Ericsson AB

RF TEST REPORT

Report Type:
FCC Part 96 RF report

PRODUCT NAME:
AIR 3268 B48

REPORT NUMBER:
231201079SHA-001

ISSUE DATE:
December 29, 2023

DOCUMENT CONTROL NUMBER:
TTRFFCC Part 96_V1 © 2018 Intertek

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Total Quality. Assured.

TEST REPORT

Report no.: 231201079SHA-001

Applicant:	Ericsson AB
	Isafjordsgatan 10 SE-164 80 Stockholm 16480 Sweden
Manufacturer:	Ericsson AB
	Isafjordsgatan 10 SE-164 80 Stockholm 16480 Sweden
FCC ID:	TA8AKRD901254

SUMMARY:

The equipment is tested according to the following standard(s) or Specification:
FCC CFR 47 Part 96: CITIZENS BROADBAND RADIO SERVICE

PREPARED BY:	**REVIEWED BY:**
Victor Yang	Jackson Huang
Project Engineer Victor Yang	Reviewer Jackson Huang

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TEST REPORT

Content

TEST REPORT

Revision History

Report No.	Version	Description	Issued Date
231201079SHA-001	Rev. 01	Initial issue of report	December 29, 2023

Measurement result summary

TEST ITEM	FCC REFERANCE	RESULT
Power, PSD and Peak to Average Power Ratio	96.41(b)(c)(g) 2.1046	Pass
Occupied Bandwidth	96.41(e)(3) 2.1049	Pass
Unwanted Emissions at Band Edge	96.41(e)(1) 2.1051	Pass
Conducted Unwanted Emission	96.41(e)(2) 2.1051	Pass

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Description:	Antenna Integrated Radio
Product name:	AIR 3268 B48
Product number:	KRD 901 254/1 (with un-security software and antenna) KRD 901 254/11 (with security software and antenna) KRD 901 254/3* (with un-security software and CAB board for testing purpose) KRD 901 254/31 (with security software and CAB board for testing purpose) Note *: This is the tested unit.
Serial Number(s)	E23E286865
Rating:	-48V DC
Software Version:	PIS: CXP2030038/7_R59A67, UP: CXP2010174/1_R83A105
Hardware Version:	R1B
Sample received date:	December 18, 2023
Date of test:	December 18, 2023 ~ December 26, 2023

1.2 Technical Specification

Frequency Range:	TX/RX: 3550 - 3700 MHz
Number of Antenna ports:	32 TX/RX
Supported RAT:	LTE, NR
Max RF bandwidth (IBW):	150MHz
Supported Number of Carriers:	LTE: 6, NR: 2, LTE+NR: 5
Supported modulation:	QPSK, 16QAM, 64QAM, 256QAM
Supported Channel Bandwidth:	LTE: 10, 20 MHz NR: 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100 MHz
Max Declaration output power (all ports):	34 W
Antenna Gain:	11 dBi (Layer compensated gain), 23 dBi (Effective gain)

Note: Information in the 1.2 sheet declared by the manufacturer.

1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address 1:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Address 2:	No. 5 Lize East Street, Ericsson Tower, Chaoyang District, Beijing 100102 P.R.C.
Telephone:	+86 21 61278200
Telefax:	+86 21 54262353
The test facility is recognized, certified, or accredited by these organizations:	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	A2LA Accreditation Lab Certificate Number: 3309.02

2 TEST SPECIFICATIONS

2.1 Related documents

FCC Part 96 (2022)
FCC Part 2 (2022)
ANSI C63.26:2015
KDB 971168 D01 v03r01
KDB 662911 D01 v02r01
KDB 940660 D01 v02

2.2 Product Information

The Equipment Under Test (EUT) AIR 3268 B48 is an Ericsson Radio Unit working in the public mobile services 3550-3700MHz band which provides communication connections to 3550-3700MHz network. The AIR 3268 B48 operates from a -48V DC power supply.

The EUT includes 32 TX/RX ports. It can be configured to transmit in MIMO mode, and MIMO mode was used for measurements as the worst configuration. The complete testing was performed with the EUT transmitting at maximum RF power unless otherwise stated.

A full technical description can be found in the Manufacturer’s documentation.

2.3 Configuration Description

Initial pre-testing was carried out to determine the worst modulation scheme by measuring the output power from QPSK, 16QAM, 64QAM and 256QAM on the middle channel of one antenna port. From these tests, it was determined that 256QAM was the worst modulation scheme and was used for all testing.

Complete testing was carried out on the worst antenna port which was determined by the highest output power from the 32 measured ports on worst case modulation scheme. The worst antenna port was antenna port 24.

The settings below were used for all measurements unless otherwise noted:

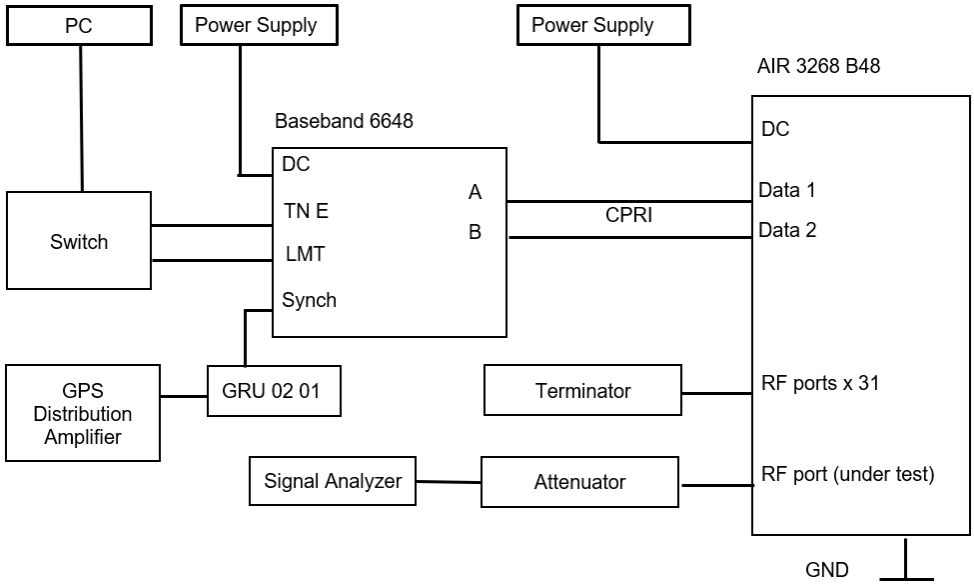
Configuration	Carrier	NR Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Declared Power (dBm) per port
			Bottom	Middle	Top	
NR-1C	1	15	3557.52	3625.02	3692.52	21.11
NR-2C	2	15	-	3557.52+3692.52	-	2x21.11

Configuration	Carrier	NR Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Declared Power (dBm) per port
			Bottom	Middle	Top	
NR-1C-BE	1	15	3557.52	-	3692.52	21.11
NR-2C-BE	2	15	3557.52+3572.52	-	3677.52+3692.52	2x21.11

Configuration	Carrier	NR Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)			Declared Power (dBm) per port
			Bottom	Middle	Top	
NR-1C-UE	1	15	3557.52	3625.02	3692.52	21.11
NR-2C-UE	2	15	-	3557.52+3692.52	-	2x21.11

2.4 Test Setup

Conducted Measurement:



No.	Auxiliary Equipment	Product Number / Model Type	Version
1	PC	PowerEdge R230	-
2	DC Power Supply	N8737A	-
3	Baseband 6648	KDU 137 0015/1	R3D
4	GRU 02 01	NCD 901 41/1	R1D
5	GPS Distribution Amplifier	58536A	-
6	Switch	LS-S5024E-CN	-
7	Terminator	AETFZ-10W-SMAM	-
8	40dB Attenuator	17070716	-
9	20dB Attenuator	18041905	-

Proper Attenuator will be chosen to use in relative test case. And the cable loss of specified Attenuator with connect cable will be calibrated before test for relative frequency range and the worst reading will be used as offset in the relative test case.

2.5 Test environment condition:

Test items	Temperature	Humidity
Power, PSD and Peak to Average Power Ratio	19°C	52% RH
Occupied Bandwidth		
Unwanted Emissions at Band Edge		
Conducted Unwanted Emission		

2.6 Instrument list

Intertek Testing Services					
Used	Equipment	Manufacturer	Type	S/N	Due date
☒	PXA Signal Analyzer	Keysight	N9030A	EC1046	2024.4.7
☐	Signal Generator	R&S	SMU200A	EC1050	2024.4.2
☒	Multi-meter	Fluke	117	EC1051	2024.2.5
☐	Climatic Chamber	赛宝	CEEC-WR16H-50W	EC1052	2024.8.28
☒	Humiture meter	托普	TPJ-20	EC1053	2024.2.21

2.7 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Measurement uncertainty
Maximum output power	0.73dB
Occupied Bandwidth	0.88%
Unwanted Emissions at Band Edge	3.03dB
Conducted Unwanted Emission	3.03dB

3 Power, PSD and Peak to Average Power Ratio

Test result: Pass

3.1 Limit

Power limits:
Maximum effective isotropic radiated power (EIRP): 47dBm/10MHz
Maximum Power Spectral Density (PSD): 37dBm/MHz

Peak to Average Ratio: ≤13 dB

3.2 Measurement Procedure

The EUT was configured to transmit on maximum power and proper modulation. Measurements were performed with a Spectrum Analyzer using the Band Power measurement function. The detector was set to RMS with an RBW of at least 1% of the carrier bandwidth and a VBW of at least 3 times the RBW. The integration bandwidth was configured to be 10MHz as defined in 96.41(b). Where the carrier width was greater than 10MHz, the integration bandwidth was moved to the region with the highest PSD to find the maximum band power.

For PSD measurements in a 1MHz bandwidth, an RMS detector was used with a single sweep. The highest PSD was established over the entire emission bandwidth and the result recorded.

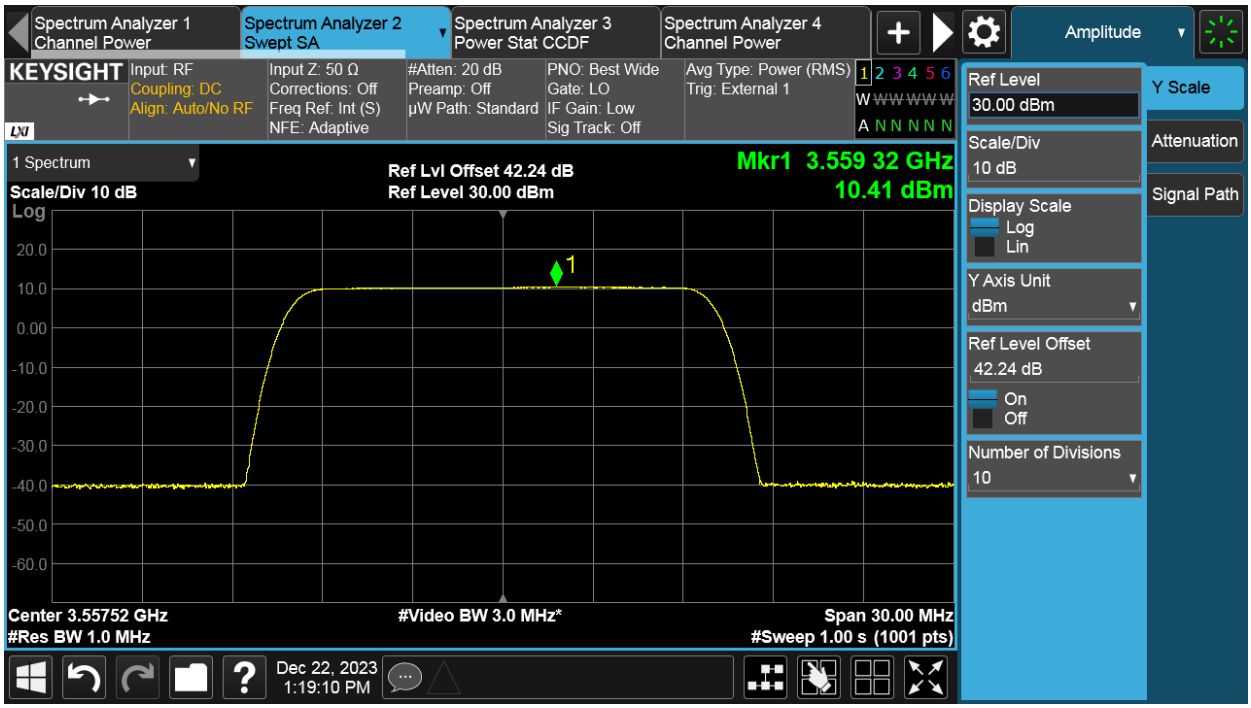
CCDF measurements were carried out in accordance with ANSI C63.26 Clause 5.2.3.4.

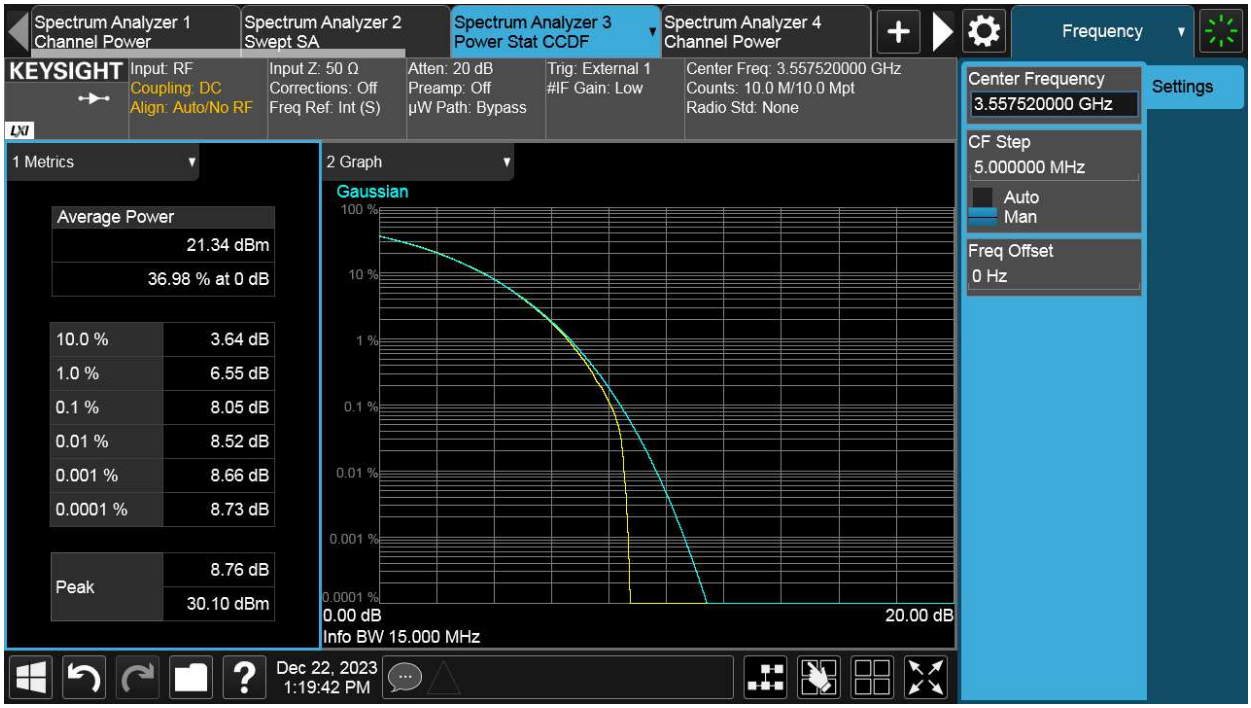
3.3 Measurement result

NR-1C:

Antenna Port	Modulation	Carrier Bandwidth (MHz)	Power / PSD / Peak-to-Average Ratio (PAR)			
			Channel position B			
			Power (dBm)	Power (dBm/MHz)	Power (dBm/10MHz)	PAR (dB)
1	256QAM	15	21.29	10.35	20.35	8.04
2	256QAM	15	21.09	10.16	20.16	8.03
3	256QAM	15	21.13	10.20	20.20	8.04
4	256QAM	15	20.99	10.30	20.30	8.04
5	256QAM	15	20.98	10.00	20.00	8.05
6	256QAM	15	21.02	10.07	20.07	8.06
7	256QAM	15	20.83	9.92	19.92	8.03
8	256QAM	15	21.05	10.10	20.10	8.03
9	256QAM	15	21.33	10.40	20.40	8.04
10	256QAM	15	21.03	10.60	20.60	8.03
11	256QAM	15	21.10	10.14	20.14	8.02
12	256QAM	15	20.96	10.12	20.12	8.02
13	256QAM	15	21.16	10.21	20.21	8.04
14	256QAM	15	21.09	10.15	20.15	8.03
15	256QAM	15	21.18	10.25	20.25	8.03
16	256QAM	15	21.26	10.36	20.36	8.04
17	256QAM	15	20.99	10.07	20.07	8.03
18	256QAM	15	21.28	10.37	20.37	8.04
19	256QAM	15	20.80	9.87	19.87	8.04
20	256QAM	15	21.31	10.41	20.41	8.03
21	256QAM	15	21.31	10.37	20.37	8.02
22	256QAM	15	21.33	10.36	20.36	8.02
23	256QAM	15	21.15	10.17	20.17	8.04
24	256QAM	15	21.37	10.41	20.41	8.05
25	256QAM	15	21.11	10.13	20.13	8.03
26	256QAM	15	21.06	10.08	20.08	8.05
27	256QAM	15	21.10	10.10	20.10	8.02
28	256QAM	15	21.04	10.07	20.07	8.03
29	256QAM	15	21.04	10.08	20.08	8.04
30	256QAM	15	21.11	10.11	20.11	8.04
31	256QAM	15	21.11	10.06	20.06	8.03
32	256QAM	15	20.97	9.96	19.96	8.03
Total 1-32			36.17	25.24	35.24	-
Antenna gain			11			
EIRP/PSD			47.17	36.24	46.24	-
Limit			-	37	47	13

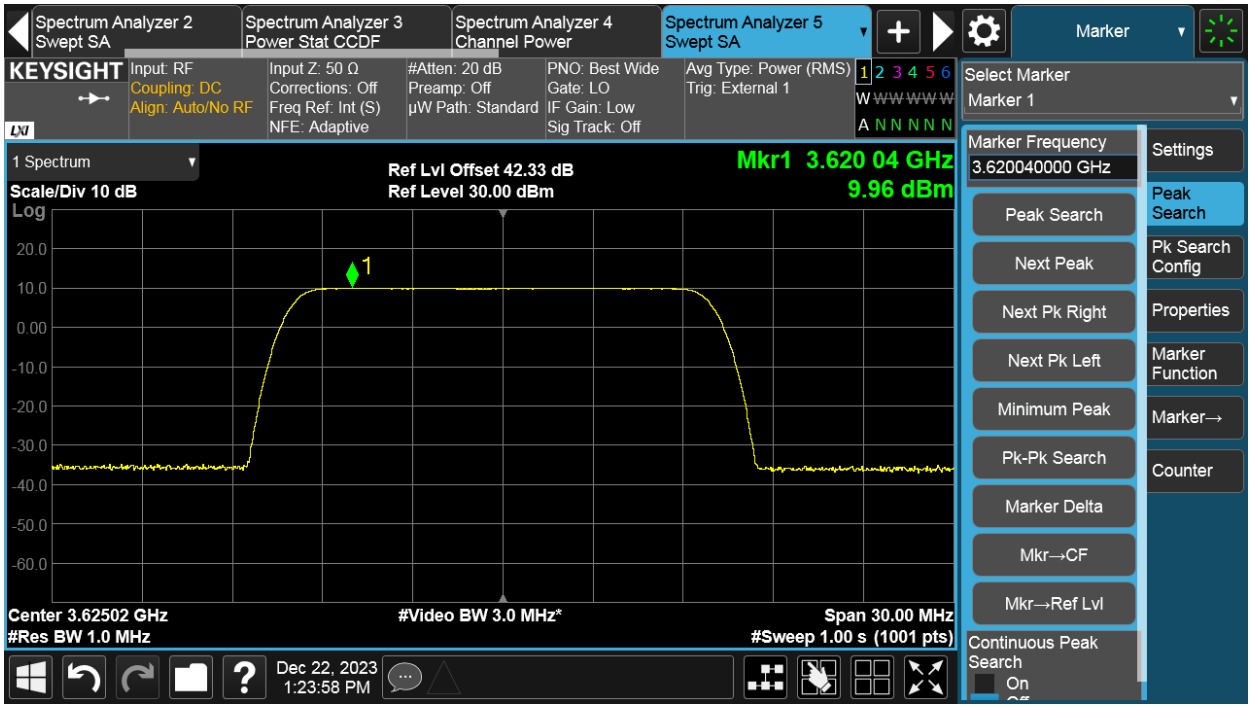
TEST REPORT

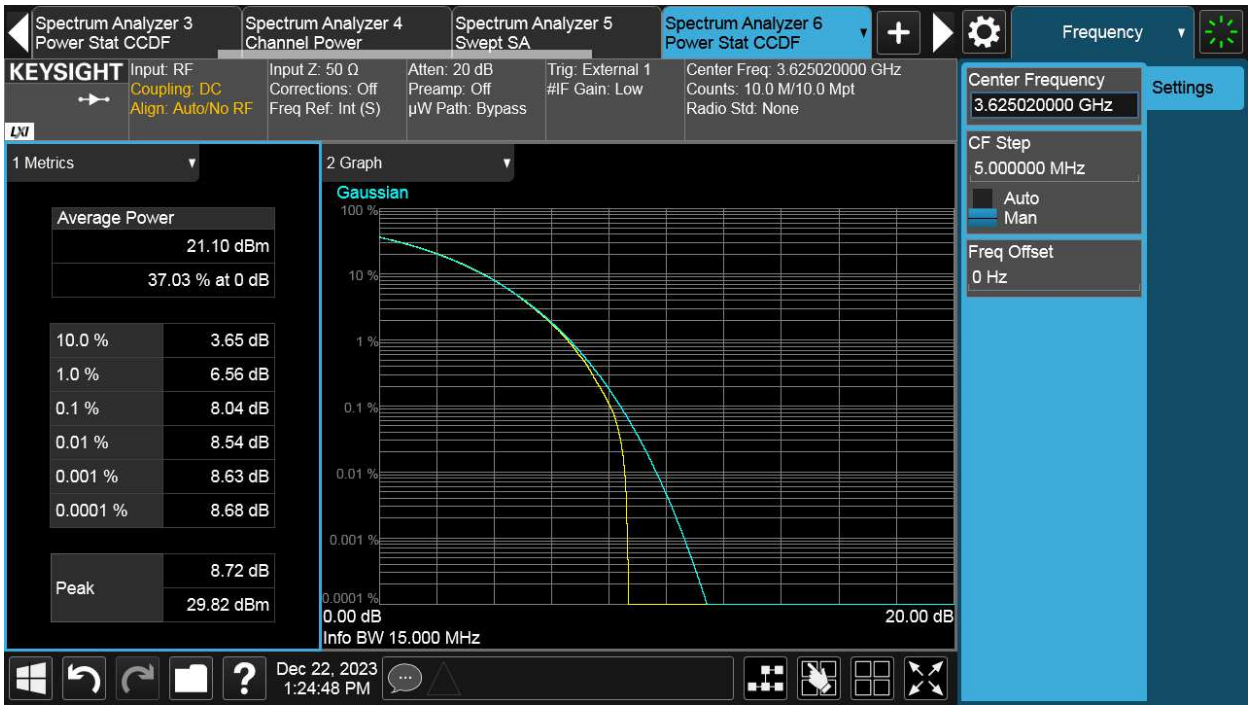

Spectrum Analyzer 1
Channel Power
Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Power Stat CCDF
Spectrum Analyzer 4
Channel Power
Amplitude
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 20 dB
Preamp: Off
µW Path: Standard
PNO: Best Wide
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Ref Lvl Offset 42.24 dB
Ref Level 30.00 dBm
Mkr1 3.559 32 GHz
10.41 dBm
Scale/Div 10 dB
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 3.55752 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Span 30.00 MHz
#Sweep 1.00 s (1001 pts)
Ref Level
30.00 dBm
Scale/Div
10 dB
Display Scale
Log
Lin
Y Axis Unit
dBm
Ref Level Offset
42.24 dB
On
Off
Number of Divisions
10
Y Scale
Attenuation
Signal Path
Dec 22, 2023
1:19:10 PM


Spectrum Analyzer 1
Channel Power
Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Power Stat CCDF
Spectrum Analyzer 4
Channel Power
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
Atten: 20 dB
Preamp: Off
µW Path: Bypass
Trig: External 1
#IF Gain: Low
Center Freq: 3.557520000 GHz
Counts: 10.0 M/10.0 Mpt
Radio Std: None
1 Metrics
Average Power
21.34 dBm
36.98 % at 0 dB
10.0 % 3.64 dB
1.0 % 6.55 dB
0.1 % 8.05 dB
0.01 % 8.52 dB
0.001 % 8.66 dB
0.0001 % 8.73 dB
Peak
8.76 dB
30.10 dBm
2 Graph
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0.00 dB
20.00 dB
Info BW 15.000 MHz
Center Frequency
3.557520000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
Settings
Dec 22, 2023
1:19:42 PM

Antenna Port	Modulation	Carrier Bandwidth (MHz)	Power / PSD / Peak-to-Average Ratio (PAR)			
			Channel position M			
			Power (dBm)	Power (dBm/MHz)	Power (dBm/10MHz)	PAR (dB)
1	256QAM	15	20.95	9.94	19.94	8.02
2	256QAM	15	21.01	9.96	19.96	8.01
3	256QAM	15	20.08	9.83	19.83	8.04
4	256QAM	15	21.03	10.09	20.09	8.03
5	256QAM	15	20.80	9.78	19.78	8.04
6	256QAM	15	20.92	9.93	19.93	8.03
7	256QAM	15	20.98	9.96	19.96	8.03
8	256QAM	15	20.78	9.78	19.78	8.02
9	256QAM	15	21.08	10.06	20.06	8.03
10	256QAM	15	21.08	10.05	20.05	8.02
11	256QAM	15	20.93	9.90	19.90	8.01
12	256QAM	15	21.15	10.18	20.18	8.02
13	256QAM	15	20.99	9.97	19.97	8.02
14	256QAM	15	21.09	10.14	20.14	8.02
15	256QAM	15	21.14	10.15	20.15	8.01
16	256QAM	15	21.36	10.40	20.40	8.02
17	256QAM	15	21.34	10.37	20.37	8.01
18	256QAM	15	21.35	10.36	20.36	8.03
19	256QAM	15	21.24	10.23	20.23	8.03
20	256QAM	15	21.11	10.09	20.09	8.03
21	256QAM	15	20.96	9.96	19.96	8.02
22	256QAM	15	20.89	9.92	19.92	8.01
23	256QAM	15	20.97	9.96	19.96	8.03
24	256QAM	15	21.01	9.96	19.96	8.04
25	256QAM	15	21.08	10.03	20.03	8.03
26	256QAM	15	21.07	10.05	20.05	8.03
27	256QAM	15	21.06	10.03	20.03	8.01
28	256QAM	15	21.27	10.30	20.30	8.02
29	256QAM	15	21.39	10.39	20.39	8.04
30	256QAM	15	20.86	9.82	19.82	8.02
31	256QAM	15	20.84	9.85	19.85	8.01
32	256QAM	15	20.64	9.63	19.63	8.02
Total 1-32			36.07	25.09	35.09	-
Antenna gain			11			
EIRP/PSD			47.07	36.09	46.09	-
Limit			-	37	47	13

TEST REPORT

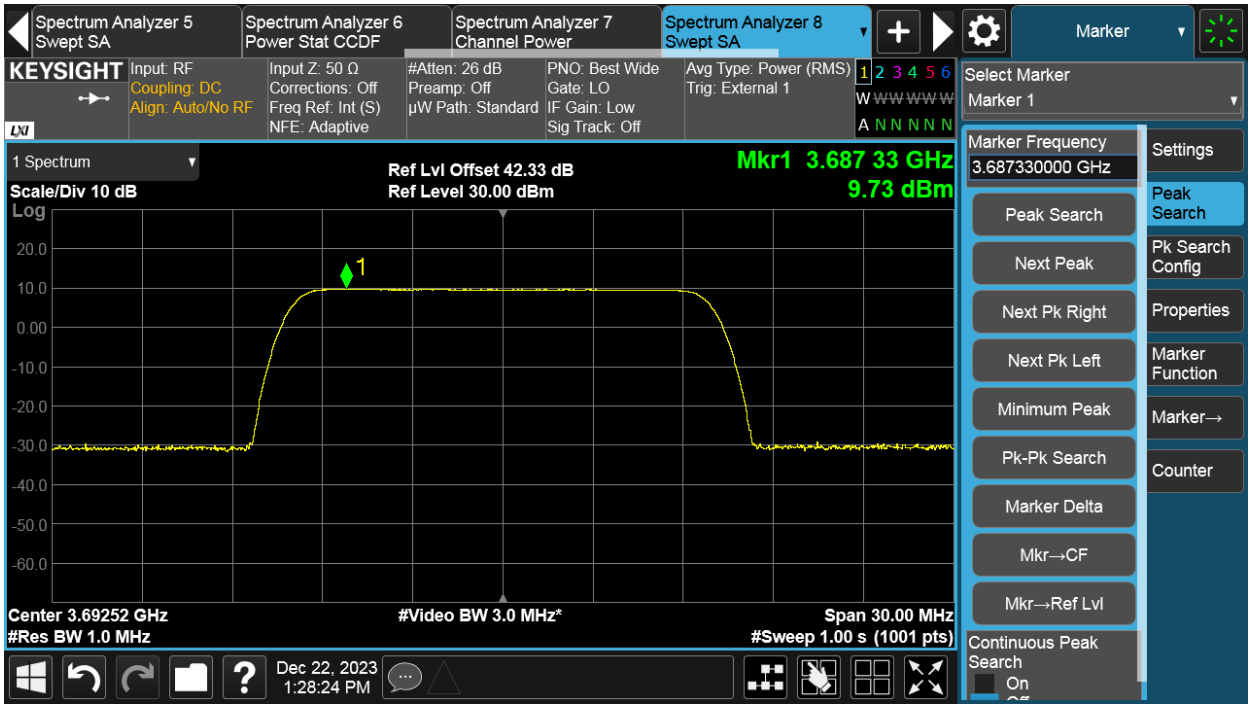

Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Power Stat CCDF
Spectrum Analyzer 4
Channel Power
Spectrum Analyzer 5
Swept SA
Marker
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 20 dB
Preamp: Off
µW Path: Standard
PNO: Best Wide
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
Select Marker
Marker 1
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 42.33 dB
Ref Level 30.00 dBm
Mkr1 3.620 04 GHz
9.96 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 3.62502 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Span 30.00 MHz
#Sweep 1.00 s (1001 pts)
Marker Frequency
3.620040000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Dec 22, 2023
1:23:58 PM

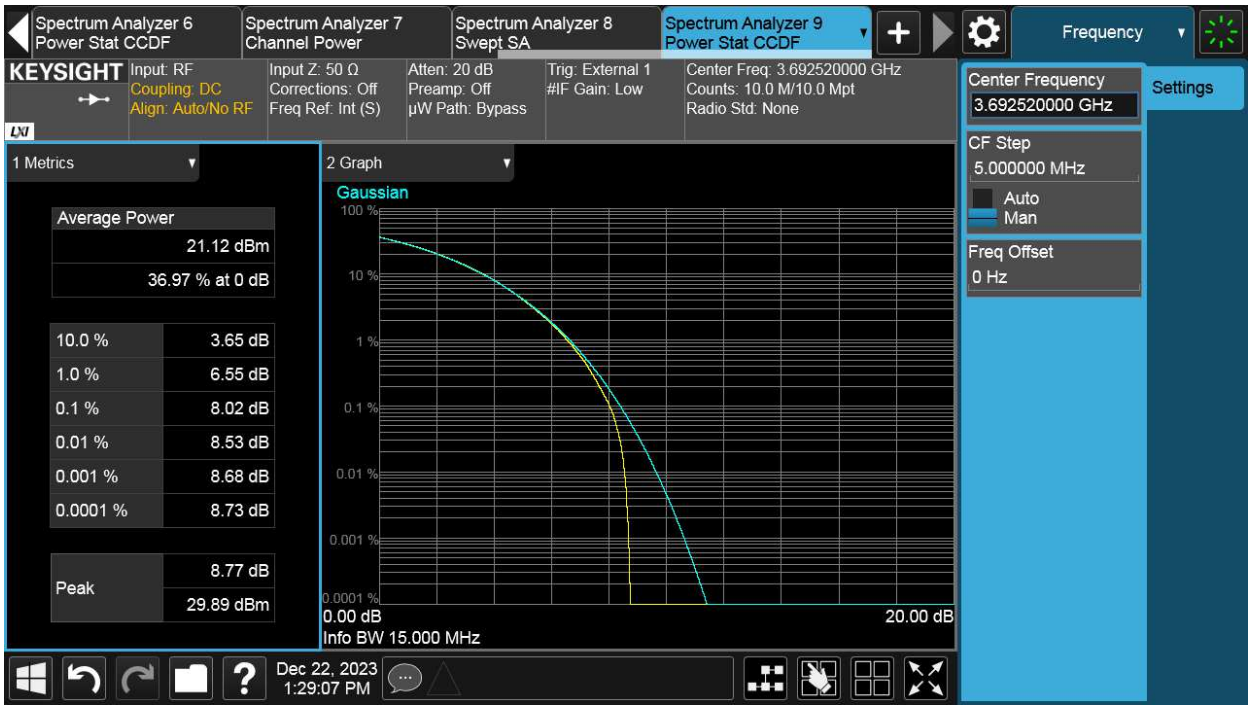

Spectrum Analyzer 3
Power Stat CCDF
Spectrum Analyzer 4
Channel Power
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 6
Power Stat CCDF
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
Atten: 20 dB
Preamp: Off
µW Path: Bypass
Trig: External 1
#IF Gain: Low
Center Freq: 3.625020000 GHz
Counts: 10.0 M/10.0 Mpt
Radio Std: None
1 Metrics
Average Power
21.10 dBm
37.03 % at 0 dB
10.0 % 3.65 dB
1.0 % 6.56 dB
0.1 % 8.04 dB
0.01 % 8.54 dB
0.001 % 8.63 dB
0.0001 % 8.68 dB
Peak 8.72 dB
29.82 dBm
2 Graph
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0.00 dB
20.00 dB
Info BW 15.000 MHz
Center Frequency
3.625020000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
Settings
Dec 22, 2023
1:24:48 PM

TEST REPORT

Antenna Port	Modulation	Carrier Bandwidth (MHz)	Power / PSD / Peak-to-Average Ratio (PAR)			
			Channel position T			
			Power (dBm)	Power (dBm/MHz)	Power (dBm/10MHz)	PAR (dB)
1	256QAM	15	20.91	10.00	20.00	8.01
2	256QAM	15	20.97	10.06	20.06	8.00
3	256QAM	15	20.76	9.84	19.84	8.02
4	256QAM	15	20.69	9.73	19.73	8.02
5	256QAM	15	20.45	9.58	19.58	8.02
6	256QAM	15	20.60	9.67	19.67	7.99
7	256QAM	15	20.77	9.87	19.87	8.01
8	256QAM	15	20.60	9.69	19.69	8.01
9	256QAM	15	20.77	9.88	19.88	8.01
10	256QAM	15	20.75	9.80	19.80	8.00
11	256QAM	15	20.80	9.84	19.84	8.00
12	256QAM	15	20.92	10.08	20.08	8.01
13	256QAM	15	20.64	9.73	19.73	8.02
14	256QAM	15	20.85	9.90	19.90	8.01
15	256QAM	15	20.76	9.89	19.89	8.00
16	256QAM	15	20.84	9.97	19.97	8.00
17	256QAM	15	21.15	10.30	20.30	8.00
18	256QAM	15	21.05	10.14	20.14	8.01
19	256QAM	15	20.77	9.88	19.88	8.02
20	256QAM	15	20.88	9.98	19.98	8.00
21	256QAM	15	20.70	9.75	19.75	7.99
22	256QAM	15	20.65	9.64	19.64	7.99
23	256QAM	15	20.62	9.75	19.75	8.01
24	256QAM	15	20.70	9.73	19.73	8.02
25	256QAM	15	20.88	10.06	20.06	8.00
26	256QAM	15	20.72	9.75	19.75	8.01
27	256QAM	15	21.01	10.14	20.14	8.00
28	256QAM	15	21.01	10.07	20.07	8.00
29	256QAM	15	20.81	9.97	19.97	8.02
30	256QAM	15	20.94	10.05	20.05	8.01
31	256QAM	15	20.74	9.84	19.84	8.00
32	256QAM	15	20.73	9.70	19.70	8.00
Total 1-32			35.85	24.94	34.94	-
Antenna gain			11			
EIRP/PSD			46.85	35.94	45.94	-
Limit			-	37	47	13

TEST REPORT

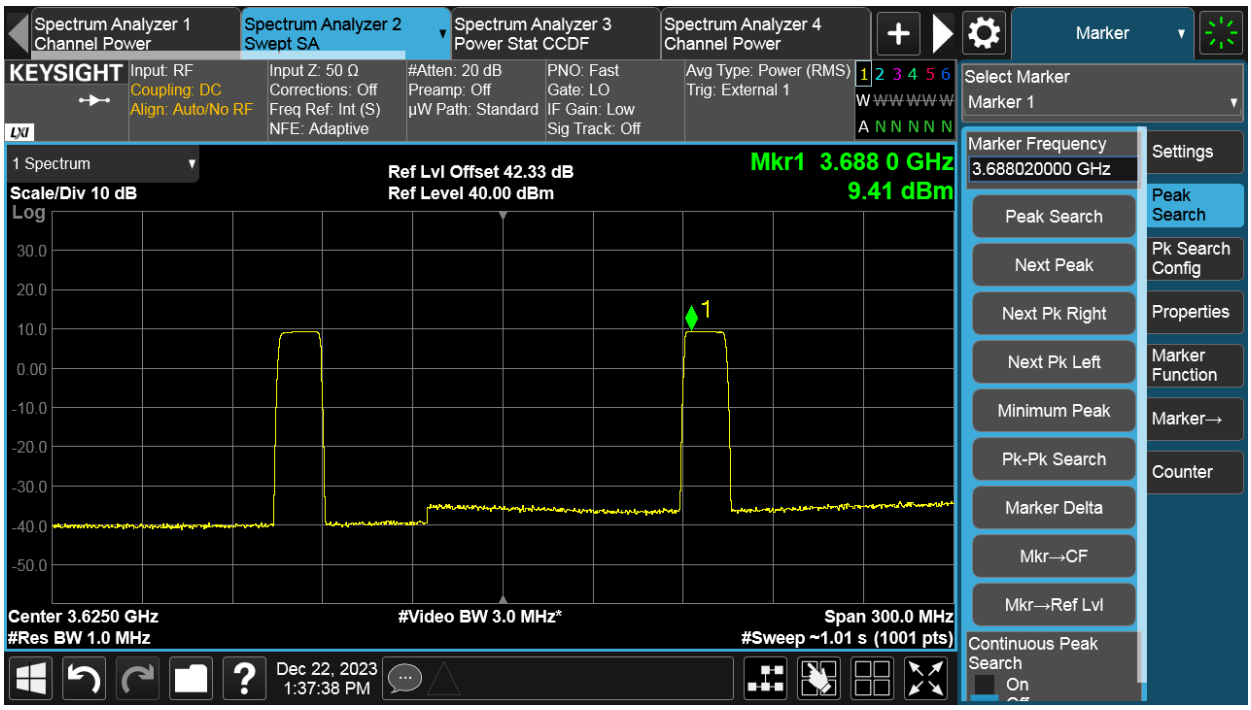

Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 6
Power Stat CCDF
Spectrum Analyzer 7
Channel Power
Spectrum Analyzer 8
Swept SA
Marker
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 26 dB
Preamp: Off
µW Path: Standard
PNO: Best Wide
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
Select Marker
Marker 1
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 42.33 dB
Ref Level 30.00 dBm
Mkr1 3.687 33 GHz
9.73 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 3.69252 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Span 30.00 MHz
#Sweep 1.00 s (1001 pts)
Marker Frequency
3.687330000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Dec 22, 2023
1:28:24 PM


Spectrum Analyzer 6
Power Stat CCDF
Spectrum Analyzer 7
Channel Power
Spectrum Analyzer 8
Swept SA
Spectrum Analyzer 9
Power Stat CCDF
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
Atten: 20 dB
Preamp: Off
µW Path: Bypass
Trig: External 1
#IF Gain: Low
Center Freq: 3.692520000 GHz
Counts: 10.0 M/10.0 Mpt
Radio Std: None
1 Metrics
Average Power
21.12 dBm
36.97 % at 0 dB
10.0 % 3.65 dB
1.0 % 6.55 dB
0.1 % 8.02 dB
0.01 % 8.53 dB
0.001 % 8.68 dB
0.0001 % 8.73 dB
Peak
8.77 dB
29.89 dBm
2 Graph
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0.00 dB
20.00 dB
Info BW 15.000 MHz
Center Frequency
3.692520000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
Settings
Dec 22, 2023
1:29:07 PM

TEST REPORT

NR-2C:

Antenna Port	Modulation	Carrier Bandwidth (MHz)	Power / PSD / Peak-to-Average Ratio (PAR)			
			Channel position M			
			Power (dBm)	Power (dBm/MHz)	Power (dBm/10MHz)	PAR (dB)
29	256QAM	15	23.30	9.41	19.41	-
10LOG32			15.05			
Calculated 1-32			38.35	24.46	34.46	-
Antenna gain			11			
EIRP/PSD			49.46	35.46	45.46	-
Limit			-	37	47	13



4 Occupied Bandwidth

Test result: Pass

4.1 Measurement Procedure

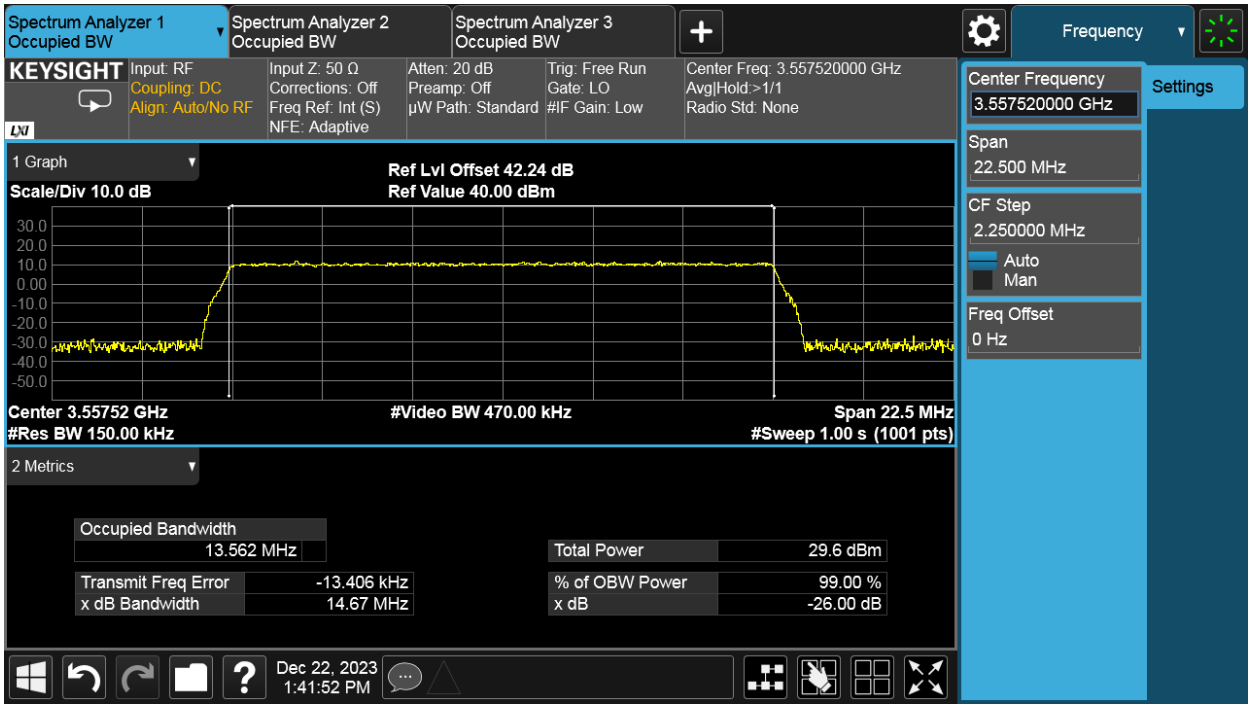
The EUT was set to transmit at maximum power and testing was carried out on bottom, middle and top channels. Using the Occupied Bandwidth measurement function in the spectrum analyzer, the 99% and 26dB bandwidth was measured in accordance with FCC KDB 971168 D01 Clause 4.2.

4.2 Measurement result

NR-1C:

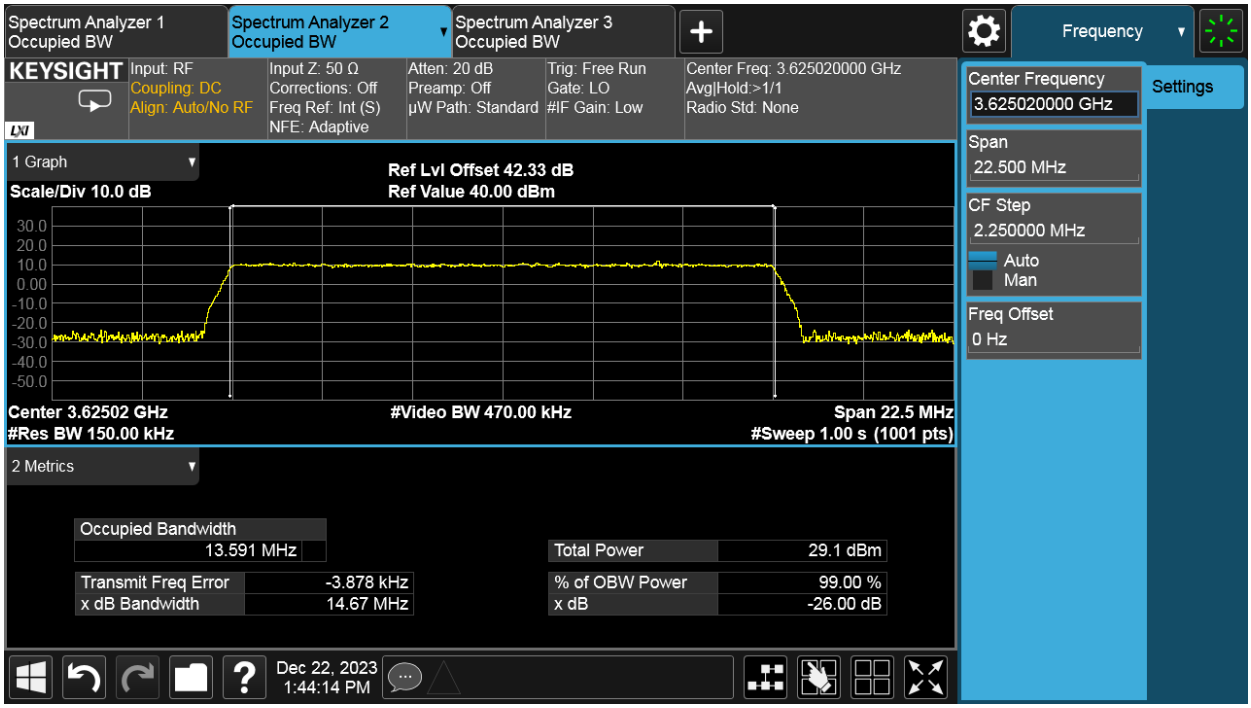
Antenna Port	Modulation	Bandwidth	Channel Position B	Channel Position M	Channel Position T
24	256QAM	15MHz	99% Occupied Bandwidth (MHz)		
			13.562	13.591	13.618
			26dB Occupied Bandwidth (MHz)		
			14.67	14.67	14.69

Channel Position B

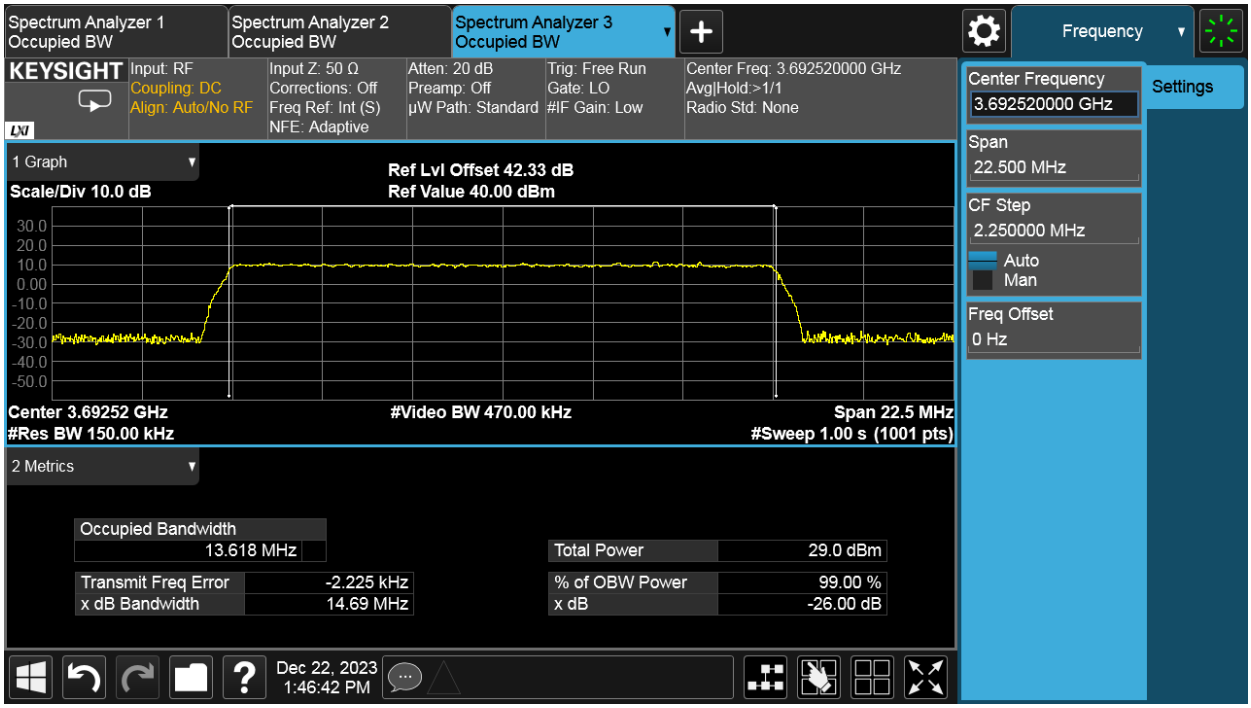


TEST REPORT

Channel Position M



Channel Position T



5 Unwanted Emissions at Band Edge

Test result: **Pass**

5.1 Limit

Except as otherwise specified in paragraph (e)(2) of this section, for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed −25 dBm/MHz.

5.2 Measurement Procedure

All measurements were made according with KDB 971168 D01.

For MIMO mode configurations, the limit was adjusted with a correction of -15.05dB [10Log(1/32)] by using the Measure and Add 10Log(N) dB technique according to KDB 662911 D01 Multiple Transmitter Output accounting for simultaneous transmission from antenna ports .

In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed and a RBW of 1MHz for measurements of emissions > 1MHz away from the band edges.

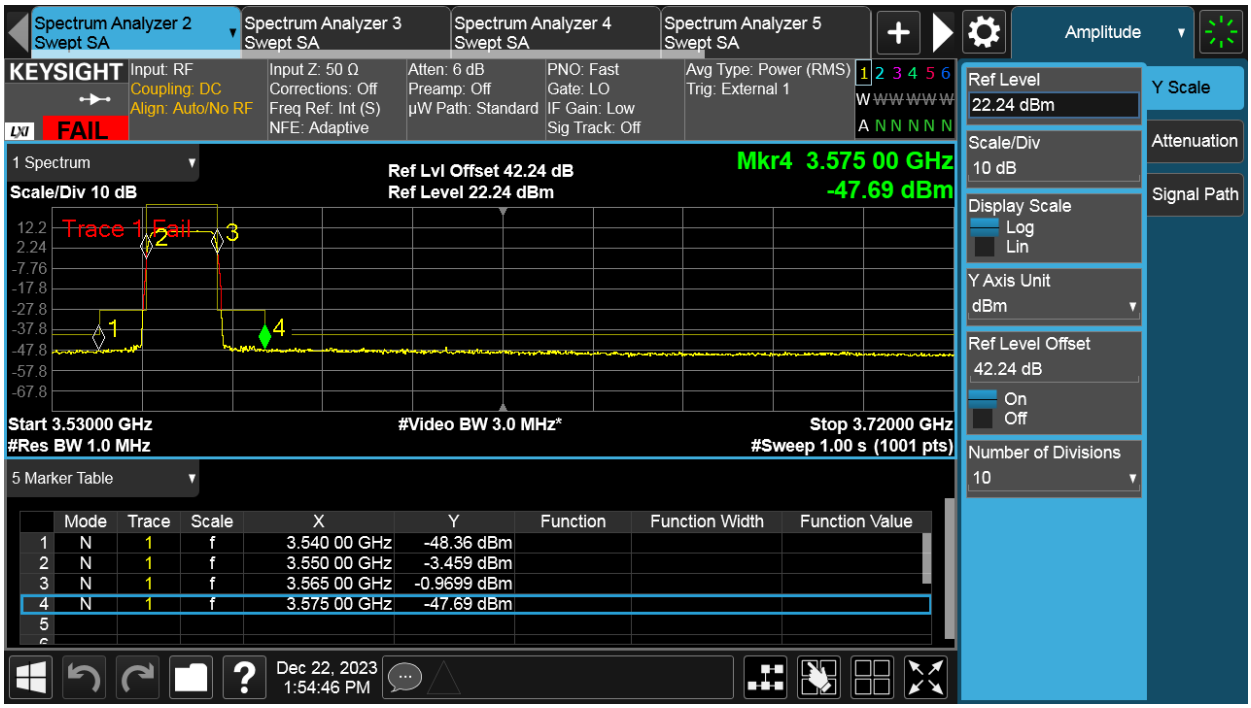
Spectrum analyzer detector was set as RMS.

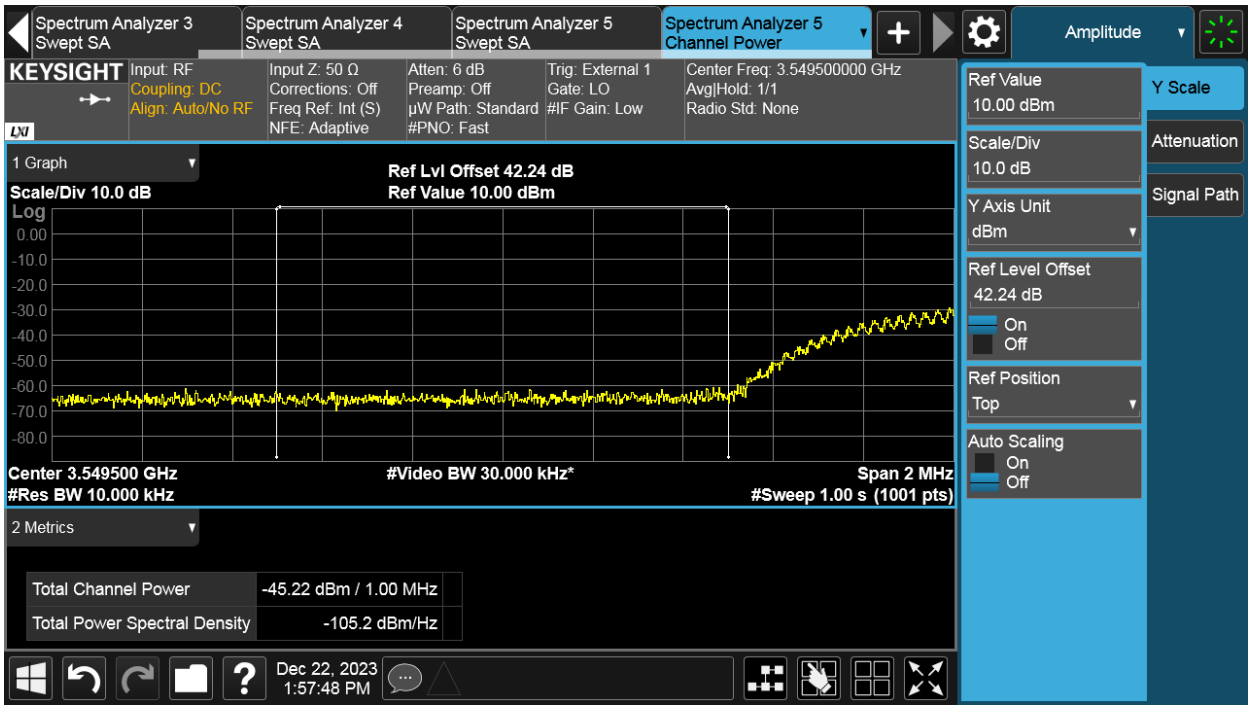
5.3 Measurement result

NR-1C-BE:

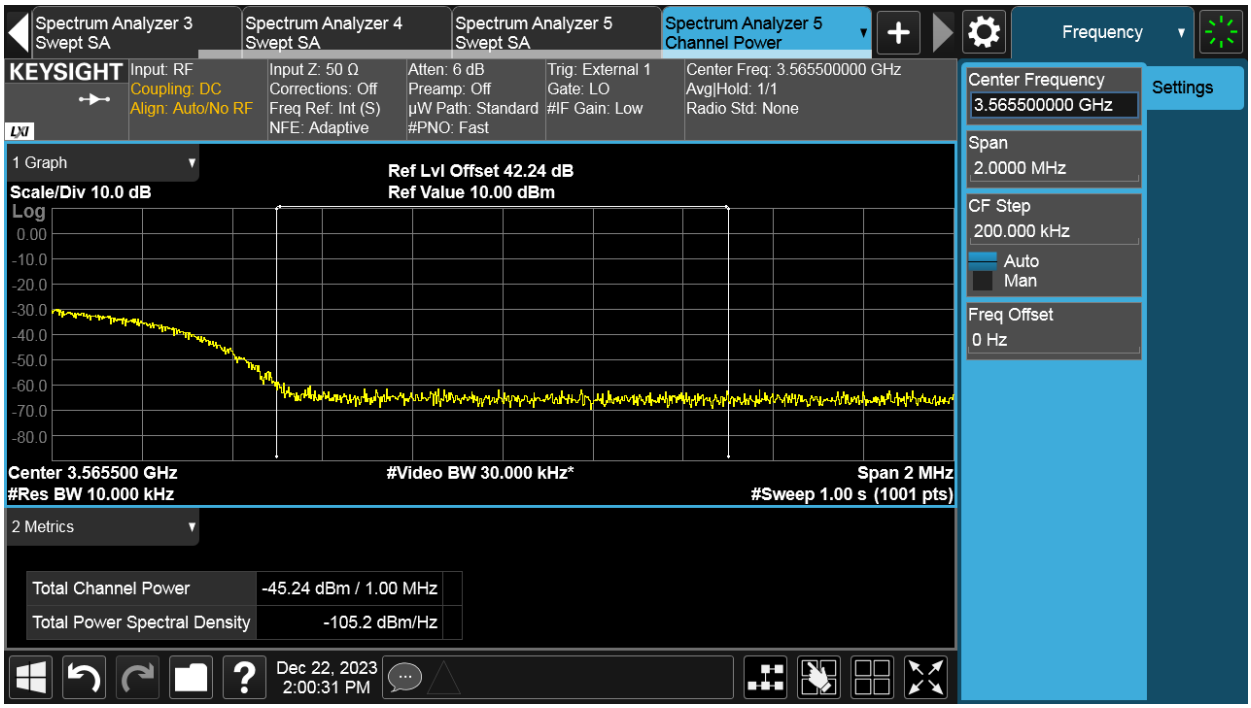
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
24	B	256QAM	15	1000	-28.05/-40.05
24	T	256QAM	15	1000	-28.05/-40.05

Channel Position B

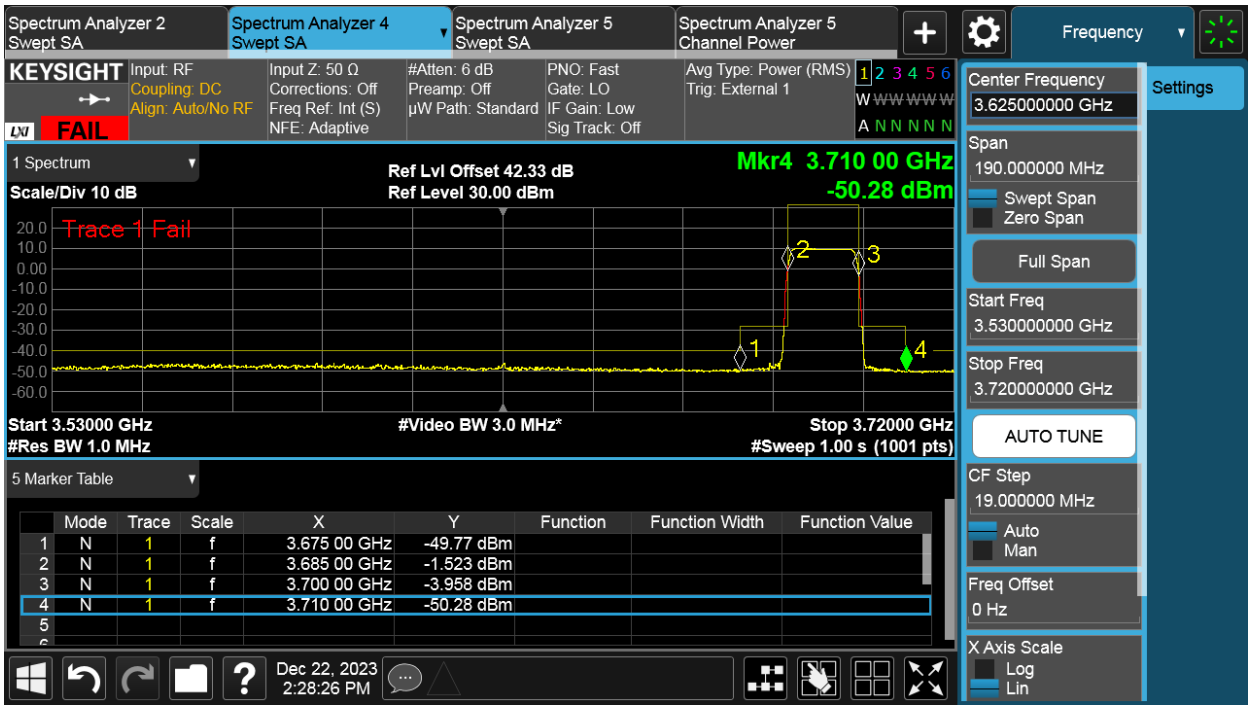




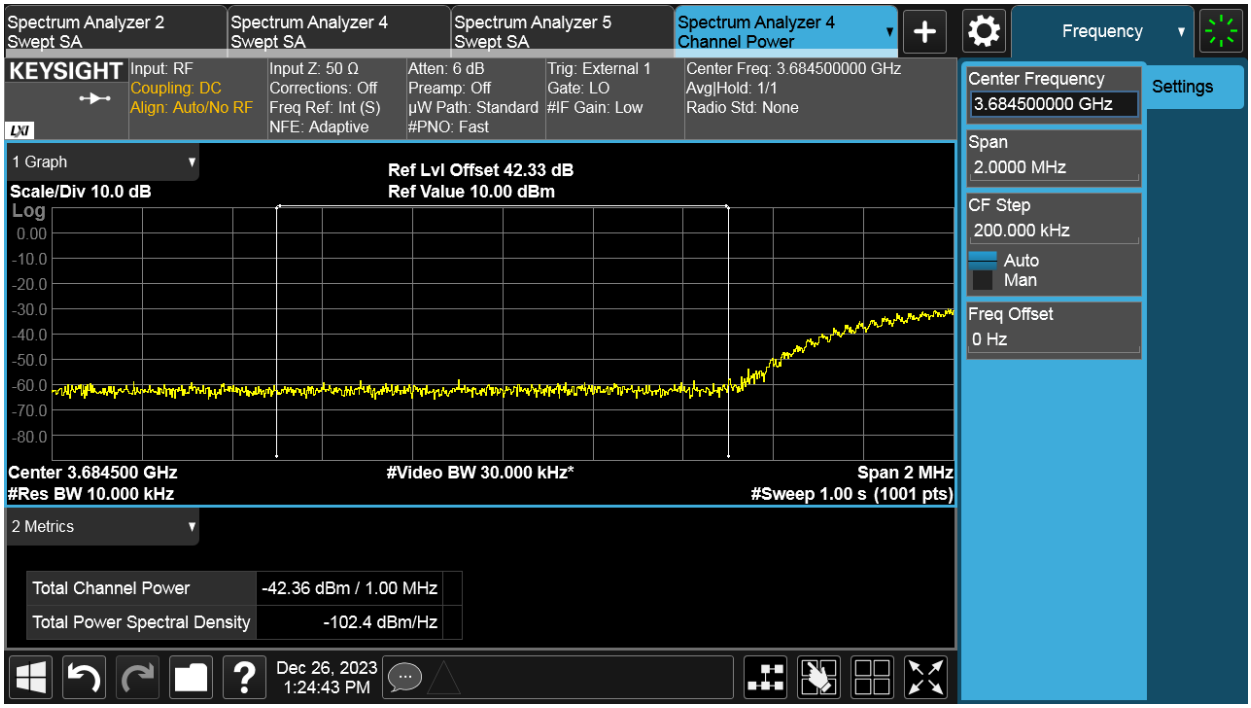
TEST REPORT

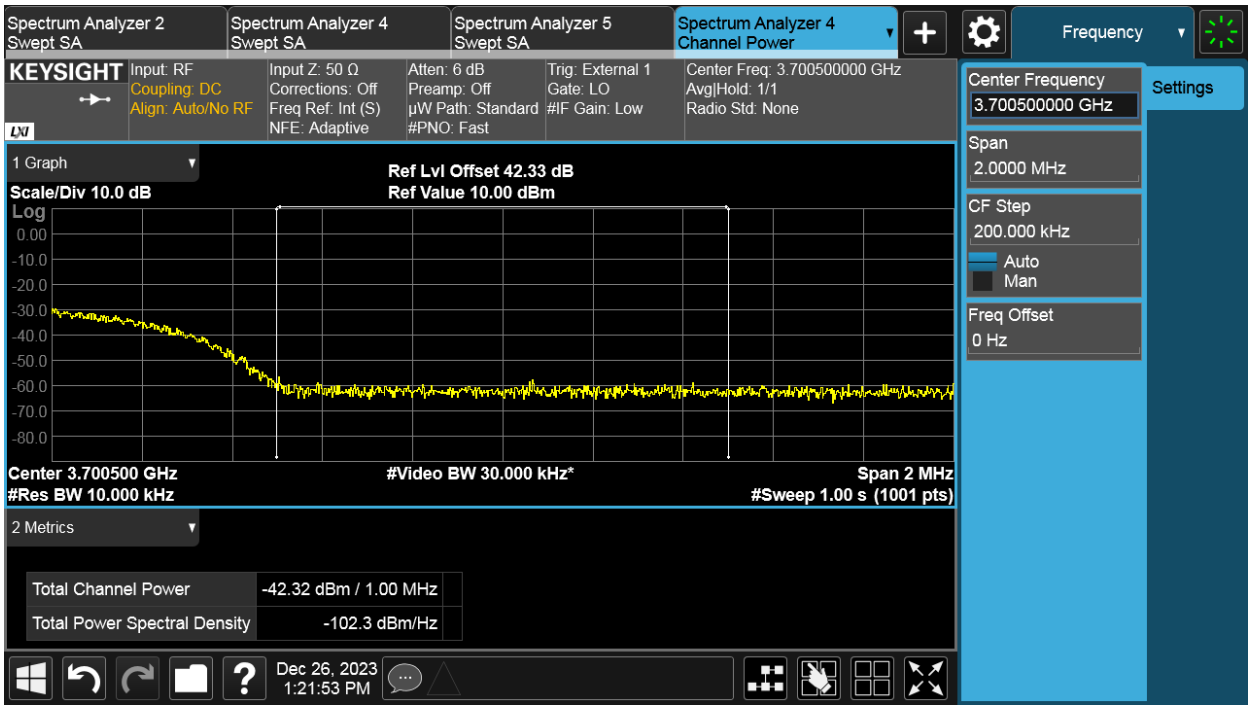


Channel Position T



TEST REPORT


Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 4
Channel Power
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 3.684500000 GHz
Avg|Hold: 1/1
Radio Std: None
Center Frequency
3.684500000 GHz
Settings
Span
2.0000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
1 Graph
Ref Lvl Offset 42.33 dB
Scale/Div 10.0 dB
Ref Value 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 3.684500 GHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-42.36 dBm / 1.00 MHz
Total Power Spectral Density
-102.4 dBm/Hz
Dec 26, 2023
1:24:43 PM

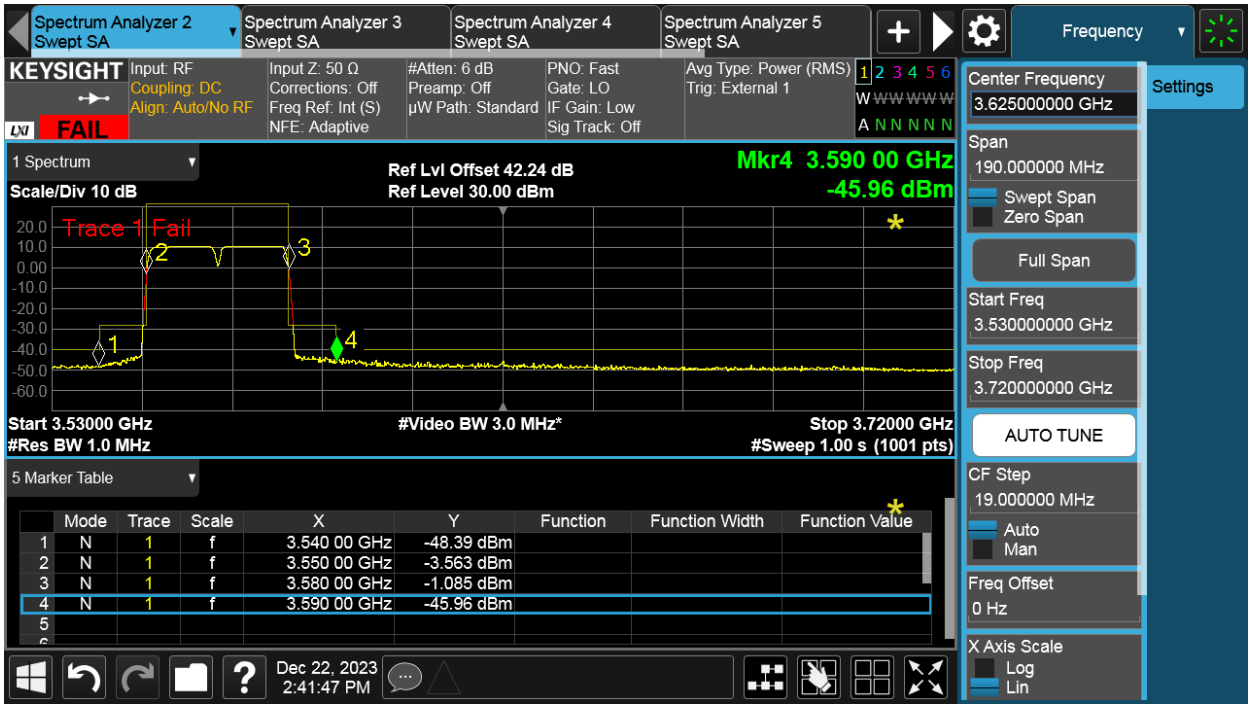

Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 4
Channel Power
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 3.700500000 GHz
Avg|Hold: 1/1
Radio Std: None
Center Frequency
3.700500000 GHz
Settings
Span
2.0000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
1 Graph
Ref Lvl Offset 42.33 dB
Scale/Div 10.0 dB
Ref Value 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 3.700500 GHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-42.32 dBm / 1.00 MHz
Total Power Spectral Density
-102.3 dBm/Hz
Dec 26, 2023
1:21:53 PM

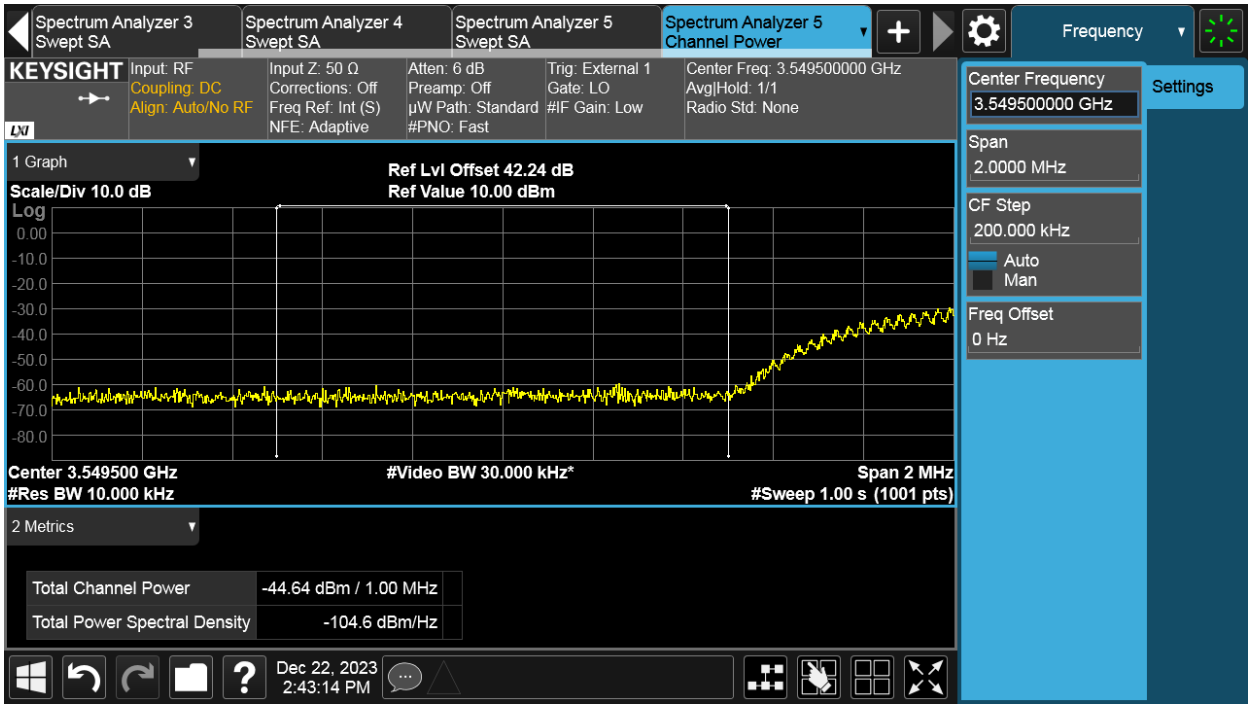
TEST REPORT

NR-2C-BE:

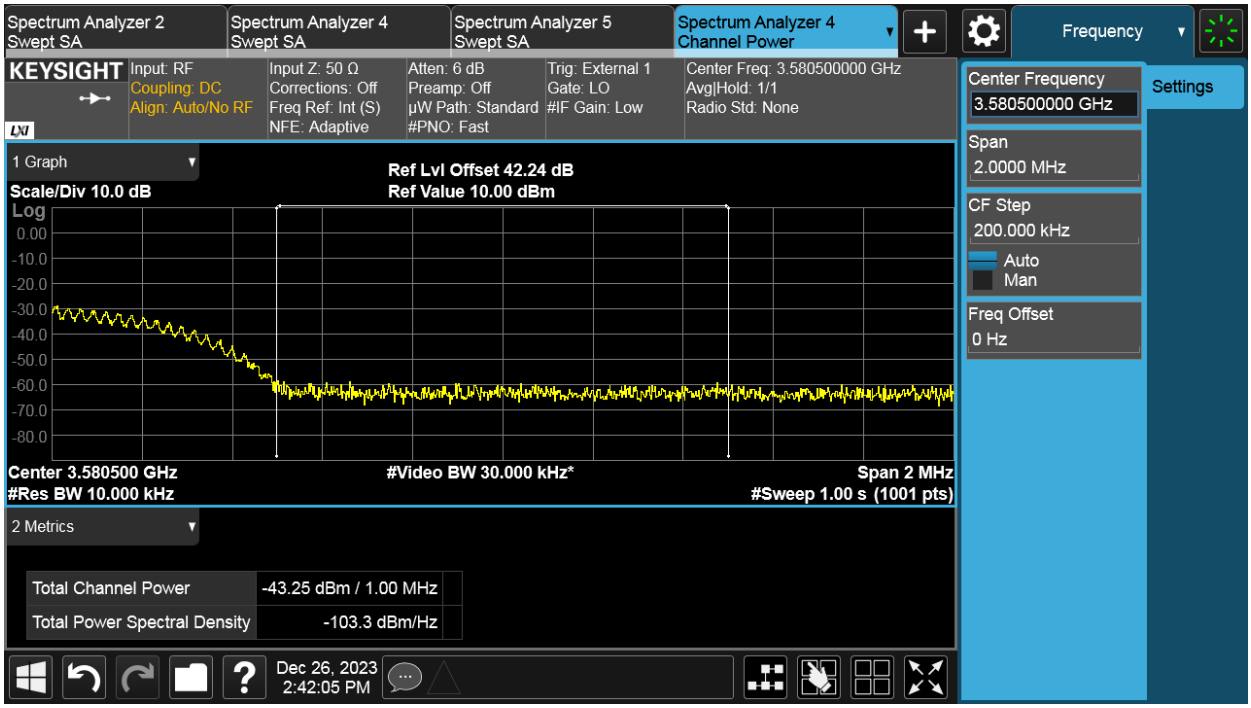
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
24	B	256QAM	15	1000	-28.05/-40.05
24	T	256QAM	15	1000	-28.05/-40.05

Channel Position B

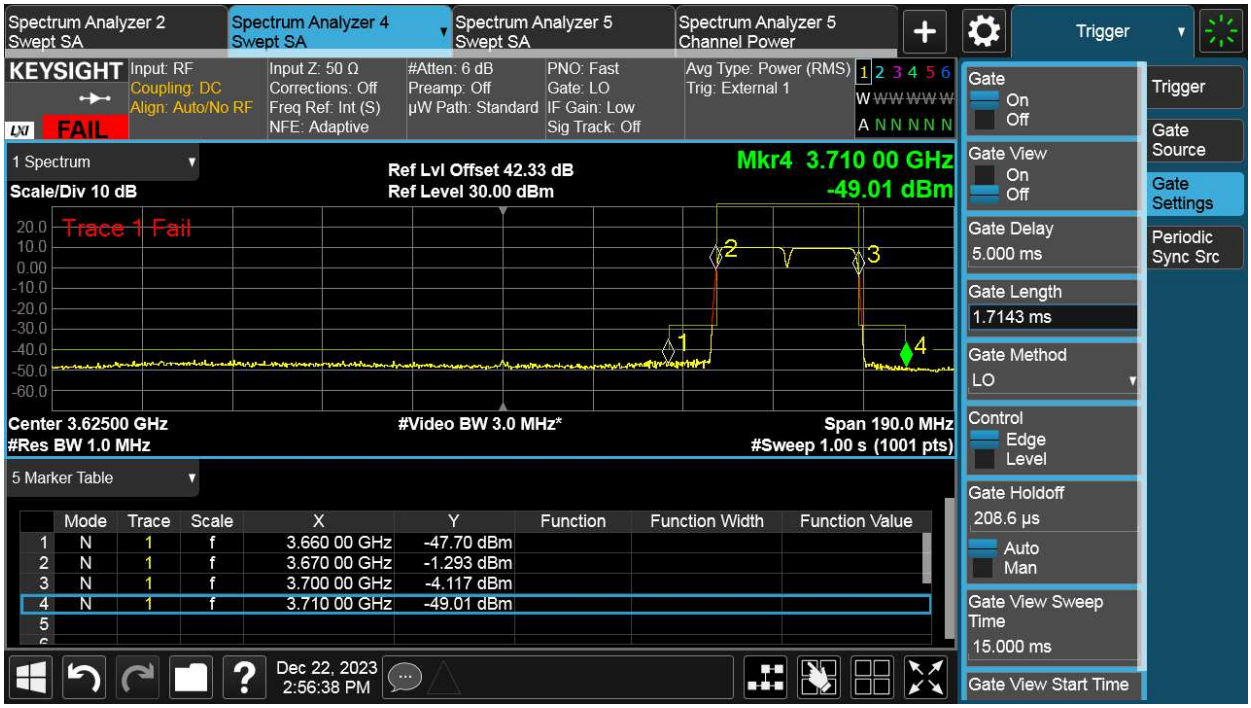




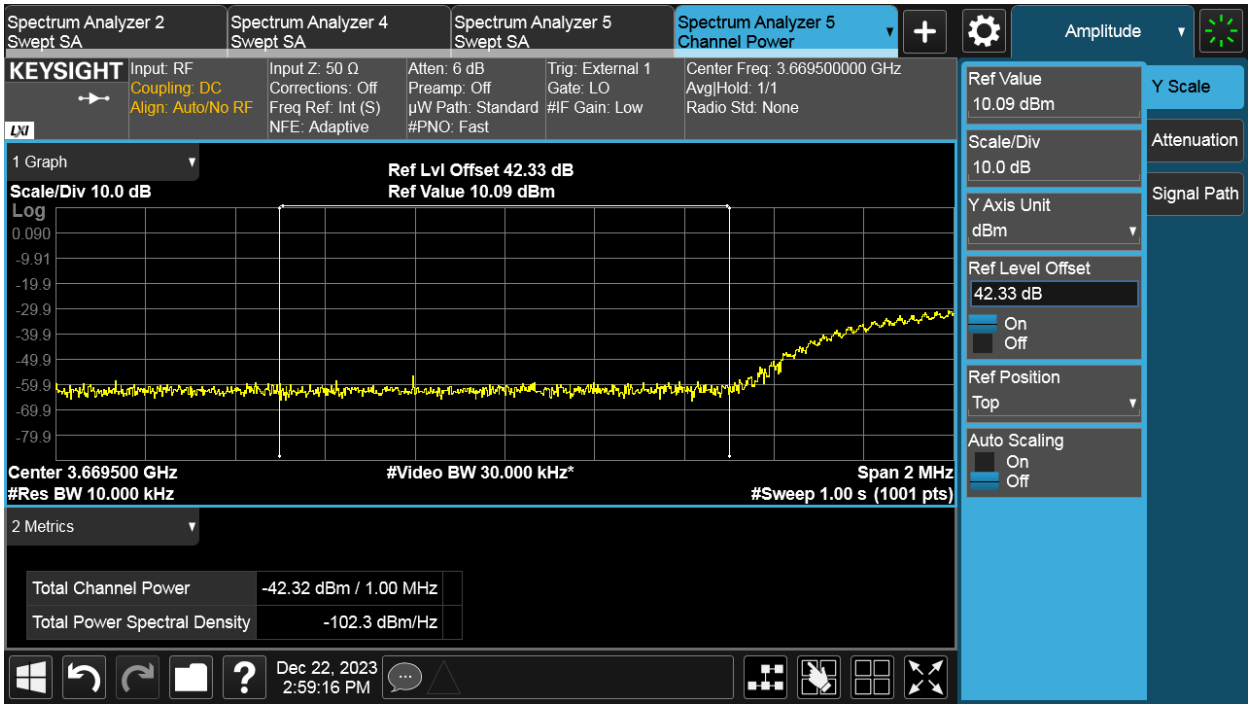
TEST REPORT

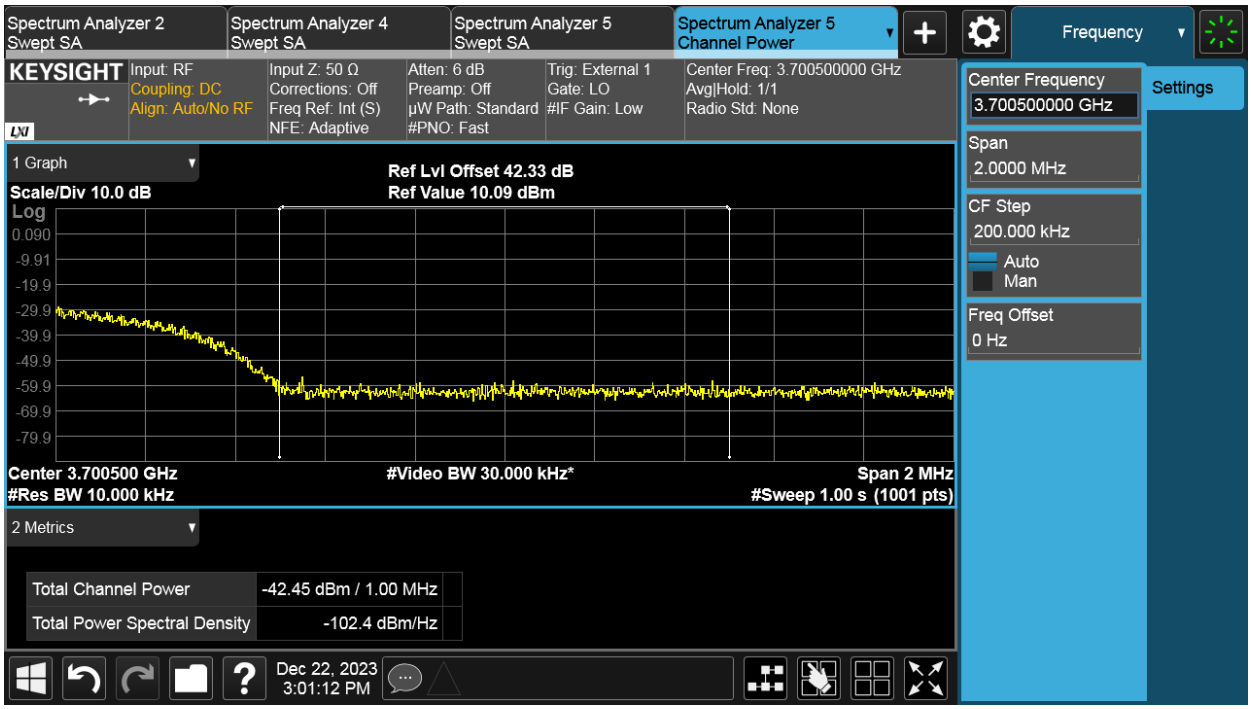


Channel Position T



TEST REPORT


Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 5
Channel Power
Amplitude
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 3.669500000 GHz
Avg|Hold: 1/1
Radio Std: None
1 Graph
Ref Lvl Offset 42.33 dB
Scale/Div 10.0 dB
Ref Value 10.09 dBm
Log
0.090
-9.91
-19.9
-29.9
-39.9
-49.9
-59.9
-69.9
-79.9
Center 3.669500 GHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-42.32 dBm / 1.00 MHz
Total Power Spectral Density
-102.3 dBm/Hz
Dec 22, 2023
2:59:16 PM
Ref Value
10.09 dBm
Scale/Div
10.0 dB
Y Axis Unit
dBm
Ref Level Offset
42.33 dB
On
Off
Ref Position
Top
Auto Scaling
On
Off
Y Scale
Attenuation
Signal Path


Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 5
Channel Power
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 3.700500000 GHz
Avg|Hold: 1/1
Radio Std: None
1 Graph
Ref Lvl Offset 42.33 dB
Scale/Div 10.0 dB
Ref Value 10.09 dBm
Log
0.090
-9.91
-19.9
-29.9
-39.9
-49.9
-59.9
-69.9
-79.9
Center 3.700500 GHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-42.45 dBm / 1.00 MHz
Total Power Spectral Density
-102.4 dBm/Hz
Dec 22, 2023
3:01:12 PM
Center Frequency
3.700500000 GHz
Span
2.0000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
Settings

6 Conducted Unwanted Emission

Test result: **Pass**

6.1 Limit

The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

6.2 Measurement Procedure

All measurements were made according with KDB 971168 D01.

For MIMO mode configurations, the limit was adjusted with a correction of -15.05dB [10Log(1/32)] by using the Measure and Add 10Log(N) dB technique according to KDB 662911 D01 Multiple Transmitter Output accounting for simultaneous transmission from antenna ports .

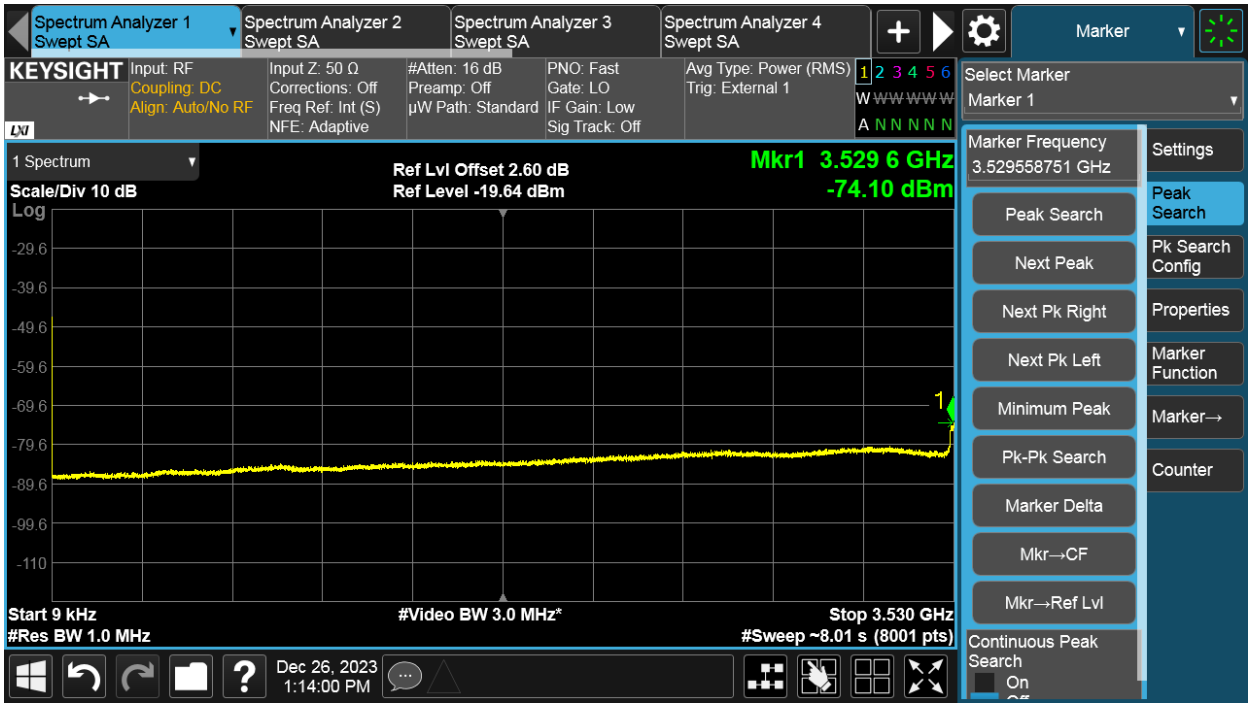
The detector of the Spectrum analyzer was set as RMS, the RBW was set as 1MHz, the VBW was set as 3MHz.

6.3 Measurement result

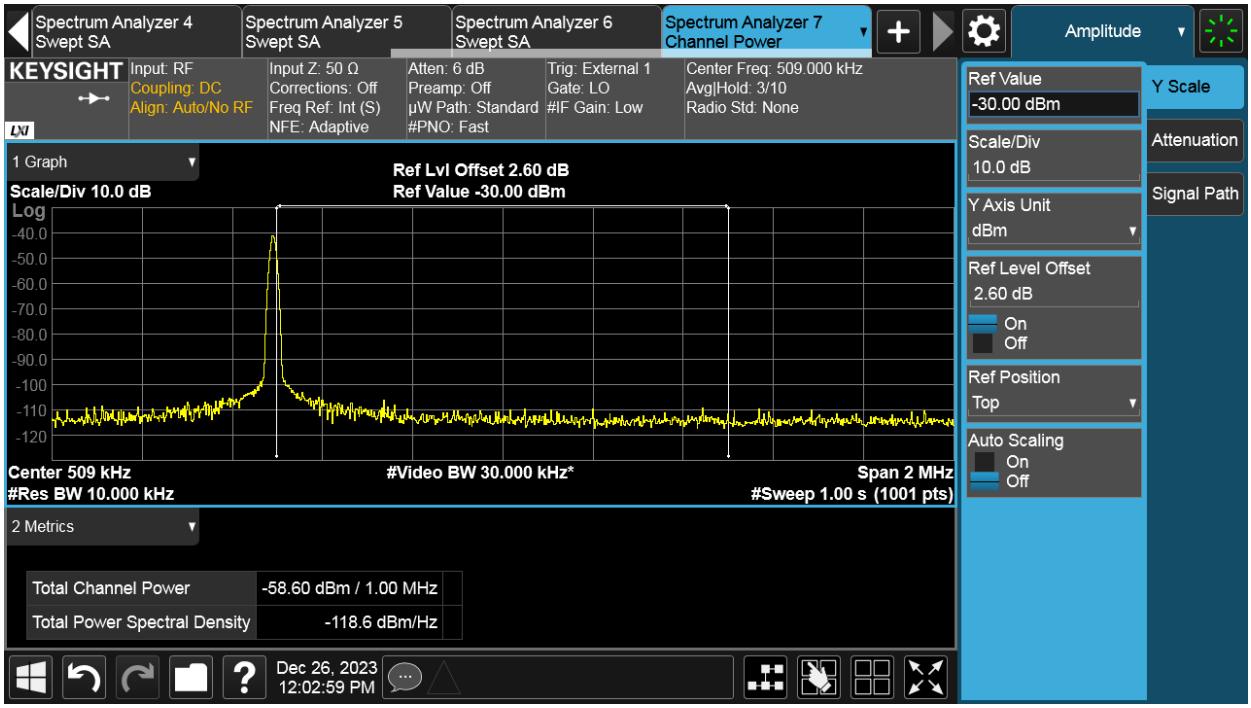
NR-1C-UE:

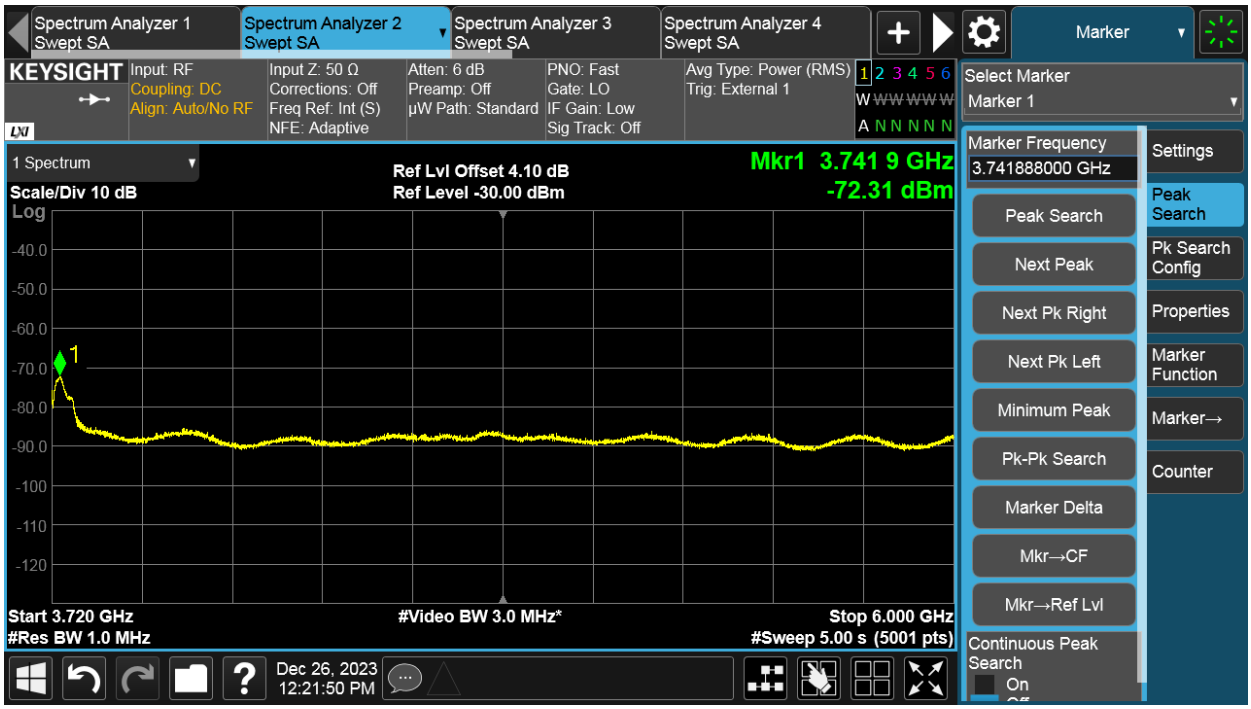
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
24	B	256QAM	15	1000	-55.05
24	M	256QAM	15	1000	-55.05
24	T	256QAM	15	1000	-55.05

Channel Position B

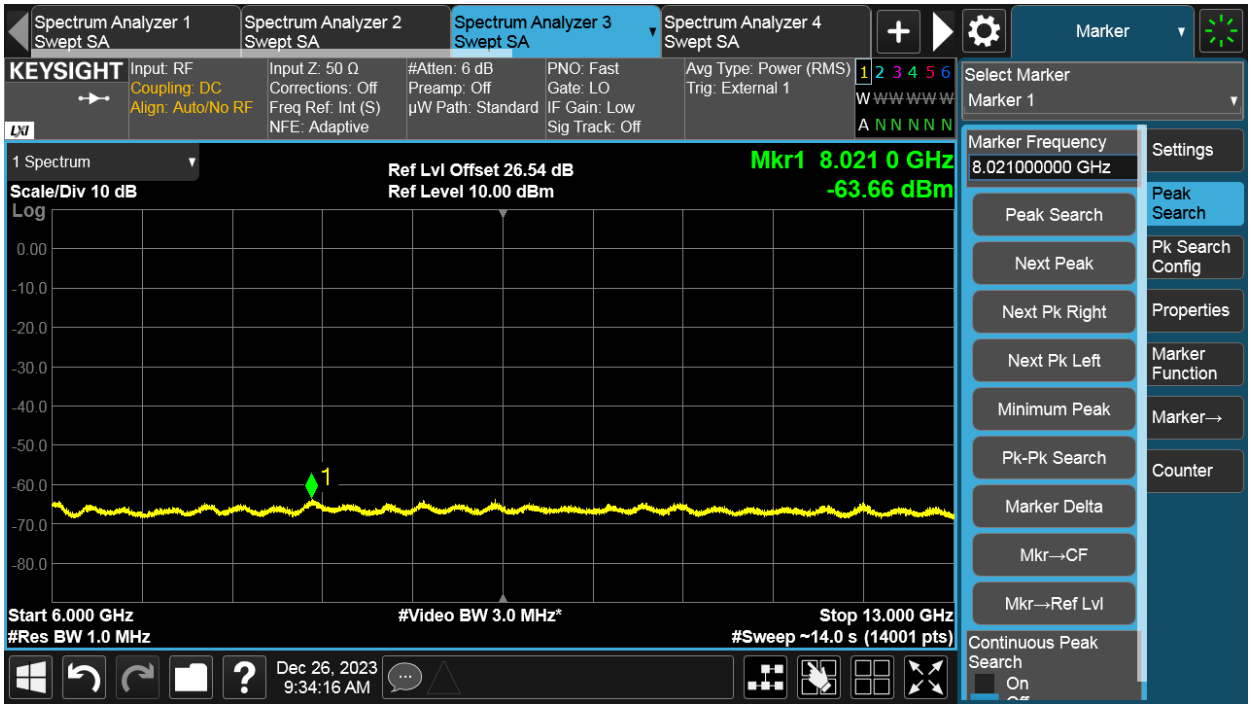


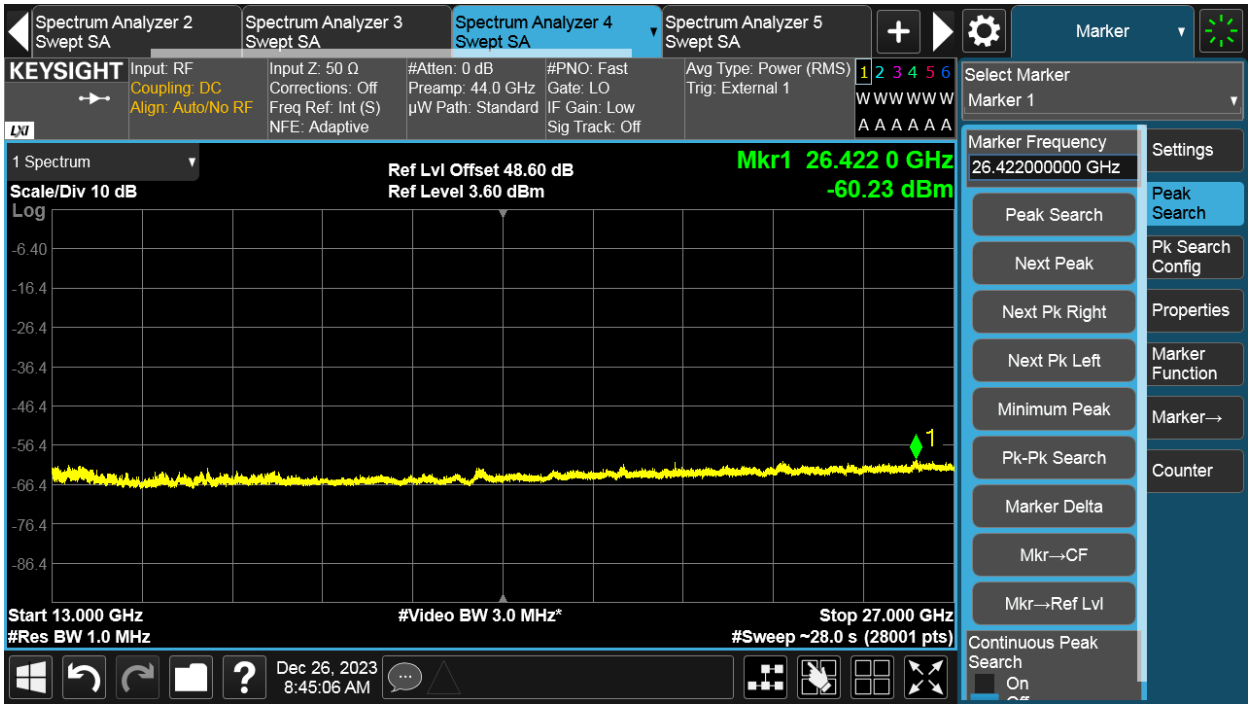
TEST REPORT


Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 6
Swept SA
Spectrum Analyzer 7
Channel Power
Amplitude
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
Trig: External 1
Gate: LO
#IF Gain: Low
#PNO: Fast
Center Freq: 509.000 kHz
Avg|Hold: 3/10
Radio Std: None
1 Graph
Ref Lvl Offset 2.60 dB
Ref Value -30.00 dBm
Scale/Div 10.0 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Center 509 kHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-58.60 dBm / 1.00 MHz
Total Power Spectral Density
-118.6 dBm/Hz
Dec 26, 2023
12:02:59 PM
Ref Value
-30.00 dBm
Scale/Div
10.0 dB
Y Axis Unit
dBm
Ref Level Offset
2.60 dB
On
Off
Ref Position
Top
Auto Scaling
On
Off
Y Scale
Attenuation
Signal Path

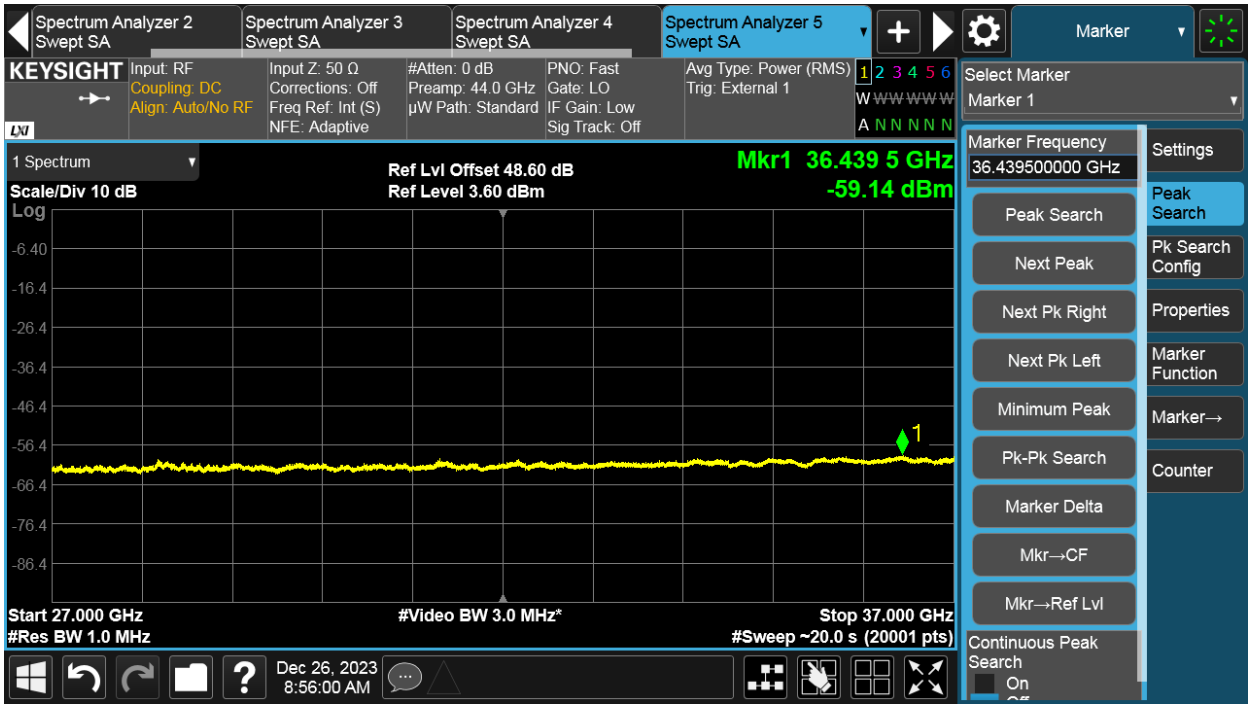

Spectrum Analyzer 1
Swept SA
Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Swept SA
Spectrum Analyzer 4
Swept SA
Marker
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 2 3 4 5 6
W WW WW W
A N N N N N
1 Spectrum
Ref Lvl Offset 4.10 dB
Ref Level -30.00 dBm
Mkr1 3.741 9 GHz
-72.31 dBm
Scale/Div 10 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Start 3.720 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 6.000 GHz
#Sweep 5.00 s (5001 pts)
Dec 26, 2023
12:21:50 PM
Select Marker
Marker 1
Marker Frequency
3.741888000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter

TEST REPORT

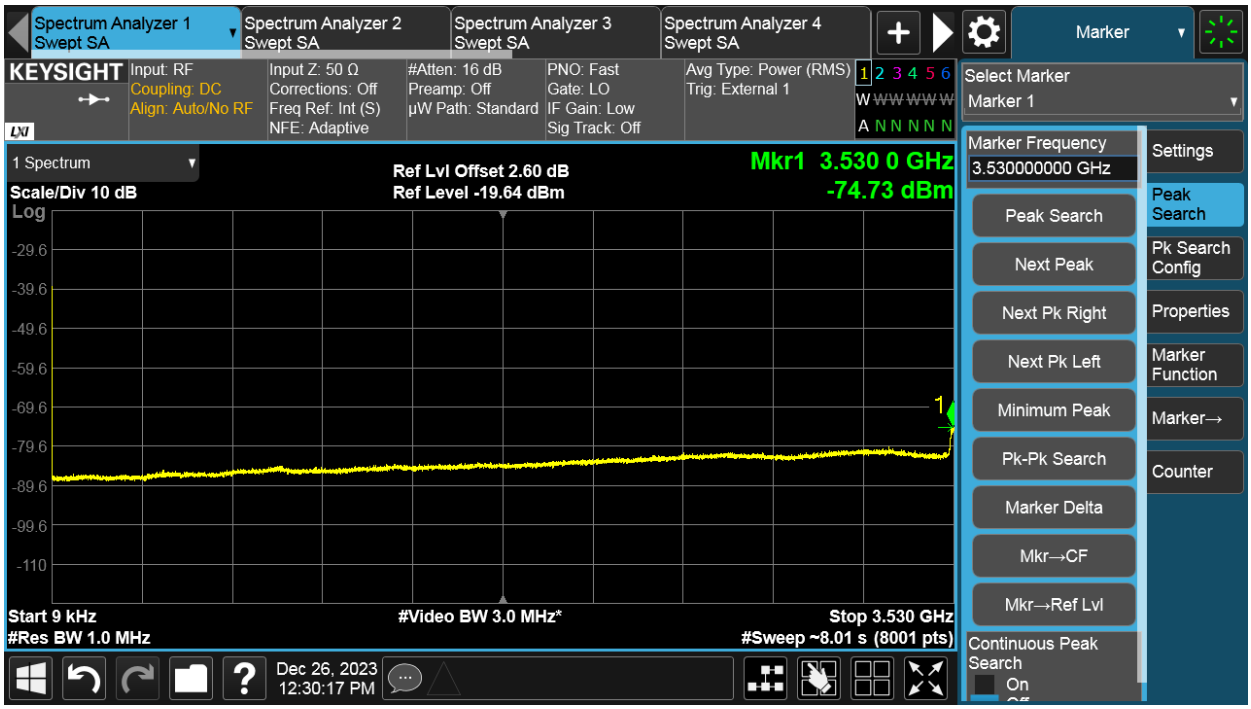

Spectrum Analyzer 1 Swept SA
Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 26.54 dB
Ref Level 10.00 dBm
Mkr1 8.021 0 GHz
-63.66 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Start 6.000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 13.000 GHz
#Sweep ~14.0 s (14001 pts)
Dec 26, 2023
9:34:16 AM
Marker
Select Marker
Marker 1
Marker Frequency
8.021000000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter


Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
Spectrum Analyzer 5 Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 0 dB
Preamp: 44.0 GHz
µW Path: Standard
#PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 48.60 dB
Ref Level 3.60 dBm
Mkr1 26.422 0 GHz
-60.23 dBm
-6.40
-16.4
-26.4
-36.4
-46.4
-56.4
-66.4
-76.4
-86.4
Start 13.000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 27.000 GHz
#Sweep ~28.0 s (28001 pts)
Dec 26, 2023
8:45:06 AM
Marker
Select Marker
Marker 1
Marker Frequency
26.422000000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter

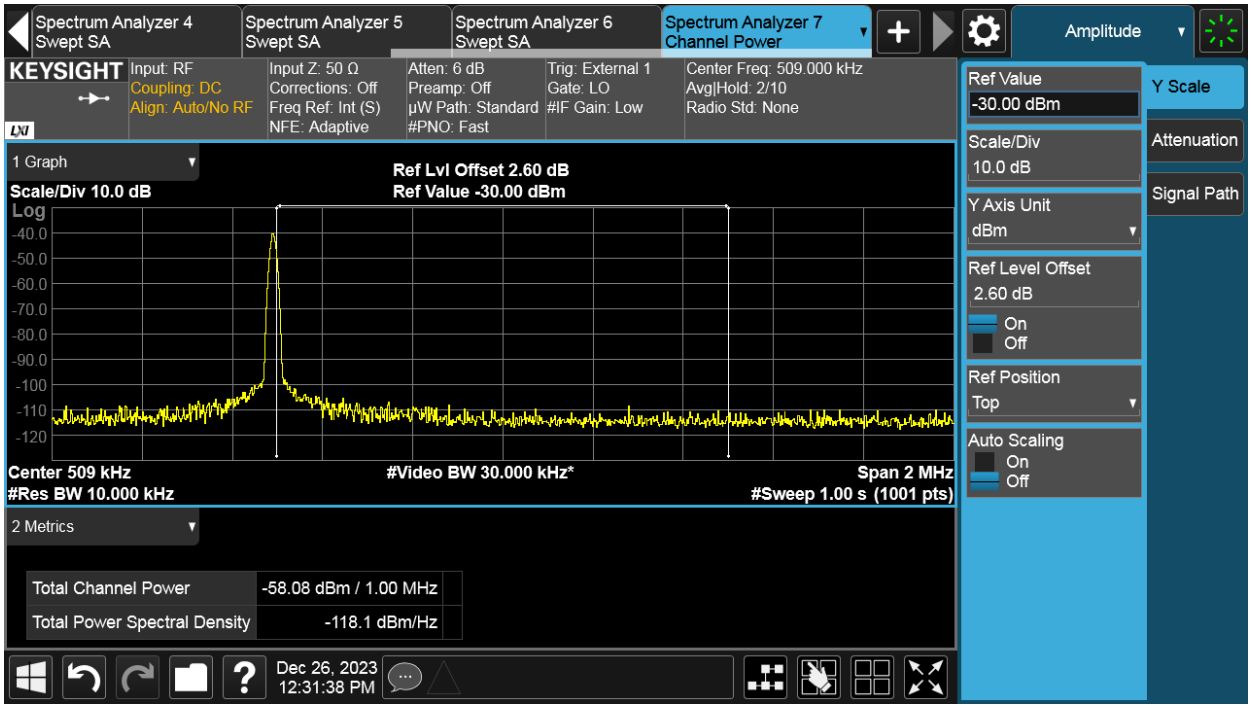
TEST REPORT

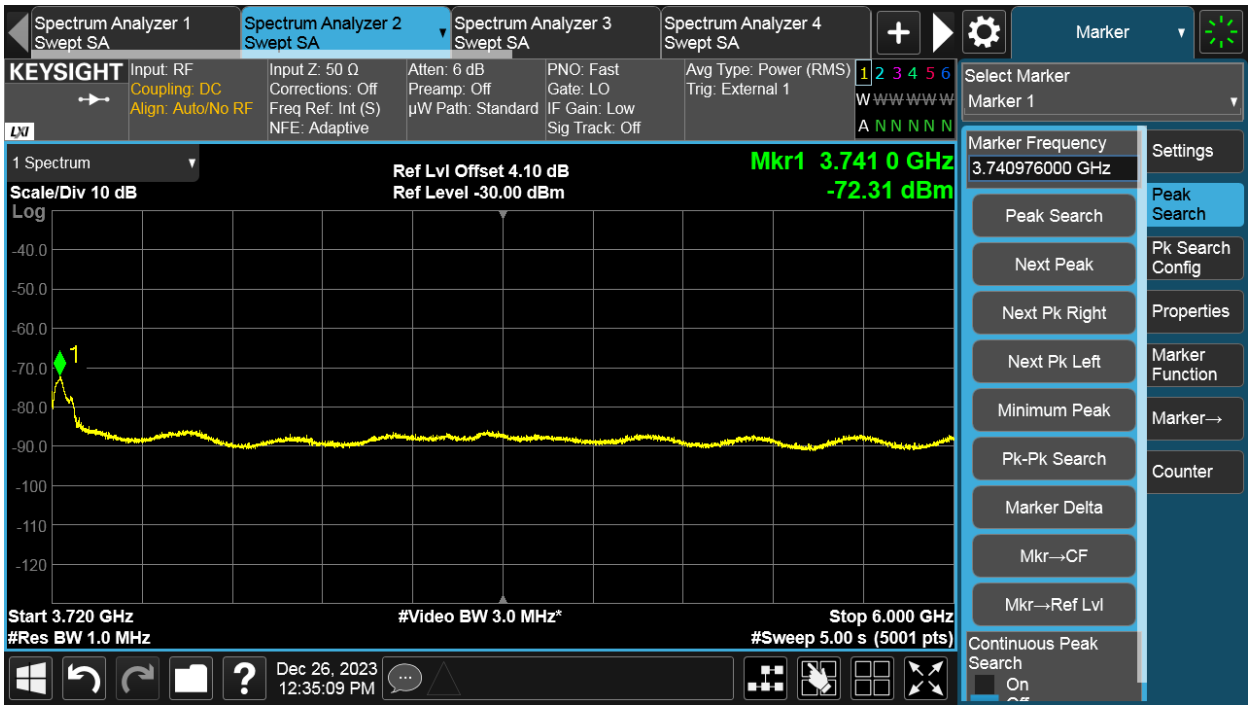


Channel Position M

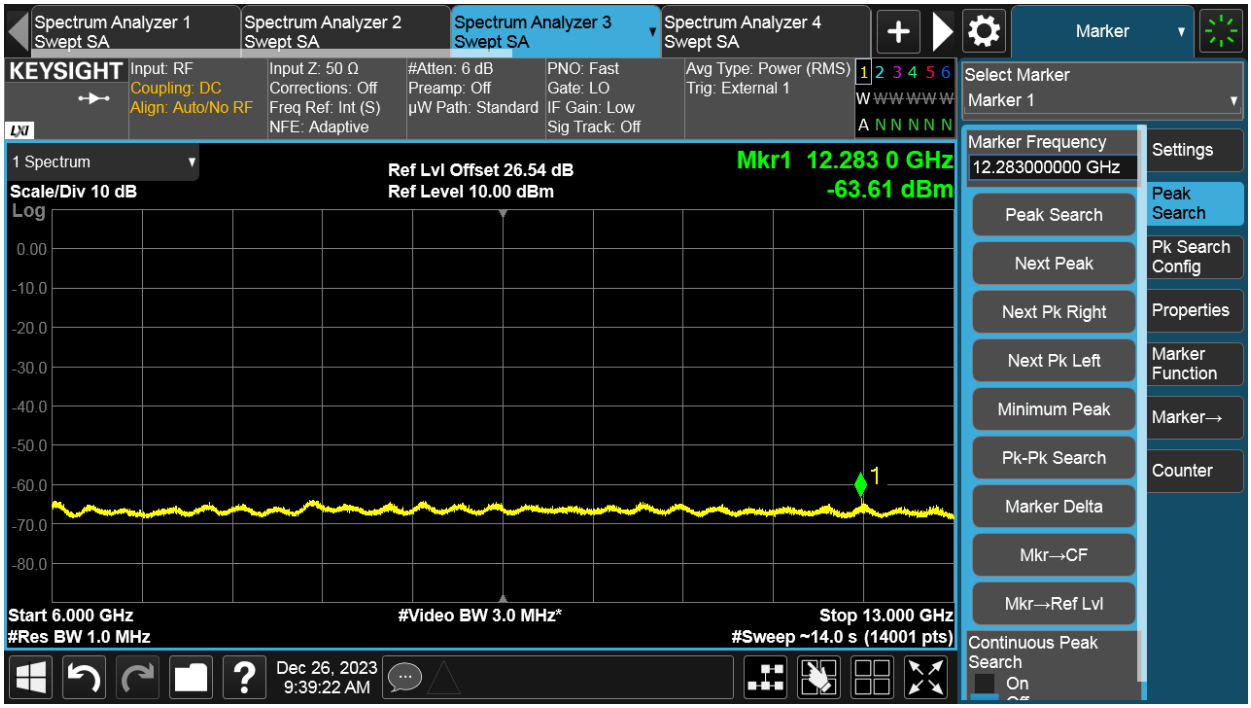


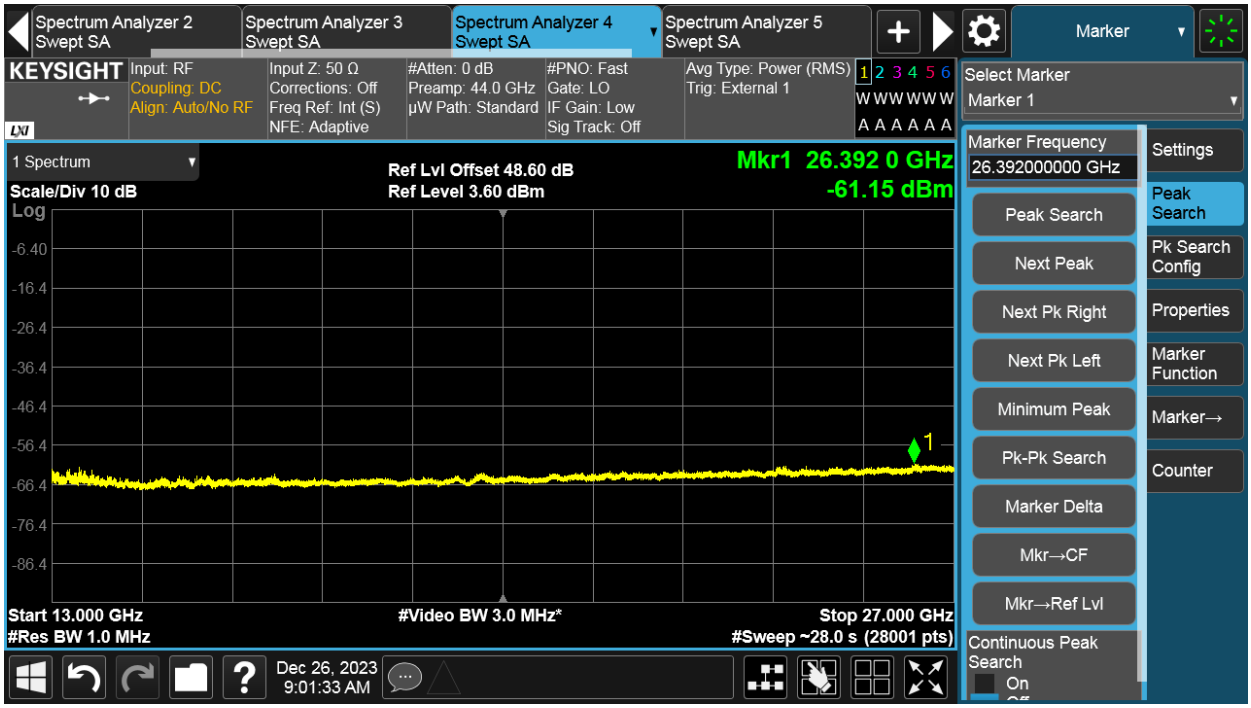
TEST REPORT


Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 6
Swept SA
Spectrum Analyzer 7
Channel Power
Amplitude
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 509.000 kHz
Avg|Hold: 2/10
Radio Std: None
1 Graph
Ref Lvl Offset 2.60 dB
Ref Value -30.00 dBm
Scale/Div 10.0 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Center 509 kHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-58.08 dBm / 1.00 MHz
Total Power Spectral Density
-118.1 dBm/Hz
Dec 26, 2023
12:31:38 PM
Ref Value
-30.00 dBm
Scale/Div
10.0 dB
Y Axis Unit
dBm
Ref Level Offset
2.60 dB
On
Off
Ref Position
Top
Auto Scaling
On
Off
Y Scale
Attenuation
Signal Path

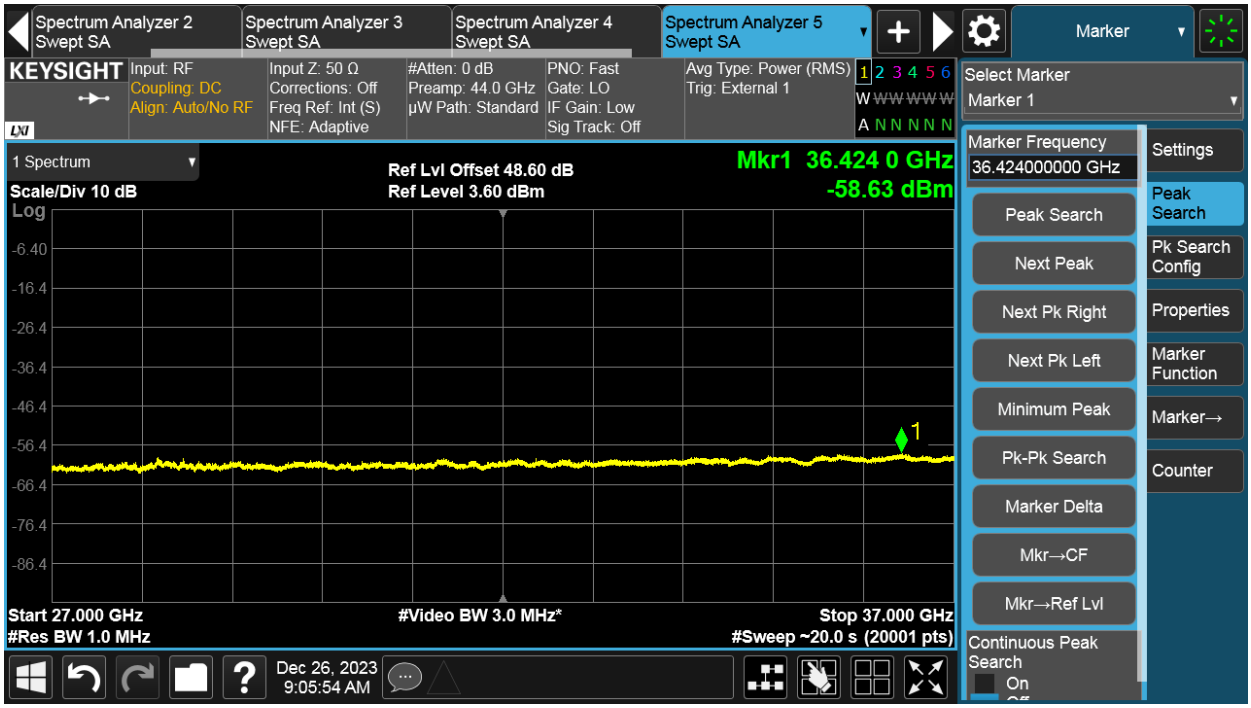

Spectrum Analyzer 1
Swept SA
Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Swept SA
Spectrum Analyzer 4
Swept SA
Marker
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Ref Lvl Offset 4.10 dB
Ref Level -30.00 dBm
Mkr1 3.741 0 GHz
-72.31 dBm
Scale/Div 10 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Start 3.720 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 6.000 GHz
#Sweep 5.00 s (5001 pts)
Dec 26, 2023
12:35:09 PM
Select Marker
Marker 1
Marker Frequency
3.740976000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter

TEST REPORT

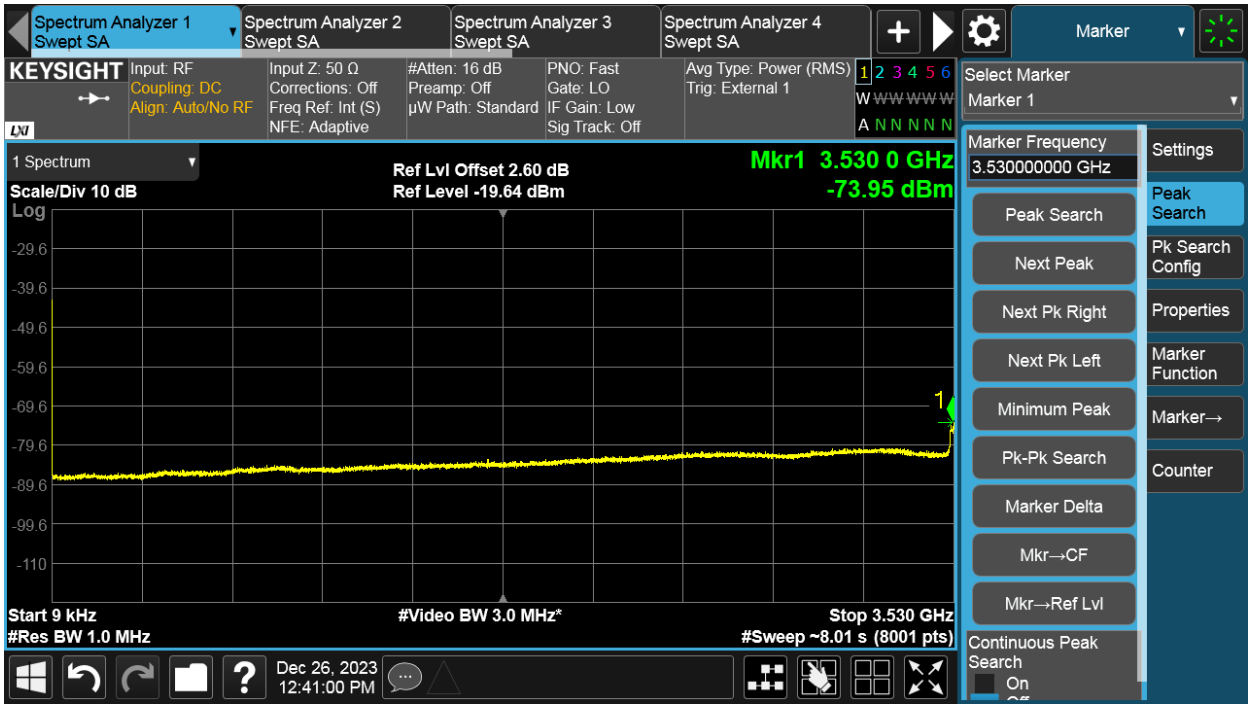

Spectrum Analyzer 1 Swept SA
Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 26.54 dB
Ref Level 10.00 dBm
Mkr1 12.283 0 GHz
-63.61 dBm
Start 6.000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 13.000 GHz
#Sweep ~14.0 s (14001 pts)
Marker
Select Marker
Marker 1
Marker Frequency
12.283000000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Dec 26, 2023
9:39:22 AM


Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
Spectrum Analyzer 5 Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 0 dB
Preamp: 44.0 GHz
µW Path: Standard
#PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 48.60 dB
Ref Level 3.60 dBm
Mkr1 26.392 0 GHz
-61.15 dBm
Start 13.000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 27.000 GHz
#Sweep ~28.0 s (28001 pts)
Marker
Select Marker
Marker 1
Marker Frequency
26.392000000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Dec 26, 2023
9:01:33 AM

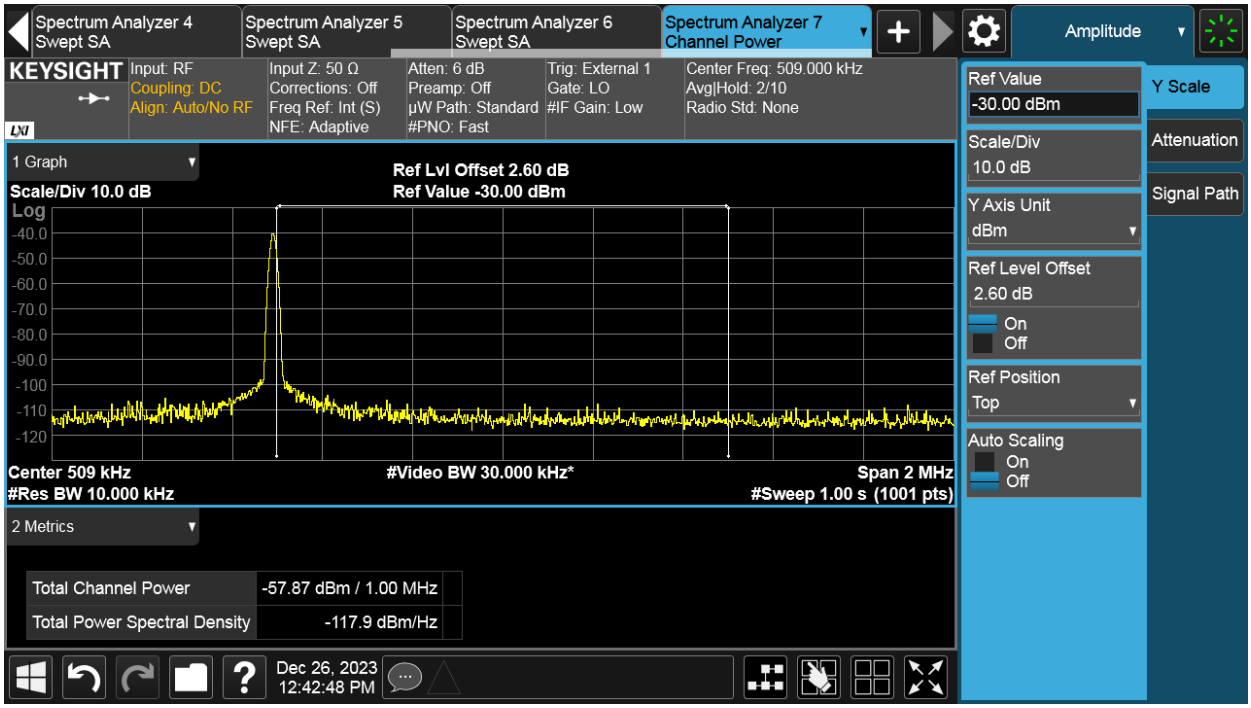
TEST REPORT

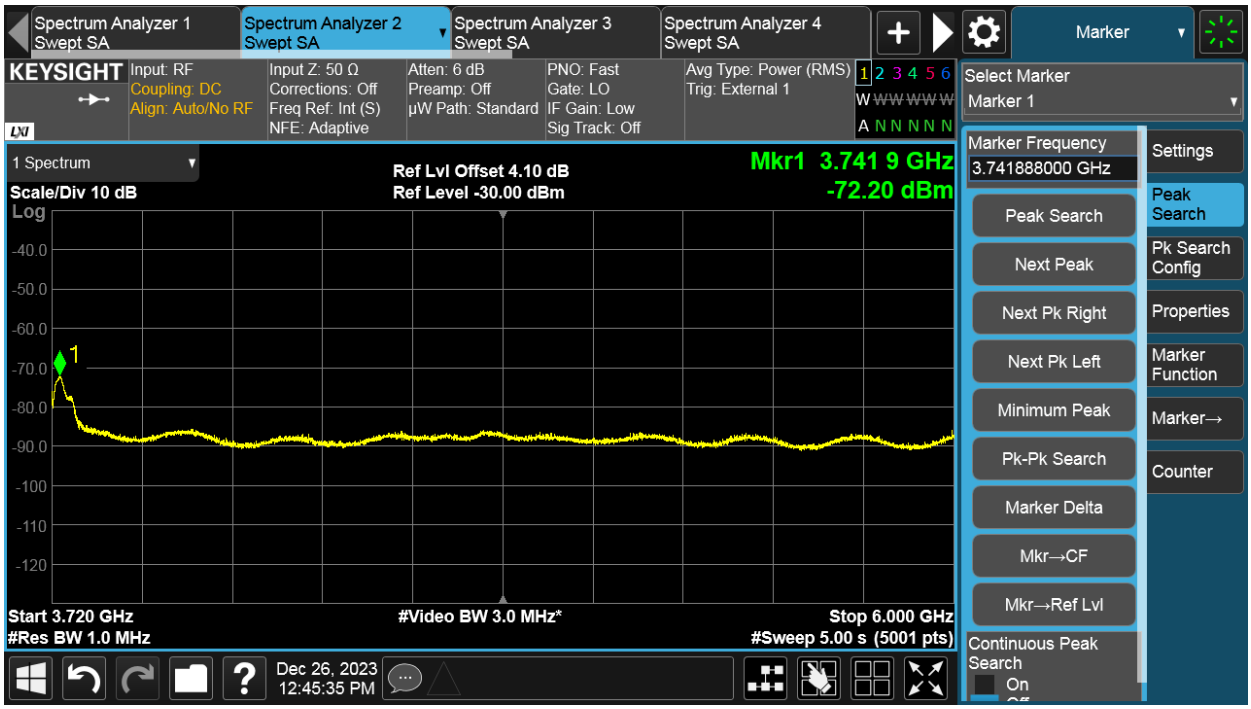


Channel Position T

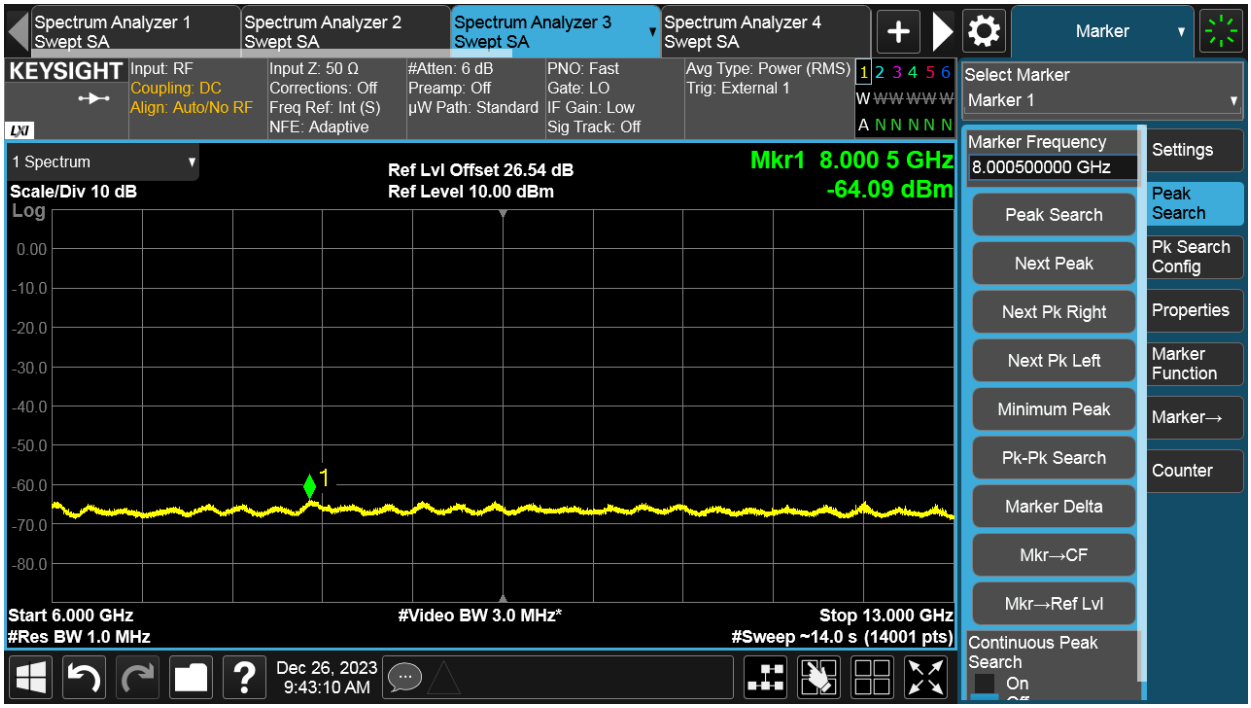


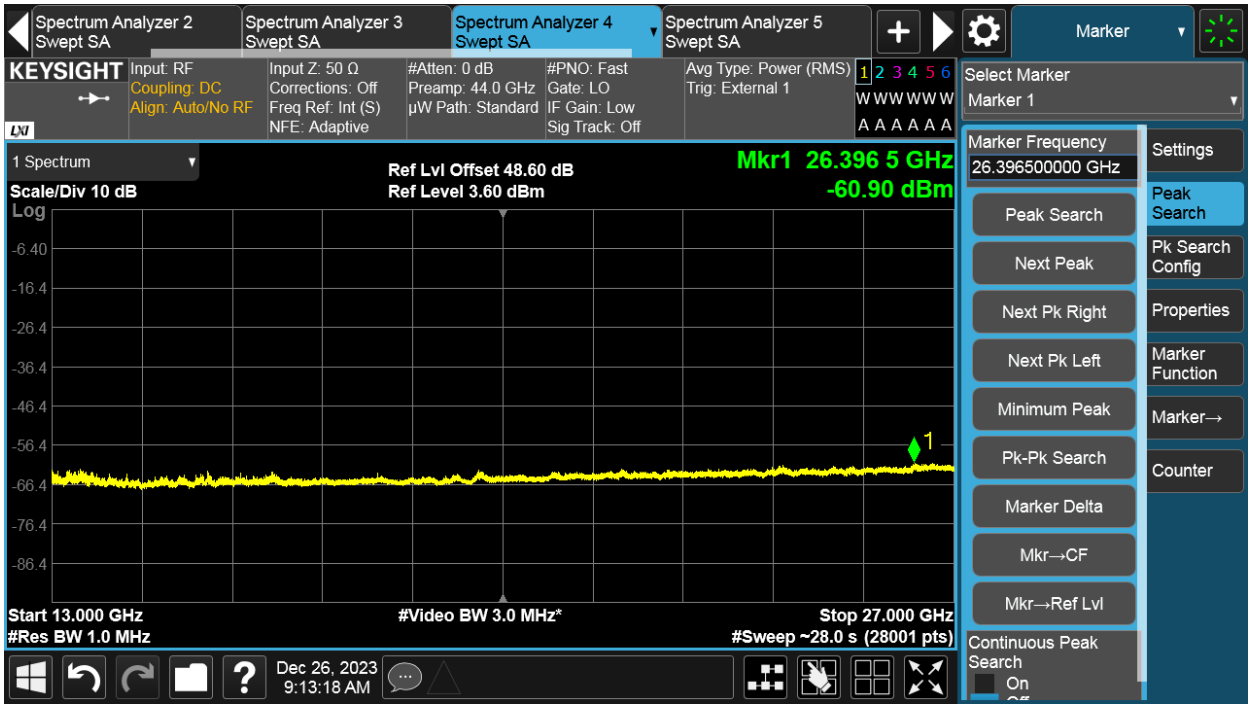
TEST REPORT


Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 6
Swept SA
Spectrum Analyzer 7
Channel Power
Amplitude
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 509.000 kHz
Avg|Hold: 2/10
Radio Std: None
1 Graph
Ref Lvl Offset 2.60 dB
Ref Value -30.00 dBm
Scale/Div 10.0 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Center 509 kHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-57.87 dBm / 1.00 MHz
Total Power Spectral Density
-117.9 dBm/Hz
Dec 26, 2023
12:42:48 PM
Ref Value
-30.00 dBm
Scale/Div
10.0 dB
Y Axis Unit
dBm
Ref Level Offset
2.60 dB
On
Off
Ref Position
Top
Auto Scaling
On
Off
Y Scale
Attenuation
Signal Path

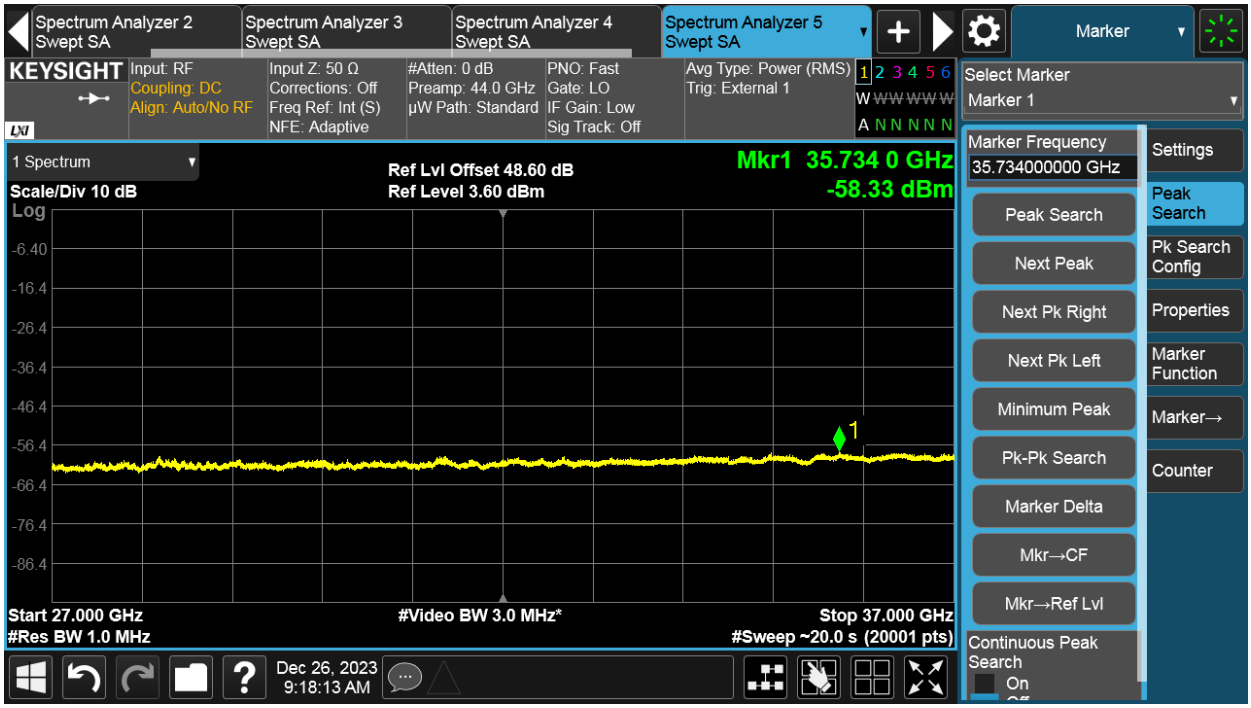

Spectrum Analyzer 1
Swept SA
Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Swept SA
Spectrum Analyzer 4
Swept SA
Marker
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Ref Lvl Offset 4.10 dB
Ref Level -30.00 dBm
Mkr1 3.741 9 GHz
-72.20 dBm
Scale/Div 10 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Start 3.720 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 6.000 GHz
#Sweep 5.00 s (5001 pts)
Dec 26, 2023
12:45:35 PM
Select Marker
Marker 1
Marker Frequency
3.741888000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter

TEST REPORT


Spectrum Analyzer 1 Swept SA
Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 26.54 dB
Ref Level 10.00 dBm
Mkr1 8.000 5 GHz
-64.09 dBm
Start 6.000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 13.000 GHz
#Sweep ~14.0 s (14001 pts)
Marker
Select Marker
Marker 1
Marker Frequency
8.000500000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Dec 26, 2023
9:43:10 AM


Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
Spectrum Analyzer 5 Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 0 dB
Preamp: 44.0 GHz
µW Path: Standard
#PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 48.60 dB
Ref Level 3.60 dBm
Mkr1 26.396 5 GHz
-60.90 dBm
Start 13.000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 27.000 GHz
#Sweep ~28.0 s (28001 pts)
Marker
Select Marker
Marker 1
Marker Frequency
26.396500000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter
Dec 26, 2023
9:13:18 AM

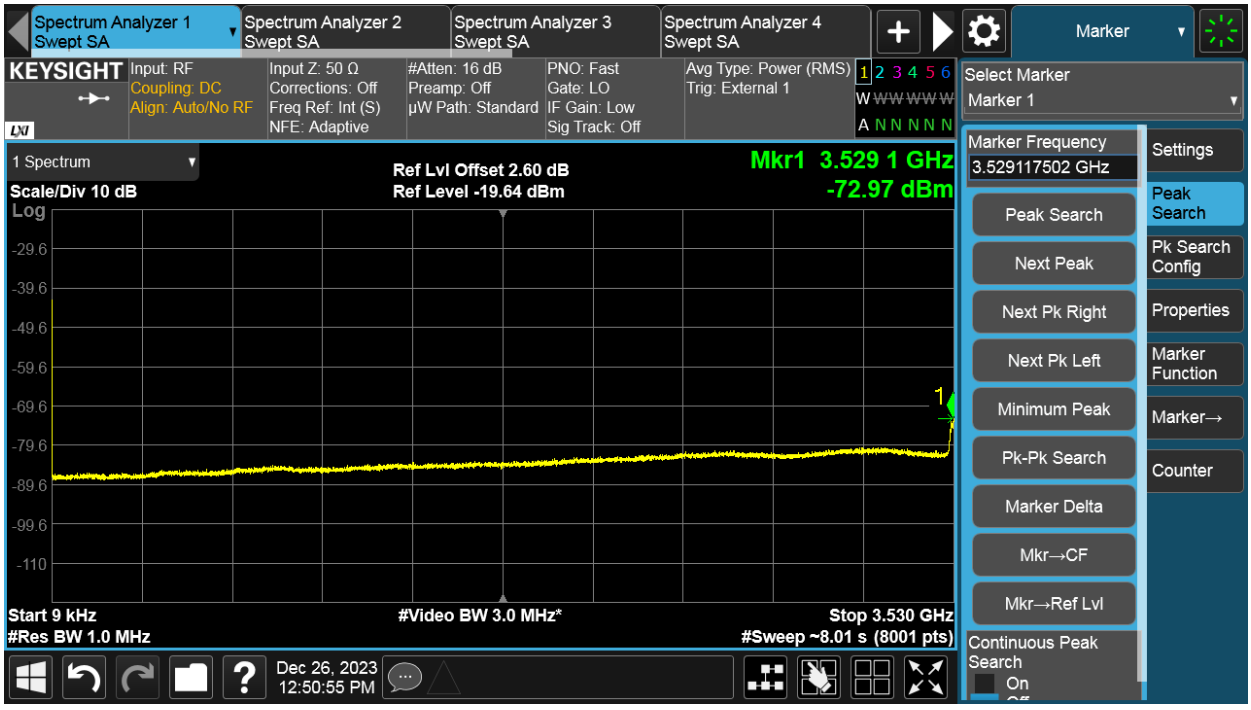
TEST REPORT



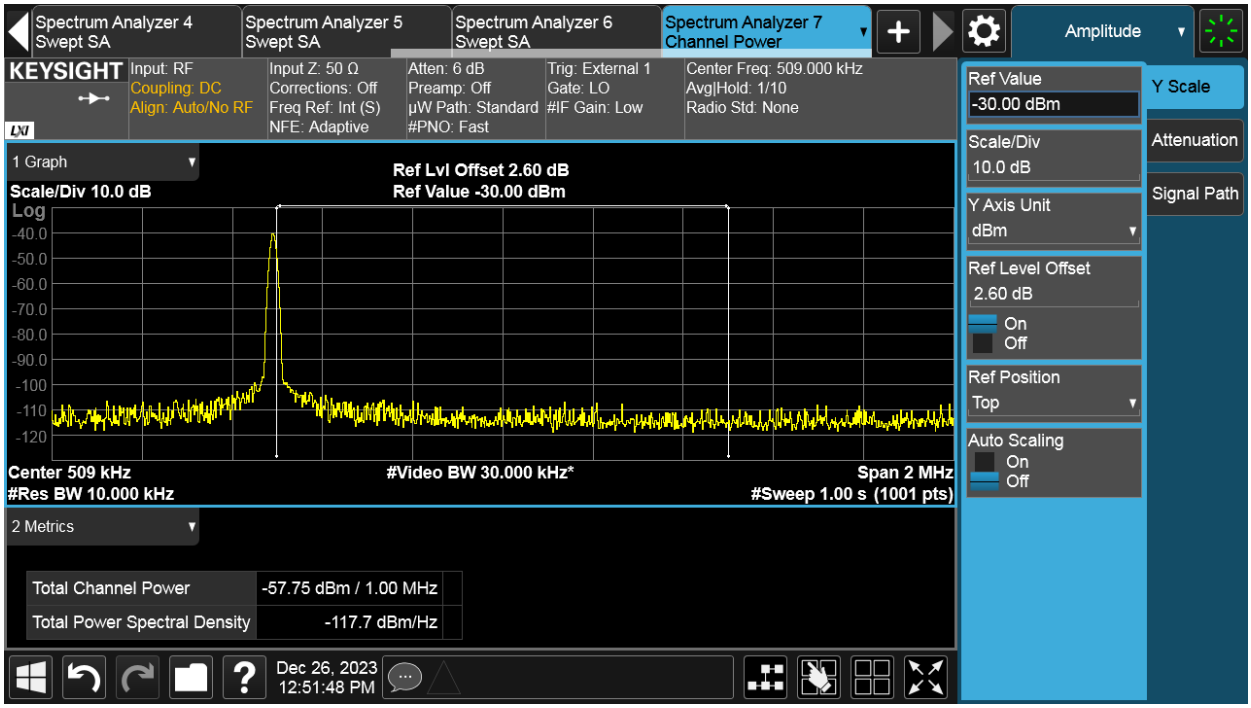
NR-2C-UE:

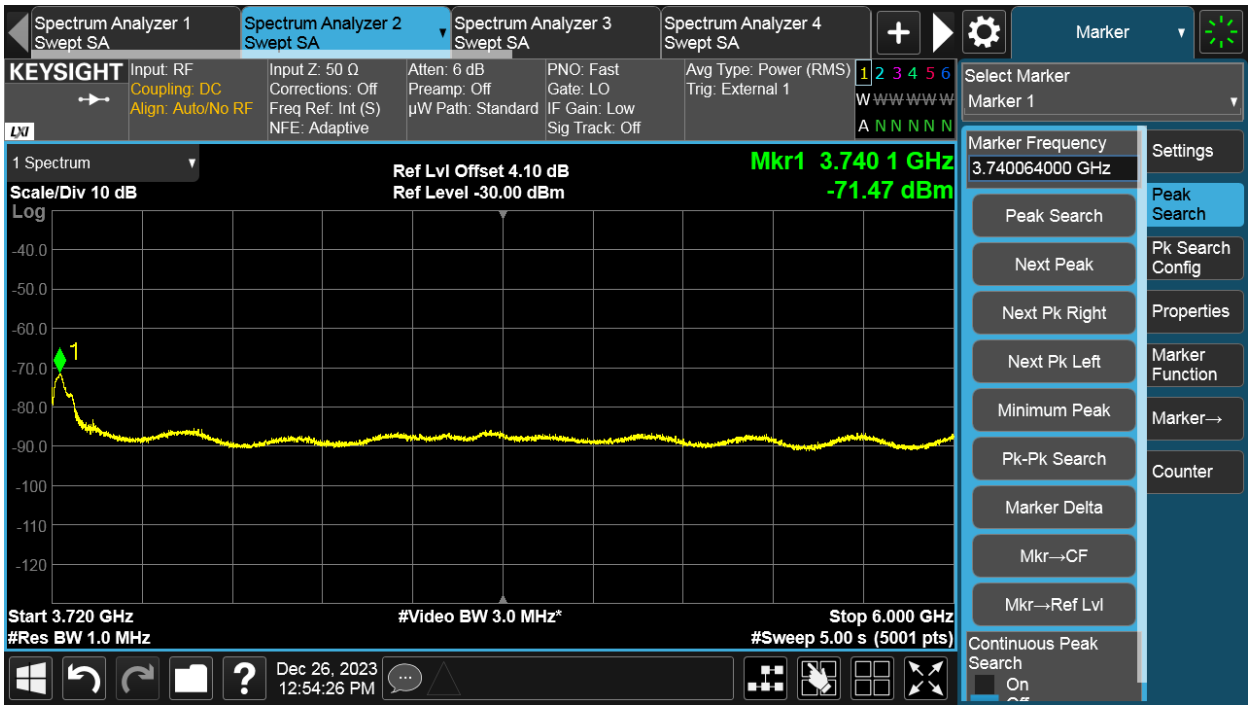
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
24	M	256QAM	15	1000	-55.05

Channel Position M



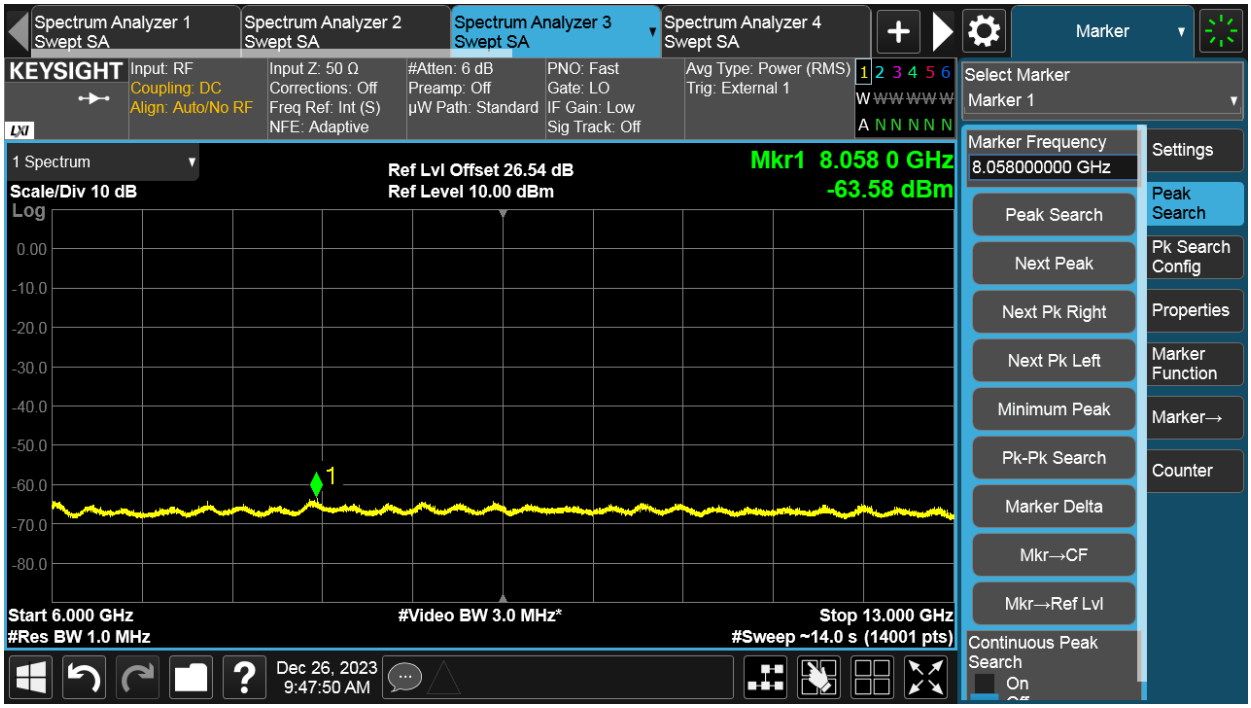
TEST REPORT

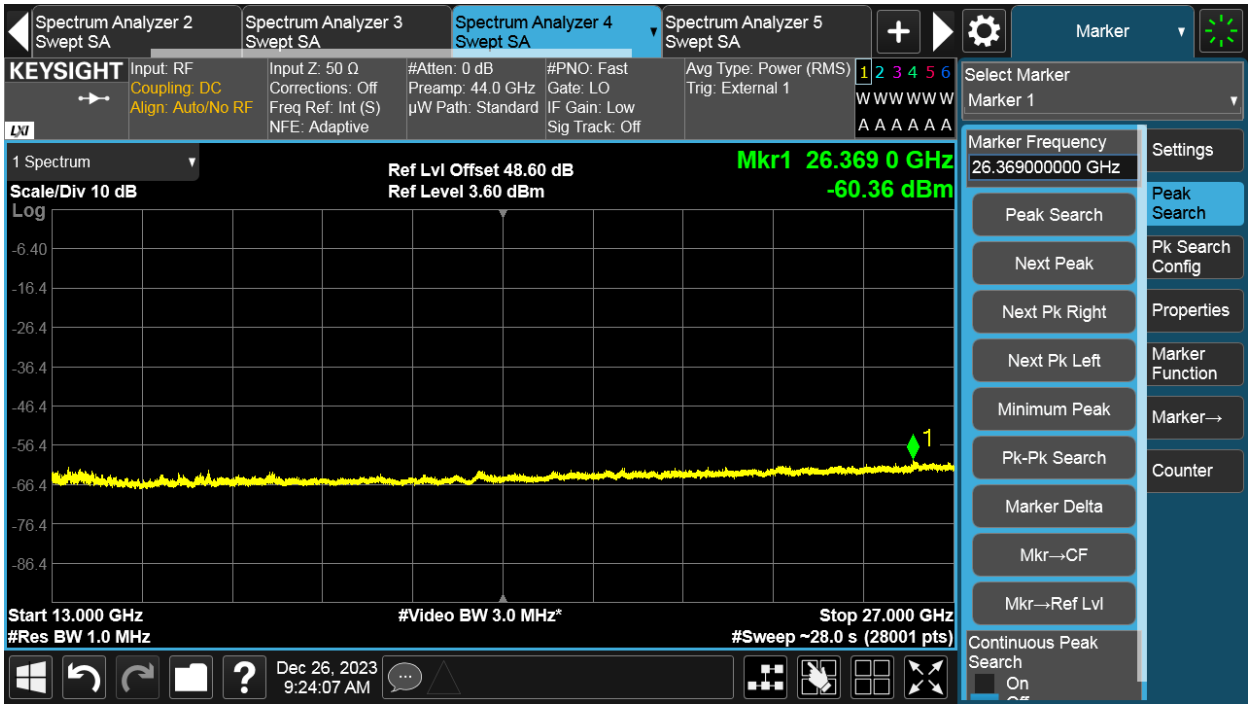

Spectrum Analyzer 4
Swept SA
Spectrum Analyzer 5
Swept SA
Spectrum Analyzer 6
Swept SA
Spectrum Analyzer 7
Channel Power
Amplitude
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 509.000 kHz
Avg|Hold: 1/10
Radio Std: None
1 Graph
Ref Lvl Offset 2.60 dB
Scale/Div 10.0 dB
Ref Value -30.00 dBm
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Center 509 kHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-57.75 dBm / 1.00 MHz
Total Power Spectral Density
-117.7 dBm/Hz
Dec 26, 2023
12:51:48 PM
Ref Value
-30.00 dBm
Scale/Div
10.0 dB
Y Axis Unit
dBm
Ref Level Offset
2.60 dB
On
Off
Ref Position
Top
Auto Scaling
On
Off
Y Scale
Attenuation
Signal Path


Spectrum Analyzer 1
Swept SA
Spectrum Analyzer 2
Swept SA
Spectrum Analyzer 3
Swept SA
Spectrum Analyzer 4
Swept SA
Marker
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto/No RF
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 6 dB
Preamp: Off
µW Path: Standard
PNO: Fast
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Ref Lvl Offset 4.10 dB
Ref Level -30.00 dBm
Mkr1 3.740 1 GHz
-71.47 dBm
Scale/Div 10 dB
Log
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
-120
Start 3.720 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 6.000 GHz
#Sweep 5.00 s (5001 pts)
Dec 26, 2023
12:54:26 PM
Select Marker
Marker 1
Marker Frequency
3.740064000 GHz
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Minimum Peak
Pk-Pk Search
Marker Delta
Mkr→CF
Mkr→Ref Lvl
Continuous Peak Search
On
Settings
Peak Search
Pk Search Config
Properties
Marker Function
Marker→
Counter

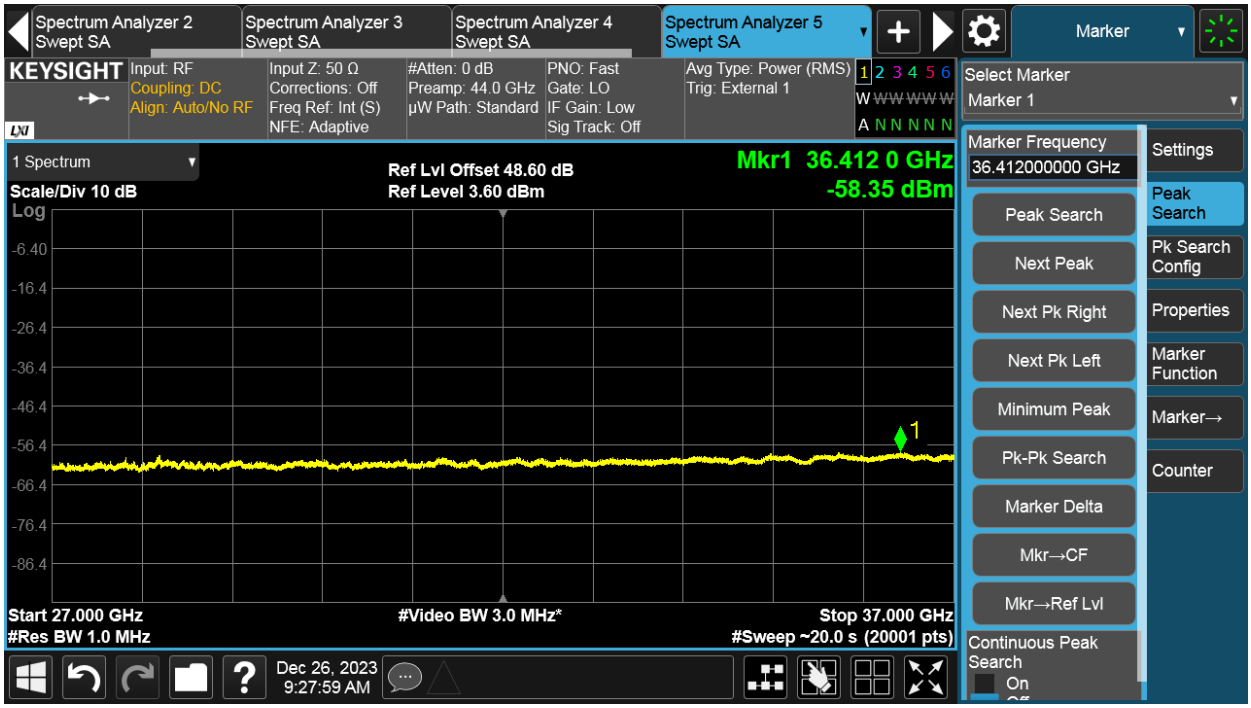
Total Quality. Assured.

TEST REPORT





TEST REPORT



********** END **********