

ADS512101 FAQs

Welcome to the Silicon Turnkey Express Frequently Asked Questions page.

Feel free to contact us at any time:

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If you don't see the answer to your question listed in the FAQs below, please call or Email STx (this is best for complex questions).

Also check out our Downloads Section which includes current and up-to-date User Manuals, Schematics, U-Boot, and other Software Drivers and Patches.

Thanks and enjoy browsing our FAQs!

Ordering
Accessories
Documents
Hardware
Software
Tools
Support
Miscellaneous

Ordering

Q: What is the lead time for purchasing the ADS512101, MPack5121, and MPlus5121?

A: Lead-time for the ADS512101 product is stock to 4 weeks.

Accessories

Q: What Accessories come included with the ADS512101?

A: Wall Power Supply (1 AMP- for SW development only), International Power Supply Adapters, Null Modem Serial Cable, STx Quick Start Guide, Warranty Card, Freescale Technical Information Flyer, STx CD with ADS512101 User's Manual and other information, CD with Evaluation Copy of CodeWarrior Development Studio for MPC5121E hosted on Windows, CD with Evaluation Copy of CodeWarrior Development Studio for MPC5121E hosted on Linux, and pre-loaded current revision U-BOOT.

Q: I am interested in an LCD panel or monitor for the ADS512101

A: Contact STx with the following information for your desired screen:

- Size (in diagonal inches)
- Resolution (XGA, SVGA, VGA)
- Color depth (18 or 24) and Logic Level (TTL/CMOS or LVDS)
- Backlight (Inverter or LED)
- Brightness needed (mcd/cm²)
- Technology (Transflective, Reflective, NLT)
- Touchscreen (4, 5, 8 Wire-Resistive or Capacitive? Preference?)

Please see the MPlus5121 Complete Multimedia System

Q: Are there Cases for the ADS512101?

A: Take a moment to review our many Cases [or feel free to make a request.](#)

Documents

Q: What documentation is included with the ADS512101?

A: MPC5121e Reference Manual, User Manual, Quick Start Guide, Freescale Service Locations, Schematics and Top & Bottom Layout Picture, Accessory List, and Third Party Information

Q: Are PCB Design files in Gerber or ORCAD format available?

A: Any assembly information beyond what is included in the CD must be requested from STx.

Q: Is there a Block Map for specification?

A: Please refer to the ADS512101 User's Manual.

Hardware

Q: How do I reset power cycling?

A: If the board does not appear to be on (LEDs not lighting), hold the power button down for 5 seconds. Release. Then press power button again.

If this does not solve the problem, please Contact STx for a possible CPLD update.

Q: What is the GPU for the ADS512101?

A: MBX Core from Imagination Technology

Q: Is the MPlus5121 based on the ADS512101?

A: Yes, MPlus5121 features the ADS512101 mainboard in a small Mini-ITX case. The system includes a hard drive, Micro-SD card, XGA 8.4 inch LCD and integrated power supply. Freescale's Linux OS is included.

Q: What is the difference between Hellrosa and Freescale's ADS512101?

A: The product is the same. The ADS512101 includes a development kit.

Q: How do I use the SD Card Device?

A: The SD is a micro (uSD) which is mechanically smaller but electrically identical. When you buy a micro-SD card, you get an SD card carrier to insert it into SD slots when needed.

Drivers for the micro-SD will be available soon from STx.

Q: Is the MPC5121e on the ADS512101 in a socket?

A: For the current Rev 3 ADS512101, the MPC5121e is not in a socket.

Q: What version silicon (MPC5121e) is available on the current (Rev3) ADS512101?

A: The current MPC5121e revision is 1.5 for the Rev 3, ADS512101.

Q: Does the ADS512101 support Wimax? WLAN? Bluetooth?

A: Yes, the ADS512101 supports wireless connectivity via a mini-PCI radio. You must choose a radio board and PHY for this.

Q: I am interested in an industrial temperature ADS512101 (-40 to +85C)

A: We provide many ruggedization services. Industrial temperature (-40 to +85 C) ADS512101s are build-to-order. For an industrial temperature request, and to know more about thermal cycle/burn-ins, shock/vibration, coating/humidity services, Contact STx.

Q: Are PATA and SATA functional on the ADS512101?

A: At this time, PATA and SATA are not functioning on the ADS512101. Both will be functioning on the Revision 4 board with the next processor in July 2008. If you need PATA or SATA on your current ADS512101, contact STx for upgrades and updates.

Software

Q: Can I flash U-Boot and other images to the ADS512101?

A: A working copy of U-Boot will allow you to flash images. Please refer to the U-Boot Manual located at www.DENX.de

If the Main Flash U-Boot image is corrupt restore U-Boot from the Backup Flash. Please refer to the ADS512101 Quick Start Guide or Section 7.3 of the ADS512101 User's Manual.

If both U-Boot and Backup Flash are corrupt, STx can recommend using the Abatron BDI3000 JTAG Debugger for troubleshooting. STx uses this product internally to develop its boards. You can purchase the Abatron BDI3000 (BDI2000 for CodeWarrior) from STx directly.

Q: Where can I find ADS512101 Jumper settings to restore U-Boot?

A: Please refer to Section 3.2 of the ADS512101 User's Manual.

Q: Does the ADS512101 come with Linux preinstalled?

A: Yes, a license-free self-hosted version of Linux, provided by Freescale, is preinstalled on the ADS512101 called Linux Target Image Builder, LTIB.

Freescale's LTIB, is preloaded on the ADS512101, but always check the Freescale site for the most recent revision. LTIB includes several drivers. See the Freescale ADS512101 LTIB website for a complete list of supported peripherals at:

http://www.freescale.com/files/soft_dev_tools/doc/support_info/BSPMPC5121EA_DSRN.txt?fsrch=1

Q: How can I change the code for ADS512101 CPLD?

A: This is a Level 2 STx Technical Support request. Please Contact STx for information about STx Support Services.

Q: Does STx provide support for the preinstalled Linux OS, provided by Freescale?

A: The Freescale Linux OS preinstalled on the ADS512101 is supported by Freescale.

Q: What Operating Systems are available and support the ADS512101?

A: Opensource Linux, QNX, WindRiver, Green Hill Software

Q: What Graphics Solutions products are available for the ADS512101?

A: STx recommends Tilcon IDS and Fluffy Spider Fancy Pants.

Q: What STx software is preloaded on the ADS512101?

A: The ADS512101 only supports U-BOOT for a loader.

Q: What Software Drivers come with the ADS512101?

A: The ADS512101 U-BOOT has limited drivers for booting the board. These include onboard memory, serial I2C, Ethernet, and PCI. In the future U-Boot will include a low level USB Driver for mass storage booting and a diagnostic tool.

All other Drivers are provided by an Operating System Environment.

Tools

Q: Does STx provide full source and tool chain for the ADS512101?

A: STx provides source for U-BOOT via the ELDK tool chain.

Q: The color in the video output isn't correct. How do I fix this?

A: Some ADS512101 boards with LTIB preloaded work in two video modes. A command has been patched in Freescale's LTIB that will enable either mode of operation. This command changes the number of color bits that drive each of the video output modes.

Default enables the DVI (J6) output for correct color information. In the default mode both the LVDS (P20) and TFT (P21) will not output correct color information. To enable both the LVDS video out (P20) and TFT video out (P21) a command has to be executed at the Linux prompt as follows: `gamma_set LCD`

To switch back to DVI video output, execute at the Linux prompt: `gamma_set`

Complete instructions and this patch are available from Silicon Turnkey Express. Either call sales at 440.461.4700 ext 182 or email ADS512101@silicontkx.com for information.

Support

Q: What kind of Support Services does STx provide?

A: STx provides 3 Levels of Support:

- Level 1 (free)
- Level 2 (paid services). Please Contact STx for pricing.
- Level 3 (comprehensive paid services). Please Contact STx for pricing

Miscellaneous

Q: The ADS512101 is ideal for which markets?

A: Automotive Telematics, Mobile Internet Devices, Construction and Farm Machinery, Medical Devices, Industrial Automation, and Gambling/Gaming.