kHz; IF:200Hz, 100.0 ms MaxPeak, Att 0dB

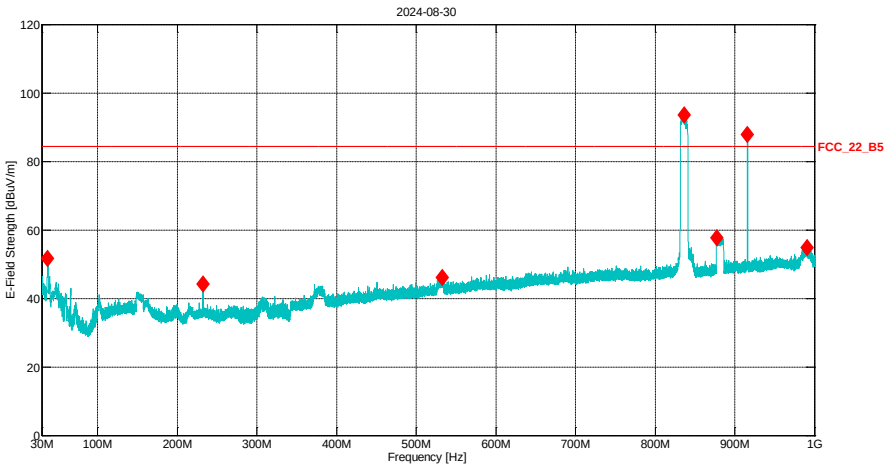
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
22.5 kHz	63.62	84.38	20.76	Parallel	100	27.107	13.54	FCC_22_B5
42.5 kHz	59.59	84.38	24.79	Parallel	100	23.143	11.65	FCC_22_B5
63.35 kHz	56.14	84.38	28.24	Parallel	100	30.272	10.70	FCC_22_B5
84.8 kHz	50.87	84.38	33.51	Parallel	100	148.734	10.46	FCC_22_B5

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
165 kHz	59.67	84.38	24.71	Parallel	100	37.663	10.00	FCC_22_B5
17.6925 MHz	23.89	84.38	60.49	Parallel	100	150.045	10.71	FCC_22_B5

9k-30MHz Parallel Plot and Data Table

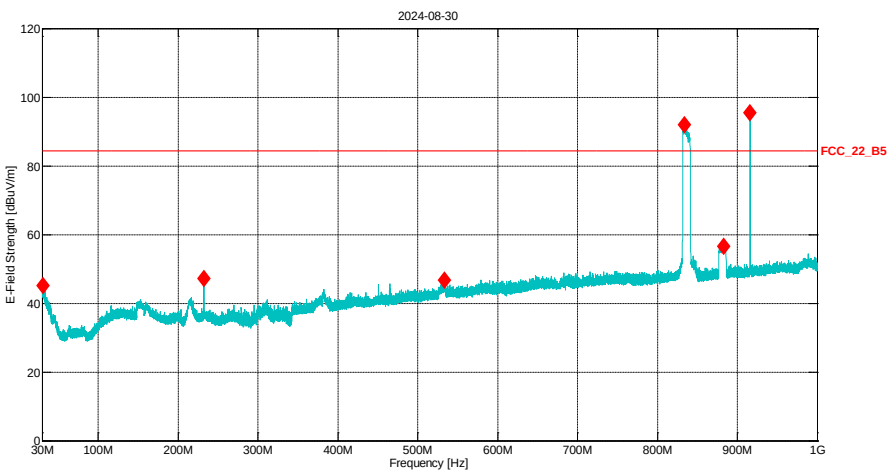
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
37.35 MHz	51.62	84.38	32.76	V	100	98.83	21.57	FCC_22_B5
232.45 MHz	44.16	84.38	40.22	V	300	161.367	16.98	FCC_22_B5
532.975 MHz	46.16	84.38	38.22	V	200	348.25	23.96	FCC_22_B5
836.5 MHz	93.64	-	-	V	100	358.876	27.97	LTE Band 5 Fundamental
877.65 MHz	57.75	84.38	26.63	V	100	98.83	28.42	FCC_22_B5
916 MHz	87.90	-	-	V	100	41.75	28.71	Zwave Fundamental
990.875 MHz	54.91	84.38	29.47	V	100	328.3	29.70	FCC_22_B5

30-1000MHz Vertical Plot and Data Table

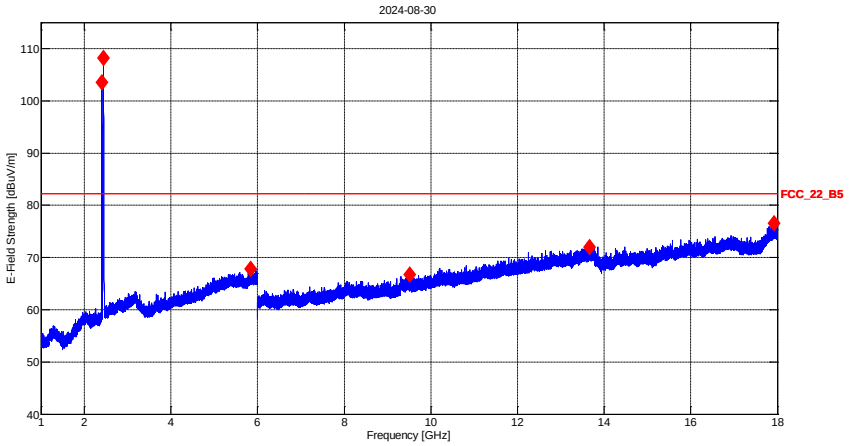


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
31 MHz	45.20	84.38	39.18	H	100	239.116	26.22	FCC_22_B5
232.5 MHz	47.29	84.38	37.09	H	300	221.49	16.98	FCC_22_B5
533.725 MHz	46.82	84.38	37.56	H	100	280.455	23.97	FCC_22_B5
834.075 MHz	91.97	-	-	H	100	120.016	28.07	LTE Band 5 Fundamental
882.725 MHz	56.56	84.38	27.82	H	300	165.22	28.44	FCC_22_B5
916.025 MHz	95.52	-	-	H	100	138.46	28.71	Zwave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



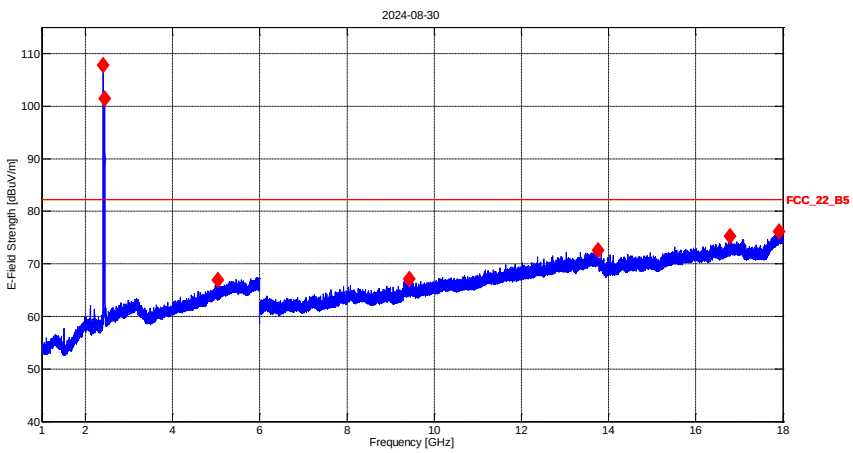
Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
2.4045 GHz	103.55	-	-	V	300	95.375	34.81	Zigbee Fundamental
2.4425 GHz	108.24	-	-	V	100	25.648	35.18	2.4GHz Wifi Fundamental
5.83675 GHz	67.84	82.23	14.39	V	100	279.2	40.31	FCC_22_B5

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
9.51775 GHz	66.70	82.23	15.53	V	100	348.55	43.41	FCC_22_B5
13.66625 GHz	72.04	82.23	10.19	V	100	63.75	48.24	FCC_22_B5
17.92425 GHz	76.53	82.23	5.70	V	100	200.05	53.26	FCC_22_B5

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

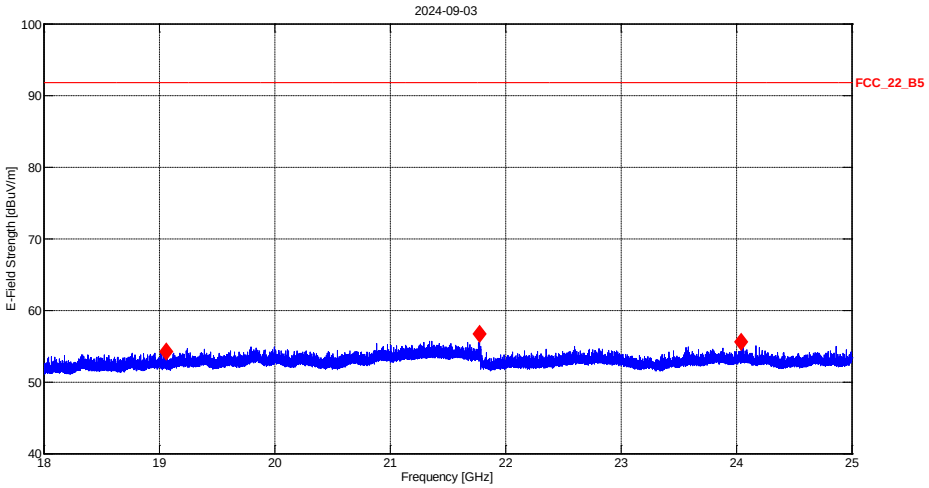
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
2.4045 GHz	107.83	-	-	H	100	193.486	34.81	Zigbee Fundamental
2.4425 GHz	101.43	-	-	H	200	349.593	35.18	2.4GHz Wifi Fundamental
5.03575 GHz	66.96	82.23	15.27	H	100	150.853	39.08	FCC_22_B5

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
9.431 GHz	67.17	82.23	15.06	H	100	97.041	43.47	FCC_22_B5
13.76175 GHz	72.54	82.23	9.69	H	200	359	47.87	FCC_22_B5
16.78625 GHz	75.31	82.23	6.92	H	100	143.107	51.49	FCC_22_B5
17.915 GHz	76.20	82.23	6.03	H	200	0	53.25	FCC_22_B5

1-18GHz Horizontal Plot and Data Table

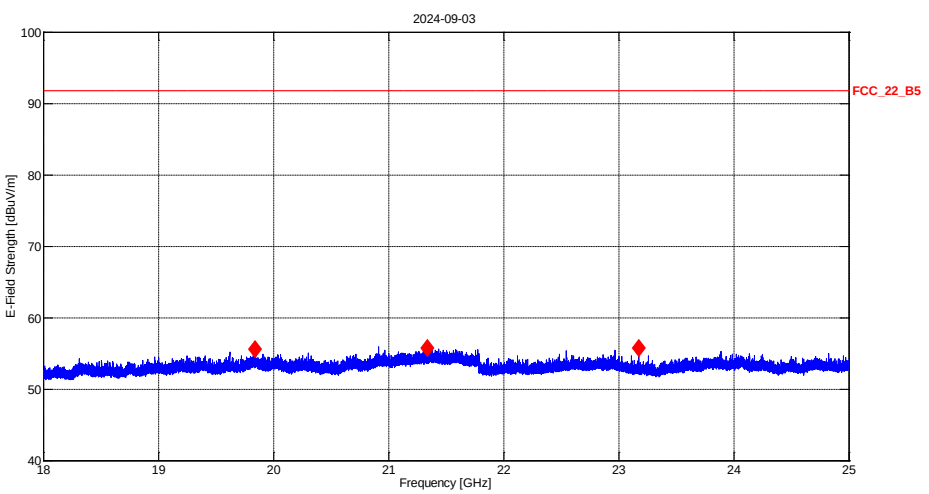
18-25GHz



Scan1: 18.0 GHz, 50.0 kHz, 25.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.062 GHz	54.26	91.77	37.51	V	100	78.623	14.55	FCC_22_B5
21.77675 GHz	56.74	91.77	35.03	V	200	18.473	15.57	FCC_22_B5
24.04425 GHz	55.60	91.77	36.17	V	125	170.177	16.41	FCC_22_B5

18-25GHz Vertical Plot and Data Table



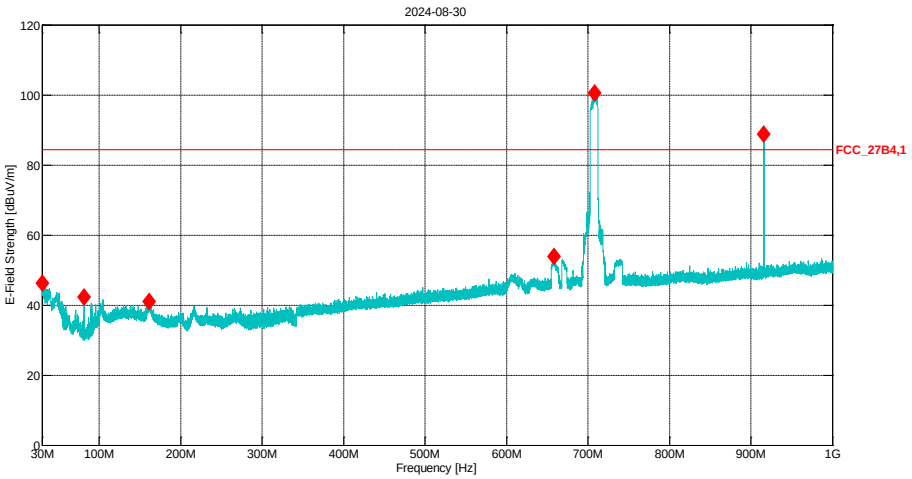
Scan1: 18.0 GHz, 50.0 kHz, 25.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.84225 GHz	55.58	91.77	36.19	H	100	63.938	15.76	FCC_22_B5
21.33825 GHz	55.77	91.77	36.00	H	100	337.315	16.08	FCC_22_B5
23.1745 GHz	55.73	91.77	36.04	H	100	98.511	15.66	FCC_22_B5

18-25GHz Horizontal Plot and Data Table

4.1.7.4 Configuration 4

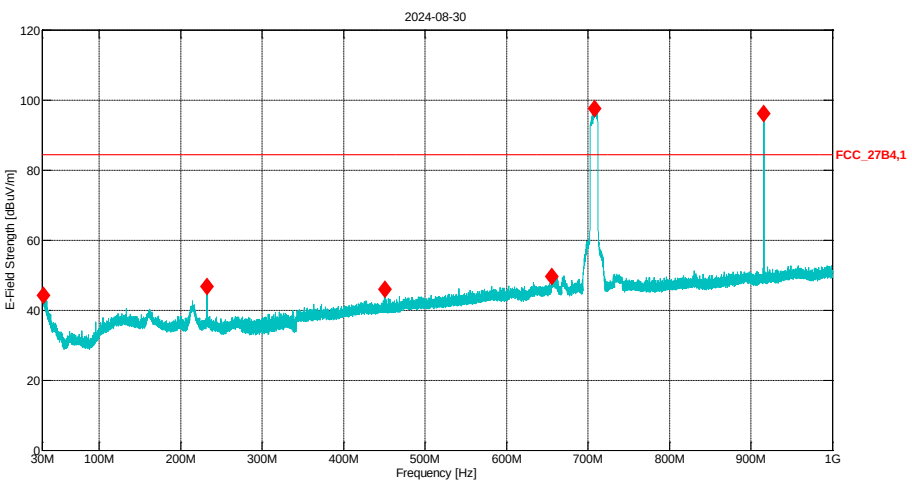
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
30.575 MHz	46.27	84.38	38.11	V	100	19.428	26.55	FCC_27B4,12
81.575 MHz	42.25	84.38	42.13	V	200	360	12.62	FCC_27B4,12
161.325 MHz	41.06	84.38	43.32	V	100	221.26	17.59	FCC_27B4,12
658.625 MHz	53.85	84.38	30.53	V	300	23.084	25.87	FCC_27B4,12
708.35 MHz	100.53	-	-	V	100	26.82	26.32	LTE Band 12 Fundamental
916.025 MHz	88.78	-	-	V	100	19.428	28.71	Zwave Fundamental

30-1000MHz Vertical Plot and Data Table

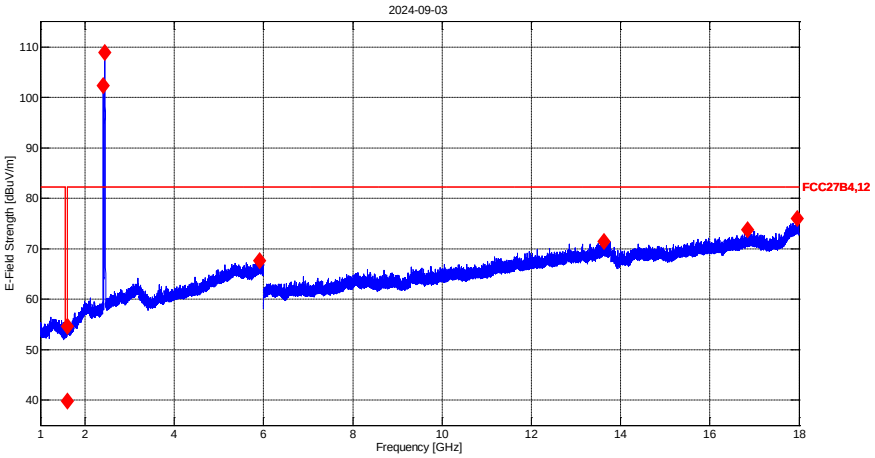


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
31.5 MHz	44.16	84.38	40.22	H	200	90.52	25.87	FCC_27B4,12
232.5 MHz	46.81	84.38	37.57	H	300	94.727	16.98	FCC_27B4,12
451.025 MHz	45.91	84.38	38.47	H	100	146.648	22.25	FCC_27B4,12
655.625 MHz	49.54	84.38	34.84	H	100	282.876	25.89	FCC_27B4,12
708.35 MHz	97.52	-	-	H	100	176.925	26.32	LTE Band 12 Fundamental
916.025 MHz	96.07	-	-	H	100	143.096	28.71	Zwave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.60275 GHz	54.61	-	-	V	100	136.71	30.65	See Final1 data table for average
2.40425 GHz	102.37	-	-	V	300	75.815	34.43	Zigbee Fundamental
2.443 GHz	108.95	-	-	V	200	14.083	34.77	2.4GHz Wi-Fi Fundamental
5.9095 GHz	67.66	82.23	14.57	V	400	227.527	40.60	FCC27B4,12

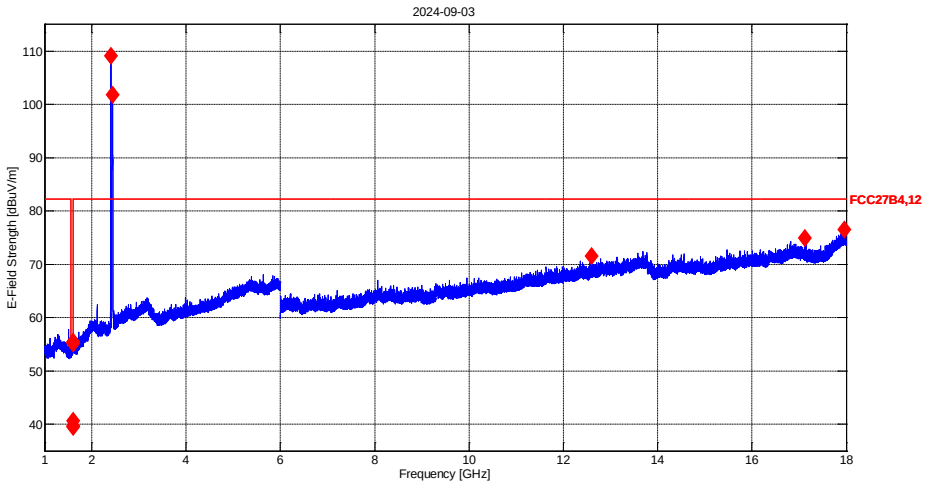
Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.63025 GHz	71.49	82.23	10.74	V	100	298.204	47.42	FCC27B4,12
16.841 GHz	73.79	82.23	8.44	V	300	68.633	50.56	FCC27B4,12
17.963 GHz	75.97	82.23	6.26	V	100	74.663	52.72	FCC27B4,12

Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.60225 GHz	39.78	55.23	15.45	V	136.71	100	30.65	FCC27B4,12

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.59875 GHz	55.40	-	-	H	400	301.504	30.64	See Final1 data table for average
1.60275 GHz	55.49	-	-	H	400	328.342	30.65	See Final1 data table for average
1.604 GHz	55.17	-	-	H	100	235.463	30.66	See Final1 data table for average
2.4045 GHz	109.17	-	-	H	200	196.781	34.43	Zigbee Fundamental
2.443 GHz	101.84	-	-	H	200	359	34.77	2.4GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
12.601 GHz	71.58	82.23	10.65	H	300	208.978	46.48	FCC27B4,12
17.12 GHz	74.90	82.23	7.33	H	200	263.056	50.33	FCC27B4,12
17.95975 GHz	76.49	82.23	5.74	H	100	256.443	52.73	FCC27B4,12

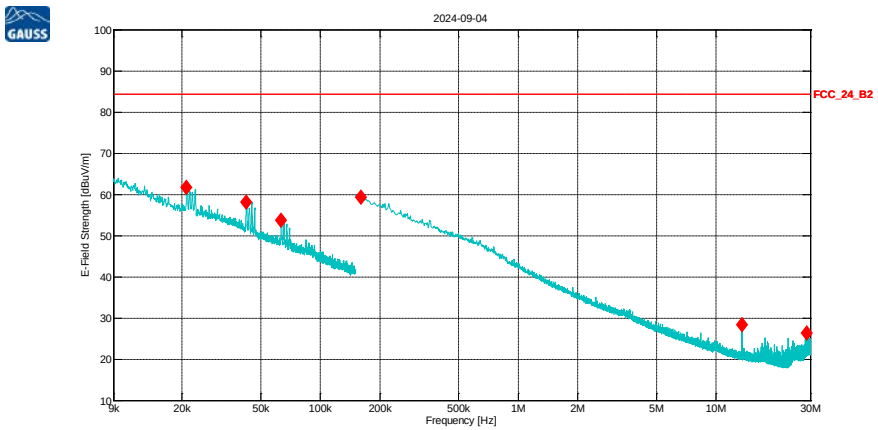
Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.5995 GHz	40.63	55.23	14.6	H	301.504	302.959	30.63	FCC27B4,12
1.60275 GHz	39.53	55.23	15.7	H	328.342	360.053	30.65	FCC27B4,12
1.602 GHz	39.69	55.23	15.54	H	235.463	100	30.65	FCC27B4,12

1-18GHz Horizontal Plot and Data Table

4.1.7.5 Configuration 5

9k-30MHz



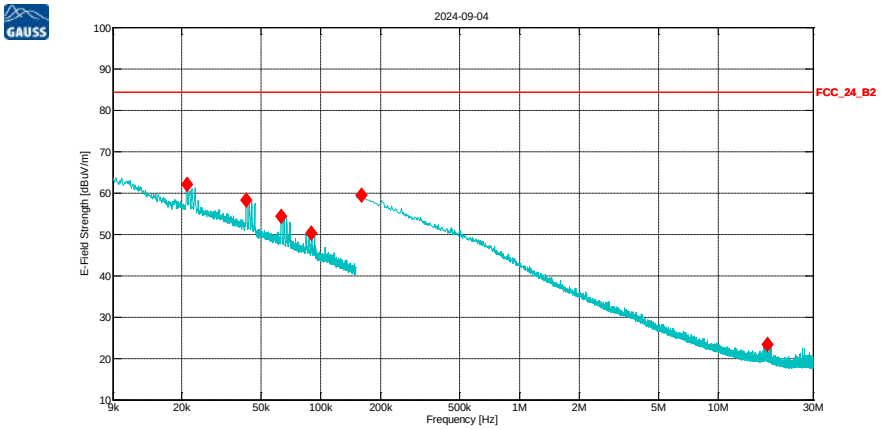
Scan1: 9.0 kHz, 100.0 Hz, 150.0 kHz; IF:200Hz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
21.05 kHz	61.74	84.38	22.64	Perpendicular	100	99.72	13.64	FCC_24_B2
42.25 kHz	58.20	84.38	26.18	Perpendicular	100	92.931	11.69	FCC_24_B2
63.35 kHz	53.78	84.38	30.60	Perpendicular	100	98.367	10.70	FCC_24_B2

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
160 kHz	59.30	84.38	25.08	Perpendicular	100	178.05	10.00	FCC_24_B2
13.5575 MHz	28.44	84.38	55.94	Perpendicular	100	11.887	10.87	FCC_24_B2
28.685 MHz	26.38	84.38	58.00	Perpendicular	100	135.217	8.36	FCC_24_B2

9k-30MHz Perpendicular Plot and Data Table



Scan1: 9.0 kHz, 100.0 Hz, 150.0 kHz; IF:200Hz, 100.0 ms MaxPeak, Att 0dB

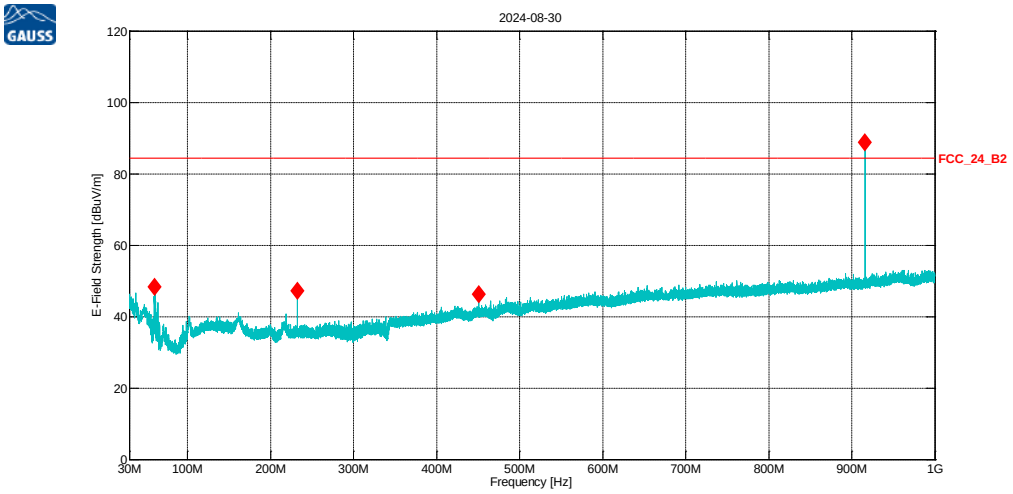
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
21.2 kHz	62.02	84.38	22.36	Parallel	100	27.437	13.63	FCC_24_B2
42.15 kHz	58.30	84.38	26.08	Parallel	100	9.035	11.70	FCC_24_B2
63.1 kHz	54.37	84.38	30.01	Parallel	100	23.23	10.71	FCC_24_B2
89.75 kHz	50.33	84.38	34.05	Parallel	100	157.44	10.51	FCC_24_B2

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
160 kHz	59.45	84.38	24.93	Parallel	100	232.486	10.00	FCC_24_B2
17.6925 MHz	23.39	84.38	60.99	Parallel	100	128.438	10.71	FCC_24_B2

9k-30MHz Parallel Plot and Data Table

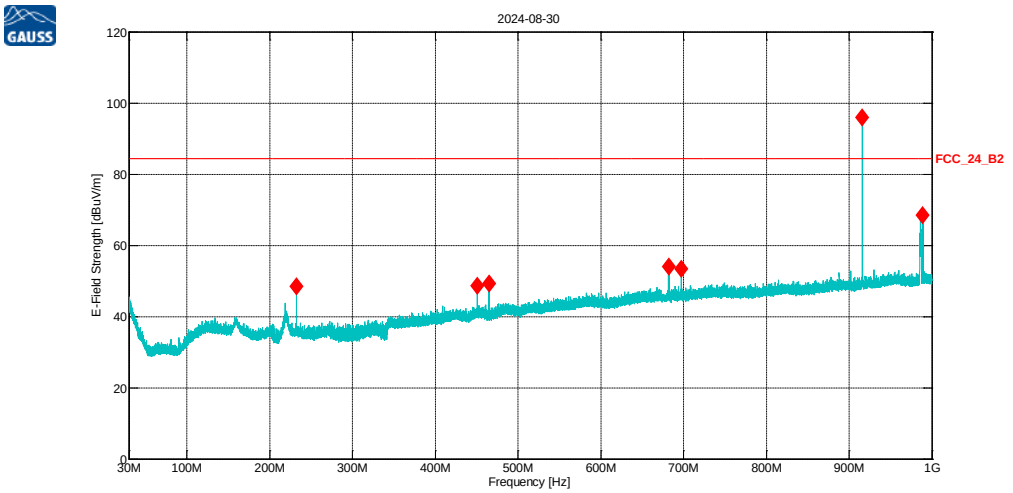
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
60.55 MHz	48.36	84.38	36.02	V	100	126.275	12.46	FCC_24_B2
232.5 MHz	47.20	84.38	37.18	V	100	49	16.98	FCC_24_B2
451.025 MHz	46.25	84.38	38.13	V	100	359.131	22.25	FCC_24_B2
916.025 MHz	88.75	-	-	V	100	30.377	28.71	Zwave Fundamental

30-1000MHz Vertical Plot and Data Table

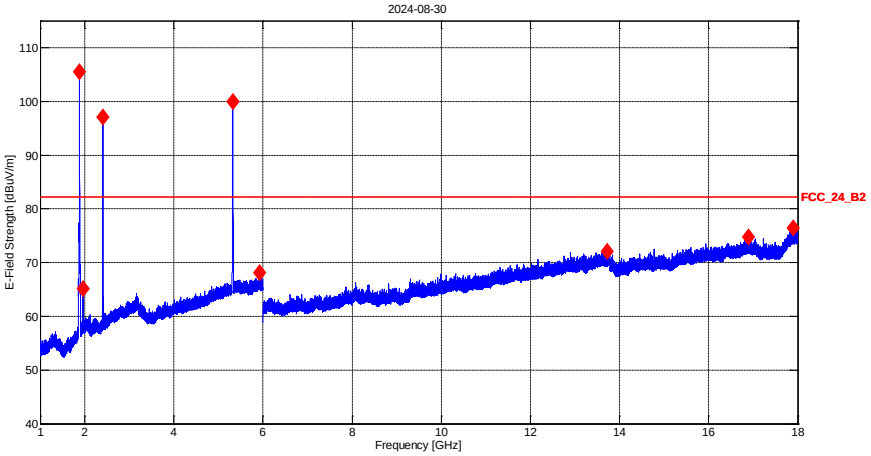


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
232.5 MHz	48.49	84.38	35.89	H	300	145.55	16.98	FCC_24_B2
451.025 MHz	48.61	84.38	35.77	H	100	123.055	22.25	FCC_24_B2
464.95 MHz	49.22	84.38	35.16	H	100	127.558	22.78	FCC_24_B2
682.15 MHz	54.10	84.38	30.28	H	100	127.558	26.03	FCC_24_B2
697.5 MHz	53.42	84.38	30.96	H	100	127.558	26.27	FCC_24_B2
916.025 MHz	96.02	-	-	H	100	127.558	28.71	Zwave Fundamental
988.775 MHz	68.43	84.38	15.95	H	100	145.55	29.69	FCC_24_B2

30-1000MHz Horizontal Plot and Data Table

1-18GHz



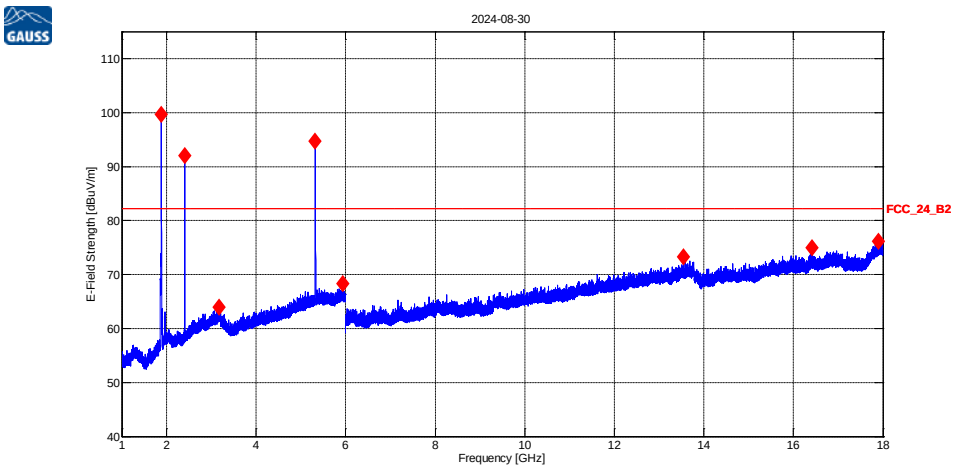
Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
1.88175 GHz	105.56	-	-	V	200	115.703	34.21	LTE Band 2 Fundamental
1.96325 GHz	65.16	82.23	17.07	V	100	359	35.20	FCC_24_B2
2.402 GHz	97.11	-	-	V	100	25.583	34.79	BLE Fundamental
5.322 GHz	99.96	-	-	V	100	359	39.65	5 GHz Wi-Fi Fundamental
5.9275 GHz	68.10	82.23	14.13	V	100	35.374	40.50	FCC_24_B2

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.723 GHz	72.13	82.23	10.10	V	100	191.122	47.99	FCC_24_B2
16.88825 GHz	74.75	82.23	7.48	V	100	323.834	51.57	FCC_24_B2
17.89825 GHz	76.44	82.23	5.79	V	300	17.922	53.21	FCC_24_B2

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

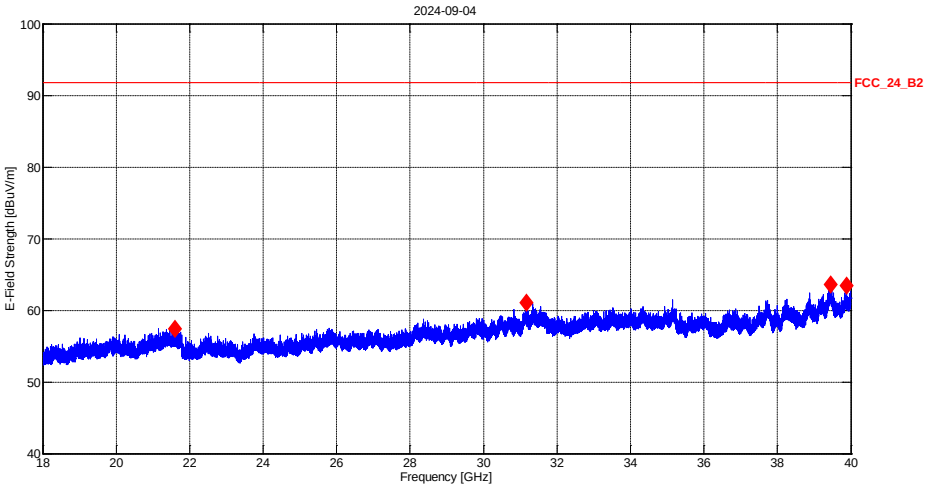
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
1.88375 GHz	99.62	-	-	H	200	122.528	34.23	LTE Band 2 Fundamental
2.40175 GHz	92.01	-	-	H	100	359	34.79	BLE Fundamental
3.172 GHz	64.01	82.23	18.22	H	100	73.549	36.57	FCC_24_B2
5.31875 GHz	94.68	-	-	H	200	140.947	39.64	5 GHz Wi-Fi Fundamental
5.93875 GHz	68.28	82.23	13.95	H	100	305.436	40.52	FCC_24_B2

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.5415 GHz	73.26	82.23	8.97	H	100	111.541	48.11	FCC_24_B2
16.41375 GHz	74.93	82.23	7.30	H	400	259.619	50.44	FCC_24_B2
17.89425 GHz	76.19	82.23	6.04	H	100	223.989	53.20	FCC_24_B2

1-18GHz Horizontal Plot and Data Table

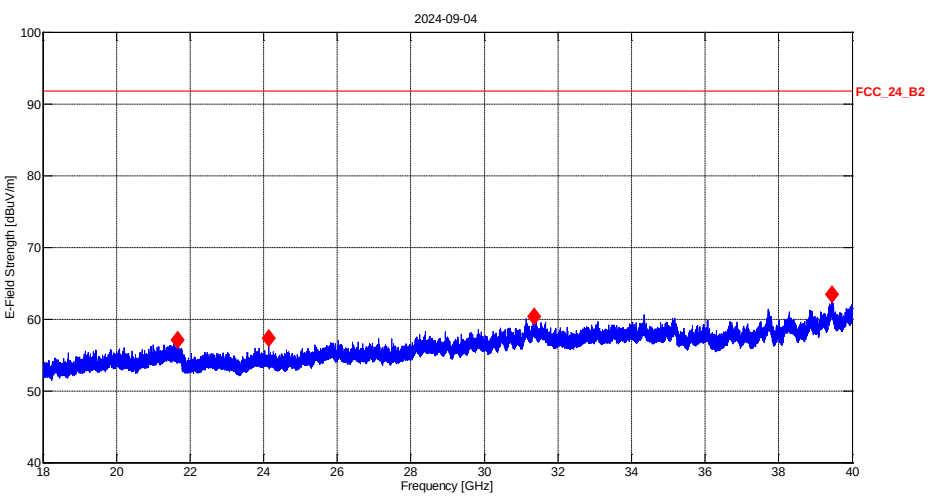
18-40GHz



Scan1: 18.0 GHz, 50.0 kHz, 40.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
21.6065 GHz	57.39	91.77	34.38	V	100	116.408	15.94	FCC_24_B2
31.1625 GHz	61.05	91.77	30.72	V	100	1.175	18.35	FCC_24_B2
39.45025 GHz	63.65	91.77	28.12	V	100	150.6	20.46	FCC_24_B2
39.8795 GHz	63.42	91.77	28.35	V	150	0	21.35	FCC_24_B2

18-40GHz Vertical Plot and Data Table



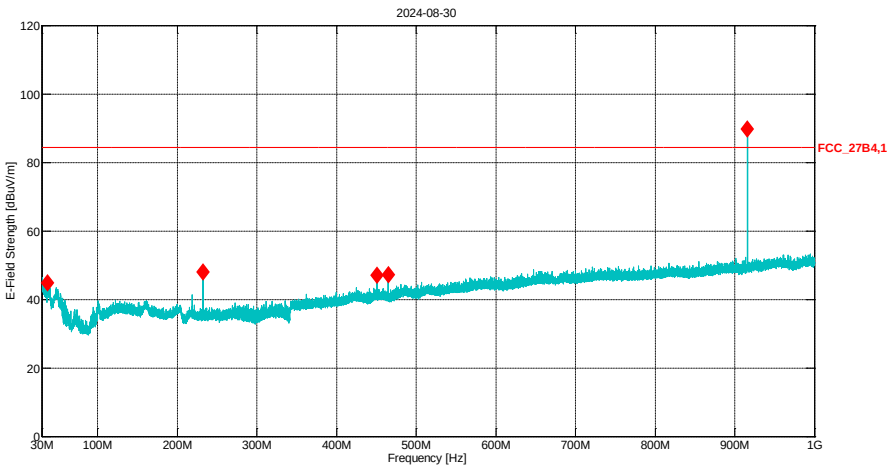
Scan1: 18.0 GHz, 50.0 kHz, 40.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
21.66325 GHz	57.09	91.77	34.68	H	100	85.073	15.85	FCC_24_B2
24.13775 GHz	57.33	91.77	34.44	H	100	50.012	16.50	FCC_24_B2
31.3495 GHz	60.39	91.77	31.38	H	100	50.012	18.54	FCC_24_B2
39.44825 GHz	63.47	91.77	28.30	H	200	360	20.46	FCC_24_B2

18-40GHz Horizontal Plot and Data Table

4.1.7.6 Configuration 6

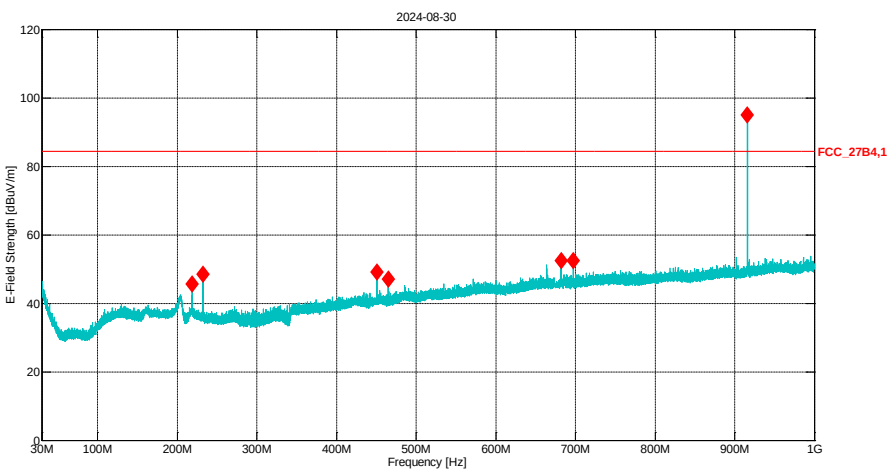
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
37.425 MHz	44.84	84.38	39.54	V	100	145.882	21.51	FCC_27B4,12
232.5 MHz	47.95	84.38	36.43	V	300	149.974	16.98	FCC_27B4,12
451.025 MHz	47.04	84.38	37.34	V	200	275.788	22.25	FCC_27B4,12
464.9 MHz	47.27	84.38	37.11	V	100	0.449	22.78	FCC_27B4,12
916.025 MHz	89.75	-	-	V	100	6.851	28.71	Zwave Fundamental

30-1000MHz Vertical Plot and Data Table

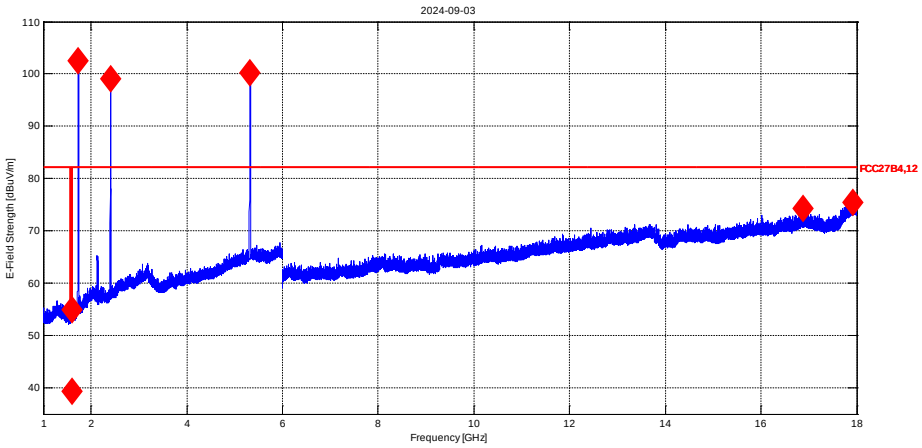


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
218.5 MHz	45.71	84.38	38.67	H	100	138.306	16.36	FCC_27B4,12
232.5 MHz	48.57	84.38	35.81	H	300	146.129	16.98	FCC_27B4,12
451.025 MHz	49.09	84.38	35.29	H	300	127.304	22.25	FCC_27B4,12
464.95 MHz	47.14	84.38	37.24	H	100	138.306	22.78	FCC_27B4,12
682 MHz	52.40	84.38	31.98	H	100	153.315	26.03	FCC_27B4,12
697.5 MHz	52.46	84.38	31.92	H	100	138.306	26.27	FCC_27B4,12
916.025 MHz	95.06	-	-	H	100	138.306	28.71	Zwave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.60675 GHz	54.92	-	-	V	300	294.552	30.66	See Final1 data table for average
1.73225 GHz	102.59	-	-	V	100	7.479	31.52	LTE Band 4 Fundamental
2.40175 GHz	99.05	-	-	V	200	32.165	34.41	BLE Fundamental
5.32075 GHz	100.18	-	-	V	200	350.584	39.93	5GHz Wi-Fi Fundamental

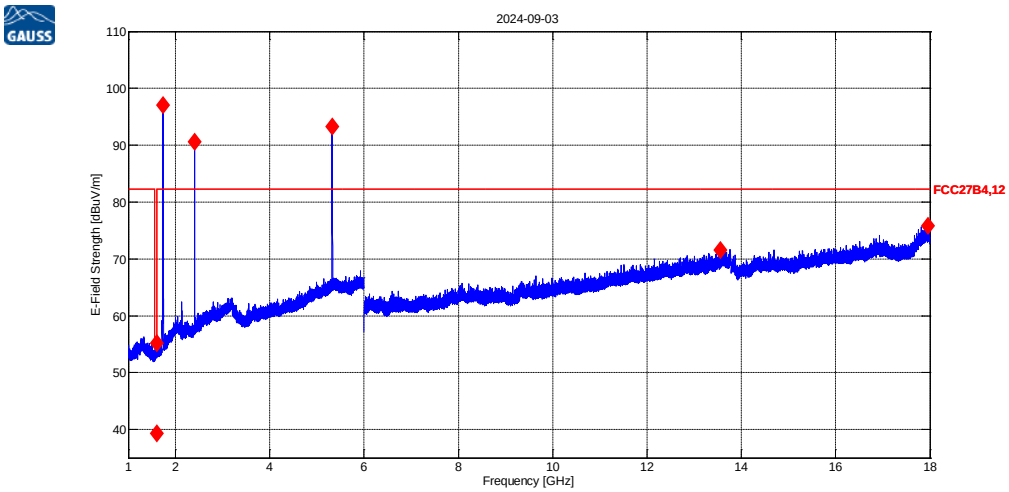
Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
16.883 GHz	74.35	82.23	7.88	V	200	359	50.67	FCC27B4,12
17.913 GHz	75.50	82.23	6.73	V	300	70.333	52.74	FCC27B4,12

Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.607 GHz	39.33	55.23	15.9	V	294.552	226.357	30.66	FCC27B4,12

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.6095 GHz	55.20	-	-	H	200	99.192	30.67	See Final1 data table for average
1.7335 GHz	97.05	-	-	H	200	246.846	31.55	LTE Band 4 Fundamental
2.40175 GHz	90.56	-	-	H	200	0	34.41	BLE Fundamental
5.32 GHz	93.30	-	-	H	300	149.508	39.93	5GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

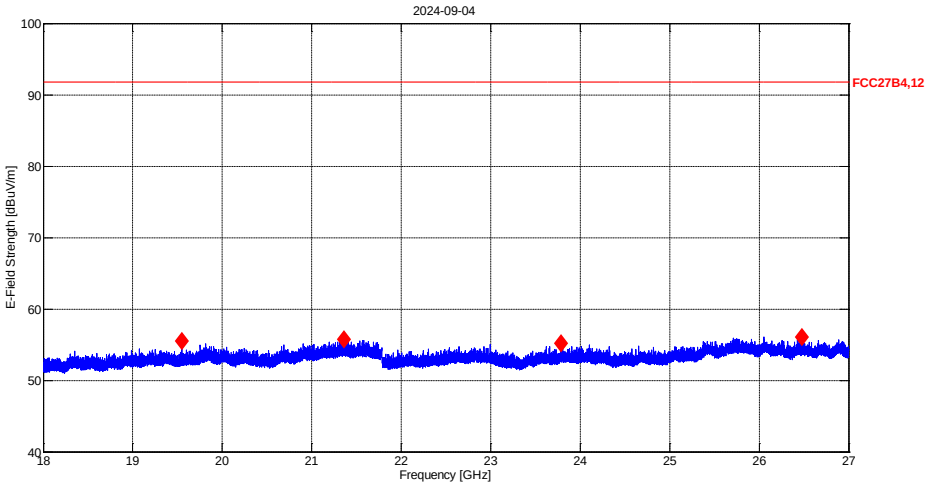
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.5575 GHz	71.55	82.23	10.68	H	100	359	47.28	FCC27B4,12
17.95775 GHz	75.87	82.23	6.36	H	100	103.433	52.74	FCC27B4,12

Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.61 GHz	39.32	55.23	15.91	H	99.192	221.291	30.67	FCC27B4,12

1-18GHz Horizontal Plot and Data Table

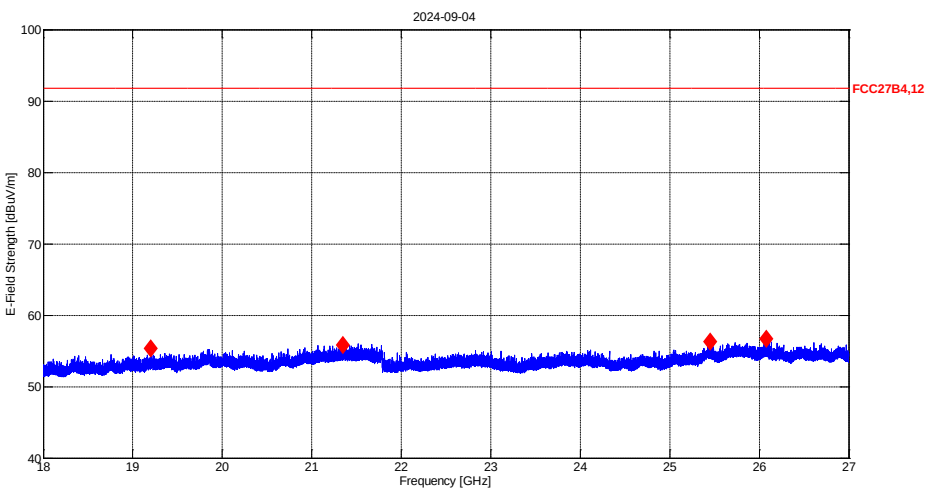
18-27GHz



Scan1: 18.0 GHz, 50.0 kHz, 27.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.54925 GHz	55.52	91.77	36.25	V	125	181.837	15.16	FCC27B4,12
21.36225 GHz	55.74	91.77	36.03	V	100	20.181	16.07	FCC27B4,12
23.78325 GHz	55.20	91.77	36.57	V	100	226.643	16.37	FCC27B4,12
26.478 GHz	56.09	91.77	35.68	V	100	221.63	16.65	FCC27B4,12

18-27GHz Vertical Plot and Data Table



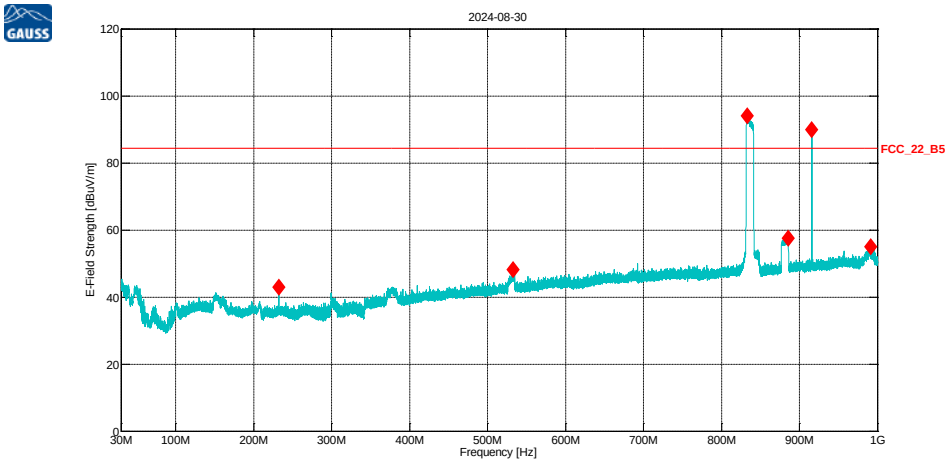
Scan1: 18.0 GHz, 50.0 kHz, 27.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.20075 GHz	55.35	91.77	36.42	H	100	88.85	14.75	FCC27B4,12
21.3495 GHz	55.81	91.77	35.96	H	125	139.1	16.08	FCC27B4,12
25.454 GHz	56.34	91.77	35.43	H	175	36.725	16.97	FCC27B4,12
26.0755 GHz	56.75	91.77	35.02	H	200	70.95	16.97	FCC27B4,12

18-27GHz Horizontal Plot and Data Table

4.1.7.7 Configuration 7

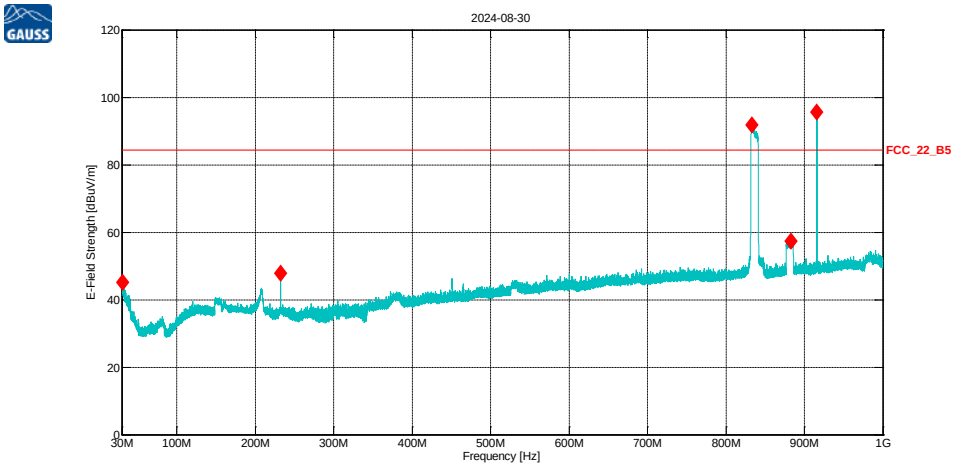
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
232.425 MHz	42.91	84.38	41.47	V	300	140.641	16.98	FCC_22_B5
532.8 MHz	48.21	84.38	36.17	V	100	96.477	23.95	FCC_22_B5
833.1 MHz	93.97	-	-	V	100	360	27.97	LTE Band 5 Fundamental
885.9 MHz	57.53	84.38	26.85	V	100	169.617	28.45	FCC_22_B5
916.025 MHz	89.85	-	-	V	100	16.073	28.71	ZWave Fundamental
991.375 MHz	54.97	84.38	29.41	V	100	305.248	29.70	FCC_22_B5

30-1000MHz Vertical Plot and Data Table

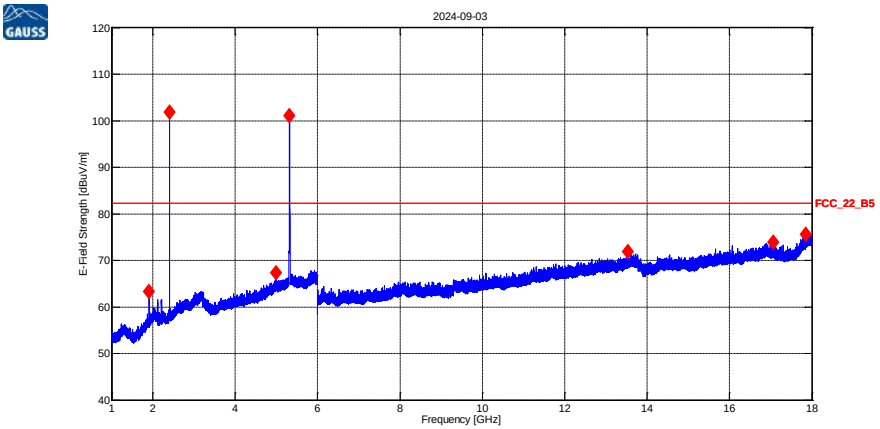


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
30.75 MHz	45.18	84.38	39.20	H	200	89.819	26.41	FCC_22_B5
232.5 MHz	47.92	84.38	36.46	H	100	30.726	16.98	FCC_22_B5
833.1 MHz	91.77	-	-	H	100	112.454	27.97	LTE Band 5 Fundamental
882.65 MHz	57.44	84.38	26.94	H	300	143.06	28.44	FCC_22_B5
916.025 MHz	95.69	-	-	H	100	126.019	28.71	ZWave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



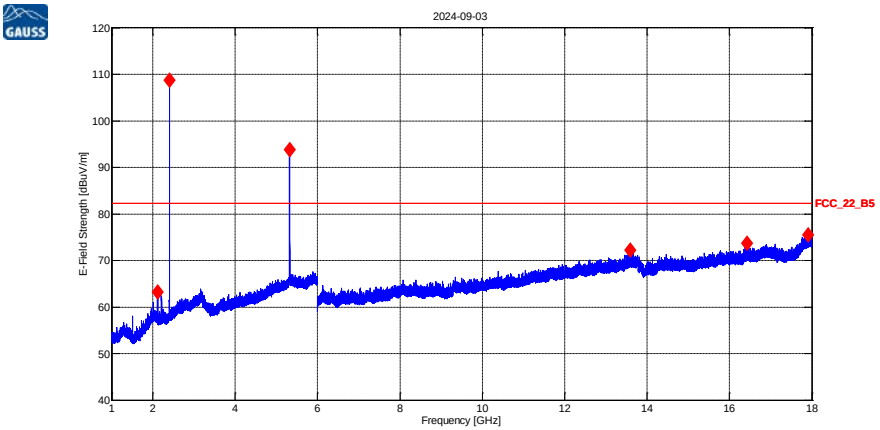
Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
1.909 GHz	63.31	82.23	18.92	V	100	85.974	33.63	FCC_22_B5
2.4045 GHz	101.86	-	-	V	300	85.974	34.43	Zigbee Fundamental
4.991 GHz	67.40	82.23	14.83	V	300	146.094	39.10	FCC_22_B5
5.31825 GHz	101.08	-	-	V	200	349.593	39.92	5GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.5375 GHz	71.86	82.23	10.37	V	100	118.806	47.34	FCC_22_B5
17.0625 GHz	73.92	82.23	8.31	V	300	105.978	50.40	FCC_22_B5
17.8535 GHz	75.64	82.23	6.59	V	100	357.504	52.40	FCC_22_B5

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

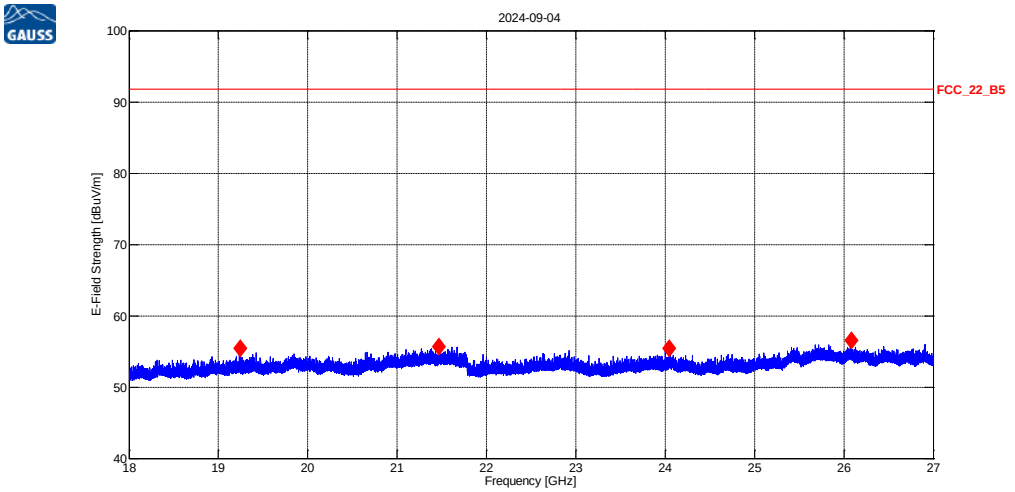
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
2.114 GHz	63.26	82.23	18.97	H	300	359	34.62	FCC_22_B5
2.4045 GHz	108.73	-	-	H	300	205.231	34.43	Zigbee Fundamental
5.3195 GHz	93.86	-	-	H	300	146.062	39.93	5GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.59225 GHz	72.19	82.23	10.04	H	100	325.822	47.27	FCC_22_B5
16.4305 GHz	73.73	82.23	8.50	H	100	87.945	49.41	FCC_22_B5
17.91425 GHz	75.51	82.23	6.72	H	100	155.945	52.75	FCC_22_B5

1-18GHz Horizontal Plot and Data Table

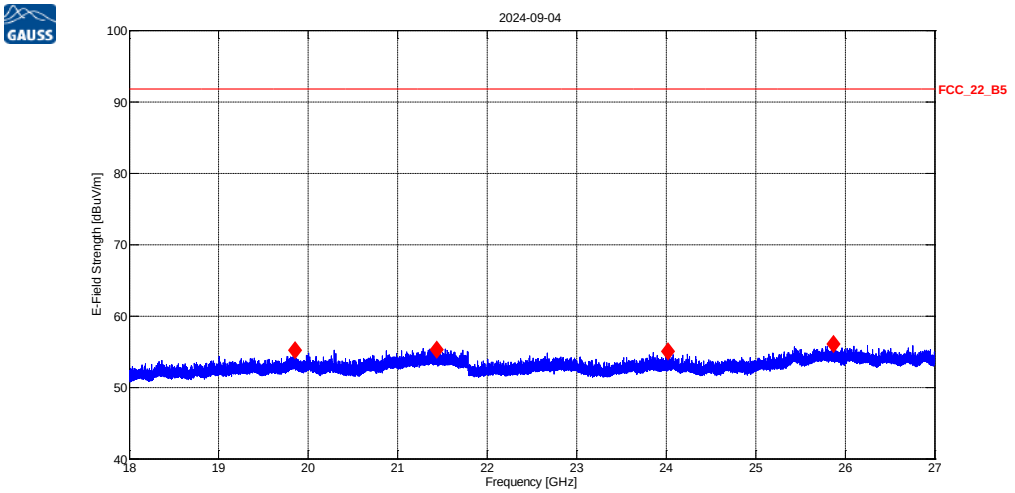
18-27GHz



Scan1: 18.0 GHz, 50.0 kHz, 27.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.24375 GHz	55.47	91.77	36.30	V	175	193.868	14.89	FCC_22_B5
21.469 GHz	55.64	91.77	36.13	V	100	188.513	16.04	FCC_22_B5
24.04425 GHz	55.42	91.77	36.35	V	175	188.513	16.41	FCC_22_B5
26.0855 GHz	56.58	91.77	35.19	V	100	334.206	16.96	FCC_22_B5

18-27GHz Vertical Plot and Data Table



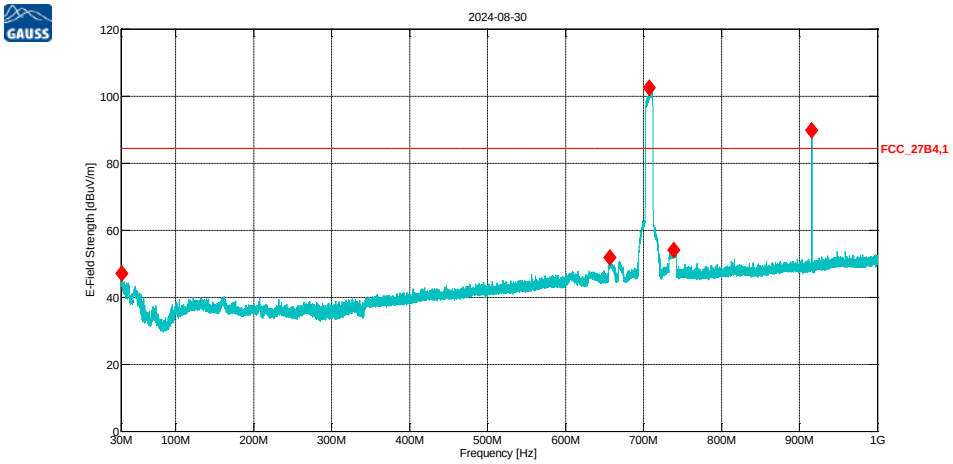
Scan1: 18.0 GHz, 50.0 kHz, 27.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.855 GHz	55.17	91.77	36.60	H	100	62.635	15.76	FCC_22_B5
21.439 GHz	55.27	91.77	36.50	H	125	20.076	16.05	FCC_22_B5
24.01825 GHz	55.02	91.77	36.75	H	100	188.3	16.36	FCC_22_B5
25.87125 GHz	56.10	91.77	35.67	H	100	73.606	16.99	FCC_22_B5

18-27GHz Horizontal Plot and Data Table

4.1.7.8 Configuration 8

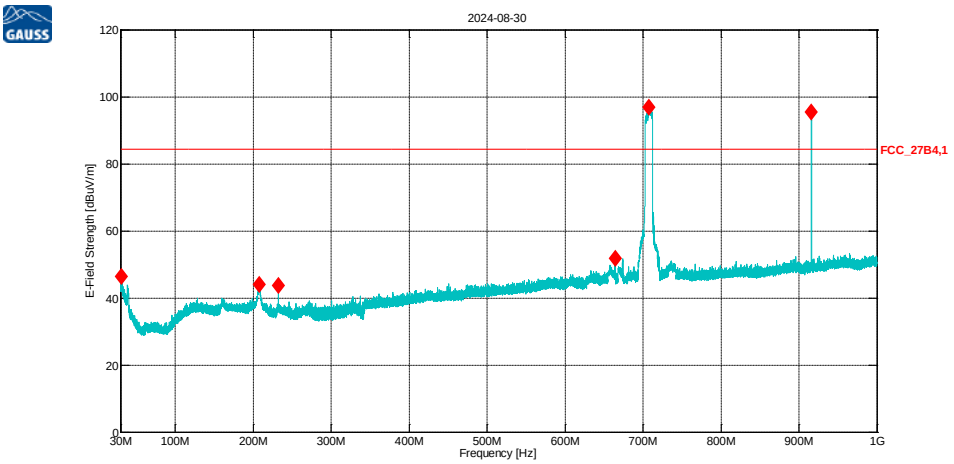
30-1000MHz



Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
30.75 MHz	47.12	84.38	37.26	V	100	105.256	26.41	FCC_27B4,12
656.7 MHz	51.75	84.38	32.63	V	100	340.456	25.87	FCC_27B4,12
707.775 MHz	102.39	-	-	V	100	337.016	26.32	LTE Band 12 Fundamental
739.225 MHz	54.01	84.38	30.37	V	200	137.34	26.71	FCC_27B4,12
916.025 MHz	89.80	-	-	V	100	8.166	28.71	Zwave Fundamental

30-1000MHz Vertical Plot and Data Table

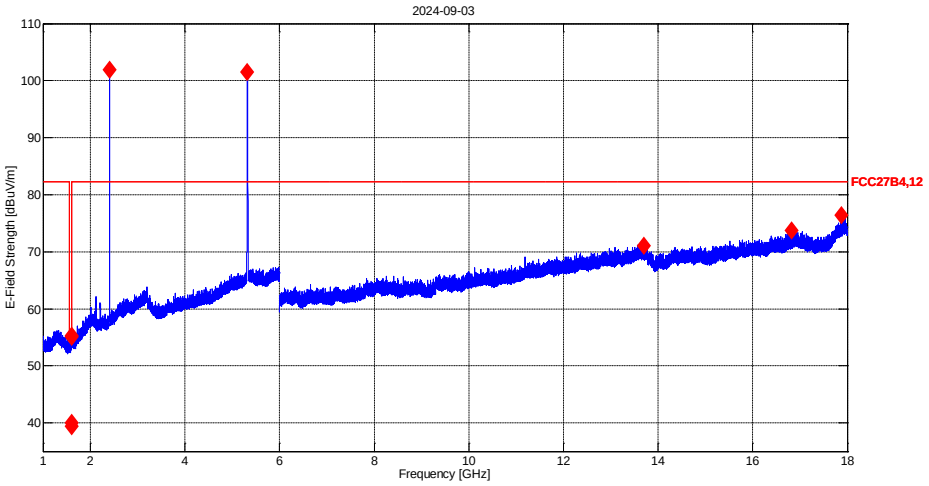


Scan1: 30.0 MHz, 50.0 kHz, 1.0 GHz; IF:120kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
31 MHz	46.46	84.38	37.92	H	100	299.82	26.22	FCC_27B4,12
207.625 MHz	44.06	84.38	40.32	H	100	0	16.14	FCC_27B4,12
232.5 MHz	43.67	84.38	40.71	H	300	98.135	16.98	FCC_27B4,12
664.3 MHz	51.81	84.38	32.57	H	300	185.799	25.92	FCC_27B4,12
707.5 MHz	96.97	-	-	H	100	161.144	26.32	LTE Band 12 Fundamental
916.025 MHz	95.47	-	-	H	100	139.232	28.71	Zwave Fundamental

30-1000MHz Horizontal Plot and Data Table

1-18GHz



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.60475 GHz	55.12	-	-	V	300	215.823	30.66	See Final1 data table for average
1.60675 GHz	55.33	-	-	V	100	284.308	30.66	See Final1 data table for average
2.4045 GHz	101.88	-	-	V	300	82.008	34.43	Zigbee Fundamental
5.31875 GHz	101.47	-	-	V	200	347.785	39.92	5 GHz Wi-Fi Fundamental

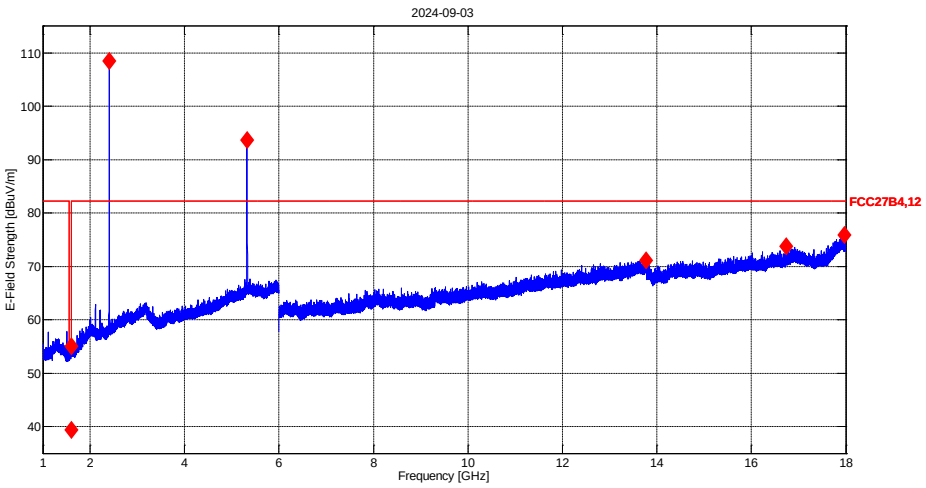
Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.70025 GHz	71.10	82.23	11.13	V	200	101.019	47.38	FCC27B4,12
16.82025 GHz	73.73	82.23	8.50	V	100	348.411	50.53	FCC27B4,12
17.87625 GHz	76.38	82.23	5.85	V	100	253.563	52.57	FCC27B4,12

Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.60425 GHz	39.98	55.23	15.25	V	215.823	213.657	30.66	FCC27B4,12
1.60625 GHz	39.39	55.23	15.84	V	284.308	100	30.66	FCC27B4,12

1-18GHz Vertical Plot and Data Table



Scan1: 1.0 GHz, 50.0 kHz, 6.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Comment
1.5995 GHz	55.02	-	-	H	100	282.777	30.64	See Final1 data table for average
2.4045 GHz	108.54	-	-	H	300	208.394	34.43	Zigbee Fundamental
5.3215 GHz	93.65	-	-	H	300	146.892	39.94	5 GHz Wi-Fi Fundamental

Scan2: 6.0 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

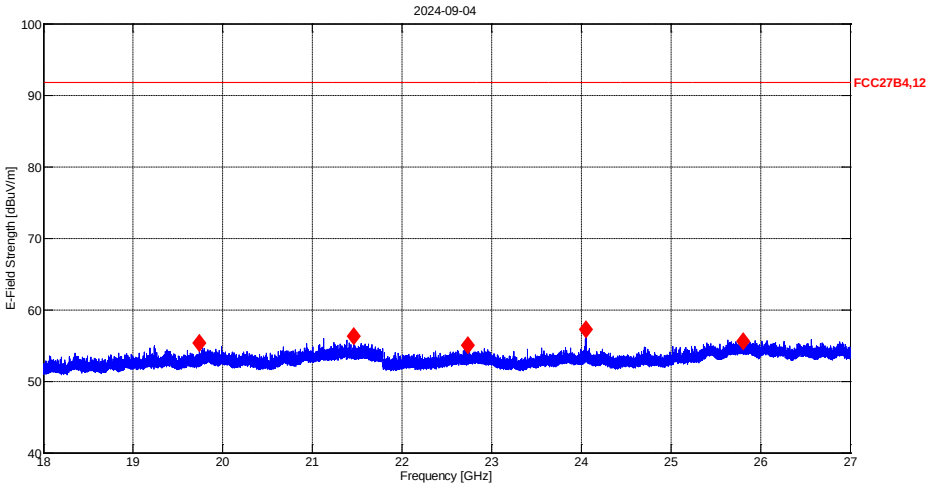
f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
13.7745 GHz	71.17	82.23	11.06	H	100	188.05	47.10	FCC27B4,12
16.7415 GHz	73.82	82.23	8.41	H	300	0	50.47	FCC27B4,12
17.965 GHz	75.89	82.23	6.34	H	300	359	52.71	FCC27B4,12

Final 1: 1.6 GHz, 50.0 kHz, 1.6 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.5995 GHz	39.37	55.23	15.86	H	282.777	148.15	30.63	FCC27B4,12

1-18GHz Horizontal Plot and Data Table

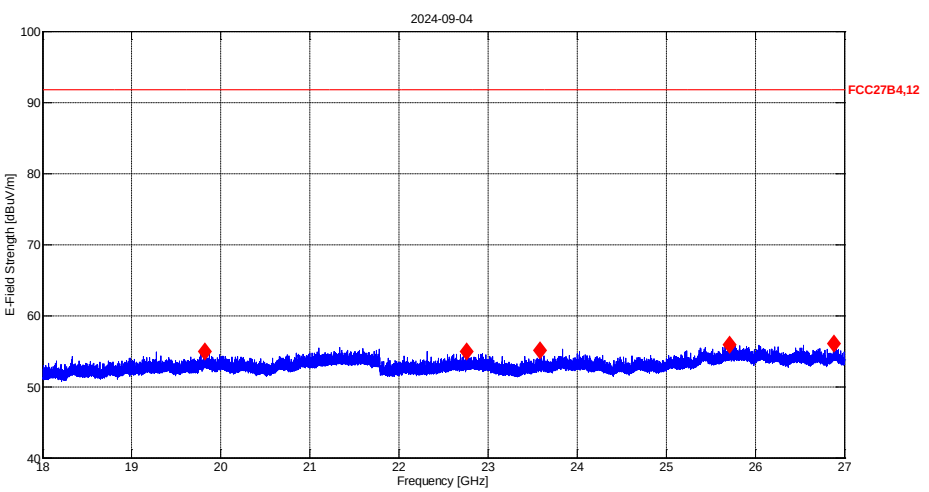
18-27GHz



Scan1: 18.0 GHz, 50.0 kHz, 27.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.7375 GHz	55.39	91.77	36.38	V	100	16.359	15.58	FCC27B4,12
21.46175 GHz	56.33	91.77	35.44	V	125	184.469	16.04	FCC27B4,12
22.732 GHz	55.00	91.77	36.77	V	100	27.771	16.34	FCC27B4,12
24.05425 GHz	57.30	91.77	34.47	V	175	179.635	16.43	FCC27B4,12
25.8065 GHz	55.60	91.77	36.17	V	100	103.632	16.92	FCC27B4,12

18-27GHz Vertical Plot and Data Table



Scan1: 18.0 GHz, 50.0 kHz, 27.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
19.82025 GHz	54.99	91.77	36.78	H	100	282.097	15.74	FCC27B4,12
22.762 GHz	54.94	91.77	36.83	H	200	95.29	16.37	FCC27B4,12
23.583 GHz	55.14	91.77	36.63	H	100	338.728	15.89	FCC27B4,12
25.71175 GHz	55.93	91.77	35.84	H	150	22.315	16.95	FCC27B4,12
26.8805 GHz	56.05	91.77	35.72	H	100	186.312	16.97	FCC27B4,12

18-27GHz Horizontal Plot and Data Table

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the External and Internal Photo exhibits.

6 APPENDIX A – MODIFICATIONS

No modifications were made to the EUT during the testing.

---END OF REPORT---