

PICO-DWARF



Main Features

- The PICO-DWARF reference design is compatible with Intel Edison and TechNexion Pico SoM modules and add a variety of sensors and connectivity to the Pico SoM making it the ideal candidate for IoT (Internet of Things) applications such as drones, wearables, appliances and robotics.
- The complete schematics, design files, board files and BOM lists of PICO-DWARF are available and can be downloaded from the TechNexion homepage.



EDISON

Power 3.3~4.5V	SDIO	I ² S	SPI	PWM
	USB OTG	UART	I ² C	GPIO

EXP-A

LVDS	RGMII
TTL	

EXP-B

CAN	PCIe	HDMI	SATA
I ² C	USB HOST	MIPI	

Specifications

Core System

System-on-Module
Compatible with Intel Edison connector (1x 70-pin Hirose Connector)
Compatible with TechNexion Pico connectors (3x 70-pin Hirose Connector)

Connectivity

Network Connector
Atheros AR8031 Gigabit LAN
RJ-45 LAN Connector

Expansion

Storage
1x SATA data + power connector
1x micro SD cardslot

USB
1x USB 2.0 Host connector
1x USB 2.0 OTG connector

Expansion Pin Headers
Single Channel LVDS
24-bit TTL RGB
PCIe
CAN
GPIO
PWM
I²C
SPI
UART

Video

External Display
Internal Display
Camera

HDMI connector
Single Channel LVDS (expansion header)
24-bit TTL RGB (expansion header)
MIPI DSI Display on 33-pin FPC Connector
MIPI CSI signals on 33-pin FPC connector

Audio

Audio Codec
Audio Connectors

Freescale SGTL5000
1x 3.5 mm jack Stereo Audio in
1x 3.5 mm jack Stereo Audio out
1x 3.5 mm jack Microphone

Power Specifications

Input Power
Power Connector
Battery Charging Circuit
Battery Connector

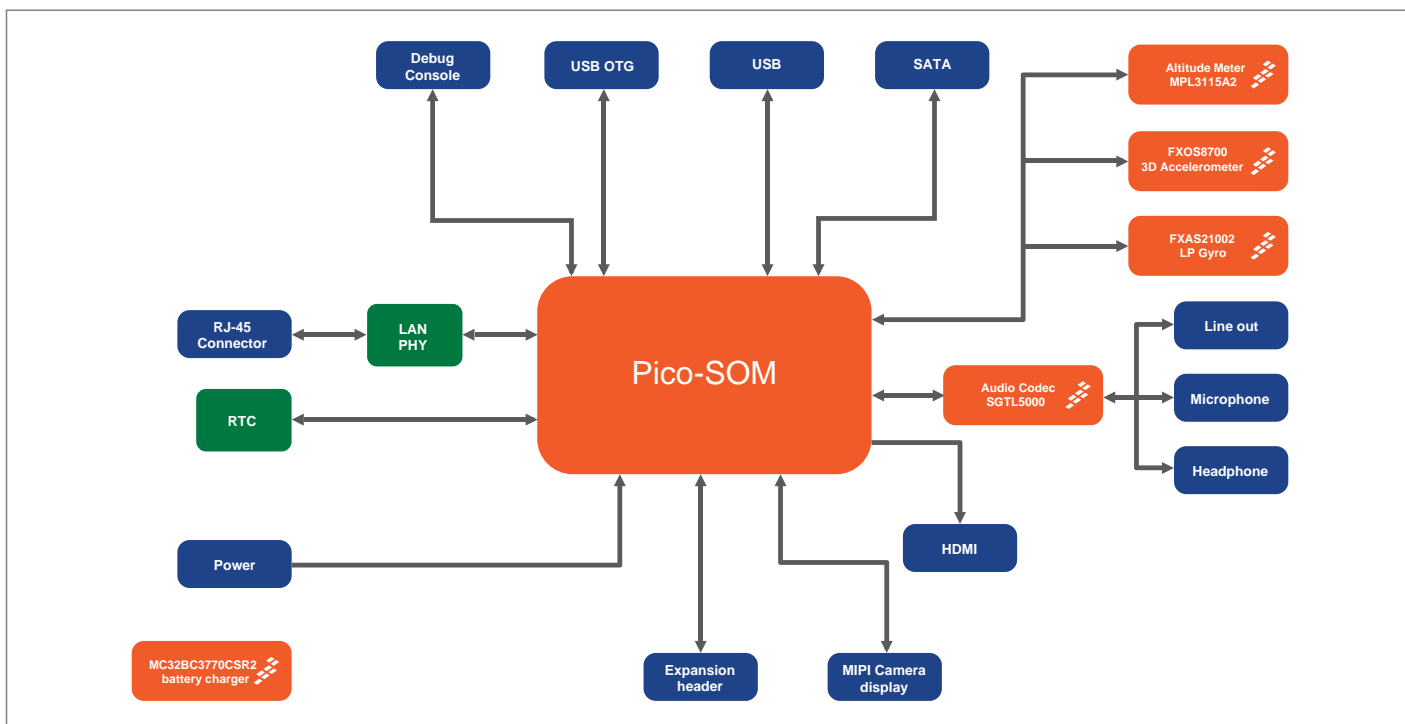
5 VDC +/- 5%
5.5 / 2.1 mm barrel jack
Freescale MC32BC3770CSR2 Single Cell Lipo Battery Charging Circuit
2 pin header

Sensors

Altimeter
3D Accelerometer
Gyroscope
RTC

Freescale MPL3115A2
Freescale FXOS8700CQ
Freescale FXAS21002
DS1337+ with backup battery

Block Diagram



Environmental and Mechanical

Temperature	Commercial : 0° to 60° C
Humidity	10 to 90%
Dimensions	95 x 95 mm 3¾ x 3¾ inch
MTBF	>100,000 hours
Weight	40 grams
Shock	50G / 25ms
Vibration	20G / 0-600 Hz

Ordering Information

PICODWARF
PICO-DWARF Baseboard for PICO-SOM

* Feel free to contact us for custom tailored Carrier Board request for your projects.

Dimensions

(units in mm)

