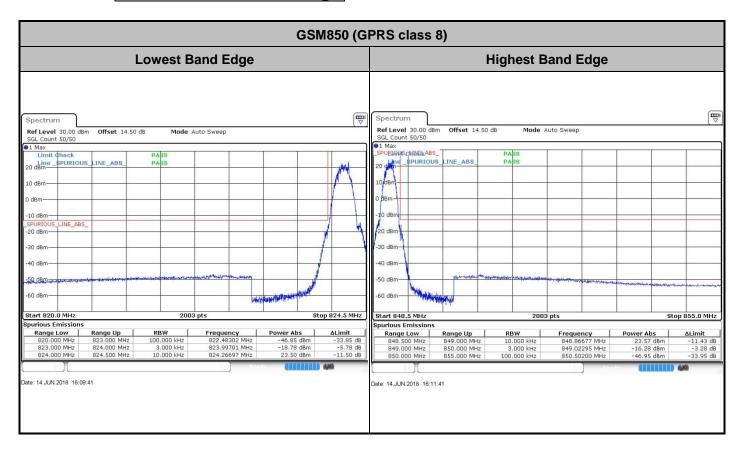
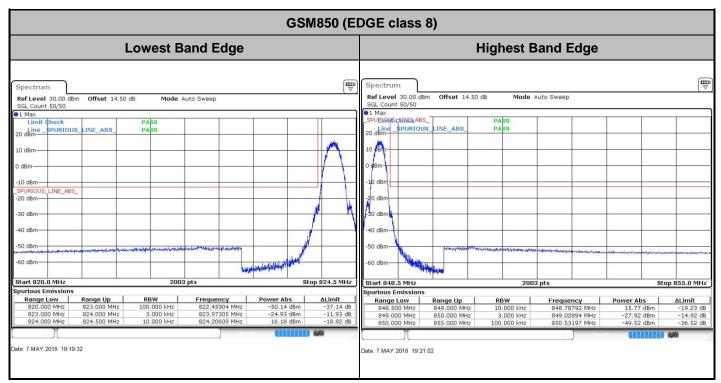
### **Conducted Band Edge**

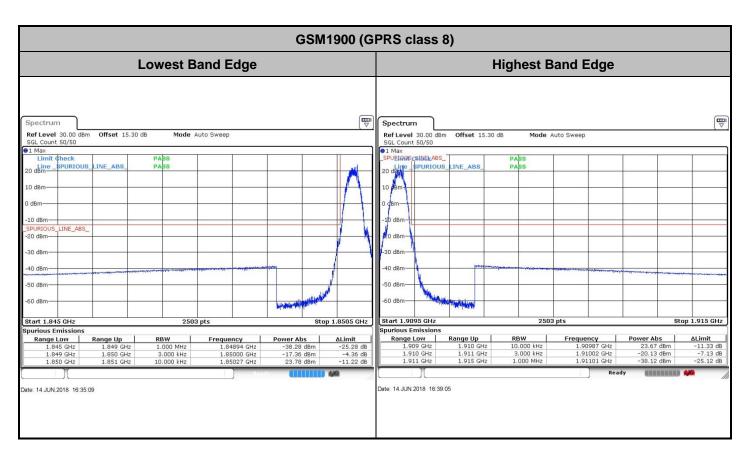


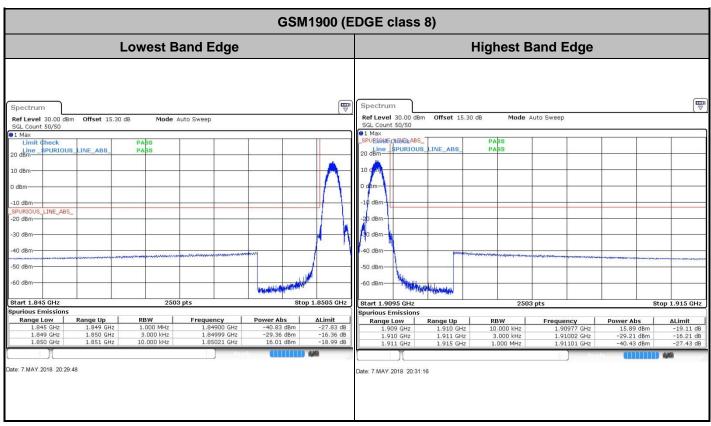


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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A23 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

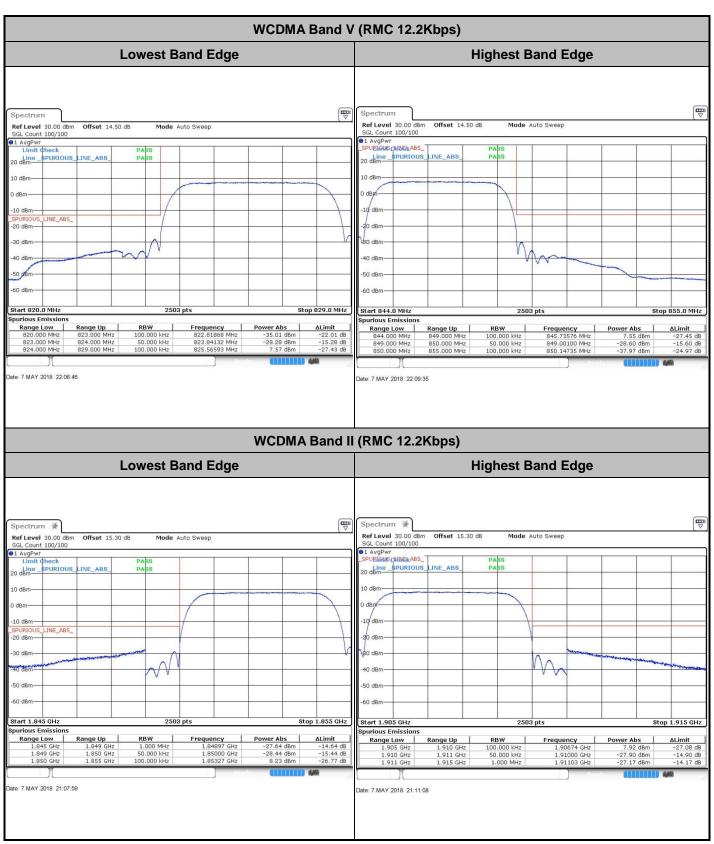




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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A24 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

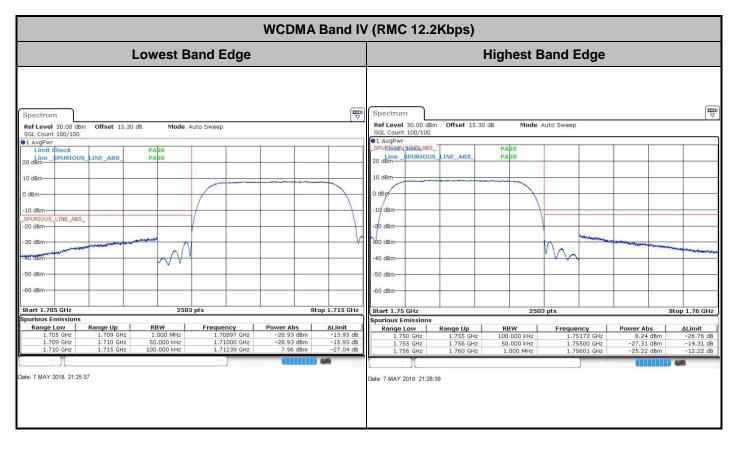
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Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

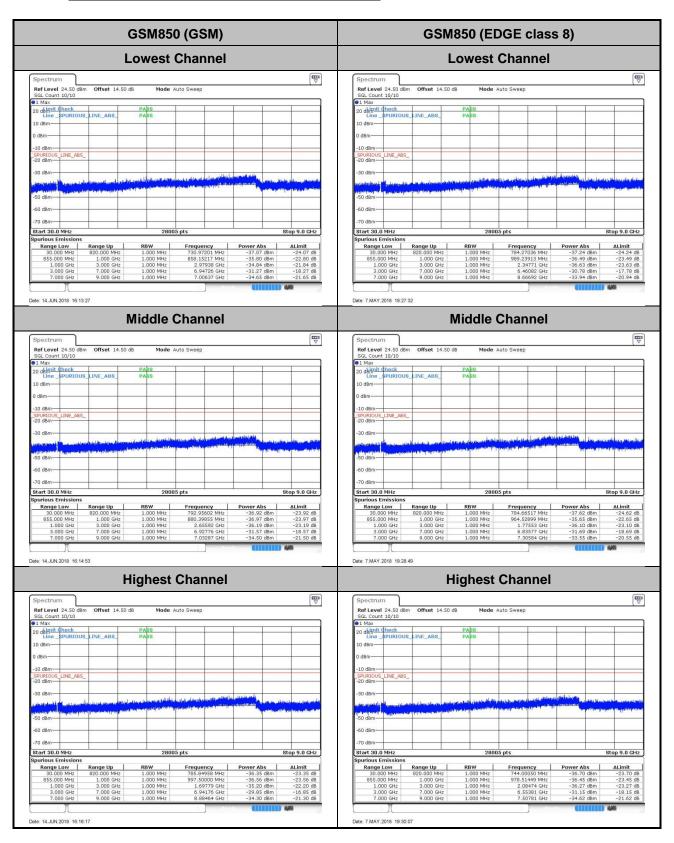


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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A26 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

# **Conducted Spurious Emission**



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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A27 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

**GSM1900 (GSM)** GSM1900 (EDGE class 8) **Lowest Channel Lowest Channel ₩ \\_** Ref Level 25.30 dBm Offset 15.30 dB SGL Count 10/10 1 Max Ref Level 25.30 dBm Offset 15.30 dB 20 dem check Line\_spurious\_LINE\_ABS 48006 pts Start 30.0 MHz 48006 pts Stop 19.1 GHz Start 30.0 MHz Stop 19.1 GHz Range Low 30.000 MHz Range Low 30,000 MHz Date: 14.JUN.2018 16:41:24 Date: 7.MAY.2018 20:44:32 **Middle Channel Middle Channel** 20 dem check 30 dBm Start 30.0 MH Stop 19.1 GHz Start 30.0 MHz Date: 14.JUN.2018 16:42:54 Date: 7.MAY.2018 20:45:49 **Highest Channel Highest Channel** SGL Count 10/10 20 dbm spurious line\_abs 20 dsm \_spurious\_Line\_abs Range Low 30.000 MHz ΔLimit -23.44 dB 
 Frequency
 Power Abs

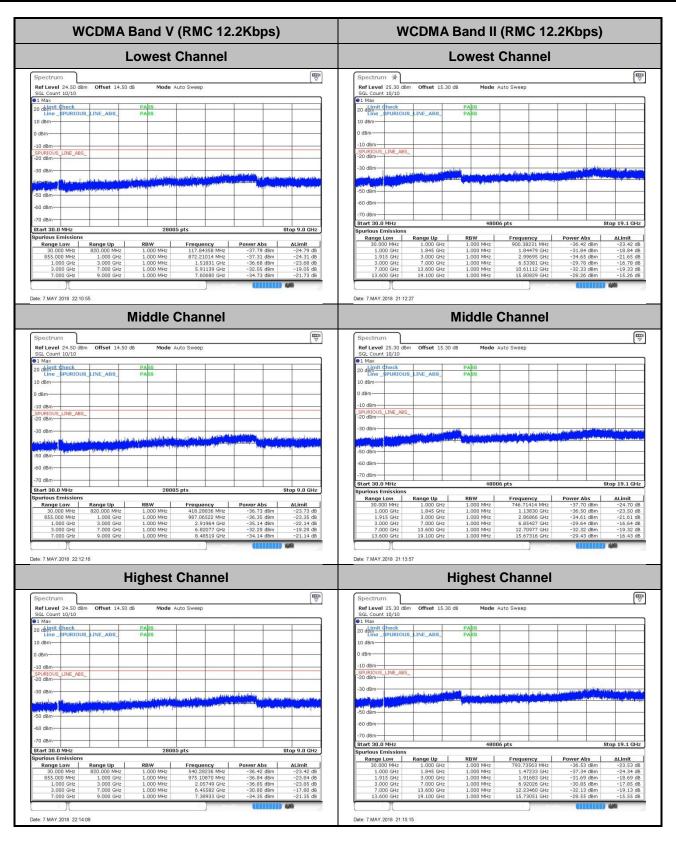
 979.39780 MHz
 -36.44 dBm
 Range Low 
 Frequency
 Power Abs

 745.25987 MHz
 -35.91 dBn

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A28 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A29 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

WCDMA Band IV (RMC 12.2Kbps) **Lowest Channel** Date: 7.MAY.2018 21:30:09 **Middle Channel** Frequency 912.50125 MHz 1.69848 GHz 2.64409 GHz 6.89676 GHz 12.68526 GHz 15.72301 GHz **Highest Channel** 20 dbine Date: 7.MAY.2018 21:33:13

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A30 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

## Frequency Stability

Test Conditions	Middle Channel	GSM850 (GPRS class 8)	GSM850 (EDGE class 8)	Limit 2.5ppm		
Temperature (°C)	Voltage (Volt)	Deviation (ppm)				
50	Normal Voltage	0.0108	0.0275			
40	Normal Voltage	0.0036	0.0239			
30	Normal Voltage	0.0132	0.0084			
20(Ref.)	Normal Voltage	0.0000	0.0000			
10	Normal Voltage	0.0167	0.0167			
0	Normal Voltage	0.0072	0.0167			
-10	Normal Voltage	0.0203	0.0227	PASS		
-20	Normal Voltage	0.0155	0.0060			
-30	Normal Voltage	0.0143	0.0108			
20	Maximum Voltage	0.0096	0.0132			
20	Normal Voltage	0.0120	0.0203			
20	Battery End Point	0.0191	0.0036			

Note: Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.65V. ; Maximum Voltage = 4.4 V

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A31 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0

Test Conditions	Middle Channel	GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)	Limit Note 2.		
Temperature (°C)	Voltage (Volt)	Deviation (ppm)				
50	Normal Voltage	0.0053	0.0181			
40	Normal Voltage	0.0005	0.0133			
30	Normal Voltage	0.0117	0.0027			
20(Ref.)	Normal Voltage	0.0000	0.0000			
10	Normal Voltage	0.0133	0.0106			
0	Normal Voltage	0.0106	0.0149			
-10	Normal Voltage	0.0090	0.0170	PASS		
-20	Normal Voltage	0.0027	0.0122			
-30	Normal Voltage	0.0128	0.0117			
20	Maximum Voltage	0.0069	0.0021			
20	Normal Voltage	0.0016	0.0138			
20	Battery End Point	0.0128	0.0027	]		

#### Note:

- 1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.65V. ; Maximum Voltage = 4.4 V
- **2.** The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A32 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0084	
40	Normal Voltage	0.0287	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0359	
0	Normal Voltage	0.0251	
-10	Normal Voltage	0.0060	PASS
-20	Normal Voltage	0.0299	
-30	Normal Voltage	0.0036	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0239	
20	Battery End Point	0.0263	

Note: Normal Voltage = 3.85 V. ; Battery End Point (BEP) = 3.65 V. ; Maximum Voltage = 4.4 V

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Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0005	
40	Normal Voltage	0.0101	
30	Normal Voltage	0.0112	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0165	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0122	PASS
-20	Normal Voltage	0.0154	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0096	
20	Battery End Point	0.0032	

Note: Normal Voltage = 3.85 V. ; Battery End Point (BEP) = 3.65 V. ; Maximum Voltage = 4.4 V

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A34 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0035	
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0150	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0127	
-10	Normal Voltage	0.0035	PASS
-20	Normal Voltage	0.0144	
-30	Normal Voltage	0.0046	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0133	
20	Battery End Point	0.0035	

#### Note:

- 1. Normal Voltage = 3.85 V. ; Battery End Point (BEP) =3.65V.; Maximum Voltage =4.4V
- **2.** The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : A35 of A35
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0

### **Appendix B. Test Results of Conducted Test**

## **Radiated Spurious Emission**

	GSM850 (GPRS class 8) for Bottom Antenna											
Channel	Frequency (MHz)	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)				
	1672	-53.34	-13	-40.34	-55.25	1.14	5.20	Н				
	2510	-43.56	-13	-30.56	-46.19	1.12	5.90	Н				
Middle	3348	-63.76	-13	-50.76	-66.97	1.34	6.70	Н				
Middle	1672	-50.96	-13	-37.96	-52.87	1.14	5.20	V				
	2510	-42.41	-13	-29.41	-45.04	1.12	5.90	V				
	3348	-64.31	-13	-51.31	-67.52	1.34	6.70	V				

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

	GSM850 (EDGE class 8) for Bottom Antenna											
Channel	Frequency (MHz)	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)				
	1672	-61.99	-13	-48.99	-63.90	1.14	5.20	Н				
	2510	-60.36	-13	-47.36	-62.99	1.12	5.90	Н				
Middle	3348	-63.82	-13	-50.82	-67.03	1.34	6.70	Н				
Middle	1672	-54.79	-13	-41.79	-56.70	1.14	5.20	V				
	2510	-61.31	-13	-48.31	-63.94	1.12	5.90	V				
	3348	-64.49	-13	-51.49	-67.70	1.34	6.70	V				

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : B1 of B5
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

	GSM1900 (GPRS class 8) for Bottom Antenna										
Channel	Frequency (MHz)	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)			
	3759	-56.74	-13	-43.74	-61.91	1.83	7.00	Н			
	5640	-49.21	-13	-36.21	-56.83	2.18	9.80	Н			
N 4: al all a	7521	-52.93	-13	-39.93	-62.60	2.53	12.20	Н			
Middle	3759	-56.22	-13	-43.22	-61.39	1.83	7.00	V			
	5640	-53.13	-13	-40.13	-60.75	2.18	9.80	V			
	7521	-53.81	-13	-40.81	-63.48	2.53	12.20	V			

	GSM1900 (EDGE class 8) for Bottom Antenna										
Channel	Frequency (MHz)	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)			
	3759	-63.21	-13	-50.21	-68.38	1.83	7.00	Н			
	5640	-55.98	-13	-42.98	-63.60	2.18	9.80	Н			
Middle	7521	-53.20	-13	-40.20	-62.87	2.53	12.20	Н			
Middle	3759	-60.58	-13	-47.58	-65.75	1.83	7.00	V			
	5640	-56.49	-13	-43.49	-64.11	2.18	9.80	V			
	7521	-53.91	-13	-40.91	-63.58	2.53	12.20	V			

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : B2 of B5
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0

	WCDMA Band V(RMC 12.2Kbps) for Bottom Antenna										
Channel	Frequency (MHz)	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)			
	1672	-67.15	-13	-54.15	-69.06	1.14	5.20	Н			
	2510	-64.27	-13	-51.27	-66.90	1.12	5.90	Н			
N 4: el ell e	3345	-53.21	-13	-40.21	-56.42	1.34	6.70	Н			
Middle	1672	-66.92	-13	-53.92	-68.83	1.14	5.20	V			
	2510	-64.56	-13	-51.56	-67.19	1.12	5.90	V			
	3345	-56.22	-13	-43.22	-59.43	1.34	6.70	V			

	WCDMA Band II(RMC 12.2Kbps) for Bottom Antenna										
Channel	Frequency (MHz)	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)			
	3759	-63.43	-13	-50.43	-68.60	1.83	7.00	Н			
	5640	-57.90	-13	-44.90	-65.52	2.18	9.80	Н			
Middle	7521	-53.28	-13	-40.28	-62.95	2.53	12.20	Н			
Middle	3759	-63.35	-13	-50.35	-68.52	1.83	7.00	V			
	5640	-59.93	-13	-46.93	-67.55	2.18	9.80	V			
	7521	-53.72	-13	-40.72	-63.39	2.53	12.20	V			

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : B3 of B5
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

	WCDMA Band IV(RMC 12.2Kbps) for Bottom Antenna										
Channel	Frequency (MHz)	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)			
	3465	-63.40	-13	-50.40	-68.54	1.81	6.95	Н			
	5199	-60.07	-13	-47.07	-67.14	2.23	9.30	Н			
N 4: el ell e	6930	-56.13	-13	-43.13	-64.41	2.60	10.88	Н			
Middle	3465	-64.11	-13	-51.11	-69.25	1.81	6.95	V			
	5199	-60.64	-13	-47.64	-67.71	2.23	9.30	V			
	6930	-57.25	-13	-44.25	-65.53	2.6	10.88	V			

GSM850 (GPRS class 8) for Top Antenna									
Channel	Frequency (MHz)	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)	
Middle	1672	-63.26	-13	-50.26	-65.17	1.14	5.20	Н	
	2510	-62.08	-13	-49.08	-64.71	1.12	5.90	Н	
	3348	-63.43	-13	-50.43	-66.64	1.34	6.70	Н	
	1672	-61.88	-13	-48.88	-63.79	1.14	5.20	V	
	2510	-60.74	-13	-47.74	-63.37	1.12	5.90	V	
	3348	-63.77	-13	-50.77	-66.98	1.34	6.70	V	

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : B4 of B5
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report No.: FG842008A

GSM1900 (GPRS class 8) for Top Antenna								
Channel	Frequency (MHz)	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-63.41	-13	-50.41	-68.58	1.83	7.00	Н
	5640	-59.34	-13	-46.34	-66.96	2.18	9.80	Н
	7521	-52.65	-13	-39.65	-62.32	2.53	12.20	Н
	3759	-63.60	-13	-50.60	-68.77	1.83	7.00	V
	5640	-59.66	-13	-46.66	-67.28	2.18	9.80	V
	7521	-53.31	-13	-40.31	-62.98	2.53	12.20	V

WCDMA Band IV(RMC 12.2Kbps) for Top Antenna									
Channel	Frequency (MHz)	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)	
Middle	3465	-63.90	-13	-50.90	-69.04	1.81	6.95	Н	
	5199	-59.87	-13	-46.87	-66.94	2.23	9.30	Н	
	6930	-56.43	-13	-43.43	-64.71	2.60	10.88	Н	
	3465	-64.39	-13	-51.39	-69.53	1.81	6.95	V	
	5199	-60.28	-13	-47.28	-67.35	2.23	9.30	V	
	6930	-56.74	-13	-43.74	-65.02	2.6	10.88	V	

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: 2AFZZ-XMSD2SG Page Number : B5 of B5
Report Issued Date : Jun. 14, 2018
Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0