

Test Data

§ 22.913 Effective Radiated Power Output

A. POWER: **Low (Analog Mode)**

Freq. Tuned (MHz)	LEVEL (dBm)	AFCL (dB)	POL (H/V)	F/S (μ V/m)	ERP (W)	ERP (dBm)	Battery Type
824.04	-34.80	31.65	V	155785	0.00445	6.47	Standard
836.49	-34.40	31.81	V	166076	0.00506	7.03	Standard
848.97	-35.00	31.96	V	157800	0.00457	6.58	Standard

B. POWER: **High (Analog Mode)**

Freq. Tuned (MHz)	LEVEL (dBm)	AFCL (dB)	POL (H/V)	F/S (μ V/m)	ERP (W)	ERP (dBm)	Battery Type
824.04	-14.80	31.65	V	1557848	0.44500	26.47	Standard
836.49	-14.40	31.81	V	1660758	0.50573	27.03	Standard
848.97	-15.00	31.96	V	1577997	0.45658	26.58	Standard
836.49	-14.40	31.81	V	1660758	0.50573	27.03	Extended

NOTES:

The EUT is placed 3m. away from the receiving antenna and the ERP is calculated using the formula:

$$\text{ERP (dBm)} = 10 \text{ Log}_{10} \left(\frac{(r(\text{mV/m})/1 \times 10^6)^2}{49.2/1 \times 10^{-3}} \right)$$

$$\text{ERP (dBm)} = 10 \text{ Log}_{10} \left[\frac{(3 \times \text{FS}/1 \times 10^6)^2}{(49.2) \times 1000} \right]$$

$$\text{ERP (Watts)} = \frac{(3 \times \text{FS})/1 \times 10^6}{49.2}$$

Test Data

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

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

Supply Voltage: _____ 4.2 _____ VDC

Modulation: _____ CDMA _____

FREQ. (MHz)	Level (dBm)	AFCL (dB)	POL (H/V)	Height (m)	Azimuth (° angle)	F/S (μV/m)	(dBm)	EIRP (W)	Battery Type
1851.25	- 24.2	35.31	V/H	1.3	90	804452	22.88	0.194	Standard
1880.00	- 24.3	35.48	V/H	1.3	90	815643	23.00	0.200	Standard
1908.75	- 24.6	35.65	V/H	1.3	90	798914	22.82	0.191	Standard
1880.00	- 24.3	35.48	V/H	1.3	90	815643	23.00	0.200	Extended

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

The EUT is placed 3m. away from the receiving antenna and the EIRP is calculated using the formula:

$$\text{EIRP (dBm)} = 10 \text{ Log } 10 \left(\frac{(r(\text{mV/m})/1 \times 106)^2}{30.0/1 \times 10^{-3}} \right)$$

$$\text{EIRP (dBm)} = 10 \text{ Log } 10 \left[\frac{(3 \times \text{FS}/1 \times 106)^2}{(30.0) \times 1000} \right]$$

$$\text{EIRP (dBm)} = \left\{ \frac{(3 \times \text{FS})/1 \times 106}{30.0} \right\}^2$$