

General technical requirements

Digital modulation techniques: FCC 15.319(b), IC RSS-213 6.1

The DECT standard GFSK modulation is used.

Peak transmit power: FCC 15.319(c), IC RSS-213 6.5

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

The peak transmit power does not exceed 100 microwatts multiplied by the square root of the emission bandwidth in Hertz.

Test location

- ☒ - Wild River Lab Large Test Site (Open Area Test Site) – radiated measurement for microphone
- ☐ - Wild River Lab Small Test Site (Open Area Test Site)
- ☐ - Wild River Lab Shield Room – conducted measurement for base station

Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3371	E4440A	Agilent	Spectrum Analyzer	MY43362222	03-Nov-06
2075	3115	Electro-Mechanics (EMCO)	Ridge Guide Antenna	9001-3275	08-Dec-06
3229	3115	Electro-Mechanics (EMCO)	Ridge Guide Antenna	2483	17-May-07
3333	SME03	Rohde-Schwarz	Signal generator	100003	07-Jun-07

Cal Code B = Calibration verification performed internally. Cal Code Y = Calibration not required when used with other calibrated equipment.

Test limits

120 milliwatts, based on $100 \text{ microwatts} \times (1460000 \text{ Hz})^{1/2}$

The formula used to calculate the ERP was $E(\text{dBuV/m}) = 106.92 + \text{ERP (dBk)} - 20 \log D (\text{km})$.

$$109 \text{ dBuV/m} = 106.92 + \text{ERP (dBk)} - 20 \log .003 \text{ m}$$

$$\text{ERP} = 14.5 \text{ mW, or } 11.6 \text{ dBm}$$

$$\text{EIRP} = 11.6 + 2.15, \text{ or } 13.75 \text{ dBm}$$

These values were verified by substitution method of the peak field strength.

$$4.0 \text{ dBm (signal generator output)} + 1.7 \text{ dB (cable loss)} + 8 \text{ dBi (antenna gain)} = 13.7 \text{ dBm.}$$

Radiated measurements made in lieu of conducted measurements since antenna was not detachable.

The solo microphone units each have a single smt ceramic 1.5 dBi gain antenna.