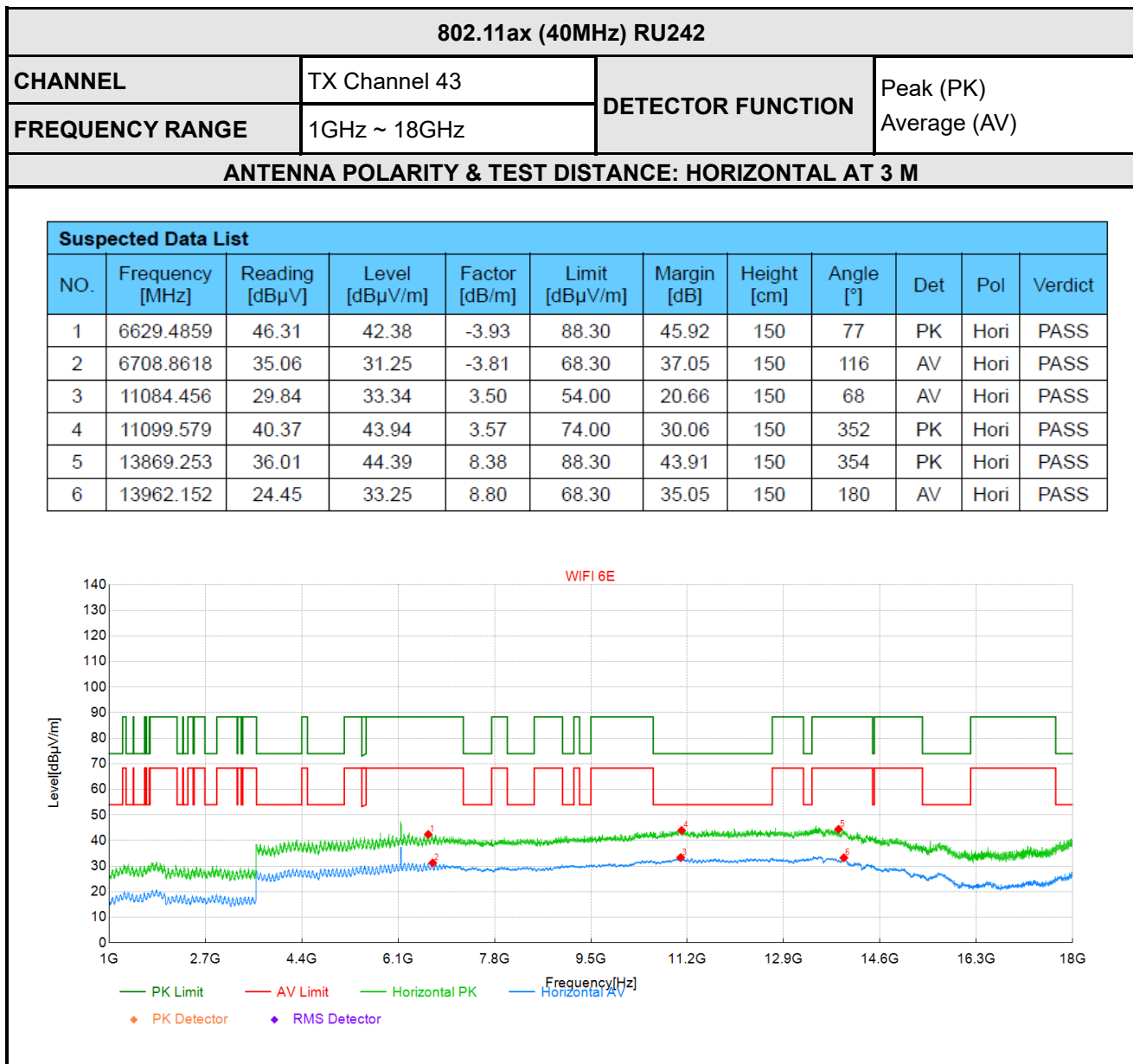
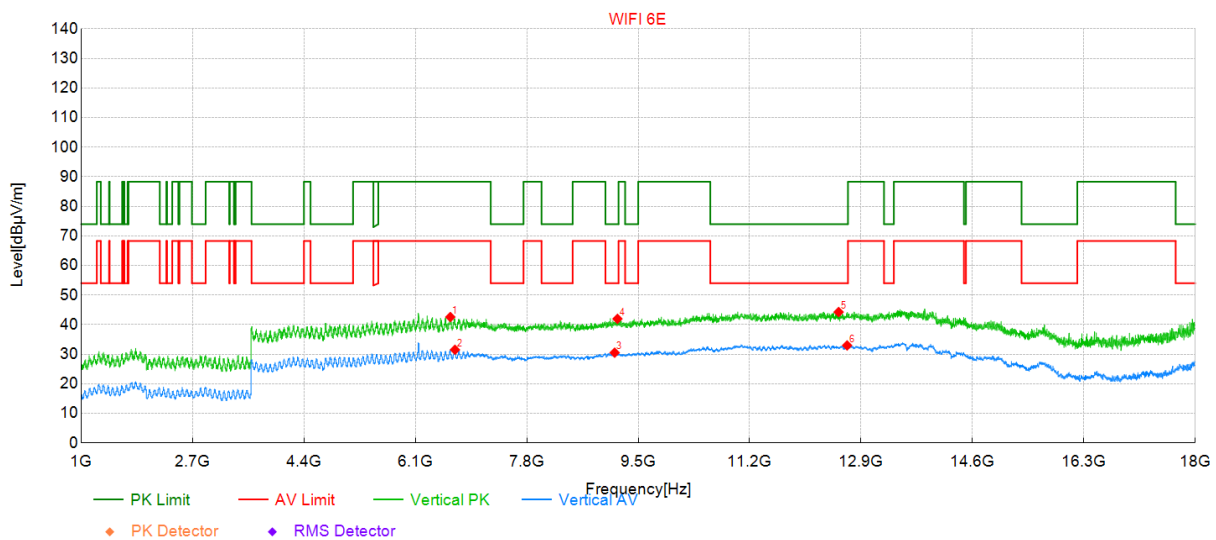


Test Report No.: RF260626B009



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	6633.2066	46.51	42.58	-3.93	88.30	45.72	150	281	PK	Vert	PASS
2	6703.9008	35.31	31.52	-3.79	68.30	36.78	150	270	AV	Vert	PASS
3	9140.0680	31.96	30.53	-1.43	54.00	23.47	150	214	AV	Vert	PASS
4	9183.2767	43.34	41.98	-1.36	74.00	32.02	150	253	PK	Vert	PASS
5	12557.871	38.46	44.27	5.81	74.00	29.73	150	189	PK	Vert	PASS
6	12687.497	26.78	32.98	6.20	54.00	21.02	150	324	AV	Vert	PASS





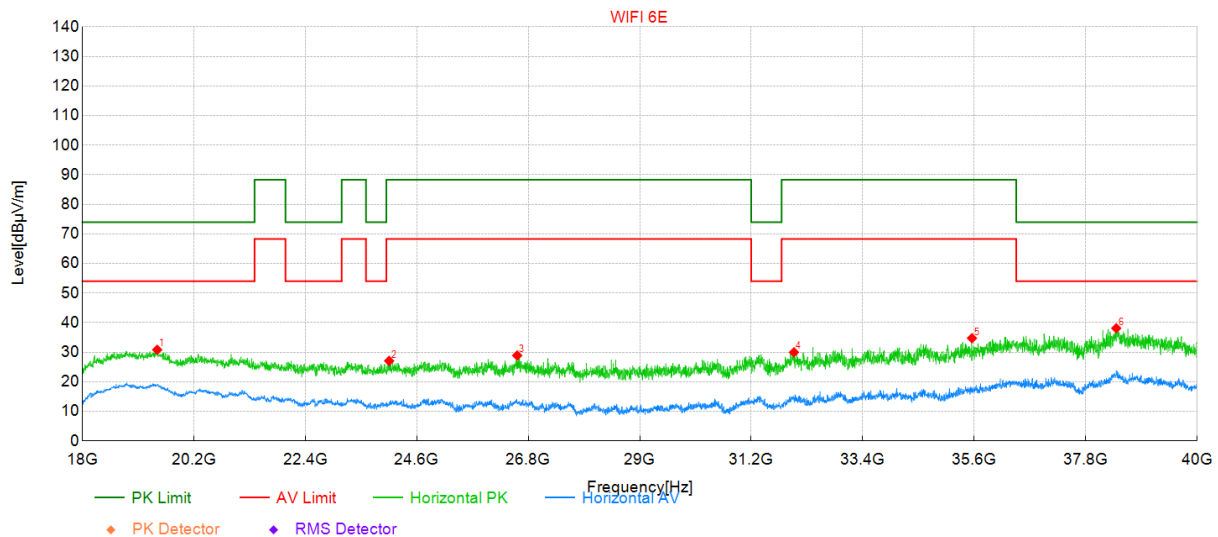
Test Report No.: RF260626B009

CHANNEL	TX Channel 43	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	18GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Suspected Data List

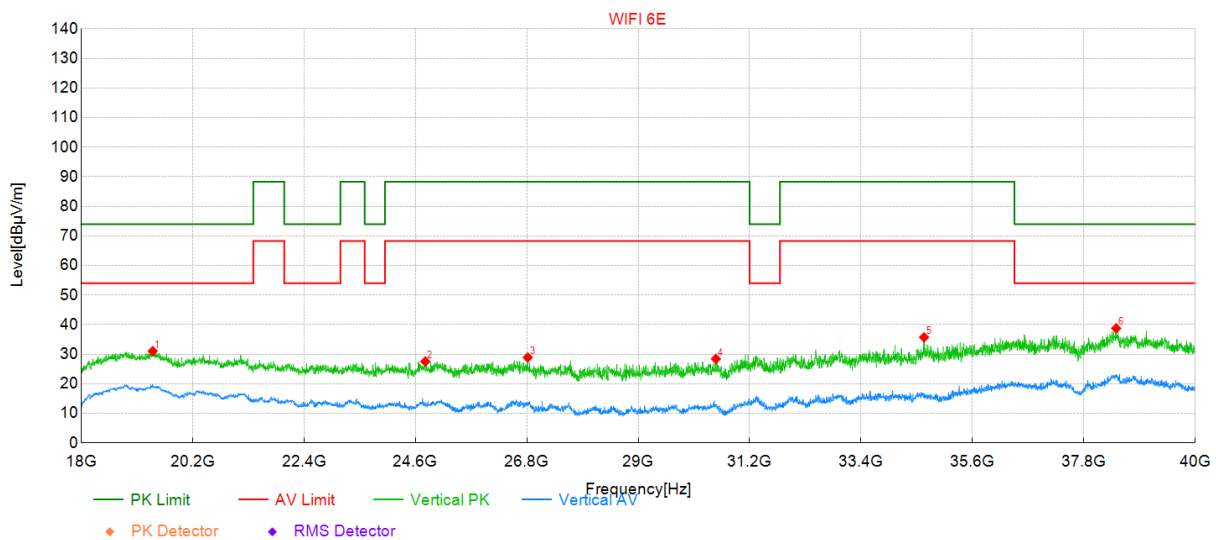
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	19478.695	37.95	30.83	-7.12	74.00	43.17	150	304	PK	Hori	PASS
2	24055.611	33.01	27.08	-5.93	88.30	61.22	150	230	PK	Hori	PASS
3	26581.716	33.58	28.89	-4.69	88.30	59.41	150	206	PK	Hori	PASS
4	32043.208	32.55	29.97	-2.58	88.30	58.33	150	173	PK	Hori	PASS
5	35555.111	34.80	34.74	-0.06	88.30	53.56	150	247	PK	Hori	PASS
6	38402.480	37.38	38.11	0.73	74.00	35.89	150	356	PK	Hori	PASS



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List

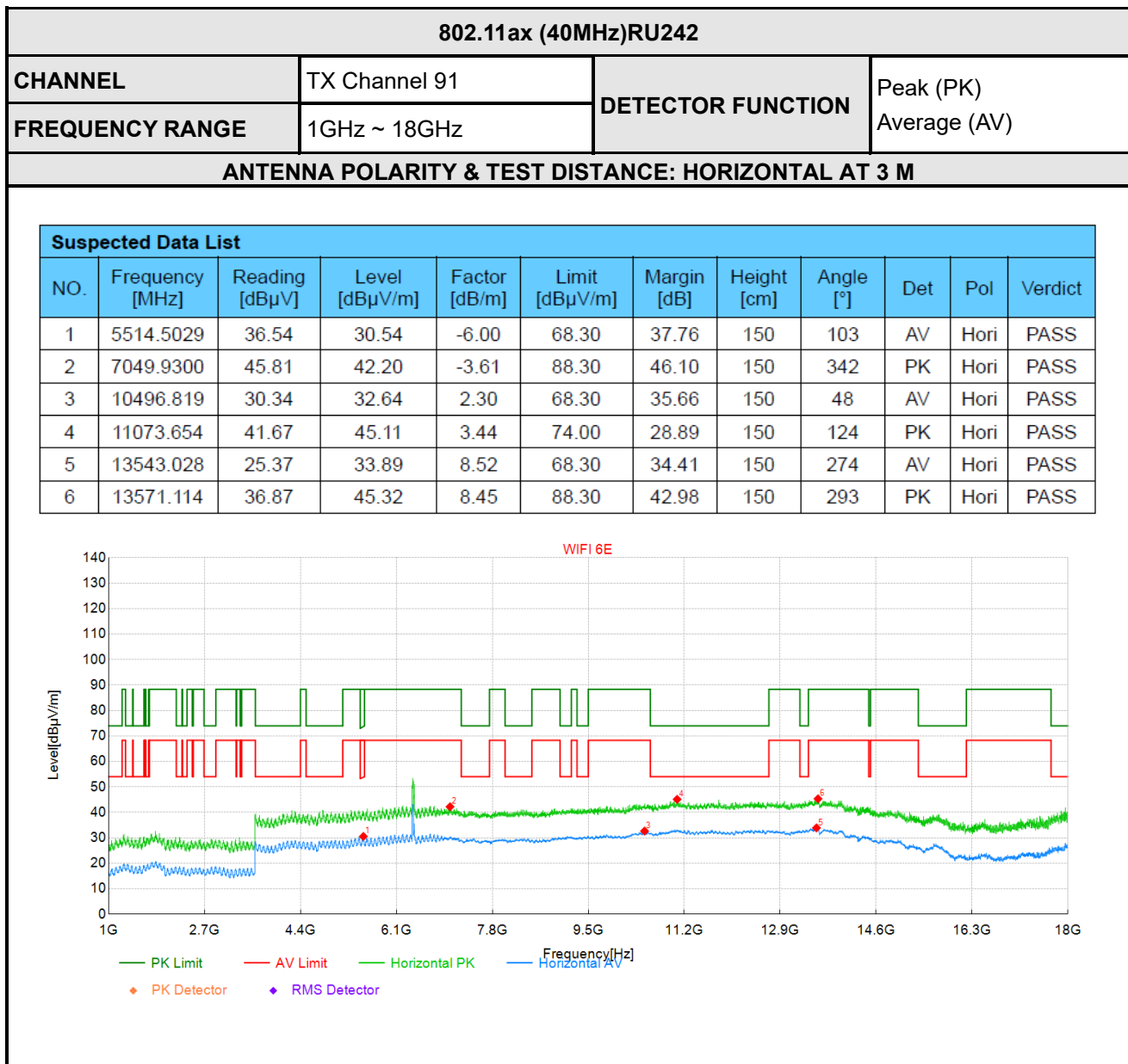
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	19412.682	38.09	31.04	-7.05	74.00	42.96	150	72	PK	Vert	PASS
2	24794.959	32.55	27.55	-5.00	88.30	60.75	150	191	PK	Vert	PASS
3	26819.363	33.69	28.91	-4.78	88.30	59.39	150	2	PK	Vert	PASS
4	30533.706	32.72	28.44	-4.28	88.30	59.86	150	2	PK	Vert	PASS
5	34644.128	35.89	35.73	-0.16	88.30	52.57	150	2	PK	Vert	PASS
6	38437.687	38.05	38.76	0.71	74.00	35.24	150	2	PK	Vert	PASS



REMARKS:

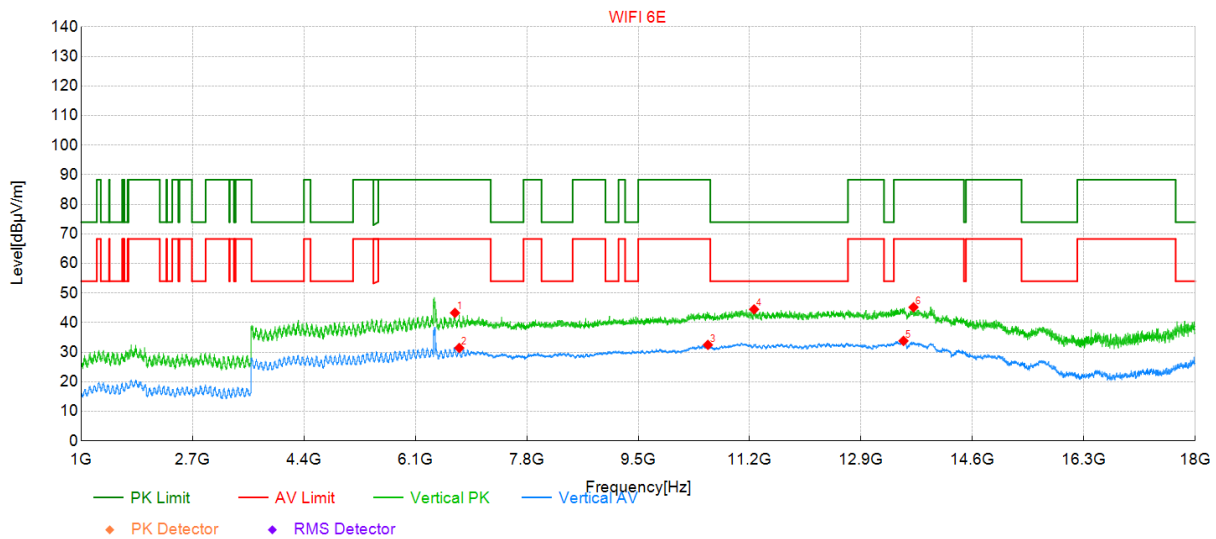
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 6175MHz: Fundamental frequency.

Test Report No.: RF260626B009



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	6703.9008	47.10	43.31	-3.79	88.30	44.99	150	122	PK	Vert	PASS
2	6769.6339	35.36	31.44	-3.92	68.30	36.86	150	327	AV	Vert	PASS
3	10563.792	30.05	32.49	2.44	68.30	35.81	150	130	AV	Vert	PASS
4	11268.093	40.91	44.51	3.60	74.00	29.49	150	212	PK	Vert	PASS
5	13547.349	25.32	33.84	8.52	68.30	34.46	150	343	AV	Vert	PASS
6	13700.740	36.96	45.20	8.24	88.30	43.10	150	119	PK	Vert	PASS





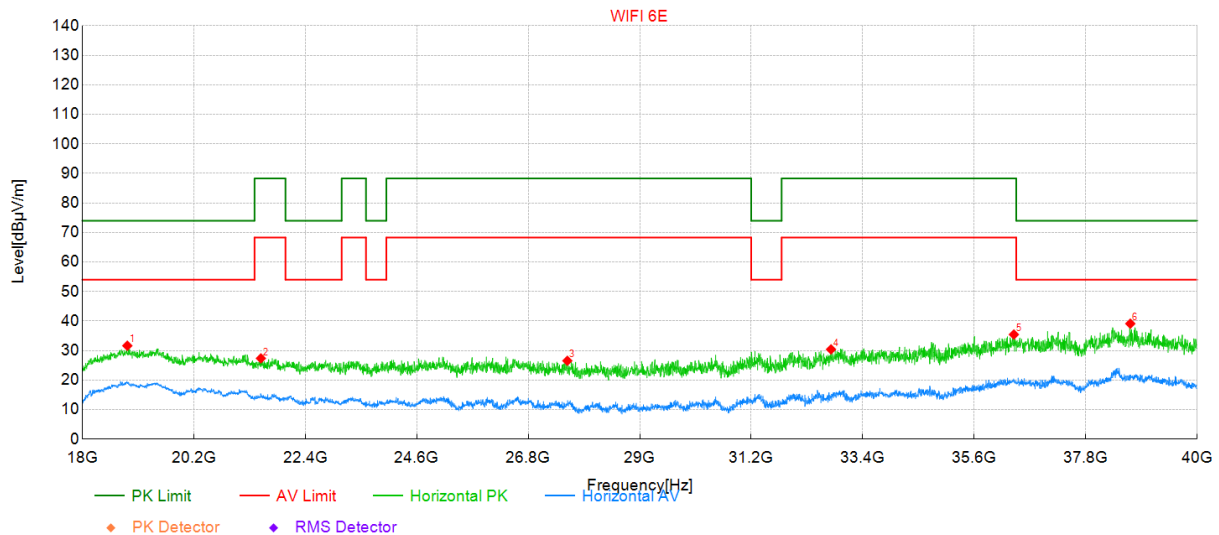
Test Report No.: RF260626B009

CHANNEL	TX Channel 91	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	18GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

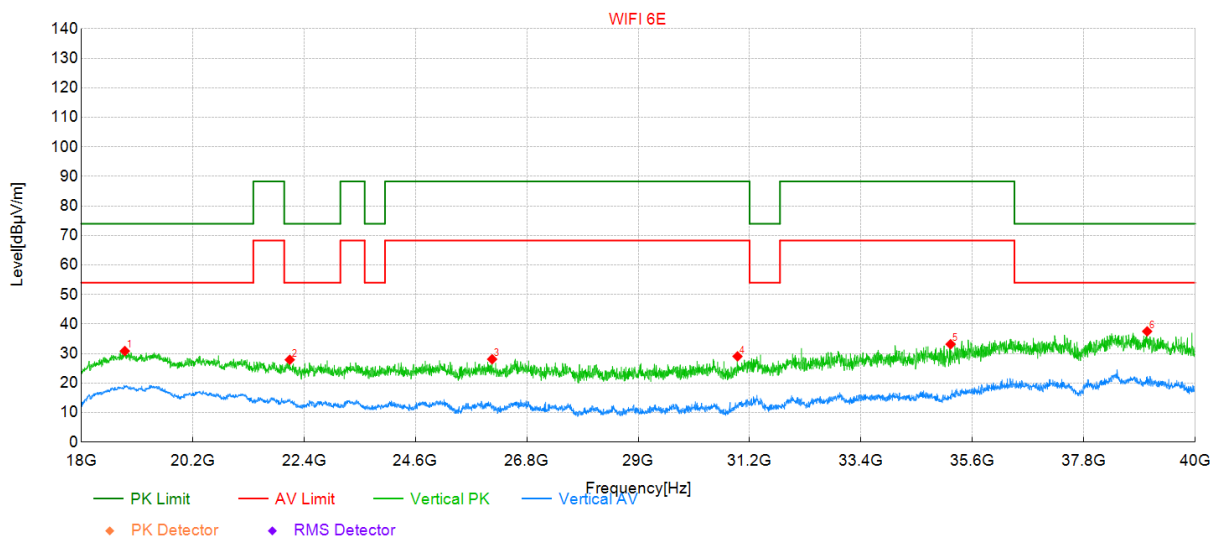
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	18888.977	39.02	31.65	-7.37	74.00	42.35	150	145	PK	Hori	PASS
2	21525.105	33.46	27.36	-6.10	88.30	60.94	150	127	PK	Hori	PASS
3	27571.914	31.70	26.55	-5.15	88.30	61.75	150	118	PK	Hori	PASS
4	32773.754	31.92	30.41	-1.51	88.30	57.89	150	118	PK	Hori	PASS
5	36382.476	34.68	35.45	0.77	88.30	52.85	150	253	PK	Hori	PASS
6	38679.735	38.43	39.13	0.70	74.00	34.87	150	167	PK	Hori	PASS



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	18862.572	38.20	30.87	-7.33	74.00	43.13	150	145	PK	Vert	PASS
2	22119.223	34.21	27.91	-6.30	74.00	46.09	150	71	PK	Vert	PASS
3	26115.223	33.04	28.10	-4.94	88.30	60.20	150	120	PK	Vert	PASS
4	30960.592	32.23	29.06	-3.17	88.30	59.24	150	323	PK	Vert	PASS
5	35167.833	33.05	33.18	0.13	88.30	55.12	150	350	PK	Vert	PASS
6	39049.409	37.44	37.53	0.09	74.00	36.47	150	179	PK	Vert	PASS

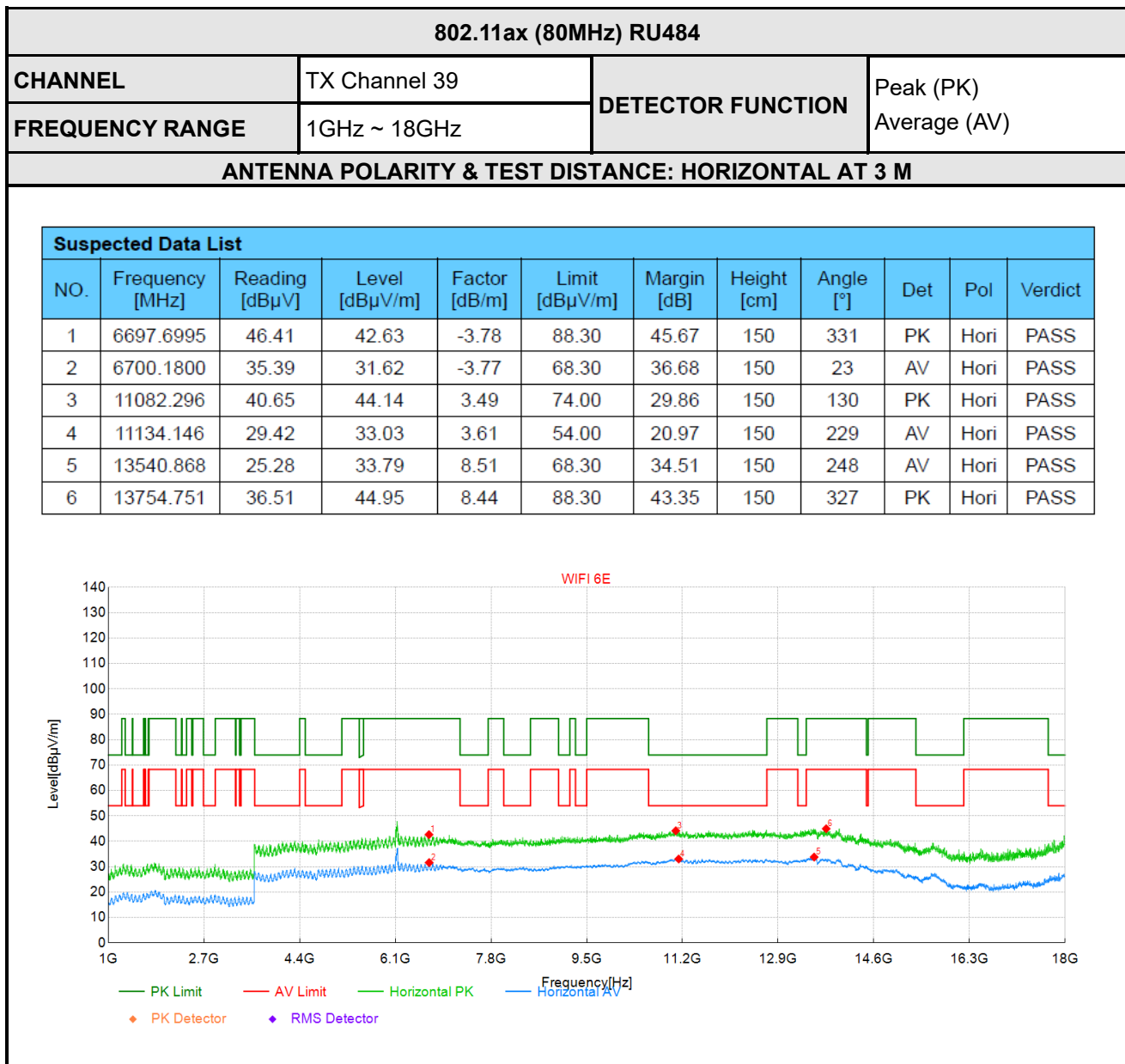


REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 6175MHz: Fundamental frequency.



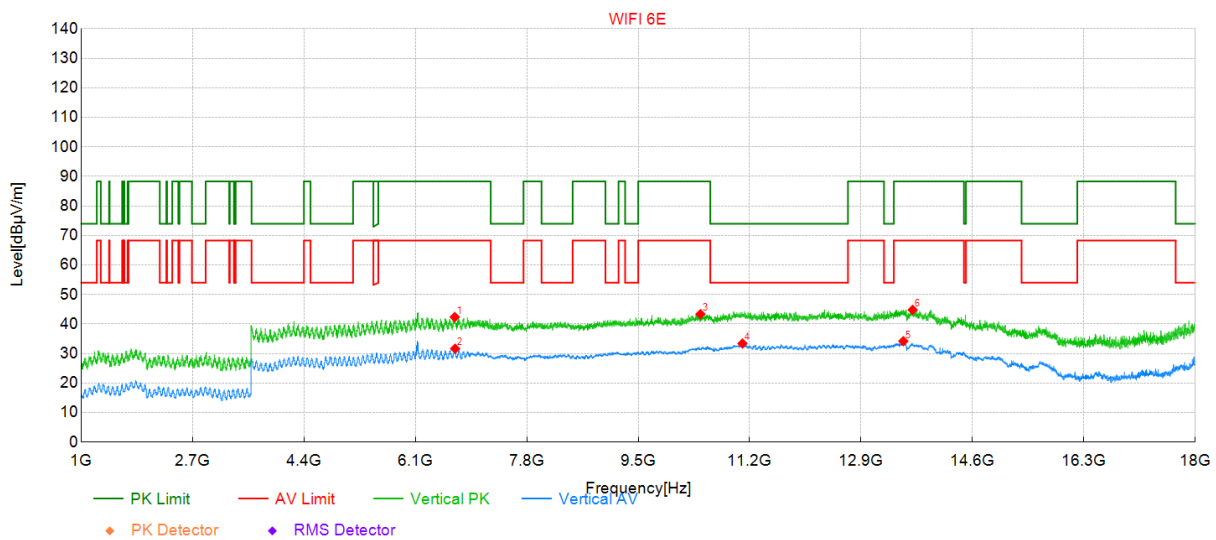
Test Report No.: RF260626B009



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	6700.1800	46.15	42.38	-3.77	88.30	45.92	150	358	PK	Vert	PASS
2	6706.3813	35.47	31.67	-3.80	68.30	36.63	150	249	AV	Vert	PASS
3	10449.289	41.33	43.36	2.03	88.30	44.94	150	328	PK	Vert	PASS
4	11090.938	29.88	33.41	3.53	54.00	20.59	150	173	AV	Vert	PASS
5	13545.189	25.68	34.20	8.52	68.30	34.10	150	332	AV	Vert	PASS
6	13687.777	36.57	44.82	8.25	88.30	43.48	150	27	PK	Vert	PASS





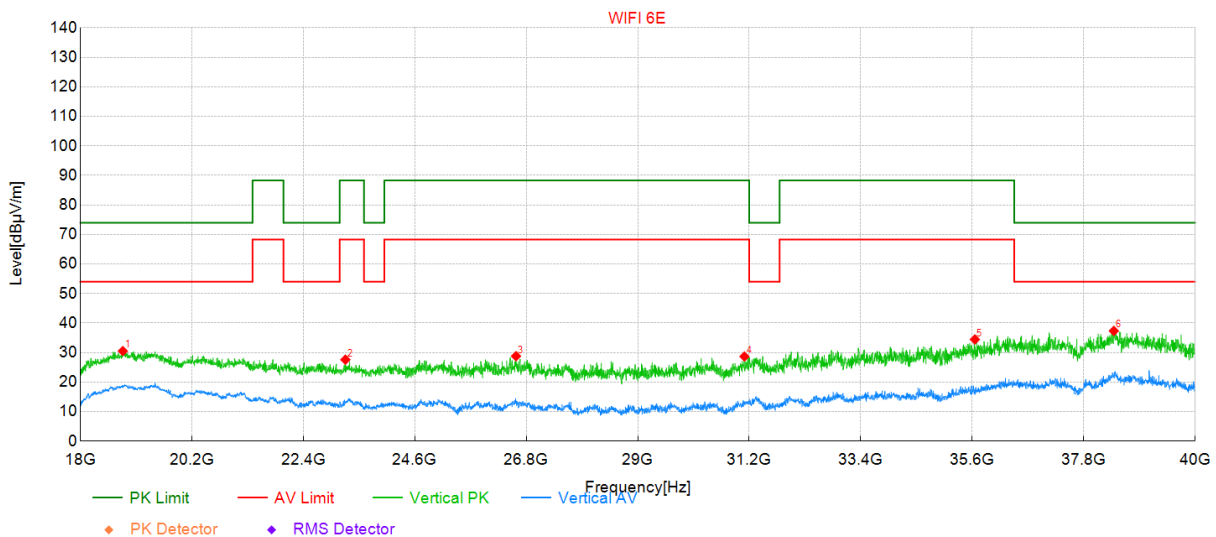
Test Report No.: RF260626B009

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	18GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

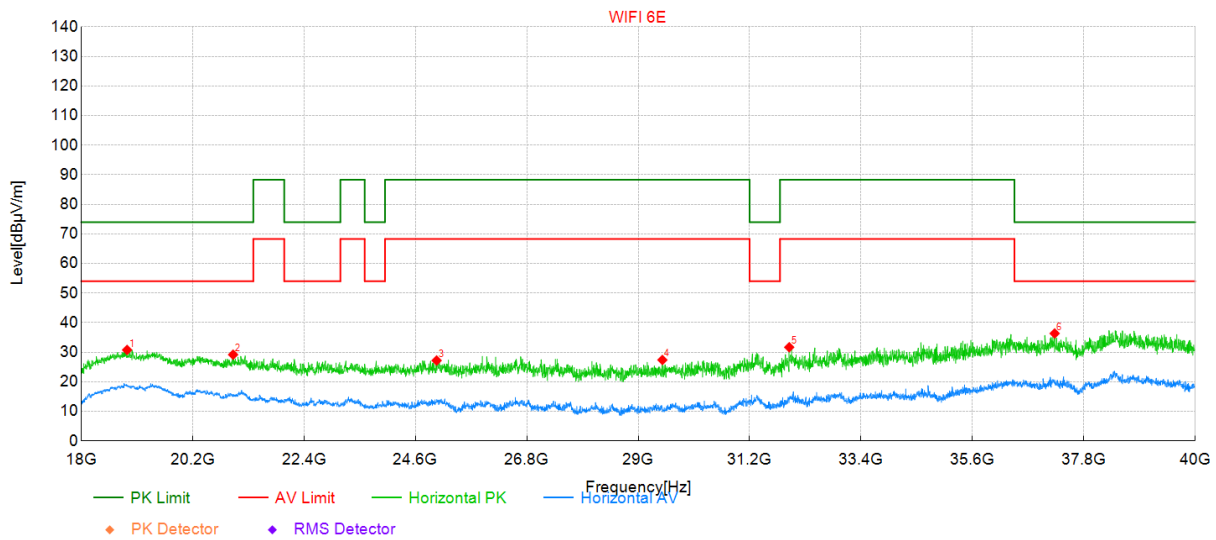
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	18840.568	37.81	30.52	-7.29	74.00	43.48	150	286	PK	Vert	PASS
2	23232.646	33.63	27.60	-6.03	88.30	60.70	150	350	PK	Vert	PASS
3	26599.319	33.36	28.79	-4.57	88.30	59.51	150	309	PK	Vert	PASS
4	31105.821	31.41	28.67	-2.74	88.30	59.63	150	37	PK	Vert	PASS
5	35651.930	34.47	34.46	-0.01	88.30	53.84	150	333	PK	Vert	PASS
6	38393.678	36.59	37.34	0.75	74.00	36.66	150	84	PK	Vert	PASS



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	18906.581	38.17	30.78	-7.39	74.00	43.22	150	89	PK	Hori	PASS
2	21001.400	35.83	29.18	-6.65	74.00	44.82	150	333	PK	Hori	PASS
3	25019.403	32.77	27.21	-5.56	88.30	61.09	150	157	PK	Hori	PASS
4	29477.495	32.37	27.40	-4.97	88.30	60.90	150	238	PK	Hori	PASS
5	31981.596	34.25	31.69	-2.56	88.30	56.61	150	257	PK	Hori	PASS
6	37223.044	34.77	36.36	1.59	74.00	37.64	150	213	PK	Hori	PASS

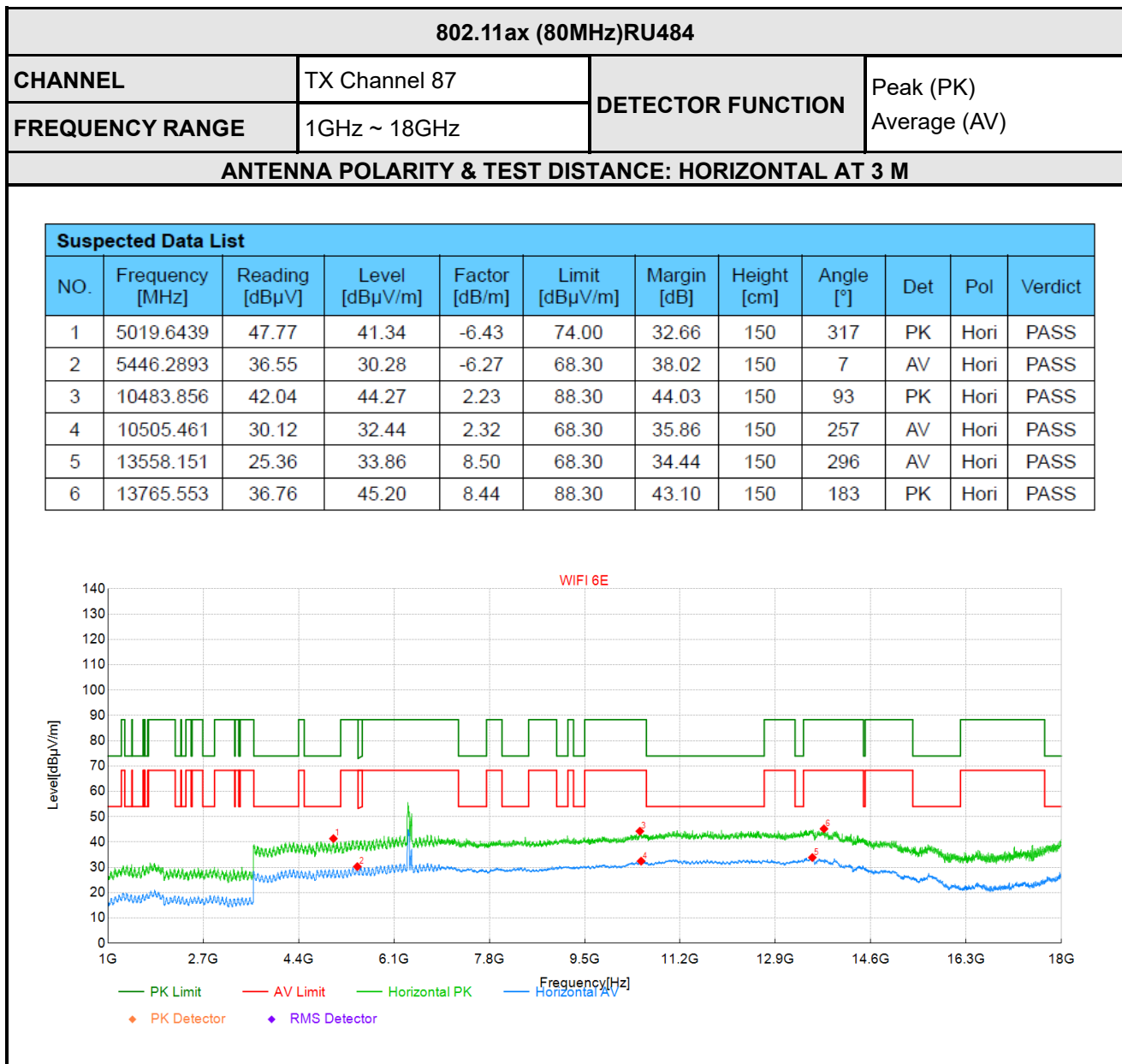


REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 6175MHz: Fundamental frequency.



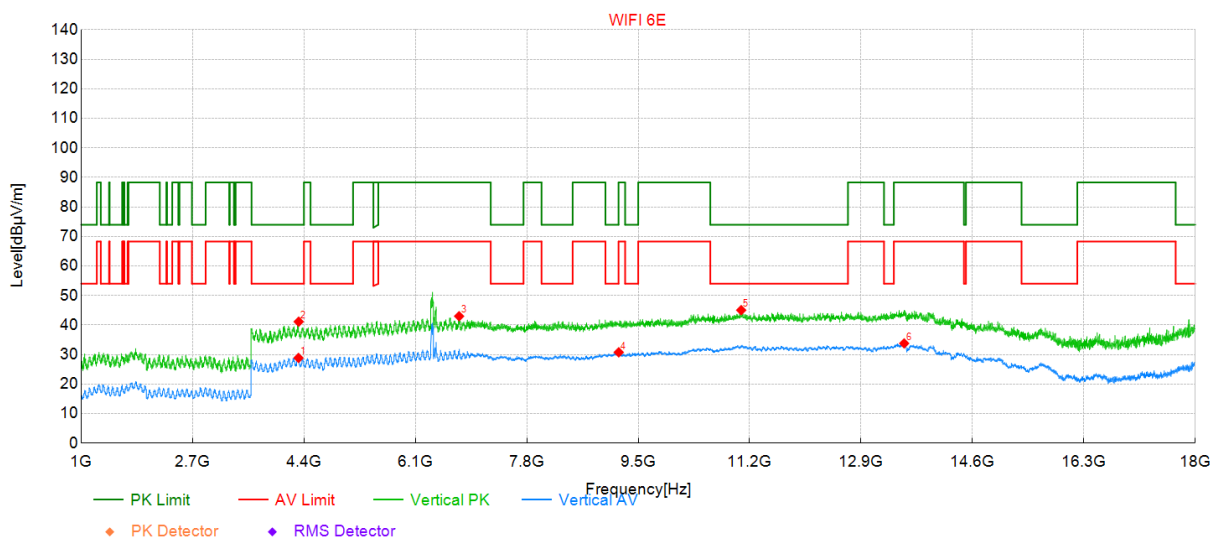
Test Report No.: RF260626B009



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	4316.4233	37.56	28.87	-8.69	54.00	25.13	150	161	AV	Vert	PASS
2	4318.9038	49.85	41.15	-8.70	74.00	32.85	150	229	PK	Vert	PASS
3	6767.1534	46.93	43.01	-3.92	88.30	45.29	150	41	PK	Vert	PASS
4	9202.7205	32.11	30.78	-1.33	68.30	37.52	150	155	AV	Vert	PASS
5	11071.494	41.61	45.05	3.44	74.00	28.95	150	51	PK	Vert	PASS
6	13558.151	25.29	33.79	8.50	68.30	34.51	150	89	AV	Vert	PASS

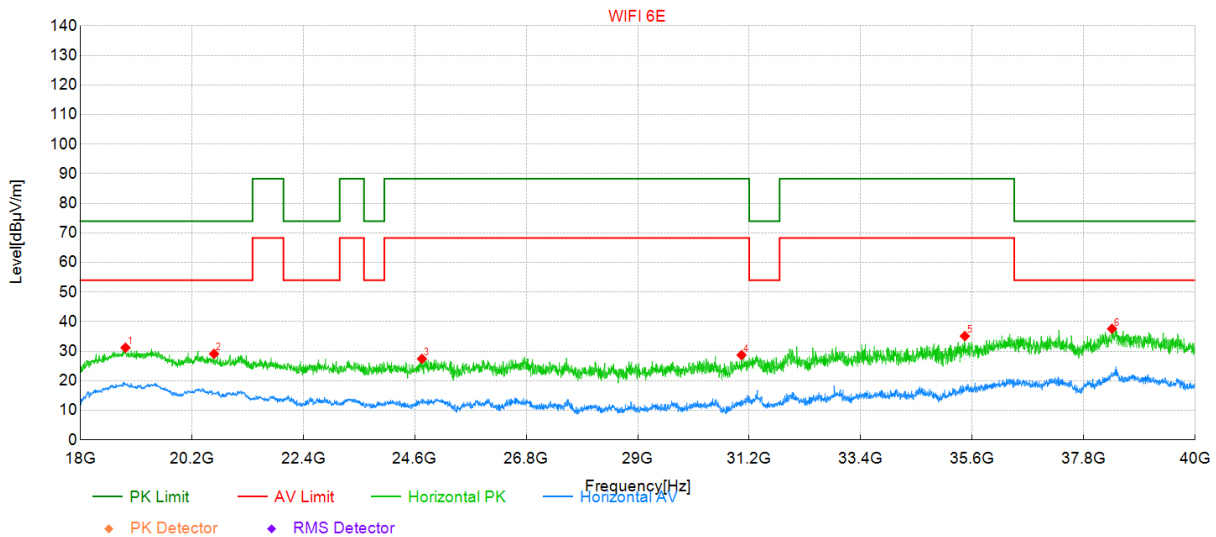


CHANNEL	TX Channel 87	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	18GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

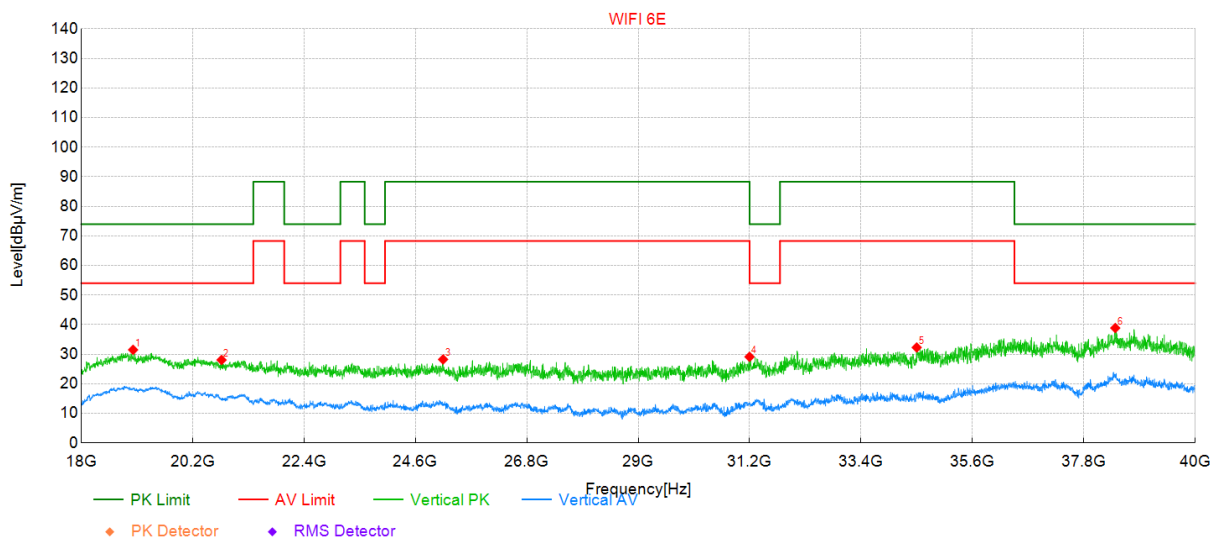
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	18893.378	38.59	31.21	-7.38	74.00	42.79	150	214	PK	Hori	PASS
2	20640.528	35.64	29.10	-6.54	74.00	44.90	150	173	PK	Hori	PASS
3	24742.148	32.56	27.43	-5.13	88.30	60.87	150	187	PK	Hori	PASS
4	31048.609	31.49	28.71	-2.78	88.30	59.59	150	287	PK	Hori	PASS
5	35453.890	35.01	35.13	0.12	88.30	53.17	150	119	PK	Hori	PASS
6	38358.471	36.74	37.61	0.87	74.00	36.39	150	192	PK	Hori	PASS



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

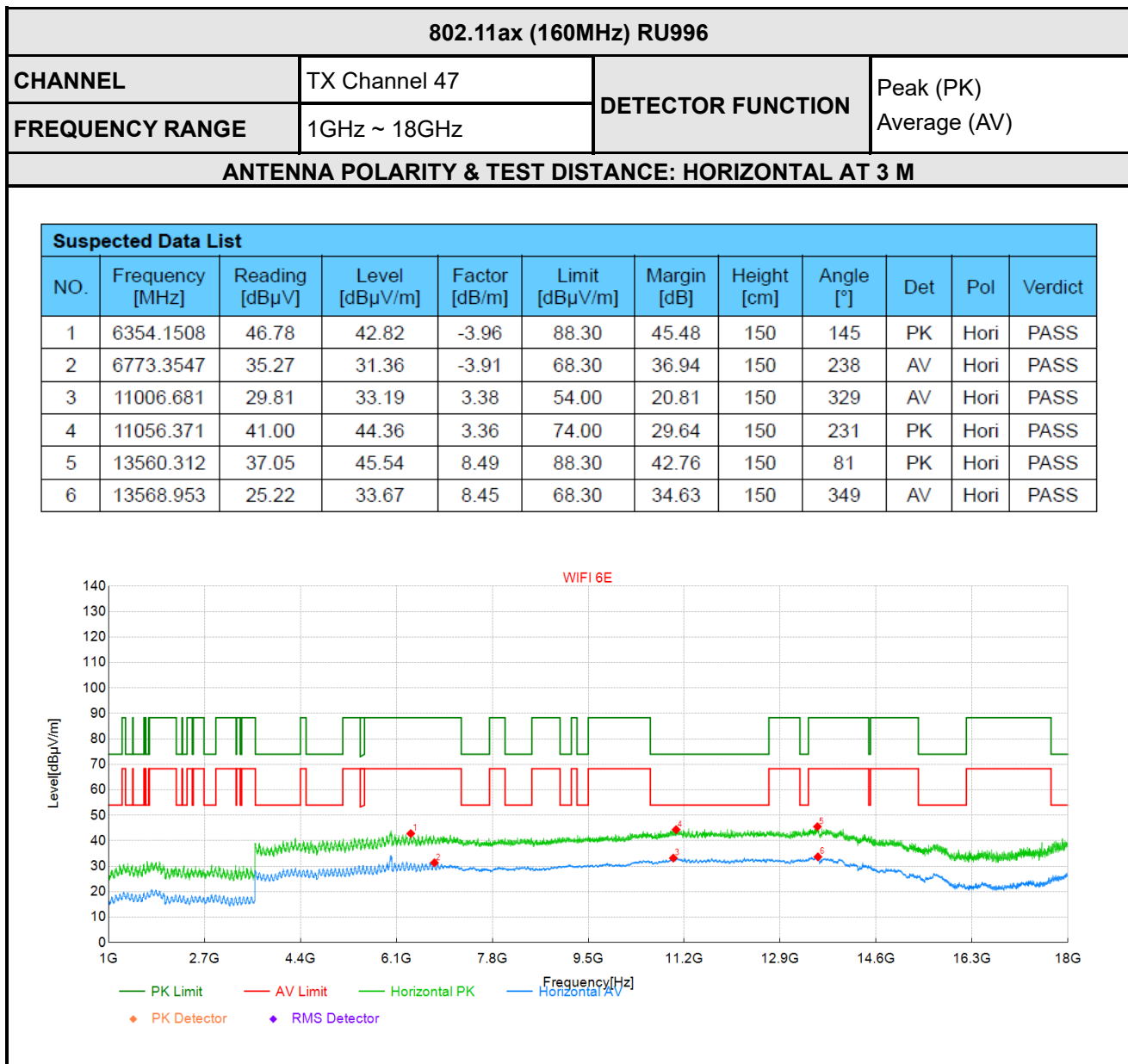
Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	19025.405	38.94	31.50	-7.44	74.00	42.50	150	109	PK	Vert	PASS
2	20772.554	34.46	28.07	-6.39	74.00	45.93	150	271	PK	Vert	PASS
3	25147.029	33.67	28.25	-5.42	88.30	60.05	150	7	PK	Vert	PASS
4	31198.239	32.02	29.13	-2.89	88.30	59.17	150	271	PK	Vert	PASS
5	34498.899	32.57	32.29	-0.28	88.30	56.01	150	309	PK	Vert	PASS
6	38420.084	38.16	38.88	0.72	74.00	35.12	150	350	PK	Vert	PASS



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 6175MHz: Fundamental frequency.

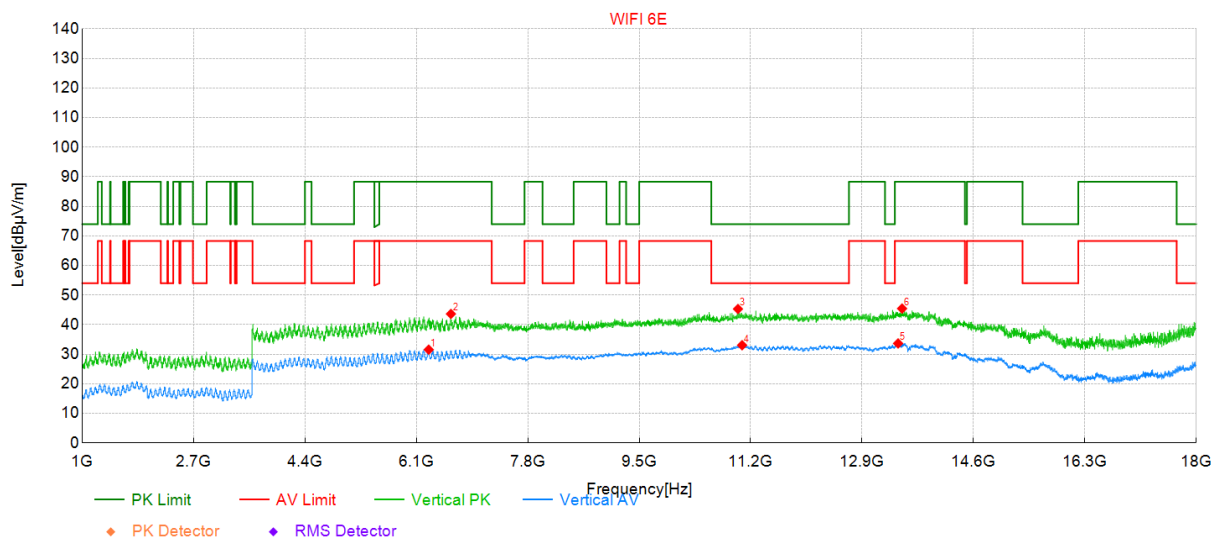
Test Report No.: RF260626B009



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	6288.4177	35.57	31.55	-4.02	68.30	36.75	150	317	AV	Vert	PASS
2	6627.0054	47.57	43.63	-3.94	88.30	44.67	150	91	PK	Vert	PASS
3	11006.681	41.93	45.31	3.38	74.00	28.69	150	210	PK	Vert	PASS
4	11069.333	29.62	33.05	3.43	54.00	20.95	150	350	AV	Vert	PASS
5	13450.130	25.22	33.65	8.43	68.30	34.65	150	227	AV	Vert	PASS
6	13510.622	37.00	45.45	8.45	88.30	42.85	150	164	PK	Vert	PASS

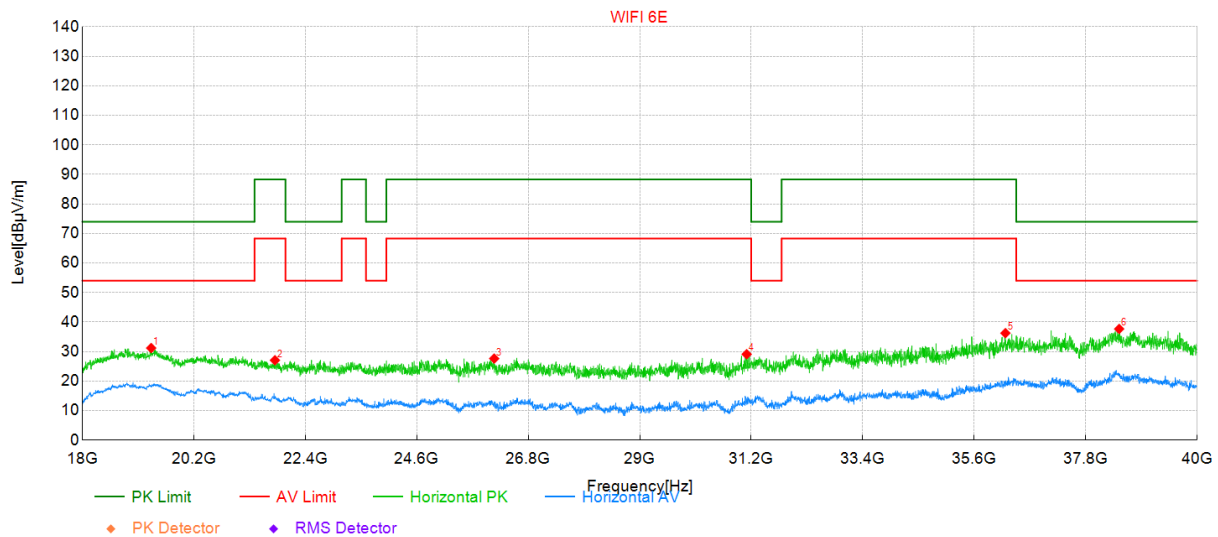


CHANNEL	TX Channel 47	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	18GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Suspected Data List

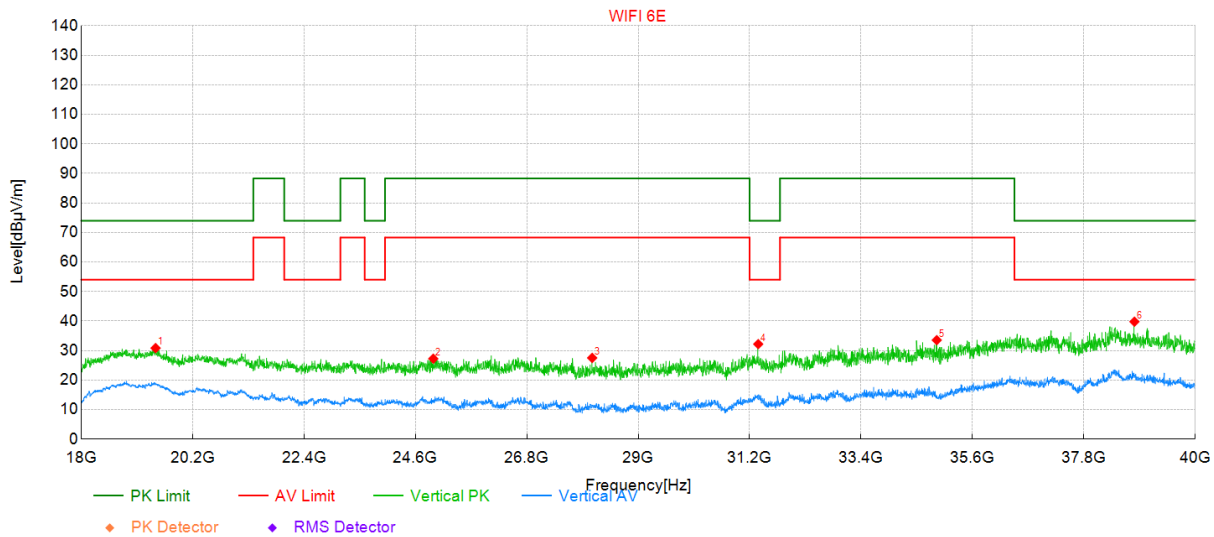
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	19359.872	38.26	31.20	-7.06	74.00	42.80	150	53	PK	Hori	PASS
2	21802.360	33.16	27.07	-6.09	88.30	61.23	150	102	PK	Hori	PASS
3	26128.425	32.58	27.64	-4.94	88.30	60.66	150	69	PK	Hori	PASS
4	31110.222	31.85	29.11	-2.74	88.30	59.19	150	352	PK	Hori	PASS
5	36215.243	35.04	36.25	1.21	88.30	52.05	150	141	PK	Hori	PASS
6	38459.691	36.96	37.67	0.71	74.00	36.33	150	0	PK	Hori	PASS



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List

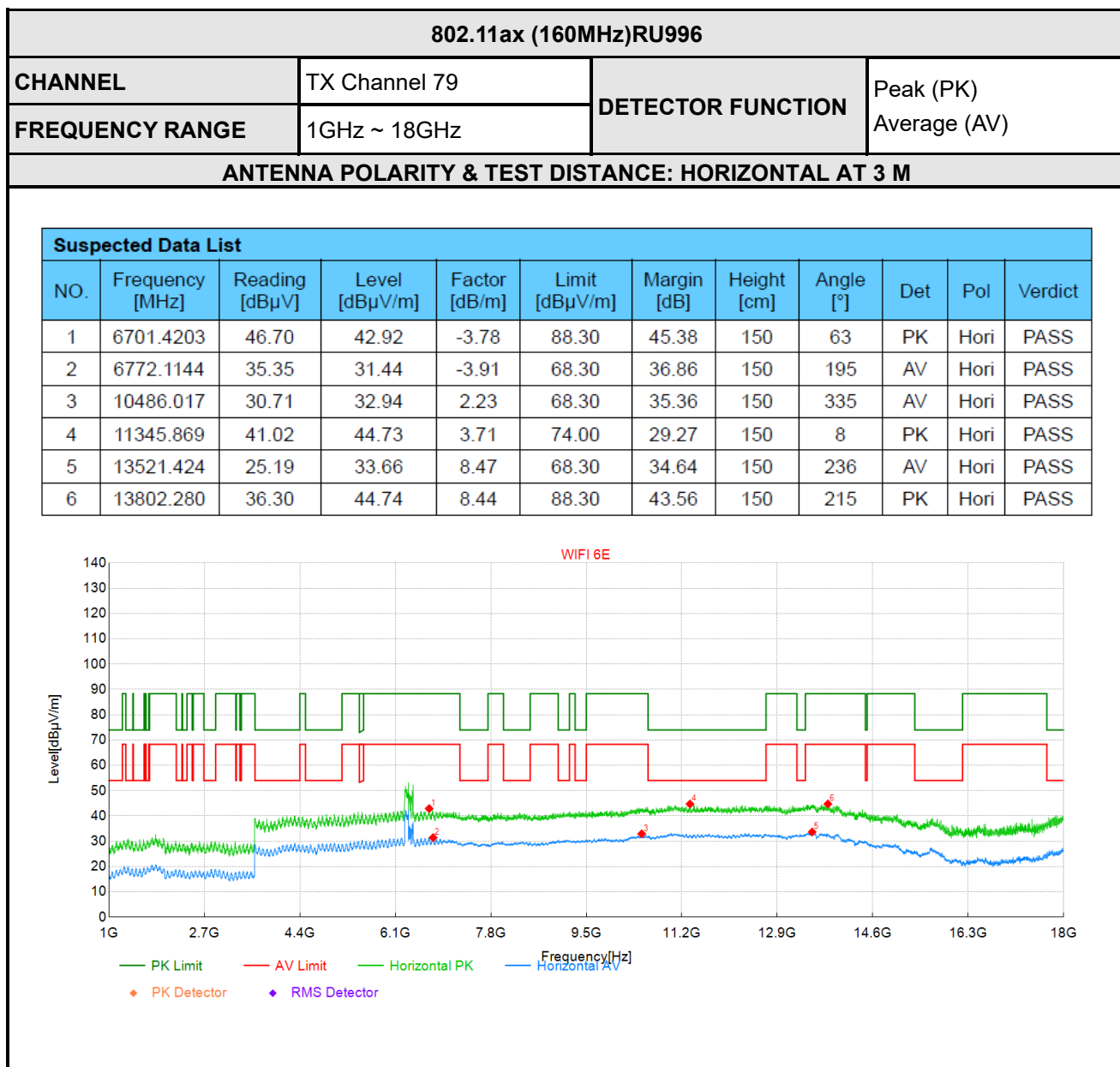
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	19469.894	37.95	30.84	-7.11	74.00	43.16	150	299	PK	Vert	PASS
2	24953.390	32.70	27.25	-5.45	88.30	61.05	150	320	PK	Vert	PASS
3	28091.218	32.76	27.53	-5.23	88.30	60.77	150	285	PK	Vert	PASS
4	31369.874	34.87	32.20	-2.67	74.00	41.80	150	237	PK	Vert	PASS
5	34894.979	33.78	33.55	-0.23	88.30	54.75	150	21	PK	Vert	PASS
6	38798.559	38.89	39.79	0.90	74.00	34.21	150	79	PK	Vert	PASS



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 6175MHz: Fundamental frequency.

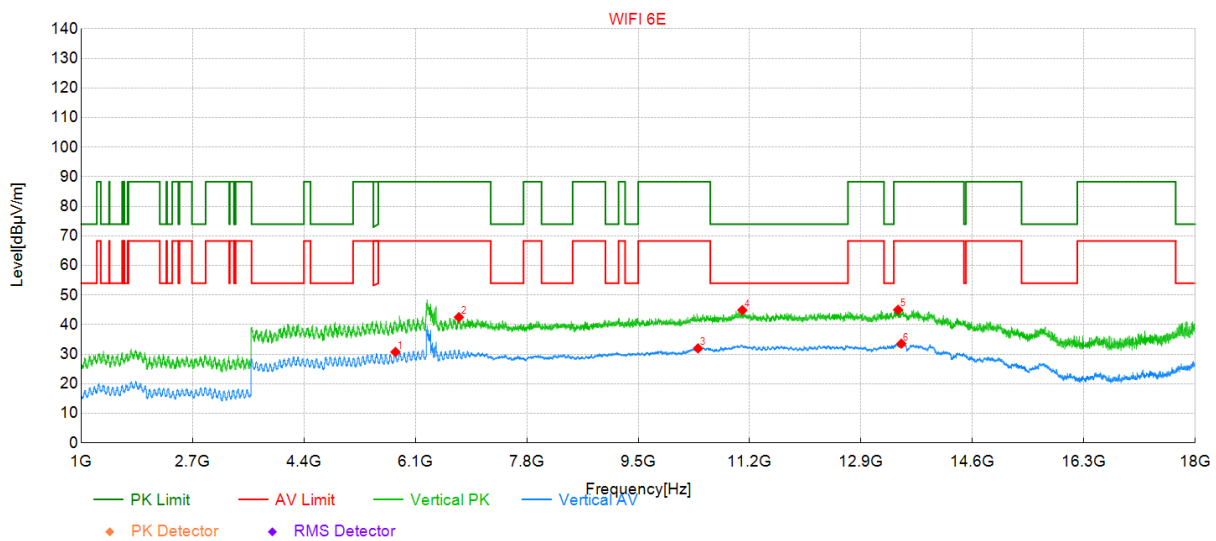
Test Report No.: RF260626B009



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	5796.0392	35.48	30.75	-4.73	68.30	37.55	150	23	AV	Vert	PASS
2	6763.4327	46.44	42.52	-3.92	88.30	45.78	150	126	PK	Vert	PASS
3	10412.562	30.15	31.98	1.83	68.30	36.32	150	157	AV	Vert	PASS
4	11088.777	41.38	44.90	3.52	74.00	29.10	150	244	PK	Vert	PASS
5	13465.253	36.58	45.01	8.43	88.30	43.29	150	236	PK	Vert	PASS
6	13514.943	25.12	33.58	8.46	68.30	34.72	150	289	AV	Vert	PASS

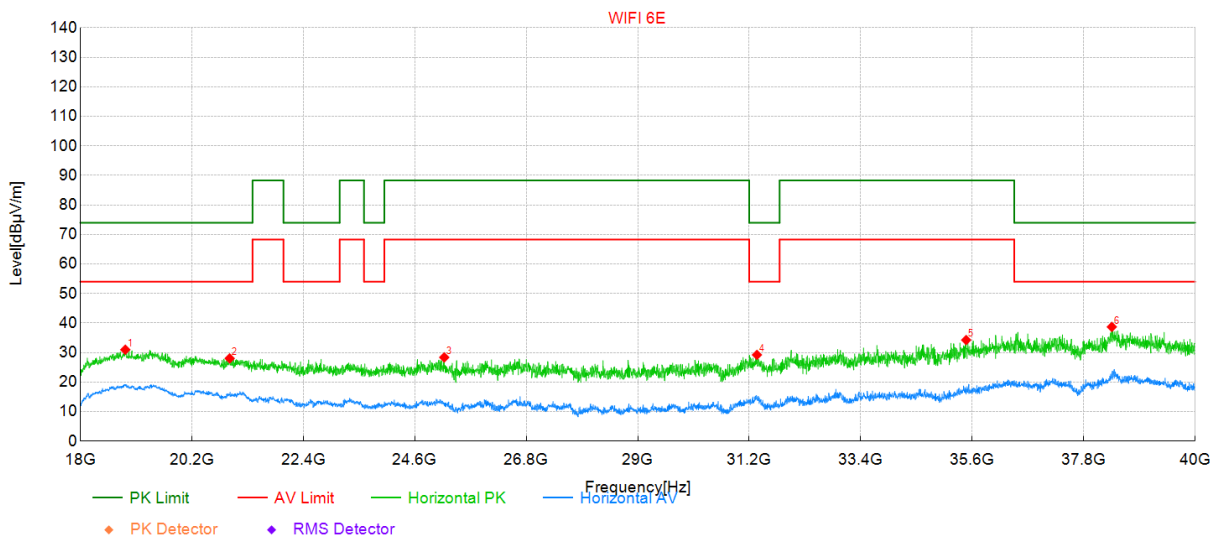


CHANNEL	TX Channel 79	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	18GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

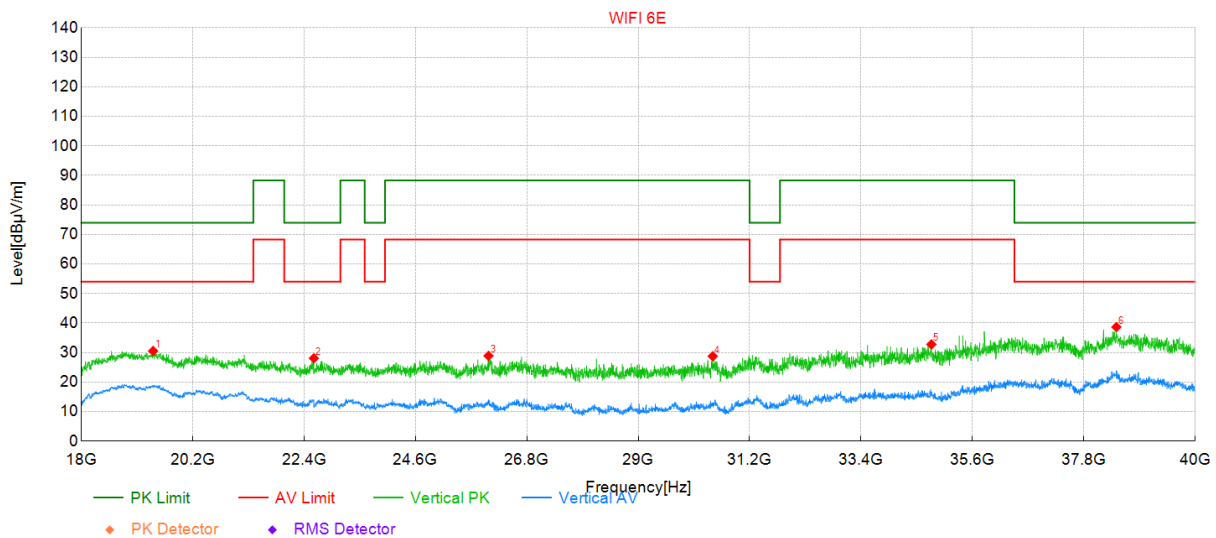
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	18888.977	38.35	30.98	-7.37	74.00	43.02	150	13	PK	Hori	PASS
2	20948.589	34.60	28.03	-6.57	74.00	45.97	150	45	PK	Hori	PASS
3	25182.236	33.76	28.38	-5.38	88.30	59.92	150	224	PK	Hori	PASS
4	31352.270	31.91	29.23	-2.68	74.00	44.77	150	148	PK	Hori	PASS
5	35480.296	34.20	34.26	0.06	88.30	54.04	150	349	PK	Hori	PASS
6	38354.070	37.83	38.71	0.88	74.00	35.29	150	306	PK	Hori	PASS



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	19421.484	37.60	30.54	-7.06	74.00	43.46	150	158	PK	Vert	PASS
2	22594.518	33.71	28.08	-5.63	74.00	45.92	150	119	PK	Vert	PASS
3	26044.809	33.81	28.90	-4.91	88.30	59.40	150	144	PK	Vert	PASS
4	30472.094	33.14	28.78	-4.36	88.30	59.52	150	196	PK	Vert	PASS
5	34789.357	32.52	32.79	0.27	88.30	55.51	150	37	PK	Vert	PASS
6	38442.088	37.93	38.65	0.72	74.00	35.35	150	253	PK	Vert	PASS



REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 6175MHz: Fundamental frequency.

3.2 IN-BAND EMISSION (MASK) MEASUREMENT

3.2.1 LIMITS OF IN-BAND EMISSION (MASK) MEASUREMENT

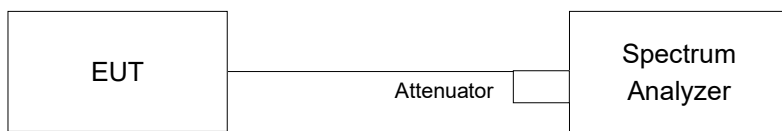
Test Item	Frequencies (MHz)	(X) dBc ^{*1}
Emission Mask	At 1 MHz outside of channel edge	20
	At one channel bandwidth from the channel center ^{*2}	28
	At one- and one-half times the channel bandwidth away from channel center ^{*3}	40
	More than one- and one-half times the channel bandwidth	40

*1 : The power spectral density must be suppressed by “x” dB

*2 : At frequencies between one megahertz outside an unlicensed device’s channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression,

*3 : At frequencies between one and one- and one-half times an unlicensed device’s channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression.

3.2.2 TEST SETUP



Test Report No.: RF260626B009

3.2.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Wireless communication integrated tester	Rohde&Schwarz	CMW500	166205	2025/6/30	2027/6/29
MXA Signal Analyzer	KEYSIGHT	N9020B	MY60112669	2025/8/27	2027/8/26
WiFi 7GHz Band Extender	Tonscend	TS-WF7U2	806WF7U003305251003	2025/1/17	2027/1/16
RF Control Unit	Tonscend	JS0806-2	806JS2X020201251002	2025/1/17	2027/1/16
PSG Analog Signal Generator	Agilent	E8257D	MY51111397	2025/7/01	2027/6/30
MXG Vector Signal Generator	KEYSIGHT	N5182B	MY61250150	2025/1/15	2027/1/14
DC Power Supply	AGILENT	HMP2020	100598	2025/7/01	2027/6/30
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-1	2025/6/30	2027/6/29
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-2	2025/6/30	2027/6/29
hygrothermograph	Anymeters	----	TH101B	2025/7/22	2027/7/21
Temperature Box	zhongkemeiqi	MA22040172	MQ-DTH50F-2	2025/7/01	2027/6/30
power divider	WOKEN	71688	204-003180-01	2025/6/30	2027/6/29

NOTE:

1. The calibration interval of the above test instruments is 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

3.2.4 TEST PROCEDURE

- a. Connect output of the antenna port to a spectrum analyzer and adjust appropriate attenuation.
- b. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10-2020. (Determine the channel edge.)
- c. Measure the power spectral density (for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW $\geq 3 \times$ RBW
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging)
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
- d. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a) Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
 - b) Suppressed by 28 dB at one channel bandwidth from the channel center.
 - c) Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
- e. Adjust the span to encompass the entire mask as necessary and clear trace.
- f. Trace average at least 100 traces in power averaging (rms) mode.
- g. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask

3.2.5 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.2.6 TEST RESULTS

Please Refer to Appendix Of this test report.

3.3 CONDUCTED EMISSION MEASUREMENT

3.3.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3.3.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pulse limiter	SCHWARZBECK	VTSD 9561F	01579	2025/7/22	2027/7/21
ESR.EMI TEST RECEIVER	Rohde&SCHWARZ	ESR	101405	2025/6/30	2027/6/29
LISN	SCHWARZBECK	NSLK 8127	01216	2025/8/27	2027/8/26
Cable	Tonscend	/	/	2025/7/22	2027/7/21

NOTE:

1. The test was performed in CE shielded room.

2. The calibration interval of the above test instruments is 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3.3.3 TEST PROCEDURES

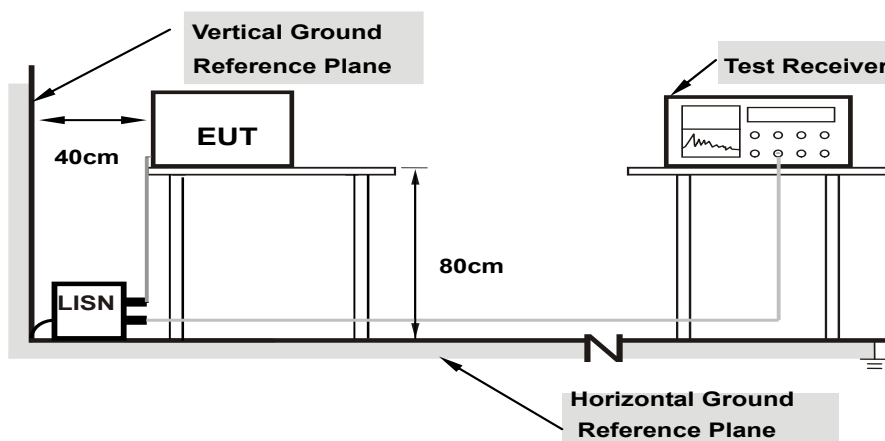
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

3.3.4 DEVIATION FROM TEST STANDARD

No deviation.

3.3.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.3.6 EUT OPERATING CONDITIONS

Same as 3.1.6.

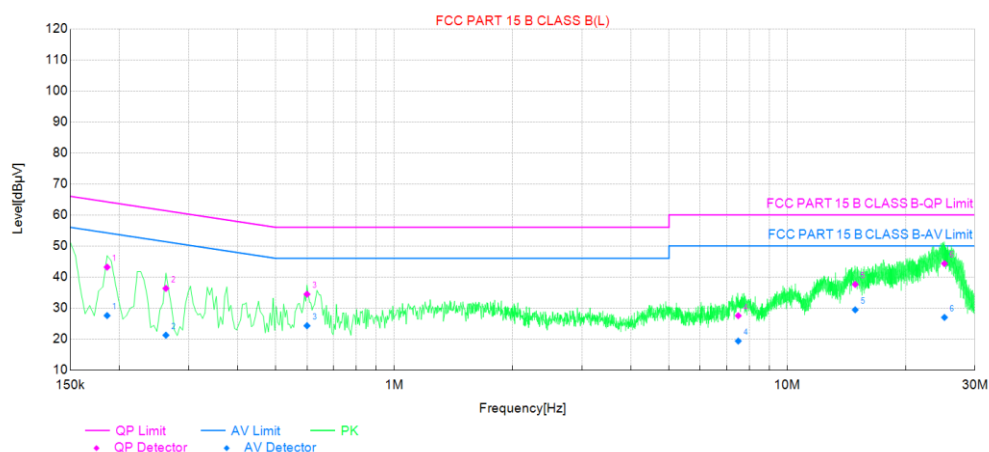
3.3.7 TEST RESULTS

CONDUCTED WORST-CASE DATA			
Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	26deg. C, 51%RH
Tested By	Hanwen Xu		

Final Data List												
NO.	Frequency [MHz]	Factor [dB]	Phase	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1860	10.07	L	33.10	43.17	64.21	21.04	17.47	27.54	54.21	26.67	PASS
2	0.2625	10.07	L	26.24	36.31	61.35	25.04	11.15	21.22	51.35	30.13	PASS
3	0.6000	10.08	L	24.35	34.43	56.00	21.57	14.19	24.27	46.00	21.73	PASS
4	7.5030	10.46	L	17.03	27.49	60.00	32.51	8.87	19.33	50.00	30.67	PASS
5	14.8875	11.05	L	26.55	37.60	60.00	22.40	18.35	29.40	50.00	20.60	PASS
6	25.1160	11.54	L	32.75	44.29	60.00	15.71	15.42	26.96	50.00	23.04	PASS

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value - Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.

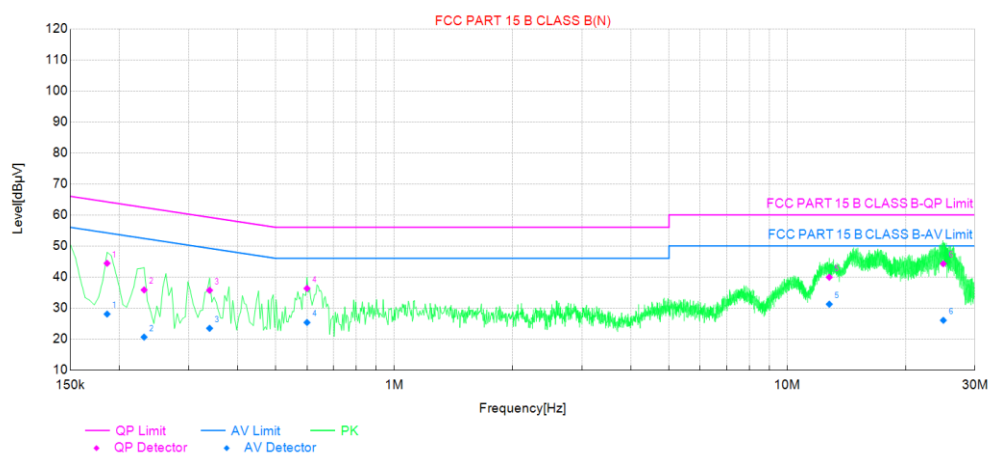


Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	26deg. C, 51%RH
Tested By	Hanwen Xu		

Final Data List												
NO.	Frequency [MHz]	Factor [dB]	Phase	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1860	10.10	N	34.30	44.40	64.21	19.81	17.93	28.03	54.21	26.18	PASS
2	0.2310	10.10	N	25.72	35.82	62.41	26.59	10.51	20.61	52.41	31.80	PASS
3	0.3390	10.10	N	25.59	35.69	59.23	23.54	13.34	23.44	49.23	25.79	PASS
4	0.6000	10.11	N	26.20	36.31	56.00	19.69	15.21	25.32	46.00	20.68	PASS
5	12.7905	11.01	N	28.91	39.92	60.00	20.08	20.21	31.22	50.00	18.78	PASS
6	24.9495	11.59	N	32.67	44.26	60.00	15.74	14.43	26.02	50.00	23.98	PASS

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value -Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.

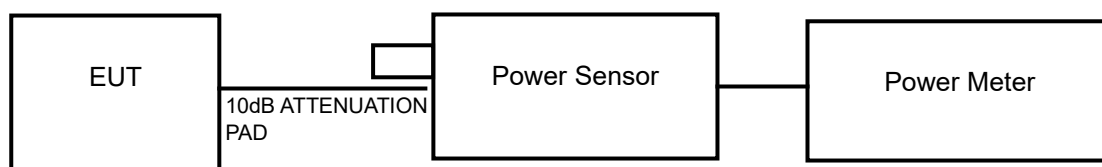


3.4 TRANSMIT POWER MEASUREMENT

3.4.1 LIMITS OF TRANSMIT POWER MEASUREMENT

Operation Band	EUT Category	Limit
		Max Average Power
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Client Devices (controlled of an indoor AP)	EIRP 24 dBm
U-NII-5 U-NII-7	Client Devices (controlled of a Standard Power AP)	EIRP 30 dBm

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.2.3 to get information on the above instrument.

3.4.4 TEST PROCEDURE

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

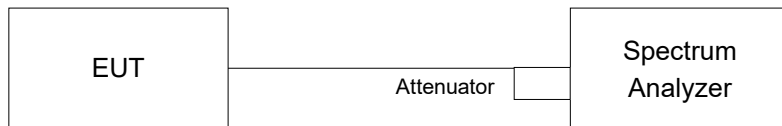
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.4.7 TEST RESULT

Please Refer to Appendix Of this test report.

3.5 EMISSION BANDWIDTH MEASUREMENT

3.5.1 TEST SETUP



3.5.2 TEST INSTRUMENTS

Refer to section 3.2.3 to get information of above instrument.

3.5.3 TEST PROCEDURE

For 99% Occupied Bandwidth

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

For 26dB Bandwidth

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

3.5.4 TEST RESULT

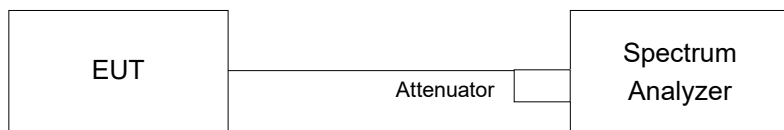
Please Refer to Appendix Of this test report.

3.6 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.6.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category	Limit
		Peak Power Density (EIRP)
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Client Devices (controlled of an indoor AP)	-1 dBm/MHz
U-NII-5 U-NII-7	Client Devices (controlled of a Standard Power AP)	17 dBm/MHz

3.6.2 TEST SETUP



3.6.3 TEST INSTRUMENTS

Refer to section 3.2.3 to get information on the above instrument.

3.6.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP level.
- e. Follow ANSI 63.10 and KDB 412172 D01 v01r01, EIRP Value (dBm) = Field Strength Value (dBμV/m) + Correction Factor @ 3m.
- f. Correction Factor (dB) @ 3m = $20\log(D) - 104.7$; where D is the measurement distance @3m=-95.23dB

Note: Spectrum analyzer setting as below:

Method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to "free run" .
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value and add $10 \log (1/\text{duty cycle})$

3.6.5 DEVIATION FROM TEST STANDARD

No deviation.

3.6.6 EUT OPERATING CONDITIONS

Same as 3.3.6.

3.6.7 TEST RESULTS

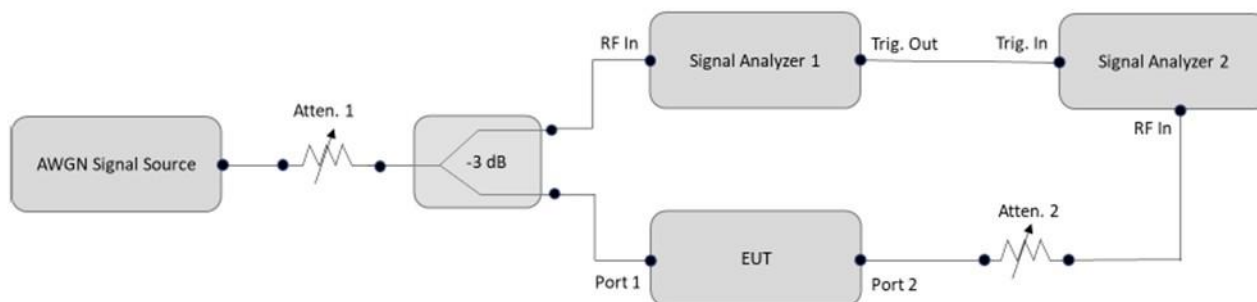
Please Refer to Appendix Of this test report.

3.7 CONTENTION BASED PROTOCOL MEASUREMENT

3.7.1 LIMITS OF CONTENTION BASED PROTOCOL MEASUREMENT

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm (The threshold is referenced to a 0 dBi antenna gain.) or lower. Additionally, indoor low-power devices must detect co-channel energy with 90% or greater certainty.

3.7.2 TEST SETUP



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3.7.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Wireless communication integrated tester	Rohde&Schwarz	CMW500	166205	2025/6/30	2027/6/29
MXA Signal Analyzer	KEYSIGHT	N9020B	MY60112669	2025/8/27	2027/8/26
WiFi 7GHz Band Extender	Tonscend	TS-WF7U2	806WF7U003305251003	2025/1/17	2027/1/16
RF Control Unit	Tonscend	JS0806-2	806JS2X020201251002	2025/1/17	2027/1/16
PSG Analog Signal Generator	Agilent	E8257D	MY51111397	2025/7/01	2027/6/30
MXG Vector Signal Generator	KEYSIGHT	N5182B	MY61250150	2025/1/15	2027/1/14
DC Power Supply	AGILENT	HMP2020	100598	2025/7/01	2027/6/30
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-1	2025/6/30	2027/6/29
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-2	2025/6/30	2027/6/29
hygrothermograph	Anymeters	----	TH101B	2025/7/22	2027/7/21
Temperature Box	zhongkemeiqi	MA22040172	MQ-DTH50F-2	2025/7/01	2027/6/30
power divider	WOKEN	71688	204-003180-01	2025/6/30	2027/6/29

NOTE:

1. The calibration interval of the above test instruments is 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

3.7.4 TEST PROCEDURE

- Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
- Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters (set as following section 4.7.5 EUT operating condition).
- Determine number of times detection threshold test as following table,

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Same as EUT transmission
$BW_{Inc} < BW_{EUT} \leq 2x BW_{Inc}$	Once	Contained within BW_{EUT}
$2x BW_{Inc} < BW_{EUT} \leq 4x BW_{Inc}$	Twice. (Incumbent transmission is contained within BW_{EUT})	Closely to the lower edge and upper edge of the EUT Channel
$BW_{EUT} > 4x BW_{Inc}$	Three times	Closely to the lower edge ,in the middle and upper edge of the EUT Channel

- Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use step c table to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT.
- Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
- Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
- (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- Refer to step c table to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step d, choose a different center frequency for the AWGN signal and repeat the process.

3.7.5 EUT OPERATING CONDITION

Set the EUT to transmit with a constant duty cycle and relative operating parameters which including power level, operating frequency, modulation and bandwidth.

3.7.6 TEST RESULTS

Please Refer to Appendix Of this test report.

3.8 ANTENNA REQUIREMENTS

3.8.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.8.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.8.3 ANTENNA GAIN

According to FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain=GANT +Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain= 10 log(NANT/ Nss) dB;

For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for NANT≤ 4;

The EUT supports Cyclic Delay Diversity (CDD) mode,

For power measurements, the directional GANT is set equal to the antenna having the highest gain as following formulas.

Directional Gain = Max.Gain + Array Gain.

For PSD measurements, the directional GANT is calculation is following F)2)f)ii of KDB 662911 D01 v02r01.

The directional gain is calculated as following table.

	Band	Ant 3 (dBi)	Ant 5 (dBi)	DG For Power (dBi)	DG For PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
6GHz	U-NII 5	-1.1	-1.6	-1.1	1.66	0	0

NOTE :DG= directional gain, Power Limit Reduction = DG For Power Gain -6dbi<0

PSD Limit Reduction = DG For PSD – 6dBi<0. Therefore, it is not necessary to reduce maximum peak output power and PSD limit.



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4 PICTURES OF TEST ARRANGEMENTS

Please refer to the attached file (Test Setup Photo).



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5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.



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6 Appendix

WIFI 6E

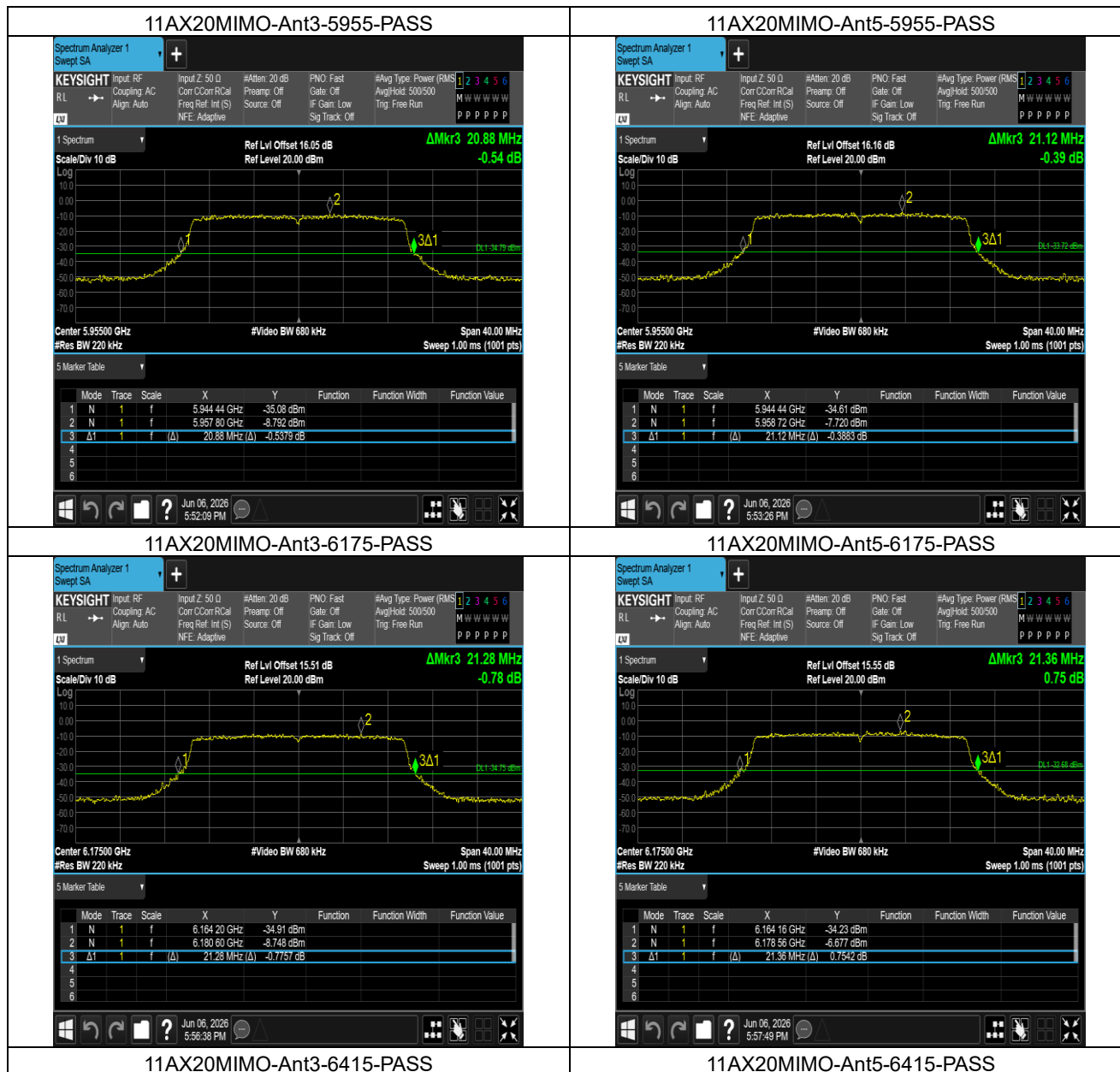
EMISSION BANDWIDTH TEST RESULT

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11AX20MIMO	Ant3	5955	20.880	5944.440	5965.320	320	PASS
11AX20MIMO	Ant5	5955	21.120	5944.440	5965.560	320	PASS
11AX20MIMO	Ant3	6175	21.280	6164.200	6185.480	320	PASS
11AX20MIMO	Ant5	6175	21.360	6164.160	6185.520	320	PASS
11AX20MIMO	Ant3	6415	21.560	6404.280	6425.840	320	PASS
11AX20MIMO	Ant5	6415	21.200	6404.280	6425.480	320	PASS
11AX40MIMO	Ant3	5965	40.640	5944.840	5985.480	320	PASS
11AX40MIMO	Ant5	5965	40.560	5944.760	5985.320	320	PASS
11AX40MIMO	Ant3	6165	40.480	6144.600	6185.080	320	PASS
11AX40MIMO	Ant5	6165	40.320	6144.840	6185.160	320	PASS
11AX40MIMO	Ant3	6405	40.800	6384.760	6425.560	320	PASS
11AX40MIMO	Ant5	6405	40.560	6384.600	6425.160	320	PASS
11AX80MIMO	Ant3	5985	82.880	5943.560	6026.440	320	PASS
11AX80MIMO	Ant5	5985	83.840	5942.920	6026.760	320	PASS
11AX80MIMO	Ant3	6145	82.400	6103.720	6186.120	320	PASS
11AX80MIMO	Ant5	6145	82.560	6103.720	6186.280	320	PASS
11AX80MIMO	Ant3	6385	82.080	6343.880	6425.960	320	PASS
11AX80MIMO	Ant5	6385	82.560	6343.560	6426.120	320	PASS
11AX160MIMO	Ant3	6025	165.120	5942.120	6107.240	320	PASS
11AX160MIMO	Ant5	6025	165.440	5942.120	6107.560	320	PASS
11AX160MIMO	Ant3	6185	165.760	6102.120	6267.880	320	PASS
11AX160MIMO	Ant5	6185	167.680	6100.840	6268.520	320	PASS
11AX160MIMO	Ant3	6345	166.400	6262.120	6428.520	320	PASS
11AX160MIMO	Ant5	6345	166.720	6261.800	6428.520	320	PASS

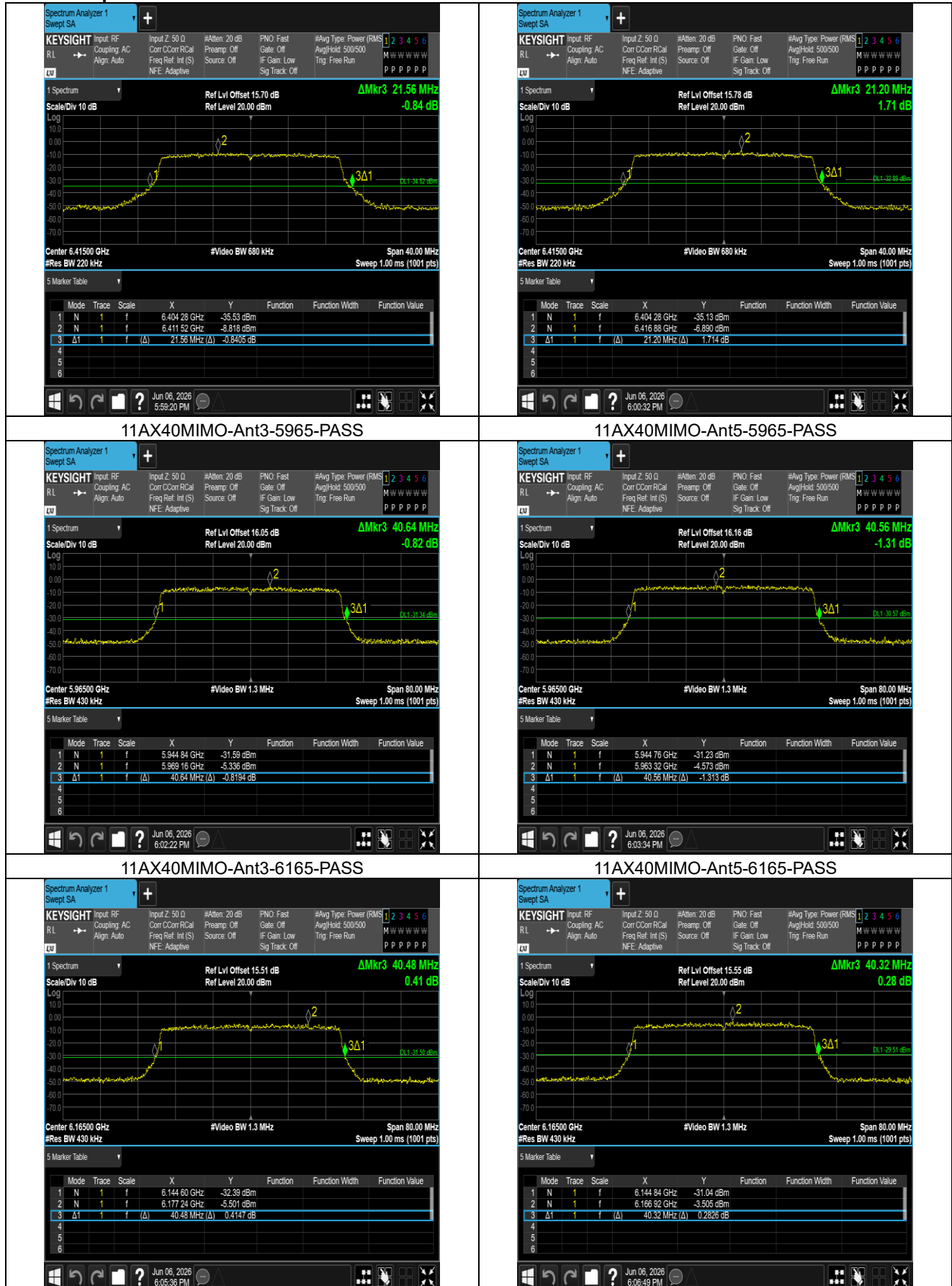


Test Report No.: RF260626B009

TEST GRAPHS

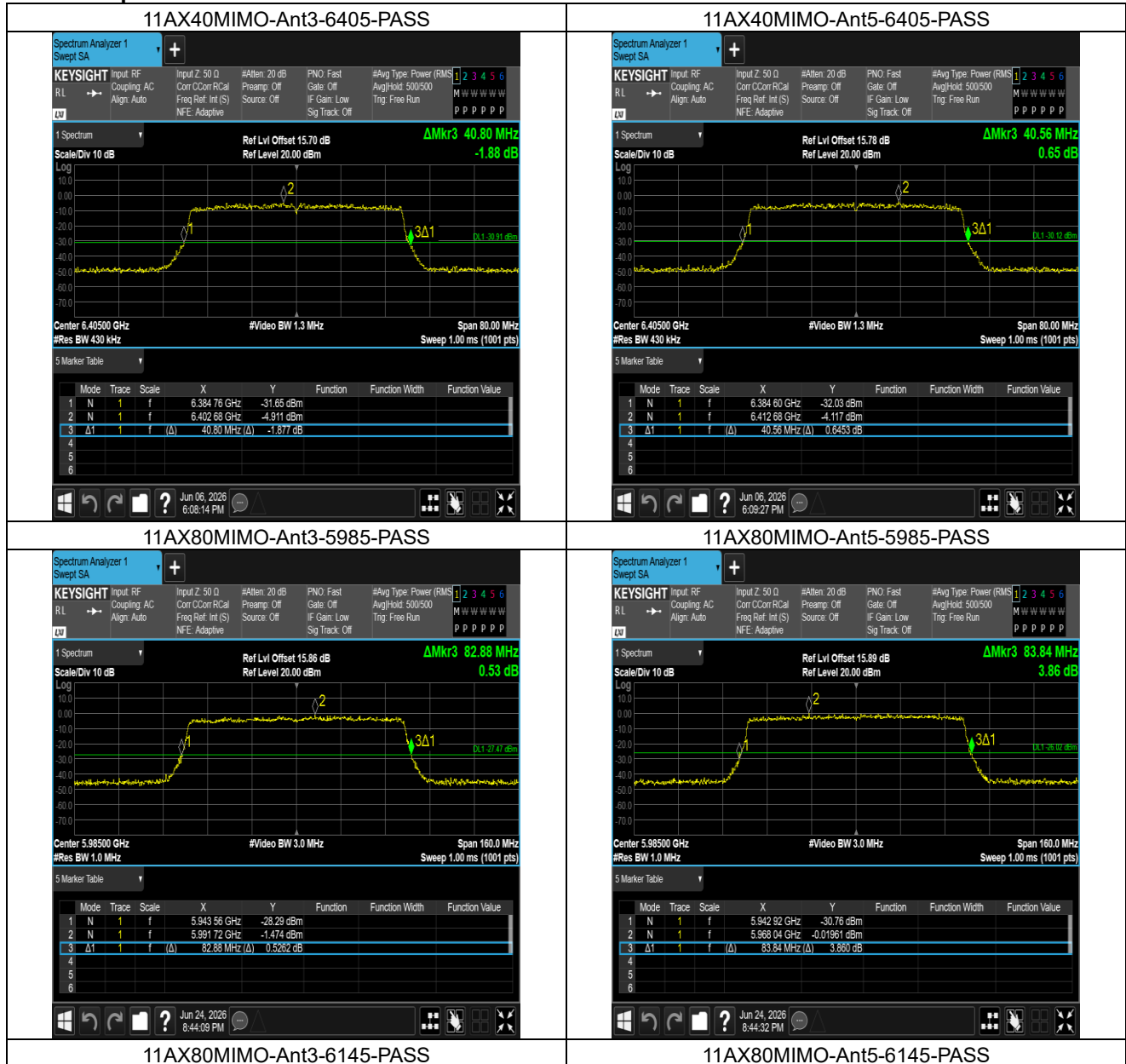


Test Report No.: RF260626B009



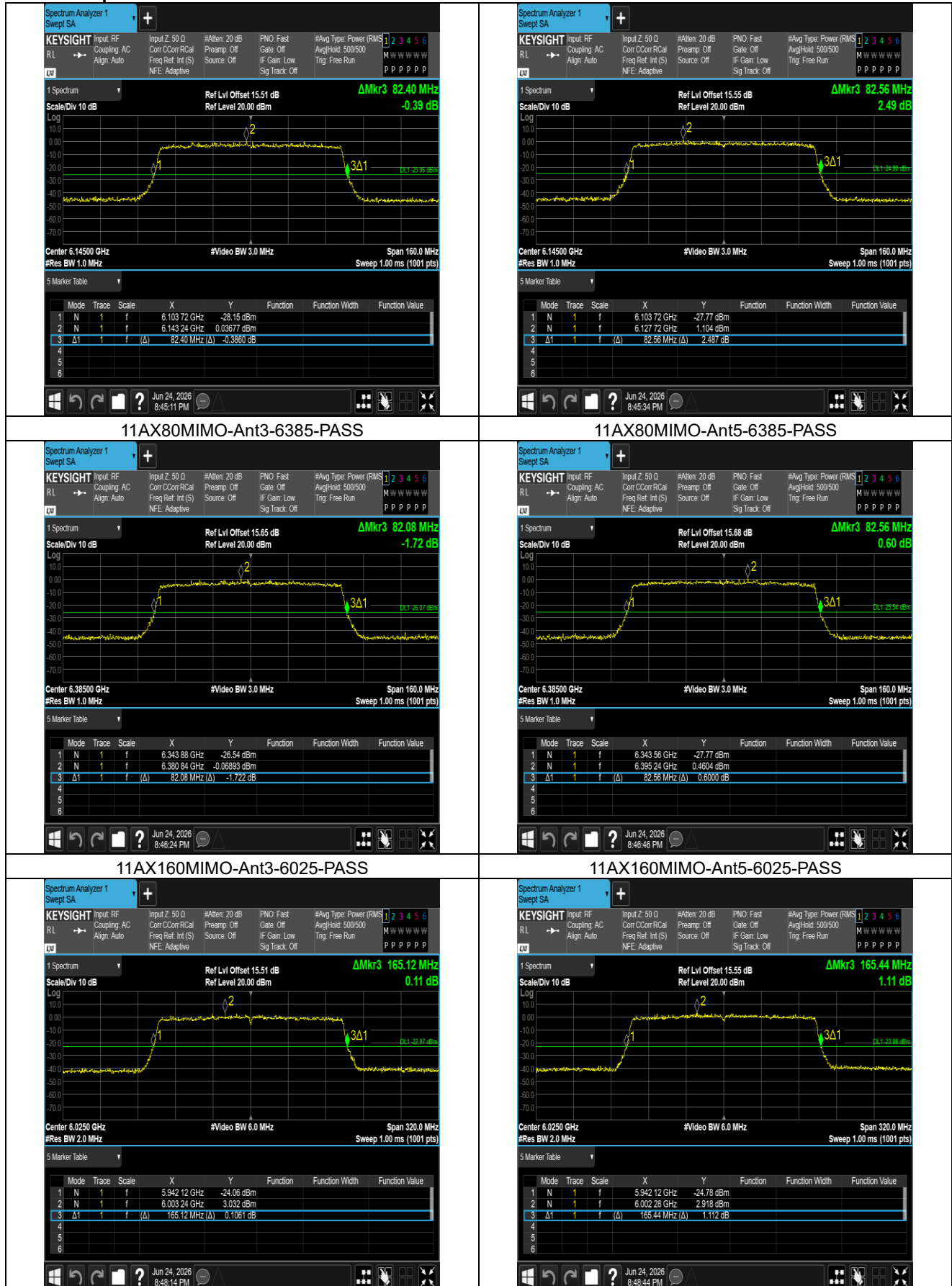


Test Report No.: RF260626B009





Test Report No.: RF260626B009



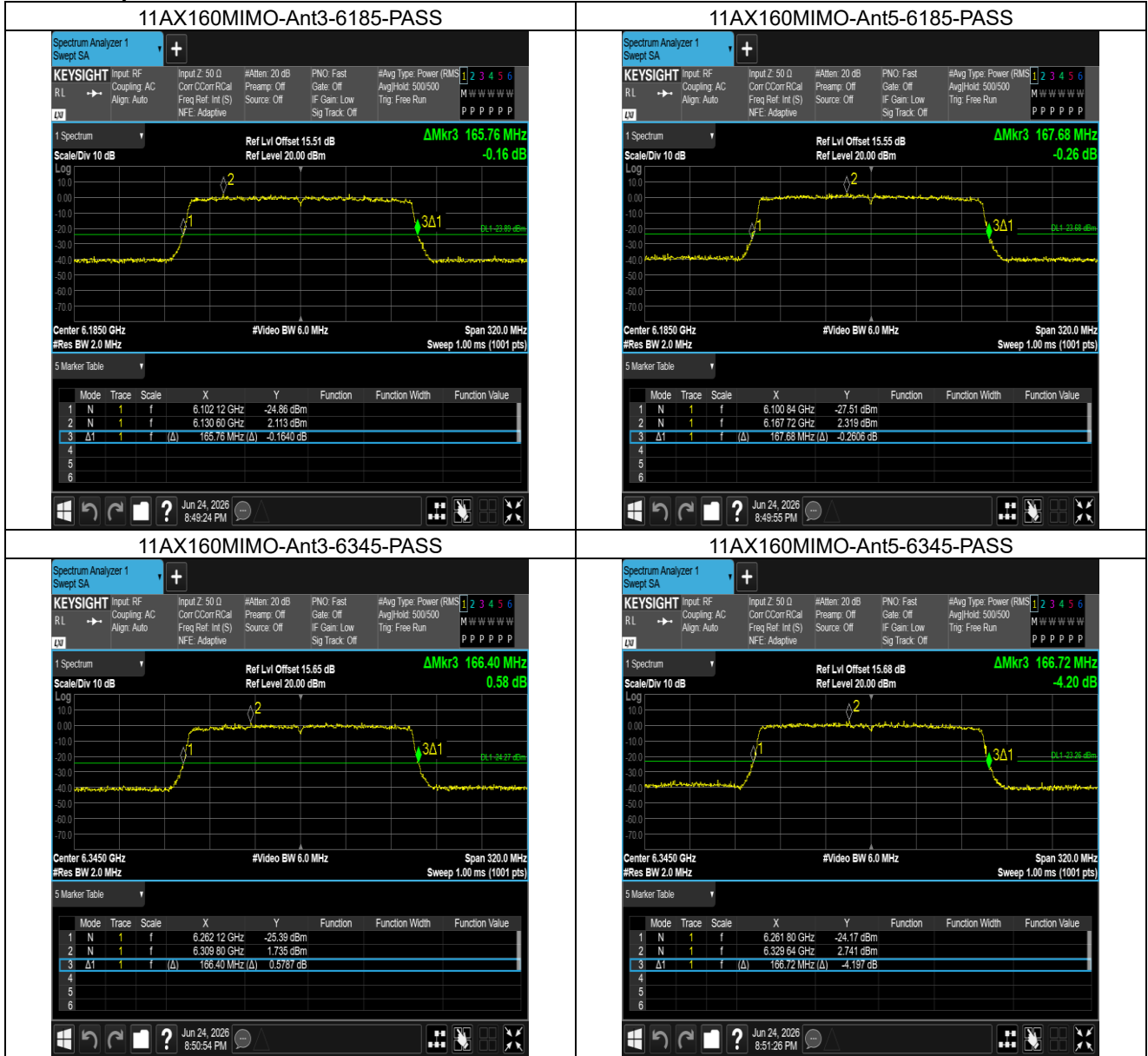
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Test Report No.: RF260626B009



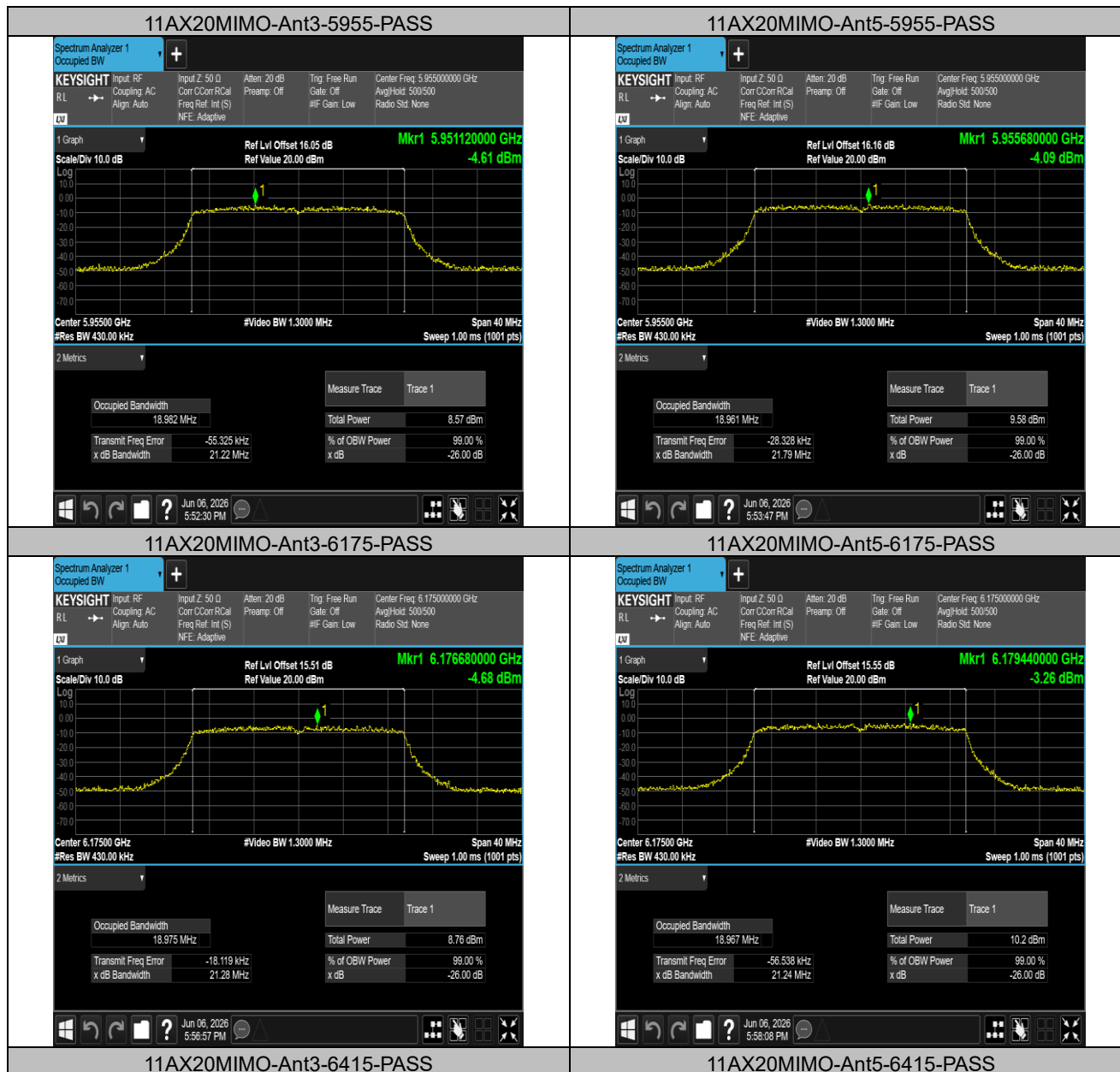
OCCUPIED CHANNEL BANDWIDTH TEST RESULT

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11AX20MIMO	Ant3	5955	18.982	5945.4537	5964.4357	≤320	PASS
11AX20MIMO	Ant5	5955	18.961	5945.4912	5964.4522	≤320	PASS
11AX20MIMO	Ant3	6175	18.975	6165.4944	6184.4694	≤320	PASS
11AX20MIMO	Ant5	6175	18.967	6165.4600	6184.4270	≤320	PASS
11AX20MIMO	Ant3	6415	18.979	6405.4717	6424.4507	≤320	PASS
11AX20MIMO	Ant5	6415	19.015	6405.4648	6424.4798	≤320	PASS
11AX40MIMO	Ant3	5965	37.756	5946.0743	5983.8303	≤320	PASS
11AX40MIMO	Ant5	5965	37.769	5946.0800	5983.8490	≤320	PASS
11AX40MIMO	Ant3	6165	37.784	6146.0833	6183.8673	≤320	PASS
11AX40MIMO	Ant5	6165	37.842	6146.0130	6183.8550	≤320	PASS
11AX40MIMO	Ant3	6405	37.805	6386.0953	6423.9003	≤320	PASS
11AX40MIMO	Ant5	6405	37.867	6385.9929	6423.8599	≤320	PASS
11AX80MIMO	Ant3	5985	77.341	5946.2901	6023.6311	≤320	PASS
11AX80MIMO	Ant5	5985	77.243	5946.4142	6023.6572	≤320	PASS
11AX80MIMO	Ant3	6145	77.128	6106.4112	6183.5392	≤320	PASS
11AX80MIMO	Ant5	6145	77.259	6106.3172	6183.5762	≤320	PASS
11AX80MIMO	Ant3	6385	77.161	6346.4442	6423.6052	≤320	PASS
11AX80MIMO	Ant5	6385	77.216	6346.2445	6423.4605	≤320	PASS
11AX160MIMO	Ant3	6025	156.05	5947.0514	6103.1014	≤320	PASS
11AX160MIMO	Ant5	6025	155.95	5947.2109	6103.1609	≤320	PASS
11AX160MIMO	Ant3	6185	156.45	6106.8225	6263.2725	≤320	PASS
11AX160MIMO	Ant5	6185	156.11	6106.5677	6262.6777	≤320	PASS
11AX160MIMO	Ant3	6345	156.10	6267.1352	6423.2352	≤320	PASS
11AX160MIMO	Ant5	6345	155.91	6266.6753	6422.5853	≤320	PASS

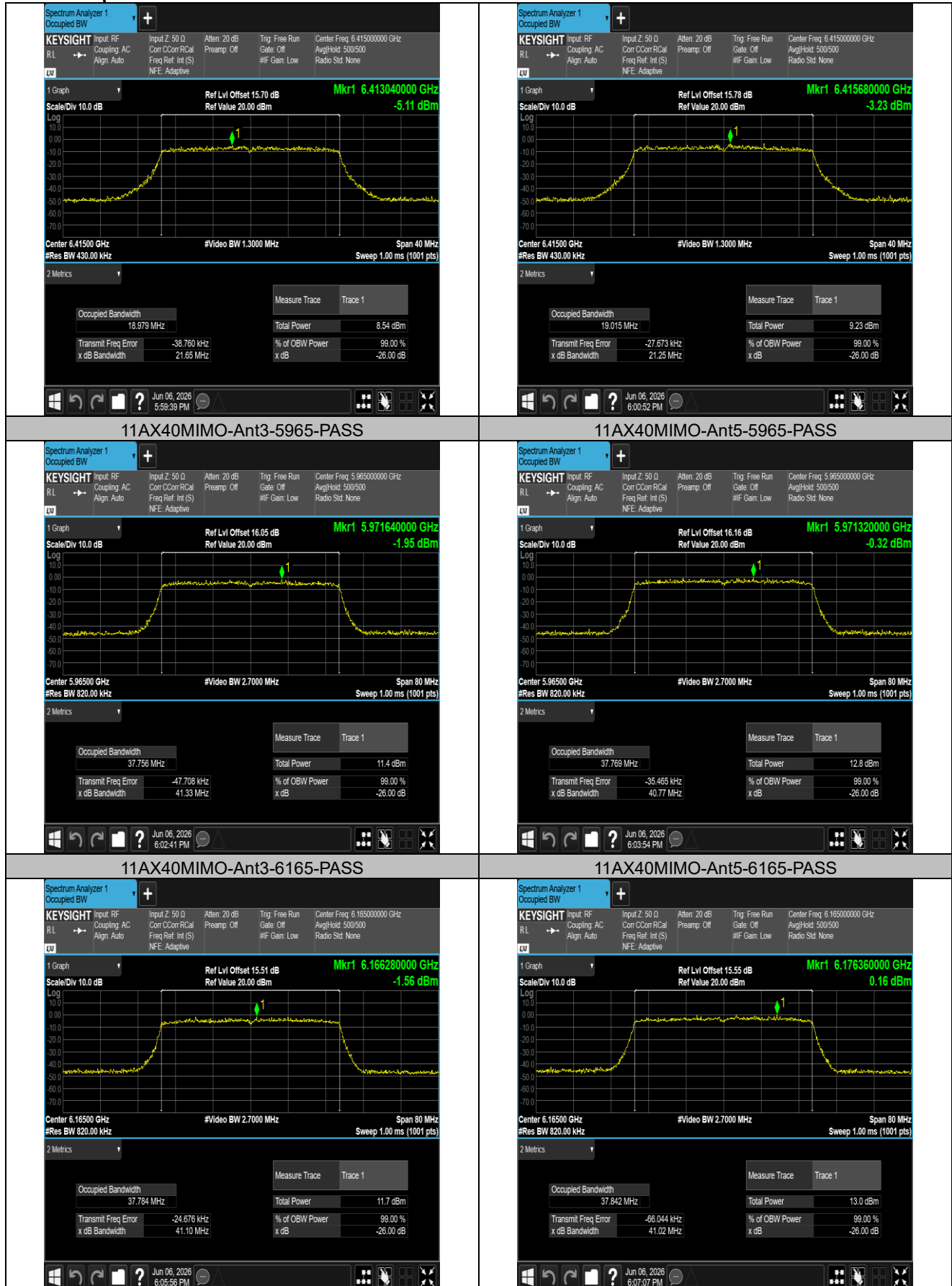


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TEST GRAPHS



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