

Report No.: ER/2015/40020 Issue Date: Jun. 04, 2015

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## ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

# INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22 SUBPART H, PART 24 SUBPART E and PART 27 SUBPART C & SUBPART L and PART 90 S REQUIREMENT

OF

**Product Name:** 7-inch Rugged Tablet

**Brand Name: Pioneerpos** 

**DASH 7" Robust Tablet PC Marketing Name:** 

**Model No.:** DASH7E1

**Model Difference:** N/A

FCC ID: CPOD7E1-LTE

**Report No.:** ER/2015/40020

**Issue Date:** Jun. 04, 2015

**FCC Rule Part:** 2,22H & 24E & 27C & L & 90S

**Prepared for:** Pioneer POS Solution, Inc.

238 Benton Ct., City of Industry, CA 91789

SGS Taiwan Ltd. Prepared by:

**Electronics & Communication Laboratory** 

No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan

24803

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## VERIFICATION OF COMPLIANCE

**Applicant:** Pioneer POS Solution, Inc.

238 Benton Ct., City of Industry, CA 91789

**Product Name:** 7-inch Rugged Tablet

**Brand Name: Pioneerpos** 

**Marketing Name:** DASH 7" Robust Tablet PC

Model No.: DASH7E1

**Model Difference:** N/A

FCC ID: CPOD7E1-LTE

**File Number:** ER/2015/40020

Date of test: Apr. 15, 2015 ~ Jun. 04, 2015

**Date of EUT Received:** Apr. 15, 2015

## We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C-2004 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

The test results of this report relate only to the tested sample identified in this report.

Test By:	Marcus	seng	Date:	Jun. 04, 2015	
	Marcus Tseng	/ Engineer			
Prepared By:	Tiffany	Kao	Date:	Jun. 04, 2015	
_	Tiffany Ka	o / Clerk			
Approved By:	Jim (	Ch any	Date:	Jun. 04, 2015	
_	·	·	·	·	

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Jim Chang / Asst. Manager

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# **Revision History**

Report Number	Revision	Description	Issue Date
ER/2015/40020	Rev.00	Initial creation of document	Jun. 04, 2015

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## 1. GENERAL PRODUCT INFORMATION

## 1.1. Product Description

General:

Product Name:	7-inch Rugged Tablet		
Brand Name:	Pioneerpos		
Marketing Name:	DASH 7"	Robust Tablet PC	
Model No.:	DASH7E1		
Model Difference:	N/A		
Product SW/HW version:	20150128 / A0.3_0_0		
Radio SW/HW version:	05.05.16.00 / 1.1		
Test SW Version:	N/A		
RF power setting in TEST SW:	N/A		
Data Cable:	Model No.	: N/A, Supplier: N/A	
	7.4Vdc from Rechargeable Li-ion Battery or 12V from AC/DC Adapter		
Power Supply:	Battery:	Model No.: J1067, Supplier: JHT	
	Adapter: Model No.: LTE-24E-S2-2, Supplier: Li Tone Electronics Co., Ltd		
IMEI:	353515050147313		

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## GPRS / WCDMA/ CDMA:

	Operating Frequency		Rated Power
	GPRS 850, Class 10	824.2 MHz- 848.8 MHz	33dBm
	EDGE 850, Class 12	824.2 MHz- 848.8 MHz	27dBm
	GPRS 1900, Class 10	1850.2MHz – 1909.8MHz	30dBm
	EDGE 1900, Class 12	1850.2MHz – 1909.8MHz	26dBm
Cellular Phone Standards Frequency	WCDMA/HSUPA/HSDPA /HSPA+ Band II	1852.4MHz – 1907.6MHz	24dBm
Range and Power	WCDMA/HSUPA/HSDPA /HSPA+ Band IV	1712.4MHz - 1752.6MHz	24 dBm
	WCDMA/HSUPA/HSDPA /HSPA+ Band V	826.4MHz - 846.6MHz	24dBm
	CDMA/EVDO BC0	824.7 MHz- 848.31MHz	24 dBm
	CDMA/EVDO BC1	1851.25MHz-1908.75MHz	24 dBm
	CDMA/EVDO BC10	817.9 MHz – 823.1 MHz	24 dBm

#### LTE:

	Operating Frequency		Rated Power
	LTE-Band 2 (Bandwidth 1.4MHz)	12 (Bandwidth 1.4MHz) 1850.7MHz–1909.3MHz	
	LTE-Band 2 (Bandwidth 3MHz) 1851.5MHz – 1908.5MHz		23dBm
	LTE-Band 2 (Bandwidth 5MHz)	1852.5MHz – 1907.5MHz	23dBm
	LTE-Band 2 (Bandwidth 10MHz)	1855.0MHz – 1905.0MHz	23dBm
Cellular Phone	LTE-Band 2 (Bandwidth 15MHz)	1857.5MHz – 1902.5MHz	23dBm
Standards Frequency Range and Power	LTE-Band 2 (Bandwidth 20MHz)	1860.0MHz – 1900.0MHz	23dBm
Range and Fower	LTE-Band 4 (Bandwidth 1.4MHz)	1710.7MHz- 1754.3MHz	23dBm
	LTE-Band 4 (Bandwidth 3MHz)	1711.5MHz – 1753.5MHz	23dBm
	LTE-Band 4 (Bandwidth 5MHz)	1712.5MHz – 1752.5MHz	23dBm
	LTE-Band 4 (Bandwidth 10MHz)	1715.0MHz – 1750.0MHz	23dBm
	LTE-Band 4 (Bandwidth 15MHz)	1717.5MHz – 1747.5MHz	23dBm
	LTE-Band 4 (Bandwidth 20MHz)	1720.0MHz – 1745.0MHz	23dBm

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	Operating Frequency			
	LTE-Band 5 (Bandwidth 1.4MHz)	824.7MHz – 848.3MHz	23dBm	
	LTE-Band 5 (Bandwidth 3MHz) 825.5MHz – 848.3MHz		23dBm	
	LTE-Band 5 (Bandwidth 5MHz)	826.5MHz – 846.5MHz	23dBm	
	LTE-Band 5 (Bandwidth 10MHz)	829.0MHz – 844.0MHz	23dBm	
	LTE-Band 13 (Bandwidth 5MHz)	779.5MHz – 784.5MHz	23 dBm	
Cellular Phone	LTE-Band 13 (Bandwidth 10MHz)	782.0MHz – 782.0MHz	23 dBm	
Standards Frequency Range and Power	LTE-Band 17 (Bandwidth 5MHz)	706.5MHz – 713.5MHz	23dBm	
runge und 1 6 wer	LTE-Band 17 (Bandwidth 10MHz)	709.0MHz –711.0MHz	23dBm	
	LTE-Band 25 (Bandwidth 1.4MHz)	1850.7MHz- 1914.3MHz	23dBm	
	LTE-Band 25 (Bandwidth 3MHz)	1851.5MHz – 1913.5MHz	23dBm	
	LTE-Band 25 (Bandwidth 5MHz)	1852.5MHz – 1912.5MHz	23dBm	
	LTE-Band 25 (Bandwidth 10MHz)	1855.0MHz – 1910.0MHz	23dBm	
	LTE-Band 25 (Bandwidth 15MHz)	1857.5MHz – 1907.5MHz	23dBm	
	LTE-Band 25 (Bandwidth 20MHz)	1860.0MHz – 1905.0MHz	23dBm	

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	GPRS 850	246KGXW
	EDGE 850	248KG7W
	GPRS 1900	247KGXW
	EDGE 1900	245KG7W
	WCDMA Band II	4M17F9W
	HSDPA Band II	4M17F9W
	HSUPA Band II	4M17F9W
	WCDMA Band IV	4M17F9W
	HSDPA Band IV	4M17F9W
	HSUPA Band IV	4M18F9W
	WCDMA Band V	4M16F9W
	HSDPA Band V	4M15F9W
	HSUPA Band V	4M14F9W
	CDMA BC0	1M27F9W
	EVDO BC0	1M28F9W
	CDMA BC1	1M27F9W
	EVDO BC1	1M27F9W
	CDMA BC10	1M27F9W
	EVDO BC10	1M27F9W
	LTE-Band 2 (Bandwidth 1.4MHz) QPSK	1M09G7D
	LTE-Band 2 (Bandwidth 1.4MHz) 16QAM	1M10D7W
Type of Emission:	LTE-Band 2 (Bandwidth 3MHz) QPSK	2M71G7D
• 1	LTE-Band 2 (Bandwidth 3MHz) 16QAM	2M71D7W
	LTE-Band 2 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 2 (Bandwidth 5MHz) 16QAM	4M51D7W
	LTE-Band 2 (Bandwidth 10MHz) QPSK	8M99G7D
	LTE-Band 2 (Bandwidth 10MHz) 16QAM	9M00D7W
	LTE-Band 2 (Bandwidth 15MHz) QPSK	13M5G7D
	LTE-Band 2 (Bandwidth 15MHz) 16QAM	13M5D7W
	LTE-Band 2 (Bandwidth 20MHz) QPSK	18M0G7D
	LTE-Band 2 (Bandwidth 20MHz) 16QAM	18M0D7W
	LTE-Band 4 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 4 (Bandwidth 1.4MHz) 16QAM	1M10D7W
	LTE-Band 4 (Bandwidth 3MHz) QPSK	2M72G7D
	LTE-Band 4 (Bandwidth 3MHz) 16QAM	2M71D7W
	LTE-Band 4 (Bandwidth 5MHz) QPSK	4M50G7D
	LTE-Band 4 (Bandwidth 5MHz) 16QAM	4M51D7W
	LTE-Band 4 (Bandwidth 10MHz) QPSK	9M00G7D
	LTE-Band 4 (Bandwidth 10MHz) 16QAM	8M99D7W
	LTE-Band 4 (Bandwidth 15MHz) QPSK	13M4G7D
	LTE-Band 4 (Bandwidth 15MHz) QLSK  LTE-Band 4 (Bandwidth 15MHz) 16QAM	13M5D7W
	LTE-Band 4 (Bandwidth 13MHz) 10QAW  LTE-Band 4 (Bandwidth 20MHz) QPSK	17M9G7D
	LTE-Band 4 (Bandwidth 20MHz) 16QAM	18M0D7W

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	LTE-Band 5 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 5 (Bandwidth 1.4MHz) 16QAM	1M11D7W
	LTE-Band 5 (Bandwidth 3MHz) QPSK	2M71G7D
	LTE-Band 5 (Bandwidth 3MHz) 16QAM	2M71D7W
	LTE-Band 5 (Bandwidth 5MHz) QPSK	4M48G7D
	LTE-Band 5 (Bandwidth 5MHz) 16QAM	4M50D7W
	LTE-Band 5 (Bandwidth 10MHz) QPSK	9M00G7D
	LTE-Band 5 (Bandwidth 10MHz) 16QAM	8M96D7W
	LTE-Band 13 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 13 (Bandwidth 5MHz) 16QAM	4M52D7W
	LTE-Band 13 (Bandwidth 10MHz) QPSK	8M91G7D
	LTE-Band 13 (Bandwidth 10MHz) 16QAM	8M94D7W
	LTE-Band 17 (Bandwidth 5MHz) QPSK	4M51G7D
Two of Emissions	LTE-Band 17 (Bandwidth 5MHz) 16QAM	4M51D7W
Type of Emission:	LTE-Band 17 (Bandwidth 10MHz) QPSK	8M99G7D
	LTE-Band 17 (Bandwidth 10MHz) 16QAM	9M00D7W
	LTE-Band 25 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 25 (Bandwidth 1.4MHz) 16QAM	1M11D7W
	LTE-Band 25 (Bandwidth 3MHz) QPSK	2M70G7D
	LTE-Band 25 (Bandwidth 3MHz) 16QAM	2M71D7W
	LTE-Band 25 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 25 (Bandwidth 5MHz) 16QAM	4M50D7W
	LTE-Band 25 (Bandwidth 10MHz) QPSK	8M99G7D
	LTE-Band 25 (Bandwidth 10MHz) 16QAM	8M98D7W
	LTE-Band 25 (Bandwidth 15MHz) QPSK	13M4G7D
	LTE-Band 25 (Bandwidth 15MHz) 16QAM	13M5D7W
	LTE-Band 25 (Bandwidth 20MHz) QPSK	17M9G7D
	LTE-Band 25 (Bandwidth 20MHz) 16QAM	17M9D7W
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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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## Max ERP/EIRP measurement result:

	dBm		W
GPRS 850 Band	21.26	ERP	0.134
EDGE 850 Band	20.85	ERP	0.122
GPRS 1900 Band	27.23	EIRP	0.528
EDGE 1900 Band	26.88	EIRP	0.488
WCDMA Band II	24.65	EIRP	0.292
HSDPA Band II	25.18	EIRP	0.330
HSUPA Band II	24.21	EIRP	0.264
WCDMA Band IV	26.18	EIRP	0.415
HSDPA Band IV	26.79	EIRP	0.478
HSUPA Band IV	25.91	EIRP	0.390
WCDMA Band V	17.40	ERP	0.055
HSDPA Band V	17.71	ERP	0.059
HSUPA Band V	17.20	ERP	0.052
CDMA 2000 BC0	17.35	ERP	0.054
EVDO 2000 BC0	16.67	ERP	0.046
CDMA 2000 BC1	23.36	EIRP	0.217
EVDO 2000 BC1	22.40	EIRP	0.174
CDMA 2000 BC10	16.82	ERP	0.048
EVDO 2000 BC10	15.65	ERP	0.037
LTE Band 2/1.4MMz /QPSK RB 1 Offset 0	28.53	EIRP	0.713
LTE Band 2/1.4MMz /16QAM RB 1 Offset 5	29.29	EIRP	0.849
LTE Band 2/3MMz /QPSK RB 1 Offset 14	27.84	EIRP	0.608
LTE Band 2/3MMz /16QAM RB 1 Offset 14	28.56	EIRP	0.718
LTE Band 2/5MMz /QPSK RB 1 Offset 0	27.60	EIRP	0.575
LTE Band 2/5MMz /16QAM RB 1 Offset 24	28.40	EIRP	0.692
LTE Band 2/10MMz /QPSK RB 1 Offset 0	27.82	EIRP	0.605
LTE Band 2/10MMz /16QAM RB 1 Offset 0	28.36	EIRP	0.685
LTE Band 2/15MMz /QPSK RB 1 Offset 0	27.70	EIRP	0.589
LTE Band 2/15MMz /16QAM RB 1 Offset 0	27.95	EIRP	0.624
LTE Band 2/20MMz /QPSK RB 1 Offset 0	27.38	EIRP	0.547
LTE Band 2/20MMz /16QAM RB 1 Offset 0	27.54	EIRP	0.568

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LTE Band 4/1.4MMz/QPSK RB 1 Offset 5   28.77   EIRP   0.753				
LTE Band 4/3MMz/QPSK RB 1 Offset 14  LTE Band 4/3MMz/QPSK RB 1 Offset 14  LTE Band 4/3MMz/QPSK RB 1 Offset 14  LTE Band 4/3MMz/QPSK RB 1 Offset 0  LTE Band 4/3MMz/QPSK RB 1 Offset 24  LTE Band 4/5MMz/QPSK RB 1 Offset 24  LTE Band 4/10MMz/QPSK RB 1 Offset 49  LTE Band 4/15MMz/QPSK RB 1 Offset 74  LTE Band 4/15MMz/QPSK RB 1 Offset 74  LTE Band 4/15MMz/QPSK RB 1 Offset 0  LTE Band 4/20MMz/QPSK RB 1 Offset 0  LTE Band 4/20MMz/QPSK RB 1 Offset 0  LTE Band 4/20MMz/QPSK RB 1 Offset 0  LTE Band 5/1.4MMz/QPSK RB 1 Offset 5  LTE Band 5/1.4MMz/QPSK RB 1 Offset 5  LTE Band 5/3MMz/QPSK RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 49  LTE Band 5/10MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/10MMz/QPSK RB 1 Offset 24  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/QPSK RB 1 Offset 0  LTE Band 25/14MMz/QPSK RB 1 Of	LTE Band 4/1.4MMz/QPSK RB 1 Offset 5	28.77	EIRP	0.753
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LTE Band 4/5MMz / 16QAM RB 1 Offset 0 27.18 EIRP 0.522  LTE Band 4/10MMz / 16QAM RB 1 Offset 24 27.16 EIRP 0.520  LTE Band 4/10MMz / 16QAM RB 1 Offset 49 27.53 EIRP 0.566  LTE Band 4/10MMz / 16QAM RB 1 Offset 49 27.76 EIRP 0.597  LTE Band 4/15MMz / 16QAM RB 1 Offset 49 27.76 EIRP 0.535  LTE Band 4/15MMz / 16QAM RB 1 Offset 74 27.28 EIRP 0.535  LTE Band 4/15MMz / 16QAM RB 1 Offset 74 27.78 EIRP 0.600  LTE Band 4/20MMz / 16QAM RB 1 Offset 0 27.13 EIRP 0.516  LTE Band 4/20MMz / 16QAM RB 1 Offset 0 27.64 EIRP 0.581  LTE Band 5/1.4MMz / 16QAM RB 1 Offset 5 18.76 ERP 0.075  LTE Band 5/1.4MMz / 16QAM RB 1 Offset 5 20.97 ERP 0.125  LTE Band 5/3MMz / 16QAM RB 1 Offset 0 21.19 ERP 0.132  LTE Band 5/3MMz / 16QAM RB 1 Offset 0 21.19 ERP 0.132  LTE Band 5/3MMz / 16QAM RB 1 Offset 0 21.10 ERP 0.129  LTE Band 5/5MMz / 16QAM RB 1 Offset 0 21.10 ERP 0.129  LTE Band 5/10MMz / 16QAM RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz / 16QAM RB 1 Offset 49 22.92 ERP 0.196  LTE Band 5/10MMz / 16QAM RB 1 Offset 49 22.92 ERP 0.196  LTE Band 13/5MMz / 16QAM RB 1 Offset 24 18.88 ERP 0.077  LTE Band 13/5MMz / 16QAM RB 1 Offset 49 19.66 ERP 0.109  LTE Band 13/10MMz / 16QAM RB 1 Offset 49 19.66 ERP 0.109  LTE Band 13/10MMz / 16QAM RB 1 Offset 49 19.66 ERP 0.092  LTE Band 17/5MMz / 16QAM RB 1 Offset 49 19.66 ERP 0.092  LTE Band 17/10MMz / 16QAM RB 1 Offset 49 19.26 ERP 0.095  LTE Band 17/10MMz / 16QAM RB 1 Offset 49 19.26 ERP 0.085  LTE Band 17/10MMz / 16QAM RB 1 Offset 49 18.61 ERP 0.073  LTE Band 17/10MMz / 16QAM RB 1 Offset 5 24 17.47 ERP 0.056  LTE Band 17/5MMz / 16QAM RB 1 Offset 5 27.04 EIRP 0.085  LTE Band 17/5MMz / 16QAM RB 1 Offset 0 26.12 EIRP 0.085  LTE Band 25/14MMz / 16QAM RB 1 Offset 0 26.12 EIRP 0.084  LTE Band 25/14MMz / 16QAM RB 1 Offset 0 25.88 EIRP 0.337  LTE Band 25/15MMz / 16QAM RB 1 Offset 0 25.88 EIRP 0.336  LTE Band 25/15MMz / 16QAM RB 1 Offset 0 25.88 EIRP 0.336  LTE Band 25/15MMz / 16QAM RB 1 Offset 0 25.81 EIRP 0.356  LTE Band 25/15MMz / 16QAM RB 1 Offset 0 25.82 EIRP 0.386  LTE Band 25/15MMz / 16QAM RB 1 Offset 0 2	LTE Band 4/3MMz/QPSK RB 1 Offset 14	27.82	EIRP	0.605
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LTE Band 4/20MMz /QPSK RB 1 Offset 0 27.13 EIRP 0.516  LTE Band 4/20MMz /16QAM RB 1 Offset 0 27.64 EIRP 0.581  LTE Band 5/1.4MMz /QPSK RB 1 Offset 5 18.76 ERP 0.075  LTE Band 5/1.4MMz /16QAM RB 1 Offset 5 20.97 ERP 0.125  LTE Band 5/3MMz /QPSK RB 1 Offset 0 21.19 ERP 0.132  LTE Band 5/3MMz /QPSK RB 1 Offset 0 21.19 ERP 0.129  LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.10 ERP 0.129  LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.28 ERP 0.194  LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /QPSK RB 1 Offset 49 22.92 ERP 0.196  LTE Band 13/5MMz /QPSK RB 1 Offset 24 18.88 ERP 0.077  LTE Band 13/5MMz /QPSK RB 1 Offset 24 20.36 ERP 0.109  LTE Band 13/10MMz /QPSK RB 1 Offset 49 20.22 ERP 0.109  LTE Band 13/10MMz /QPSK RB 1 Offset 49 19.66 ERP 0.092  LTE Band 13/10MMz /QPSK RB 1 Offset 49 19.66 ERP 0.092  LTE Band 17/5MMz /QPSK RB 1 Offset 49 19.66 ERP 0.092  LTE Band 17/5MMz /QPSK RB 1 Offset 49 19.66 ERP 0.0056  LTE Band 17/5MMz /QPSK RB 1 Offset 24 19.29 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 24 19.29 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.073  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.073  LTE Band 25/1.4MMz /16QAM RB 1 Offset 0 26.12 EIRP 0.409  LTE Band 25/1.4MMz /QPSK RB 1 Offset 0 26.12 EIRP 0.409  LTE Band 25/1.4MMz /QPSK RB 1 Offset 0 26.14 EIRP 0.506  LTE Band 25/3MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.356  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.356  LTE Band 25/10MMz /16QAM RB 1 Offset 0 25.82 EIRP 0.356  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.360  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.382  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.360	LTE Band 4/15MMz/QPSK RB 1 Offset 74	27.28	EIRP	0.535
LTE Band 4/20MMz /16QAM RB 1 Offset 0 27.64 EIRP 0.581  LTE Band 5/1.4MMz /QPSK RB 1 Offset 5 18.76 ERP 0.075  LTE Band 5/1.4MMz /16QAM RB 1 Offset 5 20.97 ERP 0.125  LTE Band 5/3MMz /QPSK RB 1 Offset 0 21.19 ERP 0.132  LTE Band 5/3MMz /16QAM RB 1 Offset 0 23.08 ERP 0.203  LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.10 ERP 0.129  LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /QPSK RB 1 Offset 49 22.92 ERP 0.196  LTE Band 13/5MMz /QPSK RB 1 Offset 24 18.88 ERP 0.077  LTE Band 13/5MMz /QPSK RB 1 Offset 49 19.66 ERP 0.109  LTE Band 13/10MMz /QPSK RB 1 Offset 49 19.66 ERP 0.092  LTE Band 13/10MMz /QPSK RB 1 Offset 49 20.22 ERP 0.105  LTE Band 17/5MMz /QPSK RB 1 Offset 24 17.47 ERP 0.056  LTE Band 17/5MMz /QPSK RB 1 Offset 24 19.29 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 0 19.22 ERP 0.084  LTE Band 25/1.4MMz /QPSK RB 1 Offset 0 26.12 EIRP 0.409  LTE Band 25/3MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.506  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.495  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.506  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.506  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.508  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.508  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.508	LTE Band 4/15MMz/16QAM RB 1 Offset 74	27.78	EIRP	0.600
LTE Band 5/1.4MMz/QPSK RB 1 Offset 5  LTE Band 5/1.4MMz/16QAM RB 1 Offset 5  LTE Band 5/1.4MMz/16QAM RB 1 Offset 0  LTE Band 5/3MMz/QPSK RB 1 Offset 0  LTE Band 5/3MMz/16QAM RB 1 Offset 0  LTE Band 5/3MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/QPSK RB 1 Offset 0  LTE Band 5/5MMz/QPSK RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 49  LTE Band 13/5MMz/QPSK RB 1 Offset 49  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/5MMz/QPSK RB 1 Offset 49  LTE Band 17/10MMz/QPSK RB 1 Offset 49  LTE Band 25/1.4MMz/QPSK RB 1 Offset 0  LTE Band 25/1.4MMz/QPSK RB 1 Offset 0  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MM	LTE Band 4/20MMz/QPSK RB 1 Offset 0	27.13	EIRP	0.516
LTE Band 5/1.4MMz/16QAM RB 1 Offset 5  LTE Band 5/3MMz/QPSK RB 1 Offset 0  LTE Band 5/3MMz/16QAM RB 1 Offset 0  LTE Band 5/3MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/QPSK RB 1 Offset 0  LTE Band 5/5MMz/QPSK RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 49  LTE Band 13/5MMz/16QAM RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/10MMz/QPSK RB 1 Offset 24  LTE Band 15/5MMz/16QAM RB 1 Offset 24  LTE Band 15/5MMz/16QAM RB 1 Offset 24  LTE Band 15/5MMz/16QAM RB 1 Offset 24  LTE Band 15/14MMz/QPSK RB 1 Offset 24  LTE Band 15/14MMz/QPSK RB 1 Offset 0  LTE Band 25/14MMz/QPSK RB 1 Offset 0  LTE Band 25/14MMz/16QAM RB 1 Offset 0  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/16QAM RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/16QAM RB 1 Offset 0	LTE Band 4/20MMz /16QAM RB 1 Offset 0	27.64	EIRP	0.581
LTE Band 5/3MMz/QPSK RB 1 Offset 0  LTE Band 5/3MMz/16QAM RB 1 Offset 0  LTE Band 5/3MMz/16QAM RB 1 Offset 0  LTE Band 5/5MMz/QPSK RB 1 Offset 0  LTE Band 5/5MMz/16QAM RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 0  LTE Band 5/10MMz/QPSK RB 1 Offset 49  LTE Band 5/10MMz/16QAM RB 1 Offset 49  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/10MMz/QPSK RB 1 Offset 49  LTE Band 25/1.4MMz/16QAM RB 1 Offset 0  LTE Band 25/1.4MMz/QPSK RB 1 Offset 0  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/10MMz/QPSK RB 1 Offset 0	LTE Band 5/1.4MMz/QPSK RB 1 Offset 5	18.76	ERP	0.075
LTE Band 5/3MMz /16QAM RB 1 Offset 0 23.08 ERP 0.203  LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.10 ERP 0.129  LTE Band 5/5MMz /16QAM RB 1 Offset 0 22.88 ERP 0.194  LTE Band 5/10MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /16QAM RB 1 Offset 49 22.92 ERP 0.196  LTE Band 13/5MMz /QPSK RB 1 Offset 24 18.88 ERP 0.077  LTE Band 13/5MMz /QPSK RB 1 Offset 24 20.36 ERP 0.109  LTE Band 13/10MMz /QPSK RB 1 Offset 49 19.66 ERP 0.092  LTE Band 13/10MMz /QPSK RB 1 Offset 49 20.22 ERP 0.105  LTE Band 13/10MMz /QPSK RB 1 Offset 49 20.22 ERP 0.105  LTE Band 13/10MMz /QPSK RB 1 Offset 24 17.47 ERP 0.056  LTE Band 17/5MMz /QPSK RB 1 Offset 24 19.29 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.073  LTE Band 17/10MMz /QPSK RB 1 Offset 0 19.22 ERP 0.084  LTE Band 25/1.4MMz /QPSK RB 1 Offset 0 26.12 EIRP 0.409  LTE Band 25/3MMz /16QAM RB 1 Offset 0 26.12 EIRP 0.409  LTE Band 25/3MMz /QPSK RB 1 Offset 0 27.04 EIRP 0.506  LTE Band 25/3MMz /QPSK RB 1 Offset 0 27.05 EIRP 0.507  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.386	LTE Band 5/1.4MMz/16QAM RB 1 Offset 5	20.97	ERP	0.125
LTE Band 5/5MMz /QPSK RB 1 Offset 0 21.10 ERP 0.129  LTE Band 5/5MMz /16QAM RB 1 Offset 0 22.88 ERP 0.194  LTE Band 5/10MMz /QPSK RB 1 Offset 0 21.24 ERP 0.133  LTE Band 5/10MMz /16QAM RB 1 Offset 49 22.92 ERP 0.196  LTE Band 13/5MMz /QPSK RB 1 Offset 24 18.88 ERP 0.077  LTE Band 13/5MMz /16QAM RB 1 Offset 24 20.36 ERP 0.109  LTE Band 13/10MMz /QPSK RB 1 Offset 49 19.66 ERP 0.092  LTE Band 13/10MMz /QPSK RB 1 Offset 49 20.22 ERP 0.105  LTE Band 13/10MMz /16QAM RB 1 Offset 49 20.22 ERP 0.056  LTE Band 17/5MMz /QPSK RB 1 Offset 24 17.47 ERP 0.056  LTE Band 17/5MMz /16QAM RB 1 Offset 24 19.29 ERP 0.085  LTE Band 17/10MMz /QPSK RB 1 Offset 49 18.61 ERP 0.073  LTE Band 17/10MMz /QPSK RB 1 Offset 0 19.22 ERP 0.084  LTE Band 25/1.4MMz /QPSK RB 1 Offset 0 26.12 EIRP 0.409  LTE Band 25/1.4MMz /QPSK RB 1 Offset 0 26.14 EIRP 0.506  LTE Band 25/3MMz /QPSK RB 1 Offset 0 26.14 EIRP 0.507  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/5MMz /QPSK RB 1 Offset 0 25.88 EIRP 0.387  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.51 EIRP 0.356  LTE Band 25/10MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.508  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.382  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.502  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.382  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.82 EIRP 0.382  LTE Band 25/15MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.500	LTE Band 5/3MMz/QPSK RB 1 Offset 0	21.19	ERP	0.132
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LTE Band 5/10MMz/QPSK RB 1 Offset 0  LTE Band 5/10MMz/16QAM RB 1 Offset 49  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/16QAM RB 1 Offset 24  LTE Band 13/5MMz/16QAM RB 1 Offset 24  LTE Band 13/10MMz/QPSK RB 1 Offset 24  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/16QAM RB 1 Offset 49  LTE Band 13/10MMz/16QAM RB 1 Offset 49  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/5MMz/16QAM RB 1 Offset 24  LTE Band 17/10MMz/QPSK RB 1 Offset 24  LTE Band 17/10MMz/QPSK RB 1 Offset 49  LTE Band 17/10MMz/16QAM RB 1 Offset 0  LTE Band 25/1.4MMz/QPSK RB 1 Offset 0  LTE Band 25/1.4MMz/16QAM RB 1 Offset 5  LTE Band 25/3MMz/16QAM RB 1 Offset 0  LTE Band 25/3MMz/16QAM RB 1 Offset 0  LTE Band 25/3MMz/16QAM RB 1 Offset 0  LTE Band 25/5MMz/16QAM RB 1 Offset 0  LTE Band 25/5MMz/16QAM RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/16QAM RB 1 Offset 0  LTE Band 25/10MMz/QPSK RB 1 Offset 0  LTE Band 25/15MMz/QPSK RB 1 Offset 0  LTE Band 25/15MMz/	LTE Band 5/5MMz/QPSK RB 1 Offset 0	21.10	ERP	0.129
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LTE Band 5/10MMz/16QAM RB 1 Offset 49  LTE Band 13/5MMz/QPSK RB 1 Offset 24  LTE Band 13/5MMz/16QAM RB 1 Offset 24  LTE Band 13/5MMz/16QAM RB 1 Offset 24  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/QPSK RB 1 Offset 49  LTE Band 13/10MMz/16QAM RB 1 Offset 49  LTE Band 17/5MMz/QPSK RB 1 Offset 24  LTE Band 17/10MMz/QPSK RB 1 Offset 49  LTE Band 17/10MMz/QPSK RB 1 Offset 49  LTE Band 17/10MMz/QPSK RB 1 Offset 0  LTE Band 25/1.4MMz/QPSK RB 1 Offset 0  LTE Band 25/1.4MMz/QPSK RB 1 Offset 5  LTE Band 25/3MMz/QPSK RB 1 Offset 0  LTE Band 25/5MMz/QPSK RB 1 Offset 0  LTE Band 25/10MMz/QPSK RB 1 Offset 0  LTE Band 25/15MMz/QPSK RB 1 Offset	LTE Band 5/10MMz/QPSK RB 1 Offset 0	21.24	ERP	0.133
LTE Band 13/5MMz/16QAM RB 1 Offset 24       20.36       ERP       0.109         LTE Band 13/10MMz/QPSK RB 1 Offset 49       19.66       ERP       0.092         LTE Band 13/10MMz/16QAM RB 1 Offset 49       20.22       ERP       0.105         LTE Band 17/5MMz/QPSK RB 1 Offset 24       17.47       ERP       0.056         LTE Band 17/5MMz/16QAM RB 1 Offset 24       19.29       ERP       0.085         LTE Band 17/10MMz/QPSK RB 1 Offset 49       18.61       ERP       0.073         LTE Band 17/10MMz/16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz/QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.387         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.508         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.508         LTE Band 25/15MMz/16QAM RB 1 Offset 0       25.82       EIRP       0.502         LTE Band 25/20MMz/	LTE Band 5/10MMz/16QAM RB 1 Offset 49	22.92	ERP	0.196
LTE Band 13/10MMz/QPSK RB 1 Offset 49       19.66       ERP       0.092         LTE Band 13/10MMz/16QAM RB 1 Offset 49       20.22       ERP       0.105         LTE Band 17/5MMz/QPSK RB 1 Offset 24       17.47       ERP       0.056         LTE Band 17/5MMz/16QAM RB 1 Offset 24       19.29       ERP       0.085         LTE Band 17/10MMz/QPSK RB 1 Offset 49       18.61       ERP       0.073         LTE Band 17/10MMz/16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz/QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/3MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/QPSK RB 1 Offset 0       27.05       EIRP       0.387         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.506         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.502         LTE Band 25/20MMz/QPSK	LTE Band 13/5MMz/QPSK RB 1 Offset 24	18.88	ERP	0.077
LTE Band 13/10MMz/16QAM RB 1 Offset 49       20.22       ERP       0.105         LTE Band 17/5MMz/QPSK RB 1 Offset 24       17.47       ERP       0.056         LTE Band 17/5MMz/16QAM RB 1 Offset 24       19.29       ERP       0.085         LTE Band 17/10MMz/QPSK RB 1 Offset 49       18.61       ERP       0.073         LTE Band 17/10MMz/16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz/QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/QPSK RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.502         LTE Band 25/20MMz/QP	LTE Band 13/5MMz/16QAM RB 1 Offset 24	20.36	ERP	0.109
LTE Band 17/5MMz/QPSK RB 1 Offset 24       17.47       ERP       0.056         LTE Band 17/5MMz/16QAM RB 1 Offset 24       19.29       ERP       0.085         LTE Band 17/10MMz/QPSK RB 1 Offset 49       18.61       ERP       0.073         LTE Band 17/10MMz/16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz/QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/10MMz/QPSK RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/15MMz/QPSK RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/20MMz/QPSK RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 13/10MMz/QPSK RB 1 Offset 49	19.66	ERP	0.092
LTE Band 17/5MMz/16QAM RB 1 Offset 24       19.29       ERP       0.085         LTE Band 17/10MMz/QPSK RB 1 Offset 49       18.61       ERP       0.073         LTE Band 17/10MMz/16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz/QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz/16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz/QPSK RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 13/10MMz/16QAM RB 1 Offset 49	20.22	ERP	0.105
LTE Band 17/10MMz /QPSK RB 1 Offset 49       18.61       ERP       0.073         LTE Band 17/10MMz /16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz /QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz /16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz /QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz /16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz /QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz /16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz /QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/15MMz /QPSK RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz /QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/20MMz /QPSK RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz /QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 17/5MMz/QPSK RB 1 Offset 24	17.47	ERP	0.056
LTE Band 17/10MMz/16QAM RB 1 Offset 0       19.22       ERP       0.084         LTE Band 25/1.4MMz/QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz/16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz/16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/20MMz/QPSK RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 17/5MMz/16QAM RB 1 Offset 24	19.29	ERP	0.085
LTE Band 25/1.4MMz /QPSK RB 1 Offset 0       26.12       EIRP       0.409         LTE Band 25/1.4MMz /16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz /QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz /16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz /QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz /16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz /QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz /16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz /QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz /16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz /QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 17/10MMz/QPSK RB 1 Offset 49	18.61	ERP	0.073
LTE Band 25/1.4MMz/16QAM RB 1 Offset 5       27.04       EIRP       0.506         LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz/16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz/16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz/16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 17/10MMz/16QAM RB 1 Offset 0	19.22	ERP	0.084
LTE Band 25/3MMz/QPSK RB 1 Offset 0       26.14       EIRP       0.411         LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz/16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz/16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz/16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/1.4MMz/QPSK RB 1 Offset 0	26.12	EIRP	0.409
LTE Band 25/3MMz/16QAM RB 1 Offset 0       27.05       EIRP       0.507         LTE Band 25/5MMz/QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz/16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz/16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz/16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/1.4MMz/16QAM RB 1 Offset 5	27.04	EIRP	0.506
LTE Band 25/5MMz /QPSK RB 1 Offset 0       25.88       EIRP       0.387         LTE Band 25/5MMz /16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz /QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz /16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz /QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz /16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz /QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/3MMz/QPSK RB 1 Offset 0	26.14	EIRP	0.411
LTE Band 25/5MMz/16QAM RB 1 Offset 0       26.95       EIRP       0.495         LTE Band 25/10MMz/QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz/16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz/QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz/16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/3MMz/16QAM RB 1 Offset 0	27.05	EIRP	0.507
LTE Band 25/10MMz /QPSK RB 1 Offset 0       25.51       EIRP       0.356         LTE Band 25/10MMz /16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz /QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz /16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz /QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/5MMz/QPSK RB 1 Offset 0	25.88	EIRP	0.387
LTE Band 25/10MMz /16QAM RB 1 Offset 0       27.06       EIRP       0.508         LTE Band 25/15MMz /QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz /16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz /QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/5MMz/16QAM RB 1 Offset 0	26.95	EIRP	0.495
LTE Band 25/15MMz /QPSK RB 1 Offset 0       25.82       EIRP       0.382         LTE Band 25/15MMz /16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz /QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/10MMz /QPSK RB 1 Offset 0	25.51	EIRP	0.356
LTE Band 25/15MMz/16QAM RB 1 Offset 0       27.01       EIRP       0.502         LTE Band 25/20MMz/QPSK RB 1 Offset 0       25.81       EIRP       0.381	LTE Band 25/10MMz/16QAM RB 1 Offset 0	27.06	EIRP	0.508
LTE Band 25/20MMz /QPSK RB 1 Offset 0 25.81 EIRP 0.381	LTE Band 25/15MMz /QPSK RB 1 Offset 0	25.82	EIRP	0.382
	LTE Band 25/15MMz/16QAM RB 1 Offset 0	27.01	EIRP	0.502
I TE Band 25/20MMz /160 AM RB 1 Offset 0 26.72 FIRP 0.470	LTE Band 25/20MMz /QPSK RB 1 Offset 0	25.81	EIRP	0.381
DID Date 25/2011112/10Q1111 TO 1 Other 0 20.12 LIN 0.470	LTE Band 25/20MMz/16QAM RB 1 Offset 0	26.72	EIRP	0.470

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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## 1.2. Product Feature of Equipment Under Test

The equipment under Test (Hereafter Called: EUT) is 7" Rugged Tablet supporting, GPRS / WCDMA / CDMA / LTE,

Wi-Fi 802.11abgn, Bluetooth with GPS and NFC features, and below is details of information

Product Feature			
Product Name:	7-inch Rugged Tablet		
Brand Name:	Pioneerpos		
Marketing Name:	DASH 7" Robust Tablet PC		
Model No.:	DASH7E1		
Model Difference:	N/A		
FCC ID	CPOD7E1-LTE		
GPRS Operating Band(s)	GPRS 850/1900MHz		
GPRS / EGPRS Multi Slot Class	GPRS Class 10 / Class 12		
CDMA / EVDO	BC0 / BC1 / BC10		
WCDMA Operating Band(s)	FDD Band II / IV / V		
WCDMA Rel. Version	Rel.8		
LTE Operating Band(s)	FCC Band 2 / 4 / 5 / 13 / 17 / 25		
LTE Rel. Version	Rel.9		
Wi-Fi Specification	802.11a/b/g/n		
Bluetooth Version	V4.0 dual mode +EDR		
NFC Specification	NFC		

Note: The above EUT information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

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#### Test Methodology of Applied Standards

FCC 47 CFR Part 2, 22, 24, 27, Part 90S.

ANSI / TIA / EIA 603C-C-2004

KDB971168 D01 Power Meas license Digital System v02r01

KDB941225 of the Output power Procedure of (SAR Measurement Procedures for 3G Devices, WCDMA / HSPA) was used for EUT and Base station setting.

TS 151 010-1 is used to set, and measure the output power.

#### Note:

- All test items have been performed and record as per the above standards.
- The composite system is compliance with FCC Subpart B is authorized under the certification procedure.

#### **Test Facility** 1.4.

SGS Taiwan Ltd. Electronics & Communication Laboratory No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan. (TAF code 0513)

FCC Registration Numbers are: 990257

Canada Registration Number: 4620A-4...

## 1.5. Special Accessories

No special accessories were used during testing.

## 1.6. Equipment Modifications

There were no modifications incorporated into the EUT.

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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## 2. SYSTEM TEST CONFIGURATION

## 2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

#### 2.2. **EUT Exercise**

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

#### 2.3. **Test Procedure**

#### 2.3.1 Conducted Measurement at Antenna Port

According to measurement procured TIA/EIA 603C, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

## 2.3.2 Radiated Emissions (ERP/EIRP)

According to measurement procured TIA/EIA 603C, The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max, emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna according to the requirements in Section 8 and 13.

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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## 2.4. Measurement Results Explanation Example

#### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

## Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Following shows an offset computation example with cable loss and attenuator.

Low Band: Offset = RF cable loss (dB)+ attenuation factor(dB) = 14.2(dB)

High Band: Offset = RF cable loss (dB)+ attenuation factor(dB) = 14(dB)

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Final Amplifier Voltage and Current Information:

Test Mode	DC voltage (V)	DC current (mA)
GPRS 850	7.4V	283
GPRS 1900	7.4V	212
EDGE 850	7.4V	229
EDGE 1900	7.4V	253
WCDMA B2	7.4V	549
WCDMA B4	7.4V	481
WCDMA B5	7.4V	451
CDMA BC0	7.4V	968
CDMA BC1	7.4V	879
CDMA BC10	7.4V	967
LTE Band 2	7.4 V	1134
LTE Band 4	7.4 V	964
LTE Band 5	7.4 V	1021
LTE Band 13	7.4 V	949
LTE Band 17	7.4 V	965
LTE Band 25	7.4V	994

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## **Configuration of Tested System**

Fig. 2-1 Configuration of Tested System (Fixed Channel-Conducted)

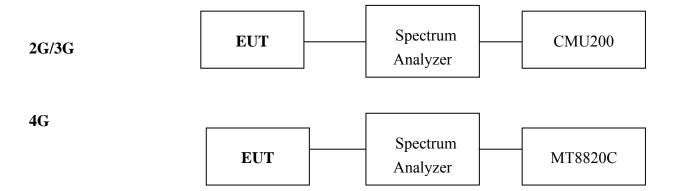


Fig. 2-2 Configuration of Tested System (Fixed Channel-Radiated)

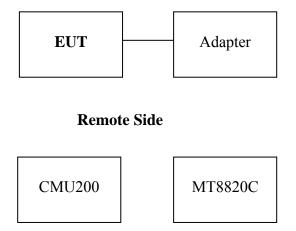


Table 2-1 Equipment Used in

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Universal Radio Com- munication Tester	R&S	CMU200	102189	shielded	Un-shielded
2.	Universal Radio Com- munication Tester	Anritsu	MT8820C	6200307563	shielded	Un-shielded

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## 3. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§2.1046(a)	RF Power Output	Compliant
\$2.1046(a) \$22.913(a)(2) \$24.232(c) \$27.50(h)(2) \$90.635	ERP/ EIRP measurement	Compliant
§2.1049(h)	Occupied Bandwidth	Compliant
\$2.1051 \$22.917(a) \$24.238(a) \$27.53(g) \$27.50(c)(5) \$27.53(h) \$27.53(m)(4) \$90.691	Out of Band Emissions at Antenna Terminals and Band Edge	Compliant
\$2.1053 \$22.917(a) \$24.238(a) \$27.50(c)(5) \$27.53(g) \$27.53(h) \$27.53(f) \$27.53(m)(4) \$90.691(a)(1)(2)	Field Strength of Spurious Radiation	Compliant
\$24.232(d) \$27.53(d) (5) \$27.50(i) (B)	Peak to Average Ratio	Compliant
\$2.1055(a)(1) \$22.355 \$24.235 \$27.54 \$90.231	Frequency Stability	Compliant

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## 4. DESCRIPTION OF TEST MODES

## 4.1. The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found as listed below. Following channel(s) was (were) selected for the final test as listed below:

BAND	ERP/EIRP	RADIATED EMISSION
GPRS/EDGE 850	H-plan	H-plan
GPRS/EDGE 1900	E1-plan	E1-plan
WCDMA/HSPA Band II	E1-plan	E1-plan
WCDMA/HSPA Band IV	E1-plan	E1-plan
WCDMA/HSPA Band V	H-plan	H-plan
CDMA / EVDO BC 0	E2-plan	E2-plan
CDMA / EVDO BC 1	H-plan	H-plan
CDMA / EVDO BC 10	E2-plan	E2-plan
LTE Band 2 / 4 /25	H-plan	H-plan
LTE Band 5/ 13 /17	E2-plan	E2-plan

#### **GPRS/EDGE MODE**

S/EDGE MODE			
TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP	128 to 251	128, 190, 251	GPRS/EDGE 850
EIRP	512 to 810	512, 661, 810	GPRS/EDGE 1900
FREQUENCY STABILITY	128 to 251	190	GPRS 850
TREQUENCT STABILITY	512 to 810	661	GPRS 1900
OCCUPIED BANDWIDTH	128 to 251	190	GPRS/EDGE 850
OCCUPIED BANDWIDTH	512 to 810	661	GPRS/EDGE 1900
PEAK TO AVERAGE RATIO	128 to 251	128, 190, 251	GPRS/EDGE 850
FEAR TO AVERAGE RATIO	512 to 810	512, 661, 810	GPRS/EDGE 1900
BAND EDGE	128 to 251	128, 251	GPRS/EDGE 850
BAND EDGE	512 to 810	512, 810	GPRS/EDGE 1900
CONDCUDETED EMISSION	128 to 251	128, 251	GPRS/EDGE 850
CONDCODETED EMISSION	512 to 810	512, 810	GPRS/EDGE 1900
RADIATED EMISSION	128 to 251	128, 251	GPRS 850
KADIATED EMISSION	512 to 810	512, 810	GPRS 1900

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#### WCDMA/HSPA MODE

TEST ITEM	AVAILABLE	TESTED	MODE
TEST TIENT	CHANNEL	CHANNEL	WODE
ERP	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band V
EIRP	9262 to 9538	9262, 9400, 9583	WCDMA/HSPA Band II
EINF	1312 to 1513	1312, 1413, 1513	WCDMA/HSPA Band IV
	4132 to 4233	4183	WCDMA Band II
FREQUENCY STABILITY	1312 to 1513	1413	WCDMA Band IV
	9262 to 9538	9400	WCDMA Band V
	4132 to 4233	4183	WCDMA/HSPA Band II
OCCUPIED BANDWIDTH	1312 to 1513	1413	WCDMA/HSPA Band IV
	9262 to 9538	9400	WCDMA/HSPA Band V
	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band II
PEAK TO AVERAGE RATIO	1312 to 1513	1312, 1413, 1513	WCDMA/HSPA Band IV
	9262 to 9538	9262, 9400, 9583	WCDMA/HSPA Band V
	4132 to 4233	4132, 4233	WCDMA Band II
BAND EDGE	1312 to 1513	1312, 1513	WCDMA Band IV
	9262 to 9538	9262, 9583	WCDMA Band V
	4132 to 4233	4132, 4183, 4233	WCDMA Band II
CONDCUDETED EMISSION	1312 to 1513	1312, 1413, 1513	WCDMA Band IV
	9262 to 9538	9262, 9400, 9583	WCDMA Band V
	4132 to 4233	4132, 4183, 4233	HSDPA Band II
RADIATED EMISSION	1312 to 1513	1312, 1413, 1513	HSDPA Band IV
	9262 to 9538	9262, 9400, 9583	HSDPA Band V

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#### CDMA/EVDO MODE

TEST ITEM	AVAILABLE	TESTED	MODE
1ESI IIEWI	CHANNEL	CHANNEL	MODE
ERP	1013 to 777	1013, 384, 777	CDMA/EVDO BC0
EKF	476 to 684	476, 580, 684	CDMA/EVDO BC10
EIRP	25 to 1175	25, 600, 1175	CDMA/EVDO BC1
	1013 to 777	1013, 384, 777	CDMA BC0
FREQUENCY STABILITY	25 to 1175	25, 600, 1175	CDMA BC1
	476 to 684	476, 580, 684	CDMA BC10
	1013 to 777	1013, 384, 777	CDMA/EVDO BC0
OCCUPIED BANDWIDTH	25 to 1175	25, 600, 1175	CDMA/EVDO BC1
	476 to 684	476, 580, 684	CDMA/EVDO BC10
	1013 to 777	1013, 384, 777	CDMA/EVDO BC0
PEAK TO AVERAGE RATIO	25 to 1175	25, 600, 1175	CDMA/EVDO BC1
	476 to 684	476, 580, 684	CDMA/EVDO BC10
	1013 to 777	1013, 384, 777	CDMA BC0
BAND EDGE	25 to 1175	25, 600, 1175	CDMA BC1
	476 to 684	476, 580, 684	CDMA BC10
	1013 to 777	1013, 384, 777	CDMA BC0
CONDCUDETED EMISSION	25 to 1175	25, 600, 1175	CDMA BC1
	476 to 684	476, 580, 684	CDMA BC10
	1013 to 777	1013, 384, 777	CDMA BC0
EMISSION MASK	25 to 1175	25, 600, 1175	CDMA BC1
	476 to 684	476, 580, 684	CDMA BC10
	1013 to 777	1013, 384, 777	CDMA BC0
RADIATED EMISSION	25 to 1175	25, 600, 1175	CDMA BC1
	476 to 684	476, 580, 684	CDMA BC10

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#### LTE Band 2 MODE

LIE Band 2 MODE	2				
TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
1EST ITEM	CHANNEL	CHANNEL	BANDWIDTH	MODULATION	MODE
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB/0,14 RB Offset
EIRP	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
EIRP	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	18650 to 19150	18900	10MHz	QPSK,	Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	Full RB
OCCUPIED	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	16QAM	Full RB
PEAK TO AV-	18625 to 19175	18625, 18900, 19175	5MHz	16QAM	Full RB
ERAGE RATIO	18650 to 19150	18650, 18900, 19150	10MHz	16QAM	Full RB
Dia102 la1110	18675 to 19125	18675, 18900, 19125	15MHz	16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	16QAM	Full RB
	18607 to 19193	18607, 19193	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	18615 to 19185	18615, 19185	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
BAND EDGE	18625 to 19175	18625, 19175	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
BAND LDGE	18650 to 19150	18650, 19150	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	18675 to 19125	18675, 19125	15MHz	QPSK,	1 RB/ 0,74 RB Offset Full RB
	18700 to 19100	18700, 19100	20MHz	QPSK,	1 RB/ 0,99 RB Offset Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,	1 RB, 0 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK,	1 RB, 0 RB Offset
CONDCUDETED	18625 to 19175	18625, 18900, 19175	5MHz	QPSK,	1 RB, 0 RB Offset
EMISSION	18650 to 19150	18650, 18900, 19150	10MHz	QPSK,	1 RB, 0 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK,	1 RB, 0 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	18607 to 19193	18607, 18900, 19193	1.4MHz	16QAM	1 RB/ 5 RB Offset

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#### LTE Band 4 MODE

LIE Baild 4 MODI					
TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
	CHANNEL	CHANNEL	BANDWIDTH	IVIODOLATION	
	19957 to 19393	19957, 20175, 19393		QPSK, 16QAM	1 RB/ 0,5 RB Offset
	19965 to 22385	19965, 20175, 22385		QPSK, 16QAM	1 RB/ 0,14 RB Offset
EIRP	19975 to 20375	19975, 20175, 20375		QPSK, 16QAM	1 RB/ 0,24 RB Offset
LIKI	20000 to 20350	20000, 20175, 20350		QPSK, 16QAM	1 RB/ 0,49 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	20000 to 20350	20175	10MHz	QPSK,	Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	Full RB
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	Full RB
OCCUPIED	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	Full RB
	20025 to 20325	20025, 20175, 20325		QPSK, 16QAM	Full RB
	20050 to 20300	20050, 20175, 20300		QPSK, 16QAM	Full RB
	19957 to 19393	19957, 20175, 19393		16QAM	Full RB
	19965 to 22385	19965, 20175, 22385		16QAM	Full RB
PEAK TO AV-	19975 to 20375	19975, 20175, 20375		16QAM	Full RB
ERAGE RATIO	20000 to 20350	20000, 20175, 20350		16QAM	Full RB
Liuio la ilio	20025 to 20325	20025, 20175, 20325		16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	16QAM	Full RB
	19957 to 19393	19957, 19393	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	19965 to 22385	19965, 22385	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
BAND EDGE	19975 to 20375	19975, 20375	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
BAND EDGE	20000 to 20350	20000, 20350	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	20025 to 20325	20025, 20325	15MHz	QPSK,	1 RB/ 0,74 RB Offset Full RB
	20050 to 20300	20050, 20300	20MHz	QPSK,	1 RB/ 0,99 RB Offset Full RB
	19957 to 19393	19957, 20175, 19393		QPSK,	1 RB, 0 RB Offset
	19965 to 22385	19965, 20175, 22385		QPSK,	1 RB, 0 RB Offset
CONDCUDETED	19975 to 20375	19975, 20175, 20375	5MHz	QPSK,	1 RB, 0 RB Offset
EMISSION	20000 to 20350	20000, 20175, 20350		QPSK,	1 RB, 0 RB Offset
	20025 to 20325	20025, 20175, 20325		QPSK,	1 RB, 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	19957 to 19393	19957, 20175, 19393	1.4MHz	16QAM,	1 RB/ 5 RB Offset

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## LTE Band 5 MODE

LTE Dana 5 MODI					
TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
TEST TIEN	CHANNEL	CHANNEL	BANDWIDTH	MODOLITION	MODE
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
ERP	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offset
EKP	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
FREQUENCY STABILITY	20450 to 20600	20450, 20525, 20600	10MHz	QPSK,	Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	Full RB
BANDWIDTH	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	16QAM	Full RB
PEAK TO AV-	20415 to 20635	20415, 20525, 20635	3MHz	16QAM	Full RB
ERAGE RATIO	20425 to 20625	20425, 20525, 20625	5MHz	16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	16QAM	Full RB
	20470 to 20643	20470, 20643	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
DAND EDGE	20415 to 20635	20415, 20635	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
BAND EDGE	20425 to 20625	20425, 20625	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	20450 to 20600	20450, 20600	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK,	1 RB, 0 RB Offset
CONDCUDETED	20415 to 20635	20415, 20525, 20635	3MHz	QPSK,	1 RB, 0 RB Offset
EMISSION	20425 to 20625	20425, 20525, 20625	5MHz	QPSK,	1 RB, 0 RB Offset
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	20415 to 20635	20415, 20525, 20635	3MHz	16QAM,	1 RB/ 0 RB Offset

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#### LTE Band 13 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EDD	23205 to 23255	23205, 23230, 23255		QPSK, 16QAM	1 RB/ 0,24 RB Offset
ERP	23230	23230	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
FREQUENCY STABILITY	23230	23230	10MHz	QPSK,	Full RB
OCCUPIED	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	23230	23230	10MHz	QPSK, 16QAM	Full RB
PEAK TO AV-	23205 to 23255	23205, 23230, 23255	5MHz	16QAM	Full RB
ERAGE RATIO	23230	23230	10MHz	16QAM	Full RB
BAND EDGE	23205 to 23255	23205, 23255	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
BAND EDGE	23230	23230	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
CONDCUDETED	23205 to 23255	23205, 23230, 23255	5MHz	QPSK,	1 RB, 0 RB Offset
EMISSION	23230	23230	10MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	23205 to 23255	23205, 23230, 23255	5MHz	16QAM,	1 RB/ 24 RB Offset

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## LTE Band 17 MODE

LIL Dana I / MOL					
TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
EKP	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
FREQUENCY STABILITY	23780 to 23800	23790	10MHz	QPSK,	Full RB
OCCUPIED	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM	Full RB
PEAK TO AV-	23755 to 23825	23755, 23790, 23825	5MHz	16QAM	Full RB
ERAGE RATIO	23780 to 23800	23780, 23790, 23800	10MHz	16QAM	Full RB
BAND EDGE	23755 to 23825	23755, 23825	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
BAND EDGE	23780 to 23800	23780, 23800	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
CONDCUDETED	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,	1 RB, 0 RB Offset
EMISSION	23780 to 23800	23780, 23790, 23800	10MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	23755 to 23825	23755, 23790, 23825	5MHz	16QAM,	1 RB/ 24 RB Offset

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## LTE Band 25 MODE

BIBBUIL 20 1:10B	,				
TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
	CHANNEL	CHANNEL	BANDWIDTH	MODULATION	MODE
	27047 to 26683			QPSK, 16QAM	1 RB/ 0,5 RB Offset
	26055 to 26675			QPSK, 16QAM	1 RB/ 0,14 RB Offset
EIRP	26065 to 26665	INNEL         CHANNEL         BANDWIDTH           to 26683         27047, 26365, 26683         1.4MHz         QPSK, 16QAM           to 26675         26055, 26365, 26665         3MHz         QPSK, 16QAM           to 26665         26065, 26365, 26665         5MHz         QPSK, 16QAM           to 26640         26096, 26365, 26640         10MHz         QPSK, 16QAM           to 26615         26115, 26365, 26615         15MHz         QPSK, 16QAM           to 26690         26140, 26365, 26590         20MHz         QPSK, 16QAM           to 26640         26365         10MHz         QPSK, 16QAM           to 26640         26365         10MHz         QPSK, 16QAM           to 26683         27047, 26365, 26683         1.4MHz         QPSK, 16QAM           to 26665         26055, 26365, 26665         5MHz         QPSK, 16QAM           to 26665         26065, 26365, 26665         5MHz         QPSK, 16QAM           to 26665         26065, 26365, 26665         5MHz         QPSK, 16QAM           to 26675         2615, 26365, 26615         15MHz         QPSK, 16QAM           to 26615         26115, 26365, 26615         15MHz         QPSK, 16QAM           to 26659         26140, 26365, 26665         3MHz	1 RB/ 0,24 RB Offset		
LIKI	26096 to 26640				1 RB/ 0,49 RB Offset
	26115 to 26615				1 RB/ 0,74 RB Offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	26096 to 26640	26365	10MHz	QPSK,	Full RB
	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK, 16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz		Full RB
OCCUPIED	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	26096 to 26640	26096, 26365, 26640	10MHz	QPSK, 16QAM	Full RB
	26115 to 26615				Full RB
	26140 to 26590				Full RB
	27047 to 26683				Full RB
	26055 to 26675				Full RB
PEAK TO AV-	26065 to 26665	26065, 26365, 26665	5MHz	16QAM	Full RB
ERAGE RATIO	26096 to 26640	26096, 26365, 26640	10MHz		Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	16QAM	Full RB
	27047 to 26683	27047, 26683	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	26055 to 26675	26055, 26675	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
BAND EDGE	26065 to 26665	26065, 26665	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
BAND EDGE	26096 to 26640	26096, 26640	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	26115 to 26615	26115, 26615	15MHz	QPSK,	1 RB/ 0,74 RB Offset Full RB
	26140 to 26590	26140, 26590	20MHz		1 RB/ 0,99 RB Offset Full RB
	27047 to 26683				1 RB, 0 RB Offset
	26055 to 26675				1 RB, 0 RB Offset
CONDCUDETED	26065 to 26665	26065, 26365, 26665			1 RB, 0 RB Offset
EMISSION	26096 to 26640				1 RB, 0 RB Offset
	26115 to 26615				1 RB, 0 RB Offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	26096 to 26640	26096, 26365, 26640	10MHz	16QAM,	1 RB/ 0 RB Offset

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## 5. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
RF Power Output	+/- 1.10 dB
ERP/ EIRP measurement	Vertical Polarization = +/- 4.74dB Horizontal Polarization =+/- 4.62dB
99% Occupied Bandwidth	+/- 5.19 Hz
Out of Band Emissions at Antenna	+/- 0.70 dB
Terminals and Band Edge	
Peak to Average Ratio	+/- 0.70 dB
Frequency Stability vs. Temperature	+/- 5.19 Hz
Frequency Stability vs. Voltage	+/- 5.19 Hz
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC=+/- 0.2%

Radiated Spurious Emission:

Measurement uncertainty (Polarization : <b>Vertical</b> )	30MHz - 180MHz: +/- 3.37dB
	180MHz -417MHz: +/- 3.19dB
	0.417GHz-1GHz: +/- 3.19dB
	1GHz - 18GHz: +/- 4.04dB
	18GHz - 40GHz: +/- 4.04dB

Measurement uncertainty (Polarization : <b>Horizontal</b> )	30MHz - 167MHz: +/- 4.22dB
	167MHz -500MHz: +/- 3.44dB
	0.5GHz-1GHz: +/- 3.39dB
	1GHz - 18GHz: +/- 4.08dB
	18GHz - 40GHz: +/- 4.08dB

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

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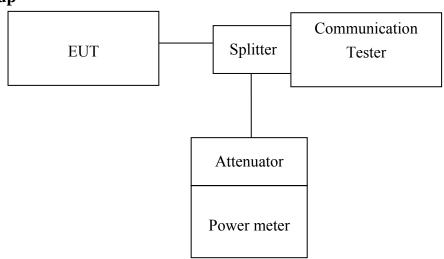
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#### 6. RF CONDUCTED OUTPUT POWER MEASUREMENT

## 6.1. Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

## 6.2. Test Set-up



Note: Measurement setup for testing on Antenna connector

#### **6.3.** Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. TS 151 010-1 is reference to conduct the test measurement of output power.

The Procedure of KDB941225 (SAR Measurement Procedures for 3G devices, (WCDMA/HSPA) was used for EUT and Base station setting. RMC 12.2kps is used for this testing, and KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results

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## 6.4. Measurement Equipment Used

Cond	Conducted Emission (measured at antenna port) Test Site											
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.							
TYPE		NUMBER	NUMBER	CAL.								
Power Meter	Anritsu	ML2495A	1005007	12/20/2014	12/19/2015							
Power Sensor	Anritsu	MA2411B	917032	12/20/2014	12/19/2015							
Radio Communication Analyzer	R&S	CMU200	102189	02/11/2015	02/10/2016							
Radio Communication Analyzer	Anritsu	MT8820C	6200995019	10/08/2014	10/09/2015							
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2015	01/01/2016							
Attenuator	Mini-Circuit	BW-S10W2+	002	01/02/2015	01/01/2016							
Splitter	Agilent	11636B	N/A	01/02/2015	01/01/2016							
DC Power Supply	Agilent	E3640A	MY52410006	11/10/2014	11/09/2015							

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#### 6.5. Measurement Result

## **RF** Conducted Output Power

## **GPRS/EDGE (GMSK; 8-PSK) Result:**

EUT Mode	Frequency (MHz)	СН	Peak Power (4DN 1UP) Class 8 (dBm)	Average Burst Power (4DN 1UP) Class 8 (dBm)	Peak Power (4DN 2UP) Class 10 (dBm)	Average Burst Power (4DN 2UP) Class 10 (dBm)
GDD G	824.2	128	31.90	31.70	31.90	31.70
GPRS 850	836.6	190	31.80	31.70	31.80	31.70
	848.8	251	32.20	32.10	32.10	32.00
CDDC	1850.2	512	29.20	29.00	29.10	28.90
GPRS 1900	1880.0	661	29.30	29.20	29.20	29.00
1,00	1909.8	810	29.20	29.00	29.00	28.80

EUT Mode	Frequency (MHz)	СН	Peak Power (4DN 1UP) Class 8 (dBm)	Average Burst Power (4DN 1UP) Class 8 (dBm)	Peak Power (4DN 2UP)	Average Burst Power (4DN 2UP) Class 10 (dBm)	Peak Power (4DN 3UP)	Average Burst Power (4DN 3UP) Class 12 (dBm)	Peak Power (4DN 4UP)	Average Burst Power (4DN 4UP) Class 12 (dBm)
EDGE	824.2	128	29.60	26.50	29.40	26.30	29.30	26.20	29.30	26.20
EDGE 850	836.6	190	29.60	26.50	29.40	26.30	29.30	26.20	29.30	26.20
	848.8	251	29.60	26.50	29.40	26.30	29.30	26.20	29.30	26.20
EDCE	1850.2	512	28.40	25.30	28.20	25.10	28.10	25.00	28.10	25.00
EDGE 1900	1880.0	661	28.40	25.30	28.20	25.10	28.10	25.00	28.10	25.00
	1909.8	810	28.30	25.20	28.10	25.10	28.00	25.00	28.00	25.00

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## CDMA2000/EVDO Result:

			CDMA	EVDO
EUT Mode	Frequency (MHz)	СН	Avg. Power (dBm)	Avg. Power (dBm)
	824.7	1013	22.67	22.70
BC0	836.52	384	22.76	22.90
	848.31	777	22.50	22.60
	1851.25	25	22.71	22.80
BC1	1880	600	22.57	22.70
	1908.75	1175	22.57	22.60
	817.9	476	22.57	22.60
BC10	820.5	580	22.57	22.60
	823.1	684	22.61	22.70

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## **WCDMA MODE:**

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.4.0 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7). RMC 12.2kps is used for this testing.

#### **Results:**

EUT Mode		WCDMA Band II			OPA id II	HSUPA Band II	
Frequency	СН	Peak Power	Avg. Power	Peak Power	Avg. Power	Peak Power	Avg. Power
(MHz)		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
1852.4	9262	26.13	22.84	26.05	22.21	25.65	21.62
1880.0	9400	26.06	22.74	25.94	22.13	25.47	21.45
1907.6	9538	26.08	22.81	25.95	22.19	25.41	21.59

EUT Mode		WCDMA Band IV		HSI Ban	OPA d IV	HSUPA Band IV	
Frequency	СН	Peak Power	Avg. Power	Peak Power	Avg. Power	Peak Power	Avg. Power
(MHz)		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
1712.4	1312	26.28	22.97	26.17	22.45	25.69	22.00
1732.6	1412	26.21	22.93	26.36	22.57	25.93	22.08
1752.6	1513	26.22	22.86	26.35	22.41	25.87	22.02

EUT Mode		WCDMA Band V		HSI Ban		HSUPA Band V	
Frequency	СН	Peak Power	Avg. Power	Peak Power	Avg. Power	Peak Power	Avg. Power
(MHz)		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
826.4	4132	25.94	22.55	25.66	22.00	25.03	21.27
836.6	4183	26.08	22.63	25.91	22.12	25.38	21.61
846.6	4233	25.81	22.49	25.75	22.03	25.08	21.39

Note: The results above reflect max power with all up bits.

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Cable loss offset: Low Band: 0.7dB, High Band: 1dB

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## LTE Result:

#### LTE Band 2

DIL Dai										
LTE Band 2_Uplink frequency band: 1850 to 1910 MHz										
	RB		Conducted power (dBm)							
BW		RB	QPSK			16QAM				
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			18607	18900	19193	18607	18900	19193		
	1	0	22.52	22.42	22.68	21.53	21.71	21.39		
1.4	1	5	22.64	22.46	22.71	21.83	21.42	21.72		
1.4	3	2	22.61	22.42	22.72	21.57	21.54	21.63		
	6	0	21.70	21.51	21.81	20.64	20.55	20.92		

LTE Band 2_Uplink frequency band: 1850 to 1910 MHz										
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)							
			QPSK			16QAM				
			Channel (Low) 18615	Channel (Mid) 18900	Channel (High) 19185	Channel (Low) 18615	Channel (Mid) 18900	Channel (High) 19185		
	1	0	22.67	22.41	22.64	21.77	21.88	21.87		
3	1	14	22.59	22.49	22.79	21.33	21.20	22.04		
3	8	4	21.72	21.55	21.75	20.62	20.46	20.73		
	15	0	21.71	21.57	21.80	20.70	20.58	20.78		

LTE Band 2_Uplink frequency band: 1850 to 1910 MHz										
BW	RB	RB	Conducted power (dBm)							
			QPSK			16QAM				
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			18625	18900	19175	18625	18900	19175		
	1	0	22.56	22.43	22.62	21.46	21.36	21.71		
5	1	24	22.61	22.34	22.65	21.31	21.27	21.59		
5	12	6	21.69	21.51	21.72	20.67	20.55	20.76		
	25	0	21.65	21.49	21.70	20.61	20.44	20.74		

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LTE Band 2_Uplink frequency band: 1850 to 1910 MHz										
BW	RB	RB	Conducted power (dBm)							
			QPSK			16QAM				
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			18650	18900	19150	18650	18900	19150		
	1	0	22.55	22.56	22.51	21.72	21.69	21.34		
10	1	49	22.67	22.41	22.76	21.53	21.78	21.59		
	25	12	21.51	21.43	21.56	20.44	20.48	20.58		
	50	0	21.38	21.34	21.44	20.35	20.39	20.44		

LTE Band 2_Uplink frequency band: 1850 to 1910 MHz										
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)							
			QPSK			16QAM				
			Channel (Low)	Channel (Mid)	Channel (High)	Channel (Low)	Channel (Mid)	Channel (High)		
	1	0	18675 22.62	18900 22.76	19125 22.38	18675 21.90	18900 21.34	19125 21.39		
	1	74	22.65	22.46	22.66	21.64	21.19	21.96		
15	36	19	21.48	21.36	21.46	20.45	20.40	20.51		
	75	0	21.47	21.41	21.33	20.47	20.39	20.39		

LTE Band 2_Uplink frequency band: 1850 to 1910 MHz										
BW (MHz)	RB Size		Conducted power (dBm)							
			QPSK			16QAM				
			Channel (Low)	Channel (Mid)	Channel (High)	Channel (Low)	Channel (Mid)	Channel (High)		
			18700	18900	19100	18700	18900	19100		
	1	0	22.74	22.69	22.51	21.56	21.87	21.20		
20	1	99	22.68	22.46	22.77	21.57	21.25	21.96		
20	50	25	21.52	21.59	21.52	20.56	20.50	20.50		
	100	0	21.66	21.52	21.58	20.70	20.57	20.55		

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## LTE Band 4

LTE Band 4_Uplink frequency band: 1710 to 1755 MHz									
			Conducted power (dBm)						
BW	RB	RB		QPSK			16QAM		
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel	
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
			19957	20175	20393	19957	20175	20393	
	1	0	22.67	22.42	22.69	21.41	21.48	22.14	
	1	5	22.53	22.73	22.62	21.47	22.18	22.15	
1.4	3	2	22.44	22.81	22.63	21.46	21.93	21.82	
	6	0	21.80	21.49	21.81	20.43	20.56	20.74	

	LTE Band 4_Uplink frequency band: 1710 to 1755 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK			16QAM			
(MHz)	Size	Offset	Channel (Low) 19965	Channel (Mid) 20175	Channel (High) 20385	Channel (Low) 19965	Channel (Mid) 20175	Channel (High) 20385		
	1	0	22.32	22.78	22.24	21.80	21.55	21.32		
	1	14	22.67	22.66	22.62	21.83	21.86	21.98		
3	8	4	21.67	21.76	21.57	20.54	20.64	20.47		
	15	0	21.66	21.76	21.46	20.57	20.81	20.46		

	LTE Band 4_Uplink frequency band : 1710 to 1755 MHz									
	BW RB (MHz) Size			Conducted power (dBm)						
BW		RB		QPSK		16QAM				
(MHz)		Offset	Channel (Low) 19975	Channel (Mid) 20175	Channel (High) 20375	Channel (Low) 19975	Channel (Mid) 20175	Channel (High) 20375		
	1	0	22.64	22.66	22.54	21.63	21.34	21.55		
_	1	24	22.41	22.56	22.66	21.52	22.01	21.85		
5	12	6	21.55	21.84	21.72	20.57	20.48	20.68		
	25	0	21.49	21.69	21.56	20.46	20.38	20.55		

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	LTE Band 4_Uplink frequency band: 1710 to 1755 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK			16QAM			
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			20000	20175	20350	20000	20175	20350		
	1	0	22.53	22.57	22.39	21.51	21.92	21.31		
10	1	49	22.58	22.53	22.60	21.91	21.77	21.31		
10	25	12	21.58	21.82	21.15	20.63	20.41	20.55		
	50	0	21.47	21.80	21.48	20.51	20.44	20.45		

	LTE Band 4_Uplink frequency band: 1710 to 1755 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK	(u)		16QAM			
(MHz)	Size	Offset	Channel				Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			20025	20175	20325	20025	20175	20325		
	1	0	22.70	22.71	22.88	21.50	21.73	21.88		
15	1	74	22.65	22.84	22.45	21.56	23.20	21.36		
13	36	19	21.60	21.61	21.59	20.61	20.65	20.53		
	75	0	21.57	21.53	21.47	20.44	20.50	20.45		

	LTE Band 4_Uplink frequency band : 1710 to 1755 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK			16QAM			
(MHz)	Size	Offset	Channel (Low) 20050	Channel (Mid) 20175	Channel (High) 20300	Channel (Low) 20050	Channel (Mid) 20175	Channel (High) 20300		
	1	0	22.76	22.83	22.86	21.54	21.84	21.72		
20	1	99	22.69	22.64	22.56	21.44	21.50	21.41		
20	50	25	21.63	21.64	21.87	20.67	20.53	20.33		
	100	0	21.65	21.65	21.42	20.73	20.55	20.75		

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## LTE Band 5

LTE Band 5_Uplink frequency band: 824 to 849 MHz									
			Conducted power (dBm)						
BW RB	RB		QPSK		16QAM				
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel	
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
			20407	20525	20643	20407	20525	20643	
	1	0	22.17	22.39	22.14	21.15	21.48	21.57	
	1	5	22.21	22.36	22.36	21.27	21.34	21.67	
1.4	3	2	22.25	22.40	22.37	21.27	21.55	21.51	
	6	0	21.44	21.41	21.45	20.44	20.55	20.48	

	LTE Band 5_Uplink frequency band: 824 to 849 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK	(3)	,	16QAM			
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			20415	20525	20635	20415	20525	20635		
	1	0	22.08	22.30	22.33	20.91	21.01	21.21		
3	1	14	22.27	22.45	22.30	21.23	21.59	21.29		
3	8	4	21.33	21.44	21.44	20.32	20.51	20.40		
	15	0	21.34	21.44	21.46	20.22	20.40	20.37		

	LTE Band 5_Uplink frequency band: 824 to 849 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK	(ui	Jiii)	16QAM			
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			20425	20525	20625	20425	20525	20625		
	1	0	22.32	22.34	22.32	21.10	21.63	21.47		
5	1	24	22.35	22.33	22.32	21.51	21.23	21.57		
3	12	6	21.32	21.51	21.63	20.24	20.49	20.65		
	25	0	21.27	21.35	21.38	20.25	20.37	20.34		

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	LTE Band 5_Uplink frequency band: 824 to 849 MHz									
				Conducted power (dBm)						
BW RB	RB		QPSK		16QAM					
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			20450	20525	20600	20450	20525	20600		
	1	0	22.44	22.21	22.38	20.94	21.64	21.29		
1.0	1	49	22.39	22.39	22.55	20.97	21.71	21.84		
10	25	12	21.30	21.44	21.51	20.20	20.31	20.29		
	50	0	21.39	21.35	21.43	20.09	20.36	20.28		

### LTE Band 13

	LTE Band 13_Uplink frequency band: 777 to 787 MHz									
				Conducted power (dBm)						
BW RB Size	RB		QPSK			16QAM				
	Size	Offset	Channel (Low) 23205	Channel (Mid) 23230	Channel (High) 23255	Channel (Low) 23205	Channel (Mid) 23230	Channel (High) 23255		
	1	0	22.26	22.56	22.61	21.12	21.50	21.91		
5	1	24	22.53	22.42	22.21	21.77	21.22	21.01		
3	12	6	21.42	21.58	21.47	20.35	20.62	20.56		
	25	0	21.40	21.61	21.49	20.39	20.53	20.54		

	LTE Band 13_Uplink frequency band: 777 to 787 MHz									
				ted power Bm)						
BW	BW RB (MHz) Size	RB	QPSK	16QAM						
(MHz)		Offset	Channel 23230	Channel 23230						
	1	0	22.23	21.37						
	1	49	22.18	21.30						
10	25	12	22.76	20.76						
	50	0	21.43	20.43						

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### LTE Band 17

	LTE Band 17_Uplink frequency band : 704 to 716 MHz										
		RB				ted power Bm)					
BW	RB			QPSK		16QAM					
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel			
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			23755	20790	23825	23755	20790	23825			
	1	0	22.04	22.63	22.54	21.35	21.52	21.59			
_	1	24	22.90	22.38	22.10	21.50	21.36	21.09			
5	12	6	21.54	21.79	21.51	20.52	20.55	20.50			
	25	0	21.50	21.47	21.36	20.53	20.77	20.37			

	LTE Band 17_Uplink frequency band : 704 to 716 MHz											
				Conducted power (dBm)								
BW	RB	RB		QPSK		16QAM						
(MHz)	Size	Offset	Channel (Low) 23780	Channel (Mid) 23790	Channel (High) 23800	Channel (Low) 23780	Channel (Mid) 23790	Channel (High) 23800				
	1	0	22.31	22.30	22.57	21.35	21.79	21.53				
1.0	1	49	22.22	22.46	22.19	21.32	20.93	21.32				
10	25	12	21.60	21.66	21.52	20.59	20.70	20.47				
	50	0	21.53	21.43	21.43	20.51	20.44	20.37				

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## LTE Band 25

	LTE Band 25_Uplink frequency band : 1850 to 1915 MHz											
		RB		Conducted power (dBm)								
BW	RB			QPSK		16QAM						
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel				
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			26047	26365	26683	26047	26365	26683				
	1	0	22.61	22.36	22.71	21.80	21.75	21.61				
1.4	1	5	22.59	22.52	22.52	21.82	21.70	21.70				
1.4	3	2	22.64	22.50	22.58	21.59	21.59	21.69				
	6	0	21.62	21.50	21.70	20.65	20.68	20.73				

	LTE Band 25_Uplink frequency band : 1850 to 1915 MHz										
				Conducted power (dBm)							
BW	RB	RB		QPSK		16QAM					
(MHz)	Size	Offset	Channel (Low) 26055	Channel (Mid) 26365	Channel (High) 26675	Channel (Low) 26055	Channel (Mid) 26365	Channel (High) 26675			
	1	0	22.54	22.39	22.66	21.46	21.36	21.46			
3	1	14	22.62	22.51	22.67	21.55	21.35	21.67			
3	8	4	21.66	21.59	21.68	20.58	20.37	20.68			
	15	0	21.55	20.49	20.69						

	LTE Band 25_Uplink frequency band : 1850 to 1915 MHz										
	RB Size	RB Offset		Conducted power (dBm)							
BW				QPSK		16QAM					
(MHz)			Channel (Low) 26065	Channel (Mid) 26365	Channel (High) 26665	Channel (Low) 26065	Channel (Mid) 26365	Channel (High) 26665			
	1	0	22.47	22.43	22.55	21.90	21.37	21.77			
5	1	24	22.55	22.47	22.67	21.41	21.26	21.56			
5	12	6	21.61	21.55	21.69	20.53	20.58	20.82			
	25	0	21.41	21.44	21.73	20.44	20.45	20.69			

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	LTE Band 25_Uplink frequency band : 1850 to 1915 MHz											
				Conducted power (dBm)								
BW	RB	RB		QPSK		16QAM						
(MHz)	Size	Offset	Channel	Channel	Channel	Channel	Channel	Channel				
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			26090	26365	226640	26090	26365	226640				
	1	0	22.66	22.34	22.53	21.37	21.72	21.74				
1.0	1	49	22.44	22.27	22.60	21.30	21.32	21.74				
10	25	12	21.45	21.47	21.67	20.47	20.34	20.57				
	50	0	21.41	21.34	21.51	20.39	20.32	20.50				

	LTE Band 25_Uplink frequency band : 1850 to 1915 MHz										
		RB Offset				ted power Bm)					
BW	RB			QPSK		16QAM					
(MHz)	Size		Channel (Low) 26115	Channel (Mid) 26365	Channel (High) 26615	Channel (Low) 26115	Channel (Mid) 26365	Channel (High) 26615			
	1	0	22.65	22.49	22.37	21.53	21.71	21.25			
15	1	74	22.52	22.39	22.66	21.71	21.68	21.61			
13	36	19	21.49	21.40	21.58	20.45	20.41	20.62			
	75	0	21.37	21.32	21.45	20.48	20.30	20.46			

	LTE 1	<b>Band 25_</b>	Uplink fr	equency	band : 18	50 to 191	5 MHz				
		RB		Conducted power (dBm)							
BW	RB			QPSK		16QAM					
(MHz)	Size	Offset	Channel	Channel	Channel	Channel					
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			26140	26365	26590	26140	26365	26590			
	1	0	22.74	22.56	22.30	21.88	21.44	21.12			
20	1	99	22.46	22.19	22.73	21.60	21.68	21.89			
20	50	25	21.41	21.44	21.33	20.40	20.33	20.31			
	100	0	21.44	21.32	21.50	20.42	20.39	20.44			

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### **HSDPA Release 8 MODE:**

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing.

# **HSDPA SUB-TEST Setting**

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

Sub-test	$eta_{ m c}$	$eta_{ m d}$	$eta_{ m d} \ (SF)$	$\beta_c/\beta_d$	β <sub>HS</sub> (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)	RMC (Kbps)
1	2/15	15/15	64	2/15	4/15	0.0	0.0	12.2
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0	12.2
3	15/15	8/15	64	15/8	30/15	1.5	0.5	12.2
4	15/15	4/15	64	15/4	30/15	1.5	0.5	12.2

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

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### **Results:**

		1			1	
Mode	Sub-test	Avg.	Power (di	Bm)	Power Class 3 Limita-	Comments
		9262	9400	9538	tion (dBm)	
	1	23.06	22.99	23.00	20.3dBm – 25.7dBm	Pass
HSDPA	2	22.77	22.63	22.68	20.3dBm – 25.7dBm	Pass
(B2)	3	22.60	22.51	22.51	19.8dBm – 25.7dBm	Pass
	4	22.56	22.55	22.57	19.8dBm – 25.7dBm	Pass

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limita- tion (dBm)	Comments	
		1312	1413	1513	uon (adm)		
	1	23.19	23.18	23.05	20.3dBm – 25.7dBm	Pass	
HSDPA	2	22.90	22.82	22.73	20.3dBm – 25.7dBm	Pass	
<b>(B4)</b>	3	22.73	22.70	22.56	19.8dBm – 25.7dBm	Pass	
	4	22.78	22.74	22.62	19.8dBm – 25.7dBm	Pass	

Mode	Sub-test		Power (di	·	Power Class 3 Limita- tion (dBm)	Comments
		4132	4183	4233	- (- )	
	1	22.77	22.88	22.68	20.3dBm – 25.7dBm	Pass
HSDPA	2	22.48	22.52	22.36	20.3dBm – 25.7dBm	Pass
(B5)	3	22.31	22.40	22.19	19.8dBm – 25.7dBm	Pass
	4	22.36	22.44	22.55	19.8dBm – 25.7dBm	Pass

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# HSPA (HSDPA & HSUPA) Release 8 MODE

The following 5 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

# **HSPA SUB-TEST Setting**

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

Sub- test	$oldsymbol{eta_c}$	$eta_{ m d}$	β <sub>d</sub> (SF)	$\beta_c/\beta_d$	$eta_{ m HS}$	$eta_{ec}$	$eta_{ed}$	β <sub>ed</sub> (SF)	β <sub>ed</sub> (Codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI	RMC (Kbps)
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75	12.2
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67	12.2
3	15/15	9/15	64	15/9	30/15	30/15	β <sub>ed</sub> 1: 47/15 β <sub>ed</sub> 2: 47/15	4 4	2	2.0	1.0	15	92	12.2
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	12.2
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81	12.2

Note: The recommended HSUPA MPRs are implemented as per following sub-tests.

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#### **Results:**

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limita-	Comments	
		9262	9400	9538	tion (dBm)		
	1	22.80	22.67	22.72	18.8dBm – 25.7dBm	Pass	
	2	20.86	20.75	20.76	16.8dBm – 25.7dBm	Pass	
HSUPA(B2)	3	21.77	21.73	21.75	17.8dBm – 25.7dBm	Pass	
	4	20.91	20.81	20.84	16.8dBm – 25.7dBm	Pass	
	5	22.66	22.50	22.61	18.8dBm – 25.7dBm	Pass	

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limita- tion (dBm)	Comments
		1312	1413	1513	uon (ubm)	
	1	22.93	22.86	22.77	18.8dBm – 25.7dBm	Pass
TIGHTD A	2	20.99	20.94	20.81	16.8dBm – 25.7dBm	Pass
HSUPA (B4)	3	21.90	21.92	21.80	17.8dBm – 25.7dBm	Pass
( <b>D4</b> )	4	21.04	21.00	20.89	16.8dBm – 25.7dBm	Pass
	5	22.79	22.69	22.66	18.8dBm – 25.7dBm	Pass

Mode	Sub-test	Avg.	Power (d Channel	Bm)	Power Class 3 Limita-	Comments
		4132	4183	4233	tion (dBm)	
	1	22.51	22.56	22.40	18.8dBm – 25.7dBm	Pass
	2	20.57	20.64	20.44	16.8dBm – 25.7dBm	Pass
HSUPA(B5)	3	21.48	21.62	21.43	17.8dBm – 25.7dBm	Pass
	4	20.62	20.70	20.52	16.8dBm – 25.7dBm	Pass
	5	22.37	22.39	22.29	18.8dBm – 25.7dBm	Pass

## WCDMA/HSDPA/HSUPA band II, IV, V

The EUT output power was controlled by simulator. Set Communication Tester CMU200 function key "UE Power Control" and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. Then record the read (see page 15 for measurement data). The min. power was measures by a function key "minimum power" then record the read. It is -52.3dBm. The power variation can be 0.1dB step by setting.

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# 7. EFFECTIVE RADIATED POWER AND EQUIVALENT ISOTROPIC RADIATED POWER MEASUREMENT

# 7.1. Standard Applicable

FCC 22.913(a) Mobile station is limited to 7W.

FCC 24.232(b) Mobile station is limited to 2W.

FCC 27, 50(h)(2) Mobile and other user stations. Mobile stations are limited to 2 W.

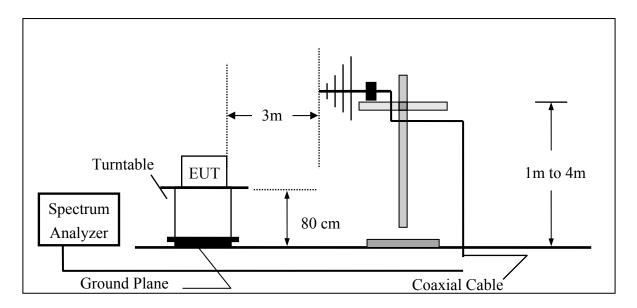
FCC 27, 50(d)(4) Portable stations are limited to 1W

Part 27, 50(d)(4) Portable stations are limited to 1W

Part 90 Subpart (R) Mobile stations are limited to 100W

### 7.2. Test SET-UP

(A) Radiated Power Test Set-Up, Frequency Below 1000MHz



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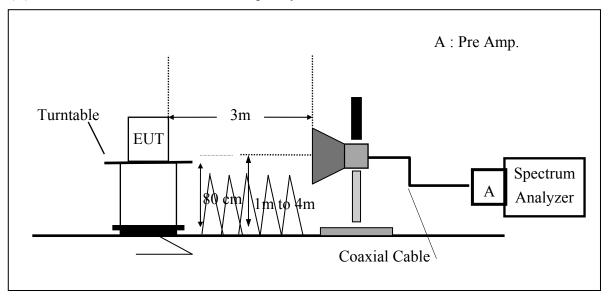
f (886-2) 2298-0488



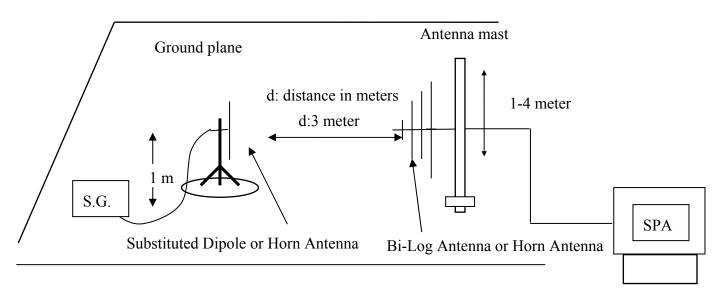
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# (B) Radiated Power Test Set-UP Frequency Over 1 GHz



# (C) Substituted Method Test Set-UP



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### 7.3. Measurement Procedure

- 1. The testing follows the Measurement Procedure of FCC KDB 971168 D01
- 2. The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
- 3. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated
- 4. The testing follows the Measurement Procedure of FCC KDB 971168 D01
- 5. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G.
- 6. ERP = S.G. output (dBm) + Antenna Gain (dBd) Cable Loss (dB)
- 7. ERP = S.G. output (dBm) + Antenna Gain (dBd) Cable Loss (dB)
- 8. Spectrum setting:
  - (1) Detector = Peak, marker the highest value of the detector by maximum hold, set RBW wide enough to capture the entire signal of emission, and VBW > =3xRBW.
  - (2) KDB 971168 D01 is adopted, and the procedure as lists under item 4, Measurement of the Average Power over the Fundamental Signal Bandwidth, is followed to set correspondingly for the acquisition of proper measurement data.

Set frequency = nominal signal center frequency;

Set span =  $2 \times \text{occupied BW}$ ;

Set RBW  $\approx 1 \sim 5\%$  of the span, not to exceed 1 MHz

Set  $VBW = 3 \times RBW$ ;

Select average power (RMS) detector

Set sweep time and number of measurement points to achieve a minimum of 1 millisecond/pt integration time (ex. Point = 601 points, then sweet time =  $601*10^{-3} = 6$ s.

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Activate trace averaging routine over a minimum of 10 sweeps; Activate marker/span pair and set span = signal or channel bandwidth; Activate the band/interval power marker function;

Record the band power level;

Record adjusted value as the average signal power level. Then activate the occupied bandwidth measurement function.

The proper adjustment due to limitation of spectrum capability is given compensated to spectrum with conversion factor of 10\*log (TBW/RBW), where TBW is the transmission of UE exceeding the maximum BW UE can extends, and RBW is the resolution BW in UE.



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# 7.4. Measurement Equipment Used

ERP, 1	EIRP MEASUREM	ENT EQUIPM	ENT List 966	Chamber	
EQUIPMENT TYPE	MFR	MODEL	SERIAL	LAST CAL.	CAL DUE.
		NUMBER	NUMBER		
EXA Spectrum Analyzer	Agilent	N9010A	MY50420195	12/22/2014	12/21/2015
Bilog Antenna	SCHWAZBECK	VULB9168	378	12/23/2014	12/22/2015
Bilog Antenna	SCHWAZBECK	VULB9160	3158	10/31/2014	10/30/2015
Horn antenna	ETS.LINDGREN	3117	123995	05/05/2015	05/04/2016
Horn antenna	ETS.LINDGREN	3117	123991	12/19/2014	12/18/2015
Horn Antenna	Schwarzbeck	BBHA9170	184	12/25/2014	12/24/2015
Horn Antenna	Schwarzbeck	BBHA9170	185	07/29/2014	07/28/2015
Network Analyze	Anritsu	MS4644A	1216312	05/23/2015	05/22/2016
Signal Generator	Agilent	E4438C	MY45093613	08/06/2014	08/05/2015
Pre-Amplifier	Agilent	8447D	1937A02834	01/02/2015	01/01/2016
Pre-Amplifier	Agilent	8449B	3008A00578	01/02/2015	01/01/2016
Pre-Amplifier	EMC Instruments Corp.	EMC184045	980135	01/02/2015	01/01/2016
Attenuator	Mini-Circuit	BW-S10W2+	004	01/02/2015	01/01/2016
Radio Communication Analyzer	R&S	CMU200	102189	02/11/2015	02/10/2016
Radio Communication Analyzer	Anritsu	MT8820C	6200995019	10/08/2014	10/09/2015
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	966_Tx	10m	01/02/2015	01/01/2016
Low Loss Cable	HUBER+SUHNER	966_Rx	3m	01/02/2015	01/01/2016
3m Site NSA	SGS	966 chamber	N/A	07/15/2014	07/14/2015

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# 7.5. Measurement Result: (Peak) –using option of peak measurement

	EUT			Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit			
	MHz		V/H	dBm	dBd	dB	dBm	dBm			
	824.2	120	V	19.79	3.45	-2.94	20.31	38.45			
		128	Н	15.57	3.45	-2.94	16.09	38.45			
GPRS 850	836.6	190	V	20.21	3.46	-2.97	20.70	38.45			
GPKS 830	830.0	190	Н	15.11	3.46	-2.97	15.60	38.45			
	848.8	251	V	20.80	3.47	-3.01	21.26	38.45			
		231	Н	14.99	3.47	-3.01	15.46	38.45			

	EUT			Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit			
	MHz		V/H	dBm	dBd	dB	dBm	dBm			
	824.2	128	V	19.10	3.45	-2.94	19.62	38.45			
		128	Н	15.00	3.45	-2.94	15.52	38.45			
EDGE 950	926.6	100	V	19.62	3.46	-2.97	20.11	38.45			
EDGE 850	836.6	190	Н	14.50	3.46	-2.97	14.99	38.45			
	848.8	251	V	20.39	3.47	-3.01	20.85	38.45			
		251	Н	14.32	3.47	-3.01	14.78	38.45			

# Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 kHz, VBW=1MHz

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	EUT		Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit		
	MHz		V/H	dBm	dBi	dB	dBm	dBm		
	1850.2	512	V	25.41	4.84	-4.49	25.76	33.01		
		512	Н	22.98	4.84	-4.49	23.34	33.01		
CDDC 1000	1000 0	661	V	26.97	4.79	-4.53	27.23	33.01		
GPRS 1900	1880.0	661	Н	21.49	4.79	-4.53	21.76	33.01		
	1909.8	210	V	25.76	4.74	-4.57	25.94	33.01		
		810	Н	21.45	4.74	-4.57	21.63	33.01		

	EUT		Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit		
	MHz		V/H	dBm	dBi	dB	dBm	dBm		
	1850.2	512	V	24.84	4.84	-4.49	25.20	33.01		
		512	Н	22.21	4.84	-4.49	22.57	33.01		
EDCE 1000	1880.0	661	V	26.61	4.79	-4.53	26.88	33.01		
EDGE 1900	1880.0	661	Н	20.81	4.79	-4.53	21.08	33.01		
	1909.8	810	V	25.32	4.74	-4.57	25.50	33.01		
		810	Н	20.86	4.74	-4.57	21.04	33.01		

# Remark:

The RBW, VBW of SPA for frequency RBW=300 kHz, VBW=1MHz **(1)** 

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	EUT			Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit			
	MHz		V/H	dBm	dBi	dB	dBm	dBm			
	1852.4	9262	V	23.26	4.84	-4.49	23.61	33.01			
		9202	Н	18.56	4.84	-4.49	18.91	33.01			
WCDMA D2	1880.0	9400	V	24.38	4.79	-4.53	24.65	33.01			
WCDMA B2	1000.0	9400	Н	16.75	4.79	-4.53	17.01	33.01			
	1907.6	9538	V	23.25	4.75	-4.56	23.44	33.01			
		9338	Н	17.34	4.75	-4.56	17.53	33.01			

	EUT		Measurement								
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit			
	MHz		V/H	dBm	dBi	dB	dBm	dBm			
	1852.4	0262	V	23.60	4.84	-4.49	23.95	33.01			
		9262	Н	18.88	4.84	-4.49	19.23	33.01			
HCDDA D2	1880.0	0400	V	24.91	4.79	-4.53	25.18	33.01			
HSDPA B2	1880.0	9400	Н	17.23	4.79	-4.53	17.50	33.01			
	1907.6	9538	V	23.67	4.75	-4.56	23.86	33.01			
		9338	Н	17.99	4.75	-4.56	18.18	33.01			

	EUT		Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit		
	MHz		V/H	dBm	dBi	dB	dBm	dBm		
	1852.4	0262	V	23.01	4.84	-4.49	23.36	33.01		
		9262	Н	18.17	4.84	-4.49	18.52	33.01		
HIGHDA D2	1880.0	9400	V	23.94	4.79	-4.53	24.21	33.01		
HSUPA B2	1880.0	9400	Н	16.15	4.79	-4.53	16.42	33.01		
	1907.6	9538	V	22.95	4.75	-4.56	23.14	33.01		
		9338	Н	17.02	4.75	-4.56	17.21	33.01		

# Remark:

(1) The RBW, VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

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	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1712.4	1312	V	24.74	5.09	-4.29	25.53	33.01
	1/12.4	1312	Н	16.85	5.09	-4.29	17.64	33.01
WCDMA DA	1732.6	1413	V	25.44	5.05	-4.31	26.18	33.01
WCDMA B4	1/32.0	1413	Н	15.76	5.05	-4.31	16.49	33.01
	1752.6	1513	V	25.00	5.01	-4.37	25.64	33.01
	1/32.0	1313	Н	17.53	5.01	-4.37	18.17	33.01

	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1712.4	1312	V	25.15	5.09	-4.29	25.95	33.01
	1/12.4	1312	Н	17.66	5.09	-4.29	18.46	33.01
HCDDA D4	1722 6	1412	V	25.69	5.05	-4.31	26.42	33.01
HSDPA B4	1732.6	1413	Н	16.80	5.05	-4.31	17.54	<b>dBm</b> 33.01 33.01
	1752.6	1513	V	26.15	5.01	-4.37	26.79	33.01
	1/32.0	1313	Н	18.47	5.01	-4.37	19.12	33.01

	EUT				Measur	ement		Limit  dBm  33.01  33.01  33.01				
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit				
	MHz		V/H	dBm	dBi	dB	dBm	dBm				
	1712.4	1312	V	24.31	5.09	-4.29	25.10	33.01				
	1/12.4	1312	Н	17.22	5.09	-4.29	18.01	33.01				
LICIIDA DA	1732.6	1413	V	25.17	5.05	-4.31	25.91	33.01				
HSUPA B4	1/32.0	1413	Н	16.12	5.05	-4.31	16.86	<b>dBm</b> 33.01 33.01				
	1752.6	1513	V	23.93	5.01	-4.37	24.57	33.01				
	1/32.0	1313	Н	18.03	5.01	-4.37	18.68	33.01				

# Remark:

(1) The RBW, VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

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	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	826.4	4132	V	16.89	3.46	-2.94	17.40	38.45
	820.4	4132	Н	12.96	3.46	-2.94	13.47	38.45
WCDMA D5	926.6	4183	V	16.62	3.46	-2.97	17.11	38.45
WCDMA B5	836.6	4183	Н	12.29	3.46	-2.97	12.78	<b>dBm</b> 38.45 38.45
	846.6	4233	V	16.88	3.47	-3.00	17.34	38.45
	040.0	4233	Н	12.34	3.47	-3.00	12.81	38.45

	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	826.4	4132	V	17.20	3.46	-2.94	17.71	38.45
	820.4	4132	Н	13.24	3.46	-2.94	13.75	38.45
HCDDA D5	836.6	4183	V	16.88	3.46	-2.97	17.36	38.45
HSDPA B5	830.0	4183	Н	12.59	3.46	-2.97	13.08	38.45
	946.6	4233	V	16.99	3.47	-3.00	17.46	38.45
	846.6	4233	Н	12.64	3.47	-3.00	13.10	38.45

	EUT				Measur	ement		Limit  dBm  38.45					
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit					
	MHz		V/H	dBm	dBd	dB	dBm	dBm					
	826.4	4132	V	16.69	3.46	-2.94	17.20	38.45					
	820.4	4132	Н	12.55	3.46	-2.94	13.06	38.45					
LICIIDA D5	836.6	4183	V	16.35	3.46	-2.97	16.84	38.45					
HSUPA B5	830.0	4103	Н	11.89	3.46	-2.97	12.37	dBm 38.45 38.45					
	846.6	4233	V	16.64	3.47	-3.00	17.11	38.45					
	040.0	4233	Н	12.00	3.47	-3.00	12.46	38.45					

### Remark:

The RBW, VBW of SPA for frequency RBW=300 kHz, VBW=1MHz (1)

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	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	824.7	1013	V	13.99	3.45	-2.94	14.50	38.45
	824.7	1013	Н	15.65	3.45	-2.94	16.16	38.45
CDMA	836.52	384	V	13.91	3.46	-2.97	14.40	38.45
BC0	830.32	364	Н	16.87	3.46	-2.98	17.35	38.45
	848.31	777	V	12.08	3.47	-3.01	12.54	38.45
	040.31	///	Н	16.17	3.47	-3.01	16.63	38.45

	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	824.7	1013	V	13.24	3.46	-2.94	13.76	38.45
	824.7	1013	Н	14.47	3.46	-2.94	14.99	38.45
EVDO	926.52	384	V	12.89	3.46	-2.97	13.38	38.45
BC0	836.52	304	Н	16.18	3.46	-2.97	16.67	38.45
	040 21	777	V	10.64	3.47	-3.01	11.10	38.45
	848.31	///	Н	15.27	3.47	-3.01	15.73	38.45

# Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 kHz, VBW=1MHz

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	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1851.25	25	V	23.01	4.84	-4.49	23.36	33.00
	1831.23	23	Н	22.45	4.84	-4.49	22.80	33.00
CDMA	1880.0	600	V	22.30	4.79	-4.53	22.57	33.00
BC1	1880.0	000	Н	21.26	4.79	-4.53	21.53	33.00
	1908.75	1175	V	22.51	4.75	-4.56	22.69	33.00
	1908./3	11/3	Н	21.35	4.75	-4.56	21.53	33.00

	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1851.25	25	V	22.05	4.84	-4.49	22.40	33.00
	1831.23	23	Н	21.94	4.84	-4.49	22.30	33.00
EVDO	1880.0	600	V	21.57	4.79	-4.53	21.84	33.00
BC1	1880.0	600	Н	20.88	4.79	-4.53	21.15	33.00
	1908.75	1175	V	21.92	4.75	-4.56	22.11	33.00
	1908./3	11/3	Н	20.59	4.75	-4.56	20.77	33.00

# Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 kHz, VBW=1MHz

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	EUT				Measur	ement		Limit  dBm  50.00  50.00				
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit				
	MHz		V/H	dBm	dBd	dB	dBm	dBm				
	817.9	476	V	13.37	3.45	-2.92	13.91	50.00				
	817.9	4/6	Н	15.85	3.45	-2.92	16.39	50.00				
CDMA	820.5	580	V	13.48	3.45	-2.93	14.01	50.00				
BC10	820.3	380	Н	12.39	3.45	-2.93	12.92	50.00				
	823.1	684	V	13.41	3.45	-2.93	13.93	50.00				
	023.1	004	Н	16.30	3.45	-2.93	16.82	50.00				

	EUT				Measur	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	017.0	176	V	12.46	3.45	-2.92	12.99	50.00
	817.9	476	Н	15.03	3.45	-2.92	15.56	50.00
EVDO	920.5	500	V	12.13	3.45	-2.93	12.66	50.00
BC10	820.5	580	Н	11.51	3.45	-2.93	12.03	<b>dBm</b> 50.00 50.00
	823.1	684	V	12.42	3.45	-2.93	12.94	50.00
	823.1	084	Н	15.13	3.45	-2.93	15.65	50.00

# Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 kHz, VBW=1MHz

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	10.50	40.50	V	27.00	4.84	-4.49	27.36	33.01
BAND 2	1850.7	18607	Н	28.17	4.84	<b>-</b> 4.49	28.53	33.01
BW: 1.4M	1880.0	18900	V	25.61	4.80	-4.52	25.89	33.01
QPSK	1880.0	18900	Н	25.56	4.80	-4.52	25.83	33.01
RB: 1,0	1909.3	19193	V	23.79	4.75	-4.56	23.97	33.01
	1909.3	19193	Н	24.87	4.75	-4.56	25.05	33.01
			V	27.04	4.84	-4.49	27.39	33.01
BAND 2 BW: 1.4M QPSK	1850.7	18607	Н	27.81	4.84	-4.49	28.17	33.01
	1880.0	18900	V	25.63	4.79	-4.53	25.90	33.01
	1880.0	18900	Н	25.76	4.79	-4.53	26.03	33.01
RB: 1,5	1909.3	19193	V	23.33	4.75	-4.56	23.51	33.01
	1909.3	19193	Н	24.38	4.74	-4.57	24.56	33.01
			V	27.95	4.84	-4.49	28.31	33.01
BAND 2	1850.7	18607	Н	28.85	4.84	-4.49	29.21	33.01
BW: 1.4M	1990.0	18900	V	26.51	4.79	-4.53	26.78	33.01
16QAM	1880.0	18900	Н	26.46	4.80	-4.52	26.74	33.01
RB: 1,0	1909.3	10102	V	24.58	4.75	-4.56	24.77	33.01
	1909.3	19193	Н	25.57	4.75	-4.56	25.76	33.01
	105-		V	27.80	4.84	-4.49	28.16	33.01
BAND 2	1850.7	18607	Н	28.93	4.84	-4.49	29.29	33.01
BW: 1.4M 16QAM RB: 1,5	1000.0	19000	V	26.56	4.79	-4.53	26.83	33.01
	1880.0	18900	Н	26.67	4.79	-4.53	26.94	33.01
	1000.2	10102	V	24.07	4.74	-4.57	24.25	33.01
	1909.3	19193	Н	25.09	4.75	-4.56	25.27	33.01

#### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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	EUT			Ŋ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	10.51.5	4054.	V	26.84	4.84	-4.49	27.20	33.01
BAND 2	1851.5	18615	Н	27.22	4.84	-4.49	27.57	33.01
BW: 3M	1880.0	18900	V	25.48	4.80	-4.52	25.76	33.01
QPSK	1880.0	18900	Н	25.41	4.80	-4.52	25.69	33.01
RB: 1,0	1908.5	10105	V	25.41	4.75	-4.56	25.60	33.01
	1908.3	19185	Н	27.11	4.75	-4.56	27.30	33.01
			V	26.78	4.84	-4.49	27.13	33.01
BAND 2	1851.5	18615	Н	27.49	4.84	-4.49	27.84	33.01
BW: 3M QPSK	1000.0	10000	V	25.74	4.79	-4.53	26.00	33.01
	1880.0	18900	Н	25.87	4.79	-4.53	26.13	33.01
RB: 1,14	1908.5	19185	V	24.66	4.75	-4.56	24.84	33.01
	1908.3	19183	Н	25.86	4.74	-4.57	26.04	33.01
			V	27.56	4.84	-4.49	27.91	33.01
BAND 2	1851.5	18615	Н	28.05	4.84	-4.49	28.41	33.01
BW: 3M	1000.0	18900	V	26.27	4.80	-4.52	26.54	33.01
16QAM	1880.0	18900	Н	26.06	4.80	-4.52	26.33	33.01
RB: 1,0	1908.5	19185	V	26.14	4.75	-4.56	26.32	33.01
	1908.3	19183	Н	27.81	4.75	-4.56	28.00	33.01
			V	27.36	4.84	-4.49	27.71	33.01
BAND 2 BW: 3M 16QAM RB: 1,14	1851.5	18615	Н	28.21	4.84	-4.49	28.56	33.01
	1000 0	10000	V	26.39	4.79	-4.53	26.66	33.01
	1880.0	18900	Н	26.57	4.79	-4.53	26.83	33.01
	1009.5	10105	V	25.31	4.75	-4.56	25.49	33.01
	1908.5	19185	Н	26.56	4.75	-4.56	26.74	33.01

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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:	EUT			Ŋ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	10.55	1050	V	26.89	4.84	-4.49	27.25	33.01
BAND 2	1852.5	18625	Н	27.24	4.84	-4.49	27.60	33.01
BW: 5M	1000	10000	V	25.85	4.80	-4.52	26.12	33.01
QPSK	1880.0	18900	Н	26.84	4.80	-4.52	27.11	33.01
RB: 1,0	100-	101=-	V	25.54	4.75	-4.56	25.74	33.01
	1907.5	19175	Н	27.31	4.75	-4.56	27.50	33.01
			V	26.37	4.84	-4.49	26.72	33.01
BAND 2	1852.5	18625	Н	27.16	4.84	-4.49	27.50	33.01
BW: 5M QPSK			V	25.85	4.79	-4.53	26.11	33.01
	1880.0	18900	Н	26.94	4.79	-4.53	27.20	33.01
RB: 1,24			V	24.95	4.74	-4.56	dBm         dBm           27.25         33.01           27.60         33.01           26.12         33.01           25.74         33.01           25.750         33.01           26.12         33.01           27.50         33.01           27.50         33.01           27.20         33.01           25.13         33.01           25.13         33.01           28.05         33.01           28.38         33.01           26.21         33.01           27.73         33.01           26.28         33.01           27.62         33.01           27.62         33.01           27.81         33.01           25.86         33.01	33.01
	1907.5	19175	Н	26.00	4.75	-4.56		33.01
			V	27.69	4.84	-4.49	28.05	33.01
BAND 2	1852.5	18625	Н	28.02	4.84	-4.49	28.38	33.01
BW: 5M			V	26.23	4.80	-4.52	26.51	33.01
16QAM	1880.0	18900	Н	27.45	4.80	-4.52	27.73	33.01
RB: 1,0			V	26.08	4.75	-4.56	26.28	33.01
	1907.5	19175	Н	27.94	4.75	-4.56	dBm         displayed           27.25         33           27.60         33           26.12         33           27.11         33           25.74         33           26.72         33           26.72         33           26.11         33           25.13         33           26.18         33           28.05         33           28.38         33           26.51         33           26.28         33           26.28         33           28.14         33           26.79         33           27.81         33           25.86         33	33.01
			V	27.28	4.84	-4.49	27.62	33.01
BAND 2 BW: 5M 16QAM RB: 1,24	1852.5	18625	Н	28.06	4.84	-4.49	28.40	33.01
			V	26.52	4.79	-4.53	26.79	33.01
	1880.0	18900	Н	27.55	4.79	-4.53	27.81	33.01
		V	25.68	4.75	-4.56	25.86	33.01	
	1907.5	19175	Н	26.64	4.74	-4.57	26.82	33.01

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	10.5.5	10550	V	27.00	4.84	-4.49	27.36	33.01
BAND 2	1855.0	18650	Н	27.17	4.84	-4.49	27.53	33.01
BW: 10M	1000	10000	V	25.65	4.80	-4.52	25.93	33.01
QPSK	1880.0	18900	Н	26.55	4.80	-4.52	26.83	33.01
RB: 1,0	10050	10150	V	25.60	4.76	-4.55	25.81	33.01
	1905.0	19150	Н	27.61	4.76	-4.55	27.82	33.01
			V	24.99	4.83	-4.50	25.32	33.01
DANID 2	1855.0	18650	Н	26.43	4.83	-4.50	26.76	33.01
BAND 2 BW: 10M	1000	10000	V	24.02	4.79	-4.53	24.27	33.01
	1880.0	18900	Н	26.74	4.79	-4.53	27.00	33.01
QPSK			V	23.98	4.75	-4.56	24.16	33.01
RB: 1,49	1905.0	19150	Н	26.32	4.75	-4.56	26.50	33.01
			V	27.16	4.84	-4.49	27.52	33.01
BAND 2	1855.0	18650	Н	27.45	4.84	-4.49	27.80	33.01
BW: 10M	1000	10000	V	26.58	4.80	-4.52	26.86	33.01
16QAM	1880.0	18900	Н	27.39	4.80	-4.52	27.67	33.01
RB: 1,0			V	25.95	4.76	-4.55	26.16	33.01
	1905.0	19150	Н	28.15	Gain  dBi  4.84  4.84  4.80  4.76  4.76  4.83  4.83  4.79  4.75  4.75  4.84  4.80  4.80  4.80	-4.55	28.36	33.01
	105-	10	V	25.50	4.83	-4.50	25.83	33.01
BAND 2	1855.0	18650	Н	26.99	4.83	-4.50	27.32	33.01
BW: 10M 16QAM RB: 1,49	1065	105	V	24.48	4.79	-4.53	24.73	33.01
	1880.0	18900	Н	27.20	4.79	-4.53	27.46	33.01
			V	24.43	4.75	-4.56	24.61	33.01
,	1905.0	19150	Н	26.73	4.74	-4.57	26.91	33.01

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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1	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
		105	V	26.86	4.84	-4.49	27.21	33.01
DANID 2	1857.5	18675	Н	27.35	4.84	-4.49	27.70	33.01
BAND 2	4000	10000	V	25.65	4.80	-4.52	25.93	33.01
BW: 15M QPSK	1880.0	18900	Н	26.00	4.81	-4.52	26.29	33.01
RB: 1,0			V	25.70	4.77	-4.55	25.92	33.01
	1902.5	19125	Н	26.66	4.77	-4.55	26.88	33.01
			V	24.23	4.82	-4.51	24.54	33.01
DAND 2	1857.5	18675	Н	24.64	4.82	-4.50	24.96	33.01
BAND 2 BW: 15M QPSK			V	23.47	4.78	-4.53	+	33.01
	1880.0	18900	Н	25.97	4.78	-4.53	26.22	33.01
RB: 1,74			V	24.76	4.74	-4.57	dBm         dBm           27.21         33.01           27.70         33.01           25.93         33.01           26.29         33.01           25.92         33.01           24.54         33.01           24.96         33.01           24.94         33.01           24.94         33.01           25.76         33.01           27.60         33.01           27.95         33.01           27.01         33.01           27.36         33.01           25.39         33.01           25.39         33.01           25.44         33.01           25.39         33.01           25.19         33.01	
	1902.5	19125	Н	25.57	4.75	-4.56	25.76	33.01
			V	27.24	4.84	-4.49	27.60	33.01
BAND 2	1857.5	18675	Н	27.59	4.84	-4.49	27.95	33.01
BW: 15M			V	26.28	4.80	-4.52	26.57	33.01
16QAM	1880.0	18900	Н	26.72	4.81	-4.52	27.01	33.01
RB: 1,0			V	26.01	4.77	-4.55	26.23	33.01
	1902.5	19125	Н	27.35       4.84       -4.49         25.65       4.80       -4.52         26.00       4.81       -4.52         25.70       4.77       -4.52         26.66       4.77       -4.52         24.23       4.82       -4.50         23.47       4.78       -4.52         25.97       4.78       -4.52         24.76       4.74       -4.52         27.24       4.84       -4.49         26.28       4.80       -4.52         26.72       4.81       -4.52         26.01       4.77       -4.52         27.14       4.77       -4.52         25.08       4.82       -4.50         24.15       4.78       -4.52         25.01       4.78       -4.52         25.01       4.75       -4.52         25.01       4.75       -4.52	-4.55	27.36	33.01	
			V	24.68	4.82	-4.50	25.00	33.01
BAND 2	1857.5	18675	Н	25.08	4.82	-4.51	25.39	33.01
BAND 2 BW: 15M 16QAM RB: 1,74			V	24.15	4.78	-4.53	24.40	33.01
	1880.0	18900	Н	26.70	4.78	-4.53	26.95	33.01
			V	25.01	4.75	-4.56	25.19	33.01
	1902.5	19125	Н	25.80	4.75	-4.56	25.99	33.01

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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]	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
			V	27.01	4.84	-4.49	27.37	33.01
DANID 2	1860.0	18700	Н	27.02	4.84	-4.49	27.38	33.01
BAND 2	4000	10000	V	25.24	4.81	-4.51	25.53	33.01
BW: 20M QPSK	1880.0	18900	Н	25.83	4.81	-4.51	26.12	33.01
RB: 1,0	1000	10100	V	25.99	4.78	-4.54	26.22	33.01
	1900.0	19100	Н	26.82	4.78	-4.54	27.06	33.01
			V	23.95	4.81	-4.51	24.25	33.01
DAND 2	1860.0	18700	Н	24.71	4.81	-4.51	25.01	33.01
BAND 2 BW: 20M QPSK			V	24.28	4.78	-4.54	24.52	33.01
	1880.0	18900	Н	25.02	4.78	-4.54	25.26	33.01
RB: 1,99			V	24.48	4.75	-4.56	24.66	33.01
	1900.0	19100	Н	25.29	4.75	-4.56	25.47	33.01
			V	26.95	4.84	-4.49	27.30	33.01
BAND 2	1860.0	18700	Н	27.16	4.84	-4.49	27.51	33.01
BW: 20M			V	25.73	4.81	-4.51	26.02	33.01
16QAM	1880.0	18900	Н	26.38	4.81	-4.51	26.68	33.01
RB: 1,0			V	26.42	4.78	-4.54	26.66	33.01
	1900.0	19100	Н	27.31	4.78	-4.54	27.54	33.01
			V	24.55	4.81	-4.51	24.85	33.01
BAND 2	1860.0	18700	Н	25.21	4.81	-4.51	25.51	33.01
BW: 20M 16QAM RB: 1,99			V	24.90	4.78	-4.54	25.14	33.01
	1880.0	18900	Н	25.62	4.78	-4.54	25.87	33.01
			V	24.61	4.75	-4.56	24.79	33.01
Ý	1900.0	19100	Н	25.32	4.75	-4.56	25.51	33.01

### Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1710.7	19957	V	26.32	5.09	-4.29	27.12	30.00
BAND 4	1710.7	1993/	Н	24.04	5.09	-4.29	24.85	30.00
BW: 1.4M	1722.5	20175	V	26.70	5.05	-4.31	27.44	30.00
QPSK	1732.5	201/3	Н	24.82	5.05	-4.31	25.56	30.00
RB: 1,0	1754.2	20202	V	27.65	5.01	-4.37	28.29	30.00
	1754.3	20393	Н	25.74	5.01	-4.37	26.38	30.00
	1710.7	10057	V	26.36	5.09	-4.29	27.16	30.00
BAND 4	1710.7	1995/	Н	23.74	5.09	-4.29	24.54	30.00
BW: 1.4M QPSK	1722.5	20175	V	26.74	5.05	-4.31	27.47	30.00
	1732.5	201/3	Н	24.89	5.05	-4.31	25.62	30.00
RB: 1,5	1754.3	19957 — 20175 — 20393 — 19957 —	V	28.14	5.01	-4.38	28.77	30.00
	1/34.3	20393	Н	25.94	5.01	-4.37	26.57	30.00
	1710.7	10057	V	26.65	5.09	-4.29	27.45	30.00
BAND 4	1710.7	1995/	Н	25.42	5.09	-4.29	26.22	30.00
BW: 1.4M	1722.5	20175	V	27.44	5.05	-4.31	28.17	30.00
16QAM	1732.5	20175	Н	25.49	5.05	-4.31	26.23	30.00
RB: 1,0	1754.2	20202	V	28.24	5.01	-4.37	28.88	30.00
	1754.3	20393	Н	26.27	5.01	-4.37	26.91	30.00
	1710.7	10057	V	26.68	5.09	-4.29	27.48	30.00
BAND 4	1710.7	19957	Н	25.08	5.09	-4.29	25.88	30.00
BAND 4 BW: 1.4M 16QAM RB: 1,5	1722.5	20175	V	27.16	5.05	-4.31	27.90	30.00
	1732.5	20175	Н	25.55	5.05	-4.31	26.29	30.00
	1754.2	20202	V	28.47	5.01	-4.37	29.11	30.00
	1754.3	20393	Н	26.03	5.01	-4.37	26.66	30.00

### Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1711 5	19965	V	25.75	5.09	-4.29	26.55	30.00
BAND 4	1711.5	19903	Н	23.75	5.09	-4.29	24.55	30.00
BW: 3M	1732.5	20175	V	26.18	5.05	-4.31	26.92	30.00
QPSK	1/32.3	20173	Н	24.32	5.05	-4.31	25.07	30.00
RB: 1,0	1753.5	20385	V	26.95	5.01	-4.37	27.60	30.00
	1/33.3	20383	Н	25.91	5.01	-4.37	26.56	30.00
	1711.5	10065	V	25.33	5.09	-4.29	26.13	30.00
BAND 4	1711.5	19965	Н	23.65	5.09	-4.29	24.44	30.00
BW: 3M QPSK	1722.5	20175	V	26.33	5.05	-4.32	27.06	30.00
	1732.5	20173	Н	24.59	5.05	-4.32	25.32	30.00
RB: 1,14	1753.5	20385	V	27.18	5.01	-4.37	27.82	30.00
	1733.3	20383	Н	25.05	5.01	-4.37	25.69	30.00
	1711 5	19965	V	26.33	5.09	-4.29	27.13	30.00
BAND 4	1711.5	19903	Н	24.34	5.09	-4.29	25.14	30.00
BW: 3M	1732.5	20175	V	26.76	5.05	-4.31	27.50	30.00
16QAM	1/32.3	20173	Н	24.90	5.05	-4.31	25.64	30.00
RB: 1,0	1753.5	20385	V	27.35	5.01	-4.37	27.99	30.00
	1733.3	20383	Н	26.22	5.02	-4.36	26.87	30.00
	1711 5	19965	V	26.26	5.09	-4.29	27.06	30.00
BAND 4	1711.5	19903	Н	24.39	5.09	-4.29	25.19	30.00
BW: 3M 16QAM RB: 1,14	1732.5	20175	V	26.81	5.05	-4.32	27.55	30.00
	1/32.3	20173	Н	25.08	5.05	-4.32	25.81	30.00
	1753.5	20385	V	27.66	5.01	-4.38	28.30	dBm 30.00
	1/33.3	20363	Н	25.77	5.01	-4.37	26.41	

# Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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]	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1712.5	19975	V	26.37	5.09	-4.29	27.18	30.00
BAND 4	1/12.5	19973	Н	24.76	5.09	-4.29	25.56	30.00
BW: 5M	1732.5	20175	V	25.12	5.05	-4.31	25.87	30.00
QPSK	1732.3	20173	Н	24.96	5.05	-4.31	25.71	30.00
RB: 1,0	1752.5	20375	V	26.01	5.02	-4.36	26.66	30.00
	1/32.3	20373	Н	26.01	5.02	-4.36	26.67	30.00
	1712.5	19975	V	25.48	5.08	-4.29	26.27	30.00
BAND 4	1/12.3	19973	Н	24.24	5.08	-4.29	25.03	30.00
BW: 5M QPSK	1732.5	20175	V	26.00	5.05	-4.32	26.73	30.00
	1/32.3	20173	Н	25.04	5.04	-4.32	25.77	30.00
RB: 1,24	1752.5	20375	V	25.60	5.01	-4.37	26.24	30.00
	1732.3	20373	Н	26.07	5.01	-4.37	26.70	30.00
	1712.5	19975	V	26.35	5.09	-4.29	27.15	30.00
BAND 4	1/12.3	19973	Н	25.04	5.09	-4.29	25.84	30.00
BW: 5M	1732.5	20175	V	25.54	5.05	-4.31	26.29	30.00
16QAM	1/32.3	20173	Н	25.37	5.05	-4.31	26.12	30.00
RB: 1,0	1752.5	20375	V	26.49	5.02	-4.36	27.15	30.00
	1/32.3	20373	Н	26.49	5.02	-4.36	27.14	30.00
	1712.5	10075	V	25.76	5.08	-4.29	26.55	30.00
BAND 4	1712.5	19975	Н	24.47	5.08	-4.29	25.26	30.00
BW: 5M 16QAM RB: 1,24	1722.5	20175	V	26.43	5.05	-4.32	27.16	30.00
	1732.5	201/3	Н	25.27	5.05	-4.32	26.00	30.00
	1752 5	20275	V	26.13	5.01	-4.37	26.76	30.00
	1752.5	20375	Н	26.50	5.01	-4.37	27.14	30.00

# Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1715.0	20000	V	26.28	5.09	-4.29	27.08	30.00
BAND 4	1713.0	20000	Н	24.65	5.09	-4.29	25.45	30.00
BW: 10M	1732.0	20175	V	25.69	5.06	-4.30	26.44	30.00
QPSK	1732.0	20173	Н	25.36	5.06	-4.30	26.12	30.00
RB: 1,0	1750.0	20350	V	25.77	5.02	-4.35	26.44	30.00
	1730.0	20330	Н	26.00	5.03	-4.35	26.68	30.00
	1715.0	20000	V	25.17	5.07	-4.30	25.95	30.00
BAND 4	1/13.0	20000	Н	24.61	5.07	-4.30	25.39	30.00
BW: 10M QPSK	1732.0	20175	V	26.81	5.04	-4.33	27.53	30.00
	1/32.0	20173	Н	25.14	5.04	-4.32	25.85	30.00
RB: 1,49	1750.0	20350	V	25.93	5.01	-4.37	26.57	30.00
	1730.0	20330	Н	26.40	5.01	-4.37	27.04	30.00
	1715.0	20000	V	26.62	5.09	-4.29	27.42	30.00
BAND 4	1/13.0	20000	Н	24.99	5.09	-4.29	25.79	30.00
BW: 10M	1732.0	20175	V	25.92	5.06	-4.30	26.67	30.00
16QAM	1/32.0	20173	Н	25.59	5.06	-4.30	26.34	30.00
RB: 1,0	1750.0	20350	V	26.11	5.03	-4.35	26.78	30.00
	1730.0	20330	Н	26.36	5.03	-4.35	27.04	30.00
	1715.0	20000	V	25.55	5.07	-4.30	26.33	30.00
BAND 4	1/13.0	20000	Н	24.96	5.07	-4.30	25.73	30.00
BW: 10M 16QAM RB: 1,49	1732.0	20175	V	27.04	5.04	-4.33	27.76	30.00
	1/32.0	201/3	Н	25.37	5.04	-4.32	26.09	30.00
	1750.0	20350	V	26.40	5.01	-4.37	27.04	30.00
	1/30.0	20330	Н	26.84	5.01	-4.37	27.48	30.00

### Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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]	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	1717.5	20025	V	26.44	5.09	-4.29	27.24	30.00
BAND 4	1/1/.5	20023	Н	25.05	5.09	-4.29	25.85	30.00
BW: 15M	1732.5	20175	V	25.47	5.06	-4.30	26.23	30.00
QPSK	1732.3	20173	Н	25.40	5.06	-4.30	26.16	30.00
RB: 1,0	1747.5	20325	V	26.51	5.03	-4.34	27.21	30.00
	1/4/.3	20323	Н	25.95	5.03	-4.33	26.65	30.00
	1717.5	20025	V	25.47	5.07	-4.30	26.24	30.00
BAND 4	1717.5	20025	Н	25.49	5.06	-4.30	26.25	30.00
BW: 15M QPSK	1732.5	20175	V	26.57	5.04	-4.33	27.28	30.00
	1/32.3	20175	Н	25.85	5.04	-4.33	26.56	30.00
RB: 1,74	1747.5	20325	V	25.77	5.01	-4.37	26.41	30.00
	1/4/.3	20323	Н	26.18	5.01	-4.37	26.82	30.00
	1717.5	20025	V	27.06	5.09	-4.29	27.86	30.00
BAND 4	1717.5	20025	Н	25.38	5.09	-4.29	26.18	30.00
BW: 15M	1722.5	20175	V	25.97	5.06	-4.30	26.73	30.00
16QAM	1732.5	20175	Н	25.93	5.06	-4.30	26.69	30.00
RB: 1,0	1747.5	20225	V	26.88	5.03	-4.34	27.58	30.00
	1747.5	20325	Н	26.33	5.03	-4.33	27.03	30.00
	1717.5	20025	V	25.95	5.07	-4.30	26.71	30.00
BAND 4	1717.5	20025	Н	25.96	5.06	-4.30	26.72	30.00
BW: 15M 16QAM RB: 1,74	1722 5	20175	V	27.07	5.04	-4.33	27.78	30.00
	1732.5	20175	Н	26.32	5.04	-4.33	27.03	30.00
	1747.5	20225	V	26.44	5.01	-4.37	27.08	30.00
	1747.5	20325	Н	26.90	5.01	-4.37	27.54	30.00

### Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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:	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	1720.0	20050	V	26.33	5.09	-4.29	27.13	30.00
BAND 4	1720.0	20030	Н	24.66	5.09	-4.29	25.47	30.00
BW: 20M	1732.5	20175	V	25.13	5.07	-4.30	25.90	30.00
QPSK	1/32.3	20173	Н	25.25	5.07	-4.30	26.02	30.00
RB: 1,0	1745.0	20300	V	26.06	5.04	-4.32	26.78	30.00
	1/43.0	20300	Н	24.87	5.04	-4.32	25.59	30.00
	1720.0	20050	V	25.01	5.06	-4.30	25.76	30.00
BAND 4	1720.0	20050	Н	24.84	5.06	-4.30	25.59	30.00
BW: 20M QPSK	1722.5	20175	V	26.13	5.03	-4.34	26.83	30.00
	1732.5	20175	Н	25.48	5.03	-4.34	26.18	30.00
RB: 1,99	1745.0	20300	H 25.48 5.03 V 25.76 5.01	-4.37	26.40	30.00		
	1745.0	20300	Н	25.84	5.01	-4.37	26.48	30.00
	1720.0	20050	V	26.84	5.09	-4.29	27.64	30.00
BAND 4	1720.0	20050	Н	25.03	5.09	-4.29	25.83	30.00
BW: 20M	1722.5	20175	V	25.63	5.07	-4.30	26.39	30.00
16QAM	1732.5	20175	Н	25.71	5.07	-4.30	26.48	30.00
RB: 1,0	1745.0	20200	V	26.62	5.04	-4.32	27.34	30.00
	1745.0	20300	Н	25.30	5.04	-4.32	26.02	30.00
	1720.0	20050	V	25.66	5.06	-4.30	26.41	30.00
BAND 4	1720.0	20050	Н	25.32	5.06	-4.30	26.07	30.00
BAND 4 BW: 15M 16QAM RB: 1,99	1722 5	20175	V	26.63	5.03	-4.34	27.33	30.00
	1732.5	20175	Н	25.78	5.03	-4.34	26.48	30.00
	1745.0	20200	V	26.42	5.01	-4.37	27.06	30.00
	1745.0	20300	Н	26.50	5.01	-4.37	27.15	30.00

### Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	004.5	20.40=	V	9.89	3.45	-2.94	10.40	38.45
BAND 5	824.7	20407	Н	17.67	3.45	-2.94	18.18	38.45
BW: 1.4M	836.5	20525	V	11.23	3.46	-2.97	11.72	38.45
QPSK	830.3	20323	Н	17.64	3.46	-2.97	18.13	38.45
RB: 1,0	848.3	20643	V	10.17	3.47	-3.01	10.64	38.45
	040.3	20043	Н	15.45	3.47	-3.00	15.91	38.45
		• • • • •	V	11.54	3.46	-2.94	12.05	38.45
BAND 5 BW: 1.4M QPSK	824.7	20407	Н	18.24	3.46	-2.94	18.76	38.45
	836.5	20525	V	10.91	3.46	-2.97	11.40	38.45
	830.3	20323	Н	17.21	3.46	-2.97	17.69	38.45
RB: 1,5	848.3	20643 -	V	10.10	3.47	-3.01	10.56	38.45
	040.3		Н	16.25	3.47	-3.01	16.71	38.45
	004.5	20.40.	V	12.56	3.46	-2.94	13.07	38.45
BAND 5	824.7	20407	Н	20.33	3.46	-2.94	20.85	38.45
BW: 1.4M	836.5	20525	V	12.35	3.46	-2.97	12.84	38.45
16QAM	830.3	20323	Н	18.80	3.46	-2.97	19.29	38.45
RB: 1,0	848.3	20643	V	11.64	3.47	-3.01	12.10	38.45
	040.3	20043	Н	17.82	3.47	-3.00	18.28	38.45
	00:-	2010=	V	12.69	3.46	-2.94	13.21	38.45
BAND 5	824.7	20407	Н	20.46	3.46	-2.94	20.97	38.45
BW: 1.4M 16QAM RB: 1,5	836.5	20525	V	12.16	3.46	-2.97	12.64	38.45
	030.3	20323	Н	18.55	3.46	-2.97	19.04	38.45
	848.3	20643	V	11.47	3.47	-3.01	11.93	38.45
	040.3	20043	Н	17.55	3.47	-3.01	18.01	38.45

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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:	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
			V	10.32	3.45	-2.94	10.83	38.45
BAND 5	825.5	20415	Н	20.68	3.45	-2.94	21.19	38.45
BW: 3M	836.5	20525	V	11.23	3.46	-2.97	11.72	38.45
QPSK	630.3	20323	Н	20.24	3.46	-2.97	20.73	38.45
RB: 1,0	847.5	20635	V	10.02	3.47	-3.00	10.49	38.45
	847.3	20033	Н	19.44	3.47	-3.00	19.91	38.45
			V	11.12	3.46	-2.94	11.63	38.45
BAND 5	825.5	20415	Н	20.45	3.46	-2.94	20.96	38.45
BW: 3M QPSK	836.5	20525	V	10.60	3.46	-2.98	11.08	38.45
	630.3	20323	Н	20.06	3.46	-2.98	20.55	38.45
RB: 1,14	847.5	20635	V	4.88	3.47	-3.01	5.34	38.45
	047.3	20033	Н	19.09	3.47	-3.01	19.55	38.45
			V	11.99	3.45	-2.94	12.51	38.45
BAND 5	825.5	20415	Н	22.01	3.45	-2.94	22.53	38.45
BW: 3M	836.5	20525	V	12.87	3.46	-2.97	13.36	38.45
16QAM	830.3	20323	Н	21.80	3.46	-2.97	22.29	38.45
RB: 1,0	847.5	20635	V	6.52	3.47	-3.00	6.99	38.45
	047.3	20033	Н	22.61	3.47	-3.00	23.08	38.45
	0.0.5.5		V	12.61	3.46	-2.95	13.12	38.45
BAND 5 BW: 3M 16QAM RB: 1,14	825.5	20415	Н	21.99	3.46	-2.94	22.50	38.45
	926.5	20525	V	11.96	3.46	-2.98	12.45	38.45
	836.5	20323	Н	21.65	3.46	-2.98	22.14	38.45
	0.47.5	20625	V	6.71	3.47	-3.01	7.17	38.45
	847.5	20635	Н	20.54	3.47	-3.00	21.01	38.45

## Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
			V	12.21	3.45	-2.94	12.73	38.45
BAND 5	826.5	20425	Н	20.58	3.45	-2.94	21.10	38.45
BW: 5M	926.5	20525	V	13.48	3.46	-2.97	13.97	38.45
QPSK	836.5	20323	Н	19.80	3.46	-2.97	20.29	38.45
RB: 1,0	846.5	20625	V	13.48	3.46	-2.99	13.95	38.45
	040.5	20023	Н	20.13	3.46	-2.99	20.61	38.45
			V	13.13	3.46	-2.95	13.64	38.45
BAND 5 BW: 5M QPSK	826.5	20425	Н	19.86	3.46	-2.95	20.37	38.45
	836.5	20525	V	12.76	3.46	-2.98	13.24	38.45
	830.3	20323	Н	20.06	3.46	-2.98	20.54	38.45
RB: 1,24	846.5	20625	V	11.58	3.47	-3.01	12.05	38.45
	840.3	20525 - 20625 - 20625 - 20525 - 20625	Н	19.01	3.47	-3.01	19.47	38.45
	006.5	20425	V	14.17	3.45	-2.94	14.68	38.45
BAND 5	826.5	20425	Н	21.78	3.45	-2.94	22.29	38.45
BW: 5M	836.5	20525	V	15.84	3.46	-2.97	16.34	38.45
16QAM	830.3	20323	Н	21.78	3.46	-2.97	22.28	38.45
RB: 1,0	846.5	20625	V	14.93	3.46	-2.99	15.40	38.45
	840.3	20023	Н	22.41	3.46	-2.99	22.88	38.45
	026.5	20.42.5	V	16.33	3.46	-2.95	16.84	38.45
BAND 5 BW: 5M 16QAM RB: 1,24	826.5	20425	Н	21.96	3.46	-2.95	22.46	38.45
	836.5	20525	V	14.83	3.46	-2.98	15.31	38.45
	650.5	20323	Н	21.68	3.46	-2.98	22.16	m         dBm           73         38.45           10         38.45           97         38.45           95         38.45           61         38.45           64         38.45           24         38.45           24         38.45           47         38.45           47         38.45           29         38.45           29         38.45           28         38.45           40         38.45           84         38.45           84         38.45           31         38.45           36         38.45           38         38.45           38         38.45           38         38.45           38         38.45           38         38.45           38         38.45           38         38.45           38         38.45           38         38.45
	846.5	20625	V	13.43	3.47	-3.01	13.89	38.45
	040.3	20023	Н	22.14	3.47	-3.01	22.61	38.45

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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	EUT			Ŋ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	000	20450	V	12.77	3.46	-2.94	13.29	38.45
BAND 5	829.0	20450	Н	20.73	3.46	-2.94	21.24	38.45
BW: 10M	836.5	20525	V	13.48	3.46	-2.96	13.98	38.45
QPSK	830.3	20323	Н	20.53	3.46	-2.96	21.03	38.45
RB: 1,0	844.0	20600	V	12.98	3.46	-2.98	13.46	38.45
	844.0	20000	Н	20.45	3.46	-2.98	20.93	38.45
			V	14.50	3.46	-2.97	14.99	38.45
BAND 5 BW: 10M QPSK	829.0	20450	Н	20.19	3.46	-2.97	20.68	38.45
	836.5	20525	V	13.38	3.46	-2.99	13.85	38.45
	830.3	20323	Н	20.56	3.46	-2.98	21.04	38.45
RB: 1,49	844.0	20525 -	V	12.82	3.47	-3.00	13.28	38.45
	044.0	20000	Н	19.53	3.47	-3.01	20.00	38.45
			V	14.02	3.46	-2.94	14.54	38.45
BAND 5	829.0	20450	Н	21.89	3.45	-2.94	22.41	38.45
BW: 10M	836.5	20525	V	15.63	3.46	-2.96	16.12	38.45
16QAM	830.3	20525	Н	21.68	3.46	-2.96	22.18	38.45
RB: 1,0	844.0	20600	V	15.99	3.46	-2.98	16.47	38.45
	044.0	20000	Н	21.83	3.46	-2.98	22.31	38.45
			V	15.90	3.46	-2.96	16.39	38.45
BAND 5 BW: 10M 16QAM RB: 1,49	829.0	20450	Н	22.43	3.46	-2.96	22.92	38.45
	926.5	20525	V	14.65	3.46	-2.99	15.13	38.45
	836.5	20525	Н	22.03	3.46	-2.99	22.51	38.45
	0.44.0	20(00	V	13.92	3.47	-3.01	14.39	38.45
	844.0	20600	Н	21.48	3.47	-3.00	21.94	38.45

### Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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	EUT			Ŋ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	779.5	23205	V	13.44	3.37	-2.77	14.04	34.77
BAND 13	119.3	23203	Н	17.58	3.37	-2.77	18.18	34.77
BW: 5M	782.0	23230	V	12.98	3.37	-2.77	13.58	34.77
QPSK	782.0	23230	Н	17.52	3.38	-2.78	18.12	34.77
RB: 1,0	784.5	23255	V	12.87	3.38	-2.78	13.47	34.77
	764.3	23233	Н	17.48	3.38	-2.79	18.08	34.77
	770.5	22205	V	12.76	3.38	-2.78	13.36	34.77
BAND 13	779.5	23205	Н	17.53	3.38	-2.78	18.13	34.77
BW: 5M QPSK	782.0	23230	V	12.42	3.39	-2.79	13.01	34.77
	782.0	23230	Н	17.65	3.39	-2.79	18.25	34.77
RB: 1,24	784.5	22255	V	12.66	3.40	-2.80	13.26	34.77
	784.3	23255	Н	18.28	3.40	-2.80	18.88	34.77
	779.5	23205	V	14.96	3.37	-2.77	15.56	34.77
BAND 13	119.3	23203	Н	18.88	3.37	-2.77	19.48	34.77
BW: 5M	782.0	23230	V	15.23	3.37	-2.77	15.83	34.77
16QAM	782.0	23230	Н	19.71	3.38	-2.78	20.31	34.77
RB: 1,0	784.5	23255	V	13.96	3.38	-2.78	14.55	34.77
	784.3	23233	Н	19.19	3.39	-2.79	19.79	34.77
	770.5	22205	V	14.21	3.38	-2.78	14.80	34.77
BAND 13 BW: 5M 16QAM RB: 1,24	779.5	23205	Н	19.21	3.38	-2.78	19.81	34.77
	792.0	22220	V	14.53	3.39	-2.79	15.13	34.77
	782.0	23230	Н	19.76	3.39	-2.79	20.36	34.77
	7945	22255	V	14.05	3.40	-2.80	14.64	34.77
	784.5	23255	Н	19.73	3.40	-2.80	20.32	34.77

## Remark:

(1) The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz

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	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 13 BW: 10M	792.0	22220	V	13.63	3.37	-2.77	14.23	34.77
QPSK RB: 1,0	782.0	23230	Н	17.60	3.37	-2.77	18.20	34.77
BAND 13 BW: 10M	707.0	2222	V	15.48	3.37	-2.77	16.08	34.77
QPSK RB: 1,49	782.0	23230	Н	19.06	3.37	-2.77	dBm 14.23 18.20	34.77
BAND 13 BW: 10M	782.0	23230	V	12.49	3.40	-2.80	13.09	34.77
16QAM RB: 1,0	782.0	23230	Н	18.26	3.40	-2.80	18.85	34.77
BAND 13 BW: 10M	782.0	22220	V	13.91	3.40	-2.80	14.51	34.77
16QAM RB: 1,49		23230	Н	19.63	3.40	-2.80	20.22	34.77

#### Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz(1)

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:	EUT			M	leasurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	706.5	23755	V	13.86	3.37	-2.60	14.63	34.77
BAND 17	700.3	23733	Н	16.45	3.37	-2.60	17.22	34.77
BW: 5M	710.0	23790	V	13.70	3.37	-2.60	14.47	34.77
QPSK	/10.0	23790	Н	16.20	3.37	-2.60	16.97	34.77
RB: 1,0	713.5	23825	V	12.81	3.36	-2.60	13.57	34.77
	/13.3	23623	Н	16.44	3.36	-2.60	17.20	34.77
	706.5	23755	V	12.52	3.37	-2.60	13.28	34.77
BAND 17	706.3	23733	Н	15.49	3.37	-2.60	16.26	34.77
BW: 5M QPSK	710.0	23790	V	12.67	3.37	-2.60	13.43	34.77
	/10.0	23/90	Н	16.71	3.36	-2.60	17.47	34.77
RB: 1,24	713.5	23825	V	12.87	3.35	-2.61	13.62	34.77
	/13.3	23623	Н	16.68	3.35	-2.61	17.42	34.77
	706.5	22755	V	15.70	3.37	-2.60	16.47	34.77
BAND 17	706.5	23755	Н	18.30	3.37	-2.60	19.07	34.77
BW: 5M	710.0	23790	V	15.33	3.37	-2.60	16.10	34.77
16QAM	/10.0	23/90	Н	17.51	3.37	-2.60	18.27	34.77
RB: 1,0	713.5	23825	V	14.28	3.36	-2.60	15.04	34.77
	/13.3	23623	Н	18.08	3.36	-2.60	18.84	34.77
	706.5	22755	V	13.93	3.37	-2.60	14.70	34.77
BAND 17	706.5	23755	Н	17.14	3.37	-2.60	17.91	34.77
BAND 17 BW: 5M 16QAM RB: 1,24	710.0	22700	V	13.93	3.37	-2.60	14.70	34.77
	710.0	23790	Н	17.73	3.36	-2.60	18.48	34.77
	712.5	22025	V	14.39	3.35	-2.61	15.13	34.77
	713.5	23825	Н	18.54	3.35	-2.61	19.29	34.77

# Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz **(1)** 

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
	709.0	23780	V	14.06	3.37	-2.60	14.83	34.77
BAND 17	709.0	23/80	Н	16.80	3.37	-2.60	17.57	34.77
BW: 10M	710.0	23790	V	13.55	3.37	-2.60	14.32	34.77
QPSK	710.0	23/90	Н	17.09	3.37	-2.60	17.86	34.77
RB: 1,0	711.0	23800	V	13.94	3.37	-2.60	14.70	34.77
	/11.0	23800	Н	16.72	3.37	-2.60	17.49	34.77
	709.0	22790	V	12.71	3.36	-2.61	13.46	34.77
BAND 17	709.0	23780	Н	17.29	3.36	-2.61	18.03	34.77
BW: 10M QPSK	710.0	23790	V	12.89	3.35	-2.61	13.64	34.77
	/10.0	23/90	Н	16.46	3.35	-2.61	17.21	34.77
RB: 1,49	711.0	23800	V	12.74	3.35	-2.61	13.48	34.77
	/11.0	23800	Н	17.87	3.35	-2.61	18.61	34.77
	709.0	23780	V	15.81	3.37	-2.60	16.57	34.77
BAND 17	709.0	23/80	Н	18.45	3.37	-2.60	19.22	34.77
BW: 10M	710.0	23790	V	15.75	3.37	-2.60	16.52	34.77
16QAM	/10.0	23/90	Н	18.45	3.37	-2.60	19.22	34.77
RB: 1,0	711.0	23800	V	15.36	3.37	-2.60	16.13	34.77
	/11.0	23800	Н	18.14	3.37	-2.60	18.91	34.77
	700.0	22790	V	14.36	3.36	-2.60	15.11	34.77
BAND 17	709.0	23780	Н	18.46	3.36	-2.61	19.21	34.77
BAND 17 BW: 10M 16QAM RB: 1,49	710.0	23790	V	14.51	3.35	-2.61	15.26	34.77
	/10.0	23/90	Н	18.35	3.35	-2.61	19.10	34.77
	711.0	23800	V	14.63	3.35	-2.61	15.37	34.77
	/11.0	23800	Н	18.32	3.35	-2.61	19.06	34.77

# Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1850.7	26047	V	25.76	4.84	-4.49	26.12	33.00
BAND 25	1630.7	20047	Н	25.40	4.84	-4.49	25.76	33.00
BW: 1.4M	1882.5	26365	V	23.95	4.79	-4.53	24.22	33.00
QPSK	1882.3	20303	Н	23.57	4.79	-4.53	23.83	33.00
RB: 1,0	1014.2	26683	V	22.50	4.74	-4.57	22.66	33.00
	1914.3	20083	Н	21.74	4.74	-4.57	21.91	33.00
	1950.7	26047	V	25.69	4.84	-4.49	26.05	33.00
BAND 25	1850.7	26047	Н	24.97	4.84	-4.49	25.33	33.00
BW: 1.4M QPSK	1002.5	26365	V	24.25	4.79	-4.53	24.51	33.00
	1882.5	20303	Н	23.73	4.79	-4.53	23.99	33.00
RB: 1,5	1914.3	26683	V	22.63	4.74	-4.57	22.79	33.00
	1914.3	20083	Н	21.96	4.74	-4.57	22.12	33.00
	1950.7	26047	V	26.67	4.84	-4.49	27.03	33.00
BAND 25	1850.7	26047	Н	25.91	4.84	-4.49	26.26	33.00
BW: 1.4M	1002.5	26265	V	25.69	4.79	-4.53	25.96	33.00
16QAM	1882.5	26365	Н	25.27	4.79	-4.53	25.53	33.00
RB: 1,0	1014.2	26692	V	22.95	4.74	-4.57	23.11	33.00
	1914.3	26683	Н	22.25	4.74	-4.57	22.42	33.00
	10507	26047	V	26.69	4.84	-4.49	27.04	33.00
BAND 25	1850.7	26047	Н	26.00	4.84	-4.49	26.35	33.00
BAND 25 BW: 1.4M 16QAM RB: 1,5	1002.5	26265	V	25.56	4.79	-4.53	25.83	33.00
	1882.5	26365	Н	25.55	4.79	-4.53	25.81	33.00
	10142	26692	V	23.18	4.74	-4.57	23.35	33.00
	1914.3	26683	Н	22.68	4.74	-4.57	22.84	33.00

## Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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:	EUT			N	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1851.5	26055	V	25.78	4.84	-4.49	26.14	33.00
BAND 25	1631.3	20033	Н	24.79	4.84	-4.49	25.15	33.00
BW: 3M	1882.5	26365	V	24.15	4.79	-4.53	24.42	33.00
QPSK	1882.3	20303	Н	23.53	4.79	-4.53	23.80	33.00
RB: 1,0	1913.5	26675	V	22.27	4.74	-4.57	22.44	33.00
	1913.3	20073	Н	21.61	4.74	-4.57	21.78	33.00
	1851.5	26055	V	25.62	4.84	-4.49	25.98	33.00
BAND 25	1631.3	20033	Н	25.02	4.84	-4.49	25.37	33.00
BW: 3M QPSK	1882.5	26365	V	23.75	4.79	-4.53	24.01	33.00
	1882.3	20303	Н	24.06	4.79	-4.53	24.32	33.00
RB: 1,14	1913.5	26675	V	22.46	4.74	-4.57	22.62	33.00
	1913.3	20073	Н	22.08	4.74	-4.57	22.24	33.00
	1851.5	26055	V	26.69	4.84	-4.49	27.05	33.00
BAND 25	1631.3	20033	Н	25.71	4.84	-4.49	26.07	33.00
BW: 3M	1882.5	26365	V	25.77	4.79	-4.53	26.03	33.00
16QAM	1882.3	20303	Н	25.17	4.79	-4.53	25.43	33.00
RB: 1,0	1913.5	26675	V	22.91	4.74	-4.57	23.08	33.00
	1913.3	20073	Н	22.22	4.74	-4.57	22.39	33.00
	1851.5	26055	V	26.55	4.84	-4.49	26.90	33.00
BAND 25	1631.3	20033	Н	25.82	4.84	-4.49	26.17	33.00
BAND 23 BW: 3M 16QAM RB: 1,14	1882.5	26365	V	25.30	4.79	-4.53	25.56	33.00
	1002.3	20303	Н	25.48	4.79	-4.53	25.74	33.00
	1913.5	26675	V	23.13	4.74	-4.57	23.29	33.00
	1913.3	20073	Н	22.69	4.74	-4.57	22.85	33.00

## Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1952.5	26065	V	25.52	4.84	-4.49	25.88	33.00
BAND 25	1852.5	20003	Н	24.69	4.84	-4.49	25.05	33.00
BW: 5M	1882.5	26365	V	24.20	4.79	-4.53	24.47	33.00
QPSK	1882.3	20303	Н	23.41	4.79	-4.53	23.68	33.00
RB: 1,0	1012.5	26665	V	22.69	4.74	-4.57	22.87	33.00
	1912.5	26665	Н	21.83	4.74	-4.57	22.01	33.00
	1952.5	26065	V	24.92	4.84	-4.49	25.26	33.00
BAND 25	1852.5	26065	Н	24.41	4.84	-4.49	24.76	33.00
BW: 5M QPSK	1882.5	26365	V	23.47	4.79	-4.53	23.73	33.00
	1882.3	20303	Н	24.18	4.79	-4.53	24.44	33.00
RB: 1,24	1912.5	26665	V	22.39	4.74	-4.57	22.55	33.00
	1912.3	20003	Н	21.92	4.74	-4.57	22.08	33.00
	1852.5	26065	V	26.60	4.84	-4.49	26.95	33.00
BAND 25	1832.3	20003	Н	25.74	4.84	-4.49	26.10	33.00
BW: 5M	1882.5	26365	V	25.17	4.79	-4.53	25.44	33.00
16QAM	1882.3	20303	Н	24.34	4.79	-4.53	24.60	33.00
RB: 1,0	1912.5	26665	V	23.89	4.74	-4.57	24.07	33.00
	1912.3	20003	Н	23.01	4.74	-4.57	23.19	33.00
	1852.5	26065	V	26.48	4.84	-4.49	26.82	33.00
BAND 25	1832.3	20003	Н	26.01	4.84	-4.49	26.35	33.00
BAND 23 BW: 5M 16QAM RB: 1,24	1882.5	26365	V	25.15	4.79	-4.53	25.40	33.00
	1002.3	20303	Н	25.27	4.79	-4.53	25.52	33.00
	1012.5	26665	V	23.14	4.74	-4.57	23.30	33.00
	1912.5	20003	Н	22.65	4.74	-4.57	22.82	33.00

## Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			ľ	Measurem	ent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1855.0	26090	V	25.15	4.84	-4.49	25.51	33.00
BAND 25	1833.0	20090	Н	25.03	4.84	-4.49	25.39	33.00
BW: 10M	1882.5	26365	V	24.14	4.80	-4.52	24.41	33.00
QPSK	1882.3	20303	Н	22.41	4.80	-4.52	22.68	33.00
RB: 1,0	1910.0	26640	V	23.41	4.75	-4.56	23.60	33.00
	1910.0	20040	Н	22.70	4.75	-4.56	22.89	33.00
	1055.0	26000	V	24.41	4.83	-4.50	24.74	33.00
BAND 25 BW: 10M QPSK	1855.0	26090	Н	24.26	4.83	-4.50	24.59	33.00
	1882.5	26265	V	23.62	4.78	-4.53	23.87	33.00
	1882.3	26365	Н	24.09	4.78	-4.53	24.34	33.00
RB: 1,49	1910.0	26640	V	22.00	4.74	-4.57	22.17	33.00
	1910.0	20040	Н	21.67	4.74	-4.57	21.84	33.00
	1055.0	26000	V	26.71	4.84	-4.49	27.06	33.00
BAND 25	1855.0	26090	Н	26.57	4.84	-4.49	26.93	33.00
BW: 10M	1882.5	26365	V	25.04	4.80	-4.52	25.31	33.00
16QAM	1882.3	20303	Н	23.29	4.80	-4.52	23.57	33.00
RB: 1,0	1910.0	26640	V	24.92	4.75	-4.56	25.11	33.00
	1910.0	20040	Н	23.78	4.75	-4.56	23.97	33.00
	1055.0	26000	V	25.70	4.83	-4.50	26.03	33.00
BAND 25	1855.0	26090	Н	25.55	4.83	-4.50	25.88	33.00
BAND 25 BW: 10M 16QAM RB: 1,49	1002 5	26365	V	24.57	4.78	-4.53	24.82	33.00
	1882.5	20303	Н	25.67	4.78	-4.53	25.92	33.00
	1910.0	26640	V	22.82	4.74	-4.57	22.99	33.00
	1910.0	20040	Н	22.23	4.74	-4.57	22.39	33.00

## Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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	EUT			Measurement				
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1057.5	26115	V	25.47	4.84	-4.49	25.82	33.00
BAND 25	1857.5	26115	Н	24.85	4.84	-4.49	25.21	33.00
BW: 15M	1882.5	26365	V	24.11	4.80	-4.52	24.39	33.00
QPSK	1882.3	20303	Н	22.66	4.80	-4.52	22.95	33.00
RB: 1,0	1907.5	26615	V	24.38	4.76	-4.55	24.58	33.00
	1907.3	20013	Н	24.03	4.76	-4.55	24.24	33.00
	1057.5	26115	V	24.23	4.82	-4.50	24.55	33.00
BAND 25	1857.5	26115	Н	21.83	4.82	-4.50	22.14	33.00
BW: 15M	1002.5	26365	V	24.00	4.78	-4.54	24.24	33.00
QPSK	1882.5	20303	Н	24.42	4.78	-4.54	24.66	33.00
RB: 1,74	1907.5	26615	V	21.95	4.74	-4.57	22.11	33.00
			Н	21.74	4.74	-4.57	21.90	33.00
	1057.5	26115	V	26.66	4.84	-4.49	27.01	33.00
BAND 25	1857.5	26115	Н	25.87	4.84	-4.49	26.22	33.00
BW: 15M	1882.5	26365	V	25.14	4.80	-4.52	25.42	33.00
16QAM	1882.3	20303	Н	23.55	4.80	-4.52	23.83	33.00
RB: 1,0	1907.5	26615	V	25.79	4.76	-4.55	26.00	33.00
	1907.3	20013	Н	24.86	4.76	-4.55	25.07	33.00
	1057.5	26115	V	25.35	4.82	-4.50	25.66	33.00
BAND 25	1857.5	26115	Н	23.00	4.82	-4.50	23.32	33.00
BW: 15M 16QAM	1002 5	26365	V	25.04	4.78	-4.54	25.28	33.00
	1882.5	20303	Н	26.09	4.78	-4.54	26.33	33.00
RB: 1,74	1907.5	26615	V	22.78	4.74	-4.57	22.95	33.00
	1907.3	20013	Н	22.44	4.74	-4.57	22.60	33.00

## Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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EUT			Measurement					
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	1860.0	26140	V	25.45	4.84	-4.49	25.81	33.00
BAND 25	1800.0	20140	Н	24.97	4.84	-4.49	25.32	33.00
BW: 20M	1882.5	26365	V	23.55	4.81	-4.52	23.84	33.00
QPSK	1882.3	20303	Н	22.13	4.81	-4.52	22.42	33.00
RB: 1,0	1005.0	26500	V	24.11	4.77	-4.55	24.33	33.00
	1905.0	26590	Н	23.87	4.77	-4.55	24.09	33.00
	1060.0	26140	V	23.62	4.81	-4.51	23.92	33.00
BAND 25	1860.0	26140	Н	21.91	4.81	-4.51	22.22	33.00
BW: 20M	1882.5	26365	V	23.96	4.78	-4.54	24.19	33.00
QPSK			Н	24.63	4.78	-4.54	24.86	33.00
RB: 1,99	1905.0	26590	V	21.94	4.74	-4.57	22.10	33.00
·			Н	21.64	4.74	-4.57	21.81	33.00
	1060.0	26140	V	26.37	4.84	-4.49	26.72	33.00
BAND 25	1860.0	26140	Н	25.74	4.84	-4.49	26.10	33.00
BW: 20M	1002.5	26265	V	24.75	4.80	-4.52	25.04	33.00
16QAM	1882.5	26365	Н	23.37	4.81	-4.52	23.66	33.00
RB: 1,0	1005.0	26500	V	25.15	4.77	-4.55	25.37	33.00
	1905.0	26590	Н	24.85	4.77	-4.55	25.07	33.00
	1060.0	26140	V	24.68	4.81	-4.51	24.98	33.00
BAND 25	1860.0	26140	Н	22.58	4.81	-4.51	22.88	33.00
BW: 20M 16QAM	1002.5	26265	V	24.56	4.78	-4.54	24.79	33.00
	1882.5	26365	Н	25.17	4.78	-4.54	25.41	33.00
RB: 1,99	1005.0	26500	V	22.50	4.74	-4.57	22.67	33.00
	1905.0	26590	Н	22.20	4.74	-4.57	22.36	33.00

## Remark:

The RBW, VBW of SPA for frequency RBW= 8MHz, VBW= 8MHz (1)

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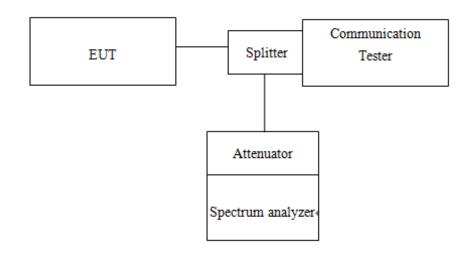
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## OCCUPIED BANDWIDTH MEASUREMENT

# 8.1. Standard Applicable

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power.

# 8.2. Test Set-up



## 8.3. Measurement Procedure

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW= 3 times RBW, -26dBc display line was placed on the screen (or 26dB bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace. Then set RBW to 99% bandwidth, RBW= 1%, VBW= 3 RBW, with span > 2 \* Signal BW, set % Power = 99%.

NOTE: For the plot of bandwidth measurement, the marker of the 99% bandwidth is diamond-shape while the marker of the 26dB BW is arrow-mark

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# 8.4. Measurement Equipment Used

Conc	Conducted Emission (measured at antenna port) Test Site								
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.				
TYPE		NUMBER	NUMBER	CAL.					
Spectrum Analyzer	Agilent	E4446A	MY51100003	01/29/2015	01/28/2016				
Radio Communication Analyzer	R&S	CMU200	102189	02/11/2015	02/10/2016				
Radio Communication Analyzer	Anritsu	MT8820C	6200995019	10/08/2014	10/09/2015				
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2015	01/01/2016				
Attenuator	Mini-Circuit	BW-S10W2+	002	01/02/2015	01/01/2016				
Splitter	Agilent	11636B	N/A	01/02/2015	01/01/2016				
DC Power Supply	Agilent	E3640A	MY52410006	11/10/2014	11/09/2015				



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## 8.5. Measurement Result

## 99% Bandwidth

Frequency	CH	99% Bandwidth (kHz)		
(MHz)	СН	GPRS 850	<b>EDGE 850</b>	
824.20	128	238.554	243.513	
836.60	190	245.992	248.284	
848.80	251	243.248	247.056	

Frequency	СН	99% Bandwidth (kHz)		
(MHz)	Ch	GPRS 1900	EDGE 1900	
1850.20	512	244.577	244.059	
1880.00	661	244.126	244.529	
1909.80	810	246.615	242.014	

Frequency (MHz)	СН	99% Bandwidth (MHz)			
		WCDMA II	HSDPA II	HSUPA II	
1850.20	9262	4.1613	4.1702	4.1704	
1880.00	9400	4.1519	4.1511	4.1573	
1909.80	9538	4.1651	4.1625	4.1573	

Frequency (MHz)	СН	99% Bandwidth (MHz)			
	Cn	WCDMA IV	HSDPA IV	HSUPA IV	
1712.4	1312	4.1465	4.1499	4.1584	
1732.6	1413	4.1514	4.1703	4.1796	
1752.6	1513	4.1704	4.1652	4.1715	

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Frequency (MHz)	СН	99% Bandwidth (MHz)			
	Ch	WCDMA V	HSDPA V	HSUPA V	
826.40	4132	4.1398	4.1469	4.1365	
836.60	4183	4.1555	4.1520	4.1336	
846.60	4233	4.1538	4.1511	4.1445	

Frequency	СН	99% Bandwidth (MHz)		
(MHz)	CII	CDMA BC0	EVDO BC0	
824.7	1013	1.2649	1.2680	
836.52	384	1.2682	1.2710	
848.31	777	1.2674	1.2777	

Frequency	СН	99% Bandwidth (MHz)		
(MHz)	CII	CDMA BC1	EVDO BC1	
1851.25	25	1.2643	1.2738	
1880.00	600	1.2672	1.2667	
1908.75	1175	1.2630	1.2705	

Frequency	СН	99% Bandwidth (MHz)		
(MHz)	Cn	CDMA BC10	EVDO BC10	
817.9	476	1.2678	1.2728	
820.5	580	1.2653	1.2634	
823.1	684	1.2672	1.2691	

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	LTE BAND 2								
Channel bandwidth: 1.4MHz			Ch	annel ban	dwidth: 3M	Hz			
Frequency (MHz)	СН	99% Bandwidth (MHz)		Frequency	СН	99% Bar (MI			
		QPSK	16QAM	(MHz)		QPSK	16QAM		
1850.7	18607	1.0922	1.0962	1851.5	18615	2.7042	2.7012		
1880.0	18900	1.0921	1.0954	1880.0	18900	2.7072	2.7113		
1909.3	19193	1.0946	1.1046	1908.5	19185	2.7071	2.7046		

			LTE I	BAND 2			
Channel bandwidth: 5MHz				Cha	nnel ban	dwidth: 10M	Hz
Frequency	СН	Band	width Hz)	Frequency	СН	99% Bandwidth (MHz)	
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM
1852.5	18625	4.5081	4.5111	1855.0	18650	8.9898	8.9715
1880.0	18900	4.4963 4.5061		1880.0	18900	8.9800	8.9636
1907.5	19175	4.4963 4.4950		1905.0	19150	8.9782	8.9976

	LTE BAND 2										
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz							
Frequency	СН	99% Bandwidth (MHz)		Frequency	СН	99% Bandwidth (MHz)					
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM				
1857.5	18675	13.3674	13.4353	1860.0	18700	17.8381	17.8848				
1880.0	18900	13.4542 13.4505		1880.0	18900	17.9301	17.9451				
1902.5	19125	13.4991 13.5175		1900.0	19100	17.9029	17.9676				

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	LTE BAND 4										
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz							
Frequency CH		99% Bandwidth (MHz)		Frequency	СН	99% Bandwidth (MHz)					
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM				
1710.7	19957	1.0968	1.0990	1711.5	19965	2.7090	2.7124				
1732.5	20175	1.0995 1.0995		1732.5	20175	2.7166	2.7055				
1754.3	20393	1.1013	1.1013 1.1021		20385	2.7078	2.7026				

			LTE I	BAND 4				
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz				
Frequency	СН	Band	% width Hz)	Frequency	СН	99% Bandwidth (MHz)		
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM	
1712.5	19957	4.4999	4.5018	1715.0	20000	8.9550	8.9524	
1732.5	20175	4.4981 4.4981		1732.5	20175	8.9988	8.9937	
1752.5	20375	4.5027	4.5027 4.5140		20350	8.9600	8.9847	

			LTE F	BAND 4				
Cha	nnel bar	ndwidth: 15N	ИHz	Channel bandwidth: 20MHz				
Frequency	СН	Band	% width Hz)	Frequency	СН	99% Bandwidth (MHz)		
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM	
1717.5	20025	13.4011	13.4117	1720.0	20050	17.8527	17.8984	
1732.5	20175	13.4479	<b>13.4479</b> 13.4519		20175	17.9017	17.8698	
1747.5	20325	13.4330 <b>13.4763</b>		1745.0	20300	17.8863	17.9502	

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			LTE I	BAND 5				
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz				
Frequency CH	СН	Band	99% Bandwidth (MHz)		СН	99% Bandwidth (MHz)		
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM	
824.7	20407	1.0969	1.1109	825.5	20415	2.7076	2.7082	
836.5	20525	1.1007	1.0994	836.5	20525	2.7016	2.6962	
848.3	20643	<b>1.0970</b> 1.1012		847.5	20635	2.7068	2.6986	

			LTE I	BAND 5				
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz				
Frequency	СН	Band	width Hz)	Frequency	СН	99% Bandwidth (MHz)		
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM	
826.5	20425	4.4858	4.4929	829.0	20450	8.9891	8.9413	
836.5	20525	4.4779	4.4779 <b>4.4997</b>		20525	8.9962	8.9602	
846.5	20625	4.4794	4.4915	844.0	20600	8.9642	8.9429	

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	LTE BAND 13										
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz							
Frequency	СН	Band	% width Hz)	Frequency	СН	99% Bandwidth (MHz)					
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM				
779.5	23205	4.5091	4.5191								
782.0	23230	4.4877	4.4823	23230	782	8.9115	8.9406				
784.5	23255	4.4992	4.4810								

			LTE B	AND 17				
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz				
Frequency	СН	Band	% width Hz)	Frequency CH		99% Bandwidth (MHz)		
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM	
706.5	23755	4.4957	4.4818	709	23780	8.9620	8.9253	
710.0	23790	<b>4.5120</b> 4.5055		710	23790	8.9916	8.9584	
713.5	23825	4.5014	4.5068	711	23800	8.9924	8.9976	

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	LTE BAND 25											
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz								
Frequency CH		99% Bandwidth (MHz)		Frequency	СН	99% Bandwidth (MHz)						
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM					
1850.7	26047	1.0945	1.0986	1851.5	26055	2.7020	2.7099					
1882.5	26365	<b>1.1009</b> 1.0978		1882.5	26365	2.7023	2.6992					
1914.3	26683	1.0956	1.0956 <b>1.1057</b>		26675	2.6976	2.7053					

			LTE B	SAND 25				
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz				
Frequency CH		99% Bandwidth (MHz)		Frequency	СН	99% Bandwidth (MHz)		
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM	
1852.5	26065	4.5081	4.5044	1855.0	26090	8.9926	8.9618	
1882.5	26365	4.5057 4.4969		1882.5	26365	8.9827	8.9760	
1912.5	26665	4.4960	4.4960 4.4957		26640	8.9405	8.9388	

			LTE B	AND 25			
Channel bandwidth: 15MHz				Cha	nnel ban	dwidth: 20M	Hz
Frequency CH		99% Bandwidth (MHz)		Frequency	СН	99% Bandwidth (MHz)	
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM
1857.5	26115	13.3821	13.4302	1860.0	26140	17.8480	17.8418
1882.5	26365	13.4134 <b>13.4827</b>		1882.5	26365	17.9250	17.9038
1907.5	26615	13.4322	<b>13.4322</b> 13.4447		26590	17.9553	17.9357

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## 26dB Bandwidth

Frequency	СН	26dB Bandwidth (kHz)		
(MHz)	CII	GPRS 850	EDGE 850	
824.20	128	309.697	304.947	
836.60	190	313.559	314.018	
848.80	251	313.960	311.605	

Frequency	СН	26dB Bandwidth (kHz)		
(MHz)	CII	GPRS 1900	EDGE 1900	
1850.20	512	308.828	324.758	
1880.00	661	314.370	306.139	
1909.80	810	318.501	310.525	

Frequency (MHz)	СН	26dB Bandwidth (MHz)				
	CII	WCDMA II	HSDPA II	HSUPA II		
1850.20	9262	4.628	4.646	4.642		
1880.00	9400	4.627	4.640	4.616		
1909.80	9538	4.624	4.629	4.627		

Frequency (MHz)	СН	26dB Bandwidth (MHz)			
	Cn	WCDMA IV	HSDPA IV	HSUPA IV	
1712.4	1312	4.627	4.628	4.622	
1732.6	1413	4.626	4.637	4.645	
1752.6	1513	4.609	4.631	4.623	

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Frequency	СН	26dB Bandwidth (MHz)				
(MHz)	Ch	WCDMA V	HSDPA V	HSUPA V		
826.40	4132	4.622	4.629	4.633		
836.60	4183	4.626	4.628	4.632		
846.60	4233	4.620	4.629	4.617		

Frequency	СН	26dB Bandwidth (MHz)		
(MHz)	Ch	CDMA BC0	EVDO BC0	
824.7	1013	1.403	1.410	
836.52	384	1.409	1.415	
848.31	777	1.418	1.412	

Frequency	СН	26dB Bandwidth (MHz)		
(MHz)	CII	CDMA BC1	EVDO BC1	
1851.25	25	1.414	1.418	
1880.00	600	1.416	1.414	
1908.75	1175	1.415	1.417	

Frequency	СН	26dB Bandwidth (MHz)		
(MHz)	Cn	CDMA BC10	EVDO BC10	
817.9	476	1.412	1.411	
820.5	580	1.411	1.413	
823.1	684	1.409	1.418	

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	LTE BAND 2								
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz					
Frequency	CII		ndwidth Hz)	Frequency	СН	26dB Ba (Ml			
(MHz)	СН	QPSK	16QAM	(MHz)	СН	QPSK	16QAM		
1850.7	18607	1.269	1.316	1851.5	18615	3.024	3.035		
1880.0	18900	1.269	1.301	1880.0	18900	2.966	3.060		
1909.3	19193	1.297	1.304	1908.5	19185	2.990	3.076		

LTE BAND 2								
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz				
Frequency	·		ndwidth Hz)	Frequency	СН	26dB Ba (M	ndwidth Hz)	
(MHz)		QPSK	16QAM	(MHz)	Сн	QPSK	16QAM	
1852.5	18625	5.034	5.072	1855.0	18650	9.876	9.840	
1880.0	18900	5.057	5.075	1880.0	18900	9.828	9.561	
1907.5	19175	5.058	5.116	1905.0	19150	9.826	9.907	

	LTE BAND 2								
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz					
Frequency	СН		ndwidth Hz)	Frequency	Frequency	СН	26dB Bar (MI		
(MHz)	Сн	QPSK	16QAM	(MHz)	Сн	QPSK	16QAM		
1857.5	18675	14.837	14.758	1860.0	18700	19.253	19.230		
1880.0	18900	14.797	14.863	1880.0	18900	19.455	19.596		
1902.5	19125	14.636	14.924	1900.0	19100	19.551	19.576		

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LTE BAND 4									
Channel bandwidth: 1.4MHz				Ch	annel ban	dwidth: 3M	Hz		
Frequency	CII		ndwidth Hz)			26dB Ba (Ml			
(MHz)	СН	QPSK	16QAM	(MHz)	СН	QPSK	16QAM		
1710.7	19957	1.309	1.318	1711.5	19965	3.007	3.012		
1732.5	20175	1.288	1.305	1732.5	20175	3.044	3.056		
1754.3	20393	1.275	1.298	1753.5	20385	3.045	3.072		

LTE BAND 4												
Ch	annel ba	ndwidth: 5M	Channel bandwidth: 10MHz									
Frequency	CII		ndwidth Hz)	Frequency	CH	26dB Bandwidth (MHz)						
(MHz)	СН	QPSK	16QAM	(MHz)	(MHz)	QPSK	16QAM					
1712.5	19957	5.057	5.072	1715.0	20000	9.721	9.830					
1732.5	20175	5.073	5.039	1732.5	20175	9.789	9.862					
1752.5	20375	4.929	5.044	1750.0	20350	9.839	9.769					

	LTE BAND 4												
Channel bandwidth: 15MHz				Cha	nnel ban	dwidth: 20M	Hz						
Frequency	СН	26dB Ba (M	ndwidth Hz)	Frequency	СН	26dB Bandwidth (MHz)							
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM						
1717.5	20025	14.614	14.657	1720.0	20050	19.418	19.716						
1732.5	20175	14.782	14.602	1732.5	20175	19.389	19.617						
1747.5	20325	14.513	14.924	1745.0	20300	19.601	19.703						

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LTE BAND 5											
Cha	Channel bandwidth: 1.4MHz				annel ban	dwidth: 3M	Hz				
Frequency	CII		ndwidth Hz)	Frequency	СН	26dB Bandwidth (MHz)					
(MHz)	СН	QPSK	16QAM	(MHz)	СН	QPSK	16QAM				
824.7	20407	1.263	1.293	825.5	20415	3.065	3.042				
836.5	20525	1.289	1.300	836.5	20525	3.024	3.018				
848.3	20643	1.297	1.295	847.5	20635	2.998	3.037				

	LTE BAND 5												
Channel bandwidth: 5MHz				Cha	nnel band	dwidth: 10M	Hz						
Frequency	СН		ndwidth Hz)	Frequency	СН	26dB Bandwidth (MHz)							
(MHz)		QPSK	16QAM	(MHz)	CH	QPSK	16QAM						
826.5	20425	5.062	5.081	829.0	20450	9.771	9.854						
836.5	20525	5.016	4.970	836.5	20525	9.657	9.810						
846.5	20625	5.059	5.065	844.0	20600	9.718	9.826						

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LTE BAND 13											
Ch	Channel bandwidth: 5MHz			Cha	nnel ban	dwidth: 10M	Hz				
Frequency	CII		ndwidth Hz)	Frequency	СН	26dB Bandwidth (MHz)					
(MHz)	СН	QPSK	16QAM	(MHz)	Сн	QPSK	16QAM				
779.5	23205	5.059	5.130								
782.0	23230	5.073	4.966	23230	782	9.718	9.692				
784.5	23255	4.992	5.035								

LTE BAND 17												
Ch	annel bandwidth: 5MHz			Channel bandwidth: 5MHz Channel bandwidth: 10MHz				Hz				
Frequency	CII		ndwidth Hz)	Frequency	Frequency		ndwidth Hz)					
(MHz)	СН	QPSK	16QAM	(MHz)	СН	QPSK	16QAM					
706.5	23755	5.075	4.955	709	23780	9.802	9.857					
710.0	23790	5.025	4.941	710	23790	9.820	9.800					
713.5	23825	5.018	5.065	711	23800	9.940	9.845					

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			LTE B	SAND 25			
Cha	nnel ban	dwidth: 1.4	MHz	Channel bandwidth: 3MHz			
Frequency	CII		ndwidth Hz)	Frequency	CII	26dB Bandwidth (MHz)	
(MHz)	СН	QPSK	16QAM	(MHz)	СН	QPSK	16QAM
1850.7	26047	1.299	1.333	1851.5	26055	3.045	3.083
1882.5	26365	1.317	1.278	1882.5	26365	3.045	3.038
1914.3	26683	1.278	1.293	1913.5	26675	3.046	3.049

LTE BAND 25											
Channel bandwidth: 5MHz				Cha	nnel ban	dwidth: 10M	Hz				
Frequency	СН		ndwidth Hz)	Frequency	СН	26dB Bandwidth (MHz)					
(MHz)		QPSK	16QAM	(MHz)	Сн	QPSK	16QAM				
1852.5	26065	5.109	5.066	1855.0	26090	9.962	9.818				
1882.5	26365	5.054	5.011	1882.5	26365	9.685	9.783				
1912.5	26665	5.028	5.076	1910.0	26640	9.774	9.690				

	LTE BAND 25											
Channel bandwidth: 15MHz				Cha	nnel ban	dwidth: 20M	Hz					
Frequency	СН		ndwidth Hz)	Frequency	СН	26dB Bandwidth (MHz)						
(MHz)		QPSK	16QAM	(MHz)		QPSK	16QAM					
1857.5	26115	14.717	14.643	1860.0	26140	19.303	19.421					
1882.5	26365	14.695	14.873	1882.5	26365	19.418	19.353					
1907.5	26615	14.741	14.501	1905.0	26590	19.666	19.306					

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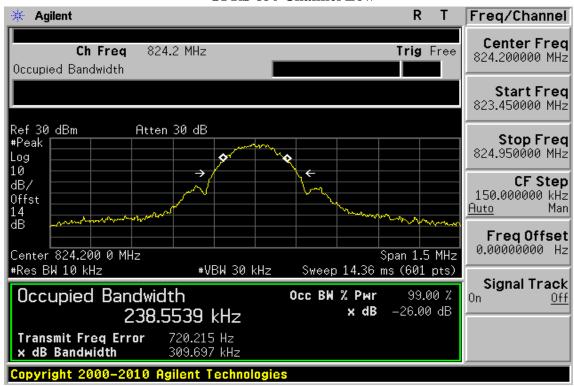


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## 99% Bandwidth Test Data

## **GPRS 850 Channel Low**



## **GPRS 850 Channel Mid**



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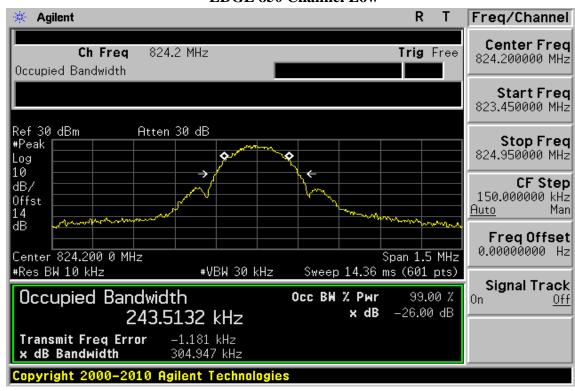
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# **GPRS 850 Channel High**



## **EDGE 850 Channel Low**



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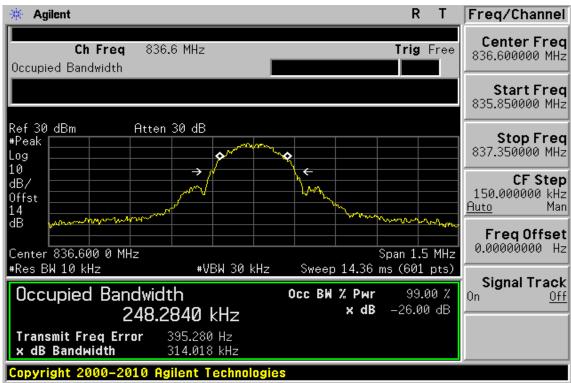
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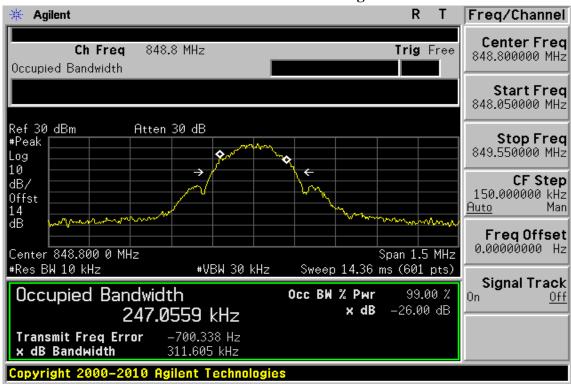
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#### **EDGE 850 Channel Mid**



## **EDGE 850 Channel High**



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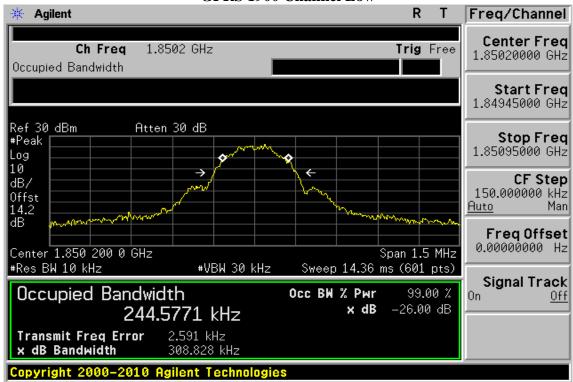
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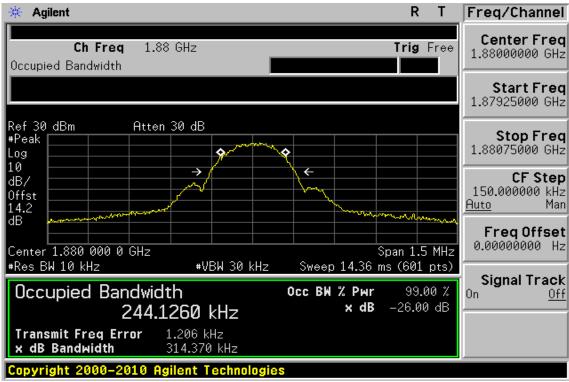
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#### **GPRS 1900 Channel Low**



## **GPRS 1900 Channel Mid**



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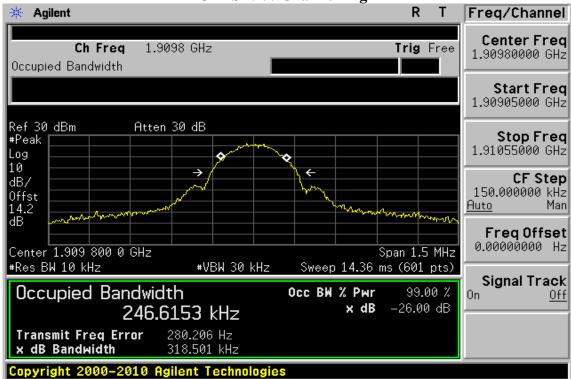
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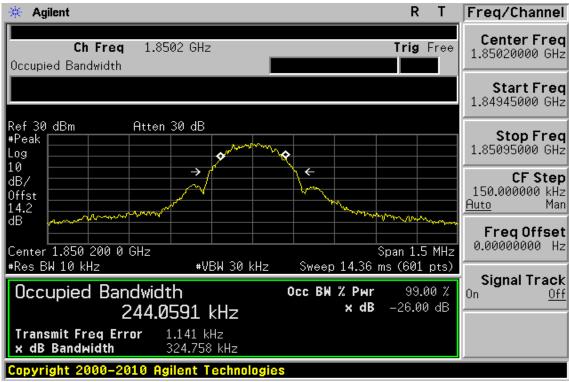
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# **GPRS 1900 Channel High**



## **EDGE 1900 Channel Low**



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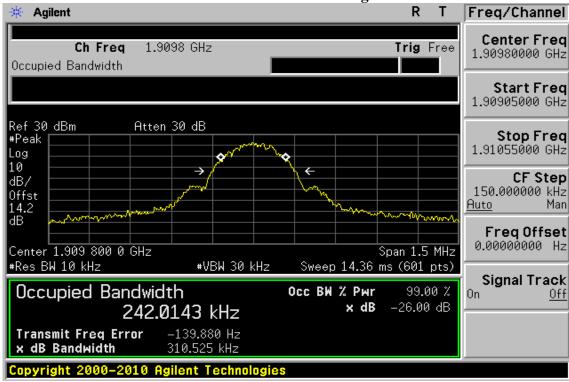
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### **EDGE 1900 Channel Mid**



**EDGE 1900 Channel High** 



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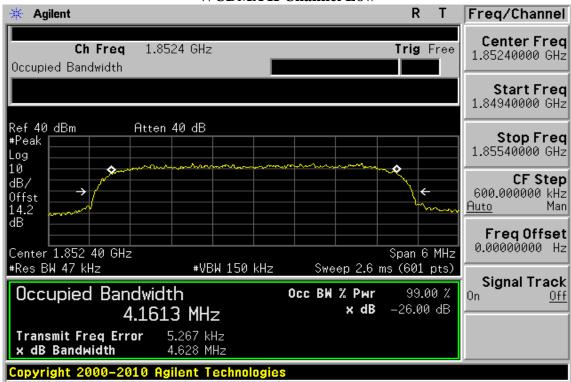
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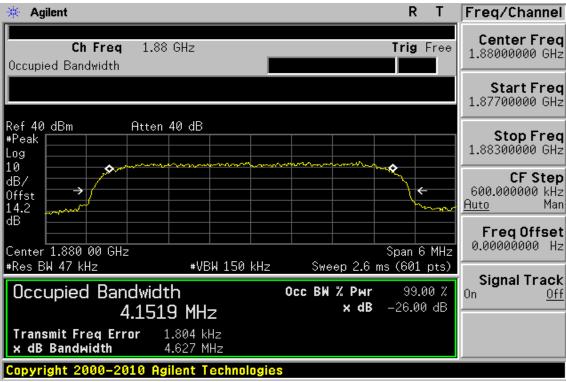
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#### WCDMA II Channel Low



## **WCDMA II Channel Mid**



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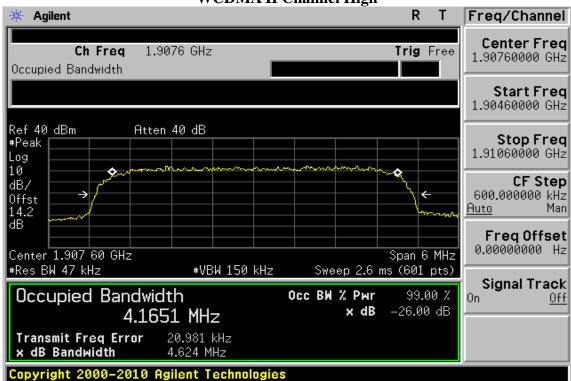
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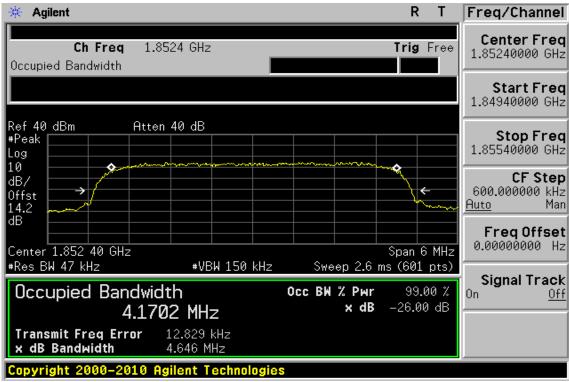
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# **WCDMA II Channel High**



## **HSDPA II Channel Low**



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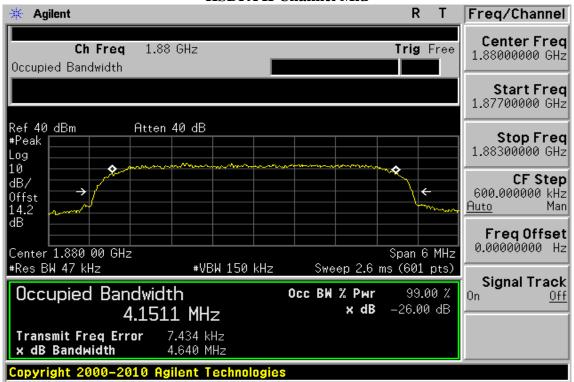
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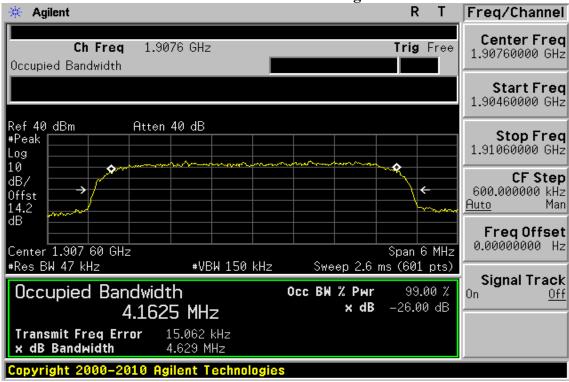
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#### **HSDPA II Channel Mid**



**HSDPA II Channel High** 



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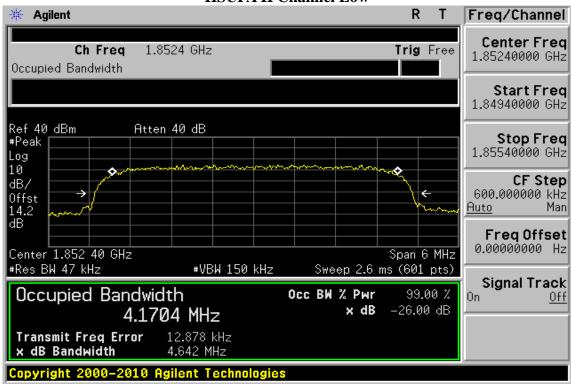
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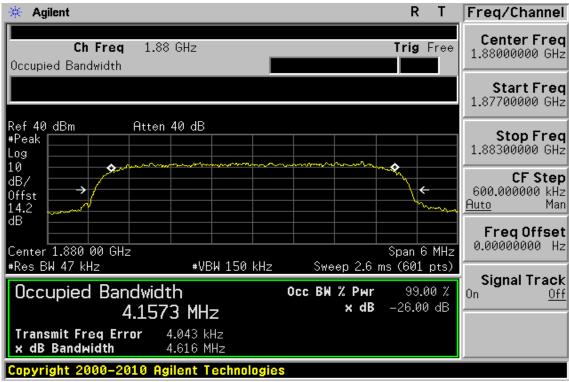
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#### **HSUPA II Channel Low**



## **HSUPA II Channel Mid**



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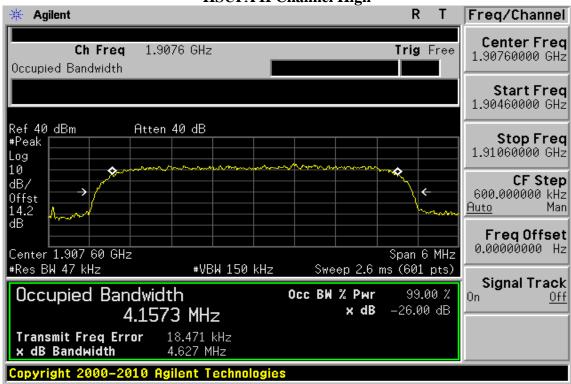
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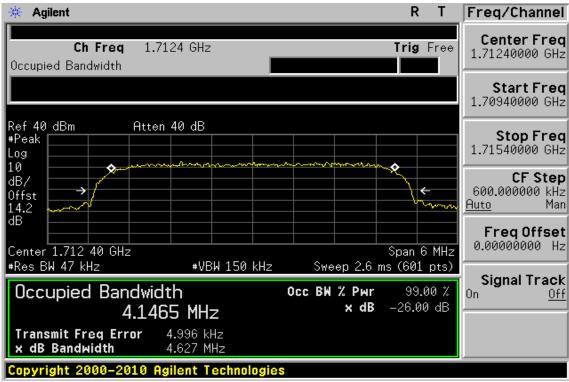
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## **HSUPA II Channel High**



## **WCDMA IV Channel Low**



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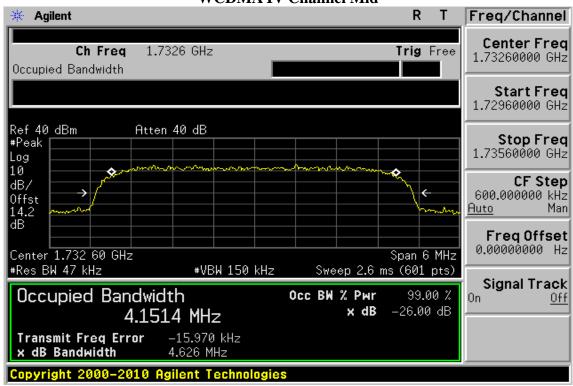
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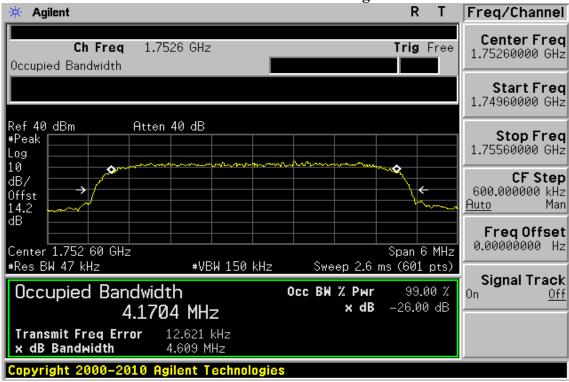
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## WCDMA IV Channel Mid



WCDMA IV Channel High



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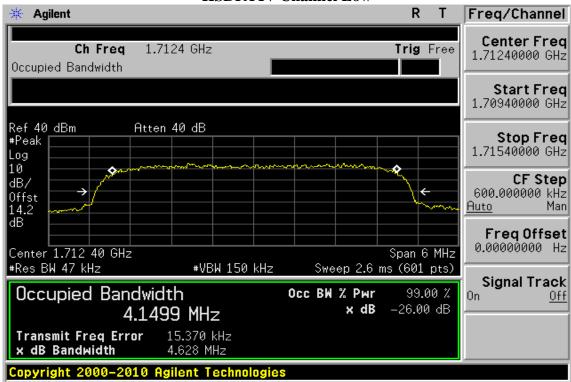
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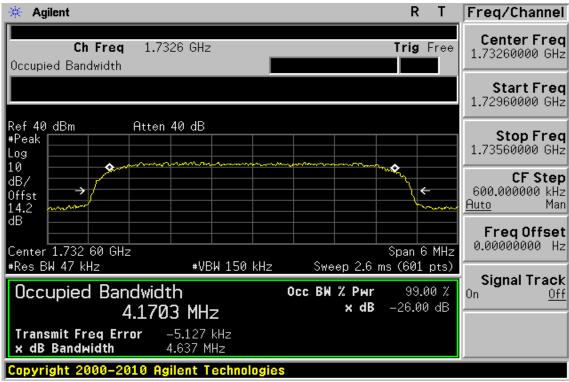
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#### **HSDPA IV Channel Low**



## **HSDPA IV Channel Mid**



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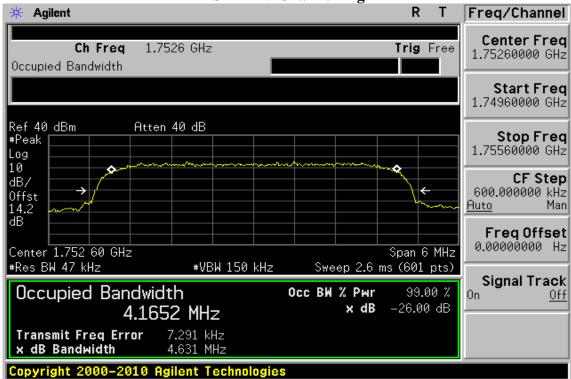
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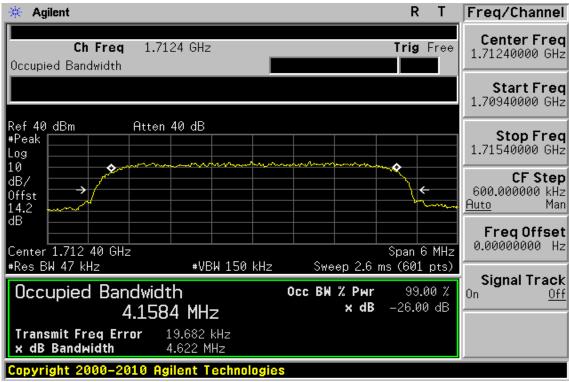
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# **HSDPA IV Channel High**



## **HSUPA IV Channel Low**



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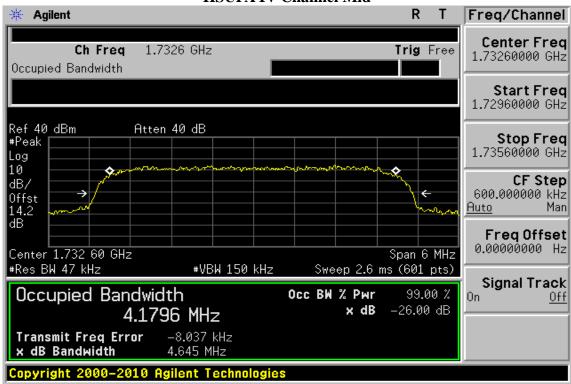
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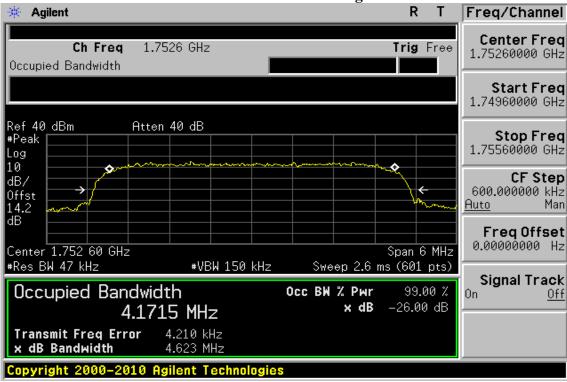
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#### **HSUPA IV Channel Mid**



**HSUPA IV Channel High** 



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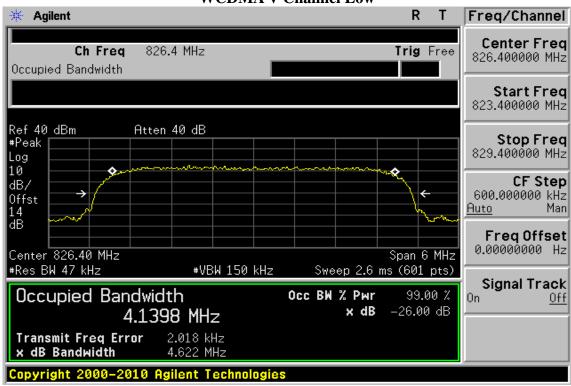
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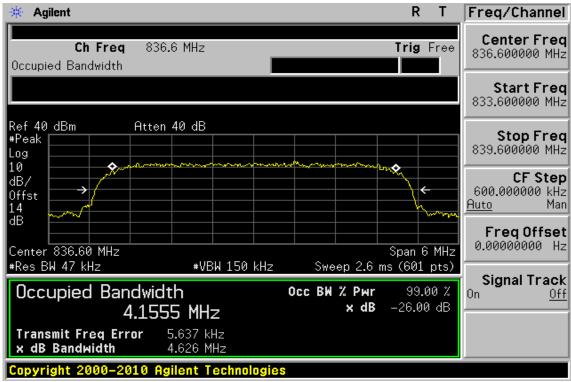
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### WCDMA V Channel Low



## **WCDMA V Channel Mid**



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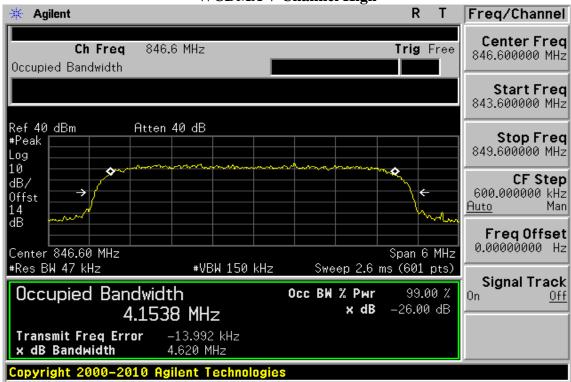
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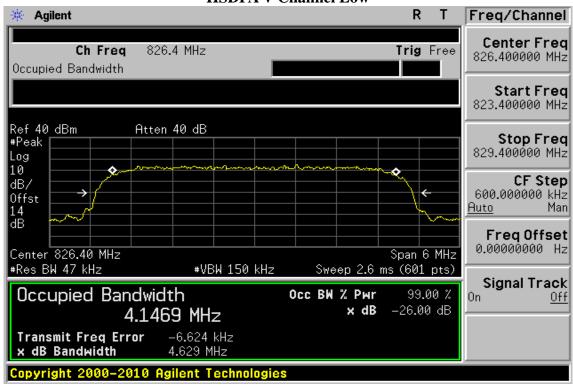
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# WCDMA V Channel High



## **HSDPA V Channel Low**



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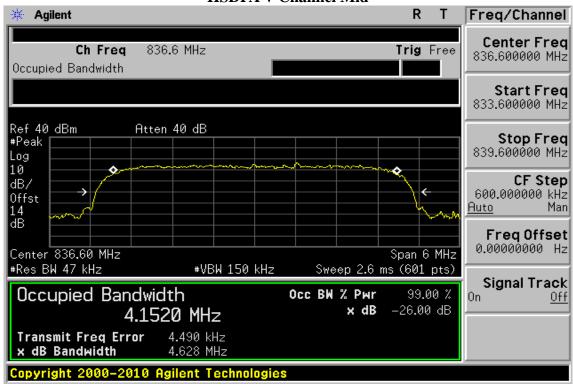
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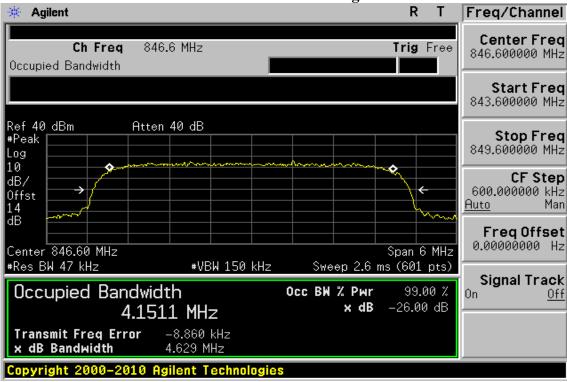
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## **HSDPA V Channel Mid**



**HSDPA V Channel High** 



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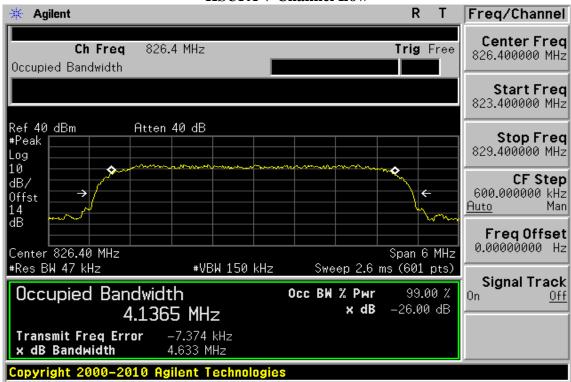
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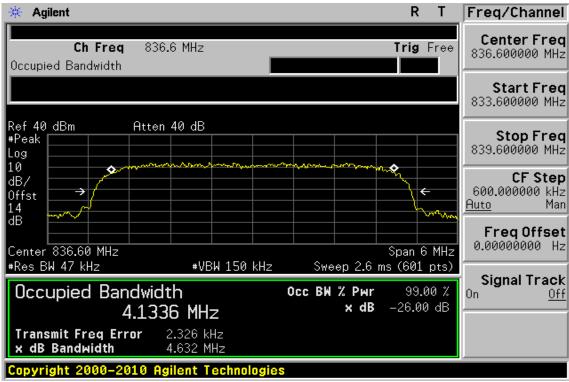
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#### **HSUPA V Channel Low**



## **HSUPA V Channel Mid**



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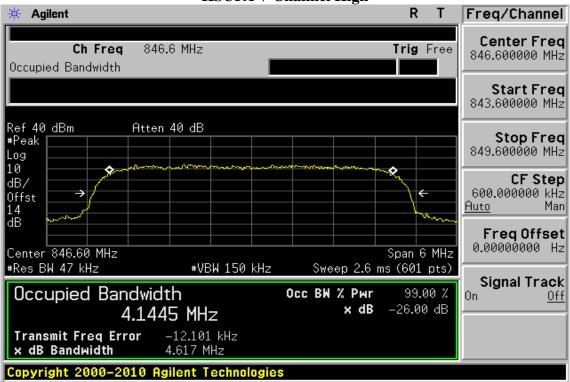
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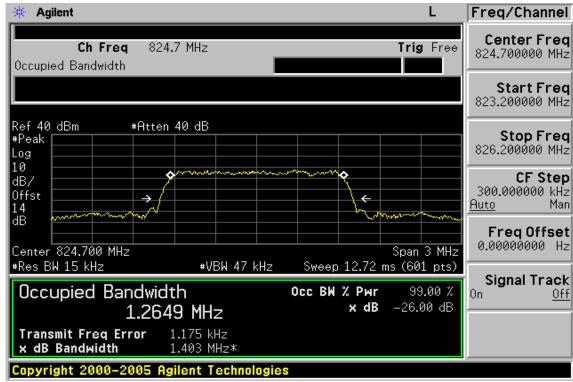
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# **HSUPA V Channel High**



## **CDMA BC0 Channel Low**



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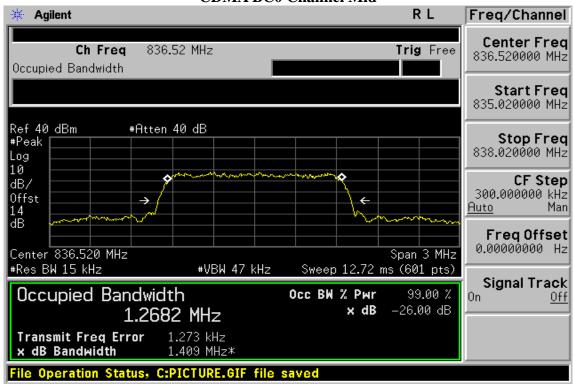
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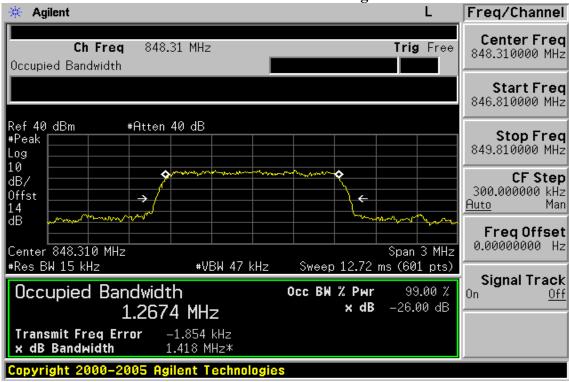
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### **CDMA BC0 Channel Mid**



**CDMA BC0 Channel High** 



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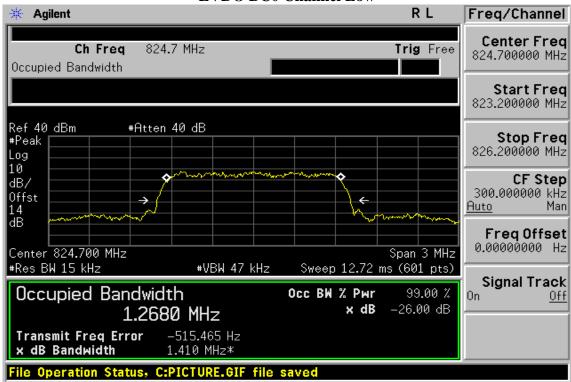
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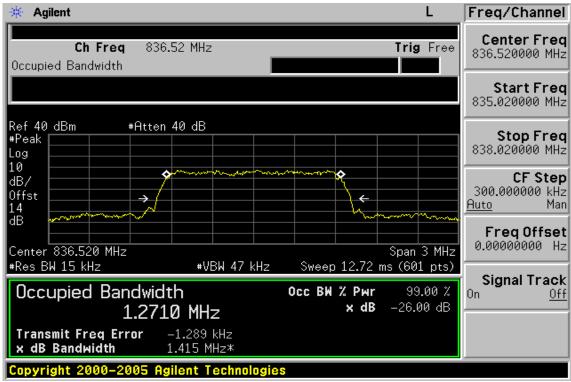
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#### **EVDO BC0 Channel Low**



## **EVDO BC0 Channel Mid**



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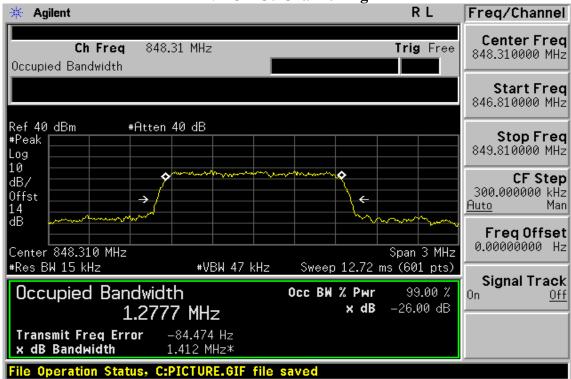
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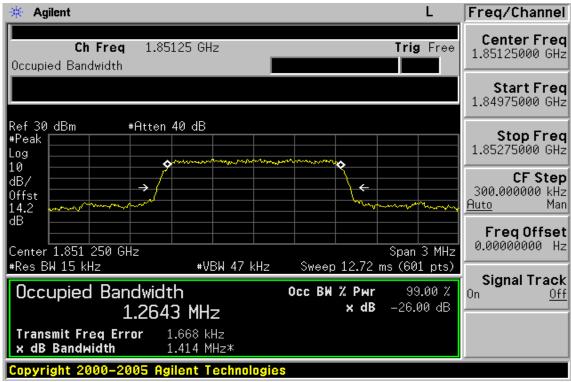
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# **EVDO BC0 Channel High**



## **CDMA BC1 Channel Low**



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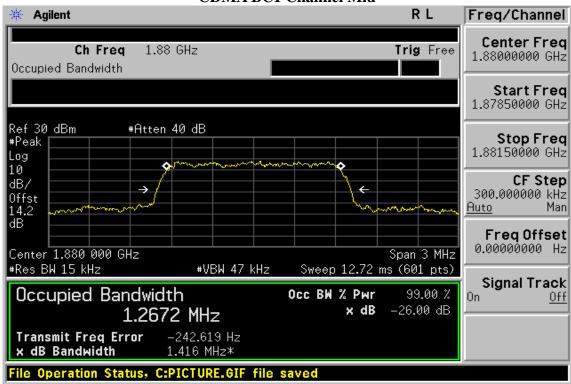
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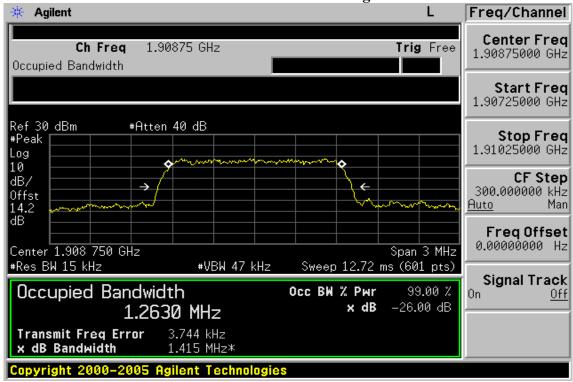
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### **CDMA BC1 Channel Mid**



**CDMA BC1 Channel High** 



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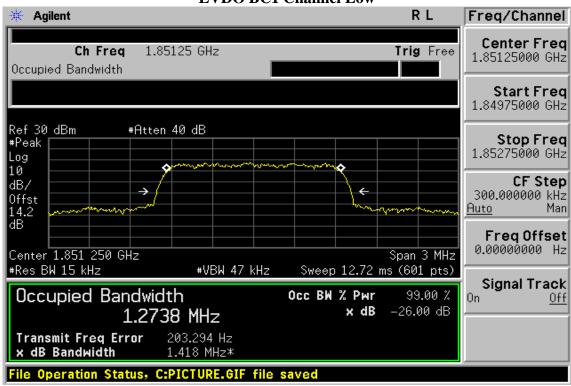
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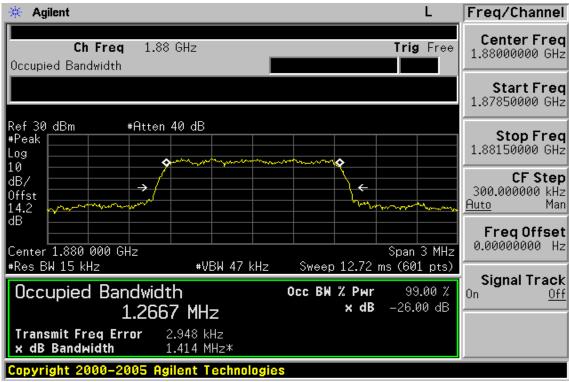
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#### **EVDO BC1 Channel Low**



## **EVDO BC1 Channel Mid**



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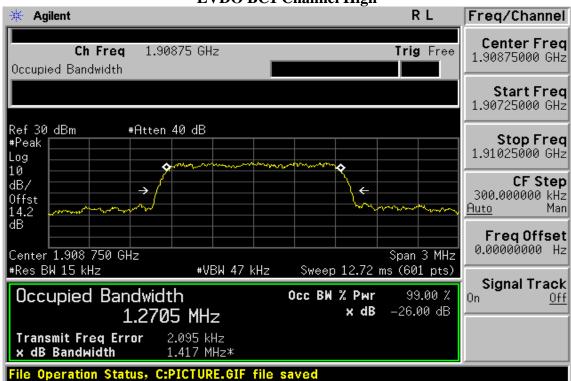
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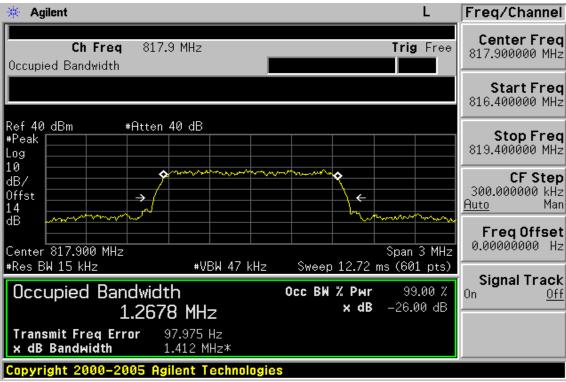
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## **EVDO BC1 Channel High**



## **CDMA BC10 Channel Low**



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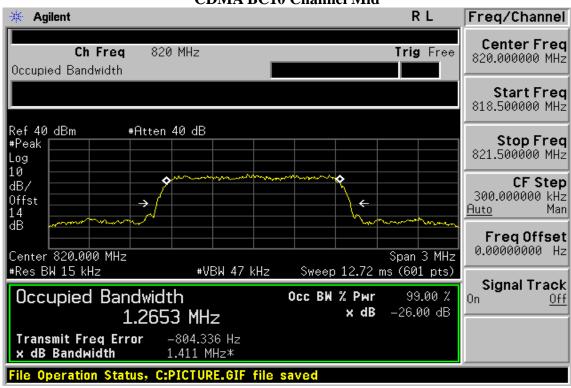
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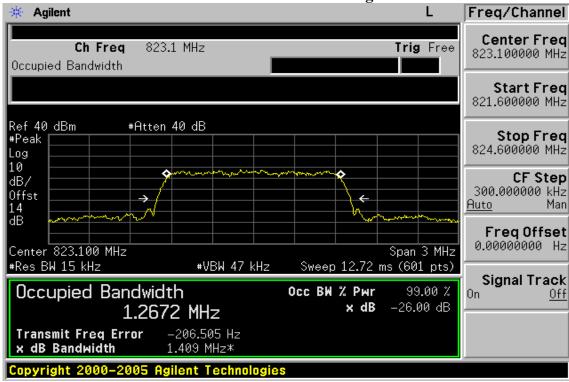
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#### **CDMA BC10 Channel Mid**



**CDMA BC10 Channel High** 



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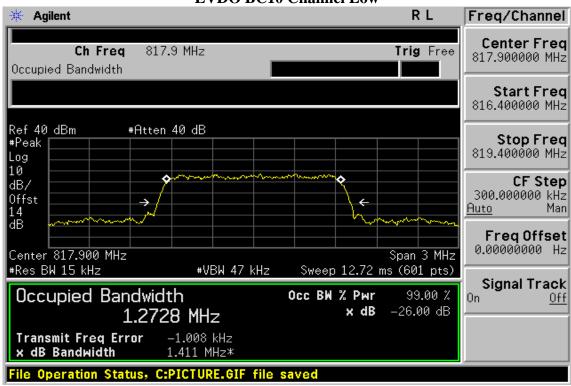
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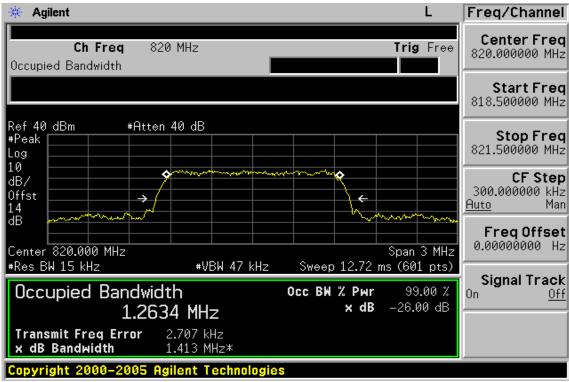
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#### **EVDO BC10 Channel Low**



## **EVDO BC10 Channel Mid**



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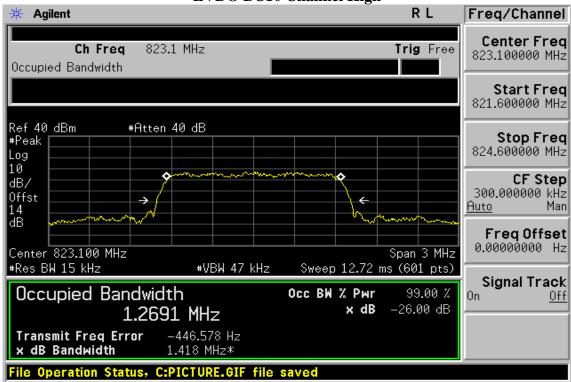
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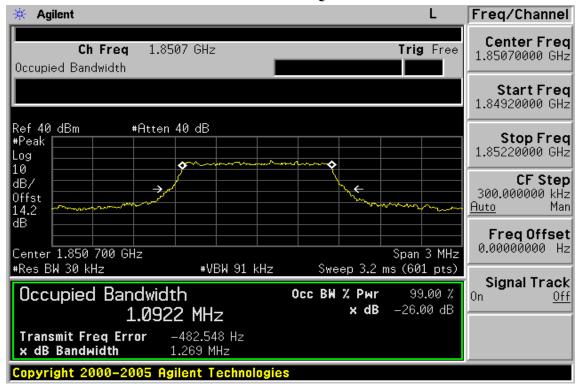
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# **EVDO BC10 Channel High**



# 1.4MHz BW LTE-Band 2 QPSK Channel Low



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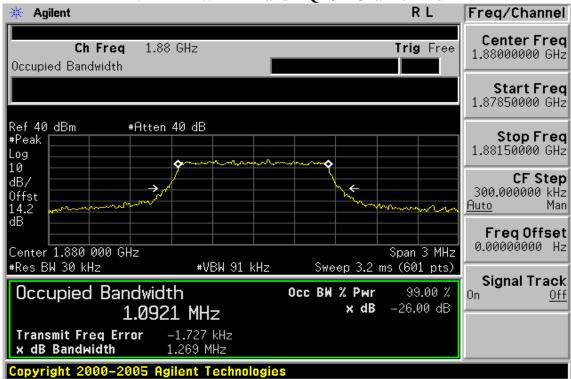
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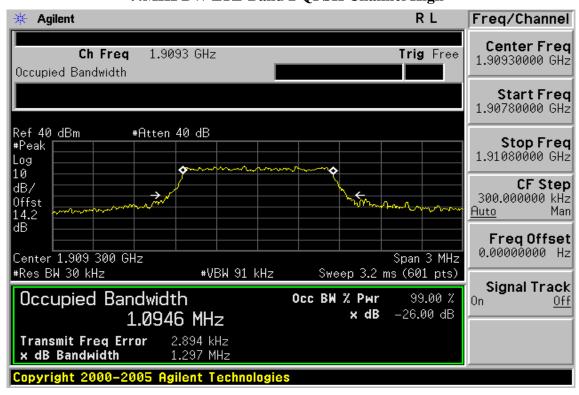
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# 1.4MHz BW LTE-Band 2 QPSK Channel Mid



# .4MHz BW LTE-Band 2 QPSK Channel High



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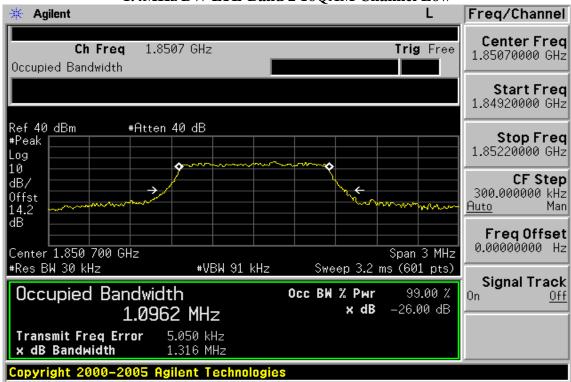
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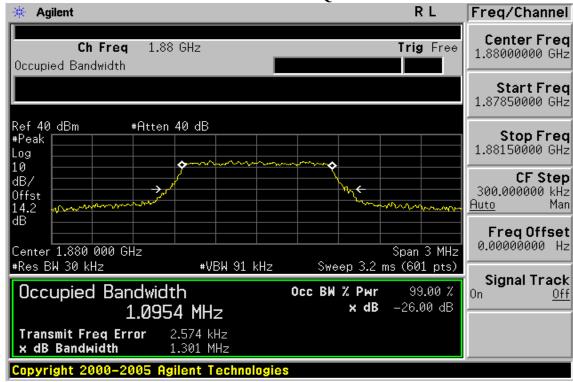
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## 1.4MHz BW LTE-Band 2 16QAM Channel Low



# 1.4MHz BW LTE-Band 2 16QAM Channel Mid



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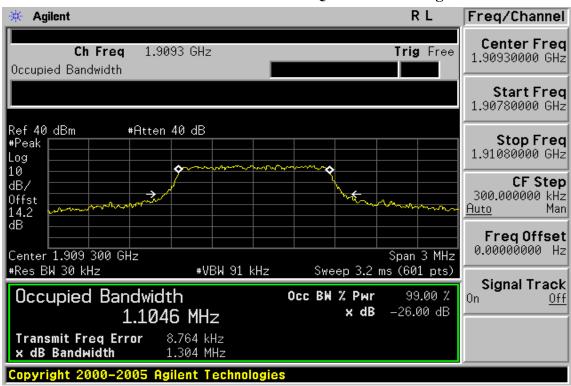
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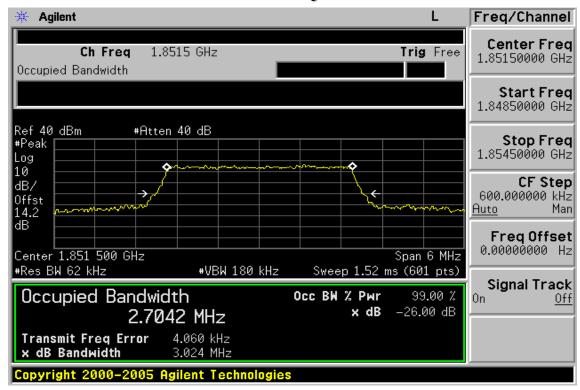
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# 1.4MHz BW LTE-Band 2 16QAM Channel High



# 3MHz BW LTE-Band 2 QPSK Channel Low



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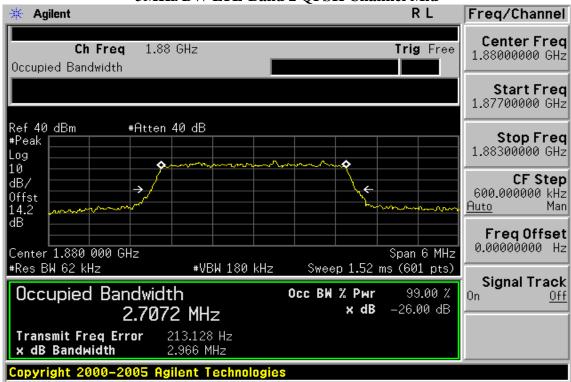
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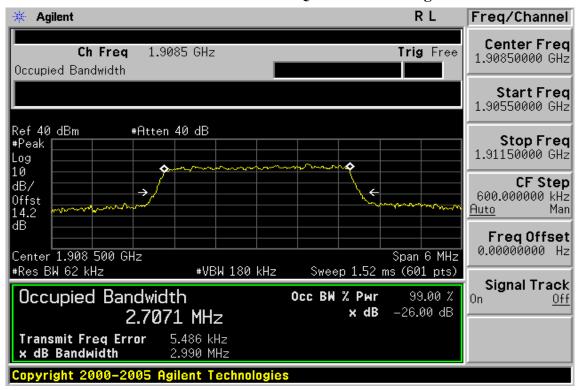
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## 3MHz BW LTE-Band 2 QPSK Channel Mid



# 3MHz BW LTE-Band 2 QPSK Channel High



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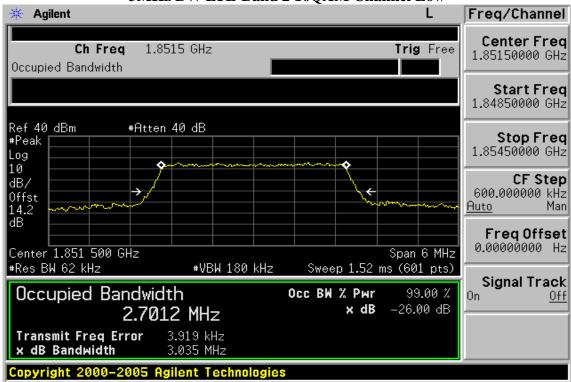
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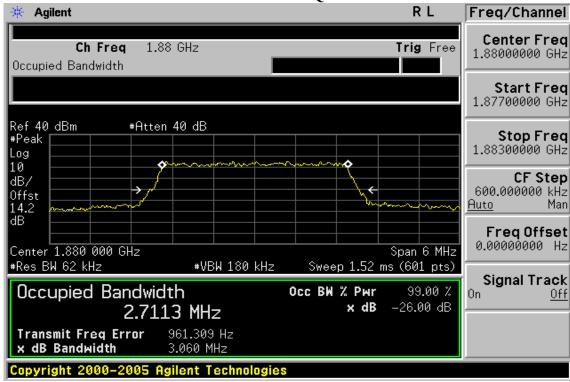
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## 3MHz BW LTE-Band 2 16QAM Channel Low



# 3MHz BW LTE-Band 2 16QAM Channel Mid



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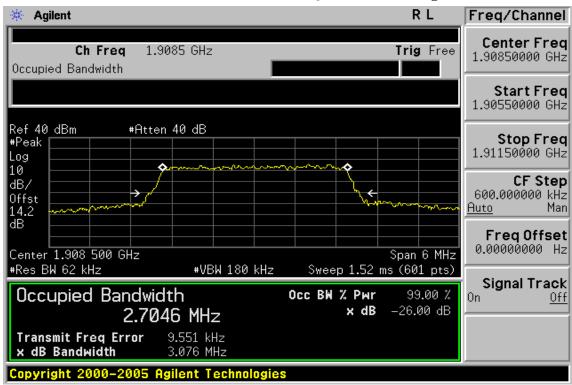
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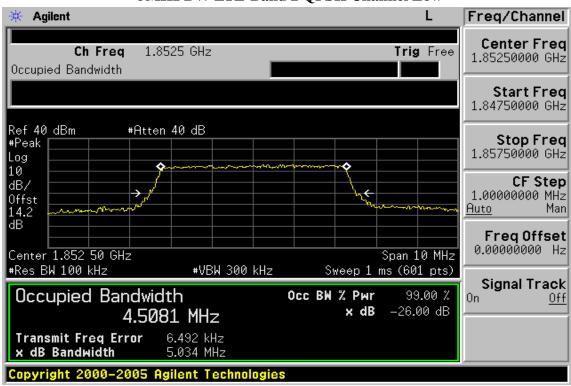
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# 3MHz BW LTE-Band 2 16QAM Channel High



# 5MHz BW LTE-Band 2 QPSK Channel Low



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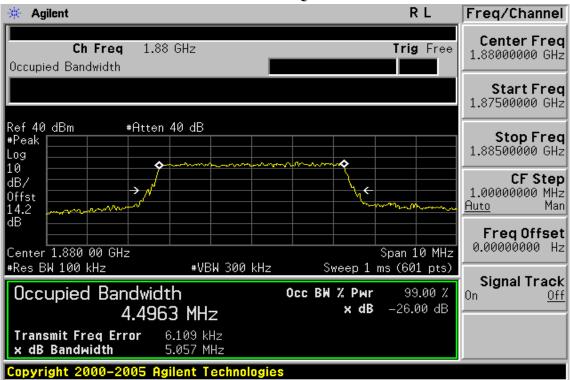
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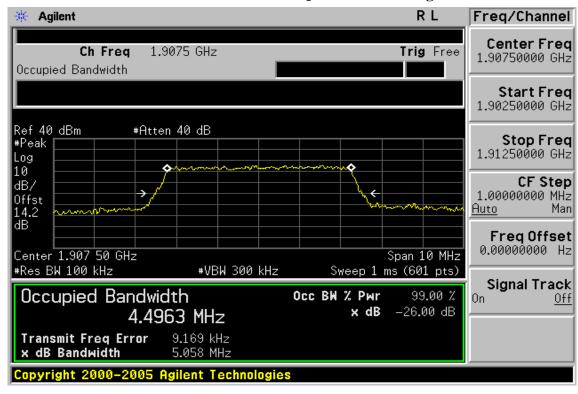
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# 5MHz BW LTE-Band 2 QPSK Channel Mid



# 5MHz BW LTE-Band 2 QPSK Channel High



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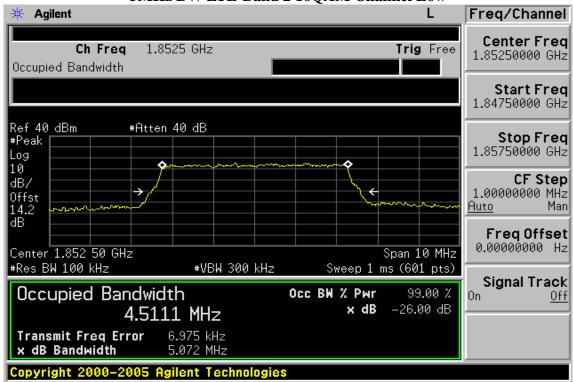
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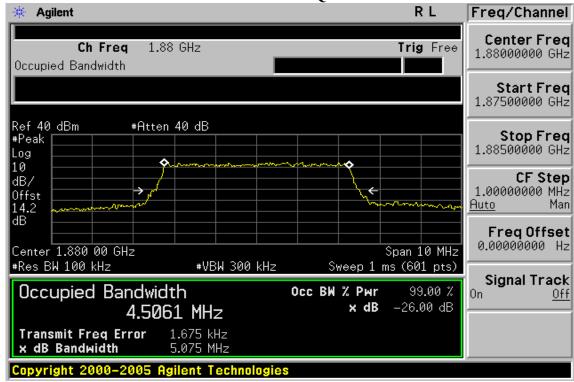
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## 5MHz BW LTE-Band 2 16QAM Channel Low



# 5MHz BW LTE-Band 2 16QAM Channel Mid



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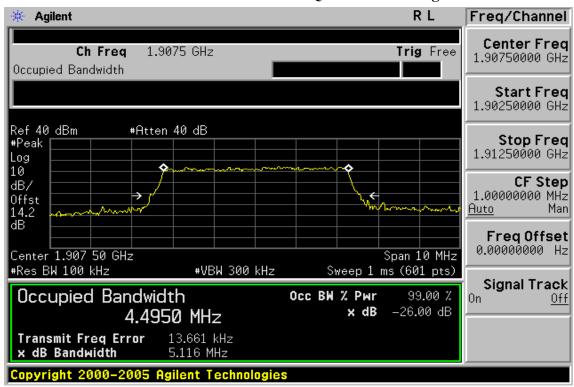
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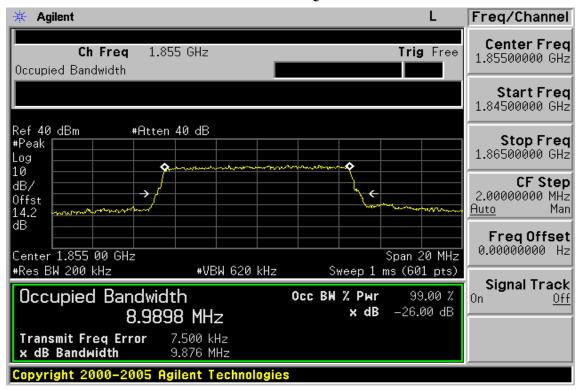
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# 5MHz BW LTE-Band 2 16QAM Channel High



# 10MHz BW LTE-Band 2 QPSK Channel Low



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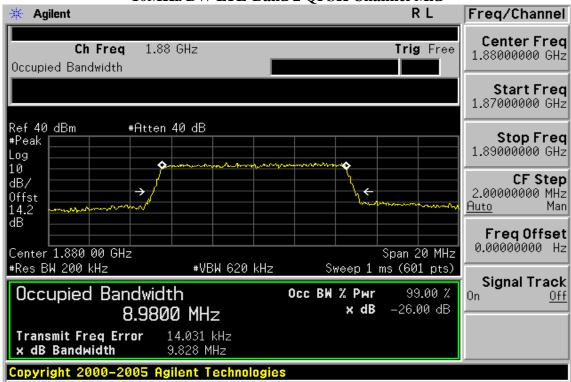
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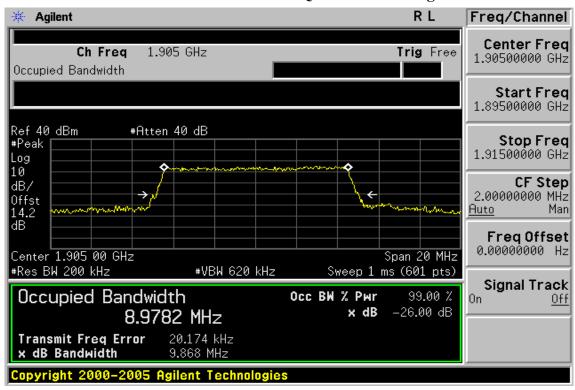
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# 10MHz BW LTE-Band 2 QPSK Channel Mid



# 10MHz BW LTE-Band 2 QPSK Channel High



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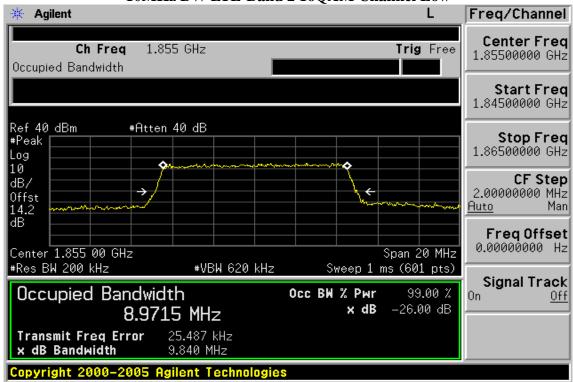
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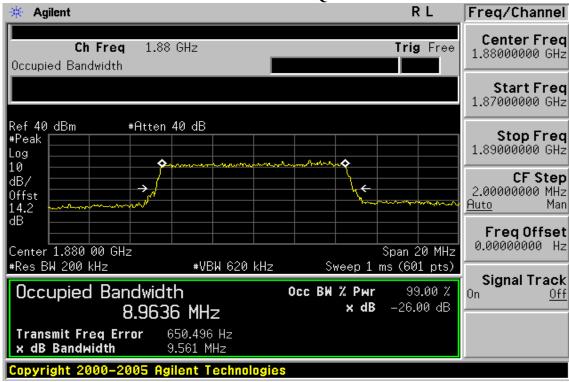
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## 10MHz BW LTE-Band 2 16QAM Channel Low



# 10MHz BW LTE-Band 2 16QAM Channel Mid



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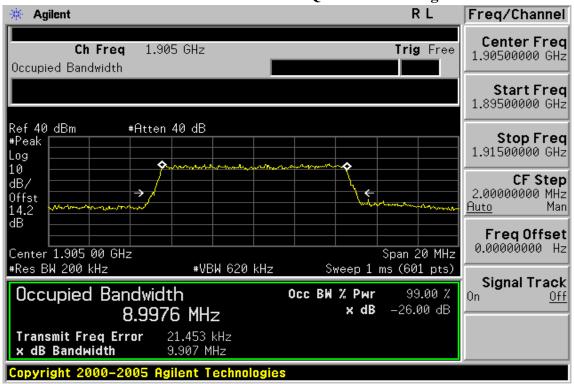
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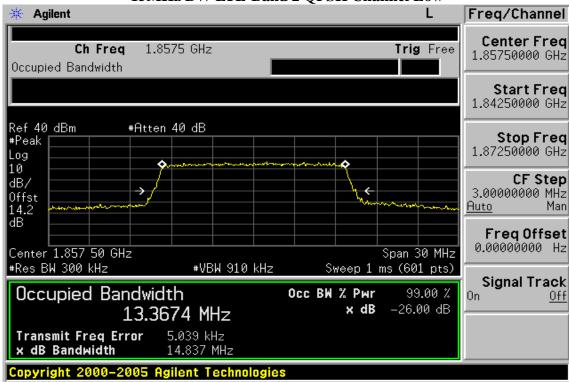
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# 10MHz BW LTE-Band 2 16QAM Channel High



## 15MHz BW LTE-Band 2 QPSK Channel Low



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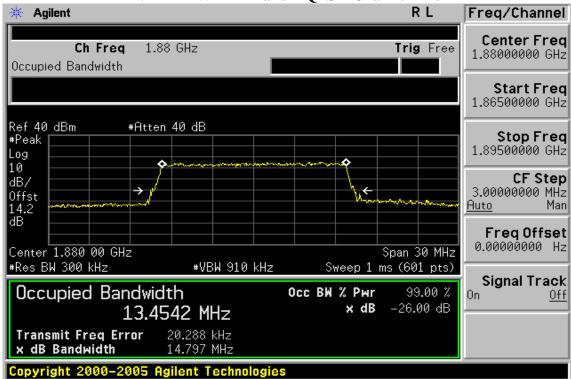
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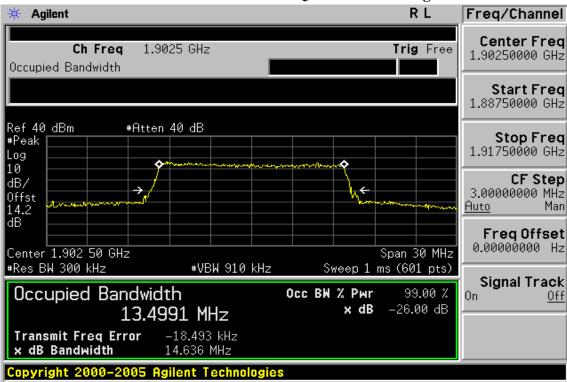
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# 15MHz BW LTE-Band 2 QPSK Channel Mid



# 15MHz BW LTE-Band 2 QPSK Channel High



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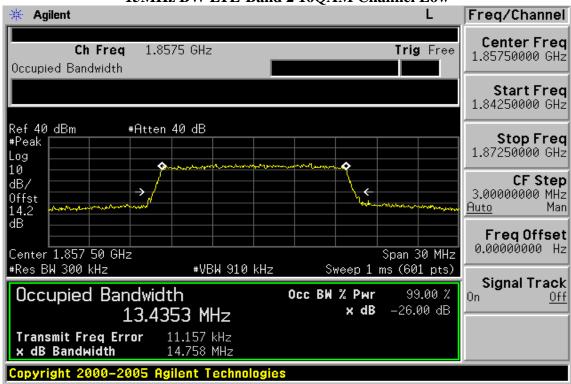
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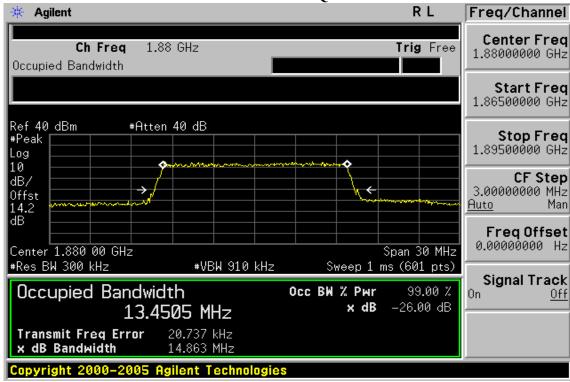
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### 15MHz BW LTE-Band 2 16QAM Channel Low



## 15MHz BW LTE-Band 2 16QAM Channel Mid



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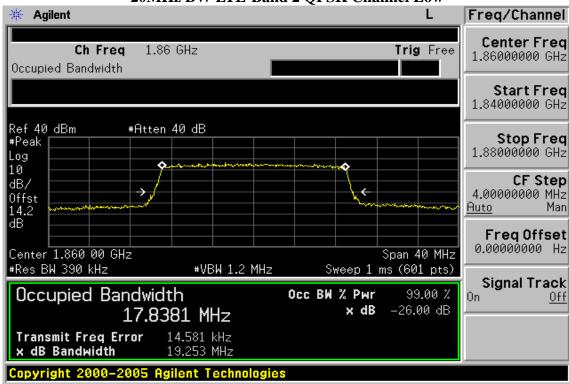
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## 15MHz BW LTE-Band 2 16QAM Channel High



## 20MHz BW LTE-Band 2 QPSK Channel Low



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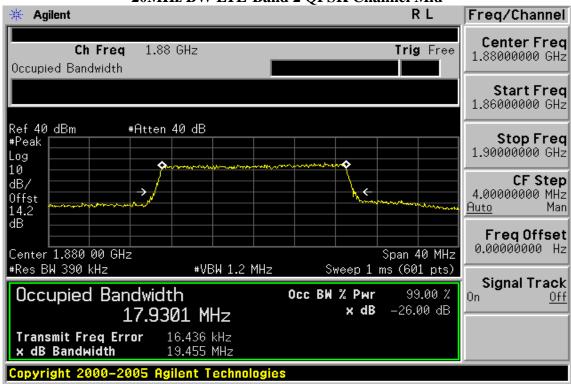
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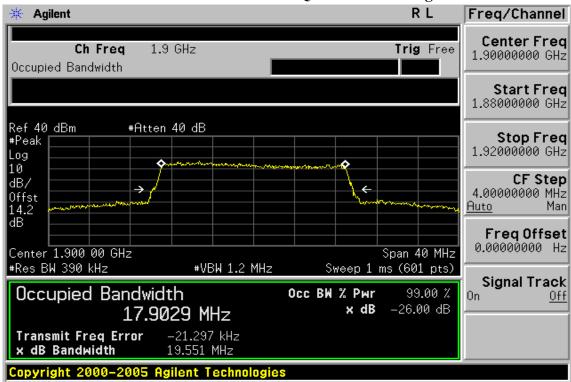
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# 20MHz BW LTE-Band 2 QPSK Channel Mid



## 20MHz BW LTE-Band 2 QPSK Channel High



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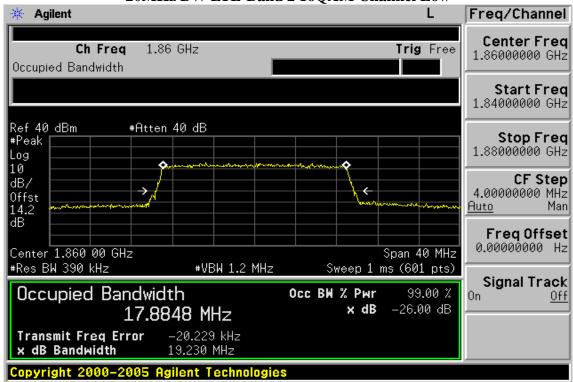
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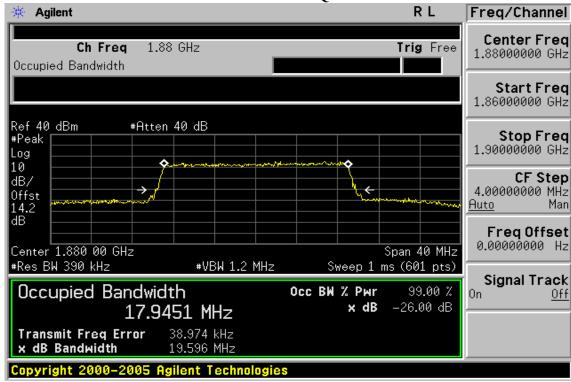
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### 20MHz BW LTE-Band 2 16QAM Channel Low



## 20MHz BW LTE-Band 2 16QAM Channel Mid



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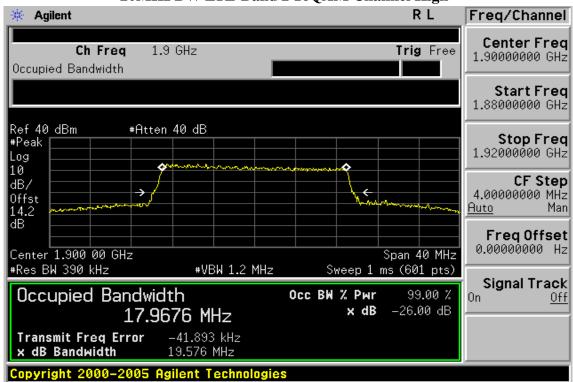
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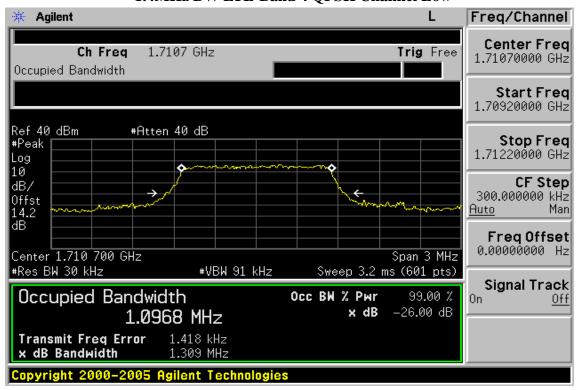
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## 20MHz BW LTE-Band 2 16QAM Channel High



## 1.4MHz BW LTE-Band 4 QPSK Channel Low



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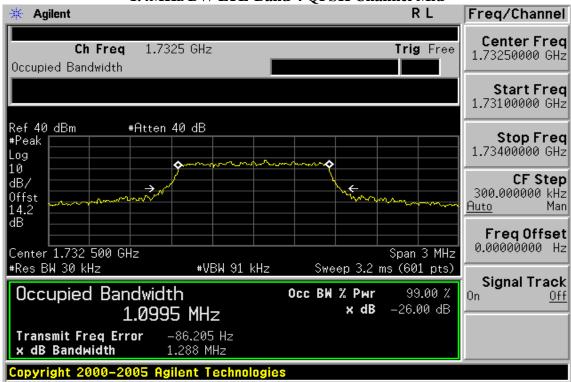
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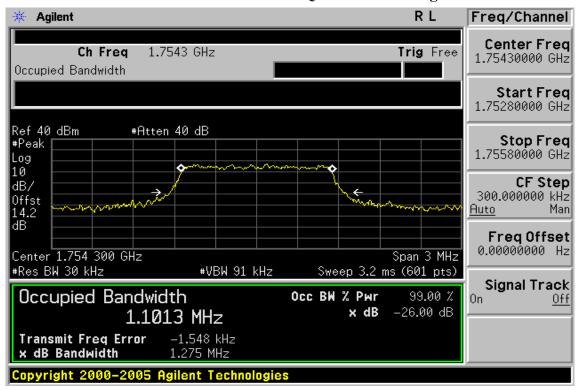
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### 1.4MHz BW LTE-Band 4 QPSK Channel Mid



## 1.4MHz BW LTE-Band 4 QPSK Channel High



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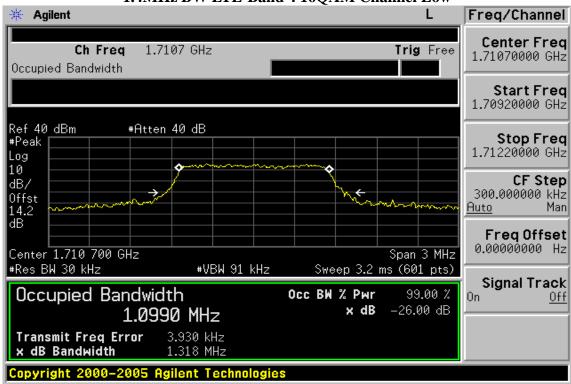
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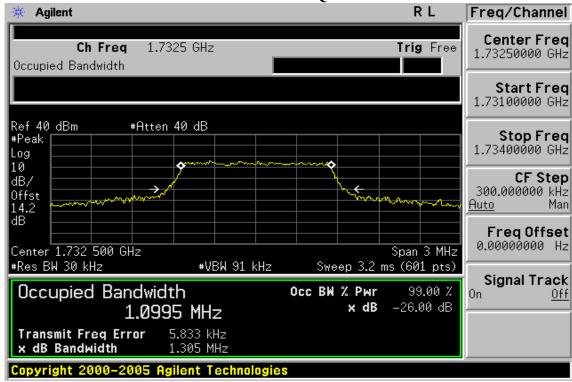
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### 1.4MHz BW LTE-Band 4 16QAM Channel Low



## .4MHz BW LTE-Band 4 16QAM Channel Mid



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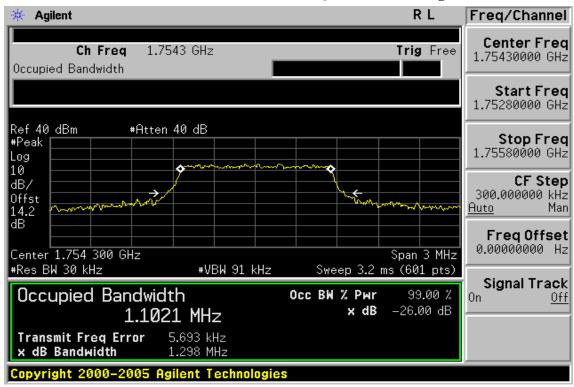
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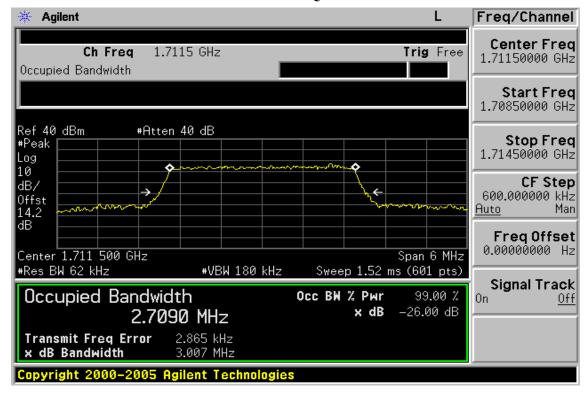
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## 1.4MHz BW LTE-Band 4 16QAM Channel High



## 3MHz BW LTE-Band 4 QPSK Channel Low



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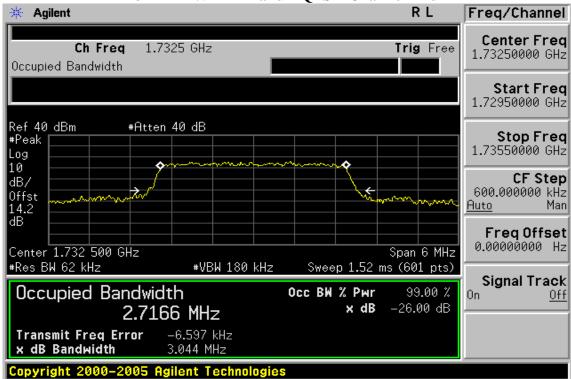
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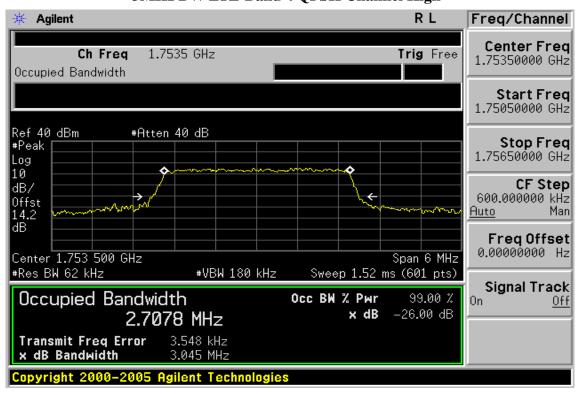
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### 3MHz BW LTE-Band 4 QPSK Channel Mid



## 3MHz BW LTE-Band 4 QPSK Channel High



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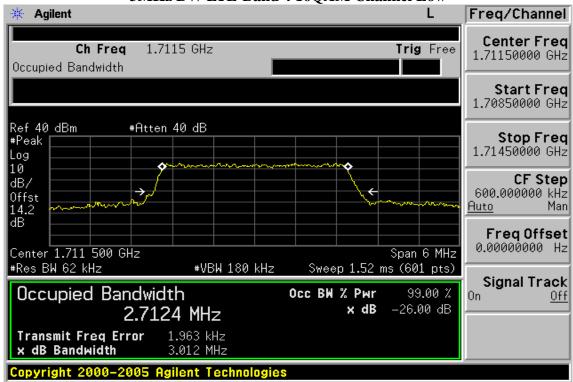
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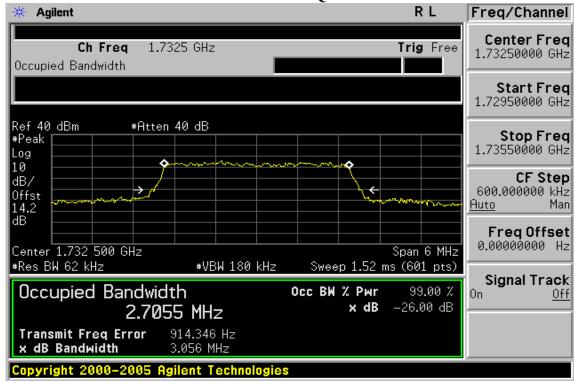
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### 3MHz BW LTE-Band 4 16QAM Channel Low



## 3MHz BW LTE-Band 4 16QAM Channel Mid



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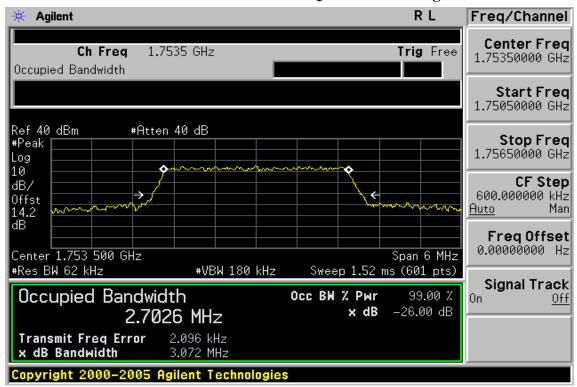
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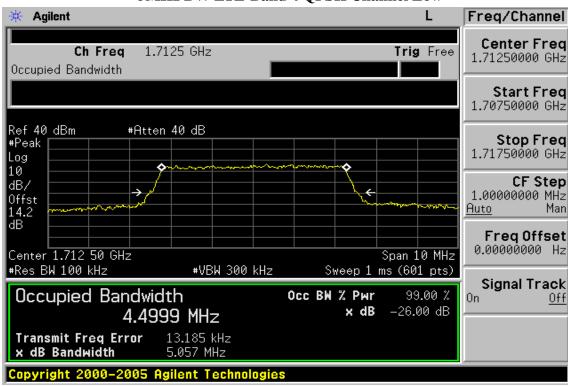
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## 3MHz BW LTE-Band 4 16QAM Channel High



## 5MHz BW LTE-Band 4 QPSK Channel Low



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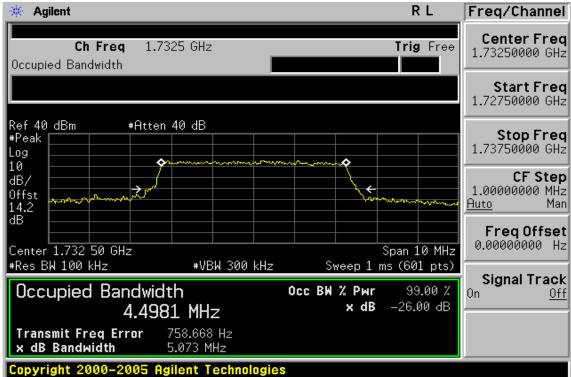
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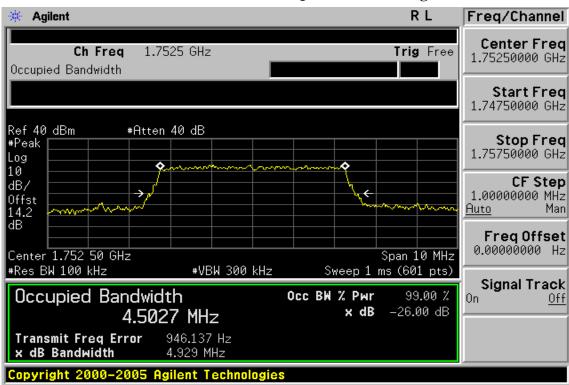
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## 5MHz BW LTE-Band 4 QPSK Channel Mid



## 5MHz BW LTE-Band 4 QPSK Channel High



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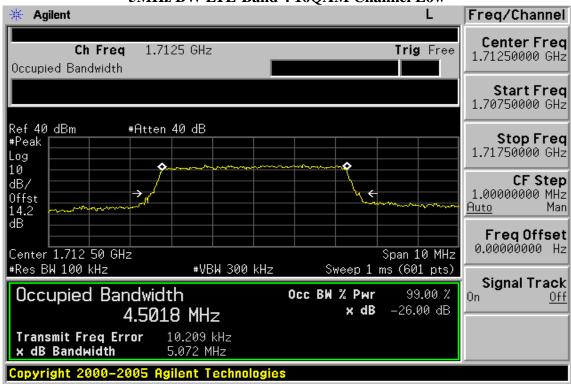
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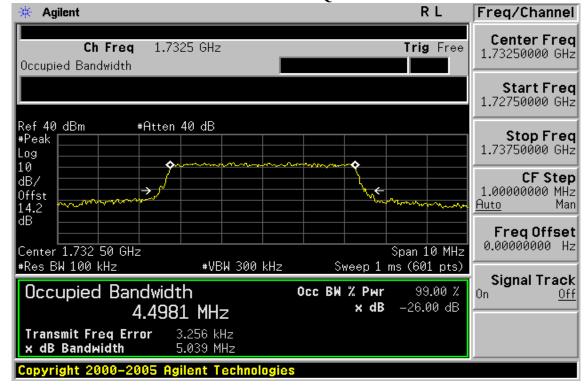
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# 5MHz BW LTE-Band 4 16QAM Channel Low



## 5MHz BW LTE-Band 4 16QAM Channel Mid



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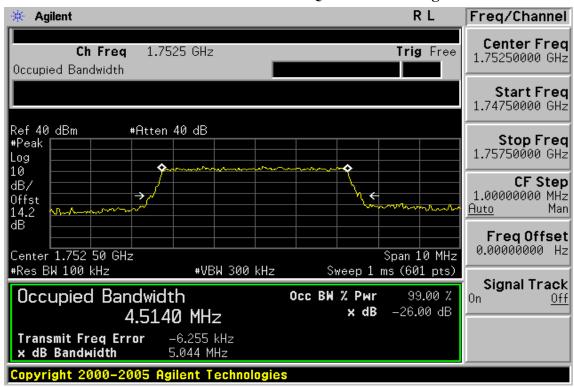
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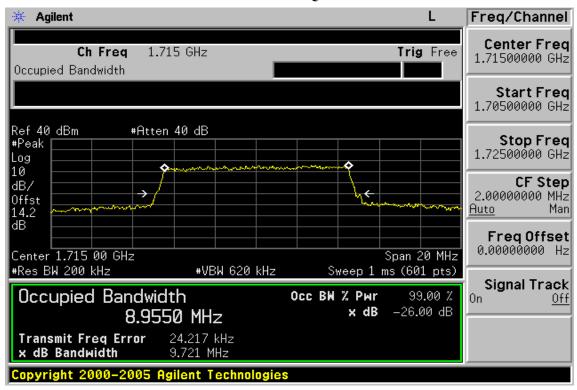
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## 5MHz BW LTE-Band 4 16QAM Channel High



## 10MHz BW LTE-Band 4 QPSK Channel Low



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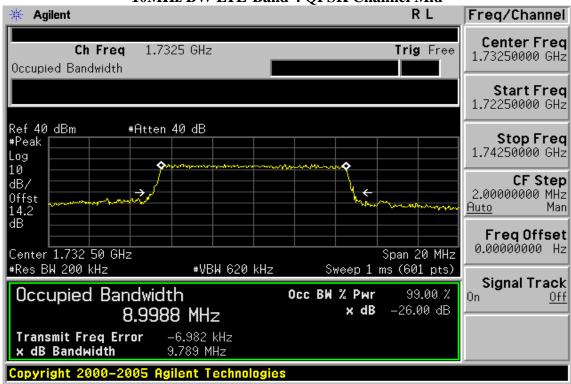
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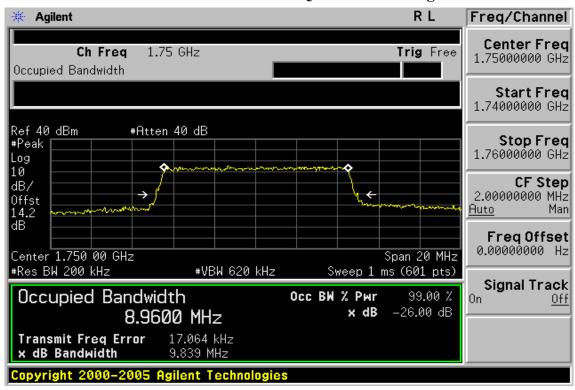
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# 10MHz BW LTE-Band 4 QPSK Channel Mid



## 10MHz BW LTE-Band 4 QPSK Channel High



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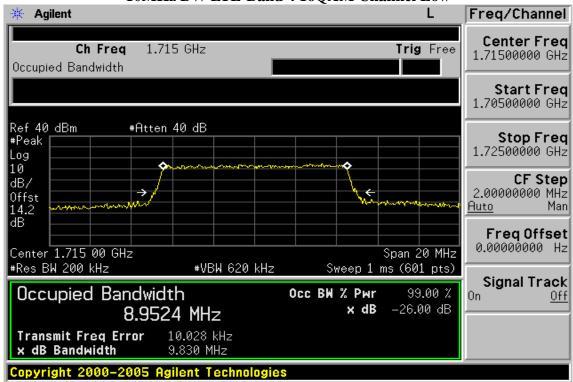
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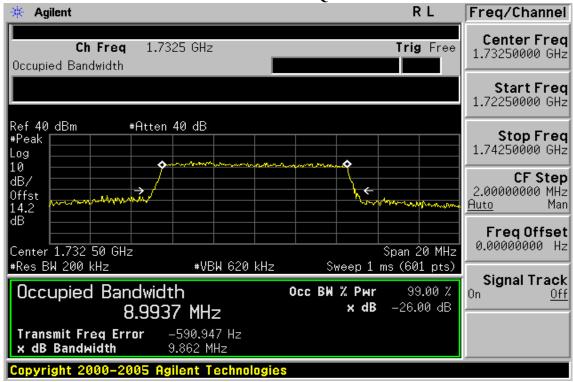
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### 10MHz BW LTE-Band 4 16QAM Channel Low



## 10MHz BW LTE-Band 4 16QAM Channel Mid



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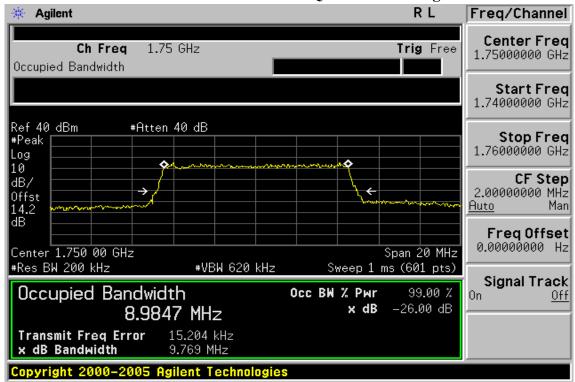
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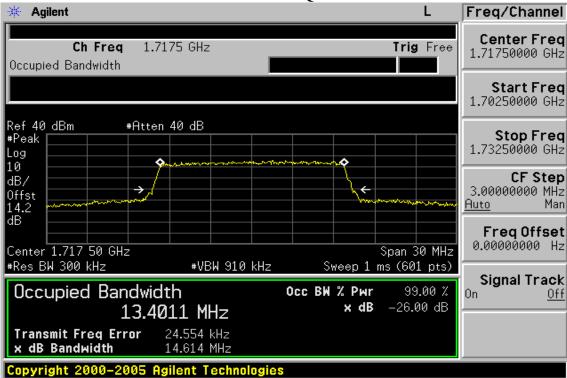
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## 10MHz BW LTE-Band 4 16QAM Channel High



## 15MHz BW LTE-Band 4 QPSK Channel Low



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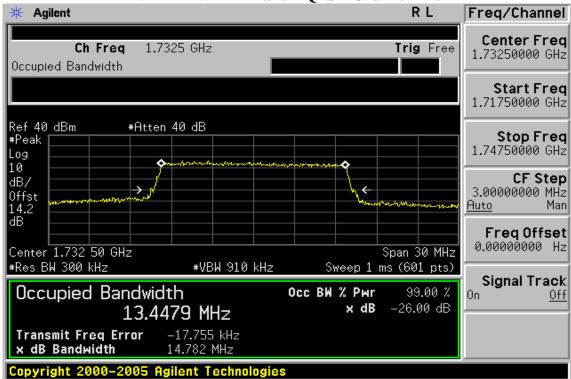
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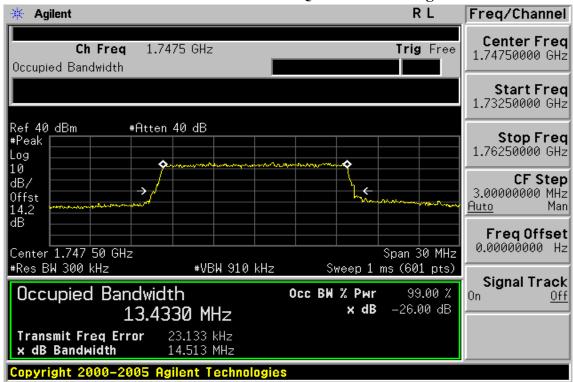
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## 15MHz BW LTE-Band 4 QPSK Channel Mid



## 15MHz BW LTE-Band 4 QPSK Channel High



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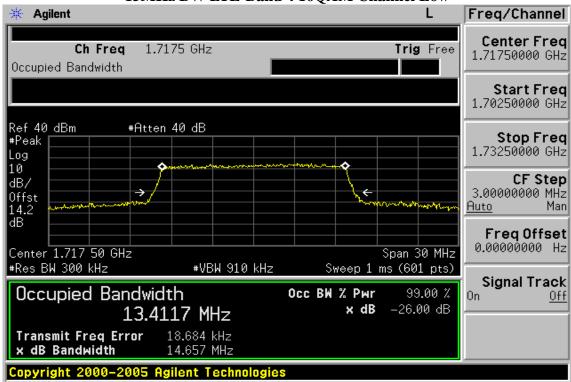
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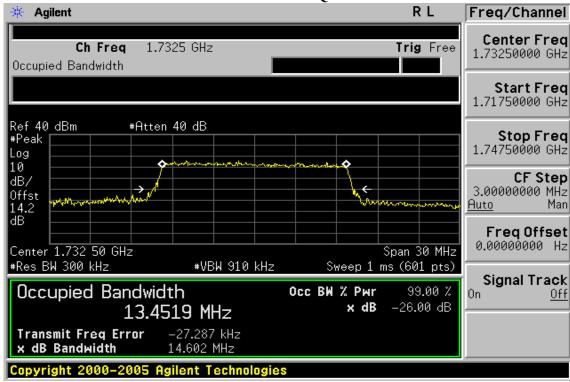
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### 15MHz BW LTE-Band 4 16QAM Channel Low



## 15MHz BW LTE-Band 4 16QAM Channel Mid



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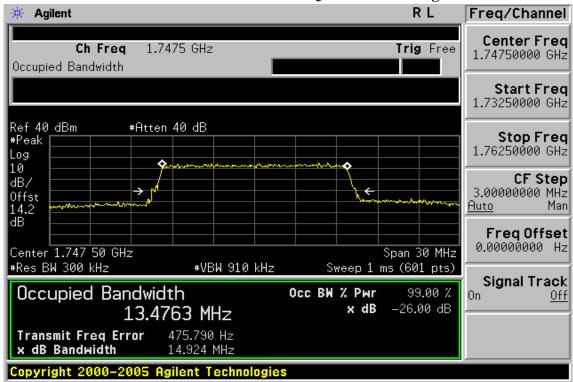
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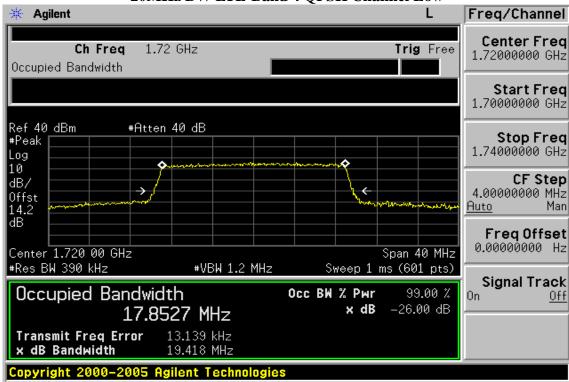
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## 15MHz BW LTE-Band 4 16QAM Channel High



### 20MHz BW LTE-Band 4 QPSK Channel Low



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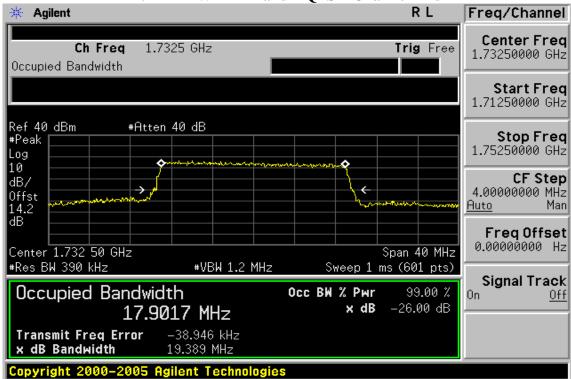
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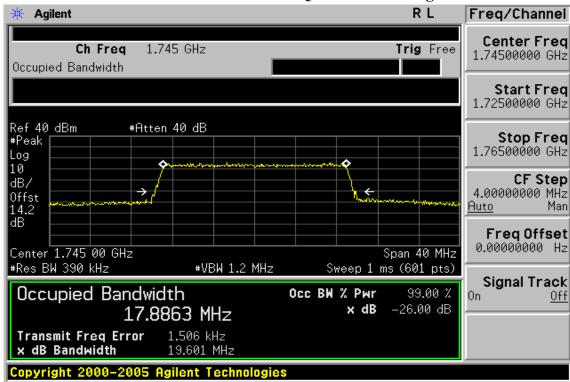
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## 20MHz BW LTE-Band 4 QPSK Channel Mid



## 20MHz BW LTE-Band 4 QPSK Channel High



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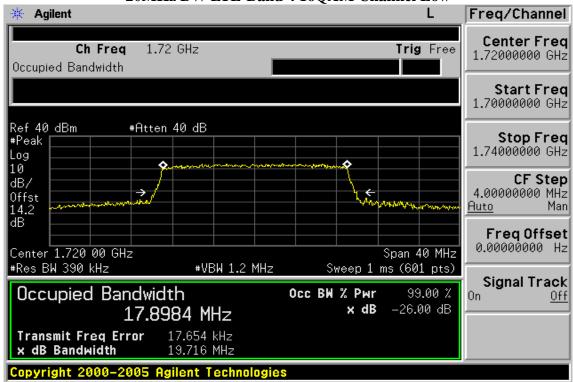
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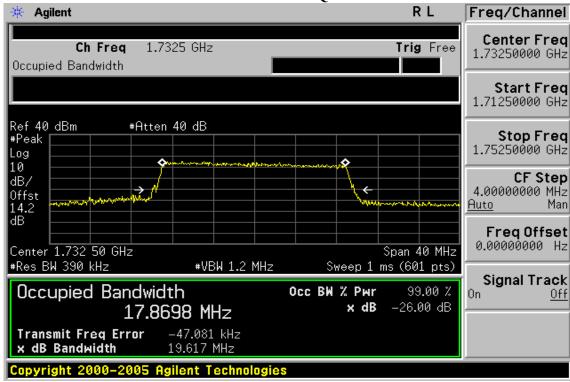
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### 20MHz BW LTE-Band 4 16QAM Channel Low



## 20MHz BW LTE-Band 4 16QAM Channel Mid



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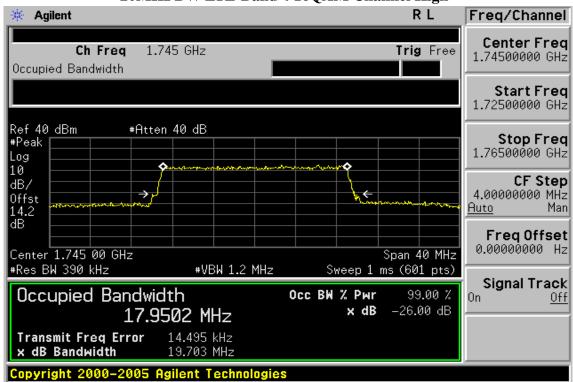
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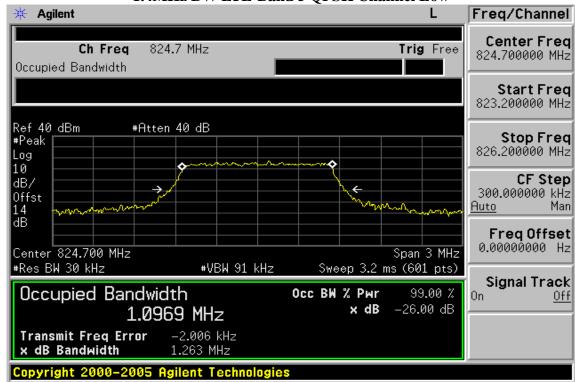
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## 20MHz BW LTE-Band 4 16QAM Channel High



## 1.4MHz BW LTE-Band 5 QPSK Channel Low



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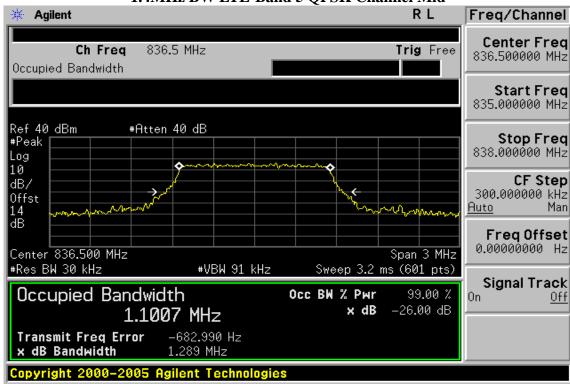
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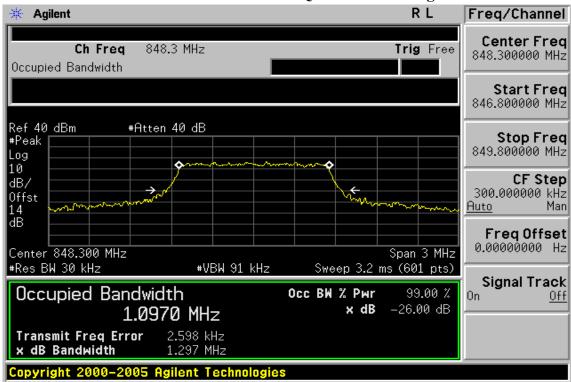
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# 1.4MHz BW LTE-Band 5 QPSK Channel Mid



## 1.4MHz BW LTE-Band 5 QPSK Channel High



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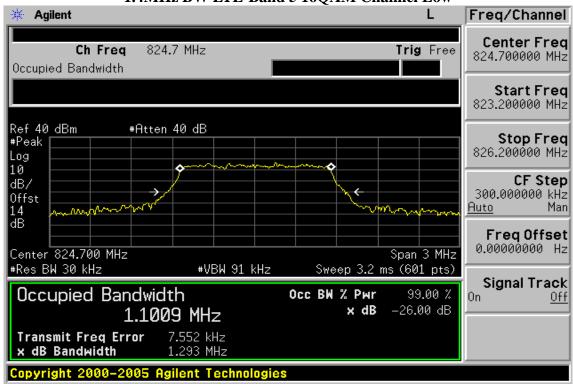
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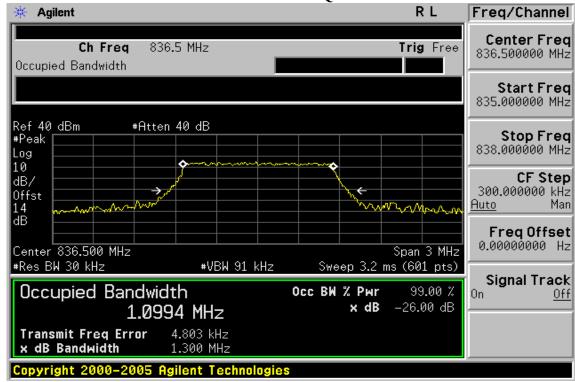
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### 1.4MHz BW LTE-Band 5 16QAM Channel Low



## 1.4MHz BW LTE-Band 5 16QAM Channel Mid



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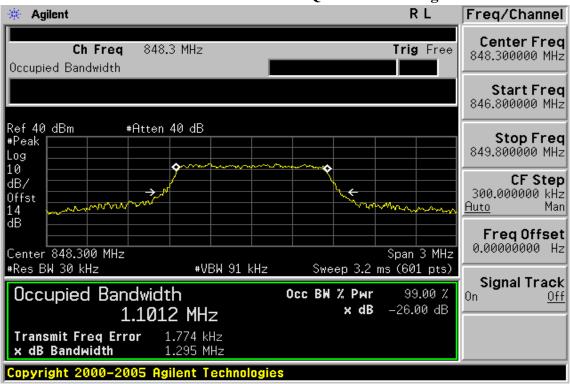
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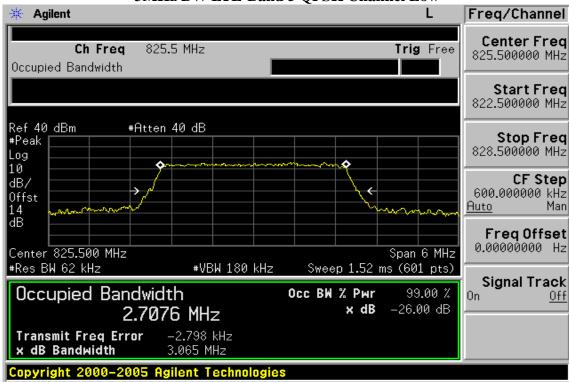
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## 1.4MHz BW LTE-Band 5 16QAM Channel High



## 3MHz BW LTE-Band 5 QPSK Channel Low



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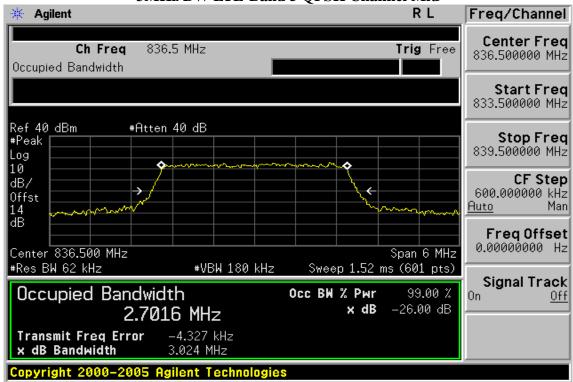
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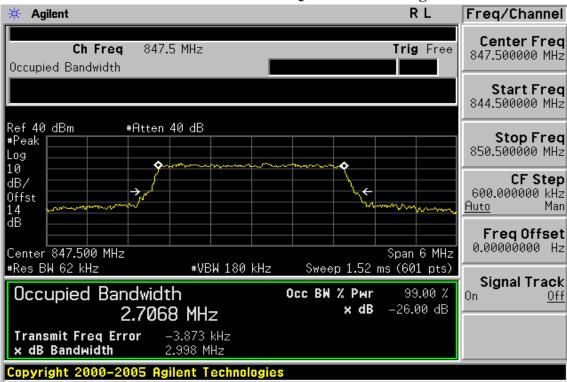
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### 3MHz BW LTE-Band 5 QPSK Channel Mid



## 3MHz BW LTE-Band 5 QPSK Channel High



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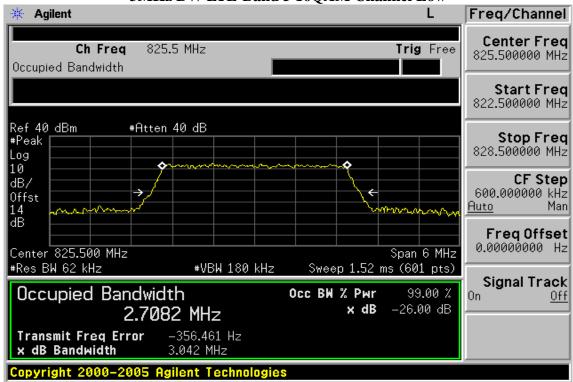
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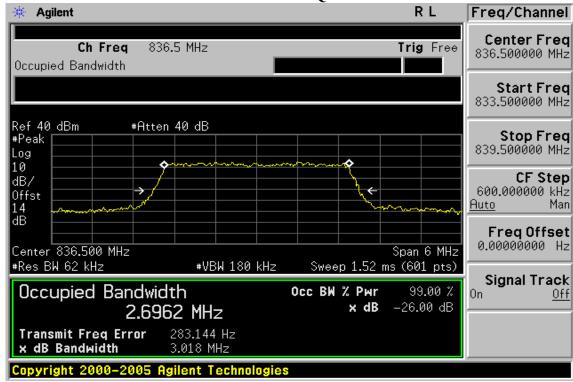
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### 3MHz BW LTE-Band 5 16QAM Channel Low



## 3MHz BW LTE-Band 5 16QAM Channel Mid



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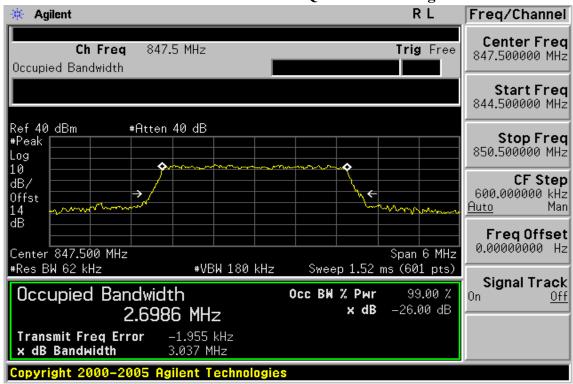
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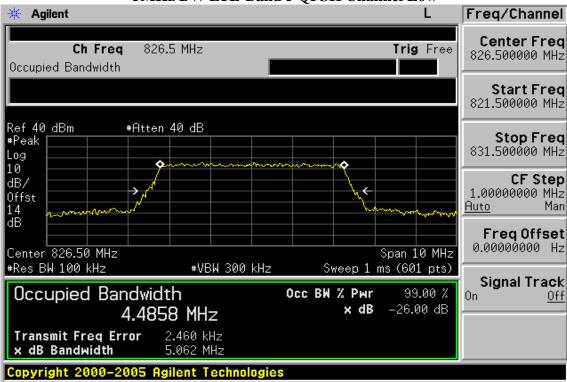
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## 3MHz BW LTE-Band 5 16QAM Channel High



## 5MHz BW LTE-Band 5 QPSK Channel Low



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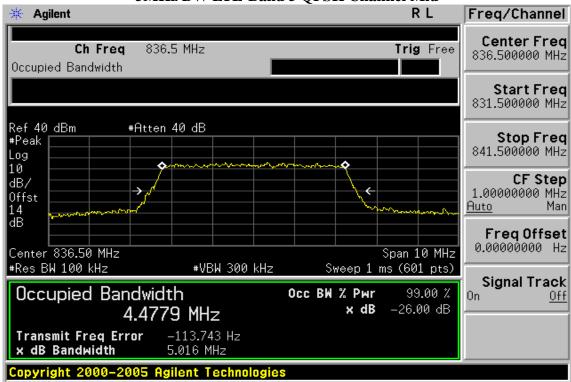
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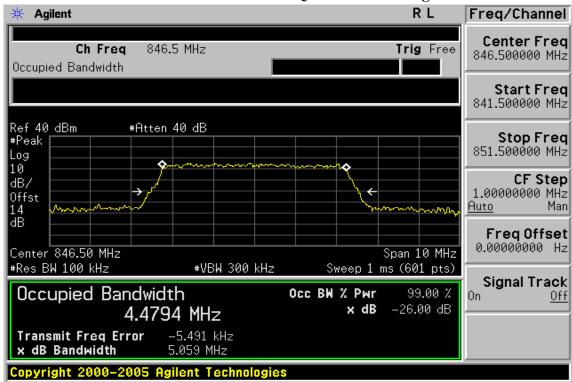
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### 5MHz BW LTE-Band 5 QPSK Channel Mid



## 5MHz BW LTE-Band 5 QPSK Channel High



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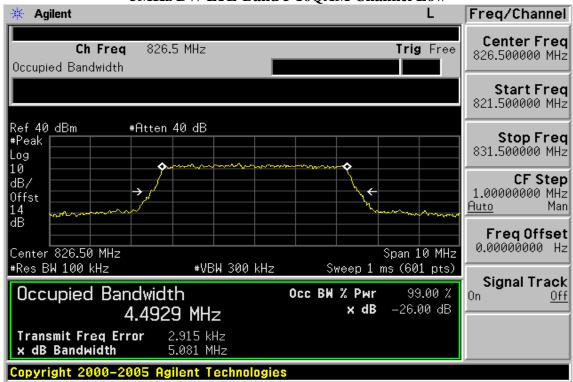
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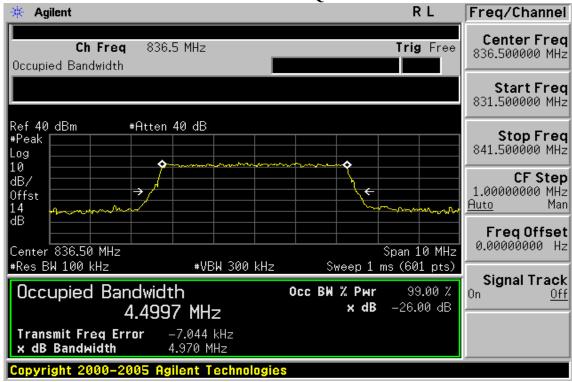
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### 5MHz BW LTE-Band 5 16QAM Channel Low



## 5MHz BW LTE-Band 5 16QAM Channel Mid



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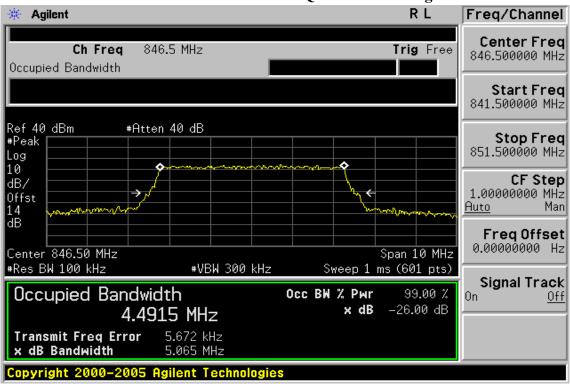
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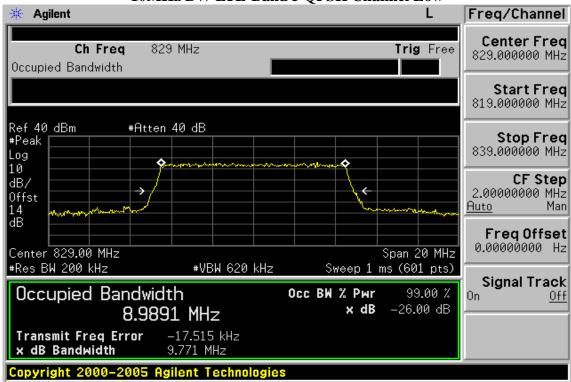
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## 5MHz BW LTE-Band 5 16QAM Channel High



## 10MHz BW LTE-Band 5 QPSK Channel Low



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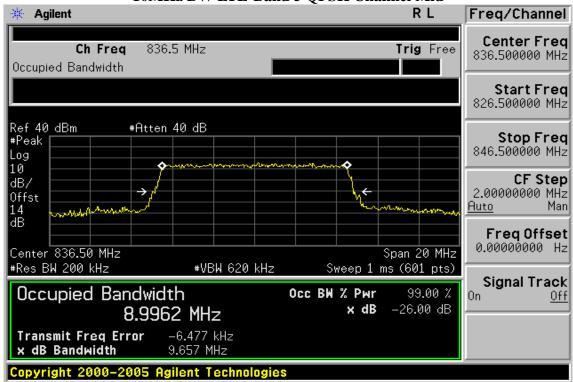
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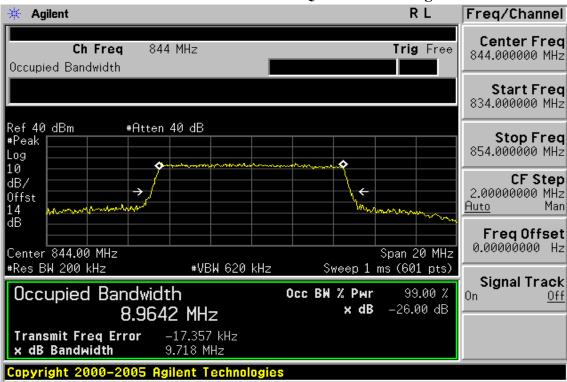
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## 10MHz BW LTE-Band 5 QPSK Channel Mid



## 5MHz BW LTE-Band 5 16QAM Channel High



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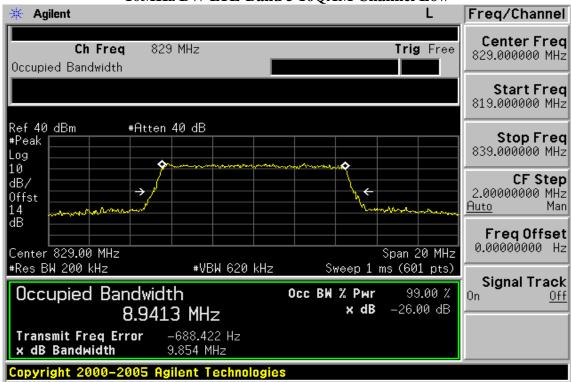
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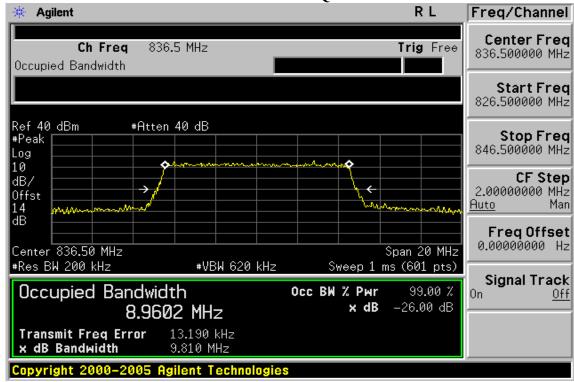
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### 10MHz BW LTE-Band 5 16QAM Channel Low



## 10MHz BW LTE-Band 5 16QAM Channel Mid



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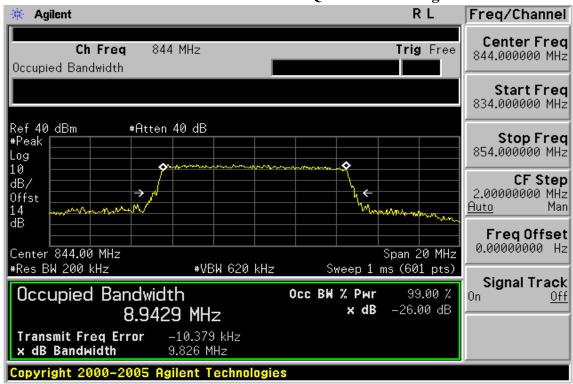
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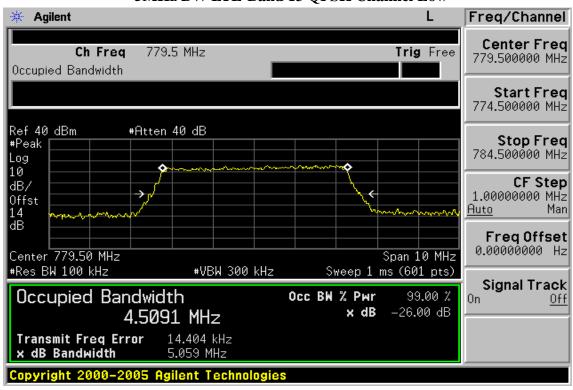
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## 10MHz BW LTE-Band 5 16QAM Channel High



## 5MHz BW LTE-Band 13 QPSK Channel Low



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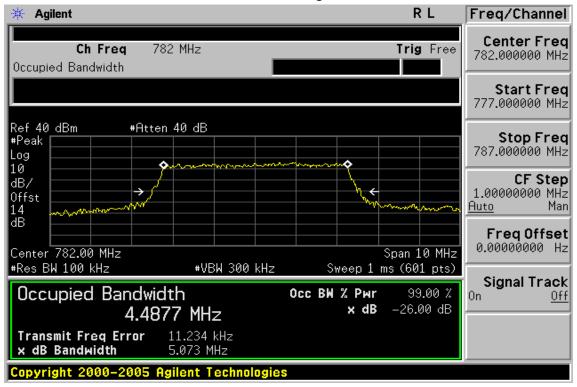
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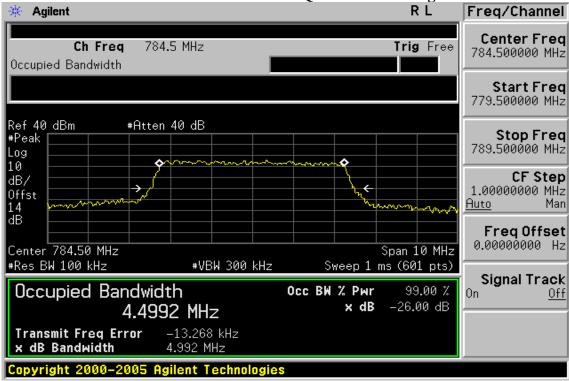
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### 5MHz BW LTE-Band 13 QPSK Channel Mid



5MHz BW LTE-Band 13 QPSK Channel High



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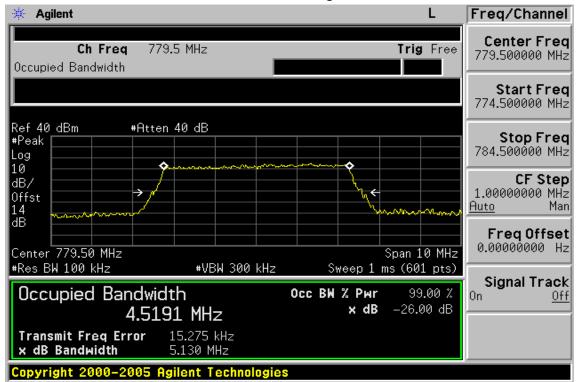
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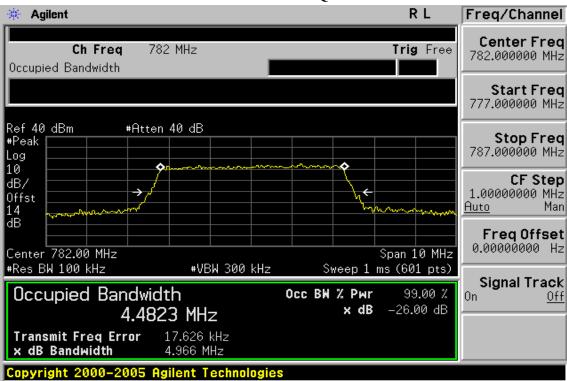
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#### 5MHz BW LTE-Band 13 16QAM Channel Low



## 5MHz BW LTE-Band 13 16QAM Channel Mid



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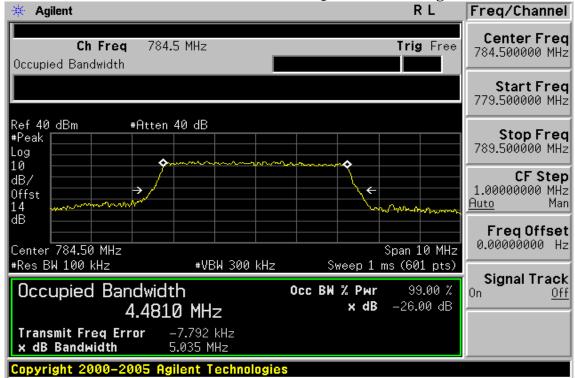
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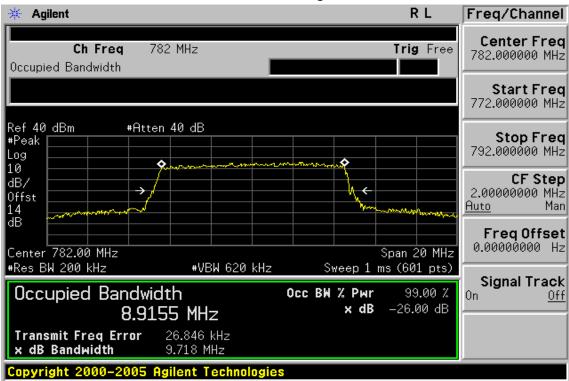
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#### 5MHz BW LTE-Band 13 16QAM Channel High



# 10MHz BW LTE-Band 13 QPSK Channel Mid



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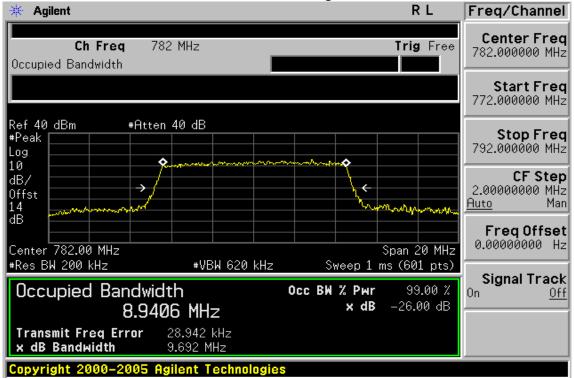
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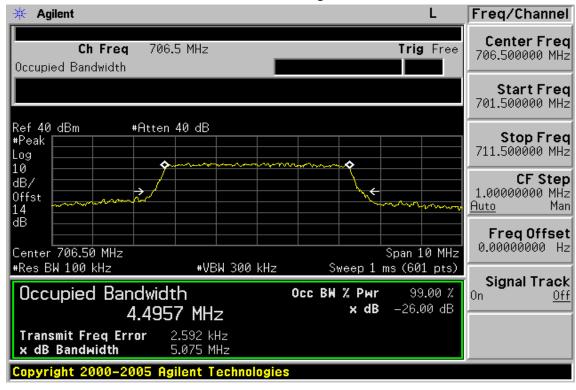
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#### 10MHz BW LTE-Band 13 16QAM Channel Mid



#### 5MHz BW LTE-Band 17 QPSK Channel Low



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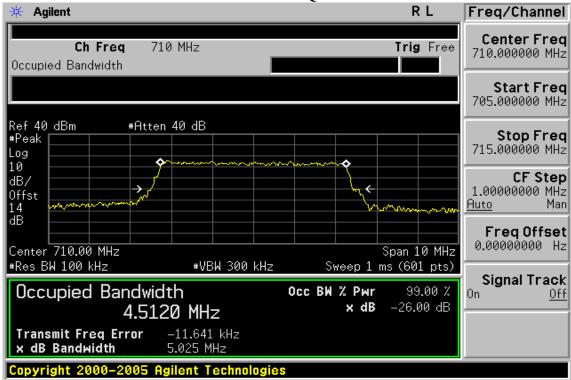
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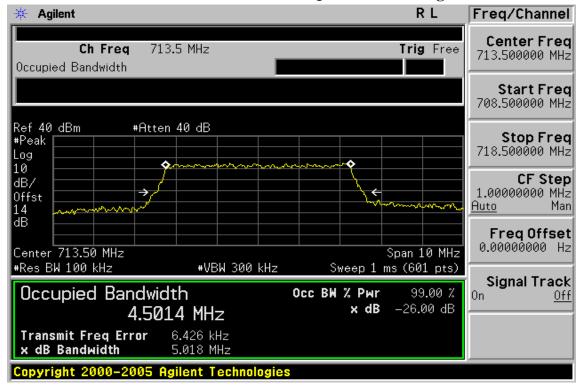
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#### 5MHz BW LTE-Band 17 QPSK Channel Mid



## 5MHz BW LTE-Band 17 QPSK Channel High



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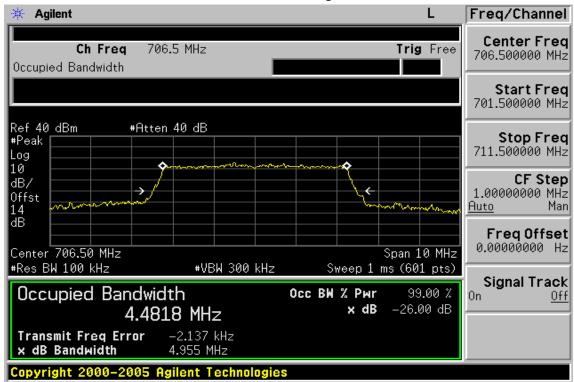
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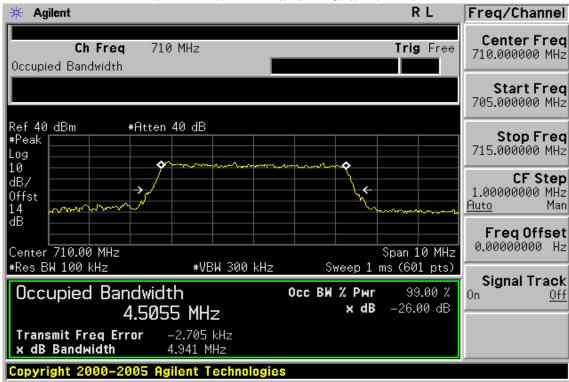
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#### 5MHz BW LTE-Band 17 16QAM Channel Low



#### 5MHz BW LTE-Band 17 Channel Mid



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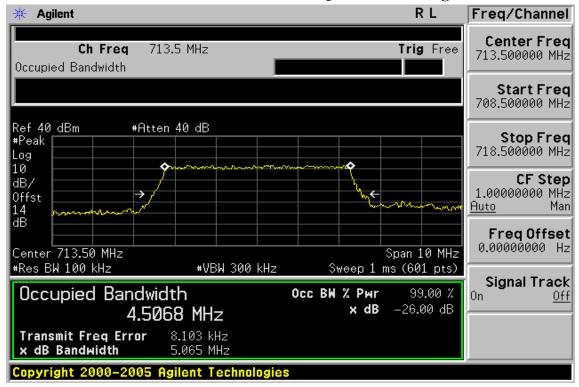
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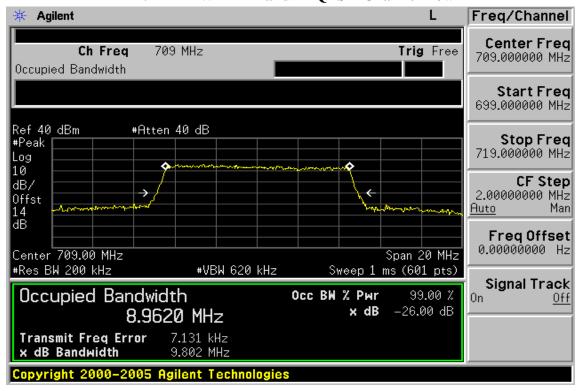
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#### 5MHz BW LTE-Band 17 16QAM Channel High



## 10MHz BW LTE-Band 17 QPSK Channel Low



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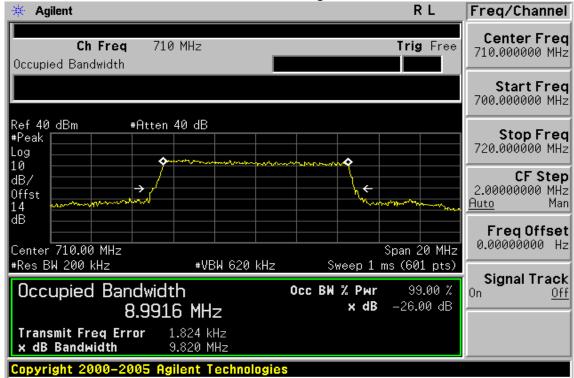
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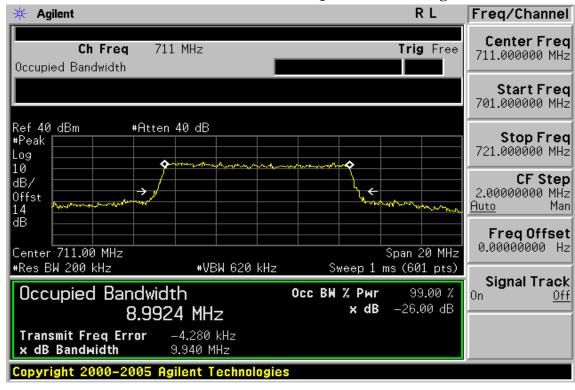
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#### 10MHz BW LTE-Band 17 QPSK Channel Mid



# 10MHz BW LTE-Band 17 QPSK Channel High



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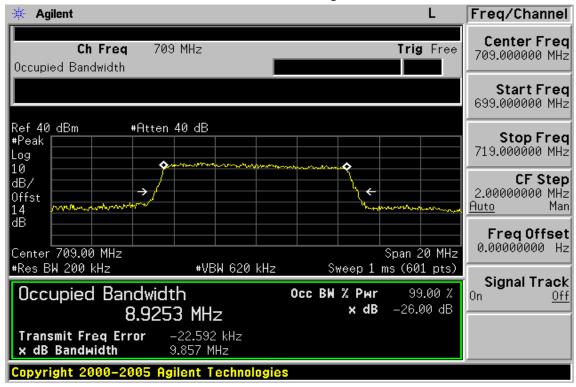
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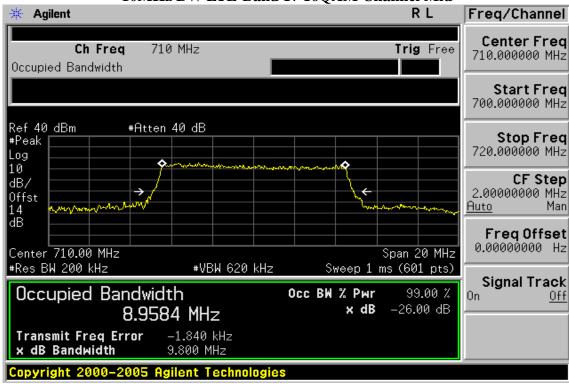
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#### 10MHz BW LTE-Band 17 16QAM Channel Low



10MHz BW LTE-Band 17 16QAM Channel Mid



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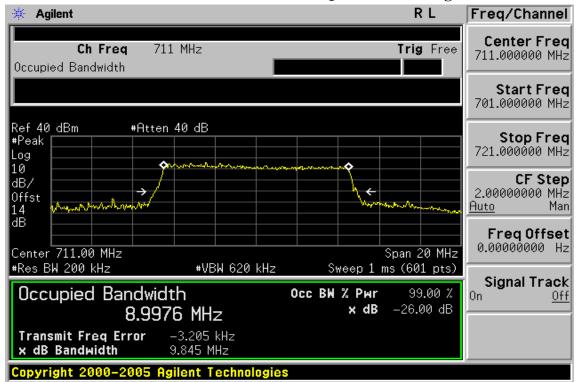
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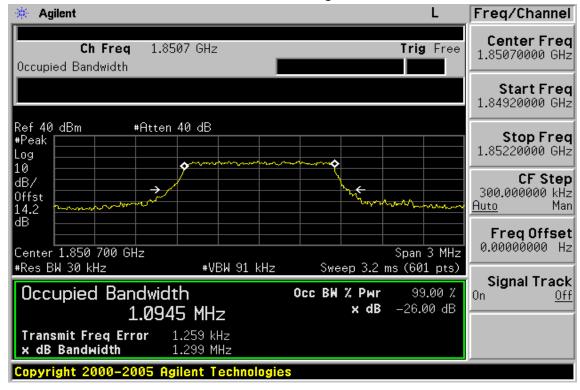
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#### 10MHz BW LTE-Band 17 16QAM Channel High



## 1.4MHz BW LTE-Band 25 QPSK Channel Low



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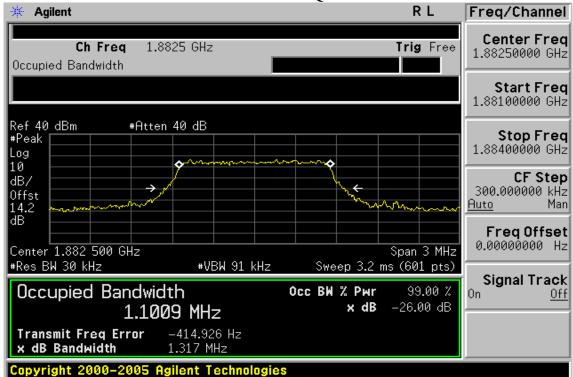
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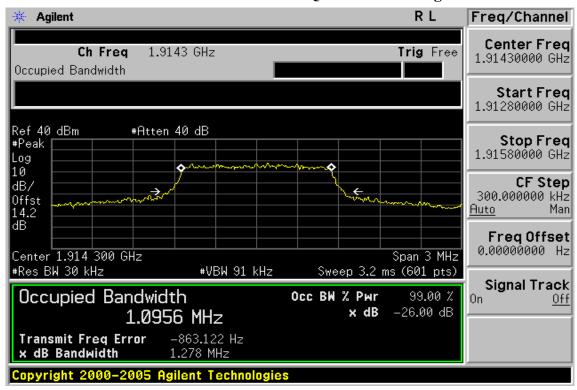
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#### 1.4MHz BW LTE-Band 25 QPSK Channel Mid



## 1.4MHz BW LTE-Band 25 QPSK Channel High



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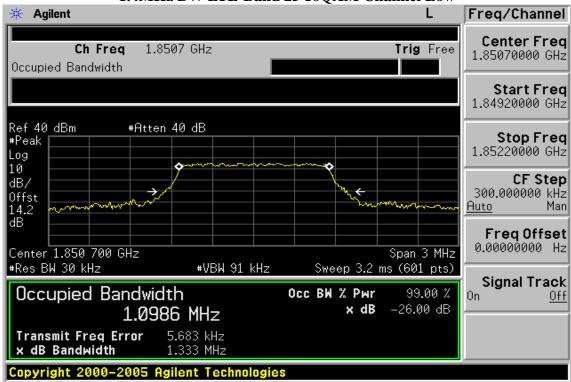
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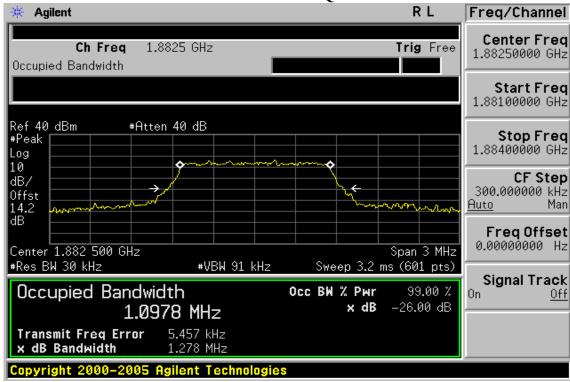
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# 1.4MHz BW LTE-Band 25 16QAM Channel Low



## 1.4MHz BW LTE-Band 25 16QAM Channel Mid



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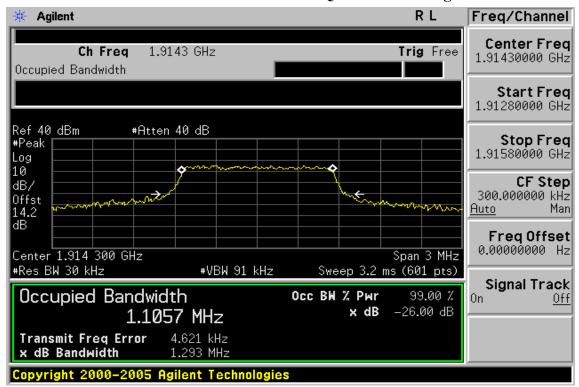
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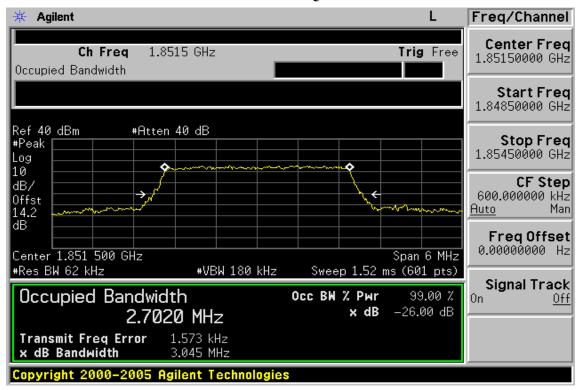
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## 1.4MHz BW LTE-Band 25 16QAM Channel High



## 3MHz BW LTE-Band 25 QPSK Channel Low



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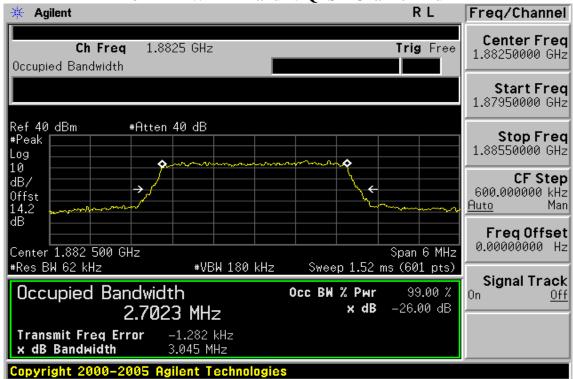
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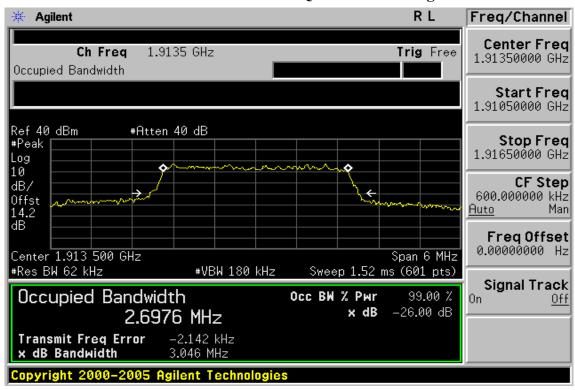
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#### 3MHz BW LTE-Band 25 QPSK Channel Mid



## 3MHz BW LTE-Band 25 QPSK Channel High



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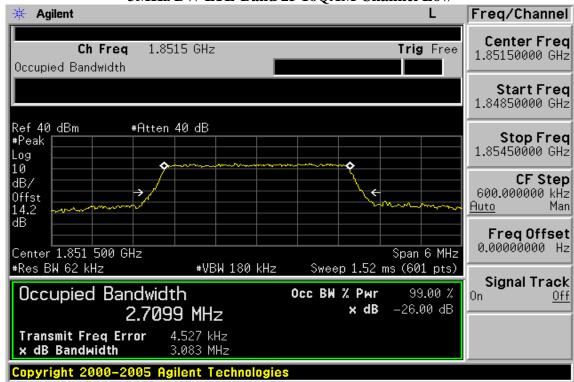
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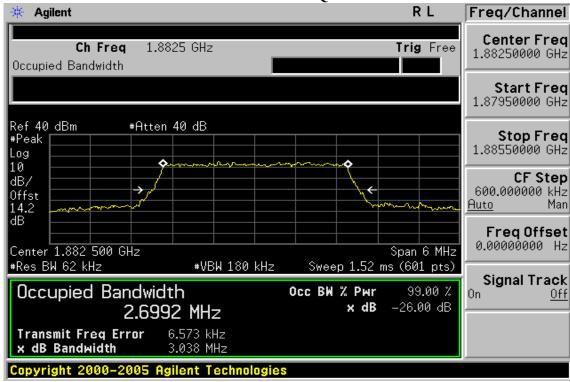
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#### 3MHz BW LTE-Band 25 16QAM Channel Low



## 3MHz BW LTE-Band 25 16QAM Channel Mid



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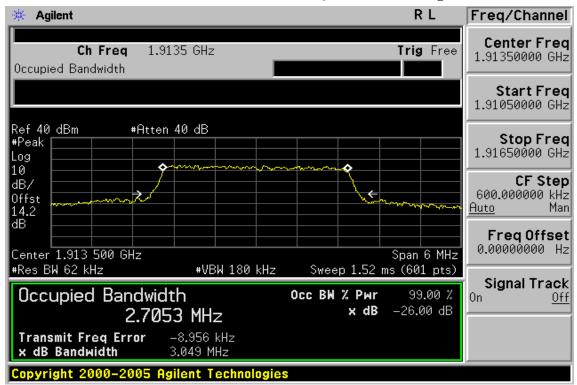
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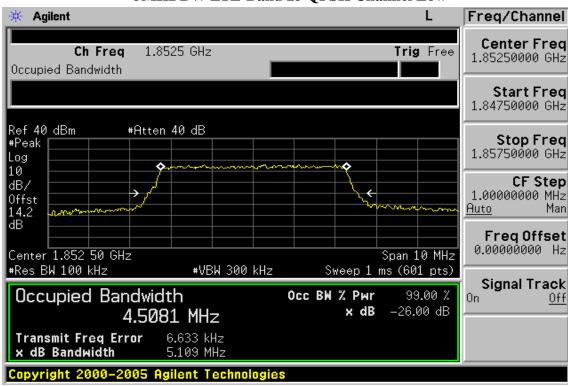
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## 3MHz BW LTE-Band 25 16QAM Channel High



## 5MHz BW LTE-Band 25 QPSK Channel Low



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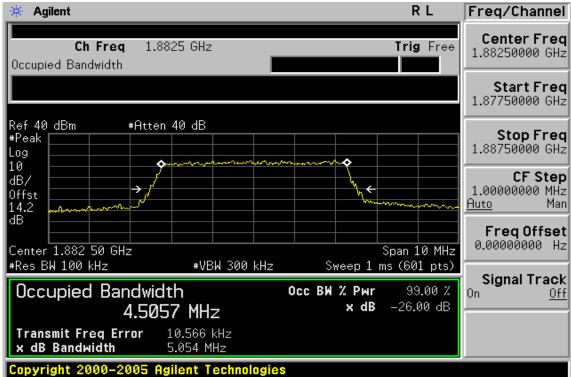
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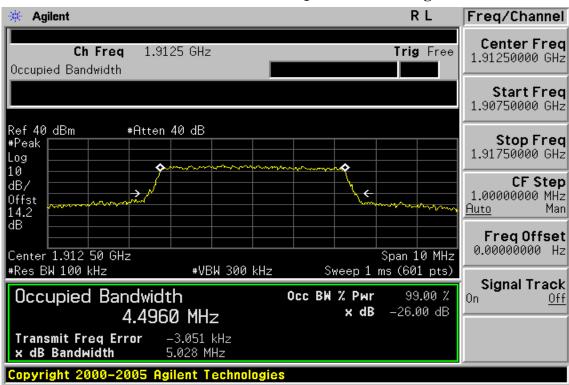
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## 5MHz BW LTE-Band 25 QPSK Channel Mid



## 5MHz BW LTE-Band 25 QPSK Channel High



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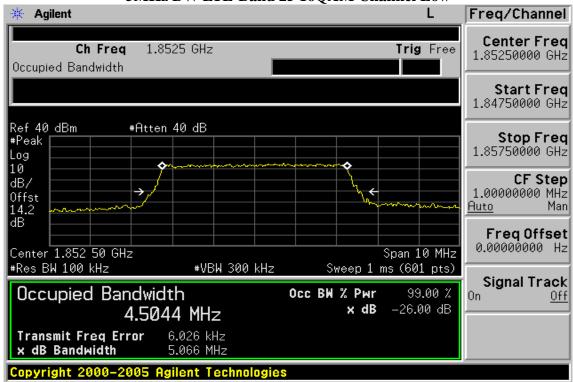
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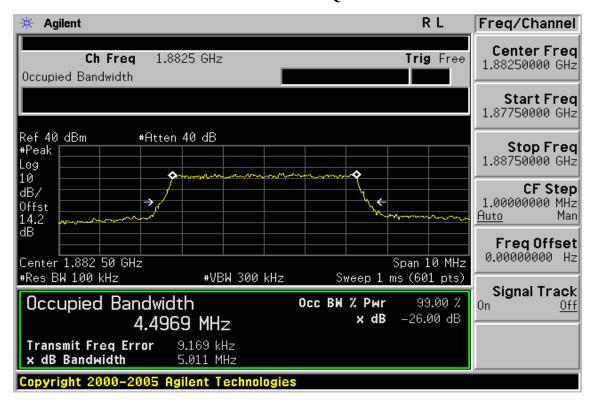
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#### 5MHz BW LTE-Band 25 16QAM Channel Low



#### 5MHz BW LTE-Band 25 16OAM Channel Mid



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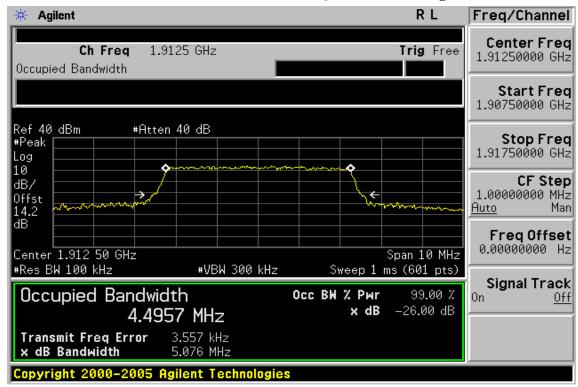
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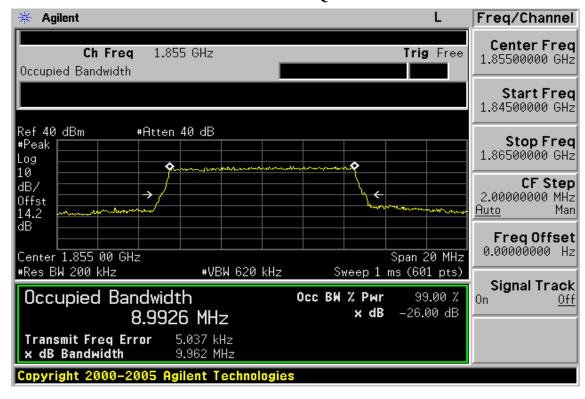
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## 5MHz BW LTE-Band 25 16QAM Channel High



## 10MHz BW LTE-Band 25 QPSK Channel Low



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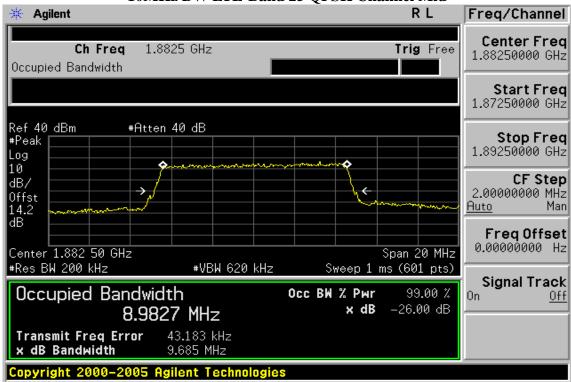
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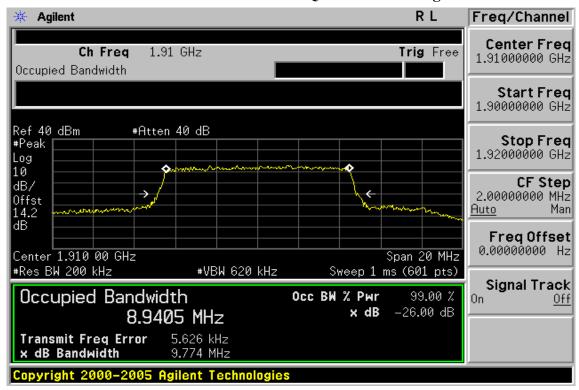
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#### 10MHz BW LTE-Band 25 QPSK Channel Mid



## 10MHz BW LTE-Band 25 QPSK Channel High



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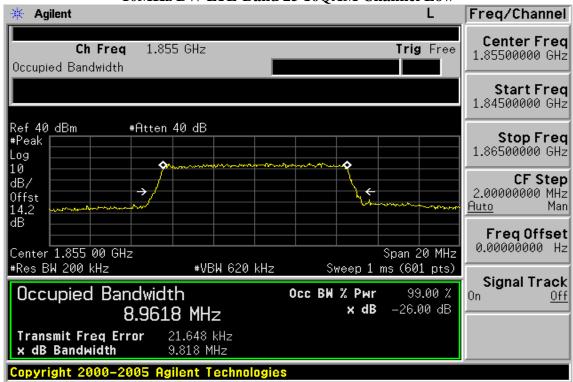
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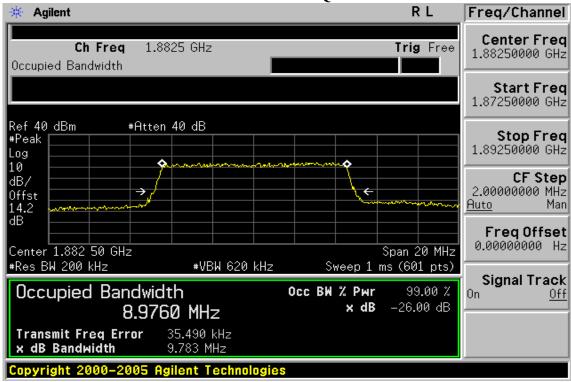
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## 10MHz BW LTE-Band 25 16QAM Channel Low



## 10MHz BW LTE-Band 25 16QAM Channel Mid



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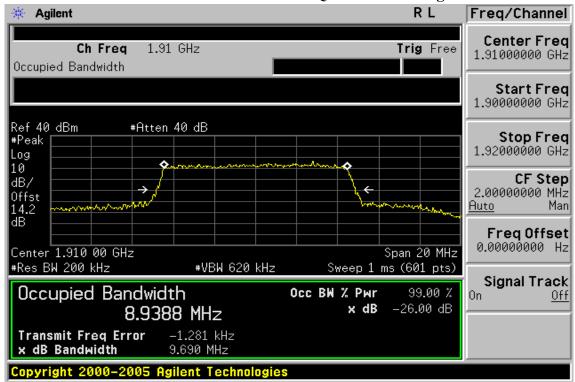
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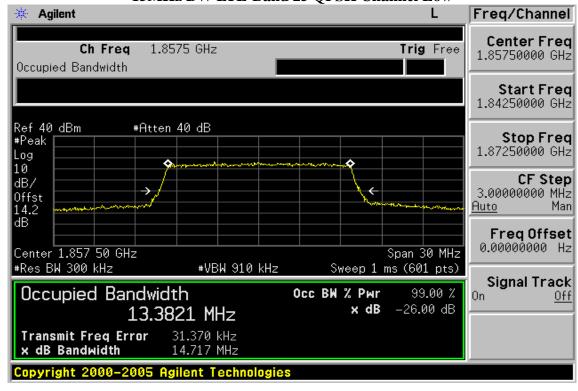
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## 10MHz BW LTE-Band 25 16QAM Channel High



#### 15MHz BW LTE-Band 25 QPSK Channel Low



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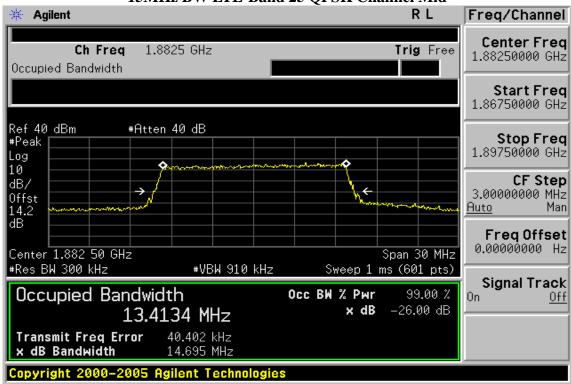
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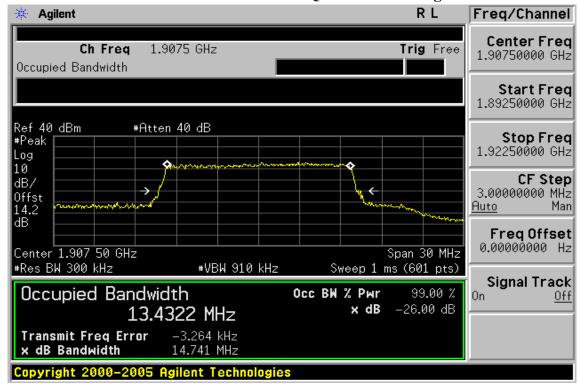
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# 15MHz BW LTE-Band 25 QPSK Channel Mid



## 15MHz BW LTE-Band 25 QPSK Channel High



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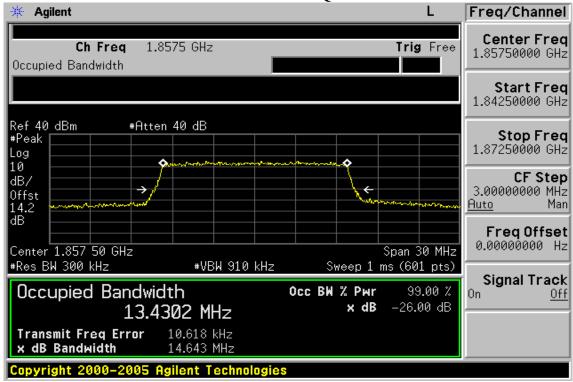
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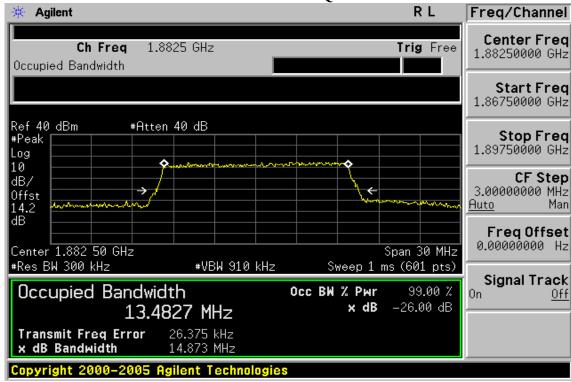
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#### 15MHz BW LTE-Band 25 16QAM Channel Low



## 15MHz BW LTE-Band 25 16QAM Channel Mid



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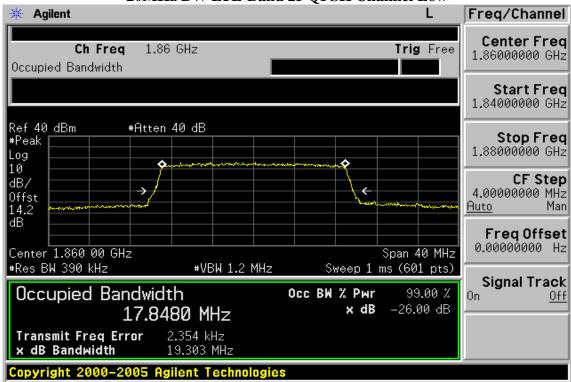
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## 15MHz BW LTE-Band 25 16QAM Channel High



## 20MHz BW LTE-Band 25 QPSK Channel Low



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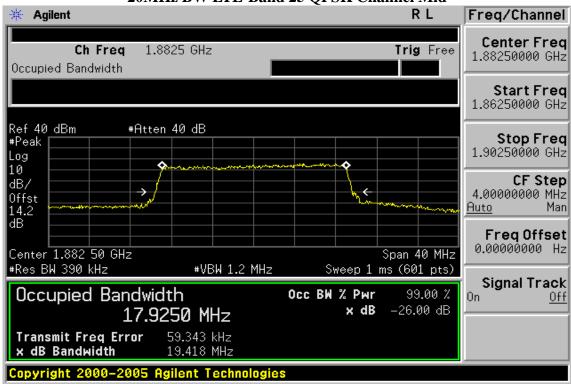
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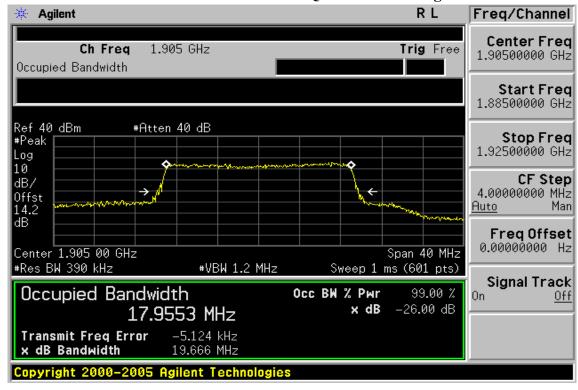
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## 20MHz BW LTE-Band 25 QPSK Channel Mid



## 20MHz BW LTE-Band 25 QPSK Channel High



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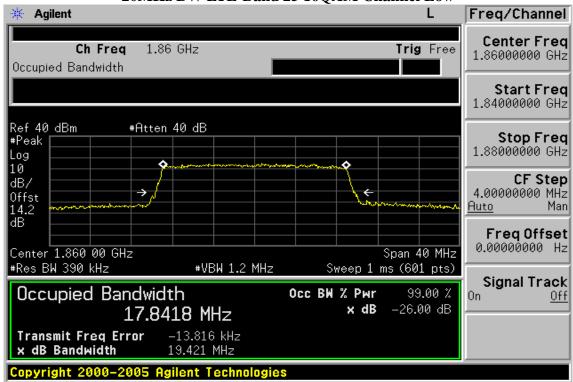
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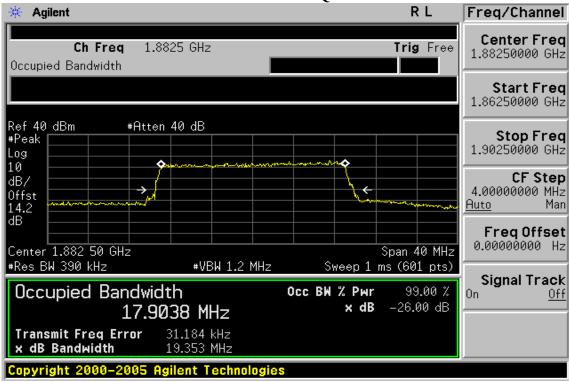
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# 20MHz BW LTE-Band 25 16QAM Channel Low



## 20MHz BW LTE-Band 25 16QAM Channel Mid



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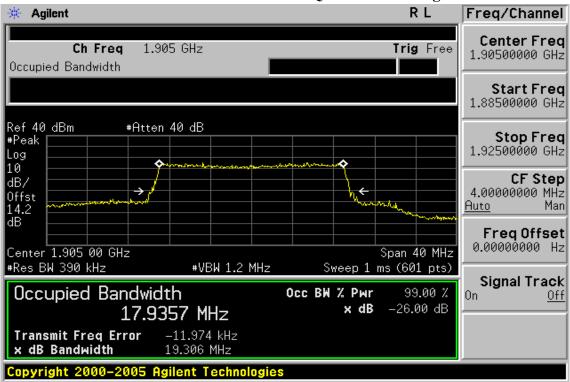
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## 20MHz BW LTE-Band 25 16QAM Channel High



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