

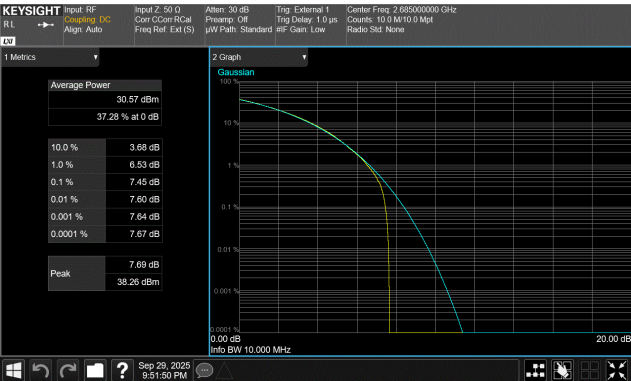
PEAK AND AVERAGE (PAPR) CCDF - LTE



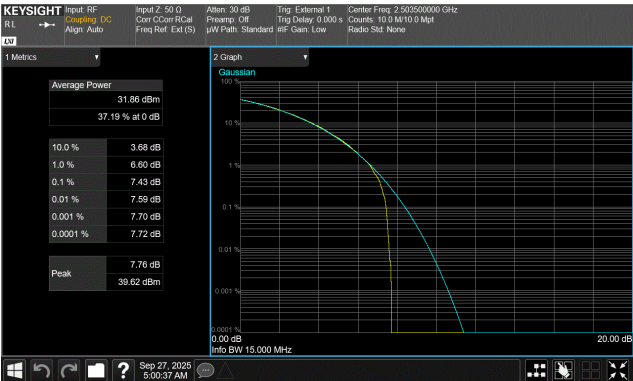
Port 1
10 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 2501.00 MHz



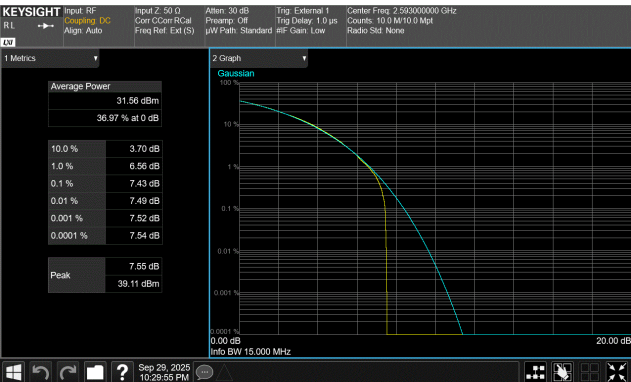
Port 1
10 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 2593.00 MHz



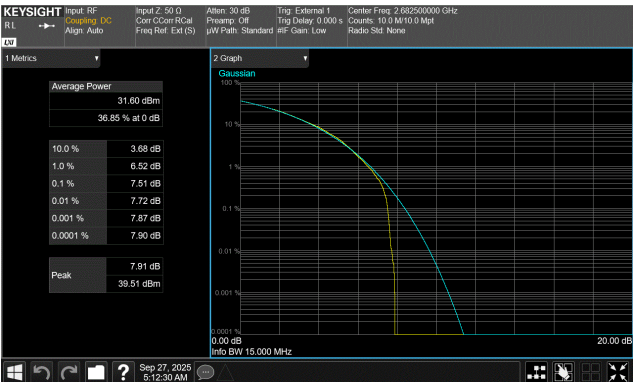
Port 1
10 MHz Channel Bandwidth
QPSK Modulation
High Channel, 2685.00 MHz



Port 1
15 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 2503.50 MHz

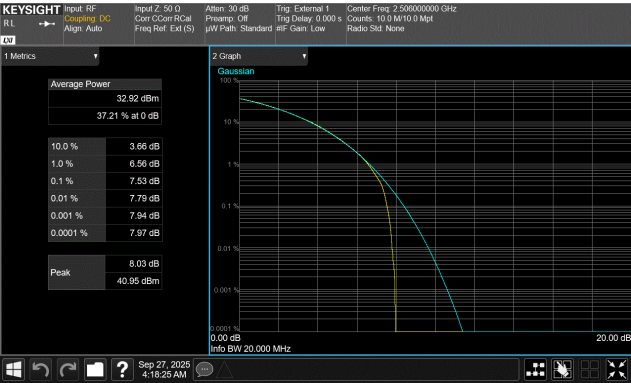


Port 1
15 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 2593.00 MHz

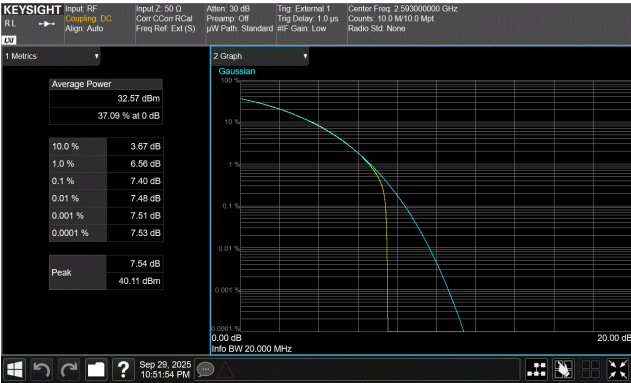


Port 1
15 MHz Channel Bandwidth
QPSK Modulation
High Channel, 2682.50 MHz

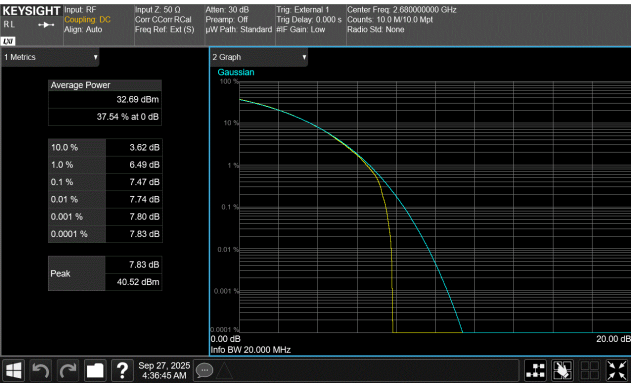
PEAK AND AVERAGE (PAPR) CCDF - LTE



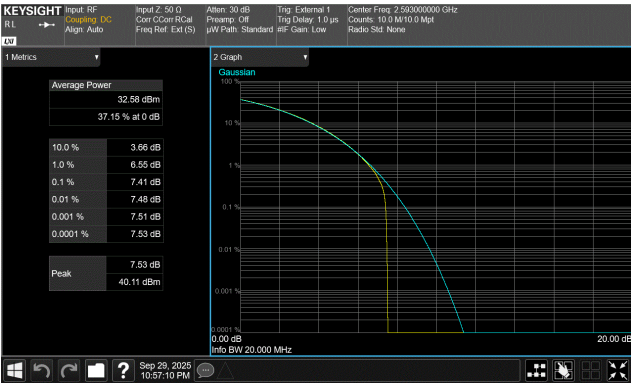
Port 1
20 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 2506.00 MHz



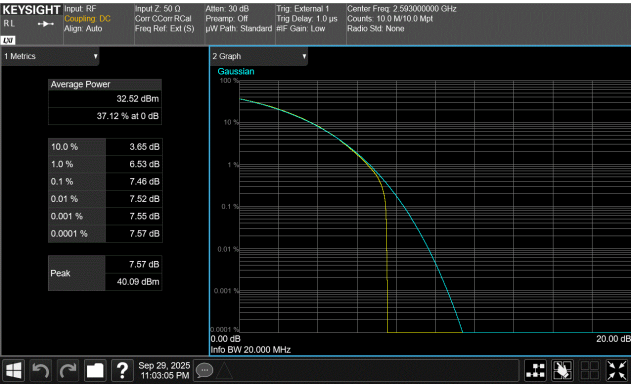
Port 1
20 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 2593.00 MHz



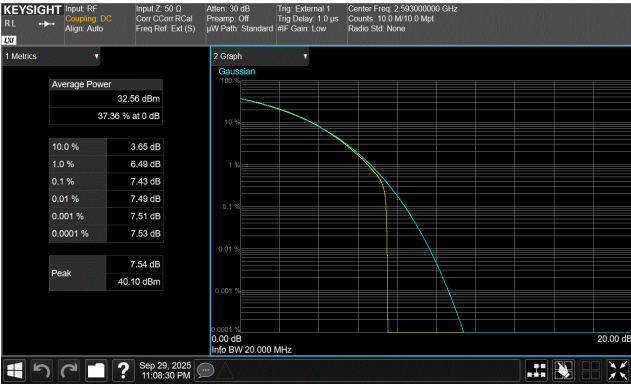
Port 1
20 MHz Channel Bandwidth
QPSK Modulation
High Channel, 2680.00 MHz



Port 1
20 MHz Channel Bandwidth
16QAM Modulation
Middle Channel, 2593.00 MHz



Port 1
20 MHz Channel Bandwidth
64QAM Modulation
Middle Channel, 2593.00 MHz



Port 1
20 MHz Channel Bandwidth
256QAM Modulation
Middle Channel, 2593.00 MHz

BAND EDGE COMPLIANCE

TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The AVHA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "Output Power- All Ports" report section of this report) Antenna port 1 was selected to perform this testing as allowed by ANSI C63.26 paragraphs 5.2.5.3, 5.7.2i and 6.4.

All Measurements were synchronized with the measurement receiver - gated with external trigger input (frame clock (100Hz) provided by the system module). Duty cycle correction is not needed for this testing since the transmit "on" time is synchronized with the measurement receiver.

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The method described in ANSI C63.26 paragraph 5.7 and KDB 971168D01v02 paragraph 6 was used to make these measurements.

The measurement methods for FCC measurements are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015. Measurements shall be performed at full power on the channel(s) and bandwidth(s) specified for 4G LTE modulation. These measurements are for first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section 27.53(m)(2), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The AVHA AirScale MAA operates as a 64 port MIMO transmitter. The limit is adjusted to -31.1 dBm [-13 dBm -10 log (64)] per FCC KDB 662911D01 v02r01, and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64 port MIMO transmitter).

The resolution bandwidth to be used for these measurements shall be 1% of the measured emission bandwidth per FCC 27.53(m)(6). An emission mask of band edge region is provided as Figure 1. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided that the measured power is integrated over the full required measurement bandwidth (i.e.: 1MHz or 1% of measured emission bandwidth as specified) per FCC 27.53(m)(6).

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight Technologies	N9030B	AGA	2025-06-09	2026-06-09
Block - DC	Centric RF	C0140	ANJ	NCR	NCR
Generator - Signal	Agilent	N5173B	TIW	2023-08-07	2026-08-07

Note: The RF Test Setup/ Network (RF cables/Attenuators/filter/etc.) is defined in the configurations section for each test. The RF Test Setup/Network is calibrated using the signal generator and spectrum analyzer prior to test. The RF insertion loss of the RF Test Setup/Network is accounted for by the spectrum analyzer's reference level offset during the RF conducted testing.

BAND EDGE COMPLIANCE



EUT:	Airscale Base Transceiver Station Radio Unit AVHA	Work Order:	NOKI0088
Serial Number:	L1252603387	Date:	2025-09-29
Customer:	Nokia Solutions and Networks	Temperature:	28.5°C
Attendees:	David Le, Mitch Hill	Relative Humidity:	31.8%
Customer Project:	None	Bar. Pressure (PMSL):	1018 mbar
Tested By:	Jarrold Brenden	Job Site:	PT14
Power:	54VDC	Configuration:	NOKI0088-2

COMMENTS

All losses in the measurement path were accounted for in the reference level offset; attenuators, filters, cables, and DC blocks. Carriers were enabled at maximum power levels.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

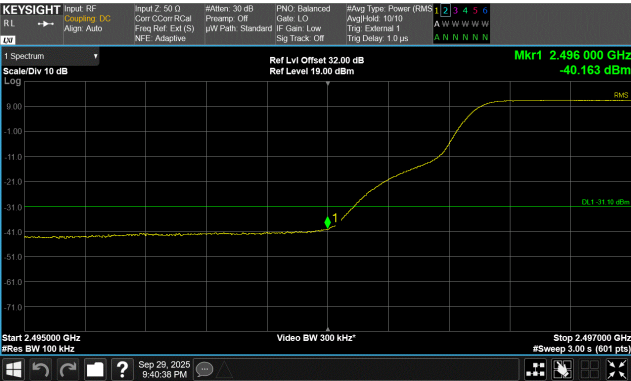
Pass

Tested By

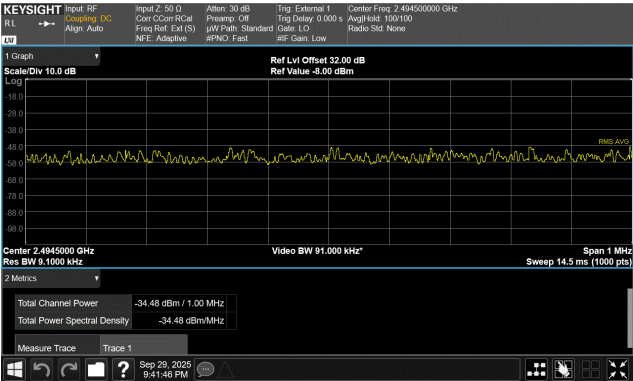
TEST RESULTS

	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Port 1					
QPSK Modulation					
10 MHz Channel Bandwidth					
Low Channel, 2501.00 MHz	2495 MHz - 2497 MHz	2496	-40.163	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-34.48	-31.1	Pass
	2474 MHz - 2494 MHz	2493.98	-34.596	-31.1	Pass
High Channel, 2685.00 MHz	2689 MHz - 2691 MHz	2690	-39.63	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-34.14	-31.1	Pass
	2692 MHz - 2712 MHz	2692.12	-35.395	-31.1	Pass
15 MHz Channel Bandwidth					
Low Channel, 2503.50 MHz	2495 MHz - 2497 MHz	2496	-37.366	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-35.13	-31.1	Pass
	2474 MHz - 2494 MHz	2493.98	-35.336	-31.1	Pass
High Channel, 2682.50 MHz	2689 MHz - 2691 MHz	2690	-37.667	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-34.62	-31.1	Pass
	2692 MHz - 2712 MHz	2692.1	-35.272	-31.1	Pass
20 MHz Channel Bandwidth					
Low Channel, 2506.00 MHz	2495 MHz - 2497 MHz	2496	-33.587	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-35.52	-31.1	Pass
	2474 MHz - 2494 MHz	2494	-34.891	-31.1	Pass
High Channel, 2680.00 MHz	2689 MHz - 2691 MHz	2690	-34.587	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-34.73	-31.1	Pass
	2692 MHz - 2712 MHz	2692.2	-34.769	-31.1	Pass

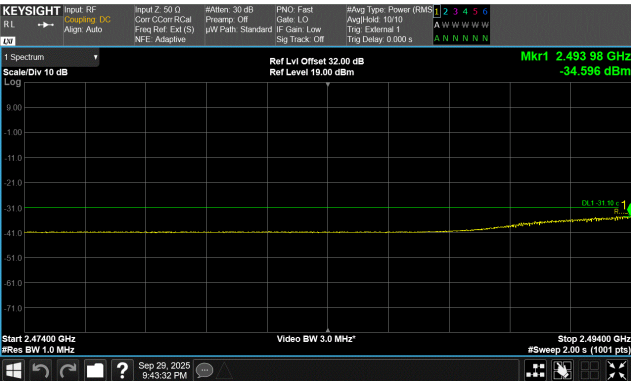
BAND EDGE COMPLIANCE



QPSK Modulation
10 MHz Channel Bandwidth
Low Channel, 2501.00 MHz
2495 MHz - 2497 MHz



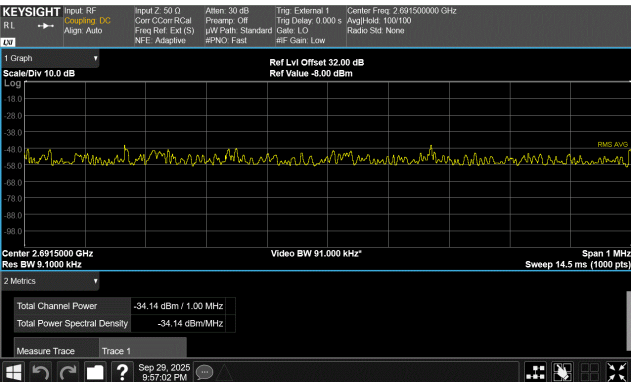
QPSK Modulation
10 MHz Channel Bandwidth
Low Channel, 2501.00 MHz
2494 MHz - 2495 MHz



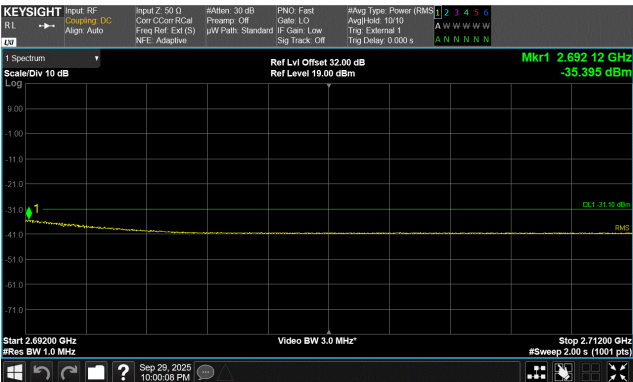
QPSK Modulation
10 MHz Channel Bandwidth
Low Channel, 2501.00 MHz
2474 MHz - 2494 MHz



QPSK Modulation
10 MHz Channel Bandwidth
High Channel, 2685.00 MHz
2689 MHz - 2691 MHz

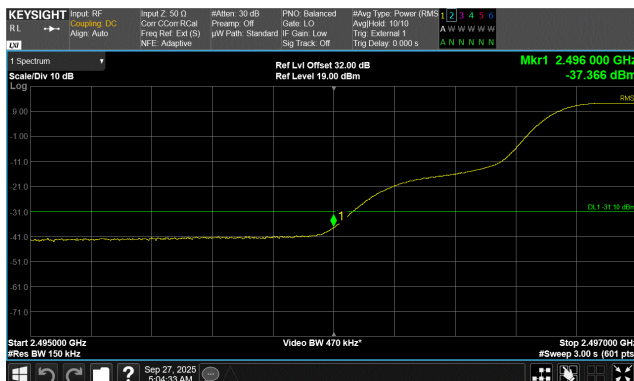


QPSK Modulation
10 MHz Channel Bandwidth
High Channel, 2685.00 MHz
2691 MHz - 2692 MHz



QPSK Modulation
10 MHz Channel Bandwidth
High Channel, 2685.00 MHz
2692 MHz - 2712 MHz

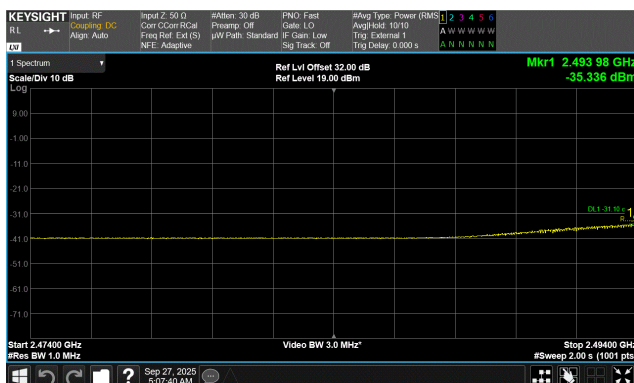
BAND EDGE COMPLIANCE



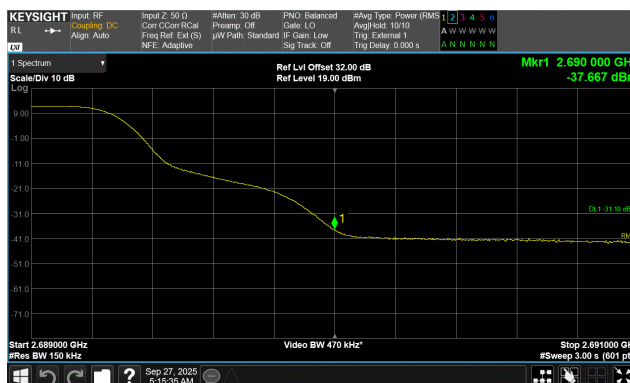
QPSK Modulation
15 MHz Channel Bandwidth
Low Channel, 2503.50 MHz
2495 MHz - 2497 MHz



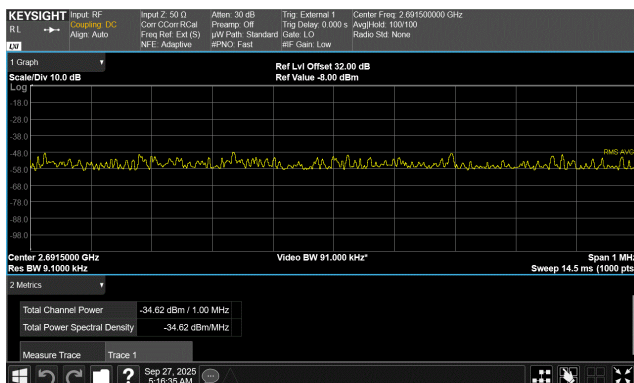
QPSK Modulation
15 MHz Channel Bandwidth
Low Channel, 2503.50 MHz
2494 MHz - 2495 MHz



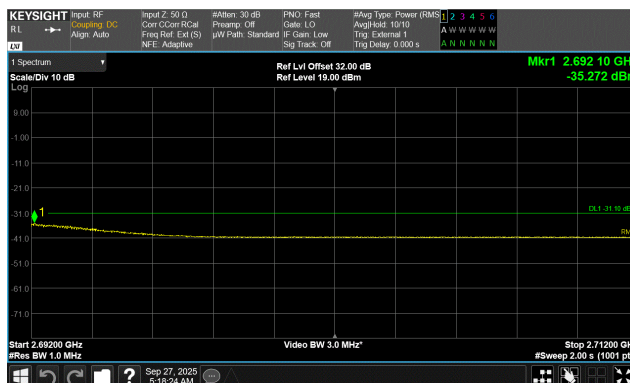
QPSK Modulation
15 MHz Channel Bandwidth
Low Channel, 2503.50 MHz
2474 MHz - 2494 MHz



QPSK Modulation
15 MHz Channel Bandwidth
High Channel, 2682.50 MHz
2689 MHz - 2691 MHz

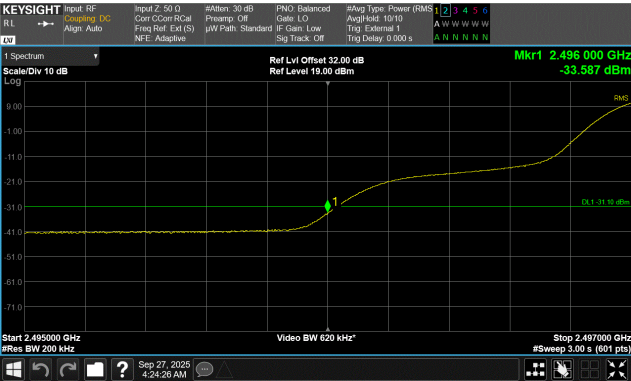


QPSK Modulation
15 MHz Channel Bandwidth
High Channel, 2682.50 MHz
2691 MHz - 2692 MHz

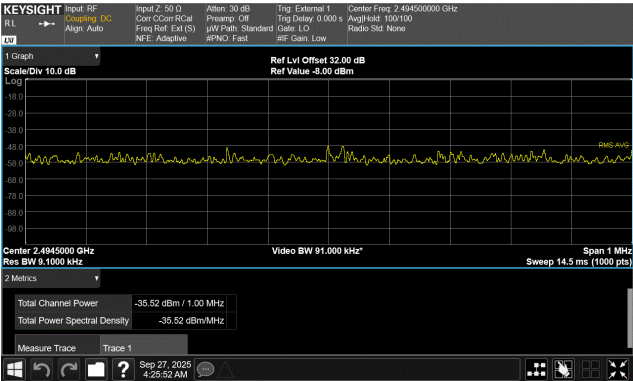


QPSK Modulation
15 MHz Channel Bandwidth
High Channel, 2682.50 MHz
2692 MHz - 2712 MHz

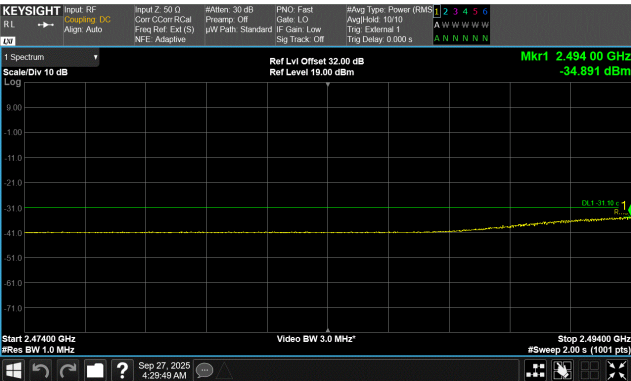
BAND EDGE COMPLIANCE



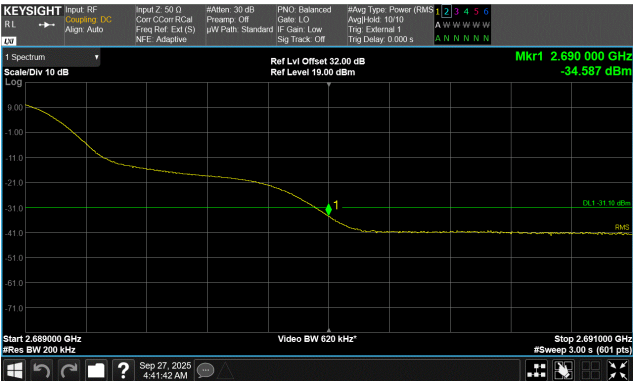
QPSK Modulation
20 MHz Channel Bandwidth
Low Channel, 2506.00 MHz
2495 MHz - 2497 MHz



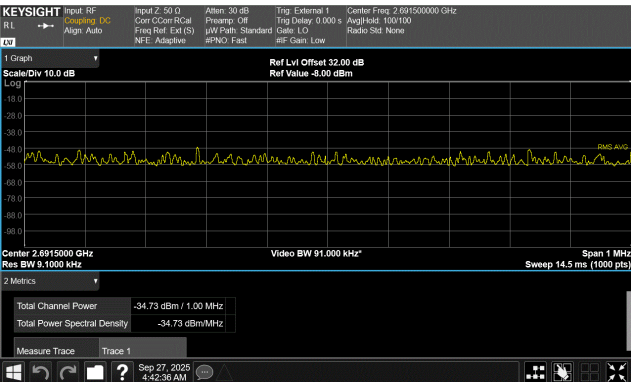
QPSK Modulation
20 MHz Channel Bandwidth
Low Channel, 2506.00 MHz
2494 MHz - 2495 MHz



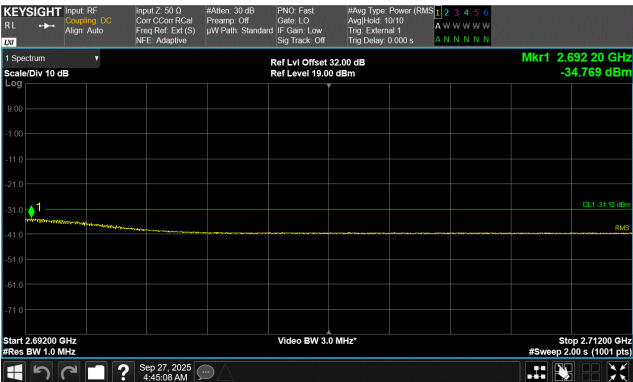
QPSK Modulation
20 MHz Channel Bandwidth
Low Channel, 2506.00 MHz
2474 MHz - 2494 MHz



QPSK Modulation
20 MHz Channel Bandwidth
High Channel, 2680.00 MHz
2689 MHz - 2691 MHz



QPSK Modulation
20 MHz Channel Bandwidth
High Channel, 2680.00 MHz
2691 MHz - 2692 MHz



QPSK Modulation
20 MHz Channel Bandwidth
High Channel, 2680.00 MHz
2692 MHz - 2712 MHz

BAND EDGE COMPLIANCE - LTE MULTICARRIER



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The AVHA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "Output Power- All Ports" report section of this report) Antenna port 1 was selected to perform this testing as allowed by ANSI C63.26 paragraphs 5.2.5.3, 5.7.2i and 6.4.

All Measurements were synchronized with the measurement receiver - gated with external trigger input (frame clock (100Hz) provided by the system module). Duty cycle correction is not needed for this testing since the transmit "on" time is synchronized with the measurement receiver.

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The method described in ANSI C63.26 paragraph 5.7 and KDB 971168D01v02 paragraph 6 was used to make these measurements.

The measurement methods for FCC measurements are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015. Measurements shall be performed at full power on the channel(s) and bandwidth(s) specified for 4G LTE modulation. These measurements are for first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section 27.53(m)(2), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The AVHA AirScale MAA operates as a 64 port MIMO transmitter. The limit is adjusted to -31.1 dBm [-13 dBm -10 log (64)] per FCC KDB 662911D01 v02r01, and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64 port MIMO transmitter).

The resolution bandwidth to be used for these measurements shall be 1% of the measured emission bandwidth per FCC 27.53(m)(6). An emission mask of band edge region is provided as Figure 1. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided that the measured power is integrated over the full required measurement bandwidth (i.e.: 1MHz or 1% of measured emission bandwidth as specified) per FCC 27.53(m)(6).

4G LTE Multicarrier test cases have been developed as shown below:

- a) 4G LTE Multicarrier test case A: Two contiguous LTE10 carriers with minimum spacing between carrier frequencies at the lower band edge (2501MHz, 2511MHz) (EARFCN: 39700, 39800). The smallest channel bandwidth is selected to maximize carrier power spectral density. The carriers operate at maximum power (80W/carrier or TRX power is 31dbm/carrier) with a total radio power of 160 watts.
- b) 4G LTE Multicarrier test case B: Two contiguous LTE10 carriers with minimum spacing between carrier frequencies at the upper band edge (2675MHz, 2685MHz) (EARFCN: 41440, 41540). The smallest channel bandwidth is selected to maximize carrier power spectral density. The carriers operate at maximum power (80W/carrier or TRX power is 31dbm/carrier) with a total radio power of 160 watts.
- c) 4G LTE Multicarrier test case C: Two non-contiguous LTE10 Carriers (maximum spacing between carriers) with one carrier at the lower band edge (2501MHz/EARFCN: 39700) and one carrier at the upper band edge (2685MHz/EARFCN: 41540). The carriers operate at maximum power (80W/carrier or TRX power is 31dbm/carrier) with a total radio power of 160 watts.
- d) 4G LTE Multicarrier test case D: Two Non-contiguous carriers (maximum spacing between carriers) with one LTE20 Carrier at the lower band edge (2506MHz/EARFCN: 39750) and one LTE20 Carrier at the upper band

BAND EDGE COMPLIANCE - LTE MULTICARRIER



edge (2680MHz/EARFCN: 41490). The carriers operate at maximum power (125W/carrier or TRX power is 32.9dbm/carrier) with a total radio power of 250 watts.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight Technologies	N9030B	AGA	2025-06-09	2026-06-09
Block - DC	Centric RF	C0140	ANJ	NCR	NCR
Generator - Signal	Agilent	N5173B	TIW	2023-08-07	2026-08-07

Note: The RF Test Setup/ Network (RF cables/Attenuators/filter/etc.) is defined in the configurations section for each test. The RF Test Setup/Network is calibrated using the signal generator and spectrum analyzer prior to test. The RF insertion loss of the RF Test Setup/Network is accounted for by the spectrum analyzer's reference level offset during the RF conducted testing.

BAND EDGE COMPLIANCE - LTE MULTICARRIER



EUT:	Airscale Base Transceiver Station Radio Unit AVHA	Work Order:	NOKI0088
Serial Number:	L1252603387	Date:	2025-09-29
Customer:	Nokia Solutions and Networks	Temperature:	28°C
Attendees:	David Le, Mitch Hill	Relative Humidity:	32.1%
Customer Project:	None	Bar. Pressure (PMSL):	1018 mbar
Tested By:	Jarrod Brenden	Job Site:	PT14
Power:	54VDC	Configuration:	NOKI0088-2

COMMENTS

All losses in the measurement path were accounted for in the reference level offset; attenuators, filters, cables, and DC blocks. Carriers were enabled at maximum power levels.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

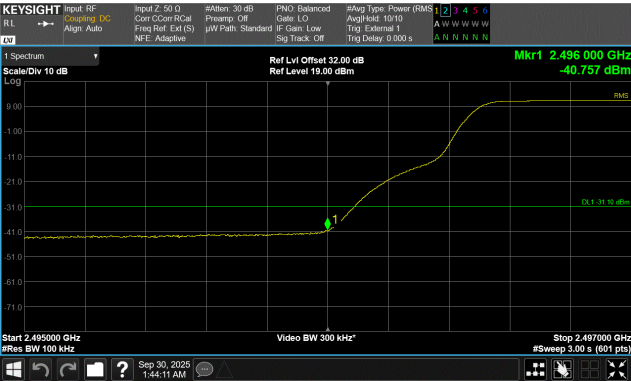
Pass

Tested By

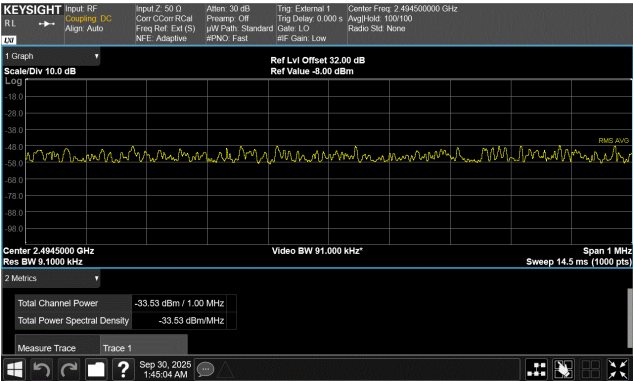
TEST RESULTS

	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Port 1					
QPSK Modulation					
Test Case A					
	2495 MHz - 2497 MHz	2496	-40.757	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-33.53	-31.1	Pass
	2474 MHz - 2494 MHz	2493.98	-34.063	-31.1	Pass
Test Case B					
	2689 MHz - 2691 MHz	2690	-38.67	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-32.44	-31.1	Pass
	2692 MHz - 2712 MHz	2692.12	-32.654	-31.1	Pass
Test Case C					
	2495 MHz - 2497 MHz	2496	-38.527	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-31.94	-31.1	Pass
	2474 MHz - 2494 MHz	2494	-32.047	-31.1	Pass
	2689 MHz - 2691 MHz	2690	-38.89	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-33.05	-31.1	Pass
	2692 MHz - 2712 MHz	2692.06	-32.997	-31.1	Pass
Test Case D					
	2495 MHz - 2497 MHz	2496	-37.422	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-32.35	-31.1	Pass
	2474 MHz - 2494 MHz	2493.94	-32.344	-31.1	Pass
	2689 MHz - 2691 MHz	2690	-38.444	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-33.27	-31.1	Pass
	2692 MHz - 2712 MHz	2692.04	-33.273	-31.1	Pass

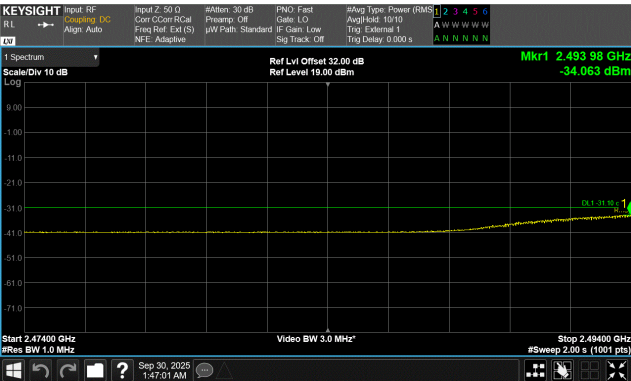
BAND EDGE COMPLIANCE - LTE MULTICARRIER



QPSK Modulation
Test Case A
2495 MHz - 2497 MHz



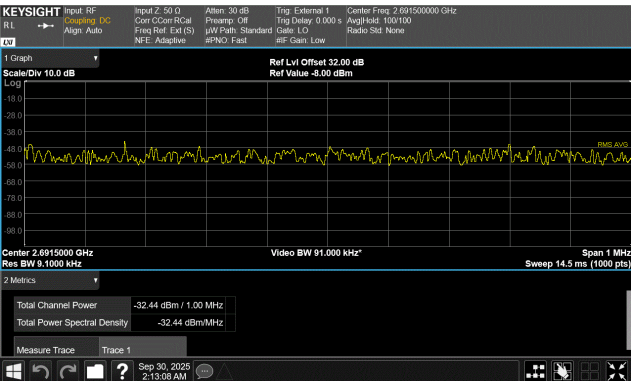
QPSK Modulation
Test Case A
2494 MHz - 2495 MHz



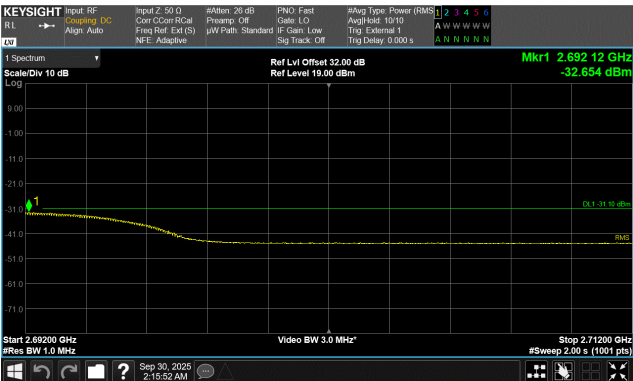
QPSK Modulation
Test Case A
2474 MHz - 2494 MHz



QPSK Modulation
Test Case B
2689 MHz - 2691 MHz

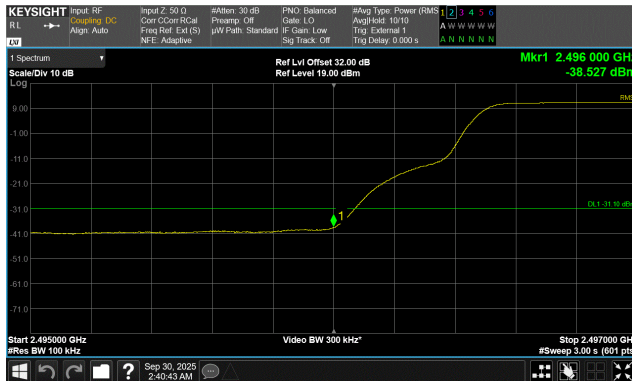


QPSK Modulation
Test Case B
2691 MHz - 2692 MHz

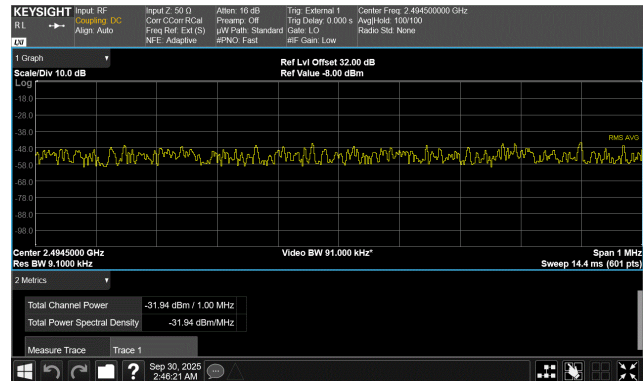


QPSK Modulation
Test Case B
2692 MHz - 2712 MHz

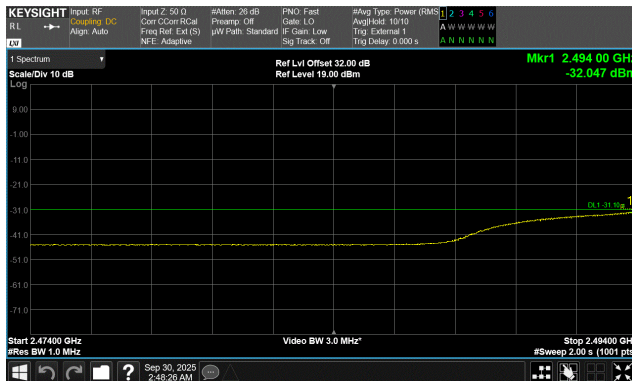
BAND EDGE COMPLIANCE - LTE MULTICARRIER



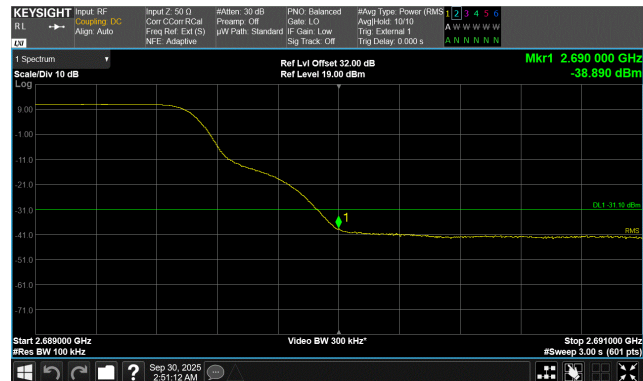
**QPSK Modulation
Test Case C
2495 MHz - 2497 MHz**



**QPSK Modulation
Test Case C
2494 MHz - 2495 MHz**



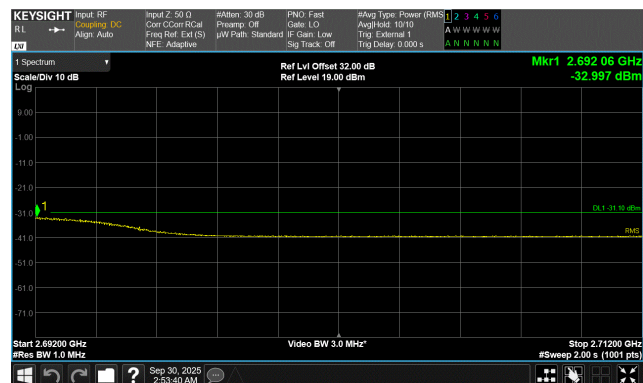
**QPSK Modulation
Test Case C
2474 MHz - 2494 MHz**



**QPSK Modulation
Test Case C
2689 MHz - 2691 MHz**



**QPSK Modulation
Test Case C
2691 MHz - 2692 MHz**

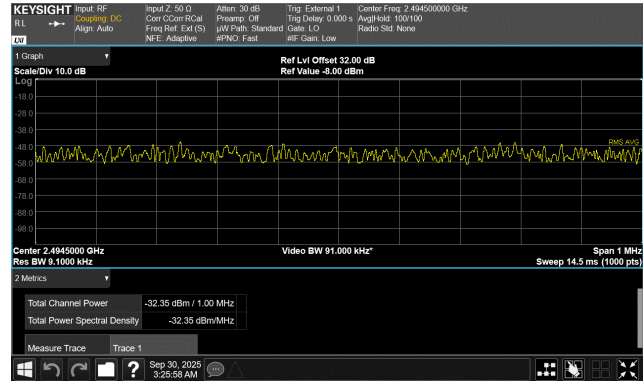


**QPSK Modulation
Test Case C
2692 MHz - 2712 MHz**

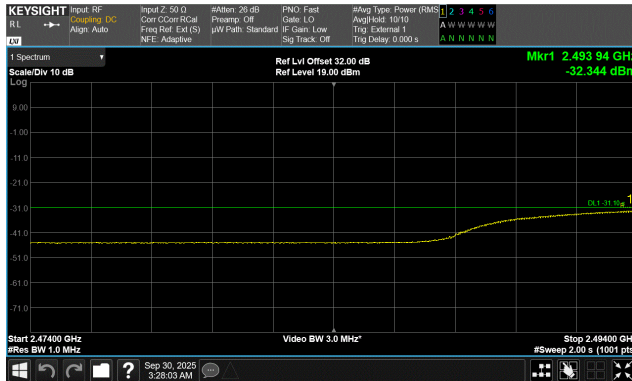
BAND EDGE COMPLIANCE - LTE MULTICARRIER



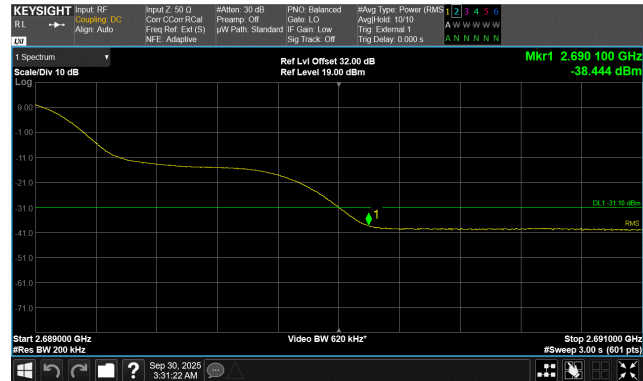
QPSK Modulation
Test Case D
2495 MHz - 2497 MHz



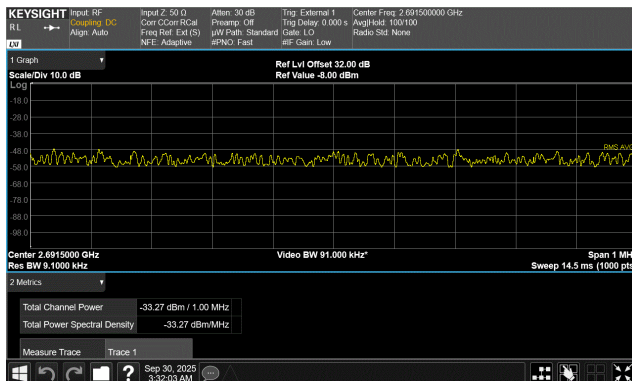
QPSK Modulation
Test Case D
2494 MHz - 2495 MHz



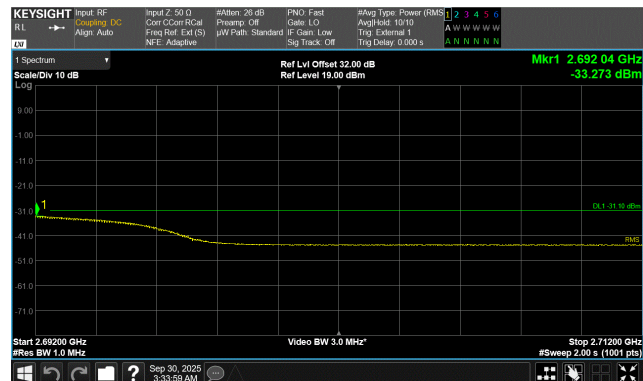
QPSK Modulation
Test Case D
2474 MHz - 2494 MHz



QPSK Modulation
Test Case D
2689 MHz - 2691 MHz



QPSK Modulation
Test Case D
2691 MHz - 2692 MHz



QPSK Modulation
Test Case D
2692 MHz - 2712 MHz

BAND EDGE COMPLIANCE - MULTI-RAT

TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The AVHA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "Output Power- All Ports" report section of this report) Antenna port 1 was selected to perform this testing as allowed by ANSI C63.26 paragraphs 5.2.5.3, 5.7.2i and 6.4.

All Measurements were synchronized with the measurement receiver - gated with external trigger input (frame clock (100Hz) provided by the system module). Duty cycle correction is not needed for this testing since the transmit "on" time is synchronized with the measurement receiver.

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The method described in ANSI C63.26 paragraph 5.7 and KDB 971168D01v02 paragraph 6 was used to make these measurements.

The measurement methods for FCC measurements are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015. Measurements shall be performed at full power on the channel(s) and bandwidth(s) specified for 4G LTE and 5G NR modulation. These measurements are for first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section 27.53(m)(2), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The AVHA AirScale MAA operates as a 64 port MIMO transmitter. The limit is adjusted to -31.1 dBm [-13 dBm -10 log (64)] per FCC KDB 662911D01 v02r01, and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64 port MIMO transmitter).

The resolution bandwidth to be used for these measurements shall be 1% of the measured emission bandwidth per FCC 27.53(m)(6). An emission mask of band edge region is provided as Figure 1. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided that the measured power is integrated over the full required measurement bandwidth (i.e.: 1MHz or 1% of measured emission bandwidth as specified) per FCC 27.53(m)(6).

Multi-RAT (4G LTE/5G NR) Concurrent Operation test cases have been developed as shown below:

- a) Multi-RAT Operation Test Case A: Two contiguous LTE20 carriers at the lower band edge (2506MHz, 2526MHz/EARFCN: 39750, 39950) with two contiguous NR50 carriers at minimum spacing from LTE carriers (2561.01MHz/NR-ARFCN: 512202 and 2611.02MHz/NR-ARFCN: 522204). The LTE20 carriers operate at 50W/carrier (PSD = 2.5W/MHz or 28.9dbm/carrier). The NR50 carriers operate at 150W/carrier (PSD = 3W/MHz or 33.7dbm/carrier). Total radio power is 400W.
- b) Multi-RAT Operation Test Case B: Two contiguous LTE20 carriers at the upper band edge (2660MHz, 2680MHz/EARFCN: 41290, 41490) with two contiguous NR50 carriers at minimum spacing from LTE carriers (2625MHz/NR-ARFCN: 525000 and 2574.99MHz/NR-ARFCN: 514998). The LTE20 carriers operate at 50W/carrier (PSD = 2.5W/MHz or 28.9dbm/carrier). The NR50 carriers operate at 150W/carrier (PSD = 3W/MHz or 33.7dbm/carrier). Total radio power is 400W.
- c) Multi-RAT Operation Test Case C: Two contiguous NR50 carriers at the lower band edge (2521.02MHz/NR-ARFCN: 504204 and 2571MHz/NR-ARFCN: 514200) and two contiguous LTE20 carriers at minimum spacing from NR carriers (2606MHz and 2626MHz/EARFCN: 40750 and 40950). The LTE20 carriers operate at 50W/carrier (PSD = 2.5W/MHz or 28.9dbm/carrier). The NR50 carriers operate at 150W/carrier (PSD = 3W/MHz or 33.7dbm/carrier). Total radio power is 400W.

BAND EDGE COMPLIANCE - MULTI-RAT

- d) Multi-RAT Operation Test Case D: Two contiguous NR50 carriers at the upper band edge (2664.99MHz/NR-ARFCN: 532998 and 2614.98MHz/NR-ARFCN: 522996) and two contiguous LTE20 carriers at minimum spacing from NR carriers (2580MHz and 2560MHz/EARFCN: 40490 and 40290). The LTE20 carriers operate at 50W/carrier (PSD = 2.5W/MHz or 28.9dbm/carrier). The NR50 carriers operate at 150W/carrier (PSD = 3W/MHz or 33.7dbm/carrier). Total radio power is 400W.
- e) Multi-RAT Operation Test Case E: Two contiguous LTE10 carriers at the lower band edge (2501MHz, 2511MHz/EARFCN: 39700, 39800) and two contiguous NR10 at the upper band edge (2685MHz, 2675.01MHz/NR-ARFCN: 537000, 535002). All carriers operate at the same power level 50W/carrier (PSD = 5W/MHz or 28.9dbm/carrier). Total radio power is 200W.
- f) Multi-RAT Operation Test Case F: Two contiguous LTE10 carriers at the upper band edge (2685MHz, 2675MHz/EARFCN: 41540, 41440) and two contiguous NR10 at the lower band edge (2501.01MHz, 2511MHz/NR-ARFCN: 500202, 502200). All carriers operate at the same power level 50W/carrier (PSD = 5W/MHz or 28.9dbm/carrier). Total radio power is 200W.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight Technologies	N9030B	AGA	2025-06-09	2026-06-09
Block - DC	Centric RF	C0140	ANJ	NCR	NCR
Generator - Signal	Agilent	N5173B	TIW	2023-08-07	2026-08-07

Note: The RF Test Setup/ Network (RF cables/Attenuators/filter/etc.) is defined in the configurations section for each test. The RF Test Setup/Network is calibrated using the signal generator and spectrum analyzer prior to test. The RF insertion loss of the RF Test Setup/Network is accounted for by the spectrum analyzer's reference level offset during the RF conducted testing.

BAND EDGE COMPLIANCE - MULTI-RAT



EUT:	Airscale Base Transceiver Station Radio Unit AVHA	Work Order:	NOKI0088
Serial Number:	L1252603387	Date:	2025-09-30
Customer:	Nokia Solutions and Networks	Temperature:	27.7°C
Attendees:	David Le, Mitch Hill	Relative Humidity:	32.4%
Customer Project:	None	Bar. Pressure (PMSL):	1018 mbar
Tested By:	Jarrold Brenden	Job Site:	PT14
Power:	54VDC	Configuration:	NOKI0088-2

COMMENTS

All losses in the measurement path were accounted for in the reference level offset; attenuators, filters, cables, and DC blocks. Carriers were enabled at maximum power levels.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

TEST RESULTS

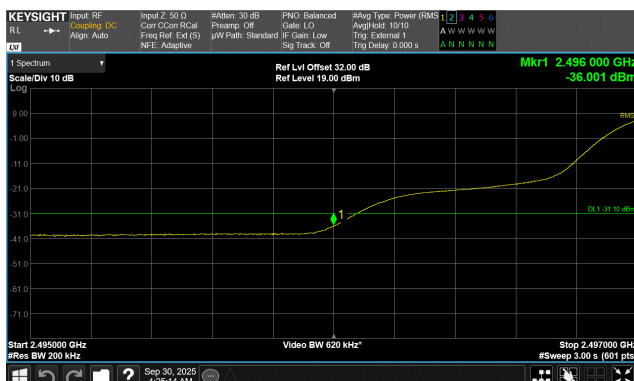
	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Port 1					
QPSK Modulation					
Test Case A					
	2495 MHz - 2497 MHz	2496	-36.001	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-32.98	-31.1	Pass
	2474 MHz - 2494 MHz	2493.94	-32.908	-31.1	Pass
Test Case B					
	2689 MHz - 2691 MHz	2690	-36.502	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-33.61	-31.1	Pass
	2692 MHz - 2712 MHz	2692.06	-33.569	-31.1	Pass
Test Case C					
	2495.5 MHz - 2496.0 MHz	2495.75	-36.31	-31.1	Pass
	2595.0 MHz - 2595.5 MHz	2495.25	-36.51	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-33.56	-31.1	Pass
	2474 MHz - 2494 MHz	2493.94	-33.145	-31.1	Pass
Test Case D					
	2690.0 MHz - 2690.5 MHz	2690.25	-36.52	-31.1	Pass
	2690.5 MHz - 2691.0 MHz	2690.75	-36.63	-30.1	Pass
	2691 MHz - 2692 MHz	2691.5	-33.48	-31.1	Pass
	2692 MHz - 2712 MHz	2692.18	-33.091	-31.1	Pass
Test Case E					
	2495 MHz - 2497 MHz	2496	-39.554	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-33.03	-31.1	Pass
	2474 MHz - 2494 MHz	2494	-32.759	-31.1	Pass
	2689 MHz - 2691 MHz	2690	-38.577	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-33.39	-31.1	Pass
	2692 MHz - 2712 MHz	2692.04	-32.978	-31.1	Pass

BAND EDGE COMPLIANCE - MULTI-RAT

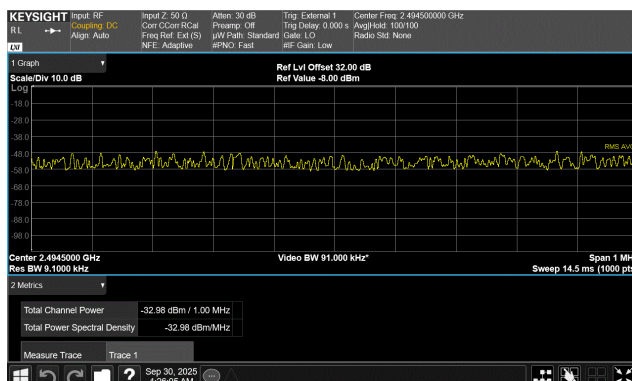


	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Test Case F					
	2495 MHz - 2497 MHz	2496	-39.726	-31.1	Pass
	2494 MHz - 2495 MHz	2494.5	-33.43	-31.1	Pass
	2474 MHz - 2494 MHz	2494	-33.367	-31.1	Pass
	2689 MHz - 2691 MHz	2690	-40.517	-31.1	Pass
	2691 MHz - 2692 MHz	2691.5	-33.91	-31.1	Pass
	2692 MHz - 2712 MHz	2692.22	-33.805	-31.1	Pass

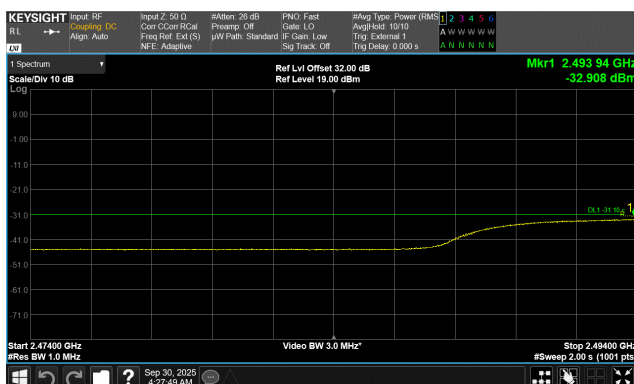
BAND EDGE COMPLIANCE - MULTI-RAT



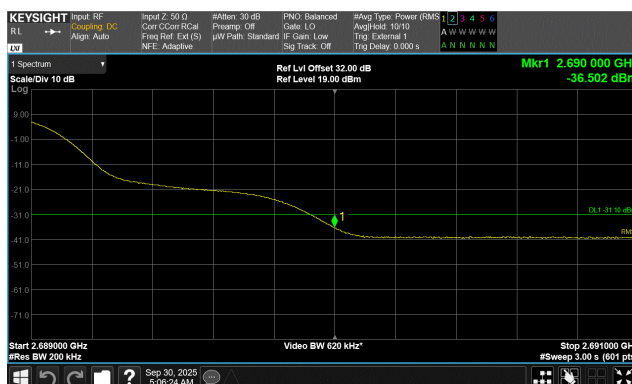
**QPSK Modulation
Test Case A
2495 MHz - 2497 MHz**



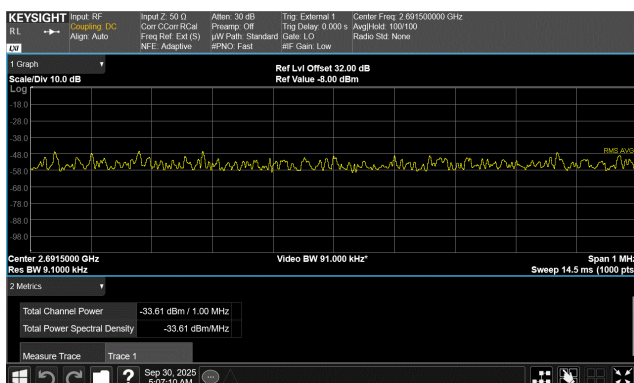
**QPSK Modulation
Test Case A
2494 MHz - 2495 MHz**



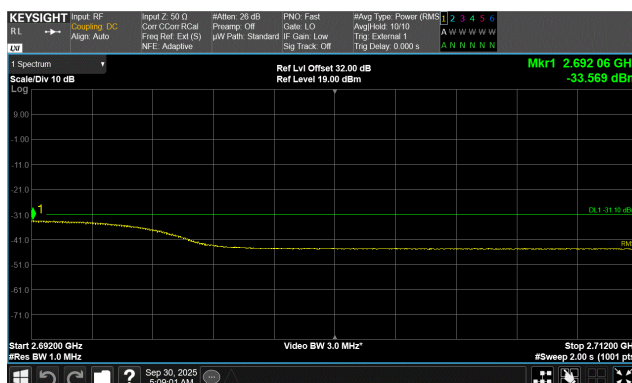
**QPSK Modulation
Test Case A
2474 MHz - 2494 MHz**



**QPSK Modulation
Test Case B
2689 MHz - 2691 MHz**

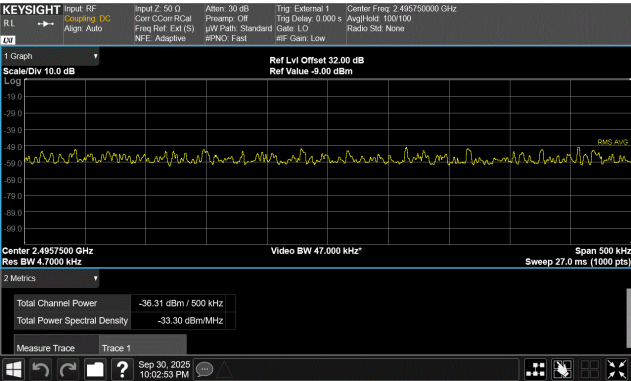


**QPSK Modulation
Test Case B
2691 MHz - 2692 MHz**

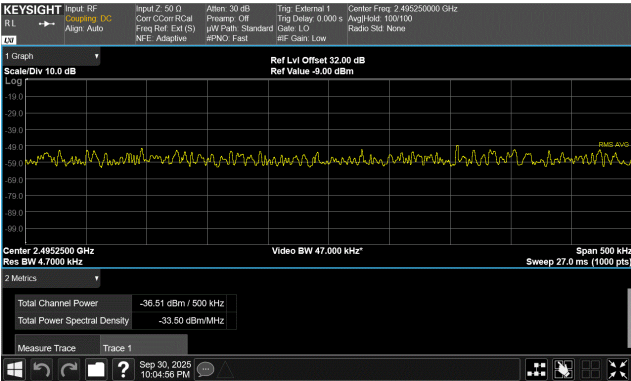


**QPSK Modulation
Test Case B
2692 MHz - 2712 MHz**

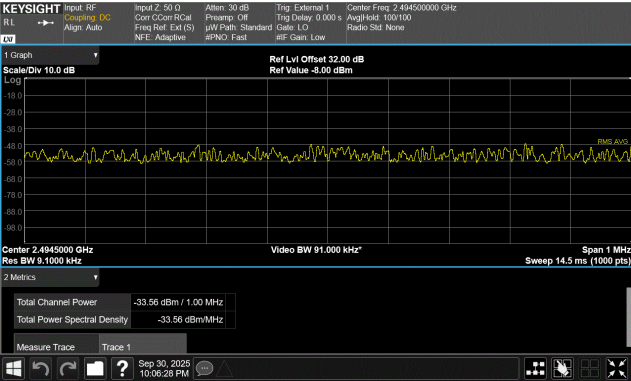
BAND EDGE COMPLIANCE - MULTI-RAT



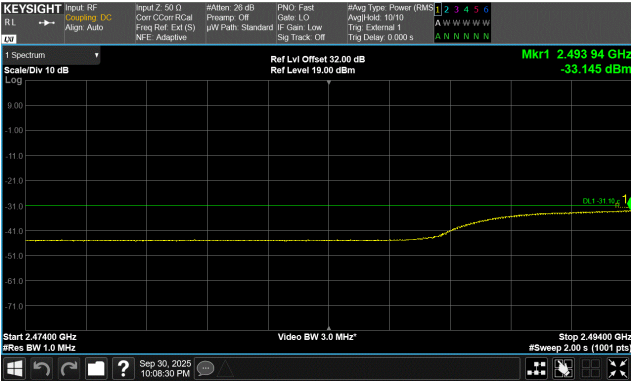
QPSK Modulation
Test Case C
2495.5 MHz - 2496.0 MHz



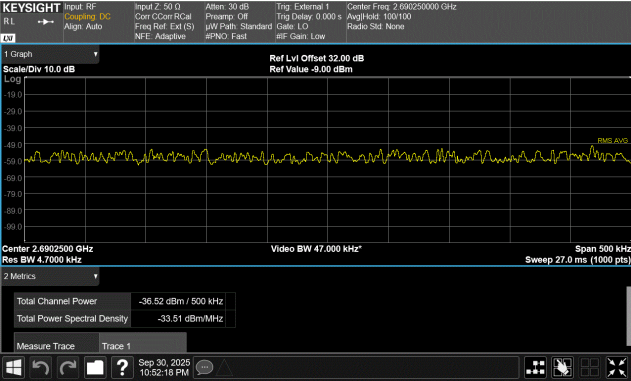
QPSK Modulation
Test Case C
2595.0 MHz - 2595.5 MHz



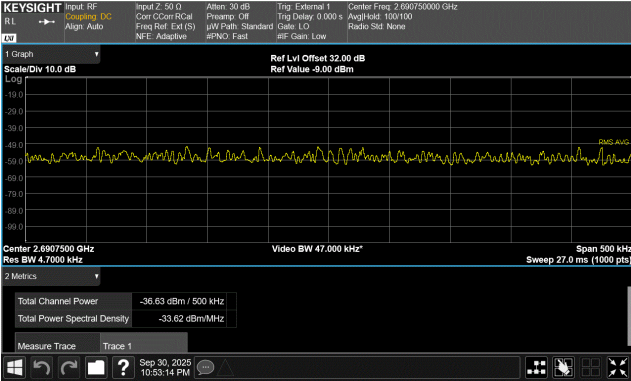
QPSK Modulation
Test Case C
2494 MHz - 2495 MHz



QPSK Modulation
Test Case C
2474 MHz - 2494 MHz

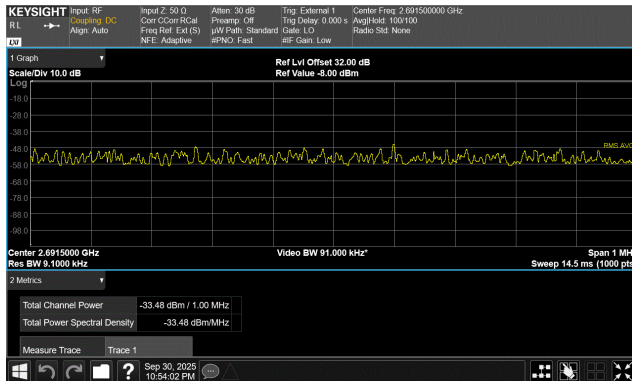


QPSK Modulation
Test Case D
2690.0 MHz - 2690.5 MHz

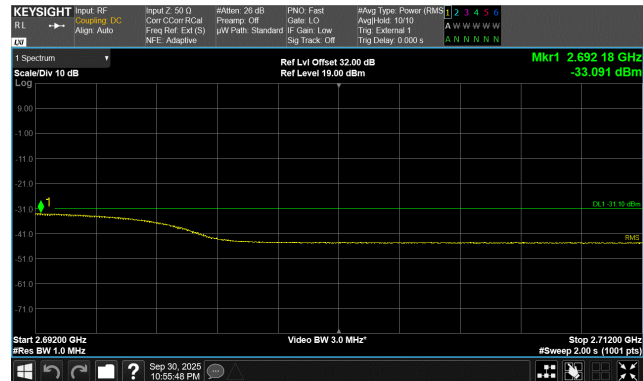


QPSK Modulation
Test Case D
2690.5 MHz - 2691.0 MHz

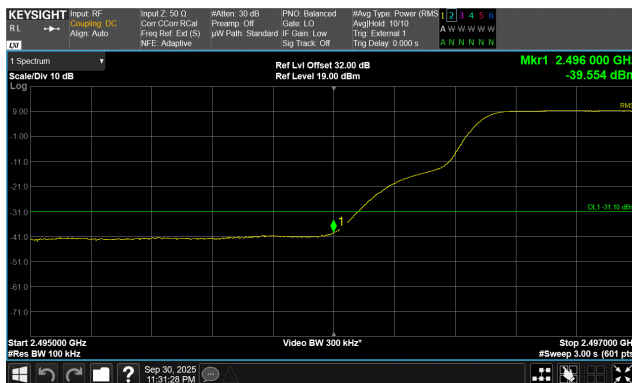
BAND EDGE COMPLIANCE - MULTI-RAT



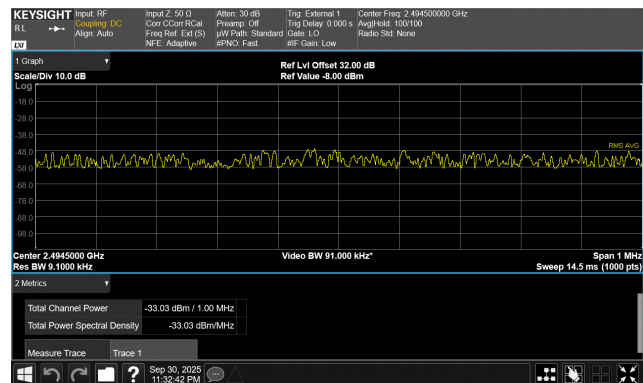
QPSK Modulation
Test Case D
2691 MHz - 2692 MHz



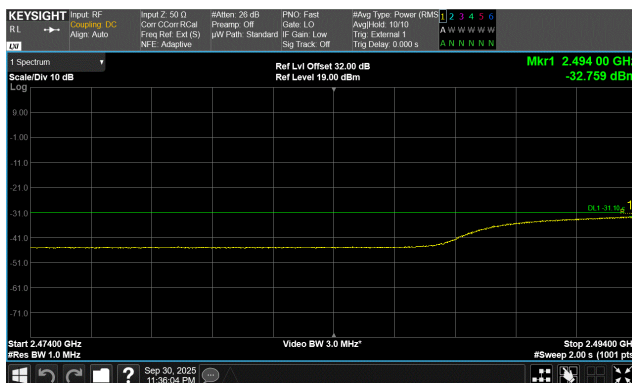
QPSK Modulation
Test Case D
2692 MHz - 2712 MHz



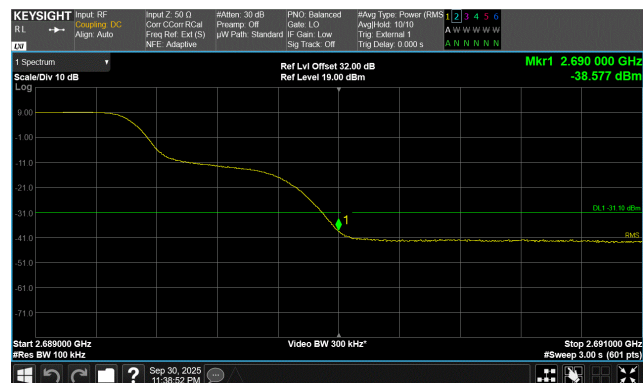
QPSK Modulation
Test Case E
2495 MHz - 2497 MHz



QPSK Modulation
Test Case E
2494 MHz - 2495 MHz

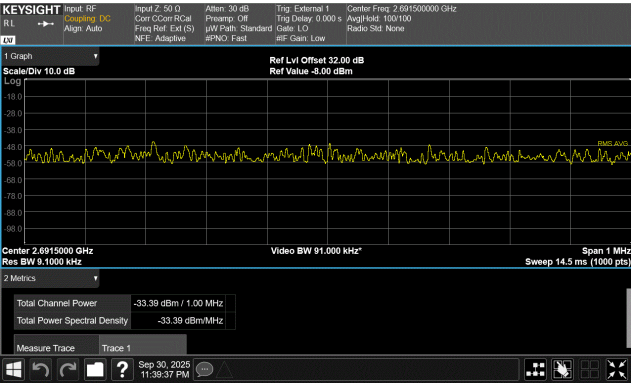


QPSK Modulation
Test Case E
2474 MHz - 2494 MHz

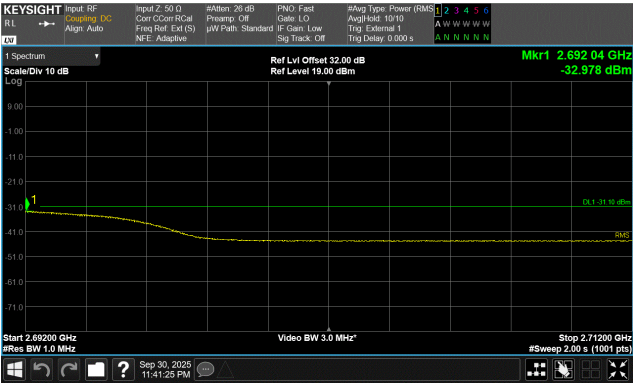


QPSK Modulation
Test Case E
2689 MHz - 2691 MHz

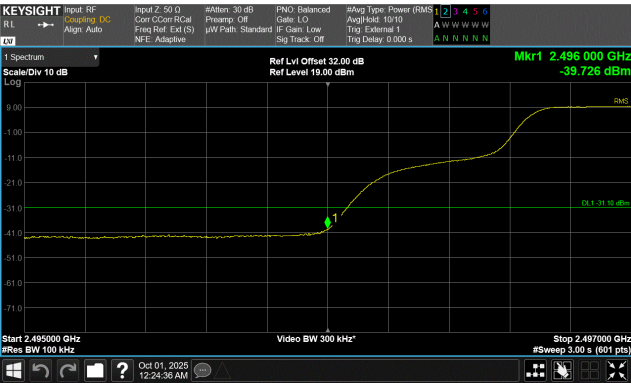
BAND EDGE COMPLIANCE - MULTI-RAT



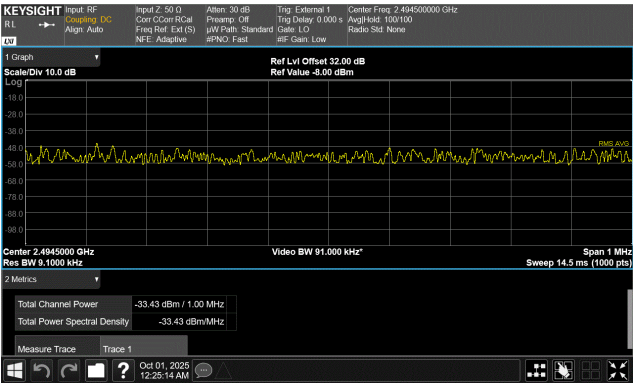
QPSK Modulation
Test Case E
2691 MHz - 2692 MHz



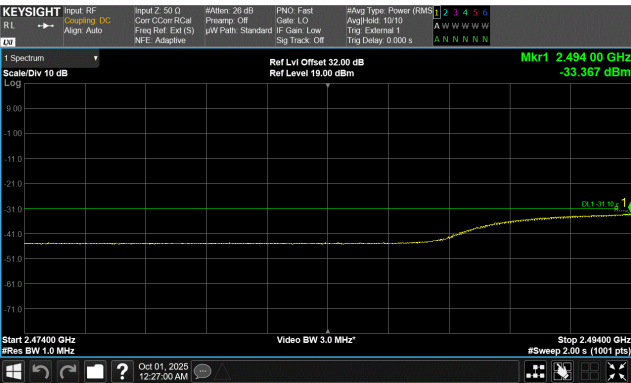
QPSK Modulation
Test Case E
2692 MHz - 2712 MHz



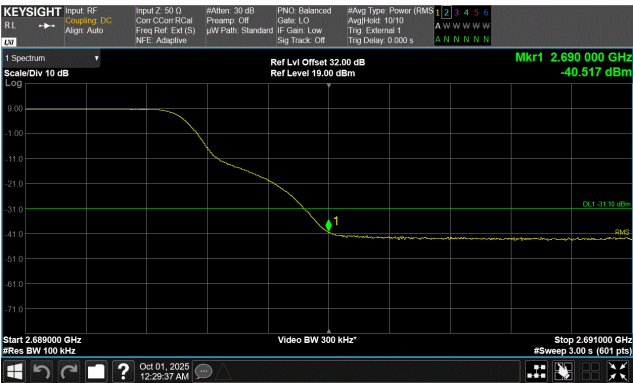
QPSK Modulation
Test Case F
2495 MHz - 2497 MHz



QPSK Modulation
Test Case F
2494 MHz - 2495 MHz

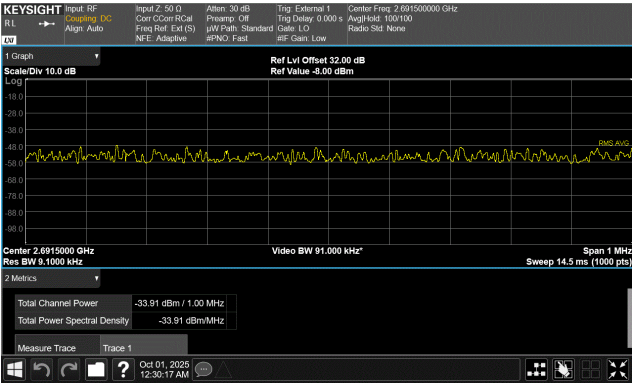


QPSK Modulation
Test Case F
2474 MHz - 2494 MHz

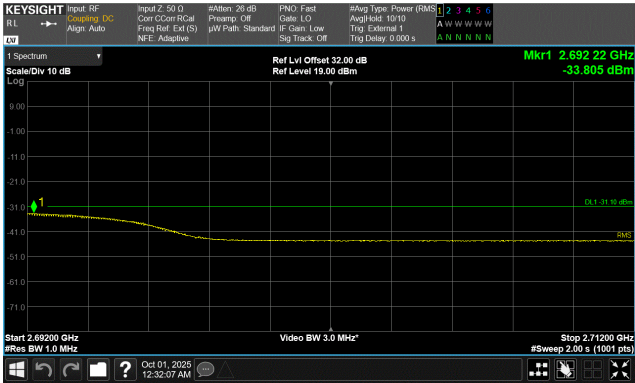


QPSK Modulation
Test Case F
2689 MHz - 2691 MHz

BAND EDGE COMPLIANCE - MULTI-RAT



QPSK Modulation
Test Case F
2691 MHz - 2692 MHz



QPSK Modulation
Test Case F
2692 MHz - 2712 MHz

SPURIOUS CONDUCTED EMISSIONS

TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

RF conducted emissions testing was performed on only one port. The AVHA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "Output Power - All Ports" report section of this report). Antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i, and 6.4.

All Measurements were synchronized with the measurement receiver - gated with external trigger input frame clock (100Hz) provided by the system module. Duty cycle correction is not needed for this testing since the transmit "on" time is synchronized with the measurement receiver.

The transmitter unwanted spurious emissions at the antenna port were measured at the RF port of the EUT through four different attenuation configurations to the spectrum analyzer. Spectrum Analyzer plots utilizing a resolution bandwidth defined by ANSI C63.2 were made from 9 kHz up to the 10th harmonic of the highest fundamental frequency. As such, the upper level of measurement is approximately 27 GHz (2685*10).

Per section 27.53(m)(2), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -31.1 dBm [-13 dBm -10 log (64)] per FCC KDB 662911D01 v02r01 and ANSI C63.26-2015 section 6.4 because the EUT may operate as a 64 port MIMO transmitter).

The limit for the 9kHz to 150kHz frequency range was adjusted to -61.1dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 1MHz [i.e.: -61.1dBm = -31.1dBm -10log(1MHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -51.1dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 1MHz [i.e.: -51.1dBm = -31.1dBm -10log(1MHz/10kHz)]. The required limit of -31.1dBm with a RBW of $\geq$ 1MHz was used for all other frequency ranges.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight Technologies	N9030B	AGA	2025-06-09	2026-06-09
Block - DC	Centric RF	C0140	ANJ	NCR	NCR
Generator - Signal	Agilent	N5173B	TIW	2023-08-07	2026-08-07

Note: The RF Test Setup/ Network (RF cables/Attenuators/filter/etc.) is defined in the configurations section for each test. The RF Test Setup/Network is calibrated using the signal generator and spectrum analyzer prior to test. The RF insertion loss of the RF Test Setup/Network is accounted for by the spectrum analyzer's reference level offset during the RF conducted testing.

SPURIOUS CONDUCTED EMISSIONS

EUT:	Airscale Base Transceiver Station Radio Unit AVHA	Work Order:	NOKI0088
Serial Number:	L1252603387	Date:	2025-09-29
Customer:	Nokia Solutions and Networks	Temperature:	28.3°C
Attendees:	David Le, Mitch Hill	Relative Humidity:	31.8%
Customer Project:	None	Bar. Pressure (PMSL):	1018 mbar
Tested By:	Jarrold Brenden	Job Site:	PT14
Power:	54VDC	Configuration:	NOKI0088-1 NOKI0088-2 NOKI0088-3 NOKI0088-4

COMMENTS

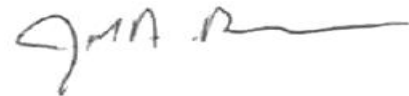
All losses in the measurement path were accounted for in the reference level offset; attenuators, filters, cables, and DC blocks. Carriers were enabled at maximum power levels.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass



Tested By

TEST RESULTS

	Frequency Range	Measured Freq (MHz)	Max Value (dBm)	Limit < (dBm)	Result
Port 1					
10 MHz Channel Bandwidth					
QPSK Modulation					
Middle Channel, 2593.00 MHz	9 kHz - 150 kHz	0.13	-73.34	-61.1	Pass
	150 kHz - 20 MHz	0.27	-82.97	-51.1	Pass
	20 MHz - 4 GHz	3799.01	-42.09	-31.1	Pass
	4 GHz - 18 GHz	17594.47	-44.17	-31.1	Pass
	18 GHz - 27 GHz	26296.2	-44.6	-31.1	Pass
15 MHz Channel Bandwidth					
QPSK Modulation					
Middle Channel, 2593.00 MHz	9 kHz - 150 kHz	0.13	-72.58	-61.1	Pass
	150 kHz - 20 MHz	0.27	-83.43	-51.1	Pass
	20 MHz - 4 GHz	3791.05	-42	-31.1	Pass
	4 GHz - 18 GHz	8003.53	-44.35	-31.1	Pass
	18 GHz - 27 GHz	26352.9	-46.06	-31.1	Pass
20 MHz Channel Bandwidth					
QPSK Modulation					
Middle Channel, 2593.00 MHz	9 kHz - 150 kHz	0.13	-73.07	-61.1	Pass
	150 kHz - 20 MHz	0.27	-82.97	-51.1	Pass
	20 MHz - 4 GHz	3776.62	-41.55	-31.1	Pass
	4 GHz - 18 GHz	17479.67	-44.43	-31.1	Pass
	18 GHz - 27 GHz	26339.4	-45.3	-31.1	Pass