

## VIVO™ T101 MPEG2 and H.264 Transcoder

Advanced Codec Technology for Intel® Xeon® Nehalem and Westmere Servers

igolgi's VIVO™ T101 Transcoder is a flexible, scalable, transcoder solution between MPEG2 and H.264 (input and output) currently available for Intel Xeon 55xx and 56xx Servers. The flexible nature of the T101 solution supports a wide range of operating points; from Mobile to HD applications; and from low to very high bit rates. Combinations of MPEG2 or H.264 inputs with MPEG2 or H.264 outputs can be supported with a variety of video processing options to support any workflow.

The T101 integrates igolgi's VELOCE™ H.264 and MPEG2 high quality codecs into a flexible transcoding function that can be controlled to provide a myriad of transcoding applications. The T101 can scale transcoding performance from full decode/full re-encode type to a transrating type, with several operating points in between. Web based control of the transcoder provides a high level of control and monitoring capability.

The efficient and scalable software architecture of the igolgi solution, allows integrating multiple channels of Mobile, SD or HD onto a single server in any form factor or density required.

By leveraging off the shelf platforms, with innovative software architectures, igolgi Inc. provides a high quality video solution that can be tailored for any given application.

### Key Features:

- MPEG2/H.264 to MPEG2/H.264 transcoding
- Innovative compression algorithms with best in class performance
- High Density Solution that can tailor to your application
- Transcoder methodology control
- Flexible architecture for optimum system installations matched to channel needs
- Optimized for multi-core platforms for ultimate efficiency and scalability
- Multi-channel SD and/or HD support on a single Server
- RTP/UDP/IP, and MPEG2-TS transport schemes
- CBR, VBR and capped VBR rate control methods with multi-pass modes
- Flexible API with in-depth control interfaces
- Flexible platforms for easy integration of any video/data interfaces
- Compatible with any Intel Xeon Server platform
  - 1U, 2U, Blade, or other.



Intel Xeon Servers  
(1U, 2U, or Blade)

## SPECIFICATIONS

### Compression Standards

#### Video

##### MPEG-2

Simple, Main, and 422P Profile  
up to High Level

##### MPEG-4 AVC/H.264

Baseline, Main, and High Profile  
Level 3 SD, Level 4.1 HD

#### Audio

##### MPEG-1 layer 2

##### MPEG2/MPEG-4 AAC-LC

Dolby Digital E, AC-3  
pass through

Sampling Freq 32, 44.1, 48 KHz

### Resolutions and Frame rates

Flexible – Mobile to HD 1080p60

Multi-channel SD and HD support

Mix and match resolutions

Example Common Resolutions :

576i and 480i x 720, 544 and 352 pixels @ 25,  
29.97 and 30 Hz

1080i x 1920, 1440, 1280 and 960 pixels @ 25,  
29.97 and 30 Hz

720p x 1280, 960 and 640 pixels @ 23.976, 50,  
59.94 and 60 Hz

1080p x 1920, 1440, 1280, and 960 pixels @  
23.976, 50, 59.94, and 60 Hz

### Video Processing Options

Format Conversion

PAL/NTSC to NTSC/PAL

50i/25p to/from 60i/30p

50p to/from 60p

Cropping/Scaling

16:9 to 4:3

Single in – multi-out

Noise Filtering

### Transcoding

Full decode/full re-encode mode

Transrating only mode

Controllable level of decode/encode

Intelligent re-use of decoded  
bitstream data

Scene Change Detection and I frame  
insertion

Fixed and Dynamic GOP Structures

### Rate Control

CBR

VBR

Capped VBR

Single and multipass modes

Real time and non real time modes

### Input/Output Bitstream Formats

MPEG2-TS

IP/UDP/RTP

IP/UDP/RTP/MPEG-TS

### Input-Output Interfaces

IP

ASI (option)

### Configuration and Management

Embedded web-server interface

SNMP MIB (option,customizable)

### Xeon Platforms

Xeon 55XX

Xeon 56XX

Blades, 1U, 2U

High efficiency power (option)

Redundant power (option)