

Conducted Power Measurement Results (FCC)

Channel	LTE	Nominal Channel	SG	Measured SG	Measured DUT	DUT						DUT
Frequency	Band	BW [BW _{ch}]	Mode	Power [P _{SG}]	Power [P _{DUT}]	Antenna Gain [G _A]	e.r.p.	e.r.p.	Limit	Limit	Margin	Gain
(MHz)		(MHz)		(dBm)	(dBm)	[dBd]	(dBm)	(W)	(W)	(dBm)	(dB)	[G _{DUT}] (dB)
700.5	12 UL	5	Pre-AGC	-72.97	22.59	14.00	36.59	4.56	1000.0	60.0	23.4	95.6
			Post-AGC	-69.58	22.64		36.64	4.61			23.4	92.2
703		10	Pre-AGC	-72.80	23.15		37.15	5.19			22.9	96.0
			Post-AGC	-69.40	23.28		37.28	5.35			22.7	92.7
											Complies	

$$e.r.p. (dBm) = P_{DUT} + G_A$$

$$Margin = Limit - e.r.p. \text{ in dB}$$

$$G_{DUT} = P_{DUT} - P_{SG}$$

Conducted Power Measurement Results (ISED)

Channel	LTE	Nominal Channel	SG	Measured SG	Measured DUT	DUT						DUT
Frequency	Band	BW [BW _{ch}]	Mode	Power [P _{SG}]	Power [P _{OUT}]	Antenna Gain [G _A]	e.r.p.	e.r.p.	Limit	Limit	Margin	Gain
(MHz)		(MHz)		(dBm)	(dBm)	[dBd]	(dBm/MHz)	(W/MHz)	(W/MHz)	(dBm/MHz)	(dB)	[G _{OUT}] (dB)
700.5	12 UL	5	Pre-AGC	-72.97	22.59	14.00	29.89	0.97	1640.0	62.1	32.2	95.6
			Post-AGC	-69.58	22.64		29.94	0.99			32.2	92.2
703		10	Pre-AGC	-72.80	23.15		30.45	1.11			31.7	96.0
			Post-AGC	-69.40	23.28		30.58	1.14			31.5	92.7
			Complies									

$$e.r.p. (dBm/MHz) = P_{DUT} + G_A - BW_{Corr}$$

$$BW_{Corr} = 10 \log(BW_{ch}/BW_{Req}) \text{ where Required Bandwidth } (BW_{Req}) = 1 \text{ MHz, } = 6.7 \text{ for 5MHz Channel BW, } = 10 \text{ for 10MHz Channel BW}$$

$$BW_{Corr} = 6.7 \text{ for 5MHz Channel BW, } = 10 \text{ for 10MHz Channel BW}$$

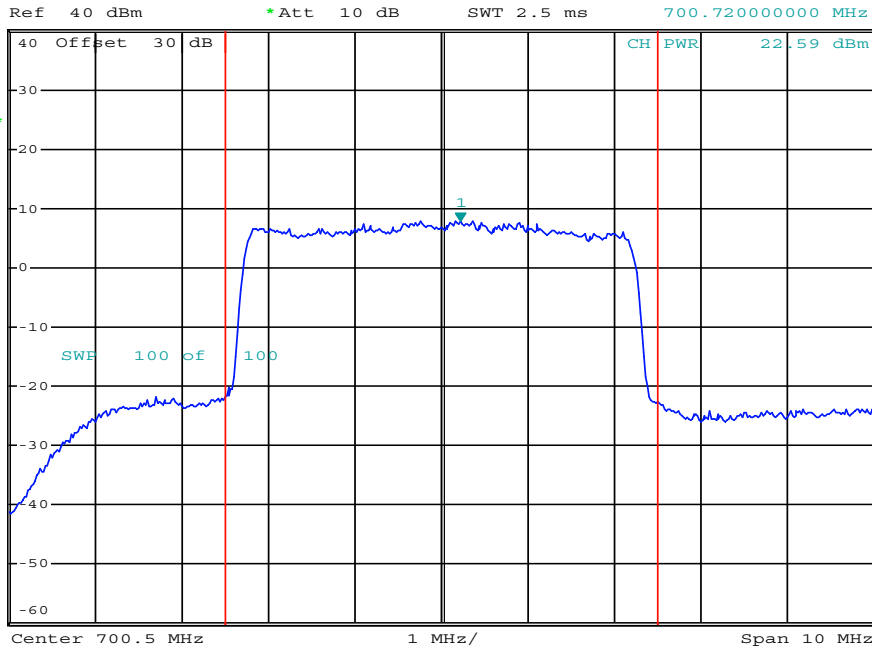
$$Margin = Limit - e.r.p. \text{ in dB}$$

$$G_{DUT} = P_{DUT} - P_{SG}$$

Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz 7.92 dBm
SWT 2.5 ms 700.72000000 MHz



Date: 24.MAR.2021 10:56:04

Channel Frequency:

700.50 MHz

SG Mode:

Pre-AGC

LTE Band:

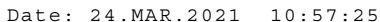
12 UL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

22.59 dBm



700.50 MHz

Post-AGC

12 UL

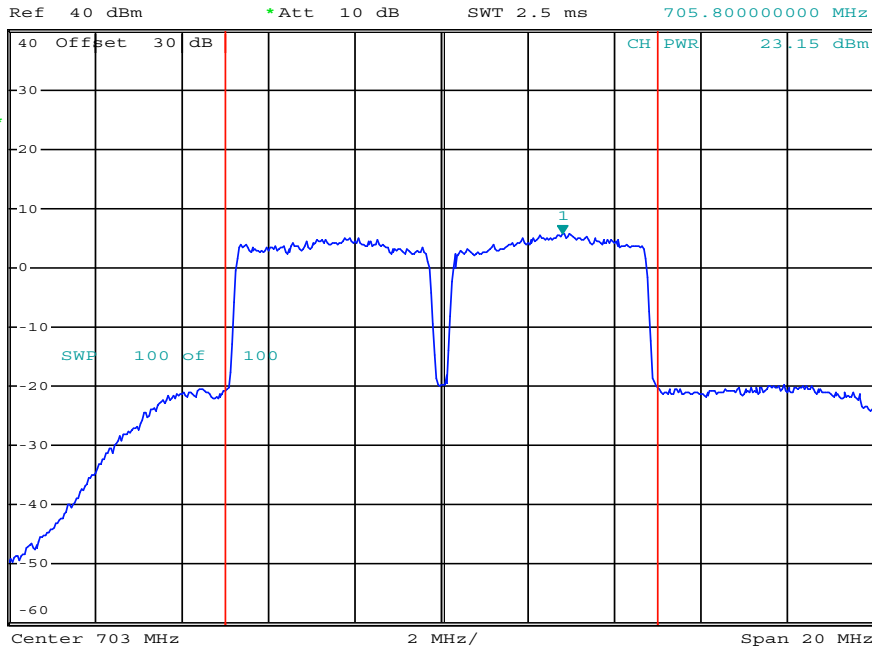
5.0 MHz

22.64 dBm

Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz 5.79 dBm
SWT 2.5 ms 705.800000000 MHz



Date: 24.MAR.2021 11:03:18

Channel Frequency:

703.00 MHz

SG Mode:

Pre-AGC

LTE Band:

12 UL

Channel Bandwidth:

10.0 MHz

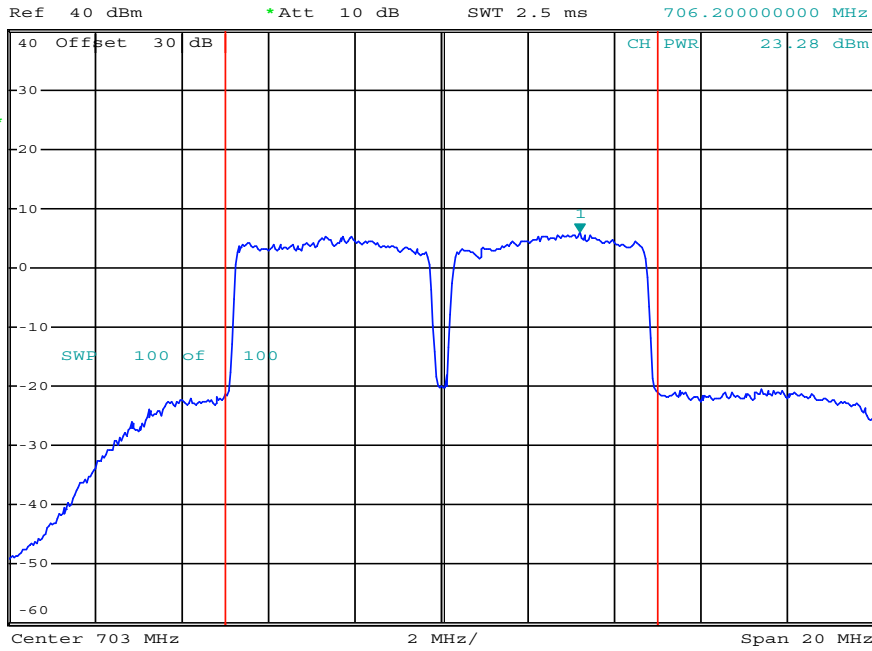
Measured Channel Power:

23.15 dBm

Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
 VBW 1 MHz 6.03 dBm
 SWT 2.5 ms 706.200000000 MHz



Date: 24.MAR.2021 11:02:01

Channel Frequency:

703.00 MHz

SG Mode:

Post-AGC

LTE Band:

12 UL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

23.28 dBm

Conducted Output Power (SG)

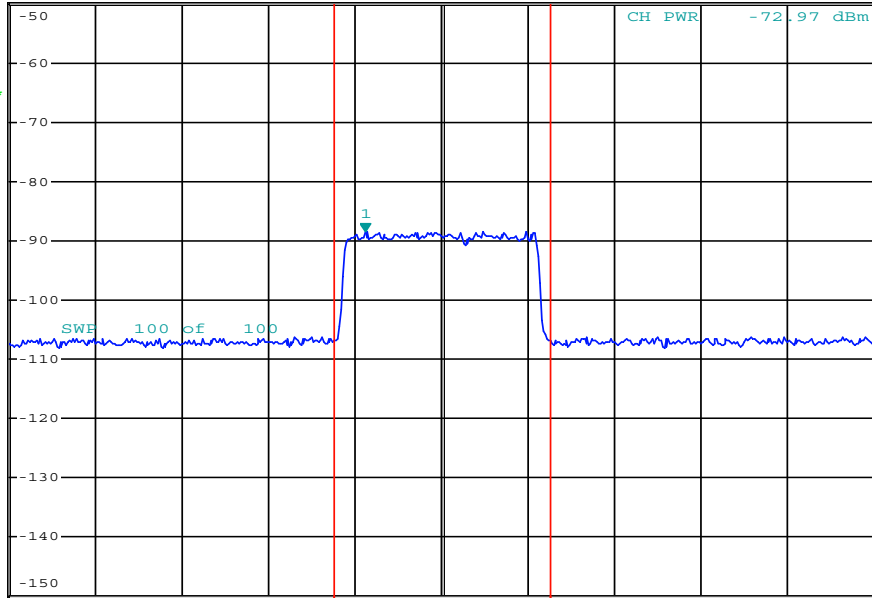


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -88.36 dBm
SWT 2.5 ms 698.74000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Center 700.5 MHz

2 MHz/

Span 20 MHz

Date: 24.MAR.2021 11:21:45

Channel Frequency:

700.50 MHz

SG Mode:

Pre-AGC

LTE Band:

12 UL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

-72.97 dBm

Conducted Output Power (SG)

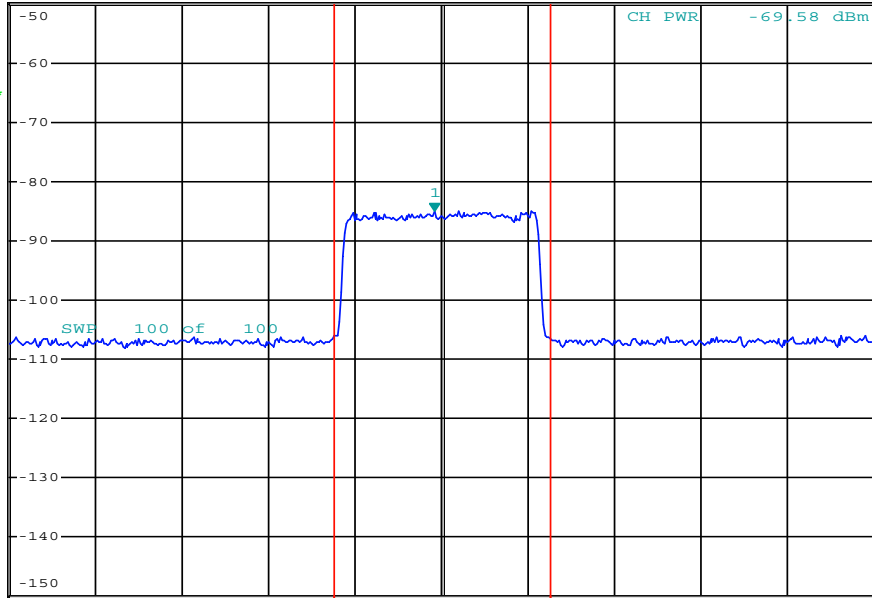


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -85.10 dBm
SWT 2.5 ms 700.34000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Center 700.5 MHz

2 MHz/

Span 20 MHz

Date: 24.MAR.2021 11:21:14

Channel Frequency:

700.50 MHz

SG Mode:

Post-AGC

LTE Band:

12 UL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

-69.58 dBm

Conducted Output Power (SG)

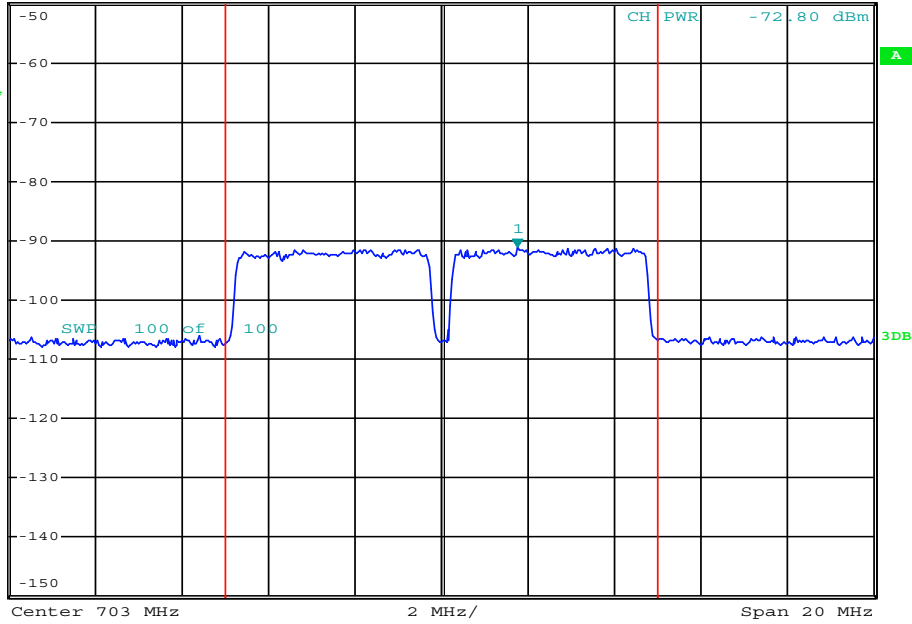


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -91.17 dBm
SWT 2.5 ms 704.76000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 24.MAR.2021 11:18:15

Channel Frequency:

703.00 MHz

SG Mode:

Pre-AGC

LTE Band:

12 UL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

-72.80 dBm

Conducted Output Power (SG)

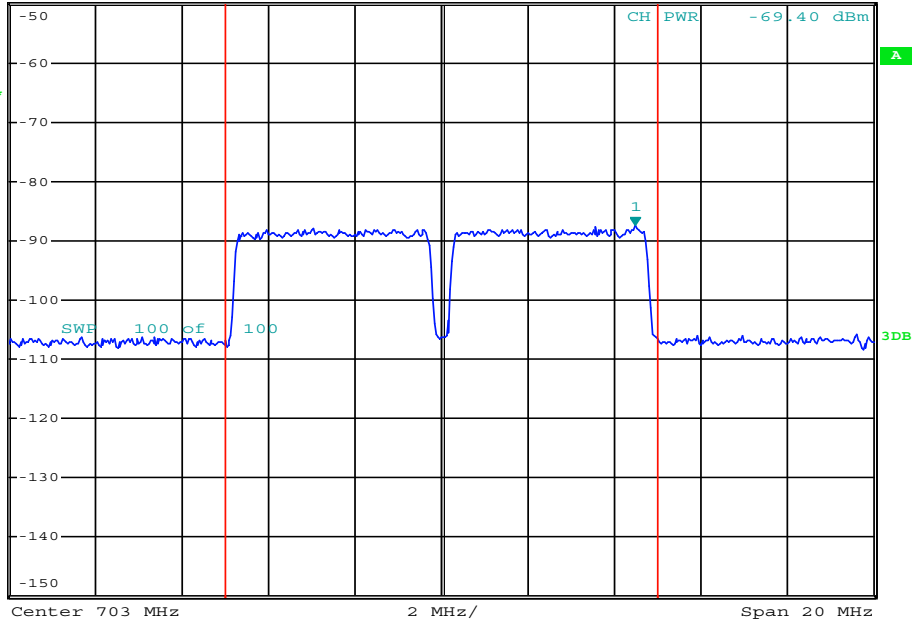


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -87.42 dBm
SWT 2.5 ms 707.48000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 24.MAR.2021 11:19:22

Channel Frequency:

703.00 MHz

SG Mode:

Post-AGC

LTE Band:

12 UL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

-69.40 dBm

Conducted Power Measurement Results (FCC)

Channel	LTE	Nominal Channel	SG	Measured SG	Measured DUT	DUT						DUT
Frequency	Band	BW	Mode	Power	Power	Antenna	e.r.p.	e.r.p.	Limit	Limit	Margin	Gain
(MHz)		[BW _{ch}] (MHz)		[P _{SG}] (dBm)	[P _{DUT}] (dBm)	Gain [G _A] [dBd]	(dBm)	(W)	(W)	(dBm)	(dB)	[G _{DUT}] (dB)
782	13 UL	5	Pre-AGC	-66.73	24.51	14.00	38.51	7.10	1000.0	60.0	21.5	91.2
			Post-AGC	-63.22	25.26		39.26	8.43			20.7	88.5
		10	Pre-AGC	-66.56	24.83		38.83	7.64			21.2	91.4
			Post-AGC	-63.30	25.93		39.93	9.84			20.1	89.2
											Complies	

$$e.r.p. (dBm) = P_{DUT} + G_A$$

$$Margin = Limit - e.r.p. \text{ in dB}$$

$$G_{DUT} = P_{DUT} - P_{SG}$$

Conducted Power Measurement Results (ISED)

Channel	LTE	Nominal Channel	SG	Measured SG	Measured DUT	DUT						DUT
Frequency	Band	BW [BW _{Ch}]	Mode	Power [P _{SG}]	Power [P _{DUT}]	Antenna Gain [G _A]	e.r.p.	e.r.p.	Limit	Limit	Margin	Gain
(MHz)		(MHz)		(dBm)	(dBm)	[dBd]	(dBm/MHz)	(W/MHz)	(W/MHz)	(dBm/MHz)	(dB)	[G _{DUT}] (dB)
782	13 UL	5	Pre-AGC	-66.73	24.51	14.00	31.81	1.52	1640.0	62.1	30.3	91.2
		5	Post-AGC	-63.22	25.26		32.56	1.80			29.5	88.5
		10	Pre-AGC	-66.56	24.83		32.13	1.63			30.0	91.4
		10	Post-AGC	-63.30	25.93		33.23	2.10			28.9	89.2
											Complies	

$$e.r.p. (dBm/MHz) = P_{DUT} + G_A - BW_{Corr}$$

$$BW_{Corr} = 10\log(BW_{ch}/BW_{Req}) \text{ where Required Bandwidth } (BW_{Req}) = 1\text{MHz}, = 6.7 \text{ for } 5\text{MHz Channel BW}, = 10 \text{ for } 10\text{MHz Channel BW}$$

$$BW_{Corr} = 6.7 \text{ for } 5\text{MHz Channel BW}, = 10 \text{ for } 10\text{MHz Channel BW}$$

$$Margin = Limit - e.r.p. \text{ in dB}$$

$$G_{DUT} = P_{DUT} - P_{SG}$$

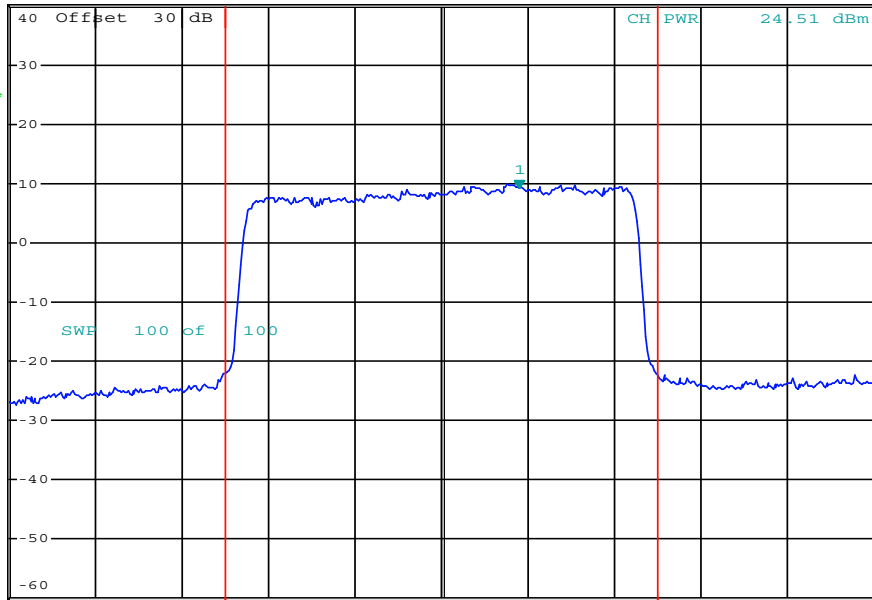
Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz 9.25 dBm
SWT 2.5 ms 782.900000000 MHz

Ref 40 dBm *Att 10 dB

1 RM
VIEW



Center 782 MHz 1 MHz/ Span 10 MHz

Date: 26.MAR.2021 08:30:12

Channel Frequency:

782.00 MHz

SG Mode:

Pre-AGC

LTE Band:

13 UL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

24.51 dBm

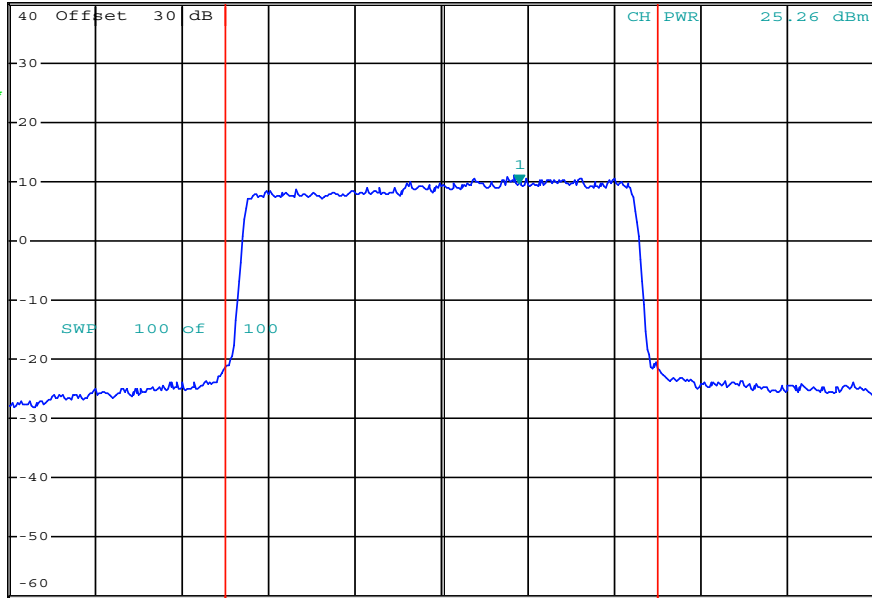
Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz 9.57 dBm
SWT 2.5 ms 782.900000000 MHz

Ref 40 dBm *Att 10 dB

1 RM
VIEW



Center 782 MHz 1 MHz/ Span 10 MHz

Date: 26.MAR.2021 08:31:03

Channel Frequency:

782.00 MHz

SG Mode:

Post-AGC

LTE Band:

13 UL

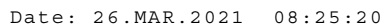
Channel Bandwidth:

5.0 MHz

Measured Channel Power:

25.26 dBm

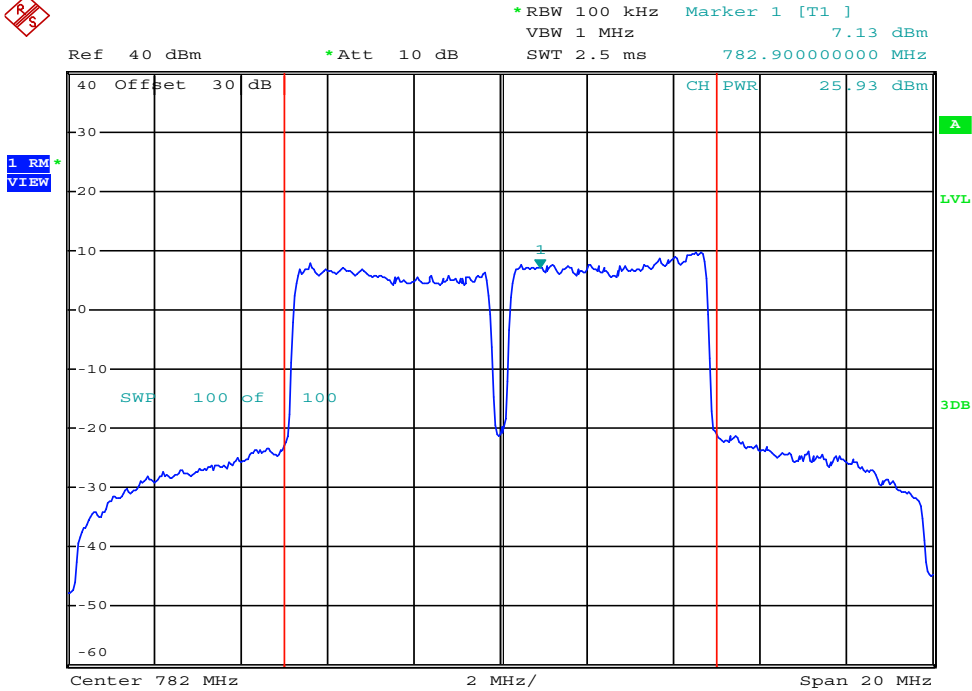
1 RM
VIEW



Pre-AGC

24.83 dBm

Conducted Output Power (DUT)



Date: 26.MAR.2021 08:27:30

Channel Frequency:

782.00 MHz

SG Mode:

Post-AGC

LTE Band:

13 UL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

25.93 dBm

Conducted Output Power (SG)

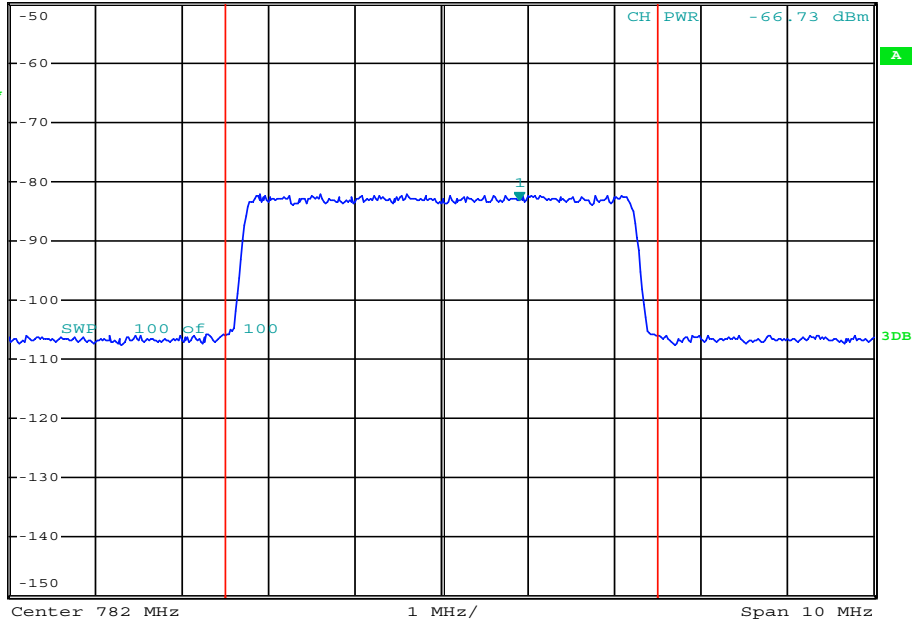


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -83.24 dBm
SWT 2.5 ms 782.900000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 26.MAR.2021 08:34:45

Channel Frequency:

782.00 MHz

SG Mode:

Pre-AGC

LTE Band:

13 UL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

-66.73 dBm

Conducted Output Power (SG)

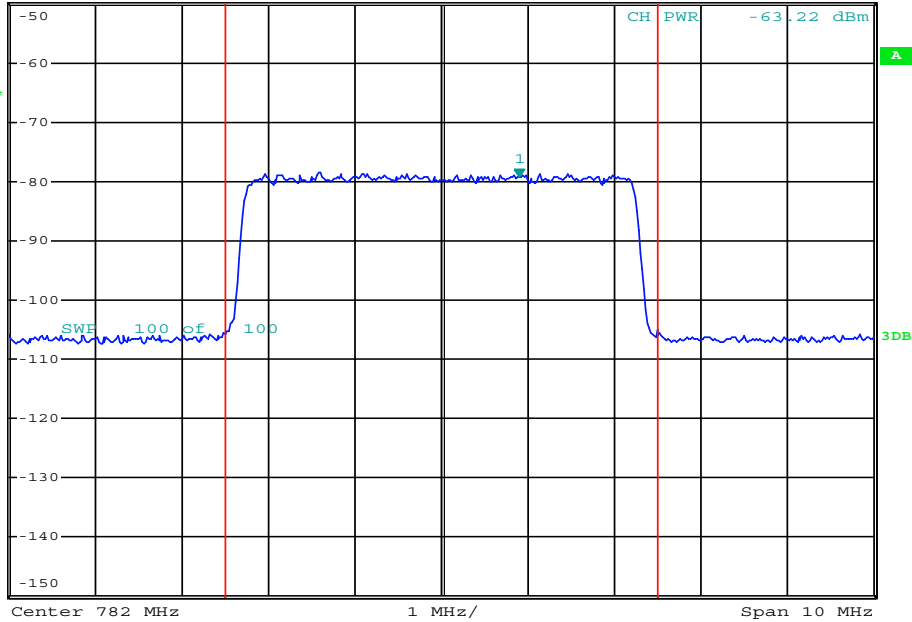


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -79.39 dBm
SWT 2.5 ms 782.900000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 26.MAR.2021 08:35:45

Channel Frequency:

782.00 MHz

SG Mode:

Post-AGC

LTE Band:

13 UL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

-63.22 dBm

Conducted Output Power (SG)

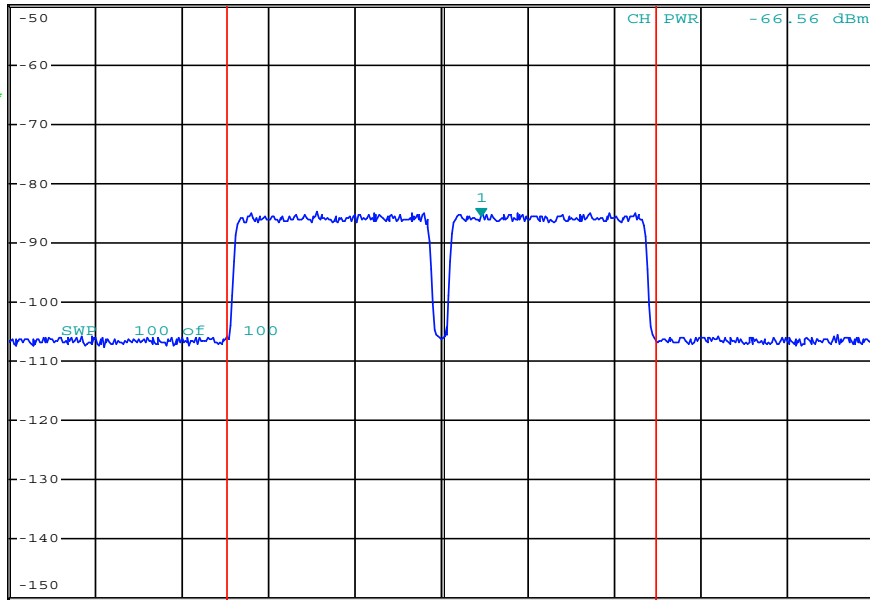


*RBW 100 kHz Marker 1 [T1]
 VBW 1 MHz -85.68 dBm
 SWT 5 ms 782.900000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
 VIEW



Center 782 MHz

2.01 MHz/

Span 20.1 MHz

Date: 26.MAR.2021 08:40:02

Channel Frequency:

782.00 MHz

SG Mode:

Pre-AGC

LTE Band:

13 UL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

-66.56 dBm

Conducted Output Power (SG)

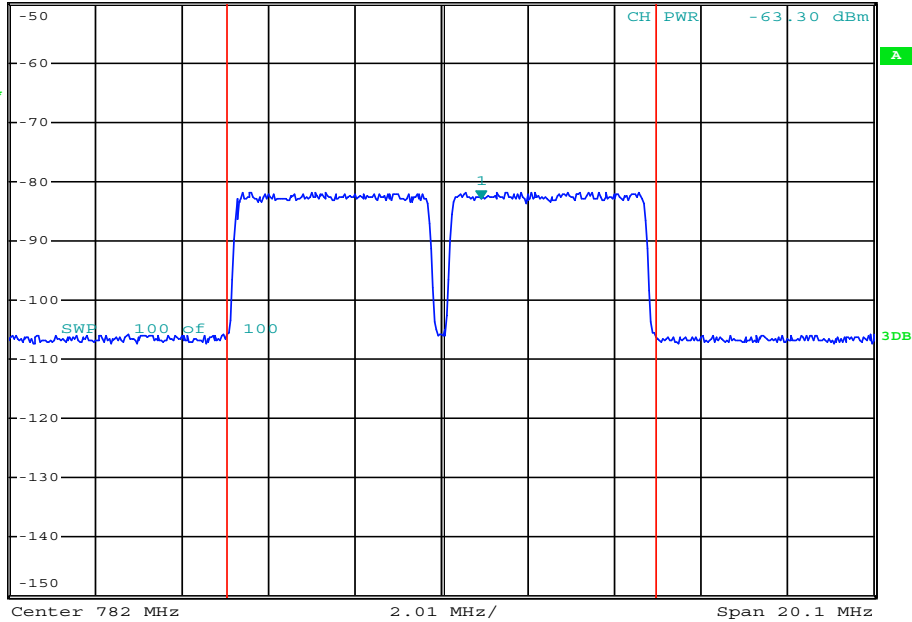


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -83.01 dBm
SWT 5 ms 782.900000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 26.MAR.2021 08:39:21

Channel Frequency:

782.00 MHz

SG Mode:

Post-AGC

LTE Band:

13 UL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

-63.30 dBm

Conducted Power Results (FCC)

Channel	LTE	Nominal Channel	SG	Measured SG	Measured DUT	DUT						DUT
Frequency	Band	BW [BW _{ch}]	Mode	Power [P _{SG}]	Power [P _{DUT}]	Antenna Gain [G _A]	e.r.p.	e.r.p.	Limit	Limit	Margin	Gain
(MHz)		(MHz)		(dBm)	(dBm)	[dBd]	(dBm)	(W)	(W)	(dBm)	(dB)	[G _{DUT}] (dB)
737	12 & 13 DL	5	Pre-AGC	-67.35	24.81	14.00	38.81	7.60	1000.0	60.0	21.2	92.2
			Post-AGC	-63.72	25.09		39.09	8.11			20.9	88.8
734.52		10	Pre-AGC	-67.56	25.06		39.06	8.05			20.9	92.6
							39.55	9.02			20.5	89.5
			Post-AGC	-63.90	25.55							
											Complies	

$$e.r.p. (dBm) = P_{DUT} + G_A$$

$$Margin = Limit - e.r.p. \text{ in dB}$$

$$G_{DUT} = P_{DUT} - P_{SG}$$

Conducted Power (ISED)

Channel	LTE	Nominal Channel	SG	Measured SG	Measured DUT	DUT						DUT
Frequency	Band	BW [BW _{Ch}]	Mode	Power [P _{SG}]	Power [P _{DUT}]	Antenna Gain [G _A]	e.r.p.	e.r.p.	Limit	Limit	Margin	Gain
(MHz)		(MHz)		(dBm)	(dBm)	[dBd]	(dBm/MHz)	(W/MHz)	(W/MHz)	(dBm/MHz)	(dB)	[G _{DUT}]
782	13	5	Pre-AGC	-67.35	24.81	14.00	32.11	1.63	1640.0	62.1	30.0	92.2
			Post-AGC	-63.72	25.09		32.39	1.73			29.7	88.8
		10	Pre-AGC	-67.56	25.06		32.36	1.72			29.7	92.6
			Post-AGC	-63.90	25.55		32.85	1.93			29.3	89.5
											Complies	

$$e.r.p. (dBm/MHz) = P_{DUT} + G_A - BW_{Corr}$$

$$BW_{Corr} = 10\log(BW_{ch}/BW_{Req}) \text{ where Required Bandwidth } (BW_{Req}) = 1\text{MHz}, = 6.7 \text{ for } 5\text{MHz Channel BW}, = 10 \text{ for } 10\text{MHz Channel BW}$$

$$BW_{Corr} = 6.7 \text{ for } 5\text{MHz Channel BW}, = 10 \text{ for } 10\text{MHz Channel BW}$$

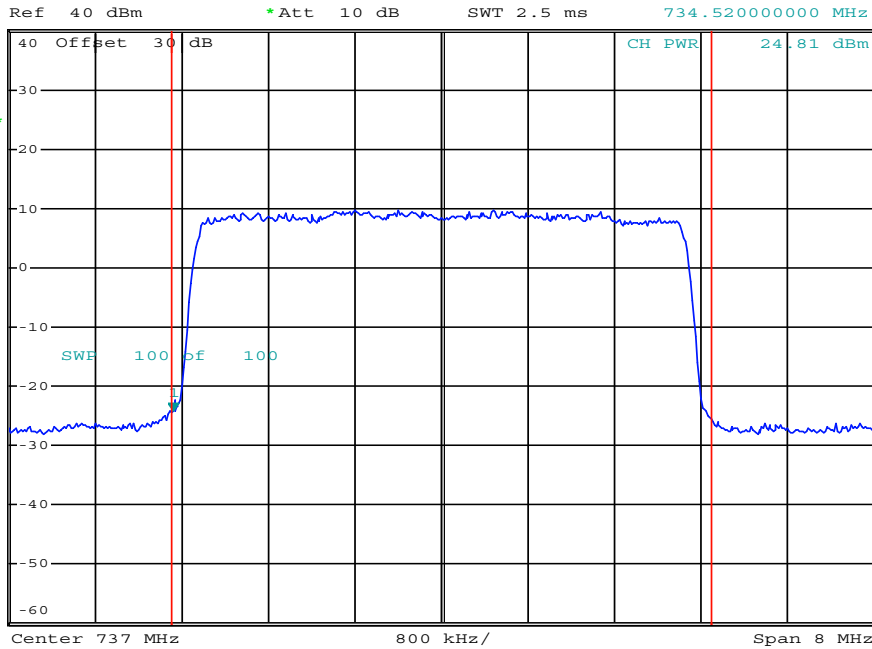
$$Margin = Limit - e.r.p. \text{ in dB}$$

$$G_{DUT} = P_{DUT} - P_{SG}$$

Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -24.28 dBm
SWT 2.5 ms 734.52000000 MHz



Date: 16.MAR.2021 13:29:39

Channel Frequency:

737.00 MHz

SG Mode:

Pre-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

5.0 MHz

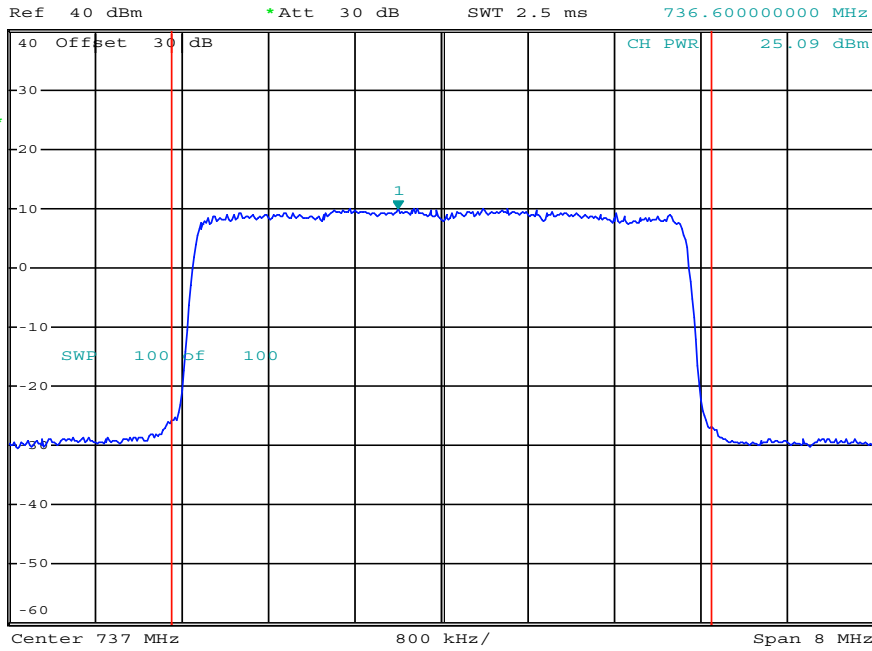
Measured Channel Power:

24.81 dBm

Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
 VBW 1 MHz 10.00 dBm
 SWT 2.5 ms 736.600000000 MHz



Date: 16.MAR.2021 13:50:01

Channel Frequency:

737.00 MHz

SG Mode:

Post-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

5.0 MHz

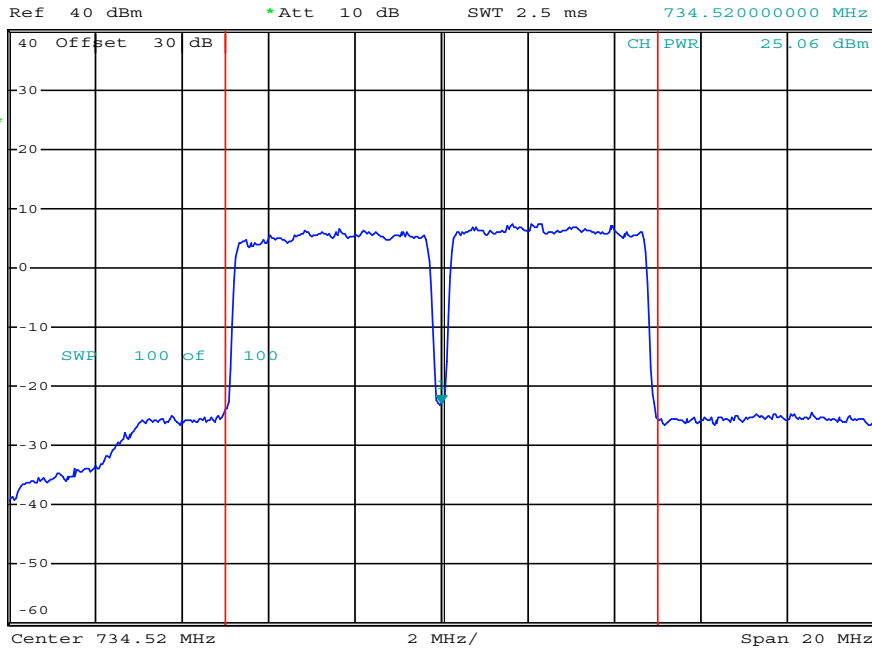
Measured Channel Power:

25.09 dBm

Conducted Output Power (DUT)



*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -22.73 dBm
SWT 2.5 ms 734.52000000 MHz



Date: 16.MAR.2021 13:25:51

Channel Frequency:

734.52 MHz

SG Mode:

Pre-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

10.0 MHz

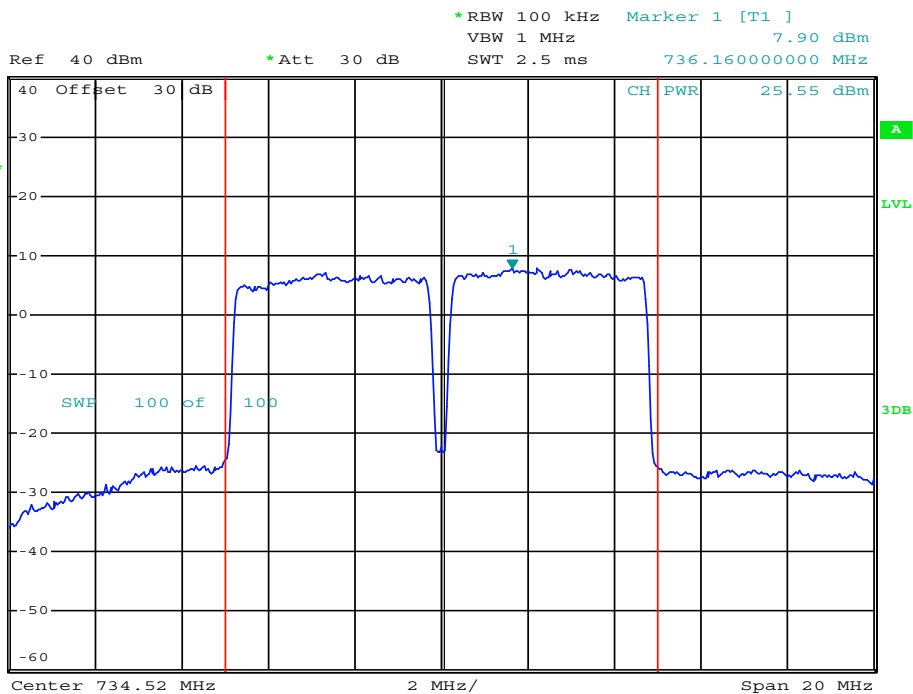
Measured Channel Power:

25.06 dBm

Conducted Output Power (DUT)



1 RM
VIEW



Date: 16.MAR.2021 14:09:33

Channel Frequency:

734.52 MHz

SG Mode:

Post-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

25.55 dBm

Ref -50 dBm

* Att 0 dB

SWT 2.5 ms

738.744000000 MHz



Date: 16.MAR.2021 13:33:11

Channel Frequency:

737.00 MHz

SG Mode:

Pre-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

-67.35 dBm

Conducted Output Power (SG)

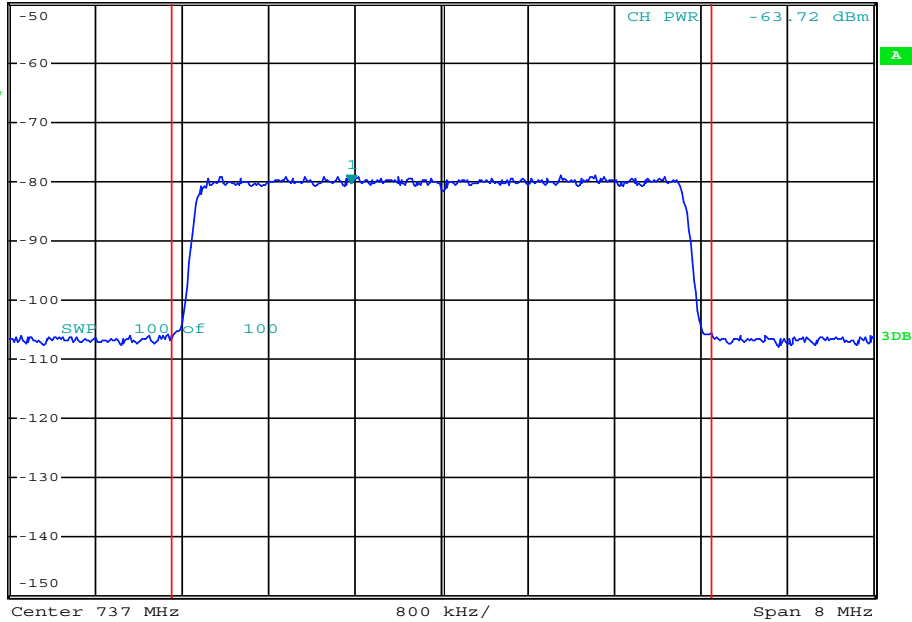


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -80.19 dBm
SWT 2.5 ms 736.16000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 16.MAR.2021 14:15:37

Channel Frequency:

737.00 MHz

SG Mode:

Post-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

5.0 MHz

Measured Channel Power:

-63.72 dBm

Conducted Output Power (SG)

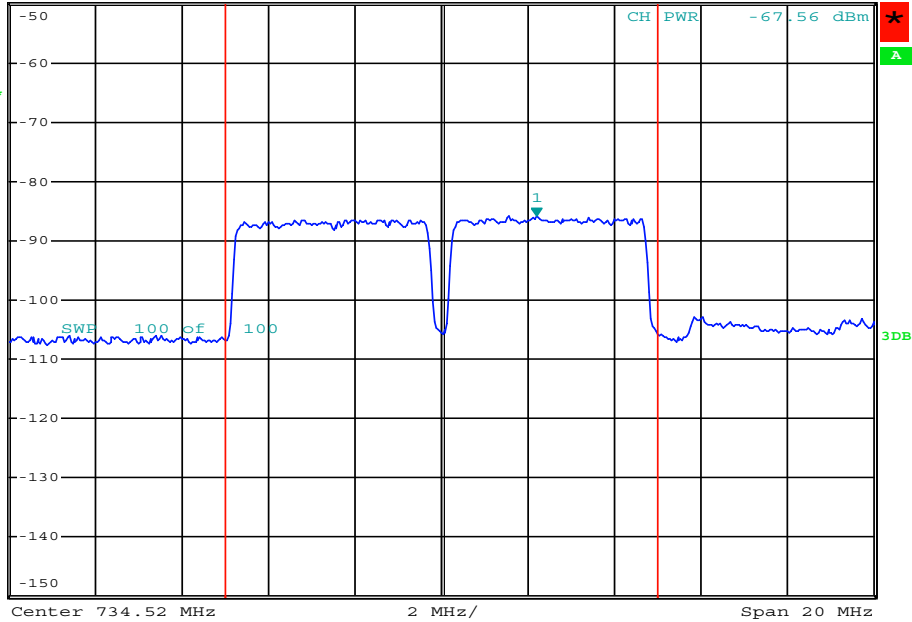


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -85.80 dBm
SWT 2.5 ms 736.72000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 16.MAR.2021 13:35:25

Channel Frequency:

734.52 MHz

SG Mode:

Pre-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

-67.56 dBm

Conducted Output Power (SG)

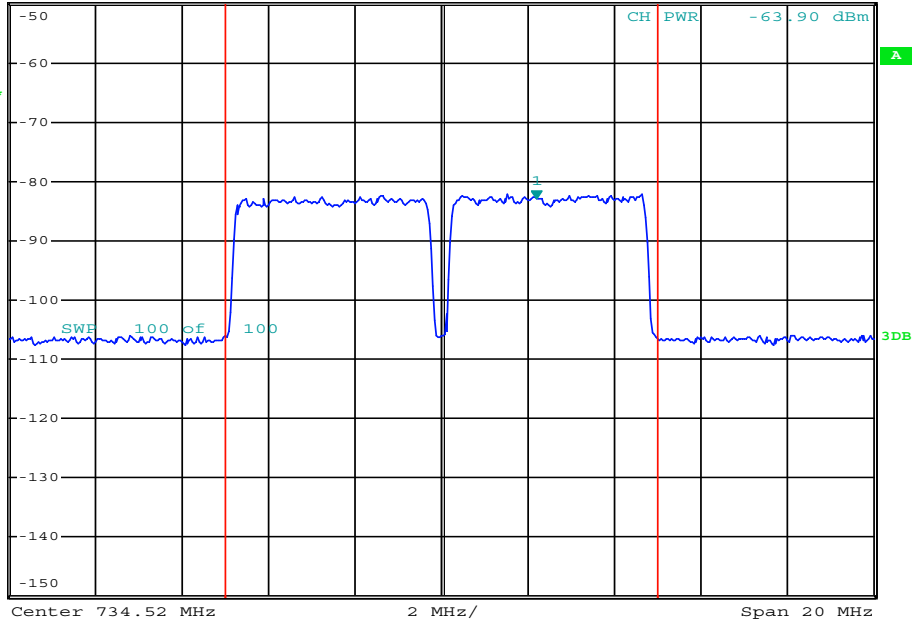


*RBW 100 kHz Marker 1 [T1]
VBW 1 MHz -82.90 dBm
SWT 2.5 ms 736.72000000 MHz

Ref -50 dBm

*Att 0 dB

1 RM
VIEW



Date: 16.MAR.2021 13:40:44

Channel Frequency:

734.52 MHz

SG Mode:

Post-AGC

LTE Band:

12 & 13 DL

Channel Bandwidth:

10.0 MHz

Measured Channel Power:

-63.90 dBm