



Si14 - Embedded Solutions

iMX27 Single board

Overview

Complete Freescale iMX27 based solution.

Key benefits

- Low cost solution
- Powerful CPU (up to 400MHz)
- No video coding royalties
- Optimized for video acquisition and coding
- Ready to use design – reduced time to market
- No JTAG needed
- Windows CE 6.0 and Linux BSP freely available

Key features

- MPEG4, H.264, H.263 encoder/decoder
- On-the-fly video processing
- Powerful ARM9 processor
- USB 2.0 high speed (480Mbps)
- SDHC, MMC
- Integrated Fast Ethernet controller
- Up to 800x600 video controller resolution
- < 1.5 W power consumption
- Available in extended temperature range (-20 °C to + 85 °C)

iMX27 single Board PC board is equipped with an iMX27 processor and a variety of peripheral devices.

With an ARM9 400 MHz, the iMX-27 provides high performance with very low power consumption (less

than 1.5 W), which makes it particularly suited for low-power applications.

The board supports audio and video data I/O, serial data exchange (through RS-485 ports), ethernet

and USB functionalities. Storage capabilities can be expanded through the SD/MMC slot. Video output is intended for both LCD and touch screens.

Software's support includes:

- uBoot
- WinCE and Linux BSPs
- Ready-to-use cross-compilation tools and environment
- Native, high performance Qt libraries

This allows the development of working applications in just a few days.

Specifications

CPU Type	ARM926EJ-S
CPU Speed	266 - 400 MHz
CPU Cache	16 KB/16 KB
DRAM	128 MB DDR2 - 266MHz
Flash	64 MB NAND Flash
Video acceleration	H.264, MPEG-4, H.263 HW Encoder and Decoder; 30 fps D1 Resolution Half Duplex, 24 fps VGA Resolution Full Duplex
Image Pre- and Post-Processor	Color Space Conversion, De-Block, De-Ring, Resize, Rotation, Mirroring
LCD Display size	Up to 800x600 24bit
LCD	LCD ZIF connector available
USB2 Host	2 USB Host High-speed – 480Mbps
MMC	1 SD port with MMC/SD/SDIO
Ethernet	1 Fast Ethernet port (on RJ45 connector)
RS-485	RS-485 ports available (on Euroclamp connector)
IR	1 Infrared port available (on Euroclamp connector)
Audio	1 Audio in and 1 audio out ports (on Euroclamp connector)
Speaker	1 Speaker port available (on Euroclamp connector)
Camera	1 Camera port available (on Euroclamp connector)
Touch screen	1 Touch screen port available (on 4-pin FPC connector)
Power supply	12 V \pm 10%
Power consumption	2,4 W (excluding peripheral devices such as USB devices)
Operating temperature	0°C to + 85 °C
Storage temperature	-20°C to + 125 °C

