





Highest Channel -26dBc Bandwidth kHz

Ref Le	vel 4	0.00 dB	m Offset 10	.50 dB	RBW 300 k	Hz						
Att		45 0	ib 👄 SWT	1 s	● VBW 1 M	Hz	Mode /	uto S	weep	Input 1	AC	
PS												
⊖1Pk Vi	ew.											
							D3[1]				0.14 dB
30 dBm-					M1						1	9.3920 MHz
				mm	marinkowa	her	M1	1			1 7	25.35 dBm
20 dBm·	-+		<u> </u>							}	1.7	078000 GH2
										1		
10 dBm·			+ +									
										03		
U авт —			Á							4		
-10 dBm												
-10 080	'											
-20 dBm			nound							<u> </u>		
dogreen.	~~									· ····	mary	monumen.
-30 dBm												
-40 dBm												
-50 dBm												
CF 1.7	7 GHz				691	pts					Spa	n 40.0 MHz
Marker												
Туре	Ref	Trc	X-value		Y-value		Functi	on		Fund	tion Resu	lt
M1		1	1.7678	3 GHz	25.35 dB	m						
D2	M1	1	-7.467	MHz	-26,44	зB						
D3	D2	1	19.392	MHz	0.14 (iB						



LTE 16QAM MODULATION. BW = 20 MHz

Lowest Channel 99% Occupied Bandwidth



Lowest Channel -26dBc Bandwidth kHz

Ref Leve	1 40.00 d	Bm Offset 10.50	dB 👄 RBW 300 kHz			
Att	45	dB 👄 SWT 1	s 👄 🗸 BW 🛛 1 MHz	Mode Auto 9	Sweep Input 1	AC
PS ADI: Uisu						
) IPK VIEW				00[1]		07.66.4
				D2[1]		-27.66 al
30 dBm—				Matu		24,48 dBn
		markon	mon manager	munoulus	harden	1.7241100 GH
20 dBm—						
10 d8m-						
TO UDIII						
0 dBm						
		¥			Ā	
-10 dBm—						
-20 dBm—	who	Amoto www.				Marked and an allowed from the
mont the second						
-30 dBm—						
40 d0m						
-40 abm—						
-50 dBm—						
00 00111						
CE 1 70 (601 pt	-		Enon 40 0 MUz
GF 1.72 C	1112		09100	.3		opan 40.0 Minz
	ef Tre	X-value	Y-value	Eunction	Euro	tion Result
M1	1	1.72411 GH:	z 24,48 dBm	- anction	Func	Alon Result
D2	M1 1	-13.835 MH	z -27.66 dB			
D3	D2 1	19.45 MH	z 0.37 dB			











Highest Channel -26dBc Bandwidth kHz





TEST A.5: SPURI	OUS EMISSIONS /	AT ANTENNA TERMINALS						
LIMITE.	Product standard:	FCC Part 27 / IC RSS-199						
	Test standard:	FCC §2.1051 and § 27.53 / RSS-199 Clause 4.5						
<u>LIMITS</u>								
According to specification factor of at least 43 + 7	tion, the power of emi 10 log (P) dB. P in watt	ssions shall be attenuated below the transmitter power (P) by a s.						
At Po transmitting pow the level in dBm relative	ver of 2 watts (33 dBm) ve to Po becomes:	, the specified minimum attenuation becomes 43+10log (Po). and						
Po (dBm) – [43 + 10 lo	og (Po in watts)] = -13 c	IBm						
TEST S	SETUP							
The EUT RF output co Tester R&S CMW500 using a 50-ohm attenu	onnector was connecte) (selecting maximum lator and a power splitte	ed to a spectrum analyzer and to the Universal Radio Communication transmission power of the EUT and different modes of modulation) er.						
The reading of the spe of EUT and input of the	ectrum analyzer is corr e spectrum analyzer.	ected with the attenuation loss of connection between output terminal						
For LTE mode the co power was used.	nfiguration of Resourc	e Blocks and modulation which is the worst case for conducted						
	EUT Attenua Power supply	tor Power devider Signalling Unit						



TESTED SAMPLES	S:	S	S/01			
TESTED CONDITIONS N	IODES:	TC#01 (Band 4)				
TEST RESULTS:		P	ASS			
Frequency range 9 kHz – 26 GH LTE QPSK MODULATION. BW	<u>lz</u> = 1.4 MHz					
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)				
2110.4	-31.2	< ± 1.20				
Middle Channel No spurious signal was found at Highest Channel	less than 10 d	B respect to the limit in the freque	ency range.			
	Level (dbill)	(dB)				
2154.28	-30.41	< ± 1.20]			
Lowest Channel Spurious frequency (MHz) 2112.03	Level (dBm) -30.75	Measurement uncertainty (dB) < ± 1.20				
Middle Channel No spurious signal was found at Highest Channel No spurious signal was found at LTE QPSK MODULATION. BW Lowest Channel	less than 10 d less than 10 d = 5 MHz	B respect to the limit in the freque B respect to the limit in the freque	ency range. ency range.			
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)				
2111.21	-30.82	< ± 1.20				
Middle Channel						
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)				
2131.53	-30.5	< ± 1.20				
Highest Channel						
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)				
2151.03	-30.98	< ± 1.20				



	it).	
LTE QPSK MODULATION. BW	= 10 MHz	
Lowest Channel		
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2113.65	-30.92	< ± 1.20
Middle Channel		
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2129.09	-30.75	< ± 1.20
Highest Channel		
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2146.96	-30.9	< ± 1.20
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty
		(dB)
2112.59	-31.43	(dB) < ± 1.20
2112.59 Middle Channel	-31.43	(dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz)	-31.43 Level (dBm)	(dB) < ± 1.20 Measurement uncertainty (dB)
2112.59 Middle Channel Spurious frequency (MHz) 2128.289	-31.43 Level (dBm) -30.48	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel	-31.43 Level (dBm) -30.48	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz)	-31.43 Level (dBm) -30.48 Level (dBm)	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB)
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03	-31.43 Level (dBm) -30.48 Level (dBm) -30.28	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 <u>Middle Channel</u> Spurious frequency (MHz) <u>2128.289</u> <u>Highest Channel</u> Spurious frequency (MHz) <u>2151.03</u> LTE QPSK MODULATION. BW	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW Lowest Channel	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz)	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm)	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB)
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2128.28	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm) -30.41	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 <u>Middle Channel</u> Spurious frequency (MHz) 2128.289 <u>Highest Channel</u> Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW <u>Lowest Channel</u> Spurious frequency (MHz) 2128.28 Middle Channel	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm) -30.41	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2128.28 Middle Channel Spurious frequency (MHz)	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm) -30.41 Level (dBm)	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2128.28 Middle Channel Spurious frequency (MHz) 2129.09	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm) -30.41 Level (dBm) -30.71	(dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$
2112.59 <u>Middle Channel</u> Spurious frequency (MHz) 2128.289 <u>Highest Channel</u> Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW <u>Lowest Channel</u> Spurious frequency (MHz) 2128.28 <u>Middle Channel</u> Spurious frequency (MHz) 2129.09 Highest Channel	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm) -30.41 Level (dBm) -30.71	$(dB) < \pm 1.20$ Measurement uncertainty (dB) < ± 1.20
2112.59 Middle Channel Spurious frequency (MHz) 2128.289 Highest Channel Spurious frequency (MHz) 2151.03 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2128.28 Middle Channel Spurious frequency (MHz) 2128.28 Middle Channel Spurious frequency (MHz) 2129.09 Highest Channel Spurious frequency (MHz)	-31.43 Level (dBm) -30.48 Level (dBm) -30.28 = 20 MHz Level (dBm) -30.41 Level (dBm) -30.71 Level (dBm)	(dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$



LTE QPSK MODULATION. BW = 1.4MHz

Lowest Channel











Middle Channel







LTE QPSK MODULATION. BW = 5 MHz

Lowest Channel

Ref Level	39.50 dBm	Offset	11.00 dB 👄	RBW 1 MH	2				
Att	45 dB	e swt	5 S 👄	VBW 3 MH	Mode A	uto Sweep			
TKULAISM					м	1[1]		2.1	30.82 dB
30 dBm									
20 dBm									
10 dBm									
0 dBm									
-10 dBm	D1 -13.000	dBm							
-20 dBm									
-30 dBm -							m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
-40 dBm									
-50 dBm									
Start 9.0 k	Hz			3200	1 pts			Stop	26.0 GH









Middle Channel







LTE QPSK MODULATION. BW = 15 MHz

Lowest Channel











Middle Channel







TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#02 (Band 7)
TEST RESULTS:	PASS
<u>Frequency range 30 MHz – 26 GHz</u>	
LTE QPSK MODULATION. BW = 5 MHz	
Lowest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Middle Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Highest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
LTE QPSK MODULATION. BW = 10 MHz	
Lowest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Middle Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Highest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
LTE QPSK MODULATION. BW = 15 MHz	
Lowest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Middle Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Highest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
LTE QPSK MODULATION. BW = 20 MHz	
Lowest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Middle Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.
Highest Channel The spurious signals were detected more than	10 dB below the limit in the frequency range.



LTE QPSK MODULATION. BW = 5MHz

Lowest Channel















LTE QPSK MODULATION. BW = 15 MHz

Lowest Channel











Middle Channel







TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (Band 12)
TEST RESULTS:	PASS
<u>Frequency range 9 kHz – 20 GHz</u> LTE QPSK MODULATION. BW = 1.4 MHz	
Lowest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Middle Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Highest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
LTE QPSK MODULATION. BW = 3 MHz	
Lowest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Middle Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Highest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
LTE QPSK MODULATION. BW = 5 MHz	
Lowest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Middle Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Highest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
LTE QPSK MODULATION. BW = 10 MHz	
Lowest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Middle Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.
Highest Channel No spurious signal was found at less than 10 d	B respect to the limit in the frequency range.



LTE QPSK MODULATION. BW = 1.4MHz

Lowest Channel











Middle Channel



Att	45 dB	SWT	5 s 👄	VBW 3 MH	Mode A	uto Sweep		
1Rm View								
30 dBm								
20 dBm								
10 dBm								
) d8m								
-10 dBm	D1 -13.000	dBm						
·20 dBm								
-30 dBm —					~~~~		 ~~~~~	~~~~
40 dBm								
.50 dBm								
Start 9.0 k	(Hz			3200	1 pts		Stop	20.0 GH



LTE QPSK MODULATION. BW = 5 MHz

Lowest Channel











Middle Channel



D-611		04	11.00 -0 -					
Ref Level	39.50 dBm	Offset	11.00 dB 👄	RBW 1 MHZ	Mada	ute Curees		
ALL 1Dm View	45 UB		22 -		Mode /	auto Sweep		
TKIII AIBW						1		
30 dBm							 	
20 dBm								
10 dBm								
0 d8m								
-10 dBm			_					
	D1 -13.000	dBm	_					
-20 dBm								
-30/d8m		-					 m	\sim
		·		~~~~				
-40 dBm								
, o abiii								
-50 dBm								
-so abiii								
Start 9.0 k	Hz			3200	1 pts		Stop	20.0 GHz



TESTED SAMPLES:	S/01							
TESTED CONDITIONS MODES:	TC#04 (Band 13)							
TEST RESULTS: PASS								
<u>Frequency range 9 kHz – 20 GHz</u>								
LTE QPSK MODULATION. BW = 5 MHz Lowest Channel No spurious signal was found at less than 10 dB respect to the limit in the frequency range. Middle Channel No spurious signal was found at less than 10 dB respect to the limit in the frequency range. Highest Channel								
LTE QPSK MODULATION. BW = 10 MHz Middle Channel No spurious signal was found at less than 10 dB respect to the limit in the frequency range.								



LTE QPSK MODULATION. BW = 5 MHz

Lowest Channel





TESTED SAMPLES	\$:	S	/01							
TESTED CONDITIONS M	ODES:	TC#05 ((Band 66)							
TEST RESULTS:		PASS								
Frequency range 9 kHz – 26 GH	<u>Iz</u>									
LTE QPSK MODULATION. BW	= 1.4 MHz									
Lowest Channel No spurious signal was found at	Lowest Channel No spurious signal was found at less than 10 dB respect to the limit in the frequency range.									
Middle Channel No spurious signal was found at	less than 10 dl	B respect to the limit in the freque	ncy range.							
Highest Channel No spurious signal was found at	less than 10 dl	B respect to the limit in the freque	ncy range.							
LTE QPSK MODULATION. BW	= 3 MHz									
Lowest Channel No spurious signal was found at	less than 10 dl	B respect to the limit in the freque	ncy range.							
Middle Channel No spurious signal was found at	less than 10 dl	B respect to the limit in the freque	ncy range.							
Highest Channel No spurious signal was found at	less than 10 dl	B respect to the limit in the freque	ncy range.							
LTE QPSK MODULATION. BW	= 5 MHz									
Lowest Channel										
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)								
2112.03	-30.9	< ± 1.20]							
Middle Channel										
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)								
2153.46	-30.75	< ± 1.20]							
Highest Channel										
Spurious frequency (MHz)	Spurious frequency (MHz) Level (dBm) Measurement uncertainty (dB)									
2177.03	-30.59	< ± 1.20]							

TEST RESULTS (Cor	nt):	
LTE QPSK MODULATION. BW	= 10 MHz	
Lowest Channel	Γ	Γ
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2115.28	-30.77	< ± 1.20
Middle Channel		
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2156.71	-30.63	< ± 1.20
Highest Channel		
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2175.4	-31.1	< ± 1.20
Lowest Channel Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty (dB)
2120.15	-30.88	< ± 1.20
Middle Channel		
Spurious frequency (MHz)	Level (dBm)	Measurement uncertainty
		(dB)
2151.84	-30.5	(dB) < ± 1.20
2151.84 Highest Channel	-30.5	(dB) < ± 1.20
2151.84 Highest Channel Spurious frequency (MHz)	-30.5 Level (dBm)	(dB) < ± 1.20 Measurement uncertainty (dB)
2151.84 Highest Channel Spurious frequency (MHz) 2171.34	-30.5 Level (dBm) -30.97	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz)	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm)	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB)
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2125.84	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm) -30.63	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2125.84 Middle Channel	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm) -30.63	(dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20 Measurement uncertainty (dB) < ± 1.20
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2125.84 Middle Channel Spurious frequency (MHz)	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm) -30.63 Level (dBm)	(dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB)
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2125.84 Middle Channel Spurious frequency (MHz) 2157.53	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm) -30.63 Level (dBm) -30.57	(dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2125.84 Middle Channel Spurious frequency (MHz) 2157.53 Highest Channel	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm) -30.63 Level (dBm) -30.57	(dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$
2151.84 Highest Channel Spurious frequency (MHz) 2171.34 LTE QPSK MODULATION. BW Lowest Channel Spurious frequency (MHz) 2125.84 Middle Channel Spurious frequency (MHz) 2157.53 Highest Channel Spurious frequency (MHz)	-30.5 Level (dBm) -30.97 = 20 MHz Level (dBm) -30.63 Level (dBm) -30.57 Level (dBm)	(dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$ Measurement uncertainty (dB) $< \pm 1.20$

TEST RESULTS (Cont): LTE QPSK MODULATION. BW = 1.4MHz Lowest Channel Ref Level 39.50 dBm Offset 11.00 dB 👄 RBW 1 MHz Att 45 dB 😑 SWT 5 s 👄 VBW 3 MHz Mode Auto Sweep ●1Rm View 30 dBm 20 dBm 10 dBm 0 dBm -10 dBn D1 -13.000 dBm--20 dBr м -30 dBm -40 dBm--50 dBm-Stop 26.0 GHz Start 9.0 kHz 32001 pts Middle Channel Ref Level 39.50 dBm Offset 11.00 dB 👄 RBW 1 MHz Att 45 dB 😑 SWT 5 s 👄 VBW 3 MHz Mode Auto Sweep ●1Rm View 30 dBm 20 dBm 10 dBm 0 dBm· -10 dBn D1 -13.000 dBm -20 dBn M -30 dBm -40 dBm -50 dBm Start 9.0 kHz 32001 pts Stop 26.0 GHz

Middle Channel

1Rm View							
30 dBm							
20 dBm							
10 dBm							
D dBm							
-10 dBmD1	-13.000 dBm						
-20 dBm							
-30 dBm		 ~~~~~		~~~~~~	www	~~~~~	~~~~
-40 dBm							
-50 dBm							
Start 9.0 kHz		3200	L pts			Stop	26.0 GH

LTE QPSK MODULATION. BW = 5 MHz

Lowest Channel

Att	45 dB	SWT	5 s 👄	VBW 3 MHz	Mode A	uto Sweep			
1Rm View					м	1[1]			30.75 dB
30 dBm								2.1	53469 GI
20 dBm									
10 dBm									
0 dBm									
-10 dBm	D1 -13.000	dBm							
-20 dBm —									
-30 dBm				· · · · · ·		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m	~~~~	~~~~
-40 dBm									
50 dBm									
-30 ubiii									
Start 9.0 k	Hz		-	3200	1 pts			Stop	26.0 GH

Middle Channel

Ref Level	39.50 dBm	Offset	11.00 dB 👄	RBW 1 MHz					
Att	45 dB	🕳 SWT	5 s 👄	VBW 3 MHz	Mode A	uto Sweep			
1Rm View									
					M	1[1]			-31.10 dB
								2.1	175409 GI
30 dBm —									<u> </u>
1									
20 dBm			-						
10 dBm									
0 00111									
10 40 -									
-10 asm	D1 -13.000	dBm							
-20 dBm									+
M1									
-30 dBm 😽	-				Construction of the local division of the lo		~~~~v		****
		· ·							
-40 dBm									
-50 d8m-									
00 0011									
Start 9.0 k	Hz			3200:	L pts			Stop	26.0 GH

LTE QPSK MODULATION. BW = 15 MHz

Lowest Channel

Middle Channel

TKULAISA											
							N	11[1]			30.60 dB
30 dBm										2.1	03219 G
20 dBm			+								
10 dBm			_								
0 dBm											
-10 dBm											
	D1 -13.000	dBm									
-20 dBm											
M1		-							have a		
30 asm		- L		~~~~	~~	~~~					
-40 dBm			_								
-50 dBm											
Start 9.0 k	Hz					32001	pts			Stop	26.0 GH

TEST A.6: SPURI	OUS EMISSIONS A	AT ANTENNA TERMINALS AT BLOCK EDGES
LIMITE.	Product standard:	FCC Part 27 / IC RSS-199
LIWITS.	Test standard:	FCC § 27.53 / RSS- Clause 4.5
<u>LIMITS</u> According to specifica factor of at least 43 + 7 At Po transmitting pow the level in dBm relativ	tion, the power of emi 10 log (P) dB. P in watts ver of 2 watts (33 dBm) ve to Po becomes:	ssions shall be attenuated below the transmitter power (P) by a s. , the specified minimum attenuation becomes 43+10log (Po). and
Po (dBm) – [43 + 10 lo	og (Po in watts)] = -13 d	IBm
TEST	SETUP	
The EUT RF output co Tester R&S CMW500 using a 50-ohm attenu	onnector was connecte (selecting maximum) ator and a power splitte	ed to a spectrum analyzer and to the Universal Radio Communication transmission power of the EUT and different modes of modulation) er.
The reading of the spe of EUT and input of the	ectrum analyzer is corre e spectrum analyzer.	ected with the attenuation loss of connection between output terminal
For LTE mode the con	figuration of modulatior	n which is the worst case for conducted power was used.
As indicated in FCC p frequency block or ba fundamental emission	art 27.53 (h) (3), in the and, a resolution band of the transmitter may	1 MHz bands immediately outside and adjacent to the licensee's width of at least one percent of the emission bandwidth of the be employed.
	EUT Attenuat	tor Power devider Signalling Unit

TES	TED SAMPLES	:	S/01							
TESTED C	ONDITIONS MO	DDES:		TC#01	(Band 4)					
TE	ST RESULTS:		PASS							
LTE QPSK MODULATION	RB=1.	RB=1.	RB=1.	RB=1.	RB=1.	RB=1.				
	Offset=0.	Offset =0.								
	BW=1.4 MHz	BW = 3 MHz	BW = 5 MHz	BW = 10 MHz	BW = 15 MHz	BW = 20 MHz				
Maximum measured level at lowest Block Edge at antenna port (dBm)	-20.23	-17.3	-18.82	-21.01	-19.35	-17.45				
										
LTE QPSK MODULATION:	RB= All.	RB= All.	RB= All.	RB= All.	RB= All.	RB= All.				
	Offset=0.	Offset =0.								
	BW=1.4 MHz	BW = 3 MHz	BW = 5 MHz	BW = 10 MHz	BW = 15 MHz	BW = 20 MHz				
Maximum measured level at lowest Block Edge at antenna port (dBm)	-23.16	-24.68	-26.2	-16.61	-21.07	-16.51				
LTE QPSK MODULATION:	RB= 1.	RB= 1.	RB= 1.	RB= 1.	RB= 1.	RB= 1.				
	Offset=Max.	Offset=Max.	Offset=Max.	Offset=Max.	Offset=Max.	Offset=Max.				
	BW=1.4 MHz	BW = 3 MHz	BW = 5 MHz	BW = 10 MHz	BW = 15 MHz	BW = 20 MHz				
Maximum measured level at highest Block Edge at antenna port (dBm)	-22.92	-22.93	-24.95	-34.58	-29.12	-32.81				
r			1	r	r					
LTE QPSK MODULATION:	RB= All.	RB= All.	RB= All.	RB= All.	RB= All.	RB= All.				
	Offset=0.	Offset =0.								
	BW=1.4 MHz	BW = 3 MHz	BW = 5 MHz	BW = 10 MHz	BW = 15 MHz	BW = 20 MHz				
Maximum measured level at highest Block Edge at antenna port (dBm)	-25.95	-29.21	-27.03	-34.05	-33.28	-35.04				

LTE QPSK MODULATION. RB = 1. Offset = 0. BW = 1.4 MHz

Lowest Channel

LTE QPSK MODULATION. RB = 6. Offset = 0. BW = 1.4 MHz

Lowest Channel

Ref Level 39.50 dBm Offset 11.00 dB 👄 RBW 100 kHz 45 dB 👄 SWT Att 1 s 👄 VBW 300 kHz Mode Auto Sweep Input 1 AC PS ⊖1Rm View -23.16 dBm 1.70999830 GHz M1[1] 30 dBm-20 dBm-10 dBm-0 dBm--10 dBm-D1 -13.000 dBm--20 dBm--30 dBm--40 dBm--50 dBm-Span 2.0 MHz CF 1.71 GHz 600 pts

LTE QPSK MODULATION. RB = 1. Offset = 0. BW = 3 MHz

Lowest Channel

LTE QPSK MODULATION. RB = 15. Offset = 0. BW = 3 MHz

Lowest Channel

Offset 11.00 dB 👄 RBW 50 kHz Ref Level 39.50 dBm 45 dB 👄 SWT 1 s 👄 **VBW** 200 kHz Mode Auto Sweep Input 1 AC Att PS 01Rm View -24.68 dBm 1.70999500 GHz M1[1] 30 dBm 20 dBm 10 dBm 0 dBm--10 dBm-D1 -13.000 dBm--20 dBm -30 dBm--40 dBm--50 dBm-CF 1.71 GHz Span 2.0 MHz 600 pts

LTE QPSK MODULATION. RB = 1. Offset = 0. BW = 5 MHz

Lowest Channel

LTE QPSK MODULATION. RB = 25. Offset = 0. BW = 5 MHz

Lowest Channel

Offset 11.00 dB 👄 RBW 100 kHz Ref Level 39.50 dBm 45 dB 👄 SWT Att 1 s 👄 **VBW** 300 kHz Mode Auto Sweep Input 1 AC PS o1Rm View M1[1] -26.20 dBm 1.70999830 GHz 30 dBm 20 dBm-10 dBm· 0 dBm--10 dBm-D1 -13.000 dBm--20 dBm--30 dBm--40 dBm--50 dBm-CF 1.71 GHz 600 pts Span 2.0 MHz

Att	45 dB	SWT	1 s 👄	VBW 300 k	Hz Mode	Auto Sweep	Input 1	AC	
01Rm View	/								
					M	1[1]		1.755	27.03 dE 00170 G
30 dBm									
20 dBm—									
10 dBm									
0 dBm									
-10 dBm—	-D1 -13.000	dBm							
-20 dBm—					1				
-30 dBm—				~					
-40 dBm—									
-50 dBm—									
CF 1.755	GHz			600	pts			Spa	n 2.0 MF

LTE QPSK MODULATION. RB = 1. Offset = 0. BW = 10 MHz

Lowest Channel

LTE QPSK MODULATION. RB = 50. Offset = 0. BW = 10 MHz

Lowest Channel

Ref Level 39.50 dBm Offset 11.00 dB 👄 RBW 100 kHz 45 dB 👄 SWT 1 s 👄 **VBW** 300 kHz Att Mode Auto Sweep Input 1 AC PS 01Rm View M1[1] -16.61 dBm 1.71038830 GHz 30 dBm-20 dBm-10 dBm-0 dBm--10 dBm-D1 -13.000 dBm--20 dBm--30 dBm· -40 dBm--50 dBm-Span 2.0 MHz CF 1.71 GHz 600 pts

