

SC4812ETL @ 1.9 GHz CDMA BTS

TEST REPORT EXHIBIT

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MOTOROLA

Cellular Infrastructure Group

FCC ID: IHET6BS1

SECTION A

Summary of RF Measurements

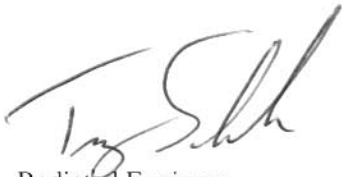
Summary of Radiated RF Measurements

Worst Case Radiated RF Spur Level for SC4812ETL @ 1.9GHz

<i>Radiated Data</i>			<i>Substituted Power</i>				<i>Spec</i>	<i>Result</i>
TX Channel	Spurious Frequency (MHz)	Antenna Polarity	Measured Radiated Field Strength (dBuV/m)	Measured Radiated Field Strength (dBm) (Note 1)	TX Antenna Terminal Voltage (dBm) (Note 2)	EDRP (dBm) (Note 3)	FCC Part 24 MAX LIMIT (dBm)	Pass/Fail
1175	16151.076	H	50.74	-44.48	-60	-48.25	-13	Pass

Notes:

1. Converting dBuV/M to dBm at 3 meters
 $(\text{dBuV/M}) + 9.542 - 104.77 \text{dB} = \text{dBm}$
 Converting dBuV/M to dBm at 10 meters
 $(\text{dBuV/M}) + 20 - 104.77 \text{dB} = \text{dBm}$
2. The same horn antenna and measurement system was used for EUT scan and during substitution method. After maximizing the receive antenna and adjusting signal generator power level to measure the same emission level with the spectrum analyzer as with the EUT. Signal generator output level was recorded for each of the spurious frequencies. Test cable was then disconnected from the transmit horn and was connected to the input of the S/A measuring the voltage at the terminals of the antenna.
3. This value was obtained by converting the Equivalent Isotropic Radiated Power (EIRP) to ideal half-wave dipole reference power - (Equivalent Di-Pole Radiated Power - EDRP) per (TIA-603, 2.2.12.2(i)(m))



Radiated Engineer

8/1/01

Date

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET6BS1

Summary of Conducted RF Measurements

SC4812ETL @ 1.9GHz

FCC Part 24 at 23 dBm output (Min power)

CHANNEL	FREQUENCY (MHz)	SPUR LEVEL MEASURED (dB μ V)	SPUR LEVEL MEASURED (dBm)	FCC MAX LIMIT dBm
25	14575.063	88.77	-18.23	-13

Engineer: _____



8/1/01
Date

SECTION B

Summary of Modulation Characteristics

SC4812ETL @1.9GHz worst cases

CHANNEL	TUNE FREQUENCY (MHz)	RHO measured	RHO specifications	Pass/Fail
25	1931.25	0.9951	>0.912	Pass
1175	1988.75	0.9946	>0.912	Pass

The BTS was configured for maximum power out of 46.0 dBm and minimum power out of 23.0 dBm respectively. The output power was set respectively to 40.0 Watts or 200 mWatts using an HP437B power meter.

Engineer: Francisco Avalos 8/3/01
Date

SC4812ETLite 1.9GHz 3G-1X 46dBm
E6380A Cell Site Test Set: 07/18/01 09:37:00 am

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CDMA ANALYZER

Rho **0.9952**
Time Offset **0.06** us

Freq Err **Hz**
-50 -0.2 50
Carrier Feedthru **-28.3** dB

Tune Freq
1931.250000
MHz

Input Atten
Auto/Hold
5 dB

Input Port
RF In/Ant

Find PN
Auto/Manual

PN Offset
32

Even Sec In
Enable/Not

Meas Intvl
1.25
ms

Gain
Auto/Hold
12 dB

Anl Dir
Fwd/Rev
Anl Special
Normal

Analyzer
Arm Meas
Single/Cont
Disarm

Qual Event
80 ms
Tris Event
80 ms

SC4812ETLite 1.9GHz 3G-1X 46dBm
E6380A Cell Site Test Set: 07/18/01 10:18:00 am

L

CDMA ANALYZER

<p>Rho</p> <p>0.9946</p> <p>Time Offset us</p> <p>-0.18</p>		<p>Frea Err Hz</p> <p>-50 -1.7 50</p> <p>Carrier Feedthru dB</p> <p>-28.8</p>	
<p>Tune Freq</p> <p>1988.750000 MHz</p> <p>Input Atten</p> <p>Auto/Hold</p> <p>5 dB</p> <p>Input Port</p> <p>RF In/Ant</p>	<p>Find PN</p> <p>Auto/Manual</p> <p>PN Offset</p> <p>32</p> <p>Even Sec In</p> <p>Enable/Not</p>	<p>Meas Intvl</p> <p>1.25 ms</p> <p>Gain</p> <p>Auto/Hold</p> <p>12 dB</p> <p>Anl Dir</p> <p>Fwd/Rev</p> <p>Anl Special</p> <p>Normal</p>	<p>Analyzer</p> <p>Arm Meas</p> <p>Single/Cont</p> <p>Disarm</p> <p>Qual Event</p> <p>80 ms</p> <p>Tris Event</p> <p>80 ms</p>