

The AmiNET530 creates additional revenue opportunities for the operator by supporting advanced IPTV functionality such as Digital Video Recorder (DVR), pause-live-TV and pushed content models. This compact advanced interactive IPTV Set-Top Box (STB) includes the ability to view recorded content either locally or via other connected STBs in the home. It also combines the benefits of low bit-rate codecs including MPEG-4 Advanced Video Codec (AVC) (H.264) and offers the user the ability to drive High Definition (HD) displays via analog and HDMI.

Advanced Video Codec (AVC)

The support of low bit-rate AVC provides operators with the opportunity to grow revenue generating services, while maximising the efficient use of network bandwidth and creating the ability to:

- Reach a greater number of subscribers
- Increase the number of available interactive and multicast channels
- Enhance viewing experience with HD channels

High Definition (HD)

The support of HD video offers an exciting and dramatic viewing experience, with greater realism and detail especially in large display formats. HD services can exploit the ability of the AmiNET530 to support HD compatible displays at 720p and 1080i resolution, both MPEG-2 and MPEG-4.

Digital Video Recorder (DVR)

When combined with suitable middleware or application software, it can be used for time-shifting, pause and trick-play of live material, instant-record, and instant replay. Coupled with a suitable EPG application, the AmiNET530 supports scheduled record of multiple streams simultaneously. It can also provide RTSP video streams to one or more other STB, such as the AmiNET110 or AmiNET130.

Connectivity

The AmiNET530 provides HDMI and standard AV interfaces that allow flexible options to cover a wide range of video and audio outputs together with an optical output for multi channel surround sound. Other connections are an RJ45 Ethernet socket, two USB 2.0 connectors on the rear and one at the front together with power from the in-line PSU, standard IEC connectors are used for the RF cable connection, which also provides loop-through to allow analog services to be passed on to the TV set.



Main Features

- 160GByte Hard disc for DVR, and other stored content
- MPEG-4 MP@L4 and HP@L4, Resolutions up to 720p and 1080i
- MPEG-2 up to MP@HL, resolutions up to 720p and 1080i
- HD graphics (1280 x 720)
- HDMI Digital HD output to 1080i with HDCP
- Analogue HD output: 720p, 1080i
- Picture in graphics support with scaling positioning and Alpha-Blending
- Flexible audio and video output
 - Composite, Component, S-Video
 - Stereo Audio and Dolby 5.1 surround via Optical S/P-DIF
 - Teletext pass through, closed captioning, subtitling
 - RF Modulator
 - 4:3 and 16:9 video stream aspect ratios, wide screen signalling
 - PAL/NTSC TV Output with Macrovision protection option
- High performance integrated silicon architecture, 300 MIPs with dedicated codec support
- 192 MBytes SDRAM as standard
- Smartcard for Conditional Access (CA) systems support
- 10/100BaseT Ethernet
- USB 2.0 Master x 3 (2 at rear, 1 at front)
- Navigation buttons
- IR Remote Control for TV and set-top functions
- VoD (RTSP video session control) and multicast (IGMP)
- Key-protected, scalable multicast software uploading of Flash memory based software
- HTML 4 Browser with JavaScript
- Optional IR keyboard

Advance Information: This document contains the target specification for a product under continuous development. Specifications may change in any manner without notice.



Record and Playback Capability

The record and playback capabilities of the AmiNET530 are comprehensive but depend on the functionality provided by the middleware, hence the AmiNET530 supports the ability to:

- Record multiple channels simultaneously
- Instant record, pause live TV and playback with full trick-play
- Scheduled record and playback multicast TV via EPG
- Records closed caption and secondary audio data
- Stream recorded material to another STB via RTSP protocols

Supported Middlewares

Amino STB products are supported by leading IPTV middleware providers for integration as part of a broadband TV solution. The AmiNET530 also supports development of applications in HTML and Javascript.

Content Security

AmiNET530 is compatible with a wide range of leading smartcard-based and smartcard-less content protection & rights management solutions.

Supported Browsers

For Internet access, and middleware compatibility, the AmiNET530 supports a variety of browsers including ANT and Opera.

Application Development

Amino software technology is based on open standards such as Linux, HTML and RMAI. Application developers for the AmiNET530 benefit from the Amino JMACX and RMAI systems which enables control of the STB functions from the browser. JMACX and RMAI provide the service operator with a powerful set of HTML and JavaScript extensions which allow simple and highly effective user interface designs to be created or ported.

For increased flexibility in creating custom applications ADKs and SDKs are also available.

Application Developer Kit

Complete documentation and support for the various APIs, are available under a separate license agreement.

Detailed Specification

Outputs	HDMI, Component, RF Modulator with loop-through, Stereo & Digital Audio S/P-DIF Optical, NTSC, USB 2.0 Masterx3, Video & S-Video
Input	Ethernet 10/100 Base T
Graphics Resolution	640x576 (SD) and 720x1280 (HD)
Disk Capacity	160Gbyte (other options available)
Codecs	MPEG-2 MP@HL MPEG-4 AVC/H.264 HP@L4
Power	12V, 1300mA
Operating Environment	ETS 300-019-1-3 Class 3.1
EMC Conformance	EN55022. FCC Part 15
Safety Approvals	Safety certification to EN60950, UL60950 ELSVD, CE, CB and CSA

Accessories

Multi-function IR Remote	Standard
IR Keyboard	Optional
Regional Power Supply	Standard
Stereo & Audio Cable	Standard
Component Video Cable (YPbPr)	Standard
HDMI Cable	Optional
User Guide	Standard

Software Update and Maintenance

The AmiNET530 holds a complete software image in on-board flash memory, and is also designed to support secure bootstrap from a multicast server. At any time, a deployed AmiNET530 can be upgraded with a new software image via the secure multicast server. The multicast approach ensures that very large numbers of deployed set-tops can be upgraded without placing an individual load on the server or the network. For security, software images can be signed with keys unique to each deployment.

