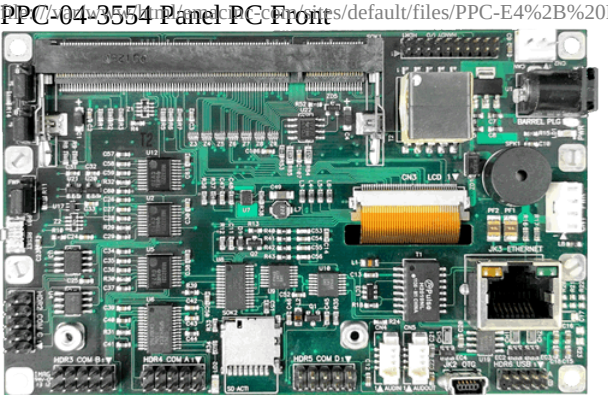
Published on EMAC Inc. (https://www.emacinc.com)

Source URL: https://www.emacinc.com/content/ppc-04-3354-arm-hmi-pc

PPC-04-3354 ARM HMI PC

Image not found
file:///var/www/html/emacinc-com/sites/default/files/PPC-E4%2B%20Panel%20Front_circlelogo_webopt_0.png
PPC-04-3354 Panel PC Front



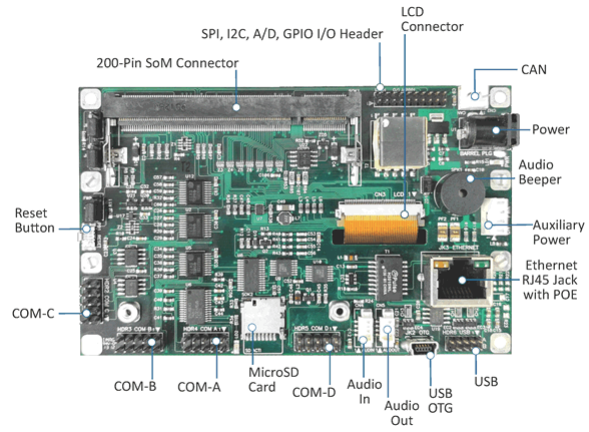
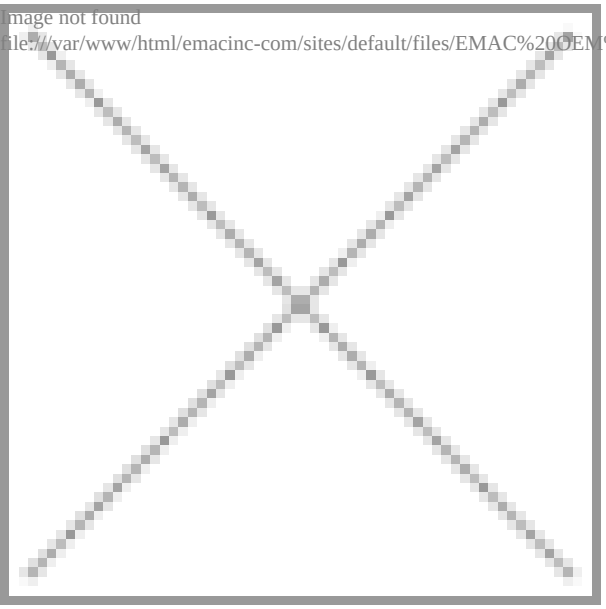


Image not found
file:///var/www/html/emacinc-com/sites/default/files/EMAC%20EM%20LOGO-web-opt-500x450px_29.png



WQVGA (480 x 272) Resolution with LED Backlight

TI AM3354 ARM Cortex-A8 1 GHz processor

Inexpensive Open-Frame Design

10/100 Base-T Ethernet

3 RS232 & 1 RS232/422/485 Port

1 USB 2.0 (High Speed) Host port

1 USB 2.0 (High Speed) OTG Port

512 MB embedded SDRAM

Up to 16GB eMMC Flash

Up to 16MB of Serial Data Flash

Battery backed Real Time Clock

Micro SD Flash Card Socket

1 SPI & 1 I2C port

1 Audio Beeper

Timer/Counters and Pulse Width Modulation (PWM) ports

8 A/D Channels with 12-bit Analog-to-Digital converter

Graphic LCD Interface

Touchscreen Interface and Software Controlled Backlight On/Off & Brightness

JTAG for debug, including real-time trace

FREE Eclipse IDE with GCC & GDB development tools

Linux or Android Operating system

Optional Power Over Ethernet (POE)

Optional Audio with Line-in/out

The PPC-04-3354, an ultra compact Panel PC with a 4.3 inch WQVGA (480 x 272) TFT color LCD and a resistive touch screen. The dimensions of the PPC-04-3354 are 4.8” by 3.0”, about the same dimensions as that of popular touch cell phones. The PPC-04-3354 is small enough to fit in a 2U rack enclosure. Unlike other compact Panel PCs, the PPC-04-3354 comes with EMAC's Embedded Linux distribution installed and fully configured on the onboard flash disk. This allows the software engineer to concentrate on writing applications and not have to worry about configuration and setup. Just apply power and watch the User Interface appear on the vivid color LCD, Linux X-Windows desktop. Interact with the PPC-04-3354 using the responsive, integrated touch screen. The PPC-04-3354 compact Panel PC utilizes a System on Module (SoM) for the processing core. This allows the user to easily upgrade, if more memory capacity, storage capacity or processing power is required. The PPC-04-3354 includes an embedded ARM A8 SoM; this ARM System on Module features a 1GHz Fanless Low Power Processor with Video and Touch. The SoM provided with the PPC-04-3354 supports up to 512MB of Embedded SDRAM, Up to 16GB of embedded eMMC Flash, and 16MB of serial data flash. Typical power consumption is less than 5 Watts and the LED backlight can be shut off when not in use to further decrease its power consumption. The PPC-04-3354 offers three RS-232 serial ports, and one RS232/422/485 port. Also provided are two USB 2.0 host ports, an Audio Beeper and a battery backed real time clock. A Micro SD card socket is provided for additional Flash storage. The PPC-04-3354 can be connected to a network using the 10/100 Base-T Ethernet controller and its onboard RJ-45 connector. When developing CE 6.0 application for the PPC-04-3354, Microsoft Visual Studio 2005/2008 can be utilized. For Embedded Linux application development, EMAC provides a Free Eclipse IDE. Both Visual Studio and Eclipse provide everything the user needs for developing PPC-04-3354 applications. All the compiling, linking, downloading, and debugging inherent to software development can be done from one easy to use high level interface. EMAC provides an SDK for the PPC-04-3354, which contains source examples and drivers.

Specifications

Panel PC Type:

Open Frame PPC

Processor

Processor:
TI ARM Cortex A8 based Processor AM3354
Clock Speed:
1 GHz
Real Time Clock:

Memory

RAM Type:
Embedded DDR3 SDRAM
Primary Flash:
4GB of eMMC Flash
Secondary Flash:
16MB of Serial Data Flash
Memory Misc.:
upgrade to 16 GB eMMC Flash optional

Primary I/O

GPIO:
16x GPIO
(5x dedicated GPIO
11x Configurable I/O)
Audio:
I2S Audio port with Line-In/Line-Out & beeper
Ethernet:
10/100 BaseT ethernet (POE optional)
USB:
1x USB Host
1x USB OTG
Serial Ports:
3x RS-232 with handshaking
1x RS-232/422/485
high-speed SPI with chip selects
I2C
Watchdog:
Primary I/O Misc.:
Some IO configuration can be changed in the software to operate differently, IO functions are listed as configured by default.

Ethernet MAC: Built-In

Ethernet PHY: Micrel KSZ8041 with software PHY shutdown control

Ethernet Type: 10/100 Base-T Ethernet

Ethernet Interface: On-Board RJ-45 connector

Secondary I/O

CAN:
2.0B Port
Timers/ Counters/ PWM:
2x 3 channel
16-bit timers/counters with capture

compare
and PWM
20-bit interval timer plus 12-bit interval counter
LPT Port:
Keypad:
PS/2:
Touch:
12-Bit 4-wire analog resistive Touchscreen
Secondary I/O Misc.:

Touchscreen

Type: 4 Wire Analog Resistive

Resolution: Continuous

Controller: Built-In

Driver: Linux

Transparency: 80%

Durability: Over one million touches

Analog on

A/D:
A/D Channels:
8
A/D Resolution:
12-bit
D/A:
Analog Misc.:
Analog I/O: 8x A/D Channels with 12-bit A/D Converter - 4 Channels are utilized for the 4-wire resistive touchscreen interface

Dimensions

Dimensions:
4.8 × 3 × 1.2 in
Weight:
5.7 oz

Power Requirements

Typical Current:
900 mA
Typical Voltage:
5 V
Power Misc.:
Power: Power Management Controller allows selectively shutting down on processor I/O functionality and running from a slow clock.

Power Supply Voltage: +5V DC, POE or 8 to 35V DC

Typical current draw: depends on USB devices

Alternate Wide Voltage Input: 8-36 Vdc (Typical: 5 watts of power, Max 15 Watts)

Environmental

Low Operating Temperature:
0 C
High Operating Temperature:
60 C

Pricing
Product Variations:
PPC-04-3354-0R
4.3" Open Frame Panel PC w/ Touchscreen, SoM-212ES & SoM-3354M. AM3354 1GHz, 512MB RAM, 4GB eMMC Flash, 4x COM, 2x USB2, 10/100 LAN, 4.3" LCD
$349.00
Order:
0
Parent Product:

PPC-04-3354-1R
4.3" Open Frame Panel PC w/ Touchscreen, SoM-212ES & SoM-3354M. AM3354 1GHz, 512MB RAM, 4GB eMMC Flash, 4x COM, 2x USB2, 10/100 LAN, POE, Audio, 4.3" LCD
$399.00
Order:
0
Parent Product:

Disk Interface:
Micro SD

Source URL: https://www.emacinc.com/content/ppc-04-3354-arm-hmi-pc