



shiratech

IOTBOX

IOT BOX based on STM32MP1 !



IOT BOX - Introduction

- General purpose IOT gateway - connect your sensors and actuators to the cloud
- Edge device
- LTE NB-IOT, WiFi and BT connectivity
- External sensors connectors
- Based on combination of **STINGER96** baseboard + proprietary mezzanine
- Running Linux (Yocto)
- Battery powered

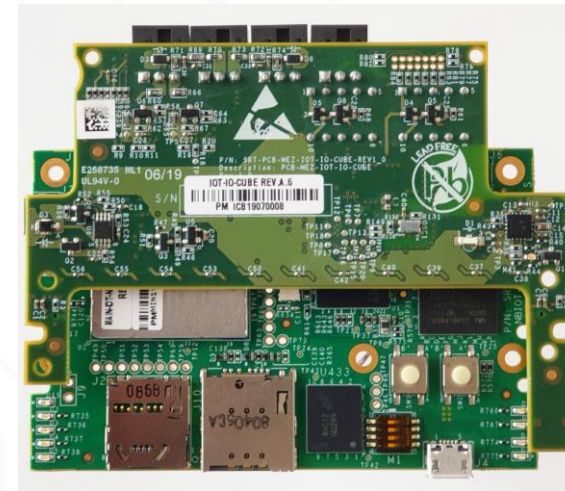


IOT BOX – Using Standard *96Board* In a Commercial Product

Mezzanine
(add on board)

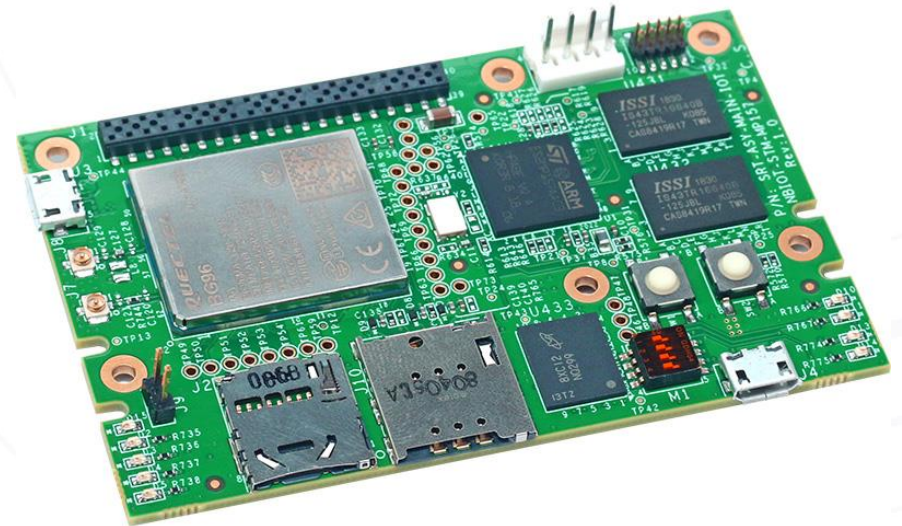


STINGER96



STINGER96 - Introduction

- 96Boards IoT Edition Baseboard (extended)
- STM32MP157 (Cortex-A7 + Cortex-M4)
- Quectel BG96 (NB-IOT, GNSS)
- 96Boards LS expansion connector
- 2 x micro USB connectors (USB, monitor), micro SD, micro SIM
- Running Linux (Yocto , Debian)



IOT BOX Key Features - Communication

- Quectel BG96 LTE Modem
 - LTE CAT M1/NB1/EGPRS modem
 - Max data rate 375Kbps DL/UL
 - GNSS (GPS, GLONASS)
 - Low power
 - Global frequency bands
- Murata LBEE5KL1DX WiFi+BT Module
 - WLAN 802.11b/g/n up to 65Mbps
 - Bluetooth v4.2+EDR+BLE



IOT BOX Key Features – Internal Sensors

- Gas sensor CCS811 (AMS)
 - Ultra Low Power Digital Gas Sensor for Monitoring Indoor Air Quality
- 2 Microphones IM69D130 (Infineon)
 - High performance digital XENSIV™ MEMS microphone



IOT BOX – External Device Connectors

- External GPIO interface
 - 2 X DI (Opto-isolators 3.75KV)
 - 2 X DO (250VAC, 220VDC – Max, 1A)
 - 2 X AI (4mA-20Ma)
- External digital sensors interface
 - 1 X I2C
 - 1 X SPI (4 Wire)
 - 1 X UART
- Optional wall mount accessory

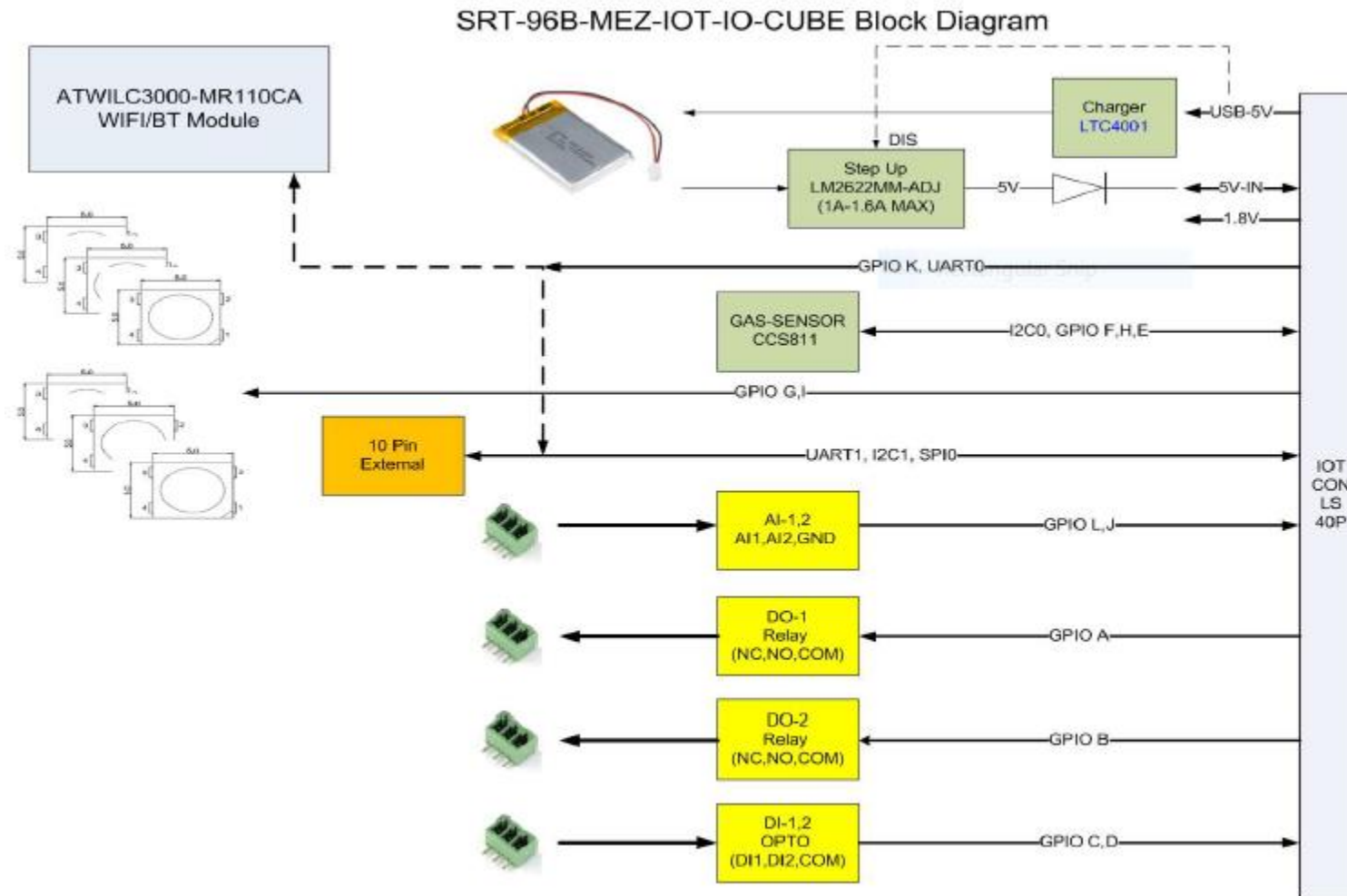


IOT BOX – Mechanical and Power

- 1 x micro USB port for charging and communication
- 1 x USB port for charging and console
- Micro SIM card connector
- Micro SD card connector
- Built in rechargeable Li-ion battery 2000mAH
- L x W x H: 97mm x 97mm x 14.5mm
- Color: Purple, black and white



IOT BOX – Mezzanine Block Diagram





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Thank You For Your Attention