

TB32301M Controller Module

Highlights

- Simplifies the test and verification process for the TB32301M RF module by eliminating the need for extensive test equipment for test and range measurements
- Manages the communication of the TB32301M RF module and provides feedback to the user through the status LEDs

Description

The TB32301M Controller Module uses the Toshiba TMP86FM48F 8-bit microcontroller with built-in 32K Flash and 2K RAM. The microcontroller with help of the on-board status LEDs and DIP switches completely controls the communications modes of the TM32301M RF module. The Module is used as a daughter board in three frequencies: low (2.402/2.413 MHz), medium (2.440/2.415 MHz) and high (2.480/2.491 MHz), using one of the following communication modes:

1. Static Mode:

This mode is used for various static tests modes for RF testing and demonstration purposes. The controller board will operate in this mode as a standalone unit. The test operation and results will be verified with external test equipment, such as a spectrum analyzer.

2. Simplex Mode:

In the Simplex mode, one radio board will transmit a Manchester-encoded pre-defined set of test packets, while the other radio board will receive and verify the test packets.

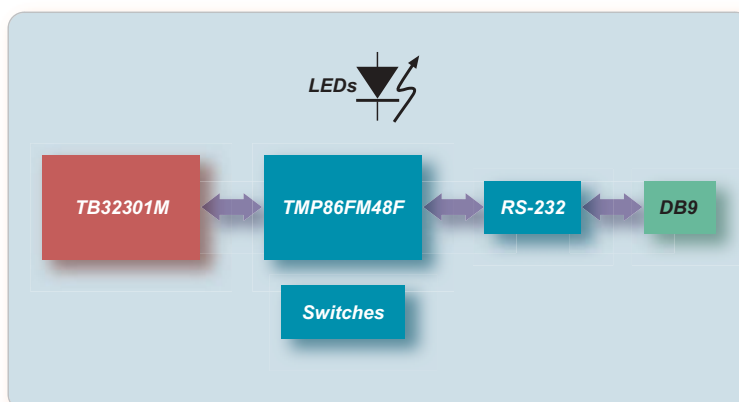
3. Half Duplex Mode:

In the Half Duplex mode, both radio boards will transmit and receive the pre-defined sets of test packets in sequence.

Features

- TMP86FM48F microcontroller
- 8 status LEDs
- Dedicated error and power indication LEDs
- 12 DIP switches for communication control and set up
- Embedded Manchester encode and decode
- Power regulator for DC input (5 ~ 12 VDC)
- Battery set-up for mobile operation
- RS-232 interface for PC connectivity for future upgrade and code expansion

TB32301M Controller Module Block Diagram



Product Brief

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