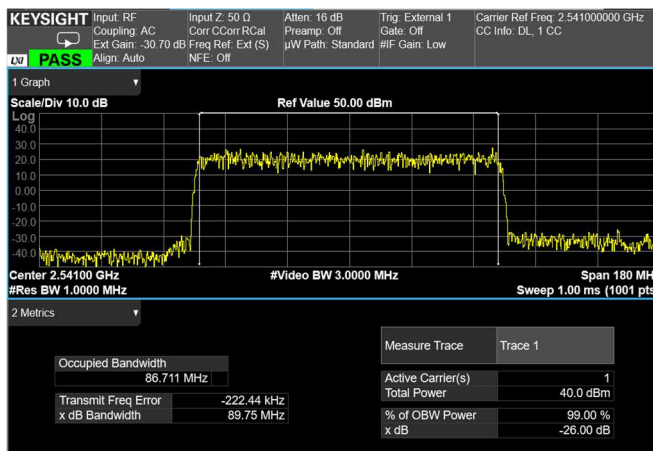




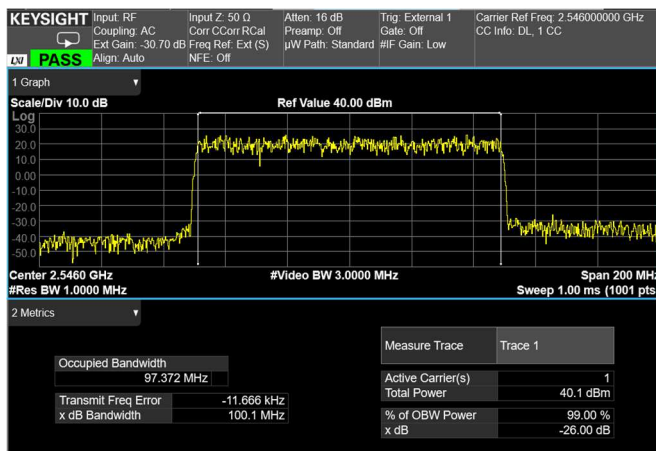
Channel: BOTTOM, Modulation: 64QAM,
BW=90MHz



Channel: MIDDLE, Modulation: 64QAM,
BW=90MHz



Channel: TOP, Modulation: 64QAM,
BW=90MHz



Channel: BOTTOM, Modulation: 64QAM,
BW=100MHz



Channel: MIDDLE, Modulation: 64QAM,
BW=100MHz



Channel: TOP, Modulation: 64QAM,
BW=100MHz

Clause 27.50(h) Peak output power at RF antenna connector

§ 27.50(h) The following power limits shall apply in the BRS and EBS:

(1) Main, booster and base stations.

(i) The maximum EIRP of a main, booster or base station shall not exceed 33 dBW + 10log(X/Y) dBW, where X is the actual channel width in MHz and Y is either 6 MHz if prior to transition or the station is in the MBS following transition or 5.5 MHz if the station is in the LBS and UBS following transition, except as provided in paragraph (h)(1)(ii) of this section.

(ii) If a main or booster station sectorizes or otherwise uses one or more transmitting antennas with a non-omnidirectional horizontal plane radiation pattern, the maximum EIRP in dBW in a given direction shall be determined by the following formula: $EIRP = 33 \text{ dBW} + 10 \log(X/Y) \text{ dBW} + 10 \log(360/\text{beamwidth}) \text{ dBW}$, where X is the actual channel width in MHz, Y is either (i) 6 MHz if prior to transition or the station is in the MBS following transition or (ii) 5.5 MHz if the station is in the LBS and UBS following transition, and beamwidth is the total horizontal plane beamwidth of the individual transmitting antenna for the station or any sector measured at the half-power points.

Test date: 06/09/2022 to 06/24/2022

Test results: Pass

Special notes

Measurements were performed for all modulation types. As an example, only measurements for 64 QAM modulation type are reported.

Test equipment used

Equipment	Manufacturer	Model No.	Asset/Serial No.
Spectrum Analyzer	Agilent	N9030B PXA	MY61330632

Clause 27.50(h) Peak output power at RF antenna connector

Test data

RF PORT 1

Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	5G NR 10MHz (QPSK)	2501	36.2	4.188	8.7
Down-link	5G NR 10MHz (QPSK)	2593	37.2	5.212	8.4
Down-link	5G NR 10MHz (QPSK)	2685	37.1	5.082	8.6
Down-link	5G NR 10MHz (16QAM)	2501	36.2	4.198	8.8
Down-link	5G NR 10MHz (16QAM)	2593	37.1	5.176	8.7
Down-link	5G NR 10MHz (16QAM)	2685	37.1	5.117	8.7
Down-link	5G NR 10MHz (64QAM)	2501	36.2	4.188	8.7
Down-link	5G NR 10MHz (64QAM)	2593	37.1	5.140	8.4
Down-link	5G NR 10MHz (64QAM)	2685	37.1	5.093	8.7
Down-link	5G NR 10MHz (256QAM)	2501	36.2	4.198	8.7
Down-link	5G NR 10MHz (256QAM)	2593	37.1	5.164	8.5
Down-link	5G NR 10MHz (256QAM)	2685	37.1	5.082	8.6
Down-link	5G NR 15MHz (QPSK)	2503.5	36.1	4.102	8.7
Down-link	5G NR 15MHz (QPSK)	2593	37.1	5.070	8.4
Down-link	5G NR 15MHz (QPSK)	2682.5	36.8	4.819	8.8
Down-link	5G NR 15MHz (16QAM)	2503.5	36.1	4.093	8.6
Down-link	5G NR 15MHz (16QAM)	2593	37.1	5.070	8.5
Down-link	5G NR 15MHz (16QAM)	2682.5	36.8	4.819	8.8
Down-link	5G NR 15MHz (64QAM)	2503.5	36.1	4.111	8.7
Down-link	5G NR 15MHz (64QAM)	2593	37.1	5.070	8.6
Down-link	5G NR 15MHz (64QAM)	2682.5	36.8	4.819	8.8
Down-link	5G NR 15MHz (256QAM)	2503.5	36.1	4.093	8.7
Down-link	5G NR 15MHz (256QAM)	2593	37.0	5.058	8.5
Down-link	5G NR 15MHz (256QAM)	2682.5	36.8	4.819	8.8
Down-link	5G NR 20MHz (QPSK)	2506	36.5	4.467	8.9
Down-link	5G NR 20MHz (QPSK)	2593	36.9	4.909	8.5
Down-link	5G NR 20MHz (QPSK)	2680	36.9	4.875	8.8
Down-link	5G NR 20MHz (16QAM)	2506	36.5	4.487	8.9
Down-link	5G NR 20MHz (16QAM)	2593	37.0	5.012	8.5
Down-link	5G NR 20MHz (16QAM)	2680	36.9	4.875	8.8
Down-link	5G NR 20MHz (64QAM)	2506	36.5	4.467	8.8
Down-link	5G NR 20MHz (64QAM)	2593	36.9	4.920	8.5
Down-link	5G NR 20MHz (64QAM)	2680	36.9	4.864	8.8
Down-link	5G NR 20MHz (256QAM)	2506	36.5	4.457	8.8
Down-link	5G NR 20MHz (256QAM)	2593	37.0	4.977	8.6
Down-link	5G NR 20MHz (256QAM)	2680	36.9	4.842	8.8

Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	5G NR 30MHz (QPSK)	2511	36.3	4.295	9.0
Down-link	5G NR 30MHz (QPSK)	2593	36.9	4.909	8.6
Down-link	5G NR 30MHz (QPSK)	2675	36.9	4.943	9.0
Down-link	5G NR 30MHz (16QAM)	2511	36.3	4.276	9.0
Down-link	5G NR 30MHz (16QAM)	2593	36.9	4.932	8.6
Down-link	5G NR 30MHz (16QAM)	2675	37.0	4.966	8.9
Down-link	5G NR 30MHz (64QAM)	2511	36.3	4.276	9.0
Down-link	5G NR 30MHz (64QAM)	2593	36.9	4.920	8.5
Down-link	5G NR 30MHz (64QAM)	2675	37.0	4.955	8.9
Down-link	5G NR 30MHz (256QAM)	2511	36.3	4.276	9.0
Down-link	5G NR 30MHz (256QAM)	2593	36.9	4.920	8.5
Down-link	5G NR 30MHz (256QAM)	2675	37.0	4.955	9.0
Down-link	5G NR 40MHz (QPSK)	2516	36.3	4.266	9.1
Down-link	5G NR 40MHz (QPSK)	2593	37.1	5.140	8.7
Down-link	5G NR 40MHz (QPSK)	2670	37.0	5.047	9.0
Down-link	5G NR 40MHz (16QAM)	2516	36.3	4.276	9.1
Down-link	5G NR 40MHz (16QAM)	2593	37.1	5.140	8.7
Down-link	5G NR 40MHz (16QAM)	2670	37.0	5.058	9.0
Down-link	5G NR 40MHz (64QAM)	2516	36.3	4.266	9.1
Down-link	5G NR 40MHz (64QAM)	2593	37.1	5.129	8.7
Down-link	5G NR 40MHz (64QAM)	2670	37.0	5.047	9.0
Down-link	5G NR 40MHz (256QAM)	2516	36.3	4.276	9.1
Down-link	5G NR 40MHz (256QAM)	2593	37.1	5.129	8.7
Down-link	5G NR 40MHz (256QAM)	2670	37.0	5.047	9.0
Down-link	5G NR 50MHz (QPSK)	2521	36.2	4.150	9.1
Down-link	5G NR 50MHz (QPSK)	2593	37.0	4.989	8.8
Down-link	5G NR 50MHz (QPSK)	2665	37.0	4.955	9.0
Down-link	5G NR 50MHz (16QAM)	2521	36.2	4.169	9.1
Down-link	5G NR 50MHz (16QAM)	2593	37.0	4.989	8.8
Down-link	5G NR 50MHz (16QAM)	2665	37.0	5.000	9.1
Down-link	5G NR 50MHz (64QAM)	2521	36.2	4.169	9.1
Down-link	5G NR 50MHz (64QAM)	2593	37.0	4.977	8.8
Down-link	5G NR 50MHz (64QAM)	2665	36.9	4.943	9.0
Down-link	5G NR 50MHz (256QAM)	2521	36.2	4.178	9.1
Down-link	5G NR 50MHz (256QAM)	2593	37.0	4.989	8.8
Down-link	5G NR 50MHz (256QAM)	2665	37.0	4.966	9.0

Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	5G NR 60MHz (QPSK)	2526	36.7	4.667	9.2
Down-link	5G NR 60MHz (QPSK)	2593	36.9	4.909	8.8
Down-link	5G NR 60MHz (QPSK)	2660	37.2	5.236	9.0
Down-link	5G NR 60MHz (16QAM)	2526	36.7	4.667	9.1
Down-link	5G NR 60MHz (16QAM)	2593	36.9	4.920	8.8
Down-link	5G NR 60MHz (16QAM)	2660	36.9	4.943	9.0
Down-link	5G NR 60MHz (64QAM)	2526	36.7	4.667	9.0
Down-link	5G NR 60MHz (64QAM)	2593	36.9	4.920	8.8
Down-link	5G NR 60MHz (64QAM)	2660	36.9	4.943	9.0
Down-link	5G NR 60MHz (256QAM)	2526	36.7	4.667	9.0
Down-link	5G NR 60MHz (256QAM)	2593	36.9	4.920	8.8
Down-link	5G NR 60MHz (256QAM)	2660	36.9	4.943	9.0
Down-link	5G NR 70MHz (QPSK)	2531	36.4	4.325	9.2
Down-link	5G NR 70MHz (QPSK)	2593	37.0	5.012	8.8
Down-link	5G NR 70MHz (QPSK)	2655	37.1	5.093	9.3
Down-link	5G NR 70MHz (16QAM)	2531	36.4	4.335	9.2
Down-link	5G NR 70MHz (16QAM)	2593	37.0	5.023	8.8
Down-link	5G NR 70MHz (16QAM)	2655	37.1	5.105	9.3
Down-link	5G NR 70MHz (64QAM)	2531	36.4	4.335	9.2
Down-link	5G NR 70MHz (64QAM)	2593	37.0	5.012	8.8
Down-link	5G NR 70MHz (64QAM)	2655	37.1	5.093	9.3
Down-link	5G NR 70MHz (256QAM)	2531	36.4	4.335	9.2
Down-link	5G NR 70MHz (256QAM)	2593	37.0	5.023	8.8
Down-link	5G NR 70MHz (256QAM)	2655	37.1	5.105	9.5
Down-link	5G NR 80MHz (QPSK)	2536	36.7	4.645	9.3
Down-link	5G NR 80MHz (QPSK)	2593	37.0	5.035	8.8
Down-link	5G NR 80MHz (QPSK)	2650	37.1	5.093	9.4
Down-link	5G NR 80MHz (16QAM)	2536	36.7	4.699	9.3
Down-link	5G NR 80MHz (16QAM)	2593	37.0	5.058	8.8
Down-link	5G NR 80MHz (16QAM)	2650	37.1	5.117	9.4
Down-link	5G NR 80MHz (64QAM)	2536	36.7	4.645	9.3
Down-link	5G NR 80MHz (64QAM)	2593	37.0	5.047	8.8
Down-link	5G NR 80MHz (64QAM)	2650	37.1	5.105	9.4
Down-link	5G NR 80MHz (256QAM)	2536	36.7	4.634	9.3
Down-link	5G NR 80MHz (256QAM)	2593	37.0	5.035	8.8
Down-link	5G NR 80MHz (256QAM)	2650	37.1	5.105	9.4

Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	5G NR 90MHz (QPSK)	2541	36.6	4.560	9.6
Down-link	5G NR 90MHz (QPSK)	2593	36.9	4.875	8.9
Down-link	5G NR 90MHz (QPSK)	2645	37.2	5.188	9.3
Down-link	5G NR 90MHz (16QAM)	2541	36.6	4.581	9.4
Down-link	5G NR 90MHz (16QAM)	2593	37.0	5.012	8.9
Down-link	5G NR 90MHz (16QAM)	2645	36.9	4.943	9.3
Down-link	5G NR 90MHz (64QAM)	2541	36.6	4.560	9.6
Down-link	5G NR 90MHz (64QAM)	2593	36.9	4.898	9.1
Down-link	5G NR 90MHz (64QAM)	2645	37.2	5.188	9.3
Down-link	5G NR 90MHz (256QAM)	2541	36.6	4.571	9.6
Down-link	5G NR 90MHz (256QAM)	2593	37.0	4.966	8.9
Down-link	5G NR 90MHz (256QAM)	2645	37.2	5.200	9.3
Down-link	5G NR 100MHz (QPSK)	2546	36.6	4.581	9.9
Down-link	5G NR 100MHz (QPSK)	2593	37.1	5.070	9.2
Down-link	5G NR 100MHz (QPSK)	2640	37.2	5.212	9.9
Down-link	5G NR 100MHz (16QAM)	2546	36.6	4.581	9.4
Down-link	5G NR 100MHz (16QAM)	2593	37.1	5.082	9.1
Down-link	5G NR 100MHz (16QAM)	2640	37.2	5.212	9.9
Down-link	5G NR 100MHz (64QAM)	2546	36.6	4.581	9.4
Down-link	5G NR 100MHz (64QAM)	2593	37.1	5.082	9.2
Down-link	5G NR 100MHz (64QAM)	2640	37.2	5.200	9.9
Down-link	5G NR 100MHz (256QAM)	2546	36.6	4.581	9.4
Down-link	5G NR 100MHz (256QAM)	2593	37.1	5.070	9.2
Down-link	5G NR 100MHz (256QAM)	2640	37.2	5.200	9.9

PAR measure is performed by the “CCDF” function installed on Spectrum analyzer that provides average power (the same measured with “Channel power” function), peak power and PAR.

