PICO-DWARF

Main Features

- The PICO-DWARF reference design is compatible with Intel Edison and TechNexion Pico CoM modules and add a variety of sensors and connectivity to the Pico CoM 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	I²S	SPI	PWM
	USB OTG	UART	I²C	GPIO

EXP-A

LVDS	RGMII
TTL	

EXP-B

CAN	PCIe	HDMI	SATA
I²C	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	Micrel KSZ8084RNB Fast Ethernet LAN Atheros AR8031 Gigabit LAN
Connector	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	HDMI Connector
Internal Display	Single Channel LVDS (expansion header) 24-bit TTL RGB (expansion header) MIPI DSI Display on 33-pin FPC Connector
Camera	MIPI CSI signals on 33-pin FPC Connector

Audio

Audio Codec	NXP SGTL5000
Audio Connectors	1x 3.5 mm jack Stereo Audio in 1x 3.5 mm jack Stereo Audio out 1x 3.5 mm jack Microphone

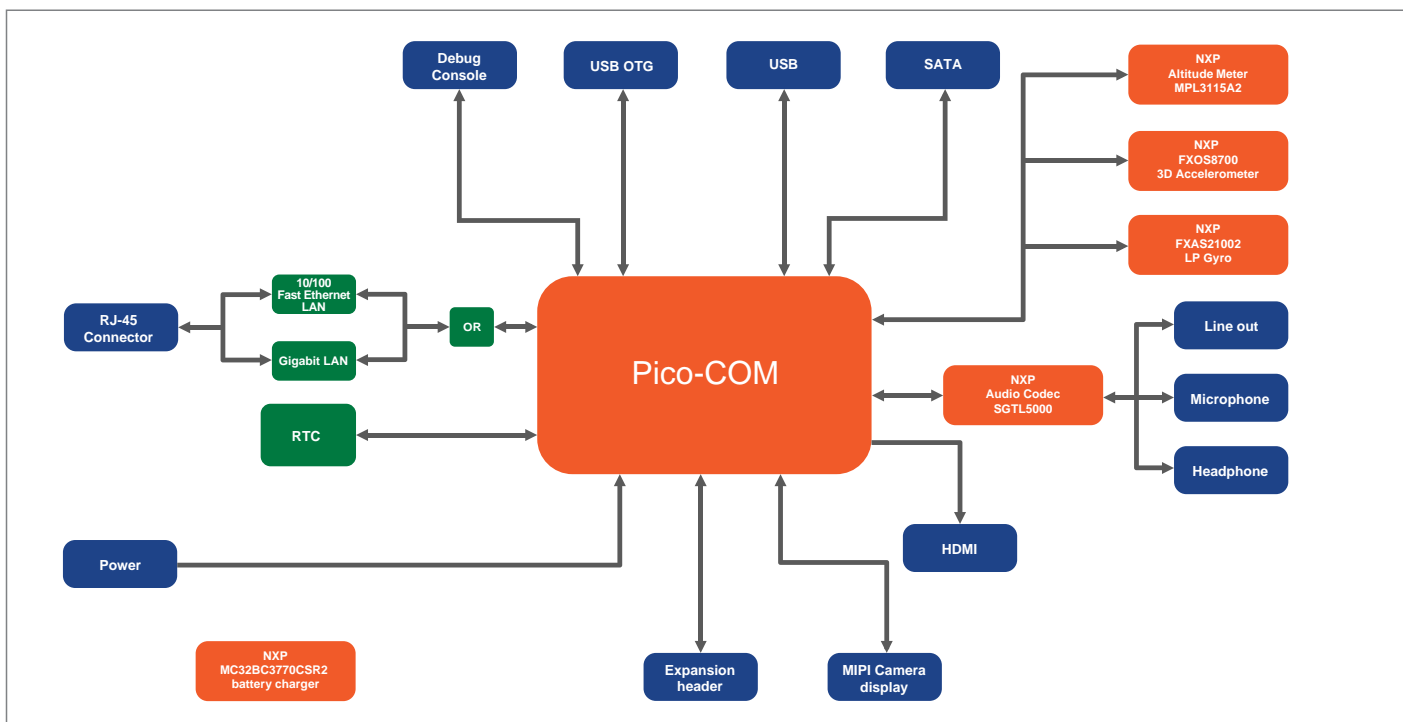### Power Specifications

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

Sensors

Altimeter	NXP MPL3115A2
3D Accelerometer	NXP FXOS8700CQ
Gyroscope	NXP FXAS21002
RTC	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

PICODWARFFL
PICO-DWARF Baseboard for PICO-COM 10/100 Megabit LAN
PICODWARFGL
PICO-DWARF Baseboard for PICO-COM Gigabit LAN

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

Dimensions

(units in mm)