

SC4812T @ 800 MHz CDMA BTS

SUMMARY TEST REPORT

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1. The results and data presented herein are based on tests conducted at an ISO Guide 25 Accredited Test Laboratory. (Ref: UL Project No. O1NK32838 EMC Test Report) All details related to test equipment, calibration, environmental conditions are in the referenced report.
2. Results listed apply only to the SC4812T CDMA BTS.

Signature:  8/3/09

Engineer: Terry Schwenk

Date



MOTOROLA

Global Telecom Solutions Sector

FCC ID: IHET5BL1

SECTION A

**SUMMARY OF RF
MEASUREMENTS**

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET5BL1

Summary of Radiated RF Measurements

Worst Case Radiated RF Spur Level for SC4812T @ 800 MHz

<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
1013	1739.4	H	74.31	-20.918	-29.8	-24.75	-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
Terry Schwenk



Date

APPLICANT: MOTOROLA

TRANSCEIVER TYPE: IHET5BL1

Summary of Conducted RF Measurements

SC4812T @ 800 MHz

CHANNEL	FREQUENCY (MHz)	SPUR LEVEL MEASURED (dB μ V)	SPUR LEVEL MEASURED (dBm)	FCC MAX LIMIT dBm	Pass/Fail
777	6944.581	85.81	-21.19	-13	Pass

Engineer: Francisco Avalos 8/10/01
Francisco Avalos Date



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SECTION B

**MODULATION
CHARACTERISTICS**

SECTION B

Summary of Modulation Characteristics

SC4812T @ 800 MHz worst cases

CHANNEL	TUNE FREQUENCY (MHz)	RHO measured	RHO specifications	Pass/Fail
777	893.31	0.9825	>0.912	Pass
1013	869.7	0.9820	>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 8/10/01
 Francisco Avalos Date



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SECTION B

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MODULATION CHARACTERISTICS

Maximum Power

CDMA ANALYZER

Rho

0.9827

Time Offset

0.20

us

Frea Err

-50

-0.8

50

Hz

Carrier Feedthru

-36.0

dB

Tune Frea

893.310000

MHz

Input Atten

Auto/Hold

5 dB

Input Port

RF In/Ant

Find PN

Auto/Manual

PN Offset

142

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

CDMA ANALYZER

Rho **0.9820**
Time Offset **0.21** us

Freq Err **0.3** Hz
Carrier Feedthru **-35.6** dB

Tune Freq **869.700000** MHz

Input Atten **Auto/Hold**
5 dB

Input Port **RF In/Ant**

Find PN **Auto/Manual**

PN Offset **122**

Even Sec In **Enable/Not**

Meas Intvl **1.25** ms

Gain **Auto/Hold**
12 dB

Anl Dir **Forw/Rev**
Anl Special **Normal**

Analyzer **Arm Meas**
Single/Cont
Disarm

Qual Event **80** ms
Tris Event **80** ms



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SECTION B

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MODULATION CHARACTERISTICS

Minimum Power

CDMA ANALYZER

Rho

0.9825

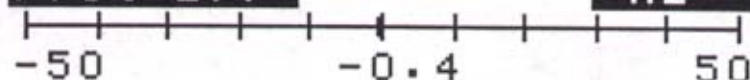
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0.20

us

Frea Err

Hz



Carrier Feedthru

dB

-35.1

Tune Frea

893.310000

MHz

Input Atten

Auto/Hold

0 dB

Input Port

RF In/Ant

Find PN

Auto/Manual

PN Offset

142

Even Sec In

Enable/Not

Meas Intvl

1.25

ms

Gain

Auto/Hold

30 dB

Anl Dir

Fwd/Rev

Anl Special

Normal

Analyzer

Arm Meas

Single/Cont

Disarm

Qual Event

80 ms

Trig Event

80 ms

CDMA ANALYZER

Rho

0.9811

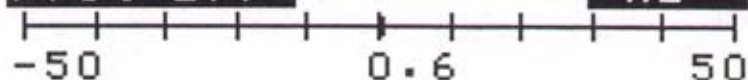
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0.22

us

Frea Err

Hz



Carrier Feedthru

dB

-29.5

Tune Frea

869.700000

MHz

Input Atten

Auto/Hold

0 dB

Input Port

RF In/Ant

Find PN

Auto/Manual

PN Offset

122

Even Sec In

Enable/Not

Meas Intvl

1.25

ms

Gain

Auto/Hold

30 dB

Anl Dir

Fwd/Rev

Anl Special

Normal

Analyzer

Arm Meas

Single/Cont

Disarm

Qual Event

80 ms

Trig Event

80 ms