



# Intertek Testing Services

ETL SEMKO

January 10, 2000

Federal Communications Commission  
Equipment Authorization Division  
Application Processing Branch  
7435 Oakland Mills Road  
Columbia, MD 21046

Attention: Mr. Joe Dichoso

Reference: RFC Distribution (S) PTE Ltd., FCC ID: OQ4RFC001  
Confirmation # EA95625, Reference # 11664

Dear Joe:

As requested, here is the sample calculations for output power and power spectral density:

The output power was measured using "Substitution" method. The half wave dipole was placed on the turn table at 3m distance; the fixed power was input to dipole (generator output) (ex. 8.2 dBm). Maximum field strength was measured (dipole reading) (ex 83.7 dBuV). Dipole was replaced by EUT. Maximum field strength was measured again (EUT reading) (ex. 86.4 dBuV). The EUT output power was calculated by:

$$\begin{aligned}\text{EUT (ERP)} &= \text{Generator Output} + (\text{EUT Reading} - \text{Dipole Reading}) \\ &= 8.2 + (86.4 - 83.7) \\ &= 10.9 \text{ dBm} \\ \text{EUT (EIRP)} &= \text{EUT (ERP)} + 2 = 12.9 \text{ dBm}\end{aligned}$$

Output power density was measured with "Substitution" method. The half wave dipole was placed on the turn table at 3m distance; the fixed power was input to dipole (generator output) (ex. 8.2 dBm). Maximum field strength was measured (dipole reading) (ex 83.7 dBuV). Dipole was replaced by EUT. Maximum field strength of power density was measured again (EUT reading) (ex 74.7 dBuV). The EUT output power density was calculated by:

$$\begin{aligned}\text{EUT (ERP Power Density)} &= \text{Generator} + (\text{EUT Reading} - \text{Dipole Reading}) \\ &= 8.2 + (74.7 - 83.7) = -0.8 \text{ dBm} \\ \text{EUT (EIRP Power Density)} &= \text{EUT (ERP Power Density)} + 2 \\ &= -0.8 + 2 = 1.2 \text{ dBm}\end{aligned}$$

See attached pages for the output power and power spectral density test results.

Should you need more, please feel free to contact Xi-Ming Yang or the undersigned.

Thanks and regards,

Gaspara Lim  
Enclosures



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# ITS Intertek Testing Services

**Company:** RFC Distribution  
**Project #:** J99022752  
**Model:** USB Cordless Phone 900D  
**Engineer:** Xi-Ming Yang  
**Date of test:** April 6, 1999

## FCC Part 15.247 Radiated Emissions (Output Power)

### Handset

Frequency	Antenna Polarity	EUT Reading dB(uV)	Dipole Reading dB(uV)	Generator Output dBm	EUT ERP dBm	EUT EIRP dBm
MHz	H/V					
903.2	H	86.4	83.7	8.2	10.9	12.9
913.6	H	83.4	81.7	8.4	10.1	12.1
924.5	H	85.0	82.7	8.0	10.3	12.3

### Base

Frequency	Antenna Polarity	EUT Reading dB(uV)	Dipole Reading dB(uV)	Generator Output dBm	EUT ERP dBm	EUT EIRP dBm
MHz	H/V					
902.3	H	92.6	82.7	7.8	17.7	19.7
913.8	H	93.3	82.5	7.9	18.7	20.7
924.5	H	91.3	83.0	7.8	16.1	18.1

**Note:** 1. All measurement were made at 3 meters  
 2. Substitution was used to obtained the power reading

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## FCC Part 15.247 Radiated Emissions (Output Power Density)

### Handset

Frequency	Antenna	EUT	Dipole	Generator	EUT	EUT
	Polarity	Reading	Reading	Output	Power Density	Power Density
MHz	H/V	dB(uV)	dB(uV)	dBm	ERP(dBm)	EIRP(dBm)
902.6	H	74.7	83.7	8.2	-0.8	1.2
913.1	H	71.7	81.7	8.4	-1.6	0.4
924.4	H	73.3	82.7	8.0	-1.4	0.6

### Base

Frequency	Antenna	EUT	Dipole	Generator	EUT	EUT
	Polarity	Reading	Reading	Output	Power Density	Power Density
MHz	H/V	dB(uV)	dB(uV)	dBm	ERP(dBm)	EIRP(dBm)
902.6	H	75.6	82.7	7.8	0.7	2.7
913.1	H	77.5	82.5	7.9	2.9	4.9
924.4	H	77.3	83.0	7.8	2.1	4.1

Note: 1. All measurement were made at 3 meters  
2. Substitution was used to obtained the power reading