nt Spectrum Analyzer - Swept SA 35 PM Mar 30, 20: Avg Type: Log-Pwr Avg|Hold>100/100 Frequency Center Freq 824.000000 MHz TRACE 12 Trig: Free Run Atten: 26 dB TYPE PNO: Wide 🖵 IFGain:Low Auto Tune Mkr1 824.000 MHz Ref Offset 25 dB Ref 40.00 dBm -20.572 dBm 10 dB/div Log Center Freq 824.000000 MHz when man m Start Freq 822.000000 MHz Stop Freq 826 000000 MHz 1. CF Step 400.000 kHz Auto Man Freq Offset 0 Hz Center 824.000 MHz #Res BW 47 kHz Span 4.000 MHz Sweep 1.73 ms (1001 pts) VBW 470 kHz

#### Fig.33 WCDMA Band V-CH4133 Band Edge Compliance HSUPA Subtest 5

GCCT

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Fig.34 WCDMA Band V-CH4232Band Edge Compliance HSUPA Subtest 5





#### Fig.35 WCDMA Band II-CH9263Band Edge Compliance

Fig.36 WCDMA Band II-CH9538Band Edge Compliance





### Fig.37 WCDMA Band II-CH9263Band Edge Compliance HSDPA Subtest 1

Fig.38 WCDMA Band II-CH9538 Band Edge Compliance HSDPA Subtest 1





#### Fig.39 WCDMA Band II-CH9263Band Edge Compliance HSUPA Subtest 5

Fig.40 WCDMA Band II-CH9538 Band Edge Compliance HSUPA Subtest 5



# B.6 Conducted Spurious Emission(22.917(a)/24.238(a))

#### **B.6.1 Description**

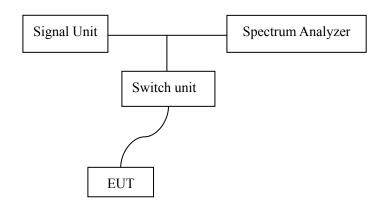
The power of any emission outside of the authorized operating frequency ranges must be lower than transmitter power by a factor of at least 43+10log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm. It is measured by means of spectrum analyzer and scanned from 30MHz up to a frequency including its 10<sup>th</sup> harmonic.

For the equipment of PCS1900 band, this equates to a frequency range of 30MHz to 19.1GHz, data is taken from 30 MHz to 20 GHz. For GSM 850, data is taken from 30 MHz to 9 GHz.

#### **B.6.2 Test Procedures**

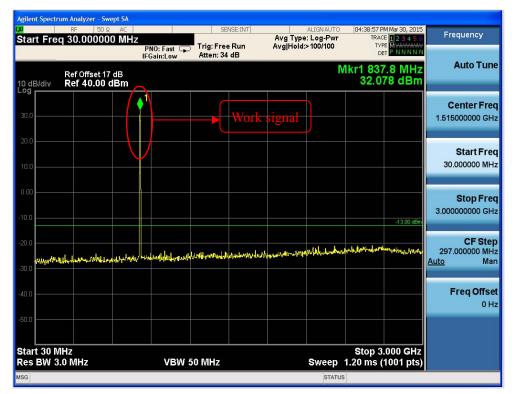
- 1. The EUT was connected to Spectrum Analyzer and Base Station.
- 2. The middle channel for maximum RF power within the transmitting frequency was measured.
- 3. The conducted spurious emission for the whole frequency range was taken.

### B.6.3 Test Setup

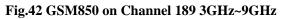


#### **B.6.4 Test Results**

Band	СН	Frequency(MHz)	Result	Verdict
GSM850	189	836.6	Fig.41	Pass
			Fig.42	Pass
GSM1900	661	1880.0	Fig.43	Pass
			Fig.44	Pass
WCDMA Band V	4175	835	Fig.45	Pass
			Fig.46	Pass
WCDMA Band II	9400	1880.0	Fig.47	Pass
			Fig.48	Pass

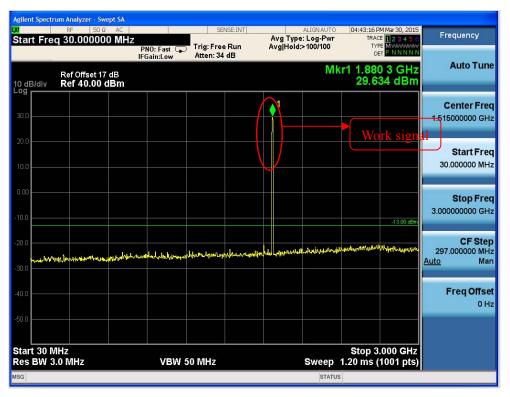


## Fig.41 GSM850 on Channel 189 30MHz~3GHz

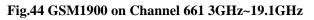








## Fig.43 GSM1900 on Channel 661 30MHz~3GHz





The Conducted Spurious Emissions was checked. No emissions were found and only noise floor in13.8GHz~19.1GHz.



### Fig.45 WCDMA Band V on Channel 4175 30MHz~3GHz

Fig.46 WCDMA Band V on Channel 4175 3GHz~9GHz







## Fig.47 WCDMA Band II Channel 9400 30MHz~3GHz

Fig.48 WCDMA Band II on Channel 9400 3GHz~19.1GHz



The Conducted Spurious Emissions was checked. No emissions were found and only noise floor in13.8GHz~19.1GHz

## **B.7Peak-to-average ratio**(24.232(d))

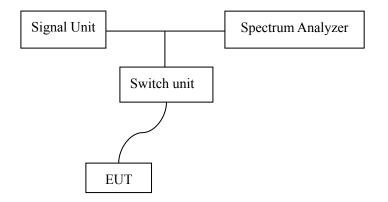
#### **B.8.1 Description**

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks f a digitally modulated signal on a statistical basic. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level.

#### **B.8.2 Test Procedure**

- 1. The EUT was connected to Spectrum Analyzer and Base Station.
- 2. The CCDF of middle channel for the highest powers were measured.

### **B.8.3** Test Setup



### **B.7.4 Test Results**

#### Limit

Peak-to-average ratio
≤13dBm

Band		СН	Frequency(MHz)	Result(dBm)	Verdict
GSM850	GSM	128	824.2	0.10	Pass
		189	836.6	0.11	Pass
		251	848.8	0.08	Pass
	GPRS	128	824.2	0.09	Pass
		189	836.6	0.12	Pass
		251	848.8	0.10	Pass
GSM1900	GSM	512	1850.2	0.12	Pass
		661	1880.0	0.11	Pass
		810	1909.8	0.09	Pass
	GPRS	512	1850.2	0.08	Pass
		661	1880.0	0.10	Pass
		810	1909.8	0.12	Pass
WCDMA Band V		4132	824.2	0.11	Pass
		4175	835	0.09	Pass
		4233	848.8	0.08	Pass



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WCDMA Band V	4132	824.2	0.11	Pass
HSDPA	4175	835	0.12	Pass
Subtest 1	4233	848.8	0.13	Pass
WCDMA Band V	4132	824.2	0.07	Pass
HSUPA	4175	835	0.10	Pass
Subtest 5	4233	848.8	0.13	Pass
	9263	1850.2	0.11	Pass
WCDMA Band II	9400	1880.0	0.12	Pass
	9538	1909.8	0.09	Pass
WCDMA Band II	9263	1850.2	0.10	Pass
HSDPA	9400	1880.0	0.08	Pass
Subtest 1	9538	1909.8	0.11	Pass
WCDMA Band II	9263	1850.2	0.10	Pass
HSUPA	9400	1880.0	0.09	Pass
Subtest 5	9538	1909.8	0.10	Pass

# \*\*\* END OF REPORT\*\*\*