DARC-II™

Data Acquisition & Remote Control Module with FlexiPanel User Interface Server

Summary

DARC-II is a standalone Data Acquisition and Remote Control (DARC) module. It is controlled by a remote device running FlexiPanel Client software using the Bluetooth link. No development on the remote device is required.

Hardware Features

- FCC / CE certified Class I Bluetooth V2.0 radio, 100m range, integral antenna.
- 12 analog inputs (10-bit).
- 5 PWM outputs (10-bit).
- 7 digital dedicated digital I/O pins.
- All analog and PWM pins may be also configured for digital I/O.
- Digital I/O pins can be configured as one 7-bit and/or up to two 5-bit parallel digital I/O.
- 64K flash, 2.3K RAM and 1K EEPROM memory available on-board.
- Up to 256K I2C external memory.
- Real time clock.
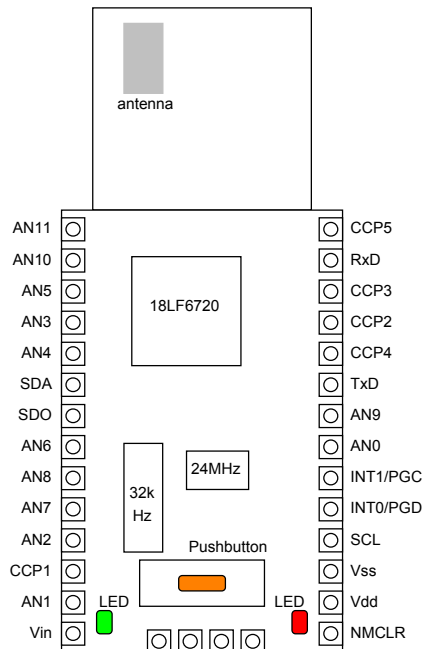- Onboard power regulator, 3.3V – 10V supply.

phone and module not to scale

Firmware Features

DARC-II has an on-board FlexiPanel Server to create user interfaces on remote devices. The user interface and I/O configuration are programmed wirelessly using FlexiPanel Designer software. The I/O pins are linked to controls, *e.g.:*

- *Text control driven by digital input* – has separate text strings for 'low' and 'high'.
- *Number control driven by analog / parallel input* –equals analog value / parallel data.
- *Date-time chart driven by analog / parallel input* – appends time-stamped value onto chart.
- *Digital output driven by button / image* – pulses high for 50ms when pressed.
- *Digital output driven by latch* – on or off according to state of the latch.
- *Parallel output driven by number / list control* – parallel data represents number / selection.
- *PWM output driven by number / list control* – duty cycle represents number / selection.

Customization

- Firmware C source code available.

Manufactured to ISO9001:2000