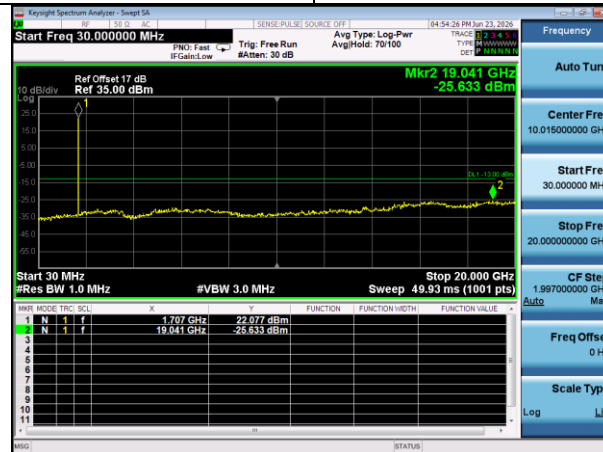
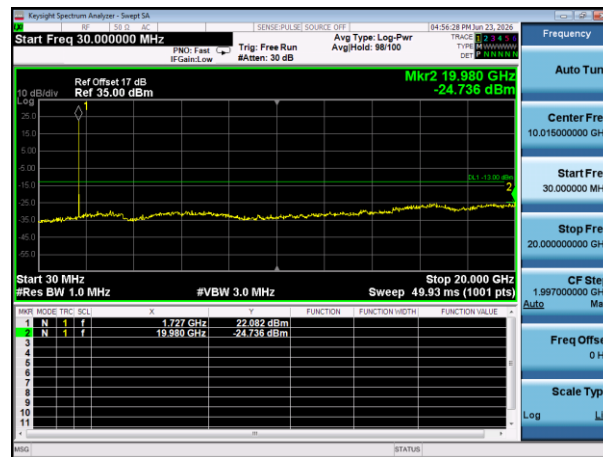


Test Mode: Traffic mode

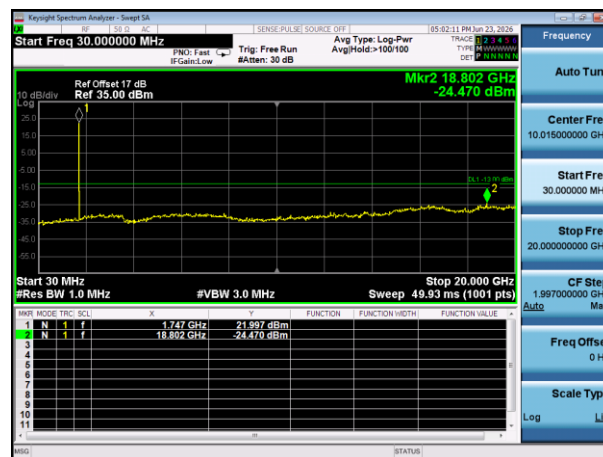
WCDMA Band IV (RMC 12.2Kbps link)



Lowest channel



Middle channel



Highest channel

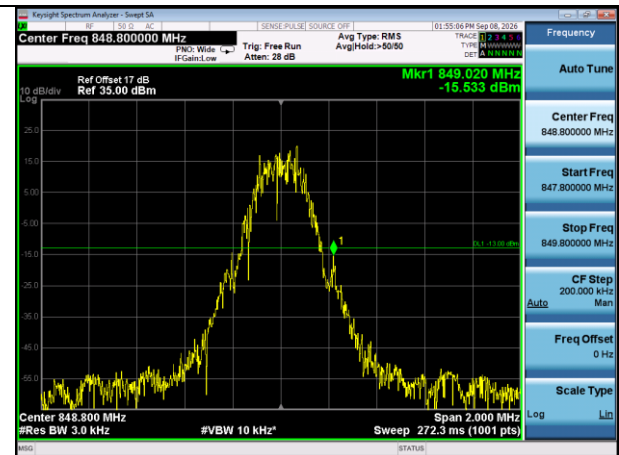
Band Edge:

Test Mode: Traffic mode

GSM850 (GPRS 1 link)



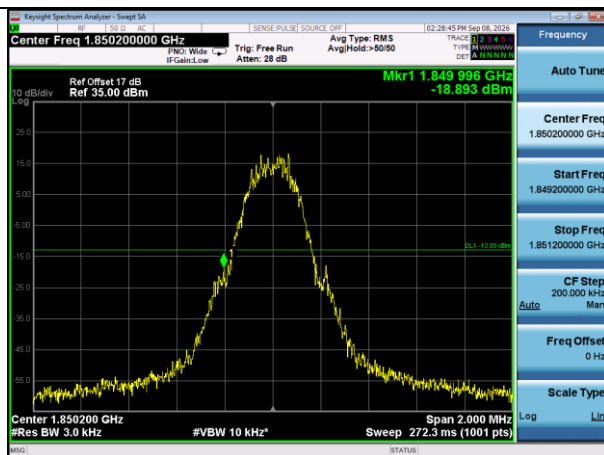
Lowest channel



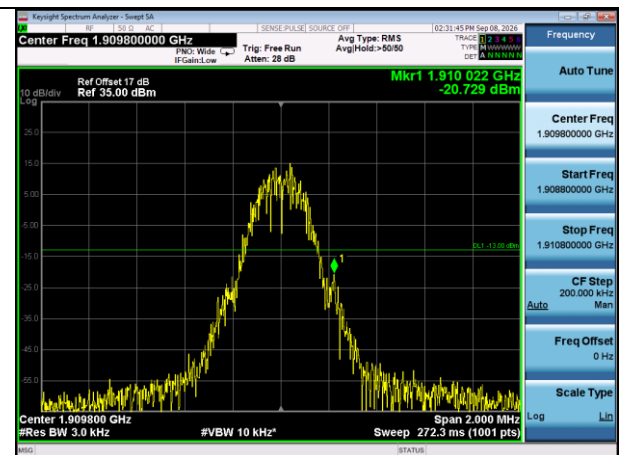
Highest channel

Test Mode: Traffic mode

GSM850 (EGPRS 1 link)



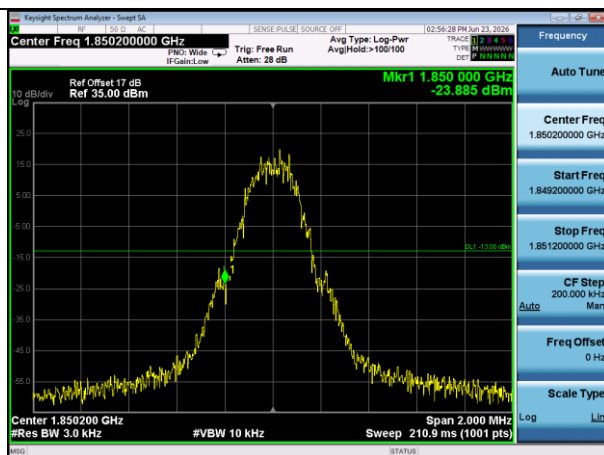
Lowest channel



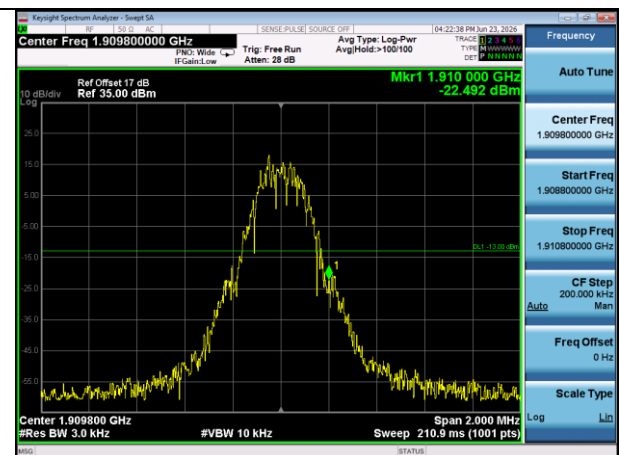
Highest channel

Test Mode: Traffic mode

PCS1900 (GPRS 1 link)

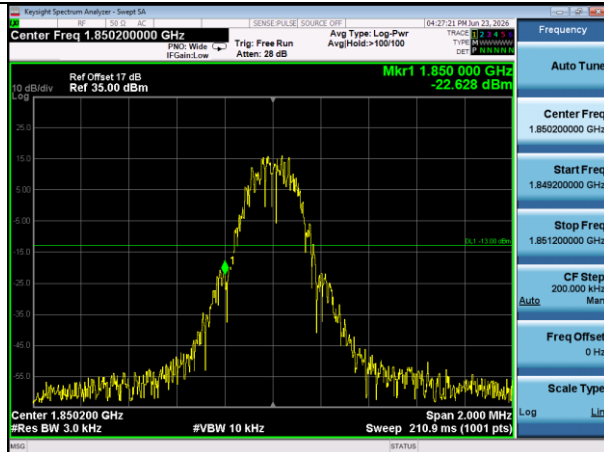


Lowest channel



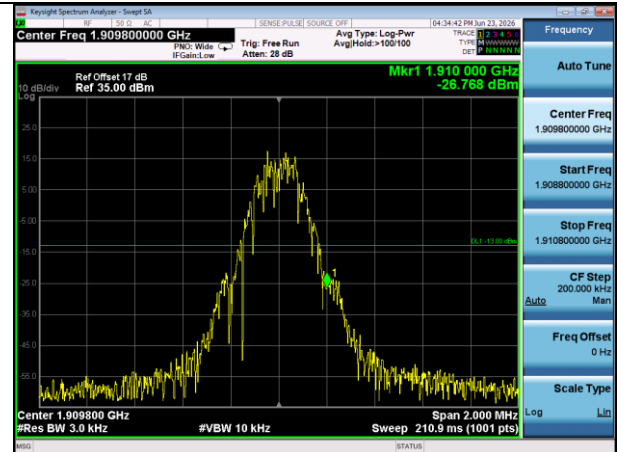
Highest channel

Test Mode: Traffic mode



Lowest channel

PCS1900 (EGPRS 1 link)



Highest channel

Test Mode: Traffic mode



Lowest channel

WCDMA Band V (RMC 12.2Kbps link)



Highest channel

Test Mode: Traffic mode



Lowest channel

WCDMA Band II (RMC 12.2Kbps link)



Highest channel

Test Mode: Traffic mode

WCDMA Band IV (RMC 12.2Kbps link)

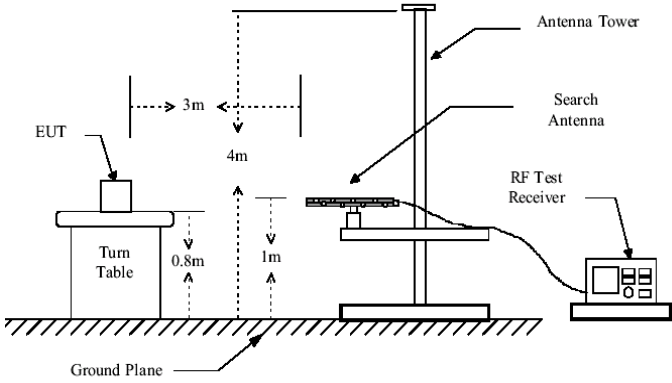
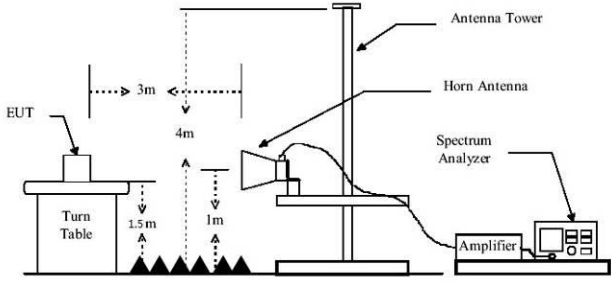
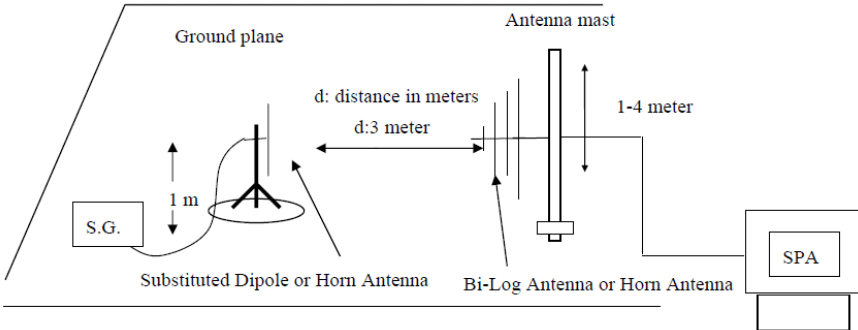


Lowest channel



Highest channel

4.8 ERP, EIRP Measurement

Test Requirement:	FCC part22.913(a) and FCC part24.232(b) , Part 27.54(h)
Test Method:	FCC part2.1046
Limit:	GSM850, WCDMA Band V: 7W PCS1900, WCDMA Band II: 2W WCDMA Band IV: 1W
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 

Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated. 3. ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows: $\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)}$ 4. EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: $\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 3 for details
Test mode:	Refer to section 4.1 for details
Test results:	Pass

Measurement Data

EUT mode	Channel	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result
GSM850 (GPRS 1 link)	Lowest	H	V	24.71	38.45	Pass
			H	25.74		
		E1	V	26.12		
			H	25.88		
		E2	V	25.07		
			H	26.08		
	Middle	H	V	25.60	38.45	Pass
			H	24.13		
		E1	V	25.94		
			H	25.98		
		E2	V	26.20		
			H	26.03		
	Highest	H	V	26.05	38.45	Pass
			H	25.84		
		E1	V	24.08		
			H	25.81		
		E2	V	26.08		
			H	25.93		

EUT mode	Channel	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result
GSM850 (EGPRS 1 link)	Lowest	H	V	24.81	38.45	Pass
			H	25.78		
		E1	V	26.04		
			H	25.59		
		E2	V	25.17		
			H	26.27		
	Middle	H	V	25.35	38.45	Pass
			H	24.13		
		E1	V	26.07		
			H	25.72		
		E2	V	26.31		
			H	25.94		
	Highest	H	V	26.14	38.45	Pass
			H	25.91		
		E1	V	23.80		
			H	25.84		
		E2	V	26.02		
			H	25.81		

EUT mode	Channel	EUT Pol.	Antenna Pol.	EIRP (dBm)	Limit (dBm)	Result
PCS1900 (GPRS 1 link)	Lowest	H	V	24.70	33.01	Pass
			H	25.63		
		E1	V	25.78		
			H	25.76		
		E2	V	25.05		
			H	26.10		
	Middle	H	V	25.35	33.01	Pass
			H	24.37		
		E1	V	25.91		
			H	26.02		
		E2	V	26.18		
			H	26.18		
	Highest	H	V	25.80	33.01	Pass
			H	25.81		
		E1	V	24.28		
			H	25.88		
		E2	V	25.96		
			H	25.97		

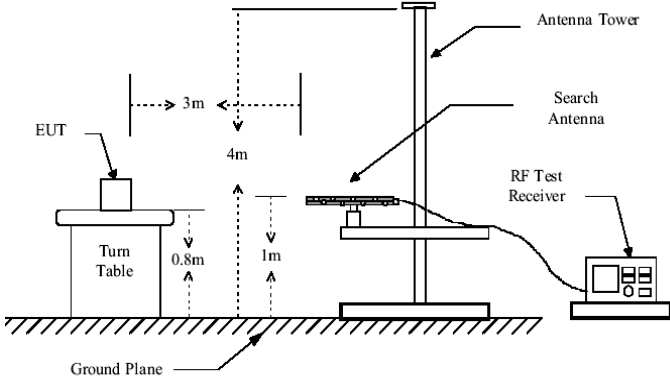
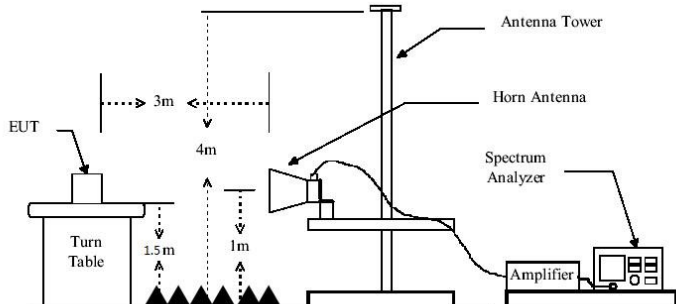
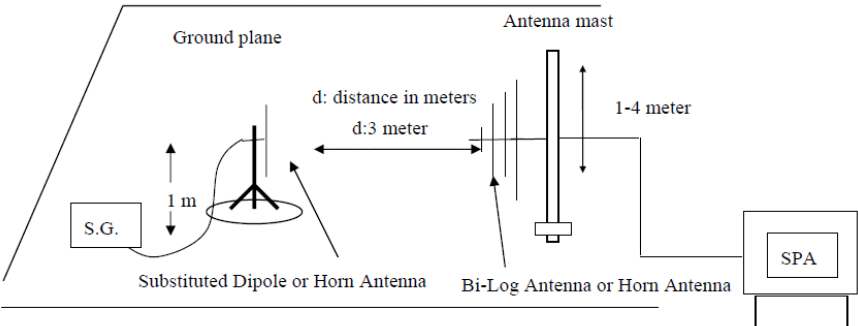
EUT mode	Channel	EUT Pol.	Antenna Pol.	EIRP (dBm)	Limit (dBm)	Result
PCS1900 (EGPRS 1 link)	Lowest	H	V	24.99	33.01	Pass
			H	25.54		
		E1	V	25.99		
			H	25.93		
		E2	V	24.95		
			H	25.90		
	Middle	H	V	25.51	33.01	Pass
			H	24.35		
		E1	V	26.19		
			H	25.95		
		E2	V	25.93		
			H	26.29		
	Highest	H	V	26.16	33.01	Pass
			H	26.01		
		E1	V	24.27		
			H	25.91		
		E2	V	25.94		
			H	25.98		

EUT mode	Channel	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result
WCDMA Band V	Lowest	H	V	21.32	38.45	Pass
			H	21.74		
		E1	V	20.75		
			H	21.04		
		E2	V	20.40		
			H	20.92		
	Middle	H	V	21.01	38.45	Pass
			H	21.11		
		E1	V	21.00		
			H	20.90		
		E2	V	20.50		
			H	20.35		
	Highest	H	V	21.62	38.45	Pass
			H	20.41		
		E1	V	21.02		
			H	21.17		
		E2	V	20.73		
			H	20.45		

EUT mode	Channel	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
WCDMA Band II	Lowest	H	V	20.84	33.01	Pass
			H	21.49		
		E1	V	21.52		
			H	21.13		
		E2	V	20.64		
			H	21.10		
	Middle	H	V	21.90	33.01	Pass
			H	20.90		
		E1	V	21.27		
			H	21.13		
		E2	V	20.60		
			H	20.68		
	Highest	H	V	21.50	33.01	Pass
			H	21.05		
		E1	V	21.39		
			H	21.46		
		E2	V	21.05		
			H	20.98		

EUT mode	Channel	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
WCDMA Band IV	Lowest	H	V	21.37	30.00	Pass
			H	21.35		
		E1	V	21.14		
			H	20.61		
		E2	V	20.61		
			H	21.03		
	Middle	H	V	21.73	30.00	Pass
			H	21.69		
		E1	V	21.77		
			H	20.44		
		E2	V	20.97		
			H	20.70		
	Highest	H	V	21.75	30.00	Pass
			H	20.83		
		E1	V	20.99		
			H	21.22		
		E2	V	20.82		
			H	20.65		

4.9 Field strength of spurious radiation measurement

Test Requirement:	FCC part22.917(a) and FCC part24.238(a), Part 27.54(h)
Test Method:	FCC part2.1053
Limit:	-13dBm
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 

Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 3 for details
Test mode:	Refer to section 4.1 for details
Test results:	Pass

Measurement Data

Test mode:	GPRS850				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.14	V	-68.79	30.31	-38.48	-13.00	Pass
584.78	V	-72.75	38.33	-34.42		
3505.08	V	-34.08	-5.34	-39.42		
5257.97	V	-35.58	-1.61	-37.19		
7010.34	V	-38.52	2.93	-35.59		
8762.94	V	-36.93	3.77	-33.16		
10515.53	V	-37.1	6.05	-31.05		
236.13	H	-68.79	30.31	-38.48	-13.00	Pass
584.72	H	-72.75	38.33	-34.42		
3505.73	H	-34.08	-5.34	-39.42		
5257.94	H	-35.58	-1.61	-37.19		
7010.32	H	-38.52	2.93	-35.59		
8762.94	H	-36.93	3.77	-33.16		
10515.59	H	-37.10	6.05	-31.05		
Test mode:	GPRS850				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.91	V	-68.81	30.31	-38.50	-13.00	Pass
584.80	V	-72.52	38.33	-34.19		
3505.38	V	-33.71	-5.34	-39.05		
5258.00	V	-35.64	-1.61	-37.25		
7010.13	V	-38.63	2.93	-35.70		
8762.85	V	-36.69	3.77	-32.92		
10515.28	V	-37.33	6.05	-31.28		
250.83	H	-67.26	30.31	-36.95	-13.00	Pass
596.77	H	-77.4	38.33	-39.07		
3505.15	H	-33.45	-5.34	-38.79		
5257.71	H	-35.44	-1.61	-37.05		
7010.12	H	-38.63	2.93	-35.70		
8763.19	H	-36.32	3.77	-32.55		
10515.51	H	-35.68	6.05	-29.63		
Test mode:	GPRS850				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.66	V	-68.7	30.31	-38.39	-13.00	Pass
585.19	V	-72.47	38.33	-34.14		
3504.89	V	-33.94	-5.34	-39.28		
5257.47	V	-35.88	-1.61	-37.49		
7010.30	V	-38.34	2.93	-35.41		
8762.86	V	-37.07	3.77	-33.30		
10515.46	V	-37.36	6.05	-31.31		
250.96	H	-67.12	30.31	-36.81	-13.00	Pass
596.94	H	-77.49	38.33	-39.16		
3504.92	H	-33.74	-5.34	-39.08		
5257.85	H	-35.65	-1.61	-37.26		
7010.36	H	-38.66	2.93	-35.73		
8763.04	H	-36.73	3.77	-32.96		
10515.69	H	-35.89	6.05	-29.84		

Test mode:	EGPRS850				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.75	V	-68.97	30.31	-38.66	-13.00	Pass
584.86	V	-72.87	38.33	-34.54		
3505.00	V	-33.81	-5.34	-39.15		
5257.57	V	-35.76	-1.61	-37.37		
7010.04	V	-38.64	2.93	-35.71		
8762.75	V	-36.84	3.77	-33.07		
10515.58	V	-37.19	6.05	-31.14		
251.20	H	-66.86	30.31	-36.55	-13.00	Pass
597.01	H	-77.56	38.33	-39.23		
3504.80	H	-33.62	-5.34	-38.96		
5257.69	H	-35.69	-1.61	-37.30		
7010.20	H	-38.72	2.93	-35.79		
8762.68	H	-36.38	3.77	-32.61		
10515.29	H	-35.58	6.05	-29.53		
Test mode:	EGPRS850				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.13	V	-68.73	30.31	-38.42	-13.00	Pass
585.15	V	-72.91	38.33	-34.58		
3505.19	V	-34.14	-5.34	-39.48		
5257.90	V	-35.75	-1.61	-37.36		
7010.22	V	-38.27	2.93	-35.34		
8762.65	V	-36.62	3.77	-32.85		
10515.24	V	-37.29	6.05	-31.24		
250.68	H	-67.06	30.31	-36.75	-13.00	Pass
596.68	H	-77.5	38.33	-39.17		
3504.99	H	-33.35	-5.34	-38.69		
5257.49	H	-35.3	-1.61	-36.91		
7010.43	H	-38.27	2.93	-35.34		
8763.00	H	-36.4	3.77	-32.63		
10515.64	H	-35.81	6.05	-29.76		
Test mode:	EGPRS850				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.71	V	-68.97	30.31	-38.66	-13.00	Pass
584.83	V	-72.91	38.33	-34.58		
3505.38	V	-33.8	-5.34	-39.14		
5257.43	V	-35.57	-1.61	-37.18		
7010.36	V	-38.36	2.93	-35.43		
8762.79	V	-36.79	3.77	-33.02		
10515.27	V	-36.96	6.05	-30.91		
251.05	H	-67.28	30.31	-36.97	-13.00	Pass
596.84	H	-77.73	38.33	-39.40		
3504.97	H	-33.76	-5.34	-39.10		
5257.50	H	-35.63	-1.61	-37.24		
7010.58	H	-38.54	2.93	-35.61		
8762.68	H	-36.77	3.77	-33.00		
10515.51	H	-35.71	6.05	-29.66		

Remark :

1. The emission behaviour belongs to narrowband spurious emission.
2. The above table only shows the worst case channel of each mode.

Test mode:	GPRS1900				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.64	V	-69.04	30.31	-38.73	-13.00	Pass
584.67	V	-72.56	38.33	-34.23		
3505.38	V	-33.79	-5.34	-39.13		
5257.76	V	-35.83	-1.61	-37.44		
7010.52	V	-38.57	2.93	-35.64		
8762.93	V	-36.95	3.77	-33.18		
10515.44	V	-37.29	6.05	-31.24		
251.19	H	-66.94	30.31	-36.63	-13.00	Pass
596.79	H	-77.6	38.33	-39.27		
3505.24	H	-33.67	-5.34	-39.01		
5257.70	H	-35.51	-1.61	-37.12		
7010.39	H	-38.74	2.93	-35.81		
8762.70	H	-36.43	3.77	-32.66		
10515.25	H	-35.65	6.05	-29.60		
Test mode:	GPRS1900				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.10	V	-68.92	30.31	-38.61	-13.00	Pass
584.96	V	-72.62	38.33	-34.29		
3505.36	V	-33.77	-5.34	-39.11		
5257.87	V	-35.65	-1.61	-37.26		
7010.56	V	-38.63	2.93	-35.70		
8762.88	V	-36.85	3.77	-33.08		
10515.73	V	-37.18	6.05	-31.13		
250.90	H	-67.2	30.31	-36.89	-13.00	Pass
597.05	H	-77.46	38.33	-39.13		
3504.96	H	-33.59	-5.34	-38.93		
5257.90	H	-35.52	-1.61	-37.13		
7010.25	H	-38.47	2.93	-35.54		
8762.65	H	-36.71	3.77	-32.94		
10515.58	H	-35.62	6.05	-29.57		
Test mode:	GPRS1900				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.07	V	-68.99	30.31	-38.68	-13.00	Pass
585.07	V	-72.5	38.33	-34.17		
3505.13	V	-33.87	-5.34	-39.21		
5257.72	V	-35.82	-1.61	-37.43		
7010.18	V	-38.56	2.93	-35.63		
8763.16	V	-36.86	3.77	-33.09		
10515.76	V	-37.3	6.05	-31.25		
250.70	H	-67.12	30.31	-36.81	-13.00	Pass
597.11	H	-77.79	38.33	-39.46		
3505.32	H	-33.7	-5.34	-39.04		
5257.50	H	-35.32	-1.61	-36.93		
7010.20	H	-38.46	2.93	-35.53		
8762.94	H	-36.65	3.77	-32.88		
10515.38	H	-35.64	6.05	-29.59		

Test mode:	EGPRS1900				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.71	V	-69.05	30.31	-38.74	-13.00	Pass
584.99	V	-72.61	38.33	-34.28		
3505.07	V	-33.87	-5.34	-39.21		
5257.71	V	-35.72	-1.61	-37.33		
7010.09	V	-38.45	2.93	-35.52		
8762.82	V	-36.89	3.77	-33.12		
10515.20	V	-37.35	6.05	-31.30		
250.95	H	-67.01	30.31	-36.70	-13.00	Pass
596.65	H	-77.51	38.33	-39.18		
3505.34	H	-33.29	-5.34	-38.63		
5257.57	H	-35.4	-1.61	-37.01		
7010.20	H	-38.62	2.93	-35.69		
8762.91	H	-36.73	3.77	-32.96		
10515.62	H	-35.67	6.05	-29.62		
Test mode:	EGPRS1900				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.73	V	-68.99	30.31	-38.68	-13.00	Pass
585.00	V	-72.57	38.33	-34.24		
3504.91	V	-34.03	-5.34	-39.37		
5257.80	V	-35.53	-1.61	-37.14		
7010.20	V	-38.51	2.93	-35.58		
8762.75	V	-36.86	3.77	-33.09		
10515.42	V	-37.19	6.05	-31.14		
251.05	H	-66.97	30.31	-36.66	-13.00	Pass
596.68	H	-77.5	38.33	-39.17		
3504.86	H	-33.44	-5.34	-38.78		
5257.74	H	-35.48	-1.61	-37.09		
7010.30	H	-38.51	2.93	-35.58		
8762.63	H	-36.36	3.77	-32.59		
10515.75	H	-35.62	6.05	-29.57		
Test mode:	EGPRS1900				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.96	V	-68.78	30.31	-38.47	-13.00	Pass
584.95	V	-72.50	38.33	-34.17		
3504.95	V	-34.10	-5.34	-39.44		
5257.43	V	-35.71	-1.61	-37.32		
7010.52	V	-38.30	2.93	-35.37		
8762.64	V	-37.01	3.77	-33.24		
10515.34	V	-37.30	6.05	-31.25		
250.61	H	-67.07	30.31	-36.76	-13.00	Pass
596.87	H	-77.40	38.33	-39.07		
3504.93	H	-33.71	-5.34	-39.05		
5257.82	H	-35.47	-1.61	-37.08		
7010.30	H	-38.64	2.93	-35.71		
8763.02	H	-36.30	3.77	-32.53		
10515.79	H	-36.00	6.05	-29.95		

Remark:

1. The emission behaviour belongs to narrowband spurious emission.
2. The above table only shows the worst case channel of each mode.

Test mode:	WCDMA Band V				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.72	V	-69.09	30.31	-38.78	-13.00	Pass
585.01	V	-72.53	38.33	-34.20		
1699.87	V	-30.24	-8.90	-39.14		
2550.07	V	-30.61	-6.92	-37.53		
3400.03	V	-30.01	-5.56	-35.57		
4250.17	V	-29.34	-3.66	-33.00		
5099.92	V	-29.66	-1.62	-31.28		
251.16	H	-67.56	30.87	-36.69	-13.00	Pass
596.97	H	-77.86	38.55	-39.31		
1700.07	H	-29.98	-8.90	-38.88		
2549.83	H	-30.32	-6.92	-37.24		
3400.20	H	-30.06	-5.56	-35.62		
4249.74	H	-29.02	-3.66	-32.68		
5099.88	H	-28.10	-1.62	-29.72		
Test mode:	WCDMA Band V				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.69	V	-68.68	30.31	-38.37	-13.00	Pass
585.12	V	-72.74	38.33	-34.41		
1699.84	V	-30.31	-8.90	-39.21		
2549.84	V	-30.51	-6.92	-37.43		
3399.99	V	-29.71	-5.56	-35.27		
4250.06	V	-29.42	-3.66	-33.08		
5099.77	V	-29.40	-1.62	-31.02		
250.81	H	-67.39	30.87	-36.52	-13.00	Pass
597.12	H	-77.78	38.55	-39.23		
1699.72	H	-29.90	-8.90	-38.80		
2550.12	H	-30.02	-6.92	-36.94		
3400.05	H	-30.02	-5.56	-35.58		
4249.77	H	-29.21	-3.66	-32.87		
5100.00	H	-28.13	-1.62	-29.75		
Test mode:	WCDMA Band V				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.92	V	-69.02	30.31	-38.71	-13.00	Pass
584.99	V	-72.84	38.33	-34.51		
1699.87	V	-30.54	-8.90	-39.44		
2549.98	V	-30.58	-6.92	-37.50		
3400.13	V	-29.97	-5.56	-35.53		
4250.12	V	-29.53	-3.66	-33.19		
5099.89	V	-29.54	-1.62	-31.16		
250.77	H	-67.58	30.87	-36.71	-13.00	Pass
596.97	H	-77.88	38.55	-39.33		
1699.87	H	-29.99	-8.90	-38.89		
2550.09	H	-30.11	-6.92	-37.03		
3400.06	H	-29.84	-5.56	-35.40		
4250.03	H	-29.20	-3.66	-32.86		
5100.18	H	-27.99	-1.62	-29.61		

Remark :

1. The emission behaviour belongs to narrowband spurious emission.
2. Remark"---" means that the emission level is too low to be measured

Test mode:	WCDMA Band II				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
235.71	V	-68.88	30.31	-38.57	-13.00	Pass
584.76	V	-72.84	38.33	-34.51		
3780.05	V	-34.65	-4.65	-39.30		
5669.86	V	-36.57	-0.98	-37.55		
7560.20	V	-32.03	-3.60	-35.63		
9449.64	V	-37.69	4.65	-33.04		
11339.91	V	-37.88	6.90	-30.98		
250.64	H	-67.82	30.87	-36.95	-13.00	Pass
597.19	H	-77.95	38.55	-39.40		
3780.17	H	-34.13	-4.65	-38.78		
5669.75	H	-36.24	-0.98	-37.22		
7559.86	H	-31.79	-3.60	-35.39		
9450.03	H	-37.41	4.65	-32.76		
11340.07	H	-36.71	6.90	-29.81		
Test mode:	WCDMA Band II				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.08	V	-68.85	30.31	-38.54	-13.00	Pass
585.06	V	-72.44	38.33	-34.11		
3779.60	V	-34.86	-4.65	-39.51		
5669.93	V	-36.56	-0.98	-37.54		
7559.96	V	-31.80	-3.60	-35.40		
9449.63	V	-37.76	4.65	-33.11		
11340.05	V	-38.11	6.90	-31.21		
250.68	H	-67.88	30.87	-37.01	-13.00	Pass
596.60	H	-78.06	38.55	-39.51		
3780.05	H	-34.11	-4.65	-38.76		
5670.18	H	-36.14	-0.98	-37.12		
7560.06	H	-32.01	-3.60	-35.61		
9449.74	H	-37.39	4.65	-32.74		
11339.86	H	-36.56	6.90	-29.66		
Test mode:	WCDMA Band II				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.11	V	-68.83	30.31	-38.52	-13.00	Pass
584.93	V	-72.63	38.33	-34.30		
3779.65	V	-34.45	-4.65	-39.10		
5669.64	V	-36.28	-0.98	-37.26		
7559.64	V	-32.03	-3.60	-35.63		
9450.18	V	-37.64	4.65	-32.99		
11340.03	V	-38.00	6.90	-31.10		
250.89	H	-67.58	30.87	-36.71	-13.00	Pass
596.77	H	-77.74	38.55	-39.19		
3780.19	H	-34.06	-4.65	-38.71		
5669.88	H	-36.26	-0.98	-37.24		
7559.78	H	-31.85	-3.60	-35.45		
9449.76	H	-37.25	4.65	-32.60		
11340.16	H	-36.78	6.90	-29.88		

Remark:

1. The emission behaviour belongs to narrowband spurious emission.
2. Remark"---" means that the emission level is too low to be measured

Test mode:	WCDMA Band IV				Test channel:	Lowest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.20	V	-68.93	30.31	-38.62	-13.00	Pass
584.78	V	-72.62	38.33	-34.29		
3499.93	V	-34.10	-5.34	-39.44		
5250.12	V	-35.71	-1.61	-37.32		
6999.82	V	-38.08	2.80	-35.28		
8750.00	V	-36.87	3.77	-33.10		
10500.00	V	-37.21	6.09	-31.12		
236.20	V	-68.93	30.31	-38.62	-13.00	Pass
584.78	V	-72.62	38.33	-34.29		
3499.93	V	-34.10	-5.34	-39.44		
5250.12	V	-35.71	-1.61	-37.32		
6999.82	V	-38.08	2.80	-35.28		
8750.00	V	-36.87	3.77	-33.10		
10500.00	V	-37.21	6.09	-31.12		
Test mode:	WCDMA Band IV				Test channel:	Middle
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.13	V	-68.67	30.31	-38.36	-13.00	Pass
584.94	V	-72.52	38.33	-34.19		
3499.63	V	-33.91	-5.34	-39.25		
5249.97	V	-35.84	-1.61	-37.45		
7000.03	V	-38.15	2.80	-35.35		
8749.96	V	-36.78	3.77	-33.01		
10500.04	V	-37.24	6.09	-31.15		
251.11	H	-67.26	30.31	-36.95	-13.00	Pass
596.81	H	-77.47	38.33	-39.14		
3499.87	H	-33.42	-5.34	-38.76		
5249.96	H	-35.3	-1.61	-36.91		
7000.03	H	-38.57	2.80	-35.77		
8749.93	H	-36.75	3.77	-32.98		
10499.87	H	-35.97	6.09	-29.88		
Test mode:	WCDMA Band IV				Test channel:	Highest
Frequency (MHz)	Spurious Emission				Limit (dBm)	Result
	Polarization	Reading (dBm)	Factor(dB)	Level (dBm)		
236.15	V	-68.99	30.31	-38.68	-13.00	Pass
585.04	V	-72.47	38.33	-34.14		
3499.98	V	-33.97	-5.34	-39.31		
5249.82	V	-35.78	-1.61	-37.39		
7000.16	V	-38.39	2.80	-35.59		
8749.70	V	-36.70	3.77	-32.93		
10499.84	V	-36.99	6.09	-30.90		
251.18	H	-67.23	30.31	-36.92	-13.00	Pass
596.61	H	-77.57	38.33	-39.24		
3499.85	H	-33.67	-5.34	-39.01		
5249.64	H	-35.37	-1.61	-36.98		
6999.67	H	-38.60	2.80	-35.80		
8749.96	H	-36.32	3.77	-32.55		
10500.09	H	-35.58	6.09	-29.49		

Remark:

1. The emission behaviour belongs to narrowband spurious emission.
2. Remark"---" means that the emission level is too low to be measured

4.10 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part2.1055(a)(1)(b)
Test Method:	FCC Part2.1055(a)(1)(b)
Limit:	2.5ppm
Test setup:	Note : Measurement setup for testing on Antenna connector
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.
Test Instruments:	Refer to section 3 for details
Test mode:	Refer to section 4.1 for details
Test results:	Pass

Measurement Data

Reference Frequency: GSM850 (GPRS 1 link) Middle channel=190 channel=836.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12	-30	16	0.0191	2.5	Pass
	-20	21	0.0251		
	-10	13	0.0155		
	0	-25	-0.0299		
	10	15	0.0179		
	20	6	0.0072		
	30	-1	-0.0012		
	40	0	0.0000		
	50	12	0.0143		
Reference Frequency: GSM850 (EGPRS 1 link) Middle channel=190 channel=836.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12	-30	16	0.0191	2.5	Pass
	-20	17	0.0203		
	-10	15	0.0179		
	0	-28	-0.0335		
	10	21	0.0251		
	20	7	0.0084		
	30	2	0.0024		
	40	-2	-0.0024		
	50	10	0.0120		

Reference Frequency: PCS1900 (GPRS 1 link)					
Power supplied (Vdc)	Temperature (°C)	Frequency		Limit (MHz)	Result
		F _L (MHz)	F _H (MHz)		
12	-30	1850.3304	1909.9287	Within the authorized bands	Pass
	-20	1850.3376	1909.9305		
	-10	1850.3318	1909.9276		
	0	1850.3339	1909.9306		
	10	1850.3376	1909.9286		
	20	1850.3445	1909.9325		
	30	1850.3354	1909.9246		
	40	1850.3365	1909.9257		
	50	1850.3237	1909.9266		
Reference Frequency: PCS1900 (EGPRS 1 link)					
Power supplied (Vdc)	Temperature (°C)	Frequency		Limit (MHz)	Result
		F _L (MHz)	F _H (MHz)		
12	-30	1850.3305	1909.9248	Within the authorized bands	Pass
	-20	1850.3374	1909.9245		
	-10	1850.3328	1909.9256		
	0	1850.3329	1909.9276		
	10	1850.3396	1909.9256		
	20	1850.3355	1909.9235		
	30	1850.3244	1909.9246		
	40	1850.3235	1909.9277		
	50	1850.3233	1909.9266		

Reference Frequency: WCDMA Band V Middle channel=4183 channel=836.6MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12	-30	17	0.0203	2.5	Pass
	-20	21	0.0251		
	-10	14	0.0167		
	0	-29	-0.0347		
	10	19	0.0227		
	20	7	0.0084		
	30	1	0.0012		
	40	3	0.0036		
	50	11	0.0131		
Reference Frequency: WCDMA Band II					
Power supplied (Vdc)	Temperature (°C)	Frequency		Limit (MHz)	Result
		F _L (MHz)	F _H (MHz)		
12	-30	1850.1048	1909.8874	Within the authorized bands	Pass
	-20	1850.1052	1909.8853		
	-10	1850.1053	1909.8830		
	0	1850.1044	1909.8663		
	10	1850.1042	1909.8871		
	20	1850.1044	1909.8851		
	30	1850.1043	1909.8880		
	40	1850.1047	1909.8869		
	50	1850.1045	1909.8813		
Reference Frequency: WCDMA Band IV					
Power supplied (Vdc)	Temperature (°C)	Frequency		Limit (MHz)	Result
		F _L (MHz)	F _H (MHz)		
12	-30	1709.9336	1754.6733	Within the authorized bands	Pass
	-20	1709.9331	1754.6744		
	-10	1709.9344	1754.6734		
	0	1709.9371	1754.6733		
	10	1709.9361	1754.6747		
	20	1709.9358	1754.6752		
	30	1709.9385	1754.6746		
	40	1709.9386	1754.6724		
	50	1709.9395	1754.6759		

4.11 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part2.1055(d)(1)(2)
Test Method:	FCC Part2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	Note : Measurement setup for testing on Antenna connector
Test procedure:	1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 3 for details
Test mode:	Refer to section 4.1 for details
Test results:	Pass

Measurement Data

Reference Frequency: GSM850 (GPRS 1 link) Middle channel=190 channel=836.6MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
20	13.8	14	0.0167	2.5	Pass
	12	18	0.0215		
	10.2	20	0.0239		
Reference Frequency: GSM850 (EGPRS 1 link) Middle channel=190 channel=836.6MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
20	13.8	15	0.0179	2.5	Pass
	12	10	0.0120		
	10.2	-4	-0.0048		
Reference Frequency: PCS1900 (GPRS 1 link)					
Temperature (°C)	Power supplied (Vdc)	Frequency		Limit (ppm)	Result
		F _L (MHz)	F _H (MHz)		
20	13.8	1850.3215	1909.9358	Within the authorized bands	Pass
	12	1850.3234	1909.9355		
	10.2	1850.3248	1909.9346		
Reference Frequency: PCS1900 (EGPRS 1 link)					
Temperature (°C)	Power supplied (Vdc)	Frequency		Limit (ppm)	Result
		F _L (MHz)	F _H (MHz)		
20	13.8	1850.3198	1909.9297	Within the authorized bands	Pass
	12	1850.3155	1909.9301		
	10.2	1850.3196	1909.9285		

Reference Frequency: WCDMA Band V Middle channel=4183 channel=836.6MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
20	13.8	14	0.0167	2.5	Pass
	12	16	0.0191		
	10.2	16	0.0191		
Reference Frequency: WCDMA Band II					
Temperature (℃)	Power supplied (Vdc)	Frequency		Limit (ppm)	Result
		F _L (MHz)	F _H (MHz)		
20	13.8	1850.1041	1909.8759	Within the authorized bands	Pass
	12	1850.1055	1909.8799		
	10.2	1850.1057	1909.8682		
Reference Frequency: WCDMA Band IV					
Temperature (℃)	Power supplied (Vdc)	Frequency		Limit (MHz)	Result
		F _L (MHz)	F _H (MHz)		
20	13.8	1709.9311	1754.6720	Within the authorized bands	Pass
	12	1709.9324	1754.6712		
	10.2	1709.9334	1754.6711		

5 Test Setup Photo

Please refer to the Appendix of Test photos.

-----END OF REPORT-----