

Figure 161 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

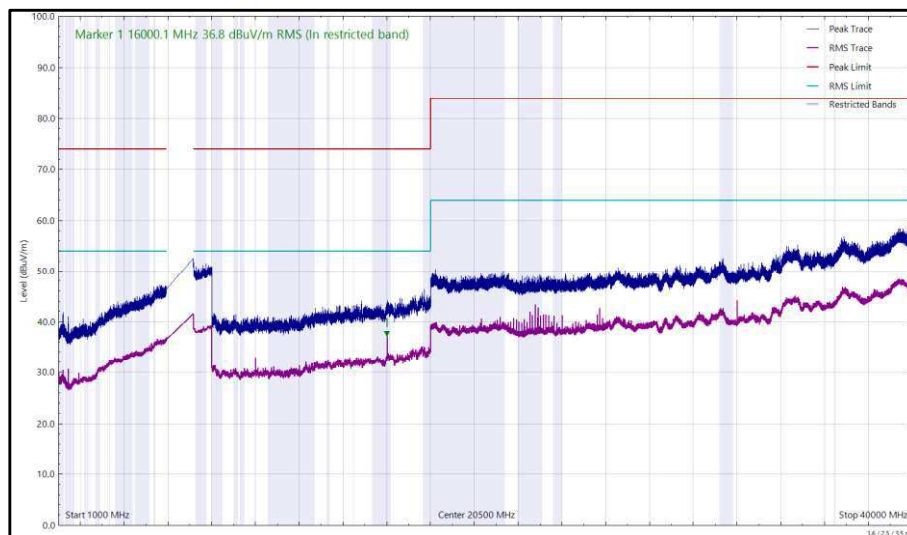


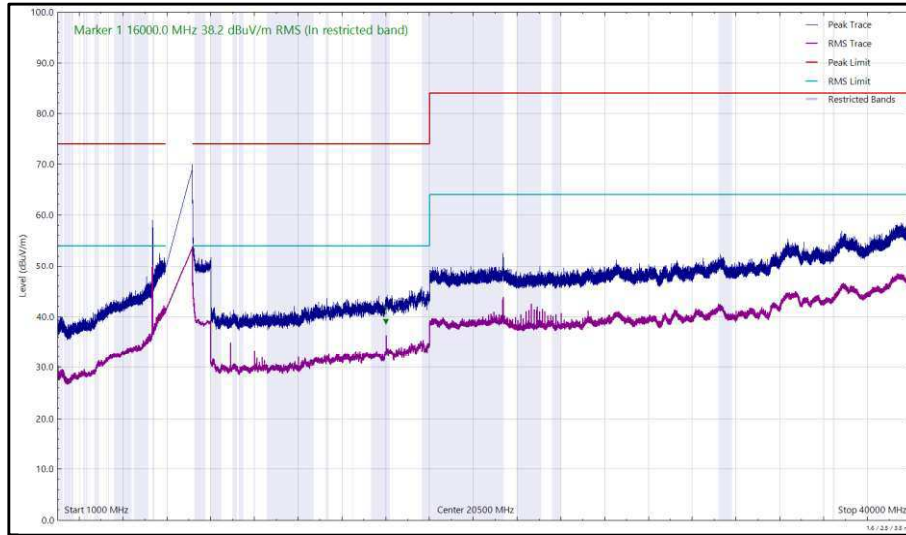
Figure 162 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



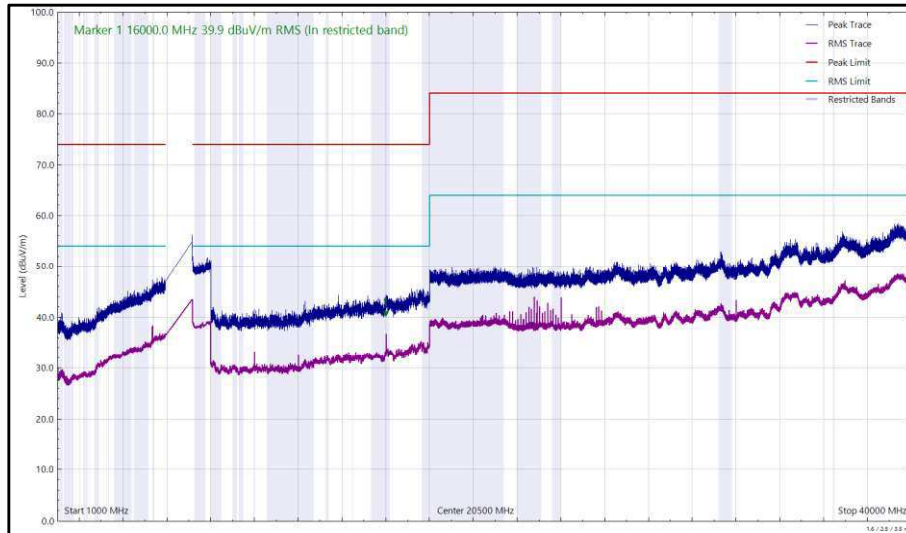
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
15999.990	38.19	54.00	-15.81	RMS	326	168	Horizontal
16000.020	39.85	54.00	-14.15	RMS	328	193	Vertical

**Table 333 - U-NII-8 - 7115 MHz (CH233), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.



**Figure 163 - U-NII-8 - 7115 MHz (CH233), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal**



**Figure 164 - U-NII-8 - 7115 MHz (CH233), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical**



FCC 47 CFR Part 15, Limit Clause 15.407(b)(5) and 15.209

Emissions not falling within the restricted bands listed in 15.205:

For transmitters operating within the 5.925–7.125 GHz band: Any emissions outside of the 5.925–7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in 15.209.

Emissions within the restricted bands listed in FCC 47 CFR Part 15.205:

Frequency (MHz)	Field Strength Limit at 3m (µV/m)	Field Strength Limit at 3m (dBµV/m)
30 to 88	100	40.00
88 to 216	150	43.52
216 to 960	200	46.02
Above 960	500	53.98

**Table 334 - Radiated Emissions Limit Table (FCC)**

ISED RSS-248, Limit Clause 4.7.2(a) and ISED RSS-GEN, Limit Clause 8.9

Emissions not falling within the restricted bands listed in ISED RSS-GEN, Clause 8.10:

Any emissions outside of the 5925-7125 MHz band shall not exceed -27 dBm/MHz e.i.r.p.

Any emissions below 1000 MHz shall meet the general field strength limits specified in RSS-Gen

Emissions falling within the restricted bands listed in ISED RSS-GEN, Clause 8.10:

Frequency (MHz)	Field Strength Limit at 3m (µV/m)	Field Strength Limit at 3m (dBµV/m)
30 to 88	100	40.00
88 to 216	150	43.52
216 to 960	200	46.02
Above 960	500	53.98

**Table 335 - Radiated Emissions Limit Table (ISED)**

**2.6.8 Test Location and Test Equipment Used**

This test was carried out in RF Chamber 14.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Emissions Software	TUV SUD	EmX V3.1.10	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5912	12	17-Feb-2023
Cable (K Type 2m)	Junkosha	MWX241-02000KMSKMS/B	5937	12	14-May-2023
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5941	12	29-May-2023



Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5943	24	03-Feb-2024
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
5m Semi-Anechoic Chamber (Dual-Axis)	Albatross Projects	RF Chamber 14	5958	36	26-Apr-2025
Compact Antenna Mast	Maturo Gmbh	CAM4.0-P	5959	-	TU
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5960	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5961	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5962	-	TU
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5997	12	06-Jun-2023
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6003	12	07-Jun-2023
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6008	12	06-Jun-2023
Cable (N to N 1m)	Junkosha	MWX221-01000AMSAMS/B	6009	12	07-Jun-2023
Cable (N to N 7m)	Junkosha	MWX221-07000NMSNMS/B	6016	12	05-Jun-2023
Cable (N to N 8m)	Junkosha	MWX221-08000NMSNMS/A	6017	12	05-Jun-2023
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6141	12	21-Jun-2023
SAC Switch Unit	TUV SUD	TUV_SSU_001	6144	12	05-Dec-2023
Digital Multimeter	Fluke	115	6146	12	16-Jun-2023
Humidity & Temperature meter	R.S Components	1364	6149	12	17-Jun-2023
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6188	24	02-Jun-2024
8 GHz Highpass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6194	12	15-Jul-2023
Pre Amp 8 - 18 GHz	Wright Technologies	APS06 0061	6199	12	19-Jul-2023
Attenuator 4dB	Pasternack	PE7074-4	6202	24	16-Jul-2024
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6215	12	25-Jul-2023

**Table 336**

TU - Traceability Unscheduled  
 O/P Mon – Output Monitored using calibrated equipment

## 2.7 Contention Based Protocol

### 2.7.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (d)(6)  
ISED RSS-248, Clause 4.8

### 2.7.2 Equipment Under Test and Modification State

A2787, S/N: G796QL75F9 - Modification State 0

### 2.7.3 Date of Test

01-March-2023

### 2.7.4 Test Method

This test was performed in accordance with KDB 987594 D02, clause I.

### 2.7.5 Test Setup Diagram

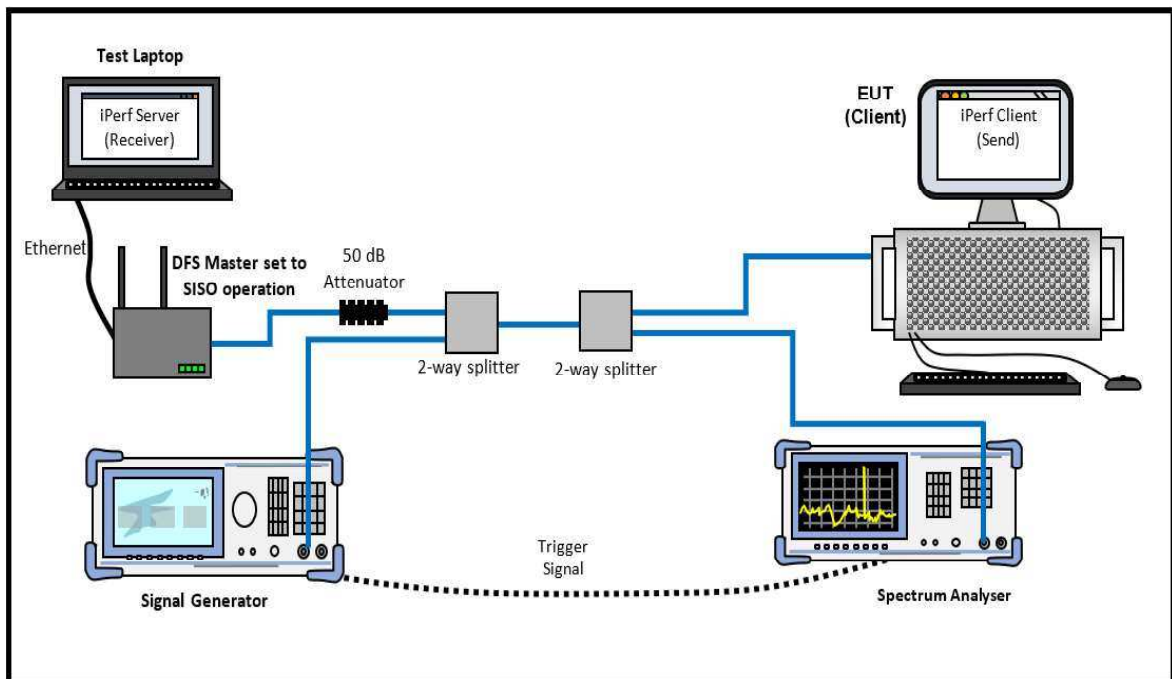


Figure 165 - Test Equipment Setup Diagram

### 2.7.6 Environmental Conditions

Ambient Temperature	23.4 °C
Relative Humidity	36.7 %



## 2.7.7 Test Results

### 6 GHz WLAN

Frequency Band	Test Frequency (MHz)	Operating Mode	Placement of the Incumbent Transmission	AWGN Signal Power at which the EUT ceased transmission (dBm)
U-NII-5 (5925-6425 MHz)	6135	HE20 MCS0	Incumbent transmission within OBW of EUT.	-77.13
U-NII-6 (6425-6525 MHz)	6455	HE20 MCS0	Incumbent transmission within OBW of EUT.	-76.79
U-NII-7 (6525-6875 MHz)	6615	HE20 MCS0	Incumbent transmission within OBW of EUT.	-74.63
U-NII-8 (6875-7125 MHz)	6935	HE20 MCS0	Incumbent transmission within OBW of EUT.	-73.57

**Table 337 - Verification of the EUT to the incumbent signal - Narrowest Bandwidth**



Frequency Band	Test Frequency (MHz)	Operating Mode	Placement of the Incumbent Transmission	AWGN Signal Power at which the EUT ceased transmission (dBm)
U-NII-5 (5925-6425 MHz)	6110	HE160 MCS0	Incumbent transmission at lower edge of EUT OBW.	-77.97
U-NII-5 (5925-6425 MHz)	6185	HE160 MCS0	Incumbent transmission at centre frequency of EUT.	-75.52
U-NII-5 (5925-6425 MHz)	6260	HE160 MCS0	Incumbent transmission at upper edge of EUT OBW.	-77.66
U-NII-6 (6425-6525 MHz)	6430	HE160 MCS0	Incumbent transmission at lower edge of EUT OBW.	-78.75
U-NII-6 (6425-6525 MHz)	6505	HE160 MCS0	Incumbent transmission at centre frequency of EUT.	-75.48
U-NII-6 (6425-6525 MHz)	6580	HE160 MCS0	Incumbent transmission at upper edge of EUT OBW.	-78.85
U-NII-7 (6525-6875 MHz)	6615	HE160 MCS0	Incumbent transmission at lower edge of EUT OBW.	-74.73
U-NII-7 (6525-6875 MHz)	6665	HE160 MCS0	Incumbent transmission at centre frequency of EUT.	-73.01
U-NII-7 (6525-6875 MHz)	6740	HE160 MCS0	Incumbent transmission at upper edge of EUT OBW.	-74.94
U-NII-8 (6875-7125 MHz)	6910	HE160 MCS0	Incumbent transmission at lower edge of EUT OBW.	-74.59
U-NII-8 (6875-7125 MHz)	6985	HE160 MCS0	Incumbent transmission at centre frequency of EUT.	-70.97
U-NII-8 (6875-7125 MHz)	7060	HE160 MCS0	Incumbent transmission at upper edge of EUT OBW.	-72.45

**Table 338 - Verification of the EUT to the incumbent signal - Widest Bandwidth**



FCC 47 CFR Part 15.407 (d)(6)

Indoor access points, subordinate devices and client devices operating in the 5.925–7.125 GHz band must employ a contention-based protocol.

KDB 987594, Limit Clause I

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

ISED RSS-248, Limit Clause 4.8.2

The RLAN devices shall utilize a contention-based protocol to detect the presence of any emissions on the channel that the RLAN device intends to occupy. The RLAN device must detect within its entire occupied bandwidth a radio frequency power of -62 dBm or lower. The minimum detection threshold power is the received power averaged over a 1microsecond reference to a 0 dBi antenna.

If an emission is detected, the RLAN device shall vacate the occupied channel and shall not transmit on this channel until the detected radio frequency power is equal to or greater than the -62 dBm threshold.





**2.7.8 Test Location and Test Equipment Used**

This test was carried out in RF Chamber 16.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Attenuator (20dB, 1W)	Sealectro	60-674-1020-89	1520	-	O/P Mon
Cable 2.92mm 1m	Junkosha	MWX241-01000KMS	5414	12	24-Jul-2023
2.92mm 1m cable	Junkosha	MWX211/B	5415	12	24-Jul-2023
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5419	12	24-Jul-2023
Signal Analyzer	Keysight Technologies	PXA N9030B	5432	12	28-Mar-2023
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5498	12	16-May-2023
2-Way Power Divider (2 to 8 GHz)	Aaren	AT30A-TE0208-2-AF	5684	12	21-Dec-2023
2-Way Power Divider (2-8 GHz)	Aaren	AT30A-TE0208-2-AF	5685	12	21-Dec-2023
WiFi 6E Tri-Band Gaming Router	Asus	GT-AXE110000	5926	-	TU
Humidity & Temperature meter	R.S Components	1364	6148	12	17-Jun-2023
Cable (sma to sma 2m)	Radiall	testpro 4,2	6210	12	24-Jul-2023
Vector Signal Generator	Rohde & Schwarz	SMM100A	S/N: 1440.8002K02-101931-CR	-	O/P Mon

**Table 339**

TU - Traceability Unscheduled  
 O/P Mon - Output Monitored using calibrated equipment



### 3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Emission Bandwidth	± 3.914 MHz
Maximum Conducted Output Power	± 1.38 dB
Maximum Conducted Power Spectral Density	± 1.49 dB
Authorised Band Edges	± 6.3 dB
Unwanted Emissions within the 5925-7125 MHz band	± 3.45 dB
Spurious Radiated Emissions	30 MHz to 1 GHz ± 5.2 dB 1 GHz to 40 GHz ± 6.3 dB
Contention Based Protocol	Time: 0.30% Interferer BW: 267.98 kHz Interferer Level: 0.80 dB

**Table 340**

#### Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.