

PICO-DWARF



Main Features

- The PICO-DWARF reference design is compatible with Intel Edison and TechNexion Pico modules and add a variety of sensors and connectivity to the Pico module making it the ideal candidate for IoT (Internet of Things).
- Schematics, design files, board files and BOM lists of PICO-DWARF are available and can be downloaded from the TechNexion homepage.

EDISON

Power	SDIO	I ² S	SPI	PWM
	USB OTG	UART	I ² C	GPIO

EXP-A

LVDS	RMII RGMII
TTL	

EXP-B

CAN	PCIe	HDMI	SATA
I ² C	USB HOST	MIPI	

Specifications

Core System

Board-to-Board Connector	Edison compatible connector PICO 70-pin Hirose connectors
System on Module	PICO SOM
Debug Interface	UART Interface by Through-hole

Connectivity

Network LAN	Atheros AR8035 (optional) Gigabit LAN Micrel KSZ8084RNB (optional) Fast Ethernet LAN
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Internal Headers

Internal Display	1x 24-bit TTL RGB signals (expansion header) 1x single channel LVDS (expansion header) MIPI DSI signals on 33-pin FPC connector
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Expansion Headers

GPIO
I²C
PWM
SATA
SPI
UART

External Connectors

External Display	1x HDMI
Audio Connectors	1x 3.5mm jack Microphone 1x 3.5mm jack Stereo Audio in 1x 3.5mm jack Stereo Audio out 1x RJ45
Network	
USB	1x USB 2.0 Host 1x USB 2.0 OTG
SD Cardslot	1x microSD cardslot

Audio

Audio Codec	NXP SGTL5000
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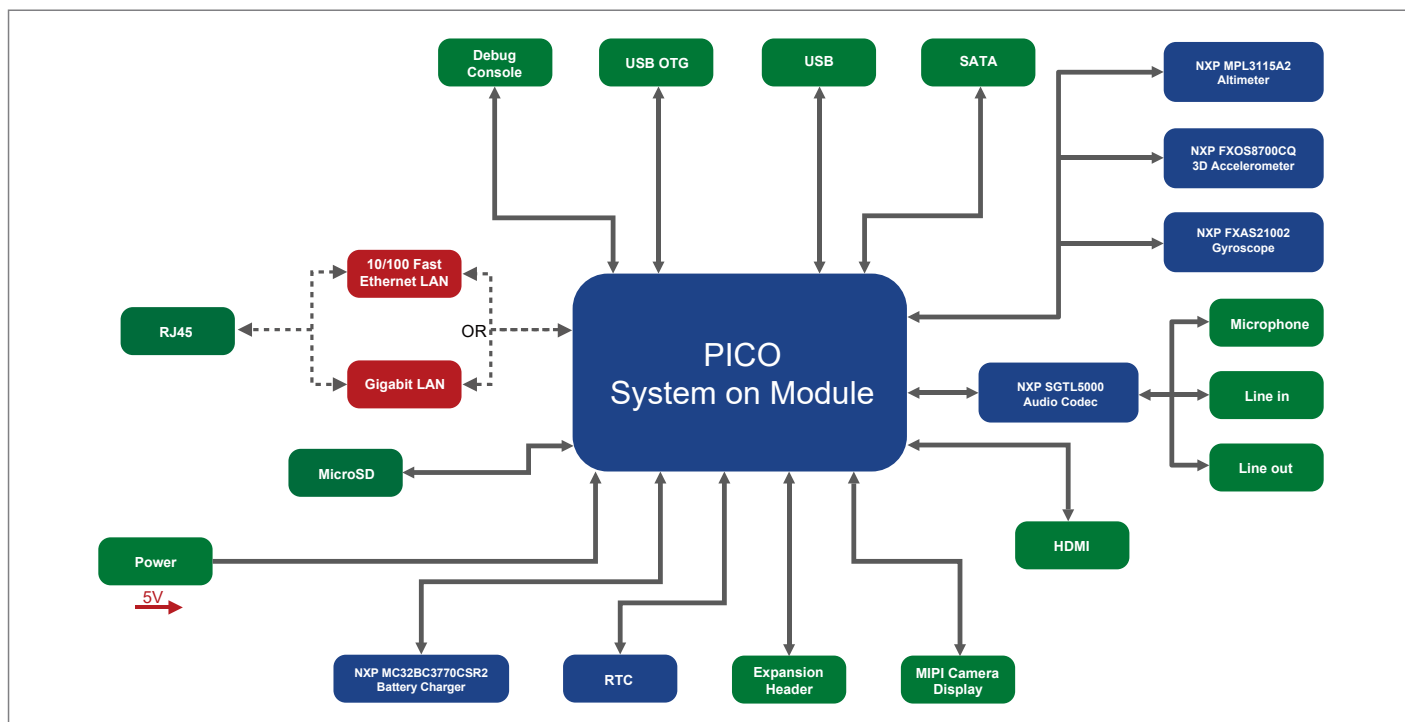
Sensors

Altimeter	NXP MPL3115A2
3D Accelerometer	NXP FXOS8700CQ
Gyroscope	NXP FXAS21002
RTC	maxim integrated DS1337+ 2-pin header battery connector

Power Specifications

Power Input	5V DC +/-5%
Power Connector	5.5/2.1mm barrel jack
Battery Charging Circuit	NXP MC32BC3770CSR2 single cell
Power Consumption	Depending on Configuration

Block Diagram

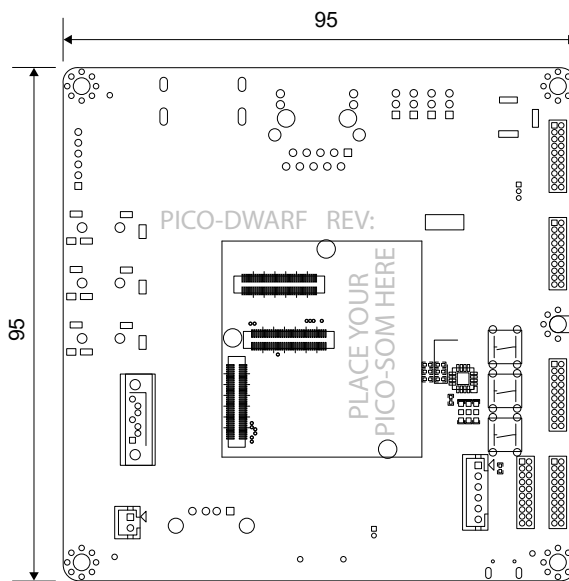
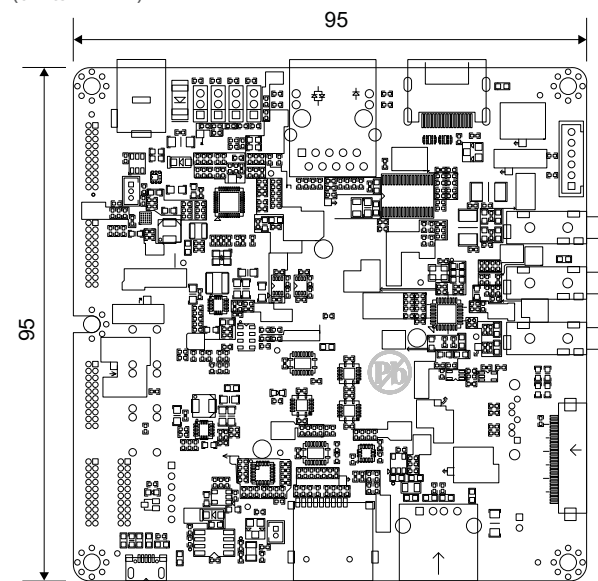


Environmental and Mechanical

Dimensions	95 x 95 mm
Weight	40 grams
Temperature	Commercial: 0° to +60° C
Relative Humidity	10 to 90 %
MTBF	>100 000 Hours
Shock	50G/25ms
Vibration	20G/0-600Hz
Certification	Compliant with CE / FCC / RoHS / REACH directives

Dimensions

(units in mm)



Ordering Information

PICO-DWARF-xx

	Code	Description
Network	FL	Fast Ethernet
	GL	Gigabit Ethernet

PICO-DWARF-FL

Pico DWARF Carrier Board with Fast Ethernet LAN

PICO-DWARF-GL

Pico DWARF Carrier Board with Gigabit Ethernet LAN

* Feel free to contact us for customization requests.