Internet Of Things Development System
ATM WL 010

Internet Of Things Development Kit
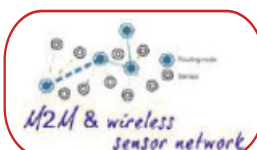
Technical Specification

IOT Node (10 nodes)

- 802.11 b/g/n
- Integrated low power 32-bit MCU
- Integrated 10-bit ADC
- Integrated TCP/IP protocol stack
- Integrated TR switch, balun, LNA, power amplifier and matching network
- Integrated PLL, regulators, and power management units
- Supports antenna diversity
- WiFi 2.4 GHz, support WPA/WPA2
- Support STA/AP/STA+AP operation modes
- Support Smart Link Function for both Android and iOS devices
- SDIO 2.0, (H) SPI, UART, I2C, I2S, IR Remote Control, PWM, GPIO
- STBC, 1x1 MIMO, 2x1 MIMO
- A-MPDU & A-MSDU aggregation & 0.4sguard interval
- Deep sleep power <10uA, Power down leakage current < 5uA
- Wake up and transmit packets in < 2ms
- Standby power consumption of < 1.0mW (DTIM3)
- +20 dBm output power in 802.11b mode
- Operating temperature range -40C ~ 125C
- FCC, CE, TELEC, Wi-Fi Alliance, and SRRC certified Op to coupler mct2e,relay 5v,bc547 transistor. It has USB facility for pc interfacing, serial communication and power led for module indication.
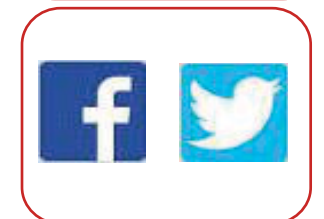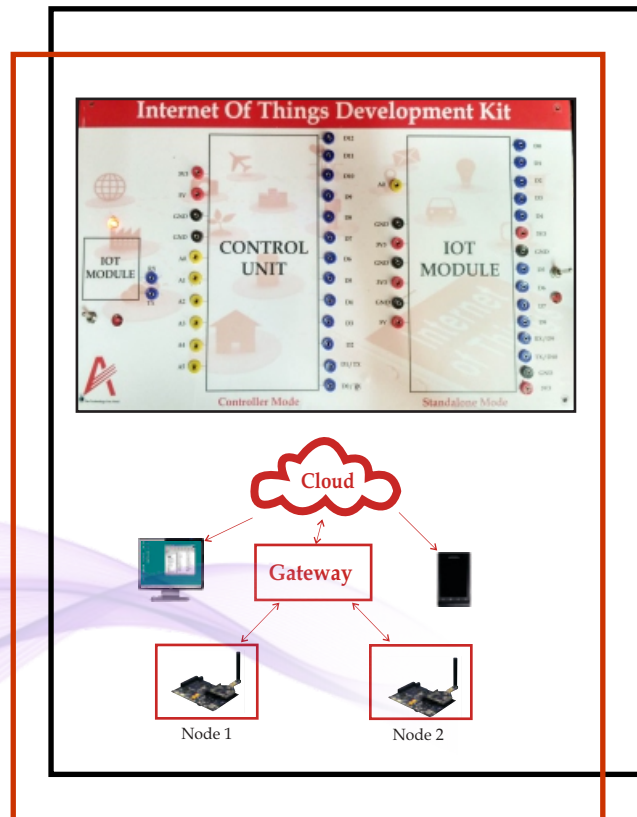
Controller Section

- Microcontroller, ATmega328P
- Operating Voltage, 5V
- Analog Input Pins, 1
- DC Current per I/O Pin, 20 mA
- DC Current for 3.3V Pin, 50 mA
- Flash Memory, 32 KB (ATmega328P) of which 0.5 KB used by boot loader
- SRAM, 2 KB (ATmega328P)
- EEPROM, 1 KB (ATmega328P)
- It has USB facility for pc interfacing, serial communication and power led for module indication

Software

- Reading Sensor data ▪ Actuating the nodes from Internet ▪Learning HTTP, MQTT Protocol
- Data Analysis in the cloud software ▪Data base creation on the software

Agriculture automation

Energy consumption

Building managment

Embedded Mobile

M2M & wireless sensor network

Smart homes & cities

Internet of things

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