## 3.1 DESCRIPTION OF TESTS (Continued)

### 3.7 24.232(b) Equivalent Isotropically Radiated Power (E.I.R.P.)

The RF output power is measured via HP436A Power Meter and Sensor.

Supply Voltage: 7.2 VDC

Modulation: CDMA

| Channel No. | Nominal FREQ (MHz) | Measured Power Output (dBm) | Antenna Gain (dBi) | EIRP (dBm | EIRP (W) |
|---|---|---|---|---|---|
| 0025 | 1851.25 | 26.0 | 0.7 | 26.7 | 0.47 |
| 0600 | 1880.00 | 26.0 | 0.8 | 26.8 | 0.48 |
| 1175 | 1908.75 | 26.0 | 0.5 | 26.5 | 0.45 |

*Mobile / portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.*

# Test Data

## Radiated Measurements

### § 2.993 Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1851.25 MHz
CHANNEL: 0025 (Low)
MEASURED OUTPUT POWER: 26.80 dBm = 0.480 W
MODULATION SIGNAL: CDMA (Internal)
DISTANCE: 3 meters
LIMIT: 43 + 10 log10 (W) = 39.81 dBc

| FREQ. (MHz) | LEVEL (dBm) | AFCL (dB) | POL (H/V) | F/S (μV/m) | EIRP (dBm) | (dBc) |
|---|---|---|---|---|---|---|
| 3702.50 | -92.0 | 44.4 | V | 930.0 | -38.01 | 64.8 |
| 5553.75 | -95.5 | 49.7 | V | 1148.2 | -36.18 | 63.0 |
| 7405.00 | -114.8 | 53.7 | V | 197.2 | -51.48 | 78.3 |
| 9256.25 | < -130 | | | | | |
| 11107.50 | < -130 | | | | | |
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**NOTES:**

1. The bandwidth is set per §24.238.
2. The spectrum was checked from 25 MHz up to the 10th harmonic.
3. All emissions not listed were found to be more than 20dB below the limit.
4. < -130dBm is below the floor of the spectrum analyzer.
5. The EUT is manipulated through 3 orthogonal axis and the worst-case are reported.
6. The EUT is placed 3m. Away from the receiving antenna and the EIRP is calculated using the formula:
   EIRP (dBm) = 10Log10(((r(mV/m)/1 x 106)2/49.2/1x10-3
   EIRP (dBm) = 10Log10[(3 x FS/1 x 106)2 / (49.2) x 1000]
   EIRP (dBm) = [3 x FS)/1 x 106]2 / 49.2

# Test Data

## Radiated Measurements

### § 2.993 Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1880.00 MHz
CHANNEL: 0600 (Middle)
MEASURED OUTPUT POWER: 26.80 dBm = 0.480 W
MODULATION SIGNAL: CDMA (Internal)
DISTANCE: 3 meters
LIMIT: 43 + 10 log10 (W) = 39.81 dBc

| FREQ. (MHz) | LEVEL (dBm) | AFCL (dB) | POL (H/V) | F/S ($\mu$V/m) | EIRP (dBm) | (dBc) |
|---|---|---|---|---|---|---|
| 3760.00 | -91.5 | 44.7 | V | 1023.3 | -37.18 | 64.0 |
| 5640.00 | -96.0 | 49.9 | V | 1109.2 | -36.48 | 63.3 |
| 7520.00 | -115.0 | 54.0 | V | 199.5 | -51.38 | 78.2 |
| 9400.00 | < -130 | | | | | |
| 11280.00 | < -130 | | | | | |
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**NOTES:**

1. The bandwidth is set per §24.238.
2. The spectrum was checked from 25 MHz up to the 10th harmonic.
3. All emissions not listed were found to be more than 20dB below the limit.
4. < -130dBm is below the floor of the spectrum analyzer.
5. The EUT is manipulated through 3 orthogonal axis and the worst-case are reported.
6. The EUT is placed 3m. Away from the receiving antenna and the EIRP is calculated using the formula:
   EIRP (dBm) = $10\text{Log}_{10}(((r(\text{mV/m})/1 \times 10^6)^2/49.2/1\text{x}10^{-3}$
   EIRP (dBm) = $10\text{Log}_{10}[(3 \times \text{FS}/1 \times 10^6)^2 / (49.2) \times 1000]$
   EIRP (dBm) = $[3 \times \text{FS})/1 \times 10^6]^2 / 49.2$

# Test Data

## Radiated Measurements

### § 2.993 Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1908.75 MHz
CHANNEL: 1175 (High)
MEASURED OUTPUT POWER: 26.80 dBm = 0.480 W
MODULATION SIGNAL: CDMA (Internal)
DISTANCE: 3 meters
LIMIT: 43 + 10 log10 (W) = 39.81 dBc

| FREQ. (MHz) | LEVEL (dBm) | AFCL (dB) | POL (H/V) | F/S ($\mu$V/m) | EIRP (dBm) | (dBc) |
|---|---|---|---|---|---|---|
| 3817.50 | -90.0 | 45.0 | V | 1258.9 | -35.38 | 62.2 |
| 5726.25 | -97.2 | 50.1 | V | 988.6 | -37.48 | 64.3 |
| 7635.00 | -115.0 | 54.2 | V | 204.2 | -51.18 | 78.0 |
| 9543.75 | < -130 | | | | | |
| 11452.50 | < -130 | | | | | |
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**NOTES:**

1. The bandwidth is set per §24.238.
2. The spectrum was checked from 25 MHz up to the 10th harmonic.
3. All emissions not listed were found to be more than 20dB below the limit.
4. < -130dBm is below the floor of the spectrum analyzer.
5. The EUT is manipulated through 3 orthogonal axis and the worst-case are reported.
6. The EUT is placed 3m. Away from the receiving antenna and the EIRP is calculated using the formula:
   EIRP (dBm) = $10\text{Log}_{10}(((r(\text{mV/m})/1 \times 10^6)^2/49.2/1\text{x}10^{-3}$
   EIRP (dBm) = $10\text{Log}_{10}[(3 \times \text{FS}/1 \times 10^6)^2 / (49.2) \times 1000]$
   EIRP (dBm) = $[3 \times \text{FS})/1 \times 10^6]^2 / 49.2$