1. 개요

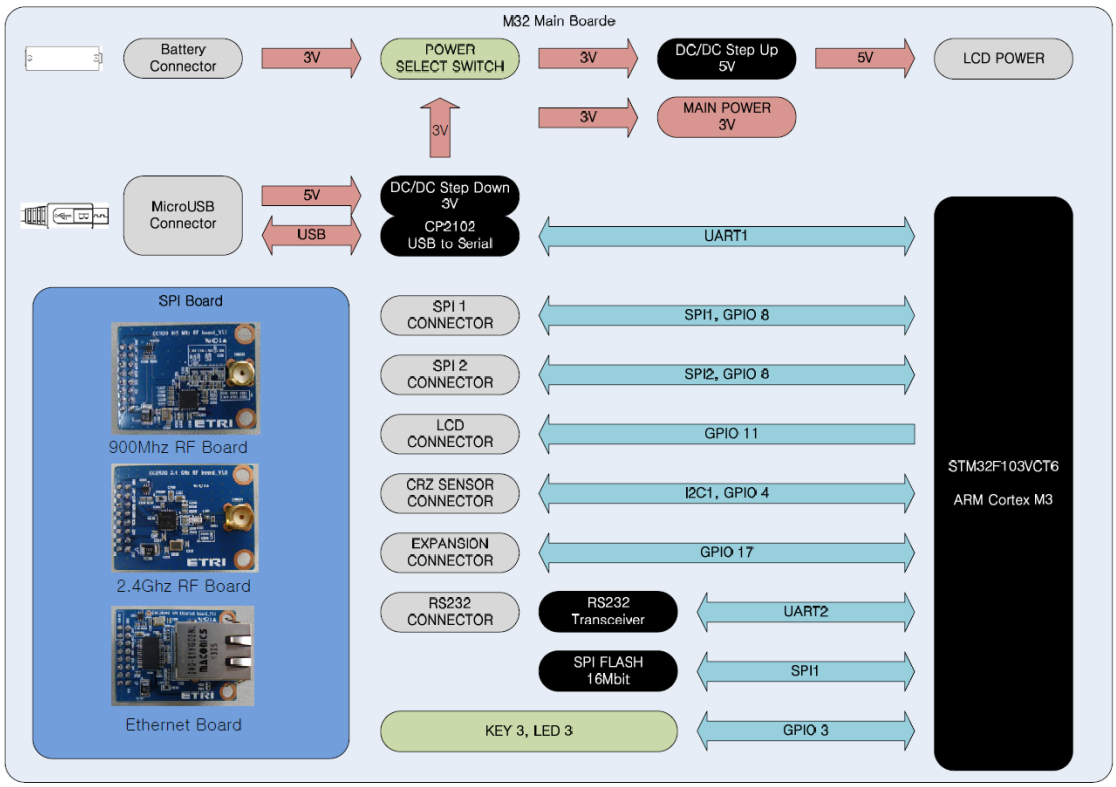
Mango-E-Toi 보드는 에너지 절감형 운영체제를 위한 ARM 보드.
현재 보드 상태를 Zigbee 또는 이더넷을 통하여 전송할 수 있는 기능을 가지고 있는 보드 입니다.
총 4종의 보드로 구성이 되어 있습니다.

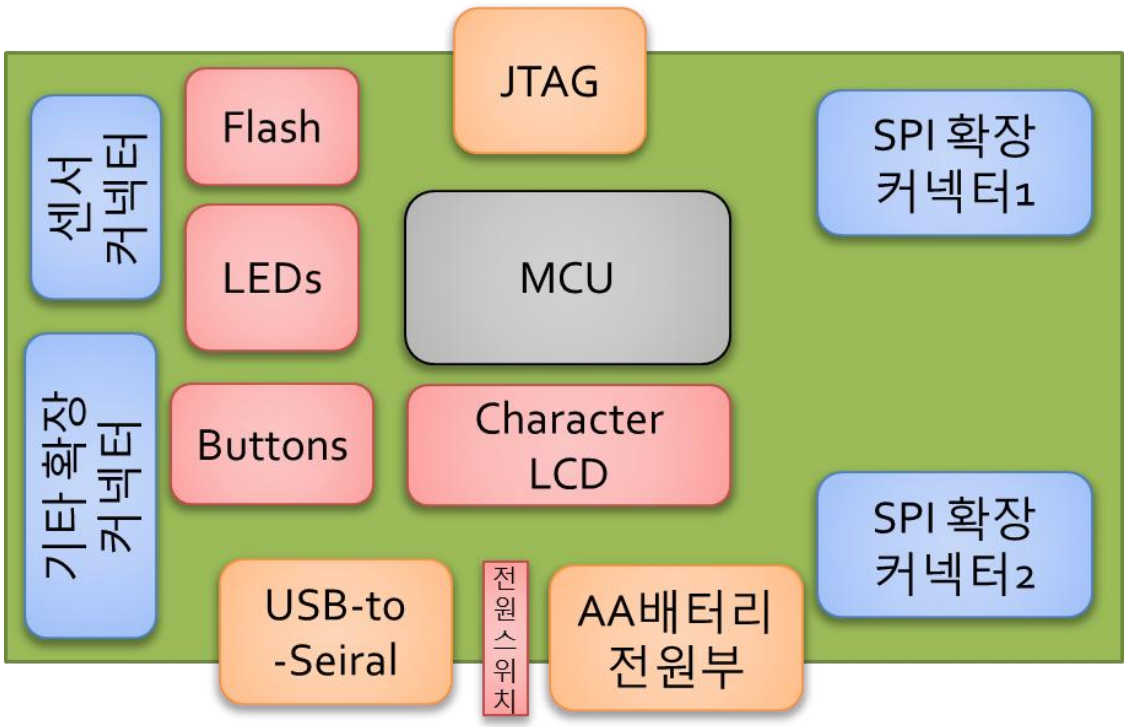
2. Hardware Specification

2.1. Main Board

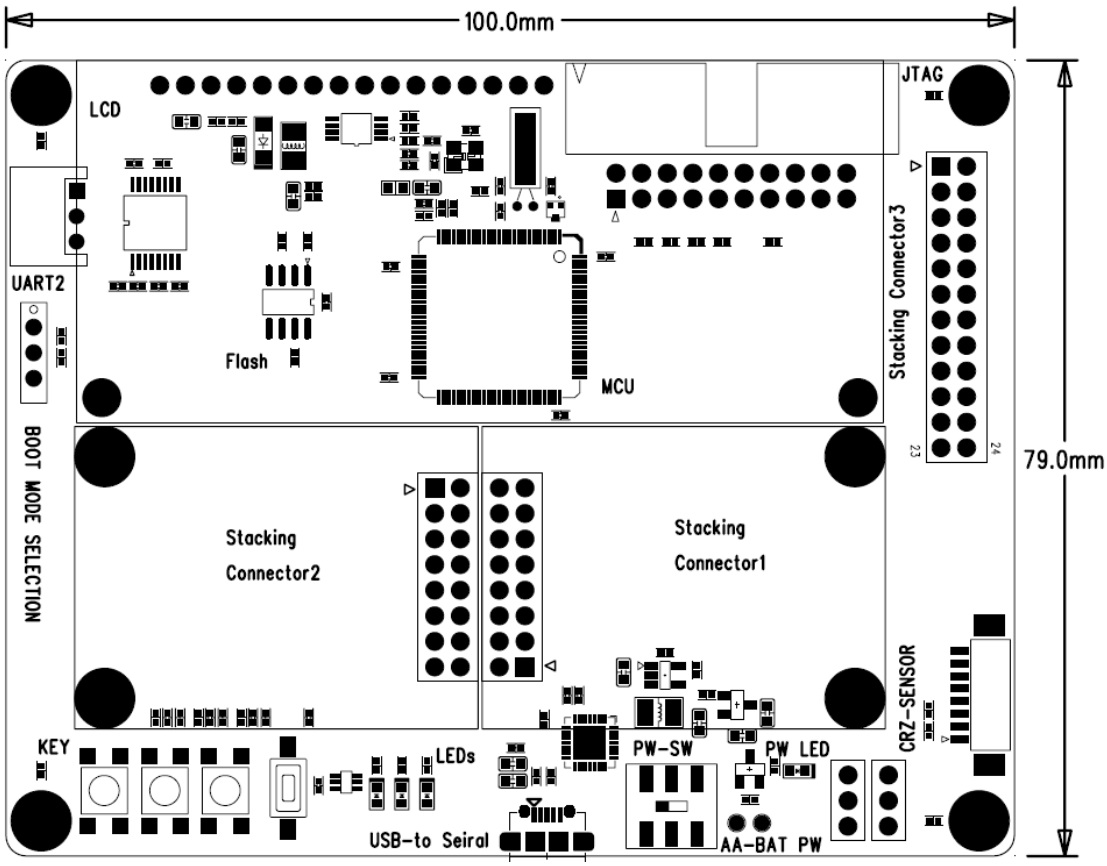
CPU	STM32F103VGT Cortex-M3 MCU	72MHz,Flash 256KB RAM 64KB 내장
Flash	SST25VF016B 16Mbit SPI Serial Flash	
SPI	SPI Port 1	
	SPI Port 2	
UART	UART Port 1	Expansion Connector
	UART Port 2	DEBUG
Display	Character LCD	
CAN	CAN Port 2 채널	
I2C	I2C port 1	
전원	AA건전지 또는 전원 5V ,2A	

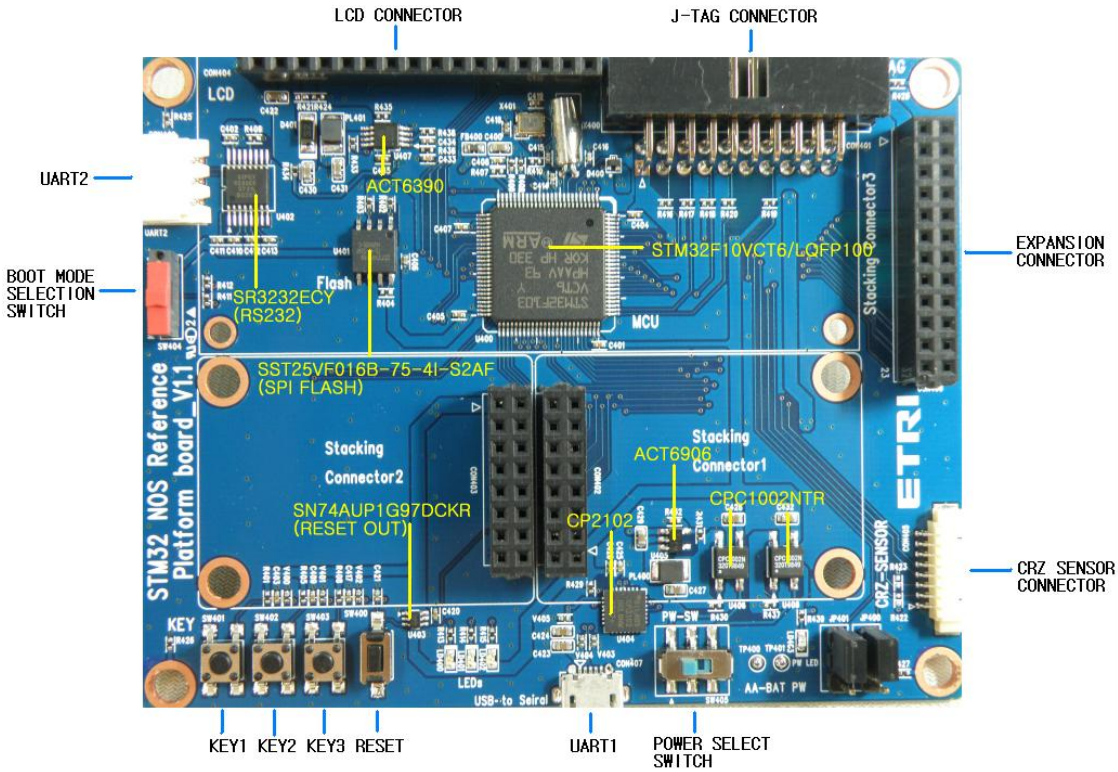
2.2. 블록다이어그램


M32 Main Boarde
Battery Connector
3V
POWER SELECT SWITCH
3V
DC/DC Step Up 5V
5V
LCD POWER
3V
3V
MAIN POWER 3V
MicroUSB Connector
5V
USB
DC/DC Step Down 3V
CP2102 USB to Serial
UART1
SPI Board
900Mhz RF Board
2.4Ghz RF Board
Ethernet Board
SPI 1 CONNECTOR
SPI1, GPIO 8
SPI 2 CONNECTOR
SPI2, GPIO 8
LCD CONNECTOR
GPIO 11
CRZ SENSOR CONNECTOR
I2C1, GPIO 4
EXPANSION CONNECTOR
GPIO 17
RS232 CONNECTOR
RS232 Transceiver
UART2
SPI FLASH 16Mbit
SPI1
KEY 3, LED 3
GPIO 3
STM32F103VCT6
ARM Cortex M3

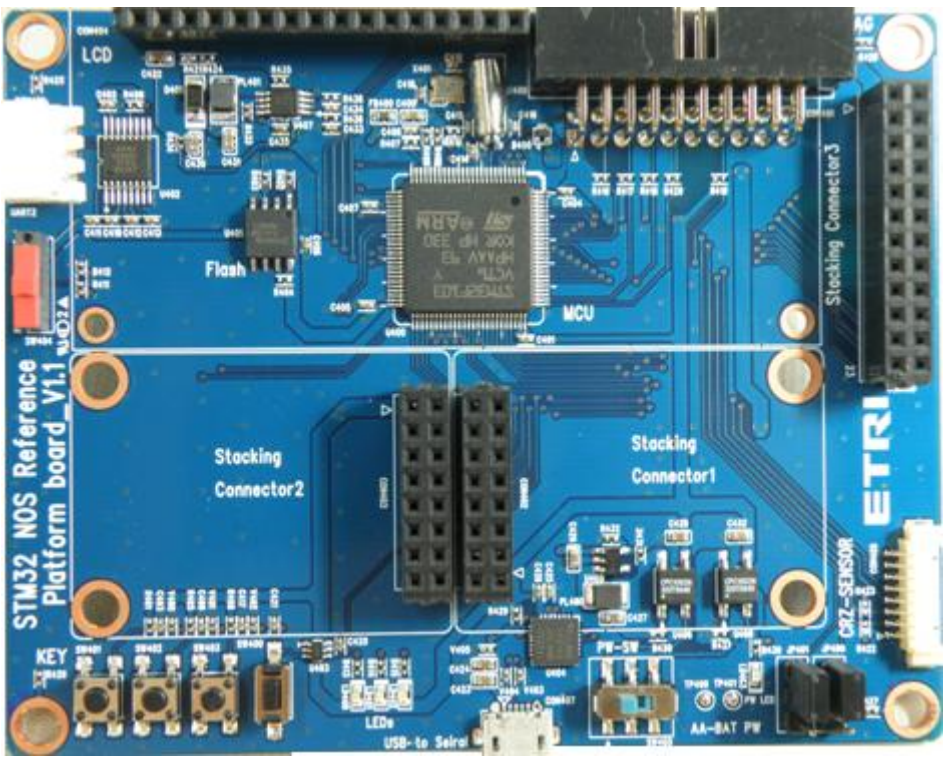


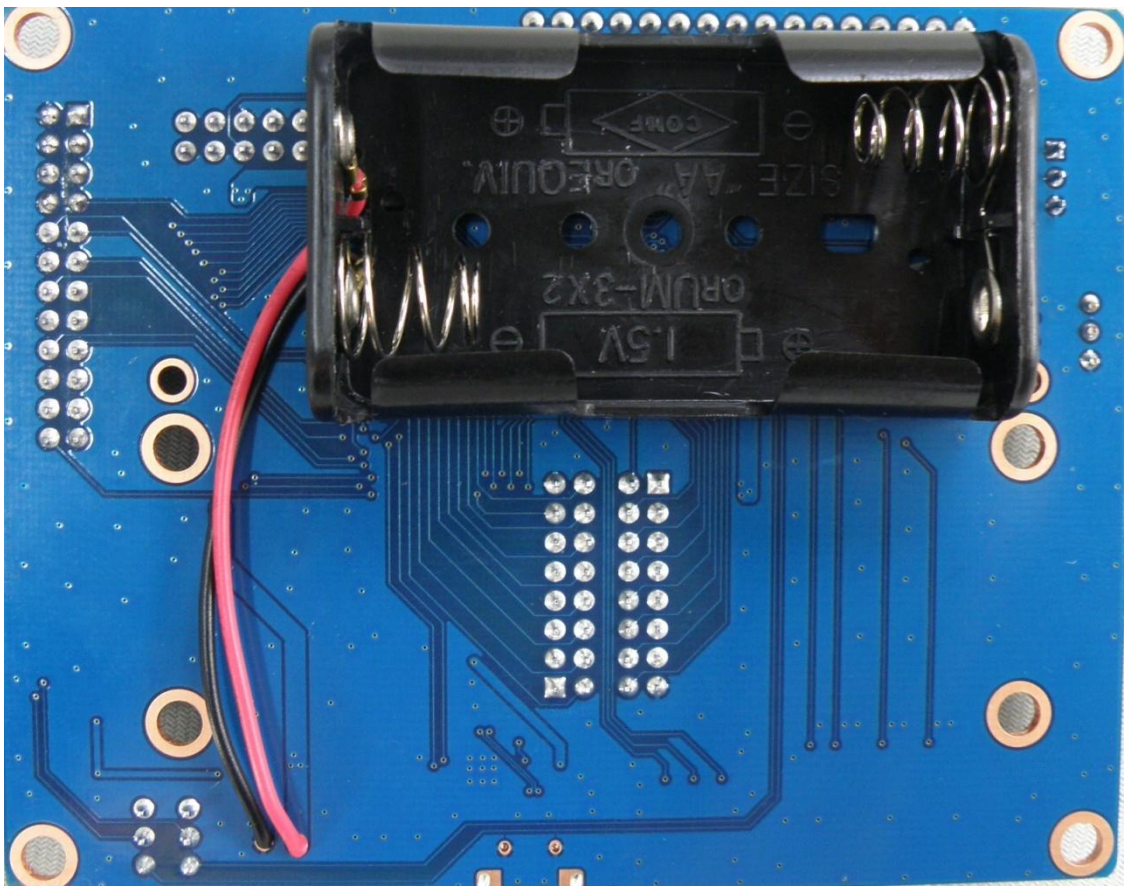
2.3. Mango-E-Toi Main Board 부품 배치도


100.0mm
79.0mm
LCD
JTAG
UART2
Flash
MCU
Stacking Connector3
BOOT MODE SELECTION
Stacking
Connector2
Stacking
Connector1
CRZ-SENSOR
KEY
LEDs
PW-SW
PW LED
USB-to Seiral
AA-BAT PW



2.4. Mango-E-Toi Main Board

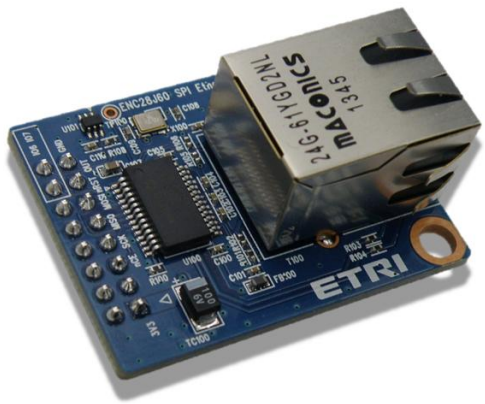

STM32 NOS Reference
Platform board_V1.1
KEY
LCD
Flash
Stacking
Connector2
Stacking
Connector1
MCU
Stacking Connector3
ETRI
CMZ-SENSOR
PW-SW
AA-BAT PW
LEDs


1.5V
ORUM-3X2
SIZE "AA" ORECOUIV.
COMF

2.5. Mango-E-Toi-CC1120 Module

900MHz 통신하는 RF 보드

2.6. Mango-E-Toi-Ethernet Module



2.7. Mango-E-Toi-CC2520 Module

2.4GHz RF 보드