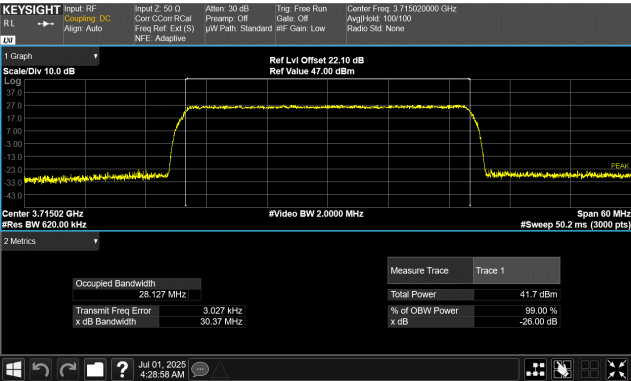
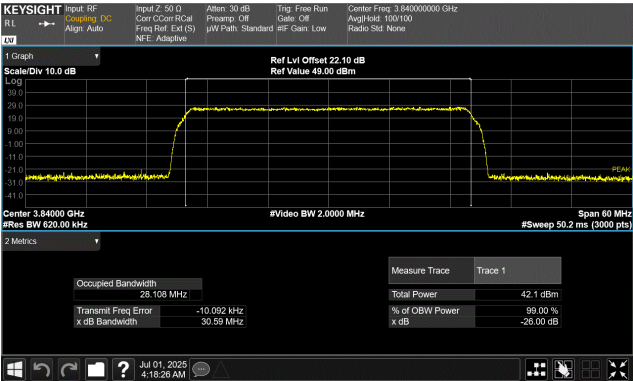


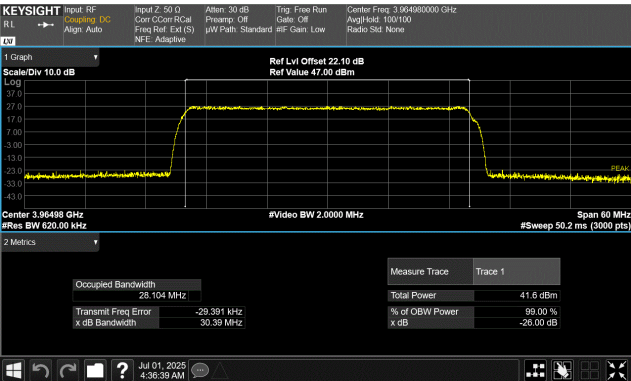
OCCUPIED BANDWIDTH - 3700 BAND



Port 1
30 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 3715.02 MHz



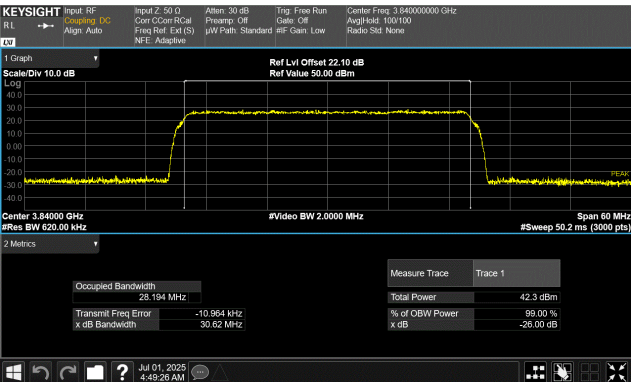
Port 1
30 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 3840.00 MHz



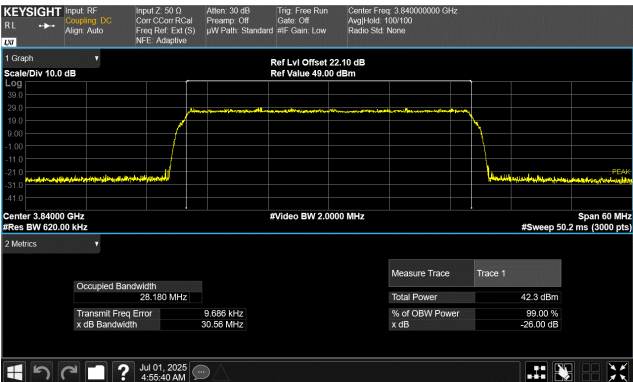
Port 1
30 MHz Channel Bandwidth
QPSK Modulation
High Channel, 3964.98 MHz



Port 1
30 MHz Channel Bandwidth
16QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
30 MHz Channel Bandwidth
64QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
30 MHz Channel Bandwidth
256QAM Modulation
Middle Channel, 3840.00 MHz

OCCUPIED BANDWIDTH - 3700 BAND



Port 1
50 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 3725.01 MHz



Port 1
50 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 3840.00 MHz



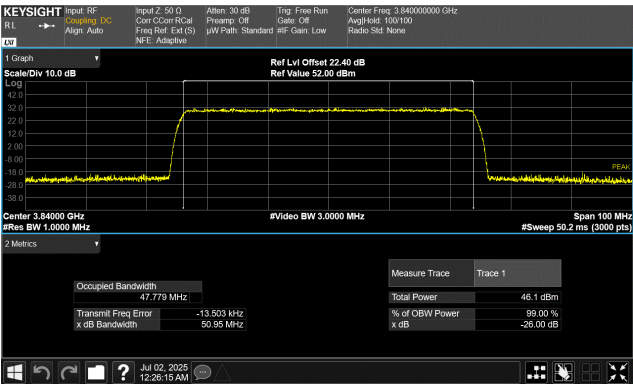
Port 1
50 MHz Channel Bandwidth
QPSK Modulation
High Channel, 3954.99 MHz



Port 1
50 MHz Channel Bandwidth
16QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
50 MHz Channel Bandwidth
64QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
50 MHz Channel Bandwidth
256QAM Modulation
Middle Channel, 3840.00 MHz

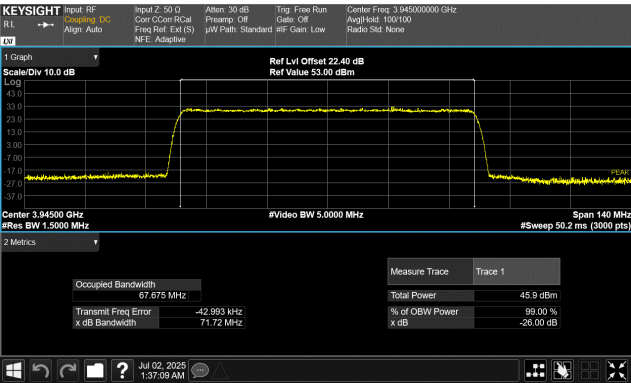
OCCUPIED BANDWIDTH - 3700 BAND



Port 1
70 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 3735.00 MHz



Port 1
70 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 3840.00 MHz



Port 1
70 MHz Channel Bandwidth
QPSK Modulation
High Channel, 3945.00 MHz



Port 1
70 MHz Channel Bandwidth
16QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
70 MHz Channel Bandwidth
64QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
70 MHz Channel Bandwidth
256QAM Modulation
Middle Channel, 3840.00 MHz

OCCUPIED BANDWIDTH - 3700 BAND



Port 1
90 MHz Channel Bandwidth
QPSK Modulation
Low Channel, 3745.02 MHz



Port 1
90 MHz Channel Bandwidth
QPSK Modulation
Middle Channel, 3840.00 MHz



Port 1
90 MHz Channel Bandwidth
QPSK Modulation
High Channel, 3934.98 MHz



Port 1
90 MHz Channel Bandwidth
16QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
90 MHz Channel Bandwidth
64QAM Modulation
Middle Channel, 3840.00 MHz



Port 1
90 MHz Channel Bandwidth
256QAM Modulation
Middle Channel, 3840.00 MHz

BAND EDGE COMPLIANCE - 3400 BAND

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 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 EUT was transmitting at the data rate(s) listed in the datasheet.

The AVQQA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "RF Output Power- All Ports" report section) and 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.

The spectrum was scanned below the lower band edge and above the higher band edge.

Per section 27.53(n)(1), For base station operations in the 3450-3550 MHz band, the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm/MHz. This limit is adjusted to -31.1 dBm $[-13 \text{ dBm} - 10 \log(64)]$

Per FCC KDB 662911D01 v02r01 and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64 port MIMO transmitter. Compliance with the provisions of this paragraph (n)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz.

Per section 27.53(n)(1), Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band, the conducted power of any emission below 3440 MHz or above 3560 MHz shall not exceed -25 dBm/MHz. This limit is adjusted to -43.1 dBm $[-25 \text{ dBm} - 10 \log(64)]$ for the 3430 to 3440MHz & 3560 to 3570MHz ranges per FCC KDB 662911D01 v02r01 and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64-port MIMO transmitter.

Per section FCC 27.53(n) and FCC 27.53 (l)(1), power of any emission outside of the authorized operating frequency range cannot exceed, of the two rule parts, the more restrictive limits. Per section 27.53(n), the power of any emission outside band edge region (frequency ranges below 3430MHz and above 3570MHz) cannot exceed -40 dBm/MHz. The limit is adjusted to 58.1 dBm $[-40 \text{ dBm} - 10 \log(64)]$ 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 must be 1MHz per FCC 27.53(n)(1).

The band edge testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small and there is significant/good passing margin. The QPSK modulation type was used. (See ANSI C63.26. clause 5.7.2e).

All Measurements were synchronized with the measurement receiver - gated with external trigger input (frame clock (100Hz) provided by the system module.

In 3.45GHz band single carrier operating mode - carriers were enabled at maximum power levels. Simultaneously, 3.7GHz band NR10 carrier were enable to operate at 30 watts or 0.468W(26.7dBm)/per carrier on middle channel.

BAND EDGE COMPLIANCE - 3400 BAND

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 - 3400 BAND



EUT:	Airscale Base Transceiver Station Radio Unit Model AVQQA	Work Order:	NOKI0086
Serial Number:	L1242501908	Date:	2025-07-16
Customer:	Nokia Solutions and Networks	Temperature:	26.2°C
Attendees:	John Rattanaovong, Mitch Hill	Relative Humidity:	45.5%
Customer Project:	None	Bar. Pressure (PMSL):	1014 mbar
Tested By:	Jarrold Brenden	Job Site:	PT14
Power:	54 VDC	Configuration:	NOKI0086-3

COMMENTS

All losses in the measurement path were accounted for in the spectrum analyzer reference level offset; attenuators, filters, cables, and DC blocks.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

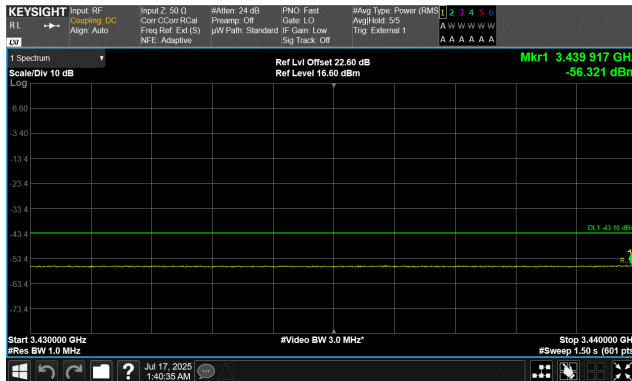
Pass

Tested By

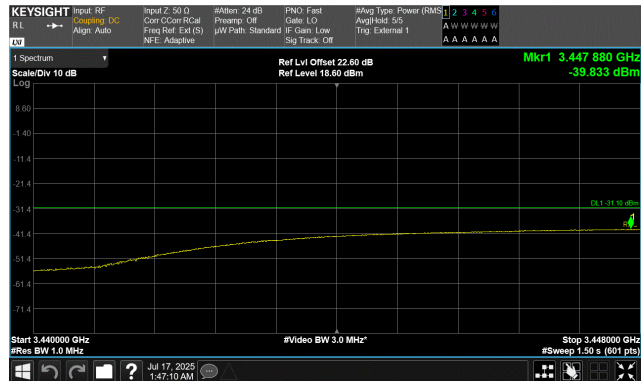
TEST RESULTS

Frequency Range		Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Port 1					
QPSK Modulation					
50 MHz Channel Bandwidth					
Low Channel, 3475.02 MHz	3430.0 MHz to 3440.0 MHz	3439.917	-56.321	-43.1	Pass
	3440.0 MHz to 3448.0 MHz	3447.88	-39.833	-31.1	Pass
	3448.0 MHz to 3449.0 MHz	3448.5	-40.53	-31.1	Pass
	3449.0 MHz to 3451.0 MHz	3450	-38.028	-31.1	Pass
High Channel, 3525.00 MHz	3549.0 MHz to 3551.0 MHz	3550	-38.499	-31.1	Pass
	3551.0 MHz to 3552.0 MHz	3551.5	-39.86	-31.1	Pass
	3552.0 MHz to 3560.0 MHz	3552.107	-39.697	-31.1	Pass
	3560.0 MHz to 3570.0 MHz	3566.067	-56.009	-43.1	Pass

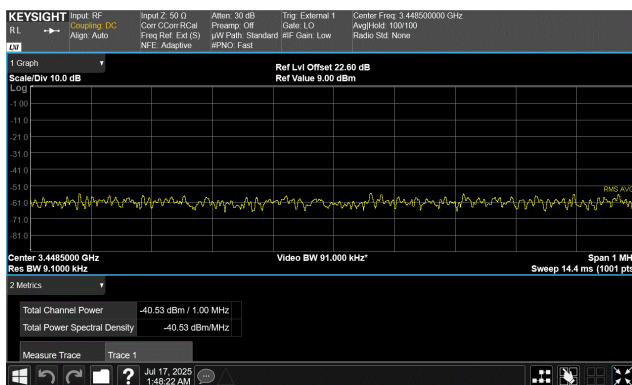
BAND EDGE COMPLIANCE - 3400 BAND



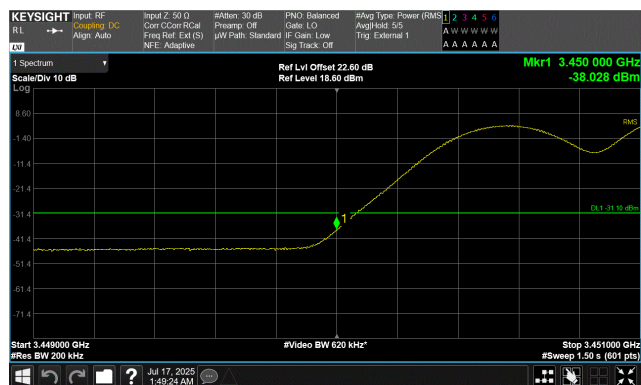
QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3475.02 MHz
3430.0 MHz to 3440.0 MHz



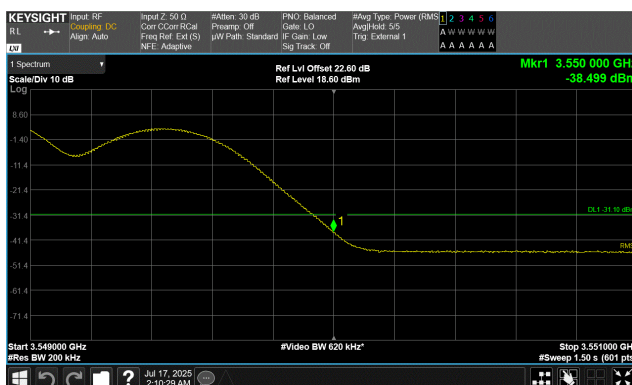
QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3475.02 MHz
3440.0 MHz to 3448.0 MHz



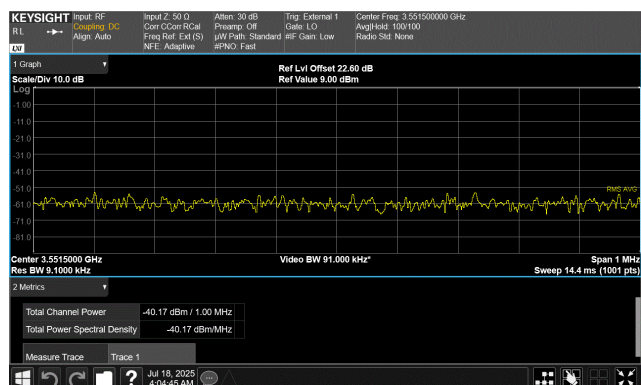
QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3475.02 MHz
3448.0 MHz to 3449.0 MHz



QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3475.02 MHz
3449.0 MHz to 3451.0 MHz

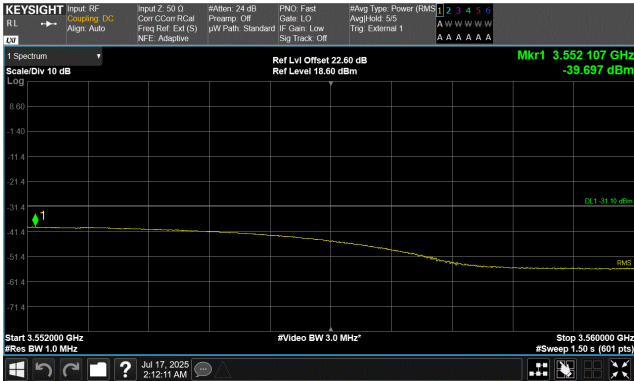


QPSK Modulation
50 MHz Channel Bandwidth
High Channel, 3525.00 MHz
3549.0 MHz to 3551.0 MHz

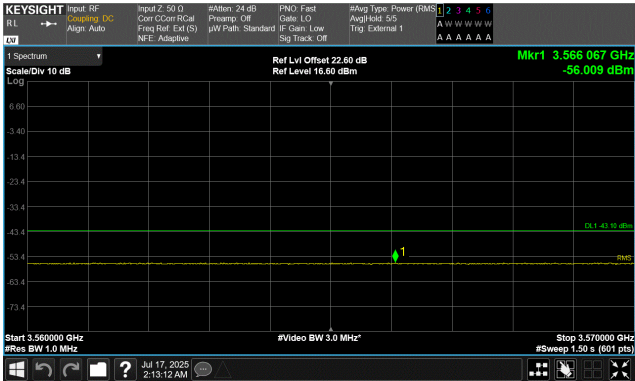


QPSK Modulation
50 MHz Channel Bandwidth
High Channel, 3525.00 MHz
3551.0 MHz to 3552.0 MHz

BAND EDGE COMPLIANCE - 3400 BAND



QPSK Modulation
50 MHz Channel Bandwidth
High Channel, 3525.00 MHz
3552.0 MHz to 3560.0 MHz



QPSK Modulation
50 MHz Channel Bandwidth
High Channel, 3525.00 MHz
3560.0 MHz to 3570.0 MHz

BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



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 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 EUT was transmitting at the data rate(s) listed in the datasheet.

The AVQQA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "RF Output Power- All Ports" report section) and 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.

The spectrum was scanned below the lower band edge and above the higher band edge.

Per section 27.53(n)(1), For base station operations in the 3450-3550 MHz band, the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm/MHz. This limit is adjusted to -31.1 dBm $[-13 \text{ dBm} - 10 \log(64)]$

per FCC KDB 662911D01 v02r01 and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64 port MIMO transmitter. Compliance with the provisions of this paragraph (n)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed but limited to a maximum of 200 kHz.

Per section 27.53(n)(1), Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band, the conducted power of any emission below 3440 MHz or above 3560 MHz shall not exceed -25 dBm/MHz. This limit is adjusted to -43.1 dBm $[-25 \text{ dBm} - 10 \log(64)]$ for the 3430 to 3440MHz & 3560 to 3570MHz ranges per FCC KDB 662911D01 v02r01 and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64-port MIMO transmitter.

Per section FCC 27.53(n) and FCC 27.53 (l)(1), power of any emission outside of the authorized operating frequency range cannot exceed, of the two rule parts, the more restrictive limits. Per section 27.53(n), the power of any emission outside band edge region (frequency ranges below 3430MHz and above 3570MHz) cannot exceed -40 dBm/MHz. The limit is adjusted to 58.1 dBm $[-40 \text{ dBm} - 10 \log(64)]$ 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 must be 1MHz per FCC 27.53(n)(1).

The band edge testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small and there is significant/good passing margin. The QPSK modulation type was used. (See ANSI C63.26. clause 5.7.2e).

All Measurements were synchronized with the measurement receiver - gated with external trigger input (frame clock (100Hz) provided by the system module.

In 3.45GHz band multi carrier operating mode - carriers were enabled at maximum power levels. Simultaneously, 3.7GHz band NR10 carrier were enable to operate at 30 watts or 0.468W(26.7dBm)/per carrier on middle channel.

BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND

Multicarrier test cases have been developed as shown below:

- a) 3.45GHz Band Multicarrier: Two contiguous NR50 carriers with maximum spacing between carrier frequencies at the lower/upper band edges (3475.02 & 3525MHz). The largest channel bandwidth is selected to maximize available radio power and occupied bandwidth. The carriers are operated at maximum power (~1.56W/carrier). At the same time, 3.7GHz Band NR10 Carrier operates at 30 watts on middle channel with a total radio power of 230 watts.
- b) 3.45GHz Band Multicarrier: In 3.45GMHz band, Two contiguous NR20 carriers with minimum spacing between carrier frequencies at the lower band edge (3460.02 & 3480.00MHz). The smallest channel bandwidth is selected to maximized available radio power. The carriers are operated at maximum power (~1.56W/carrier). At the same time, 3.7GHz Band NR10 Carrier operates at 30 watts on middle channel with a total radio power of 230 watts.
- c) 3.45GHz Band Multicarrier: In 3.45GMHz band, Two contiguous NR20 carriers with minimum spacing between carrier frequencies at the upper band edge (3520.02 & 3540.00MHz). The channel bandwidth is selected to maximized available radio power. The carriers are operated at maximum power (~1.56W/carrier). At the same time, 3.7GHz Band NR10 Carrier operates at 30 watts on middle channel with a total radio power of 230 watts.
- d) 3.45GHz Band Multicarrier: In 3.45GMHz band, Two non-contiguous NR20 carriers with maximum spacing between carrier frequencies at the lower/upper band edge (3460.02 & 3540.00MHz). The channel bandwidth is selected to maximized available radio power and occupied bandwidth. The carriers are operated at maximum power (~1.56W/carrier). At the same time, 3.7GHz Band NR10 Carrier operates at 30 watts on middle channel with a total radio power of 230 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 - MULTICARRIER, 3400 BAND



EUT:	Airscale Base Transceiver Station Radio Unit Model AVQQA	Work Order:	NOKI0086
Serial Number:	L1242501908	Date:	2025-07-16
Customer:	Nokia Solutions and Networks	Temperature:	23.9°C
Attendees:	John Rattanavong, Mitch Hill	Relative Humidity:	51.3%
Customer Project:	None	Bar. Pressure (PMSL):	1014 mbar
Tested By:	Jarrod Brenden	Job Site:	PT14
Power:	54 VDC	Configuration:	NOKI0086-3

COMMENTS

All losses in the measurement path were accounted for in the spectrum analyzer reference level offset; attenuators, filters, cables, and DC blocks.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

TEST RESULTS

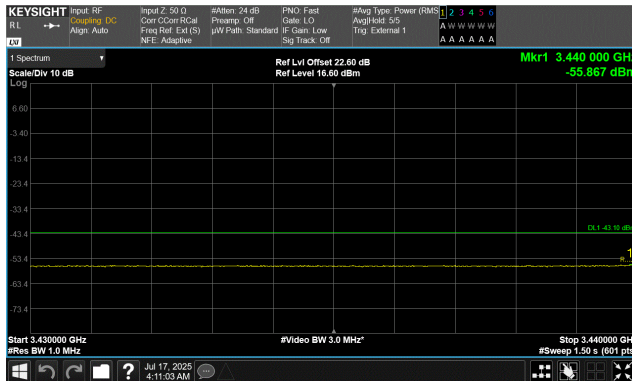
	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Port 1					
Modulation					
Test Case A					
NR50, 3475.02 MHz & NR50, 3525.00 MHz	3430.0 MHz to 3440.0 MHz	3440	-55.867	-43.1	Pass
	3440.0 MHz to 3448.0 MHz	3447.92	-40.244	-31.1	Pass
	3448.0 MHz to 3449.0 MHz	3448.5	-39.88	-31.1	Pass
	3449.0 MHz to 3451.0 MHz	3450	-40.526	-31.1	Pass
	3549.0 MHz to 3551.0 MHz	3550	-40.331	-31.1	Pass
	3551.0 MHz to 3552.0 MHz	3551.5	-40.19	-31.1	Pass
	3552.0 MHz to 3560.0 MHz	3552.08	-40.416	-31.1	Pass
	3560.0 MHz to 3570.0 MHz	3569.9	-55.924	-43.1	Pass
Test Case B					
NR20, 3460.02 MHz & NR20, 3480.00 MHz	3430.0 MHz to 3440.0 MHz	3440	-56.137	-43.1	Pass
	3440.0 MHz to 3448.0 MHz	3447.973	-39.573	-31.1	Pass
	3448.0 MHz to 3449.0 MHz	3448.5	-39.09	-31.1	Pass
	3449.0 MHz to 3451.0 MHz	3450	-34.904	-31.1	Pass
	3549.0 MHz to 3551.0 MHz	3550	-48.437	-31.1	Pass
	3551.0 MHz to 3552.0 MHz	3551.5	-42.65	-31.1	Pass
	3552.0 MHz to 3560.0 MHz	3552	-42.665	-31.1	Pass
	3560.0 MHz to 3570.0 MHz	3568.3	-56.369	-43.1	Pass
Test Case C					
NR20, 3520.02 MHz & NR20, 3540.00 MHz	3430.0 MHz to 3440.0 MHz	3439.967	-56.357	-43.1	Pass
	3440.0 MHz to 3448.0 MHz	3447.933	-41.544	-31.1	Pass
	3448.0 MHz to 3449.0 MHz	3448.5	-41.62	-31.1	Pass
	3449.0 MHz to 3451.0 MHz	3450	-48.129	-31.1	Pass
	3549.0 MHz to 3551.0 MHz	3550	-33.969	-31.1	Pass
	3551.0 MHz to 3552.0 MHz	3551.5	-38.3	-31.1	Pass

BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND

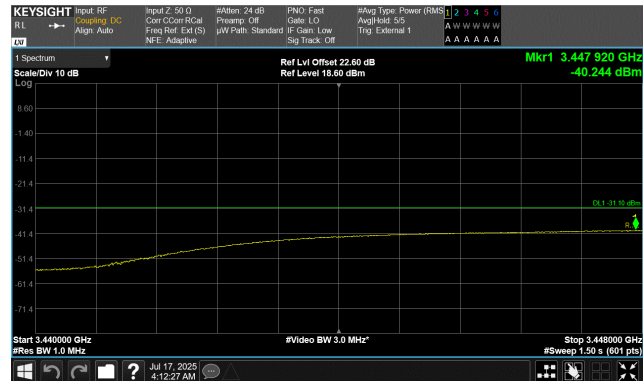


Frequency Range		Frequency (MHz)	Value (dBm)	Limit (dBm)	Result	
Test Case D	3552.0 MHz to 3560.0 MHz	3552	-38.119	-31.1	Pass	
	3560.0 MHz to 3570.0 MHz	3562.1	-56.127	-43.1	Pass	
	NR20, 3460.02 MHz & NR20, 3540.00 MHz	3430.0 MHz to 3440.0 MHz	3439.917	-56.267	-43.1	Pass
		3440.0 MHz to 3448.0 MHz	3447.973	-37.763	-31.1	Pass
		3448.0 MHz to 3449.0 MHz	3448.5	-38	-31.1	Pass
		3449.0 MHz to 3451.0 MHz	3450	-33.352	-31.1	Pass
		3549.0 MHz to 3551.0 MHz	3550	-32.928	-31.1	Pass
		3551.0 MHz to 3552.0 MHz	3551.5	-38.9	-31.1	Pass
		3552.0 MHz to 3560.0 MHz	3552.04	-39.096	-31.1	Pass
		3560.0 MHz to 3570.0 MHz	3560.2	-56.341	-43.1	Pass

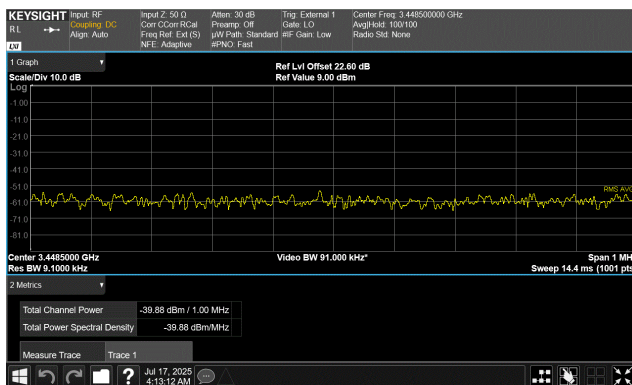
BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



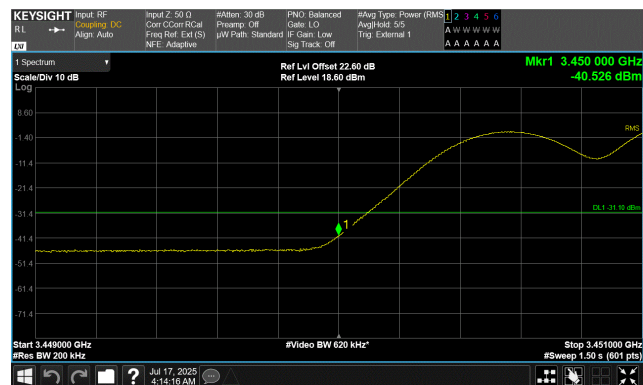
Test Case A
3430.0 MHz to 3440.0 MHz



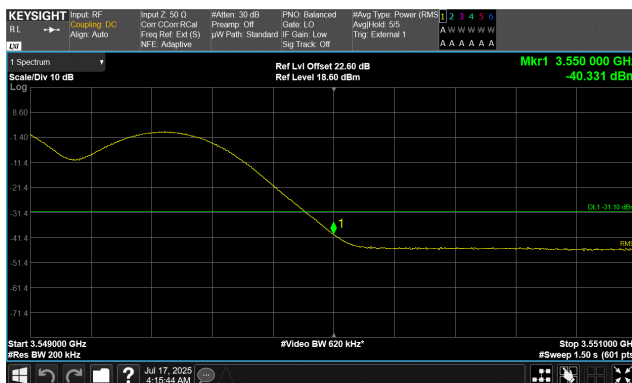
Test Case A
3440.0 MHz to 3448.0 MHz



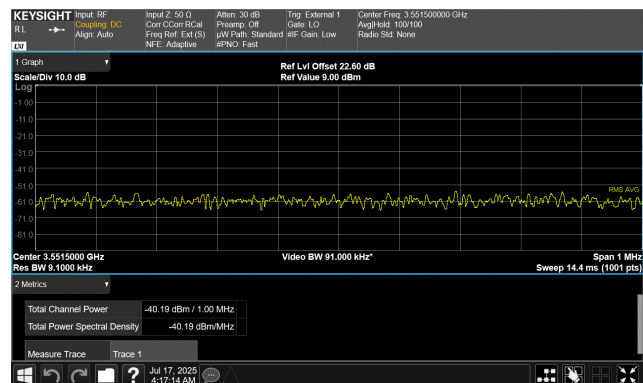
Test Case A
3448.0 MHz to 3449.0 MHz



Test Case A
3449.0 MHz to 3451.0 MHz

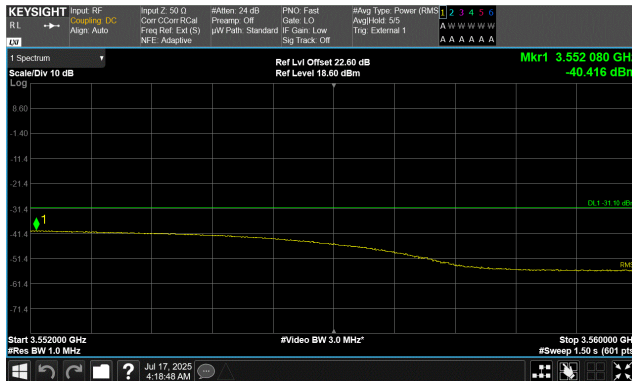


Test Case A
3549.0 MHz to 3551.0 MHz

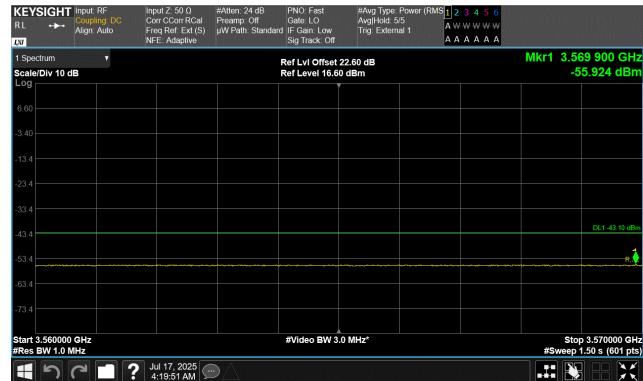


Test Case A
3551.0 MHz to 3552.0 MHz

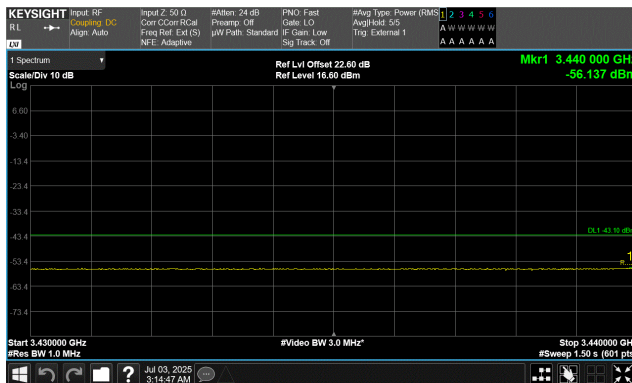
BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



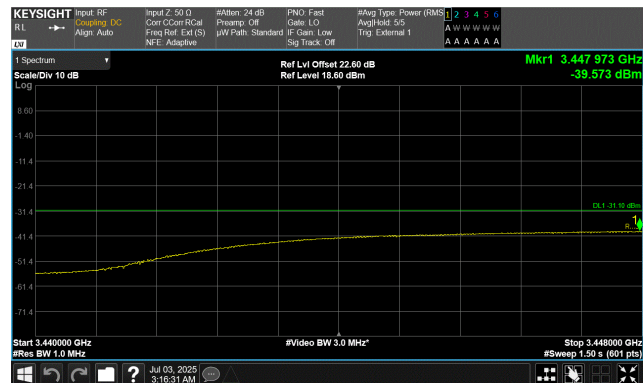
Test Case A
3552.0 MHz to 3560.0 MHz



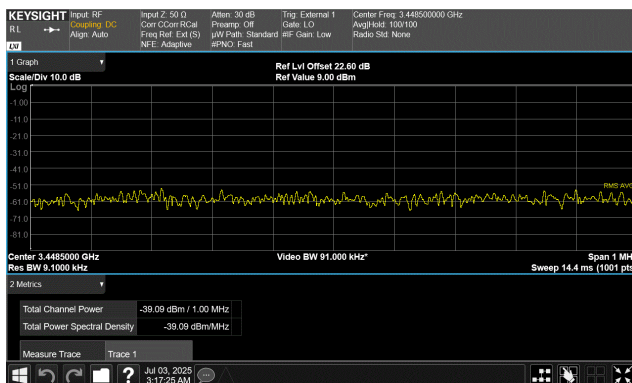
Test Case A
3569.0 MHz to 3570.0 MHz



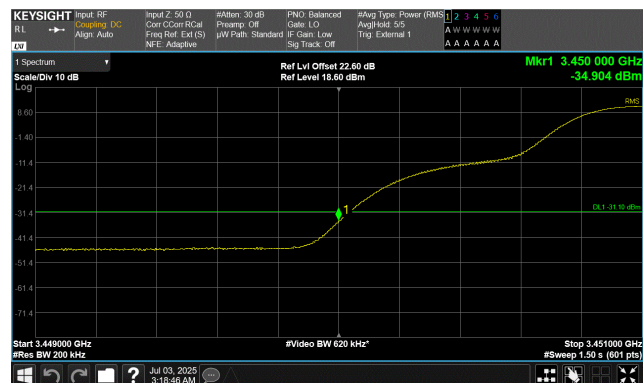
Test Case B
3430.0 MHz to 3440.0 MHz



Test Case B
3447.973 GHz to 3448.0 MHz

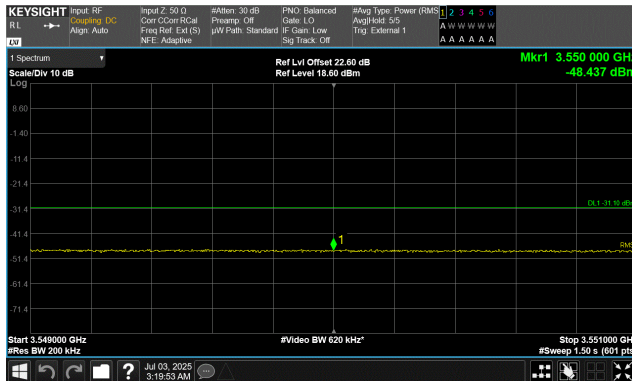


Test Case B
3448.0 MHz to 3449.0 MHz

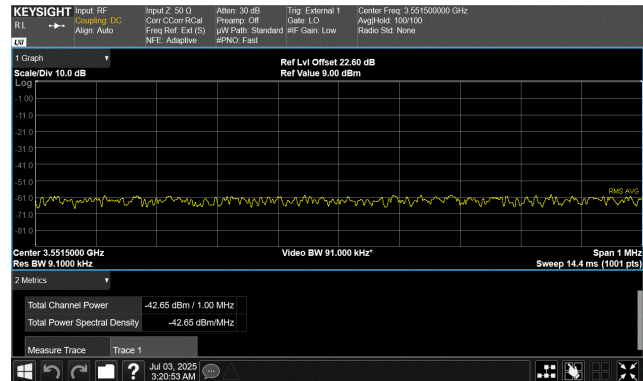


Test Case B
3449.0 MHz to 3451.0 MHz

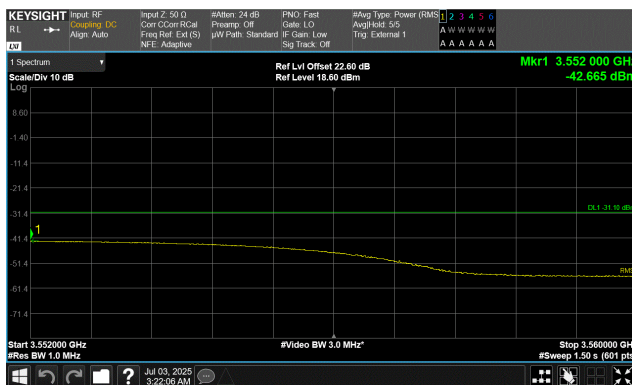
BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



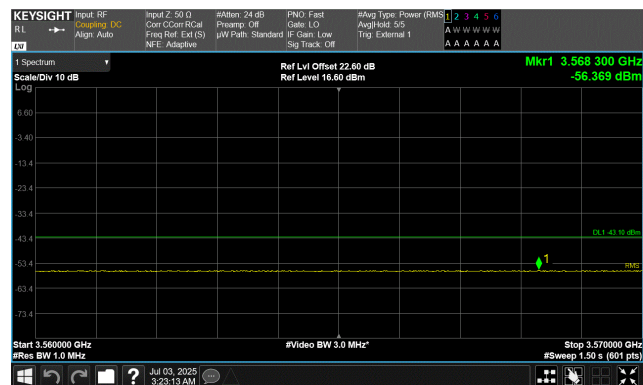
Test Case B
3549.0 MHz to 3551.0 MHz



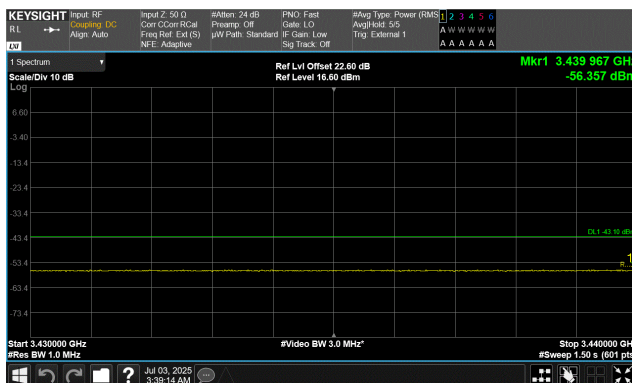
Test Case B
3551.0 MHz to 3552.0 MHz



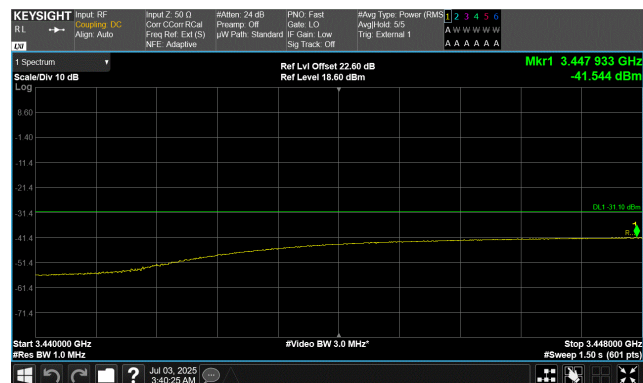
Test Case B
3552.0 MHz to 3560.0 MHz



Test Case B
3560.0 MHz to 3570.0 MHz

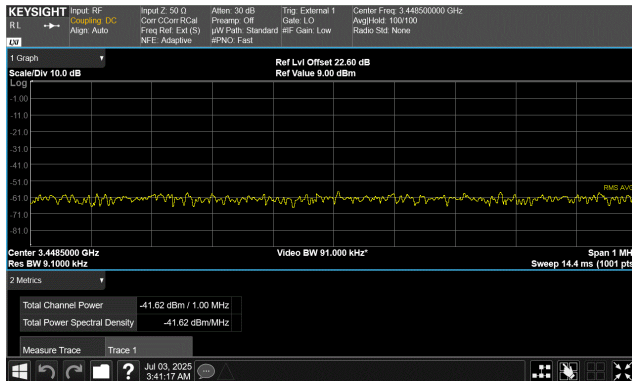


Test Case C
3430.0 MHz to 3440.0 MHz

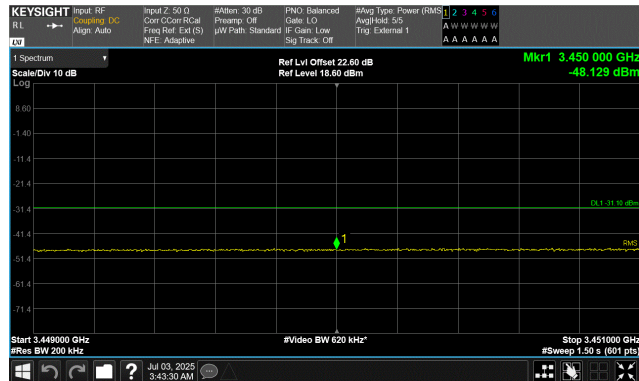


Test Case C
3440.0 MHz to 3448.0 MHz

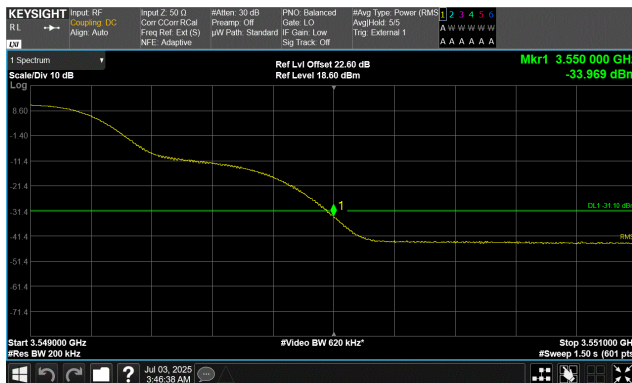
BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



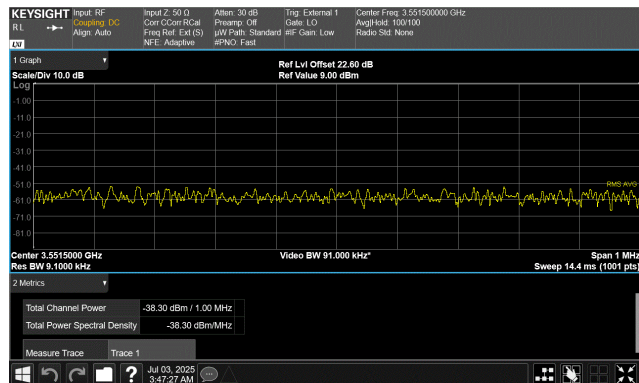
Test Case C
3448.0 MHz to 3449.0 MHz



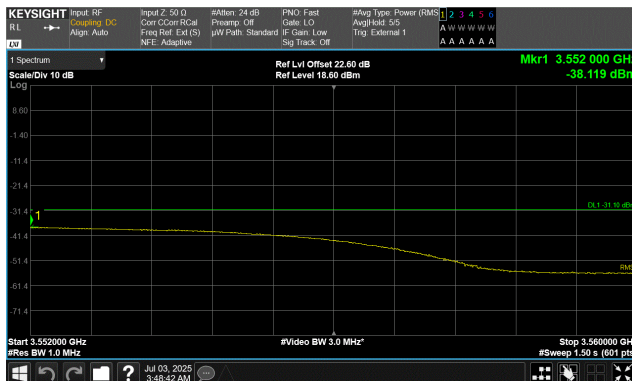
Test Case C
3449.0 MHz to 3451.0 MHz



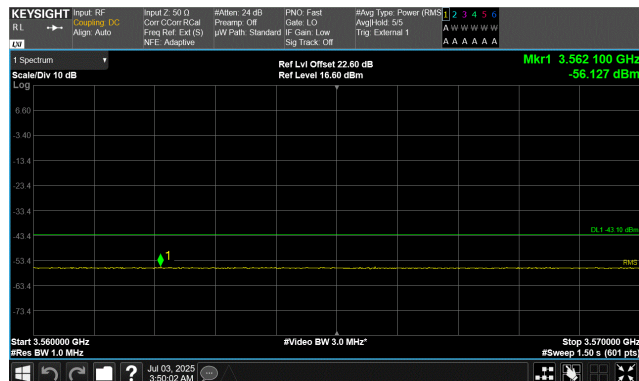
Test Case C
3549.0 MHz to 3551.0 MHz



Test Case C
3551.0 MHz to 3552.0 MHz

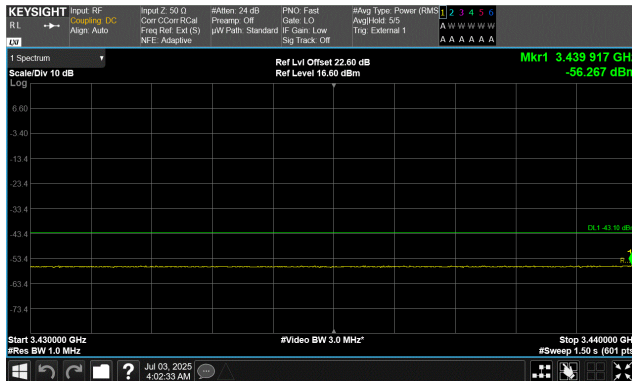


Test Case C
3552.0 MHz to 3560.0 MHz

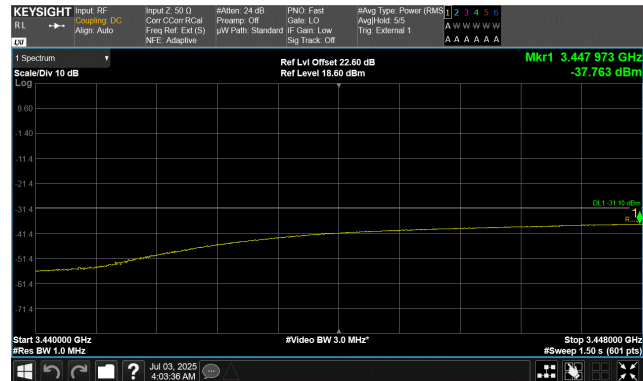


Test Case C
3560.0 MHz to 3570.0 MHz

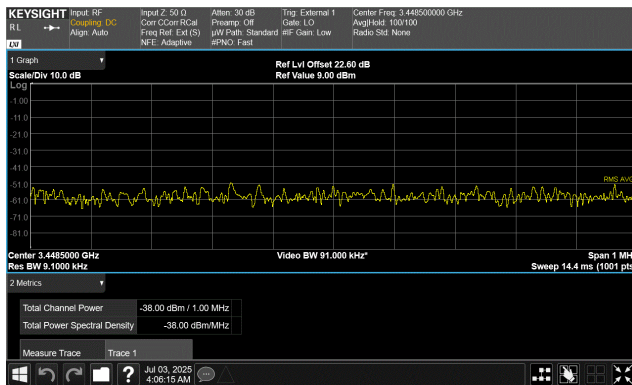
BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



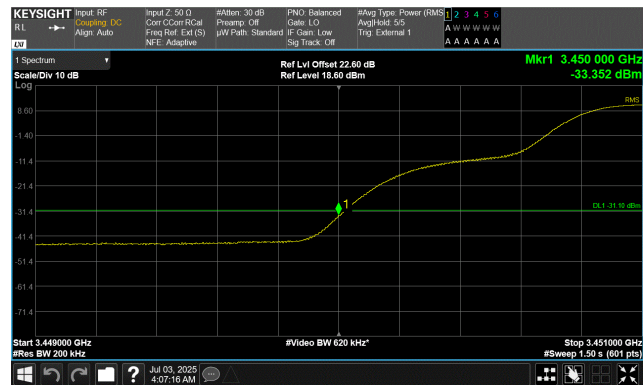
Test Case D
3430.0 MHz to 3440.0 MHz



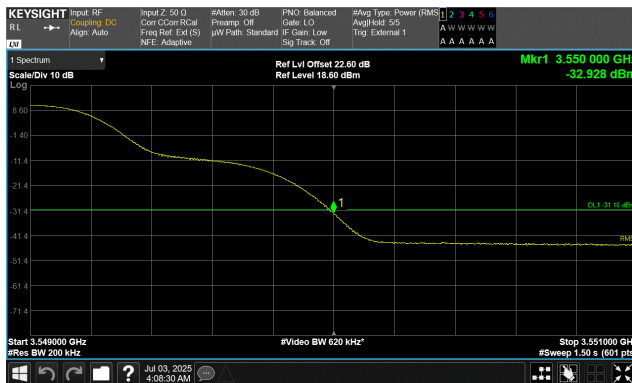
Test Case D
3440.0 MHz to 3448.0 MHz



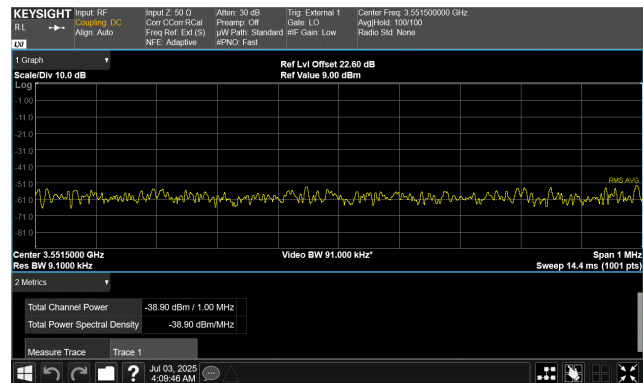
Test Case D
3448.0 MHz to 3449.0 MHz



Test Case D
3449.0 MHz to 3451.0 MHz

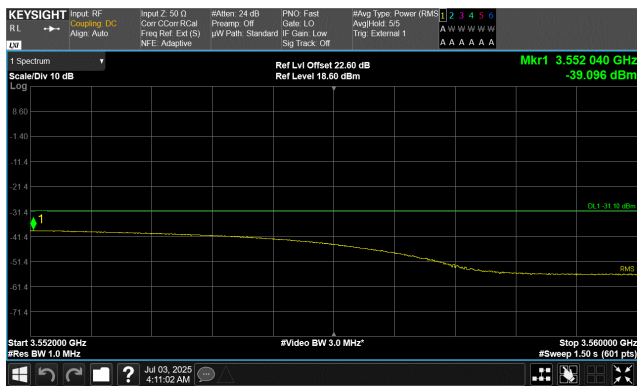


Test Case D
3549.0 MHz to 3551.0 MHz



Test Case D
3551.0 MHz to 3552.0 MHz

BAND EDGE COMPLIANCE - MULTICARRIER, 3400 BAND



Test Case D
3552.0 MHz to 3560.0 MHz



Test Case D
3560.0 MHz to 3570.0 MHz

BAND EDGE COMPLIANCE - 3700 BAND

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 measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. 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 EUT was transmitting at the data rate(s) listed in the datasheet.

The AVQQA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the "RF Output Power- All Ports" report section) and 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.

The spectrum was scanned below the lower band edge and above the higher band edge.

Per section 27.53(l)(1), For base station operations in the 3700-3980 MHz band, the conducted power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. This limit is adjusted to -31.1 dBm $[-13 \text{ dBm} - 10 \log(64)]$ per FCC KDB 662911D01 v02r01 and ANSI C63.26-2015 section 6.4 because the BTS may operate as a 64 port MIMO transmitter.

Per 27.53(l)(1), emissions seen up to 1 MHz outside of authorized operating frequency range band edges shall be measured with a RBW of 1% of the measured emission bandwidth. Any emission seen to be > 1 MHz further outside the band edges shall be measured with a RBW of 1 MHz. However, a narrower RBW of at least 1% of the emission bandwidth is still allowed provided that the measured power is integrated over the full reference bandwidth of 1 MHz.

The band edge testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small and there is significant/good passing margin. The QPSK modulation type was used. (See ANSI C63.26. clause 5.7.2e).

All Measurements were synchronized with the measurement receiver - gated with external trigger input (frame clock (100Hz) provided by the system module.

In 3.7GHz band single carrier operating mode - carriers were enabled at maximum power levels.

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 - 3700 BAND



EUT:	Airscale Base Transceiver Station Radio Unit Model AVQQA	Work Order:	NOKI0086
Serial Number:	L1242501908	Date:	2025-07-02
Customer:	Nokia Solutions and Networks	Temperature:	24.5°C
Attendees:	John Rattanaovong, Mitch Hill	Relative Humidity:	51.2%
Customer Project:	None	Bar. Pressure (PMSL):	1016 mbar
Tested By:	Jarrod Brenden	Job Site:	PT14
Power:	54 VDC	Configuration:	NOKI0086-3

COMMENTS

All losses in the measurement path were accounted for in the reference level offset; attenuators, filters, cables, and DC blocks.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

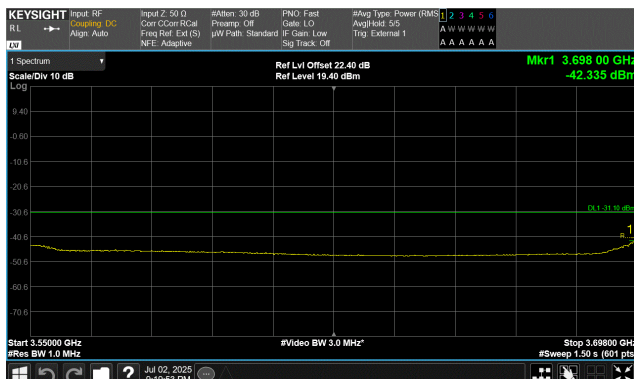
TEST RESULTS

	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
Port 1					
QPSK Modulation					
10 MHz Channel Bandwidth					
Low Channel, 3705.00 MHz	3550.0 MHz to 3698.0 MHz	3698	-42.335	-31.1	Pass
	3698.0 MHz to 3699.0 MHz	3698.5	-40.7	-31.1	Pass
	3699.0 MHz to 3701.0 MHz	3700	-43.215	-31.1	Pass
High Channel, 3975.00 MHz	3979.0 MHz to 3981.0 MHz	3980	-41.713	-31.1	Pass
	3981.0 MHz to 3982.0 MHz	3981.5	-37.99	-31.1	Pass
	3982.0 MHz to 4130.0 MHz	3982	-38.259	-31.1	Pass
30 MHz Channel Bandwidth					
Low Channel, 3715.02 MHz	3550.0 MHz to 3698.0 MHz	3698	-39.919	-31.1	Pass
	3698.0 MHz to 3699.0 MHz	3698.5	-40.12	-31.1	Pass
	3699.0 MHz to 3701.0 MHz	3699.85	-33.092	-31.1	Pass
High Channel, 3964.98 MHz	3979.0 MHz to 3981.0 MHz	3980.15	-32.267	-31.1	Pass
	3981.0 MHz to 3982.0 MHz	3981.5	-38.07	-31.1	Pass
	3982.0 MHz to 4130.0 MHz	3982	-37.72	-31.1	Pass
50 MHz Channel Bandwidth					
Low Channel, 3725.01 MHz	3550.0 MHz to 3698.0 MHz	3698	-36.358	-31.1	Pass
	3698.0 MHz to 3699.0 MHz	3698.5	-35.74	-31.1	Pass
	3699.0 MHz to 3699.5 MHz	3699.25	-39.5	-31.1	Pass
	3699.5 MHz to 3700.0 MHz	3699.75	-39.08	-31.1	Pass
High Channel, 3954.99 MHz	3980.0 MHz to 3980.5 MHz	3980.25	-37.76	-31.1	Pass
	3980.5 MHz to 3981.0 MHz	3980.75	-38.03	-31.1	Pass
	3981.0 MHz to 3982.0 MHz	3981.5	-34.88	-31.1	Pass
	3982.0 MHz to 4130.0 MHz	3982.25	-34.769	-31.1	Pass

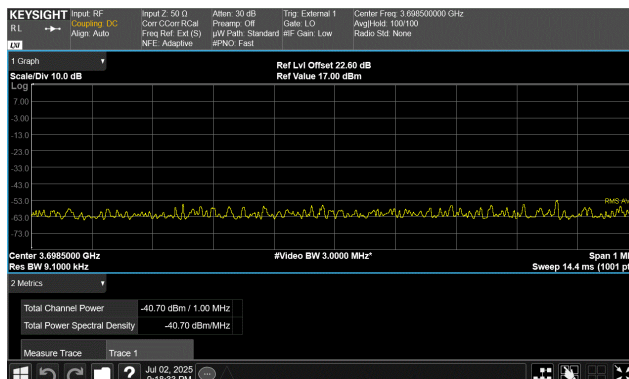
BAND EDGE COMPLIANCE - 3700 BAND

	Frequency Range	Frequency (MHz)	Value (dBm)	Limit (dBm)	Result
70 MHz Channel Bandwidth					
Low Channel, 3735.00 MHz	3550.0 MHz to 3698.0 MHz	3698	-36.833	-31.1	Pass
	3698.0 MHz to 3699.0 MHz	3698.5	-36.98	-31.1	Pass
	3699.0 MHz to 3699.7 MHz	3699.35	-37.72	-31.1	Pass
	3699.3 MHz to 3700.0 MHz	3699.65	-38.33	-31.1	Pass
High Channel, 3945.00 MHz	3980.0 MHz to 3980.7 MHz	3980.35	-36.28	-31.1	Pass
	3980.3 MHz to 3981.0 MHz	3980.65	-37.44	-31.1	Pass
	3981.0 MHz to 3982.0 MHz	3981.5	-35.38	-31.1	Pass
	3982.0 MHz to 4130.0 MHz	3982	-35.097	-31.1	Pass
90 MHz Channel Bandwidth					
Low Channel, 3745.02 MHz	3550.0 MHz to 3698.0 MHz	3698	-37.527	-31.1	Pass
	3698.0 MHz to 3699.0 MHz	3698.5	-37.29	-31.1	Pass
	3699.0 MHz to 3699.9 MHz	3699.45	-37.46	-31.1	Pass
	3699.1 MHz to 3700.0 MHz	3699.55	-37.67	-31.1	Pass
High Channel, 3934.98 MHz	3980.0 MHz to 3980.9 MHz	3980.45	-36.46	-31.1	Pass
	3980.1 MHz to 3981.0 MHz	3980.55	-36.35	-31.1	Pass
	3981.0 MHz to 3982.0 MHz	3981.5	-35.82	-31.1	Pass
	3982.0 MHz to 4130.0 MHz	3982	-36.347	-31.1	Pass

BAND EDGE COMPLIANCE - 3700 BAND



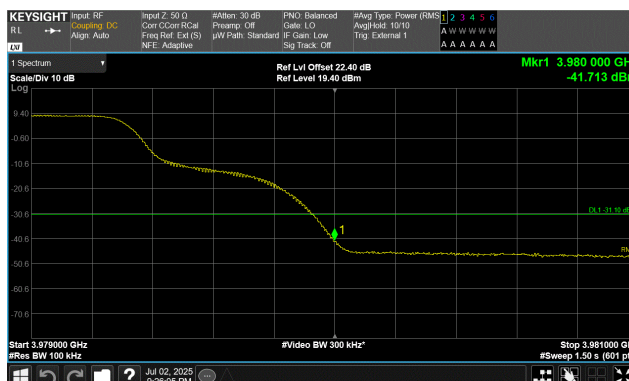
QPSK Modulation
10 MHz Channel Bandwidth
Low Channel, 3705.00 MHz
3550.0 MHz to 3698.0 MHz



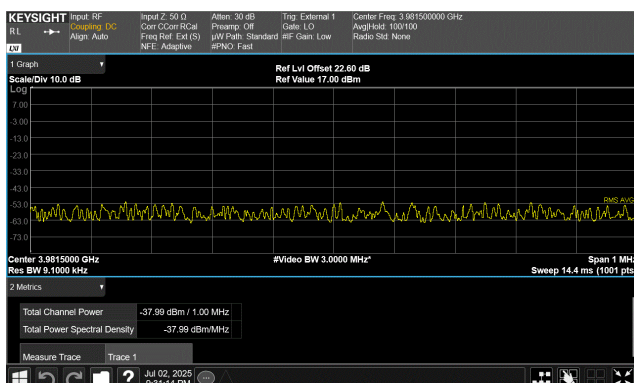
QPSK Modulation
10 MHz Channel Bandwidth
Low Channel, 3705.00 MHz
3698.0 MHz to 3699.0 MHz



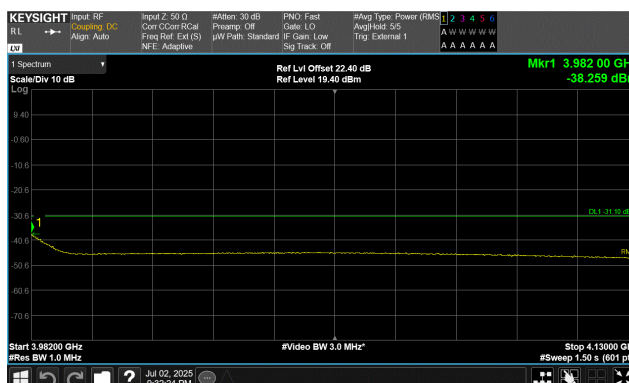
QPSK Modulation
10 MHz Channel Bandwidth
Low Channel, 3705.00 MHz
3699.0 MHz to 3701.0 MHz



QPSK Modulation
10 MHz Channel Bandwidth
High Channel, 3975.00 MHz
3979.0 MHz to 3981.0 MHz

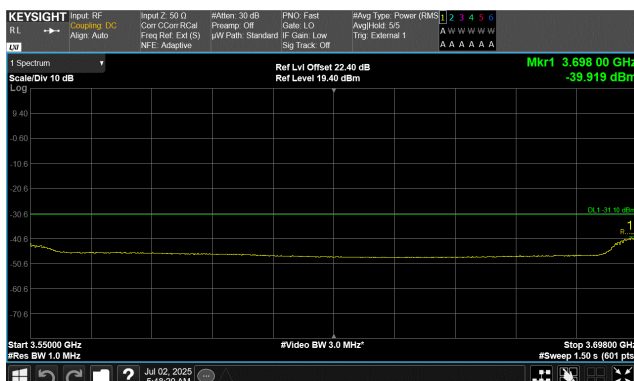


QPSK Modulation
10 MHz Channel Bandwidth
High Channel, 3975.00 MHz
3981.0 MHz to 3982.0 MHz

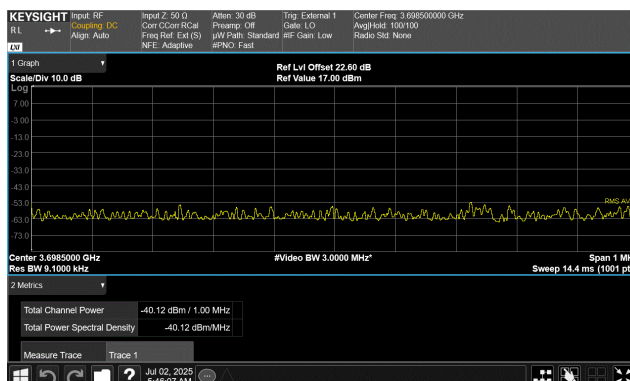


QPSK Modulation
10 MHz Channel Bandwidth
High Channel, 3975.00 MHz
3982.0 MHz to 4130.0 MHz

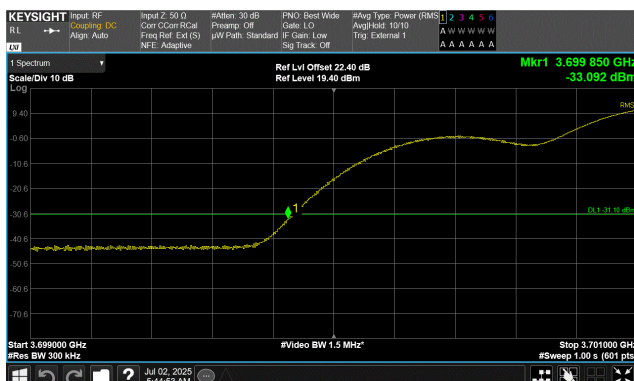
BAND EDGE COMPLIANCE - 3700 BAND



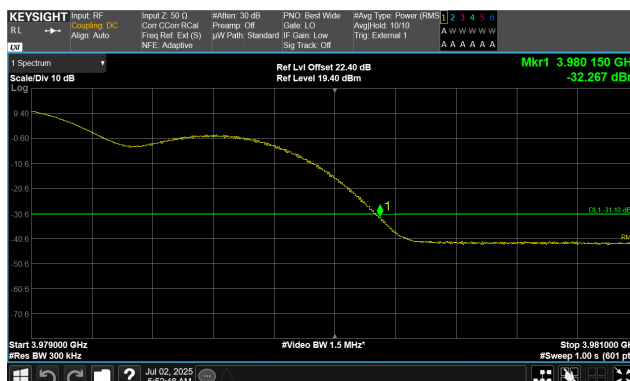
QPSK Modulation
30 MHz Channel Bandwidth
Low Channel, 3715.02 MHz
3550.0 MHz to 3698.0 MHz



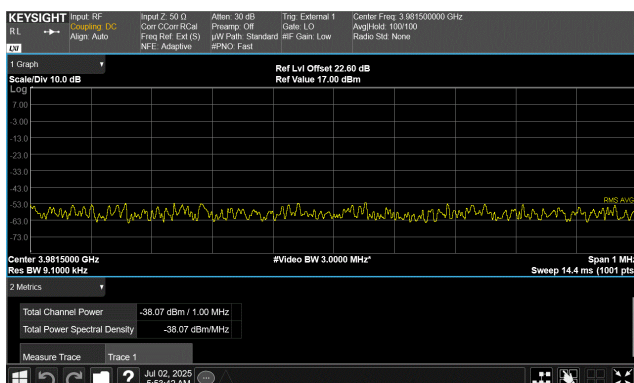
QPSK Modulation
30 MHz Channel Bandwidth
Low Channel, 3715.02 MHz
3698.0 MHz to 3699.0 MHz



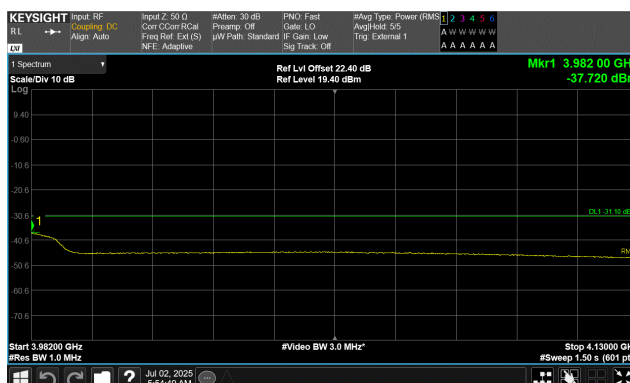
QPSK Modulation
30 MHz Channel Bandwidth
Low Channel, 3715.02 MHz
3699.0 MHz to 3701.0 MHz



QPSK Modulation
30 MHz Channel Bandwidth
High Channel, 3964.98 MHz
3979.0 MHz to 3981.0 MHz

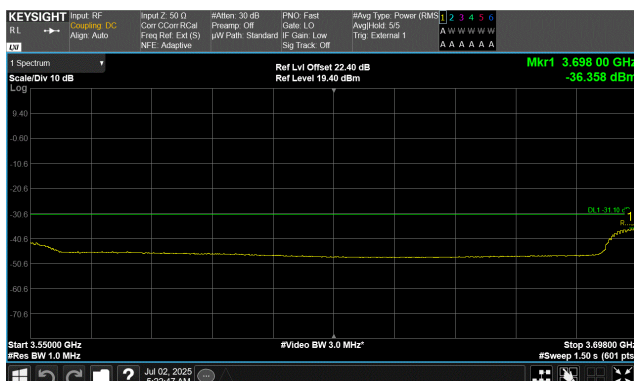


QPSK Modulation
30 MHz Channel Bandwidth
High Channel, 3964.98 MHz
3981.0 MHz to 3982.0 MHz

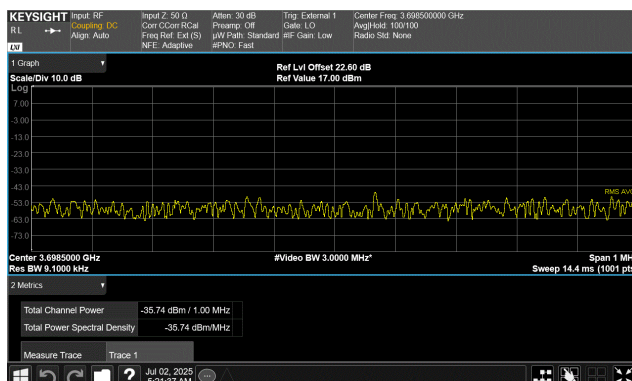


QPSK Modulation
30 MHz Channel Bandwidth
High Channel, 3964.98 MHz
3982.0 MHz to 4130.0 MHz

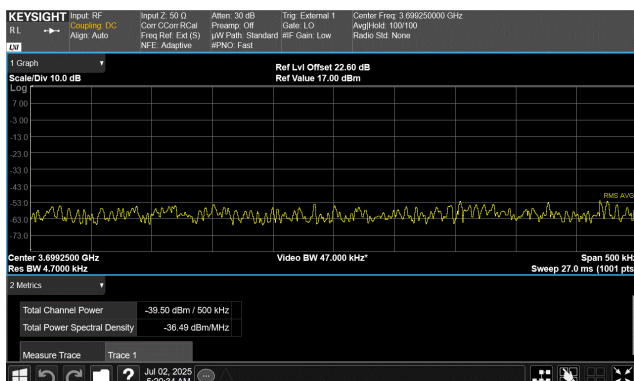
BAND EDGE COMPLIANCE - 3700 BAND



QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3725.01 MHz
3550.0 MHz to 3698.0 MHz



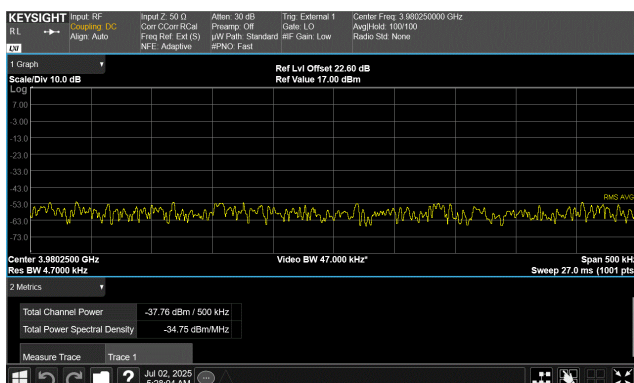
QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3725.01 MHz
3698.0 MHz to 3699.0 MHz



QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3725.01 MHz
3699.0 MHz to 3699.5 MHz



QPSK Modulation
50 MHz Channel Bandwidth
Low Channel, 3725.01 MHz
3699.5 MHz to 3700.0 MHz



QPSK Modulation
50 MHz Channel Bandwidth
High Channel, 3954.99 MHz
3980.0 MHz to 3980.5 MHz



QPSK Modulation
50 MHz Channel Bandwidth
High Channel, 3954.99 MHz
3980.5 MHz to 3981.0 MHz