

9.8 LP SPURIOUS EMISSIONS IN-BAND – EMISSION MASK

LIMITS

FCC §15.407

(b)(7) For transmitters operating within the 5.925-7.125 GHz bands: power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. 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, and 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. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

TEST PROCEDURE

Follow KDB 987594 D02, Section II-J, RBW & VBW settings were based on 26dB bandwidth test settings. Only RU26 tone for all bandwidths, the RBW & VBW settings were used equal or greater than 26dB bandwidth test settings.

Band	Tones	*20MHz (RBW/VBW)	*40MHz (RBW/VBW)	*80MHz (RBW/VBW)	*160MHz (RBW/VBW)
UNII- 5/6/7/8	Partial RU	MRU106+26T: 300kHz/910kHz 106T: 300kHz/910kHz	52T: 510kHz/1.6MHz 106T: 510kHz/1.6MHz MRU106+26T: 510kHz/1.6MHz	52T: 510kHz/1.6MHz 52T: 820kHz/2.7MHz 106T: 510kHz/1.6MHz MRU106+26T: 510kHz/1.6MHz	106T: 510kHz/1.6MHz 52T: 510kHz/1.6MHz 242T: 510kHz/1.6MHz MRU106+26T: 510kHz/1.6MHz
	SU	300kHz/910kHz	510kHz/1.6MHz	1MHz/3MHz	2MHz/6MHz

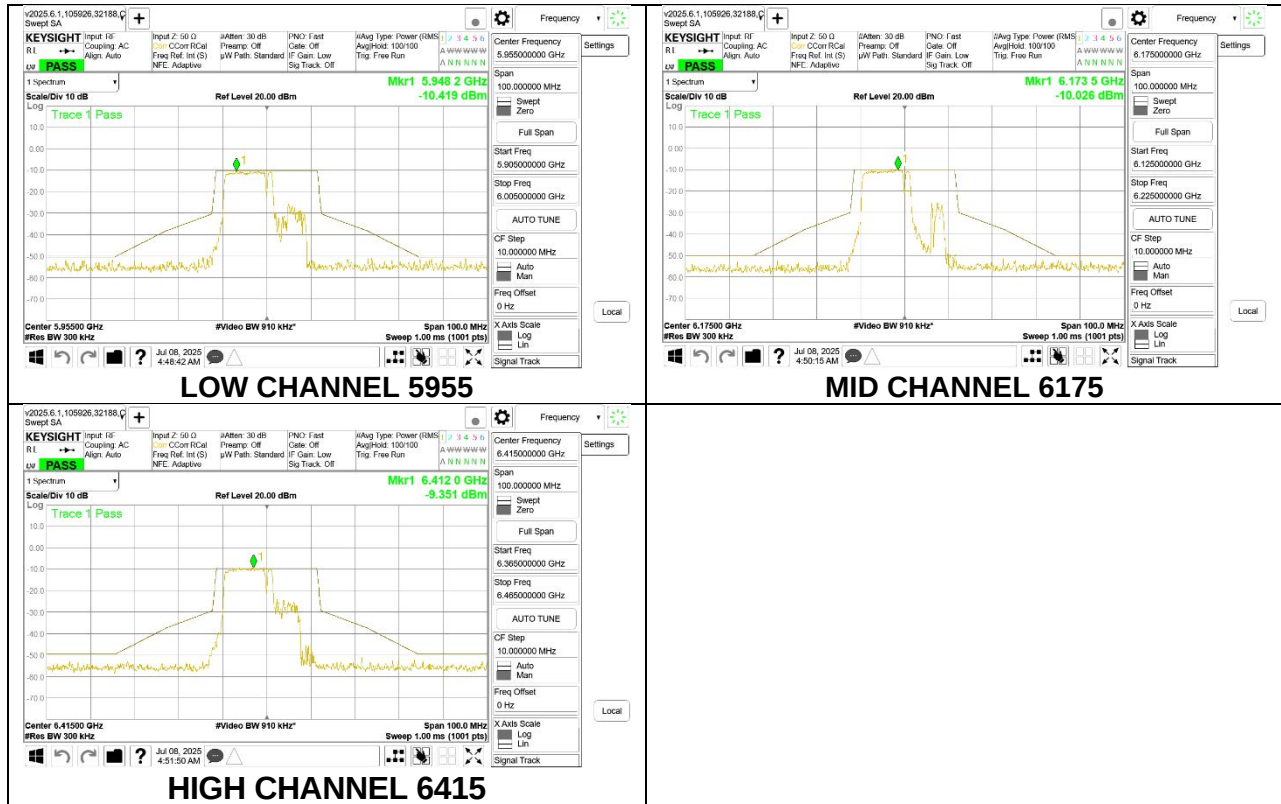
*Different RBW/VBW due to different partial tones.

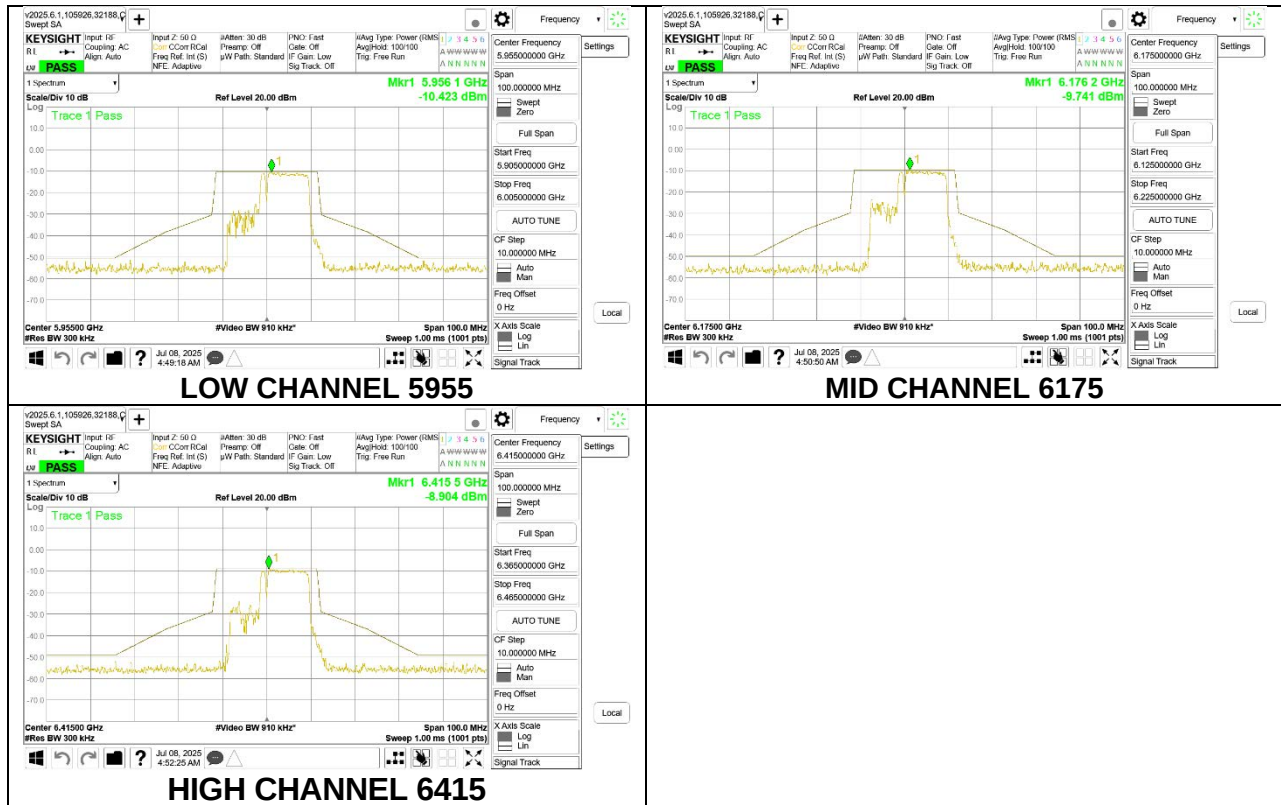
RESULTS

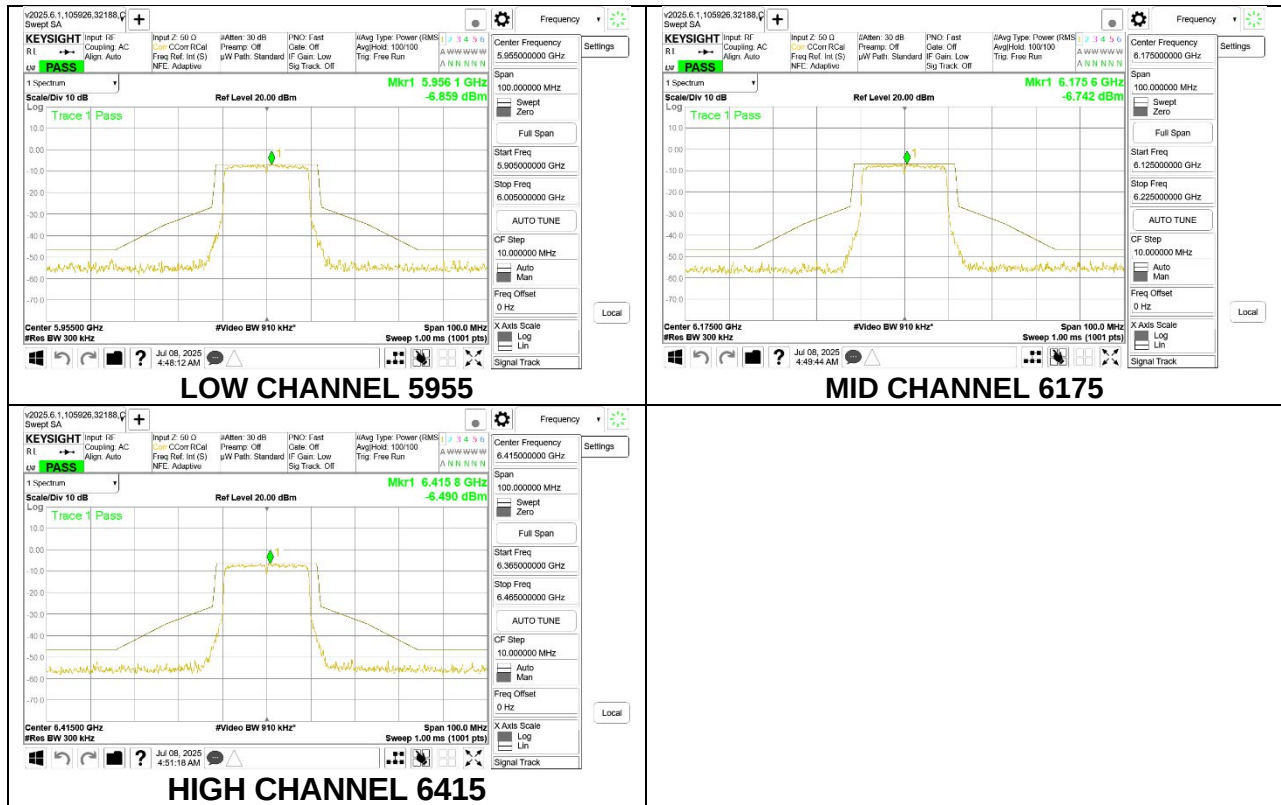
For mask and bandwidth measurements partial RU allocations are tested with the RUs allocated at the lower and upper positions within the channel for the low, mid and high channels in each band. Additionally, the mid channel is also tested with the RU allocated in the center of the channel to verify that the low / high RU allocations are worst case.

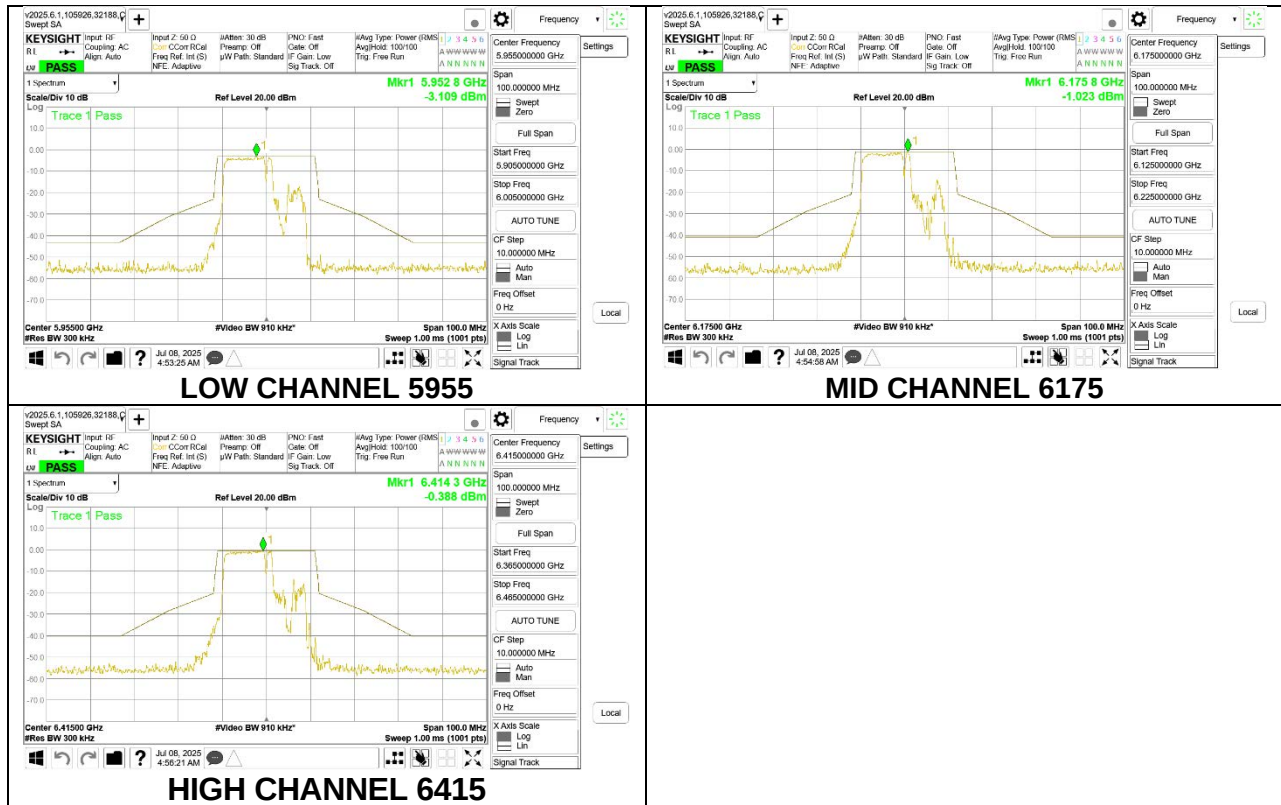
9.8.1 802.11be EHT20 MODE IN THE UNII-5 BAND

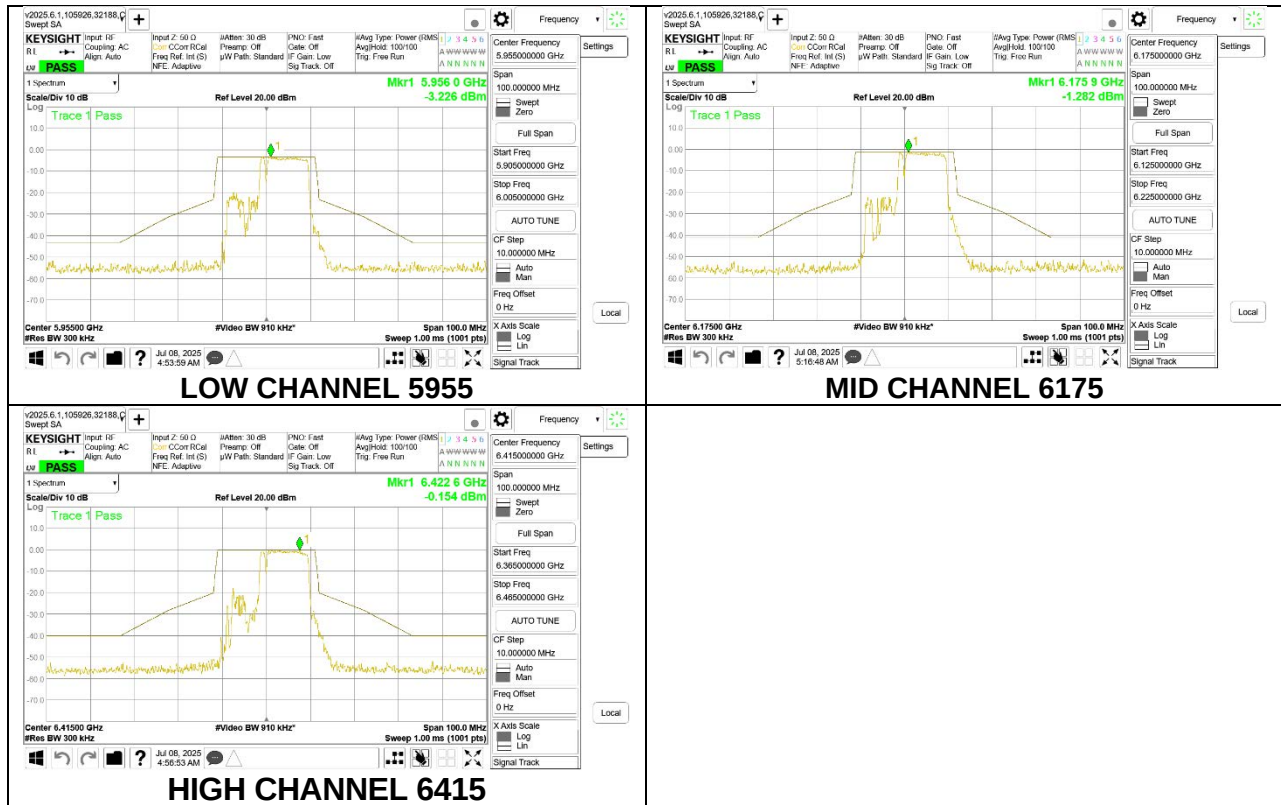
1TX Antenna 6 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 82

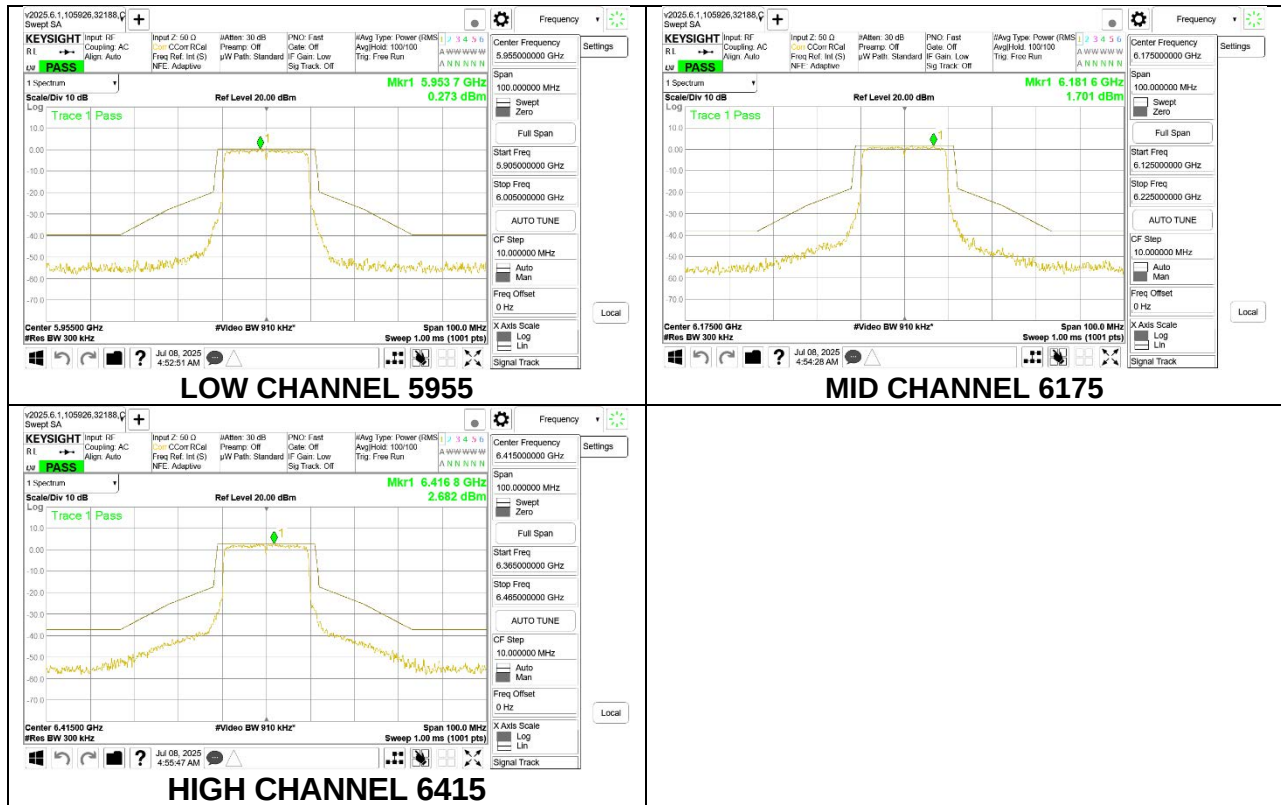


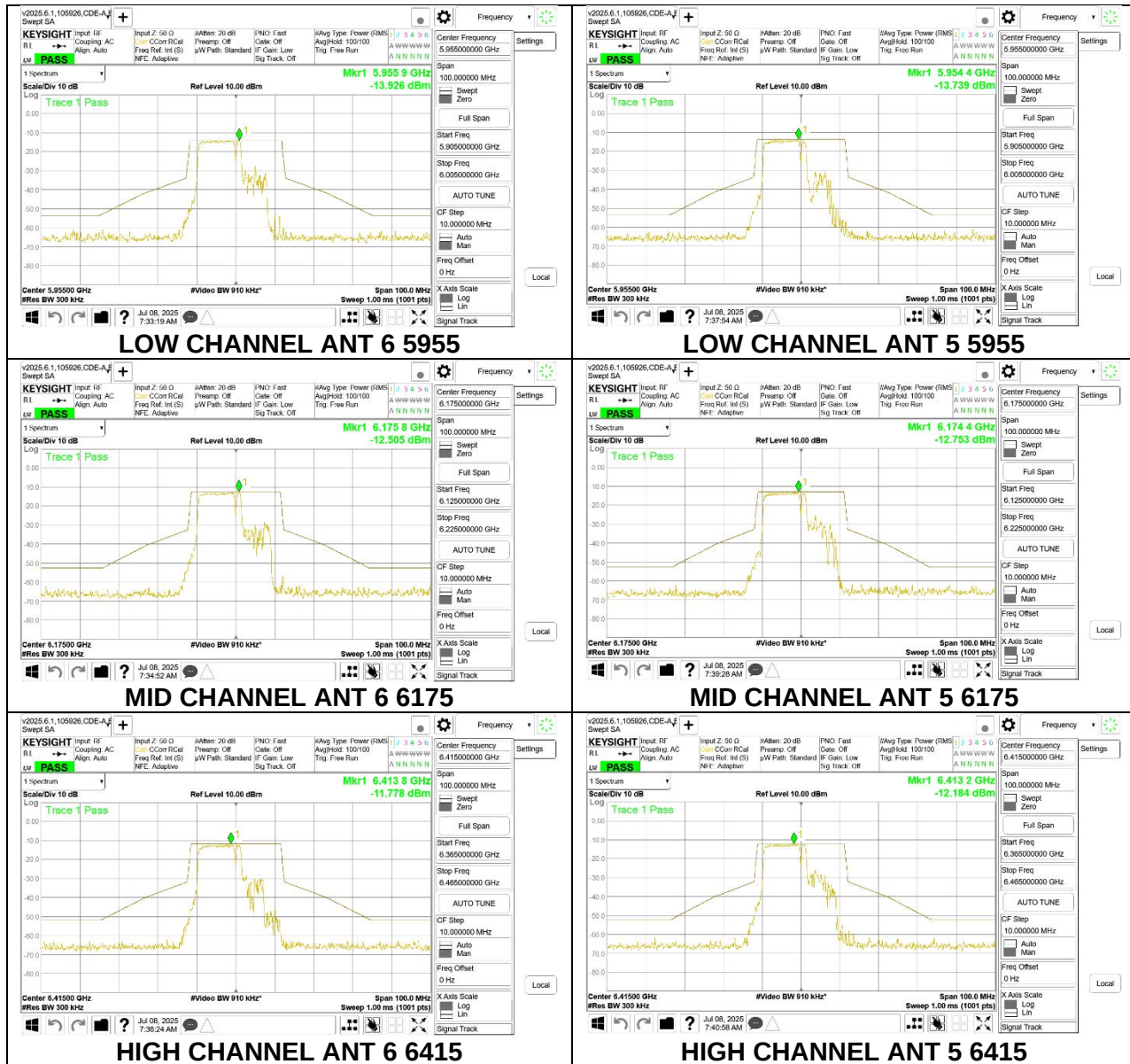
1TX Antenna 6 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 83

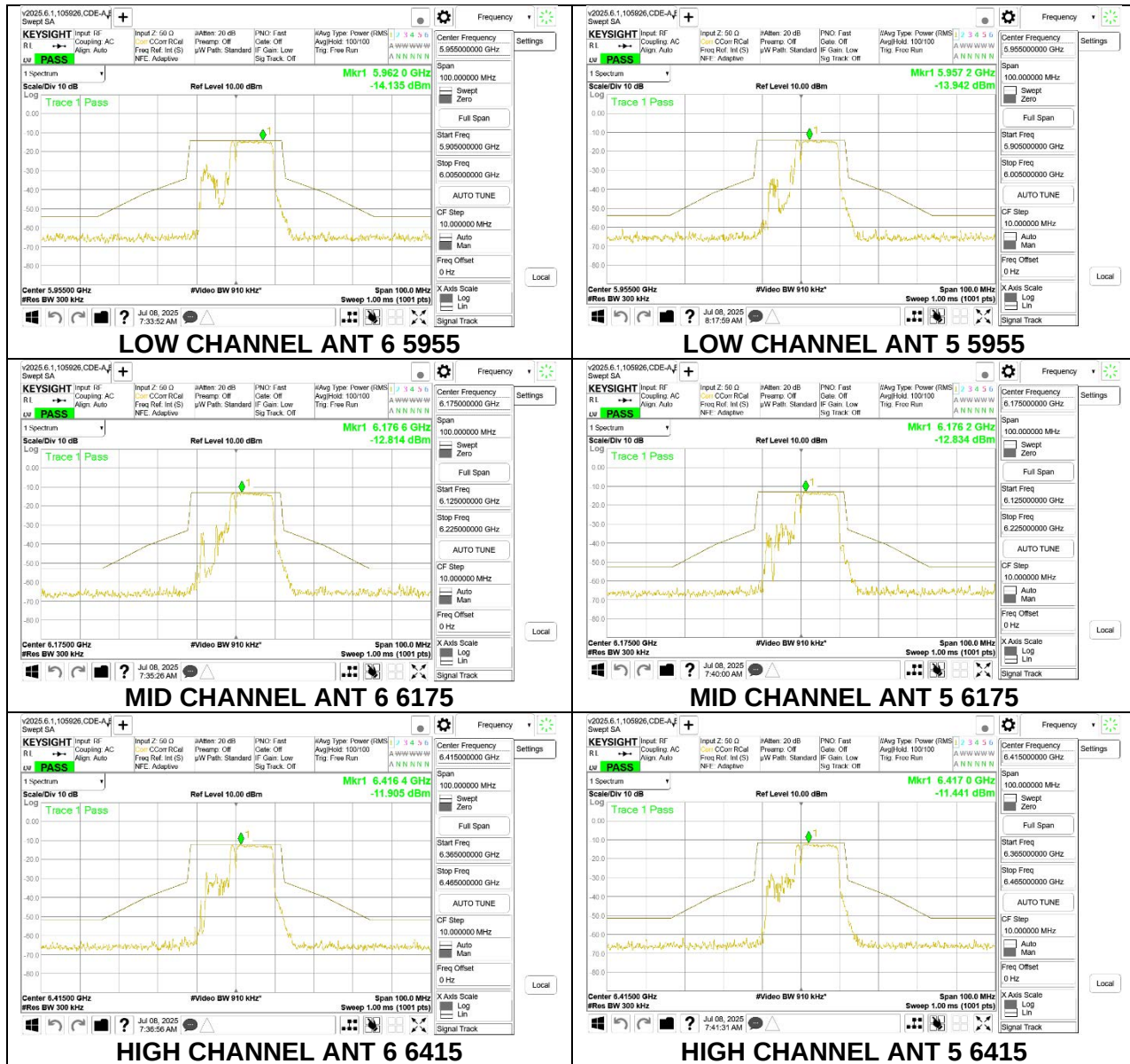
1TX Antenna 6 MODE (FCC+IC) MOBILE – SU MODE

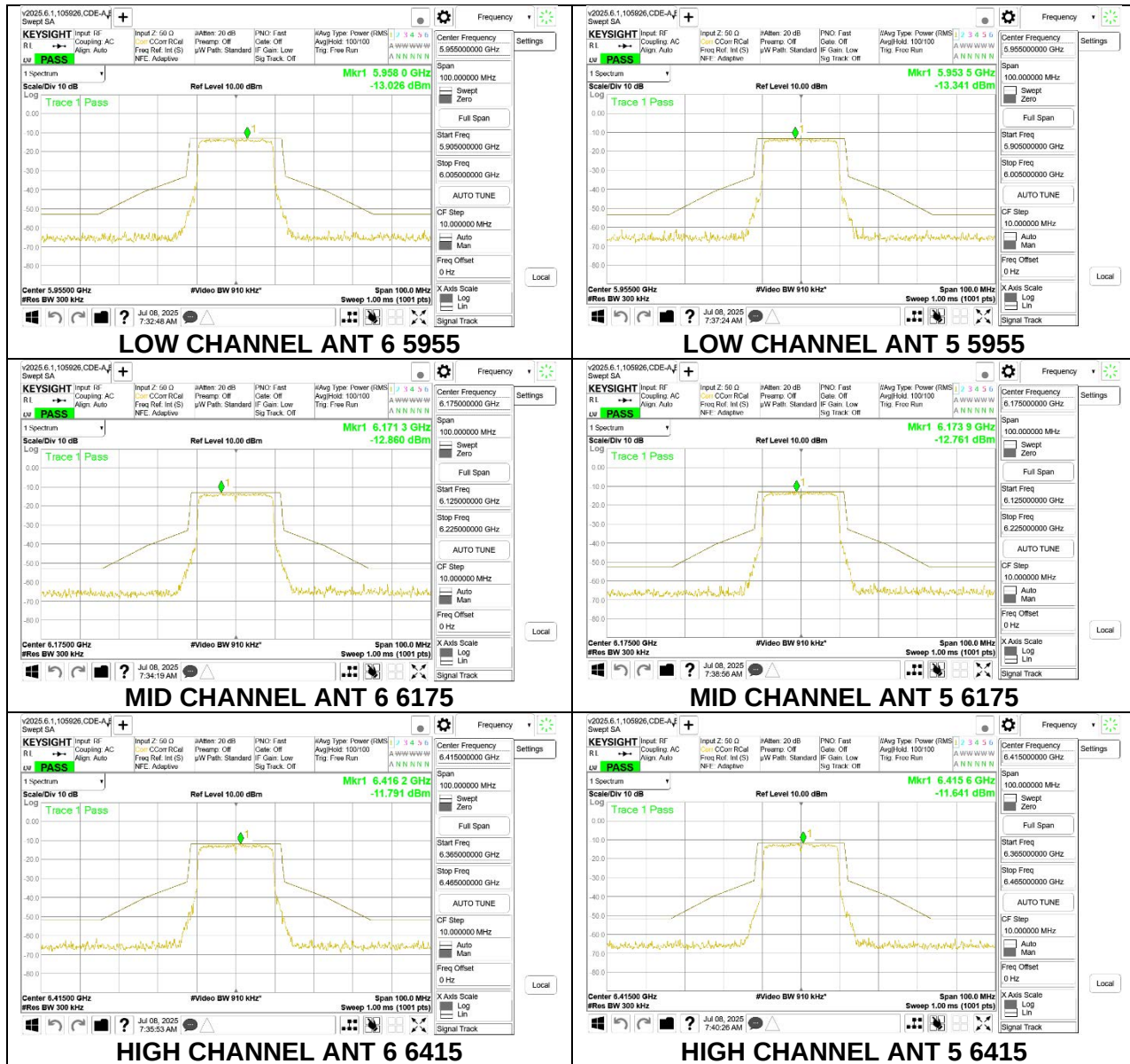
1TX Antenna 5 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 82

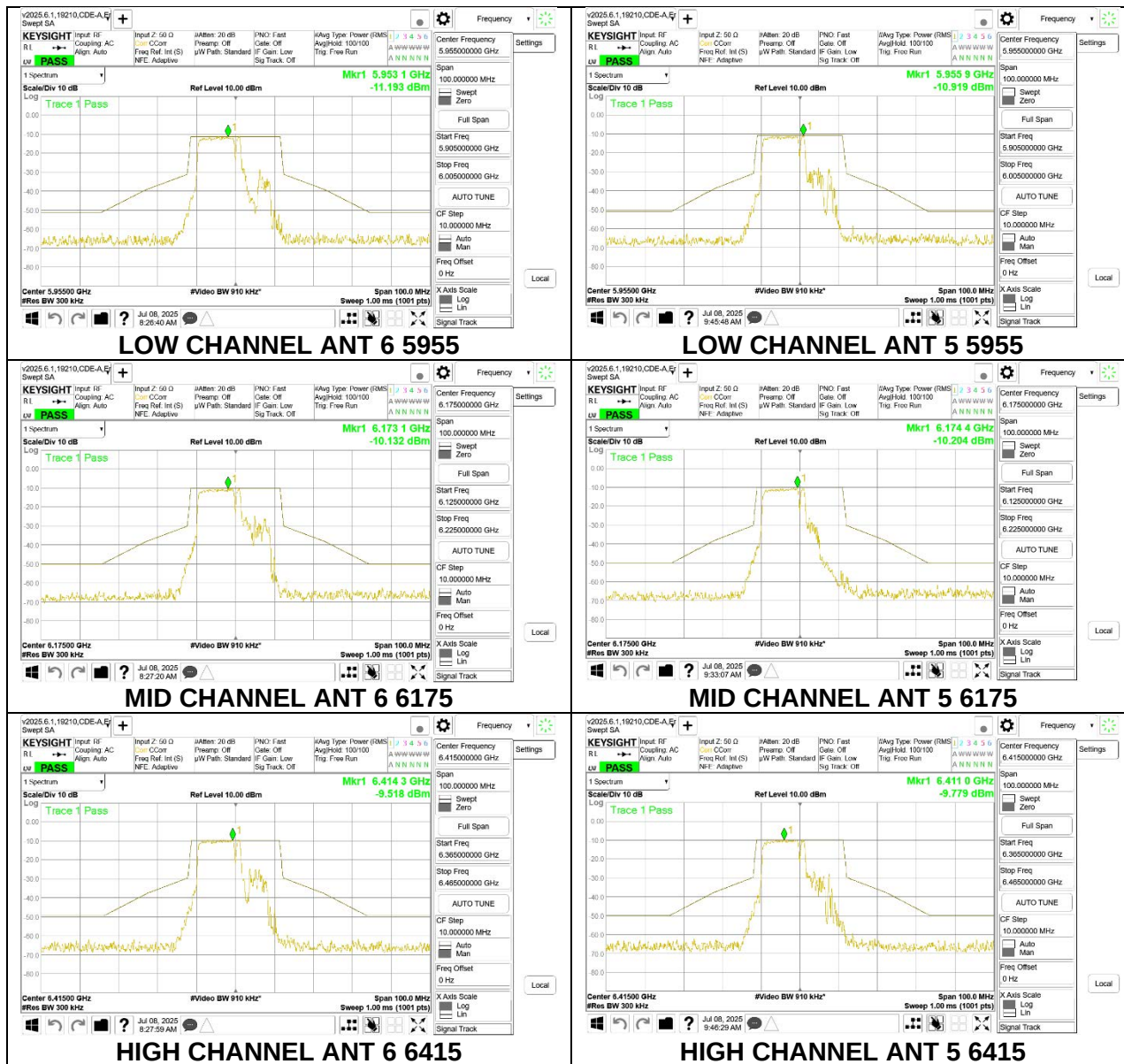
1TX Antenna 5 MODE (FCC+IC) MOBILE – MRU106+26-Tones, RU Index 83

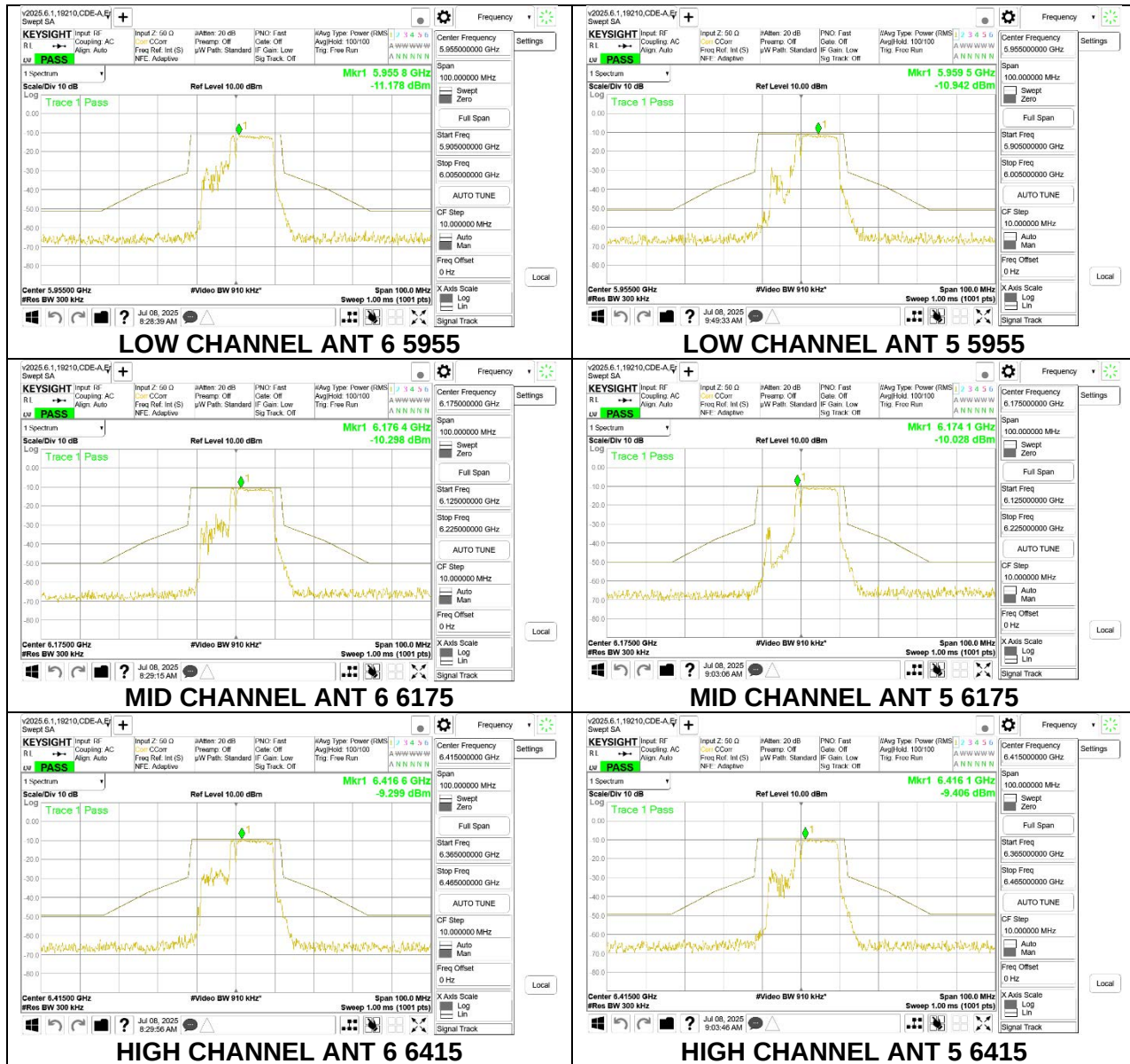
1TX Antenna 5 MODE (FCC+IC) MOBILE – SU MODE

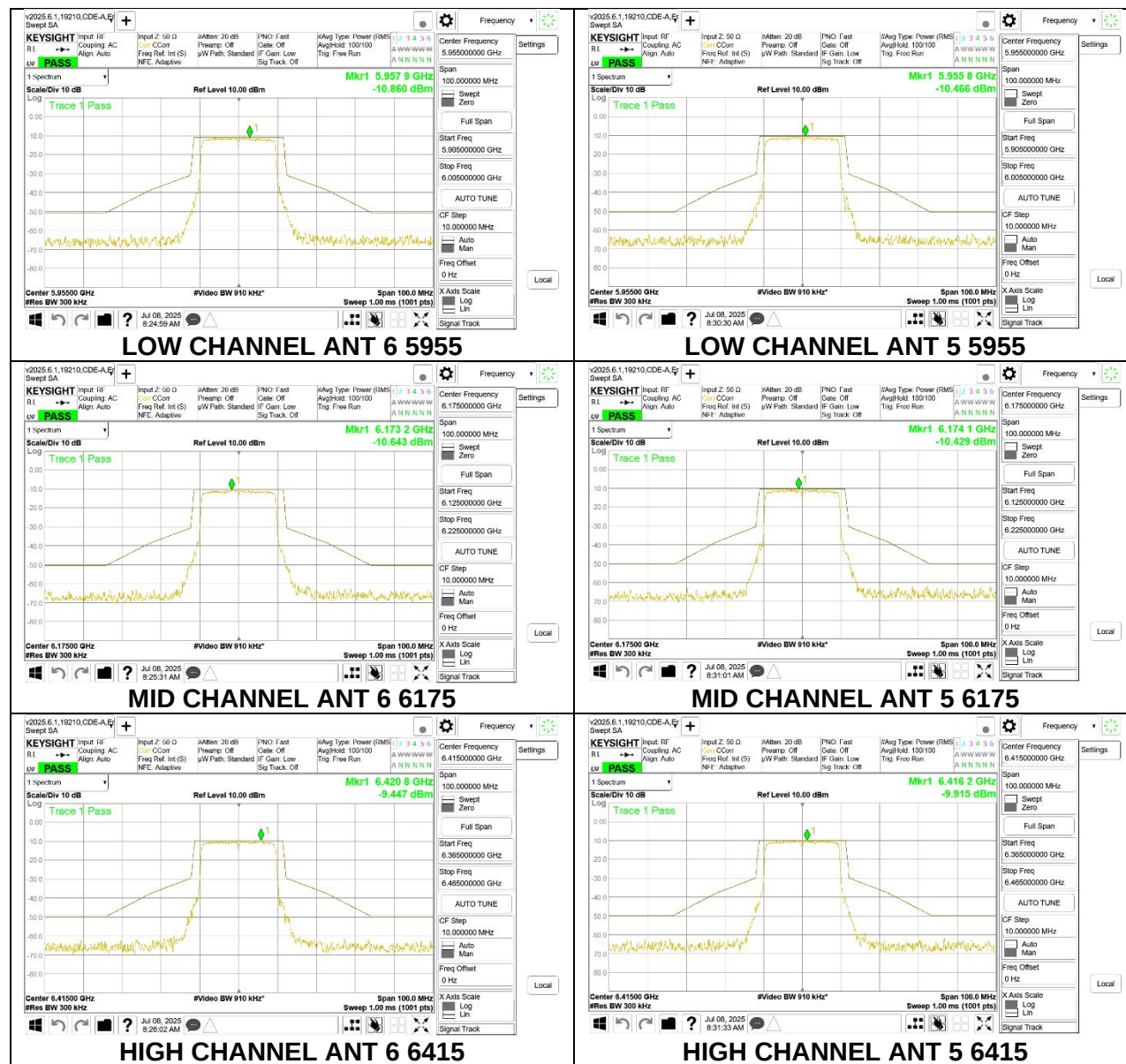
2TX CDD MODE (FCC + IC) – MRU106+26-Tones, RU Index 82

2TX CDD MODE (FCC + IC) – MRU106+26T-Tones, RU Index 83

2TX CDD MODE (FCC + IC) – SU MODE

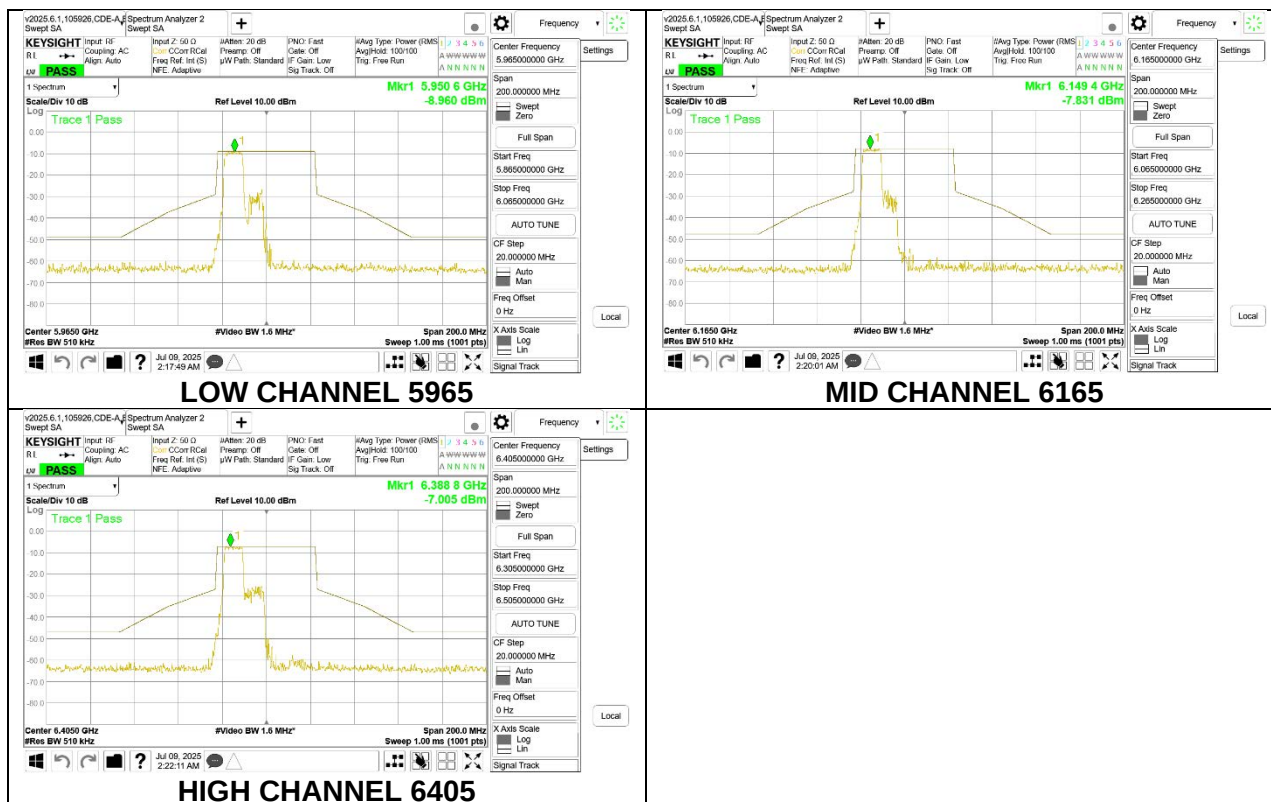
2TX SDM MODE (FCC + IC) – MRU106+26-Tones, RU Index 82

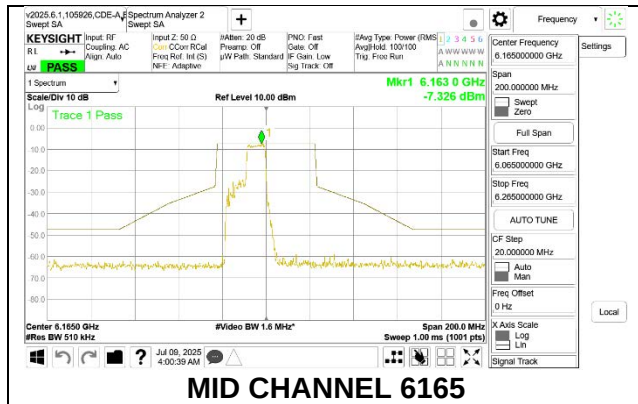
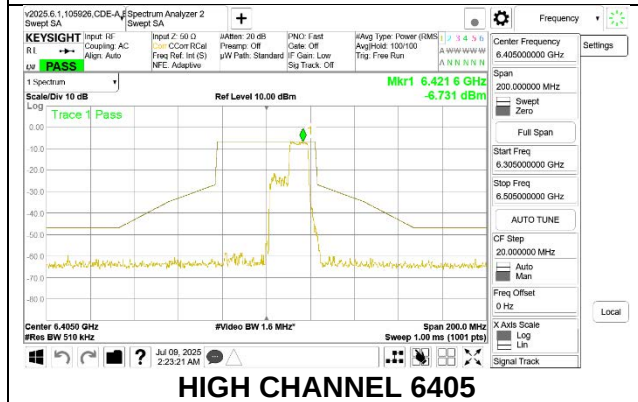
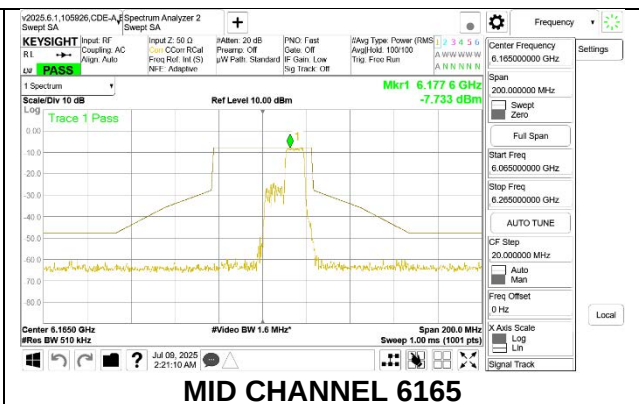
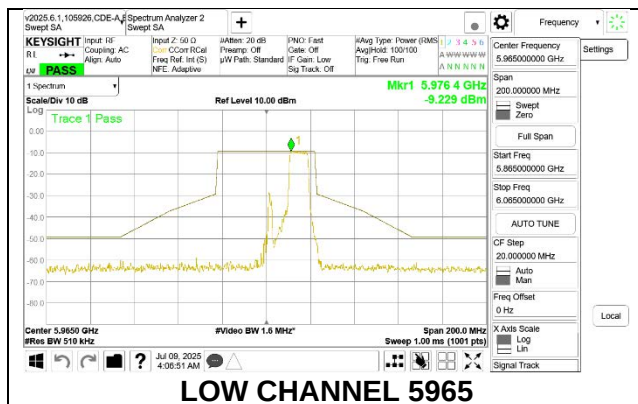
2TX SDM MODE (FCC + IC) – MRU106+26-Tones, RU Index 83

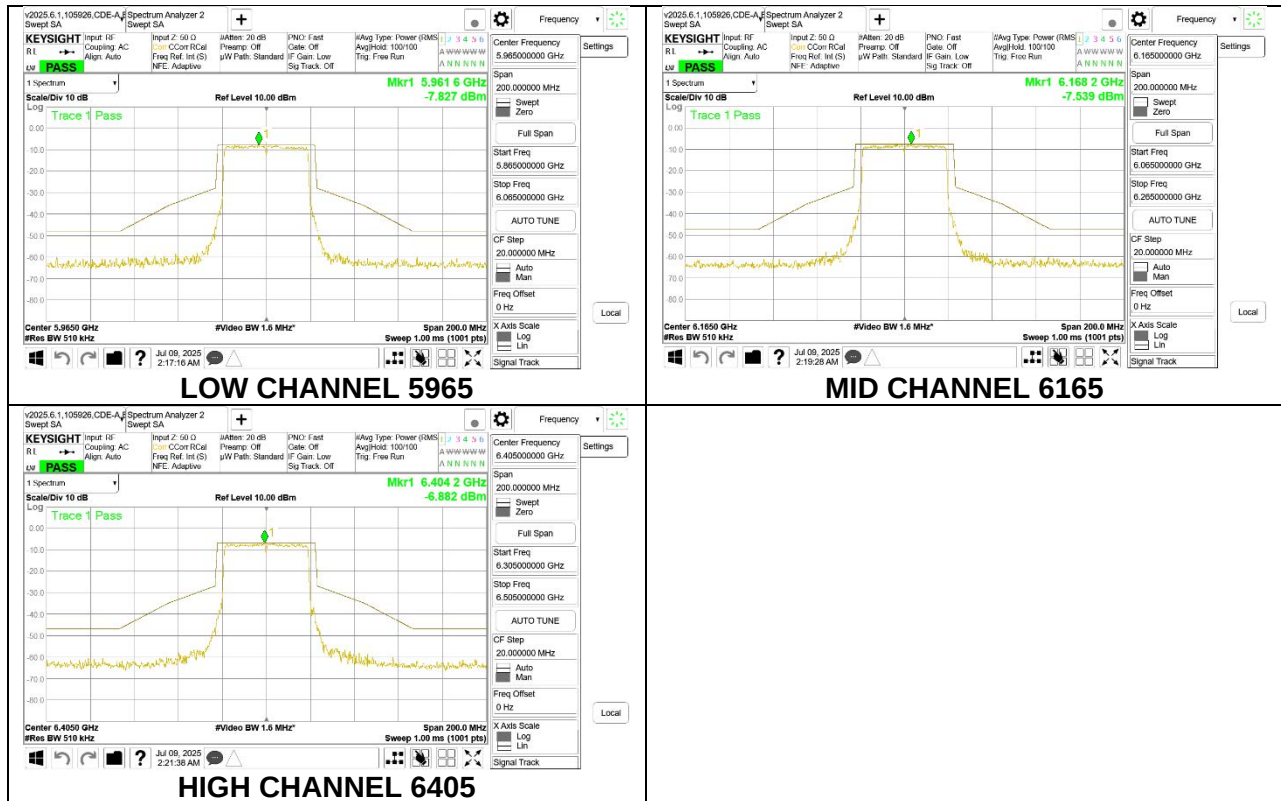
2TX SDM MODE (FCC + IC) – SU Mode

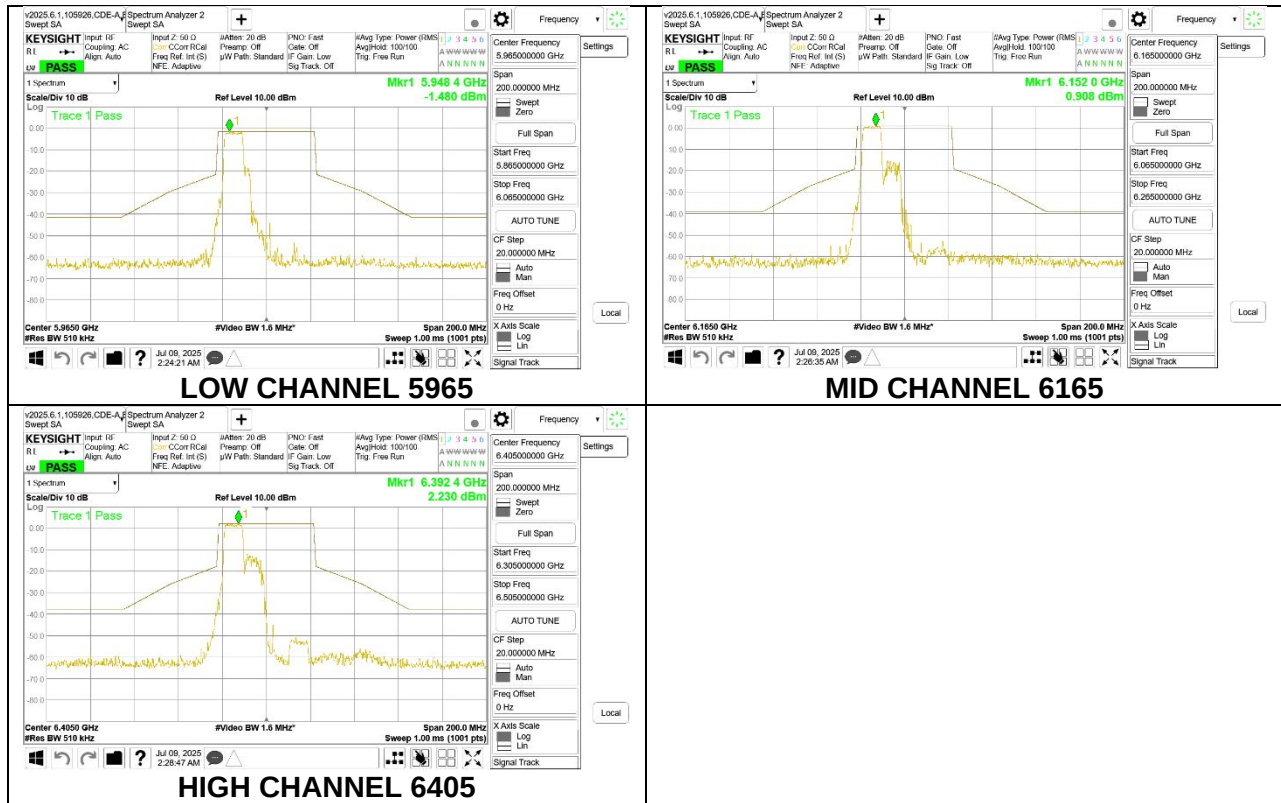
9.8.2 802.11be EHT40 MODE IN THE UNII-5 BAND

1TX Antenna 6 MODE (FCC+IC) MOBILE – 106-Tones, RU Index 53



1TX Antenna 6 MODE (FCC+IC) MOBILE – 106-Tones, RU Index 54**1TX Antenna 6 MODE (FCC+IC) MOBILE – 106-Tones, RU Index 56**

1TX Antenna 6 MODE (FCC+IC) MOBILE – SU MODE

1TX Antenna 5 MODE (FCC+IC) MOBILE – 106-Tones, RU Index 53

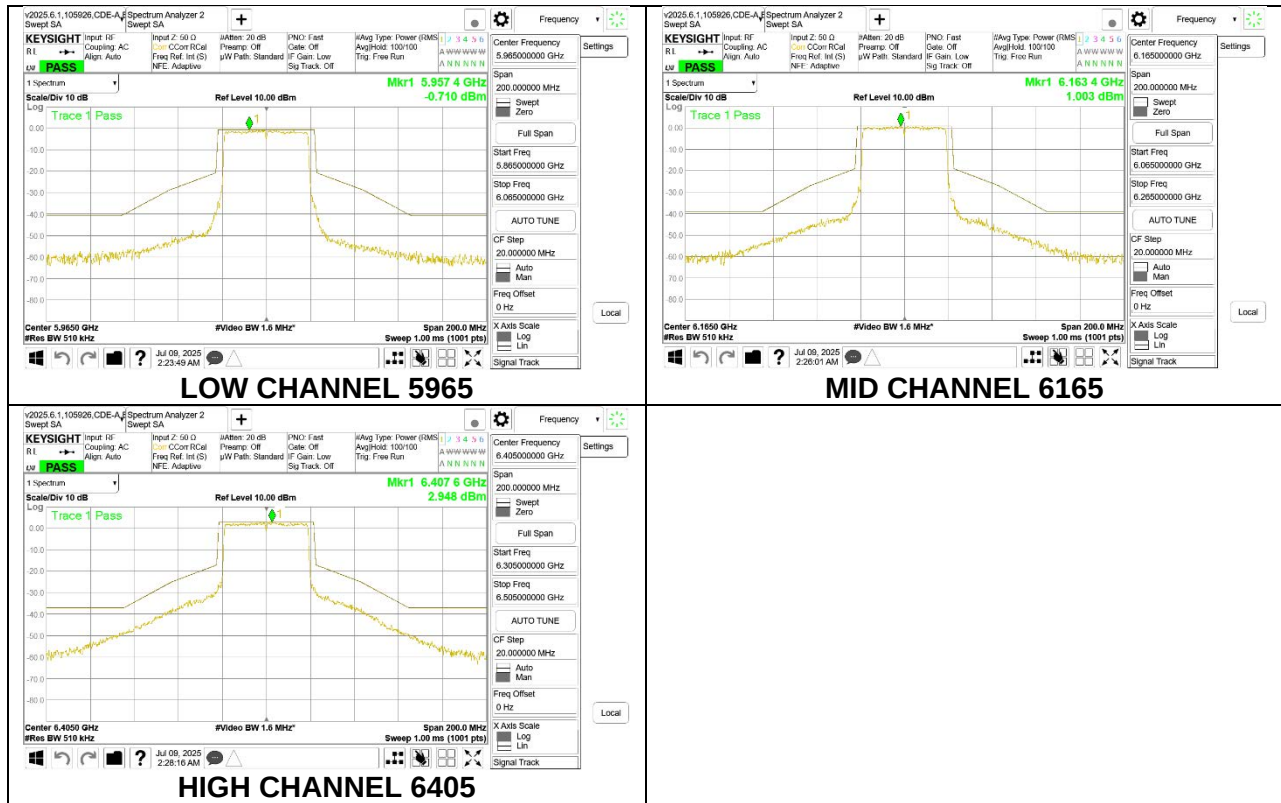
The screenshot displays a Spectrum Analyzer software interface. At the top, the title bar reads "V2025.6.1.105626.CDE-A". The main window is divided into several sections:

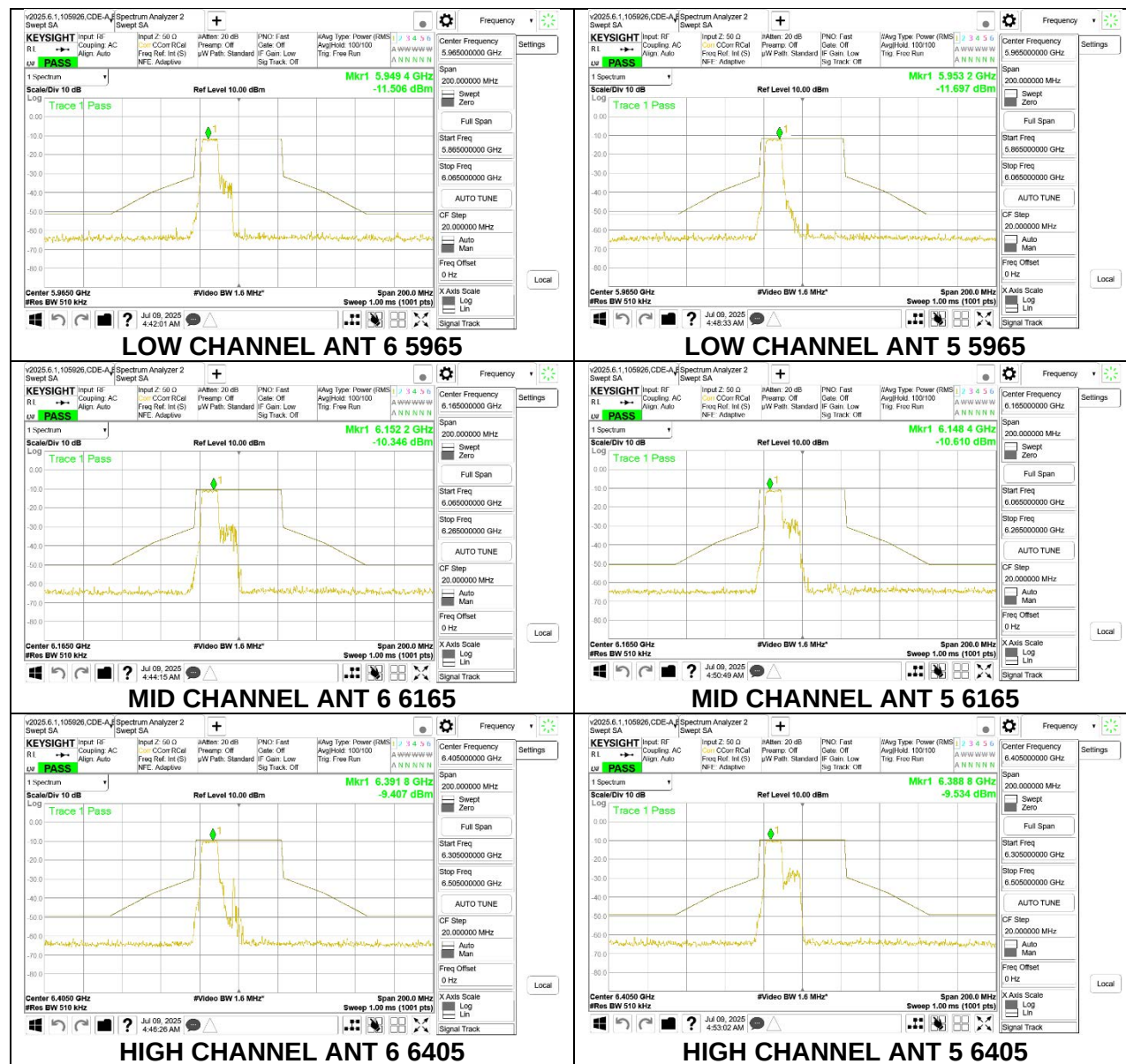
- Top Left:** "KEYSIGHT" logo, "Input RF", "Routing AC", "Align Auto", and a green "IPASS" button.
- Top Center:** "Spectrum Analyzer 2" and "Sweep SA".
- Top Right:** "Frequency" dropdown set to "MHz", "Center Frequency" set to "6.165000000 GHz", and a "Settings" button.
- Middle Left:** "1 Spectrum" dropdown, "Scale/Div 10 dB", "Log" checkbox, and "Trace 1 Pass" indicator.
- Middle Center:** A large plot area showing a signal trace. The peak is labeled "Mkr1 6.162 E 8Hz 1.026 dBm". The plot area also shows "Ref Level 10.00 dBm" and "#Video BW 1.0 MHz".
- Middle Right:** "Span" set to "200.000000 MHz", "Start Freq" set to "6.095000000 GHz", "Stop Freq" set to "6.285000000 GHz", and an "AUTO TUNE" button.
- Bottom Left:** "Center 6.1650 GHz" and "#Res BW 510 kHz".
- Bottom Center:** "Sweep 1.00 ms (1001 pts)".
- Bottom Right:** "X-Axis Scale" dropdown set to "Log", "Y-Axis Scale" dropdown set to "dBm", and a "Signal Track" button.
- Bottom Bar:** Windows taskbar showing the date "Jul 06, 2025" and time "2:27:10 AM".

The figure displays four screenshots of a Spectrum Analyzer interface, showing signal traces for different channels. Each screenshot includes a frequency scale from 0 to 200.000000 MHz, a power scale from -80.0 to 10.0 dBm, and a trace labeled 'Trace 1 Pass'.

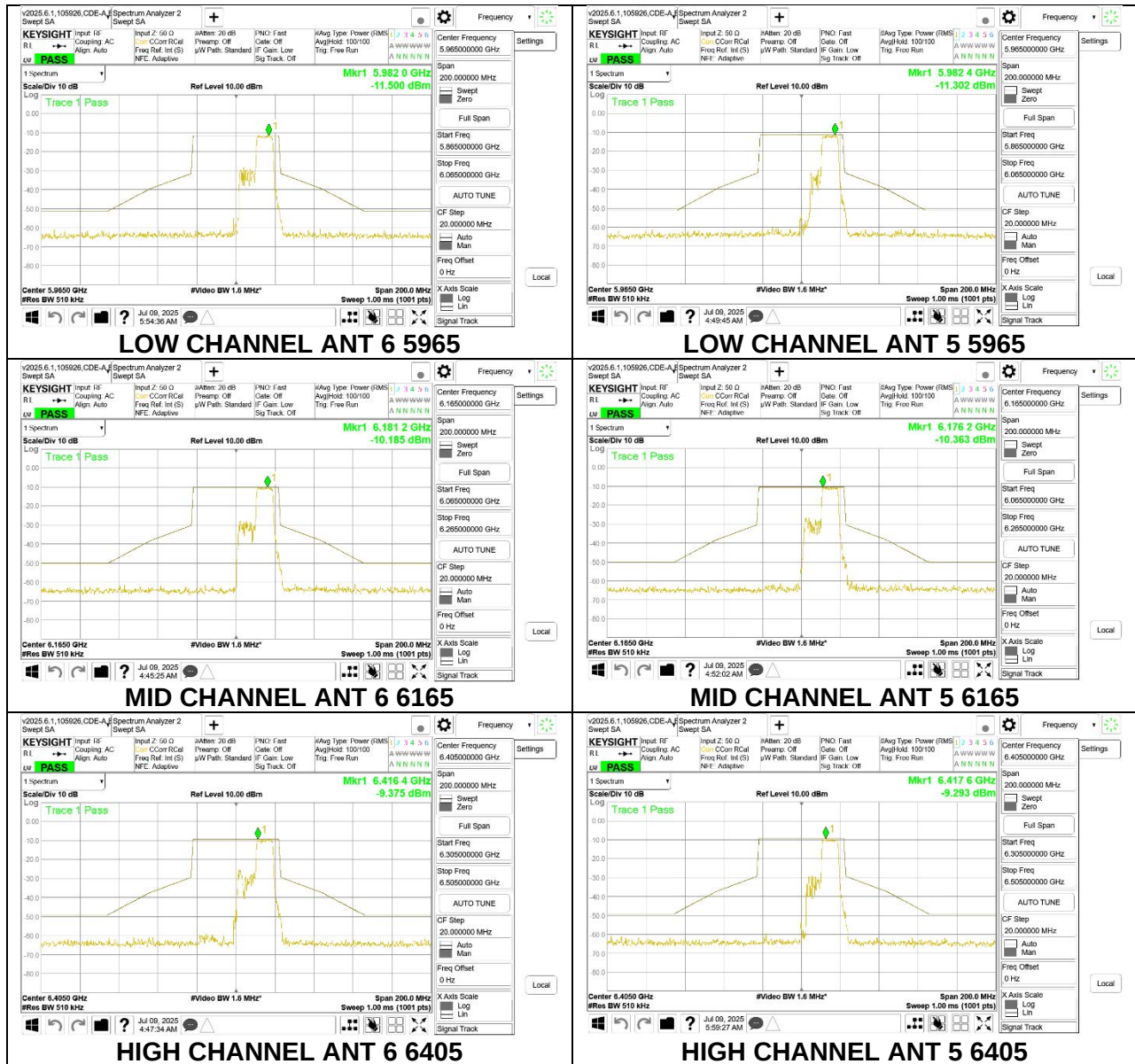
- LOW CHANNEL 5965:** The trace shows a peak at 5.965000000 GHz with a power level of 5.9824 GHz and -0.940 dBm.
- MID CHANNEL 6165:** The trace shows a peak at 6.165000000 GHz with a power level of 6.1770 GHz and 0.827 dBm.
- HIGH CHANNEL 6405:** The trace shows a peak at 6.405000000 GHz with a power level of 6.4162 GHz and 2.468 dBm.

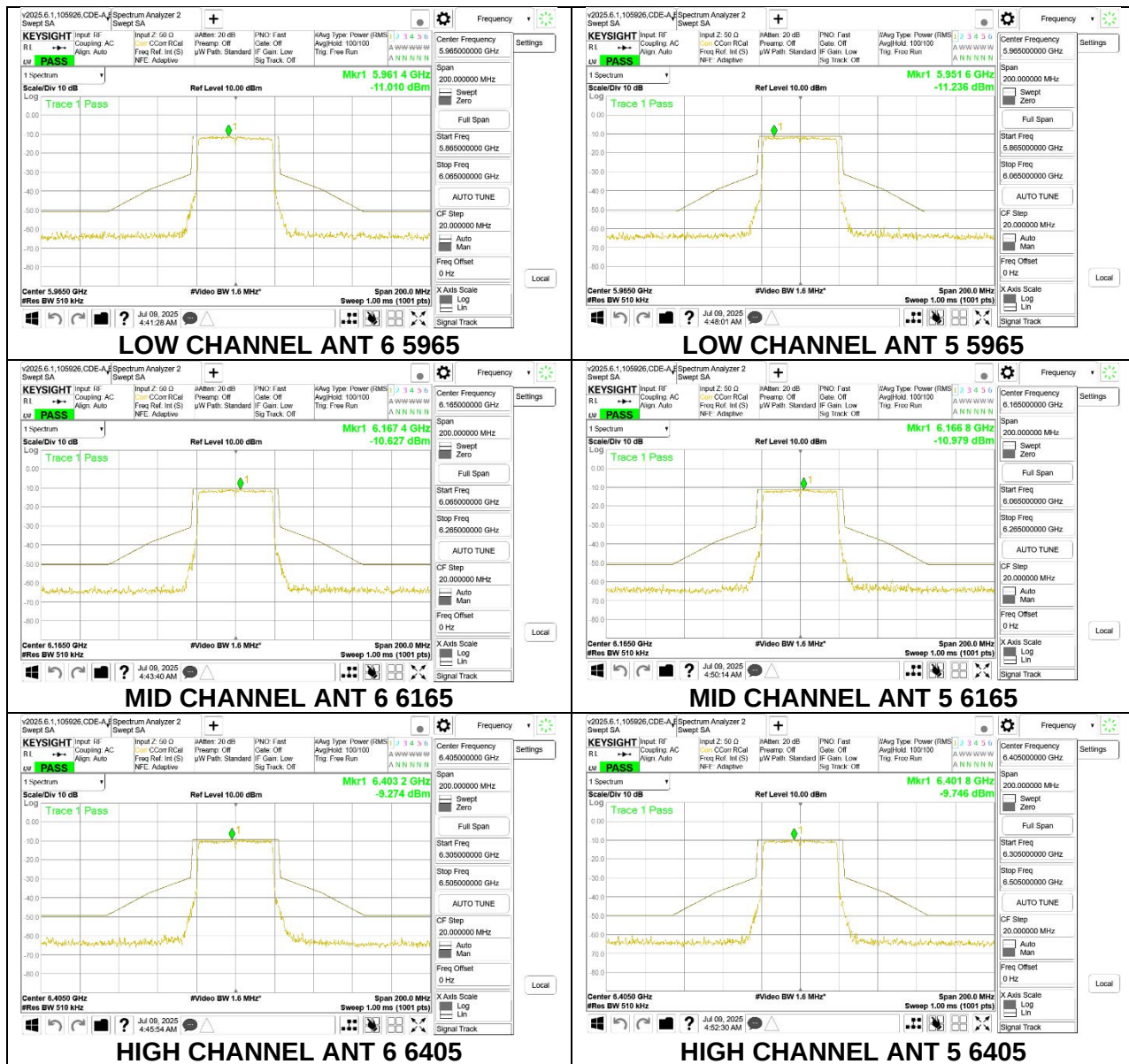
Each screenshot also includes a 'Signal Track' section at the bottom, showing the signal's frequency and power over time.

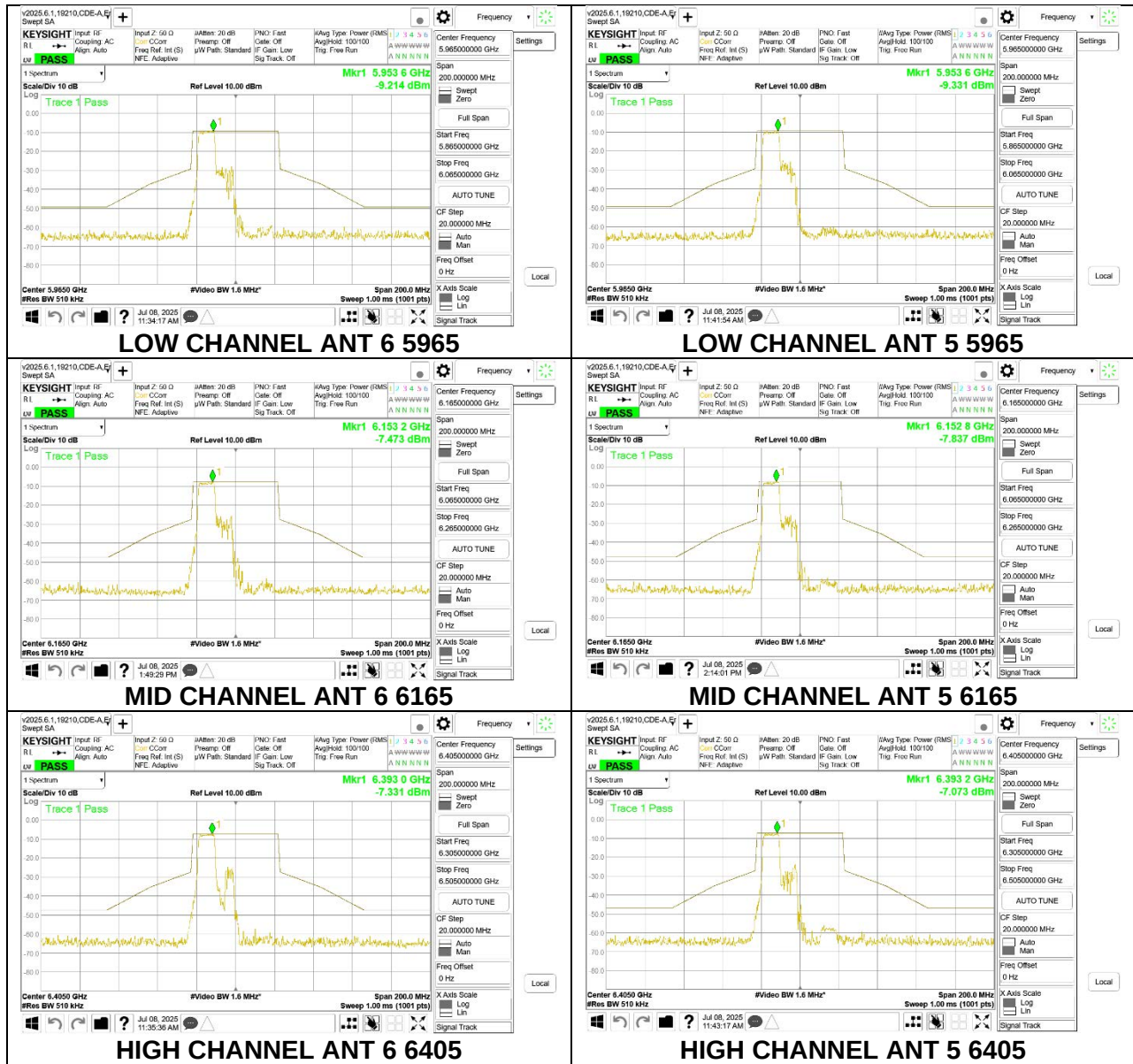
1TX Antenna 5 MODE (FCC+IC) MOBILE – SU MODE

2TX CDD MODE (FCC + IC) – 106-Tones, RU Index 53

2TX CDD MODE (FCC + IC) – 106-Tones, RU Index 54

2TX CDD MODE (FCC + IC) – 106-Tones, RU Index 56

2TX CDD MODE (FCC + IC) – SU MODE

2TX SDM MODE (FCC + IC) – 106-Tones, RU Index 53

2TX SDM MODE (FCC + IC) – 106-Tones, RU Index 54