

MPC5121e Advanced Development System ODM Reference Board

This is the first in the latest mini-ITX embedded mainboard solutions from Freescale and STx.

Mini-ITX Mainboard

- LVDS 24-bit (LCD), VGA, HDMI, video
- Stereo audio with AC97, in/out/aux
- SATA/PATA (IDE)
- PCI, mini-PCI (radio slots)
- 10/100 Ethernet copper
- RS232, CAN (2 each, Dsub and RJ)
- DDR2 RAM with power save hibernate
- NOR, NAND and backup flash
- Local bus IO connector
- USB A, B, OTG
- JTAG and control CPLD ruggedization service
- Industrial temperature -40°C to +85°C or more
- Thermal cycle/burn-in
- Shock, vibration
- Coating/humidity
- Call for custom

Future Add-On Feature Modules

- Bluetooth® radio
- Camera/image capture
- Microphone
- GPS module
- Echo cancellation module
- Profibus/fieldbus

Available MINI-ITX Accessories

- Cases and customized backplate with silkscreen
- LCD panel or monitor, inverter, touchscreen
- Radios: USB 802.11 and MiniPCI WiMAX
- DRAM modules and memory upgrades
- Hard drive (IDE or SATA) or solid-state (FLASH)
- CD-ROM or DVD drive
- PCI riser cards or other peripherals inside the case
- Cables of every kind:
  - Power: ATX/ 4-pin ATX/AC extender
  - IDE, ultra IDE
  - SATA: data and power
  - LVDS video (LCD)
  - VGA/HDMI
  - VGA splitter
  - USB
  - FireWire 1394
  - 232, 422, CAN, J1850
  - Audio RCA
  - And more

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freescale semiconductor

Typical Applications

- Automotive telematics
- Industrial automation
- SCADA/instrumentation health-care devices
- Ruggedized long-life products
- Heavy equipment: construction, truck, bus, fleet, asset track

Software

- Operating systems
  - Linux
  - QNX
  - Other IDE and RTOS
- Graphics solutions
  - ALT
  - Tilcon
  - KDE
- Cellular connectivity
- GPS location
- Touchscreen
- Bluetooth® technology
- Voice recognition
- Wireless (802.11, 802.16)
- Database client

The latest Freescale MPC5121e CPU generates less than two watts, no fan or heatsink needed.

Features

Board Size	Standard Operating Temperature	Power Requirement	Weight
17 cm x 17 cm	0°C to 70°C standard -40°C to +85°C industrial -55°C to +105°C (call)	Standard ATX or wall cube	200g (varies with configuration)

Each board includes schematics, user manual/quickstart, open source software and support contact information for STx.

- 10-Year Minimum Life
- Industrial Temperature
- Automotive and Military Qualification



Learn More: For more information about STx, visit their Web site at **www.silicontkx.com.**

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