

Report Number Operation Mode Test Mode EUT Pol Test Channel	:ER-2019-A01 :LTE B38 :Tx CH High :H Plane :2610.0 MHz	03		Test Date Temp./Humi. Antenna Pol. Engineer.	:2019-11-04 :22.3/70 :VERTICAL : Nick	
0 Level (dBm/m)						
-10						
-20						
-30						
-40	7					
-50						
-60						
- 70 6						
-80						
-90						
-100 <mark>30</mark>	5324.	10618. Frequency	15912.	21206.	26500	
		Trequenc	y (mi12)			
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
117.30	-78.82	-70.71	-7.09	-1.02	-25.00	-53.82
151.25	-79.22	-70.35	-7.64	-1.23	-25.00	-54.22
236.61	-78.27	-75.15	-1.66	-1.46	-25.00	-53.27
296.75	-79.26	-75.84	-1.73	-1.69	-25.00	-54.26
406.36	-78.07	-74.55	-1.59	-1.93	-25.00	-53.07
602.30	-74.27	-69.98	-1.94	-2.35	-25.00	-49.27
5220.00	-49.03	-54.30	12.46	-7.19	-25.00	-24.03

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Report Number Operation Mode Test Mode EUT Pol Test Channel	:ER-2019-A010 :LTE B38 :Tx CH High :H Plane :2610.0 MHz	03		Test Date Temp./Humi. Antenna Pol. Engineer.	:2019-11-04 :22.3/70 :HORIZONTAL : Nick	
0 Level (dBm/m)						
-10						
-20						
I						
-30						
-40	7					
-50						
-60						
-70 14						
-802						
-90						
-100 <mark>30</mark>	5324.	10618.	15912.	21206.	26500	
		Frequenc	cy (MHz)			
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		0
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
124.09	-77.93	-69.81	-7.07	-1.05	-25.00	-52.93
256.01	-84.53	-81.34	-1.62	-1.57	-25.00	-59.53
350.10	-79.75	-76.39	-1.46	-1.90	-25.00	-54.75
400.54	-78.20	-74.68	-1.60	-1.92	-25.00	-53.20
493.66	-77.65	-73.84	-1.55	-2.26	-25.00	-52.65
585.81	-76.96	-73.39	-1.62	-1.95	-25.00	-51.96
5220.00	-50.21	-55.48	12.46	-7.19	-25.00	-25.21

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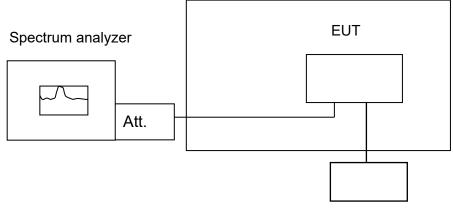
FREQUENCY STABILITY MEASUREMENT 10.

10.1. Standard Applicabl

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

10.2. Test Set-up

Temperature Chamber



Variable DC Power Supply

Note: Measurement setup for testing on Antenna connector

10.3. Measurement Procedure

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Set chamber temperature to 25 . Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint as declared by the manufacturer, record the maximum frequency change.

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10.4. Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	Agilent	N9010A	MY50420195	05/02/2019	05/01/2020
Radio Communication Analyzer	Anritsu	MT8815B	6200711454	04/01/2019	03/31/2020
Radio Communication Analyzer	Anritsu	MT8820C	6200995019	04/01/2019	03/31/2020
DC Power Supply	Agilent	E3640A	MY52410006	12/04/2018	12/03/2019
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2019	01/01/2020
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2019	01/01/2020
Splitter	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-018	01/02/2019	01/01/2020

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10.5. Measurement Result

	GPRS 850 Mid Channel 836.6 MHz							
Limit: +/- 2.5 ppm								
Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit (Hz)				
	FREQUEN	ICY ERROR vs. V	VOLTAGE					
4	20	836.599992	-8	2091				
3.85	20	836.59999	-10	2091				
3.7	20	836.599992	-8	2091				
3.1	20	836.600001	1	2091				
FREQUENCY ERROR vs. Temp.								
3.85	50	836.600009	9	2091				
3.85	40	836.599991	-9	2091				
3.85	30	836.600004	4	2091				
3.85	20	836.600004	4	2091				
3.85	10	836.599999	-1	2091				
3.85	0	836.600002	2	2091				
3.85	-10	836.600007	7	2091				
3.85	-20	836.600004	4	2091				
3.85	-30	836.600007	7	2091				

	GPRS 1900 Mid Channel 1880 MHz							
Limit: +/- 2.5 ppm								
Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit (Hz)				
	FREQUEN	ICY ERROR vs. V	VOLTAGE					
4	20	1880.000005	5	4700				
3.85	20	1879.999991	-9	4700				
3.7	20	1879.999998	-2	4700				
3.1	20	1879.99999	-10	4700				
	FREQUENCY ERROR vs. Temp.							
3.85	50	1880.000003	3	4700				
3.85	40	1879.999992	-8	4700				
3.85	30	1880.00001	10	4700				
3.85	20	1879.999997	-3	4700				
3.85	10	1879.999999	-1	4700				
3.85	0	1879.999998	-2	4700				
3.85	-10	1880.000002	2	4700				
3.85	-20	1879.999994	-6	4700				
3.85	-30	1880.000002	2	4700				

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	WCDN	IA II Mid Channel	1880	MHz					
		Limit: +/- 2.5 ppm							
Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit (Hz)					
	FREQUENCY ERROR vs. VOLTAGE								
4	20	1880.000009	9	4700					
3.85	20	1880.000007	7	4700					
3.7	20	1880.000003	3	4700					
3.1	20	1880.000009	9	4700					
	FREQU	ENCY ERROR vs	s. Temp.						
3.85	50	1880.000004	4	4700					
3.85	40	1880.000002	2	4700					
3.85	30	1879.999996	-4	4700					
3.85	20	1879.999995	-5	4700					
3.85	10	1880.000001	1	4700					
3.85	0	1879.999998	-2	4700					
3.85	-10	1880.000002	2	4700					
3.85	-20	1879.999995	-5	4700					
3.85	-30	1880.000009	9	4700					
	WCDMA IV Mid Channel 1732.6 MHz								
		Limit: +/- 2.5 ppm							
Vdc	Temp. ()	Limit: +/- 2.5 ppm Freq. (MHz)	Delta (Hz)	Limit (Hz)					
Vdc			Delta (Hz)	Limit (Hz)					
Vdc 4		Freq. (MHz)	Delta (Hz)	Limit (Hz) 4331					
	FREQUEN	Freq. (MHz) ICY ERROR vs.	Delta (Hz) VOLTAGE						
4	FRÈQUEN 20	Freq. (MHz) ICY ERROR vs. 1732.599991	Delta (Hz) VOLTAGE -9	4331					
4 3.85	FREQUEN 20 20	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006	Delta (Hz) VOLTAGE -9 6	4331 4331					
4 3.85 3.7	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006 1732.599999	Delta (Hz) VOLTAGE -9 6 -1 -6	4331 4331 4331					
4 3.85 3.7	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006 1732.599999 1732.599994	Delta (Hz) VOLTAGE -9 6 -1 -6	4331 4331 4331					
4 3.85 3.7 3.1	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006 1732.599999 1732.599994 ENCY ERROR vs	Delta (Hz) VOLTAGE -9 6 -1 -6 5. Temp.	4331 4331 4331 4331 4331					
4 3.85 3.7 3.1 3.85	FREQUEN 20 20 20 20 20 20 20 50	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006 1732.599999 1732.5999994 ENCY ERROR vs 1732.599995	Delta (Hz) VOLTAGE -9 6 -1 -6 s. Temp. -5	4331 4331 4331 4331 4331 4331					
4 3.85 3.7 3.1 3.85 3.85	FREQUEN 20 20 20 20 20 20 50 40	Freq. (MHz) ICY ERROR vs. 1 1732.599991 1732.600006 1732.599999 1732.599994 ENCY ERROR vs 1732.599995 1732.600009	Delta (Hz) VOLTAGE -9 6 -1 -6 s. Temp. -5 9	4331 4331 4331 4331 4331 4331 4331					
4 3.85 3.7 3.1 3.85 3.85 3.85 3.85	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20 30	Freq. (MHz) ICY ERROR vs. 1 1732.599991 1732.600006 1732.599999 1732.599994 ENCY ERROR vs 1732.599995 1732.600009 1732.600004	Delta (Hz) VOLTAGE -9 6 -1 -6 s. Temp. -5 9 4	4331 4331 4331 4331 4331 4331 4331 4331					
4 3.85 3.7 3.1 3.85 3.85 3.85 3.85 3.85 3.85	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20 20 30 20	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006 1732.599999 1732.5999994 ENCY ERROR vs 1732.599995 1732.600009 1732.600004 1732.600009	Delta (Hz) VOLTAGE -9 6 -1 -6 s. Temp. -5 9 4 9	4331 4331 4331 4331 4331 4331 4331 4331					
4 3.85 3.7 3.1 3.85 3.85 3.85 3.85 3.85 3.85 3.85	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20 20 50 40 30 20 10	Freq. (MHz) ICY ERROR vs. 1 1732.599991 1732.600006 1732.599999 1732.599994 ENCY ERROR vs 1732.599995 1732.600009 1732.600009 1732.600009 1732.599992	Delta (Hz) VOLTAGE -9 6 -1 -6 5. Temp. -5 9 4 9 -8	4331 4331 4331 4331 4331 4331 4331 4331					
4 3.85 3.7 3.1 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85	FREQUEN 20 20 20 20 20 20 20 20 20 20 20 20 20 20 50 40 30 20 10 0	Freq. (MHz) ICY ERROR vs. 1732.599991 1732.600006 1732.599999 1732.5999994 ENCY ERROR vs 1732.599995 1732.600009 1732.600009 1732.600009 1732.599992 1732.599993	Delta (Hz) VOLTAGE -9 6 -1 -6 s. Temp. -5 9 4 9 -8 -7	4331 4331 4331 4331 4331 4331 4331 4331					

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	WCDM	A V Mid Channel	836.6	MHz					
	Limit: +/- 2.5 ppm								
Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit (Hz)					
	FREQUENCY ERROR vs. VOLTAGE								
4	20	836.600007	7	2091					
3.85	20	836.599991	-9	2091					
3.7	20	836.600001	1	2091					
3.1	20	836.600004	4	2091					
	FREQUENCY ERROR vs. Temp.								
3.85	50	836.599991	-9	2091					
3.85	40	836.600001	1	2091					
3.85	30	836.599999	-1	2091					
3.85	20	836.599999	-1	2091					
3.85	10	836.600007	7	2091					
3.85	0	836.599995	-5	2091					
3.85	-10	836.599995	-5	2091					
3.85	-20	836.600006	6	2091					
3.85	-30	836.600009	9	2091					

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Reference Freq.:		B2 Mid annel	1880	MHz 20M QPSK CH 18900
Power Supply Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
	Freq	. ERROR vs. V	OLTAGE	
4	25	1879.999992	-8	4700
3.85	25	1880.000001	1	4700
3.7	25	1880.000006	6	4700
3.1 (End Point)	25	1879.999996	-4	4700
	Fre	eq. ERROR vs.	Temp.	
3.85	-30	1880.000002	2	4700
3.85	-20	1879.999992	-8	4700
3.85	-10	1879.999991	-9	4700
3.85	0	1879.999998	-2	4700
3.85	10	1879.999998	-2	4700
3.85	20	1879.999993	-7	4700
3.85	30	1879.999991	-9	4700
3.85	40	1879.999990	-10	4700
3.85	50	1879.999990	-10	4700
Reference Freq.:	LTE	E B4 Mid	1732.5	MHz 20M QPSK CH 20175
Reference freq	CI	nannel	1752.5	
Power Supply Vdc	Temp. (Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
	Freq	. ERROR vs. V	OLTAGE	
4	25	1732.499993	-7	4331
3.85	25	1732.499992	-8	4331
3.7	25	1732.499993	-7	4331
3.1 (End Point)	25	1732.499997	-3	4331
· · ·	Fre	eq. ERROR vs.	Temp.	
3.85	-30	1732.500010	10	4331
3.85	-20	1732.499993	-7	4331
3.85	-10	1732.499995	-5	4331
3.85	0	1732.500004	4	4331
3.85	10	1732.500006		4331
3.85	20	1732.500007		4331
3.85	30	1732.500006		4331
3.85	40	1732.499993		4331
5.05	10	1/32.4////3	/	4001

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Reference Freq.:		B5 Mid annel	836.5	MHz 10M QPSK CH 20525				
Power Supply Vdc	Temp. ()	Freq. (MHz)		Limit = +/- 2.5 ppm (Hz)				
Freq. ERROR vs. VOLTAGE								
4	25	836.499994	-6	2091				
3.85	25	836.499993	-7	2091				
3.7	25	836.499996	-4	2091				
3.1 (End Point)	25	836.500006	6	2091				
	Fre	q. ERROR vs.	Temp.					
3.85	-30	836.499999	-1	2091				
3.85	-20	836.500007	7	2091				
3.85	-10	836.500002	2	2091				
3.85	0	836.500003	3	2091				
3.85	10	836.500008	8	2091				
3.85	20	836.500008	8	2091				
3.85	30	836.499991	-9	2091				
3.85	40	836.500003	3	2091				
3.85	50	836.500002	2	2091				
Reference Freq.:		B7 Mid nannel	2535	MHz 10M QPSK CH 21100				
Power Supply Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)				
	Freq.	ERROR vs. V	OLTAGE					
4	25	2535.000006	6	6338				
3.85	25	2535.000003	3	6338				
3.7	25	2534.999990	-10	6338				
3.1 (End Point)	25	2535.000004	4	6338				
	Fre	q. ERROR vs.	Temp.					
3.85	-30	2535.000001	1	6338				
3.85	-20	2534.999999	-1	6338				
3.85	-10	2534.999996	-4	6338				
3.85	0	2534.999997	-3	6338				
3.85	10	2535.000008	8	6338				
3.85	20	2534.999992	-8	6338				
3.85	30	2535.000005	5	6338				
3.85	40	2535.000004	4	6338				
3.85	50	2535.000008	8	6338				

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Reference Freq.:		B12 Mid annel	707.5	MHz 10M QPSK CH 23095
Power Supply Vdc	Temp. ()	Freq. (MHz)		Limit = +/- 2.5 ppm (Hz)
	Freq.	ERROR vs. V	OLTAGE	
4	25	707.499997	-3	1769
3.85	25	707.499998	-2	1769
3.7	25	707.499993	-7	1769
3.1 (End Point)	25	707.500005	5	1769
	Fre	q. ERROR vs.	Temp.	
3.85	-30	707.500000	0	1769
3.85	-20	707.500006	6	1769
3.85	-10	707.499996	-4	1769
3.85	0	707.500008	8	1769
3.85	10	707.500004	4	1769
3.85	20	707.499992	-8	1769
3.85	30	707.499997	-3	1769
3.85	40	707.500001	1	1769
3.85	50	707.499994	-6	1769
Reference Freq.:		B13 Mid nannel	782	MHz 10M QPSK CH 23230
Power Supply Vdc	Temp. ()	Freq. (MHz)	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
	Freq.	ERROR vs. V	OLTAGE	
4	25	781.999991	-9	1955
3.85	25	781.999998	-2	1955
3.7	25	782.000004	4	1955
3.1 (End Point)	25	782.000001	1	1955
	Fre	q. ERROR vs.	Temp.	
3.85	-30	782.000006	6	1955
3.85	-20	781.999999	-1	1955
3.85	-10	782.000006	6	1955
3.85	0	782.000004	4	1955
3.85	10	781.999992	-8	1955
3.85	20	782.000009	9	1955
3.85	30	782.000006	6	1955
			-	
3.85	40	782.000001	1	1955

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Reference Freq.:		B17 Mid	710	MHz 10M QPSK CH 23790
Dowor Supply Vdo		annel	Dolto (Uz)	Limit / 2 E ppm (LIz)
Power Supply Vdc	Temp. ()	Freq. (MHz) ERROR vs. VO	Delta (Hz)	Limit = +/- 2.5 ppm (Hz)
4				1775
4	25	710.000003	3	1775
3.85	25	710.000001	1	1775
3.7	25	709.999996	-4	1775
3.1 (End Point)	25	709.999997	-3	1775
	Free	q. ERROR vs.	Temp.	
3.85	-30	709.999995	-5	1775
3.85	-20	709.999993	-7	1775
3.85	-10	709.999997	-3	1775
3.85	0	710.000000	0	1775
3.85	10	709.999993	-7	1775
3.85	20	709.999997	-3	1775
3.85	30	709.999999	-1	1775
3.85	40	710.000009	9	1775
0.07	ГO		C	1775
3.85	50	709.999997	-3	1775
3.85 Reference Freq.:	LTE	B38 Mid annel	-3 2595	MHz 10M QPSK CH 38000
	LTE	B38 Mid		MHz 10M QPSK CH 38000
Reference Freq.:	LTE Ch Temp. ()	B38 Mid annel	2595 Delta (Hz)	MHz 10M QPSK CH 38000
Reference Freq.:	LTE Ch Temp. ()	B38 Mid annel Freq. (MHz)	2595 Delta (Hz)	MHz 10M QPSK CH 38000
Reference Freq.: Power Supply Vdc	LTE Ch Temp. () Freq .	B38 Mid annel Freq. (MHz) ERROR vs. VC	2595 Delta (Hz) DLTAGE	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz)
Reference Freq.: Power Supply Vdc 4 3.85 3.7	LTE Ch Temp.() Freq. 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997	2595 Delta (Hz) DLTAGE -3	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488
Reference Freq.: Power Supply Vdc 4 3.85	LTE Ch Temp. () Freq. 25 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999994	2595 Delta (Hz) DLTAGE -3 -6	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1	LTE Ch. Temp. () Freq. 25 25 25 25 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993	2595 Delta (Hz) DLTAGE -3 -6 -7 5	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1	LTE Ch. Temp. () Freq. 25 25 25 25 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005	2595 Delta (Hz) DLTAGE -3 -6 -7 5	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point)	LTE Ch. Temp. () Freq. 25 25 25 25 25 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 c. ERROR vs.	2595 Delta (Hz) DLTAGE -3 -6 -7 5 Temp.	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point) 3.85	LTE Ch. Temp. () Freq. 25 25 25 25 25 25 Free -30	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 c. ERROR vs. 2595.000005	2595 Delta (Hz) DLTAGE -3 -6 -7 5 Temp. 5	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488 6488
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point) 3.85 3.85 3.85	LTE Ch. Temp. () Freq. 25 25 25 25 25 25 Free -30 -20	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 c. ERROR vs. 2595.000005 2594.999996	2595 Delta (Hz) DLTAGE -3 -6 -7 5 5 Temp. 5 -4	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488 6488 6488
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point) 3.85 3.85 3.85 3.85	LTE Ch. Temp. () Freq. 25 25 25 25 25 25 -25 -30 -20 -10 0 10	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 2595.000005 2594.999996 2595.000002 2594.999999	2595 Delta (Hz) DLTAGE -3 -6 -7 5 5 Temp. 5 -4 2 -8 -8 -1	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488 6488 6488 6488 648
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point) 3.85 3.85 3.85 3.85 3.85 3.85	LTE Ch. Temp. () Freq. 25 25 25 25 25 25 25 25 25 25 25 25 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 2595.000005 2595.000005 2594.999996 2594.999999 2594.999999	2595 Delta (Hz) DLTAGE -3 -6 -7 5 5 Temp. 5 -4 2 -4 2 -8	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488 6488 6488 6488 648
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point) 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85	LTE Ch. Temp. () Freq. 25 25 25 25 25 25 25 25 -20 -10 0 10 20 30	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 2595.000005 2594.999996 2594.999999 2594.999999 2594.999990 2595.000001	2595 Delta (Hz) DLTAGE -3 -6 -7 5 -7 5 -7 5 -7 5 -7 5 -4 2 -8 -1 -10 -10 1	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488 6488 6488 6488 648
Reference Freq.: Power Supply Vdc 4 3.85 3.7 3.1 (End Point) 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85 3.85	LTE Ch. Temp. () Freq. 25 25 25 25 25 25 25 25 25 25 25 25 25	B38 Mid annel Freq. (MHz) ERROR vs. VC 2594.999997 2594.999994 2594.999993 2595.000005 2595.000005 2595.000005 2594.999996 2594.999999 2594.999999	2595 Delta (Hz) DLTAGE -3 -6 -7 5 -7 5 Temp. 5 -4 2 -8 -8 -1 -10	MHz 10M QPSK CH 38000 Limit = +/- 2.5 ppm (Hz) 6488 6488 6488 6488 6488 6488 6488 648

Note: The battery is rated 3.85Vdc.

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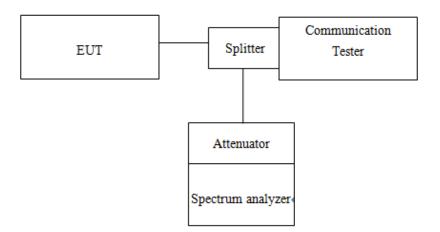


11. PEAK TO AVERAGE RATIO

11.1. Standard Applicable

The peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

11.2. Test SET-UP



11.3. Measurement Procedure

- 1. KDB 971168 D01 is employed as the following procedure is proper adjusted accordingly:
- 2. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth; & internal =1ms
- Set the number of counts to a value that stabilizes the measured CCDF curve.

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	Agilent	N9010A	MY50420195	05/02/2019	05/01/2020
Radio Communication Analyzer	Anritsu	MT8815B	6200711454	04/01/2019	03/31/2020
Radio Communication Analyzer	Anritsu	MT8820C	6200995019	04/01/2019	03/31/2020
DC Power Supply	Agilent	E3640A	MY52410006	12/04/2018	12/03/2019
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2019	01/01/2020
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2019	01/01/2020
Splitter	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-018	01/02/2019	01/01/2020

11.4 Measurement Equipment Used

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11.5. Measurement Result

Tabular Results:

Freq.	СН	Peak-to-Average Ratio (dB)		
(MHz)	Сп	GSM	GPRS	
		850	850	
824.2	128	8.06	11.51	
836.6	190	9.74	8.24	
848.8	251	10.05 8.73		

Freq.	СН	Peak-to-Average Ratio (dB)		
(MHz)	СП	GSM 1900	GPRS 1900	
1850.2	512	9.75	10.35	
1880	661	9.75	10.27	
1909.8	810	10.22	11.66	

ſ	Erog		Peak-to	Peak-to-Average Ratio (dB)				
	Freq. (MHz)	СН	WCDMA	HSDPA	HSUPA			
	(11112)				II			
I	1852.4	9262	3.04	3.73	3.67			
ſ	1880	9400	3.07	3.80	3.06			
I	1907.6	9538	3.03	3.87	4.04			

Erog		Peak-to-	Peak-to-Average Ratio (dB)				
Freq. (MHz)	СН	WCDMA	HSDPA	HSUPA			
(11112)		IV	IV	IV			
1712.4	1312	3.04	3.82	3.92			
1732.6	1413	2.92	3.48	3.73			
1752.6	1513	3.06	3.67	3.65			

Erog		Peak-to	Peak-to-Average Ratio (dB)				
Freq. (MHz)	CH	WCDMA	HSDPA	HSUPA			
(11112)		V	V	V			
826.4	4132	3.03	3.83	4.09			
836.6	4183	3.08	3.43	3.88			
846.6	4233	3.02	3.79	3.96			

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	LTE BAND 2									
Channel bandwidth: 1.4MHz				Char	nnel band	lwidth: 3M	Hz			
Freq.	СН	PAPR	(dB)	dB) Freq.		PAPR	PAPR (dB)			
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit			
1850.7	18607	6.64	13	1851.5	18615	6.48	13			
1880.0	18900	6.77	13	1880.0	18900	6.33	13			
1909.3	19193	6.87	13	1908.5	19185	6.54	13			

LTE BAND 2								
Char	nnel band	lwidth: 5M	Hz	Chan	nel band	width: 10N	ЛНz	
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)		
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit	
1852.5	18625	6.50	13	1855.0	18650	6.49	13	
1880.0	18900	5.89	13	1880.0	18900	6.52	13	
1907.5	19175	6.63	13	1905.0	19150	6.56	13	

LTE BAND 2									
Chan	nel band	width: 15N	ЛНz	Chan	nel band	width: 20N	/Hz		
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR	(dB)		
(MHz)	СП	64QAM	Limit	(MHz)	СП	64QAM	Limit		
1857.5	18675	6.39	13	1860.0	18700	6.51	13		
1880.0	18900	6.46	13	1880.0	18900	6.54	13		
1902.5	19125	6.54	13	1900.0	19100	6.54	13		

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LTE BAND 4								
Chanr	nel band	width: 1.4	MHz	Chan	nel ban	dwidth: 3N	/Hz	
Freq.	СН	PAPR	(dB)	Freq.	сц	PAPR (dB)		
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit	
1710.7	19957	6.99	13	1711.5	19965	6.63	13	
1732.5	20175	6.63	13	1732.5	20175	6.49	13	
1754.3	20393	6.65	13	1753.5	20385	6.65	13	

LTE BAND 4									
Chan	nel ban	dwidth: 5N	ЛНz	Chan	nel band	lwidth: 10l	MHz		
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR	(dB)		
(MHz)	СП	64QAM	Limit	(MHz)	CH	64QAM	Limit		
1712.5	19957	6.53	13	1715.0	20000	6.60	13		
1732.5	20175	6.57	13	1732.5	20175	6.50	13		
1752.5	20375	6.62	13	1750.0	20350	6.62	13		

LTE BAND 4									
Chan	nel band	lwidth: 15l	MHz	Chan	nel band	lwidth: 20l	MHz		
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)			
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit		
1717.5	20025	6.57	13	1720.0	20050	6.44	13		
1732.5	20175	6.46	13	1732.5	20175	6.38	13		
1747.5	20325	6.47	13	1745.0	20300	6.55	13		

	LTE BAND 5									
Channel bandwidth: 1.4MHz				Chai	nnel band	lwidth: 3M	Hz			
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR	PAPR (dB)			
(MHz)	Сп	64QAM	Limit	(MHz)	СН	64QAM	Limit			
824.7	20407	6.61	13	825.5	20415	6.50	13			
836.5	20525	6.60	13	836.5	20525	6.32	13			
848.3	20643	6.48	13	847.5	20635	6.51	13			

LTE BAND 5											
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz							
Freq.	СН	PAPR	(dB)	Freq. PAPR ((dB)					
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit				
826.5	20425	6.42	13	829.0	20450	6.49	13				
836.5	20525	6.48	13	836.5	20525	6.36	13				
846.5	20625	6.44	13	844.0	20600	6.55	13				

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LTE BAND 7											
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz							
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)					
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit				
2502.5	20775	6.60	13	2505.0	20800	6.48	13				
2535.0	21100	6.53	13	2535.0	21100	6.48	13				
2567.5	21375	6.50	13	2565.0	21350	6.49	13				

LTE BAND 7											
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz							
Freq.	СН	PAPR	(dB)	Freq.	CH PAPR (dB)		(dB)				
(MHz)	CIT	64QAM	Limit	(MHz)	CH	64QAM	Limit				
2507.5	20825	6.50	13	2510	20850	6.59	13				
2535.0	21100	6.48	13	2535	21100	6.52	13				
2562.5	21375	6.42	13	2560	21350	6.61	13				

LTE BAND 12											
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz							
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)					
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit				
699.7	23017	6.69	13	700.5	23025	6.67	13				
707.5	23095	6.69	13	707.5	23095	6.62	13				
715.3	23173	6.80	13	714.5	23165	6.61	13				

LTE BAND 12												
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz								
Freq.	СН	PAPR	(dB)	Freq.	· I (H I	PAPR (dB)						
(MHz)	CIT	64QAM	Limit	(MHz)		64QAM	Limit					
701.5	23035	6.56	13	704.0	23060	6.52	13					
707.5	23095	6.54	13	707.5	23095	6.50	13					
713.5	23155	6.58	13	711.0	23130	6.48	13					

LTE BAND 13												
Chan	nel ban	dwidth: 5N	/Hz	Channel bandwidth: 10MHz								
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)						
(MHz)	СП	64QAM	Limit	(MHz)	СН	64QAM	Limit					
779.5	23205	6.64	13									
782.0	23230	6.73	13	782.0	23230	6.56	13					
784.5	23255	6.71	13									

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	LTE BAND 17											
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz								
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR (dB)						
(MHz)	СП	64QAM	Limit	(MHz)	Сн	64QAM	Limit					
706.5	23755	6.47	13	709.0	23780	6.41	13					
710.0	23790	6.48	13	710.0	23790	6.50	13					
713.5	23825	6.54	13	711.0	23800	6.41	13					

LTE BAND 38											
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz							
Freq.	СН	PAPR	(dB)	Freq.	СН	PAPR	(dB)				
(MHz)	CIT	64QAM	Limit	(MHz)	СН	64QAM	Limit				
2572.5	37775	11.59	13	2575	37800	11.07	13				
2595.0	38000	10.83	13	2595	38000	9.96	13				
2617.5	38225	9.31	13	2615	38200	11.95	13				

LTE BAND 38												
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz								
Freq.	СН	PAPR	(dB)	Freq.	Freq.	СН	PAPR (dB)					
(MHz)	CIT	64QAM	Limit	(MHz)	СП	64QAM	Limit					
2577.5	37825	10.14	13	2580.0	37850	10.10	13					
2595.0	38000	11.07	13	2595.0	38000	10.28	13					
2612.5	38175	12.42	13	2610.0	38150	8.18	13					

Please refer to next page for test plots.

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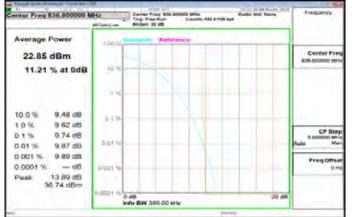
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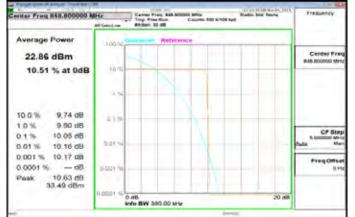
GSM_850MHz_LowCH128-824.2



GSM_850MHz_MidCH190-836.6



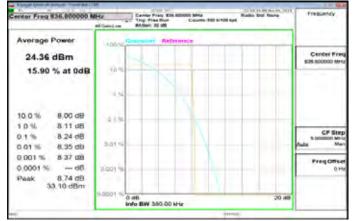
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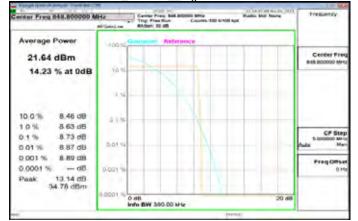
GPRS_850MHz_LowCH128-824.2



GPRS_850MHz__MidCH190-836.6



GPRS_850MHz__HighCH251-848.8



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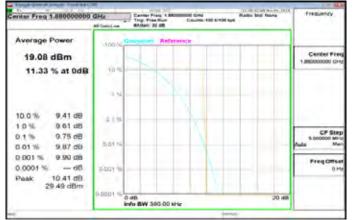
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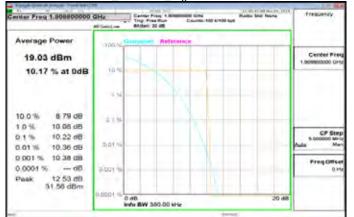
GSM_1900MHz_LowCH512-1850.2



GSM 1900MHz MidCH661-1880



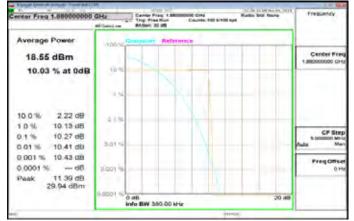
GSM_1900MHz_HighCH810-1909.8



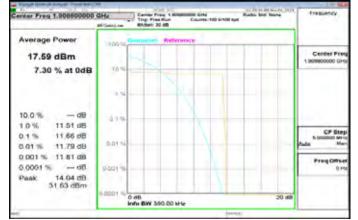
GPRS 1900MHz LowCH512-1850.2



GPRS 1900MHz MidCH661-1880



GPRS_1900MHz_HighCH810-1909.8



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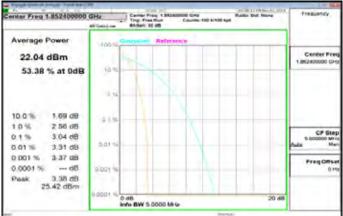
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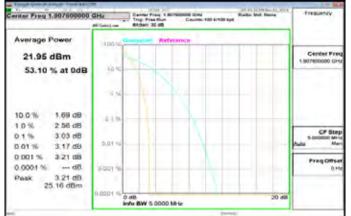
WCDMA_B2_LowCH9262-1852.4



WCDMA_B2_MidCH9400-1880



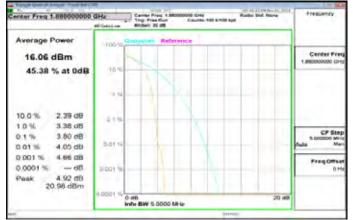
WCDMA_B2_HighCH9538-1907.6



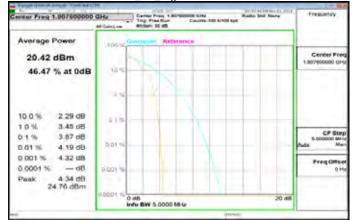
HSDPA_B2_LowCH9262-1852.4



HSDPA_B2_MidCH9400-1880



HSDPA_B2_HighCH9538-1907.6



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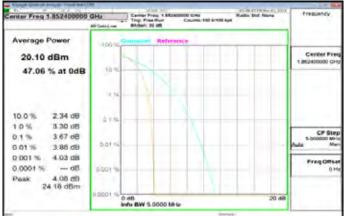
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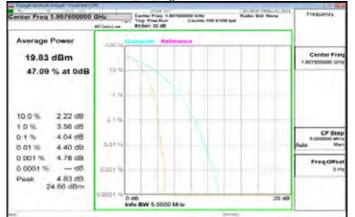
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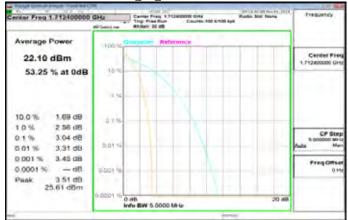
HSUPA B2 MidCH9400-1880



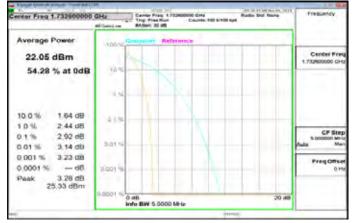
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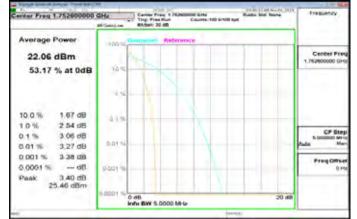
WCDMA_B4_LowCH1312-1712.4



WCDMA B4 MidCH1413-1732.6



WCDMA_B4_HighCH1513-1752.6



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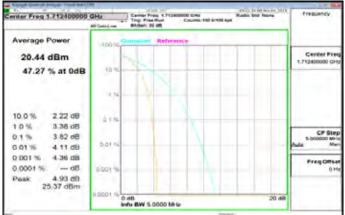
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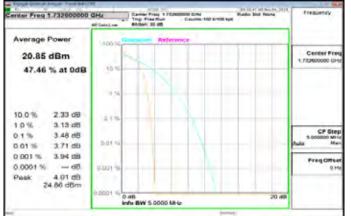
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HSDPA_B4_LowCH1312-1712.4



HSDPA B4 MidCH1413-1732.6



HSDPA_B4_HighCH1513-1752.6



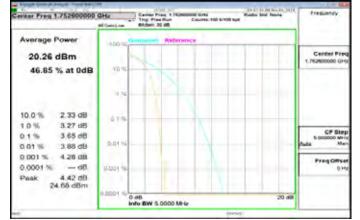
HSUPA_B4_LowCH1312-1712.4



HSUPA B4 MidCH1413-1732.6



HSUPA_B4_HighCH1513-1752.6



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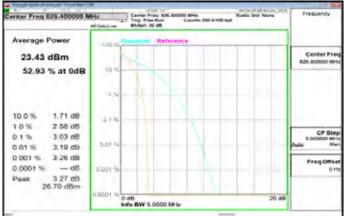
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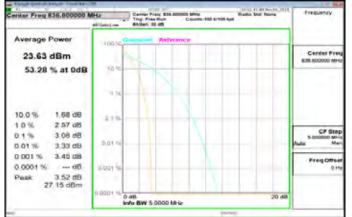
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WCDMA_B5_LowCH4132-826.4



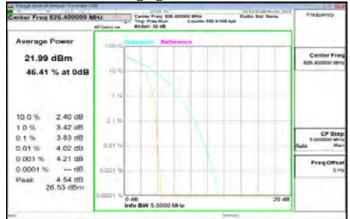
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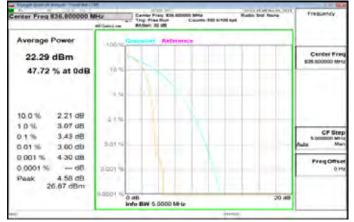
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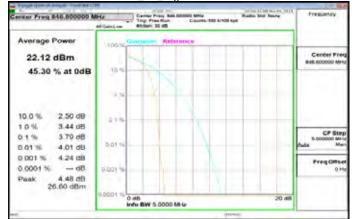
HSDPA_B5_LowCH4132-826.4



HSDPA_B5_MidCH4183-836.6



HSDPA_B5_HighCH4233-846.6



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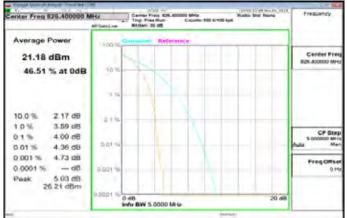
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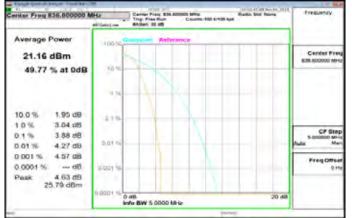
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HSUPA_B5_LowCH4132-826.4



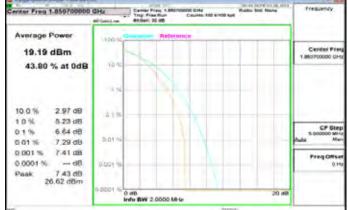
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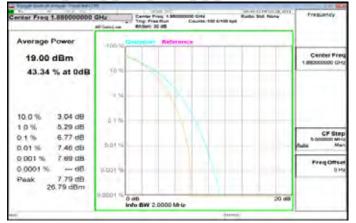
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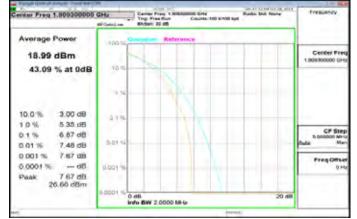
LTE_Band2_1_4MHz_64QAM_6_0_LowCH18607-1850.7



LTE_Band2_1_4MHz_64QAM_6_0_MidCH18900-1880



LTE_Band2_1_4MHz_64QAM_6_0_HighCH19193-1909.3



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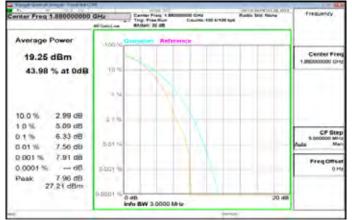
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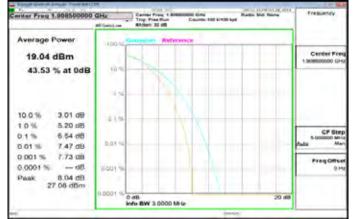
LTE_Band2_3MHz_64QAM_15_0_LowCH18615-1851.5



LTE Band2 3MHz 64QAM 15 0 MidCH18900-1880



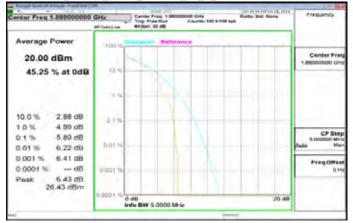
LTE_Band2_3MHz_64QAM_15_0_HighCH19185-1908.5



Cantar Prog 1.85 ----ter Freg 1.852500000 GHz Average Power Center Fre 19.20 dBm 1.862600 90 G 44.12 % at 0dB 10 10.0 % 2.96 dB 1.0 % 5.04 dB **CF** Step 6.50 dB 0.1% 3.01 0.01 % 7.27 dB 0.001 % 7.55 (8) FreqOffs --- dB 0.0001 % 0.001 Peak 7.58 dB 26.78 dBm No BW 5 0000 MHz

LTE_Band2_5MHz_64QAM_25_0_LowCH18625-1852.5

LTE Band2 5MHz 64QAM 25 0 MidCH18900-1880



LTE_Band2_5MHz_64QAM_25_0_HighCH19175-1907.5



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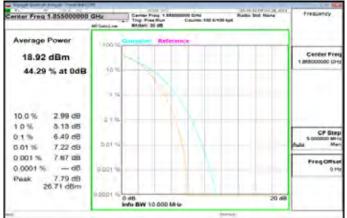
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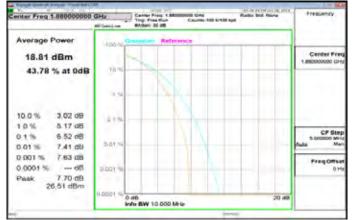
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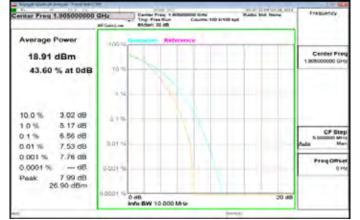
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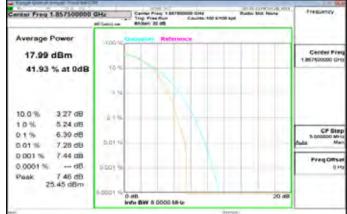


LTE Band2 10MHz 64QAM 50 0 MidCH18900-1880



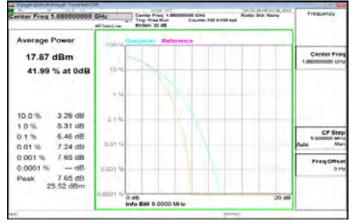
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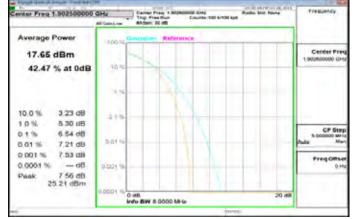


LTE_Band2_15MHz_64QAM_75_0_LowCH18675-1857.5

LTE Band2 15MHz 64QAM 75 0 MidCH18900-1880



LTE_Band2_15MHz_64QAM_75_0_HighCH19125-1902.5



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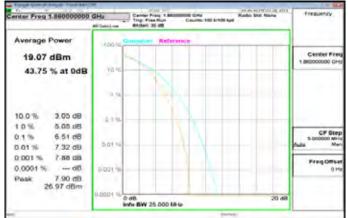
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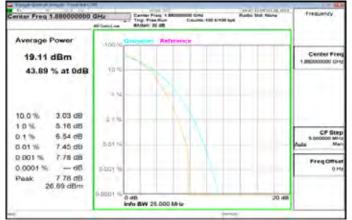
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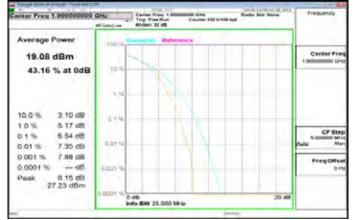
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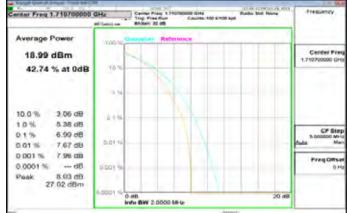


LTE Band2 20MHz 64QAM 100 0 MidCH18900-1880



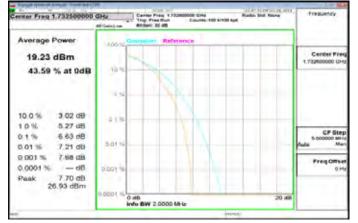
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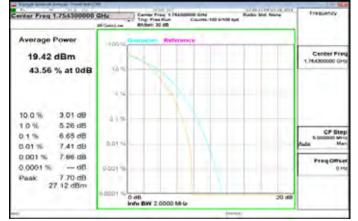


LTE_Band4_1_4MHz_64QAM_6_0_LowCH19957-1710.7





LTE_Band4_1_4MHz_64QAM_6_0_HighCH20393-1754.3



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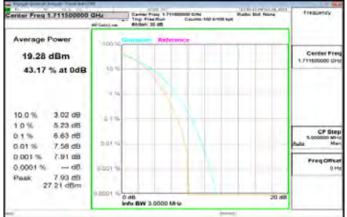
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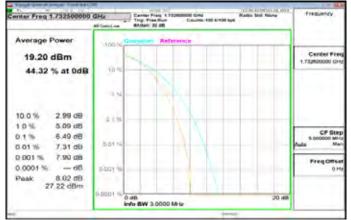
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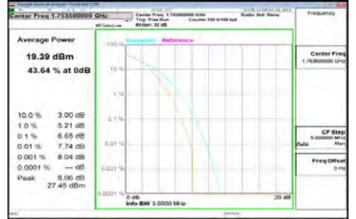
LTE_Band4_3MHz_64QAM_15_0_LowCH19965-1711.5



LTE Band4 3MHz 64QAM 15 0 MidCH20175-1732.5



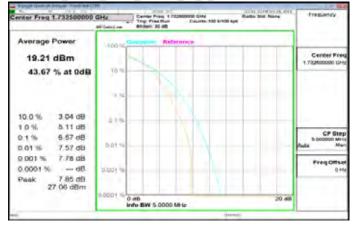
LTE_Band4_3MHz_64QAM_15_0_HighCH20385-1753.5



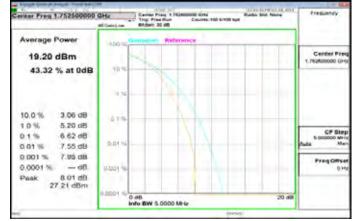
Carrier Prog. 1.76 000 CH4 ter Freg 1.712500000 GHz Average Power Center Fre 19.26 dBm 1,712600 00 0 43.35 % at 0dB 10 10.0 % 3.03 dB 1.0 % 5.16 dB **CF** Step 0.1% 6.53 dB 3.01 0.01 % 7.45 dB 0.001 % 7.87 08 FreqOffs --- dB 0.0001 % 0.001 Peak 7.93 cm 27 19 dBm No BW 5 0000 MHz

LTE_Band4_5MHz_64QAM_25_0_LowCH19975-1712.5

LTE Band4 5MHz 64QAM 25 0 MidCH20175-1732.5



LTE_Band4_5MHz_64QAM_25_0_HighCH20375-1752.5



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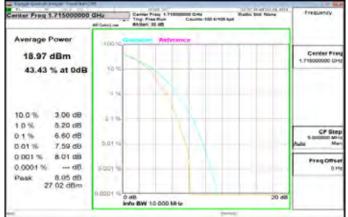
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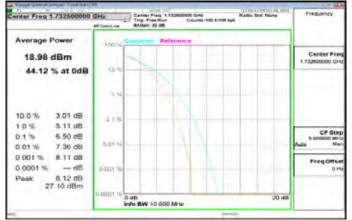
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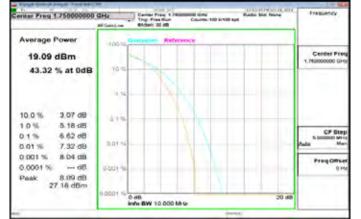
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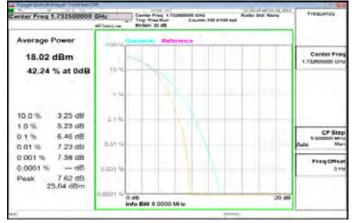
LTE_Band4_10MHz_64QAM_50_0_HighCH20350-1750



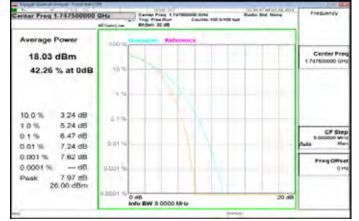
Carrier Prov 1.7178 COD COME Her Freg 1.717500000 GHz Average Power Center Free 18.02 dBm 42.23 % at 0dB 101 10.0 % 3 23 dB 1.0 % 5.31 dB **CF** Step 6.57 dB 0.1% 3.01 0.01 % 7.29 dB 0.001 % 7.76 08 Freq Offs --- dB 0.0001 % 0.001 Peak 7.91 dB 25.93 dBm BW B 0000 MHz

LTE_Band4_15MHz_64QAM_75_0_LowCH20025-1717.5

LTE Band4 15MHz 64QAM 75 0 MidCH20175-1732.5



LTE_Band4_15MHz_64QAM_75_0_HighCH20325-1747.5



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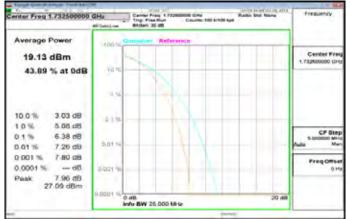
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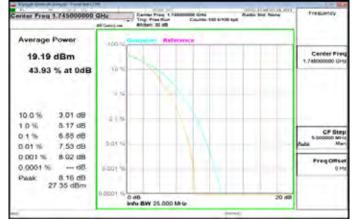
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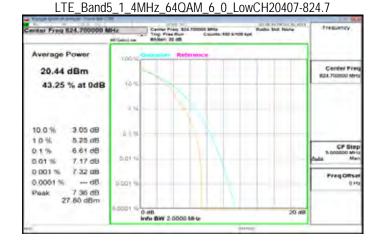


LTE Band4 20MHz 64QAM 100 0 MidCH20175-1732.5

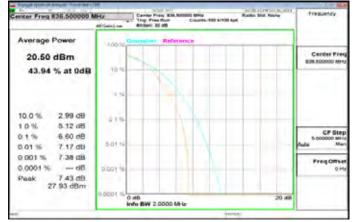


LTE_Band4_20MHz_64QAM_100_0_HighCH20300-1745

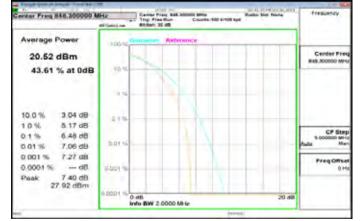




LTE Band5 1 4MHz 64QAM 6 0 MidCH20525-836.5



LTE_Band5_1_4MHz_64QAM_6_0_HighCH20643-848.3



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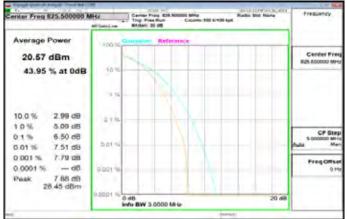
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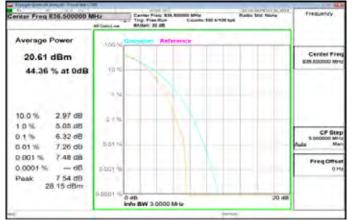
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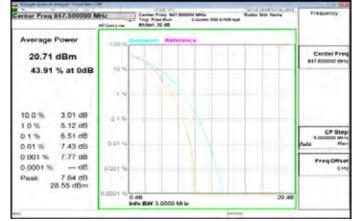
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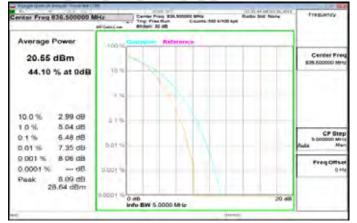


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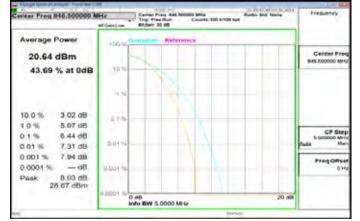




LTE_Band5_5MHz_64QAM_25_0_MidCH20525-836.5



LTE_Band5_5MHz_64QAM_25_0_HighCH20625-846.5



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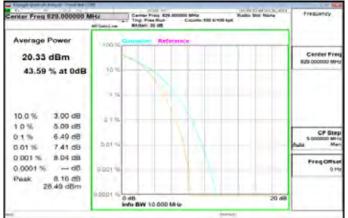
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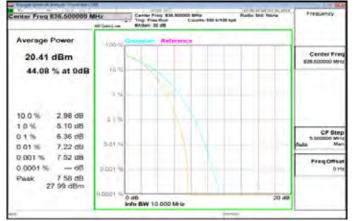
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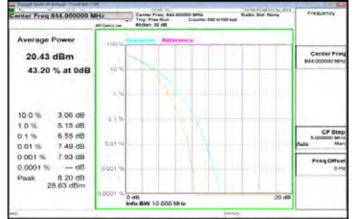
LTE_Band5_10MHz_64QAM_50_0_LowCH20450-829



LTE Band5 10MHz 64QAM 50 0 MidCH20525-836.5



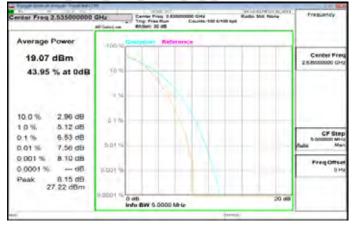
LTE_Band5_10MHz_64QAM_50_0_HighCH20600-844



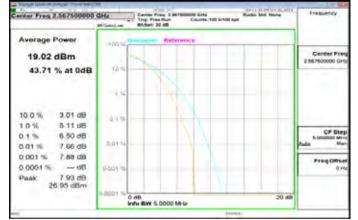
Cantar Prog 2.8 000 CEAN ter Freq 2.502500000 GHz Average Power Center Fre 19.02 dBm 2 Airph 43.79 % at 0dB 10 10.0% 2.99 dB 1.0 % 5.12 dB **CF** Step 0.1% 6.60 dB 3.01 0.01 % 7.65 dB 0.001 % 8 31 08 FreqOffs --- dB. 0.0001 % 0.001 Peak 8.41 cfb 27 43 dBm No BW 5 0000 MHz

LTE_Band7_5MHz_64QAM_25_0_LowCH20775-2502.5

LTE Band7 5MHz 64QAM 25 0 MidCH21100-2535



LTE_Band7_5MHz_64QAM_25_0_HighCH21425-2567.5



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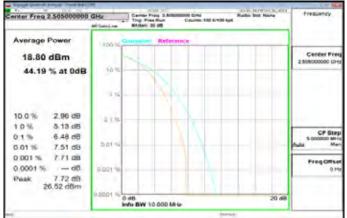
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LTE_Band7_10MHz_64QAM_50_0_LowCH20800-2505

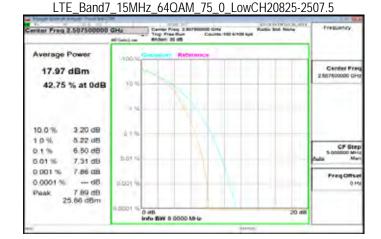


LTE Band7 10MHz 64QAM 50 0 MidCH21100-2535

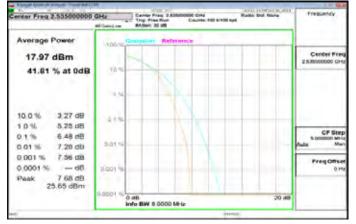


LTE_Band7_10MHz_64QAM_50_0_HighCH21400-2565

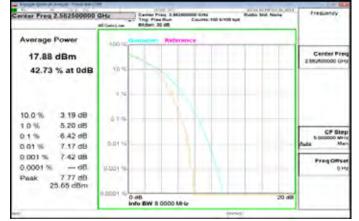




LTE Band7 15MHz 64QAM 75 0 MidCH21100-2535



LTE_Band7_15MHz_64QAM_75_0_HighCH21375-2562.5



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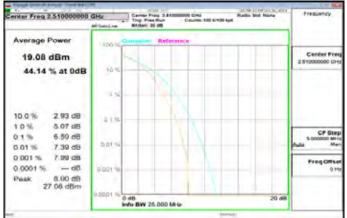
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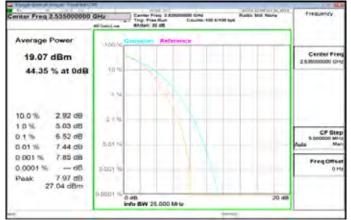
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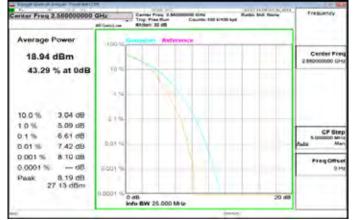
LTE_Band7_20MHz_64QAM_100_0_LowCH20850-2510

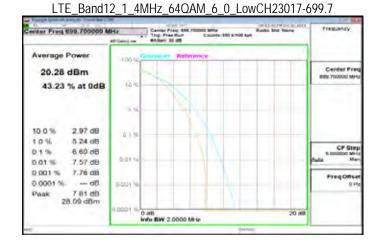


LTE Band7 20MHz 64QAM 100 0 MidCH21100-2535

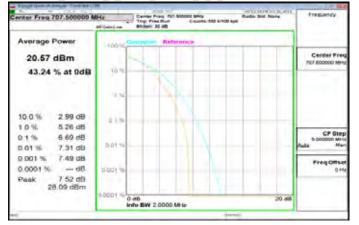


LTE_Band7_20MHz_64QAM_100_0_HighCH21350-2560

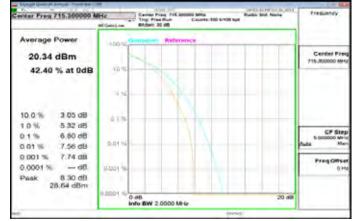




LTE Band12 1 4MHz 64QAM 6 0 MidCH23095-707.5



LTE_Band12_1_4MHz_64QAM_6_0_HighCH23173-715.3



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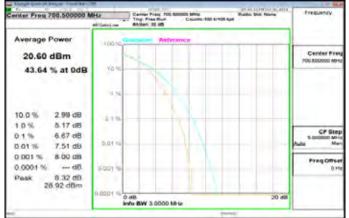
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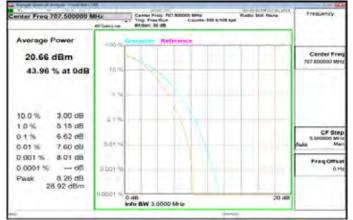
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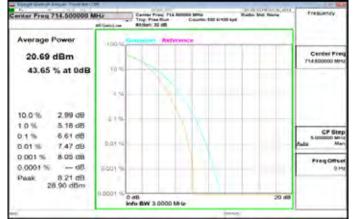
LTE_Band12_3MHz_64QAM_15_0_LowCH23025-700.5



LTE Band12 3MHz 64QAM 15 0 MidCH23095-707.5



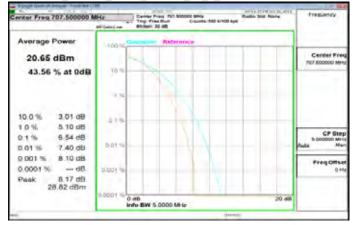
LTE_Band12_3MHz_64QAM_15_0_HighCH23165-714.5



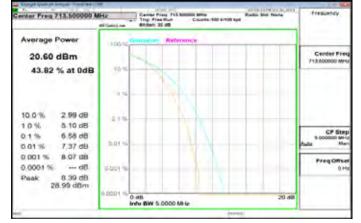
Cantar Pray Pot. 100 MPKs Mer Freg 701.500000 MHz Average Power Center Fre 20.55 dBm 701.5000 43.73 % at 0dB 10.0 % 2.97 dB 1.0 % 5.13 dB **CF** Step 0.1% 6.56 dB 3.01 0.01 % 7.66 dB 0.001 % 7 90 08 FreqOffs --- dB 0.0001 % 0.001 Peak 8.05 dB 28.60 dBm No BW 5 0000 MHz

LTE Band12_5MHz_64QAM_25_0_LowCH23035-701.5

LTE Band12 5MHz 64QAM 25 0 MidCH23095-707.5



LTE_Band12_5MHz_64QAM_25_0_HighCH23155-713.5



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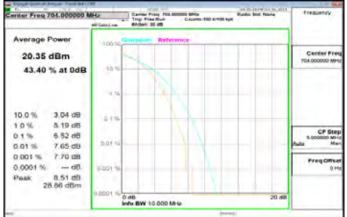
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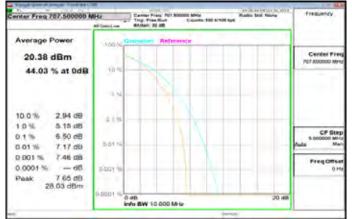
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LTE_Band12_10MHz_64QAM_50_0_LowCH23060-704

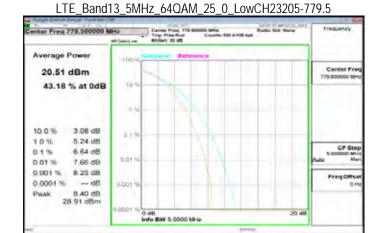


LTE_Band12_10MHz_64QAM_50_0_MidCH23095-707.5

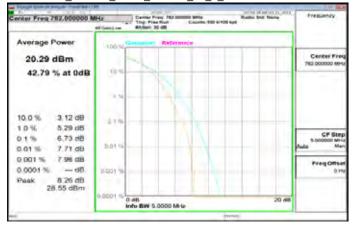


LTE_Band12_10MHz_64QAM_50_0_HighCH23130-711

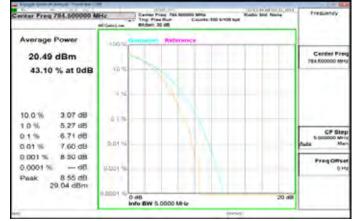




LTE Band13 5MHz 64QAM 25 0 MidCH23230-782



LTE_Band13_5MHz_64QAM_25_0_HighCH23255-784.5



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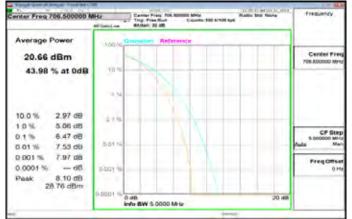
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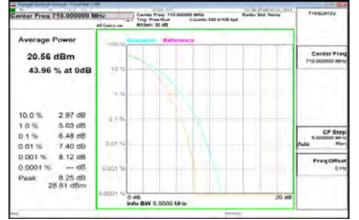
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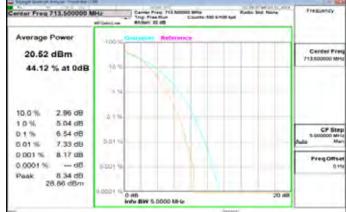


LTE_Band17_5MHz_64QAM_25_0_LowCH23755-706.5



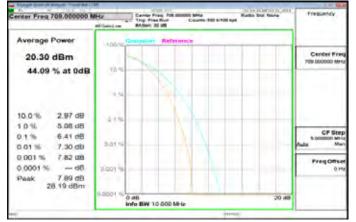
LTE_Band17_5MHz_64QAM_25_0_MidCH23790-710



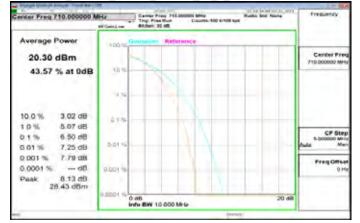


LTE_Band17_5MHz_64QAM_25_0_HighCH23825-713.5





LTE_Band17_10MHz_64QAM_50_0_MidCH23790-710



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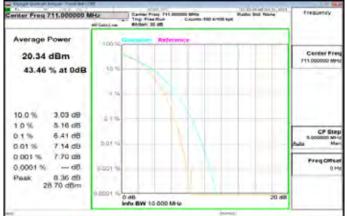
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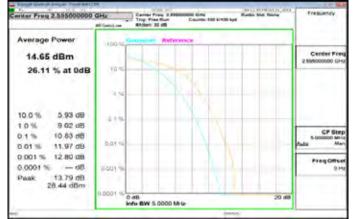
LTE_Band17_10MHz_64QAM_50_0_HighCH23800-711



LTE Band38 5MHz 64QAM 25 0 LowCH37775-2572.5

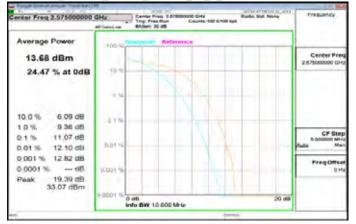


LTE Band38 5MHz 64QAM 25 0 MidCH38000-2595

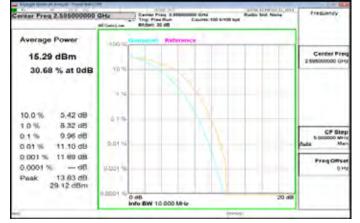


Carrier Press 2 81/1000000 GHz Har Freq 2.617500000 GHz Average Power Center Fre 16.45 dBm 2.8176000 00 0 34.85 % at 0dB 10 10.0 % 5.00 dB 1.0 % 7.75 dB CF Step 0.1% 0.31 dB 3.01 0.01% 10.79 dB 0.001 % 11.25 dB FreqOffs --- dB 0.0001 % 0.001 Peak 11.42 (0) 27.67 dBm AB BW 5.0000 MHz

LTE Band38 10MHz 64QAM 50 0 LowCH37800-2575



LTE Band38 10MHz 64QAM 50 0 MidCH38000-2595



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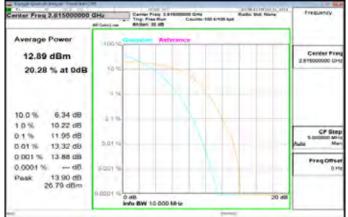
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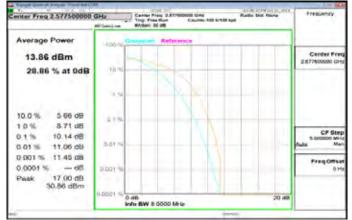
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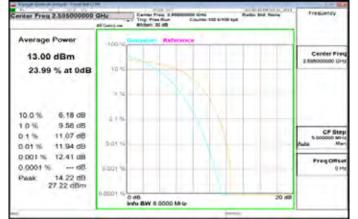
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LTE_Band38_15MHz_64QAM_75_0_LowCH37825-2577.5



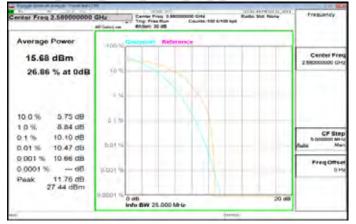
LTE_Band38_15MHz_64QAM_75_0_MidCH38000-2595



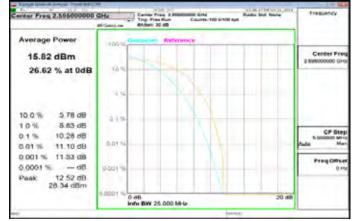
LTE_Band38_15MHz_64QAM_75_0_HighCH38175-2612.5



LTE_Band38_20MHz_64QAM_100_0_LowCH37850-2580



LTE_Band38_20MHz_64QAM_100_0_MidCH38000-2595



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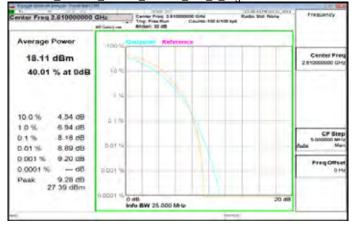
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SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 t (886-2) 2299-3279 f (886-2) 2298-0488 www.tw.sgs.com



LTE_Band38_20MHz_64QAM_100_0_HighCH38150-2610



~ End of Report ~

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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