

# IDH-7000

## INTEGRATED DIGITAL HEADEND

*Cutting-edge compact digital headend in One Rack Unit*



Telelynx introduces an advanced innovation of digital integrated headend including encoders, multiplexer, scrambler, and QAM modulator in a very compact 1 RU form factor. This highly compact integrated headend can come in several different combinations/models. For instance, model IDH-7118 includes 8 encoders, 1 MUX, 1 Scrambler, and 1 QAM modulator, while model 7018 has 8 encoders, 1 MUX, 1 scrambler, and no QAM modulator so that it can interface with a stand-alone terrestrial COFDM modulator. The basic unit comes with three ASI inputs as a default to allow for EPG, OTA, CAS, and satellite input signals. This highly integrated unit can save precious rack space up to 90%.

### ■ Specification

- l Number of encoders: 0, 4, 6, or 8 shown in the last (fourth) digit of the model number.
- l Number of multiplexer: 1 (default).
- l Number of scrambler: 0 or 1 (shown in the third digit or next to the encoder number of the model number).
- l Number of QAM modulator: 0 or 1 (shown in the second digit of the model number).
- l Size: 1 rack unit.



**Rear Panel for IDH-7118**



**Rear Panel for IDH-7110**

## Encoder

- ◆ Support up to 8 audio and video
  - MPEG-2 encoding, standard definition, MP@ML
- ◆ Video Format: NTSC/ PAL-B/ PAL-N/ PAL-M
- ◆ Video Input: CVBS/ SDI, BNC type, 75 ohm
- ◆ A/D Precision: 10 bits
- ◆ Support CBR and VBR
- ◆ Support MPEG-2 Layer 1/2 audio
- ◆ Audio Sampling rate: 32/44.1/48 KHz
- ◆ Audio Bit Rate: 32/ 64/ 128/ 192/ 256/ 320/ 385 Kbps
- ◆ Audio ES mode: mono/ stereo/ Joint Stereo/ Dual CH/ Single CH
- ◆ Audio Input: Un-balanced Analog/ SDI, RCA type, Hi-impedance

## Multiplexer and Scrambler

- ◆ Re-multiplexing: Up to 8 internal encoded SPTS inputs and 3 external ASI MPTS inputs
- ◆ Advanced PSI/ SI management capability
- ◆ Support PID and Service ID filtering and re-mapping, and PCR adjustment
- ◆ Support transparent transmission of any PID
- ◆ Support data broadcasting, EPG and private data injection (ASI injection)
- ◆ Each ASI input bit rate can be 160 Mbps, BNC type, 75 ohm
- ◆ Real time encryption on the multiplexed TS stream, compliant with DVB-CSA common scrambling algorithm
- ◆ Support Service encryption and PID encryption
- ◆ Support Simulcrypt for two different CA's.
- ◆ ASI output bit rate: Up to 160 Mbps (If scrambling is enabled, maxi bit rate is 50 Mbps)
- ◆ ASI output packet size: 188/ 204 selectable

## QAM modulator

- ◆ IF Out and Loop In: Frequency 36/36.125/36.15/44 MHz, 95dBuV, F-type, 75 ohm
- ◆ RF out, MAIN port and TEST port, F-type, 75 ohm
- ◆ RF output Bandwidth: 6/ 7/ 8 MHz; Frequency: 50~860 MHz selectable; Accuracy: +/- 12 PPM
- ◆ Main RF output level: 105-120 dBuV
- ◆ Constellation: 4/ 16/ 32/ 128/ 256 QAM
- ◆ Symbol rate: 10M-70M S/s
- ◆ MER: >=41dB
- ◆ SNR: >=51dB

## Networking

- ◆ 10/100-Based Ethernet, RJ45, Network management port, for remote management
- ◆ RS-232 port, 15-Pin D-type, Female, for engineering upgrade

## Connecting ports in the rear panel

◆Input Ports	◆Output Ports ( cont'd)
Video input (BNC, 75Ω) Up to 8 analog inputs	Maxi output bit rate: 160Mbps if MUX-out or 50 Mbps if SCR-out
Audio input (RCA type) Up to 8 analog audio inputs (left/ right channels)	IF out (F-type, 75Ω) One IF output port, frequency 36/36.125/36.15/44 MHz
ASI (BNC, 75Ω) Input 3 ports for IDH-7118 series or 10 ports for IDH-7110 series	IF output level: 95dBuV 2 RF output ports: main output and a -20dB test port
SPTS/MPTS TS stream input ports Maxi bit rate per port: 160 Mbps	RF output (F-type female, 75Ω) Frequency range: 50-860 MHz selectable (agile)
IF input port (F-type, 75Ω) One IF input port, F-type, 75 ohm	Bandwidth: 6/ 7/ 8 MHz RF output level: 105 to 120 dBuV (agile)
◆Output Ports	◆Network Port (RJ-45 port)
ASI (BNC, 75Ω) 1 port for IDH-7118 series or 2 ports for IDH-7110 series	Ethernet port (10/ 100Mbps)
MPTS TS stream output ports	◆RS-232 Series Port D-type, 15-pin, Female.

## Control Panel and Network Management

Front panel control: System parameter setting and alarm message

2 x 20 display, 4 LED, 6-key buttons.

Network management: with custom-design software for setting and management of each element of the integrated headend through Ethernet

Model #	QAM	Scrambler	Encoder	ASI-IN	ASI-out
IDH-7110	1	1	0	10	2
IDH-7100	1	0	0	10	2
IDH-7010	0	1	0	10	2
IDH-7118	1	1	8	3	1
IDH-7116	1	1	6	3	1
IDH-7114	1	1	4	3	1
IDH-7108	1	0	8	3	1
IDH-7106	1	0	6	3	1
IDH-7104	1	0	4	3	1
IDH-7018	0	1	8	3	1
IDH-7016	0	1	6	3	1
IDH-7014	0	1	4	3	1
IDH-7008	0	0	8	3	1
IDH-7006	0	0	6	3	1
IDH-7004	0	0	4	3	1

Specifications are subject to change without prior notice