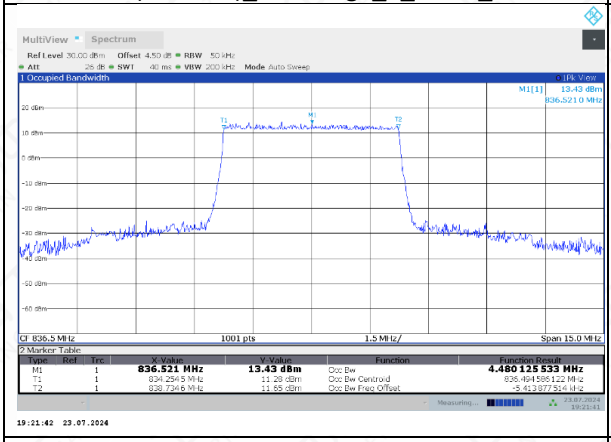
FDD26(PART 22)_MidRange_5_836.5_QPSK



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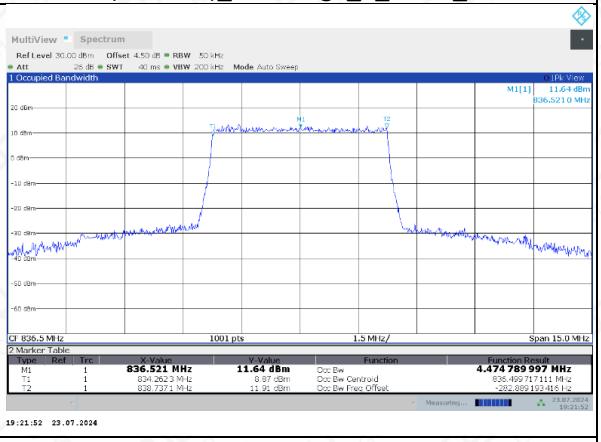

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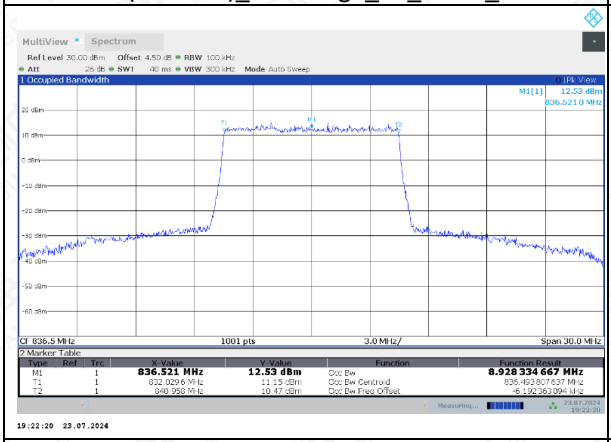

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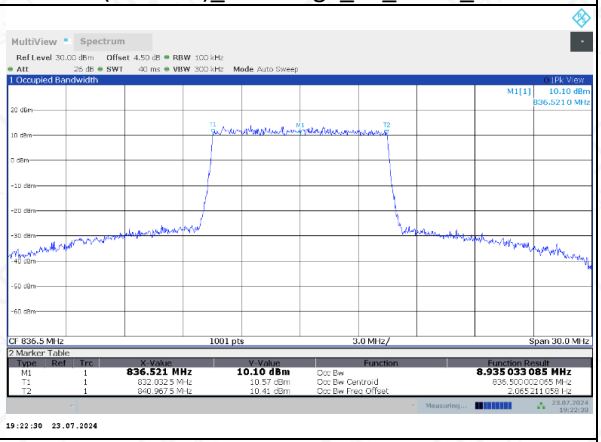
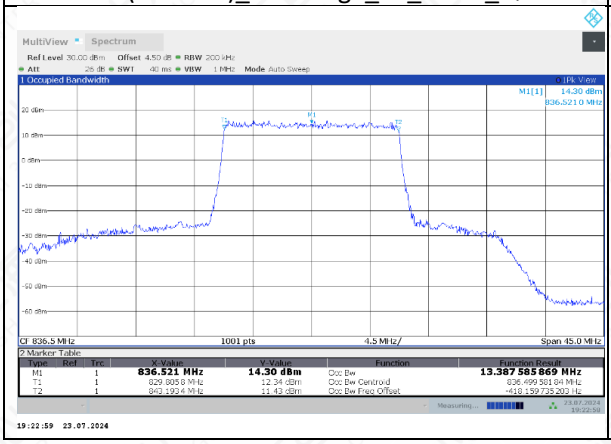
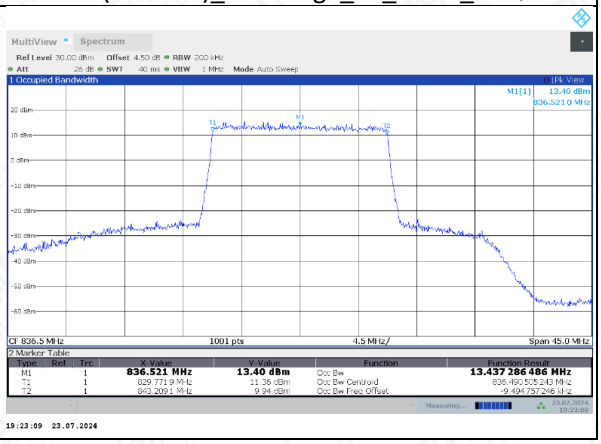


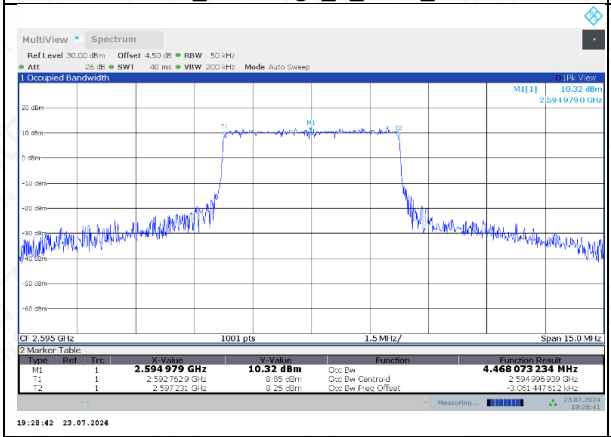
FDD26(PART 22)_MidRange_15_836.5_QPSK



FDD26(PART 22)_MidRange_15_836.5_16QAM



TDD38_MidRange_5_2595_QPSK



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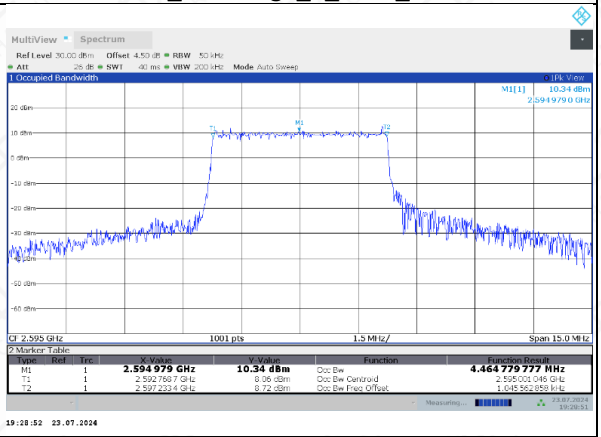

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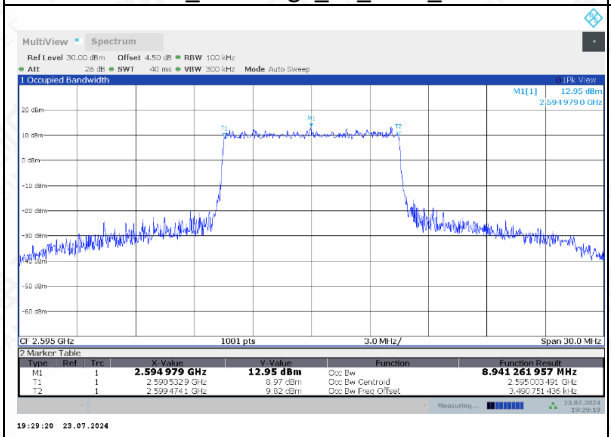

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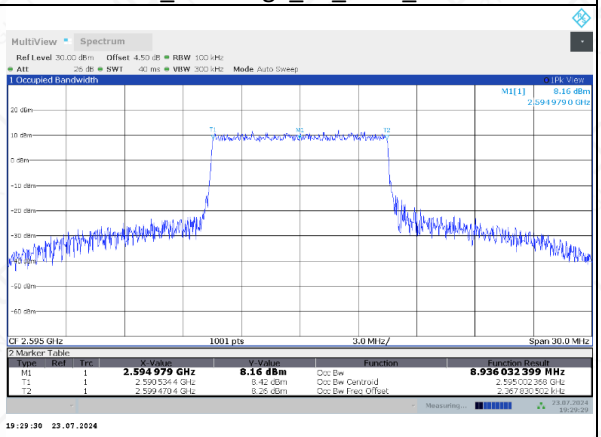

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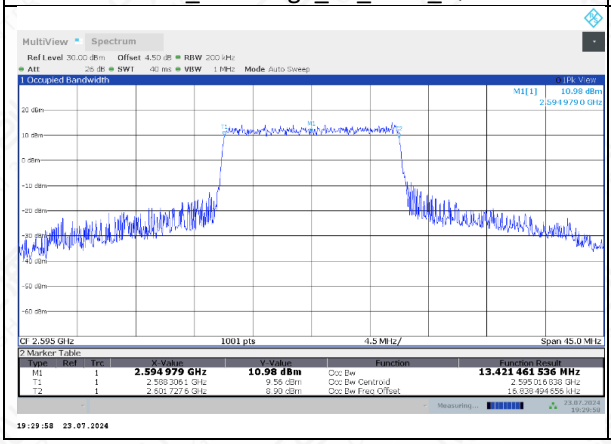
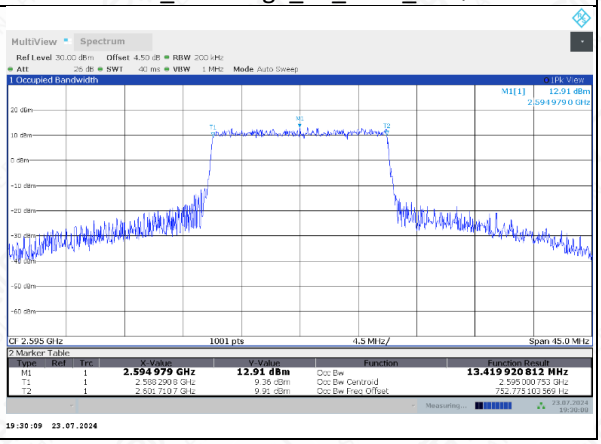
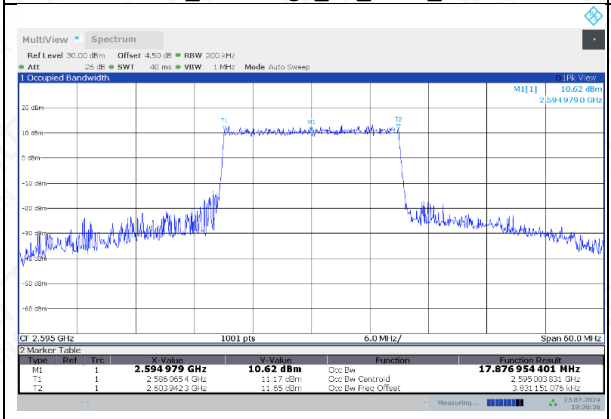


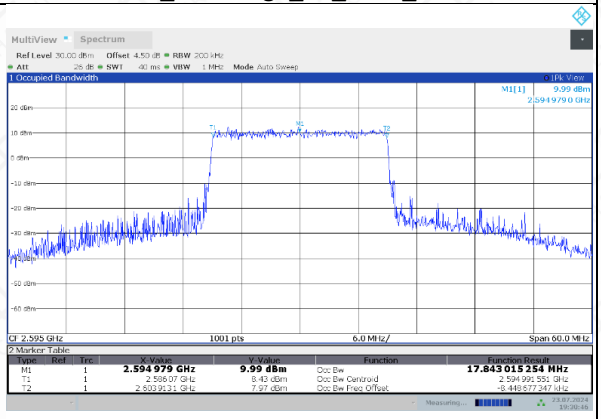
TDD38_MidRange_15_2595_16QAM



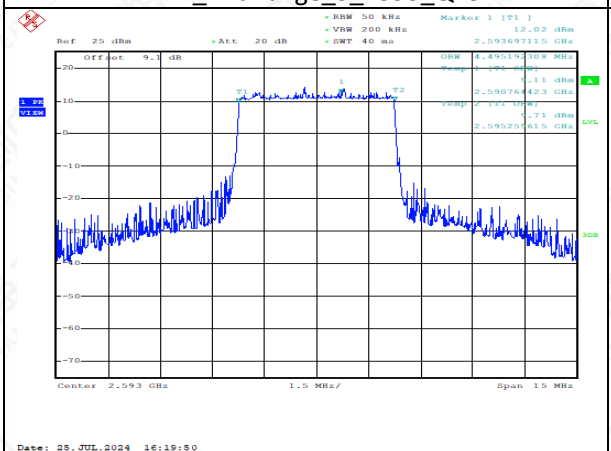
TDD38_MidRange_20_2595_QPSK



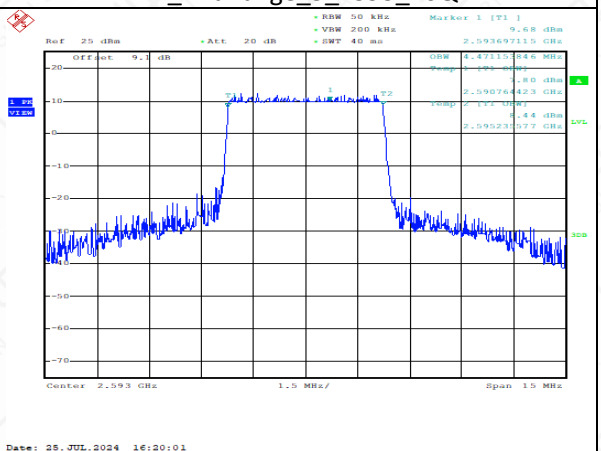
TDD38_MidRange_20_2595_16QAM



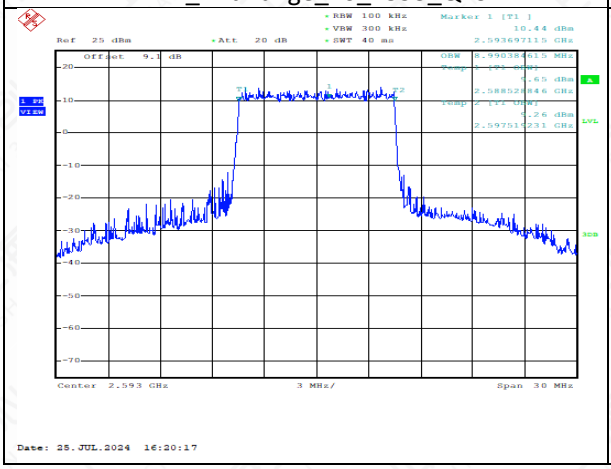
TDD41_MidRange_5_2593_QPSK



TDD41_MidRange_5_2593_16QAM



TDD41_MidRange_10_2593_QPSK



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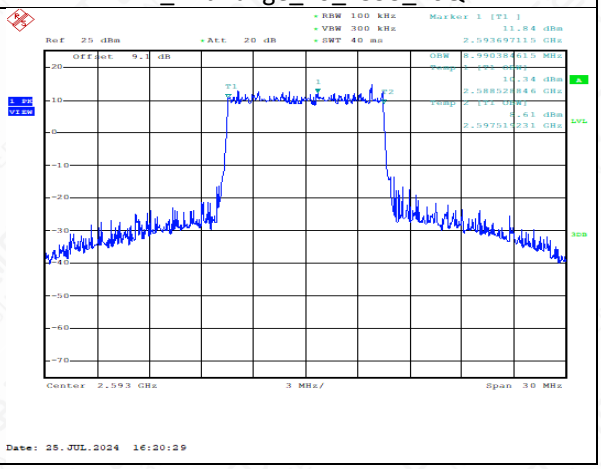
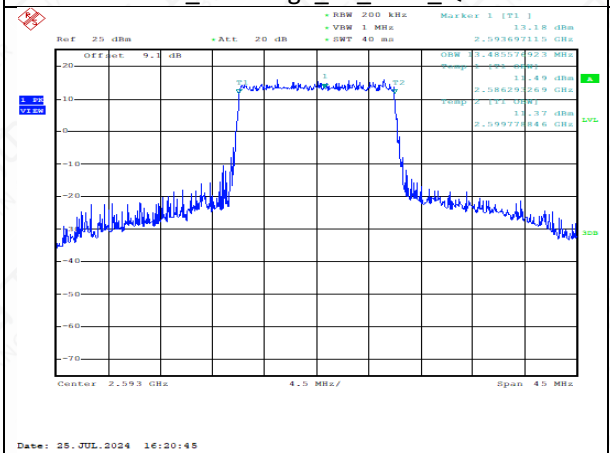
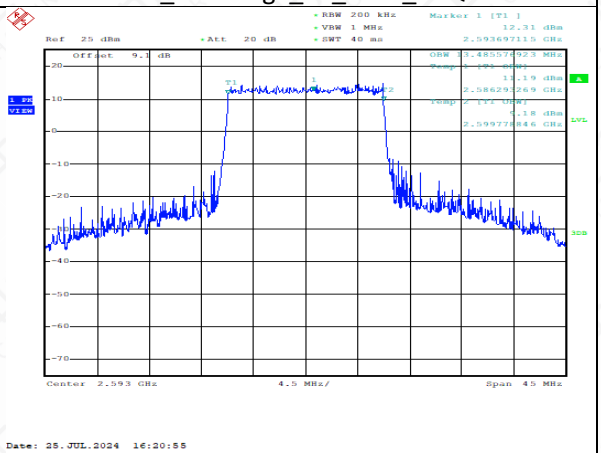


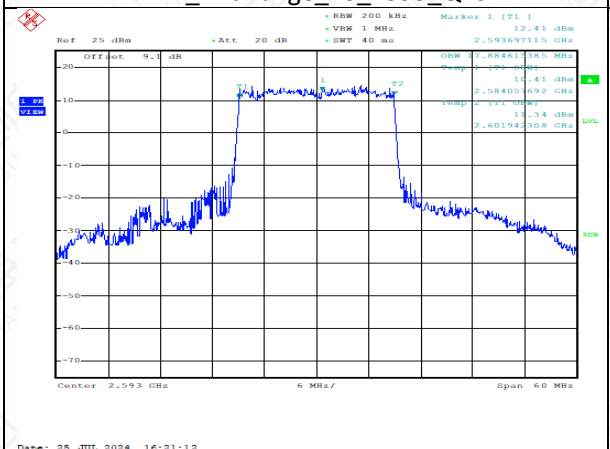
TDD41_MidRange_15_2593_QPSK



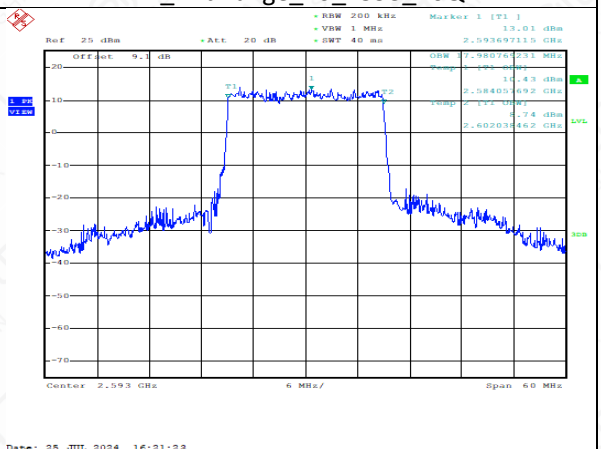
TDD41_MidRange_15_2593_16QAM



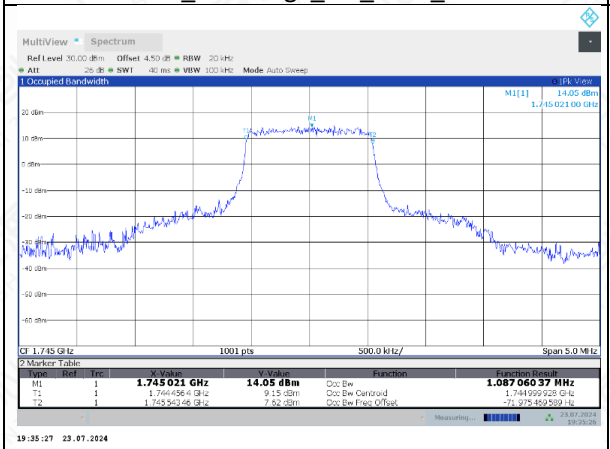
TDD41_MidRange_20_2593_QPSK



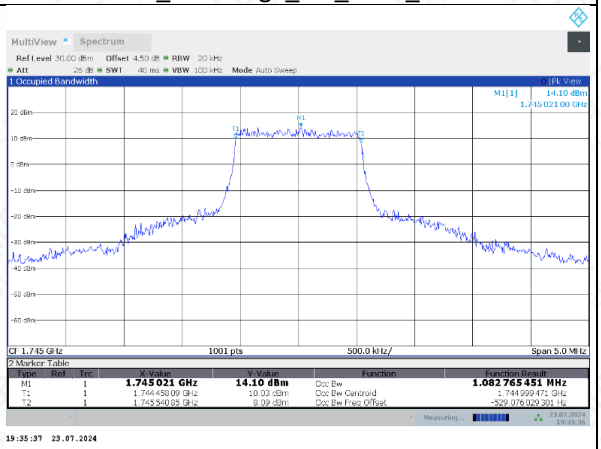
TDD41_MidRange_20_2593_16QAM



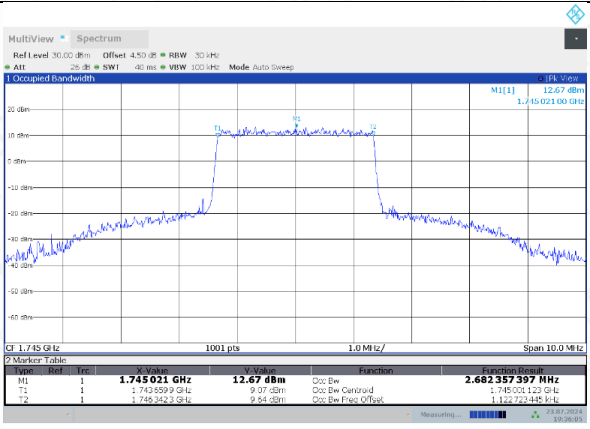
FDD66_MidRange_1.4_1745_QPSK



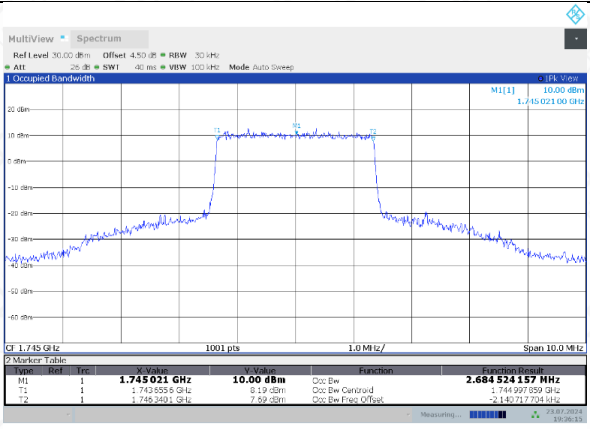
FDD66_MidRange_1.4_1745_16QAM



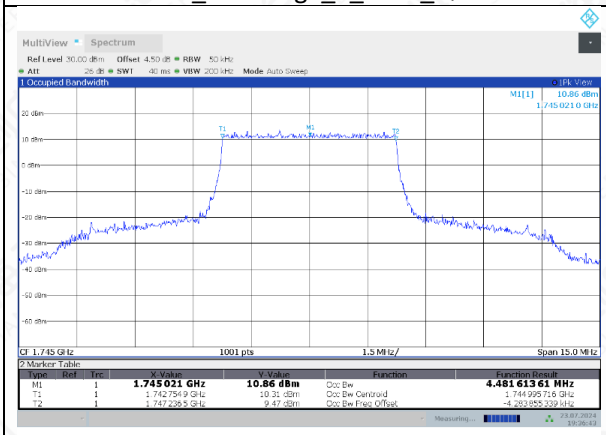
FDD66_MidRange_3_1745_QPSK



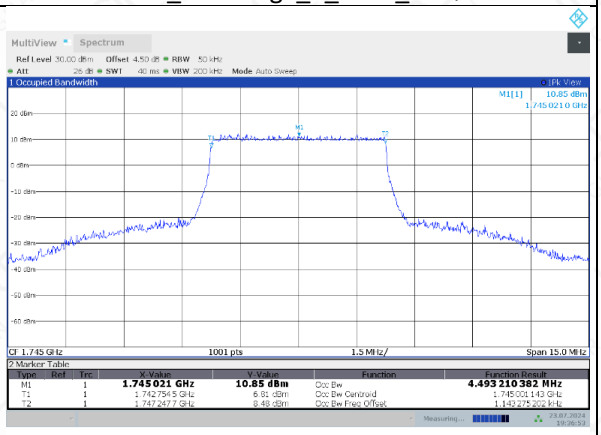
FDD66_MidRange_3_1745_16QAM



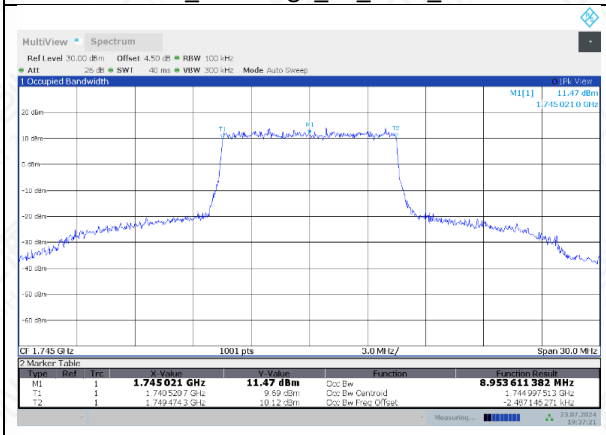
FDD66_MidRange_5_1745_QPSK



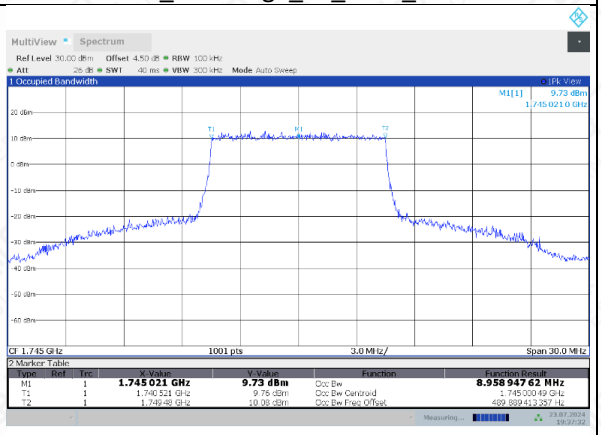
FDD66_MidRange_5_1745_16QAM



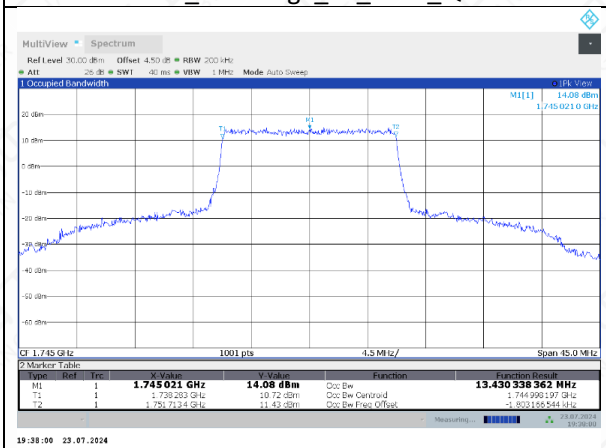
FDD66_MidRange_10_1745_QPSK



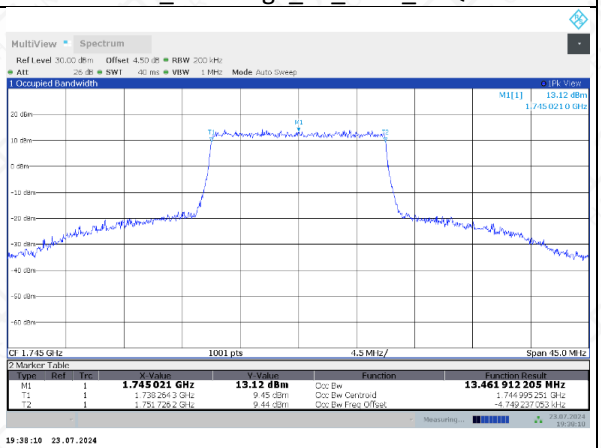
FDD66_MidRange_10_1745_16QAM



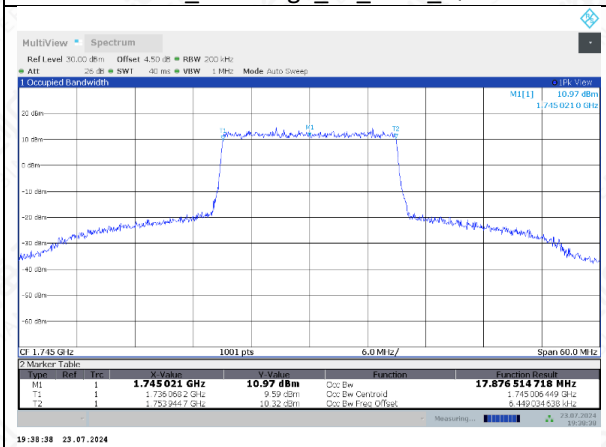
FDD66_MidRange_15_1745_QPSK



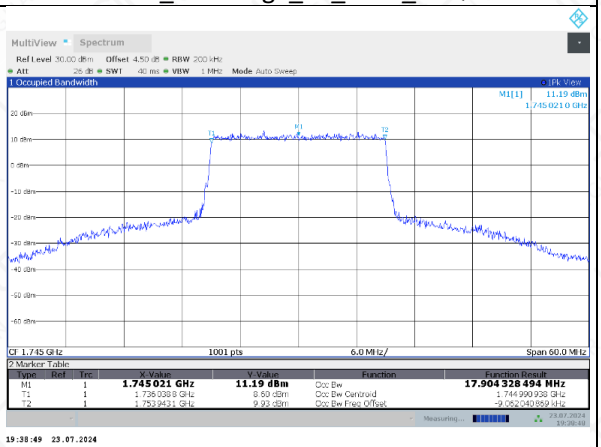
FDD66_MidRange_15_1745_16QAM



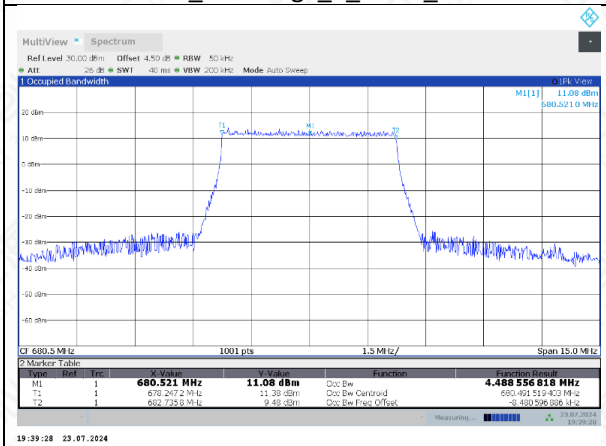
FDD66_MidRange_20_1745_QPSK



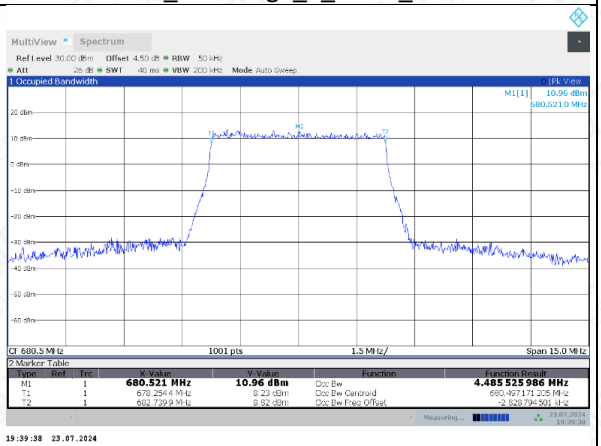
FDD66_MidRange_20_1745_16QAM



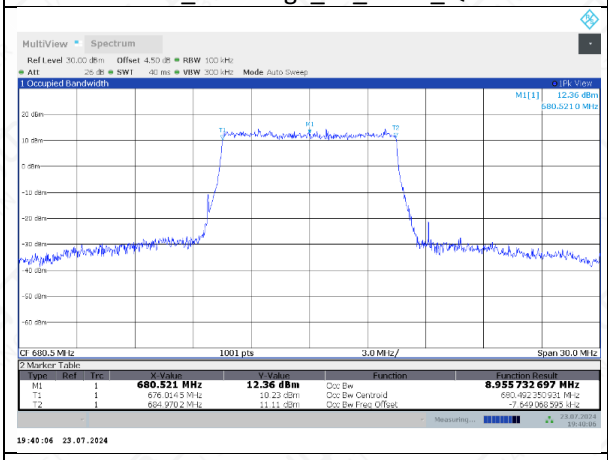
FDD71_MidRange_5_680.5_QPSK



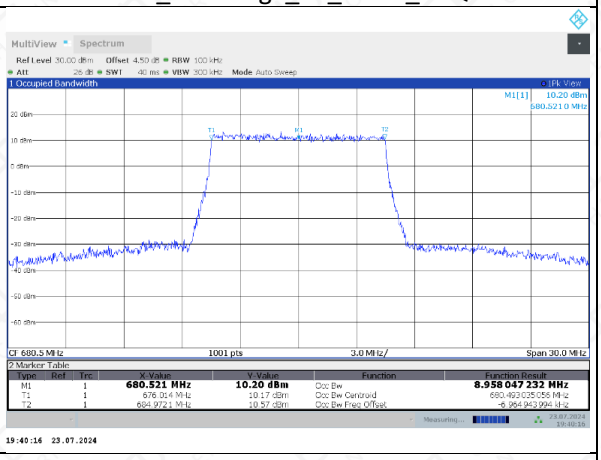
FDD71_MidRange_5_680.5_16QAM



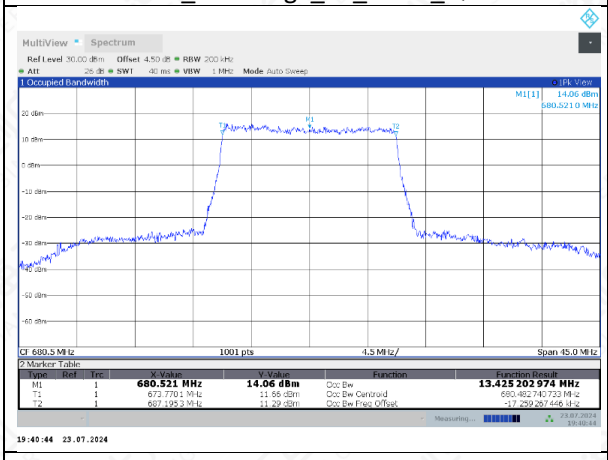
FDD71_MidRange_10_680.5_QPSK



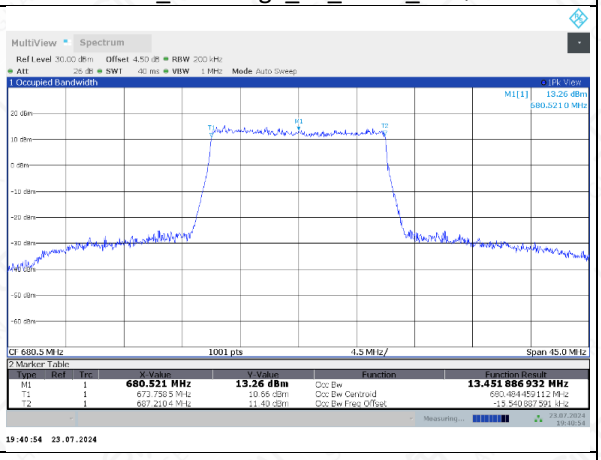
FDD71_MidRange_10_680.5_16QAM



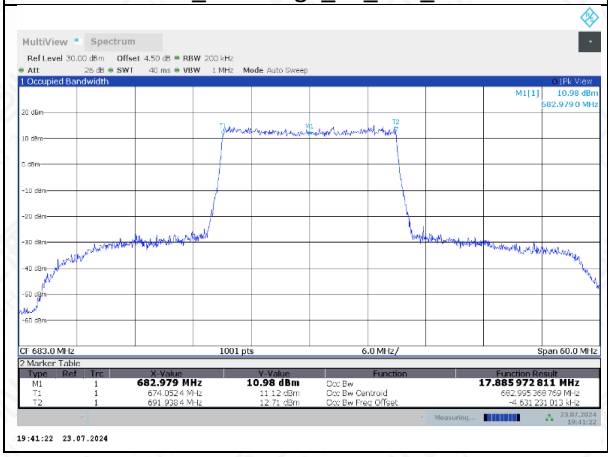
FDD71_MidRange_15_680.5_QPSK



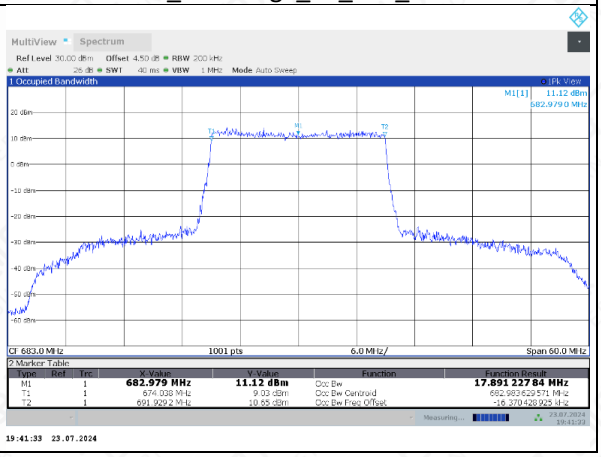
FDD71_MidRange_15_680.5_16QAM



FDD71_MidRange_20_683_QPSK



FDD71_MidRange_20_683_16QAM

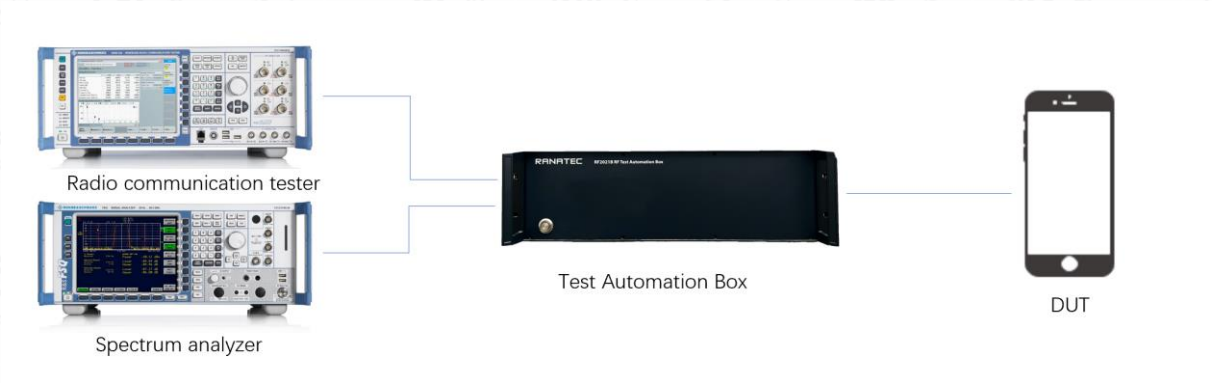


6.5 Emission Bandwidth

6.5.1 Method of Measurement

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the followinag pages.

6.5.2 Test Setup



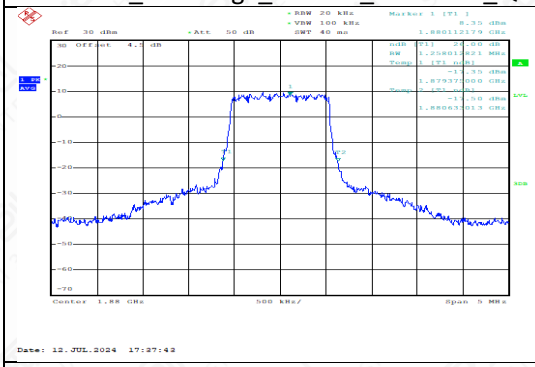
6.5.3 Measurement results

Band	Range	BandWidth	Frequency(MHz)	QPSK(MHz)	16QAM(MHz)
FDD02	MidRange	1.4	1880	1.26	1.23
FDD02	MidRange	3	1880	2.84	2.84
FDD02	MidRange	5	1880	4.66	4.69
FDD02	MidRange	10	1880	9.33	9.33
FDD02	MidRange	15	1880	14.21	14.21
FDD02	MidRange	20	1880	18.75	18.75
FDD04	MidRange	1.4	1732.5	1.31	1.27
FDD04	MidRange	3	1732.5	2.89	2.84
FDD04	MidRange	5	1732.5	4.66	4.66
FDD04	MidRange	10	1732.5	9.42	9.42
FDD04	MidRange	15	1732.5	14.35	14.28
FDD04	MidRange	20	1732.5	18.75	18.75
FDD05	MidRange	1.4	836.5	1.25	1.27
FDD05	MidRange	3	836.5	2.85	2.85
FDD05	MidRange	5	836.5	4.64	4.66

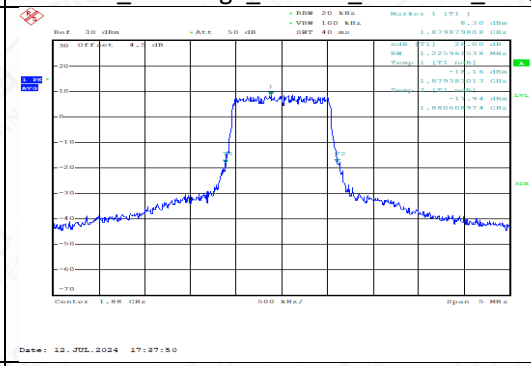
FDD05	MidRange	10	836.5	9.33	9.33
FDD07	MidRange	5	2535	4.66	4.66
FDD07	MidRange	10	2535	9.33	9.33
FDD07	MidRange	15	2535	14.21	14.21
FDD07	MidRange	20	2535	18.75	18.65
FDD12	MidRange	1.4	707.5	1.25	1.27
FDD12	MidRange	3	707.5	2.87	2.84
FDD12	MidRange	5	707.5	5.02	4.66
FDD12	MidRange	10	707.5	9.33	9.33
FDD13	MidRange	5	782	4.66	4.66
FDD13	MidRange	10	782	9.28	9.28
FDD17	MidRange	5	710	4.66	4.71
FDD17	MidRange	10	710	9.33	9.38
FDD25	MidRange	1.4	1882.5	1.24	1.27
FDD25	MidRange	3	1882.5	2.84	2.84
FDD25	MidRange	5	1882.5	4.66	4.66
FDD25	MidRange	10	1882.5	9.33	9.33
FDD25	MidRange	15	1882.5	14.21	14.21
FDD25	MidRange	20	1882.5	18.75	18.75
FDD26 (PART 22)	MidRange	1.4	836.5	1.27	1.24
FDD26 (PART 22)	MidRange	3	836.5	2.85	2.85
FDD26 (PART 22)	MidRange	5	836.5	4.64	4.66
FDD26 (PART 22)	MidRange	10	836.5	9.33	9.33
FDD26(PART 22)	MidRange	15	836.5	14.13	14.28
TDD38	MidRange	5	2595	4.86	4.86
TDD38	MidRange	10	2595	9.62	9.57
TDD38	MidRange	15	2595	14.50	14.64
TDD38	MidRange	20	2595	18.94	19.04
TDD41	MidRange	5	2593	4.81	4.88

TDD41	MidRange	10	2593	9.62	9.52
TDD41	MidRange	15	2593	14.42	14.50
TDD41	MidRange	20	2593	19.13	19.13
FDD66	MidRange	1.4	1745	1.27	1.26
FDD66	MidRange	3	1745	2.84	2.84
FDD66	MidRange	5	1745	4.74	4.71
FDD66	MidRange	10	1745	9.33	9.33
FDD66	MidRange	15	1745	14.42	14.35
FDD66	MidRange	20	1745	18.85	18.75
FDD71	MidRange	5	680.5	4.66	4.66
FDD71	MidRange	10	680.5	9.33	9.33
FDD71	MidRange	15	680.5	14.21	14.13
FDD71	MidRange	20	683	18.65	18.65

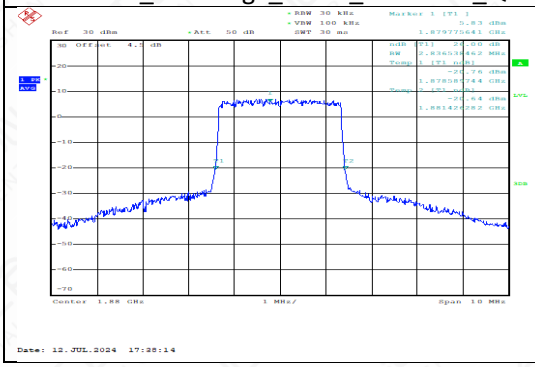
FDD02_MidRange_1.4MHz_1880MHz_QPSK



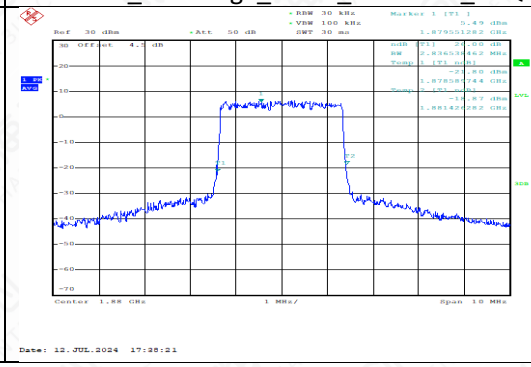
FDD02_MidRange_1.4MHz_1880MHz_16QAM



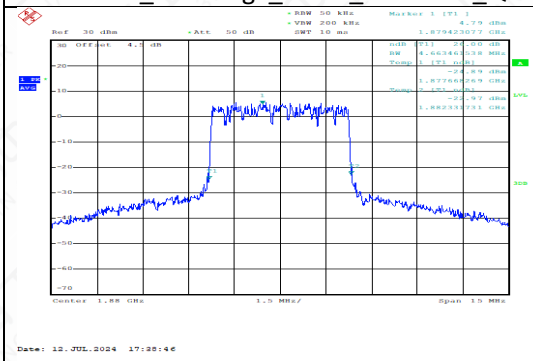
FDD02_MidRange_3MHz_1880MHz_QPSK



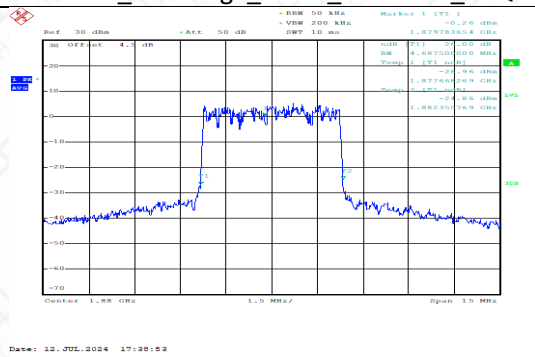
FDD02_MidRange_3MHz_1880MHz_16QAM



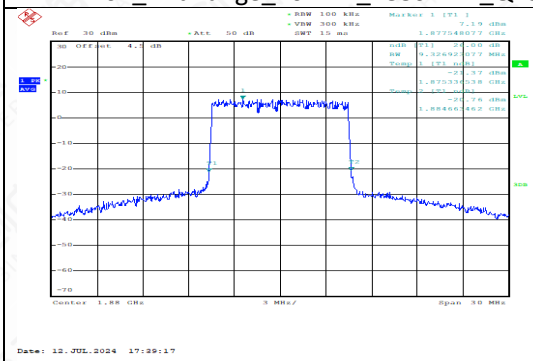
FDD02_MidRange_5MHz_1880MHz_QPSK



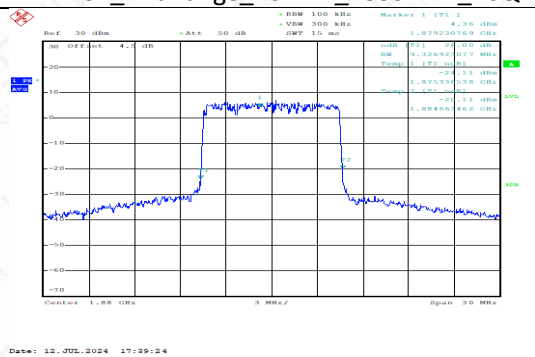
FDD02_MidRange_5MHz_1880MHz_16QAM



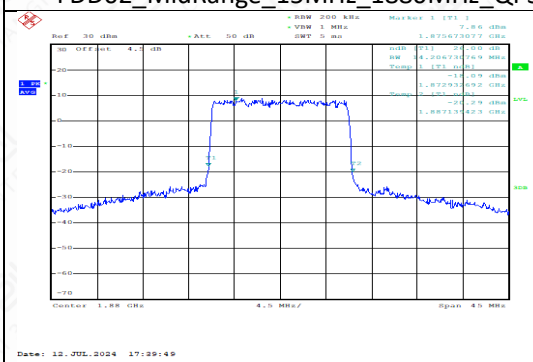
FDD02_MidRange_10MHz_1880MHz_QPSK



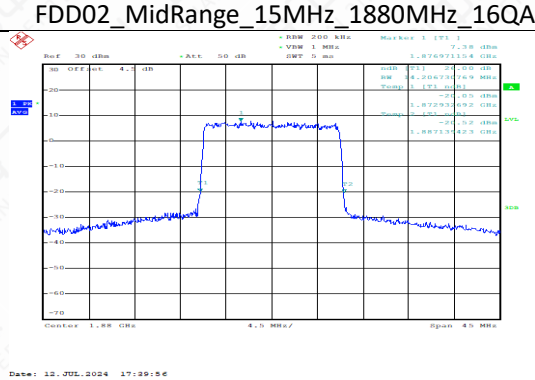
FDD02_MidRange_10MHz_1880MHz_16QAM



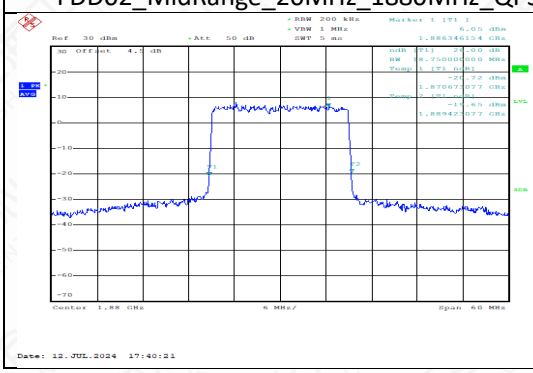
FDD02_MidRange_15MHz_1880MHz_QPSK



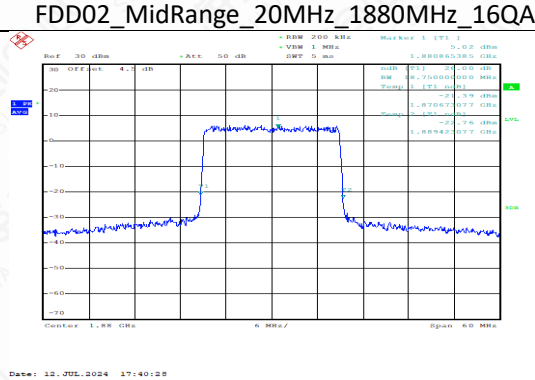
FDD02_MidRange_15MHz_1880MHz_16QAM



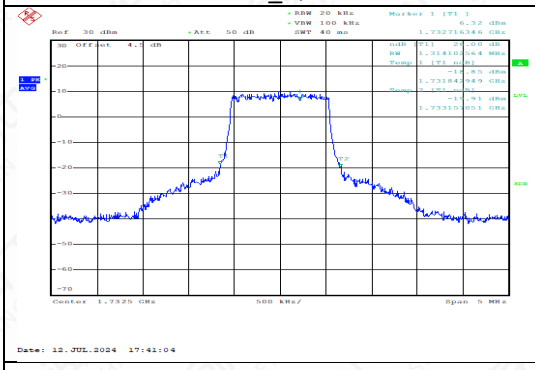
FDD02_MidRange_20MHz_1880MHz_QPSK



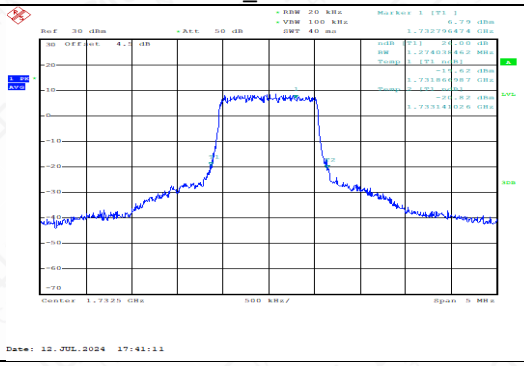
FDD02_MidRange_20MHz_1880MHz_16QAM



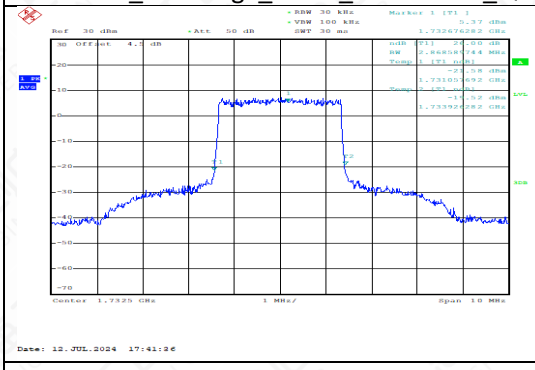
FDD04_MidRange_1.4MHz_1732.5MHz _QPSK



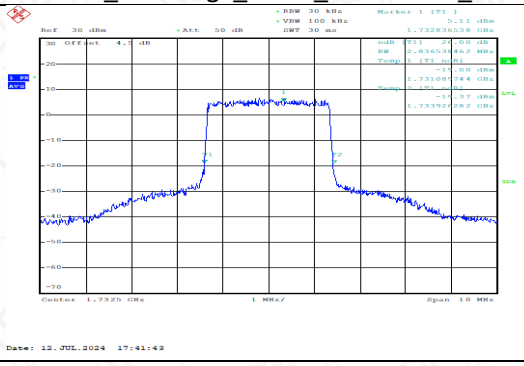
FDD04_MidRange_1.4MHz_1732.5MHz _16QAM



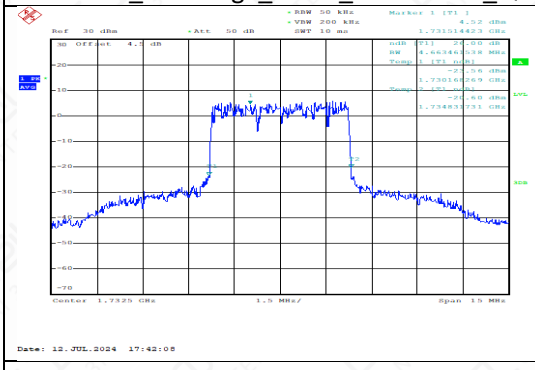
FDD04_MidRange_3MHz_1732.5MHz_QPSK



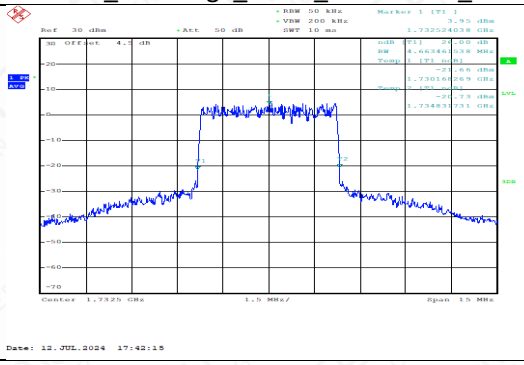
FDD04_MidRange_3MHz_1732.5MHz_16QAM



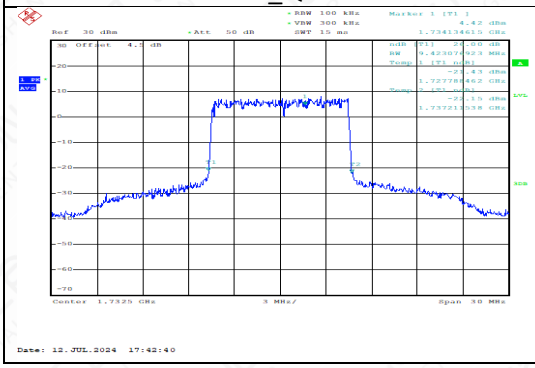
FDD04_MidRange_5MHz_1732.5MHz_QPSK



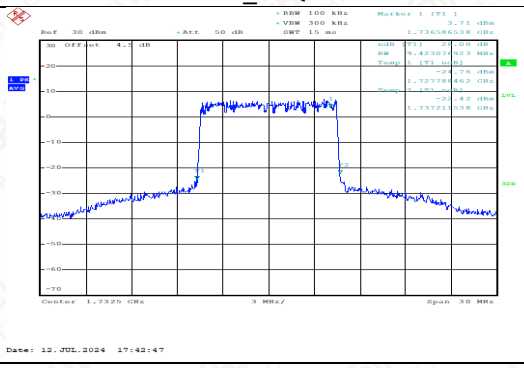
FDD04_MidRange_5MHz_1732.5MHz_16QAM



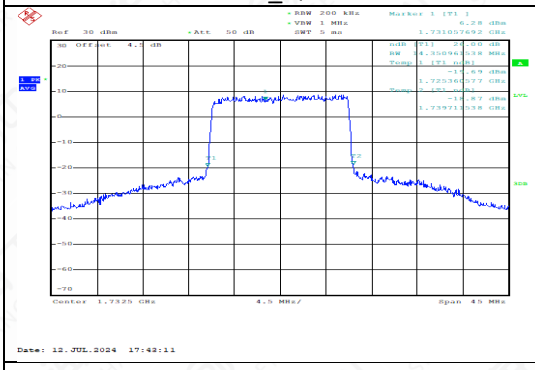
FDD04_MidRange_10MHz_1732.5MHz _QPSK



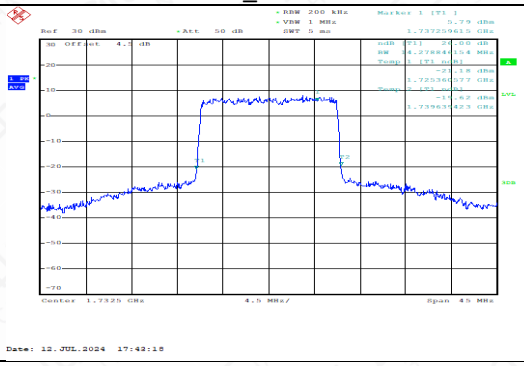
FDD04_MidRange_10MHz_1732.5MHz _16QAM



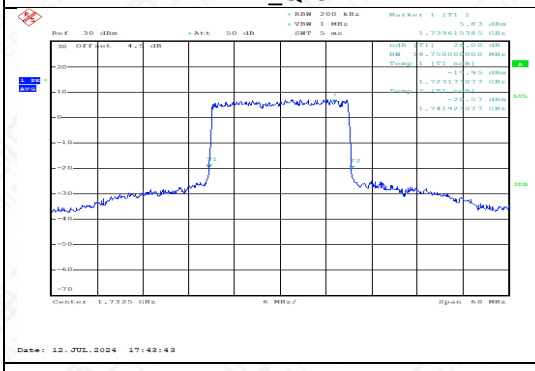
FDD04_MidRange_15MHz_1732.5MHz _QPSK



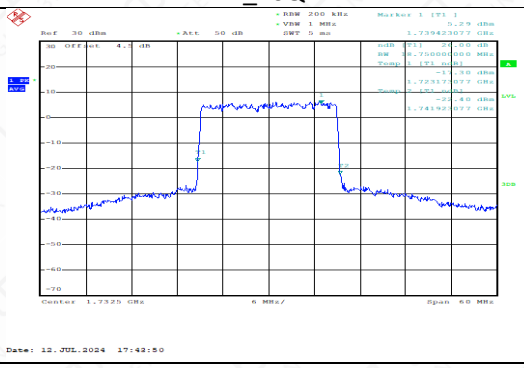
FDD04_MidRange_15MHz_1732.5MHz _16QAM



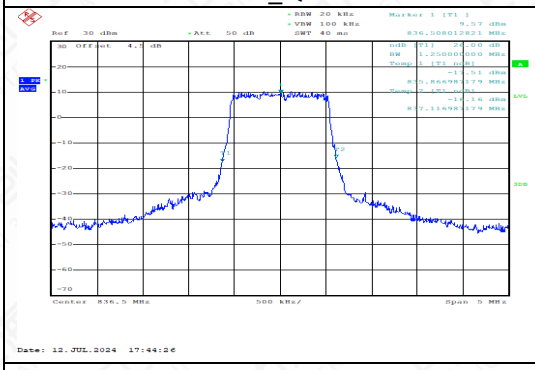
FDD04_MidRange_20MHz_1732.5MHz _QPSK



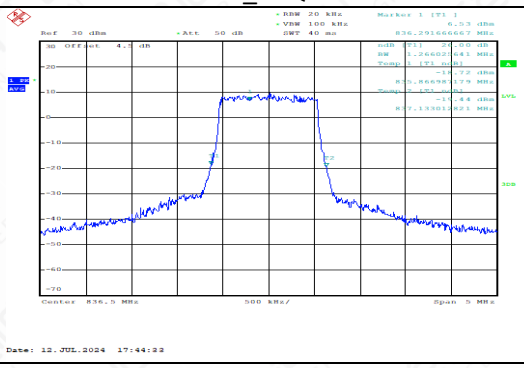
FDD04_MidRange_20MHz_1732.5MHz _16QAM



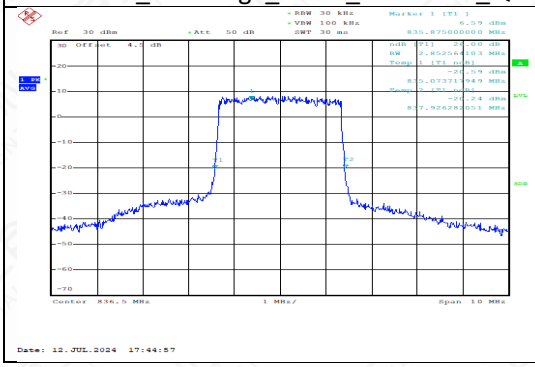
FDD05_MidRange_1.4MHz_836.5MHz _QPSK



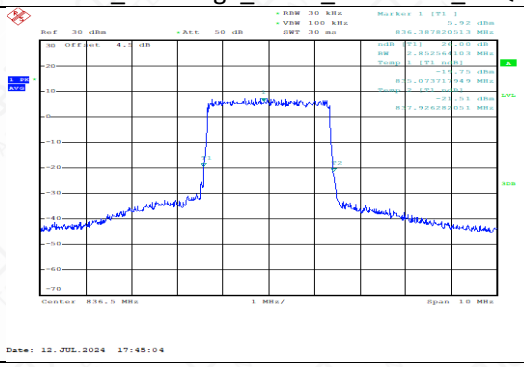
FDD05_MidRange_1.4MHz_836.5MHz _16QAM



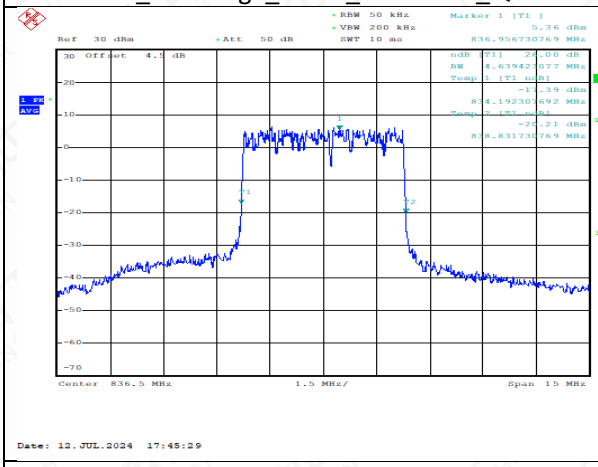
FDD05_MidRange_3MHz_836.5MHz_QPSK



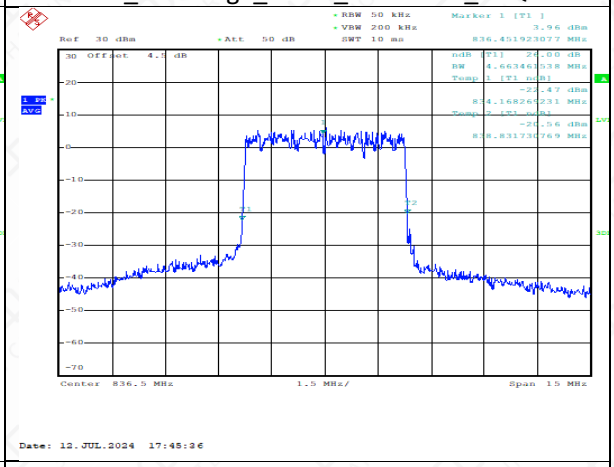
FDD05_MidRange_3MHz_836.5MHz_16QAM



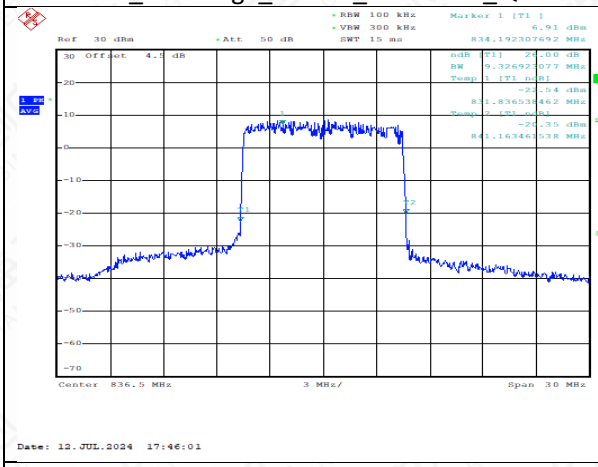
FDD05_MidRange_5MHz_836.5MHz_QPSK



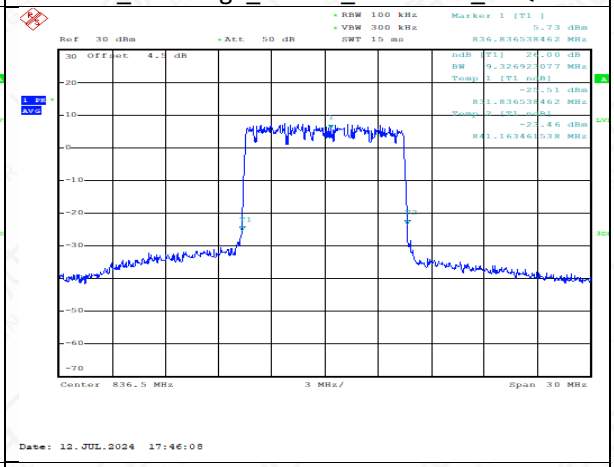
FDD05_MidRange_5MHz_836.5MHz_16QAM



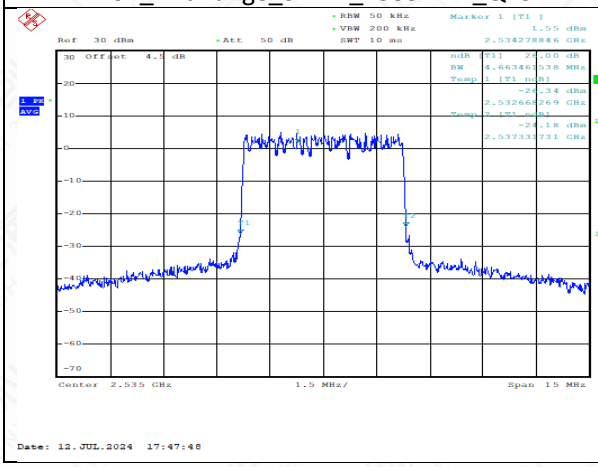
FDD05_MidRange_10MHz_836.5MHz_QPSK



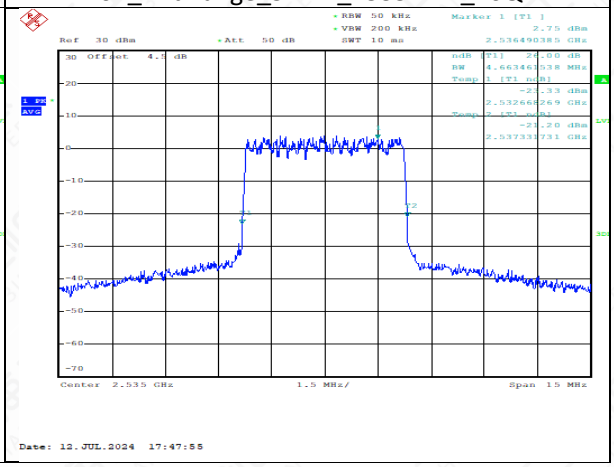
FDD05_MidRange_10MHz_836.5MHz_16QAM



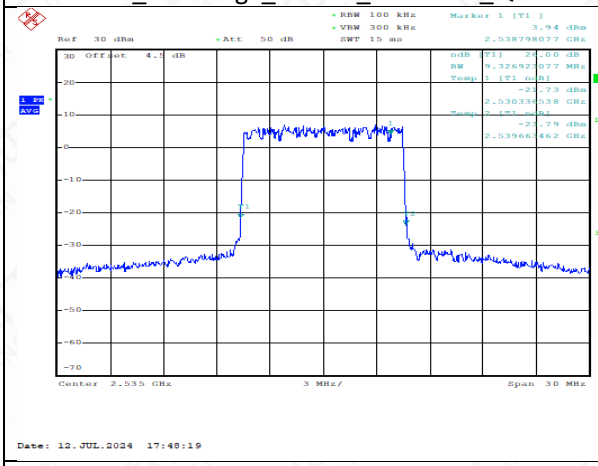
FDD07_MidRange_5MHz_2535MHz_QPSK



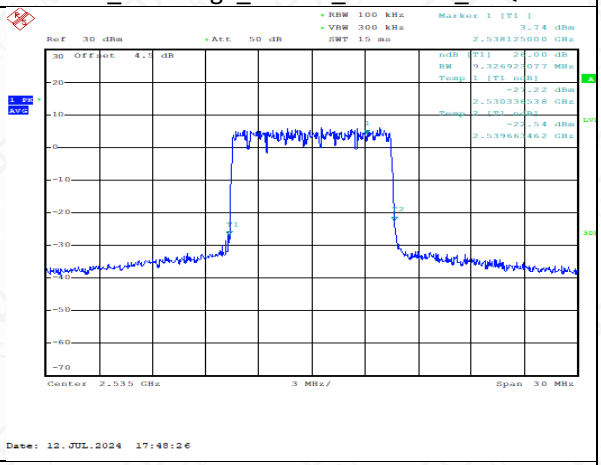
FDD07_MidRange_5MHz_2535MHz_16QAM



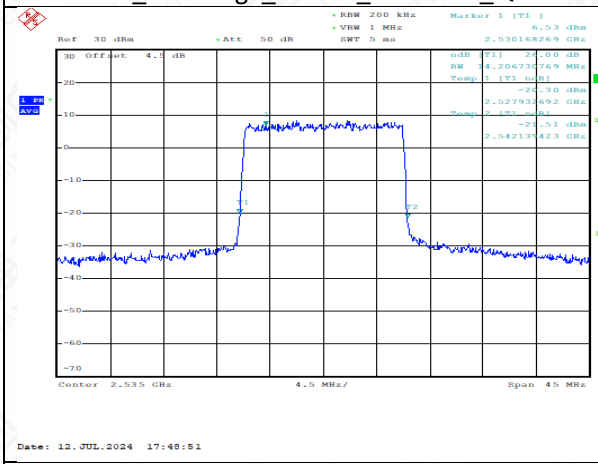
FDD07_MidRange_10MHz_2535MHz_QPSK



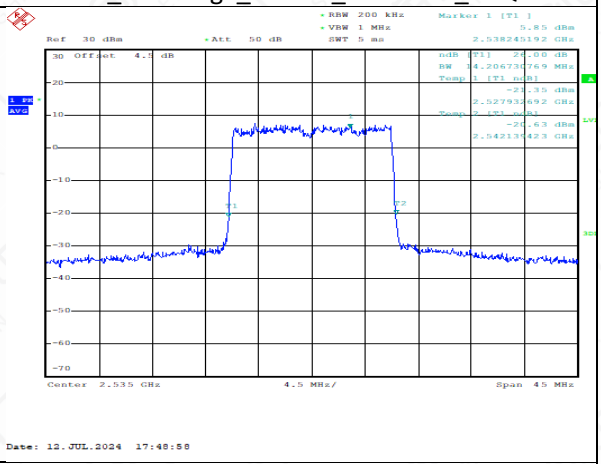
FDD07_MidRange_10MHz_2535MHz_16QAM



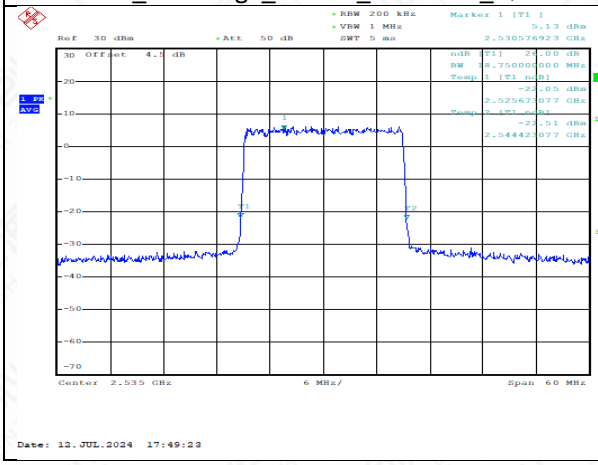
FDD07_MidRange_15MHz_2535MHz_QPSK



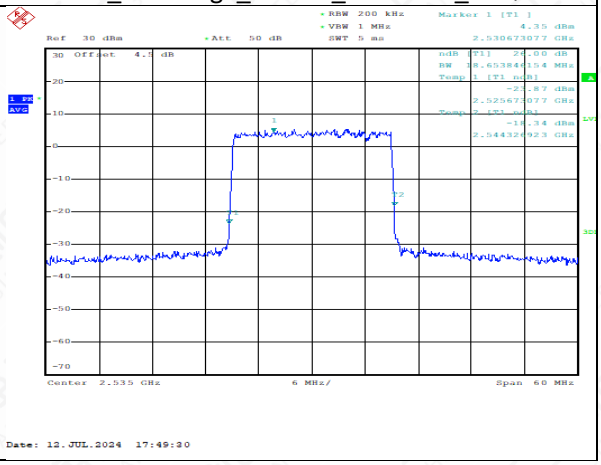
FDD07_MidRange_15MHz_2535MHz_16QAM



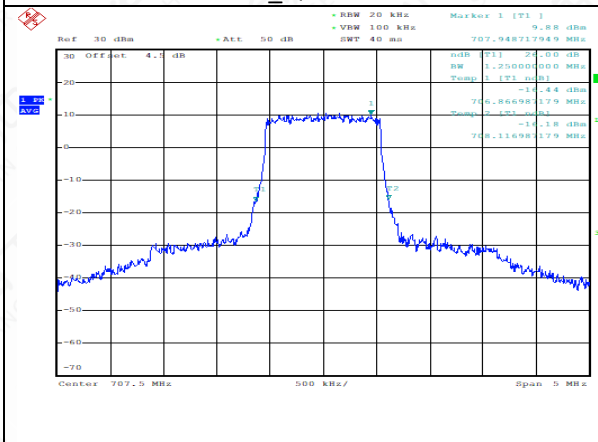
FDD07_MidRange_20MHz_2535MHz_QPSK



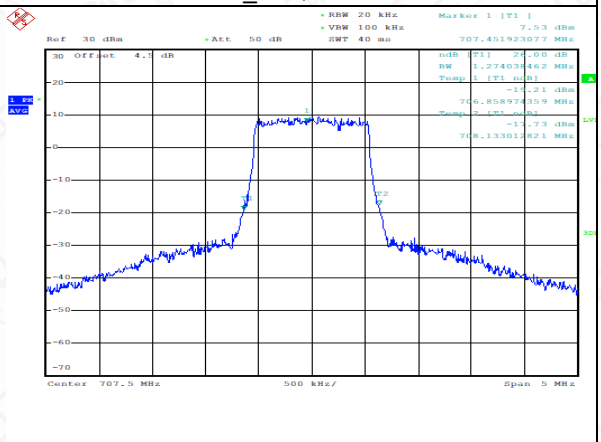
FDD07_MidRange_20MHz_2535MHz_16QAM



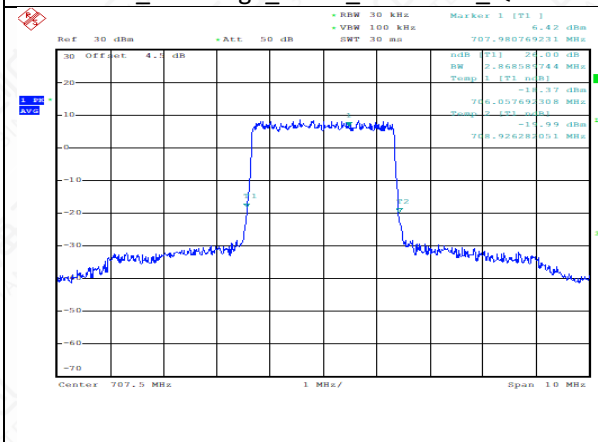
FDD12_MidRange_1.4MHz_707.5MHz_QPSK



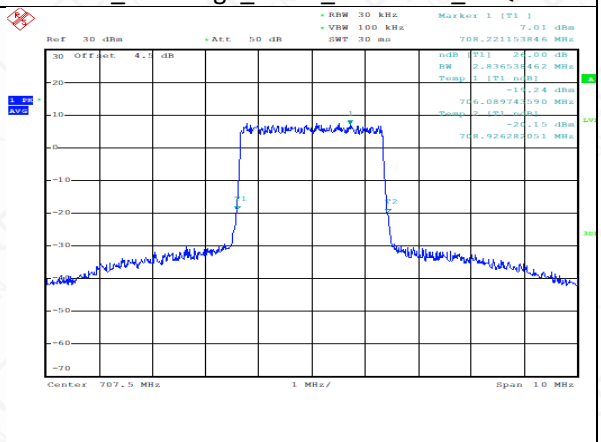
FDD12_MidRange_1.4MHz_707.5MHz_16QAM



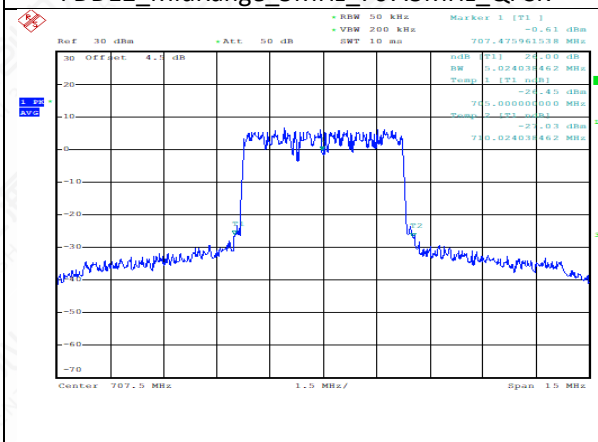
FDD12_MidRange_3MHz_707.5MHz_QPSK



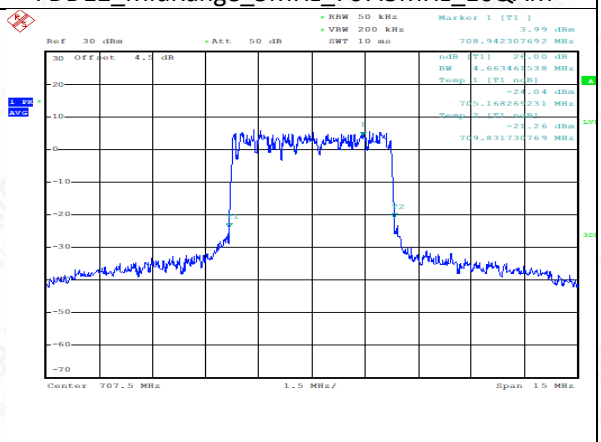
FDD12_MidRange_3MHz_707.5MHz_16QAM



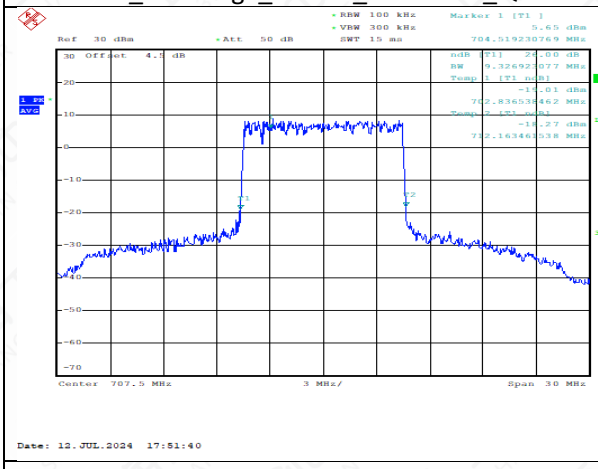
FDD12_MidRange_5MHz_707.5MHz_QPSK



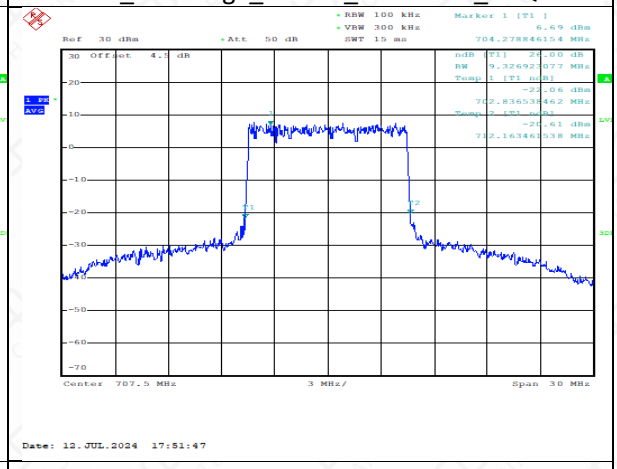
FDD12_MidRange_5MHz_707.5MHz_16QAM



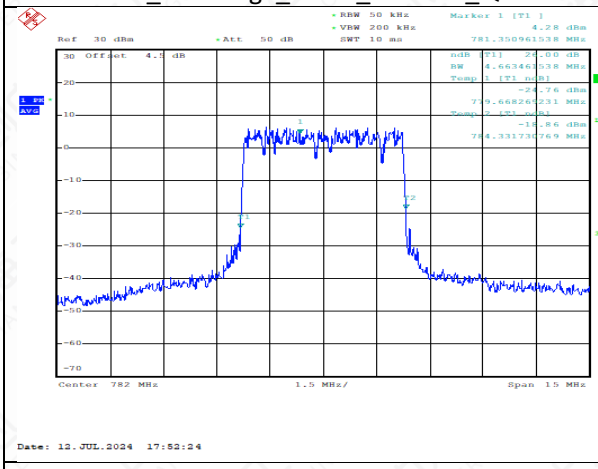
FDD12_MidRange_10MHz_707.5MHz_QPSK



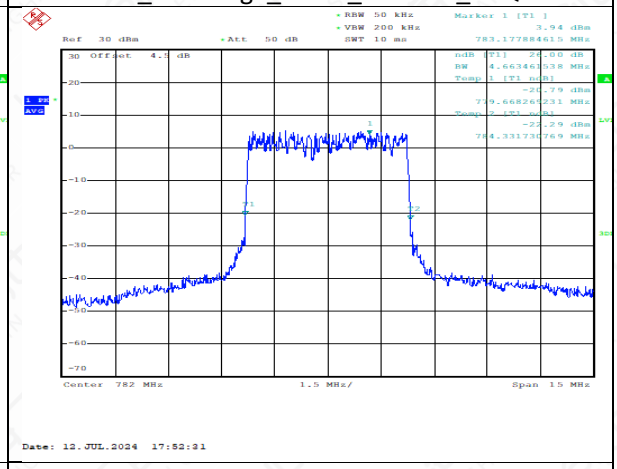
FDD12_MidRange_10MHz_707.5MHz_16QAM



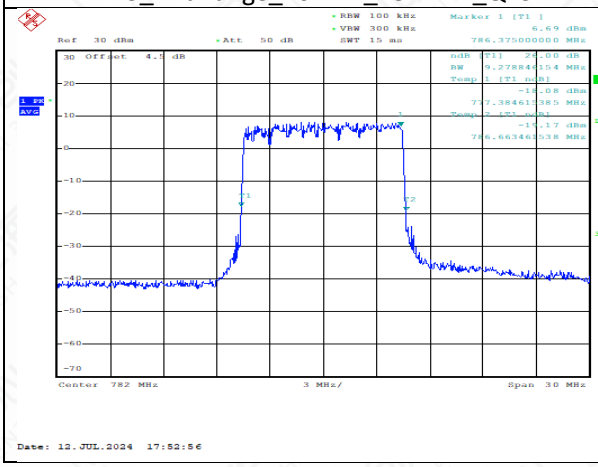
FDD13_MidRange_5MHz_782MHz_QPSK



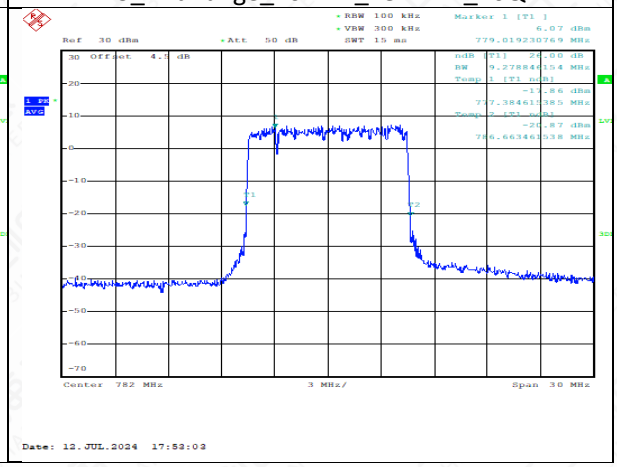
FDD13_MidRange_5MHz_782MHz_16QAM



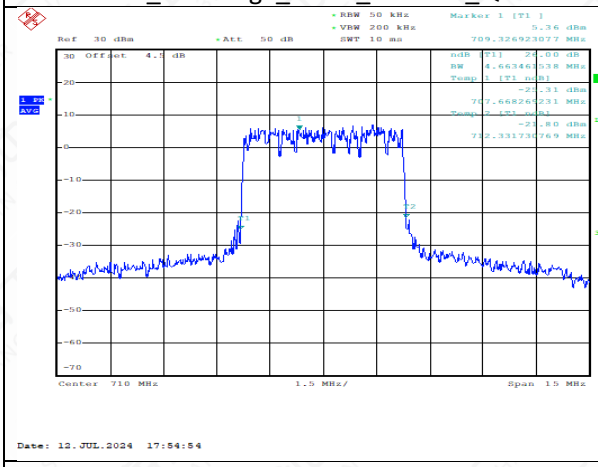
FDD13_MidRange_10MHz_782MHz_QPSK



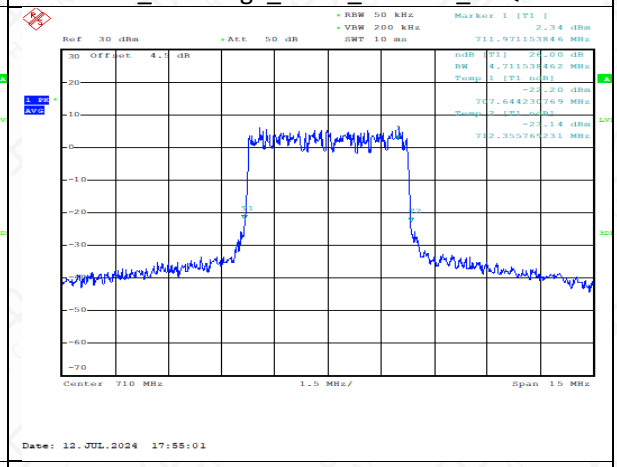
FDD13_MidRange_10MHz_782MHz_16QAM



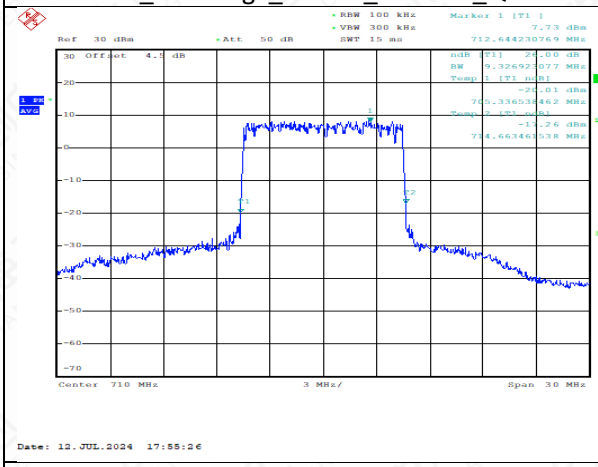
FDD17_MidRange_5MHz_710MHz_QPSK



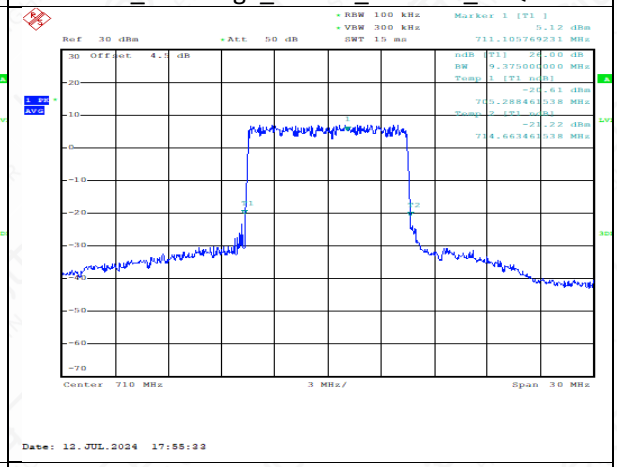
FDD17_MidRange_5MHz_710MHz_16QAM



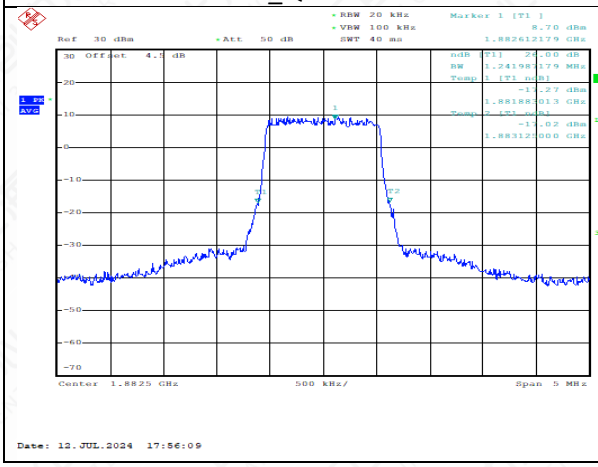
FDD17_MidRange_10MHz_710MHz_QPSK



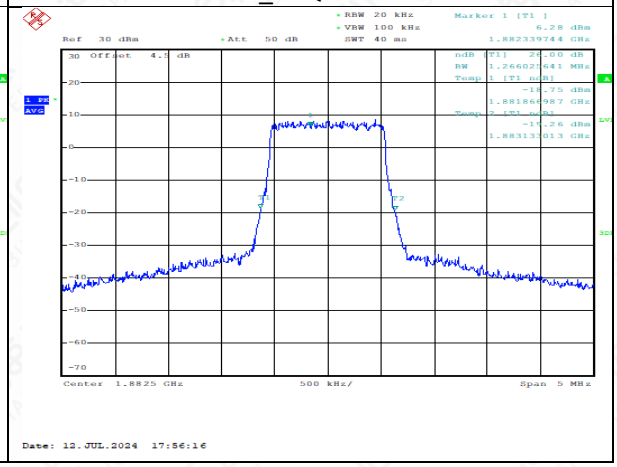
FDD17_MidRange_10MHz_710MHz_16QAM



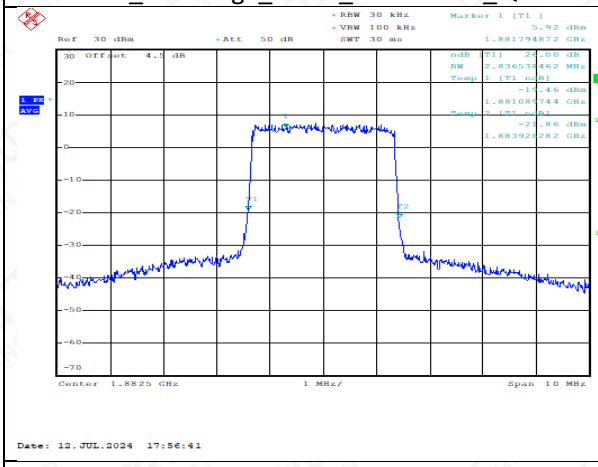
FDD25_MidRange_1.4MHz_1882.5MHz_QPSK



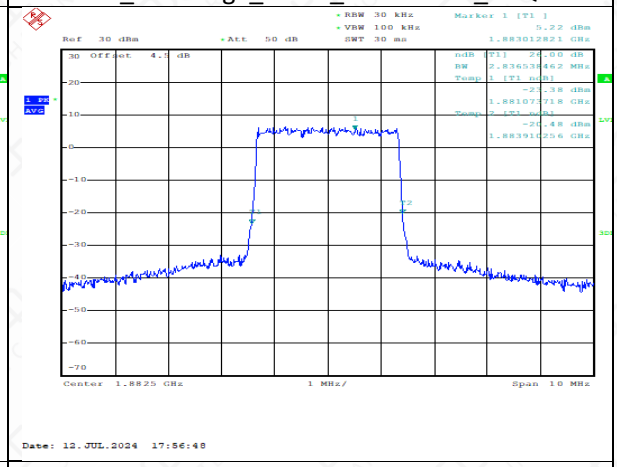
FDD25_MidRange_1.4MHz_1882.5MHz_16QAM



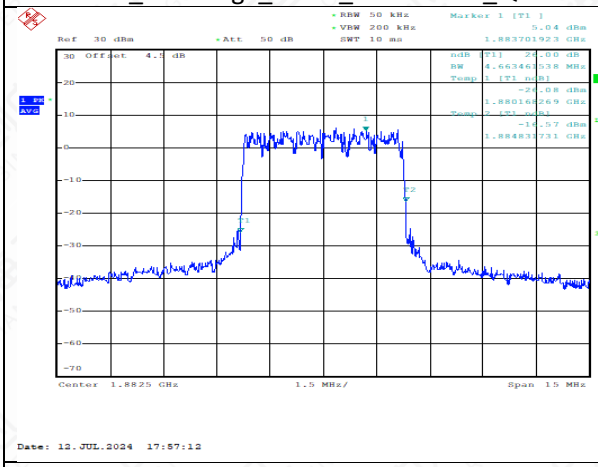
FDD25_MidRange_3MHz_1882.5MHz_QPSK



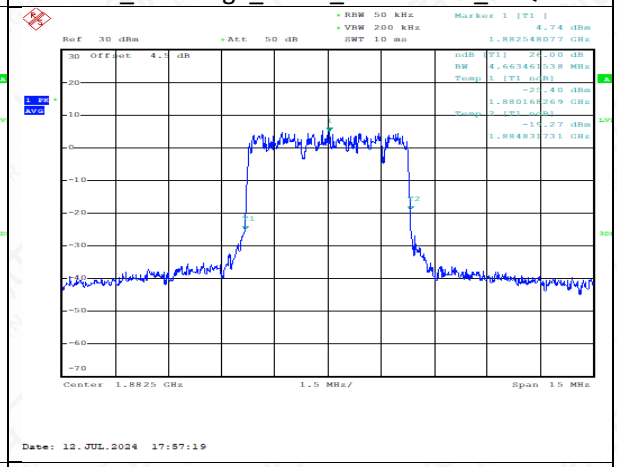
FDD25_MidRange_3MHz_1882.5MHz_16QAM



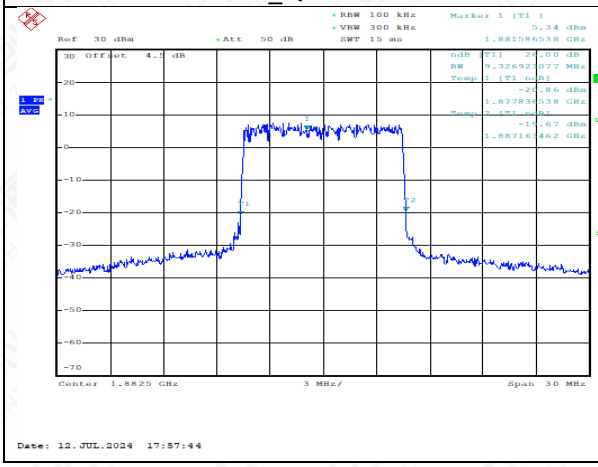
FDD25_MidRange_5MHz_1882.5MHz_QPSK



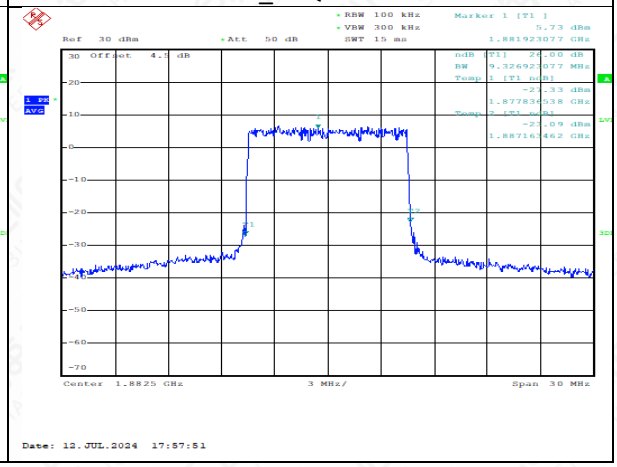
FDD25_MidRange_5MHz_1882.5MHz_16QAM



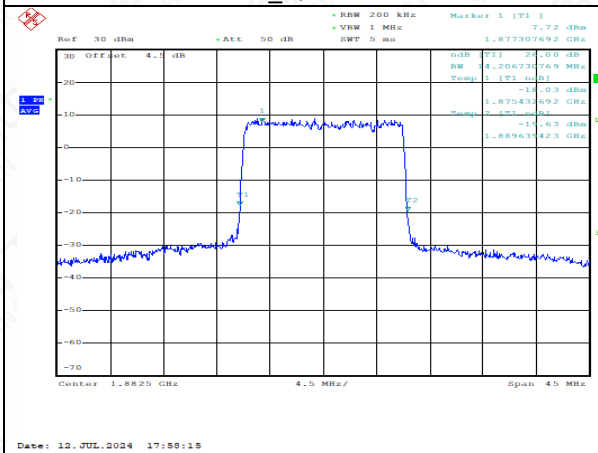
FDD25_MidRange_10MHz_1882.5MHz_QPSK



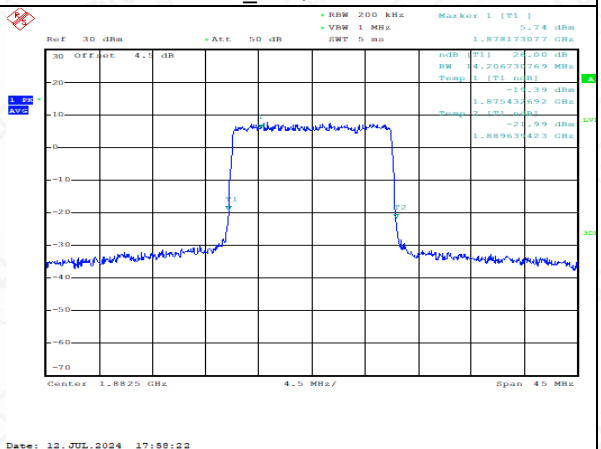
FDD25_MidRange_10MHz_1882.5MHz_16QAM



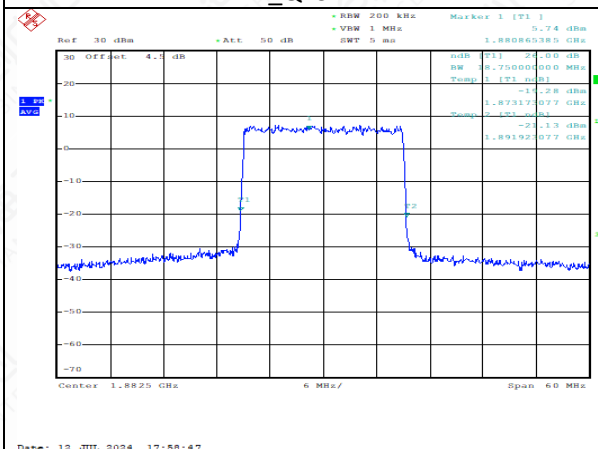
FDD25_MidRange_15MHz_1882.5MHz _QPSK



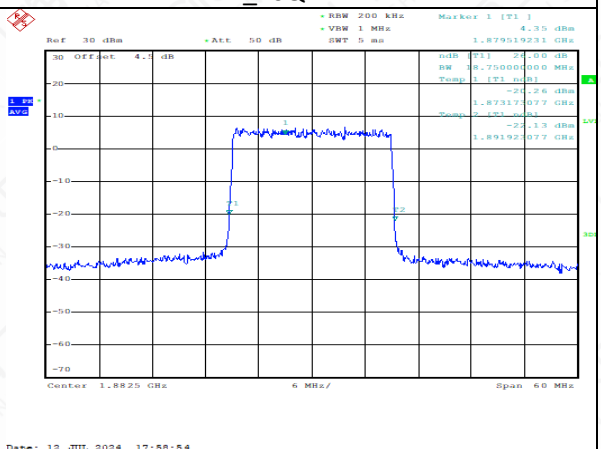
FDD25_MidRange_15MHz_1882.5MHz _16QAM



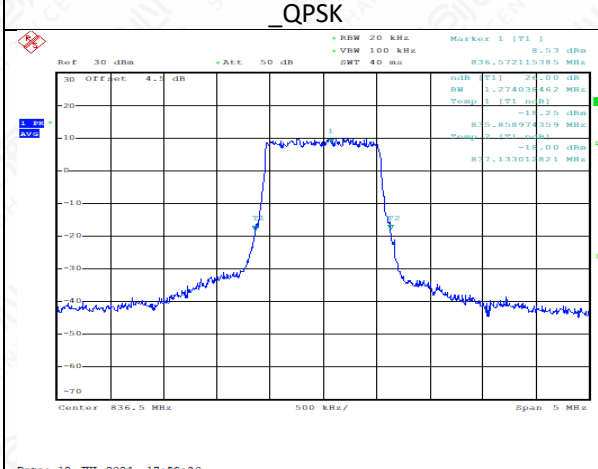
FDD25_MidRange_20MHz_1882.5MHz _QPSK



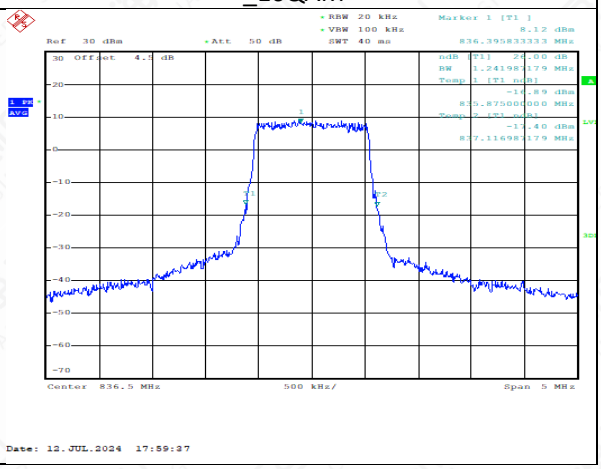
FDD25_MidRange_20MHz_1882.5MHz _16QAM



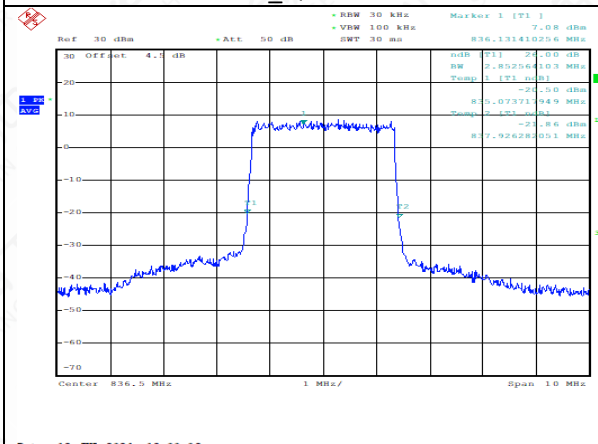
FDD26(PART 22)_MidRange_1.4MHz_836.5MHz _QPSK



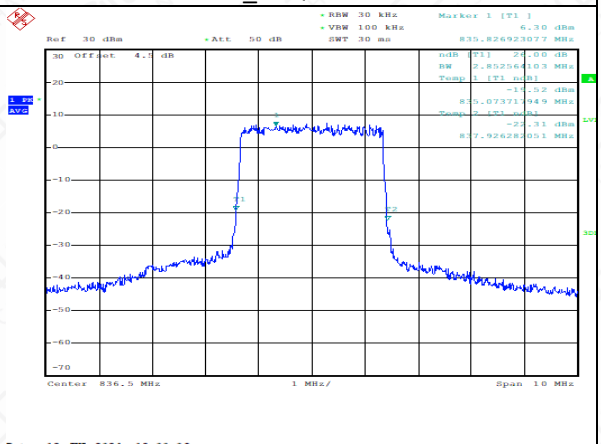
FDD26(PART 22)_MidRange_1.4MHz_836.5MHz _16QAM



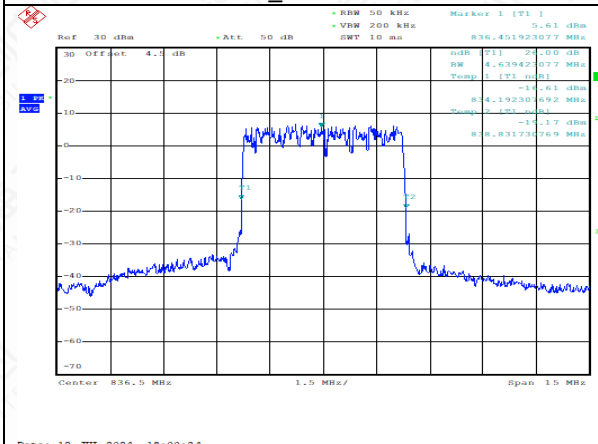
FDD26(PART 22)_MidRange_3MHz_836.5MHz_QPSK



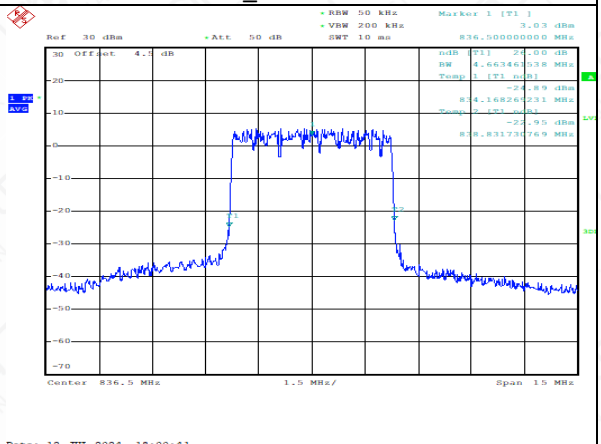
FDD26(PART 22)_MidRange_3MHz_836.5MHz_16QAM



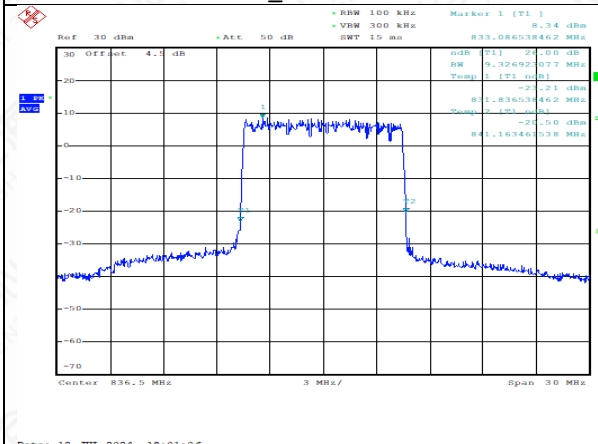
FDD26(PART 22)_MidRange_5MHz_836.5MHz_QPSK



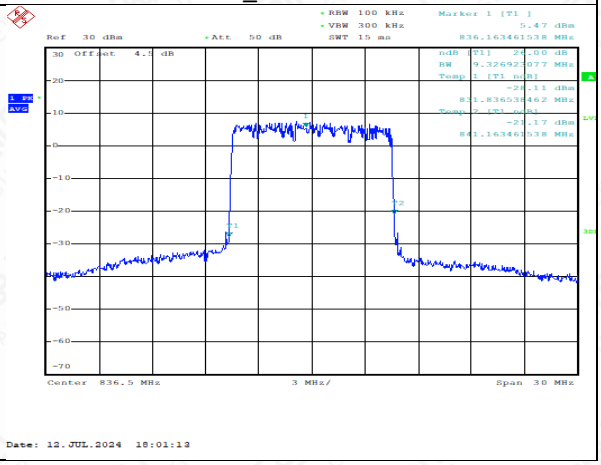
FDD26(PART 22)_MidRange_5MHz_836.5MHz_16QAM



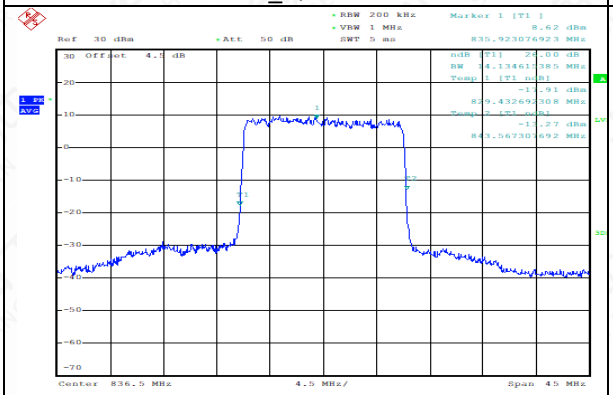
FDD26(PART 22)_MidRange_10MHz_836.5MHz_QPSK



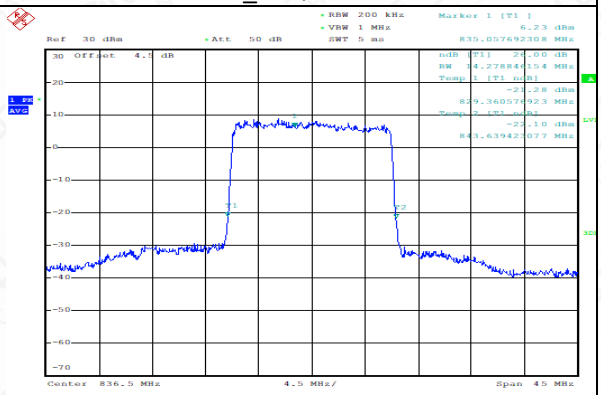
FDD26(PART 22)_MidRange_10MHz_836.5MHz_16QAM



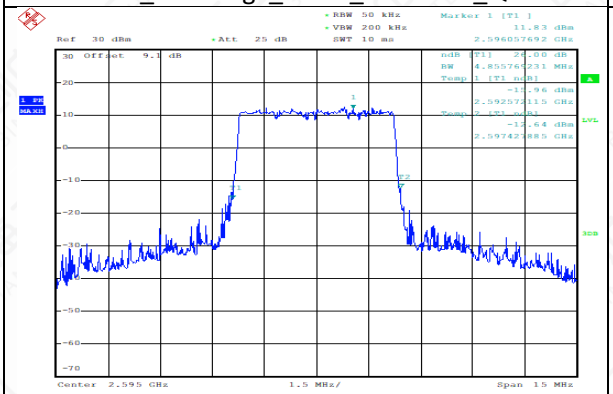
FDD26(PART 22)_MidRange_15MHz_836.5MHz_QPSK



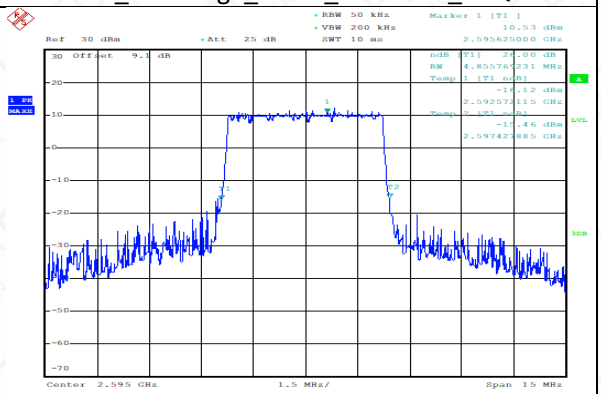
FDD26(PART 22)_MidRange_15MHz_836.5MHz_16QAM



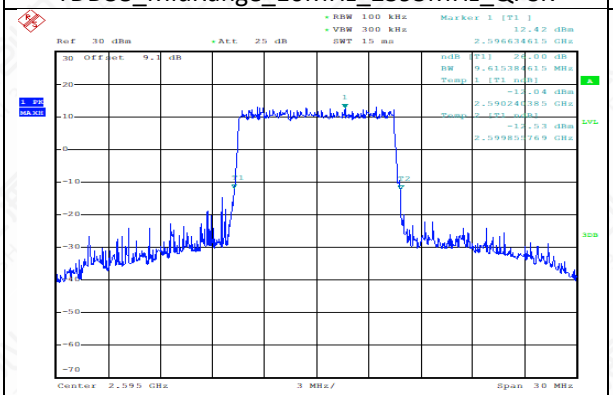
TDD38_MidRange_5MHz_2595MHz_QPSK



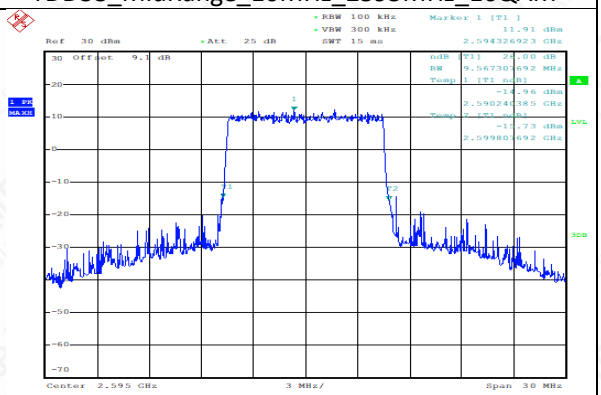
TDD38_MidRange_5MHz_2595MHz_16QAM



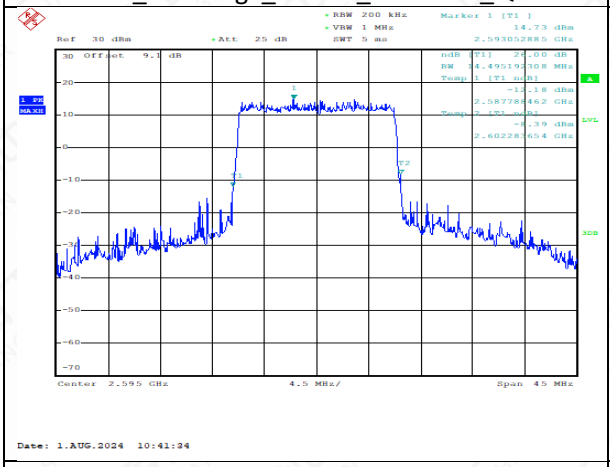
TDD38_MidRange_10MHz_2595MHz_QPSK



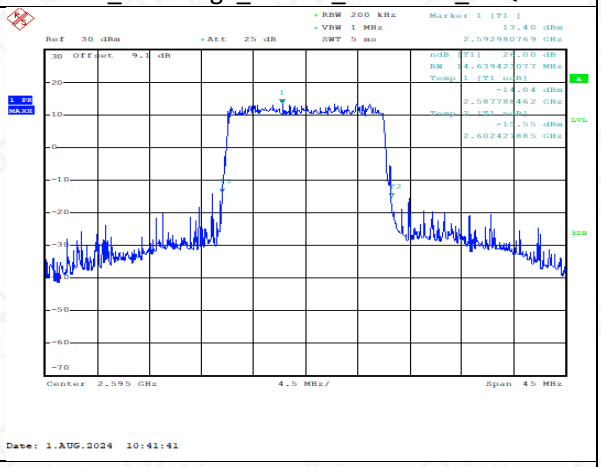
TDD38_MidRange_10MHz_2595MHz_16QAM



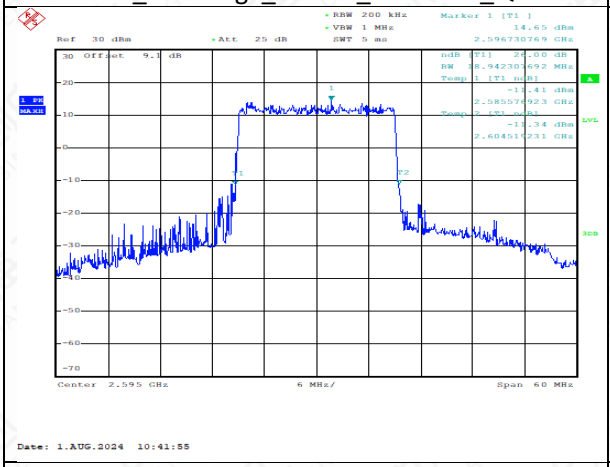
TDD38_MidRange_15MHz_2595MHz_QPSK



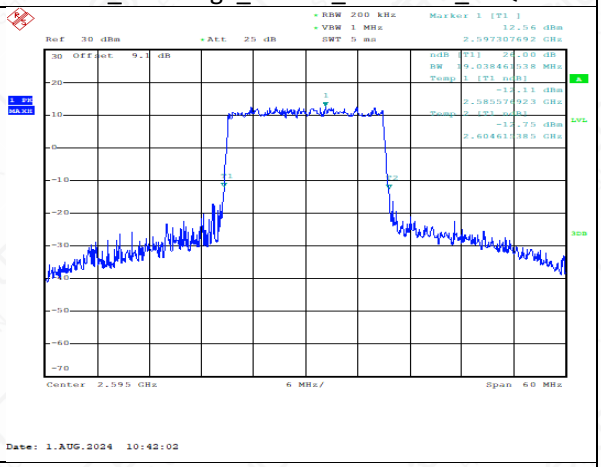
TDD38_MidRange_15MHz_2595MHz_16QAM



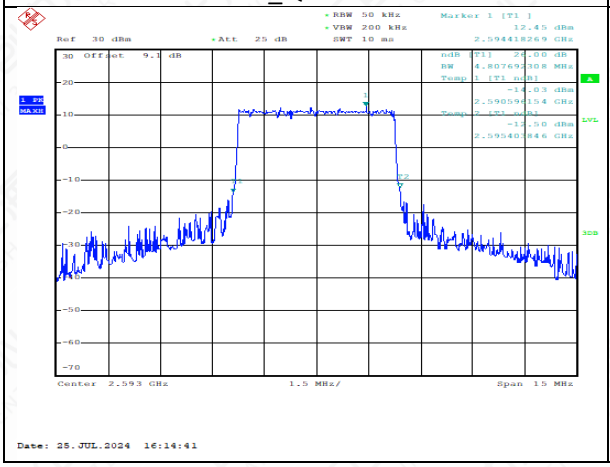
TDD38_MidRange_20MHz_2595MHz_QPSK



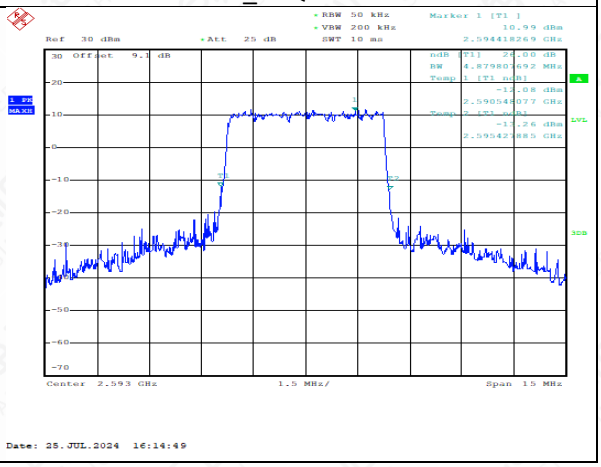
TDD38_MidRange_20MHz_2595MHz_16QAM



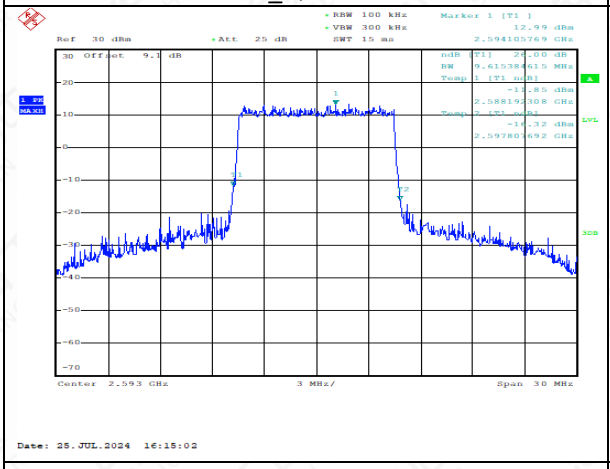
TDD41_MidRange_5MHz_2593MHz _QPSK



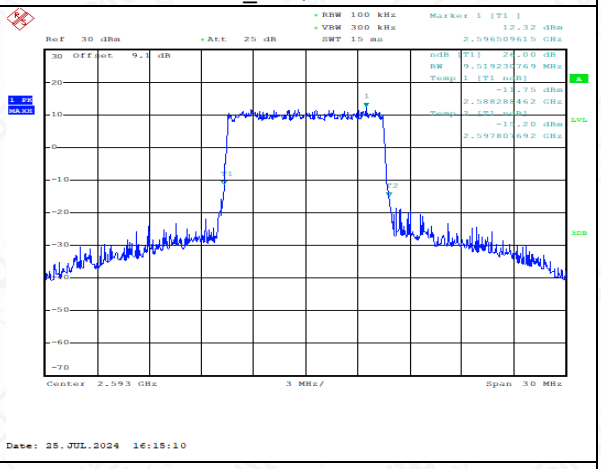
TDD41_MidRange_5MHz_2593MHz _16QAM



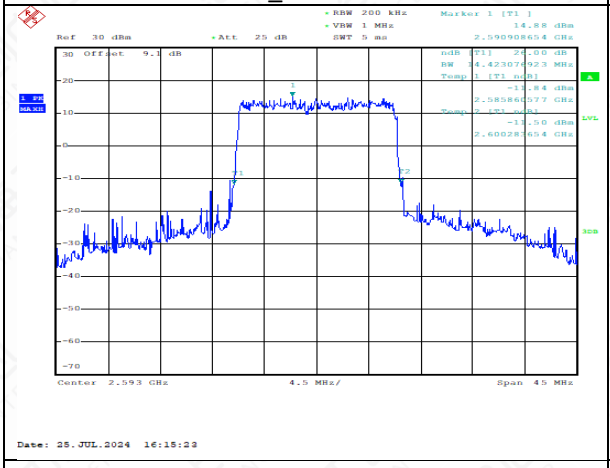
TDD41_MidRange_10MHz_2593MHz _QPSK



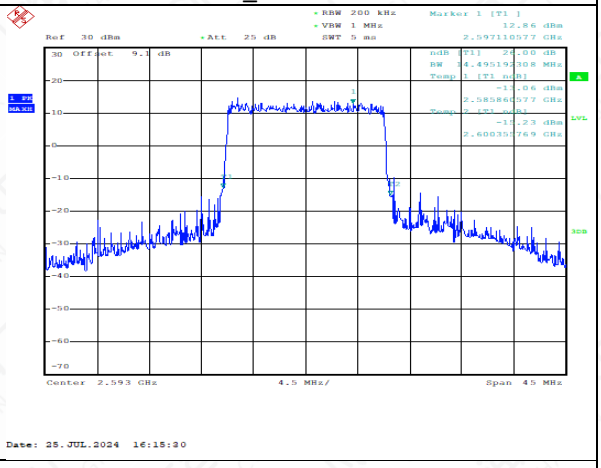
TDD41_MidRange_10MHz_2593MHz _16QAM



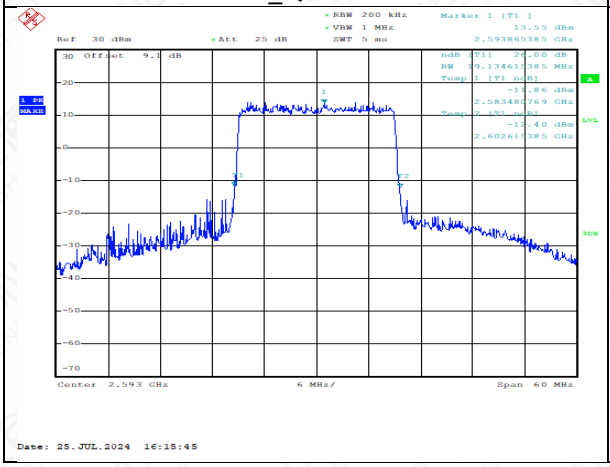
TDD41_MidRange_15MHz_2593MHz _QPSK



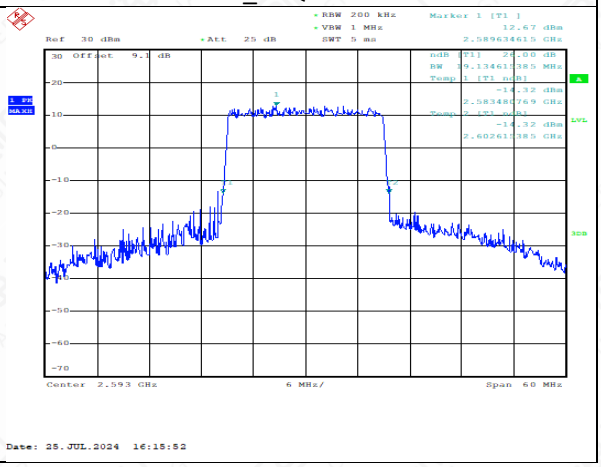
TDD41_MidRange_15MHz_2593MHz _16QAM



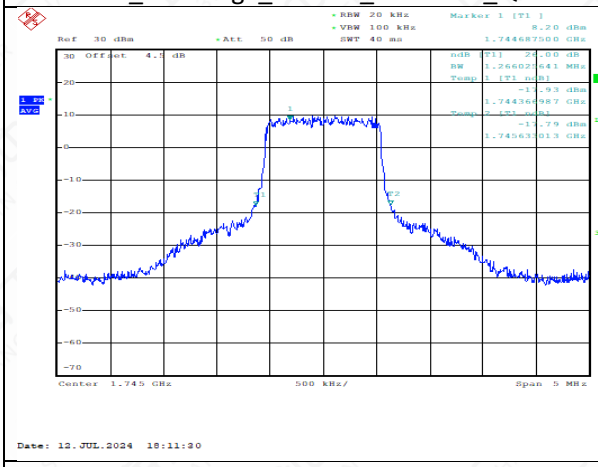
TDD41_MidRange_20MHz_2593MHz _QPSK



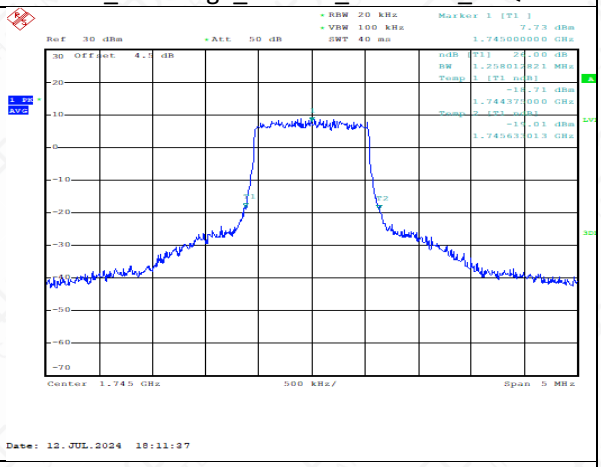
TDD41_MidRange_20MHz_2593MHz _16QAM



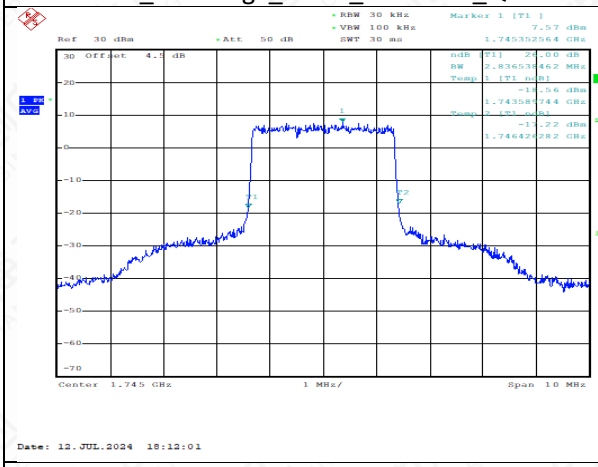
FDD66_MidRange_1.4MHz_1745MHz_QPSK



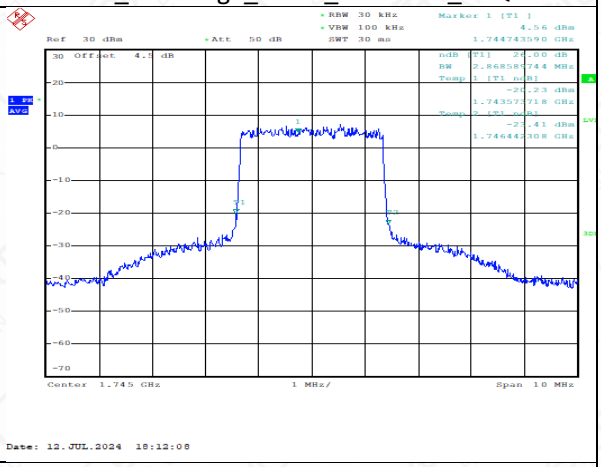
FDD66_MidRange_1.4MHz_1745MHz_16QAM



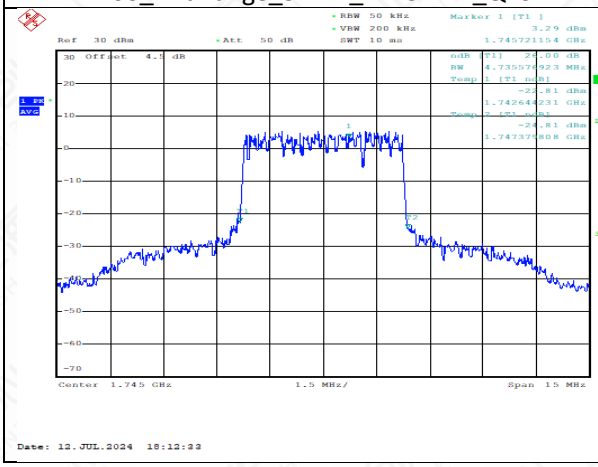
FDD66_MidRange_3MHz_1745MHz_QPSK



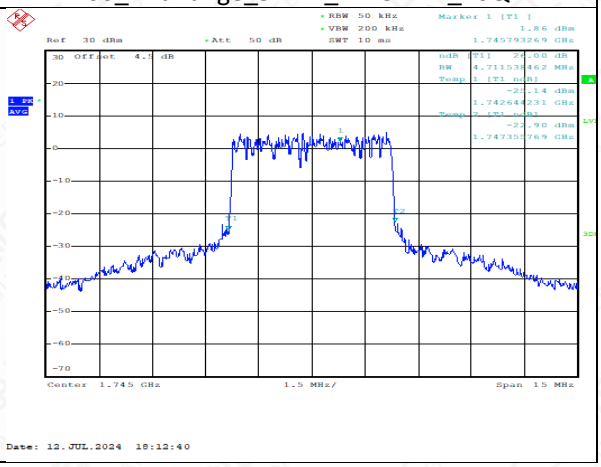
FDD66_MidRange_3MHz_1745MHz_16QAM



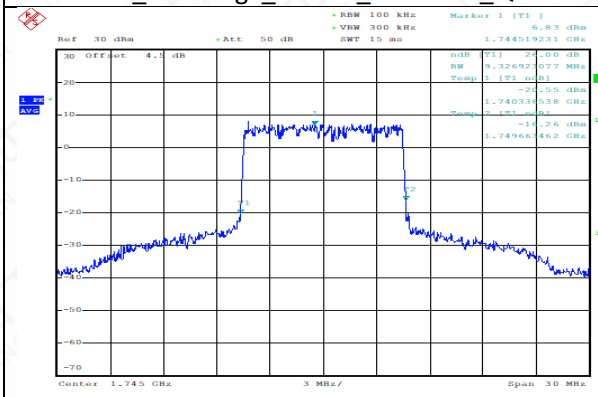
FDD66_MidRange_5MHz_1745MHz_QPSK



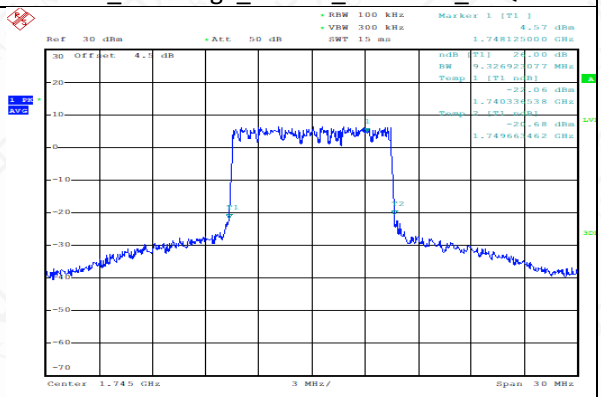
FDD66_MidRange_5MHz_1745MHz_16QAM



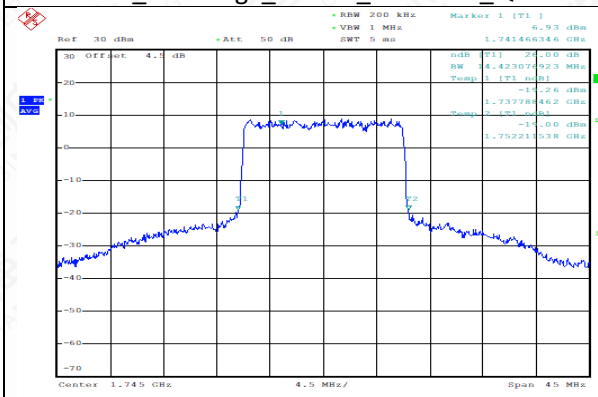
FDD66_MidRange_10MHz_1745MHz_QPSK



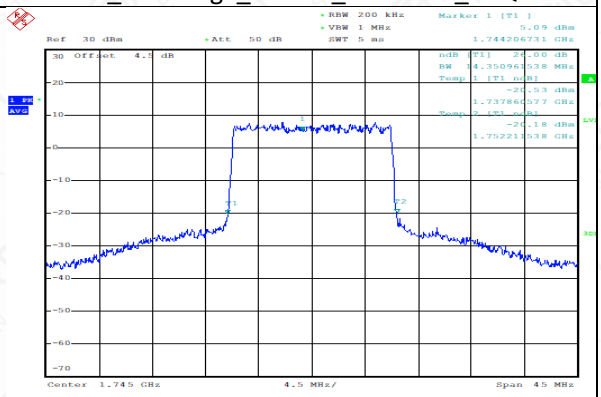
FDD66_MidRange_10MHz_1745MHz_16QAM



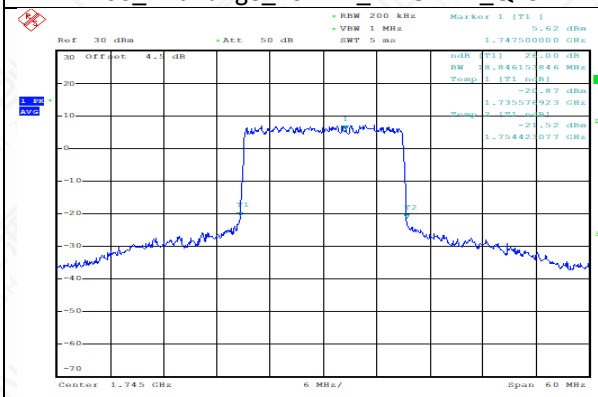
FDD66_MidRange_15MHz_1745MHz_QPSK



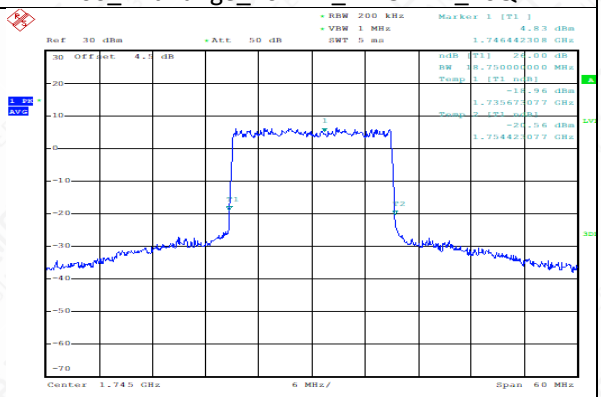
FDD66_MidRange_15MHz_1745MHz_16QAM



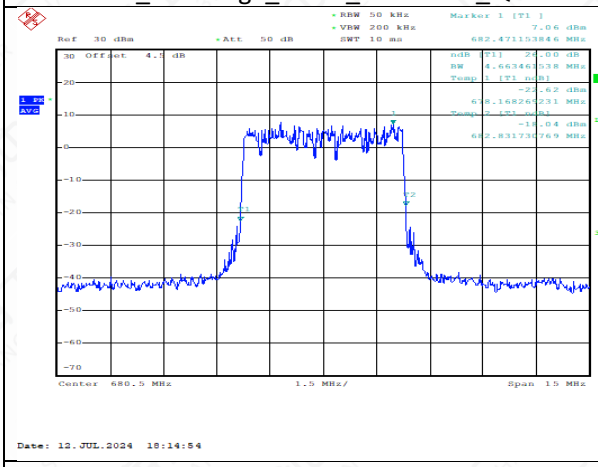
FDD66_MidRange_20MHz_1745MHz_QPSK



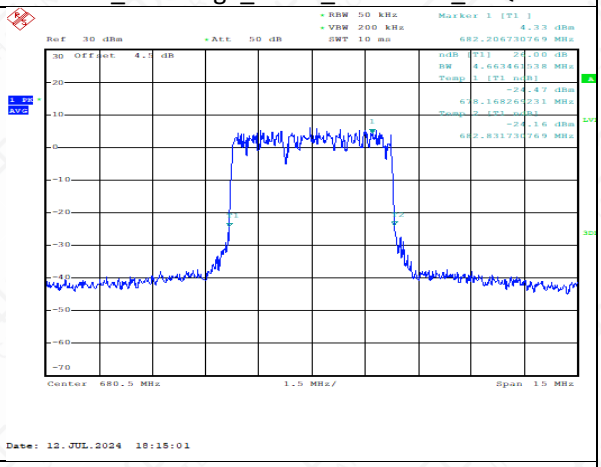
FDD66_MidRange_20MHz_1745MHz_16QAM



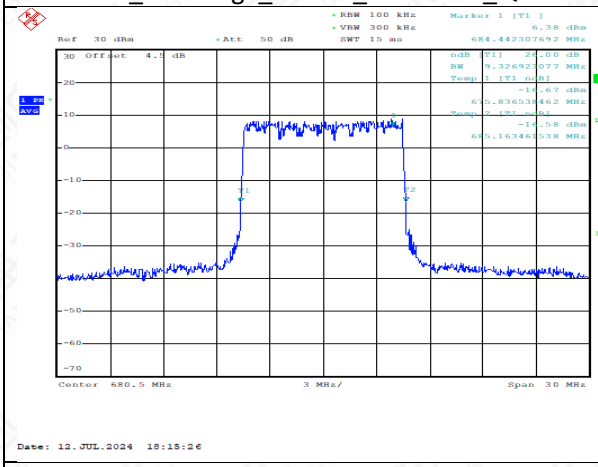
FDD71_MidRange_5MHz_680.5MHz_QPSK



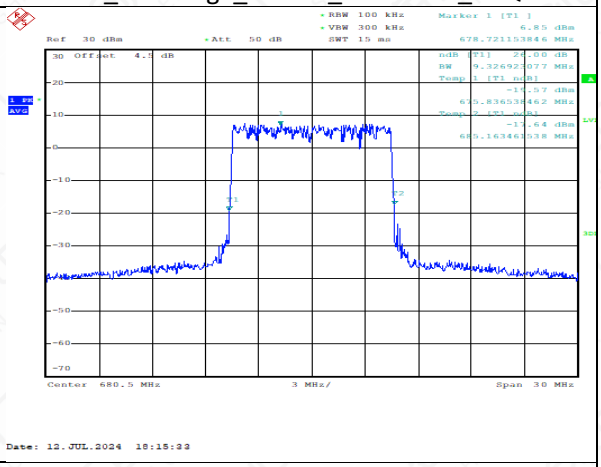
FDD71_MidRange_5MHz_680.5MHz_16QAM



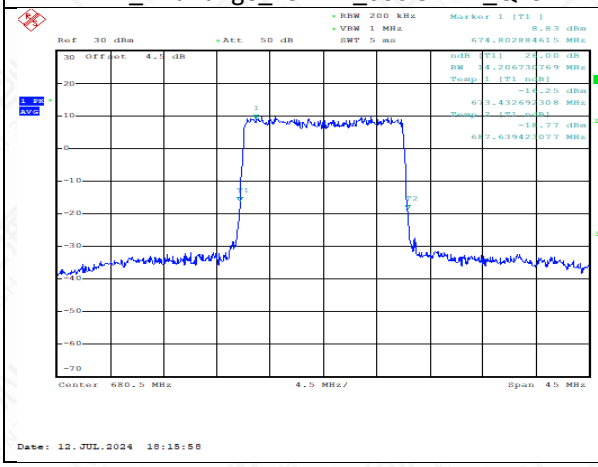
FDD71_MidRange_10MHz_680.5MHz_QPSK



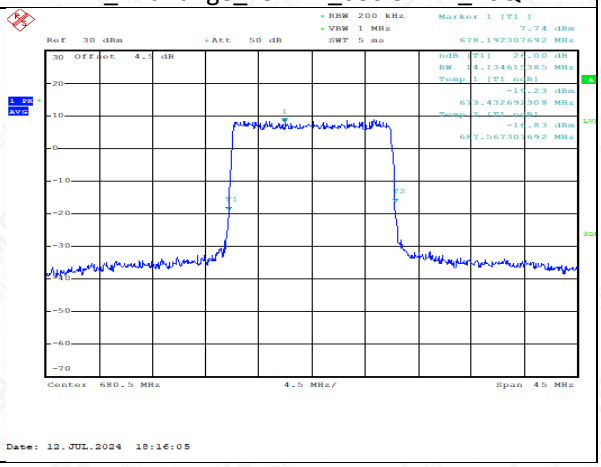
FDD71_MidRange_10MHz_680.5MHz_16QAM



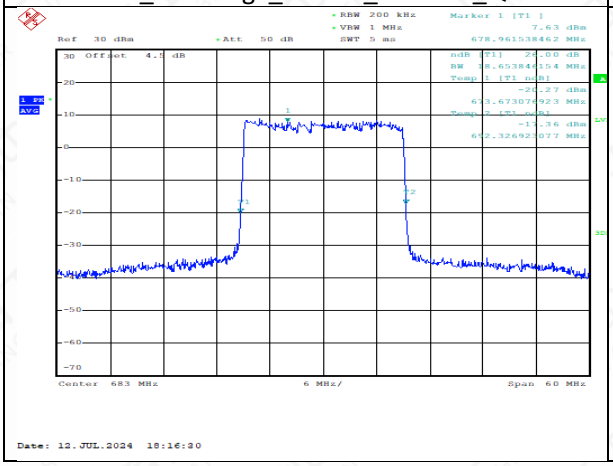
FDD71_MidRange_15MHz_680.5MHz_QPSK



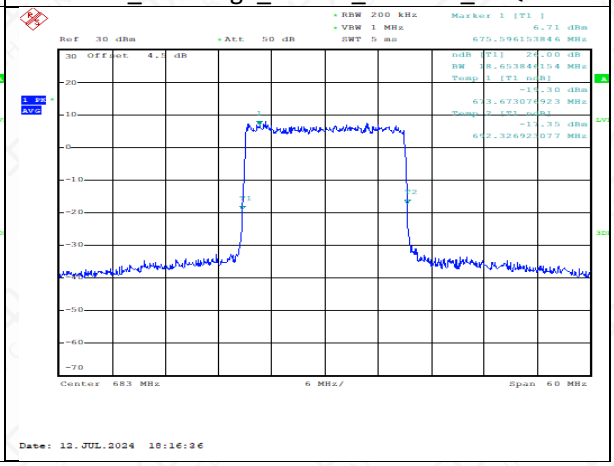
FDD71_MidRange_15MHz_680.5MHz_16QAM



FDD71_MidRange_20MHz_683MHz_QPSK



FDD71_MidRange_20MHz_683MHz_16QAM



6.6 Band Edge Compliance

6.6.1 Measurement Limit

FCC §22.917(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

FCC §24.238(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

FCC §27.53(a) For mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands:

(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;

(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;

(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

FCC §27.53(c)

For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

(3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC §27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for

wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

FCC §27.53(m)(4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

FCC §27.53(h):

AWS emission limits —

(1) General protection levels. Except as otherwise specified below, for operations in the 1695–1710 MHz, 1710–1755 MHz, 1755–1780 MHz, 1915–1920 MHz, 1995–2000 MHz, 2000–2020 MHz, 2110–2155 MHz, 2155–2180 MHz, and 2180–2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

(2) Additional protection levels. Notwithstanding the foregoing paragraph (h)(1) of this section:

(i) Operations in the 2180–2200 MHz band are subject to the out-of-band emission requirements set forth in § 27.1134 for the protection of federal government operations operating in the 2200–2290 MHz band.

(ii) For operations in the 2000–2020 MHz band, the power of any emissions below 2000 MHz shall be attenuated below the transmitter power (P) in watts by at least 70 + 10 log10(P) dB.

(iii) For operations in the 1915–1920 MHz band, the power of any emission between 1930–1995 MHz shall be attenuated below the transmitter power (P) in watts by at least 70 + 10 log10(P) dB.

(iv) For operations in the 1995–2000 MHz band, the power of any emission between 2005–2020 MHz shall be attenuated below the transmitter power (P) in watts by at least 70 + 10 log10(P) dB.

FCC §27.50(c)(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

FCC §27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

RSS-133 5.6,RSS-199 5.6:

Unwanted emissions shall be measured in terms of average values while the transmitter is operating at the manufacturer's rated power and modulated as specified in RSS-Gen.

Equipment shall meet the unwanted emission limits, specified in table 3, outside each frequency block group. For each channel bandwidth supported by the equipment under test, the unwanted emissions shall be measured and reported for two channel frequencies: one located as close as possible to the low end and one located as close as possible to the high end of the equipment’s operating frequency range. For the unwanted emission limits, in the 1 MHz bands immediately outside and adjacent to the frequency

block group, the power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth (OBW). Beyond these 1 MHz bands, a resolution bandwidth of 1 MHz shall be used. A narrower resolution bandwidth may be used, provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz, or 1% of the OBW, as applicable.

For all equipment, the TRP or total conducted power (sum of conducted power across all antenna connectors), where applicable, of the unwanted emissions outside the frequency block or frequency block group shall not exceed the limits shown in the table.

Offset frequency from the edge of the frequency block group (MHz)	Unwanted emission limit
≤ 1	-13 dBm/(1% of OBW)
> 1	-13 dBm/MHz

RSS-139 5.6

Unwanted emissions shall be measured in terms of average values.

For all equipment, the TRP or total conducted power (sum of conducted power across all antenna connectors) of the unwanted emissions outside the frequency block or frequency block group shall not exceed the limits shown in table.

Offset frequency from the edge of the frequency block group (MHz)	Unwanted emission limit
1 MHz	-13 dBm/(1% of OB*)
>1 MHz	-13 dBm/MHz

RSS-132 5.5

Equipment shall meet the unwanted emission limits specified below:

i. In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated below the transmitter output power P (dBW) by at least 43 + 10 log(p) dB.

ii. After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated below the transmitter output power P (dBW) by at least 43 + 10 log(p) dB. If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.

p is the output power specified in watts.

RSS 130 4.7:

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10 log10 p (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

a. the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:
   i. 76 + 10 $\log_{10}$ p (watts), dB, for base and fixed equipment and
   ii. 65 + 10 $\log_{10}$ p (watts), dB, for mobile and portable equipment

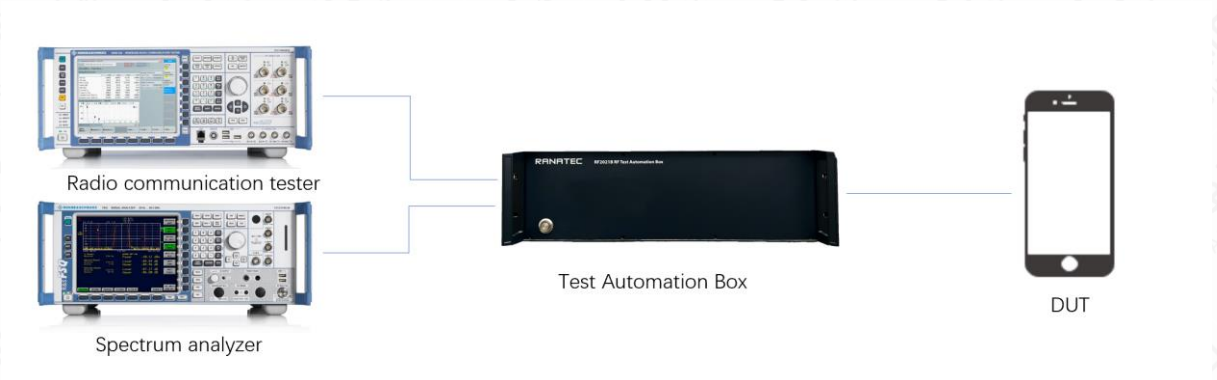
b. the e.i.r.p. in the band 1559-1610 MHz shall not exceed −70 dBW/MHz for wideband signal and −80 dBW for discrete emission with bandwidth less than 700 Hz.

6.6.2 Method of Measurement

Measurement Procedure: FCC KDB 971168 D01 V03r01 Section 6.0

The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyzer. the other end of which was connected to a Base Station Simulator, The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at two frequencies (low channel and high channel).in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of 100kHz or 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed. The EUT emission bandwidth is measured as the width of the signal between two points. Outside of which all emission are attenuated at east 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to RMS.

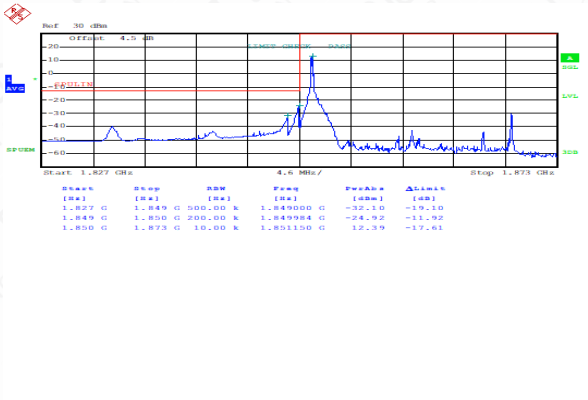
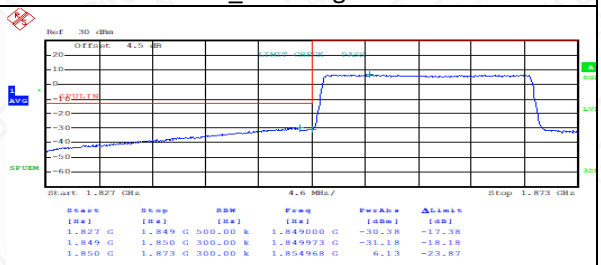
6.6.3 Test Setup



6.6.4 Measurement result

Band 2 (Only the worst mode data is provided)

Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD02	LowRange	20	QPSK	1RB_LowRange
FDD02	LowRange	20	QPSK	FullRB_LowRange
FDD02	LowRange	1.4	QPSK	1RB_LowRange
FDD02	LowRange	1.4	QPSK	FullRB_LowRange
FDD02	HighRange	20	QPSK	1RB_HighRange
FDD02	HighRange	20	QPSK	FullRB_HighRange
FDD02	HighRange	1.4	QPSK	1RB_HighRange
FDD02	HighRange	1.4	QPSK	FullRB_HighRange

FDD02LowRange_20MHz_QPSK_1RB_LowRange	FDD02LowRange_20MHz_QPSK_FullRB _LowRange
	
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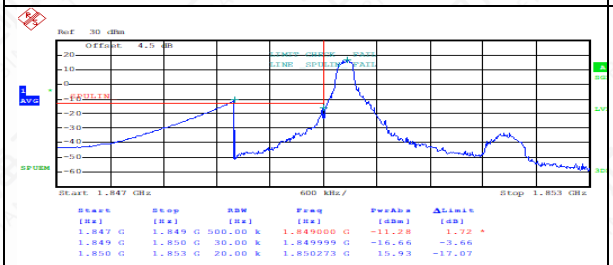
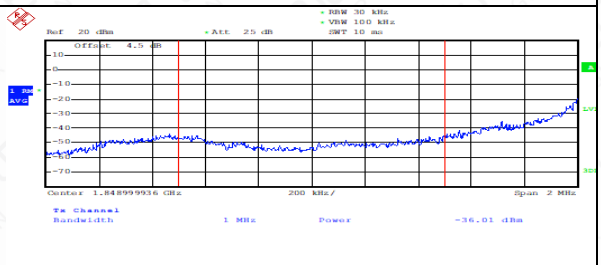
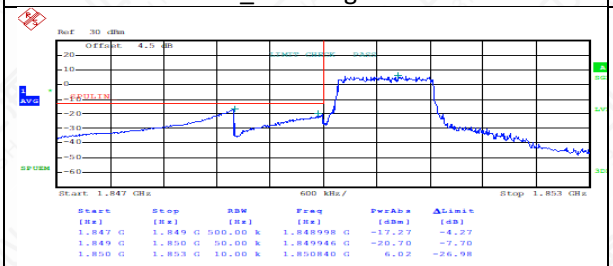
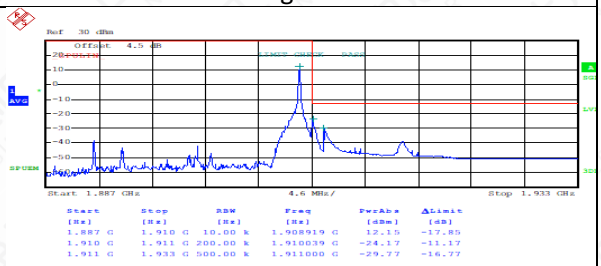
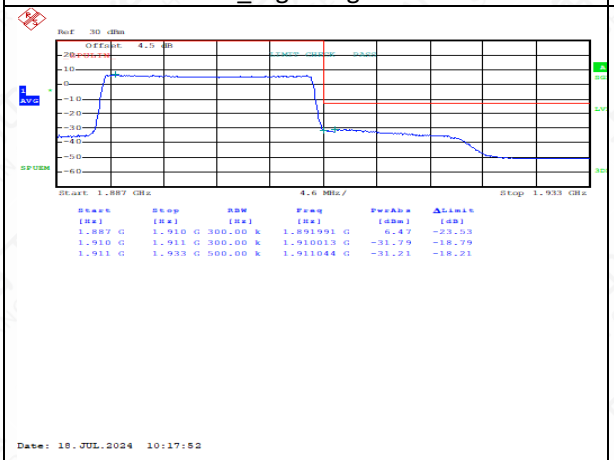
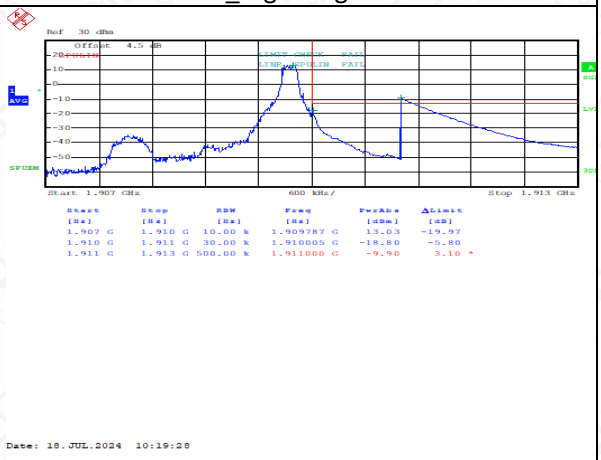
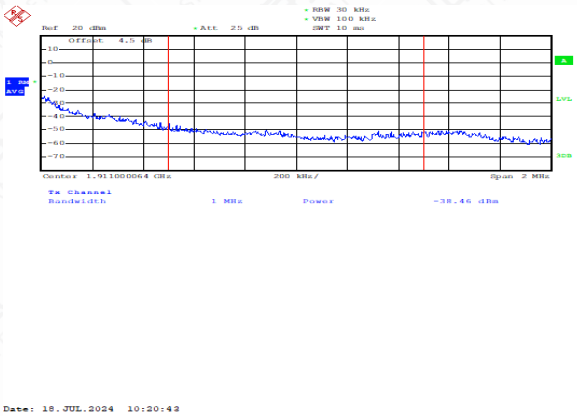
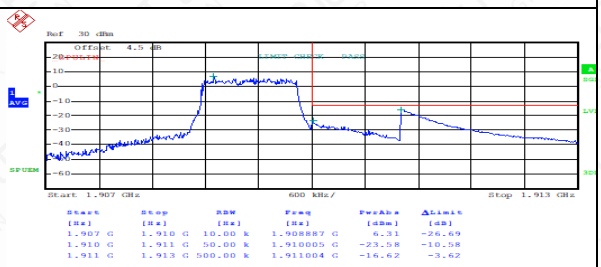
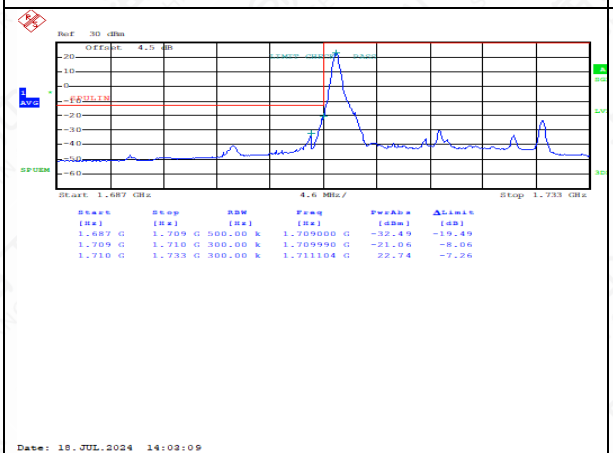
	
FDD02LowRange_1.4MHz_QPSK_FullRB _LowRange	FDD02HighRange_20MHz_QPSK_1RB_HighRan ge
	

FDD02HighRange_20MHz_QPSK_FullRB _HighRange	FDD02HighRange_1.4MHz_QPSK_1RB _HighRange
	
FDD02_HighRange_1.4_1911000064Hz _1RB_HighRangeOut of Limit Channal Power	FDD02HighRange_1.4MHz_QPSK_FullRB _HighRange
	

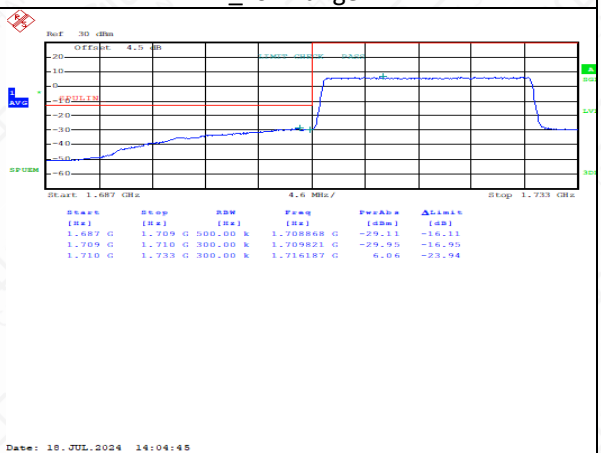
Band 4 (Only the worst mode data is provided)

Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD04	LowRange	20	QPSK	1RB_LowRange
FDD04	LowRange	20	QPSK	FullRB_LowRange
FDD04	LowRange	1.4	QPSK	1RB_LowRange
FDD04	LowRange	1.4	QPSK	FullRB_LowRange
FDD04	HighRange	20	QPSK	1RB_HighRange
FDD04	HighRange	20	QPSK	FullRB_HighRange
FDD04	HighRange	1.4	QPSK	1RB_HighRange
FDD04	HighRange	1.4	QPSK	FullRB_HighRange

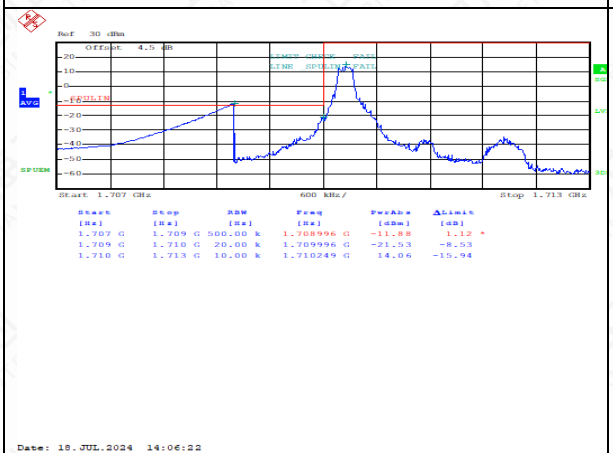
FDD04LowRange_20MHz_QPSK_1RB_LowRange



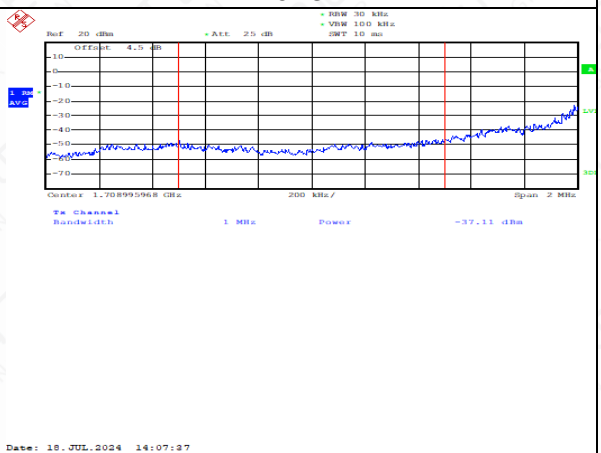
FDD04LowRange_20MHz_QPSK_FullRB _LowRange



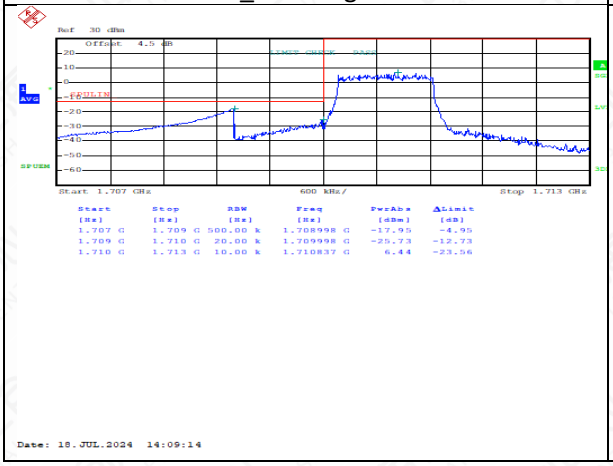
FDD04LowRange_1.4MHz_QPSK_1RB_LowRang e



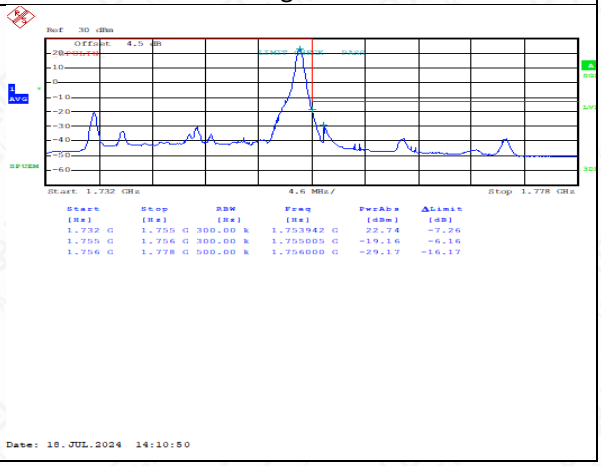
FDD04_LowRange_1.4_1708995968Hz _1RB_LowRangeOut of Limit Channal Power

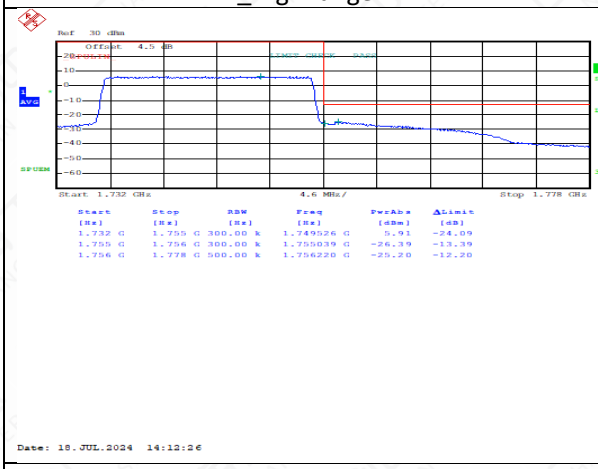
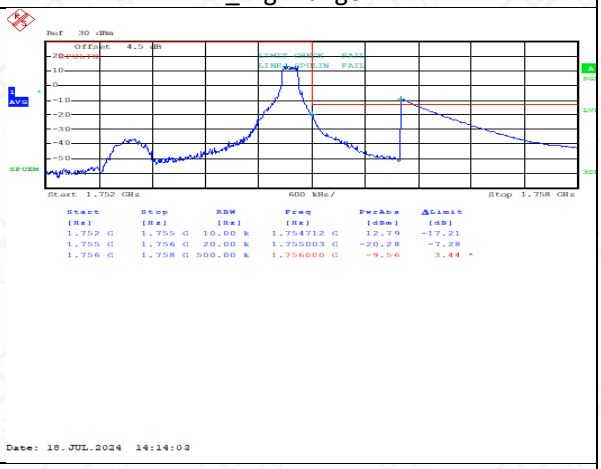


FDD04LowRange_1.4MHz_QPSK_FullRB _LowRange



FDD04HighRange_20MHz_QPSK_1RB_HighRan ge



FDD04HighRange_20MHz_QPSK_FullRB_HighRange	FDD04HighRange_1.4MHz_QPSK_1RB_HighRange
	
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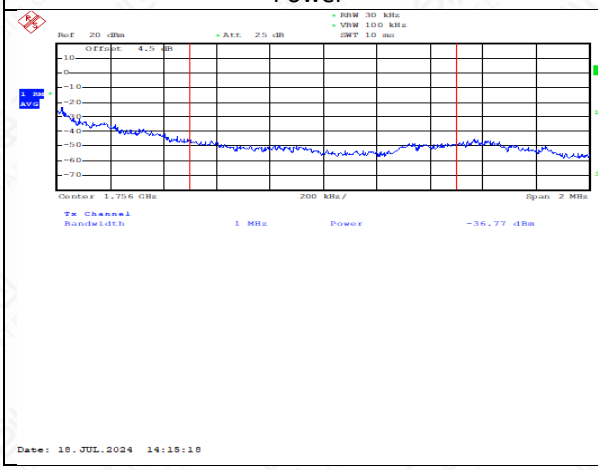
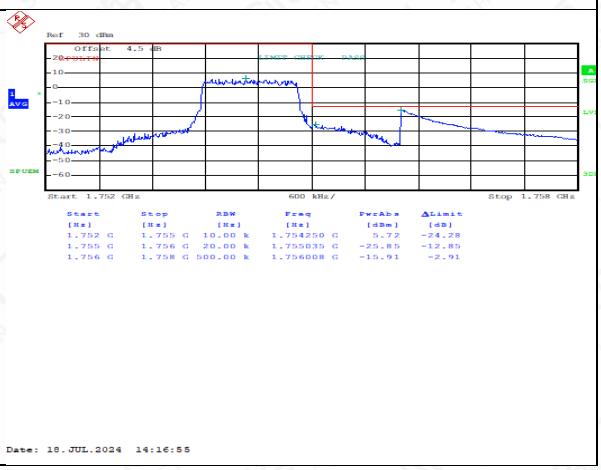
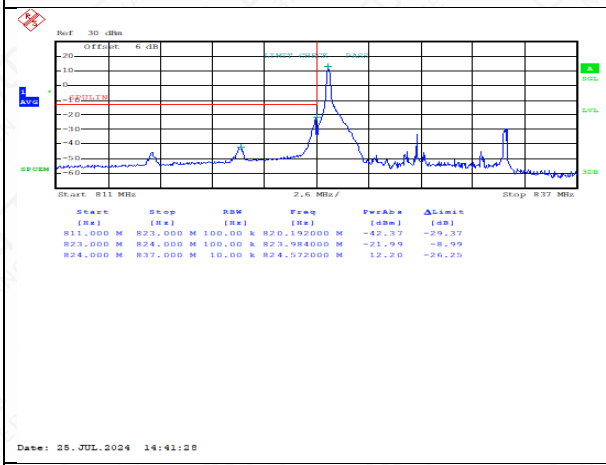
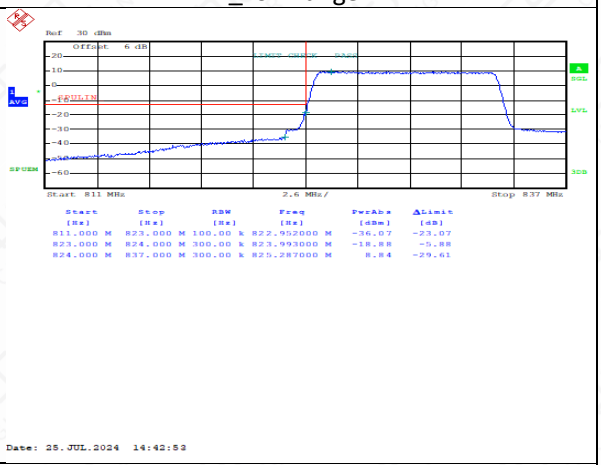
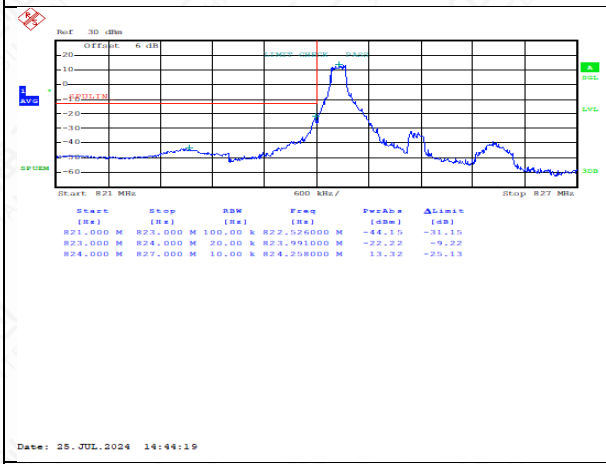
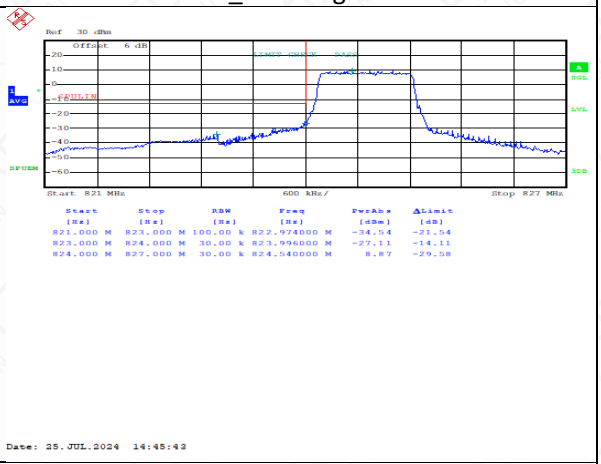
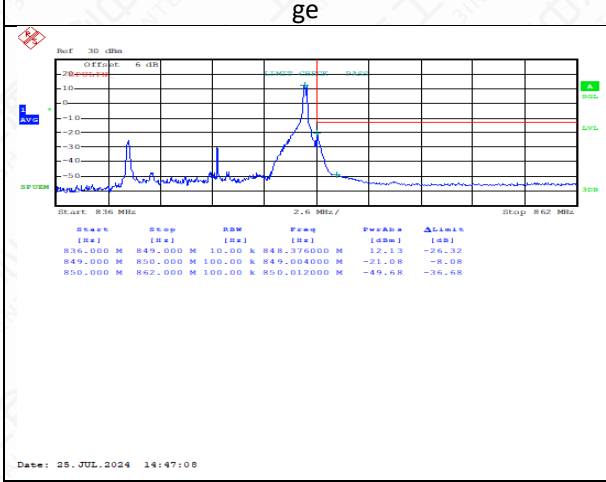
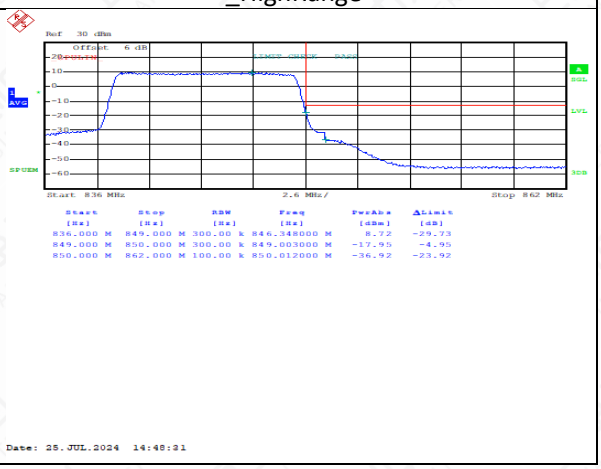
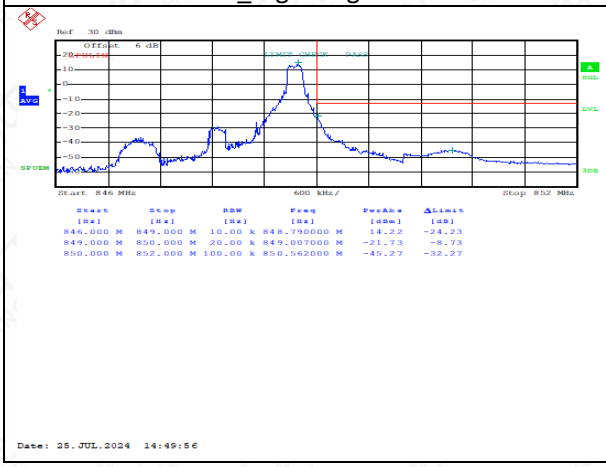
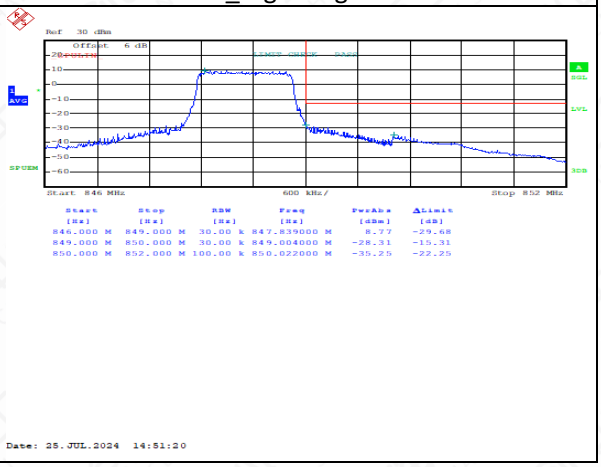
	

Band 5 (Only the worst mode data is provided)

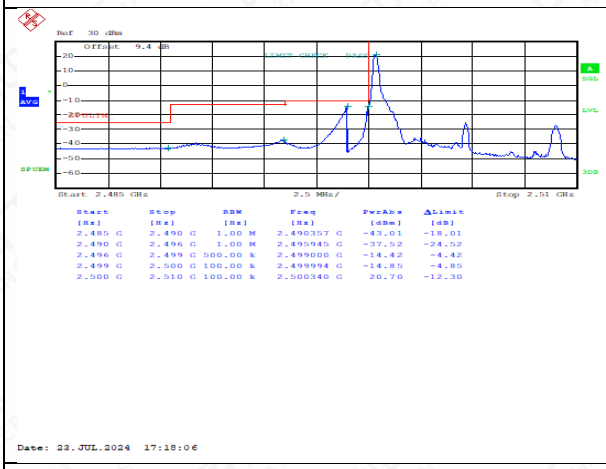
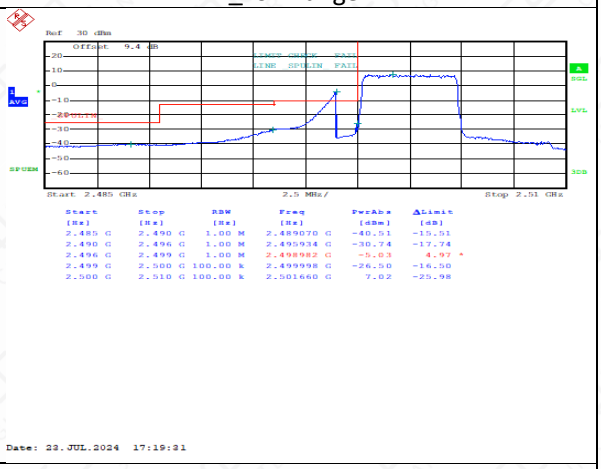
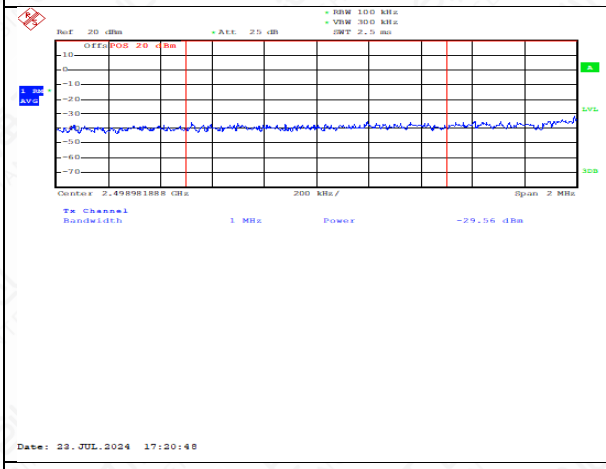
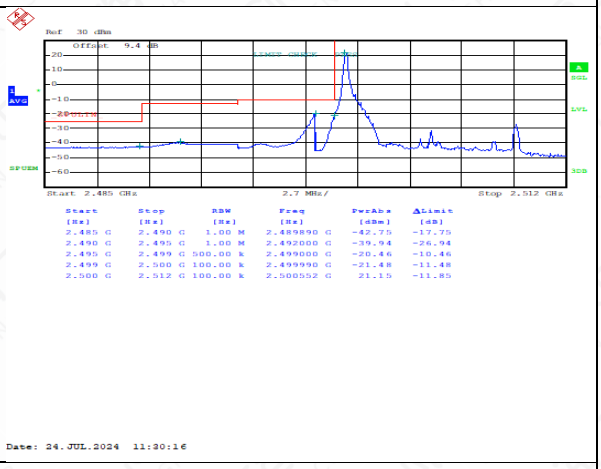
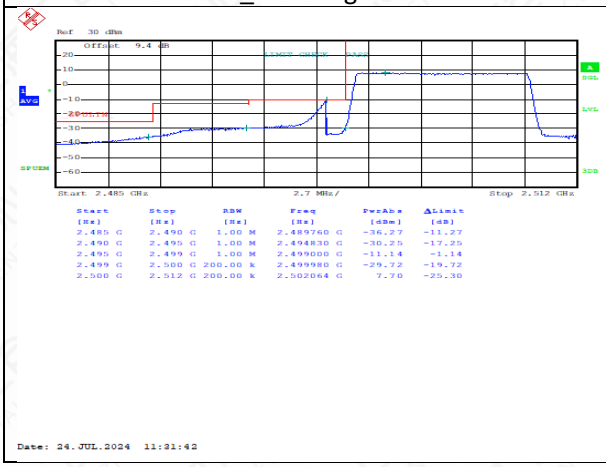
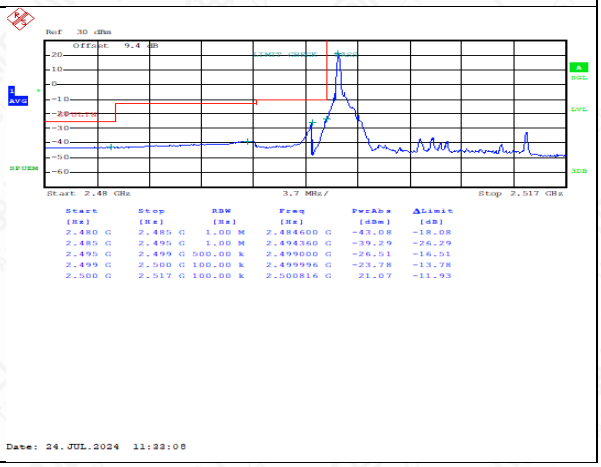
Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD05	LowRange	10	QPSK	1RB_LowRange
FDD05	LowRange	10	QPSK	FullRB_LowRange
FDD05	LowRange	1.4	QPSK	1RB_LowRange
FDD05	LowRange	1.4	QPSK	FullRB_LowRange
FDD05	HighRange	10	QPSK	1RB_HighRange
FDD05	HighRange	10	QPSK	FullRB_HighRange
FDD05	HighRange	1.4	QPSK	1RB_HighRange
FDD05	HighRange	1.4	QPSK	FullRB_HighRange

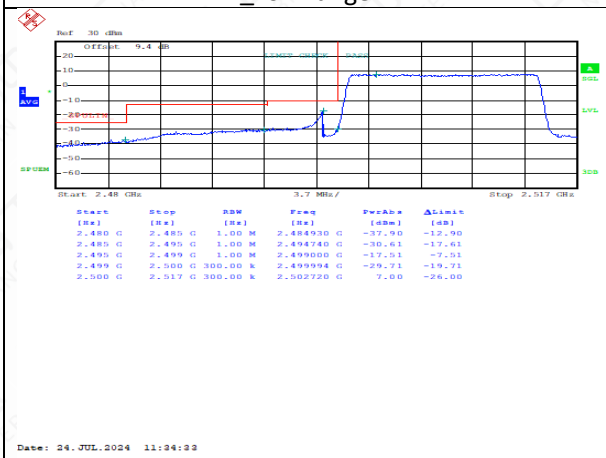
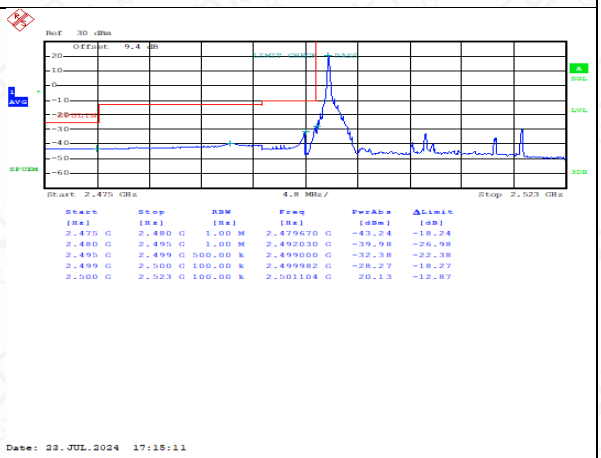
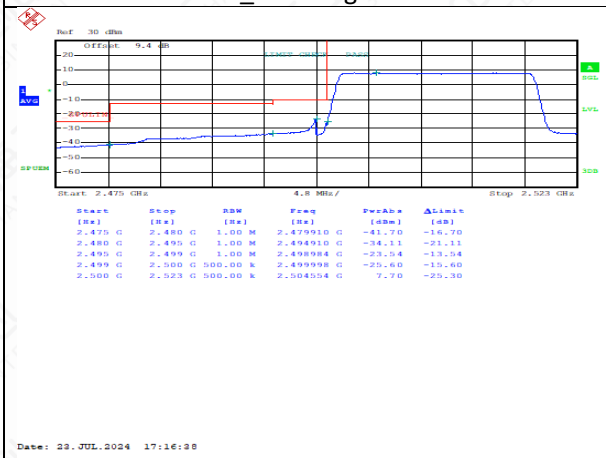
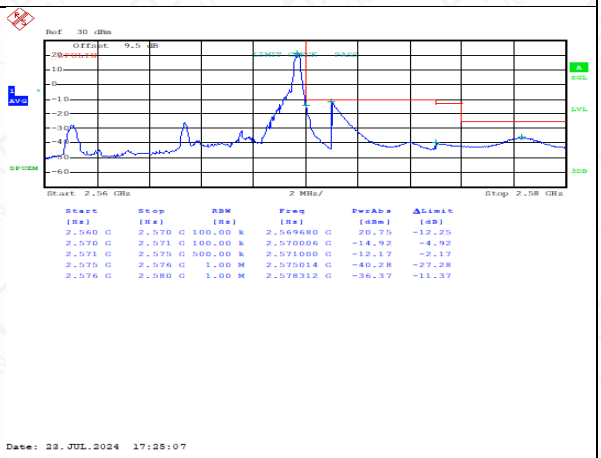
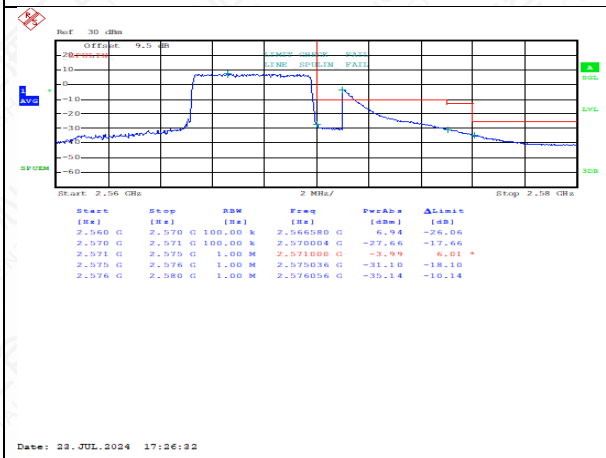
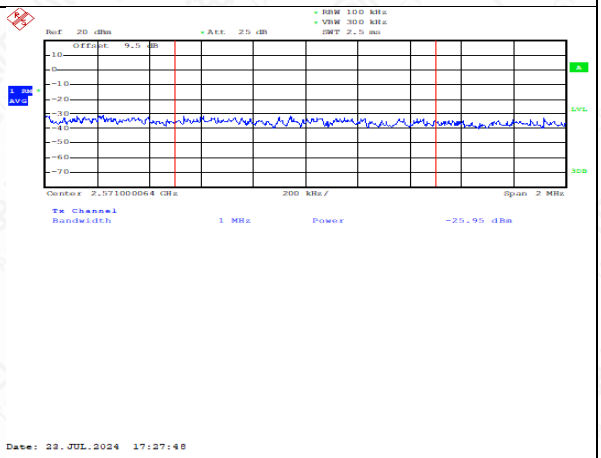
FDD05LowRange_10MHz_QPSK_1RB_LowRange	FDD05LowRange_10MHz_QPSK_FullRB_LowRange
	
FDD05LowRange_1.4MHz_QPSK_1RB_LowRange	FDD05LowRange_1.4MHz_QPSK_FullRB_LowRange
	
FDD05HighRange_10MHz_QPSK_1RB_HighRange	FDD05HighRange_10MHz_QPSK_FullRB_HighRange
	

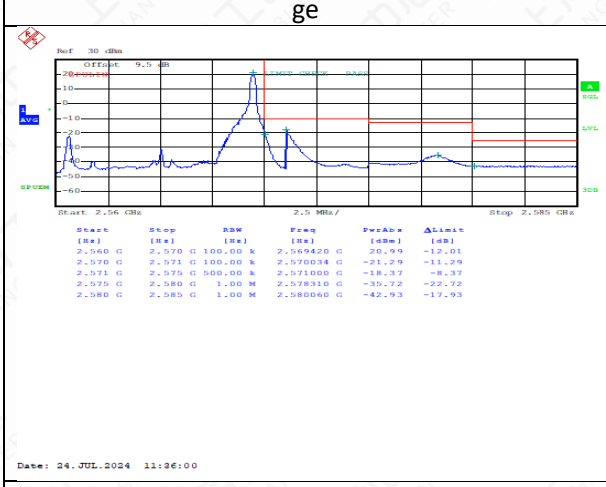
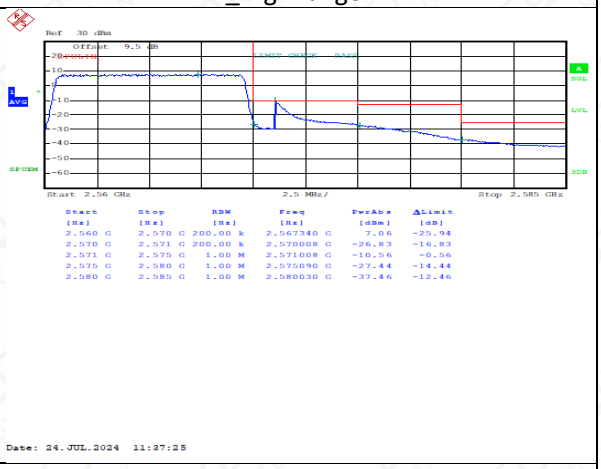
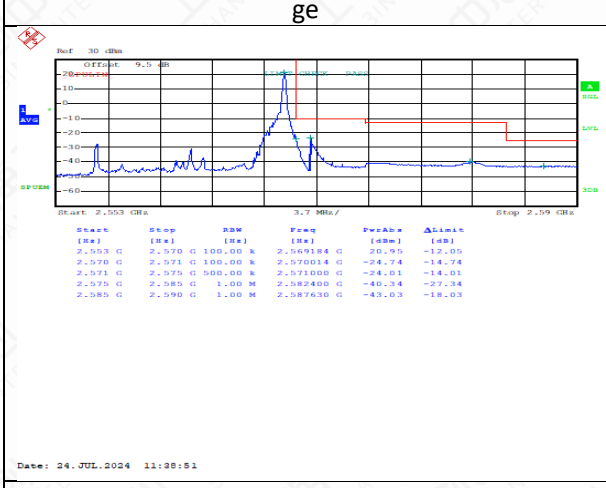
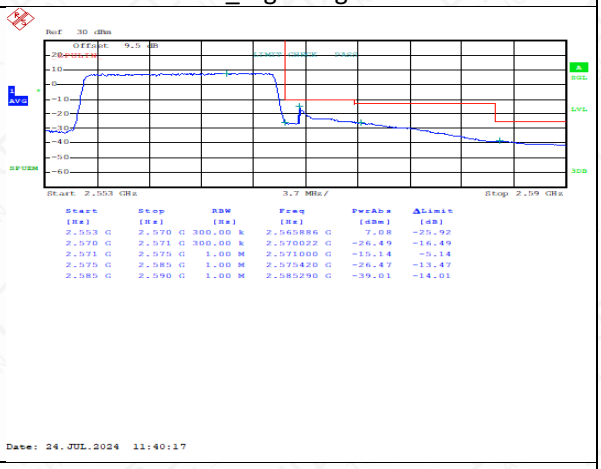
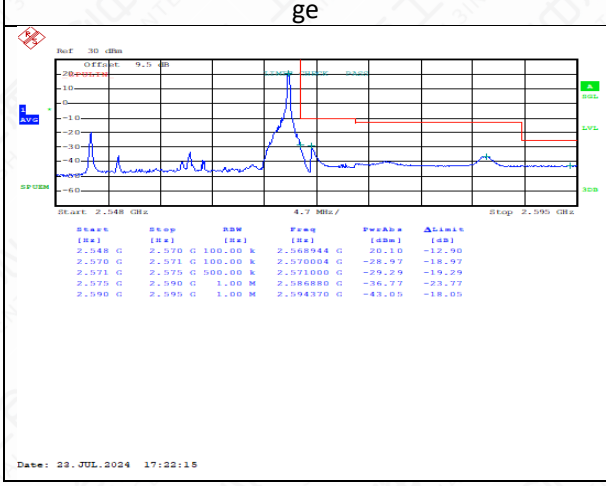
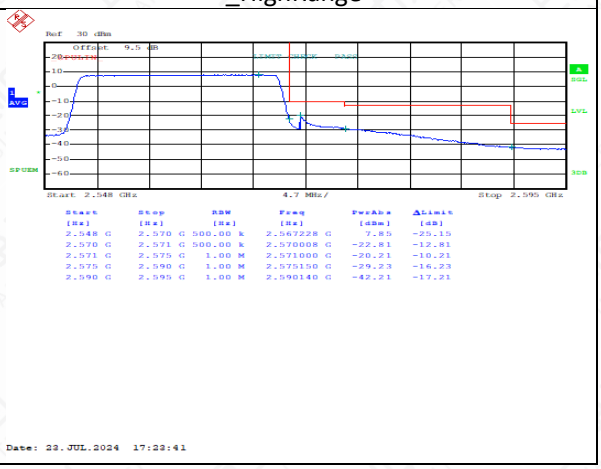
FDD05HighRange_1.4MHz_QPSK_1RB _HighRange	FDD05HighRange_1.4MHz_QPSK_FullRB _HighRange
	

Band 7

Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD07	LowRange	5	QPSK	1RB_LowRange
FDD07	LowRange	5	QPSK	FullRB_LowRange
FDD07	LowRange	10	QPSK	1RB_LowRange
FDD07	LowRange	10	QPSK	FullRB_LowRange
FDD07	LowRange	15	QPSK	1RB_LowRange
FDD07	LowRange	15	QPSK	FullRB_LowRange
FDD07	LowRange	20	QPSK	1RB_LowRange
FDD07	LowRange	20	QPSK	FullRB_LowRange
FDD07	HighRange	5	QPSK	1RB_HighRange
FDD07	HighRange	5	QPSK	FullRB_HighRange
FDD07	HighRange	10	QPSK	1RB_HighRange
FDD07	HighRange	10	QPSK	FullRB_HighRange
FDD07	HighRange	15	QPSK	1RB_HighRange
FDD07	HighRange	15	QPSK	FullRB_HighRange
FDD07	HighRange	20	QPSK	1RB_HighRange
FDD07	HighRange	20	QPSK	FullRB_HighRange

FDD07LowRange_5MHz_QPSK_1RB_LowRange	FDD07LowRange_5MHz_QPSK_FullRB _LowRange
	
FDD07_LowRange_5_2498981888Hz_FullRB _LowRangeOut of Limit Channal Power	FDD07LowRange_10MHz_QPSK_1RB_LowRange
	
FDD07LowRange_10MHz_QPSK_FullRB _LowRange	FDD07LowRange_15MHz_QPSK_1RB_LowRange
	

FDD07LowRange_15MHz_QPSK_FullRB _LowRange	FDD07LowRange_20MHz_QPSK_1RB_LowRange
	
FDD07LowRange_20MHz_QPSK_FullRB _LowRange	FDD07HighRange_5MHz_QPSK_1RB_HighRang e
	
FDD07HighRange_5MHz_QPSK_FullRB _HighRange	FDD07_HighRange_5_2571000064Hz _FullRB_HighRangeOut of Limit Channal Power
	

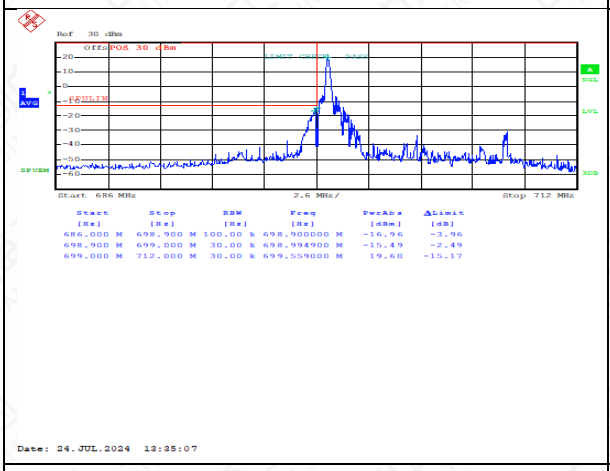
FDD07HighRange_10MHz_QPSK_1RB_HighRange	FDD07HighRange_10MHz_QPSK_FullRB_HighRange
	
FDD07HighRange_15MHz_QPSK_1RB_HighRange	FDD07HighRange_15MHz_QPSK_FullRB_HighRange
	
FDD07HighRange_20MHz_QPSK_1RB_HighRange	FDD07HighRange_20MHz_QPSK_FullRB_HighRange
	

Band 12 (Only the worst mode data is provided)

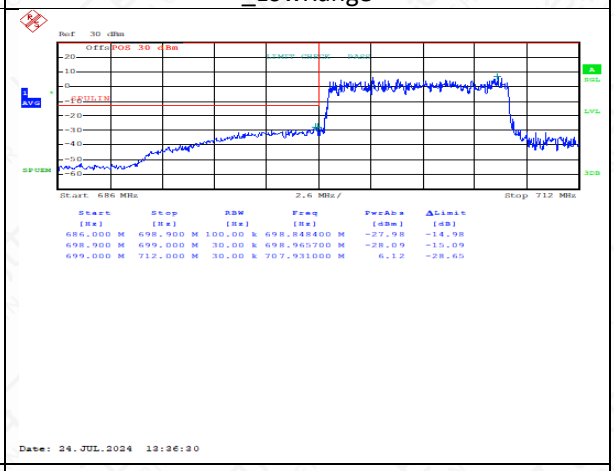
Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD12	LowRange	10	QPSK	1RB_LowRange

FDD12	LowRange	10	QPSK	FullRB_LowRange
FDD12	LowRange	1.4	QPSK	1RB_LowRange
FDD12	LowRange	1.4	QPSK	FullRB_LowRange
FDD12	HighRange	10	QPSK	1RB_HighRange
FDD12	HighRange	10	QPSK	FullRB_HighRange
FDD12	HighRange	1.4	QPSK	1RB_HighRange
FDD12	HighRange	1.4	QPSK	FullRB_HighRange

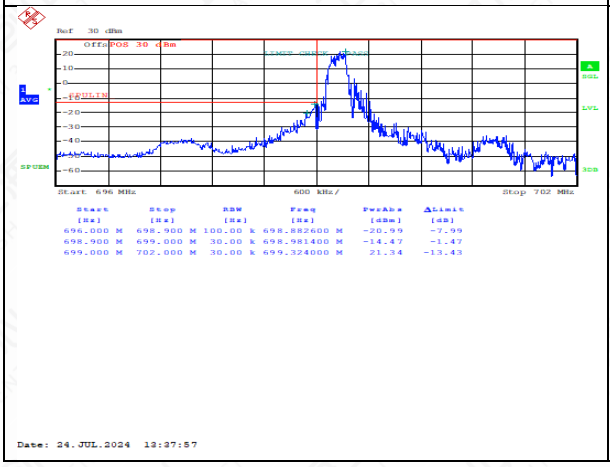
FDD12LowRange_10MHz_QPSK_1RB_LowRange



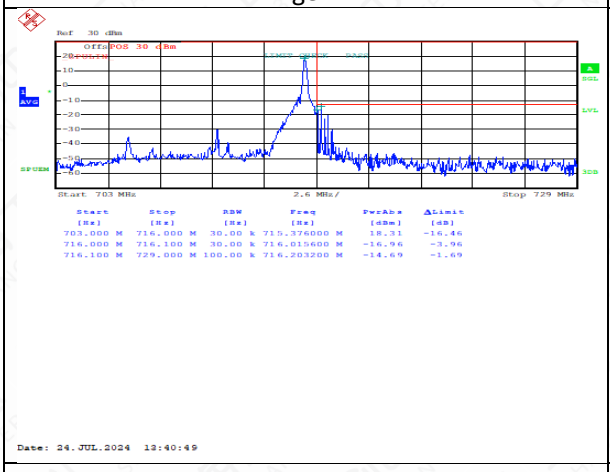
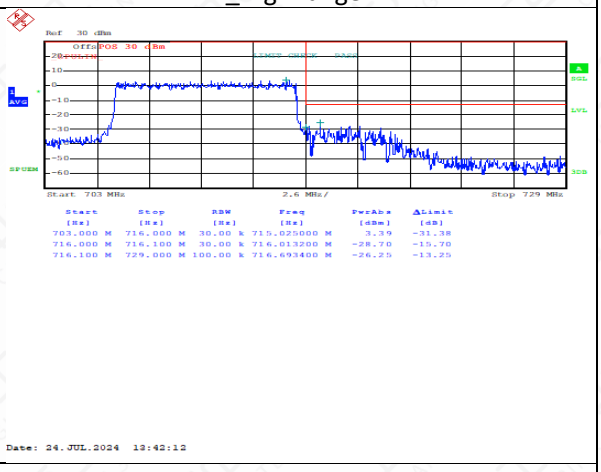
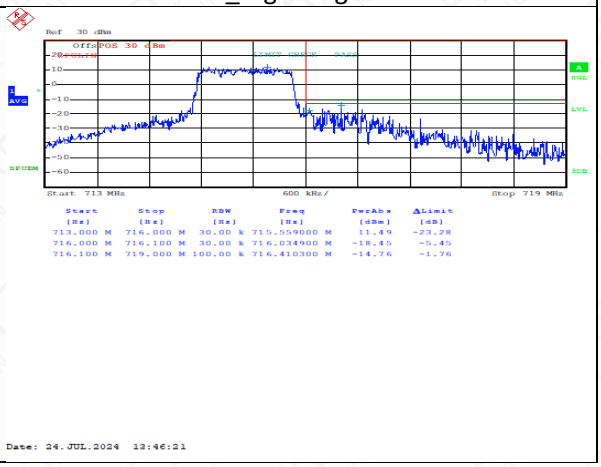
FDD12LowRange_10MHz_QPSK_FullRB_LowRange



FDD12LowRange_1.4MHz_QPSK_1RB_LowRange



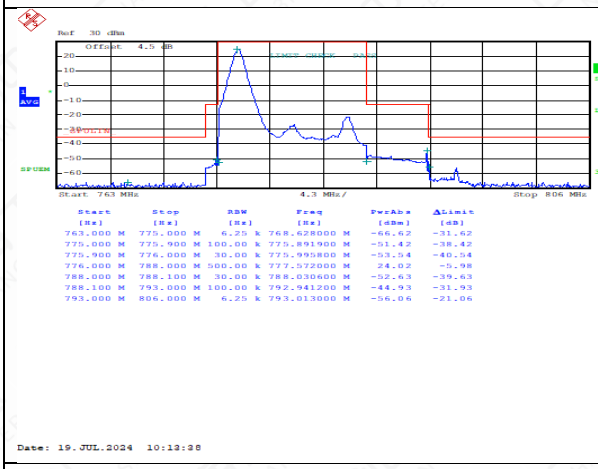
FDD12LowRange_1.4MHz_QPSK_FullRB_LowRange

FDD12HighRange_10MHz_QPSK_1RB_HighRange	FDD12HighRange_10MHz_QPSK_FullRB_HighRange
	
FDD12HighRange_1.4MHz_QPSK_1RB_HighRange	FDD12HighRange_1.4MHz_QPSK_FullRB_HighRange
	

Band 13 (Only the worst mode data is provided)

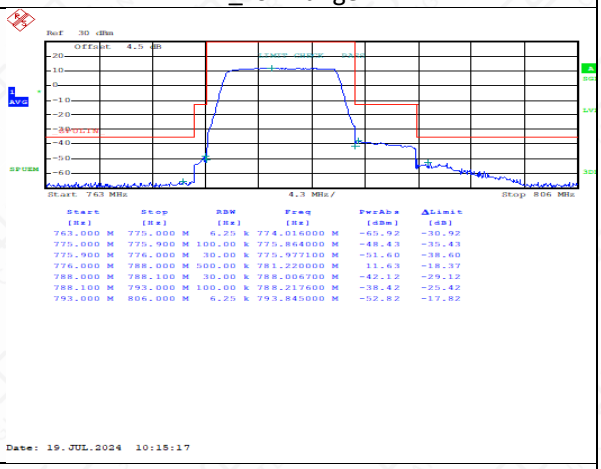
Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD13	LowRange	10	QPSK	1RB_LowRange
FDD13	LowRange	10	QPSK	FullRB_LowRange
FDD13	LowRange	5	QPSK	1RB_LowRange
FDD13	LowRange	5	QPSK	FullRB_LowRange
FDD13	HighRange	10	QPSK	1RB_HighRange
FDD13	HighRange	10	QPSK	FullRB_HighRange
FDD13	HighRange	5	QPSK	1RB_HighRange
FDD13	HighRange	5	QPSK	FullRB_HighRange

FDD13LowRange_10MHz_QPSK_1RB_LowRange



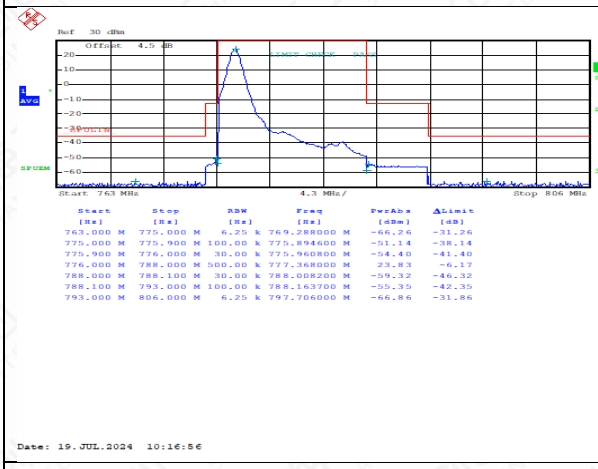
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
763.000 M	775.000 M	6.25 k	768.628000 M	-66.62	-31.62
775.000 M	775.900 M	100.00 k	775.891900 M	-51.42	-38.42
775.900 M	776.000 M	30.00 k	775.995800 M	-53.54	-40.54
776.000 M	788.000 M	500.00 k	777.572000 M	24.02	-5.98
788.000 M	788.100 M	30.00 k	788.030600 M	-52.63	-39.63
788.100 M	793.000 M	100.00 k	792.941200 M	-44.93	-31.93
793.000 M	806.000 M	6.25 k	793.013000 M	-56.06	-21.06

FDD13LowRange_10MHz_QPSK_FullRB_LowRange



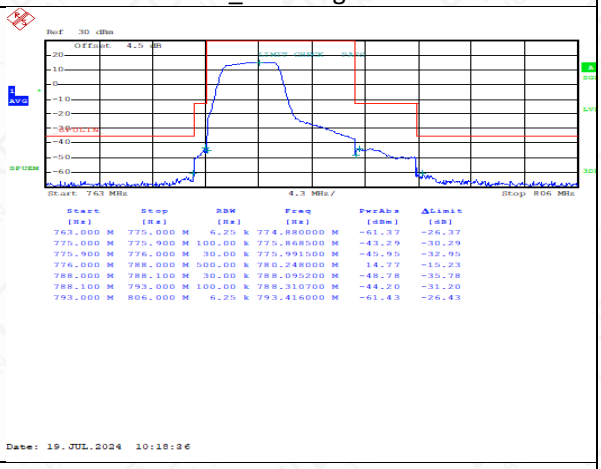
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
763.000 M	775.000 M	6.25 k	774.016000 M	-65.92	-30.92
775.000 M	775.900 M	100.00 k	775.864000 M	-48.43	-35.43
775.900 M	776.000 M	30.00 k	775.977100 M	-51.60	-38.60
776.000 M	788.000 M	500.00 k	781.220000 M	11.63	-18.37
788.000 M	788.100 M	30.00 k	788.006700 M	-42.12	-29.12
788.100 M	793.000 M	100.00 k	788.217600 M	-38.42	-25.42
793.000 M	806.000 M	6.25 k	793.845000 M	-52.82	-17.82

FDD13LowRange_5MHz_QPSK_1RB_LowRange



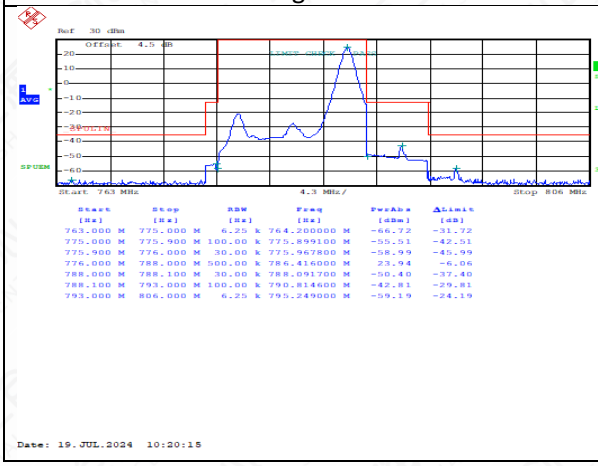
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
763.000 M	775.000 M	6.25 k	769.288000 M	-66.26	-31.26
775.000 M	775.900 M	100.00 k	775.894600 M	-51.14	-38.14
775.900 M	776.000 M	30.00 k	775.960800 M	-54.40	-41.40
776.000 M	788.000 M	500.00 k	777.368000 M	23.83	-6.17
788.000 M	788.100 M	30.00 k	788.008200 M	-59.32	-46.32
788.100 M	793.000 M	100.00 k	788.163700 M	-55.35	-42.35
793.000 M	806.000 M	6.25 k	797.706000 M	-66.86	-31.86

FDD13LowRange_5MHz_QPSK_FullRB_LowRange



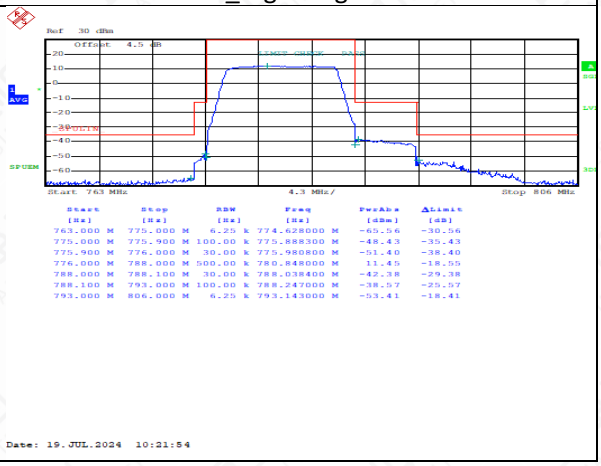
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
763.000 M	775.000 M	6.25 k	774.880000 M	-61.37	-26.37
775.000 M	775.900 M	100.00 k	775.868500 M	-43.29	-30.29
775.900 M	776.000 M	30.00 k	775.991500 M	-45.95	-32.95
776.000 M	788.000 M	500.00 k	780.248000 M	14.77	-15.23
788.000 M	788.100 M	30.00 k	788.095200 M	-48.78	-35.78
788.100 M	793.000 M	100.00 k	788.310700 M	-44.20	-31.20
793.000 M	806.000 M	6.25 k	793.416000 M	-61.43	-26.43

FDD13HighRange_10MHz_QPSK_1RB_HighRange

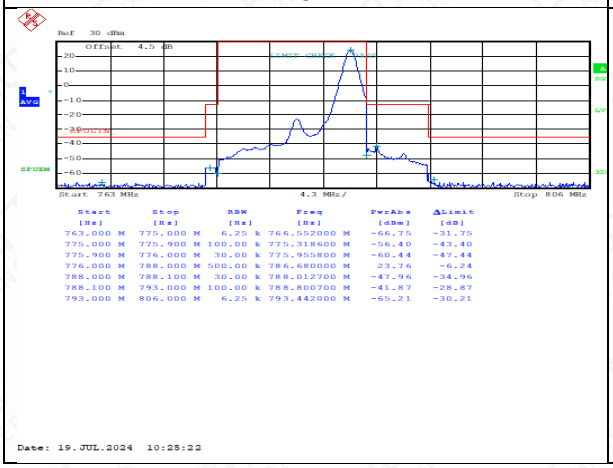
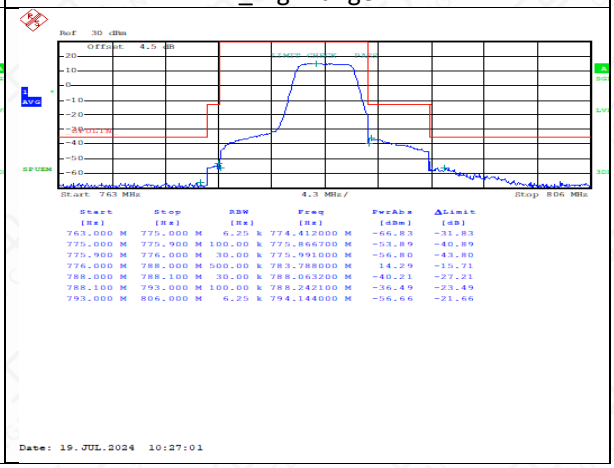


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
763.000 M	775.000 M	6.25 k	764.200000 M	-66.72	-31.72
775.000 M	775.900 M	100.00 k	775.899100 M	-55.51	-42.51
775.900 M	776.000 M	30.00 k	775.967800 M	-58.99	-45.99
776.000 M	788.000 M	500.00 k	786.416000 M	23.94	-6.06
788.000 M	788.100 M	30.00 k	788.091700 M	-50.40	-37.40
788.100 M	793.000 M	100.00 k	790.814600 M	-42.81	-29.81
793.000 M	806.000 M	6.25 k	795.249000 M	-59.19	-24.19

FDD13HighRange_10MHz_QPSK_FullRB_HighRange

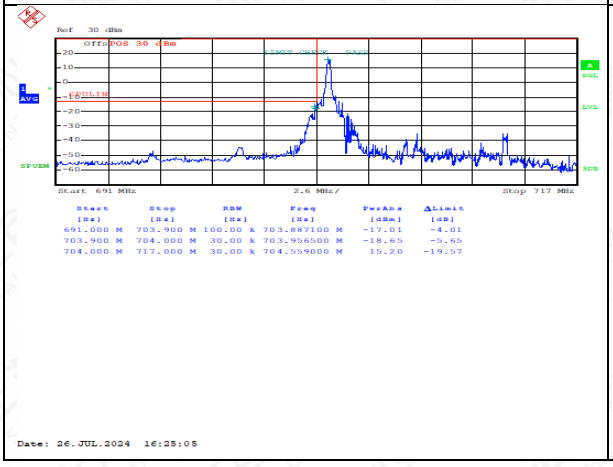
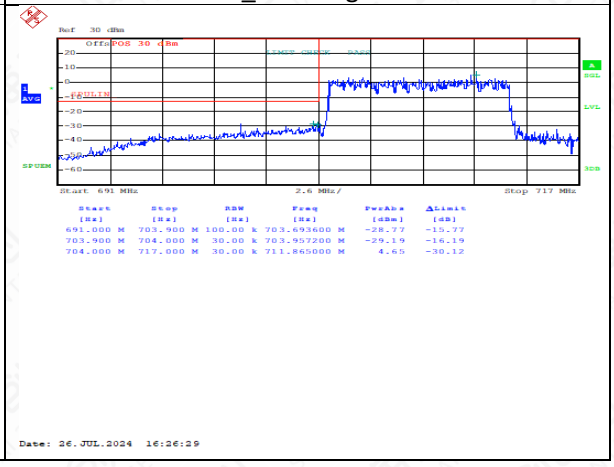


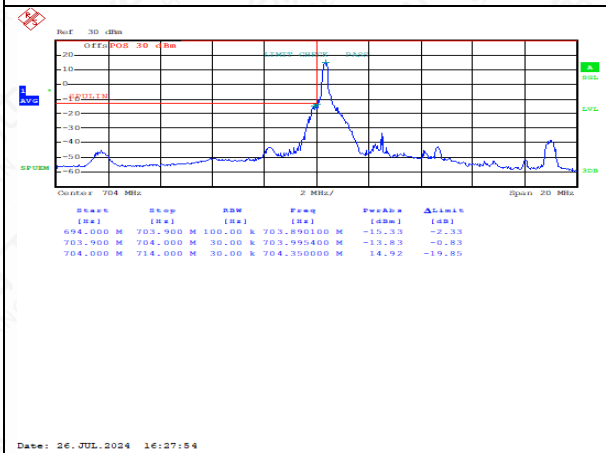
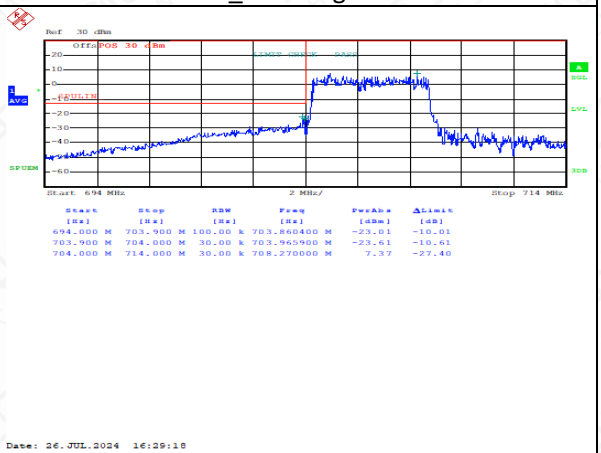
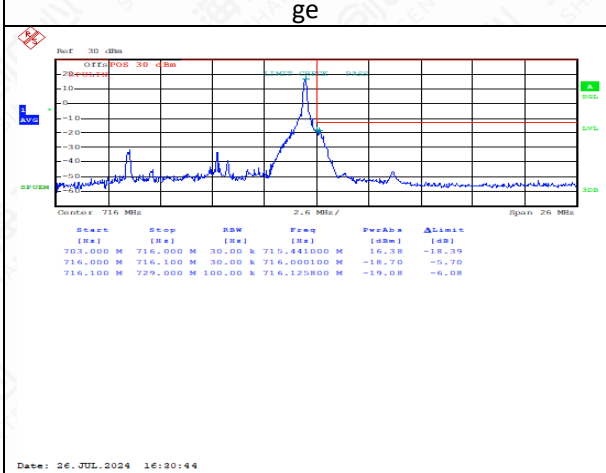
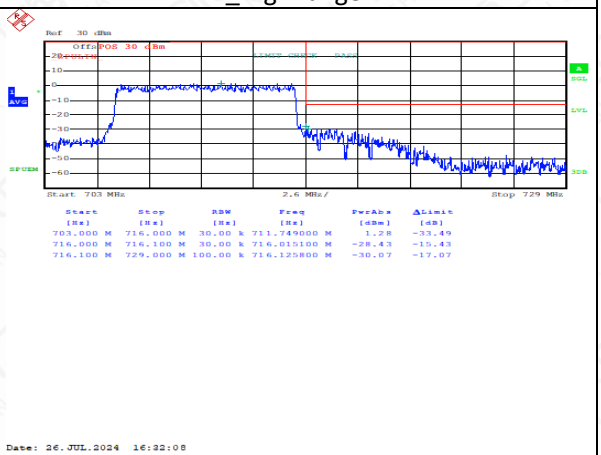
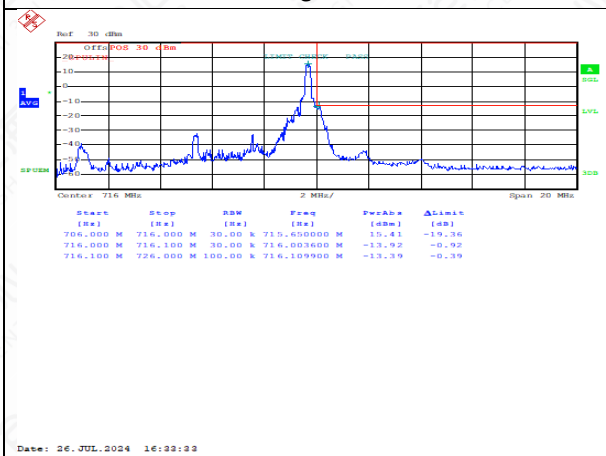
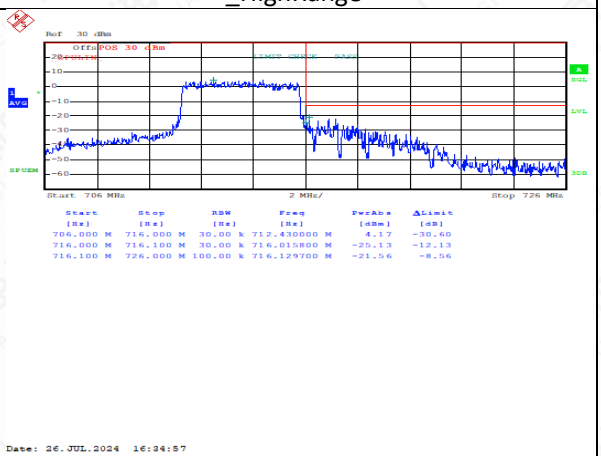
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
763.000 M	775.000 M	6.25 k	774.628000 M	-65.56	-30.56
775.000 M	775.900 M	100.00 k	775.888300 M	-48.43	-35.43
775.900 M	776.000 M	30.00 k	775.980800 M	-51.40	-38.40
776.000 M	788.000 M	500.00 k	780.848000 M	11.45	-18.55
788.000 M	788.100 M	30.00 k	788.038400 M	-42.38	-29.38
788.100 M	793.000 M	100.00 k	788.247000 M	-38.57	-25.57
793.000 M	806.000 M	6.25 k	793.143000 M	-53.41	-18.41

FDD13HighRange_5MHz_QPSK_1RB_HighRange	FDD13HighRange_5MHz_QPSK_FullRB_HighRange
	

Band 17 (Only the worst mode data is provided)

Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD17	LowRange	10	QPSK	1RB_LowRange
FDD17	LowRange	10	QPSK	FullRB_LowRange
FDD17	LowRange	5	QPSK	1RB_LowRange
FDD17	LowRange	5	QPSK	FullRB_LowRange
FDD17	HighRange	10	QPSK	1RB_HighRange
FDD17	HighRange	10	QPSK	FullRB_HighRange
FDD17	HighRange	5	QPSK	1RB_HighRange
FDD17	HighRange	5	QPSK	FullRB_HighRange

FDD17LowRange_10MHz_QPSK_1RB_LowRange	FDD17LowRange_10MHz_QPSK_FullRB_LowRange
	

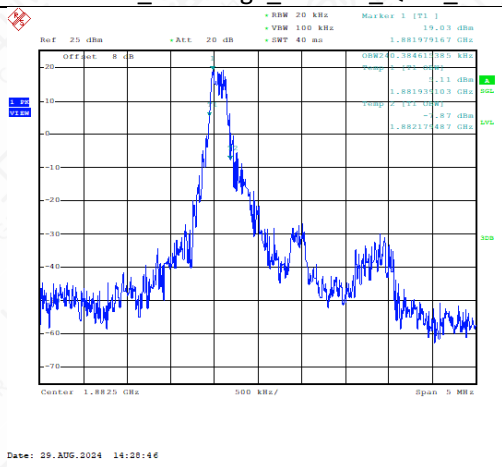
FDD17LowRange_5MHz_QPSK_1RB_LowRange	FDD17LowRange_5MHz_QPSK_FullRB_LowRange
	
FDD17HighRange_10MHz_QPSK_1RB_HighRange	FDD17HighRange_10MHz_QPSK_FullRB_HighRange
	
FDD17HighRange_5MHz_QPSK_1RB_HighRange	FDD17HighRange_5MHz_QPSK_FullRB_HighRange
	

Band 25 (Only the worst mode data is provided)

Band	Range	BandWidth(MHz)	Modulation	RbMode
FDD25	LowRange	20	QPSK	1RB_LowRange
FDD25	LowRange	20	QPSK	FullRB_LowRange

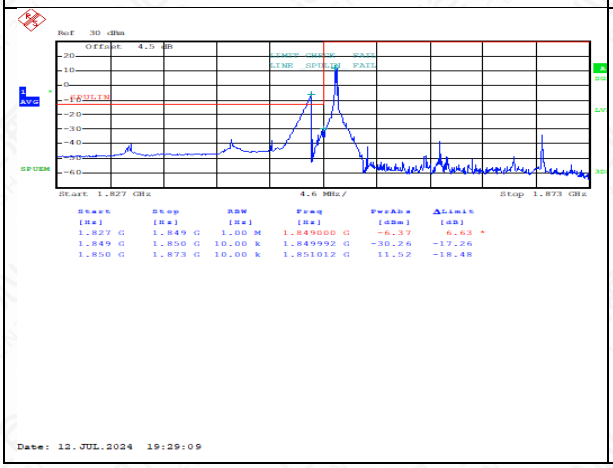
FDD25	LowRange	1.4	QPSK	1RB_LowRange
FDD25	LowRange	1.4	QPSK	FullRB_LowRange
FDD25	HighRange	20	QPSK	1RB_HighRange
FDD25	HighRange	20	QPSK	FullRB_HighRange
FDD25	HighRange	1.4	QPSK	1RB_HighRange
FDD25	HighRange	1.4	QPSK	FullRB_HighRange

Occupied Bandwidth: FDD25_MidRange_1.4MHz_QPSK_1RB_LowRange:240.38kHz



Note: This image is only used for the calculation of the sideband test RBW setup.

FDD25_LowRange_20MHz_QPSK_1RB_LowRange



FDD25_LowRange_20_1848999936Hz _1RB_LowRangeOut of Limit Channal Power