LOW-POWER ETHERNET-AUDIO INTERFACE

The Medallion 37-001090-100 is an extremely compact embedded computer module designed for mobile audio applications.

This product integrates a microphone amplifier, automatic level control (ALC), analog to digital (A2D) converters, along with digital to analog (D2A) converters, programmable volume control, and a headphone amplifier, plus a 10BASE-T Ethernet interface, all connected via a 200-MHz (210-MIPS) 32-bit RISC processor running the Linux operating system (OS).
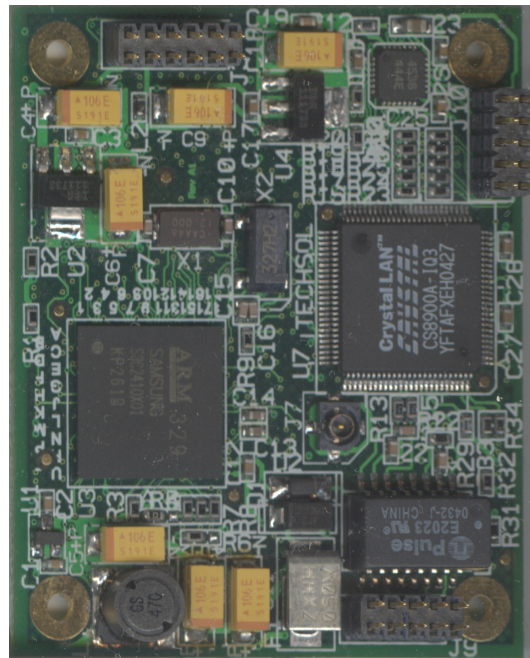
The simplest application of this device is as an Ethernet to Voice converter. However, with appropriate software (SW), it could be used as a text-to-speech (TTS) device; speech recognition device; media (e.g., MP3) player; or voice-recognition security device.

A development kit is available to speed development of custom software.

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Technical Data

- **200 MHz ARM-920T-BASED RISC CPU**
- Physical dimensions: 50 mm × 60 mm
- 16 KB I-Cache, 16 KB D-Cache, MMU
- 0.5 to 8 MB NOR flash (low-power)
- **16 to 64 MB SDRAM**
- GPIO (4 pins) for switches, etc.
- **up to 512 MB NAND flash**
- JTAG (programming, debug interface)
- 2 UARTs (one with modem control lines) for optional GPS and debugging
- 16-bit Audio up to 22 kHz
- Power Management drivers provided
- single 9 to 18 V supply (on-board 5.0 V, 3.3 V, 3.0 V, and 1.8 V supplies)
- Linux OS Pre-Installed with drivers for all peripherals! Each board is tested running Linux before passing QA.
- J2ME Java Virtual Machine (Optional)

Standard Configuration:

- 2 MB NOR flash (for Linux OS)
- 16 MB NAND flash (for data)
- 32 MB SDRAM

Ordering options:

Option	Part Number	Description
1	37-001090-200	SA2410 CPU Board Ethernet, Audio
2	37-001090-210	SA2410 CPU Board Ethernet, Audio, RS232
3	37-001090-220	SA2410 CPU Board Ethernet, Audio, GPS
4	37-001090-230	SA2410 CPU Board Ethernet, Audio, GPS, RS232