

SRT-96B-MAIN-SC20-E/A

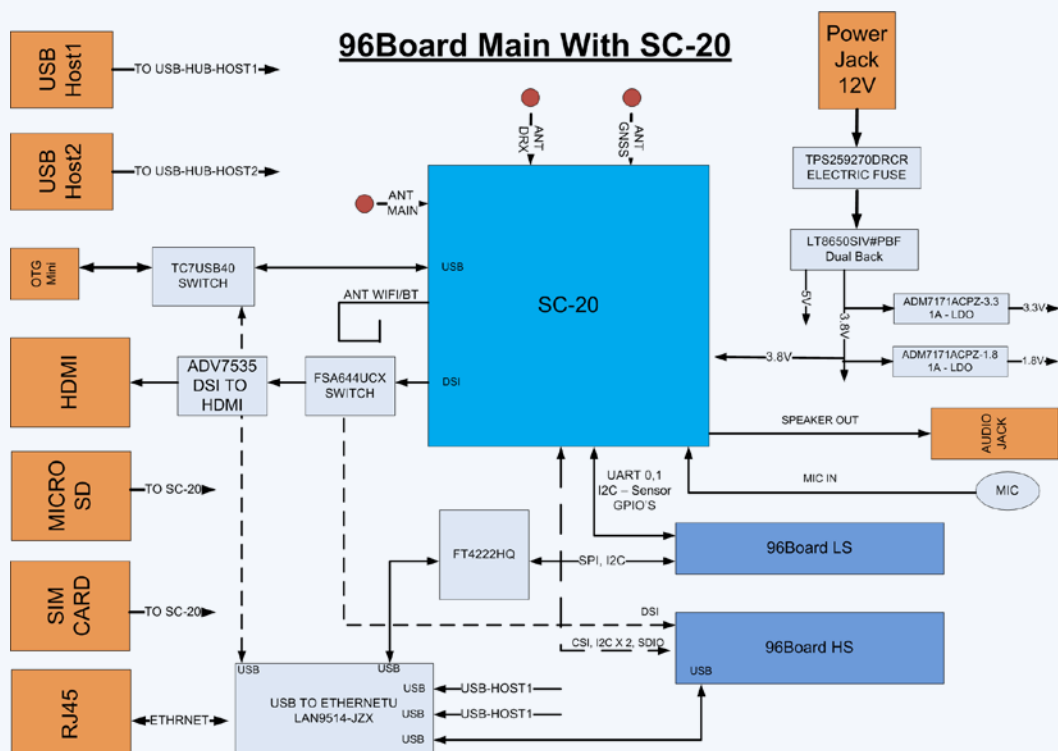
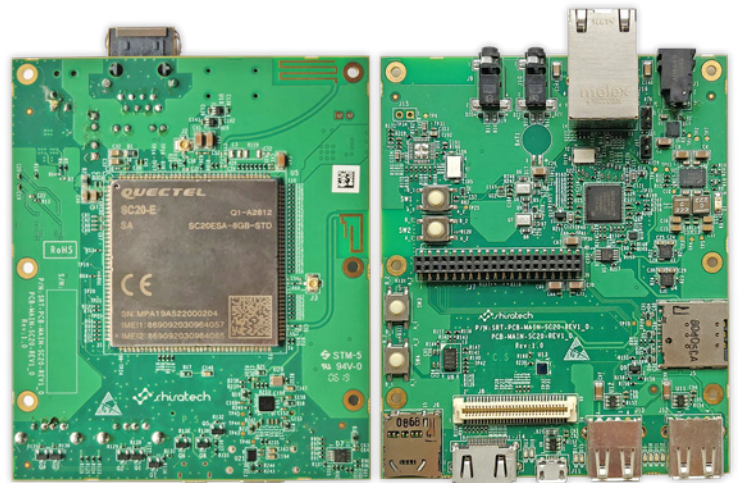
Shiratech First 96Main board, Quectel SC20 Based – Multi-mode Smart LTE Module with Wi-Fi & Bluetooth, Application Possessor.



ARM Cortex-A7 microprocessor cores (quad-core) up to 1.1GHz 512KB L2 cache
Form Factor - 96Boards Consumer Edition Extended Version 100mm x 85mm

Interfaces

- MICRO SD Card
- MICRO SIM
- 1 x USB otg
- 2 x USB Type A ports
- 1 x Ethernet 10/100 (RJ45 Interface)
- 1 x HDMI interface
- 1 x MIC (on boards mems MIC)
- 2 x Audio interface Jacks
- 1 x Accelerometer
- Input power 12V trough power jack
- 96Board interface connectors (40 LS, 60 HS)



KEY FEATURES:

APPLICATIONS PROCESSOR

- ARM Cortex-A7 microprocessor cores (quad-core) up to 1.1GHz
512KB L2 cache

Modem DSP

- QDSP6 v5 core up to 691.2MHz 768KB L2 cache

Memory 8GB EMMC+8Gb LPDDR3

Operating System Android 6.0

Power Supply

- Supply voltage: 3.5V~4.2V
- Typical supply voltage: 3.8V

LTE Features

- Support 3GPP R8 Cat.4 FDD and TDD
- Support 1.4 to 20 MHz RF bandwidth

CDMA2000 Features

Support 3GPP2 CDMA2000 1X Advanced, CDMA2000 1x EV-DO Rev.A

- EVDO: Max 3.1Mbps (DL)/Max 1.8Mbps (UL)
- 1X Advanced: Max 307.2Kbps (DL)/Max 307.2Kbps (UL)

GSM Features

R99:

- CSD: 9.6kbps, 14.4kbps

GPRS:

- Support GPRS multi-slot class 33 (33 by default)
- Coding scheme: CS-1, CS-2, CS-3 and CS-4

Max 85.6Kbps (UL)/Max 107Kbps (DL)

WLAN Features

- Support 2.4GHz and 5GHz frequency bands
- Support 802.11a/b/g/n, maximally up to 150Mbps
- Support AP mode

Bluetooth Feature BT4.1 LE

GNSS Features GPS/GLONASS/BeiDou

Camera Interfaces

- Use MIPI_CSI, up to 1.5Gbps per lane
- 2-lane MIPI_CSI for rear camera, max pixel up to 8MP

Video Codec

Video encoding:

- H.264 BP/MP – 720p @30fps
- MPEG-4 SP/H.263 PO – WVGA @30fps
- VP8 – WVGA @30fps

Video decoding:

- H.264 BP/MP/HP – 1080P @30fps
- MPEG-4 SP/ASP – 1080P @30fps
- DivX 4x/5x/6x – 1080P @30fps
- H.263 PO – WVGA @30fps
- VP8 – 1080P @30 fps
- (HEVC) H.265 MP 8 bit – 1080P @30fps

Audio Interfaces

Audio input:

- 2 groups of analog microphone input, integrating internal bias voltage

USB Interface

- Compliant with USB 2.0 specification; the data transfer rate can reach up to 480Mbps

- debugging and firmware upgrade
- Support USB OTG (Need additional 5V power supply chip) USB Driver: Support Windows XP, Windows Vista, Windows 7/8/8.1

UART Interfaces

2 UART interfaces: UART1 and UART2

SD Card Interface

- Support SD 3.0, 4-bit SDIO
- Support hot-plug

Real Time Clock Supported

Antenna Interfaces (4 Antennas)

- Main antenna
- DRX antenna
- GNSS antenna
- Wi-Fi/BT antenna

Operating temperature range: -35°C~+65°C 1)

F13M02A-201 Camera Module (MIPI & I2C interface)

Features:

- 4-lane MIPI
- Optical format 1/3.2" 13Mp (4:3)
- Active pixels 4208H x 3120V
- View Angle 74.48° +/-3°
- Autofocus

Analog Device ADUX1020

Features:

- Multifunction photometric sensor and signal conditioning
- Fully integrated AFE, ADC, LED driver and timing core
- Usable for multiple optical measurement applications including gesture control and proximity sensing.
- Ambient light rejection capability using both optical and analog filtering.
- On-chip programmable flexible current sink for external LED.
- High sensitivity and signal to noise ratio (SNR)
- High resolution position measurement
- Gesture recognition with 0.5cm to 15cm range
- Proximity sensing to 20cm
- 400KHz I2C interface
- Gesture/proximity works under infrared (IR) transparent glass or other materials.

Analog Device ADXL343BCCZ

- Multipurpose accelerometer with 10- to 13-bit resolution for use in a wide variety of applications
- Digital output accessible via SPI (3- and 4-wire) and I2C
- Built-in motion detection features make tap, double-tap, activity, inactivity, and free-fall detection trivial
- User-adjustable thresholds
- Interrupts independently mappable to two interrupt pins
- 10,000 g shock survival