Trizeps SODIMM SOM

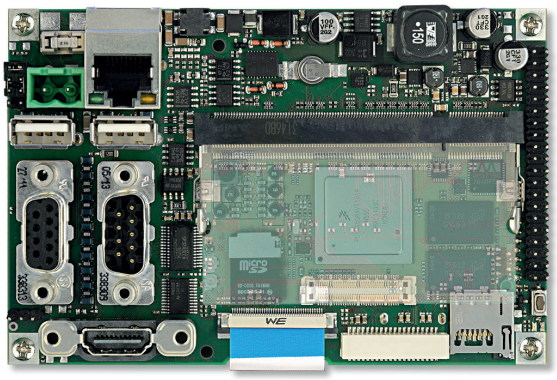
Carrier Board

iP5-Base

by Keith & Koep

Carrier Board for Trizeps SODIMM SOMs

Carrier Board for TrizepsVII, Trizeps VIII, Trizeps VIII Mini, Trizeps VIII Nano and Trizeps VIII Plus SOMs



HIGHLIGHTS

- Supports a wide range of interfaces, such as Ethernet, USB 2.0, CAN, RS485
- HDMI, LVDS or Dual LVDS, RGB interfaces enable easy integration of various touch displays
- Extension Connector allows additional interfaces to be added
- Vertical Connectors

Available in Industrial Temperature Range

Windows 10 IoT · debian · yocto PROJECT · android

MAIN FIELDS OF APPLICATION

Automation · Biomedical/ Medical devices · Digital signage - Infotainment · Edge Computing · Energy · HMI · Home Automation · Industrial Automation and Control · Info Kiosks · Internet of Things · Measuring instruments · Point of Sales · Portable devices · Thin clients · Vending

FEATURES

Processor	Defined by compatible Trizeps SODIMM SOMs • NXP i.MX 6 Quad, Dual, DualLite, Solo, SoloX ARM Cortex A9 up to 1.0 GHz on Trizeps VII SOM • NXP i.MX 8M ARM Cortex A53 up to 1.5 GHz, up to Quad Core, integrated ARM Cortex M4 on Trizeps VIII SOM • NXP i.MX 8M Mini ARM Cortex A53 up to 1.8 GHz, up to Quad Core, integrated ARM Cortex M4 on Trizeps VIII Mini SOM • NXP i.MX 8M Nano ARM Cortex A53 up to 1.5 GHz, up to Quad Core, integrated ARM Cortex M7 on Trizeps VIII Nano SOM • NXP i.MX 8M Plus ARM Cortex A53 up to 1.8 GHz, up to Quad Core, integrated ARM Cortex M7 on Trizeps VIII Plus SOM
Video Interfaces	RGB, LVDS, Dual LVDS, HDMI (with Trizeps VII, Trizeps VIII, Trizeps VIII Plus)
Mass Storage	µSD Card Socket
Networking	10/100 Mbit Ethernet RJ45 Connector Wireless functionalities depend on Trizeps SOM: • Trizeps VII: Onboard WiFi Bluetooth Modul, IEEE 802.11 a/b/g/n/e/i/h/d/k/r/w, +18 dBm, 72 Mbps (20 MHz) and up to 150 Mbps (40 MHz), Bluetooth 3.0+ EDR • Trizeps VIII and Trizeps VIII Mini: Onboard WiFi-Bluetooth module, WiFi 2.4GHz/5Ghz, 802.11 a/b/g/n/ac 2x2 MU-MIMO / Bluetooth 5.0
USB	USB2.0 Host, USB2.0 OTG
Audio	SL2-40 pin header: stereo headphone (16R and 32R), speaker (Mono, 8R), LineIn, microphone
Serial Ports	RS232 and RS485 via D-SUB SL2-40 pin header: 2x UART

Other Interfaces	4 wire resistive touch interface, Realtime Clock with Backup Cap or battery, LED, 3-Axis 12-bit/8-bit digital accelerometer, temp. sensor, SATA II connector, I2C extension header, reset and user tactile switch, powerfail detection, CAN 1x 40-pin extension connector: GPIOs (1x with PWM), SPDIF (out and in), 2x CAN, SDIO, I2C, 3 x ADC
Power Supply	Industrial +12 up to +24V supply
Operating System	Linux Yocto Linux Debian Android Windows 10 IoT
Operating Temperature*	-20 ÷ 85°C
Dimensions	118.5 mm x 77.6 mm x 23.4 mm

*All carrier board components must remain within the operating temperature at any and all times, including start-up; carrier operating temperature is independent of the module installed. Please refer to the specific module for more details. Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system.

BLOCK DIAGRAM