

5.1 Test Data - IDEN 900 MHz

5.2 Effective Radiated Power Output

A. POWER: High

| Freq. Tuned (MHz) | REF. LEVEL (dBm) | POL (H/V) | ERP (W) | ERP (dBm) | BATTERY |
|-------------------|------------------------|--------------|------------|--------------|----------|
| 896.01750 | -12.700 | V | 0.720 | 28.573 | Standard |
| 899.01875 | -12.700 | V | 0.747 | 28.733 | Standard |
| 900.98125 | -12.900 | V | 0.738 | 28.683 | Standard |

Note: Standard batteries are the only option for this EUT

NOTES:

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the dipole is measured. The ERP is recorded.



Radiated Measurements - IDEN 900 MHz

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 896.01750 CHANNEL: (Low) MEASURED OUTPUT POWER: 28.733 dBm 0.747 W MODULATION SIGNAL: (Internal) DISTANCE:

LIMIT: $43 + 10 \log_{10} (W) =$

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|---------------------------------|--|--|--------------|-------|
| 1792.04 | -31.38 | 6.10 | -25.28 | V | 54.0 |
| 2688.05 | -27.48 | 6.70 | -20.78 | V | 49.5 |
| 3584.07 | -52.78 | 6.80 | -45.98 | V | 74.7 |
| 4480.09 | -40.68 | 6.50 | -34.18 | V | 62.9 |
| 5376.11 | -42.48 | 7.00 | -35.48 | V | 64.2 |

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:



Radiated Measurements - IDEN 900 MHz

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 899.01875 MHz

CHANNEL: (Mid)

MEASURED OUTPUT POWER: <u>28.733</u> dBm = <u>0.747</u> W

MODULATION SIGNAL: (Internal)

DISTANCE: 3 meters

LIMIT: $\overline{43 + 10} \log_{10} (W) = \underline{41.73}$ dBc

| FREQ. | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|---------|---------------------------------|-------------------------------|--|--------------|-------|
| 1798.04 | -32.98 | 6.10 | -26.88 | V | 55.6 |
| 2697.06 | -27.48 | 6.70 | -20.78 | V | 49.5 |
| 3596.08 | -41.98 | 6.80 | -35.18 | V | 63.9 |
| 4495.09 | -39.78 | 6.50 | -33.28 | V | 62.0 |
| 5394.11 | -41.78 | 7.00 | -34.78 | V | 63.5 |

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:



Radiated Measurements - IDEN 900 MHz

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 900.98125 MHz

CHANNEL: (High)

MEASURED OUTPUT POWER: 28.733 dBm = 0.747 W

MODULATION SIGNAL: (Internal)

DISTANCE: 3 meters

LIMIT: $\overline{43 + 10} \log_{10} (W) = \underline{41.73}$ dBc

| FREQ. | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|---------|---------------------------------|-------------------------------|--|--------------|-------|
| 1801.96 | -32.48 | 6.10 | -26.38 | V | 55.1 |
| 2702.94 | -27.78 | 6.70 | -21.08 | ٧ | 49.8 |
| 3603.93 | -43.38 | 6.80 | -36.58 | V | 65.3 |
| 4504.91 | -41.68 | 6.50 | -35.18 | V | 63.9 |
| 5405.89 | -43.28 | 7.00 | -36.28 | V | 65.0 |

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:



7.1 Test Data - IDEN 800 MHz

7.2 Effective Radiated Power Output

A. POWER: High

| Freq. Tuned (MHz) | REF. LEVEL (dBm) | POL (H/V) | ERP (W) | ERP (dBm) | BATTERY |
|----------------------|------------------------|--------------|------------|--------------|----------|
| 806.0125 | -12.500 | V | 0.754 | 28.773 | Standard |
| 815.5125 | -12.500 | V | 0.782 | 28.933 | Standard |
| 824.9875 | -12.700 | V | 0.773 | 28.883 | Standard |

Note: Standard batteries are the only option for this EUT

NOTES:

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the dipole is measured. The ERP is recorded.



Radiated Measurements - IDEN 800 MHz

Field Strength of SPURIOUS Radiation

| OPERATING FREQUENCY: | 806.0125 | MHz |
|----------------------|----------|-----|
|----------------------|----------|-----|

CHANNEL: (Low)

MEASURED OUTPUT POWER: 28.933 dBm = 0.782 W

MODULATION SIGNAL: (Internal)

DISTANCE: 3 meters

LIMIT: $\overline{43 + 10 \log_{10} (W)} = \underline{41.93}$ dBd

| FREQ. (MHz) | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|----------------|---------------------------------|--|--|--------------|-------|
| 1612.03 | -30.88 | 6.10 | -24.78 | V | 53.7 |
| 2418.04 | -25.78 | 6.70 | -19.08 | V | 48.0 |
| 3224.05 | -41.58 | 6.80 | -34.78 | V | 63.7 |
| 4030.06 | -39.58 | 6.50 | -33.08 | V | 62.0 |
| 4836.08 | -42.38 | 7.00 | -35.38 | V | 64.3 |

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:



Radiated Measurements - IDEN 800 MHz

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 815.0125 MHz

CHANNEL: (Mid)

MEASURED OUTPUT POWER: 28.933 dBm = 0.782 W

MODULATION SIGNAL: (Internal)

DISTANCE: 3 meters

LIMIT: $\overline{43 + 10 \log_{10} (W)} = \underline{41.93}$ dBc

| FREQ. | LEVEL @ ANTENNA TERMINALS (dBm) | SUBSTITUTE ANTENNA GAIN (dBd) | CORRECT GENERATOR LEVEL (dBm) | POL (H/V) | (dBc) |
|---------|---------------------------------|-------------------------------|--|--------------|-------|
| 1630.03 | -31.78 | 6.10 | -25.68 | V | 54.6 |
| 2445.04 | -26.08 | 6.70 | -19.38 | V | 48.3 |
| 3260.05 | -41.98 | 6.80 | -35.18 | V | 64.1 |
| 4075.06 | -39.78 | 6.50 | -33.28 | V | 62.2 |
| 4890.08 | -41.78 | 7.00 | -34.78 | V | 63.7 |

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:



Radiated Measurements - IDEN 800 MHz

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.9875 MHz

CHANNEL: (High)

MEASURED OUTPUT POWER: 28.933 dBm = 0.782 W

MODULATION SIGNAL: (Internal)

DISTANCE: 3 meters

LIMIT: $\overline{43 + 10} \log_{10} (W) = \underline{41.93}$ dBc

| FREQ. | LEVEL @ ANTENNA | SUBSTITUTE ANTENNA | CORRECT GENERATOR | POL | |
|---------|--------------------|-----------------------|----------------------|-------|-------|
| (MHz) | TERMINALS (dBm) | GAIN (dBd) | LEVEL (dBm) | (H/V) | (dBc) |
| 1649.98 | -32.68 | 6.10 | -26.58 | V | 55.5 |
| 2474.96 | -26.28 | 6.70 | -19.58 | V | 48.5 |
| 3299.95 | -42.58 | 6.80 | -35.78 | V | 64.7 |
| 4124.94 | -40.68 | 6.50 | -34.18 | V | 63.1 |
| 4949.93 | -42.58 | 7.00 | -35.58 | V | 64.5 |

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001: