



## System Highlights

- Conforms to Freescale Semiconductor's Tower System
- Jumper Configurable
- Capable of mesh networking

## ZigBee<sup>®</sup> Communications, 2.4GHz

Product Brief – Revision A

15 October 2009

## DESCRIPTION

The cLS-FSTS-COMM-CARRIER contains a ZigBee<sup>®</sup> based module that is interfaced to the Freescale Semiconductor Tower System. The ZigBee module is FCC conformance certified. Communications between the MCU and the cLS-FSTS-COMM-CARRIER is accomplished via a serial port. The port is jumper selectable to the available MCU resources.

Serial communications is straight forward Tx and Rx. A module reset line and sleep mode are included. Sample code is included with the product.

Mesh networking capability allowing for multiple units to cross communicate.

Frequency: ISM 2.4 GHz

Antenna Options: U.FL Connector, Chip Antenna or Integrated Whip Antenna

Indoor/urban Range: up to 300' (100 m)

Outdoor line-of-sight Range: Up to 1 mile (.6 km)

Transmit Power Output: < 10 $\mu$ A

Operating Frequency: 2.4 GHz

RF Data Rate: 250,000 bps



## SPECIFICATIONS

### Interface:

Selectable as required to conform to Tower System.

### Physical Characteristics:

Freescale Tower System format.

### Power Requirements:

Supply Voltage:	2.8 – 3.4 V
Transmit Current (Typical)	215 mA (@3.3V, 18dBm)
Idle / Receive Current (Typical)	55 mA (@ 3.3V )
Power-down Current:	< 10 $\mu$ A

### Environmental Characteristics:

Operating Temperature:	-20°C to 90°C
Storage Temperature:	-40°C to 105°C
Relative Humidity:	0 to 90% non-Condensing

## MODEL NUMBERS

cLS-FSTS-COMM-CARRIER-C:	Communications card w/Chip antenna
cLS-FSTS-COMM-CARRIER-W:	Communications card w/Whip antenna
cLS-FSTS-COMM-CARRIER-U:	Communications card w/UFL connector



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