APPLICANT: MOTOROLA **TRANSCEIVER TYPE: IHET5BR1**

SC4812ETL @ 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: File MC1281, UL Project No. O1NK32852 EMC Test Report). All details related to test equipment, calibration, environmental conditions are in the referenced report.
2. Results listed apply only to the SC4812ETL CDMA BTS.

Engineer: Terry Schwenk

Signature:  8/28/01

Date

FCC ID: IHET5BR1

SECTION A

Summary of RF Measurements

Summary of Radiated RF Measurements

Worst Case Radiated RF Spur Level for SC4812ETL @ 800 MHz

Radiated Data			*Substituted Power*				*Spec*	*Result*
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 22 MAX LIMIT (dBm)**	**Pass/ Fail**
1013	**9536.905**	**V**	**45**	**-50.228**	**-59**	**-49.15**	**-13**	**Pass**

Notes:

1. Converting dBuV/M to dBm at 3 meters:
   (dBuV/M) + 9.542 – 104.77 = dBm
   Converting dBuV/M to dBm at 10 meters:
   (dBuV/M) + 20 – 104.77 = 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

9/17/01

Date

Terry Schwenk

Conducted RF Measurements

SC4812ETL @ 800 MHz

FCC Part 22

CHANNEL	FREQUENCY (MHz)	SPUR LEVEL MEASURED (dBµV)	SPUR LEVEL MEASURED (dBm)	FCC MAX LIMIT (dBm)	PASS / FAIL
777	**6948.39**	**84.46**	**-22.54**	**-13**	**Pass**
1013	**6975.395**	**84.11**	**-22.89**	**-13**	**Pass**

FCC Maximum Limit Per 47 CFR:

- **“** = Transmitted Power (10 $\text{Log}_{10}(P_{watt})$**)** – (43 + 10 $\text{Log}_{10}(P_{watt})$) dBW
- “ = 10 $\text{Log}_{10}(P_{watt})$**)** - (43 + 10 $\text{Log}_{10}(P_{watt})$) dBW
- “ = -43 dBW
- “ = -13 dBm

Terry Schwenk

SECTION B

Summary of Modulation Characteristics

SC4812ETL @800MHz worst cases

CHANNEL	TUNE FREQUENCY (MHz)	RHO measured	RHO specifications	Pass/Fail
1013	869.70	0.982	>0.912	Pass
777	893.31	0.9826	>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 8/28/01

Date

Francisco Avalos

FCC ID: IHET5BR1

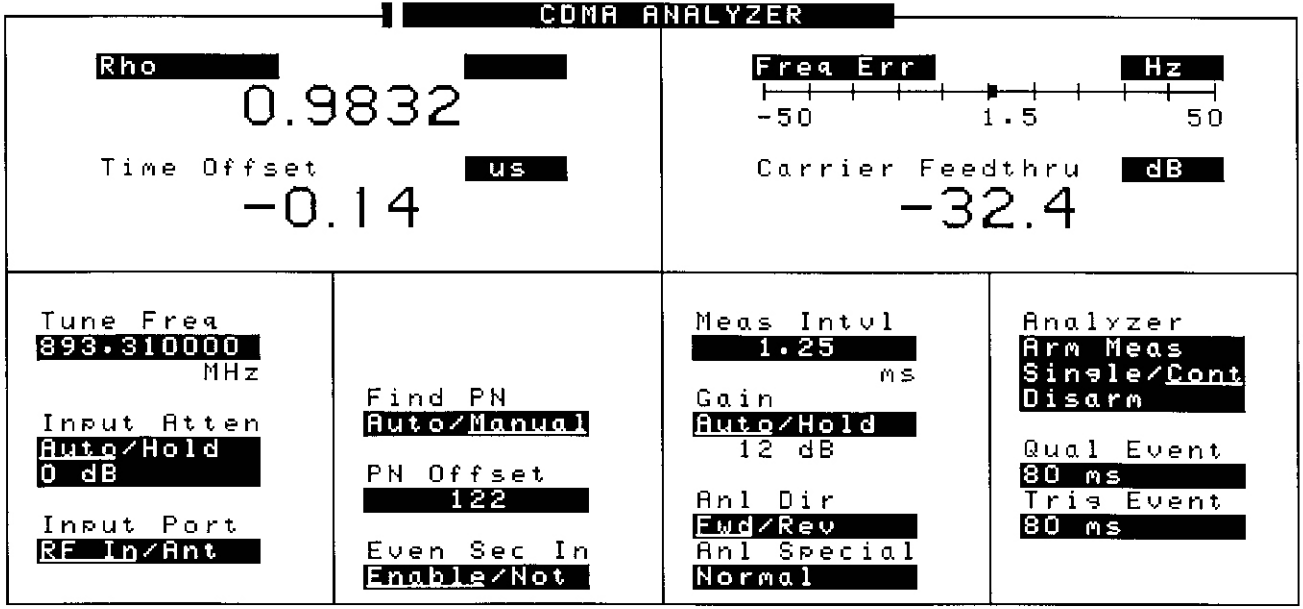
SECTION B

Modulation Characteristics

Maximum Power

SC4812ETLite 800MHz 3G-1X 46dBm
E6380A Cell Site Test Set: 08/14/01 01:36:00 PM

T



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CDMA ANALYZER

Rho
0.9826

Time Offset
0.13 us

Freq Err Hz
-50 1.1 50

Carrier Feedthru
-35.1 dB

Tune Freq
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
12 dB

Anl Dir
Fwd/Rev

Anl Special
Normal

Analyzer
Arm Meas
Single/Cont
Disarm

Qual Event
80 ms

Trig Event
80 ms

FCC ID: IHET5BR1

Modulation Characteristics

Minimum Power

SC4812ETLite 800MHz 3G-1X 23dBm
E6380A Cell Site Test Set: 08/14/01 01:38:00 PM

T

CDMA ANALYZER

Rho
0.9826

Time Offset us
-0.14

Freq Err Hz
-50 2.0 50

Carrier Feedthru dB
-30.7

Tune Freq
893.310000
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

SC4812ETLite 800MHz 3G-1X 23dBm
E6380A Cell Site Test Set: 08/14/01 01:29:00 pm

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CDMA ANALYZER

Rho
0.9820

Time Offset
0.13 us

Freq Err Hz
-50 3.2 50

Carrier Feedthru
-35.8 dB

Tune Freq
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