INCA NETWORKS
A WISI Company

Available Modules

Hardware Processing & Receiver Modules (Optional)	
MPEG-2/MPEG-4 Transcode Modules	
VMA-XC3	High-density transcode module
VMA-XC2	Medium-density transcode module
VMA-XC	Low-density transcode module
HEVC Transcode Modules	
VMA-HXC1	HEVC transcode module (future)
Receiver Modules	
VMA-8VSB-XC2	4x 8VSB tuner plus medium-density transcode
VMA-8VSB-XC	4x 8VSB tuner plus low-density transcode
VMA-ASI-XC2	6-port ASI interface plus medium-density transcode
VMA-ASI-XC	6-port ASI interface plus low-density transcode
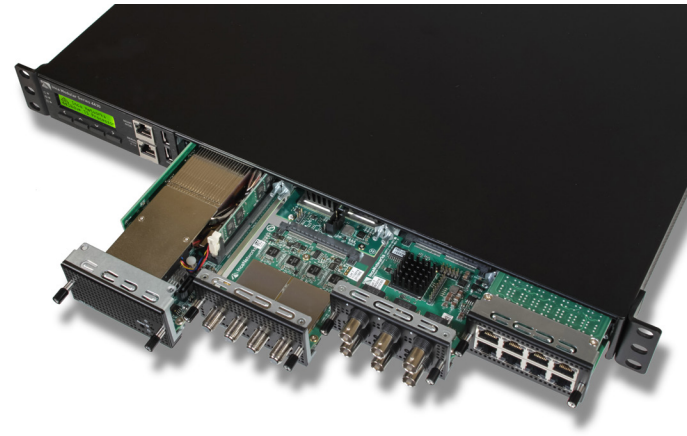
VidiOS™ STREAM ANALYSIS
Intelligent Video Delivery™ - Unique Visibility Into Every Step of the Video Processing Chain
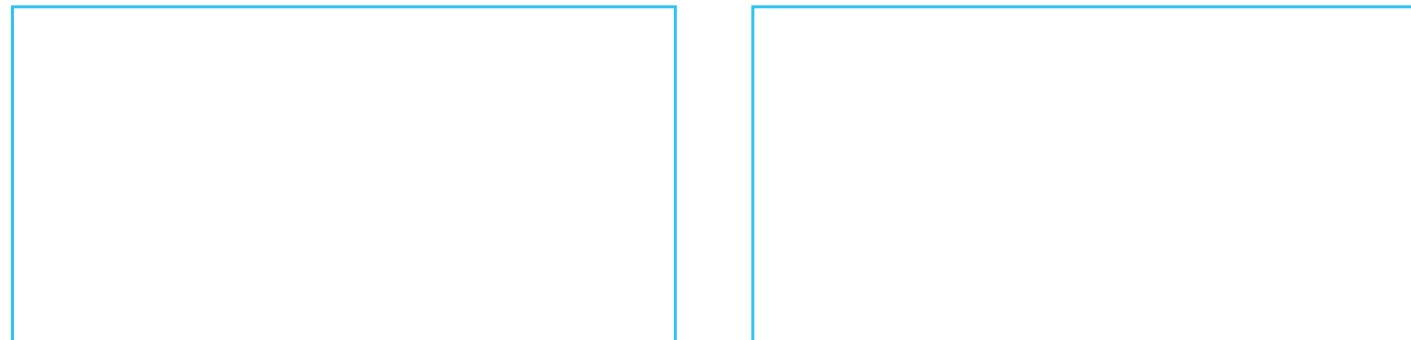
Inbound and outbound video thumbnails and click-of-a-button stream sample downloads

Troubleshooting tools with extensive statistical analysis and transport stream event logging

User-friendly interface with hover-hints

To arrange an online demonstration or discuss your project, please send a request to **sales.na@incanetworks.com**


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WISI

Inca Modular Series 4400
High-Density Linear and ABR Transcoder

- ✔ MPEG-4, MPEG-2, & HEVC options for sources & outputs
- ✔ Multiple 1RU options with high-density video & audio transcoding
- ✔ Input modules available for GigE, 8VSB/QAM, or ASI
- ✔ Transcode, transrate or downscale up to 36HD or 90SD services
- ✔ Award-winning VidiOS™ stream monitoring & analysis
- ✔ Intelligent stream redundancy & automatic service failover

Experience beautiful video delivery in a reliable, carrier-grade 1RU solution with 24/7 support

Profit from using a modular platform - add additional audio or video transcodes at any time, including the new HEVC transcode module
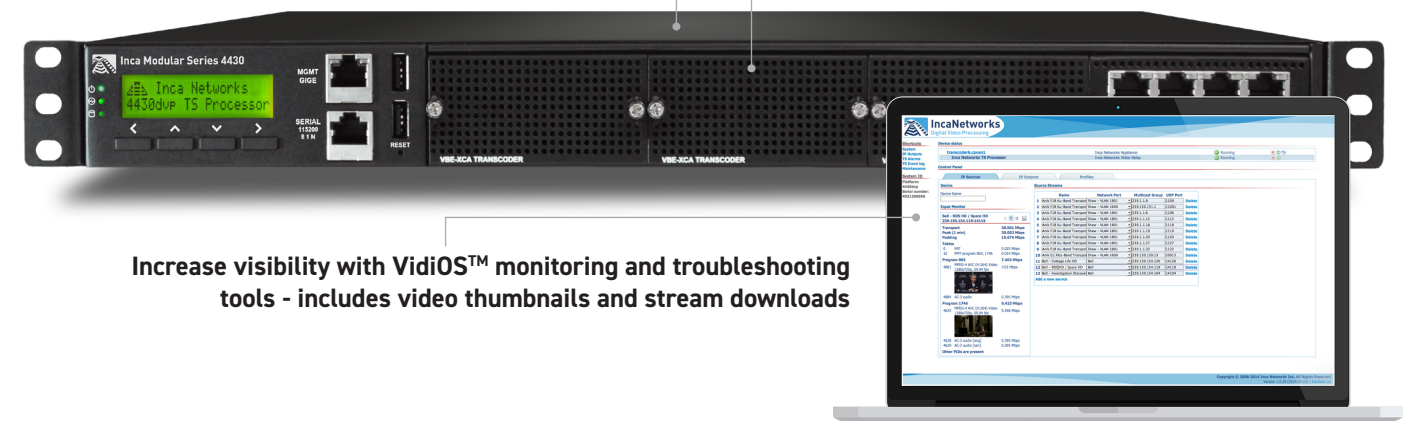
Increase visibility with VidiOS™ monitoring and troubleshooting tools - includes video thumbnails and stream downloads

Deployment Scenarios

- ✔ Optimize the format, resolution and bitrate of large numbers of live satellite, IP and off-air digital sources for delivery to set-top boxes or multiscreen devices
- ✔ Enable efficient HD and SD IP video distribution over DSL and cable networks by transcoding high bitrate MPEG-2 or MPEG-4 AVC sources to optimized MPEG-4 AVC
- ✔ Transcode MPEG-4 sources to MPEG-2 CBR or VBR outputs to feed legacy cable systems
- ✔ Receive all your local broadcast channels, including all primary HD and secondary SD sub-channels, and transcode them for delivery over DSL, cable and over-the-top networks
- ✔ Demultiplex sub-channels and deliver local content from off-air signals - with or without transcode
- ✔ Replace legacy equipment with a modular, field-proven solution; add capacity as your business grows

Applications

- ✔ Transcode, transrate or downscale up to 36x HD or 90x SD programs to MPEG-4 in just 1RU, with integrated grooming and monitoring of all streams
- ✔ Create multiple frame-aligned video streams for adaptive bitrate delivery to multiscreen devices
- ✔ Experience powerful VidiOS™ management and troubleshooting tools with inbound and outbound video thumbnails, stream capture and download, extensive statistical analysis and stream logging
- ✔ Enjoy peace of mind with N+1 chassis redundancy and Intelligent stream redundancy options - backup prioritized high-value content or entire channel line ups
- ✔ Enable full headend visibility with included probe capability and integration with the Inca All Seeing Eye monitoring system
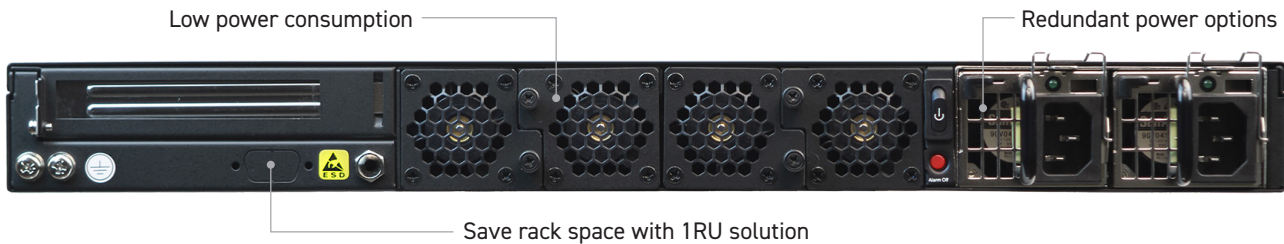
TRANSCODE, TRANSRATE OR DOWNSCALE FOR LINEAR OR ABR APPLICATIONS

Up to 36x HD or 90x SD Linear Services • Multiple Input Formats • Redundancy and Failover Options

4400 Modular Transcoder
Example Configuration

TRANSCODE & 4X 8VSB | TRANSCODE & 6X ASI | TRANSCODE | 8X GigE

8VSB
ASI
IP
IP

Inputs

Ethernet Switch Fabric

Video Distribution Network

Existing Set-Top Infrastructure

Multiscreen Devices
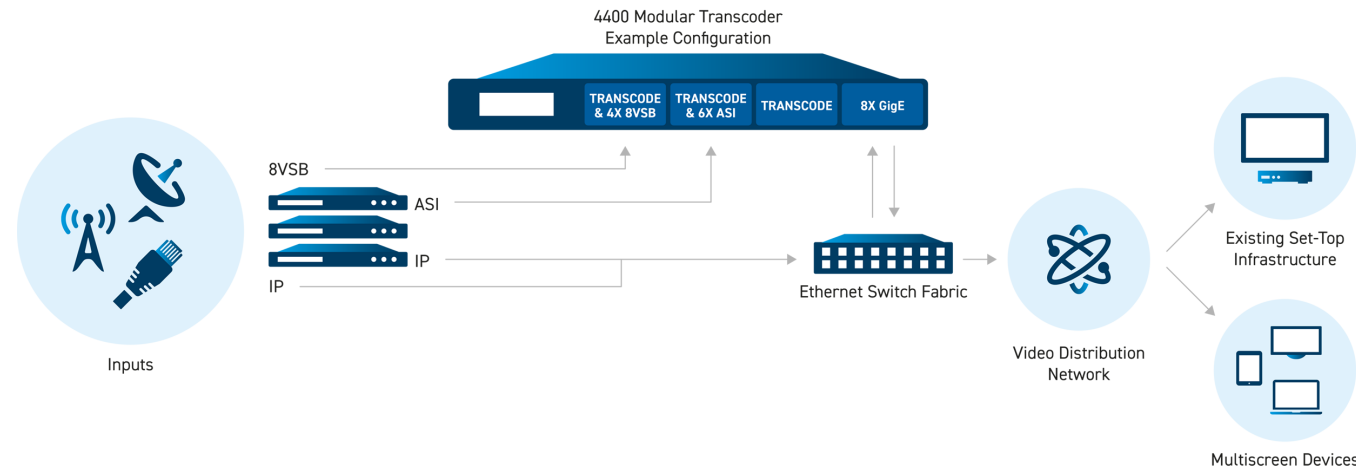
Technical Specifications For All Chassis

Transport Stream Processing	
Inputs	MPEG-2 SPTS/MPTS Transport Stream Multicast / Unicast UDP IP Optional 8VSB/QAM, ASI
Outputs	MPEG-2 SPTS Transport Stream Multicast / Unicast UDP IP Transcode to SPTS Demux or pass through to SPTS/MPTS
IP Outputs	4410 - Up to 48x outputs 4420 - Up to 96x outputs 4430 - Up to 128x outputs
Input and Output Codecs	MPEG-2 and MPEG-4 AVC, HEVC* 4:2:0
Source Resolutions and Frame Rates	1920x1080i @ 30/25 704x480i @ 30 1280x720p @ 60/50 544x480i @ 30 720x576i @ 25 528x480i @ 30 720x480i @ 30 *Other formats supported, please inquire*
Output Resolutions and Frame Rates	1920x1080i @ 30 720x576i @ 25 1440x1080i @ 30 720x480i @ 30 1280x720p @ 60/50 704x480i @ 30 1280x720p @ 30/25 544x480i @ 30 854x480p @ 30 528x480i @ 30 852x480p @ 30 192x192p @ 15 (PIP) *Other formats supported, please inquire*
Transport Stream Optimizations	PID and Program Filter and Remap, Jitter Correction, Strip Null Padding, Transport Rate VBR <--> CBR Conversion
Transport Modes	Constant, Variable, Peak
Closed Captions	EIA 608/708 passed through if present in source
DVB Subtitle Burn In	Select by language
DVB Subtitle PID	Passed through if present in source (can be filtered out)
SCTE 35 Ad Markers	Passed through if present in source

* HEVC support, future

Management	
Configuration	Powerful VidiOS™ web-based User Interface
Visual Mosaic Monitoring	Compatible with Inca All Seeing Eye monitoring product - All Seeing Eye probe capability included
Management Network Interface	1000 Base-T
NIC Redundancy	LACP, Active Failover, Round Robin
SNMP	SNMP Trap Forwarding

Demux to IP and TS Probes	
From IP Sources	10x included Optional 48 or 96 (*96 option available for 4420 and 4430 only)
From 8VSB/QAM, ASI Sources	Included

Audio Transcoding (optional - licensed per stream)	
Source Audio Codecs	AC-3, EC-3, AAC (ADTS & LATM), MPEG 1/2 Audio Layer I/II
Source Audio Channels	7.1, 5.1, 2.0, 1.0
Output Audio Codec	AAC (ADTS & LATM), MPEG-1/2 Audio Layer I/II
Output Channels	2.0, 1.0

Intelligent Stream Redundancy (optional - licensed per output)	
Service Failover	Automatic failover to backup source Automatic recovery to primary source
Backup Production Streams	Prioritize & backup individual production streams Compatible with 3rd party vendors

Chassis Redundancy (optional)	
N+1 Chassis Redundancy	Automatic failover to spare chassis Automatic recovery to primary chassis

Regulatory Compliance	
EMC Standards	FCC Part 15 Class A
Safety Standards	CSA/UL 60950-1