Tornado M53
IPTV Set Top Box

PRODUCT OVERVIEW

Tornado M53 is an innovative and feature-rich Standart-Definition set-top-box (STB), specifically designed for deployment in IPTV and Video-on-Demand infrastructures. The product features H.264 video compression, which allows it to deliver quality video streams over IP networks with low bandwidth utilization. Tornado M53 supports Standart-Definition video up to 480i resolution and it features a myriad of popular information and communication services, including calendar, calculator, and more.

Unicast and Multicast operation modes

The STB can operate in several modes to allow universal device deployment: Multicast mode allows deployment in closed Local Area Networks (LAN) where all video/audio content is received in multicast format; Unicast mode allows implementation in Open Wide Area Networks (WAN) and Internet where the video/content is received from remote location and using secure and reliable network connections. The Unicast mode can be achieved using TCP or UDP protocols to guarantee maximum image quality and uninterrupted operation. To prevent interruptions, M53 also supports internal data buffering.

IPTV and Video-on-Demand Support

Tornado M53 offers delivery of streaming video content, including IPTV and Video-on-Demand (VoD) directly to the TV screens of end-users. The device receives H.264, MPEG2, WMV/VC1 encoded video streams over broadband connections. It then decodes such streams internally and sends the resulting video signal to the TV set of the end-user.

Digital Music and Internet Radio Delivery

Tornado M53 also supports delivery of streaming audio content, enabling end-users to enjoy digital music and Internet radio channels on their TVs. The product utilizes high audio compression MP3 technology for maximum quality of the delivered audio content.

H.264, MPEG4, MPEG2 Support
Tornado M53 supports low bit-rate H.264 video compression technology which substantially reduces its bandwidth requirements. Compared to older video compression technologies, H.264 offers better video quality at substantially lower bit rates. Because of more efficient bandwidth utilization, Tornado M53 enables providers to reduce the cost of delivering services to subscribers. Tornado M53 also supports popular MPEG2, Windows Media video compression technologies.

■ KEY FEATURES

- ▢ Unicast and Multicast operation modes

- ▢ IPTV and Video-on-Demand Support

- ▢ Digital Music and Internet Radio Delivery

- ▢ H.264, MPEG2, WMV/VC1 Support

- ▢ Media Center Functionality

- ▢ Dolby 5.1 Audio Support

High Definition Support

Tornado M53 supports Standart Definition (SD) video at resolutions up to 480i. Standart Definition video signal from Tornado M53 is delivered to the TV screen via either RCA or S-Video cable.

Media Center Functionality

Tornado M53 offers to end-users convenient access to content stored on attached USB hard drive or USB memory. The device offers 2 USB ports that can be used to connect external storage to store and view video and audio data content thus providing data library services. When the end-user selects a file from that media library, Tornado M53 will play it on the TV. In addition, M53 has an integrated client that will allow Local PC computers to write and read data files from/to the device for media library management purposes.

Dolby 5.1 Audio Support

Tornado M53 supports the Dolby 5.1 Audio standard for exceptional sound quality. The Dolby technology allows up to 6 channels of surround sound to be delivered to end-users. An established standard for high end home theatre systems, surround sound is gaining wider adoption in modern IPTV systems.

100+ Over-The-Top (OTT) and Free-To-Air (FTA) Channel Support *

The server includes over 100 built-in OTT and FTA channels that allow service jump-start with a large number of pre-defined channels. In addition, the OTT channels do not require bandwidth support because the STB devices will access them directly without connecting to the Streaming server. OTT and FTA channels are great IPTV service complement that provides better channel variety and selection.

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Technical Specifications

Connectors/Interfaces:

- One WAN Port
- One S-Video Port
- Two USB 2.0 Ports
- One Composite Port
- CPU 400 Mhz
- Standart Definition DSP

Video Codecs and Formats:

- H.264
- MPEG2
- DVX
- AVI
- WMV / VC1
- MOV
- MKV
- Mp4

Audio Codecs and Formats:

- MP3
- Mp4
- Dolby Digital 5.1
- 16bit Linear PCM with HDCD Support

Resolution*:*

- H.264: Up to 720x480p/480i at 30fps
- MPEG2: Up to 720x480p/480i at 30fps

Protocols:

- UDP (RFC768)
- TCP (RFC793)
- IPv4 (RFC791)
- ARP & RARP
- DNS
- DHCP (RFC2131)
- PPPOE (RFC2516)
- NTP (RFC 1889)
- IGMPv1, v2, v3 (RFC1112, RFC2236, RFC3376)
- IGMP
- BOOTP
- RTP/RTCP
- RTSP
- HTTP

Dimensions:

- 9.4" (W) x 1.2" (H) x 6" (D)

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