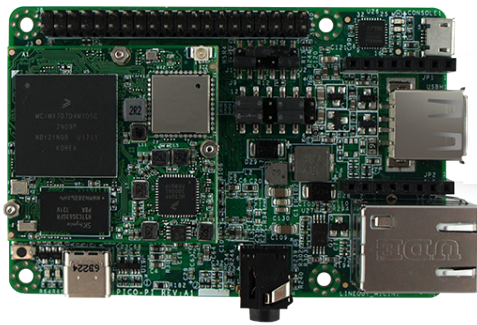


# PICO-PI-IMX7



## Main Features

- PICO-PI-IMX7 is a highly integrated multi-market applications system with advanced features designed to enable secure and portable applications within the Internet of Things.
- TechNexion PICO-PI-IMX7 platform can be applied in a wide range of applications ranging from simple IoT devices to applications with high level of complexity.
- This developer kit has been qualified and tested by Google to run Android Things at optimal performance.

android  
things



yocto  
PROJECT



## Specifications

### Core System

|                          |  |
|--------------------------|--|
| Processor                | NXP i.MX7 Dual 1GHz  |
| Architecture             | ARM Cortex-A7 + M4   |
| PMIC                     | NXP PF3000   |
| Memory                   | 512MB DDR3L  |
| Storage                  | eMMC (4GB Default)   |
| Board-to-Board Connector | Edison compatible connector<br>PICO 70-pin Hirose connectors |
| Debug Interface          | Micro USB debug  |

### Connectivity

|                |  |
|----------------|--|
| Network LAN    | Atheros AR8035 Gigabit LAN                                 |
| WiFi/Bluetooth | Broadcom BCM4339<br>802.11 a/b/g/n/ac + BT4.1 (BR+EDR+BLE) |
| Antenna        | u.FL connector (optional)                                  |

### Internal Headers

|                  |  |
|------------------|--|
| Internal Display | 1x 24-bit TTL RGB signals (expansion header)<br>MIPI CSI+DSI signals on 33-pin FPC connector |
|------------------|--|

|                   |  |
|-------------------|--|
| Expansion Headers | GPIO<br>I <sup>2</sup> C<br>I <sup>2</sup> S<br>PWM<br>RS232<br>SPI<br>USB |
|-------------------|--|

|          |   |
|----------|---|
| MikroBUS | ADC<br>GPIO<br>I <sup>2</sup> C<br>PWM<br>SPI<br>UART |
|----------|---|

### External Connectors

|                  |  |
|------------------|--|
| Audio Connectors | CTIA compliant 3.5mm audio jack            |
| Network          | 1x RJ45                                    |
| USB              | 1x USB 2.0 Host<br>1x USB 2.0 OTG (Type-C) |
| Buttons          | 1x Reset                                   |

### Video

|                |   |
|----------------|---|
| Graphic Engine | Image re-sizing / rotation / overlay<br>and CSC Pixel Processing Pipeline |
| Camera         | MIPI CSI (2 lanes)  |

### Audio

|                                |   |
|--------------------------------|---|
| Audio Codec<br>Audio Interface | NXP SGT5000<br>I <sup>2</sup> S (2 channel) |
|--------------------------------|---|

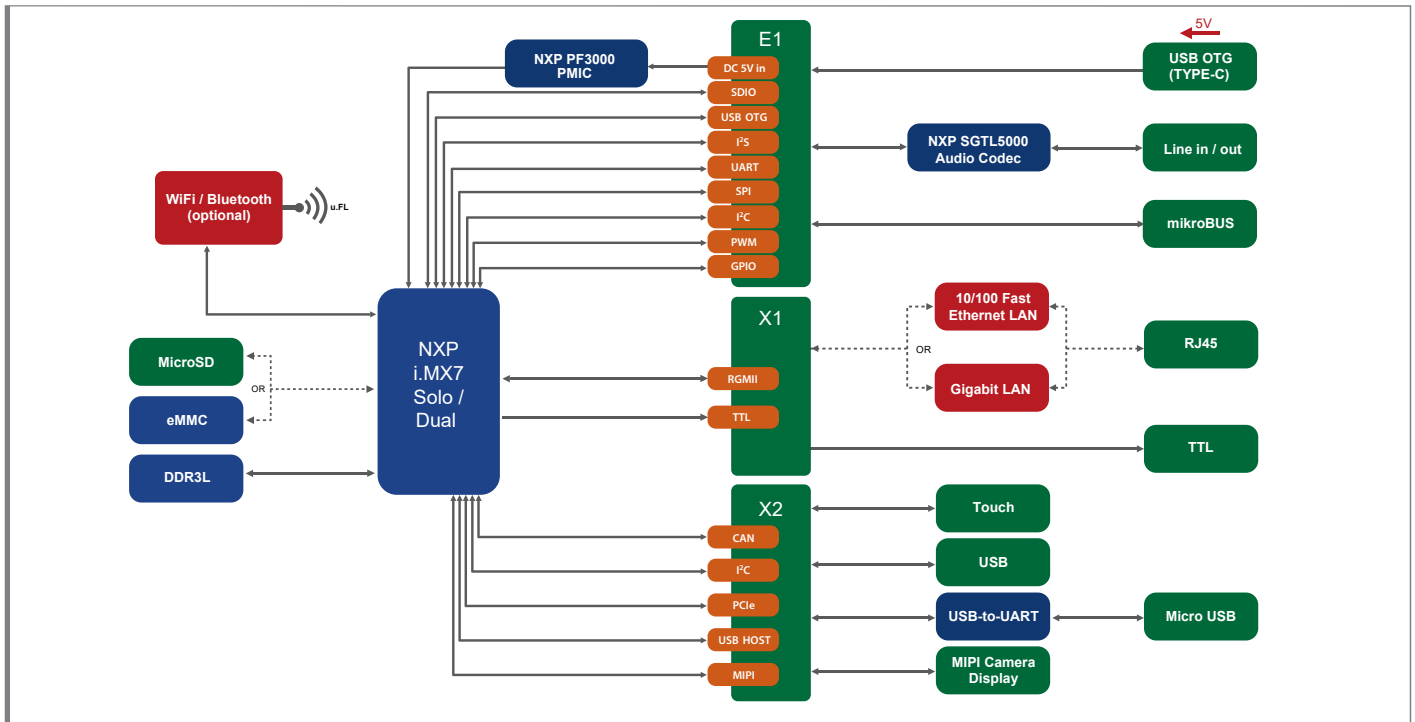
### Power Specifications

|                   |                            |
|-------------------|----------------------------|
| Power Input       | 5V DC +/-5%                |
| Power Connector   | USB OTG (Type-C)           |
| Power Consumption | Depending on Configuration |

### Operation Systems

|                  |   |
|------------------|---|
| Standard Support | Android Things<br>Linux<br>Yocto<br>Ubuntu<br>Android |
| Extended Support | Commercial Linux                                      |

## Block Diagram



### Environmental and Mechanical

|                   |   |
|-------------------|---|
| Dimensions        | 85.6 x 56.5 x 17.5 mm                             |
| Weight            | 43 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 |

### Ordering Information

PICO-PI-IMX7-XXXXXXXX

#### PICO-PI-IMX7

Android Things Development Board based around NXP i.MX7Dual processor.



#### PICO-PI-IMX7-STARTKIT

Development Kit based around NXP i.MX7Dual applications processor including camera module, 5 inch PCAP display, antenna and cable set.



\* Feel free to contact us for customization requests.

### Dimensions

(units in mm)

