**Main Features**

- TechNexion AXON-WIZARD-IMX8M-MINI evaluation kit blends advanced processing capabilities with sophisticated audio, video, and graphics for embedded applications.

- Featuring NXP i.MX8M Mini Quad processor that runs up to 1.8GHz per core, based on the ARM Cortex A-53 + M4 architecture, delivered in advanced low-power process.

- With the AXON series, you have a single hardware platform, where the multimedia and compute power of the NXP i.MX8M Mini SoC is combined with the extensibility of the AXON Fabric.

**Specifications**

### Core System
- Processor: NXP i.MX8M Mini Quad
- Processor Speed: 1.8GHz
- Architecture: ARM Cortex-A53 + M4
- Fabric: AXON Fabric
- PMIC: ROHM BD71847
- Memory: up to 4GB LPDDR4
- Storage: 16GB eMMC (default)
- Board-to-Board Connector: AXON 80-pin Hirose connectors
- System on Module: AXON SOM
- Debug Interface: Micro USB debug

### Connectivity
- Network LAN: 1x Atheros AR8035 Gigabit LAN
- Wi-Fi/Bluetooth: Qualcomm QCA9377 (optional)
- Antenna: 802.11 a/b/g/n/ac = BT 5 (BR+ETh+BLE)
- MHF4 connector

### Expansion Interfaces
- Expansion Slots: 1x M.2 slot
- 1x mini-Pcie

### Internal Headers
- Internal Display: MIPI DSI signals on 70-pin Hirose connector
- Expansion Headers: GPIO, I2C, I2S, PWM, SPI, UART, USB

### External Connectors
- Audio Connectors: CTIA compliant 3.5mm audio jack
- Network: 1x RJ45
- USB: 1x USB 3.0 OTG (Type-C)
- Buttons: 2x USB 3.0 Host
- SIM Cardslot: 1x Reset
- SD Cardslot: 2x Micro-SIM card slot
- 1x microSD card slot

### Video
- Graphic Engine: Vivante GC Nano Ultra
- Video Decode: 1080p60 H.264
- Video Encode: 1080p60 H.264
- Camera: MIPI CSI (4 lanes)

### Audio
- Audio Codec: Cirrus Logic WM8960
- Speaker: Audio speaker connector (stereo) (2W pre-amplified)

### Power Specifications
- Power Input: 12V DC +/-5%
- Power Connector: 2-pin Micro-Fit 3.0
- Power Consumption: Depending on Configuration

### Operation Systems
- Standard Support: Linux, Yocto, Android
Block Diagram

Environmental and Mechanical

- **Dimensions**: 170 (W) x 170 (H) x 24.6 (D) mm
- **Form Factor**: Mini-ITX
- **Weight**: 180 grams
- **Operation Temperature**: Commercial: 0°C to +50°C
- **Relative Humidity**: 10 to 90%
- **MTBF**: 50,000 Hours
- **Shock**: 15g half-sine 11 ms duration
- **Vibration**: 1 Grms random 5-500Hz hr/axis

Certification and Compliance

- **Certification**: Compliant with RoHS / REACH directives

Ordering Information

**AXON-WIZARD-IMX8M-MINI**

NXP i.MX8M Mini Quad Development Board with up to 4GB LPDDR4, 16GB eMMC and Wi-Fi + BT wireless connectivity including MHF4 antenna, USB Type-C and Micro USB debug cables, RTC battery, 2-pin Micro-Fit 3.0 DC power latch cable, stands and optional 5/8/10.1” PCAP Multi Touch LCD display, SMP camera module, HDMI expander card or HDMI capture card.

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[Image of AXON-WIZARD-IMX8M-MINI block diagram]