

Figure 8.2-43: CCDF, 256QAM, Port A, low channel, configuration 1

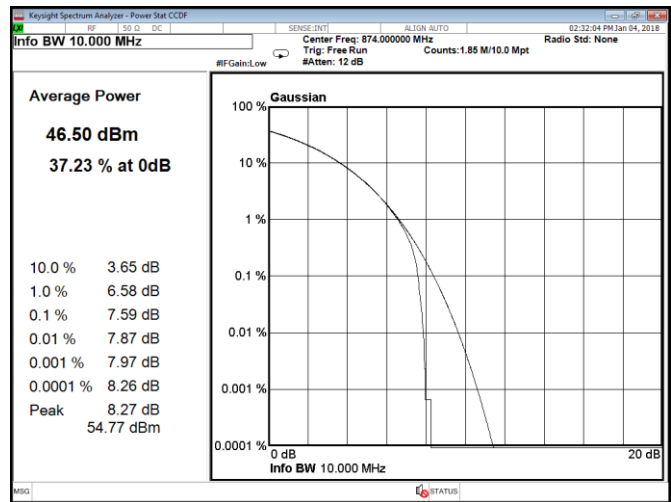


Figure 8.2-44: CCDF, 256QAM, Port B, low channel, configuration 1

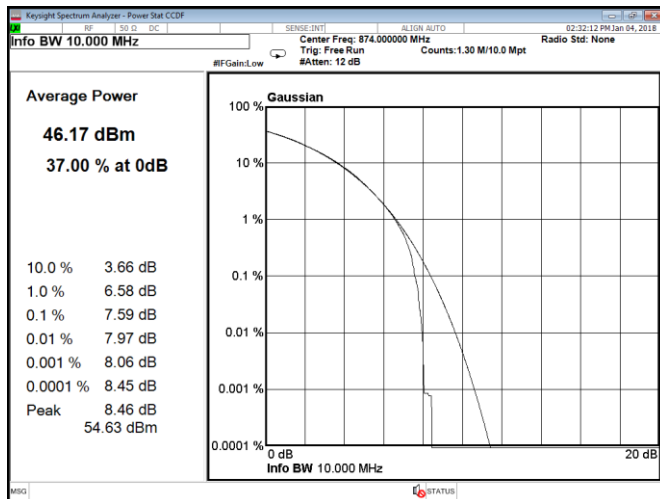


Figure 8.2-45: CCDF, 256QAM, Port C, low channel, configuration 1

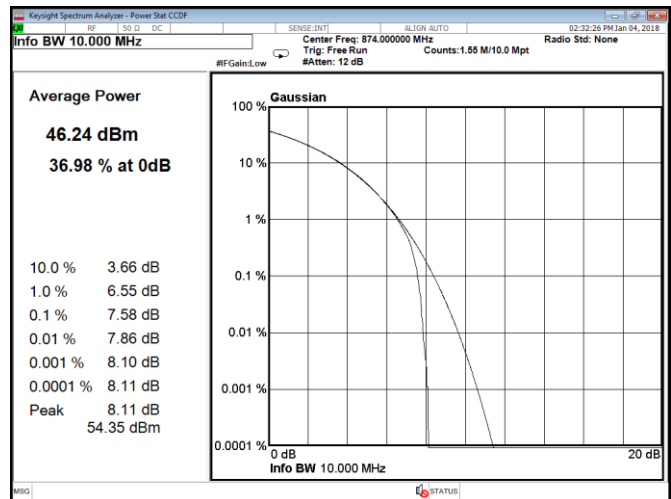


Figure 8.2-46: CCDF, 256QAM, Port D, low channel, configuration 1

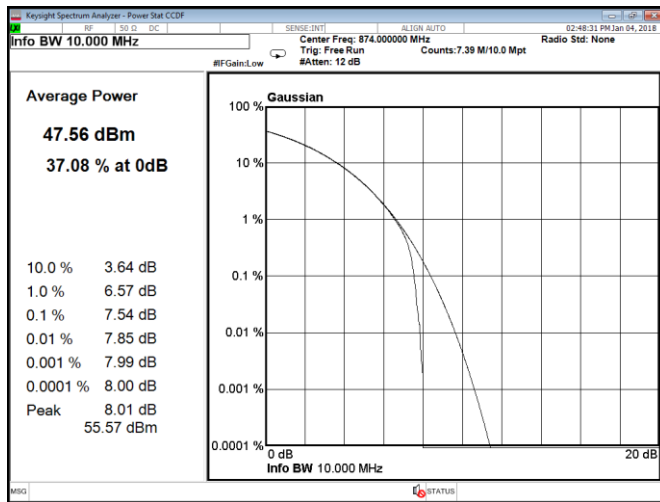


Figure 8.2-47: CCDF, QPSK, Port A, low channel, configuration 2

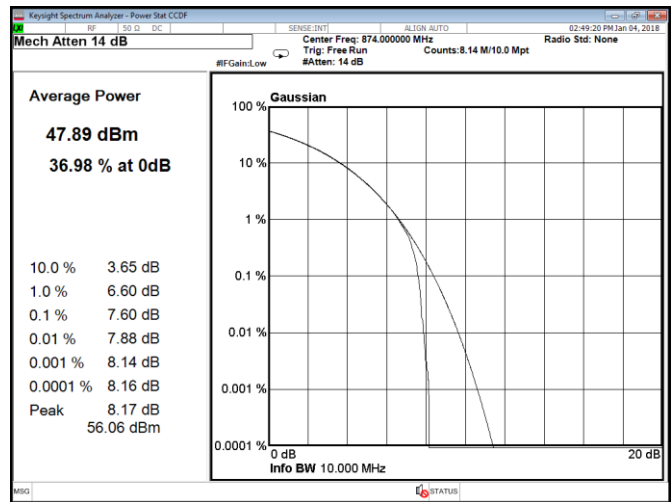


Figure 8.2-48: CCDF, QPSK, Port D, low channel, configuration 2

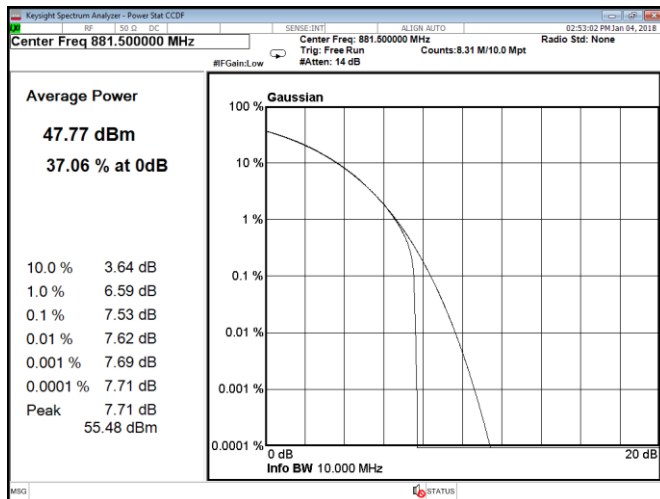


Figure 8.2-49: CCDF, QPSK, Port A, mid channel, configuration 2

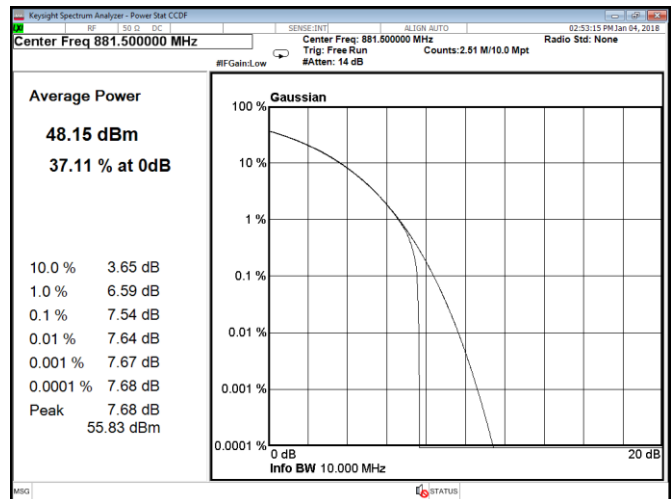


Figure 8.2-50: CCDF, QPSK, Port D, mid channel, configuration 2

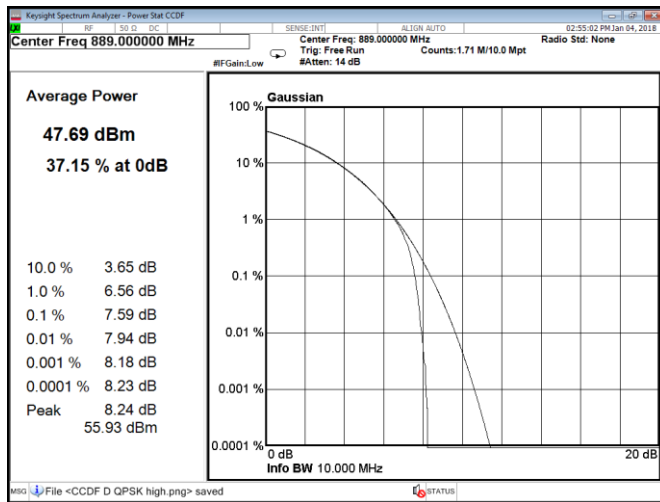


Figure 8.2-51: CCDF, QPSK, Port A, high channel, configuration 2

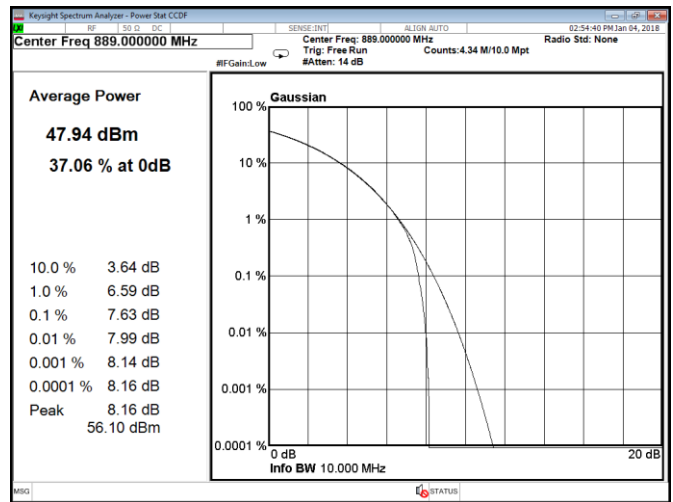


Figure 8.2-52: CCDF, QPSK, Port D, high channel, configuration 2

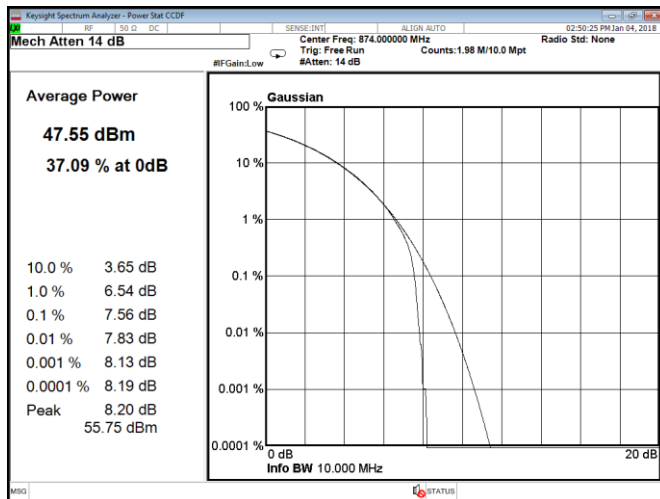


Figure 8.2-53: CCDF, 16QAM, Port A, low channel, configuration 2

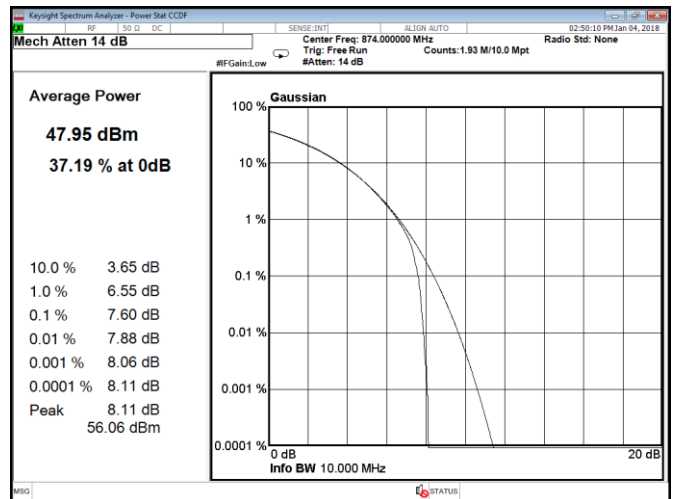


Figure 8.2-54: CCDF, 16QAM, Port D, low channel, configuration 2

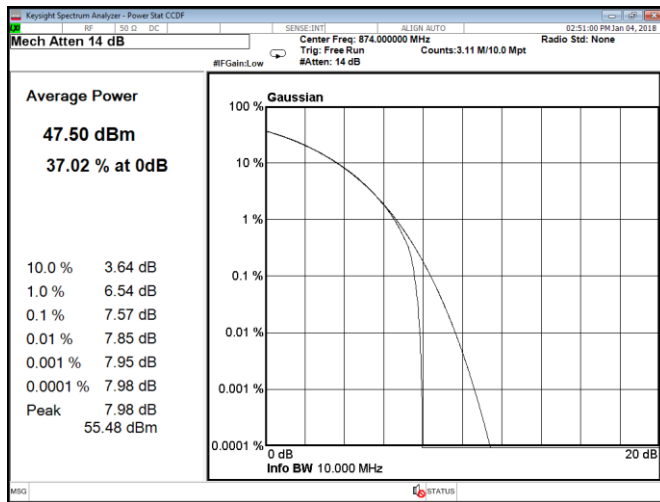


Figure 8.2-55: CCDF, 64QAM, Port A, low channel, configuration 2

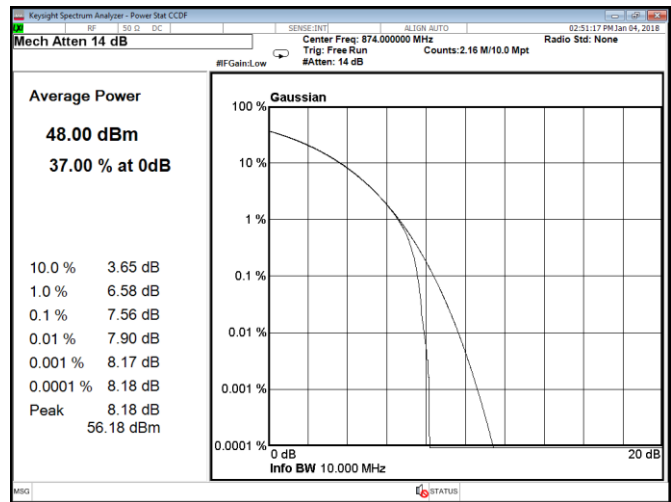


Figure 8.2-56: CCDF, 64QAM, Port D, low channel, configuration 2

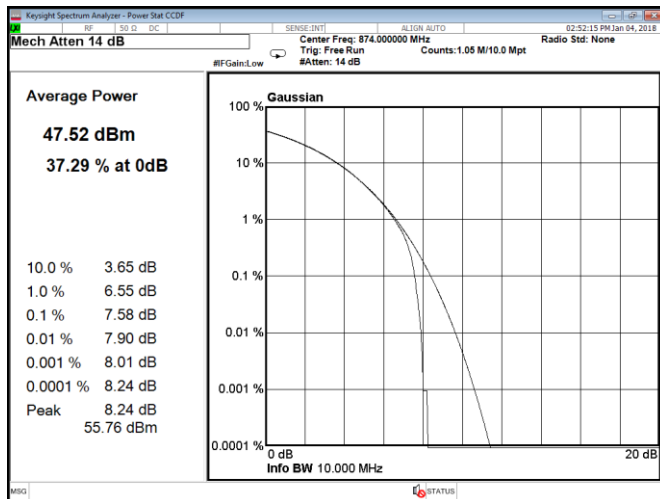


Figure 8.2-57: CCDF, 256QAM, Port A, low channel, configuration 2

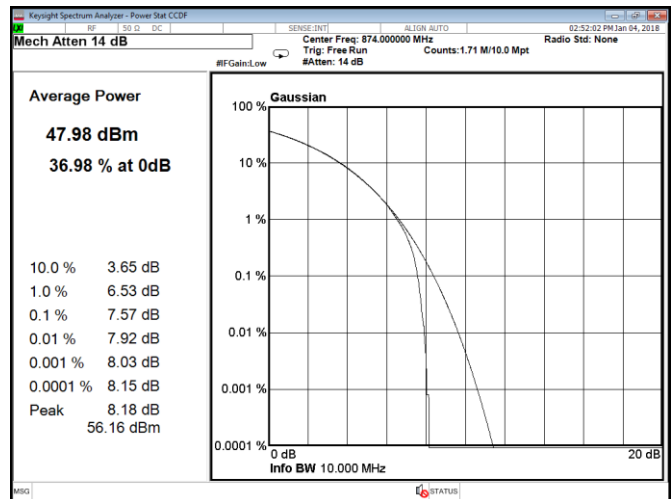


Figure 8.2-58: CCDF, 256QAM, Port D, low channel, configuration 2

8.3 FCC 27.53 Spurious emissions at RF antenna connector

8.3.1 Definitions and limits

- (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.

8.3.2 Test summary

Test date	January 5, 2018
Test engineer	Andrey Adelberg
Verdict	Pass

8.3.3 Observations, settings and special notes

The spectrum was searched from 30 MHz to the 10th harmonic.
All measurements were performed using a RMS detector.
For compensation of MIMO 4x4 application (configuration 1) limit lines were adjusted by 6 dB ($10 \times \log_{10}(4)$)
For compensation of MIMO 2x2 application (configuration 2) limit lines were adjusted by 3 dB ($10 \times \log_{10}(2)$)
RBW within 30–1000 MHz was 100 kHz and 1 MHz above 1 GHz. VBW was wider than RBW.
Configuration 1: Port A with 40 W power, Port B with 40 W power, Port C with 40 W power, Port D with 40 W power.
Configuration 2: Port A with 60 W power, Port D with 60 W power.

8.3.4 Test data

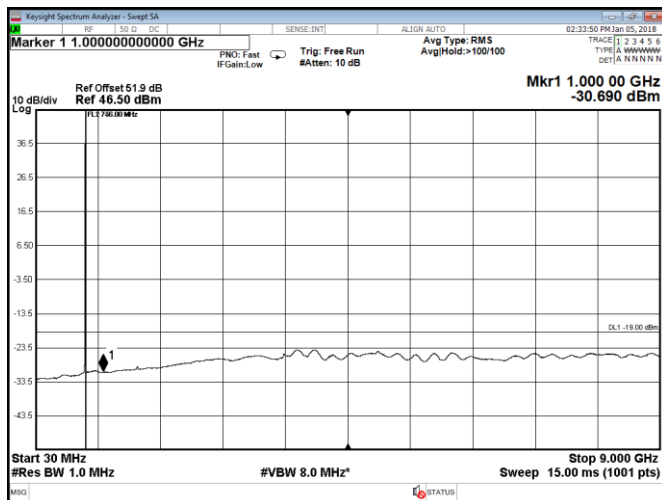


Figure 8.3-1: Conducted spurious emissions, low channel, Port A, QPSK, configuration 1

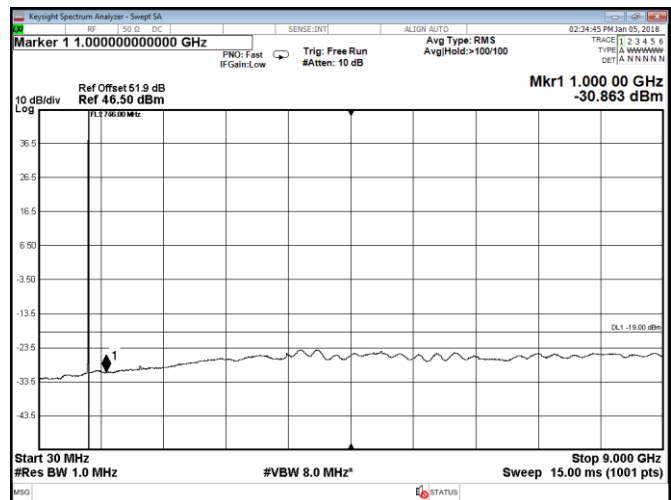


Figure 8.3-2: Conducted spurious emissions, low channel, Port B, QPSK, configuration 1

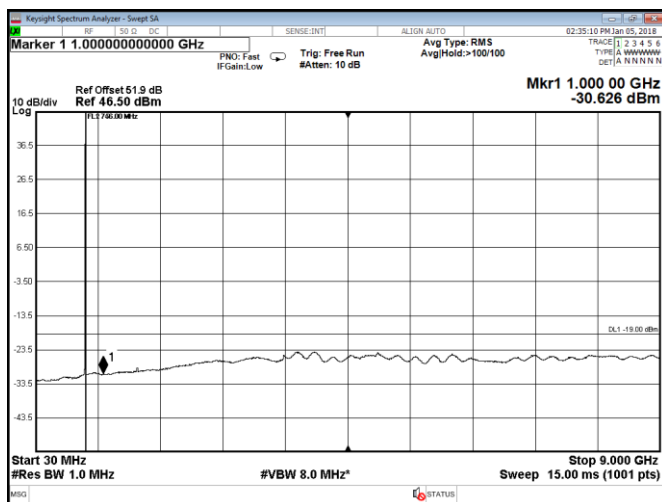


Figure 8.3-3: Conducted spurious emissions, low channel, Port C, QPSK, configuration 1

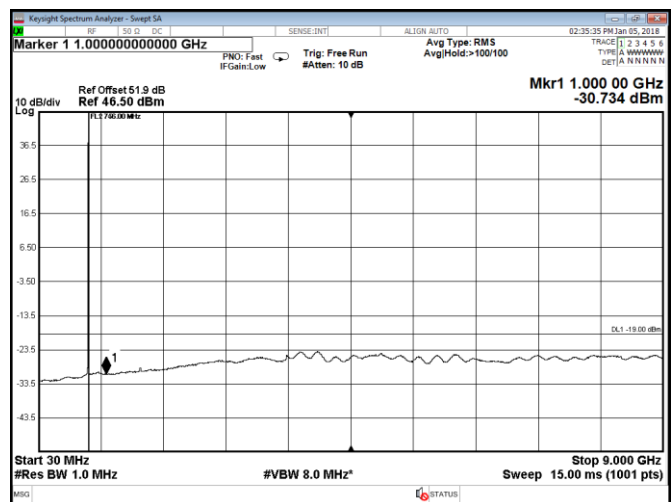


Figure 8.3-4: Conducted spurious emissions, low channel, Port D, QPSK, configuration 1

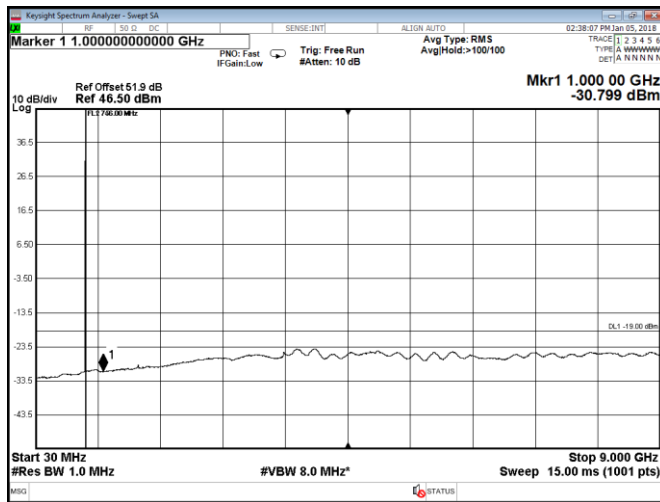


Figure 8.3-5: Conducted spurious emissions, high channel, Port A, QPSK, configuration 1

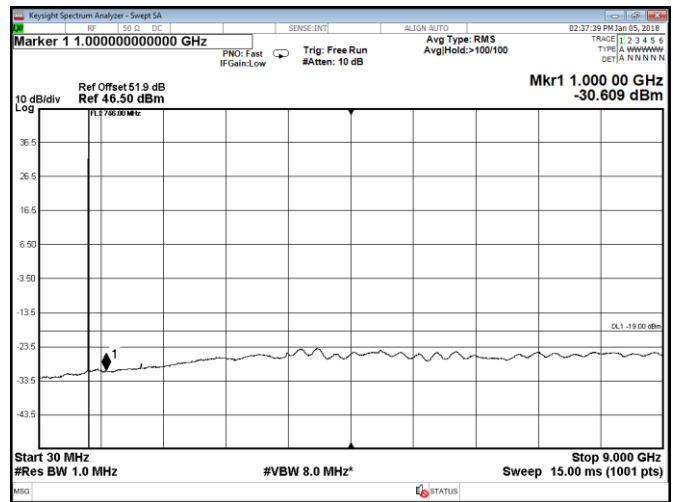


Figure 8.3-6: Conducted spurious emissions, high channel, Port B, QPSK, configuration 1

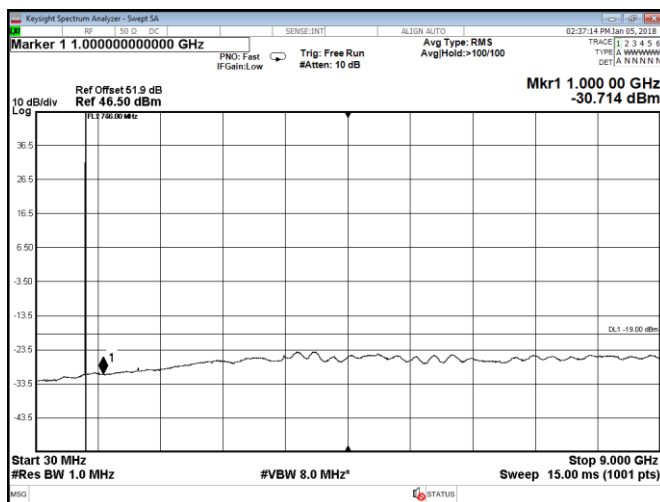


Figure 8.3-7: Conducted spurious emissions, high channel, Port C, QPSK, configuration 1

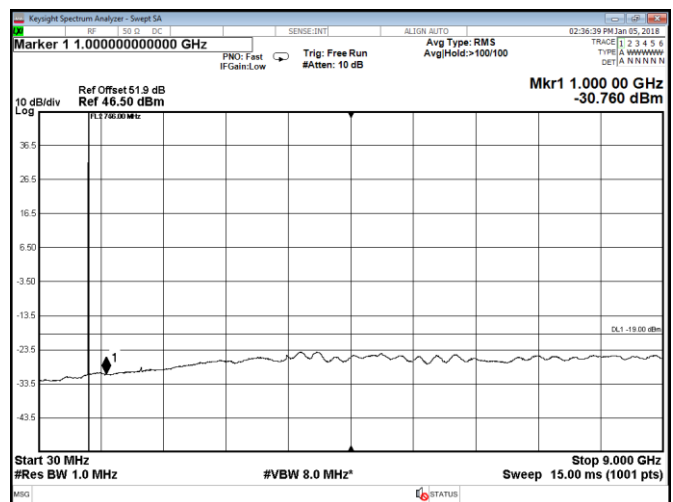


Figure 8.3-8: Conducted spurious emissions, high channel, Port D, QPSK, configuration 1

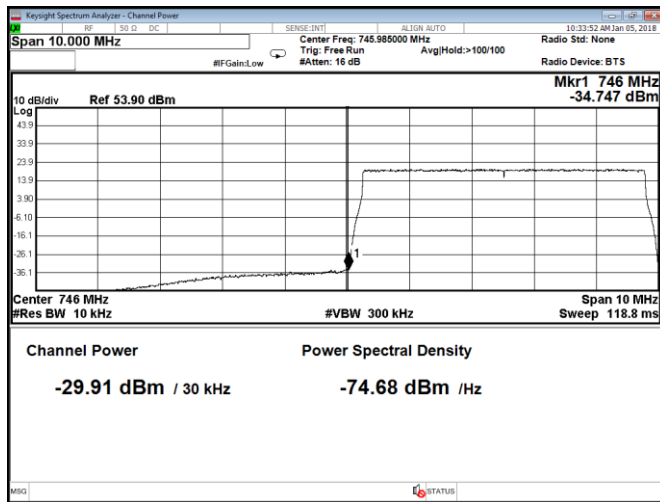


Figure 8.3-9: Conducted band edge emission at 746 MHz, Port A, low channel, QPSK, configuration 1

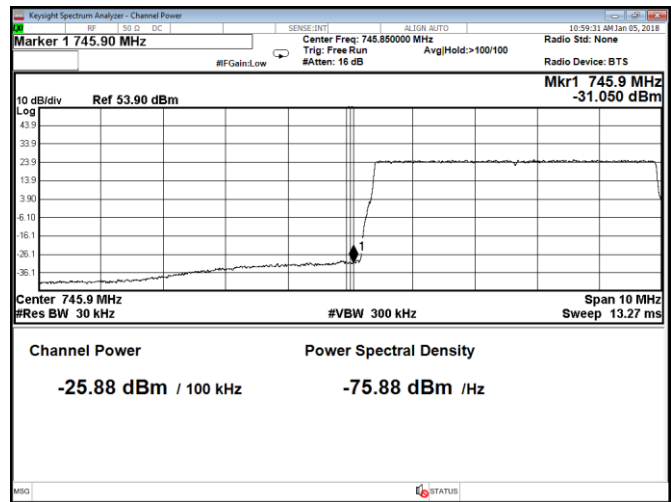


Figure 8.3-10: Conducted band edge emission at 745.9 MHz, Port A, low channel, QPSK, configuration 1

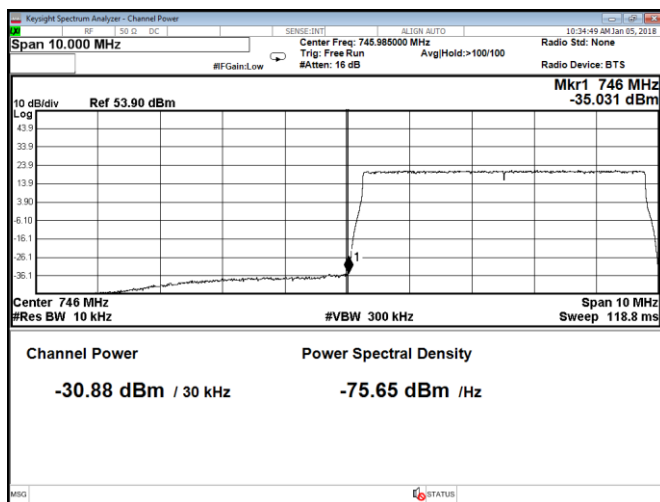


Figure 8.3-11: Conducted band edge emission at 746 MHz, Port B, low channel, QPSK, configuration 1

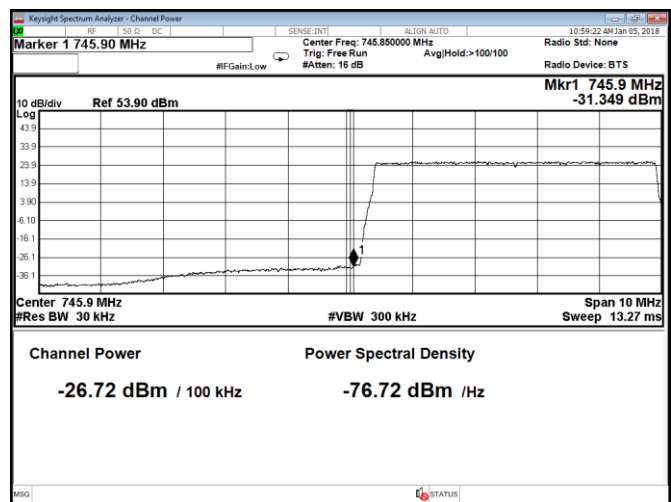


Figure 8.3-12: Conducted band edge emission at 745.9 MHz, Port B, low channel, QPSK, configuration 1

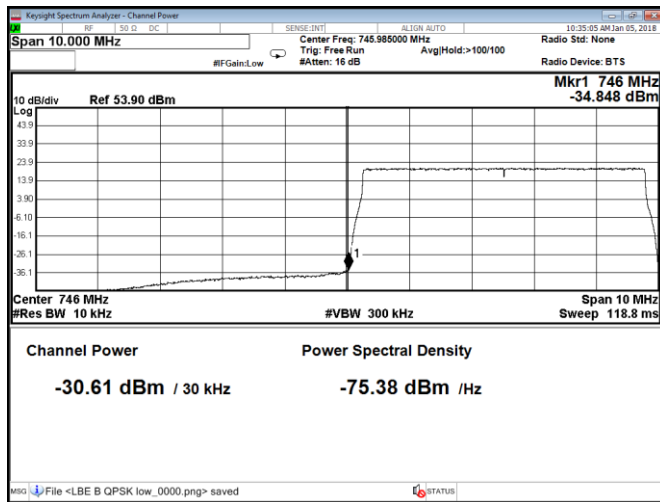


Figure 8.3-13: Conducted band edge emission at 746 MHz, Port C, low channel, QPSK, configuration 1

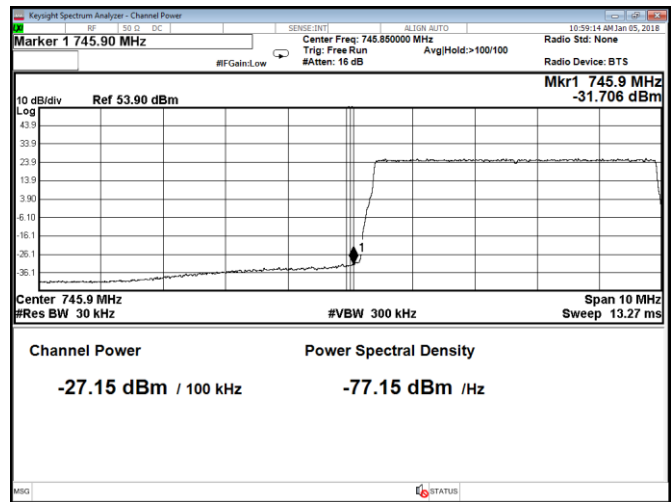


Figure 8.3-14: Conducted band edge emission at 745.9 MHz, Port C, low channel, QPSK, configuration 1

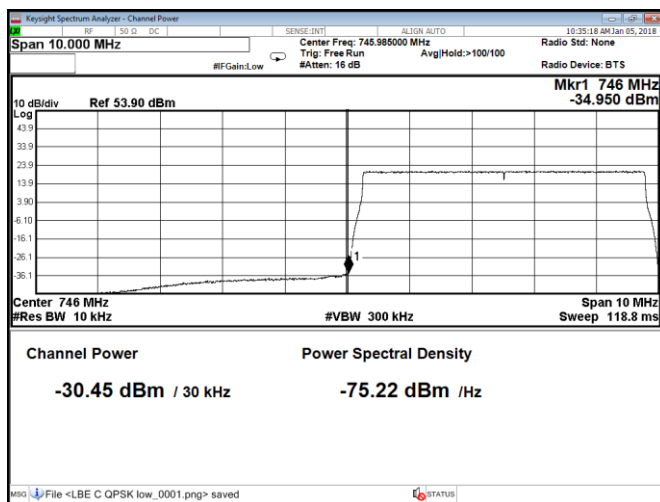


Figure 8.3-15: Conducted band edge emission at 746 MHz, Port D, low channel, QPSK, configuration 1

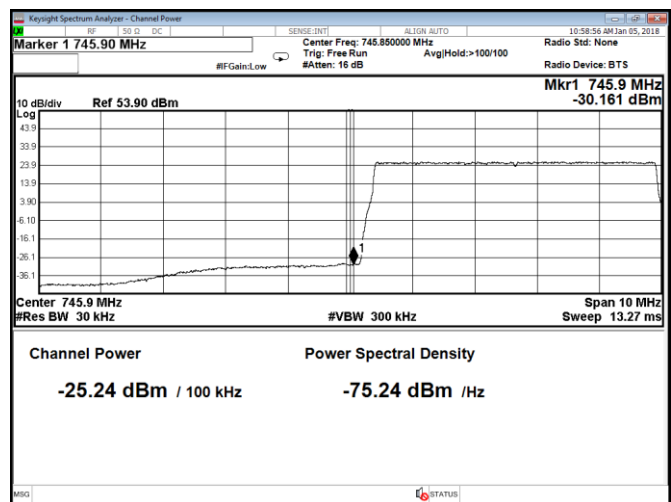


Figure 8.3-16: Conducted band edge emission at 745.9 MHz, Port D, low channel, QPSK, configuration 1

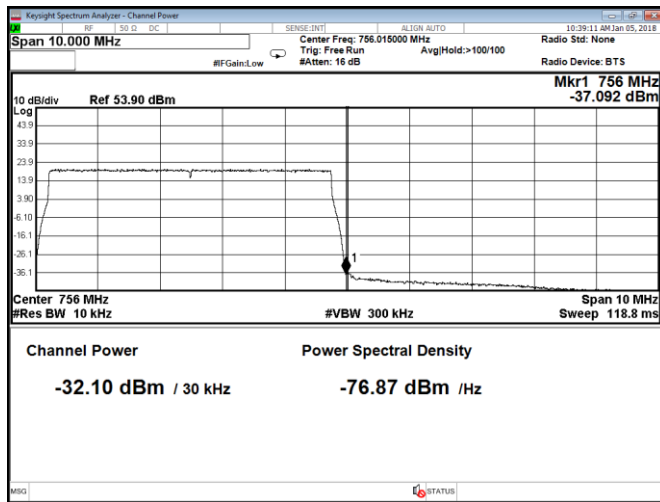


Figure 8.3-17: Conducted band edge emission at 756 MHz, Port A, high channel, QPSK, configuration 1

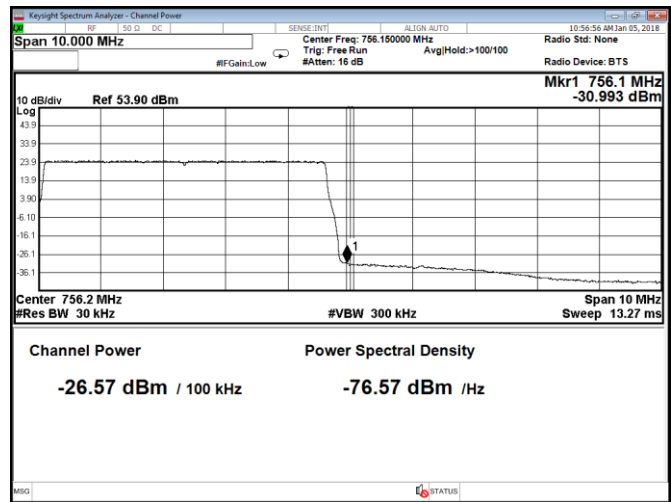


Figure 8.3-18: Conducted band edge emission at 756.1 MHz, Port A, high channel, QPSK, configuration 1

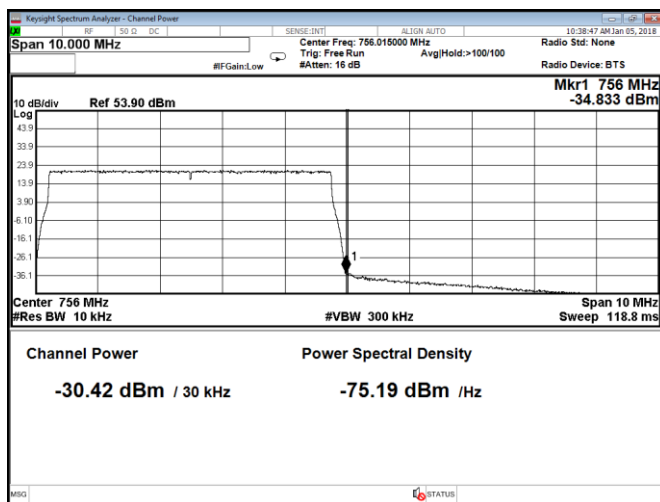


Figure 8.3-19: Conducted band edge emission at 756 MHz, Port B, high channel, QPSK, configuration 1

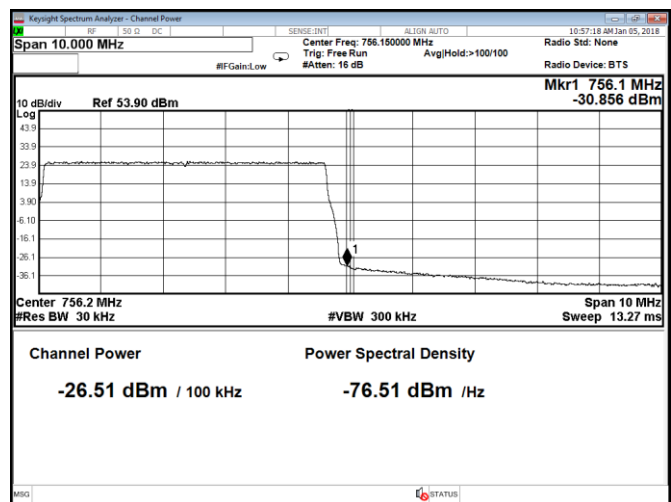


Figure 8.3-20: Conducted band edge emission at 756.1 MHz, Port B, high channel, QPSK, configuration 1

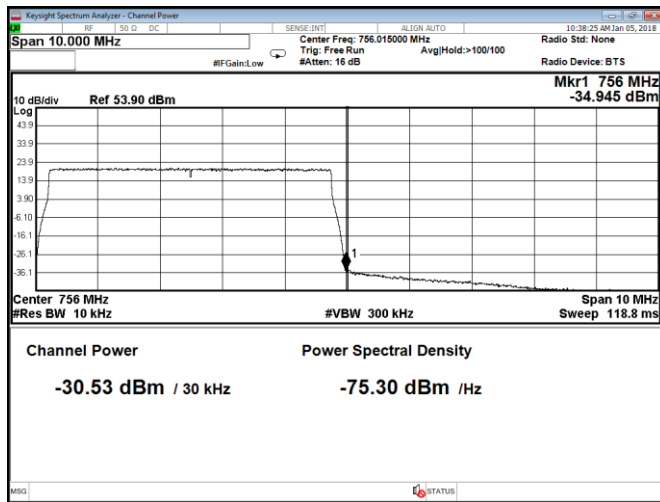


Figure 8.3-21: Conducted band edge emission at 756 MHz, Port C, high channel, QPSK, configuration 1

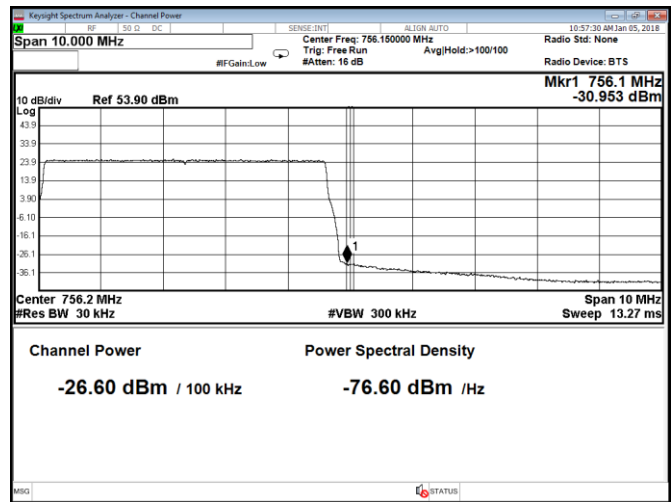


Figure 8.3-22: Conducted band edge emission at 756.1 MHz, Port C, high channel, QPSK, configuration 1

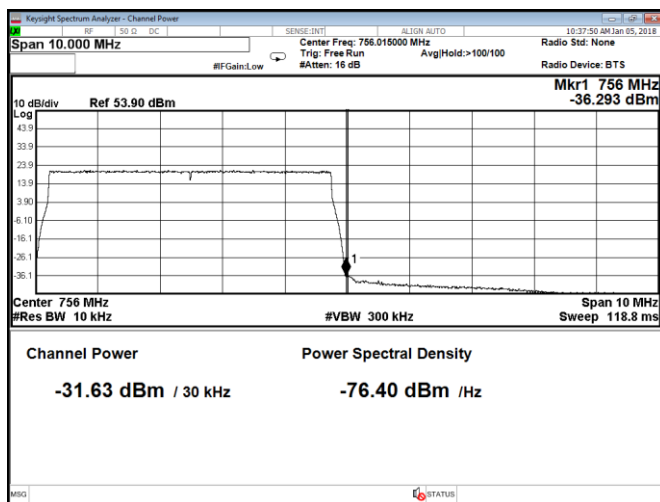


Figure 8.3-23: Conducted band edge emission at 756 MHz, Port D, high channel, QPSK, configuration 1

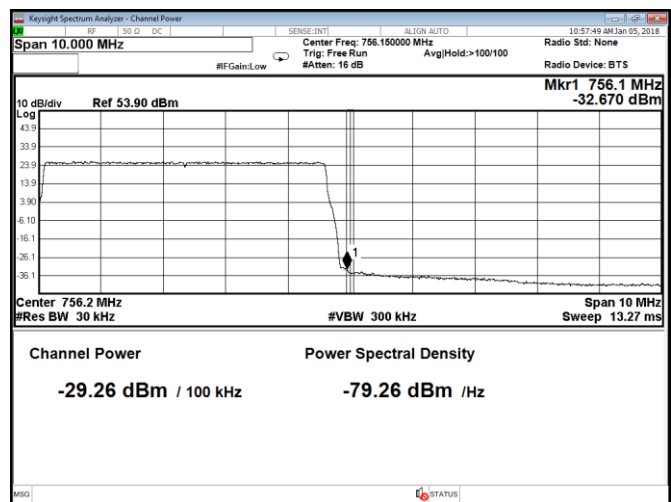


Figure 8.3-24: Conducted band edge emission at 756.1 MHz, Port D, high channel, QPSK, configuration 1

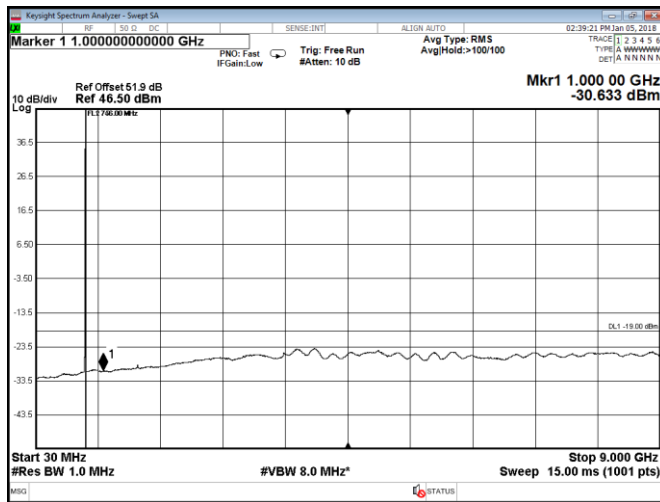


Figure 8.3-25: Conducted spurious emissions, two-channel operation, Port A, QPSK, configuration 1

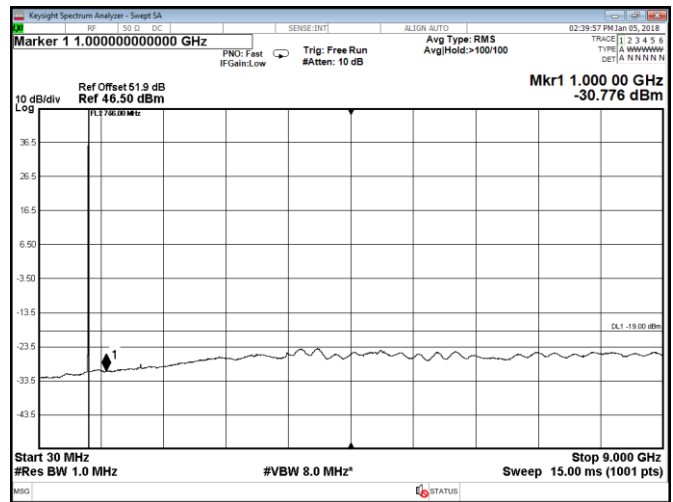


Figure 8.3-26: Conducted spurious emissions, two-channel operation, Port B, QPSK, configuration 1

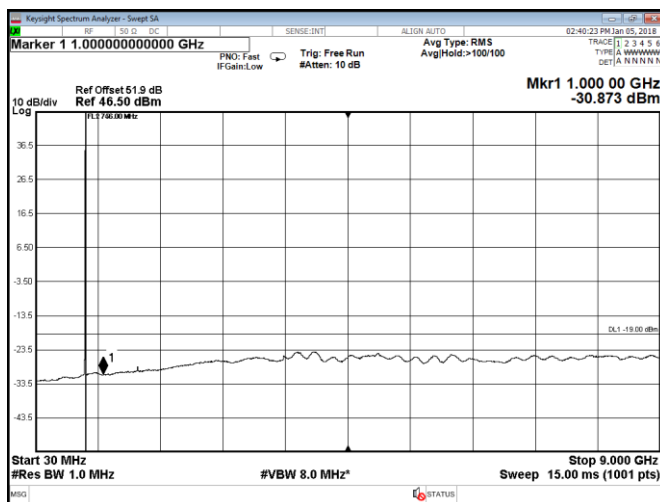


Figure 8.3-27: Conducted spurious emissions, two-channel operation, Port C, QPSK, configuration 1

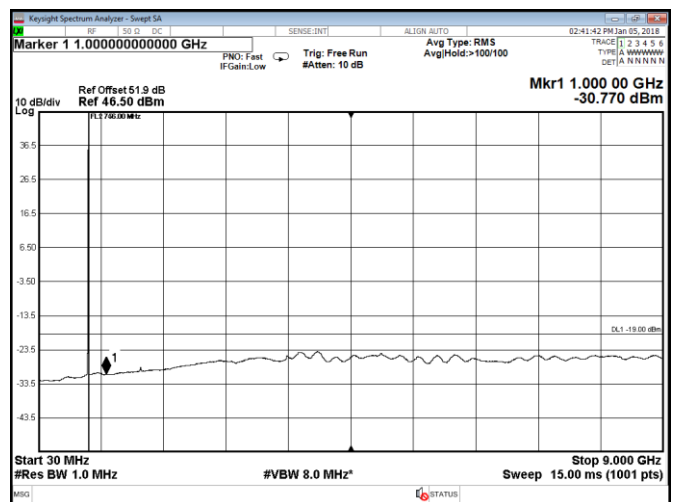


Figure 8.3-28: Conducted spurious emissions, two-channel operation, Port D, QPSK, configuration 1

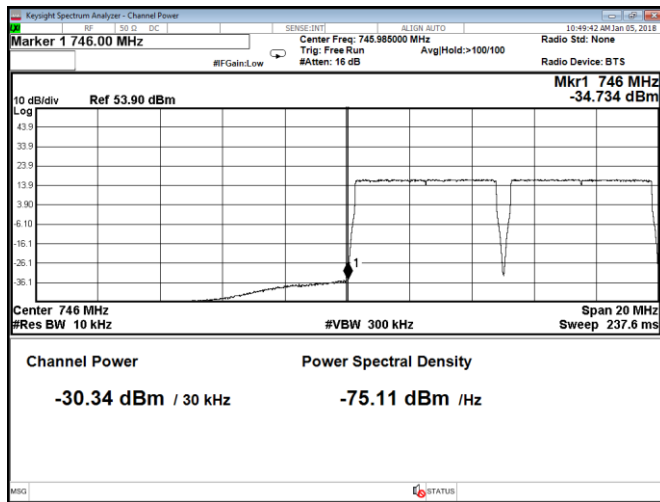


Figure 8.3-29: Conducted band edge emission at 746 MHz, Port A, two-channel operation, QPSK, configuration 1

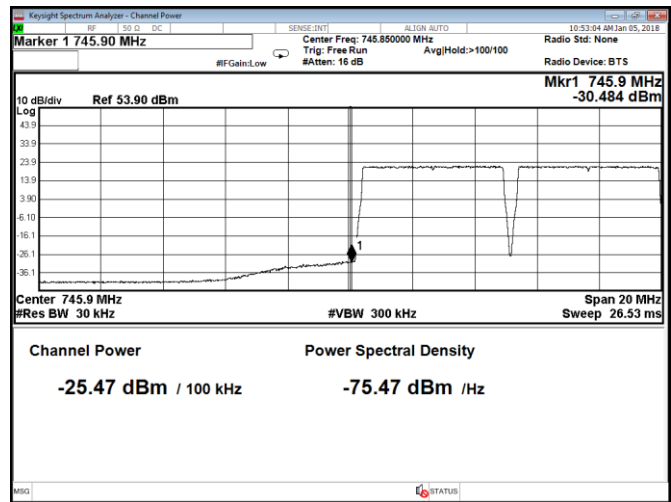


Figure 8.3-30: Conducted band edge emission at 745.9 MHz, Port A, two-channel operation, QPSK, configuration 1

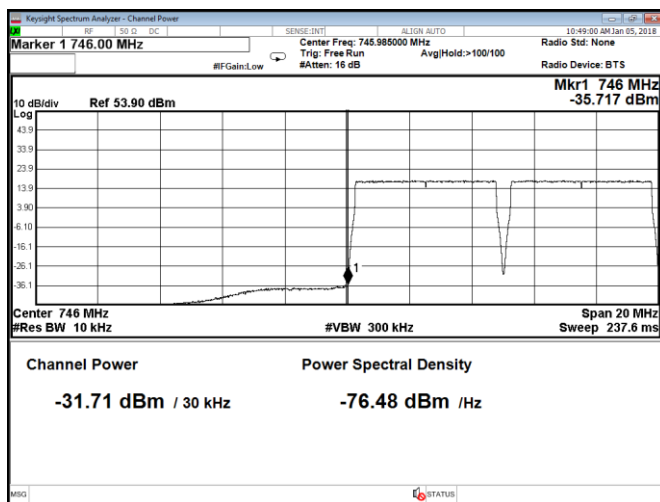


Figure 8.3-31: Conducted band edge emission at 746 MHz, Port B, two-channel operation, QPSK, configuration 1

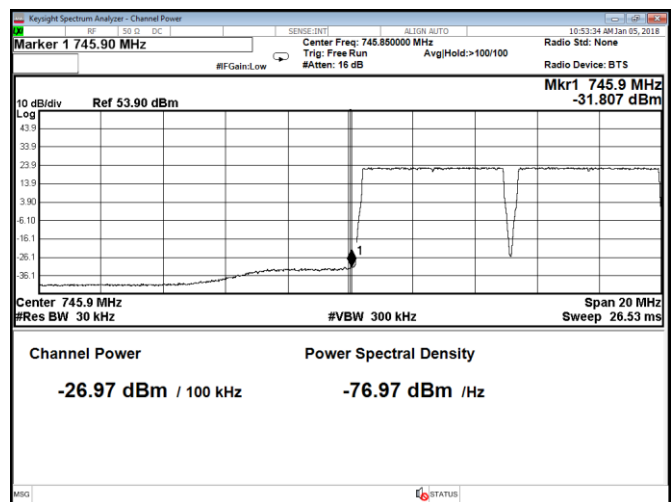


Figure 8.3-32: Conducted band edge emission at 745.9 MHz, Port B, two-channel operation, QPSK, configuration 1

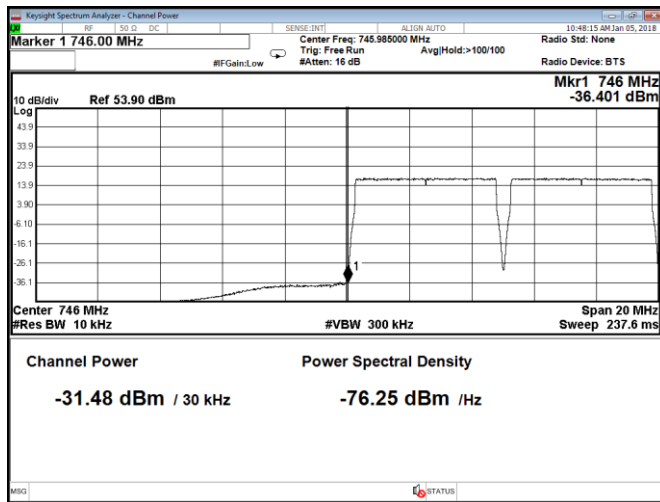


Figure 8.3-33: Conducted band edge emission at 746 MHz, Port C, two-channel operation, QPSK, configuration 1

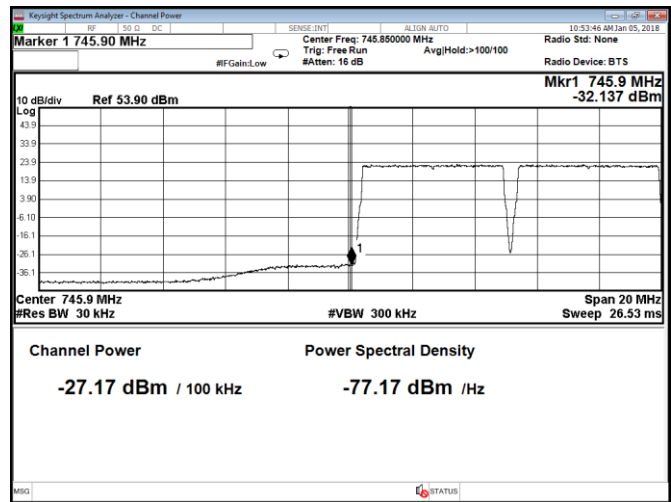


Figure 8.3-34: Conducted band edge emission at 745.9 MHz, Port C, two-channel operation, QPSK, configuration 1

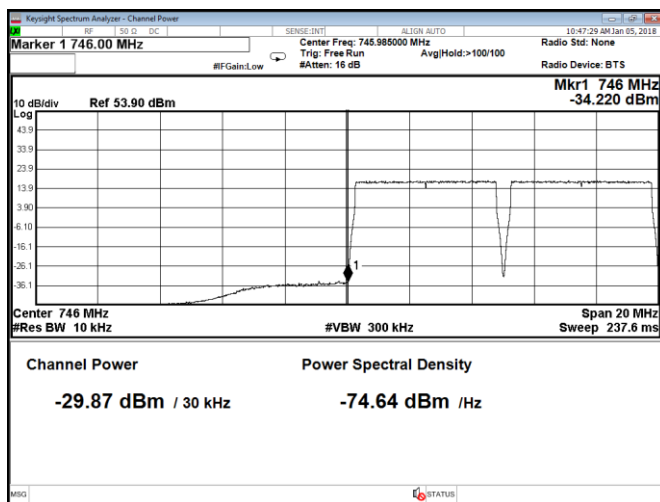


Figure 8.3-35: Conducted band edge emission at 746 MHz, Port D, two-channel operation, QPSK, configuration 1

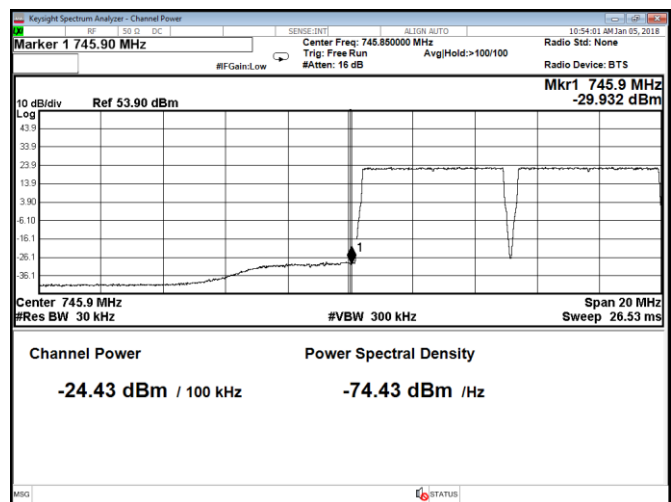


Figure 8.3-36: Conducted band edge emission at 745.9 MHz, Port D, two-channel operation, QPSK, configuration 1

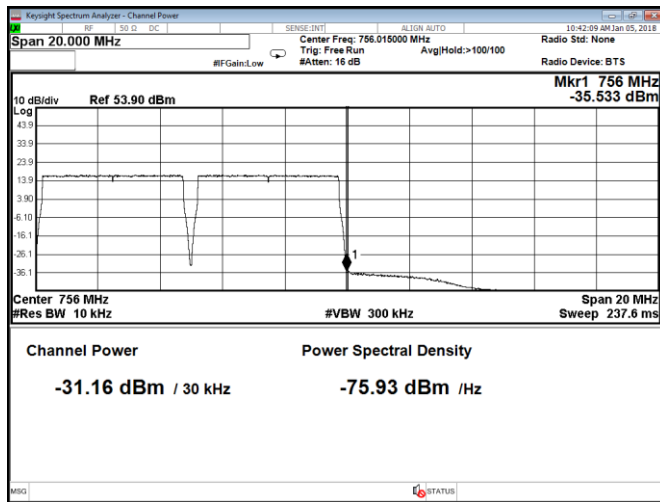


Figure 8.3-37: Conducted band edge emission at 756 MHz, Port A, two-channel operation, QPSK, configuration 1

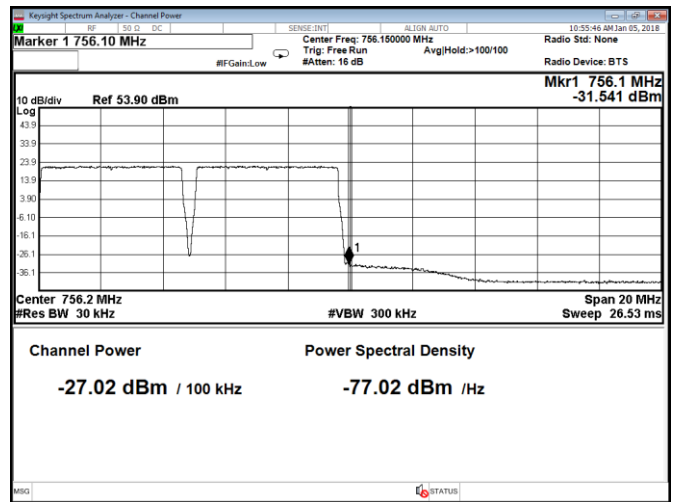


Figure 8.3-38: Conducted band edge emission at 756.1 MHz, Port A, two-channel operation, QPSK, configuration 1

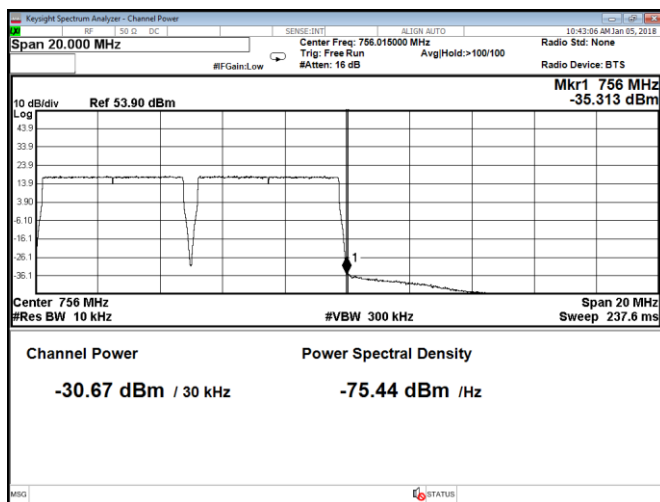


Figure 8.3-39: Conducted band edge emission at 756 MHz, Port B, two-channel operation, QPSK, configuration 1

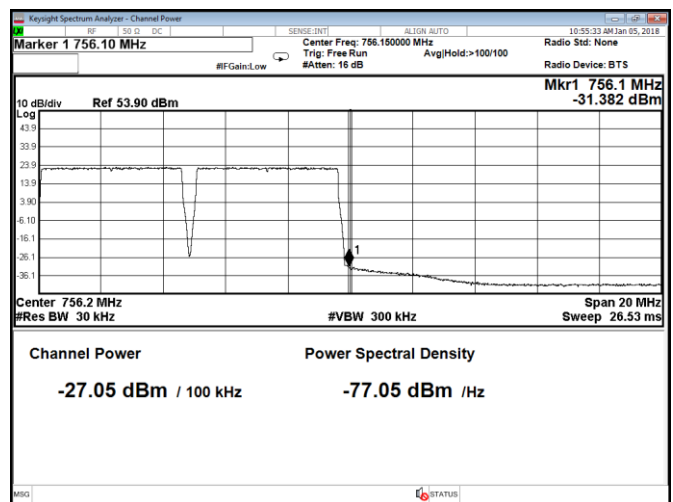


Figure 8.3-40: Conducted band edge emission at 756.1 MHz, Port B, two-channel operation, QPSK, configuration 1

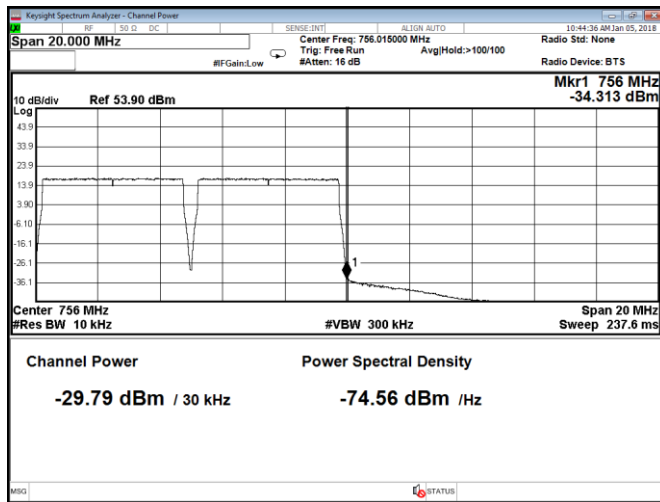


Figure 8.3-41: Conducted band edge emission at 756 MHz, Port C, two-channel operation, QPSK, configuration 1

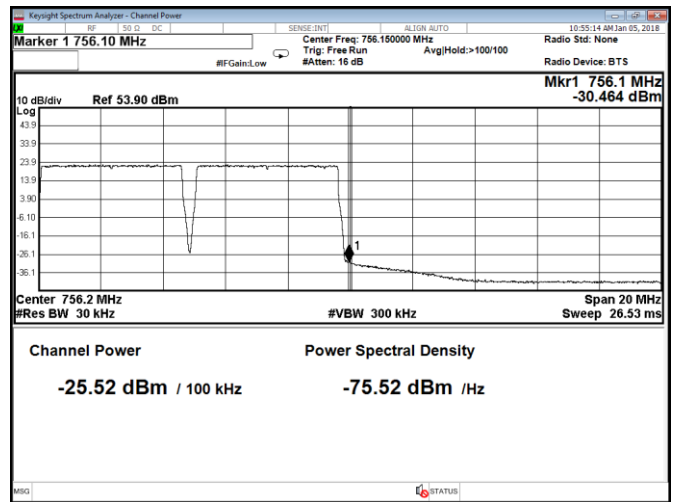


Figure 8.3-42: Conducted band edge emission at 756.1 MHz, Port C, two-channel operation, QPSK, configuration 1

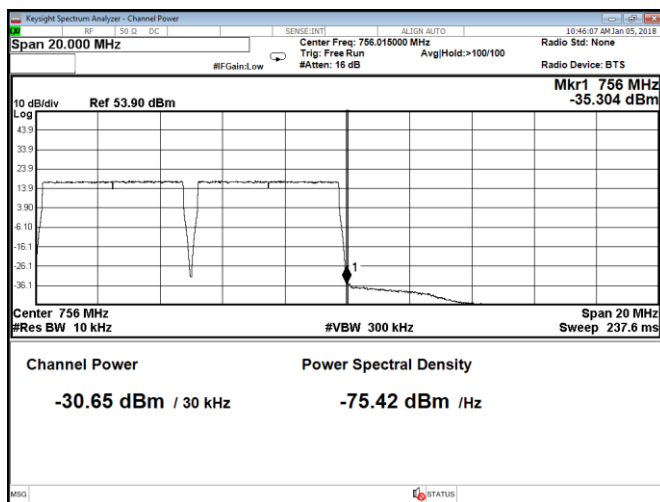


Figure 8.3-43: Conducted band edge emission at 756 MHz, Port D, two-channel operation, QPSK, configuration 1

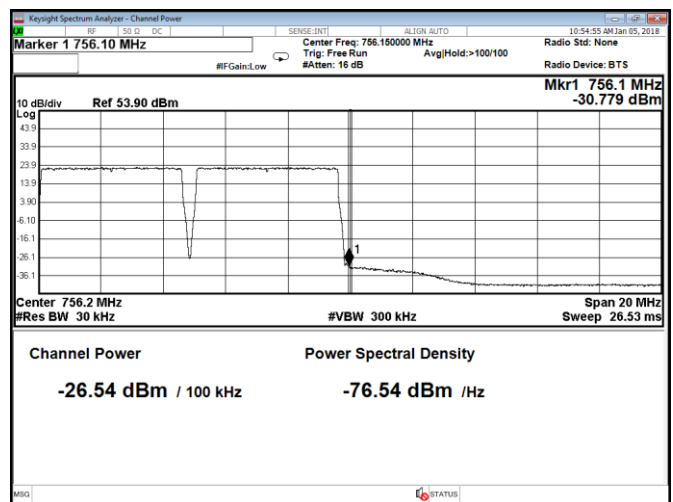


Figure 8.3-44: Conducted band edge emission at 756.1 MHz, Port D, two-channel operation, QPSK, configuration 1

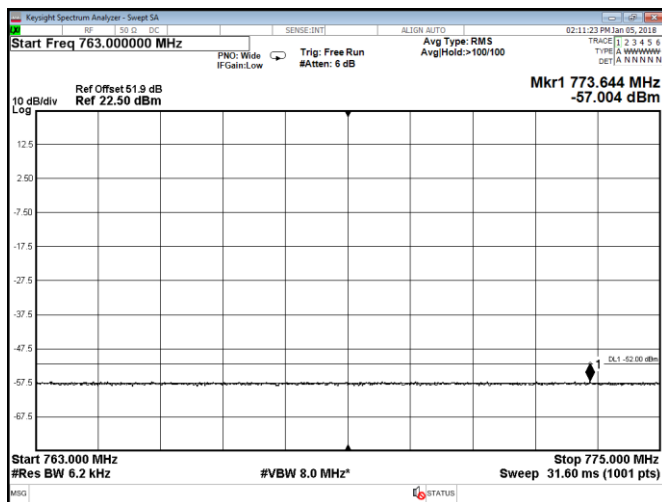


Figure 8.3-45: Conducted spurious emission within 763–775 MHz, Port A, QPSK, low channel, configuration 1

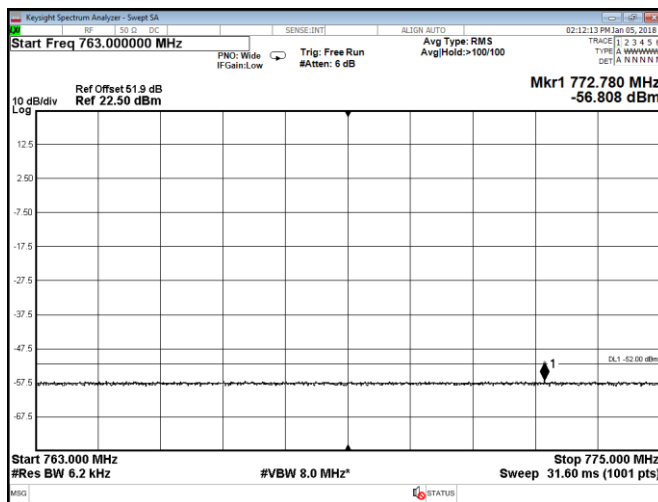


Figure 8.3-46: Conducted spurious emission within 763–775 MHz, Port B, QPSK, low channel, configuration 1

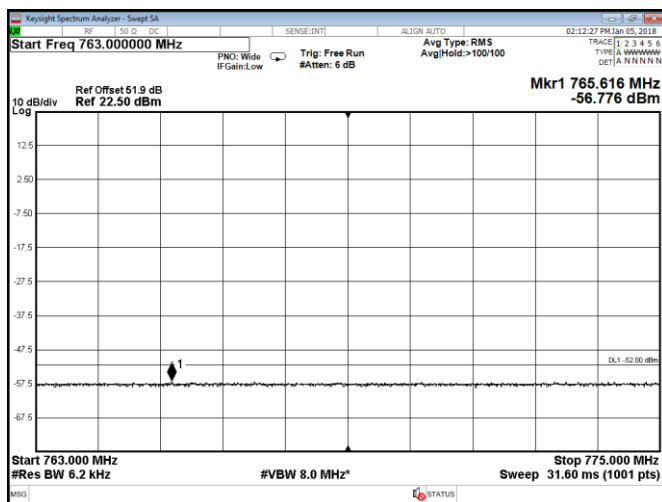


Figure 8.3-47: Conducted spurious emission within 763–775 MHz, Port C, QPSK, low channel, configuration 1

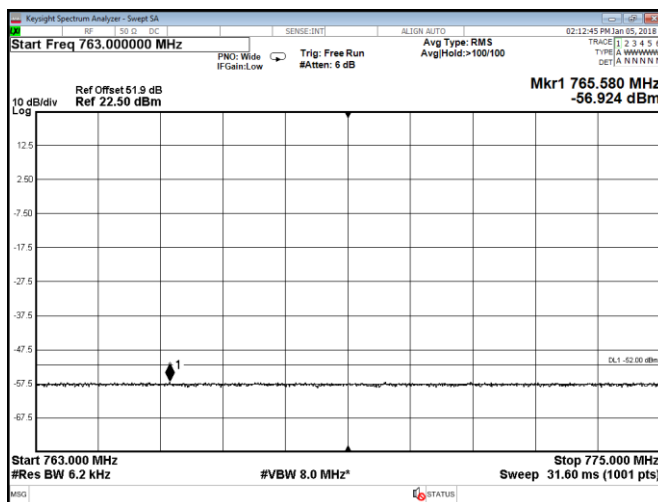


Figure 8.3-48: Conducted spurious emission within 763–775 MHz, Port D, QPSK, low channel, configuration 1

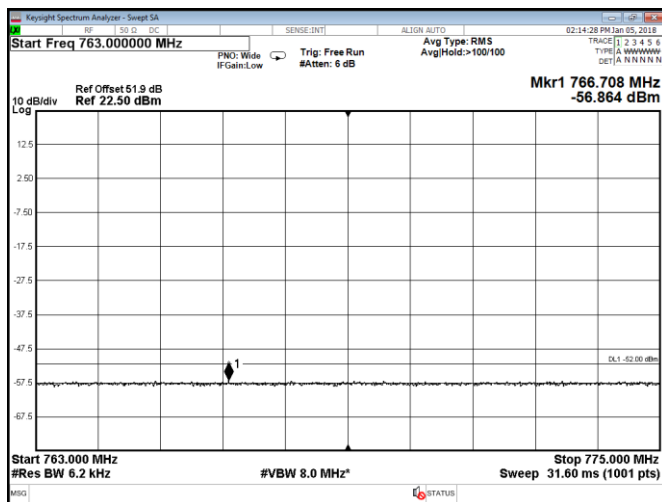


Figure 8.3-49: Conducted spurious emission within 763–775 MHz, Port A, QPSK, high channel, configuration 1

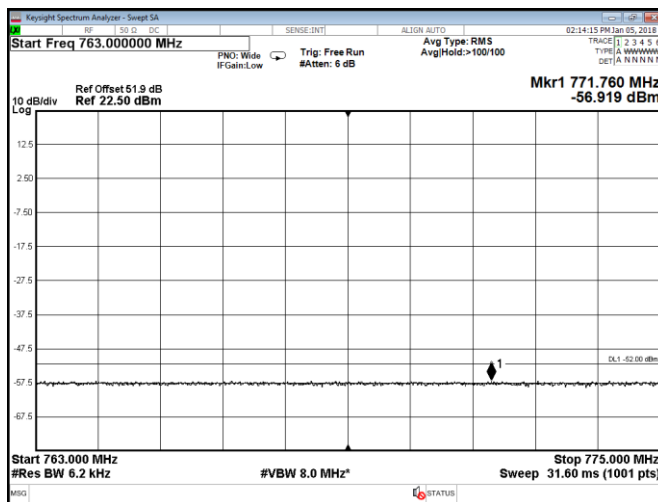


Figure 8.3-50: Conducted spurious emission within 763–775 MHz, Port B, QPSK, high channel, configuration 1

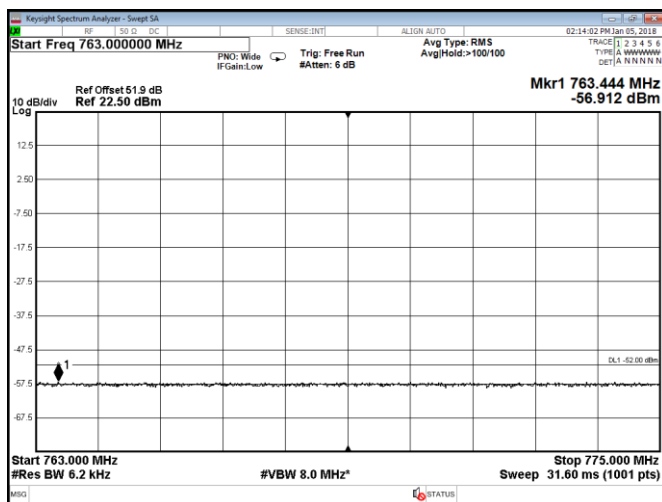


Figure 8.3-51: Conducted spurious emission within 763–775 MHz, Port C, QPSK, high channel, configuration 1

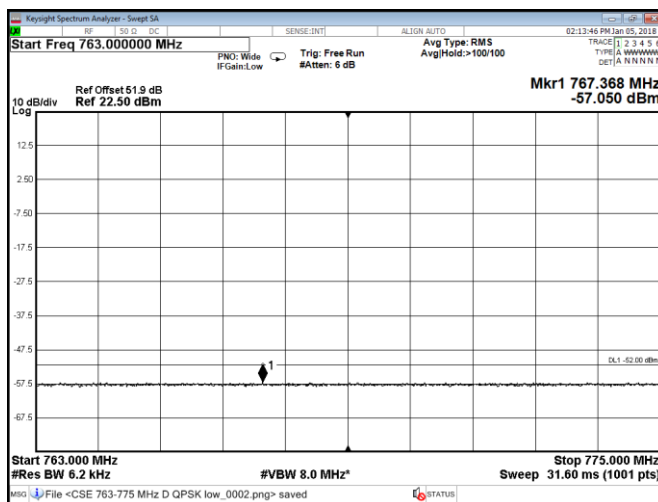


Figure 8.3-52: Conducted spurious emission within 763–775 MHz, Port D, QPSK, high channel, configuration 1

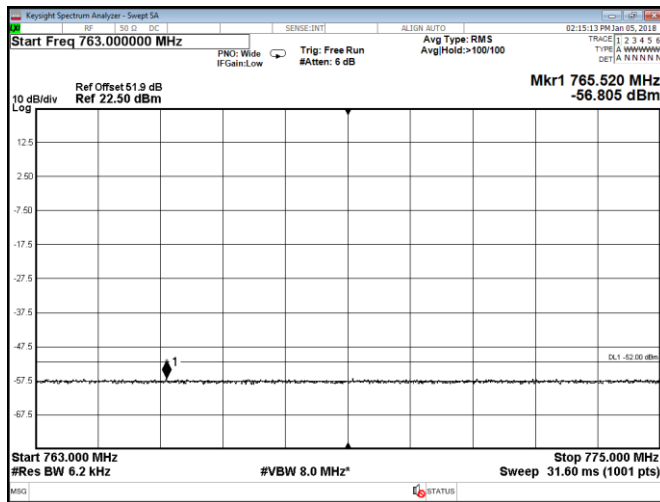


Figure 8.3-53: Conducted spurious emission within 763–775 MHz, Port A, QPSK, two-channel operation, configuration 1

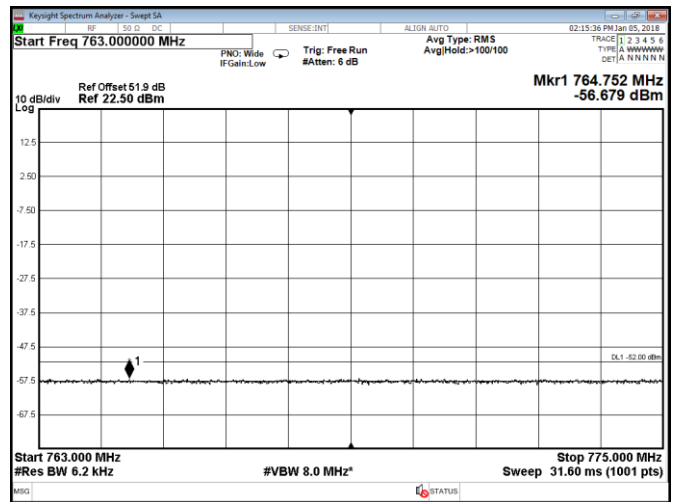


Figure 8.3-54: Conducted spurious emission within 763–775 MHz, Port B, QPSK, two-channel operation, configuration 1

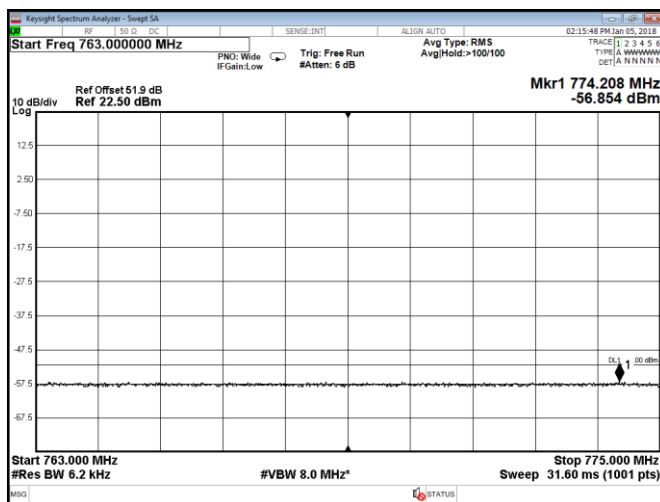


Figure 8.3-55: Conducted spurious emission within 763–775 MHz, Port C, QPSK, two-channel operation, configuration 1

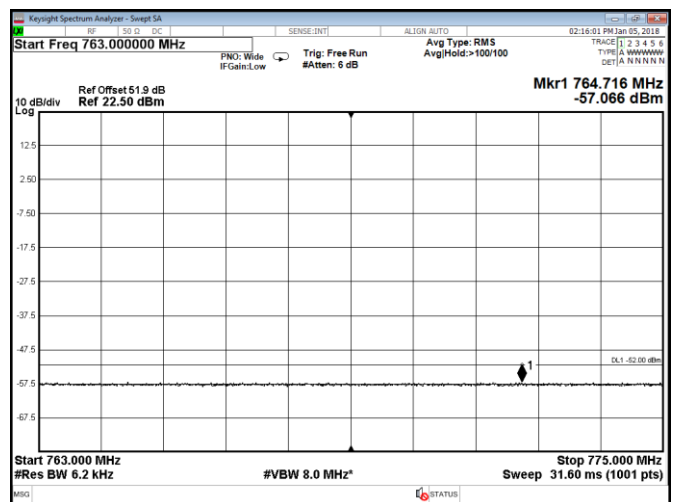


Figure 8.3-56: Conducted spurious emission within 763–775 MHz, Port D, QPSK, two-channel operation, configuration 1

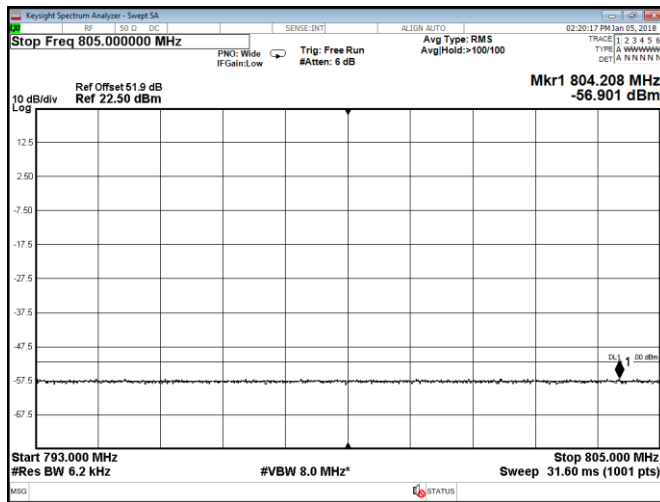


Figure 8.3-57: Conducted spurious emission within 793–805 MHz, Port A, QPSK, low channel, configuration 1

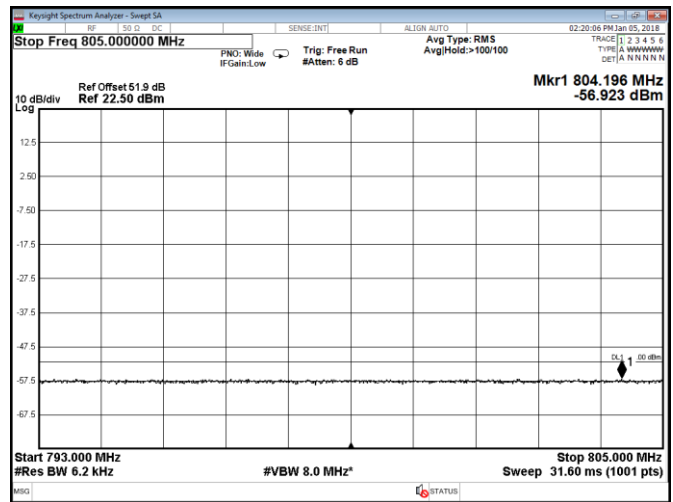


Figure 8.3-58: Conducted spurious emission within 793–805 MHz, Port B, QPSK, low channel, configuration 1

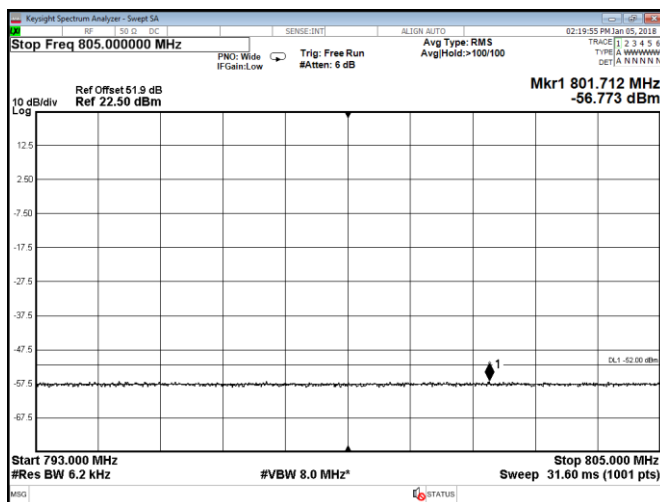


Figure 8.3-59: Conducted spurious emission within 793–805 MHz, Port C, QPSK, low channel, configuration 1

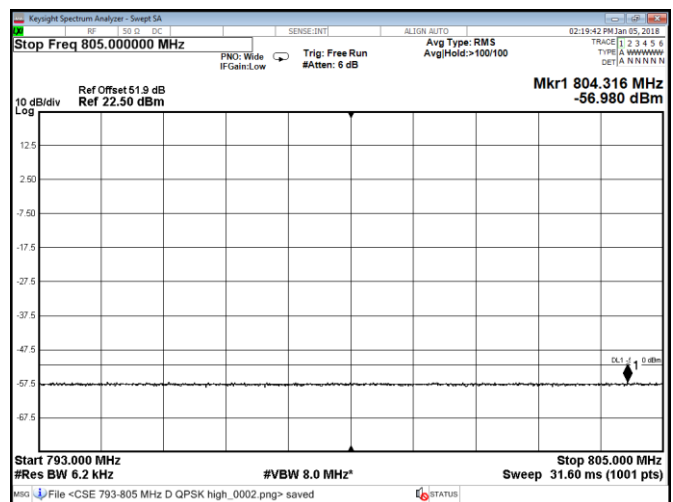


Figure 8.3-60: Conducted spurious emission within 793–805 MHz, Port D, QPSK, low channel, configuration 1

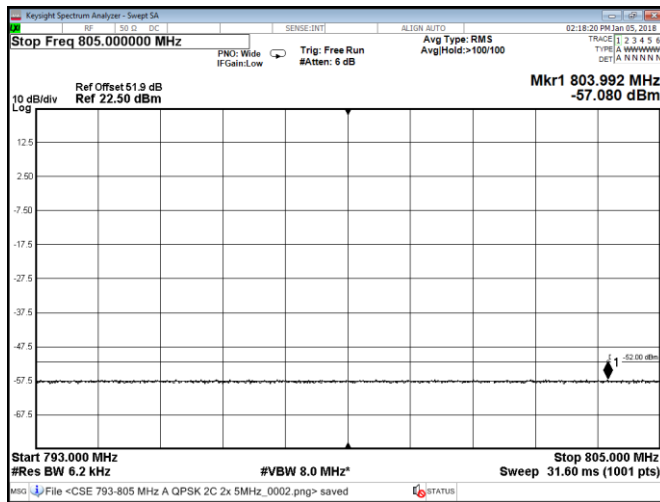


Figure 8.3-61: Conducted spurious emission within 793–805 MHz, Port A, QPSK, high channel, configuration 1

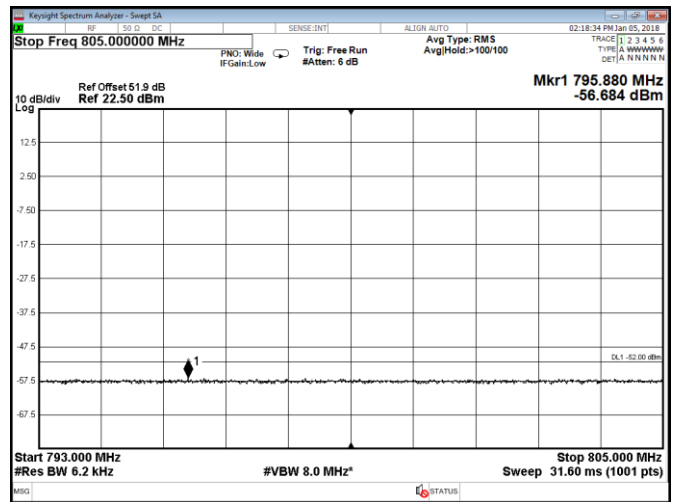


Figure 8.3-62: Conducted spurious emission within 793–805 MHz, Port B, QPSK, high channel, configuration 1

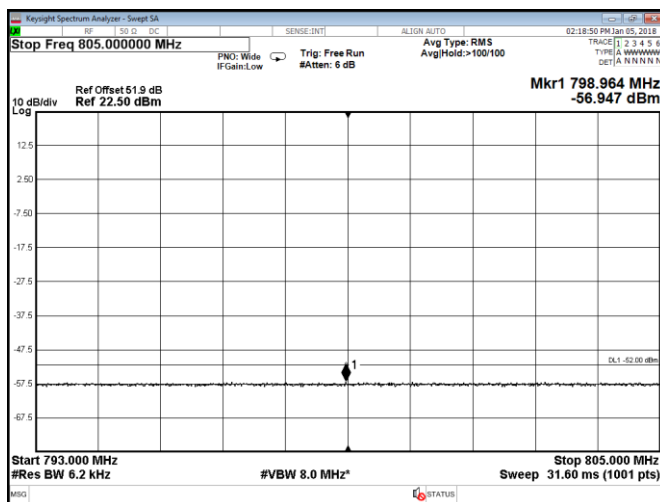


Figure 8.3-63: Conducted spurious emission within 793–805 MHz, Port C, QPSK, high channel, configuration 1

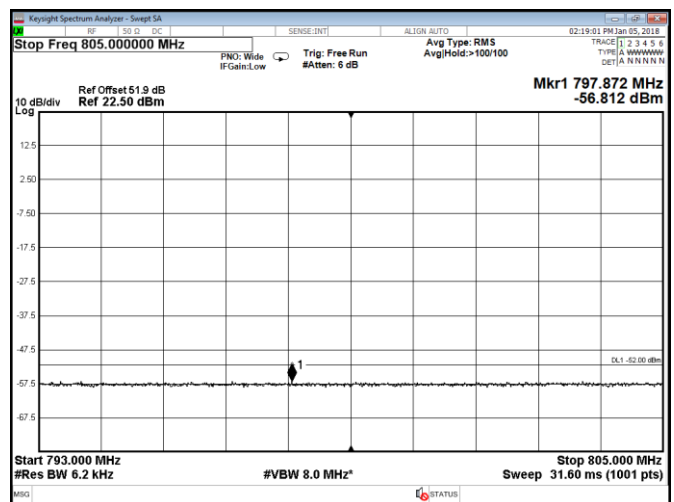


Figure 8.3-64: Conducted spurious emission within 793–805 MHz, Port D, QPSK, high channel, configuration 1

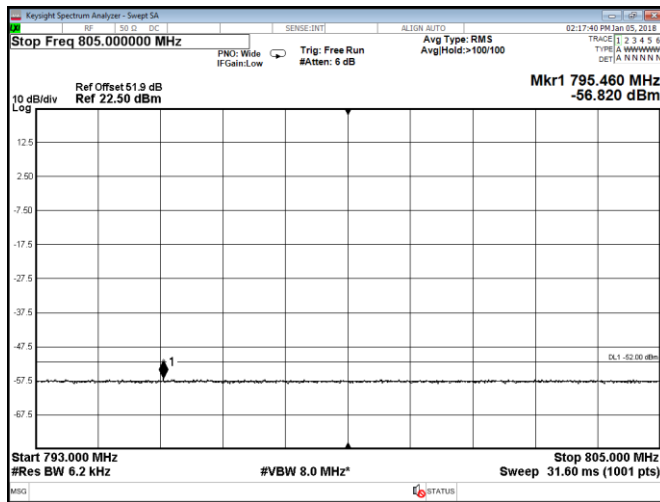


Figure 8.3-65: Conducted spurious emission within 793–805 MHz, Port A, QPSK, two-channel operation, configuration 1

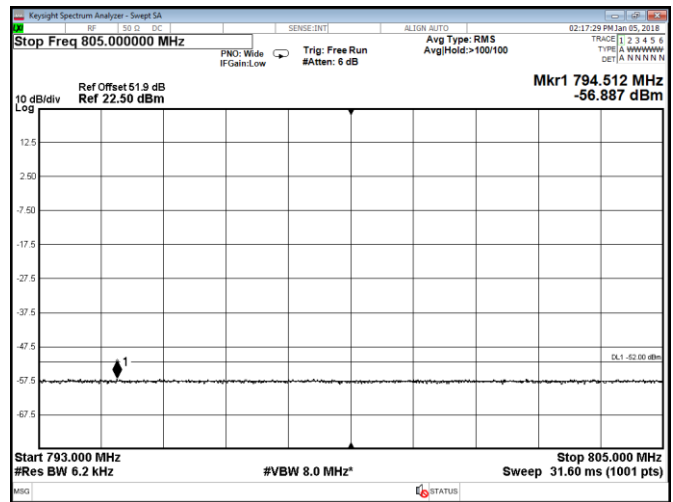


Figure 8.3-66: Conducted spurious emission within 793–805 MHz, Port B, QPSK, two-channel operation, configuration 1

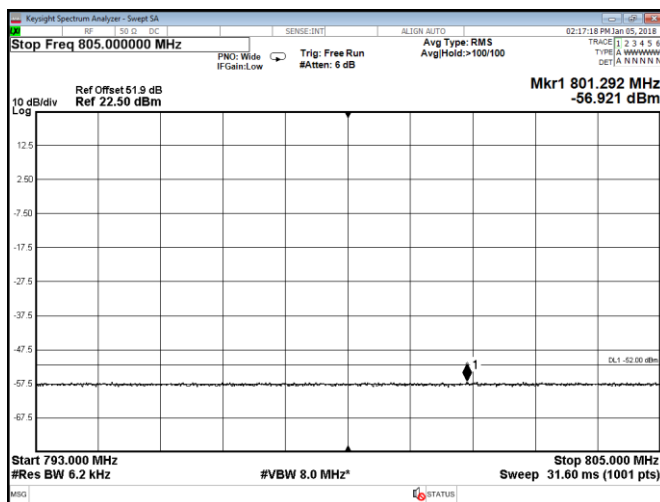


Figure 8.3-67: Conducted spurious emission within 793–805 MHz, Port C, QPSK, two-channel operation, configuration 1

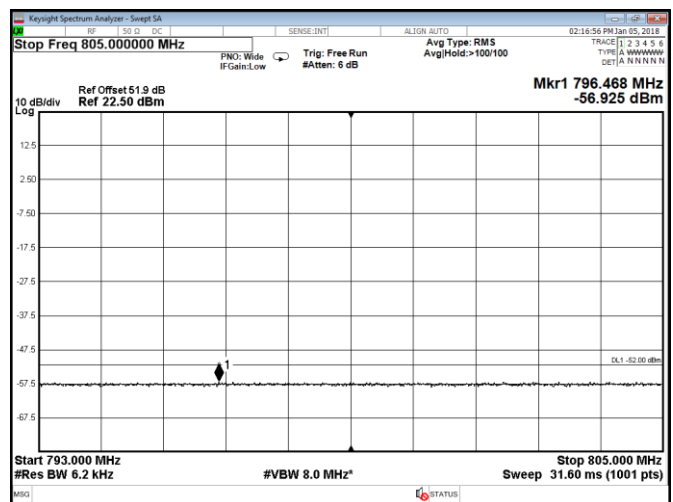


Figure 8.3-68: Conducted spurious emission within 793–805 MHz, Port D, QPSK, two-channel operation, configuration 1

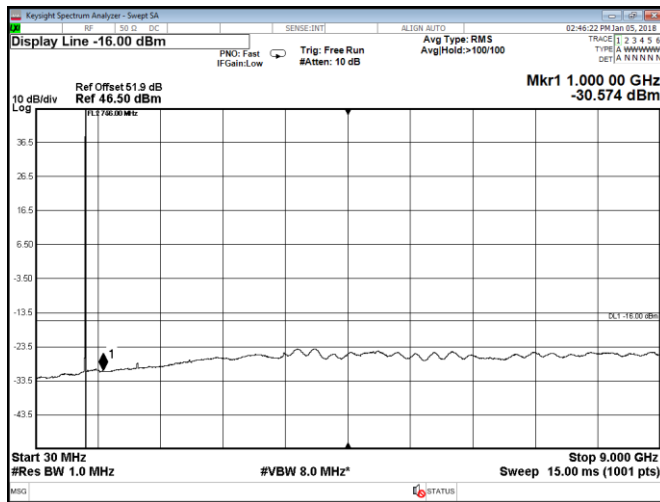


Figure 8.3-69: Conducted spurious emissions at Port A, QPSK, low channel, configuration 2

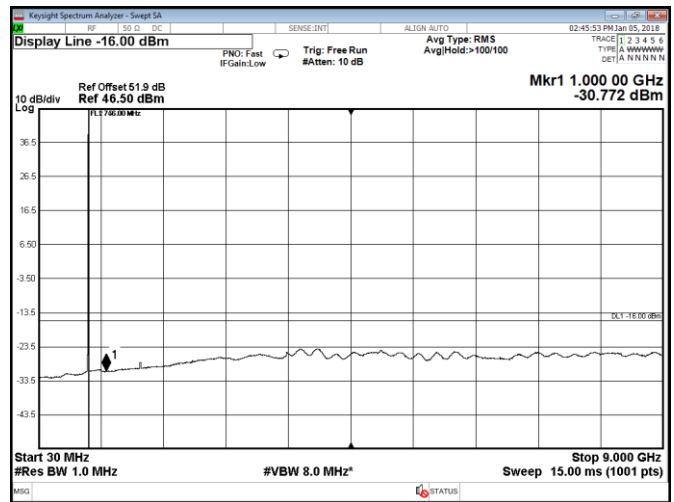


Figure 8.3-70: Conducted spurious emissions at Port D, QPSK, low channel, configuration 2

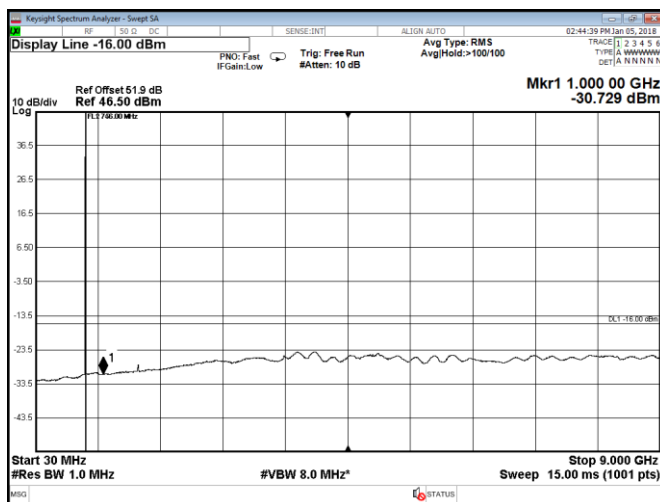


Figure 8.3-71: Conducted spurious emissions at Port A, QPSK, high channel, configuration 2

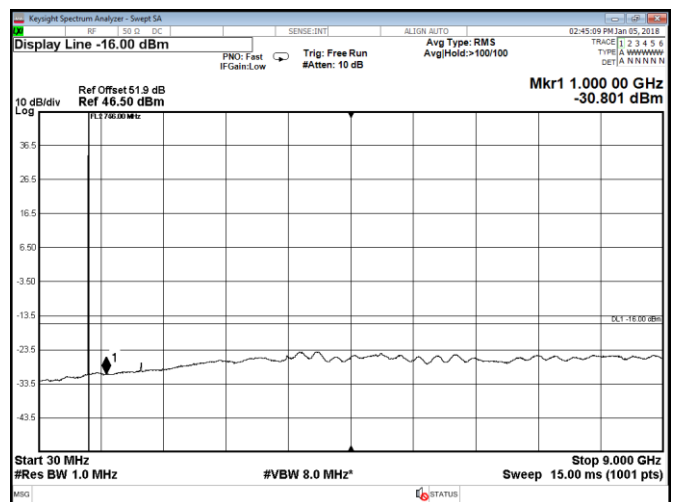


Figure 8.3-72: Conducted spurious emissions at Port D, QPSK, high channel, configuration 2

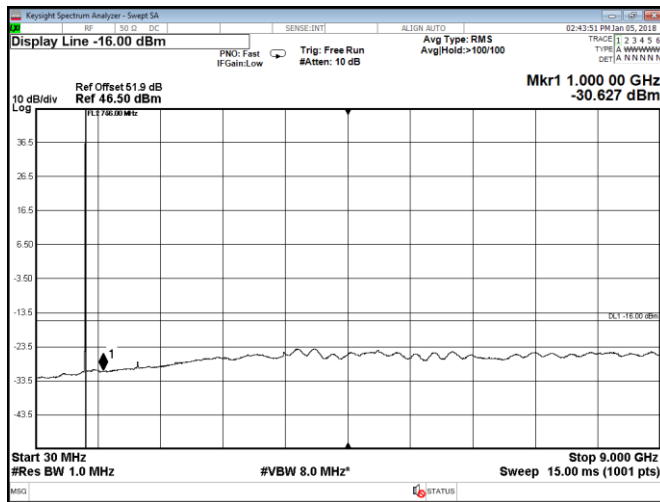


Figure 8.3-73: Conducted spurious emissions at Port A, QPSK, two-channel operation, configuration 2

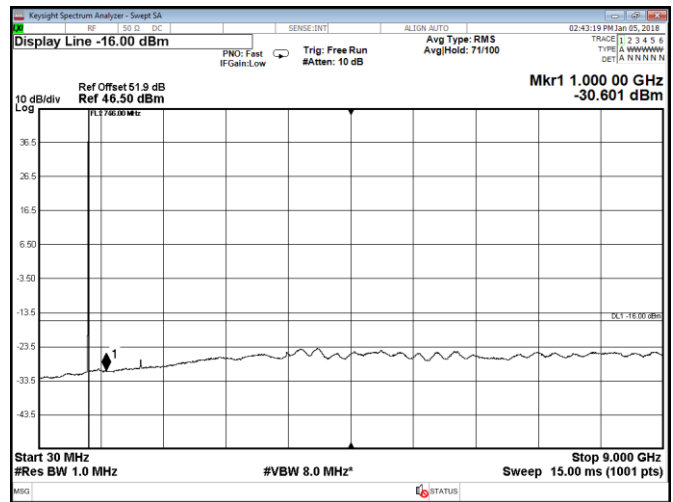


Figure 8.3-74: Conducted spurious emissions at Port D, QPSK, two-channel operation, configuration 2

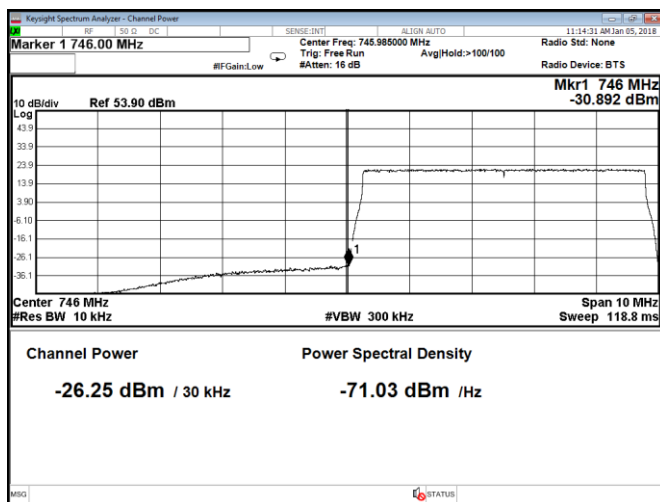


Figure 8.3-75: Conducted band edge emission at 746 MHz, Port A, QPSK, low channel, configuration 2

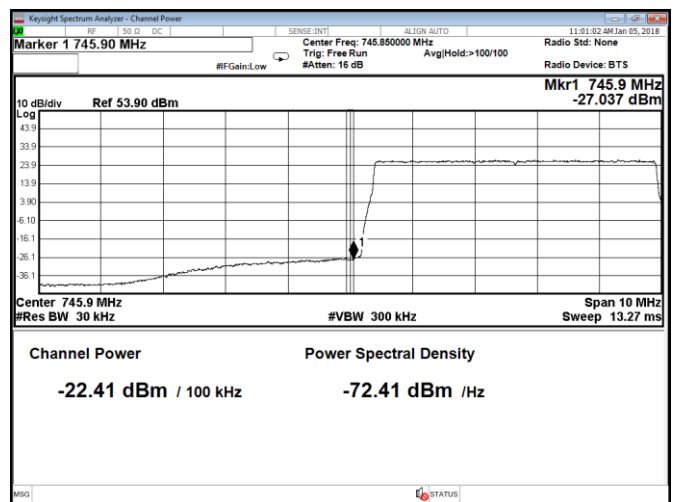


Figure 8.3-76: Conducted band edge emission at 745.9 MHz, Port A, QPSK, low channel, configuration 2