1. Purpose

   This report evaluates the RF exposure of the TCC base station. This report follows the calculations outlined in OET bulletin 65, Edition 97-01.

2. References

   • RSS-102 issue 6

   • FCC 47 CFR Part 1, section 1.310

   • FCC KDB 447498 DO1, RF Exposure Procedures and Equipment Authorization Polices for Mobile and Portable Devices, V6

   • OET bulletin 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, Edition 97-01

3. Equipment Description

Description:	DECT Base Station
Model:	TCC
Additional Model(s):	None
Brand Name(s):	Lightspeed Corporation
Serial Number:	02-C25-B-S2441-00020
HW version:	Rev A
FW Version:	7.1.14
FCC ID:	ORV-LSTCC
IC:	1732B-LSTCC
Equipment type:	End Product

3.1. Radiation Sources

Mode	Description	
UPCS	Frequency Range	1921.536 – 1928.448 MHz
	Channels	5
	Modulations	GFSK
	Max Conducted power [dBm]	16.49
	Antenna gain [dBi]	6.6

4. Rf Exposure Classification

Threshold calculation FCC

FCC Limits – General Population / Uncontrolled Exposure				
Frequency range [MHz]	Electric field strength [V/M]	Magnetic field strength [A/M]	Power density [mW/cm^2]	Averaging time [min]
0.3 - 1.34	614	1.63	100	30
1.34 - 30	842/f	2.19 / f	180 / f^2	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	N/A	N/A	f / 1500	30
1500 - 100000	N/A	N/A	**1**	30

Threshold calculation RSS-102 Issue 6

Below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance).
At or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 4.49/*f*0.5 W (adjusted for tune-up tolerance), where *f* is in MHz.
At or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance).
At or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1.31 x 10-2 *f*0.6834 W (adjusted for tune-up tolerance), where *f* is in MHz.
At or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

5. Assessment

   OET bulletin 65 uses the following equation to predict the strength of an RF field at a given distance:

   The results of the assessment are shown below:

   Threshold calculation, FCC

Assessment Results		
Variable	Value	Unit
Assessment frequency (f)	1928.448	MHz
FCC Limit	**1**	W/m^2
Peak Conducted Power (P)	16.49	dBm
	44.57	mW
Peak Antenna Gain (G)	6.6	dBi
	4.5709	
Distance (R)	20	cm
Power Density (S)	**0.4053**	W/m^2

The power density of the EUT at 20cm is below the FCC limit.

Threshold calculation, RSS-102 issue 6

separation distance	200	mm
frequency	1928.448	MHz
Threshold	2.3	W

EUT Output Power

Assessment Results		
Max power	16.49	dBm
Antenna gain	6.6	dBi
Power for RF	**23.09**	dBm
Exposure	**0.2037**	W (EIRP)

As EIRP is below Threshold the device is exempt from rf exposure evaluation.