Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan
Tel: +886 2 26099301
Fax: +886 2 26099303

A.3 MAXIMUM POWER SPECTRAL DENSITY

Test Date	2023/03/07 ~ 24	Temp./Hum.	22 ~ 24℃/42 ~ 63%
Cable Loss	1.50dB	Tested By	Sam Chang
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.3.1 Power Spectral Density Result

- OFDM Modulation

Modulation Type	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/MHz)		Duty Cycle Factor (dB) 10log(1/X)	Directional Gain (dBi) Note3	Total Power Spectral Density (dBm/1MHz) Note 2	Limit (dBm/MHz)
			AUX	Main				
802.11ax-HE20	5	5955	-11.027	-10.408	N/A	2.13	-5.566	-1
		6175	-10.981	-10.873		2.13	-5.786	
		6415	-10.527	-10.082		2.10	-5.189	
	6	6435	-10.417	-10.342		2.10	-5.269	
		6475	-10.479	-10.289		2.10	-5.273	
		6515	-10.891	-10.872		2.10	-5.771	
	7	6535	-11.811	-11.707		2.10	-6.648	
		6695	-12.104	-12.365		2.10	-7.122	
		6855	-12.159	-12.276		2.36	-6.847	
	8	6875	-11.993	-12.014		2.36	-6.633	
		6995	-11.642	-11.663		2.36	-6.282	
		7115	-14.507	-15.415		2.36	-9.567	
802.11ax-HE40	5	5965	-10.043	-9.747	N/A	2.13	-4.752	
		6165	-9.859	-10.001		2.13	-4.789	
		6405	-9.478	-9.585		2.10	-4.421	
	6	6445	-10.260	-9.490		2.10	-4.748	
		6485	-10.575	-9.947		2.10	-5.139	
	7	6525	-10.763	-10.081		2.10	-5.298	
		6685	-11.440	-11.086		2.10	-6.149	
		6845	-11.474	-11.162		2.36	-5.945	
	8	6885	-11.172	-10.868		2.36	-5.647	
		7005	-11.185	-10.666		2.36	-5.547	
		7085	-11.152	-10.893		2.36	-5.650	

Note: 1. All results have been included cable loss [Please refer to KDB 662911 E 2) c)]
2. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%. + Directional Gain.
3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10})/N_{ANT}]$ dBi
Directional gain:
5925MHz: Directional gain = $10 \log[(10^{2.6/10} + 10^{1.6/10})/2]$= 2.13dBi|
6525MHz: Directional gain = $10 \log[(10^{2.2/10} + 10^{2.0/10})/2]$= 2.10dBi
7125MHz: Directional gain = $10 \log[(10^{2.1/10} + 10^{2.6/10})/2]$= 2.36dBi
The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan
Tel: +886 2 26099301
Fax: +886 2 26099303

Modulation Type	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/MHz)		Duty Cycle Factor (dB) 10log(1/X)	Directional Gain (dBi) Note3	Total Power Spectral Density (dBm/1MHz) Note 2	Limit (dBm/MHz)
			AUX	Main				
802.11ax-HE80	5	5985	-10.053	-9.830	N/A	2.13	-4.800	-1
		6145	-9.819	-10.209		2.13	-4.869	
		6385	-9.883	-9.754		2.10	-4.708	
	6	6465	-10.041	-9.696		2.10	-4.755	
		6545	-10.217	-10.477		2.10	-5.235	
	7	6625	-11.301	-11.376		2.10	-6.228	
		6705	-11.131	-11.444		2.10	-6.174	
		6785	-11.485	-11.232		2.10	-6.246	
	8	6865	-10.971	-11.050		2.36	-5.640	
		6945	-11.083	-11.083		2.36	-5.713	
		7025	-10.914	-11.038		2.36	-5.605	
802.11ax-HE160	5	6025	-9.875	-9.877	N/A	2.13	-4.736	
		6185	-9.801	-10.298		2.13	-4.902	
		6345	-10.012	-10.066		2.10	-4.929	
	6	6505	-10.069	-10.359		2.10	-5.101	
	7	6665	-11.006	-10.843		2.10	-5.813	
		6825	-10.976	-10.838		2.36	-5.536	
	8	6985	-10.892	-10.718		2.36	-5.434	

Note: 1. All results have been included cable loss [Please refer to KDB 662911 E 2) c)]
2. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%. + Directional Gain.
3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = 10 log[($10^{G1/10}$ + $10^{G2/10}$ + … + $10^{GN/10}$)/N_{ANT}] dBi
Directional gain:
5925MHz: Directional gain = 10 log[($10^{2.6/10}$ +$10^{1.6/10}$)/2]= 2.13dBi|
6525MHz: Directional gain = 10 log[($10^{2.2/10}$ +$10^{2.0/10}$)/2]= 2.10dBi
7125MHz: Directional gain = 10 log[($10^{2.1/10}$ +$10^{2.6/10}$)/2]= 2.36dBi
The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

- OFDMA Modulation

Tones	RU Index	Modulation Type	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/MHz)		Duty Cycle Factor (dB) 10log(1/X)	Directional Gain (dBi) Note3	Total Power Spectral Density (dBm/1MHz) Note 2	Limit (dBm/MHz)
					AUX	Main				
26T	18	802.11ax-HE80	5	5985	-10.196	-9.756	0.223	2.13	-4.607	-1
52T	39	802.11ax-HE20	5	5955	-9.136	-9.137	0.119	2.13	-3.877	
106T	56	802.11ax-HE80	5	5985	-9.239	-9.060	N/A	2.13	-4.008	
242T	62	802.11ax-HE160	5	6185	-11.902	-11.824	0.150	2.13	-6.573	
484T	65	802.11ax-HE80	6	6545	-10.515	-10.641	N/A	2.10	-5.467	
996T	67	802.11ax-HE160	5	6345	-9.526	-9.982	0.159	2.10	-4.479	

Note: 1. All results have been included cable loss [Please refer to KDB 662911 E 2) c)]
2. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%. + Directional Gain.
3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = 10 log[($10^{G1/10}$ + $10^{G2/10}$ + … + $10^{GN/10}$)/N_{ANT}] dBi
Directional gain:
5925MHz: Directional gain = 10 log[($10^{2.6/10}$ +$10^{1.6/10}$)/2]= 2.13dBi|
6525MHz: Directional gain = 10 log[($10^{2.2/10}$ +$10^{2.0/10}$)/2]= 2.10dBi
7125MHz: Directional gain = 10 log[($10^{2.1/10}$ +$10^{2.6/10}$)/2]= 2.36dBi
The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

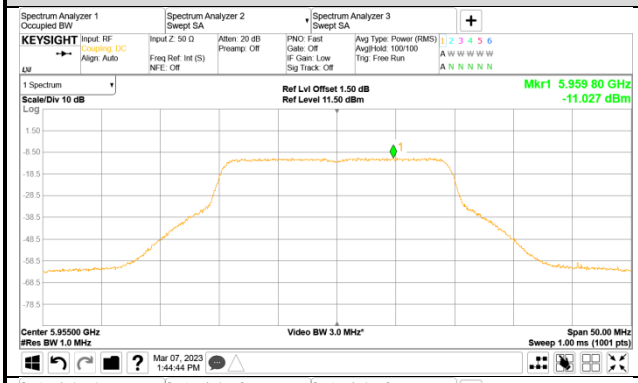
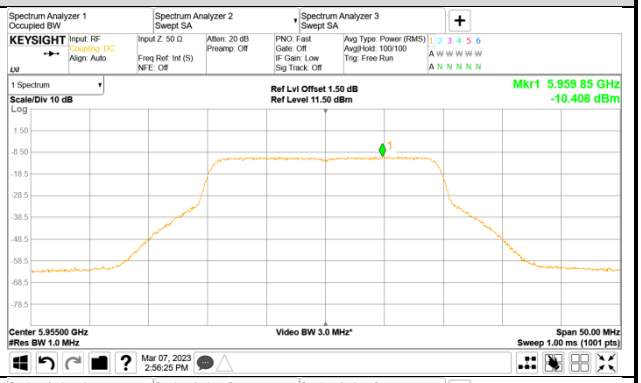
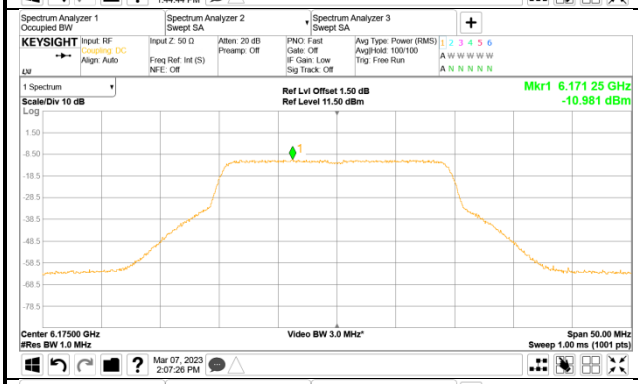
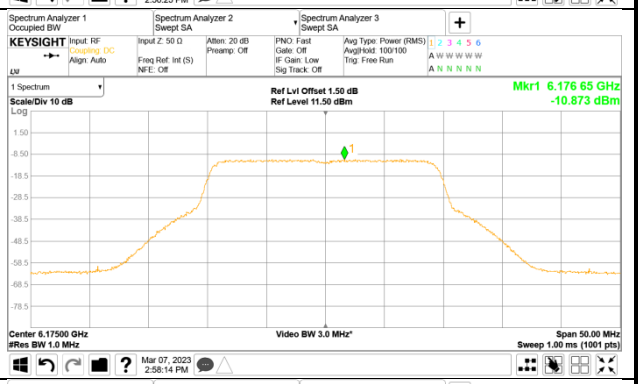
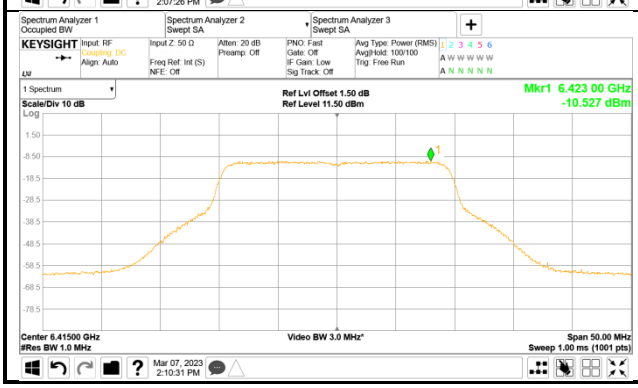
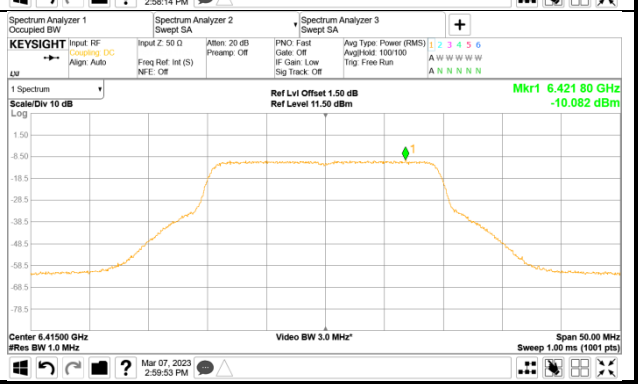
This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

Tel: +886 2 26099301
Fax: +886 2 26099303

A.3.2 Measurement Plots

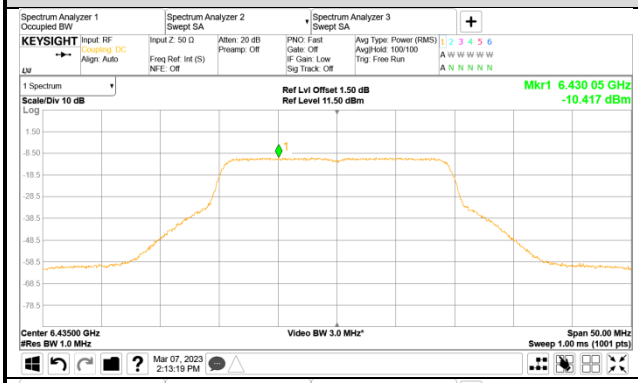
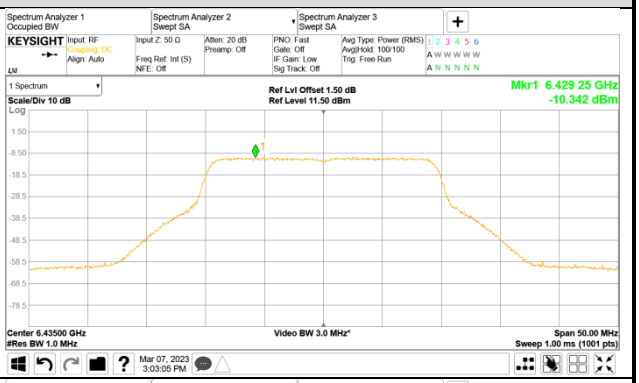
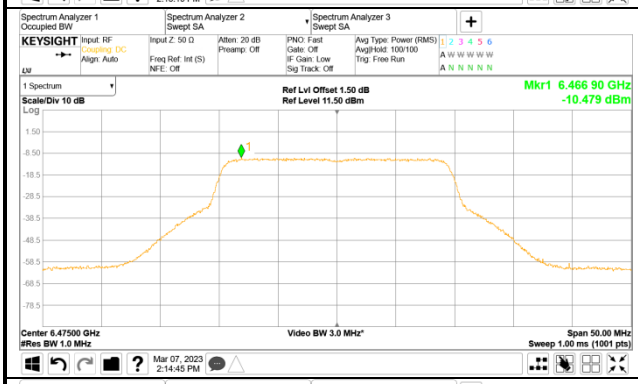
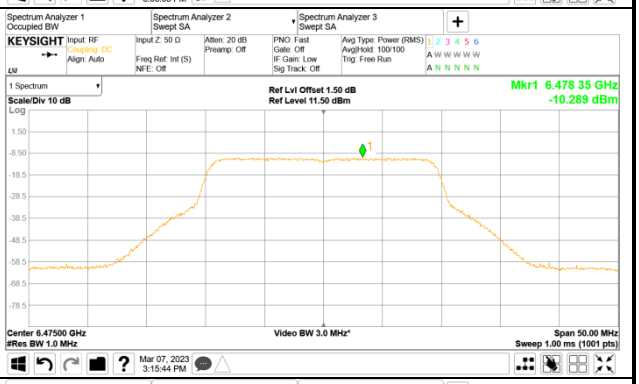
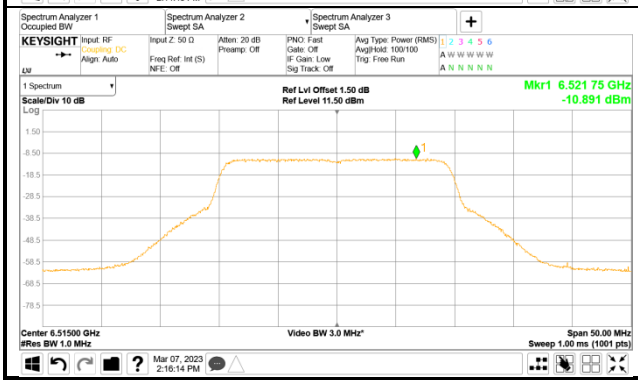
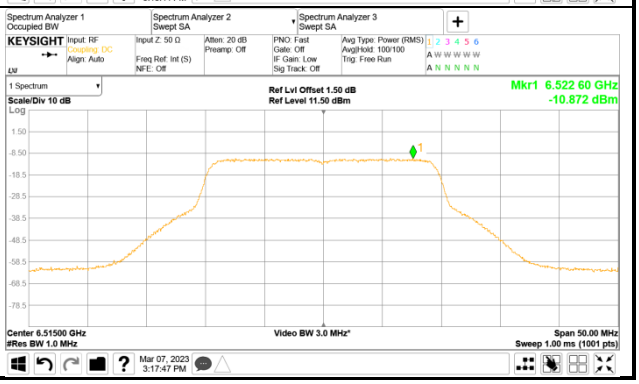
- OFDM Modulation

Mode: 802.11ax-HE20	
AUX	Main
U-NII Band 5	U-NII Band 5
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

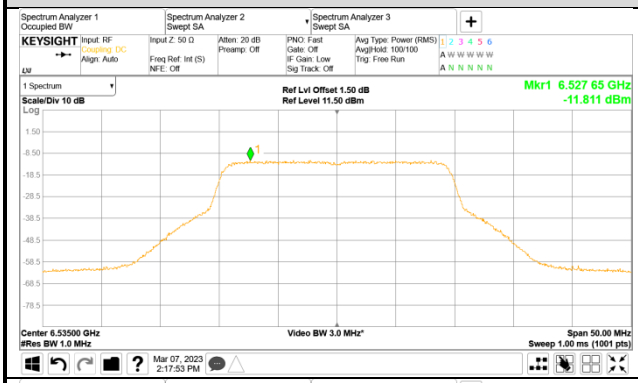
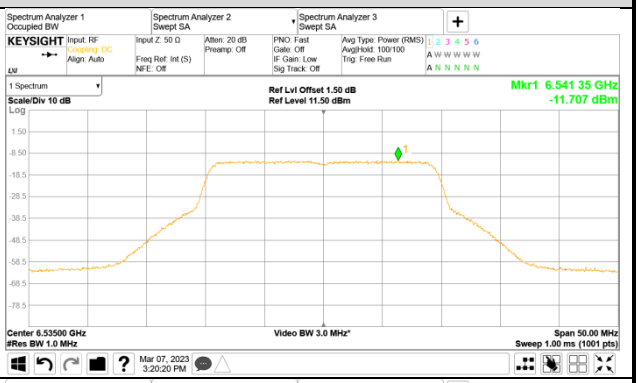
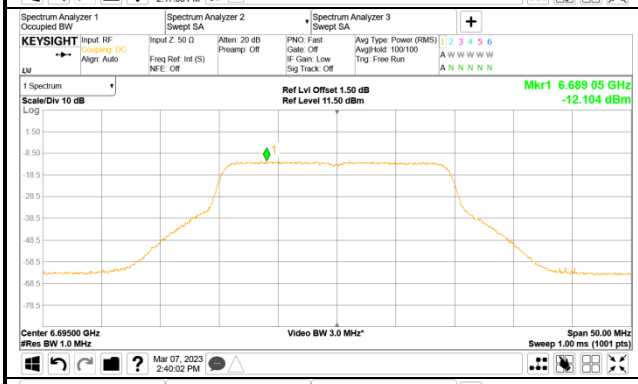
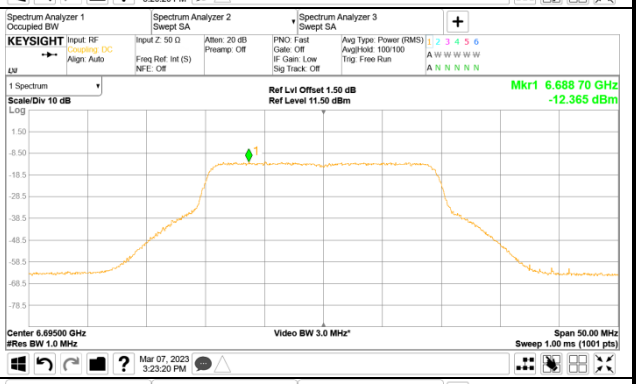
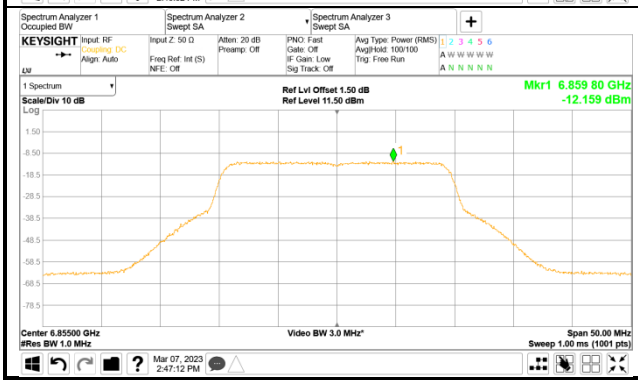
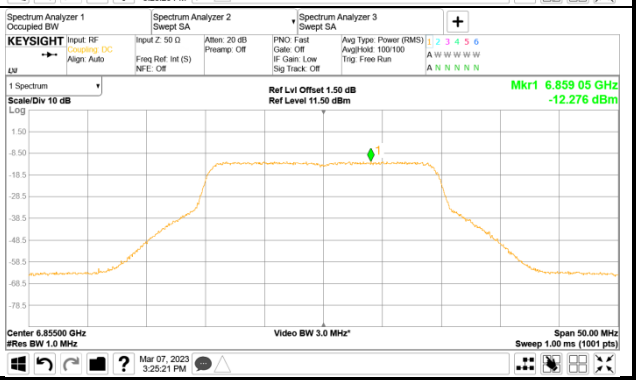
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE20	
AUX	Main
U-NII Band 6	U-NII Band 6
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

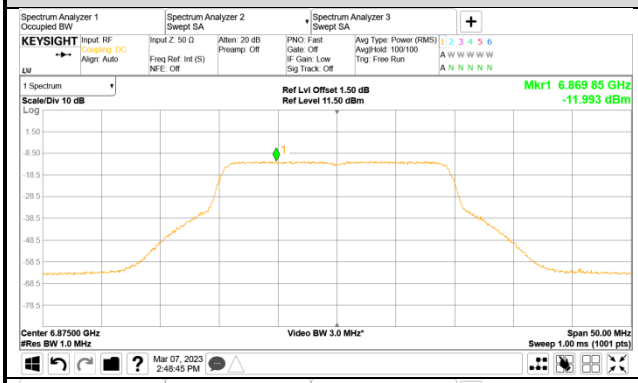
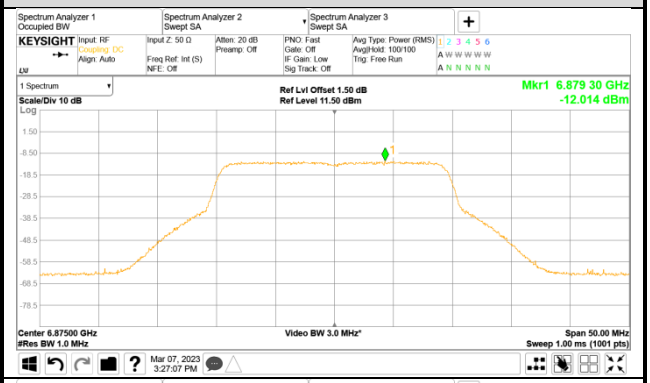
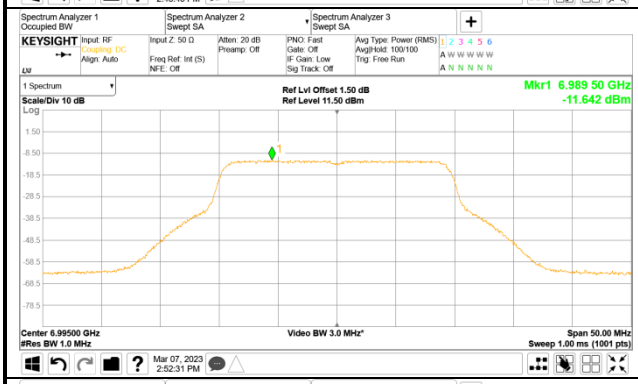
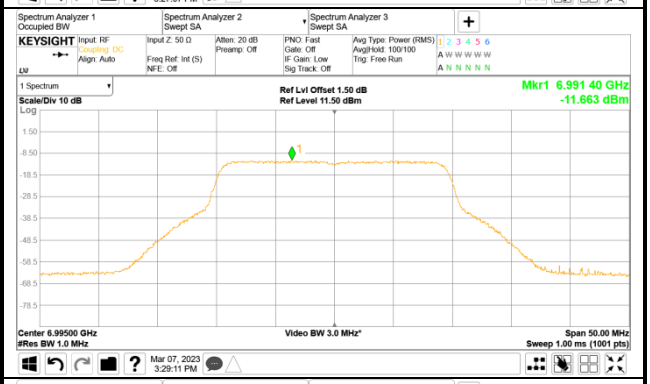
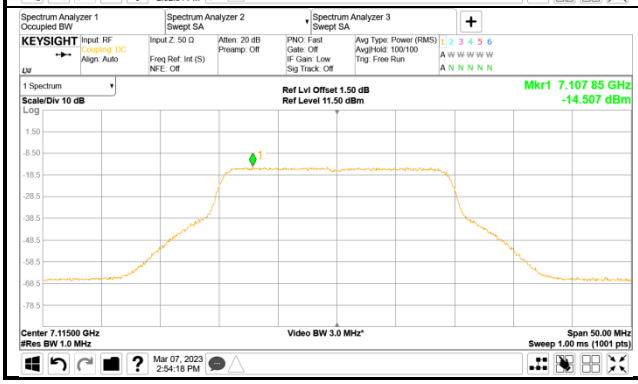
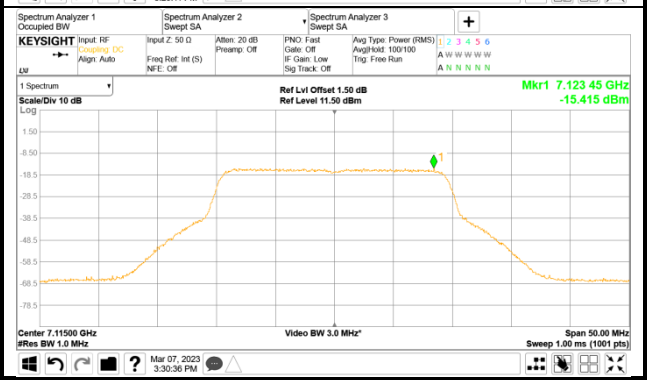
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE20	
AUX	Main
U-NII Band 7	U-NII Band 7
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

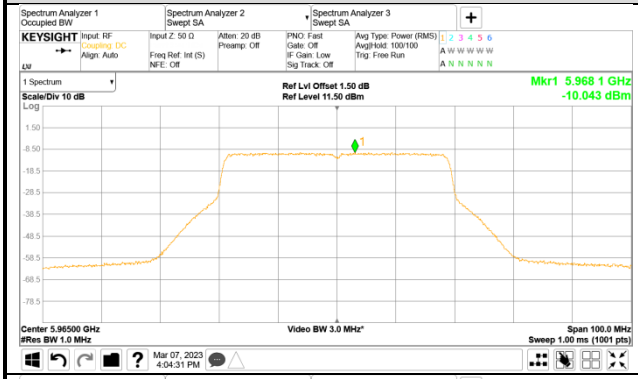
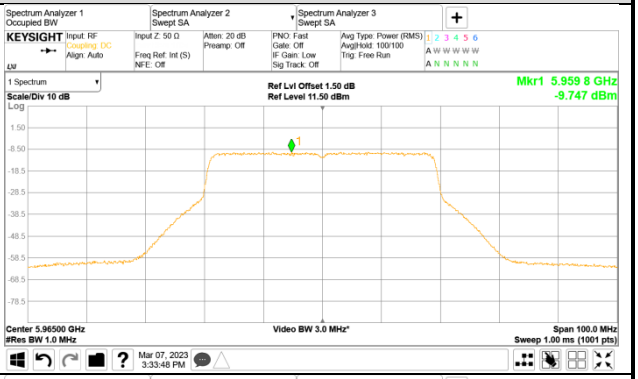
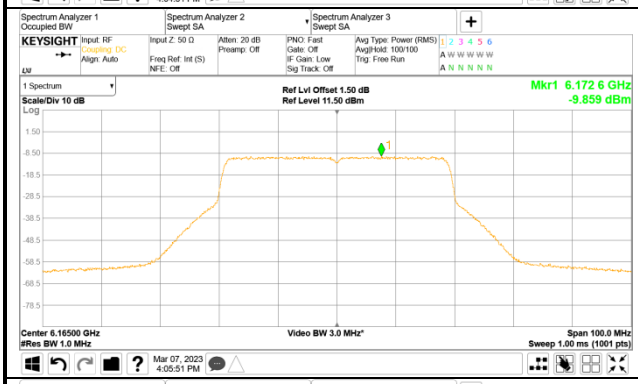
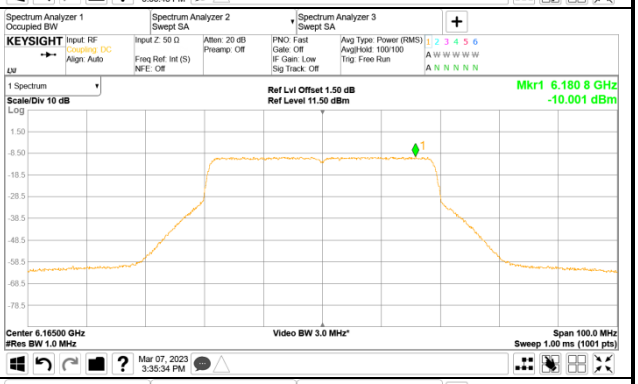
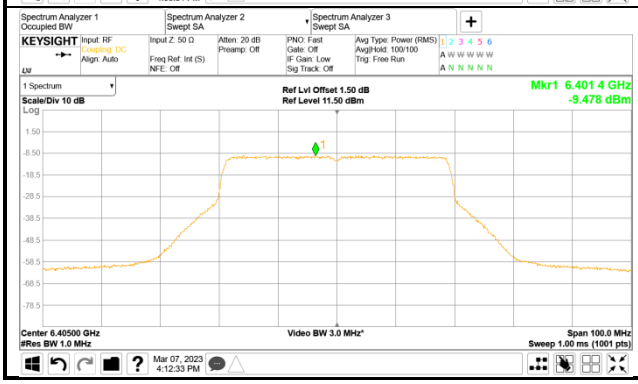
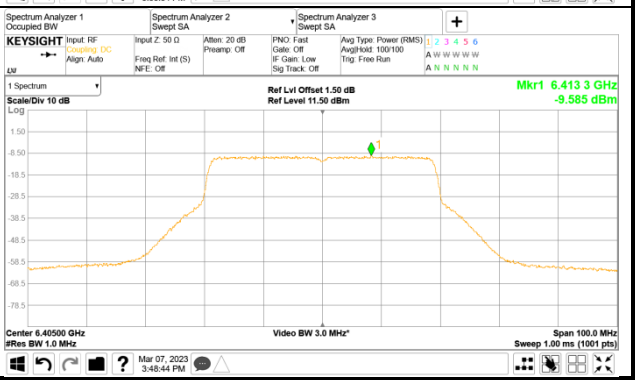
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE20	
AUX	Main
U-NII Band 8	U-NII Band 8
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

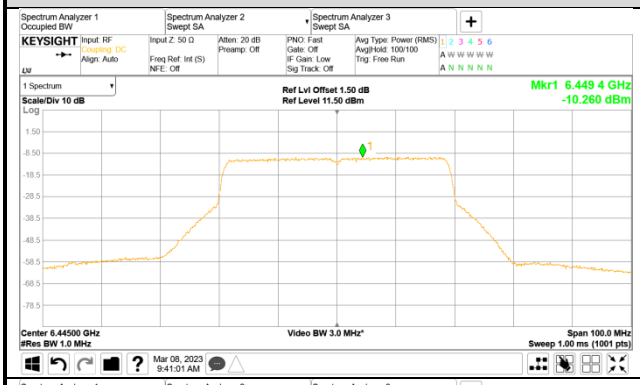
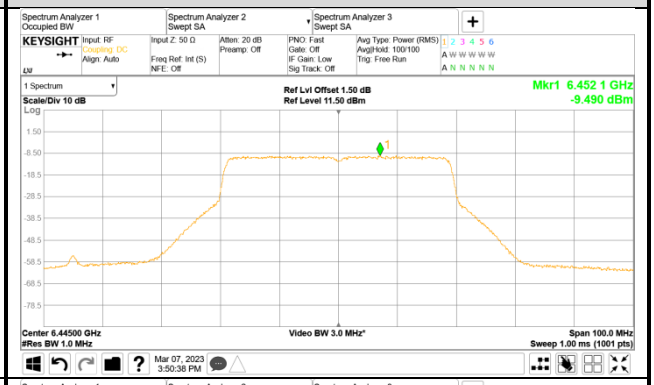
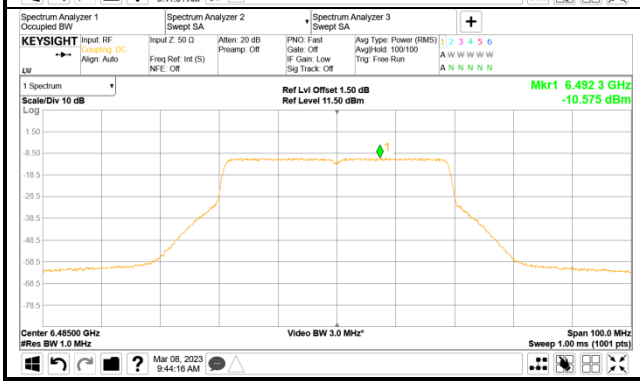
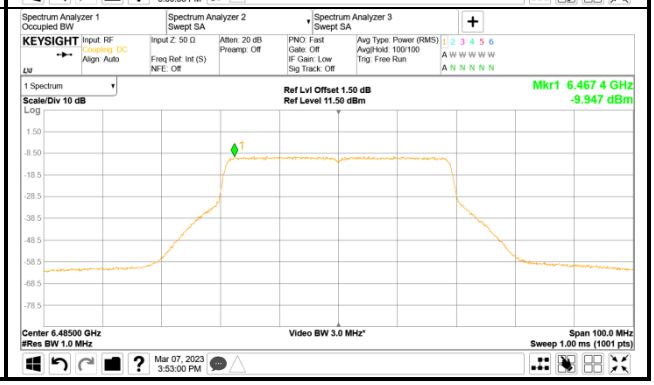
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE40	
AUX	Main
U-NII Band 5	U-NII Band 5
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

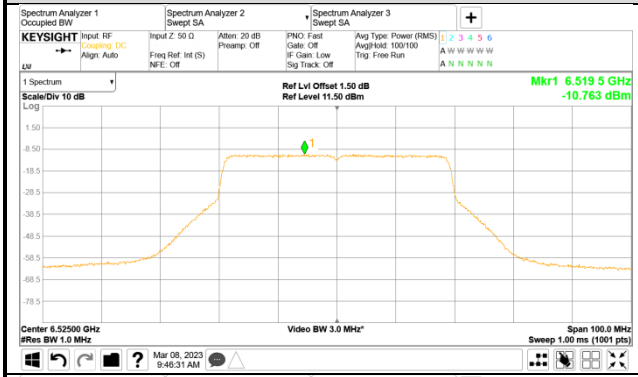
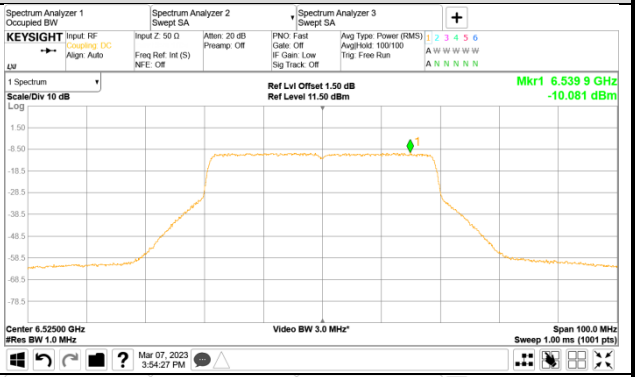
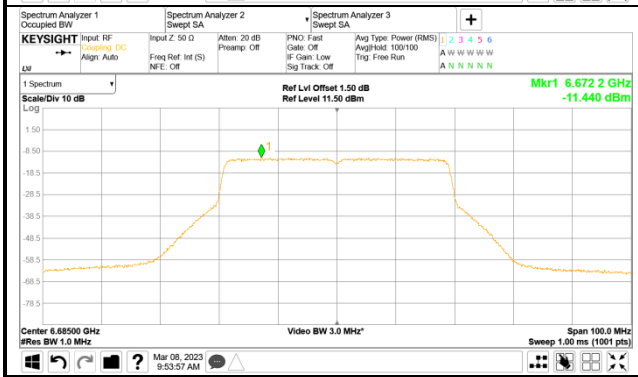
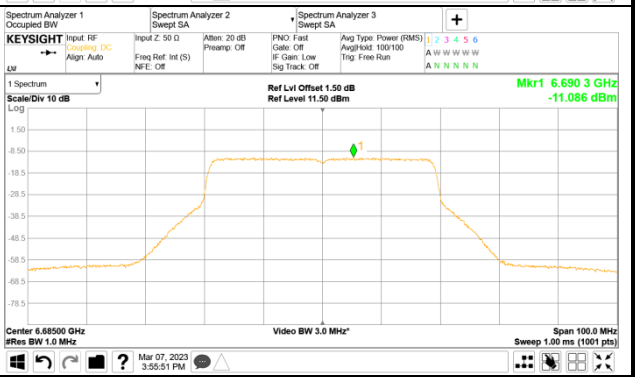
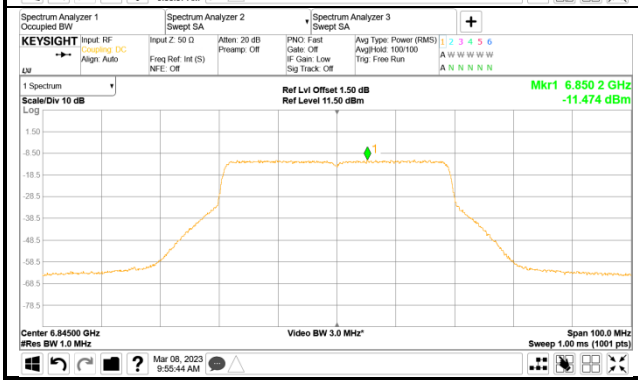
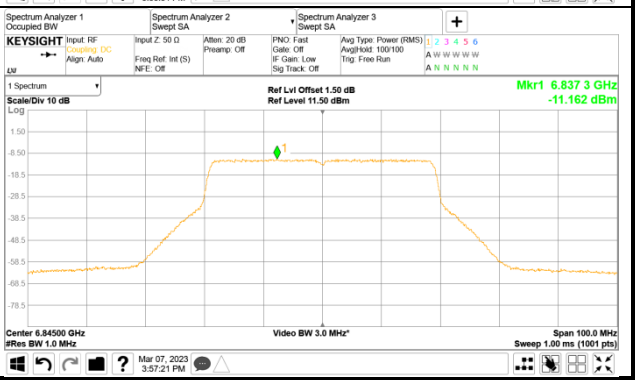
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE40	
AUX	Main
U-NII Band 6	U-NII Band 6
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

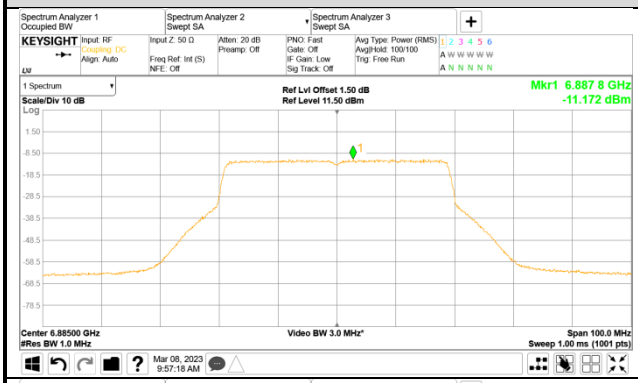
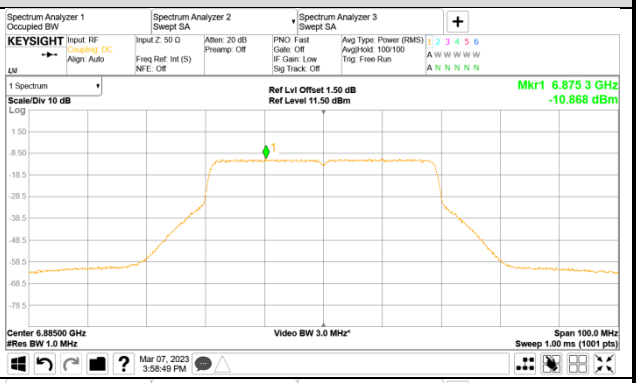
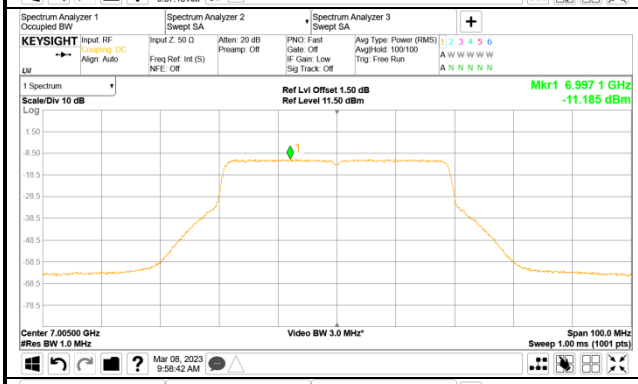
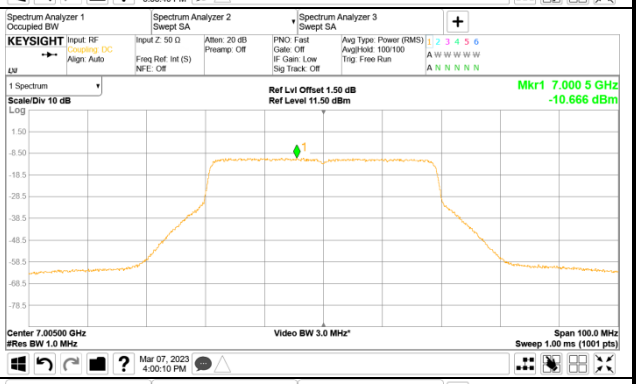
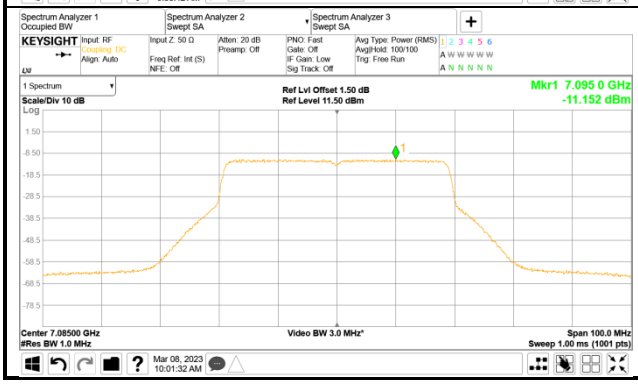
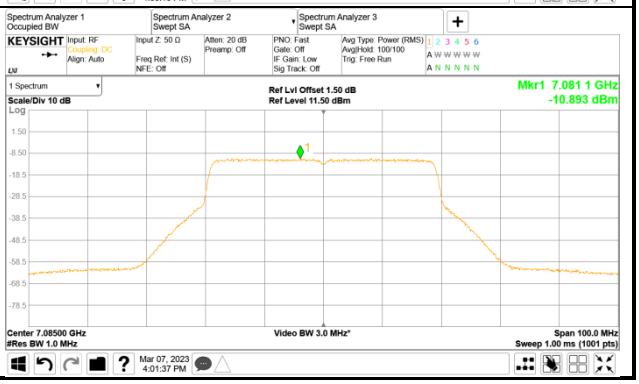
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE40	
AUX	Main
U-NII Band 7	U-NII Band 7
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

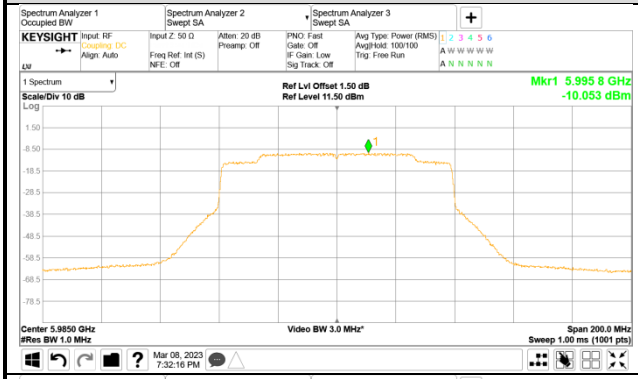
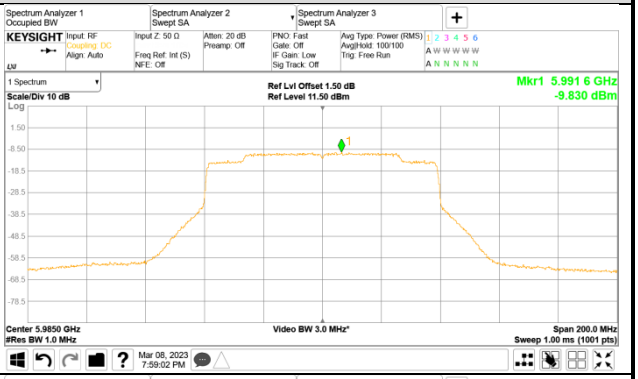
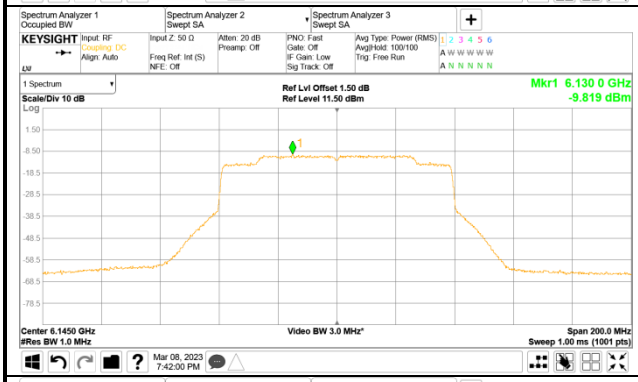
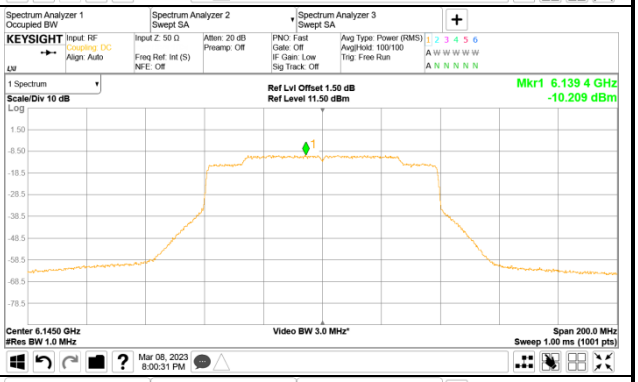
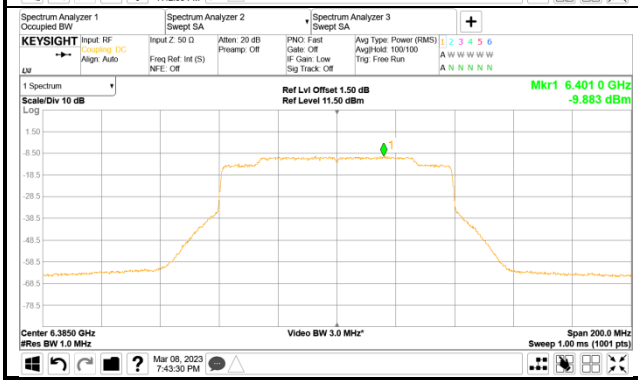
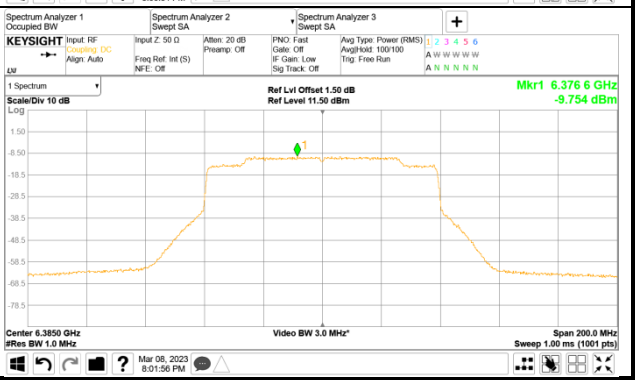
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE40	
AUX	Main
U-NII Band 8	U-NII Band 8
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

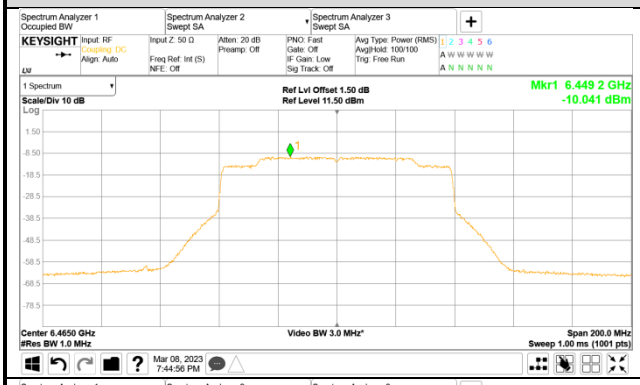
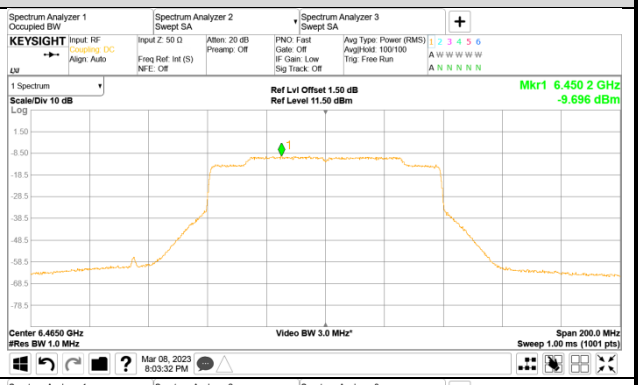
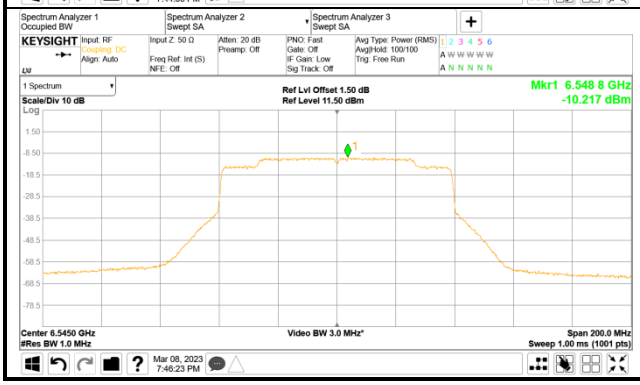
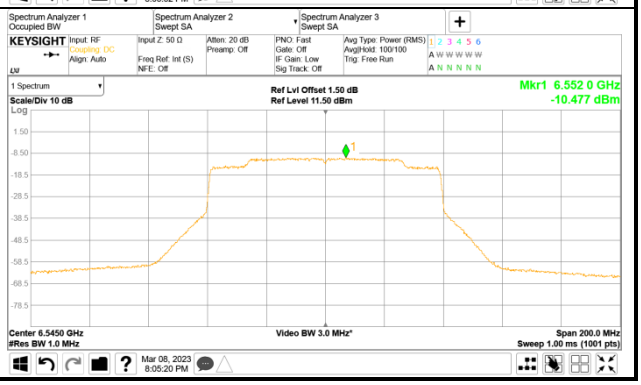
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE80	
AUX	Main
U-NII Band 5	U-NII Band 5
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

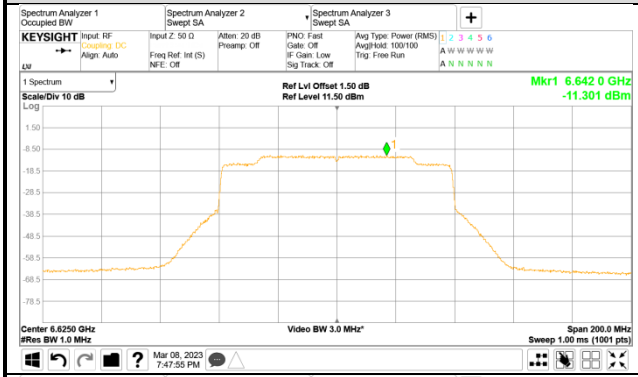
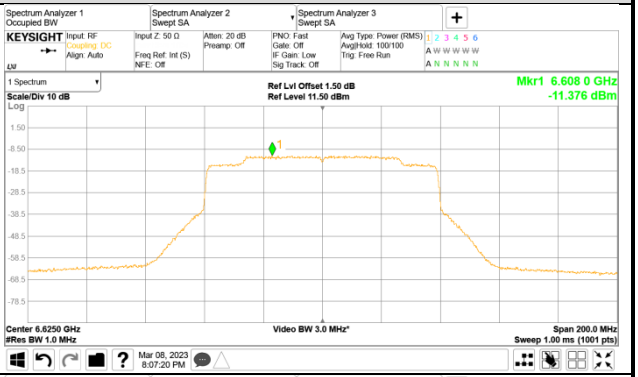
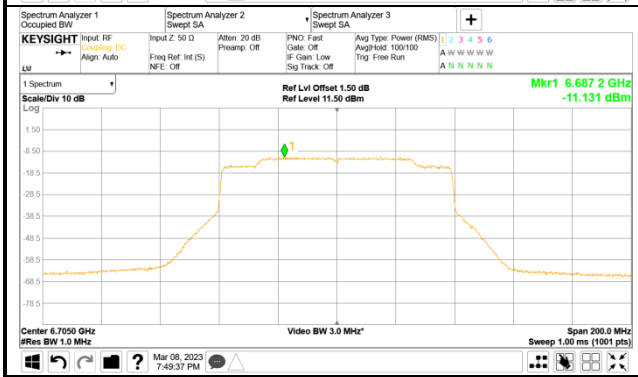
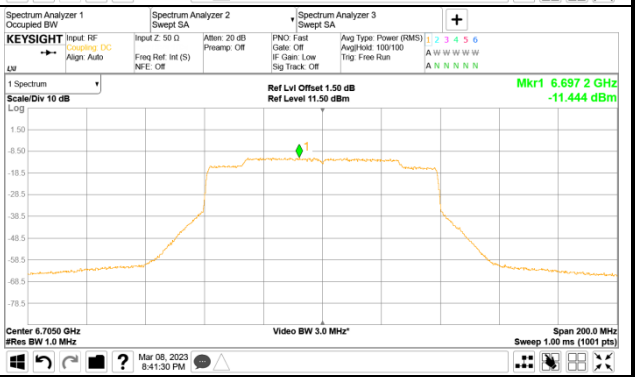
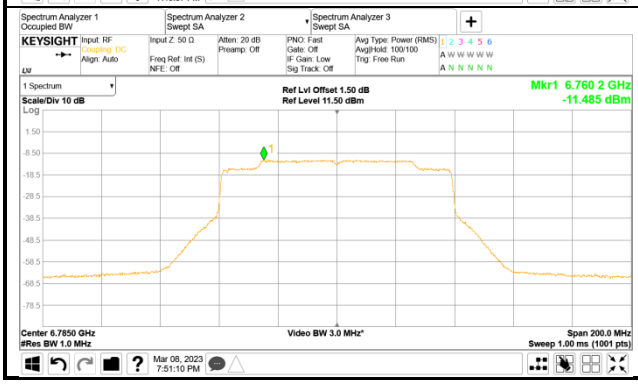
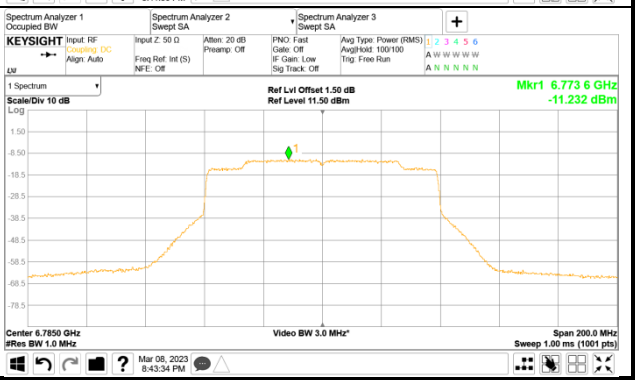
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE80	
AUX	Main
U-NII Band 6	U-NII Band 6
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

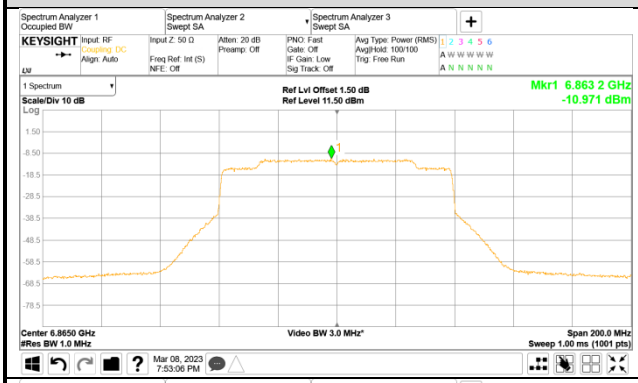
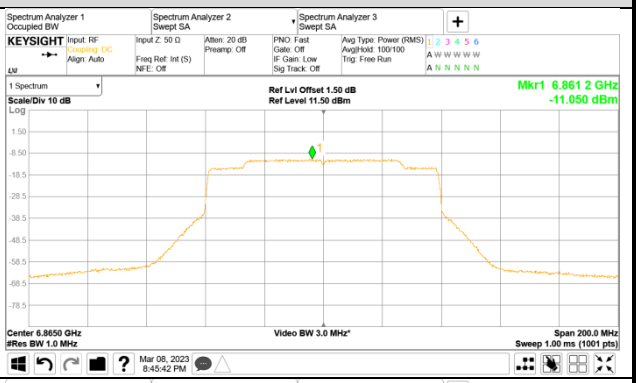
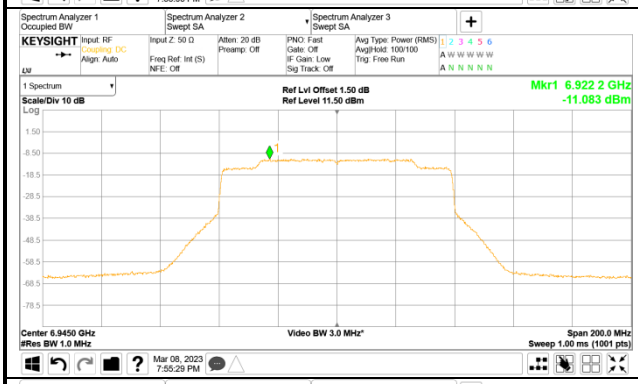
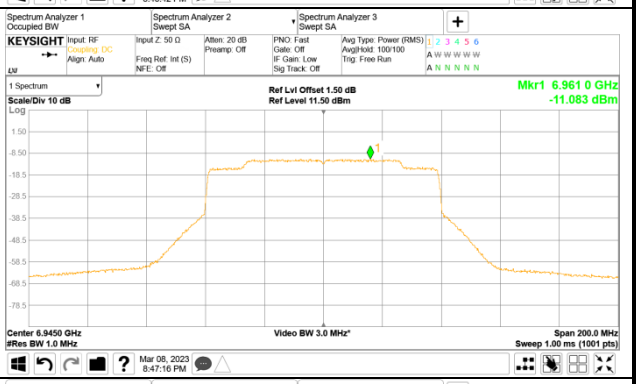
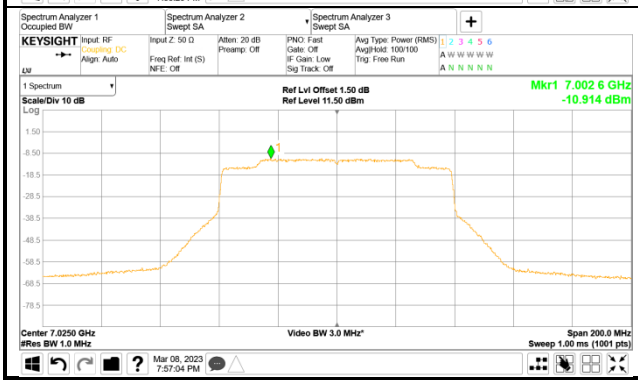
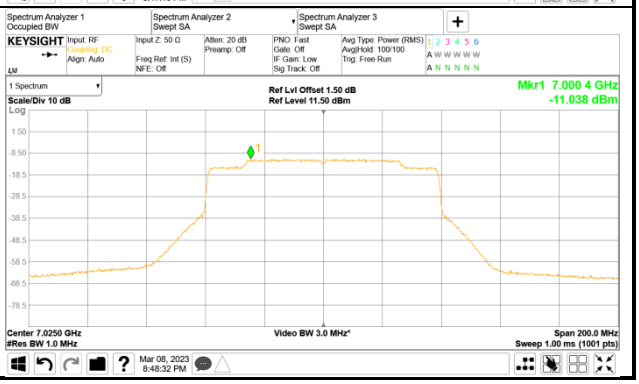
Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE80	
AUX	Main
U-NII Band 7	U-NII Band 7
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.

Audix Technology Corp.
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City244, Taiwan

Tel: +886 2 26099301
Fax: +886 2 26099303

Mode: 802.11ax-HE80	
AUX	Main
U-NII Band 8	U-NII Band 8
	
	
	

This test report may be reproduced in full only. The document may only be updated by Audix Technology Corp. personnel. Any changes will be noted in the Document History section of the report.