

# Tarang™

TARANG wireless modules based on Freescale MC1321X SIP, are low to medium-power devices. They are suitable for adding wireless capability to any product with serial data interface. The modules require minimal power and provide reliable delivery of data between devices. The I/O interfaces provided with the modules help to directly fit into many industrial applications. The modules operate within the ISM 2.4 GHz frequency band with IEEE 802.15.4 baseband.

Platform	Tarang - F4	Tarang - F20	Tarang - F30
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## Power

Supply Voltage	3.3 to 3.6V	3.0 to 3.3V	5V
Transmit Current	45mA	155mA at 20dbm	460mA
Idle/Receive Current	50mA	70mA	65mA
Power-down Current	<10µA	<10µA	<60µA

## General

Frequency	ISM 2.4 - 2.484 GHz	ISM 2.4 - 2.484 GHz	ISM 2.4 - 2.484 GHz
Nominal Transmit Power	1mW (+0 dBm)	158mW (+22 dBm)	1W (+30 dBm)
RF Data Rate	250 Kbps	250 Kbps	250 Kbps
Receiver Sensitivity	-92 dBm	-103 dBm	-104 dBm
Serial Data Rate	Up to 115200 baud	Up to 115200 baud	Up to 115200 baud
Operating Temperature	-40 to 85 ° C	-40 to 85 ° C	-40 to 85 ° C
Antenna Connector	MMCX	MMCX	MMCX
On-board Antenna Options	Chip Antenna Wire Antenna	Chip Antenna Wire Antenna	NA

## Network

Supported Network Topologies	Peer-to-Peer, Point to Multipoint and Mesh	Peer-to-Peer, Point to Multipoint and Mesh	Peer-to-Peer, Point to Multipoint and Mesh
Number of Channels	16	16	16
Addressing Options	PAN ID, Channel and address	PAN ID, Channel and address	PAN ID, Channel and address

## Mechanical

Dimensions	37.8mm x 26.2mm	36.3mm x 26.3mm	61.4mm x 42.7mm
Interface Connector	2x10 pin berg stik, 2.00mm pitch	2x10 pin berg stik, 2.00mm pitch	2x10 pin berg stik, 2.54mm pitch



## FEATURES

1. Supported with Point to point, point to multipoint and peer-to-peer networking on proprietary stack.
2. Can be supplied with ZigBee stack.
3. Direct Sequence Spread Spectrum technology.
4. RF Data rate: 250 kbps.
5. Includes receive bandpass filter in Tarang-F30.
6. Acknowledgement mode communication with retries.
7. Power saving modes.
8. Source / Destination Addressing
9. Analog to Digital conversion and Digital I/O line support.
10. Each direct sequence channel has 64K unique network address.
11. Configurable Transmit Power: Upto 0 dBm, 18 dBm and 30 dBm.
12. Default configuration for ready to use.
13. Supports user application development.

Contact Us:



**Melange Systems Private Limited**

*Wireless controls in action*

No. 4/1, 7<sup>th</sup> Cross, Kumara Park West,

Bangalore - 560020,

Ph: +91-80-23561023

Telefax: +91-80-23462175

Email: [info@melangesystems.com](mailto:info@melangesystems.com)

Web: [www.melangesystems.com](http://www.melangesystems.com)