



TIAMIS - 800 TRANSCIVER

FOR SERIAL INTERFACES



Tiamis-800, software defined radio transceiver, extruded aluminum enclosure

- Fully digital, software defined radio transceiver
- Supports almost any type of RF channel waveform (FM, PM, or AM); On-board encryption engine, randomizer, and encoder; If needed, can be used with external up/down frequency converter or power amplifier to meet CDL requirements
- RF channel throughput adjustable according to the application needs from 2.4 kb/s to 1 Mb/s; Wide selection of data interfaces
- Spreading Spectrum by Frequency Hopping (hops as fast as 100,000 times/second), or Direct Sequence, or Hybrid
- User selectable frequency channels of operation with resolution of 0.25 kHz; Operation Frequency Band is 824-960 MHz providing operation in almost any part of the world

RELATED PRODUCTS



Board level Tiamis-800 software defined radio transceiver

- Lexycom Configuration and Firmware Upgrade programs
- Interchangeable data interface
- Serial data options: Option 1100, 1102, 1103, refer to the interface section for option details
- Ethernet data options: Option 1200, 12E0
- Board level
- Antennas
- Cables

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Where any application finds its wireless solution

TIAMIS-800 TRANSCEIVER



CHARACTERISTICS

Frequency band of operation	824...960 MHz
RF channel throughput	User selectable: from 1200 b/s to 256 kb/s for 2-level modulation schemas; up to 1 MB/s for more complex modulation types.
Network topologies supported	Point-to-Point, Point-to-Multipoint, TDMA, Peer-to-Peer.
RF Network security	In addition to the proprietary network protocol that is used, the following parameters of the transceiver are user selectable, providing required network security: Hop Rate as fast as 100,000 times per second; Fast frequency hopping option; Hop table up to 128 frequency channels long. Each frequency channel is user selectable with 0.25 kHz resolution.
RF channel data encryption	Available cryptography: AES, DES, and 3DES algorithms. User-defined security keys.
Output power	Programmable with 1 dB steps, up to 1 Watt.
Sensitivity	-109 dBm @ BER 10^{-6} , RF channel bit rate of 130 kb/s, 2 level FSK
Input voltage range	4.5...25 VDC.
Operating temperature range	-35 ... + 75 deg C.
Humidity	Up to 90%, non-condensing.
RF connector	SMA
Data interfaces supported	With the appropriate interface board, the transceiver is capable of supporting the following data interfaces: RS232, RS422, RS485, USB, I2C, SPI, Ethernet, and Digital I/Os.
Dimensions (board level)	3'' x 6.45'' x 0.5''.

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