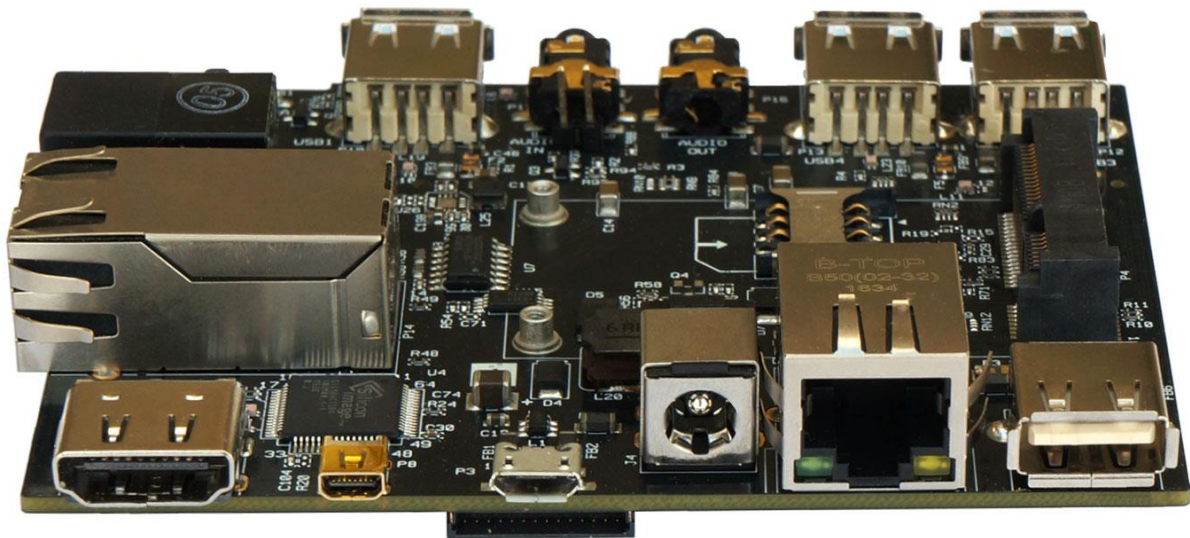


# Single Board Computer SBC-IOT-iMX7

Datasheet v1.2



**SBC-IOT-iMX7 is a low power Internet of Things Linux based single-board computer designed for industrial control and monitoring based on the Freescale i.MX7 processor family.**

SBC-IOT-iMX7 featured Power over ethernet and wireless connectivity and can be controlled remotely via a Mini PCIe 3G modem using an app or browser on a mobile device. Extensive connectivity, both wired and wireless include dual ethernet, 3G/LTE modem and WiFi. This impressive SBC also has a wide temperature range of -40°C to 85°C.

## System Core, Display and Network

Note:

- "Option" column specifies the configuration code required to have the particular feature.
- "+" means that the feature is always available

Feature	Specification	Option
CPU	Freescale i.MX7 Dual ARM Cortex-A7, 1GHz	+
	NEON SIMD and VFPv4	
Real-Time Co-processor	ARM Cortex-M4, 200Mhz	+
RAM	512MB-2GB, DDR3L-1066	D
Storage	eMMC flash, 4GB-32GB	N
DVI	DVI, up to 1920x1080, HDMI connector	+
Ethernet	1xGB Ethernet port, RJ45 connector	E1
	2xGB ethernet ports, RJ45 connectors	E2
WiFi	802.11b/g/n WiFi interface TI WiLink 8 WL1801 module	W
	Dual-band 2x2 802.11a/b/g/n WiFi interface TI WiLink 8 WL1837 module	WAB
Bluetooth	Bluetooth 4.1 BLE TI WiLink 8 WL1837 module	WAB
Cellular	3G cellular module, Simcom SIM5360 (EU bands)	J3GE
	4G/LTE cellular module, Simcom SIM7100E (EU bands)	J4GE
	4G/LTE cellular module, Simcom SIM7100A (US bands)	J4GA
	On board micro-SIM card socket	+

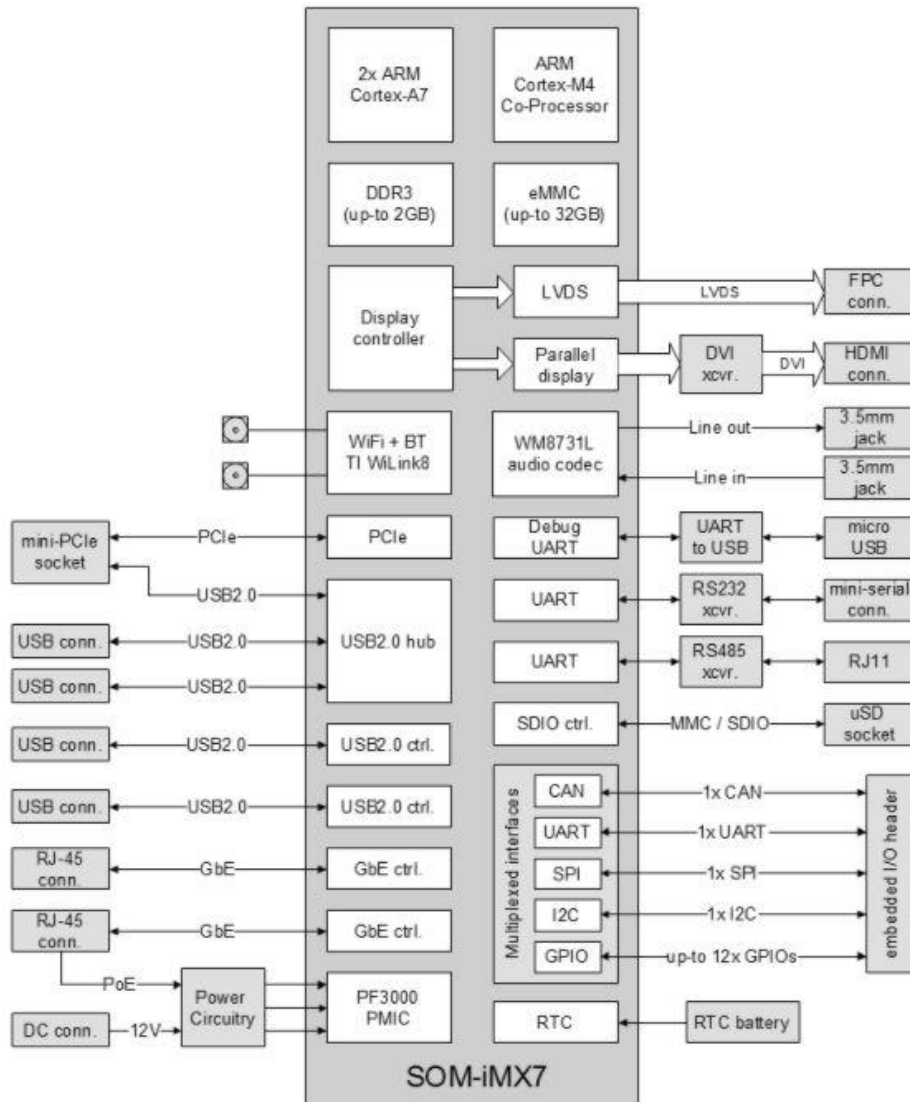
## Audio, I/O and System

Feature	Specification	Option
Analog Audio	Analog stereo output, line-in, microphone; 3.5mm jacks	A
USB	4x USB2.0 host, type-A connectors	+
Serial	1x RS485/RS422 port, RJ11 connector	Not Y
	1x RS232 port, ultra-mini serial connector	+
	1 x serial console via UART-to-USB bridge, micro USB connector	+
UART	Up-to 1 x UART, embedded I/O header	+
SPI	Up-to 1x SPI interface, embedded I/O header	+
I2C	Up-to 1x I2C interface, embedded I/O header	+
GPIO	Up-to 12x GPIO, embedded I/O header	+
PoE	Support for PoE 802.3af (powered device)	POE and E2
RTC	Real time clock operated from on-board coin-cell battery	+

## Electrical and Mechanical Specification

Supply Voltage	Unregulated 8V to 24V
Digital I/O voltage	3.3V
Dimensions	100 x 80 x 20 mm
Weight	80 gram
Operating Temperature (case)	Commercial: 0° to 70° C Extended: -20° to 70° C Industrial: -40° to 85° C
Storage Temperature	-40° to 85° C
Relative Humidity	10% to 90% (operation) 05% to 95% (storage)
Shock	50G / 20 ms
Vibration	20G / 0 - 600 Hz
MTTF	> 200,000 hours

## Block Diagram



## SBC-IOT-iMX7 Evaluation Kit

### Package contents

- Technical support for 12 months.
- 45-day trial period. Eval Kit will be accepted for refund if the user finds the product not suitable for his needs.

### Hardware

- SBC-IOT-CiMX7-D1G-N4-E2-WAB-POE
- WiFi antenna and cable
- Serial port cable
- HDMI to DVI cable
- USB cable
- RS485 cable
- Embedded I/O cable
- 2 x Wifi antenna
- 12V power supply

