

IPME Family of Products

Encoder – IPME-2

- Compact, High Performance, IP Video Encoder converts NTSC Baseband input to an MPEG-2 data stream with DVD quality video
- Encoder will support Multicast or Unicast video streams with operator-controlled bandwidth from 1.5 to 7.5 Mbits/s for optimal network utilization
- Flexible control options: RS-232 local connection, Web interface via IPME Stream Manager, or HTTP / Telnet



Front



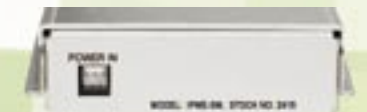
Rear

Stream Manager – IPME-SM

- Provides Virtual Channel Map and stream information to IPClientViewer software
- Allows for the remote management of up to 64 encoders with secure administrator authorization control
- Compact, modular design uses only one slot in the standard IPME Chassis pictured below



Front



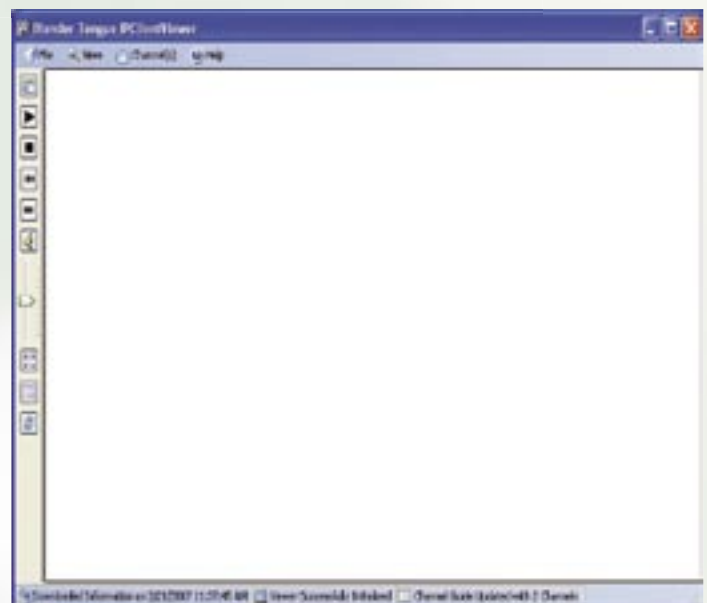
Rear

Chassis – IPME-CH

- Chassis with integrated power supply uses only 1 Rack Unit of space (1.75")
- Holds up to three Encoder Chassis or Stream Manager units



IPClientViewer Software



**BLONDER
TONGUE**
LABORATORIES, INC.

The Blonder Tongue MPEG-2 IPTV Encoder permits the ability to stream a single audio/video program signal in MPEG-2 format over a LAN (Local Area Network) or WAN (Wide Area Network) infrastructure. The compact and modular package facilitates easy integration with existing or new systems. The unit transmits video in real time DVD quality at 30 fps (frames per second) and full screen resolution of 720 x 480 or lower to conserve system bandwidth. Multicast or Unicast modes are supported. The module is designed to work in conjunction with standards-compliant viewers for the PC such as the Blonder Tongue IPClientViewer software or a TV monitor with an IP set top box.

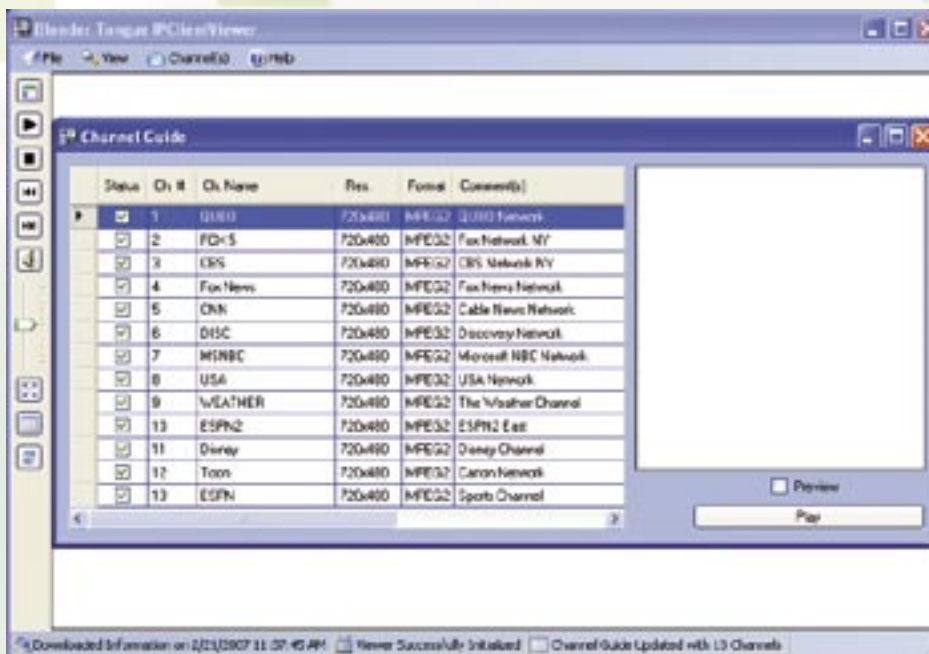
Markets

- Educational campuses with closed networks, Public Schools, Universities
- Enterprise business environments, multi-building corporate campuses
- Large facilities with deployed data networks: Hospitals, Prisons, Sports Complexes, Military Facilities
- Private and commercial production studios for distribution of specialty content and programming

Applications

- Controlled distribution of video content in a business environment:
 - ◆ CEO wants to deliver a “State of the Union” address to the company without having to assemble everyone in front of a few TVs
 - ◆ Brokerage house wants all brokers to have desktop access to all of the major financial and news networks without having to install additional televisions or monitors
 - ◆ Continuing education videos are run on a schedule during the day, and employees do not have to leave their desks to view the materials
- Video distribution within facilities that do not have a coaxial network but do have a data network:
 - ◆ Video production facilities that wish to share “raw” or “working” footage to the desktop
 - ◆ Extend the reach of college/university language lab services to any PC within a closed campus network
 - ◆ Monitoring of security cameras via the data network without the addition of a CCTV coaxial network

Client Viewer



Status: Indicates if the IP Video Stream is active or inactive

Ch. #: Indicates the Channel Number for the IP Video Stream

Ch. Name: Indicates the Channel Name for the IP Video Stream

Res.: Indicates the video resolution for the IP Video Stream

Comments: Provides a brief description of the IP Video Stream as entered in the Stream Manager's "Comment Field"



Network Requirements

Special attention must be taken with all switches in the LAN/WAN to ensure the proper function of the IP Video Streams. All switches must support the following:

- IGMP Snooping
- IGMP Snooping Querier
- IP Multicasting e.g. Protocol Independent Multicast (PIM)

Stream Manager



IPME Stream Manager Configuration Section

Location: Editable field that stores the physical location of the IPME Stream Manager

Name: Editable field that stores the name assigned to the IPME Stream Manager

Domain: Editable field that stores the alias that allows for the logical grouping of Channels

Date: Editable field that displays the current date in MM/DD/YY format

Time: Editable field that displays the current time in HH:MM:SS format

Save: Saves the current IPME Stream Manager Configuration to non-volatile memory

Encoder Configuration Section

Encoder #: Non-zero read-only field, displaying the Encoder's sequential index amongst the list of Encoders

<: Scrolls backward to display and/or edit the previous Encoder's configuration

>: Scrolls forward to display and/or edit the next Encoder's configuration

Save: Applies and saves the current Encoder's configuration to non-volatile memory

Cancel: Cancels and discards any changes made to the current Encoder's configuration

Delete: Deletes a stored Encoder's configuration

Add: Presents a blank Encoder configuration ready for population by the user

IPME

IPTV MPEG-2 Encoder



○ Features & Benefits

- Compact High Performance IP Video Encoder/Server
- Permits an Unlimited Number of Client Viewing Sessions
- MPEG-2 Standards Compliant with DVD Quality Video @ 30 fps
- User Controlled Bandwidth – 1.5 Mbits/s to 7.5 Mbits/s
- Easy Set-up & Configuration

○ Specifications

IPTV Encoder

Compression: MPEG-2 Standards Compliant, RFC-1889 & RFC-2250
Ethernet: 10BaseT Ethernet or 100BaseTX Fast Ethernet Compatible (Auto-sensing)
Bandwidth Control:
Minimum: 30 fps @ 1.5 Mbits/s, 325 x 240 Resolution
Recommended: 30 fps @ 3.8 Mbits/s, 720 x 480 Resolution
Maximum: 30 fps @ 7.5 Mbits/s, 720 x 480 Resolution

Streaming Modes:
Multicast or Unicast Modes, "Transport Stream over UDP" or "RTP over UDP"

Multicast Sessions: Unlimited Number of Client Viewing Sessions

Quality of Service:
Packet Shaping – Reduces Packet Burst and Maintains a Consistent & Controlled Packet Rate with Minimum Latency

FEC – (Forward Error Correction) – Enables Lost Packet Reconstruction

Input & Output

Video Input Formats: NTSC & PAL

Front Panel Connectors

RJ-45 Ethernet, 10/100

RS-232 Serial Connector

Rear Panel Connectors

Video Input 'F' Female Connector

Audio Input Left/Right RCA Connectors

Power Connector, 3 Pin +3.3 VDC

System Requirements

Standard MPEG-2 Encoding with TCP/IP Protocols, Images can be viewed on a PC with BT's IPClientViewer (MPEG Decoder) Software or an Optional IP Set-top Decoder Box

*MPEG-LA License Fee is Required

Minimum PC Requirements

Pentium® III 500 MHz or Higher or Equivalent Processor

256 MB RAM

Windows® 2000 or XP, with Internet Explorer 5.5 and Direct-X 8.1 or Higher

General

Power: + 3.3 VDC, 1 AMP

Operating Temperature Range: 0° to +50° C

Storage Temperature Range: -10° to +70° C

Humidity: 0 to 90% RH

Mechanical

Module Dimensions: 4 x 7 Inches

Chassis Dimensions: 19 x 8.25 x 1.75 Inches

Module Weight: 0.8 lbs.

Chassis Weight: 2.725 lbs.

Fully Loaded Weight: 5.125 lbs.

○ Ordering Information

Model	Stock No.	Description
IPME-2	2420	IPTV MPEG-2 Encoder
IPMPEG-LA	2412	MPEG License Authority Fee (Required with each IPME-2)
IPME-CH	2419	IPTV Encoder Rack Chassis
Accessories		
IPME-SM	2415	IPTV MPEG-2 Stream Manager
IPC	2411	Blonder Tongue Internet Protocol Client Viewer



**BLONDER
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