



Streamaster 5000

Motorola's Streamaster is a multimedia broadband information, entertainment and communications center. As one of a new breed of advanced TV set-top systems, Streamaster targets telecommunication carriers wishing to enhance revenues and fend off competition by delivering convergent voice, video and data services to customers.

Flexible Architecture

Unlike traditional "hard-coded" set-tops, Streamaster 5000 sports a dual processor architecture, which combines a Motorola PowerPC™ microprocessor with the software-programmable NUON™ media processor. This design easily powers basic broadcast services, plus enables multiple enhanced services. In addition, it provides the unique ability to remotely re-configure and upgrade Streamaster over the network. This flexibility allows service providers to enable new and enhanced services—on demand—thus maximizing revenue and ROI while staying one step ahead of obsolescence.

Basic Services

Streamaster performs basic services such as digital broadcast TV, including premium channels and pay-per-view, plus high-speed data services such as Web browsing, instant messaging, and e-mail. Even with "basic" services and at lower bit rates, the video quality with Streamaster is exceptional. Unlike some competing systems, Motorola's Streamaster is heralded for providing superior digital video quality which is pivotal to exceeding customers' expectations.

Enhanced Services

Along with basic services, Streamaster 5000 supports enhanced revenue-generating services such as on-line 2-D and 3-D games, T-commerce, and interactive

video-on-demand (in Dolby AC-3 stereo). Additional options include personal video recording, video telephony, home gateway services, karaoke, music-on-demand, support for multiple TVs, etc. Streamaster also supports external devices such as select printers, game controllers, digital cameras, and other peripherals. These services and other capabilities, as they become available, can typically be enabled and disabled via software upgrades due to the unique Streamaster architecture.

Industry Standard

Streamaster is compatible with open industry standards featuring a POSIX-compliant embedded real-time operating system and common Web browsing conventions. Streamaster is also network agnostic with network interface modules (NIMs) that can be interchanged to support ATM, ADSL, VDSL, and Ethernet and can accommodate other standard broadband networks as they emerge.

By Motorola

Streamaster is built and backed by Motorola, one of the largest technology suppliers in the world, and the number one provider of set-top systems, with over 10 million digital deployments globally. We know the market, the required service offerings, and the necessary alliances to help you succeed in this new venture.

Key Hardware Features

- PowerPC™ MPC860SAR (Manages the real-time operating system and communications protocols)
- NUON™ Media Processor (Manages MPEG1/MPEG2 video, Dolby Digital & Spatializer audio, 2-D, and 3-D graphics—self-contained gaming architecture).
- Scorpion Multi-plane Graphics & Video Controller
- Sphinx Transport Demultiplexer

Memory Subsystem

- 32, 64, or 128 MB SDRAM
- 16MB Dual Port Shared Memory (PowerPC & NUON)
- 8 KB NVRAM
- 2 MB Boot Flash (expandable to 8 MB)
- Optional Flash disk sub-system

Video Subsystem

- MPEG2 Transport Demultiplexer
- MPEG Audio/Video Decoder
- PAL/NTSC/SECAM support
- Macrovision 7.1 Support
- Teletext support

High Performance Graphics

- Four layer graphics architecture including one video plane, two graphics planes and a hardware cursor
- Video scaling for video in graphics
- High performance Bit-BLT
- Flicker filter, diagonal edge detection and square pixel conversion for optimized viewing of computer graphics on a television
- 128 Level alpha blending
- 3 color modes (16CLUT, 256CLUT, & 32,768 color RGB)

I/O Features

- RF In/Out
- S-Video Output
- Analog Audio L/R Inputs/Outputs
- IR Remote and Keyboard
- EIDE Interface
- Support for ATM-25, xDSL
- 10 Base T Ethernet

Front Panel I/O

- Smartcard Slot
- IR receiver photo detector
- Dual audio microphone inputs
- Multidigit, multi-icon programmable LED display
- 2 x Interactive Control Ports
- Power Standby Push Button
- Power-on LED

Key Software Features

- Streamaster Real Time Operating System, STB enhanced version of Microware OS-9
- Application-Level Software
 - Graphical shell program (grshell)
 - Player program (player)
 - Serial terminal program (softterm)
- Environment-Level Software
- Integrated Applications Development Environment

Networking Support

Network Physical Layers

- ADSL
- VDSL
- ATM25
- Ethernet 10BaseT

Communications Protocols

- Ethernet/IEEE 802.3 CS/CDMA
- UART
- ATM UNI4.0 Multicast and ILMI

Internet Protocols

- TCP and UDP over IP
- HTTP
- RTSP
- SNMP
- FTP
- NTP
- Telnet
- IGMP
- DHCP
- SSL

Options

Optional Hardware

- 8-288 MB Disk Flash (Field-upgradeable) for Boot or Back-up
- Analog TV Tuner
- Hard Disk Drive
- USB
- 2 x SCART Video Connector
- DVD
- S/PDIF

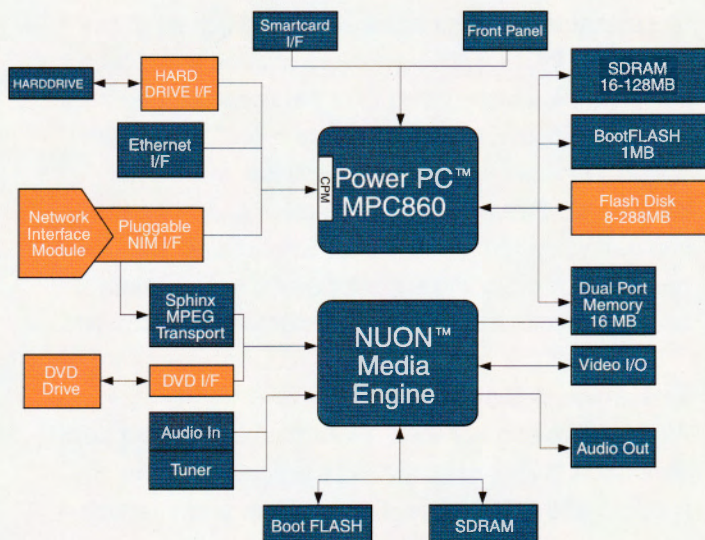
Optional Software

- Streamaster Edition – Spyglass DeviceMosaic 4.X
 - Web browser
 - E-mail client
 - Java runtime environment (JRE)
- Streamaster All-in-One Graphical User Interface

General Specifications

- Power Supply 100 – 220V, 50 – 60 Hz
- Chassis: H, 65.612mm (2.6") W, 352.6mm (13.9") D, 267.15mm (10.5")

SM5000 BLOCK DIAGRAM



www.motorola.com/streamaster