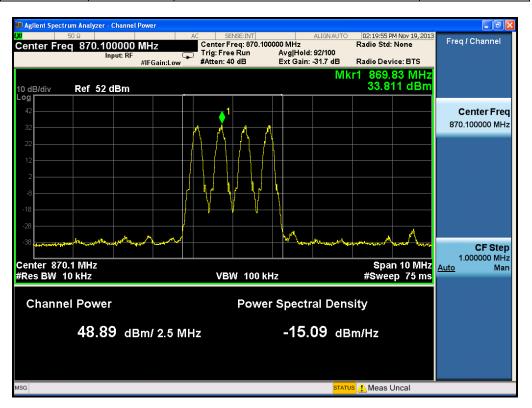
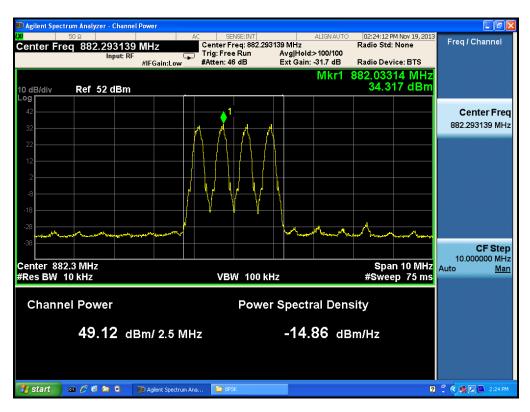
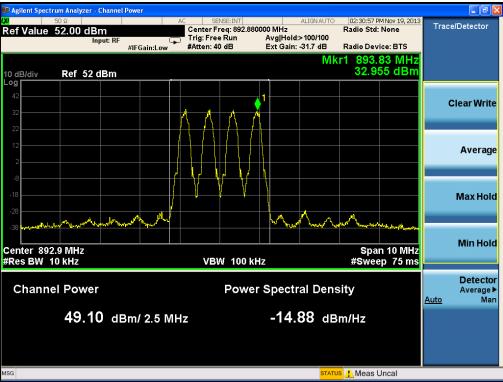
FCC ID: Q78-R8881S8500

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	870.1	869.2/869.8/ 870.4 /871	48.89
	882.3	881.4/882/882.6/883.2	49.12
	892.9	892/892.6/893.2/893.8	49.10



ZTE Corporation

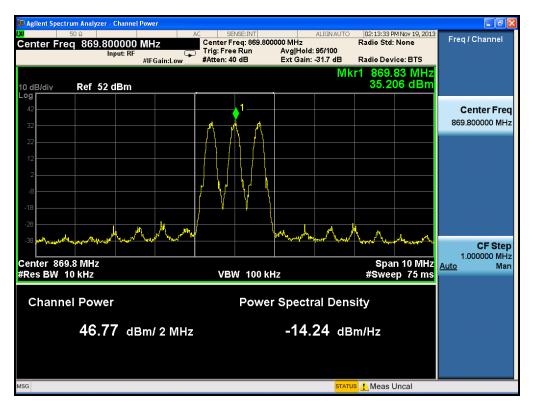




FCC ID: Q78-R8881S8500

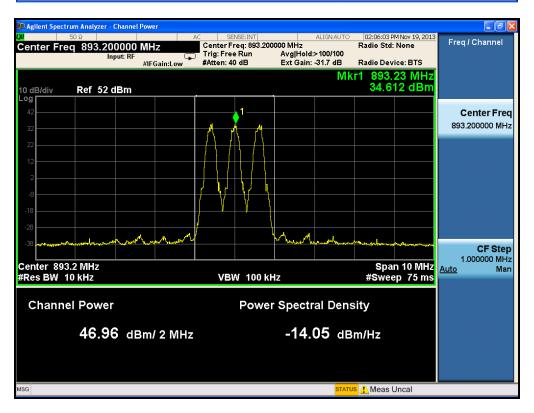
Three carriers

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	869.8	869.2/869.8/ 870.4	46.77
	882	881.4/882/882.6	47.03
	893.2	892.6/893.2/893.8	46.96



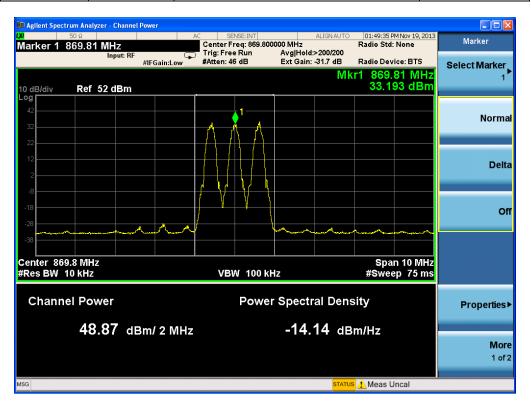
ZTE Corporation

Agilent Spect	rum Analyzer -	Channel Powe	r								
	50 Ω	0000 MIL			NSE:INT req: 882.000	0000 MH-	ALIGN AUTO	01:56:50 P Radio Std:	M Nov 19, 2013	Freq / Chanı	nel
enter Fre	eq 882.00	DUUU MIH put: RF	z R				old:>100/100	Radio Sta.	None		
			Gain:Low 🕇	#Atten: 4	6 dB	Ext Ga	ain: -31.7 dB	Radio Dev	ice: BTS		
) dB/div	Ref 52 (dBm					Mk		03 MHz 73 dBm		
42					1					Center	Fre
32					Y					882.000000	
32				1	לן ל					882.000000	I WIT
22					 						
12											
2											
				1 1	\ / \						
-8				1 1							
18				}	 						
-28				/		<u> </u>					
38	and the second	and the search and	and the state of t			- and a second	and the second states	and the second s	and an an an and a second		
50										CFS	
enter 882	2 MHz							Spa	n 10 MHz	1.000000	
Res BW 1	10 kHz			VB	W 100 ki	Iz			ep 75 ms	<u>Auto</u>	Ma
Channe	el Power				Powe	r Spec	ctral Dens	sity			
	47.03	3 dBm/	2 MHz			-13	3.98 dВ	m/Hz			



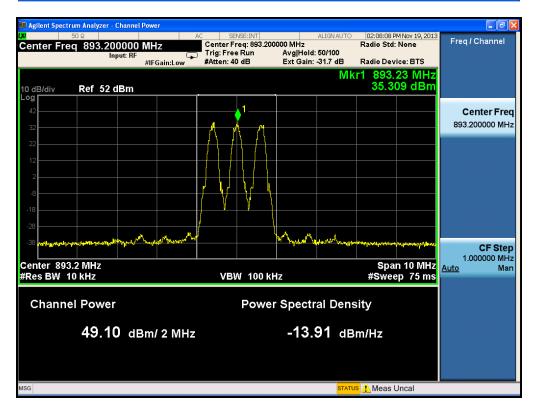
FCC ID: Q78-R8881S8500

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	869.8	869.2/869.8/ 870.4	48.87
	882	881.4/882/882.6	49
	893.2	892.6/893.2/893.8	49.1



ZTE Corporation

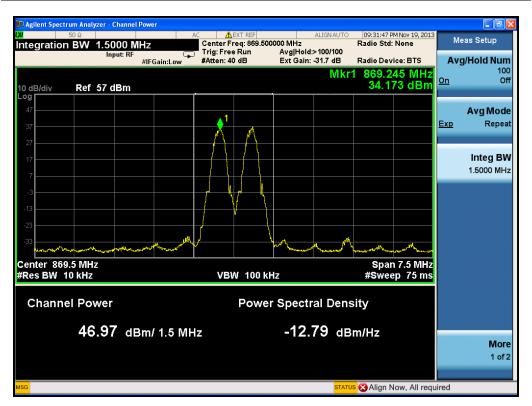
	rum Analyzer - Channe								
🚧 Ref Value	50 Ω 52.00 dBm		Center Freq: 882			01:54:50 Radio Std	M Nov 19, 2013 : None	Trac	e/Detector
	Input: RF	#IFGain:Low	Trig: Free Run #Atten: 46 dB		Hold:>200/200 Gain: -31.7 dB	Radio Dev	vice: BTS		
10 dB/div	Ref 52 dBm				Mk		03 MHz 09 dBm		
42 32				\				0	Clear Write
22 12 2									Average
-8 -18 -28	hardhardhar	Auronauron							Max Hold
-38 Center 882 #Res BW			VBW 10) kHz		Spa #Swee	ın 10 MHz ep 75 ms		Min Hold
Chann	el Power		Pov	ver Spe	ectral Dens	sity		Auto	Detector Average ► Man
	49.00 di	3m/ 2 MHz		-1	4.01 dB	m/Hz			
MSG					STATUS	s 🤔 Meas L	Jncal		



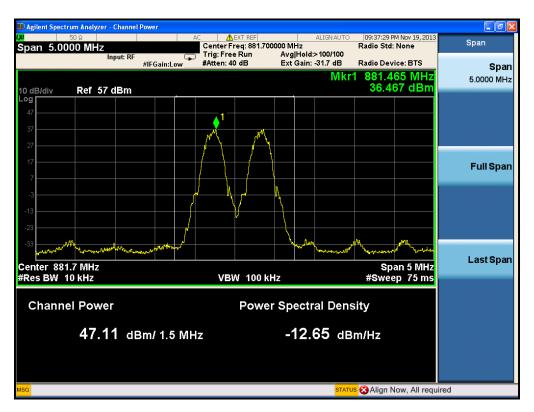
FCC ID: Q78-R8881S8500

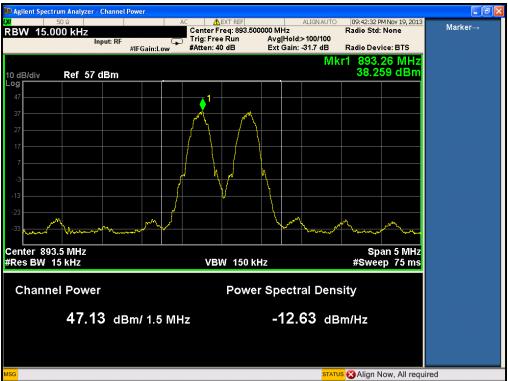
Two carriers

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	869.5	869.2/869.8	46.97
	881.7	881.4/882	47.11
	893.5	893.2/893.8	47.13



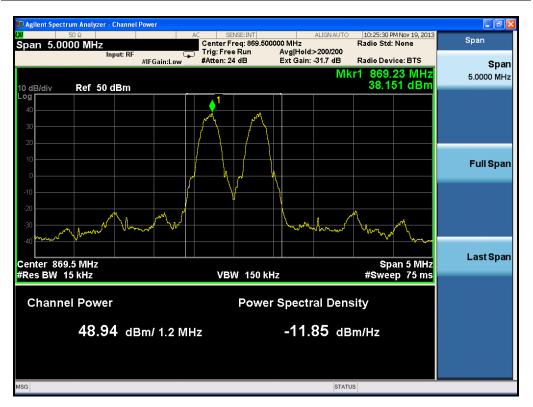
ZTE Corporation





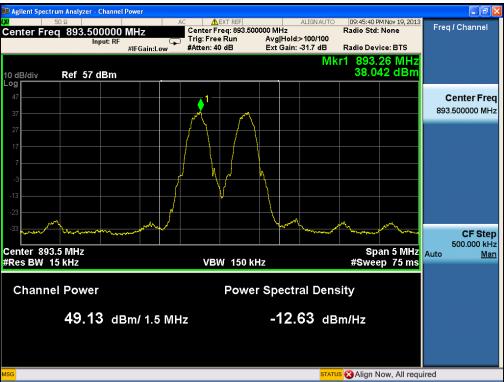
FCC ID: Q78-R8881S8500

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	869.5	869.2/869.8	48.94
	881.7	881.4/882	49.16
	893.5	893.2/893.8	49.13



FCC ID: Q78-R8881S8500

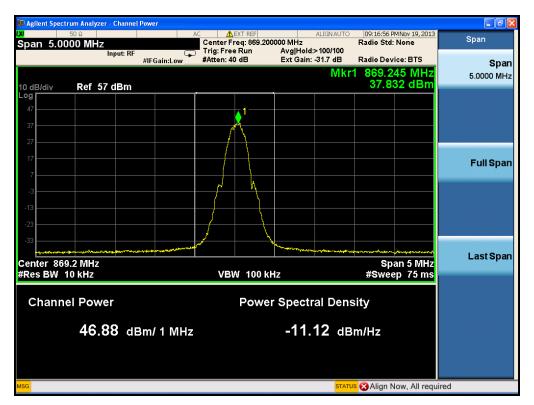




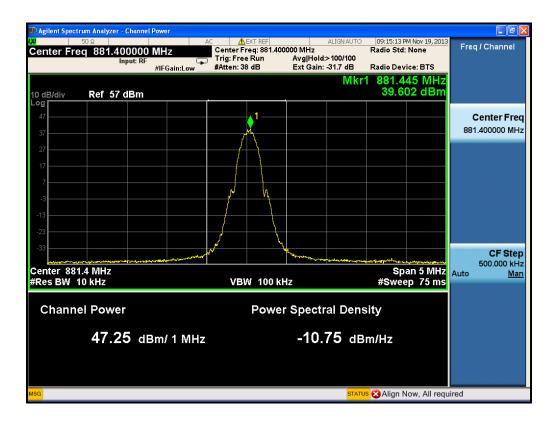
FCC ID: Q78-R8881S8500

One carrier

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
8PSK	869.2	869.2	46.88
	881.4	881.4	47.25
	893.8	893.8	46.92



FCC ID: Q78-R8881S8500



Page 102 of 178

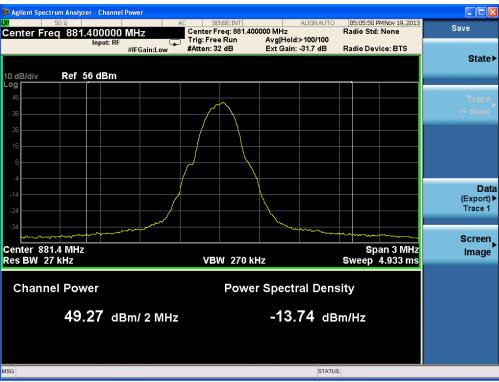
ZTE Corporation

again apeci	rum Analyzer - Chanr 50 Ω		AC 🔥 EXT REF		ALIGN AUTO		M Nov 19, 2013	- -
enter Fre	eq 893.80000		Center Freq: 893.8 Trig: Free Run	300000 MHz Avg Hold:>	100/100	Radio Std:	None	Freq / Channel
	Input: R	F #IFGain:Low	#Atten: 38 dB	Ext Gain: -		Radio Dev	ice: BTS	
					Mk		86 MHz	
dB/div	Ref 57 dBm					40.0	01 dBm	
g								
7			()					Center Fr
37								893.800000 M
7			(`\					
7								
7								
3			$-f + \chi$					
3			-					
3			\ \ \ \ \ \ _					
G			- <u></u>	\ _\				
			r A	hannen				CF St
nter 89:	3.8 MHz	And the second particular second s				Sp	an 5 MHz	500.000 k Auto M
es BW 🛛	10 kHz		VBW 100	kHz		#Swee	ep 75 ms	
Chann	el Power		Pow	er Spectra	al Dens	sity		
	10.00							
	46.92 d	IBm/ 1 MHz		-11.()8 dB	m/Hz		
🜙 File <o< td=""><td>channel powerT-</td><td>c_0001.png> sav</td><td>ed</td><td></td><td>STATU</td><td>s 🔀 Align N</td><td>low, All requi</td><td>red</td></o<>	channel powerT-	c_0001.png> sav	ed		STATU	s 🔀 Align N	low, All requi	red

modulation	Center Freq. (MHz)	Frequency (MHz)	Max output Power in dBm
GMSK	869.2	869.2	49.28
	881.4	881.4	49.27
	893.8	893.8	49.22

ZTE Corporation





ZTE Corporation

Agilent Spectrum Analy 50 Ω				ENSE:INT reg: 893.800		ALIGN AUTO	05:07:32 Radio Std	PM Nov 19, 2013	Freq / Ch	annel
enter Freq 893	3.800000 Input: RF	#IFGain:Low		e Run	Avg Hole	d:>100/100 : -31.7 dB	Radio Sto			
		#IFGaIn:Low	#Atten. o	2 40	Ext Gain	01.7 48	Radio De	nce. BTS		
dB/div Ref	56 dBm			1	1					
а 46 — — — — — — — — — — — — — — — — — — —									Cent	er Fre
36			<i>م</i>	\square					893.800	000 MH
26										
16										
6			5	\vdash						
-4			/	\\						
24		/								
4		and the second			- Vun					
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~										F Ste
enter 893.8 MH: es BW 27 kHz	Z		VB	W 270 kł	z		Sp Sweep	an 3 MHz 4.933 ms	<u>Auto</u>	Ma
Channel Pov	wer			Power	Spect	ral Dens	sity			
49	. <b>22</b> dE	3m/ 2 MHz			-13	. <b>79</b> dВ	m/Hz			
						STATUS				

FCC PART 22 TYPE APPROVAL Report

Page 105 of 178

# 4.2 RF EXPOSURE

### Applicable standard: FCC §2.1091 §1.1310

#### Limit

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated. Limits for Maximum Permissible Exposure (MPE)

B) Limits for G	Seneral Population	n/Uncontrolled Exp	oosure	
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ² )	Averaging Time $ \mathbf{E} ^2$ , $ \mathbf{H} ^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	$(180/f^2)^*$	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
500-100,000			1.0	30

#### Test Data

Predication of MPE limit at a given distance Equation from page 18 of OET Bulletin 65, Edition 97-01  $S = EIRP/4\pi R^2$ Where: S = power density EIRP= equivalent isotropically radiated power=ERP+2.15dB R = distance to the center of radiation of the antenna= [(ERP+2.15dB)/4\piS]^{1/2}

Maximum ERP, In general, the effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts.

Frequency is between 300MHz and 1500MHz, and the Maximum S=894/1500=0.596mW/cm², R=3.31m. This equipment should be installed and operated with minimum distance 3.31m between the radiator& your body.

#### Test Result: pass

# **4.3 MODULATION CHARACTERISTIC**

# Applicable Standard: FCC §2.1047

# **Test Equipment List and Details**

Manufacturer	Description	Description Model Serial Number		Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar RF Cable		002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

# **Test Procedure**

CDMA digital mode is used by EUT.

# **Test Data Environmental Conditions**

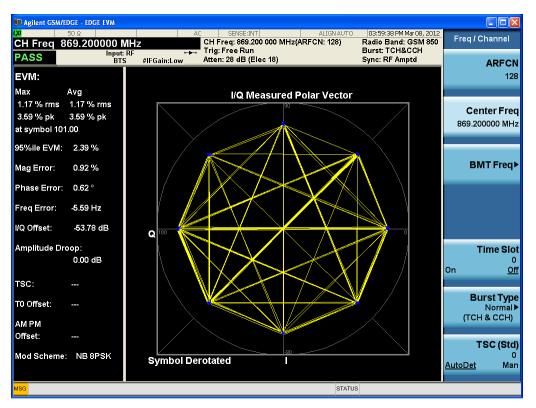
Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

# Test Result: Pass

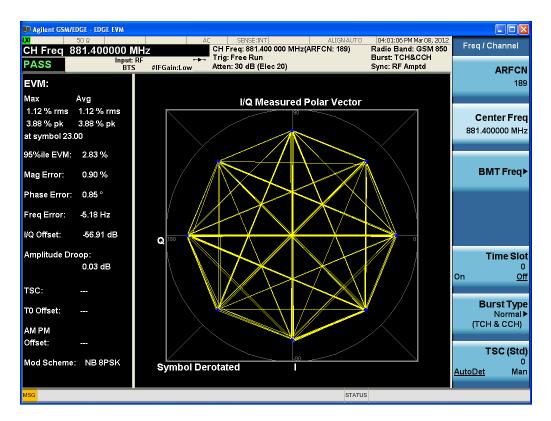
# Test Mode: Transmitting GSM

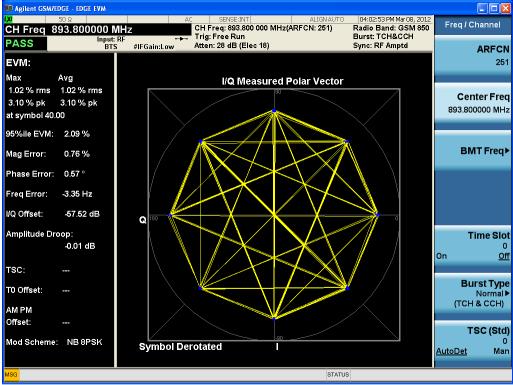
# **Test Data:**

Modulation	Frequency (MHz)	EVM		
	869.2	2.39%		
8PSK	881.4	2.83%		
	893.8	2.09%		



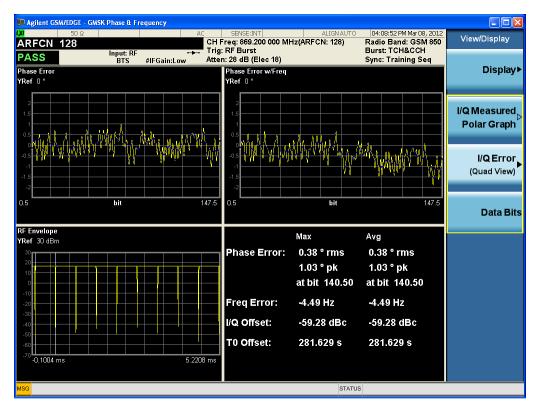
#### FCC ID: Q78-R8881S8500





#### FCC ID: Q78-R8881S8500

Modulation	Frequency (MHz)	Phase Error(°)	Frequency Error(Hz)	
	869.2	0.38	-4.49	
GMSK	881.4	0.38	-5.27	
	893.8	0.41	-4.05	

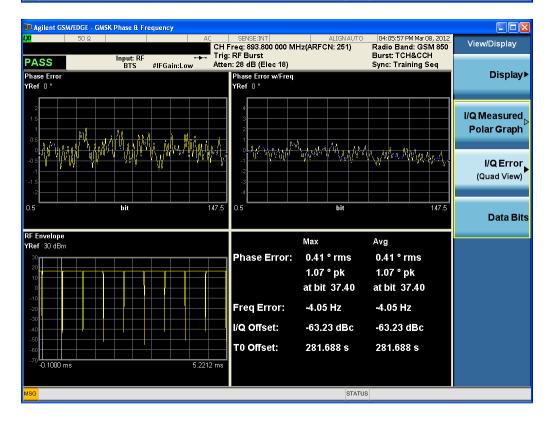


FCC PART 22 TYPE APPROVAL Report

Page 110 of 178

#### FCC ID: Q78-R8881S8500

🗾 Agilent GSM/EDGE - GMSK Phase & Frequency			
	SENSE:INT ALIGNAUTO	04:07:10 PM Mar 08, 2012 Radio Band: GSM 850 Burst: TCH&CCH	View/Display
PASS BTS #IFGain:Low Atter	28 dB (Elec 18) Phase Error w/Freq YRef 0 °	Sync: Training Seq	Display▶
2 15 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 3 2 1 0 A A A A A A A A A A A A A A A A A A A		I/Q Measured Polar Graph
		AMAN ^{NA} MAMAAAAAA	I/Q Error (Quad View)
0.5 bit 147.5	0.5 bit	147.5	Data Bits
RF Envelope YRef 30 dBm 20 10 10 0	Max Phase Error: 0.38 ° rms 1.08 ° pk at bit 70.40	Avg 0.38 ° rms 1.08 ° pk at bit 70.40	
-50	Freq Error: -5.27 Hz I/Q Offset: -64.05 dBc	-5.27 Hz -64.05 dBc	
-60	T0 Offset: 281.700 s	281.700 s	



# 4.4 SPURIOUS RADIATED EMISSIONS

# Applicable Standard: FCC CFR 47, §2.1053

# **Test Equipment List and Details**

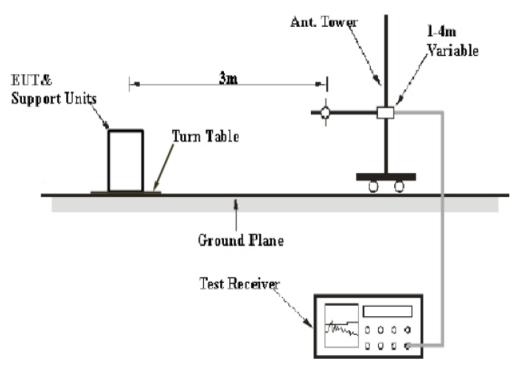
Manufacturer	Equipment	Model	Serial Number	Last Cal.	Cal. Interval
R&S	SIGNAL GENERATOR	SMR20	A00017351	2014-09-09	1 year
Albatross	Anechoic Chamber	3m Site	A00017354	2014-12-01	1 year
R&S	EMI Test Receiver	ESIB26	100058	2014-10-13	1 year
R&S	Ultra Breitband Antennas	HL562	100022	2014-07-29	1 year
R&S	Double-Ridged Waveguide Horn Antenna	HF906	100032	2014-07-14	1 year
R&S	Double-Ridged Waveguide Horn Antenna	HF906	100446	2014-07-14	1 year
SCHWARZ-BEC K	Biconical Antenna	VUBA9117	9117-122	2014-07-14	1 year

#### Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiated emissions measurement at the EMC lab. is 3.6dB.

EUT Setup



The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with the FCC part 2.1053. The specification used was the FCC 2.1053 limits.

# Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB =10 1g (TX pwr in Watts/0.001)-the absolute level

Spurious attenuation limit in dB =43+10 Lg P (power out in Watts)

The resolution bandwidth of the spectrum analyzer was set at 1 percent as specified for 30MHz to 1GHz scaning, set at 1MHz for 1GHz to 20GHz scaning.

# **Test Results Summary: PASS**

# **Environmental Conditions**

Temperature:	26°C
Relative Humidity:	60 %
ATM Pressure:	1009 mbar

# Test data

Indicated	Indicated		Substituted			Cable	Absolute	Limit	Margin	
Frequency (MHz)	Amp. (dBuV)	Polar H/V	Frequency (MHz)	Level (dBm)	Antenna Gain Correction	Loss (dB)	Level (dBm)	(dBm)	(dB)	
119.418838	21.73	V	119.418838	-63.19	-12.48	0.8	-78.62	-36	42.62	
249.659319	18.46	V	249.659319	-79.09	1.49	1.3	-81.05	-36	45.05	
428.496994	23.56	V	428.496994	-70.95	-0.99	1.7	-75.79	-36	39.79	
881.422846	90.44	V	881.422846	-6.75	-1.54	2.5	-12.94	-36	-23.06	
1885.77154	47.11	V	1885.77154	-60.25	6.55	3.7	-59.55	-30	29.55	
2647.29459	54.65	V	2647.29459	-52.88	7.95	4.3	-51.38	-30	21.38	
119.418838	20.8	Н	2647.29459	-65.36	-12.48	0.8	-80.79	-36	44.79	
210.781563	20.45	Н	119.418838	-78.8	1.23	1.2	-80.92	-36	44.92	
471.262525	23.27	Н	210.781563	-70.28	-1.3	1.8	-75.53	-36	39.53	
881.422846	111.57	Н	471.262525	14.48	-1.54	2.5	8.29	-36	-44.29	
1853.70742	47.99	Н	881.422846	-55.67	6.55	3.6	-54.87	-30	24.87	
3000	54.33	Н	1853.70742	-49.78	7.75	4.6	-48.78	-30	18.78	

Radiation emission spurious below 3GHz

Indicated	l	Test Antenna	Substituted			Cable	Absolute	Limit	Margin
Frequency (MHz)	Amp. (dBuV)	Polar H/V	Frequency (MHz)	Level (dBm)	Antenna Gain Correction	Loss (dB)	Level (dBm)	(dBm)	(dB)
3312.62525	42.69	V	3312.62525	-58.28	7.75	4.9	-57.58	-30	27.58
4731.46293	45.05	V	4731.46293	-62.55	9.15	5.8	-61.35	-30	31.35
6174.3487	48.86	V	6174.3487	-58.61	9.05	6.9	-58.61	-30	28.61
7610.72144	50.75	V	7610.72144	-61.6	9.25	7.8	-62.3	-30	32.3
9869.23848	56.18	V	9869.23848	-52.64	9.95	8.8	-53.64	-30	23.64
12312.1242	56.98	V	12312.1242	-53.74	12.05	9.9	-53.74	-30	23.74
3312.62525	44.78	Н	3312.62525	-58.48	7.75	4.9	-57.78	-30	27.78
4050.1002	45.36	Н	4050.1002	-59.29	7.95	5.3	-58.79	-30	28.79
6150.3006	48.51	Н	6150.3006	-54.88	9.05	6.9	-54.88	-30	24.88
7633.76754	50.15	Н	7633.76754	-58.48	9.25	7.8	-59.18	-30	29.18
9857.71543	55.7	Н	9857.71543	-53.24	9.95	8.8	-54.24	-30	24.24
12300.6012	56.35	Н	12300.6012	-50.62	12.05	9.9	-50.62	-30	20.62

Radiation emission spurious above 3GHz

# 4.5 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

# Applicable Standard: FCC§2.1051, §22.917

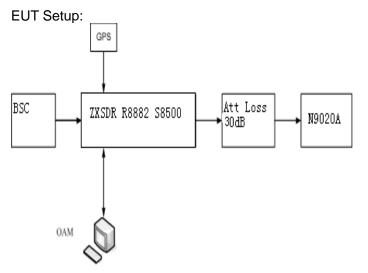
The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified.

# **Test Equipment List and Details**

Manufacturer	Description	on Model Serial Number		Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

# **Test Procedure**



REMARKS: Attenuator loss (dB)=30dB, Cable Loss (dB)=2dB.

The RF output of the transceiver was connected to a spectrum analyzer through appropriate

attenuation. The resolution bandwidth of the spectrum analyzer was set at 100KHz for 30MHz to 1GHz band, set at 1MHz for 1GHz to 10GHz band. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

# **Test Data Environmental Conditions**

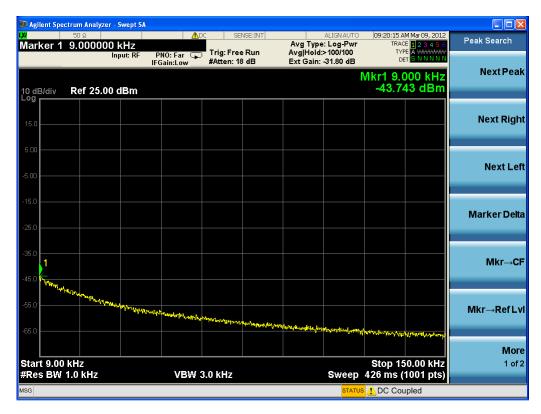
Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

# Test Result: Pass

# Test Mode: Transmitting GSM

# Test Data:

Six carriers



FCC PART 22 TYPE APPROVAL Report

Page 117 of 178

## ZTE Corporation

			er - Swept SA								
w Mar		50 Ω  99.25(	DOOO kHz Input: RF	PNO: Far 🖵 IEGain:Low			Avg Hold	ALIGNAUTO e: Log-Pwr >100/100 -31.30 dB	TRAC	M Mar 09, 2012 E <b>1 2 3 4 5 6</b> E A WWWW T S N N N N N	Peak Search
10 di Log	B/div	Ref 25.0	00 dBm					M	kr1 199 -54.5	.25 kHz 35 dBm	Next Peak
15.0											Next Right
5.00 -5.00											Next Leff
-15.0 -25.0											Marker Delta
-35.0 -45.0											Mkr→CF
-55.0	1	hampfillerstown	The case of the state of the st	jete Mundalanan marke	design from the we	na 'n 't sjillikkenad a	~jpd=ynight	_{የመ} ፋታላዊ ሌት የአሳኪ	1-1-17-14-14-14-14-14-14-14-14-14-14-14-14-14-	9/Jan/hd-myl	Mkr→RefLvl
Star	t 150 kl s BW 10			VBW :	30 kHz			#Sweep	Stop 10 75.0 ms (	.000 MHz 1001 pts)	More 1 of 2
MSG								STATUS	🔥 Meas L	Incal	

							r - Swept SA	trum Analyze	
Peak Search	1:55 AM Mar 09, 2012 TRACE 1 2 3 4 5 6	: Log-Pwr		VSE:INT		∣ <u>å</u> ⊑ Hz	00000 MI	^{50 Ω} 23.0000	<mark>x</mark> Marker 1
			Avg Hold Ext Gain:	Run 2 dB	Trig: Free #Atten: 22	PNO: Fast 🖵 IFGain:Low	Input: RF		
Next Peak	23.00 MHz 3.967 dBm	Mkr1 -5					0 dBm	Ref 25.0	10 dB/div
Next Righ									15.0
									F 00
NovtLof									5.00
Next Lef									-5.00
									-15.0
Marker Delt									13.0
									-25.0
									-35.0
Mkr→Cl									
									-45.0
Mkr→RefLv			<u>_</u> 1_						-55.0
	<b>wa</b> yyy y water	nerteepekärtuhterraami	mymine	her and the second second	here with the second	quarternatives	ha ngalana sanggang	enter per per series and a series of the ser	anticonnana
									-65.0
More 1 of 2	p 30.00 MHz							0 MHz	Start 10.0
1012	ns (1001 pts)	Sweep 75.0			30 kHz	VBW :			#Res BW
	as Uncal	<mark>status</mark> 🥂 M							ISG

## ZTE Corporation

D Agi	ilent Spec	trum Anal	yzer - Swept SA								
LXI		50 Ω			AC SE	ENSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search
Mar	ker 1	868.20	00000000 Input: RF	MHz PNO: Fast IFGain:Low	Trig: Fre #Atten: 2		Avg H	Гуре: Log-Pwr Iold:>100/100 ain: -31.30 dB	TRAC TYI D	CE 123456 PE A WWWWW ET SNNNNN	
10 dl Log	B/div	Ref 42	.00 dBm					N	/lkr1 868 -40.0	3.2 MHz 28 dBm	Next Peak
32.0											Next Right
22.0 12.0											Next Left
2.00											Marker Delta
-18.0											Mkr→CF
-38.0										1/ →	Mkr→RefLvl
			uxardhidayaaqqaa	ᠬᡎᡄ᠋᠆ᢞᡃᢛᡟᡃᡂᠺᢩᠰ᠆ᡁᠬᢩ᠉ᡃᢪᡃ	an de la casa de la ca	in the second	takery apple	krahlfron-althourd for a	and an and a fair of a		More
	t 30.0 s BW	MHz 100 kHz	2	VBW	300 kHz			Sweep	Stop 8 253 ms (	68.2 MHz 1001 pts)	1 of 2
MSG								STATUS	5		

Agilent Spectrum									
<mark>x/</mark> 50 ណ Marker 1 895		 MHz	C SEN	SE:INT	Avg Type	ALIGNAUTO Log-Pwr	TRACE	4 Mar 09, 2012	Peak Search
	Input: RF	PNO: Fast 😱 IFGain:Low	Trig: Free #Atten: 26		Avg Hold: Ext Gain:		TYPI DE		
10 dB/div Ref	7 42.00 dBm					Mk	(r1 895.1 -43.65	12 MHz 50 dBm	NextPeal
32.0									Next Righ
22.0									Next Lef
2.00									Marker Delt
-18.0									Mkr→C
-28.0 -38.0 <mark>- 1</mark>									Mkr→RefLv
-48.0	<b>&amp;~~</b> {_	ghiwy hayoly man to write	ayay ang	eryansetypperioly	wangdowidonergiye	and and the for a start of	ور المرابع بين المرابع مرابع المرابع مرابع المرابع مرابع المرابع مرابع مرابع مرابع مرابع مرابع مرابع مرابع مرا مرابع	nahary and	Mon
Start 894.80 M #Res BW 100		VBW :	800 kHz			Sweep 3	Stop 1.00 31.8 ms (1	000 GHz 001 pts)	1 of 2
MSG						STATUS			

## ZTE Corporation

		zer - Swept SA								
4	50 Ω	0000000		AC	SENSE:INT	Aug	ALIGNAUTO Type: Log-Pwr		M Mar 09, 2012	Peak Search
Marker 1	5.8440	00000000 Input: RF	PNO: Fast IFGain:Low	Trig: Fr #Atten:	ree Run 20 dB	Avgi	Hold:>100/100 Sain: -31.30 dB	TY D		
10 dB/div Log	Ref 41	.30 dBm					l	Mkr1 5.8 -36.8	44 GHz 11 dBm	Next Pea
31.3										Next Righ
21.3										
11.3										Next Le
1.30										Marker Del
8.70										
18.7										Mkr→C
28.7							1			
38.7 ^{Ja} ngen	Montenative	Abapatan ing a sa s	and a stand and a stand of the	WHAN MANA	Parant Water Parante	ale letter	hoge and a strange and the store of	₦₳₻₰₦₿₽₽₽₩₽ <mark>₽</mark> ₩ [₩]	and the second second	Mkr→RefL
48.7										Мо
Start 1.00 ≇Res BW			VBW	3.0 MHz	2		Sweep	Stop 8 21.2 ms (	.000 GHz 1001 pts)	1 of
SG							STATU	IS		

Five carriers

	50 Ω		1 🛕 🗌	C   5	ENSE:INT		ALIGN AUTO	09:21:47 AM		Peak Search
arker 1	9.0000	DO kHz Input: RF	PNO: Far 😱 IFGain:Low	Trig: Fr #Atten:		AvgHo	ype:Log-Pwr old:>100/100 in:-31.80 dB	TRACE TYPE DET	123456 A WWWWW S N N N N N	- can ocarcin
0 dB/div	Ref 25.0	00 dBm					ſ	43.59 Vikr1	00 kHz 5 dBm	Next Pea
15.0										Next Rig
5.00										Next Lo
5.0										Marker De
5.0										Mkr→
5.0	bergily-righ-ridsh-ridge	alter and hold and	M. Company and		Water and the	and the second	harden and a second			Mkr→RefL
tart 9.00	kHz 1.0 kHz			3.0 kHz				Stop 150 426 ms (1	).00 kHz	<b>М</b> с 1 о

## ZTE Corporation

			er - Swept SA								
<mark>w</mark> Mar		ະນຸດ 09.100	1000 kHz Input: RF	PNO: Far 😱 IEGain:Low	- · -		Avg Hold	ALIGNAUTO e: Log-Pwr I>100/100 : -31.30 dB	TRA	M Mar 09, 2012 E <b>1 2 3 4 5 6</b> PE A <del>MANNAN</del> ET S N N N N N	Peak Search
10 di Log	B/div	Ref 25.0	00 dBm	II Guill.cow				M	kr1 209 -55.1	.10 kHz 88 dBm	Next Peal
15.0											Next Righ
5.00 -5.00											Next Lei
-15.0 -25.0											Marker Delt
-35.0 -45.0											Mkr→C
-45.0 -55.0	1										Mkr→RefLv
-65.0 Star	t 150 kF	Iz	<u>ann an </u>	2 Tay 12 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1 - 4 1		and a standard and stift		**************	Stop 10	.000 MHz	Mor 1 of
	s BW 10	kHz		VBW (	30 kHz				75.0 ms (	1001 pts)	
MSG								STATUS	🚹 Meas L	Incal	

d 50 Ω	yzer - Swept SA	DC	SENSE:INT	âl	.IGN AUTO	09:30:06 AM Mar 09, 2012	
Marker 1 17.740	Input: RF P	Z	Frig: Free Run Atten: 22 dB	Avg Type: L Avg Hold:>1 Ext Gain: -3	.og-Pwr 00/100	TRACE 123456 TYPE A WWWW DET S N N N N N	Peak Search
10 dB/div Ref 25	.00 dBm				М	kr1 17.74 MHz -59.473 dBm	Next Peal
15.0							Next Righ
5.00							Next Lef
25.0							Marker Delt
45.0							Mkr→C
55.0 +wh-/wr/.b/www-m 65.0	/msh.fmfhag/dic/artjactstgc/tu-byte	1- 	waannaalaa ayaanaadha	harterskylderen dettyleder	¹⁰	٨٠٩٢٥٩٩٠،٠٠٠٩٠	Mkr→RefLv
Start 10.00 MHz #Res BW 10 kHz		VBW 30	kHz	#s	weep 7	Stop 30.00 MHz '5.0 ms (1001 pts)	Mon 1 of:

## ZTE Corporation

D Agi	ilent Spec	trum Anal	yzer - Swept SA								
LXI		50 Ω			AC SE	ENSE:INT		ALIGN AUTO	10:16:14 /	M Mar 09, 2012	Deals Occurate
Mar	ker 1	868.20	00000000 Input: RF	MHz PNO: Fast G IFGain:Low	Trig: Fre #Atten: 2		Avgil	Type: Log-Pwr Hold:>100/100 ≩ain: -31.30 dB	TRAC TY D	CE 123456 PE A WWWW ET S N N N N N	Peak Search
10 dl Log	B/div	Ref 42	2.00 dBm					ſ	/kr1 868 -40.0	3.2 MHz 19 dBm	Next Peak
32.0											Next Right
22.0 12.0											Next Left
2.00											Marker Delta
-18.0											Mkr→CF
-38.0										1/	Mkr→RefLvl
-48.0	1 30.0		ntrinitiper polosipation (fill)	Marten de Maryan	an a	********	n <b>-¹an</b> popera	viet appellet worked	Stop 9	69.2 MHz	More 1 of 2
#Re		100 kHz	2	VBW	300 kHz				253 ms (	68.2 MHz 1001 pts)	
MSG								STATU	s		

🗊 Agilent Spectrum Analyzer - Swept SA					
₩ 50 Ω Marker 1 895.115600000 Input: RF	MHz PNO: East STrig: Free	Avg Type Run Avg Hold:	::Log-Pwr ⊺ >100/100	8 AM Mar 09, 2012 RACE 123456 TYPE A WANNAW	Peak Search
10 dB/div Ref 42.00 dBm	IFGain:Low #Atten: 26	dB Ext Gain:	Mkr1 89	5.12 MHz 944 dBm	Next Peak
32.0					Next Right
12.0					Next Left
-8.00					Marker Delta
-18.0					Mkr→CF
-38.0 - 1	ากการใหละสังเราสถาร	๛๛๛๚๛๚๛๚๛๚๛๚๛๚๛๚๛๚๛๚๚๛๚๚๛๚๚๛๚๚๛๚๚๛๚๚๛๚๚	agangalating ang pang banang ang pang a	there and the second states	Mkr→RefLv
Start 894.80 MHz #Res BW 100 kHz	VBW 300 kHz		Stop 1 Sweep 31.8 ms	.00000 GHz s (1001 pts)	<b>More</b> 1 of 2

#### ZTE Corporation

		zer - Swept SA								
lorkor 1	50 Ω	0000000		AC	SENSE:INT	Aun 7	ALIGNAUTO		M Mar 09, 2012	Peak Search
larker 1	5.3680	00000000 Input: RF	) GHZ PNO: Fast G IFGain:Low		ree Run : 20 dB	Avg H	vpe: Log-Pwr Iold:>100/100 ain: -31.30 dB	TYF DE	E A WWWWWW S N N N N N	
0 dB/div	Ref 41.	30 dBm					N	/kr1 5.3 -37.14	68 GHz 41 dBm	NextPea
31.3										Next Rig
21.3										_
11.3										Next Le
1.30										
3.70										Marker De
18.7										Mkr→(
28.7						<u>▲</u> 1				
38.7	willipplemetrywi	rimber for the second	الهربا المحاملية المحمد المعرس	n ^{dis} tranta	Ward and a start of the start o	No. of Concession, Spice	and the special design of the state of the s	-t-t-lasery-a-t-t-t-	······································	Mkr→RefL
48.7										
itart 1.00			VBW	2.0 MIL			<b>C</b> woon	Stop 8	.000 GHz	<b>Мс</b> 1 о
	1.0 MHz		VBW	3.0 MH	2				1001 pts)	
SG							STATUS	6		

Four carriers



## ZTE Corporation

🎵 Agilent Spec		- Swept SA								
w Marker 1		<b>00 kHz</b> nput: RF	PNO: Far G	Trig: F	SENSE:INT	AvgiH	ALIGNAUTO ype: Log-Pwr old:>100/100 iin: -31.30 dB	TRACE	1 Mar 09, 2012 <b>1 2 3 4 5 6</b> A WWWWW S N N N N N	Peak Search
10 dB/div	Ref 25.00	dBm	ii Gain.cow					kr1 199. -48.21	25 kHz 5 dBm	Next Peak
15.0										Next Right
-5.00										Next Leff
-15.0										Marker Delta
-35.0										Mkr→CF
	[⋞] ⋬⋫⋺ <mark><mark>╢</mark>╖┿╬╍╣╲_{╍┖╍}┍</mark>	ห <mark>าสเ</mark> ประสงหนึ่ง	anter a l'anter a l'	<del>ስ</del> ቆዛለቀላ	1961), di wa ka yezh	han a shara a s	มู่ <del>นาณุญาณา</del> จากค่า	April and the state	en var var de seren d	Mkr→RefLv
-65.0 Start 150				201/11-			<b>#9</b>	Stop 10.	000 MHz	<b>More</b> 1 of 2
#Res BW /	TU KHZ		VBW	30 kHz			#Sweep	75.0 ms (1		

XI	<mark>strum Analyzer - Sw</mark> 50 Ω		<u></u> ∆DC	SENSE:INT		ALIGN AUTO	09:30:30 AM Mar 09, 201	
Marker 1	12.3000000	OO MHz : RF PNO: Fast IFGain:Lov	Trig: F	ree Run : 20 dB	AvgHold	≌:Log-Pwr :>100/100 -31.80 dB	TRACE 12345 TYPE A WWWWW DET S N N N N	* V
10 dB/div Log	Ref 25.00 dE	ßm				Μ	kr1 12.30 MHz -60.799 dBm	Next Peal
15.0								Next Righ
-5.00								Next Let
-15.0								Marker Delt
-35.0								Mkr→C
-55.0	Provinsion Lange dage	14 ( ) เพิ่ม ๆ ครั้งสุดาได้ ( ) และ ( ) และ ( ) เป็	ha an	********	ergenter aller the	6.01/176.1-968.60.0-164	Adaption of the second s	Mkr→RefLv
Start 10.0		VE	SW 30 kHz			#Sweep 7	Stop 30.00 MH: 75.0 ms (1001 pts	More 1 of:

## ZTE Corporation

🗾 Agi	ilent Spec	trum Anal	yzer - Swept S <i>i</i>	1							
LXI		50 Ω			AC SI	ENSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search
Mar	ker 1	868.2	00000000 Input: RF	MHZ PNO: Fast G IFGain:Low	Trig: Fre #Atten: 2		AvgiH	ype: Log-Pwr old:>100/100 ain: -31.30 dB	TRAC TYI D	CE 123456 PE A WWWWW ET SNNNNN	
10 dl Log	B/div	Ref 42	2.00 dBm					N	/kr1 868 -39.1	3.2 MHz 97 dBm	Next Peak
32.0											Next Right
22.0 12.0											Next Left
2.00											Marker Delta
-18.0											Mkr→CF
-28.0 -38.0										1,	Mkr→RefLvl
-48.0	ha dikin sehingga	Angel Langer	in and the second second	h <del>les goulen</del> gdog	ĸ₩ſġġ [®] ġŔŦĸġſĸĬţĿŕ	16 A.S. P.	and for the second s	nipilesen Jacobertan Inter	varallenenden affarenda	eren roomere val	More
	t 30.0 s BW	MHz 100 kHz	2	VBW	300 kHz			Sweep	Stop 8 253 ms (	68.2 MHz 1001 pts)	1 of 2
MSG								STATUS	3		

							er - Swept SA		
Peak Search	10:22:54 AM Mar 09, 2012 TRACE 123456	ALIGNAUTO e: Log-Pwr	Avg Ty	NSE:INT	AC SE		5200000	50 Ω 894 90	v Varker '
	TYPE A WWWWW DET S N N N N N	l:>100/100 : -31.30 dB	AvgHol		Trig: Fre #Atten: 3	PNO: Fast 🖵 IFGain:Low	Input: RF	00-1100	narrtor
Next Peak	r1 894.91 MHz -41.532 dBm	Mk					00 dBm	Ref 42.	10 dB/div _og
Next Righ									32.0
Next Lef									22.0
Marker Delt									2.00
Mkr→Cl									-18.0
Mkr→RefLv									-28.0
	ระหรู้ระไวร์ - มีรู้ไม่มีรู้ไม่ - รู้นี่ได้ - รู้ได้ได้หม่ารู้ได้ - มีรู้ได้ - มีรู้ได้ - มีรู้ได้ - มีรู้ได้	₼₼₽₩₩₽₽₽₩₽₽₽₩₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽		angeden die ste	interliftyr-shout	and all all and a second	47.1 ⁹ 7.77,1 ⁹ 7.47.47.47.47.47.47.47.47.47.47.47.47.47	uni-ingless states and the	-48.0
More 1 of 2	Stop 1.00000 GHz 31.8 ms (1001 pts)	Sweep 3			300 kHz	VBW		.80 MHz 100 kHz	
		STATUS							ISG

## ZTE Corporation

	trum Analyze	r - Swept SA								
lorkor (	50 Ω	0000000		KC SE	NSE:INT	Δυα Τ	ALIGNAUTO ype: Log-Pwr		M Mar 09, 2012	Peak Search
larker 1	2.00000	Input: RF	GFIZ PNO: Fast 🖵 IFGain:Low	Trig: Fre #Atten: 1		Avg H	old:>100/100 ain: -31.30 dB	TY	E A WWWW S NNNNN	
0 dB/div	Ref 37.3	0 dBm					N	1kr1 2.6 -40.8	66 GHz 11 dBm	Next Pea
27.3										Next Rig
17.3										_
7.30										Next Le
2.70										
12.7										Marker De
22.7										Mkr→(
32.7		1								WIKI →
42.7 <b>"Խ_Աթուլել</b>	flight-constitutions	way by the work	when the start with the start when	^{Paglag} And	Var Marthan Martin	ageret filetage	and the state of the	and Land Martin	Martin and the second states	Mkr→RefL
52.7										
Start 1.00	0 GHz							Stop 8	.000 GHz	<b>Мо</b> 1 о
Res BW			VBW :	3.0 MHz			Sweep	21.2 ms (	1001 pts)	
3G							STATUS			

### Three carriers

Agilent Spectrum Analyzer		• · · · · · · · · · · · · · · · · ·			
xv 50 Ω Marker 1 9.564000 ا		▲DC SENSE:INT Trig: Free Run #Atten: 20 dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold:>100/100 Ext Gain: -31.30 dB	09:24:45 AM Mar 09, 2012 TRACE 123456 TYPE A WWWW DET SNNNNN	Peak Search
10 dB/div Ref 25.00				Mkr1 9.564 kHz -42.209 dBm	Next Peal
15.0					Next Righ
-5.00					Next Lei
-15.0					Marker Delt
-35.0					Mkr→C
65.0	- Martin Martin			horan	Mkr→RefLv
Start 9.00 kHz #Res BW 1.0 kHz	VBV	V 3.0 kHz	#Sweep	Stop 150.00 kHz 75.0 ms (1001 pts)	<b>Mor</b> 1 of

### ZTE Corporation

							er - Swept SA		
Peak Search	09:28:07 AM Mar 09, 2012 TRACE 123456 TYPE A WWWWW DET S N N N N N	ALIGNAUTO e: Log-Pwr d:>100/100		SENSE:INT		PNO: Far 🖕	0000 kHz Input: RF	^{50 Ω} 199.250	<mark>x</mark> Marker 1
NextPeal	r1 199.25 kHz -48.156 dBm	: -31.30 dB		n: 26 dB		IFGain:Low		Ref 25.0	10 dB/div
Next Righ									15.0
Next Lef									-5.00
Marker Delt									-15.0
Mkr→C									-35.0
Mkr→RefL	กระนะระ _{กับสาสถ} ารกระกับสู่หน่า	he shi an	l and a construction of the second	iq≈ ² }&*********	ordera and	Maria Maria ang ang ang ang ang ang ang ang ang an	nametre after and	Mr.C.Mr.Prostington	-45.0 -45.0
Mor 1 of									-65.0
1 от.	Stop 10.000 MHz 5.0 ms (1001 pts)	#Sweep 7		2	30 kH;	VBW			start 150 #Res BW
	Meas Uncal	STATUS							ISG

	trum Analyzer -	Swept SA								
<mark>.XI</mark> Marker 1	^{50 Ω} 23.960000		D 	C SE	NSE:INT	Ava Tv	ALIGNAUTO pe: Log-Pwr	TRAC	M Mar 09, 2012	Peak Search
		put: RF	PNO: Fast 🖵 FGain:Low	Trig: Free #Atten: 20		Avg Hol	d:>100/100 n: -31.30 dB	TYP DE	E A <del>WWWWW</del> T <mark>S N N N N N</mark>	NextPeak
10 dB/div Log	Ref 25.00	dBm					N	1kr1 23.: -61.72	96 MHz 28 dBm	Nextreat
15.0										Next Righ
5.00										Next Lef
-5.00										
15.0										Marker Delt
-25.0										
35.0										Mkr→C
-45.0										
-55.0							↓1			Mkr→RefLv
-65.0	pytrybylyl-ffrendybethe	มสามุรรณา _{ให้} เหตุลาย	virtigi <del>jes (Valen</del> ije	un alandary and a share and	****	quertender	his white and the second	๚๚๚๚๚๚ ๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	44 <b>4-8161</b> 449144	
								<b>A</b> 1		More
Start 10.00 #Res BW			VBW 3	0 kHz			#Sweep		0.00 MHz 1001 pts)	1 of:
1SG							STATUS	🚹 Meas U	ncal	

### ZTE Corporation

D Agil	ent Spectr	um Analyzei	- Swept SA								
LXI		50 Ω			AC SE	NSE:INT		ALIGNAUTO e: Log-Pwr		M Mar 09, 2012 E <b>1 2 3 4 5 6</b>	External Gain
Prea	imp Ga	ain -31.	Input: RF	PNO: Fast 🖵	Trig: Fre		AvgHold	:>100/100	TYP	EAWWWW TSNNNNN	
				IFGain:Low	#Atten: 2	4 dB	Ext Gain:	-31.80 dB			Ext Preamp
10 dB Log r	3/div	Ref 42.00	) dBm					IV	-38.99	8.2 MHz 98 dBm	-31.80 dB
Log											MS
32.0											0.00 dB
22.0											втя
12.0											0.00 dB
2.00											
-8.00											
-18.0											
-28.0											
-20.0										1	
-38.0											
					الغامير أمعارهم	and the second	-	a provident the state	Ne disensed	A-sharana and	
-48.0	posterio de la contra	-hallatha agus dh	No lord a liveou	and an indiana an india							
	: 30.0 N 5 BW 10			VBW	300 kHz			Sween	Stop 8 253 ms (	68.2 MHz 1001 pts)	
MSG		w 11112		4 0 14	000 1112			STATUS	200 1115 (	ree i pis)	

Agilent Spectrum Analyzer - Sw					
₩ 50 Ω Marker 1 895.115600 Input	t BE PNO East 🕟 TI	rig: Free Run 🛛 🗛	ALIGNAUTO Avg Type: Log-Pwr Avg Hold:>100/100 Ext Gain: -31.30 dB	10:25:28 AM Mar 09, 2012 TRACE 1 2 3 4 5 6 TYPE A WWWW DET S N N N N N	Peak Search
10 dB/div Ref 42.00 dE			Mkı	1 895.12 MHz -40.584 dBm	Next Peal
32.0					Next Righ
12.0					Next Lef
8.00					Marker Delt
-18.0					Mkr→Cl
38.0 <b>1</b> 	รกษาวรับรูปประกับให้เห็นสายหมือเป็น		18-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	un de la companya de	Mkr→RefLv
Start 894.80 MHz #Res BW 100 kHz	VBW 300	kHz	S Sweep 3	top 1.00000 GHz 1.8 ms (1001 pts)	<b>Mor</b> 1 of:
ISG			STATUS		

#### **ZTE** Corporation

XI										
	50 Ω	0000000		KC SE	INSE:INT	Aug 7	ALIGN AUTO		M Mar 09, 2012	Peak Search
Marker 1	5.75300	Input: RF	GHZ PNO: Fast IFGain:Low	Trig: Fre #Atten: 1		Avg Hold	e: Log-Pwr d:>100/100 : -31.80 dB		E 123456 E A WWWWW T S N N N N N	
I0 dB/div	Ref 37.3	0 dBm					N	1kr1 5.7 -40.9	53 GHz 51 dBm	Next Pea
27.3										Next Righ
17.3										
7.30										Next Le
-2.70										
-12.7										Marker Del
22.7										Mkr→C
32.7							1			
-42.7	Minuter	nother the state of the state o	n den an the state of the state	^{Anna} yleyelundardlap ^a lı	ey and the second	Althread and	**Ppukretebuletus	a first an that the s	the stranger ward to be	Mkr→RefL
-52.7										
Start 1.000 Res BW 1			VBW :	3.0 MHz			Sweep	Stop 8	.000 GHz 1001 pts)	<b>Mo</b> i 1 of
ISG							STATUS			

Two carriers



### ZTE Corporation

💴 Agilent Spec		er - Swept SA								
<mark>w</mark> Marker 1	^{50 Ω} 199.250	DOOO kHz Input: RF	PNO: Far 😱 IEGain:Low			Avg Ho	ALIGNAUTO ype: Log-Pwr bld:>100/100 in: -31.80 dB	TRAC	M Mar 09, 2012 E <b>1 2 3 4 5 6</b> E A <del>MMMMM</del> T S N N N N N	Peak Search
10 dB/div	Ref 25.0	00 dBm					M	kr1 199 -47.6	.25 kHz 91 dBm	Next Peak
15.0										Next Right
-5.00										Next Left
-15.0										Marker Delta
-35.0										Mkr→CF
	^{ቀሳ} ሆቸዋ የአውር ቀር ቁን	all-production and product	ทฟส ^{ุก} ลุ่มสะการสกุป	hten <b>thesp</b> il	N ¹ -Water	Protographical	4.#47ป#1644414/Porte	จุกษณฑิปราการ	allahoo oo ahaa ahaa ahaa ahaa ahaa ahaa	Mkr→RefLv
-65.0 Start 150	(Hz							Stop 10	.000 MHz	More 1 of 2
#Res BW ′	10 kHz		VBW	30 kHz			#Sweep	75.0 ms (	1001 pts)	
MSG							STATUS	s 🚹 Meas U	Incal	

🔽 Agilent Spe	ctrum Analyzer - Swept S								
<mark>x</mark> Marker 1	^{50 Ω} 22.840000000	 MHz	C SENS	E:INT	vg Type	ALIGNAUTO E: Log-Pwr	TRAC	M Mar 09, 2012	Peak Search
	Input: RF	PNO: Fast 😱 IFGain:Low	Trig: Free #Atten: 20			:>100/100 -31.30 dB	TYP DE	E A WWWWW T S N N N N N	NextPeak
10 dB/div Log	Ref 25.00 dBm					M	kr1 22.3 -61.74	84 MHz 40 dBm	Nextrear
15.0									Next Righ
5.00									
-5.00									Next Lef
-15.0									_
-25.0									Marker Delta
-35.0									
-45.0									Mkr→Cl
-55.0					- <u>1</u>				Mkr→RefLv
-65.0	ถึงการให้สูงที่มีการจะสุริยุกการจะสายได้	ษทพร <del>สราชสาวรูสารสารระส</del> าร	ngatar dan selatara	and the second	al Welliame	<b>\^%%}\</b> {\}_\~_\	had many and with	ઌ <del>૰</del> ૰ૡૡ૾ૡૢૻૡૺઌૡઌૡૡ	
									More
Start 10.0 #Res BW		VBW 3	l0 kHz			#Sweep	Stop 3 75.0 ms (	0.00 MHz 1001 pts)	1 of 2
ISG						STATUS	🔔 Meas U	ncal	

### ZTE Corporation

D Agi	ilent Spec	trum Anal	yzer - Swept S	I							
LXI		50 Ω			AC SI	ENSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search
Mar	ker 1	868.20	00000000 Input: RF	MHz PNO: Fast C IFGain:Low	Trig: Fre #Atten: 2		Avg Hol	be:Log-Pwr d:>100/100 n:-31.80 dB	TRAI TY D	CE 123456 PE A WWWWW ET SNNNNN	
10 dl Log	B/div	Ref 42	2.00 dBm					Λ	/kr1 86 -39.1	3.2 MHz 65 dBm	Next Peak
32.0											Next Right
22.0 12.0											Next Left
2.00											Marker Delta
-18.0											Mkr→CF
-28.0										1,	Mkr→RefLvl
-48.0	herren het her	¥₩₩₩₩₩₩₩₩₩	and the set of the	ns.sightbolighiggeng/bosp	_{แหลงส} ุณาสุข	nariatoreality (Nut	teriosisteria	-guladoradoradoradoradoradoradoradoradorador	allall for the shift will a	hargt services	More
	t 30.0 s BW	MHz 100 kHz	2	VBW	/ 300 kHz			Sweep	Stop 8 253 ms (	68.2 MHz 1001 pts)	1 of 2
MSG								STATUS	3		

💴 Agilent Spectrum Analyzer -	Swept SA							
<mark>ໝ</mark> 50 Ω Marker 1 894.90520	0000 MHz	AC S	ENSE:INT	Avg Type:	ALIGNAUTO	10:22:54 AM TRACE	Mar 09, 2012	Peak Search
		ast Trig: Fre Low #Atten: 3		Avg Hold> Ext Gain: -	100/100 31.30 dB	TYPE DET	A WWWWW S N N N N N	NextBeak
10 dB/div Ref 42.00 (	dBm				Mk	r1 894.9 -41.53:	1 MHz 2 dBm	Next Peak
32.0								Next Right
12.0								Next Lef
-8.00								Marker Delta
-18.0								Mkr→Cl
-38.0 1	for the life of many all ways	******	alwysijinessawy ywa	-bill scalarapy	of the full of the des	<del>สารในป่า7-มาในปู่เมารูปป</del>	t-Manaitheran	Mkr→RefLv
-48.0 Start 894.80 MHz						Stop 1.000	000 GHz	More 1 of 2
#Res BW 100 kHz		VBW 300 kHz			Sweep 3	1.8 ms (10	001 pts)	

### ZTE Corporation

		zer - Swept SA								
u 🛛	50 Ω			AC SE	ENSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search
Aarker 1	2.1550	00000000 Input: RF	) GHZ PNO: Fast IFGain:Low	Trig: Fre #Atten: 1		Avg H	Гуре: Log-Pwr Iold:>100/100 ain: -31.80 dB		^{2E} 123456 РЕА <del>МИМИИ</del> SNNNNN	NextPeal
I0 dB/div	Ref 37.	30 dBm					N	/lkr1 2.1 -40.4	55 GHz 10 dBm	NextPea
27.3										Next Righ
17.3										
7.30										Next Le
-2.70										
-12.7										Marker Delf
-22.7										Mkr→C
-32.7		<u>1</u>								
42.7 Auguna	epulitore and the	Warner by port of the open	Angert of the second descent the second descent to the second desc	ar-alaryar-dalahin	tegrading the special	na gi ^{ala} nta dan	Bylang Joor stranger Parth	www.mad.yophfree	Marthan and a local	Mkr→RefL
-52.7										
Start 1.00 #Res BW			)/B)//	3.0 MHz			Swoon	Stop 8	.000 GHz 1001 pts)	Mor 1 of
			V D VV	J.V 1VINZ					TOOT PLS)	
ISG							STATUS	5		

One carrier

1	50 Ω		D	r   cc	NSE:INT		ALIGN AUTO	00·26·11 A	M Mar 09, 2012	
larker 1		00 kHz Input: RF	PNO: Far 😱 IFGain:Low	Trig: Free #Atten: 20	e Run	AvgHold	e: Log-Pwr	TRAC	E 1 2 3 4 5 6 E A WWWWW T S N N N N N	Peak Search
0 dB/div	Ref 25.	00 dBm					ľ	/lkr1 9.2 -42.78	282 kHz 31 dBm	Next Peal
15.0										Next Righ
5.00										Next Le
25.0										Marker Del
35.0 1 45.0										Mkr→C
55.0		m	~~~~~	· ····	~~~~	~~~~	······			Mkr→RefL
start 9.00 Res BW			VBW 3	.0 kHz			#Sweep 3	Stop 15 75.0 ms (	0.00 kHz	<b>Moi</b> 1 of

### ZTE Corporation

D Agi	ilent Spec		zer - Swept SA								
IXI Mar	ker 1	50 Ω 180 /10	0000 kHz	<u>A</u> C	C SE	NSE:INT	Ava Tvp	ALIGNAUTO e: Log-Pwr	TRAC	M Mar 09, 2012	Peak Search
men		100.10	Input: RF	PNO: Far 🖵	Trig: Free #Atten: 24		Avg Hold Ext Gain:	:>100/100 -31.80 dB	TYF De	PE A WWWWW S N N N N N	
				II Guill.20					kr1 189	.40 kHz	Next Peak
10 di Log	B/div	Ref 25.	.00 dBm						-50.8	45 dBm	
LOg											
15.0	<u> </u>										Next Right
5.00											
5.00											Next Left
-5.00											Next Lett
-15.0											Marker Delta
-25.0											internet Bona
-35.0											Mkr→CF
-45.0	<b>↓</b> ₁ —										
	<b>2</b>										
-55.0	h Martine	ula all balled by anti-	4~	under warter and the state state	-	wanter	hrolyhigh all have been a	mound	haloshanana	18 July Martin	Mkr→RefLvl
-65.0											
											More
Star	L t 150 k	(Hz							Stop 10	.000 MHz	1 of 2
	s BW ′			VBW :	30 kHz			#Sweep	75.0 ms (	1001 pts)	
MSG								STATUS	🔔 Meas U	Incal	

LXI	strum Analyzer - Swept		C SENSE:INT	ALIGN AUTO	09:31:12 AM Mar 09, 2012	
	25.820000000 Input: R	MHz		Avg Type: Log-Pwr Avg Hold:>100/100 Ext Gain: -31.30 dB	TRACE 123456 TYPE A WWWWW DET S N N N N N	Peak Search
10 dB/div	Ref 25.00 dBm		MALLEN. 22 MD		lkr1 25.82 MHz -59.470 dBm	Next Peal
15.0						Next Righ
-5.00						Next Lef
-15.0						Marker Delt
-35.0						Mkr→C
-55.0	ะเราสาราไรรากการสาราวิจารารารารารารารารารารารารารารารารารารา	mallour all and the state of the state	analogaanlahayuda ahkun daharan	togen garny all all rate and rate of a low	1	Mkr→RefL∖
Start 10.00 #Res BW		VBW 3	30 kHz	#Sweep	Stop 30.00 MHz 75.0 ms (1001 pts)	<b>Mor</b> o 1 of:

### ZTE Corporation

Marker 1         868.200000000 MHz         Trig: Free Run #Atten: 26 dB         Avg Type: Log-Pwr Avg Hold>100/100         Trace [] 23.4 5 m Mkr1 868.2 MHz         Peak Search           10 dB/div         Ref 42.00 dBm		ilent Spec		yzer - Swept Si	I							
Interfere         Imput: RF         PNO: Fast IFGain: 10W         Trig: Free Run #Atten: 26 dB         AvgHold:>100/100 Ext Gain: 31.80 dB         Trie Def         Next Peak           10 dB/div         Ref 42.00 dBm	<u>IXI</u>		50 Ω	00000000		AC S	ENSE:INT	Aug				Peak Search
Wikr 1 868.2 MHz         10 dB/div       Ref 42.00 dBm       -39.724 dBm         20       -39.724 dBm       Next Right         20       -30.724 dBm       Next Left         200       -30.724 dBm       Next Left         200       -30.724 dBm       -30.724 dBm         200       -30.724 dBm       Next Left         200       -30.724 dBm       -30.724 dBm         300       -30.724 dBm       -30.724	Mar	Ker 1	868.20		PNO: Fast 🕞			Avgil	lold:>100/100	TYF	E A WWWWW S NNNNN	
32.0		B/div	Ref 42	2.00 dBm					Λ	/kr1 868 -39.7	3.2 MHz 24 dBm	Next Peak
12.0												Next Right
800       Marker Delta         180       Marker Delta         190       Marker Delta         191       Marker Delta												Next Left
28.0 38.0 48.0 <b>Start 30.0 MHz</b> Stop 868.2 MHz 1 of 2												Marker Delta
.38.0       1         .48.0												Mkr→CF
More           Start 30.0 MHz         Stop 868.2 MHz         1 of 2											1	Mkr→RefLvl
				projektensk projektensk	Maria and a high and a second	****		1 to the second s	~~~~h		68 2 MHz	More
MSG STATUS	#Re			2	VBW	300 kHz				253 ms (	1001 pts)	1012

	ım Analyzer - Swept SA						
	^{∞ Ω} 95.115600000	MHz AC	SENSE:INT	Avg Type: I		10:20:38 AM Mar 09, 3 TRACE 1 2 3 4	5 d Peak Search
	Input: RF	PNO: East	Trig: Free Run #Atten: 26 dB	Avg Hold:>1 Ext Gain: -3		TYPE A WWW DET S N N N	NN
10 dB/div	tef 42.00 dBm				Mk	r1 895.12 M -43.944 dE	Hz NextPeal m
32.0							Next Righ
22.0							Next Let
2.00							Marker Delt
-18.0							Mkr→C
28.0 38.0 _{~ 1}							Mkr→RefL
-48.0	nfte-สะกปมหาคมูมใสสบส _{ไป} ม	กกณ _า ก พระห _{ปั} ญหั <mark>ปสีเต</mark> รงจำน	ung gange pilakak bahang aktisa	<u>\}#</u> ###################################	and the second secon	norgen agen hat furgen and the state of the	
Start 894.80 #Res BW 10		VBW 30	10 kHz	s	Sweep 3	Stop 1.00000 G 31.8 ms (1001 p	Hz 1 of:
MSG					STATUS		

### ZTE Corporation

Marker 1 2.155000000000 GHZ Input: RF PRO: Fast Fig. Free Run #Atten: 16 dB Mkr1 2.155 GHZ -40.412 dBm Pro: Fig. Free Run #Atten: 16 dB Mkr1 2.155 GHZ -40.412 dBm Next Next Next Next Next -273 -270 -227	000 GHz Avg Type: Log-Pwr TRACE 12 3 4 5 6 Peak Search	50.0
Input: RF         PNO: Fast         Trig: Free Run         Avg Hold>100/100         Trig: Free Run         Mkr1 2.155 GHz         Next           10 dB/div         Ref 37.30 dBm         -40.412 dBm         -40.412 dBm         -40.412 dBm         Next           27.3         -         -         -         -         -         -         -         Next           17.3         -         -         -         -         -         -         -         -         Next           -2.70         -         -         -         -         -         -         -         -         Marker           -2.71         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -<		
Image: Next 12.153 GH2         10 dB/div       Ref 37.30 dBm       -40.412 dBm         27.3       -40.412 dBm         17.3       -40.412 dBm         -2.70       -40.412 dBm	IFGain:Low #Atten: 16 dB Ext Gain: -31.80 dB DET SNNNNN	Input: RF PNO: Fast
27.3		
27.3	m -40.412 dBm	B/div Ref 37.30 dBm
27.3	Next Ri	
7.30		
7.30		B
-2.7012.72.7	Next l	
-12.7 -22.7		
-12.7 -22.7		j
-22.7	Marker D	
Mki Mki		
	Mkr-	
-427 A procession of the second secon	Merophatic and a second s	A process of the state of the s
-52.7		
	M	
Start 1.000 GHz Stop 8.000 GHz		rt 1.000 GHz
#Res BW 1.0 MHz VBW 3.0 MHz Sweep 21.2 ms (1001 pts)	Stop 8.000 GHz 1	

Page 135 of 178

# 4.6 OCCUPIED BANDWIDTH

### Applicable Standard: FCC §2.1049 §22.917

# **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability:ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

## **Test Procedure**

The RF out of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. 99%Power bandwidth was recorded.

# **Environmental Conditions**

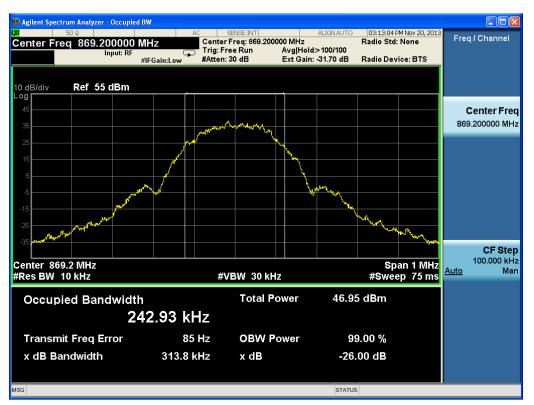
Temperature:	20 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

### Test Result: Pass

### Test Mode: Transmitting GSM

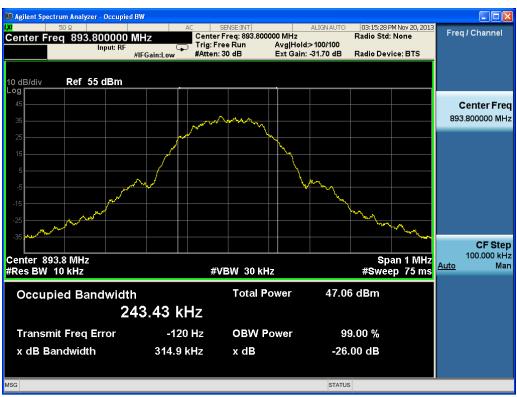
### **Test Data**

Modulation	Frequency (MHz)	99% Power Bandwidth	Limit
		(kHz)	(kHz)
8PSK	869.2/881.4/893.8	242.93/241.86/243.43	250



#### ZTE Corporation

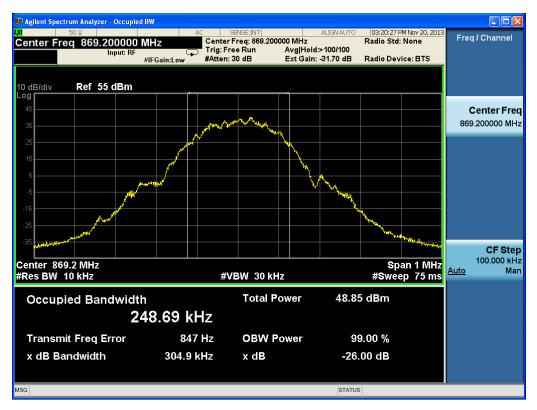


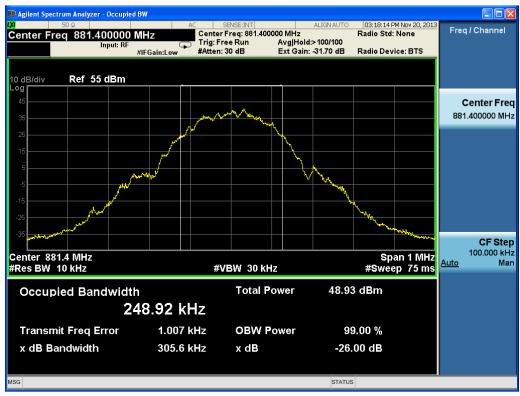


#### **ZTE** Corporation

#### FCC ID: Q78-R8881S8500

Modulation	Frequency (MHz)	99% Power Bandwidth (kHz)	Limit (kHz)
GMSK	869.2/881.4/893.8	248.69/248.92/249.02	250





#### **ZTE** Corporation

#### FCC ID: Q78-R8881S8500



Page 140 of 178

# 4.7 BAND EDGES

### Applicable Standard: FCC §2.1051

According to §2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (p) by a factor of at least 43 + 10 log (p) dB. The limit (dBm) should < P - (43+10log(P)) = -13dBm.

# **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

## **Test Procedure**

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency.

## **Test Data Environmental Conditions**

Temperature:	20 °C
Relative Humidity:	53%
ATM Pressure:	1009mbar

# Test Result: Pass

# Test Mode: Transmitting GSM

# Test Data

For six carriers

Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
869.2/869.8/ 870.4 /871 /871.6/ 872.2	-16.010	-13.00
890.8/891.4/892/892.6/893.2/893.8	-16.883	-13.00

u i	<mark>ctrum Analyze</mark> 50 Ω			AC SEI	VSE:INT		ALIGNAUTO		M Mar 09, 2012	Peak Search
larker 1	868.979	000000 Input: RF	MHZ PNO: Far IFGain:Low	Trig: Free #Atten: 18		Avg Type Avg Hold: Ext Gain:		TYF	СЕ <b>1</b> 234 <b>5</b> 6 РЕА <del>МИМИИ</del> ЕТРИМИМИИ	
0 dB/div	Ref 25.0	0 dBm					Mki	1 868.9 -16.0	79 MHz 10 dBm	Next Pea
. <b>og</b> 15.0										Next Righ
5.00										Next Le
5.0									J. A.	Marker Del
5.0								M	, www.	Mkr→C
	A 1 400-01-01-01-01	Ly Lut - AL JUY- MAILT	when Arealworks white	-Ulet große Apolation	annal an t-a-a-a-a-a-a-a-a-a-a-a-a-a-a-a-a-a-a-a	and the galactic states	Murran	North Contraction of the second second		Mkr→RefL
tart 868.	0000 MHz						5	Stop 869.0	0000 MHz	Moi 1 of
Res BW	J.U KHZ		VBW	9.1 kHz			Sweep		1001 pts)	

### ZTE Corporation

tart 894. Res BW	0000 MH: 3.0 kHz	2	VBW	9.1 kHz			Sweep	top 895.0 237 ms (	0000 MHz 1001 pts)	1 of
	0000 884							4 00E		Мо
.0								and the state of the	and the state of t	
			www.weither and way of the sector	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	magazine	an Maria	why have not			
i.0		Way Walker								Mkr→RefL
	w.	<b>n</b> l								
.0	Ч									IVIKI →
5.0										Mkr→0
	n.									
										Marker Del
.0										
. 1										
.00										Next Le
.00										
5.0										Next Rig
) dB/div	Ref 25.0	)0 dBm					IVIKI	-16.8	20 MHz 33 dBm	
_		•	IFGain:Low	#Atten: 10	) dB	Ext Gain	: -31.30 dB			NextPea
arker 1	894.020	0000000 Input: RF	PNO: Far 🖵	Trig: Free		AvgHold	e: Log-Pwr I:>100/100	TRAC TYP	E 123456 E A WWWWW T P N N N N N	r cak ocarch
	50 Ω			AC SE	NSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search

For five carriers

Frequency channel	Max bandedge	Limit
	Emission (dBm)	(dBm)
869.2/869.8/ 870.4 /871 /871.6	-15.357	-13.00
891.4/892/892.6/893.2/893.8	-16.850	-13.00

#### ZTE Corporation

	um Analyzer - Swept SA							
	50 Ω Level 25.00 d	AC	SENSE:INT	Avg Type:	ALIGN AUTO		Mar 09, 2012	Amplitude
	Input: RF	PNO Ear II	ig: Free Run tten: 18 dB	Avg Hold> Ext Gain: -	100/100	TYP		Ref Lev
10 dB/div	Ref 25.00 dBm				Mkr	1 868.9 -15.3	80 MHz 57 dBm	25.00 dB
15.0								Attenuation [18 dB]
-5.00								Scale/Di 10 d
-15.0							, when	Scale Typ Log Li
-35.0						plut	por a second	Presel Cente
-45.0				when a four by Mary Part	Yveryealower	n and a second s		Presel Adju: 0 H
-65.0 <mark>% 10/10/10/10/10/10/10/10/10/10/10/10/10/1</mark>	www.www.www.www.www.www.www.	han of an all and the first of the second	alar all have a second and a					
Start 868.00 #Res BW 3.		VBW 9.1 I	<hz< td=""><td></td><td>Sweep</td><td>top 869.0 237 ms_(′</td><td>0000 MHz 1001 pts)</td><td>Mor 1 of</td></hz<>		Sweep	top 869.0 237 ms_(′	0000 MHz 1001 pts)	Mor 1 of
MSG					STATUS			



### ZTE Corporation

#### For four carriers

Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
869.2/869.8/ 870.4 /871	-15.597	-13.00
892/892.6/893.2/893.8	-16.434	-13.00

50 Ω arker 1 868.980000000	MHz	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	02:17:58 PM Mar 09, 2012 TRACE 1 2 3 4 5 6	Peak Search
Input: RF		Free Run en: 14 dB	Avg Hold:>100/100 Ext Gain: -31.30 dB	TYPE A WWWWW DET P N N N N N	New A Dec
dB/div Ref 25.00 dBm			Mki	1 868.980 MHz -15.597 dBm	NEXTLE
5.0					Next Rigi
.00					Next Le
5.0				and when	Marker Del
5.0				And the second s	Mkr→C
5.0 5.0 wylicybendylliwedullwyllynglywyrgyngwurw	_{เมษ} น ]]พษา./m./)/ว ^ณ น.ไว้ ¹⁴ ฟ.ค. ² ปัต ² ได	uw-+waa-	then the stand of the	NUNNANUC	Mkr→RefL
5.0 ////////////////////////////////////	VBW 9.1 kH		<	stop 869.0000 MHz 237 ms (1001 pts)	

### ZTE Corporation

🛙 Agilent Spectrum Analyzer - Swept				
× 50 Ω Marker 1 894.02000000 Input: R		Avg Type: Log-Pwr	02:23:38 PM Mar 09, 2012 TRACE 1 2 3 4 5 6 TYPE A WATWAND DET P N N N N N	Peak Search
10 dB/div Ref 25.00 dBm		Mkr	1 894.020 MHz -16.434 dBm	NextPeak
15.0				Next Righ
-5.00				Next Lef
-15.0				Marker Delta
-35.0				Mkr→Cl
-55.0	anothen between marked and a standard and a	**********	winder and the second standing the second standing and the second standing the second standing standing standing	Mkr→RefLv
Start 894.0000 MHz #Res BW 3.0 kHz	VBW 9.1 kHz	S Sweep	top 895.0000 MHz 237 ms (1001 pts)	More 1 of 2
ISG		STATUS		

For three carriers

Frequency channel	Max bandedge	Limit
	Emission (dBm)	(dBm)
869.2/869.8/ 870.4	-16.805	-13.00
892.6/893.2/893.8	-16.936	-13.00

### ZTE Corporation

🗊 Agilen	it Spectrum Analy	zer - Swept SA								
LXI	50 Ω		A	C SE	NSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search
Marke	er 1 868.97	'8000000 Input: RF	MHz PNO: Far IFGain:Low	Trig: Free #Atten: 12		AvgH	ype: Log-Pwr old:>100/100 iin: -31.30 dB	TRAC TYI DI	CE 123456 PE A WWWWW T P N N N N N	
10 dB/c	div Ref 25.	.00 dBm					Mkr	1 868.9 -16.8	78 MHz 05 dBm	Next Peak
15.0 —										Next Right
-5.00										Next Left
-15.0 -									and the	Marker Delta
-35.0								wy .	and the second s	Mkr→CF
-45.0 —				الريبان البرياسية	urygad ^g achteligi	ndrawarta	area days and all the	A WAY AND		Mkr→RefLvl
-65.0 🚧	and the second second second	unnul and	enelo-fellipeordbaloneo-th	i folgelan i milin, i						More
	868.0000 MH BW 3.0 kHz	IZ	VBW 9	.1 kHz			Sweep	itop 869.0 237 ms (	0000 MHz 1001 pts)	1 of 2
MSG							STATUS			

Agilent Spectrum Analyzer - Swept SA				
X 50 Ω Marker 1 894.022000000 Input: RF	AC SENSE:INT MHZ PN0: Far IFGain:Low #Atten: 18 dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold>100/100 Ext Gain: -31.70 dB	02:24:17 PM Mar 09, 2012 TRACE 123456 TYPE A WWWW DET P N N N N N	Peak Search
10 dB/div Ref 25.00 dBm	IFGain:LOW Writen: 10 MB		1 894.022 MHz -16.936 dBm	NextPeak
15.0				Next Righ
-5.00				Next Lef
-15.0 +				Marker Delta
-35.0				Mkr→Cł
-55.0	Y THINK TOWN MARKE Last	r-laponty-antiperropications-alloce	herrytongenerations of the second	Mkr→RefLv
Start 894.0000 MHz #Res BW 3.0 kHz	VBW 9.1 kHz	S Sweep	top 895.0000 MHz 237 ms (1001 pts)	More 1 of 2
MSG		STATUS		

### ZTE Corporation

#### For two carriers

Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
869.2/869.8	-16.358	-13.00
893.2/893.8	-16.936	-13.00

	50 Ω			KC SE	NSE:INT	A	ALIGN AUTO		M Mar 09, 2012	Peak Search
arker 1	868.980000 Inpu	ut: RF P	Z NO: Far 😱 iain:Low	Trig: Free #Atten: 12		Avg Type Avg Hold: Ext Gain:		TY	CE 123456 PE A WWWWW ET P N N N N N	
) dB/div	Ref 25.00 dl	Bm					Mk	r1 868.9 -16.3	80 MHz 58 dBm	NextPea
5.0										Next Rig
.00										Next Le
.00									4	Next Le
5.0									and the	Marker De
5.0										Mkr→C
5.0								www		
5.0	เมษณฑิการการคราม	monthe	WWW.WIN-bergh ^{ach}	No for the state of the state o	www.www.mhild	Mondeline	ware and the	The second s		Mkr→RefL
								24-m 060 /		Mo
	.0000 MHz 3.0 kHz		\/D\//	9.1 kHz					0000 MHz 1001 pts)	1 0

### ZTE Corporation

Agilent Spectrum Analyzer - Swe					
₩ 50 Ω Marker 1 894.0220000 Input:	00 MHz	Avg Type Run Avg Hold:	:: Log-Pwr TRA >100/100 TY	PM Mar 09, 2012 CE 123456 PE A WWWWW ET P N N N N N	Peak Search
10 dB/div Ref 25.00 dB	m		Mkr1 894.0 -16.9	22 MHz 36 dBm	Next Peak
15.0					Next Right
-5.00					Next Lef
-15.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0 -25.0					Marker Delta
-35.0					Mkr→CF
-55.0	man of the gloger generation and the second s	ently was to be and the second	1-1-th love - Morteler granger sources	verthelan weeken	Mkr→RefLv
Start 894.0000 MHz #Res BW 3.0 kHz	VBW 9.1 kHz			0000 MHz	More 1 of 2
MSG			STATUS		

For One carrier

Frequency channel	Max bandedge	Limit
	Emission (dBm)	(dBm)
869.2	-16.316	-13.00
893.8	-16.670	-13.00

### ZTE Corporation

🗊 Agi	ilent Spec	trum Analy	rzer - Swept SA								
<mark>LXI</mark>		50 Ω			AC SE	NSE:INT		ALIGN AUTO		M Mar 09, 2012	Peak Search
Mar	ker 1	868.97	<b>'9000000</b> Input: RF	MHz PNO: Far IFGain:Low	Trig: Free #Atten: 10		AvgHold	e:Log-Pwr d:>100/100 ∷-31.30 dB	TRAC TYI DI	CE 123456 PE A WWWWW T P N N N N N	
10 di Log	B/div	Ref 25	.00 dBm					Mkı	1 868.9 -16.3	79 MHz 16 dBm	Next Peak
15.0											Next Right
5.00 -5.00											Next Left
-15.0 -25.0										- All	Marker Delta
-35.0 -45.0									July	North	Mkr→CF
-45.0					h-Source Hold Article	here the sector of the	where the days	A from the poly	Now Pray		Mkr→RefLvl
-65.0				ing the for the state of the second state of t							More
		0000 MH 3.0 kHz	IZ	VBW	9.1 kHz			Sweep	stop 869.0 237 ms (	0000 MHz 1001 pts)	1 of 2
MSG								STATUS	3		

🗊 Agilent Spectrum Analyzer - Swept S				
א 50 Ω Marker 1 894.021000000 Input: RF	PNO: Far Trig: Free Ru	Avg Type: Log-Pwr n Avg Hold:>100/100	02:25:27 PM Mar 09, 2012 TRACE 1 2 3 4 5 6 TYPE A WWWWW	Peak Search
	IFGain:Low #Atten: 10 dB	Ext Gain: -31.70 dB	DET <u>P NNNNN</u> 1 894.021 MHz -16.670 dBm	Next Peak
10 dB/div Ref 25.00 dBm			-16.670 UBIII	
15.0				Next Righ
5.00				
-5.00				Next Lef
-15.0				
-25.0				Marker Delta
M.				
-35.0				Mkr→Cl
-45.0				
	whether and whether and the stand and the st	Manual and a second and a second and a second se	ne Al infilia di an cipa cicco a	Mkr→RefLv
-65.0			A CANADA AND A CANADA	
Start 894.0000 MHz		<u> </u>	Stop 895.0000 MHz	More 1 of 2
#Res BW 3.0 kHz	VBW 9.1 kHz	Sweep	237 ms (1001 pts)	
ISG		STATUS	5	

# 4.8 FREQUENCY STABILITY

### Applicable Standard: FCC § 2.1055, § 22.355

Requirements: FCC § 2.1055 (a)(d), The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

# **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
GZ-ESPEC	Temperature Chamber	EW0470	06113028	2014-6-25	2015-6-25
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

## **Test Procedure**

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a Spectrum Analyzer via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 150 minutes, the frequency output was recorded from the counter.

Frequency Stability vs. Voltage: An external variable DC power supply Source. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the end point. The output frequency was recorded for each voltage.

#### **Environmental Conditions**

Normal condition:	25° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

### Test Result: Pass

Test Mode: Transmitting GSM

# **Test Data**

# **Frequency Stability Versus Temperature**

	Frequency Stability vs Temperature				
Temperature (℃)	Power Supplied (V _{dc)}	Frequency Measure Error (Hz)	Error ( ppm)	Limit ( ppm)	Result
		B(869.2MHz)	)		
-40	-48	-0.69	-0.00079	0.02	PASS
-30	-48	0.77	0.00089	0.02	PASS
-20	-48	-0.56	-0.00064	0.02	PASS
-10	-48	-0.54	-0.00062	0.02	PASS
0	-48	-0.45	-0.00052	0.02	PASS
10	-48	0.44	0.00051	0.02	PASS
20	-48	0.47	0.00054	0.02	PASS
30	-48	0.37	0.00043	0.02	PASS
40	-48	-0.69	-0.00079	0.02	PASS
50	-48	-1.06	-0.00122	0.02	PASS
55	-48	-1.16	-0.00133	0.02	PASS
		M(881.4M)			
-40	-48	0.48	0.00054	0.02	PASS
-30	-48	0.69	0.00078	0.02	PASS
-20	-48	-0.55	-0.00062	0.02	PASS
-10	-48	-0.79	-0.00090	0.02	PASS
0	-48	-1.42	-0.00161	0.02	PASS
10	-48	1.58	0.00179	0.02	PASS
20	-48	0.38	0.00043	0.02	PASS
30	-48	1.35	0.00153	0.02	PASS

FCC PART 22 TYPE APPROVAL Report

Page 152 of 178

ZTE Corporation

FCC ID: Q78-R8881S8500

40	-48	-0.42	-0.00048	0.02	PASS
50	-48	1.86	0.00211	0.02	PASS
55	-48	1.93	0.00219	0.02	PASS
		T(893.8M)			
-40	-48	0.69	0.00077	0.02	PASS
-30	-48	0.57	0.00064	0.02	PASS
-20	-48	-0.64	-0.00072	0.02	PASS
-10	-48	-0.75	-0.00084	0.02	PASS
0	-48	1.18	0.00132	0.02	PASS
10	-48	-1.41	-0.00158	0.02	PASS
20	-48	-0.43	-0.00048	0.02	PASS
30	-48	0.47	0.00053	0.02	PASS
40	-48	-0.77	-0.00086	0.02	PASS
50	-48	-1.24	-0.00139	0.02	PASS
55	-48	0.62	0.00069	0.02	PASS

# **Frequency Stability Versus Voltage**

Frequency Stability vs. Voltage					
<b>VoltageV</b> _{dc}	Temperature °C	Frequency Measure Error Hz	Error ppm	Limit ppm	Result
		B(869.2MH	z)		
40	20	0.46	0.00053	0.02	PASS
43	20	-0.78	-0.00090	0.02	PASS
45	20	0.54	0.00062	0.02	PASS
47	20	-1.68	-0.00193	0.02	PASS
49	20	-0.96	-0.00110	0.02	PASS
51	20	-0.53	-0.00061	0.02	PASS
53	20	-1.51	-0.00174	0.02	PASS
55	20	-0.77	-0.00089	0.02	PASS
57	20	-0.58	-0.00067	0.02	PASS
		M(881.4M	)		
40	20	-1.89	-0.00214	0.02	PASS
43	20	-1.45	-0.00165	0.02	PASS
45	20	-1.36	-0.00154	0.02	PASS
47	20	1.68	0.00191	0.02	PASS

FCC PART 22 TYPE APPROVAL Report

Page 153 of 178

### ZTE Corporation

#### FCC ID: Q78-R8881S8500

49	20	1.56	0.00177	0.02	PASS
51	20	0.58	0.00066	0.02	PASS
53	20	0.96	0.00109	0.02	PASS
55	20	-1.69	-0.00192	0.02	PASS
57	20	-1.94	-0.00220	0.02	PASS
		T(893.8M)	)		
40	20	-0.69	-0.00077	0.02	PASS
43	20	1.22	0.00136	0.02	PASS
45	20	-0.35	-0.00039	0.02	PASS
47	20	-0.49	-0.00055	0.02	PASS
49	20	-0.69	-0.00077	0.02	PASS
51	20	1.05	0.00117	0.02	PASS
53	20	-0.68	-0.00076	0.02	PASS
55	20	-0.83	-0.00093	0.02	PASS
57	20	-0.91	-0.00102	0.02	PASS

# **5 DUAL-MODE OF TEST RESULTS**

FCC RULES	DESCRIPTION OF TEST	RESULT
§2.1046 ,§22.913	Transmitter output Power	Compliant
§2.1091 ,§1.1310	RF Exposure	Compliant
§2.1047	Modulation Characteristic	Compliant
§2.1053, §22.917	Spurious Radiated Emissions	Compliant
§2.1051, §22.917	Spurious Emissions AT Antenna Terminals	Compliant
§2.1049 §22.917	Occupied Bandwidth	Compliant
§2.1051, §22.917	Band Edge	Compliant
§ 2.1055, §22.355	Frequency stability	Compliant

# **5.1 TRANSMITTER OUTPUT POWER**

### Applicable Standard: FCC §2.1046 §22.913

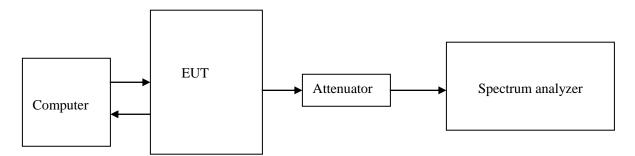
According to FCC §2.1046 &22.913, the ERP(equivalent radiated power) must not exceed 500 Watts.

# **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	50dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attests that all calibration has been performed per the NVLAP requirements, traceable to NIST.

## **Test Procedure**



The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. External attenuation Loss is 50dB, Cable Loss is about 3dB

# **Environmental Conditions**

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

### Test Result: Pass

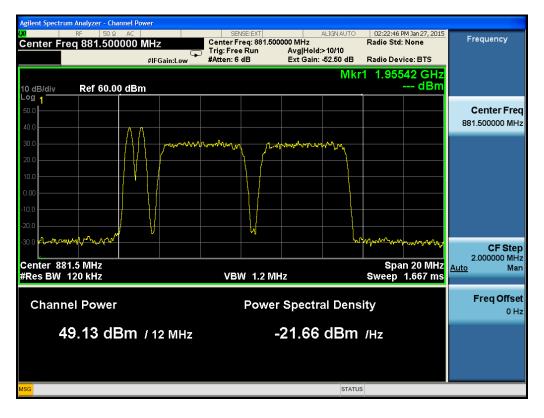
Test Mode: Transmitting 2GSMTRX and 2UMTS carriers / 4GSMTRX and 1UMTS

carriers

# Test Data:

#### 2GSMTRX and 2UMTS carriers

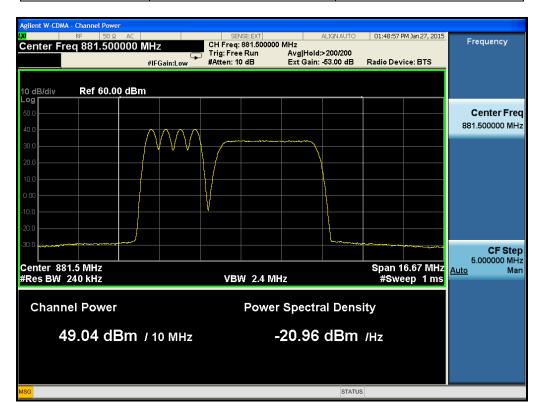
Center Freq.	Frequency	Max output Power
(MHz)	(MHz)	(dBm)
881.5	881.5	49.13



#### **ZTE** Corporation

#### 4GSMTRX and 1UMTS carriers

Center Freq.	Frequency	Max output Power
(MHz)	(MHz)	(dBm)
881.5	881.5	49.04



# **5.2 RF EXPOSURE**

#### Applicable standard: FCC §2.1091 §1.1310

#### Limit

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated. Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure							
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ² )	Averaging Time $ \mathbf{E} ^2$ , $ \mathbf{H} ^2$ or S (minutes)			
0.3-1.34	614	1.63	(100)*	30			
1.34-30	824/f	2.19/f	$(180/f^2)^*$	30			
30-300	27.5	0.073	0.2	30			
300-1500			f/1500	30			
1500-100,000			1.0	30			

#### Test Data

Predication of MPE limit at a given distance Equation from page 18 of OET Bulletin 65, Edition 97-01  $S = EIRP/4\pi R^2$ Where: S = power density EIRP= equivalent isotropically radiated power=ERP+2.15dB R = distance to the center of radiation of the antenna= [(ERP+2.15dB)/4\piS]^{1/2}

Maximum ERP, In general, the effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts.

Frequency is between 300MHz and 1500MHz, and the Maximum S=894/1500=0.596 mW/cm², R=3.31m. This equipment should be installed and operated with minimum distance 3.31m between the radiator& your body.

#### Test Result: pass

# **5.3 SPURIOUS RADIATED EMISSIONS**

### Applicable Standard: FCC CFR 47, §2.1053

# **Test Equipment List and Details**

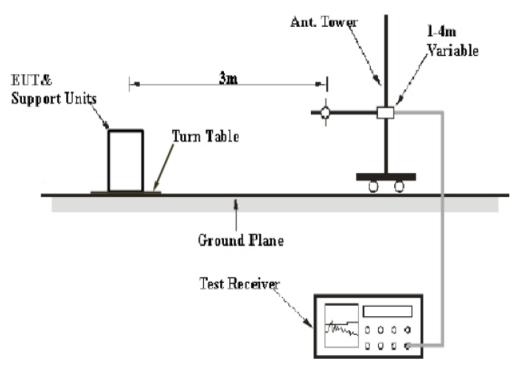
Manufacturer	Equipment	Model	Serial Number	Last Cal.	Cal. Interval	
R&S	SIGNAL GENERATOR	SMR20	A00017351	2014-09-09	1 year	
Albatross	Anechoic Chamber	3m Site	A00017354	2014-12-01	1 year	
R&S	EMI Test Receiver	ESIB26	100058	2014-10-13	1 year	
R&S	Ultra Breitband Antennas	HL562	100022	2014-07-29	1 year	
R&S	Double-Ridged Waveguide Horn Antenna	HF906	100032	2014-07-14	1 year	
R&S	R&S Double-Ridged Waveguide Horn Antenna		100446	2014-07-14	1 year	
SCHWARZ-BEC K	Biconical Antenna	VUBA9117	9117-122	2014-07-14	1 year	

#### Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiated emissions measurement at the EMC lab. is 3.6dB.

EUT Setup



The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with the FCC part 2.1053. The specification used was the FCC 2.1053 limits.

# **Test Procedure**

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB =10 1g (TX pwr in Watts/0.001)-the absolute level

Spurious attenuation limit in dB =43+10 Lg P (power out in Watts)

The resolution bandwidth of the spectrum analyzer was set at 1 percent as specified for 30MHz to 1GHz scaning, set at 1MHz for 1GHz to 20GHz scaning.

# **Test Results Summary: PASS**

# **Environmental Conditions**

Temperature:	26°C
Relative Humidity:	60 %
ATM Pressure:	1009 mbar

# Test data

Indicated		Test Antenna Substituted		Cable	Effective radiated	Dipole	Absolute Level	Limit	Margin		
Frequency (GHz)	Amp. (dB µ V)	Polar H/V	Level (dBm)	Antenna Gain Correction	Loss(dB)	Loss(dB)	IB) power (dBm)	Antenna	(dBm)	(dBm)	(dB)
30	24.6	V	-33.1	-43.49	0.3	-76.89	2.15	-79.04	-13	66.04	
125.250501	25.32	V	-60.58	-10.46	0.8	-71.84	2.15	-73.99	-13	60.99	
220.501002	36.13	V	-56.67	1.42	1.2	-56.45	2.15	-58.6	-13	45.6	
638.436874	29.04	V	-64.96	-1.09	2.1	-68.15	2.15	-70.3	-13	57.3	
871.703407	72.29	V	-21.21	-1.32	2.5	-25.03	2.15	-27.18	-13	14.18	
96.092184	25.38	Н	-55.52	-16.61	0.8	-72.93	2.15	-75.08	-13	62.08	
220.501002	38.83	Н	-61.17	1.42	1.2	-60.95	2.15	-63.1	-13	50.1	
276.873747	29.77	Н	-67.73	0.79	1.3	-68.24	2.15	-70.39	-13	57.39	
630.661323	29.7	Н	-66.8	-1.09	2.1	-69.99	2.15	-72.14	-13	59.14	
871.703407	67.85	Н	-27.85	-1.32	2.5	-31.67	2.15	-33.82	-13	20.82	

Radiation emission spurious below 3GHz

## FCC ID: Q78-R8881S8500

Indica	ted	Test Antenna	Substituted		Cable	Effective radiated	Dipole	Absolute Level	Limit	Margin
Frequency (GHz)	Amp. (dB µ V)	Polar H/V	Level (dBm)	Antenna Gain Correction	Loss(dB)	power (dBm)	Antenna	(dBm)	(dBm)	(dB)
3801.60321	41.82	V	-51.88	9.9	5.2	-47.18	2.15	-49.33	-13	36.33
4723.44689	42.83	V	-53.07	11.3	5.8	-47.57	2.15	-49.72	-13	36.72
5797.59519	44.05	V	-49.75	11.2	6.5	-45.05	2.15	-47.2	-13	34.2
6943.88778	46.42	V	-45.48	11.4	7.3	-41.38	2.15	-43.53	-13	30.53
9131.76353	47.64	V	-46.86	11.9	8.5	-43.46	2.15	-45.61	-13	32.61
12335.1703	49.94	V	-47.36	14.2	9.9	-43.06	2.15	-45.21	-13	32.21
3488.97796	43.31	Н	-50.19	9.9	5	-45.29	2.15	-47.44	-13	34.44
4002.00401	41.53	Н	-53.47	10.1	5.3	-48.67	2.15	-50.82	-13	37.82
6126.25251	44.37	Н	-43.23	11.2	6.8	-38.83	2.15	-40.98	-13	27.98
6831.66333	45.86	Н	-42.94	11.4	7.2	-38.74	2.15	-40.89	-13	27.89
8555.61122	46.67	Н	-42.63	11.8	8.3	-39.13	2.15	-41.28	-13	28.28
11735.9719	48.37	Н	-43.23	14	9.6	-38.83	2.15	-40.98	-13	27.98

Radiation emission spurious above 3GHz

# 5.4 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

## Applicable Standard: FCC§2.1051, §22.917

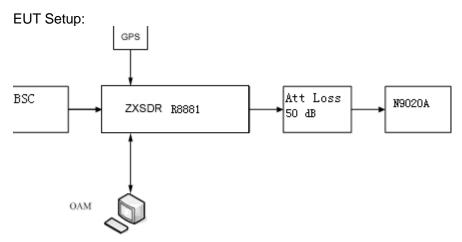
The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified.

# **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

# **Test Procedure**



REMARKS: Attenuator loss (dB)=50dB, Cable Loss (dB)=3dB.

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100KHz for 30MHz to 1GHz band, set at 1MHz for 1GHz to 10GHz band. Sufficient scans were taken to

show any out of band emissions up to 10th harmonic.

# **Test Data Environmental Conditions**

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

## Test Result: Pass

**Test Mode:** Transmitting 2GSMTRX and 2UMTS carriers / 4GSMTRX and 1UMTS carriers

## **Test Data:**

### 2GSMTRX and 2UMTS carriers



Agilent Spectrum Analyzer - Swept SA IXI RF 50 Ω ▲ DC		SENSE:EXT	ALIGNALI	TO 02:26:17 F	M lap 27, 2015	
Marker 1 494.750000 kHz	z	Frig: Free Run	#Avg Type: RMS Avg Hold: 10/100	TRAC	CE 1 2 3 4 5 6 PE A WANNA	Peak Search
		Atten: 6 dB	Ext Gain: -52.50 d	B		
				Mkr1 494	.75 kHz	NextPeak
10 dB/div Ref 15.00 dBm				-35.15	59 dBm	
						Next Pk Right
5.00						
-5.00						
						Next Pk Leff
-15.0						
-25.0						
						Marker Delta
-35.0						
-45.0						Mkr→CF
-55.0	- United and the second se	Any market and an and the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	مروسه المراجع	ALL STREET	
-65.0						Mkr→RefLvl
-75.0						
						More
Start 150 kHz				Stop 10	.000 MHz	1 of 2
#Res BW 10 kHz	VBW 1.0	kHz*		ep 998 ms (		
MSG			ST	<mark>ΆΤUS 🚺</mark> DC Col	ıpled	
Agilent Spectrum Analyzer - Swept SA ເXI RF 50 Ω AC		SENSE:EXT	ALIGNAU	TO 02:27:53 F	M Jan 27, 2015	Back Saarab
	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC	CE 123456	Peak Search
LXU RF 50Ω AC	MHz PNO: Fast		#Avg Type: RMS	TRAC TYF IB DE	E 1 2 3 4 5 6 E A MMMMM A NNNNN	
Marker 1 27.380000000 N	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 E A MMMMM A NNNNN	
Marker 1 27.380000000 N	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	NextPeak
Marker 1 27.380000000 N	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	NextPeak
Marker 1 27.380000000 N 10 dB/div Ref 15.00 dBm	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	NextPeak
Marker 1 27.380000000 N	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right
Marker 1 27.380000000 N 10 dB/div Ref 15.00 dBm	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right
CX         RF         50 Ω         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           500           -500           -500	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right
Marker 1 27.380000000 N 10 dB/div Ref 15.00 dBm 5.00	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left
Marker 1 27.380000000 N 10 dB/div Ref 15.00 dBm 5.00 -5.00	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left
Marker 1 27.380000000 N 10 dB/div Ref 15.00 dBm 5.00 -5.00 -5.0	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
RF         SO Q         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           -5.00           -5.00           -25.0           -35.0           -45.0	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	ткас түй Мkr1 27. -55.6	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
RE         SO Q         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           -5.00           -5.00           -5.00           -35.0	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	TRAC TYP B DE Mkr1 27.	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
RF         SO 2         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           -500           -500           -500           -250           -35.0           -45.0	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	ткас түй Мkr1 27. -55.6	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left Marker Defta Mkr→CF
RE         SO Q         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           500           -500           -550           -550           -550           -550           -550           -550           -550           -550	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	ткас түй Мkr1 27. -55.6	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left Marker Defta Mkr→CF
RE         SO Q         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           500           -500           -550           -550           -550           -550	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	ткас түй Мkr1 27. -55.6	E 1 2 3 4 5 6 A WWWWWW A NNNNN 38 MHz	Next Peak Next Pk Right Next Pk Left Marker Detta Mkr→CF
No.         RE         SO.Q.         AC           Marker 1 27.380000000 N         N           10 dB/div         Ref 15.00 dBm	MHz PNO: Fast 😱	۲rig: Free Run	#Avg Type: RMS Avg Hold: 2/100	Телс түс Мkr1 27. -55.6	38 MHz 84 dBm	Next Peak Next Pk Right Next Pk Left Marker Defta Mkr→CF Mkr→Ref Lvt More
RF         SO Ω         AC           Marker 1 27.380000000 N           10 dB/div         Ref 15.00 dBm           500           -500           -500           -250           -350           -450           -650	MHz PNO: Fast 😱	Frig: Free Run Atten: 6 dB	#Avg Type: RMS Avg Hold: 2/100 Ext Gain: -52.50 d	Телс түс Мkr1 27. -55.6	38 MHz 84 dBm	Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl More 1 of 2

Agilent Spectrum Ana									
	50 Q AC	Hz	SENSE	EXT	#Avg Type	ALIGN AUTO e: RMS	02:27:25 F	M Jan 27, 2015	Peak Search
		PNO: Fast 🖵 FGain:Low	Trig: Free F #Atten: 6 dE		Avg Hold: Ext Gain:		TYI Di	E 123456 E A MANANA T A N N N N N	
				-			1kr1 860	6.5 MHz	Next Peak
10 dB/div Ref	15.00 dBm						-30.7	74 dBm	
5.00									Next Pk Right
-5.00									
-15.0									Next Pk Left
-13.5									
-25.0								1	
								-	Marker Delta
-35.0								/	
-45.0									
									Mkr→CF
-55.0									
-65.0									Mkr→RefLvl
-65.0									wiki→Rei Lvi
-75.0									
									More
Start 30.0 MHz							Stop 8	68.2 MHz	1 of 2
#Res BW 100 I	kHz	VBW '	10 kHz*			Sweep	850 ms (	1001 pts)	
MSG									
						STATUS			
Agilent Spectrum Ana			SENSE	-EXT				M lan 27, 2015	
Agilent Spectrum Ana	50 Q AC		SENSE		#Avg Type	ALIGN AUTO	02:28:21 F	M Jan 27, 2015 E 1 2 3 4 5 6	Peak Search
Agilent Spectrum Ana	50 Q AC 905200000 MI	Hz PNO: Fast ⊊ FGain:Low	Tain France F	Run		ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 1 2 3 4 5 6 E A MMAAAA T A N N N N N	
Agilent Spectrum Ana Wi RF Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	
Agilent Spectrum Ana Wi RF Marker 1 894.	50 Q AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 1 2 3 4 5 6 E A MMAAAA T A N N N N N	
Agilent Spectrum Ana. (X) RE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	NextPeak
Agilent Spectrum Ana (M) RF Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	NextPeak
Agilent Spectrum Ana. (X) RE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	NextPeak
Agiient Spectrum Ana. (X) RE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right
Agiient Spectrum Ana. (X) RE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right
Agiient Spectrum Ana. XI RE Marker 1 894. 10 dB/div Ref 5.00 -5.00 -15.0	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right
Agiient Spectrum Ana. (X) RE Marker 1 894. 10 dB/div Ref 5.00 -5.00	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left
Agiient Spectrum Ana. XI RE Marker 1 894. 10 dB/div Ref 5.00 -5.00 -15.0	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left
Agiient Spectrum Ana. Marker 1 894. 10 dB/div Ref 5.00 -5.00 -15.0 -25.0 -25.0	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left
Agiient Spectrum Ana. Marker 1 894. 10 dB/div Ref 5.00 -5.00 -15.0 -25.0	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left
Agiient Spectrum Ana. Marker 1 894. 10 dB/div Ref 5.00 -5.00 -15.0 -25.0 -25.0	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
Agilent Spectrum Anal (X) PE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
Agilent Spectrum Anal (X) Re Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
Agilent Spectrum Anal (X) RE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
Agilent Spectrum Anal (X) PE Marker 1 894.	50 Ω AC 905200000 MI	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGN AUTO e: RMS 48/100 -52.50 dB	02:28:21 F TRAC TYI DI	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl
Agilent Spectrum Anal (X) PF Marker 1 894.	SO & AC   90520000 MH	PNO: Fast 😱	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGNAUTO 2: RMS 48/100 dB 52.50 dB MI	02:28:21 F TRAC TY D Cr1 894. -31.9	91 MHz 91 MHz 06 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
Agilent Spectrum Anal (X) RE Marker 1 894.	ISO & AC   90520000 MH	PN0: Fast FGain:Low	Trig: Free F	Run	#Avg Type Avg Hold:	ALIGNAUTO e: RMS 48/100 52.50 dB MI	C2:28:21 F TRA TY D Cr1 894. -31.9	E 123456 A MMMM A NNNN 91 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl More

### FCC ID: Q78-R8881S8500

Agilent	Spectrum Analy									
<mark>.x</mark> Mark	_R ⊧ er 1 2.638	50 Q AC	GHz		SE:EXT	#Avg Typ		TRAC	M Jan 27, 2015 E <mark>1 2 3 4 5 6</mark>	Peak Search
			PNO: Fast 🕞 IFGain:Low	Trig: Free #Atten: 6		Avg Hold Ext Gain:		TYF DE		
								<u> Mkr1 2.6</u>	38 GHz	Next Peak
10 dB/ Log 🗖	div Ref 1	5.00 dBm						-27.4	89 dBm	
										Next Bk Bight
5.00										Next Pk Right
-5.00										
										Next Pk Left
-15.0										
-25.0		<b></b> 1								
-23.0										Marker Delta
-35.0 =		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~						
-45.0										Mkr→CF
-55.0										
-65.0										Mkr→RefLvl
-75.0										
										More
Start	1.000 GHz							Stop 8	.000 GHz	1 of 2
#Res	BW 1.0 MH	z	VBW	100 kHz*			Sweep	71.0 ms (	1001 pts)	
MSG							STATU	s		

### 4GSMTRX and 1UMTS carriers



Agilent Spectrum Analyzer - Swept SA					
₩ RF 50 Q ALDC Marker 1 1.203950000 N	ЛНz	SENSE:EXT	#Avg Type: RMS	01:57:44 PM Jan 27, 2015 TRACE 1 2 3 4 5 6	Peak Search
	PNO: Wide 😱 IFGain:Low	Trig: Free Run #Atten: 6 dB	Avg[Hold: 9/100 Ext Gain: -54.50 dB	DET A WATATAN DET A N N N N N	
			Mkr	1 1.203 95 MHz -37.369 dBm	Next Peak
10 dB/div Ref 14.00 dBm				-37.369 dBm	
					Next Pk Right
4.00					J
-6.00					
-16.0					Next Pk Left
-26.0					Marker Delta
-36.0					Marker Della
	www.	http://www.com/then.			Mkr→CF
-56.0	al boaley, and disciplinations and	and a seal and some find that they	Will gover a hit bester of a prover to read the New York	and a state of the second and the	
-66.0					Mkr→RefLvl
-60.0					Wiki → Rei L vi
-76.0					
					More 1 of 2
Start 150 kHz #Res BW 10 kHz	VBW 1.	0 kHz*	Sweep	Stop 10.000 MHz 998 ms (1001 pts)	
MSG			CTATUS	DC Coupled	
			314103		
Agilent Spectrum Analyzer - Swept SA		OF NOTICE AND			
Agilent Spectrum Analyzer - Swept SA V/ RF 50 Q AC Marker 1 28.720000000	MHz		ALIGNAUTO	01:58:33 PM Jan 27, 2015 TRACE	Peak Search
UX/ RF 50Ω AC		SENSE:EXT Trig: Free Run #Atten: 6 dB	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 123456 TYPE A MINIMUM DET A N N N N N	
04 RF 50Ω AC Marker 1 28.720000000	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 6	
04 RF 50Ω AC Marker 1 28.720000000	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	NextPeak
04 RF 50Ω AC Marker 1 28.720000000	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	NextPeak
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           4.00         4.00         10 dB/div         Ref 14.00 dBm	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	NextPeak
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           Log         Control of the second seco	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	Next Peak Next Pk Right
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           4.00         4.00         10 dB/div         Ref 14.00 dBm	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 5 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	Next Peak Next Pk Right
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           4.00         -6.00         -6.00	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 5 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	Next Peak Next Pk Right
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           -0 dB/div         Ref 14.00 dBm           -6 00	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 5 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	Next Peak Next Pk Right Next Pk Left
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           4.00         -6.00         -6.00	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	01:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 5 TYPE A WHINNIN DET A NINNIN Kr1 28.72 MHz	Next Peak Next Pk Right Next Pk Left
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           -0 dB/div         Ref 14.00 dBm           -6 00	MHz PNO: Fast 🖵 IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE & WWWWWW DET & WWWWWW Ikr1 28.72 MHz -52.606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           -00         -         -           -600         -         -           -16.0         -         -           -26.0         -         -           -36.0         -         -           -46.0         -         -	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 12 3 4 5 6 TYPE A WANNAW Ikr1 28.72 MHz -52.606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           4.00         -         -           -6.00         -         -           -16.0         -         -           -36.0         -         -	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 12 3 4 5 6 TYPE A WANNAW Ikr1 28.72 MHz -52.606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           -00         -         -           -600         -         -           -16.0         -         -           -26.0         -         -           -36.0         -         -           -46.0         -         -	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 12 3 4 5 6 TYPE A WANNAW Ikr1 28.72 MHz -52.606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           4.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 12 3 4 5 6 TYPE A WANNAW Ikr1 28.72 MHz -52.606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           10 dB/div         Ref 14.00 dBm         10 dB/div           4.00         -         -           -6.00         -         -           -16.0         -         -           -26.0         -         -           -36.0         -         -           -56.0         -         -	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 12 3 4 5 6 TYPE A WANNAW Ikr1 28.72 MHz -52.606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           -00         -         -           -00         -         -           -00         -         -           -00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.00         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -6.0         -         -           -76.0         -         -           -76.0         -         -           -76.0         -         -           -	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	11:58:33 PM Jan 27, 2015 TRACE 12:3:45:6 TYPE A WHINN HILL Ikr1 28:72 MHz -52:606 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl More
RF         50 Ω         AC           Marker 1 28.720000000         10 dB/div         Ref 14.00 dBm           -00	MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGNAUTO #Avg Type: RMS Avg Hold: 2/100 Ext Gain: -54.50 dB	Stop 30.00 MHz 2.03 s (1001 pts)	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl

Agilent Spec	ctrum Analyzer - Swept	SA				
l <mark>XI</mark> Morkor	RF 50 Q /		SENSE:EXT	ALIGNAUTO #Avg Type: RMS	01:59:31 PM Jan 27, 2015	Peak Search
Marker	1 606.2000000	PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	Avg Hold: 6/100 Ext Gain: -54.50 dB	TRACE 123456 TYPE A WWWW DET A N N N N N	
		II Odinizow			/kr1 868.2 MHz	Next Peak
10 dB/div Log	Ref 14.00 dB	m			-36.492 dBm	
4.00						Next Pk Right
-6.00						
10.0						Next Pk Left
-16.0						
-26.0						
					1,	Marker Delta
-36.0						
-46.0		*****	والمعاد الإسترافية ومنتجر والمعارين والمعارين والمعارين والمعارين والمعارين والمعارين والمعارين والمعارين والم	**************************************		
10.0						Mkr→CF
-56.0						
-66.0						Mkr→RefLvl
-76.0						
						More
Start 30.	.0 MHz				Stop 868.2 MHz	1 of 2
	V 100 kHz	VBW 1	0 kHz*	Sweep	850 ms (1001 pts)	
MSG				STATUS	2	
				STATU:		
Agilent Spec	ctrum Analyzer - Swept					
L <b>XI</b>	RF 50Ω /	AC	SENSE:EXT	ALIGN AUTO #Avg Type: RMS	02:00:08 PM Jan 27, 2015	Peak Search
L <b>XI</b>		AC	SENSE:EXT Trig: Free Run #Atten: 6 dB	ALIGN AUTO		Peak Search
L <b>XI</b>	RF 50Ω /	AC 100 MHz PNO: Fast	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	
w Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	
L <b>XI</b>	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	NextPeak
w Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	NextPeak
Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	NextPeak
Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right
Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right
Marker 10 dB/div 20 dB/div 4.00	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right
Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left
10 dB/div 4.00	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left
Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left
Marker	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
Marker           10 dB/div           4.00           -6.00           -16.0           -26.0           -36.0           -46.0	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
Marker           10 dB/div           4.00           -6.00           -16.0           -26.0           -36.0	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta
Marker           10 dB/div           4.00           -6.00           -16.0           -26.0           -36.0           -46.0	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
Marker  10 dB/div  4.00  -6.00  -16.0  -26.0  -36.0  -6.0  -6.0  -6.0  -6.0  -6.0  -6.0  -6.0  -6.0  -6.0	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF
Marker           10 dB/div           4.00           -6.00           -16.0           -26.0           -36.0           -46.0           -56.0	RF 50 0 1 896.0624000	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015 TRACE 1 2 3 4 5 6 TYPE A WINNIN DET A NNNNN Kr1 896.06 MHz	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl
Marker           10 dB/div           4.00           -6.00           -76.0           -76.0	Ref 14.00 dB	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	CONTRACT 12 3 4 5 6 TRACE 2 3 4 5 6 TYPE A NUMMIN Kr1 896.06 MHz -36.540 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl More
Marker 10 dB/div 4.00 -6.00 -6.00 -6.00 -6.00 -6.00 -6.00 -76.0 -76.0 Start 89	Ref 14.00 dB	AC DO MHZ PRO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015           TRACE         2 3 4 5 6           TYPE A WANNAN           kr1 896.06 MHz           -36.540 dBm	Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl More
Marker 10 dB/div 4.00 -6.00 -6.00 -6.00 -6.00 -6.00 -6.00 -76.0 -76.0 Start 89	Ref 14.00 dB	AC 100 MHz PNO: Fast IFGain:Low	Trig: Free Run #Atten: 6 dB	ALIGNAUTO #Avg Type: RMS Avg Hold>100/100 Ext Gain: -54.50 dB	02:00:08 PM Jan 27, 2015           TRACE         2 3 4 5 0           TYPE A WAYNAWA           bergen Annual           -36.540 dBm           -36.540 dBm	Peak Search Next Peak Next Pk Right Next Pk Left Marker Delta Mkr→CF Mkr→Ref Lvl More 1 of 2

## ZTE Corporation

Agilent Spectr	rum Analyzer - Swept SA					
w Marker 1	RF 50Ω AC 2.638000000000	GHz	SENSE:EXT	ALIGNAUTO #Avg Type: RMS	02:00:50 PM Jan 27, 2015 TRACE 1 2 3 4 5 6	Peak Search
		PNO: East	Trig: Free Run #Atten: 6 dB	Avg Hold: 84/100 Ext Gain: -54.50 dB	DET A N N N N N	
					Mkr1 2.638 GHz	Next Peak
10 dB/div Log	Ref 14.00 dBm				-25.641 dBm	
4.00						Next Pk Right
-6.00						
-0.00						Next Pk Left
-16.0						NEXTERLET
-26.0		m				Marker Delta
-36.0		_				
-46.0						Mkr→CF
-56.0						
-66.0						Mkr→RefLvl
-76.0						
10.0						More
Start 1.00	0 GHz				Stop 8.000 GHz	1 of 2
#Res BW		VBW 10	00 kHz*	Sweep	71.0 ms (1001 pts)	
MSG				STATU	JS	

Page 171 of 178

# 5.5 OCCUPIED BANDWIDTH

## Applicable Standard: FCC §2.1049 §22.917

# **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability:ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

# **Test Procedure**

The RF out of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. 99%Power bandwidth was recorded.

# **Environmental Conditions**

Temperature:	20 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

## Test Result: Pass

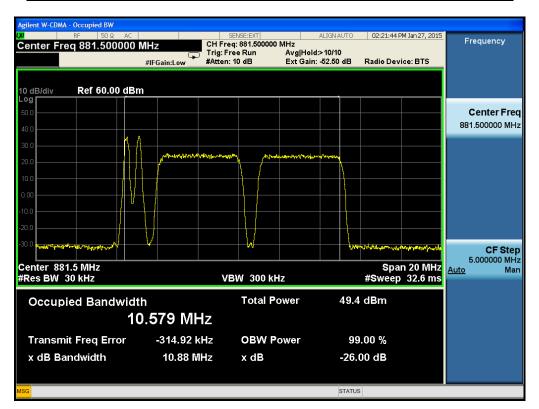
Test Mode: Transmitting 2GSMTRX and 2UMTS carriers / 4GSMTRX and 1UMTS

carriers

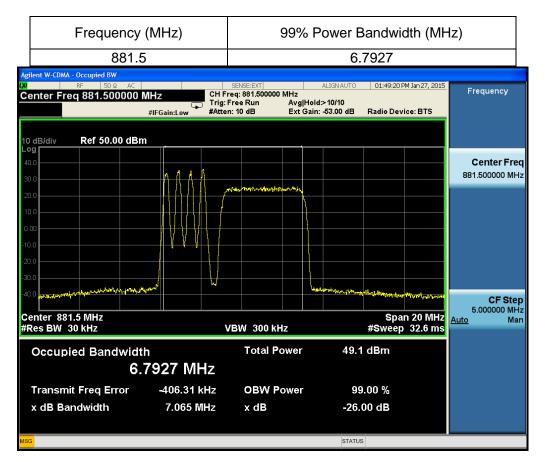
# Test Data

2GSMTRX and 2UMTS carriers

Frequency (MHz)	99% Power Bandwidth (MHz)
881.5	10.579



### 4GSMTRX and 1UMTS carrier



# 5.6 BAND EDGES

## Applicable Standard: FCC §2.1051

According to §2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (p) by a factor of at least 43 + 10 log (p) dB. The limit (dBm) should < P - (43+10log(P)) = -13dBm.

# **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9020A	MY51160170	2014-6-16	2015-6-16
Atten	40dB Attenuator	ATSI150-4-40	11300100204204	2014-4-8	2015-4-8
Forstar	Forstar RF Cable	002	1034	2014-4-8	2015-4-8

*statement of traceability: ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

# **Test Procedure**

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency.

## **Test Data Environmental Conditions**

Temperature:	20 °C
Relative Humidity:	53%
ATM Pressure:	1009mbar

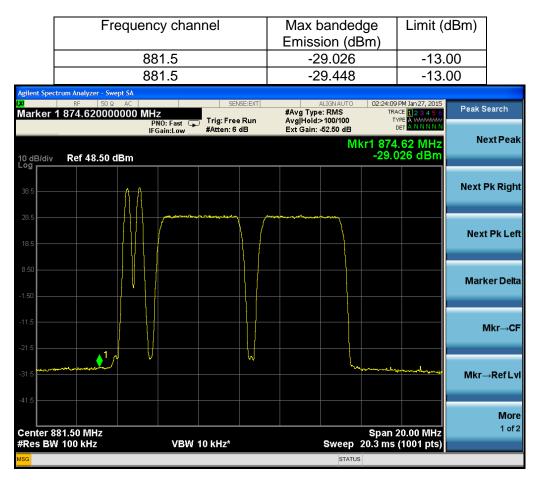
## Test Result: Pass

Test Mode: Transmitting 2GSMTRX and 2UMTS carriers / 4GSMTRX and 1UMTS

carriers

# **Test Data**

2GSMTRX and 2UMTS carriers



### FCC ID: Q78-R8881S8500

RF 50 Ω AC Marker 1 887.600000000							
	MHz	SENSE:EXT	AL #Avg Type:	IGN AUTO	TRAC	M Jan 27, 2015 E <mark>1 2 3 4 5 6</mark>	Peak Search
	PNO: Fast 🖵	Trig: Free Run #Atten: 6 dB	Avg Hold> Ext Gain: -5		TYF De		
10 dB/div Ref 48.50 dBm				M	kr1 887. -29.4	60 MHz 48 dBm	Next Peak
- <b>og</b> 38.5							Next Pk Right
28.5		~~~~~					Next Pk Left
8.50							Marker Delta
-11.5							Mkr→CF
31.5	V	W			1	and the second second	Mkr→RefLvl
41.5 Center 881.50 MHz #Res BW 100 kHz	VBW 1	0 1/1-*		Swoon	Span 2	0.00 MHz 1001 pts)	More 1 of 2
ISG JFile <band1.png> saved</band1.png>				Sweep		roo r pis)	

## 4GSMTRX and 1UMTS carrier

Frequency channel	Max bandedge Emission (dBm)	Limit (dBm)
881.5	-28.126	-13.00
881.5	-28.341	-13.00

## FCC ID: Q78-R8881S8500

Agilent Spectr	r <mark>um Analyzer - Swept SA</mark> RF 50 Ω AC		SENSE:EXT	01	.IGN AUTO	01:45:45.0	M Jan 27, 2015	
	877.06000000 MI	lz	Trig: Free Run	#Avg Type: Avg Hold:>1	RMS	TRAC	E 1 2 3 4 5 6	Peak Search
	1	PNO: Wide 😱 FGain:Low	#Atten: 14 dB	Ext Gain: -5	4.50 dB			Next Deal
					Mkr	1 877.0	60 MHz 26 dBm	NextPeak
10 dB/div Log	Ref 52.00 dBm					-20.17		
42.0								Next Pk Righ
42.0	$\wedge \wedge$	ΛΛ						
32.0			- manager and the second		~~~			
22.0								Next Pk Lef
12.0								Marker Delt
2.00		_						
8.00								Mkr→C
18.0								
28.0		$\bigvee$						
20.0						and the second sec	managenergen	Mkr→RefL
-38.0								
								Mon 1 of
						Span 1	2.00 MHz	101.
	1.500 MHz 100 kHz	VBW 1	0 kHz*	5	Sweep	12.2 ms (	1001 pts)	
Center 88 #Res BW ^{_{MSG}}		VBW 1	0 kHz*		Sweep status	12.2 ms (	1001 pts)	
#Res BW ISG Agilent Spectr	100 kHz rum Analyzer - Swept SA	VBW 1			STATUS	12.2 ms (	1001 pts)	
#Res BW ISG Agilent Spectr	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz	SENSE:EXT	AL #Avg Type:	STATUS IGN AUTO RMS	12.2 ms (	1001 pts)	Peak Search
Res BW	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH		SENSE:EXT	AL	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYF DE	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WWWWW T A N N N N N	
Res BW sg gilent Spectr Marker 1	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	
Res BW sg gilent Spectr Marker 1	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WWWWW T A N N N N N	
Res BW sg gilent Spectr Marker 1 0 dB/div	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea
Res BW sg gilent Spectr Marker 1 0 dB/div	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	NextPea
Res BW sc gilent Spectr Aarker 1 0 dB/div	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Peal Next Pk Righ
Res BW so gilent Spectr Aarker 1 0 dB/div 42.0	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ
fRes BW sc gelent Spectr Aarker 1 0 dB/div 42 0 32 0 22 0	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ
Res BW so gilent Spectr Aarker 1	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ Next Pk Lei
Res BW so gilent Spectr Arrker 1 0 dB/div 42.0 32.0 22.0	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Peal Next Pk Righ Next Pk Lef
#Res BW           sc           gglent Spectr           Aarker 1           0 dB/div           0 dB/div           0 dB/div           22.0           12.0           22.0           22.0	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ Next Pk Lei
#Res BW ISG Agilent Spectr	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ Next Pk Lei Marker Deit
#Res BW           sc           gilent Spectr           Aarker 1           0 dB/div           9           42.0           32.0           22.0           12.0           2.00           8.00	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ Next Pk Lei Marker Deit
#Res BW           sci           ugilent Spectric           Aarker 1           0 dB/div           9           42.0           32.0           12.0           22.0           12.0           12.0           12.0           12.0           12.0           12.0	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TYP DE *1 885.3	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Pea Next Pk Righ Next Pk Lei Marker Deit Mkr→C
#Res BW  sci kglent Spectr Marker 1  0 dB/div  9  42.0  22.0  2.00	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TRAC -28.34	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Peal Next Pk Righ Next Pk Lef Marker Delt Mkr→Cl
#Res BW           sci           ugilent Spectric           Aarker 1           0 dB/div           9           42.0           32.0           12.0           22.0           12.0           12.0           12.0           12.0           12.0           12.0	100 kHz um Analyzer - Swept SA RF 50 Ω AC 885.352000000 MH	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TRAC -28.34	1001 pts) M Jan 27, 2015 E 1 2 3 4 5 6 E A WARAWAY T A N N N N N 52 MHz	Next Peal Next Pk Righ Next Pk Lef Marker Delt Mkr→Ref Lv
Ares BW           0         0           Aarker 1         0           32.0         0           12.0         0           12.0         0           12.0         0           12.0         0           22.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           32.0         0           0         0           0         0           0         0           0         0           0         0           0         0	100 kHz	Hz PNO: Wide ♀	SENSE:EXT	AL #Avg Type: Avg Hold:>1	STATUS IGN AUTO RMS 100/100 i4.50 dB	12.2 ms ( 01:46:34 P TRAC TRAC -28.34	1001 pts)	Next Peal Next Pk Righ Next Pk Lef Marker Delt Mkr→Ref Lv Mor
#Res BW           sci           gjlent Spectr           Aarker 1           0 dB/div           9           42.0           32.0           22.0           12.0           22.0           12.0           12.0           32.0           32.0           32.0           32.0           32.0           32.0           32.0           2.00           32.0           32.0           32.0           32.0           32.0           32.0	100 kHz	Hz PNO: Wide ♀	SENSE:EXT Trig: Free Run #Atten: 14 dB 4 db	AL #AvgType: AvgHold>1 Ext Gain: -5	IGN AUTO RMS 100/100 4.50 dB Mikr	12.2 ms ( 01:46:34 P TRAC TRAC -28.34	1001 pts)	Peak Search Next Peal Next Pk Righ Next Pk Lef Marker Delta Mkr→Ref Lv More 1 of 2