



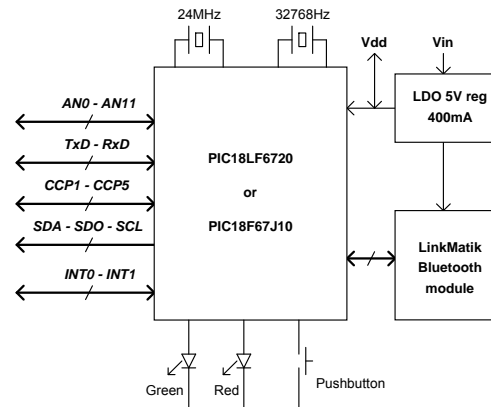
FlexiPanel

Toothpick 2.1™

PIC with integral Bluetooth and Toothpick Services firmware layer



phone and module not to scale



Summary

Toothpick 2.1 is a PIC microcontroller and LinkMatik radio combination, preloaded with Toothpick Services firmware providing FlexiPanel user interface server, wireless field programming and Toothpick Slave for optional external host control.

Hardware Features

- FCC / CE certified Class 1 Bluetooth V2.0 radio, 100m range, integral antenna
- 128Kbyte Flash, 3.5K RAM, 1K EPROM up to 512Kbyte I2C external memory
- 12 x 10-bit A to D converter
- 5 x 10-bit PWM outputs
- Serial UART, I2C and SPI communications
- 2 interrupts
- PCM audio features anticipated
- 24MHz and 32KHz oscillators
- Low dropout 400mA power regulator
- 51 x 22 mm through-hole and surface mount
- Low cost Lite version available

Ordering Information

Part No	Description
TP21-DIL	Toothpick 2.1, 28-pin Dual-in-Line package, 3.3V – 5V
TP21-SO	Toothpick 2.1, 28-pin surface mount package, 3.3V – 5V
TP21L-SO	Toothpick 2.1 Lite, surface mount package, 3.3V

Toothpick Services Features

- FlexiPanel server – creates user interfaces on computers, PDAs, cellphones with no development needed on remote devices
- Wireless field programming lets developers distribute firmware upgrades electronically
- System services including: Bluetooth communications, interrupt and memory management, sleep-safe real time clock with daylight savings time / day-of-week calculator

Operating Modes

- Pre-tested Firmware Solutions ready for immediate standalone operation, including:
 - DARC-I™ Data acquisition and remote control managed via Bluetooth
 - DARC-II™ Data acquisition and remote control with FlexiPanel User Interface
- Toothpick Slave where Toothpick is controlled by a host processor via a serial link.
- Standalone Toothpick programmable in C for low-cost, customized standalone operation.

Manufactured to ISO9001:2000

