

# iLux Mini

Advanced ATSC 1.0 Encoding Platform



## Powerful Broadcast Encoders

### Designed For LPTV Repack

**igolgi's iLux | Broadcast mini is a versatile, compact, high quality and reliable ATSC 1.0 encoding platform.**

igolgi's iLux | Broadcast Mini is compact, high quality and cost-effective ATSC 1.0 encoding solution specifically designed and configured for the ATSC Repack. iLux includes the highest level of MPEG2 encoding performance for superb video quality along with the industry's most flexible interface support. The iLux Mini scales up to four programs including mixes of HD and SD resolutions and can support compressed or uncompressed source inputs. iLux Mini is feature rich platform that provides a complete ATSC 1.0 Broadcast Station Solution for encoding, Program Guide, Emergency Alert Integration (EAS), hourly station callout, and many more.

iLux Mini is designed specifically for Single SD Program scalable up to four programs with additional software licenses that can be purchased as you grow your program lineup. iLux Mini supports any combination of using SD/HD-SDI input or IP. Included with the basic package is integrated statistical multiplexing which optimizes video quality across all the programs being encoded. In addition, the iLux Mini platform supports dynamic CALM audio loudness control and offers EAS integration through an analog or IP input interface.

Static or Dynamic PSIP is supported. For Dynamic PSIP iLux can integrate with third party PSIP generators or can create the dynamic PSIP information directly.

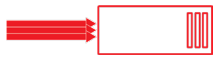
Simultaneous outputs over ASI and IP are available and enhance the operational value of the iLux. iLux also supports 1+1 redundancy if a hot spare is required with instant failover switching.

The iLux platform is a complete system offering exceptional video processing and advanced software algorithms for the highest quality and fastest throughput. iLux is simple to set up, monitor, and use, and offers a variety of hardware and software configurations appropriate for any broadcast application.

Our value proposition is simple: the highest quality, most flexible product at the best price point.

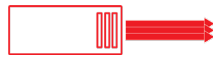


**Fastest** Throughput. **Highest Video Quality.** Most **Flexible.**



### Flexible inputs

iLux encoders offer up to 4 SD/HD-SDI, ASI, IP or analog inputs. New format? Just swap out a card. iLux is ready for today...and tomorrow.



### Flexible outputs

Dual redundant ASI and IP outputs. You won't lose valuable content with iLux.



### High quality STATMUX

True multi-pass with no compromise in quality.



### Encoding

iLux offers numerous types of selectable video encoding combinations and bit rates. Configurations are user definable and simple to change.



### PSIP

iLux supports static PSIP and seamlessly integrated dynamic PSIP with no external server required.



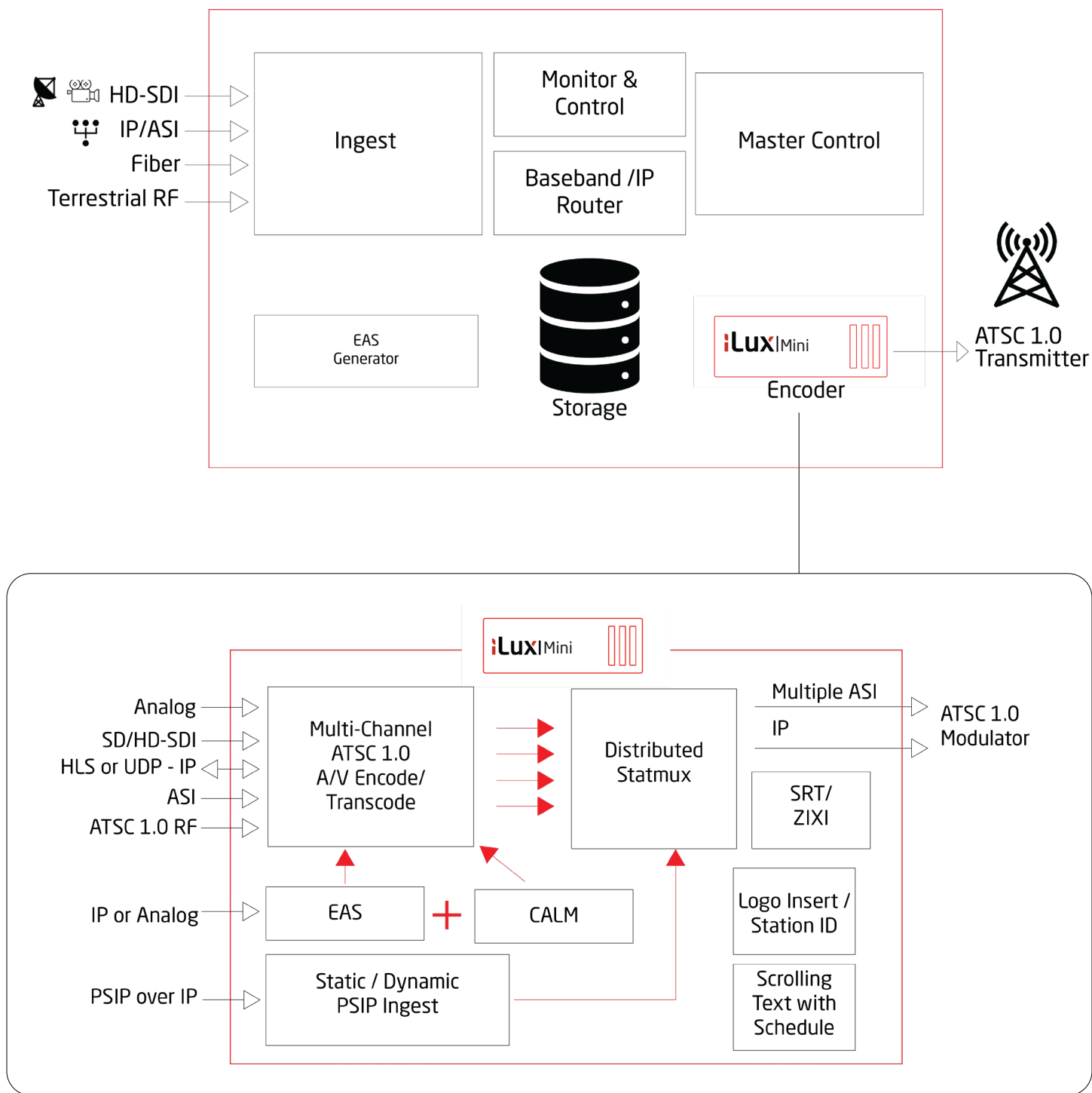
### Upgrade to ATSC 3.0

Always an upgrade path, update software and hardware (if required) and you have ATSC 3.0. iLux protects your investment!

## Key Features

- Flexible multi-channel encoder to fit any station requirement
- Statistical multiplexing with 3 pass MPEG for superior video quality
- Dynamic CALM Act loudness control
- EAS support through analog or IP interface
- Logo insertion
- Text scrolling feature with full week schedule
- Hourly station callout
- Static or dynamic PSIP modes
- Video scaling and frame rate conversion
- Multiple audio programs per channel
- Full closed captioning compliance
- Fully configurable and flexible web-based management and control
- Customizable software platform ensures easy integration of many optional functions
- SDI, ASI, analog, and IP inputs in any combination
- Simultaneous and redundant IP or ASI outputs
- 1 + 1 redundancy available with instant failover switch
- SNMP for monitoring

## Workflow



## Specifications

### Video

Video Compression Input	MPEG-2 simple, main, and main profile @ high level H.264 Baseline, Main, High
Video Compression Output	MPEG-2 simple, main, and main profile @ high level (HD only)
Video Processing	Progressive, Interlace GOP Structure I only, IPPP, IBPP Fixed or Adaptive GOP with scene change detection Lanczos Cropping/Scaling MCTF Noise Filtering with strength options Brightness, Hue, Saturation, Contrast adjustable per channel

### Resolutions and Frame Rates

IP Input Formats	240p, 288p, 480p, 576p @ 10, 12.5, 15, 20, 23.976, 29.97, 30, 50 and 59.94 and 60 Hz 576i and 480i x 720, 544 and 352 pixels
Flexible - QCIF to 4Kp60	@ 23.976, 24, 25, 29.97 and 30 Hz 1080i x 1920, 1440, 1280 and 960 pixels @ 23.976, 24, 25, 29.97 and 30 Hz
Common Resolutions:	720p x 1280, 960 and 640 pixels @ 23.976, 24, 29.97, 30, 50, 59.94, and 60 Hz 1080p x 1920, 1440, 1280, and 960 pixels @ 23.976, 24, 29.97, 30, 50, 59.94, 60 Hz
SDI Input Formats	SD : 625i50 (PAL), 525i59.94 (NTSC) HD 1280x720 : 720p60, 720p59.94, 720p50, 720p30, 720p29.97, 720p25, 720p24, 720p23.98 HD 1920x1080 : 1080i60, 1080i59.94, 1080i50, 1080p30, 1080p29.97, 1080p25, 1080p24, 1080p23.98, 1080psf30, 1080psf29.97, 1080psf25, 1080psf24, 1080psf23.98, 1080p60 A/B, 1080p59.94 A/B, 1080p50 A/B, 1080p60, 1080p59.94, 1080p50. 2K 2048x1080 : 1080p30, 1080p29.97, 1080p25, 1080p24, 1080p23.98, 1080psf30, 1080psf29.97, 1080psf25, 1080psf24, 1080psf23.98, 1080p60, 1080p59.94, 1080p50, 1080p48, 1080p47.952

### Audio

Audio Inputs	<b>IP Input Formats</b> MPEG-1 layer 2 MPEG-2 layer 3 (mp3) AAC-LC, AAC-HEv1, AAC-HEv2 stereo and 5.1  <b>CVBS</b> Stereo Audio (dual RCA) <b>SDI</b> Multiple programs per channel, configurable SDI audio slots PCM embedded
Audio Outputs	5.1 or Stereo Calm Processing and Loudness Control 5.1 Downmix control bitrate setting per audio program manual dialnorm setting adjustable static volume control adjustable

### Transport Processing Inputs

MPEG2-TS over UDP	Unicast or multicast, SPTS or MPTS IP or ASI input, VSB, satellite, or QAM Redundant IP input
HLS	Single Profile HLS input
RTP/RTSP	
SDI/ CVBS	CVBS with Stereo Audio Input 3G-SDI for SD or HD
Scrambling	BISS 0/1/E decryption per PID, BISS -CA
FEC	SRT input decode CoPv3 FEC ZIXI

### Transport Processing Outputs

MPEG2-TS over UDP	Unicast or multicast, SPTS or MPTS IP and simultaneous ASI output Redundant IP output
FEC	SRT input decode ZIXI





# Our Mission

First and foremost, igolgi is an engineering and development company. Our engineering staff has years of experience in every type of compression and encoding technology, and we are experts in software control and interface. Our principal engineers hold over 200 patents in compression related projects. For over a decade we have provided innovative, flexible, and high-quality solutions for the broadcast, cable, LPTV and government markets.

igolgi is an American company - all development, engineering, production, and support is based in the USA.

As ATSC 3.0, IP, and compression technologies evolve, igolgi is a partner you can count on to ensure every aspect of your design and implementation meets today's needs and is ready for future growth and expansion.

This is our "sweet spot". Let us help you.

Call or email us for a no-obligation discussion of your current and future needs.

## Our Promise



### Highest Quality.

Our advanced Codecs and optimized software algorithms assure the best quality in any resolution.



### Simplest to Use.

Our enhanced user interface makes set up, monitoring, and changes fast and simple.



### Most Configurable.

SD, HD-SDI, ASI, IP are all configurable for maximum flexibility.



### Easiest Upgrade.

Update the software and change out hardware (if required) to keep you future proofed.



### Superior Support.

Our support is USA-based, and our PremierPlus<sup>®</sup> gives you 24x7x365 expanded support and service.



### Best Value.

igolgi has it all: technology, flexibility, expandability, and support... at a price that will surprise and please you.

## Stay Connected



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