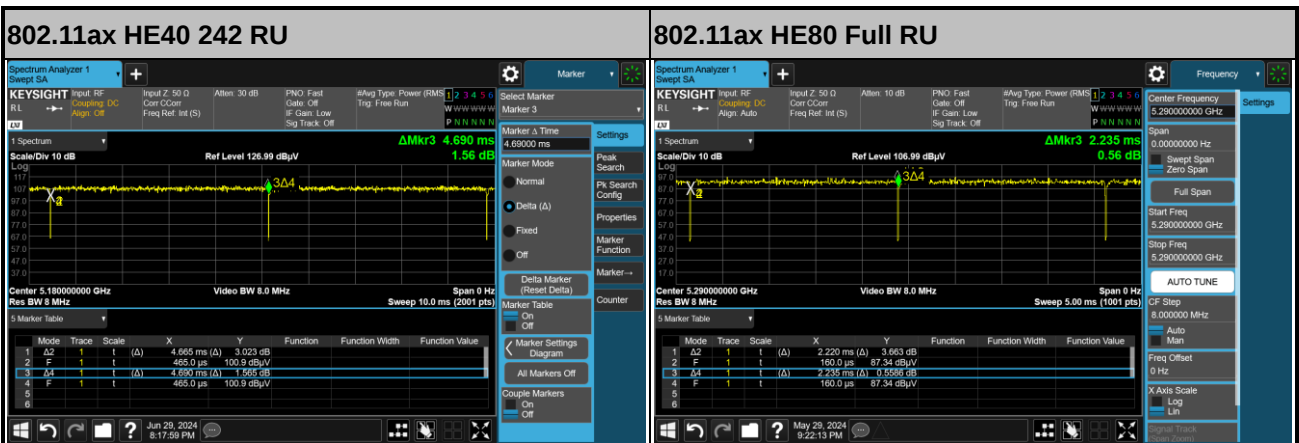
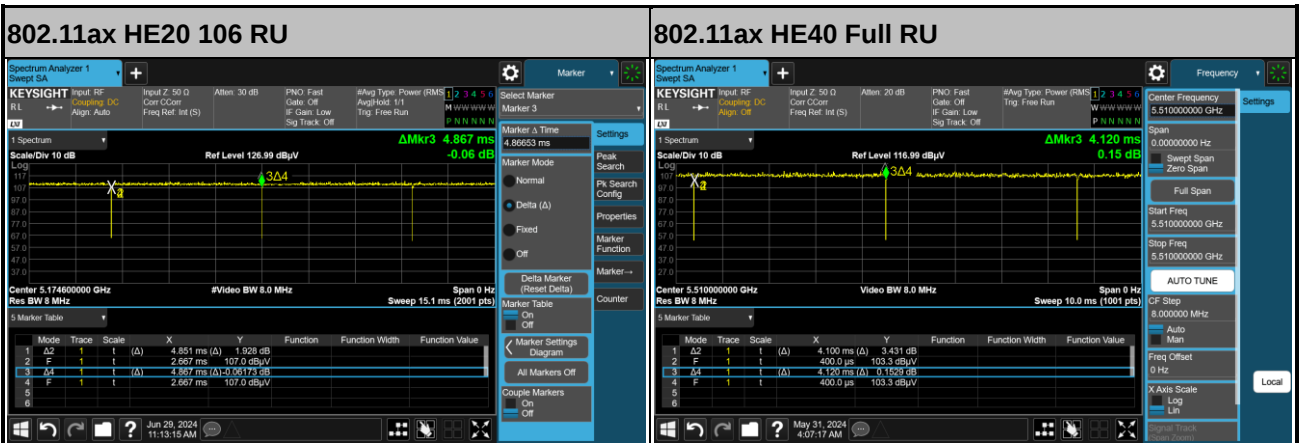
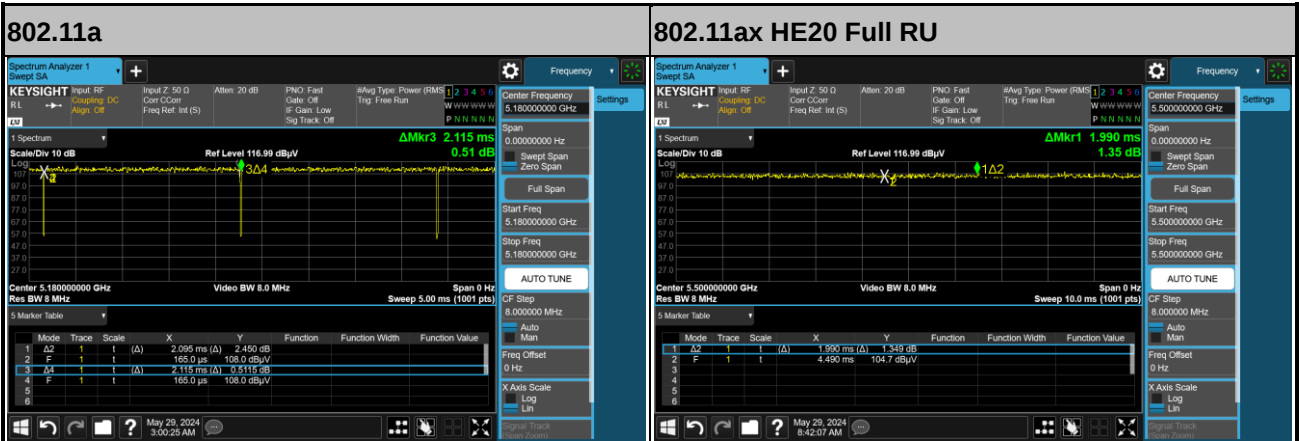
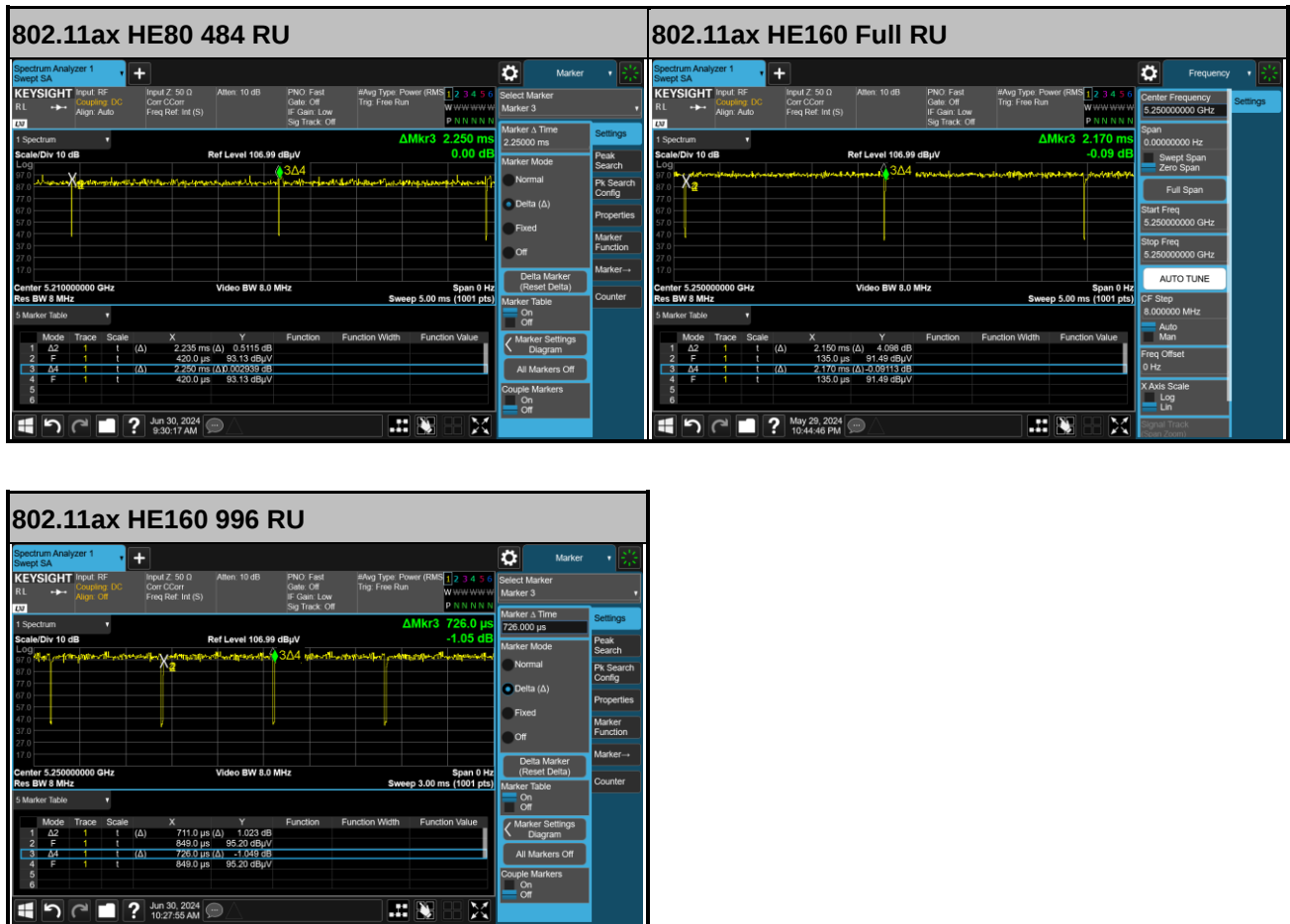




MIMO <Ant. 1+2>







Appendix G. Spot Check Evaluation on KC50E22

Conducted power test and radiated spurious emission test configurations were selected from the worst cases identified in the parent model and tested to demonstrate the test data from original model remains representative for the variant model.

Based on the RF parameter is still identical so the EBW from original model remains representative for the variant model.

Summary for power and RSE spot check for each FCC rule part is listed as below:

Mode	Test Item	UZ7KC50A22 Reference Worst mode Test Result	UZ7KC50E22 Variant Check Test Result	Deviation	Limit (dB)
Bluetooth	Number of Channels	79	79	0	Within the authorized block
	Hopping Channel Separation	1.003	1.007	0.004	Within the authorized block
	Dwell Time of Each Channel	0.31	0.31	0	Within the authorized block
	20dB Bandwidth	0.893	0.891	0.002	Within the authorized frequency block
	99% Bandwidth	0.827	0.827	0	Within the authorized frequency block
	Conducted Band Edges	-41.22	-41.73	0.51	Deviation (ddB) < 3 dB
	Conducted Spurious Emission	-31.93	-32.30	0.37	Deviation (ddB) < 3 dB
	Peak Output Power	5.40	6.20	0.8	Deviation (ddB) < 3 dB
	Radiated Band Edges and Radiated Spurious Emission	42.16	39.94	2.22	Deviation (ddB) < 3 dB
	AC Conducted Emission	42.98	40.01	2.97	Deviation (ddB) < 3 dB
Bluetooth-LE	6dB Bandwidth	0.674	0.668	0.006	Within the authorized frequency block
	99% Bandwidth	1.019	1.019	0	Within the authorized frequency block
	Power Spectral Density	-9.55	-10.09	0.54	Deviation (ddB) < 3 dB
	Conducted Band Edges	-41.10	-42.38	1.28	Deviation (ddB) < 3 dB
	Conducted Spurious Emission	-31.69	-32.23	0.54	Deviation (ddB) < 3 dB
	Power Output Measurement	4.80	4.60	0.2	Deviation (ddB) < 3 dB
	Radiated Band Edges and Spurious Emission	42.35	39.81	2.54	Deviation (ddB) < 3 dB
	AC Conducted Emission	42.98	40.01	2.97	Deviation (ddB) < 3 dB
WIFI 2.4G	6dB Bandwidth	8.06	8.08	0.02	Within the authorized frequency block
	99% Bandwidth	13.04	13.09	0.05	Within the authorized frequency block
	Power Spectral Density	3.70	3.78	0.08	Deviation (ddB) < 3 dB
	Conducted Band Edges	-36.65	-36.24	0.41	Deviation (ddB) < 3 dB
	Conducted Spurious Emission	-42.84	-41.89	0.95	Deviation (ddB) < 3 dB
	Output Power	26.46	26.36	0.1	Deviation (ddB) < 3 dB
	Radiated Band Edges and Spurious Emission	52.24	51.35	0.89	Deviation (ddB) < 3 dB
	AC Conducted Emission	42.98	40.01	2.97	Deviation (ddB) < 3 dB



Mode	Test Item	UZ7KC50A22 Reference Worst mode Test Result	UZ7KC50E22 Variant Check Test Result	Deviation	Limit (dB)
WIFI 5G	26dB Bandwidth	165.98	165.94	0.04	Within the authorized frequency block
	99% Bandwidth	156.32	156.56	0.24	Within the authorized frequency block
	Power Spectral Density	10.52	10.38	0.14	Deviation (ddB) < 3 dB
	Maximum Conducted Output Power	23.58	23.48	0.1	Deviation (ddB) < 3 dB
	Unwanted Emissions	66.96	64.84	2.12	Deviation (ddB) < 3 dB
	AC Conducted Emission	41.81	40.50	1.31	Deviation (ddB) < 3 dB
WIFI 6G	26dB Emission Bandwidth	165.84	166.56	0.72	Within the authorized frequency block
	99% Occupied Bandwidth	156.80	157.76	0.96	Within the authorized frequency block
	Contention Based Protocol	-66.35	-68.65	2.3	Within the authorized block
	Fundamental Maximum EIRP	26.54	25.96	0.58	Deviation (ddB) < 3 dB
	Fundamental Power Spectral Density	16.81	16.71	0.1	Deviation (ddB) < 3 dB
	In-Band Emissions (Channel Mask)	-42.43	-41.04	1.39	Deviation (ddB) < 3 dB
	Unwanted Emissions	67.14	66.93	0.21	Deviation (ddB) < 3 dB
	AC Conducted Emission	41.15	40.16	0.99	Deviation (ddB) < 3 dB



List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECEPIL	DTM-303A	TP201996	N/A	Nov. 07, 2023	Jul. 23, 2024~ Jul. 27, 2024	Nov. 06, 2024	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	15I00041SNO 10 (NO:248)	10MHz~6GHz	Jan. 10, 2024	Jul. 23, 2024~ Jul. 27, 2024	Jan. 09, 2025	Conducted (TH05-HY)
Switch Control Mainframe	Burgeon	ETF-058	EC1300485 (BOX4)	N/A	Apr. 08, 2024	Jul. 23, 2024~ Jul. 27, 2024	Apr. 07, 2025	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101564	10Hz ~ 40GHz	Sep. 12, 2023	Jul. 23, 2024~ Jul. 27, 2024	Sep. 11, 2024	Conducted (TH05-HY)
Software	Sporton	BTWIFI_Final_ version_24041 1	N/A	Conducted Other Test Item	N/A	Jul. 23, 2024~ Jul. 27, 2024	N/A	Conducted (TH05-HY)
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Jul. 16, 2024	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jul. 16, 2024	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Oct. 20, 2023	Jul. 16, 2024	Oct. 19, 2024	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Mar. 14, 2024	Jul. 16, 2024	Mar. 13, 2025	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Mar. 10, 2024	Jul. 16, 2024	Mar. 09, 2025	Conduction (CO07-HY)
Four-Line V-Network	TESEQ	NNB 52	36122	N/A	Mar. 07, 2024	Jul. 16, 2024	Mar. 06, 2025	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Sep. 20, 2023	Jul. 16, 2024	Sep. 19, 2024	Conduction (CO07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9kHz~30MHz	Sep. 12, 2023	Aug. 02, 2024~ Aug. 04, 2024	Sep. 11, 2024	Radiation (03CH22-HY)
Bilog Antenna with 6dB	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63304 & 002	30MHz~1GHz	Oct. 15, 2023	Aug. 02, 2024~ Aug. 04, 2024	Oct. 14, 2024	Radiation (03CH22-HY)
Amplifier	SONOMA	310N	421581	N/A	Jul. 14, 2024	Aug. 02, 2024~ Aug. 04, 2024	Jul. 13, 2025	Radiation (03CH22-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C04A18E N	1GHz~18GHz	Jul. 11, 2024	Aug. 02, 2024~ Aug. 04, 2024	Jul. 10, 2025	Radiation (03CH22-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	1224	18GHz-40GHz	Jun. 24, 2024	Aug. 02, 2024~ Aug. 04, 2024	Jun. 23, 2025	Radiation (03CH22-HY)
Amplifier	EMEC	EM01G18GA	060877	N/A	Sep. 28, 2023	Aug. 02, 2024~ Aug. 04, 2024	Sep. 27, 2024	Radiation (03CH22-HY)
Preamplifier	EMEC	EM18G40G	060872	18-40GHz	Sep. 06, 2023	Aug. 02, 2024~ Aug. 04, 2024	Sep. 05, 2024	Radiation (03CH22-HY)
Signal Analyzer	Keysight	N9010B	MY62170278	10Hz~44GHz	Aug. 31, 2023	Aug. 02, 2024~ Aug. 04, 2024	Aug. 30, 2024	Radiation (03CH22-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Keysight	N9038B	MY62210111	20Hz~8.4GHz	Aug. 23, 2023	Aug. 02, 2024~ Aug. 04, 2024	Aug. 22, 2024	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303A	TP211469	N/A	Jan. 03, 2024	Aug. 02, 2024~ Aug. 04, 2024	Jan. 02, 2025	Radiation (03CH22-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 02, 2024~ Aug. 04, 2024	N/A	Radiation (03CH22-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 02, 2024~ Aug. 04, 2024	N/A	Radiation (03CH22-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 02, 2024~ Aug. 04, 2024	N/A	Radiation (03CH22-HY)
Software	Audix	E3 6.09824_2019 122	RK-002347	N/A	N/A	Aug. 02, 2024~ Aug. 04, 2024	N/A	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 06, 2024	Aug. 02, 2024~ Aug. 04, 2024	Mar. 05, 2025	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804390/2,804 611/2,804615/ 2	N/A	Oct. 24, 2023	Aug. 02, 2024~ Aug. 04, 2024	Oct. 23, 2024	Radiation (03CH22-HY)

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