

# IQHIP10

## 3G/HD/SD-SDI Hyperion Intelligent Processor Module

The IQHIP10 is an advanced monitoring module with revolutionary Hyperion content QC capability. Hyperion is designed to continuously and automatically monitor signal content providing verification of whether legal and technical obligations are being met and to provide guidance as to whether the content is within the required parameters to be considered as valid. For video factors such as motion level within the content, as well as the amount of darkness and amount of picture color are monitored. Audio factors reported include Dolby D/E or PCM audio presence, likeness and level information such as Silent, Quiet, Loud and Overload.

Picture regions can be monitored to allow for animated logos and on-screen graphics such as News Tickers. Alarm thresholds can all be adjusted allowing profiles to be set by the user for different material types (genres).

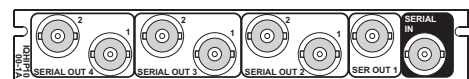
Content may be tracked through the broadcast chain by the insertion and reading of SMPTE UMIDs or Internal House Number, title and duration metadata. This data can be used to track content, verify that the correct content is being transmitted and even frame count the duration of every piece of content to ensure contractual obligations are being met. For ingest applications timecode information can also be interpreted and stamped on any Hyperion alarms to enable efficient location of QC alarms.

For remote content identification, delivery of video thumbnail images and audio level monitoring provide a secondary manual level of confidence that content is correct at both internal and remote locations. All alarms from this product can be integrated into the major Video display wall processors to streamline alarm reporting and reported through RollMap Network Management system or via SNMP to other vendor Control and Monitoring systems.

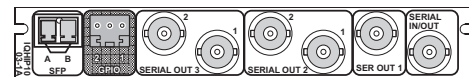
### Features

- Intelligent 3G/HD/SD-SDI processing module with integrated Hyperion QC monitoring
- Dedicated monitoring outputs with OSD for hyperion audio/video alarms and audio level meter information
- Automated content QC, suited to:
  - Multi-channel playout facilities and complimentary monitoring of high value content
  - Automated ingest processes including timecode logging for accurate location of Hyperion alarms
  - Remote location monitoring such as business continuity sites and unmanned teleport facilities
- Real Time content QC against genre profiles ensure any on air issues are identified with minimal potential impact on revenue, such as scheduling errors or dropped frames on commercial content
- Remote monitoring over TCP/IP via video Thumbnails
- Legal and Technical validation of signal including detection and reporting of closed captions, content advisory rating, XDS Program data
- Automated ingest QC significantly increases throughput efficiency over manual QC processes
- Standards supported:
  - 625/25i, 525/29i
  - 720/50p, 1080/25i
  - 720/59p, 1080/29i
  - 1080/50p, 1080/59p Level A
- Single SFP cage version suitable for fiber optic transmitter and receiver options, DIN or HD-BNC SDI input or outputs, and HDMI output option for local monitoring

### Inputs & Outputs - IQH3A/1A/3B enclosures



**IQHIP1000-1A3, IQHIP1000-1B3**



**IQHIP1003-1A3, IQHIP1003-1B3**



**IQHIP1001-1A3, IQHIP1001-1B3**

For more details on enclosure types please refer to datasheet IQH3B.

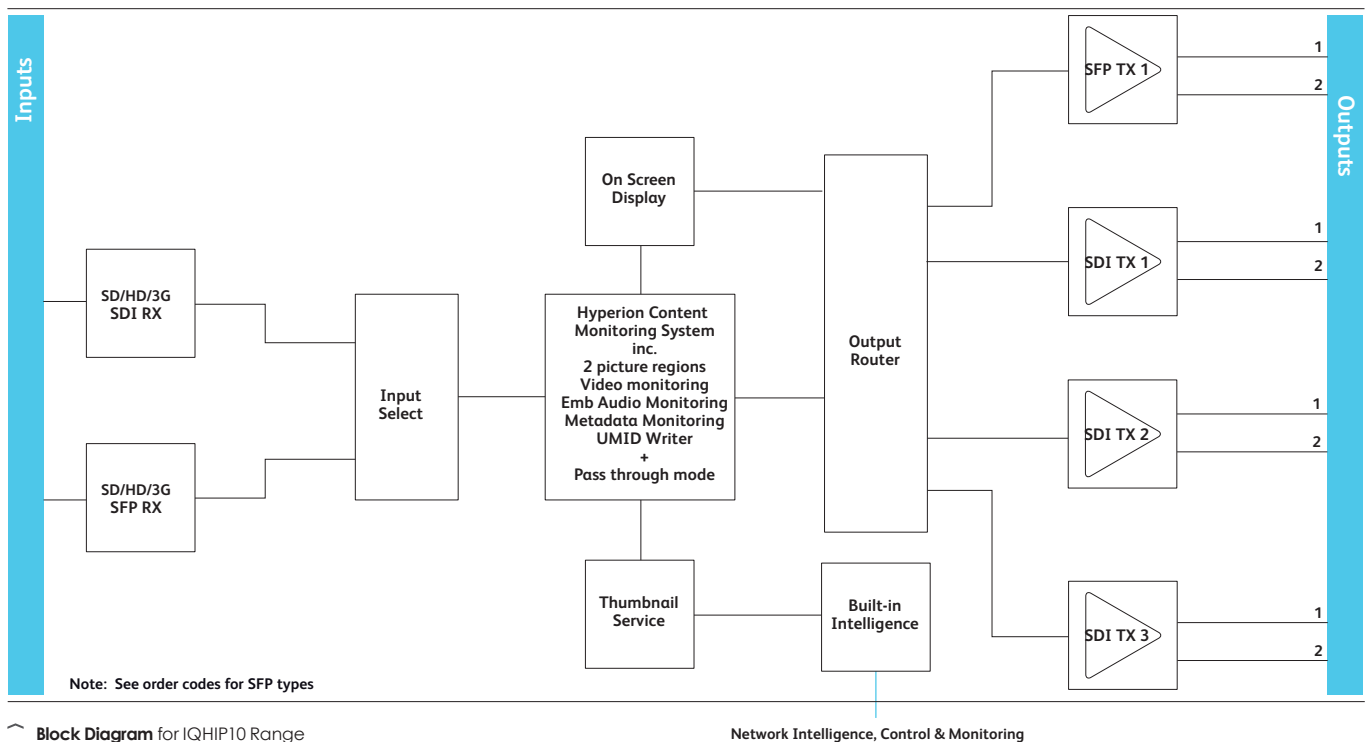
# IQHIP10

## 3G/HD/SD-SDI Hyperion Intelligent Processor Module

### Features cont...

#### Why should you choose this module?

- Sophisticated Hyperion content quality management tools allow true assessment of the value of the signal, not just presence, ideal for unmanned and lowmanning operations
- Reporting of all detected alarms via RollMap Infrastructure Management System or via SNMP to other vendor control and automation systems
- Hyperion alarm data integrates with all major Video display wall processors to streamline alarm reporting in playout facilities
- Fiber optic interfacing allows extended transmission distances for 3Gbps and HD SDI signals
- Full RollCall and SNMP compatibility allows easy integration with SAM or third party network management systems providing an all-inclusive monitoring and control solution



Block Diagram for IQHIP10 Range

Network Intelligence, Control & Monitoring

### Technical Specification

#### Inputs and Outputs

##### Signal Inputs

Electrical	3Gbit/s SDI, SMPTE 424M 1.5Gbit/s HD-SDI, SMPTE 292M 270 Mbit/s SDI, SMPTE 259M-C
Connector / format	BNC/ 75ohm panel jack on standard SAM connector panel
Input cable length	TBC

##### Fiber Signal Input

Inputs	1*
Optical	3 GBit/s HD-SDI, 1.485 Gbit/s HD-SDI or 270 Mbit/s SD-SDI
Connector / Format	LC singlemode
Standard	SMPTE 297-2006

##### Signal Outputs

Electrical	3Gbit/s SDI, SMPTE 424M 1.5 Gbit/s HD-SDI, SMPTE 292M 270 Mbit/s SDI, SMPTE 259M-C
Connector / format	BNC/ 75ohm panel jack on standard SAM connector panel HD / SD-SDI Outputs x 7 (1 selectable main or monitoring)
Return loss	>-15dB to 1.5GHz, better than -10dB to 3GHz

##### Fiber Signal Output

Optical	3 GBit/s HD-SDI, 1.485 Gbit/s HD-SDI or 270 Mbit/s SD-SDI
Connector / Format	LC singlemode
Conforms to	SMPTE 297-2006
Outputs	Up to 2*

**\*Note: Optical I/O and control dependant on type of SFP module fitted**

#### Controls

##### Indicators

Power	OK (Green)
CPU	OK (Flashing)
Content Status	
Summary	OK (Green) Warning (Yellow) Error (Red)

##### Functions

Pattern select	Black, 100% Color Bars, 75% Color Bars, SMPTE Bars, Tartan Bars, Pluge Ramp, H Sweep, Pulse and Bar, Burst
Monitor output select	Main/Monitoring (Output pair selectable)
On Screen Display	On/Off (Output pair selectable)
Video	Video Thumbnails over TCP/IP Motion Level (Stillish) Picture Darkness (Blackish) CRC/EDH Reporting Average Picture Level Luma High/Low Chroma High/Low Chroma/Luma Underflow Video Bit Depth Black Input Status Input Standard Freeze Detect

#### Audio

Audio Presence  
Audio Type Detection (PCM, Non-PCM, Dolby E, AC3, MPEG Audio (SMPTE 338M)  
Audio Bit Depth  
Audio Level Metering  
Audio Silence  
Audio Quiet  
Audio Loud  
Audio Overload  
Audio Out of Phase (Polarity)  
Audio Mono/Stereo Detectio  
SMPTE UMID (Insert, Report and Scrub)  
Program ID  
House Number Watermarking (Insert, Report and Scrub)  
Closed Captions Detection (CEA608, CEA708)  
Signaling detection (WSS, AFD (inc SMPTE 2016), VI)

#### Metadata

Content Advisory Rating (XDS, V-chip)  
ANC Timecode (720p, 1080i)  
VITC Timecode (525, 625)  
User Definable ANC Detectors  
Dolby E Guardband reporting  
Timecode Logging  
Picture Region Configuration On/Off  
Audio Level Meters  
Audio Presence and Type  
Content advisory system and rating  
2 x 19 character caption generators  
Timecode display  
Average picture level  
User memories  
16 x Save / Recall / Rename

#### On screen display

#### User memories

#### Specifications

##### Electrical

Standards supported	1080/50p, 1080/59p, 1080/60p 750(720)/60p, 1125(1080)/30 750(720)/59p, 750(720)/50p, 1125(1080)/29i, 1125(1080)/30p 1125(1080)/29p, 1125(1080)/25i, 1125(1080)/25p, 1125(1080)/24p 1125(1080)/23p, 525(480)/29i, 625(576)/25i
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##### Power Consumption

IQHIP1000-1A3	12 W max (A frames)
IQHIP1000-1B3	11.5 PR (B frames)
IQHIP1001-1A3	13 W max (A frames)
IQHIP1001-1B3	12.5 PR (B frames)
IQHIP1003-1A3	13 W max (A frames)
IQHIP1003-1B3	12.5 PR (B frames)

### Ordering Information

#### Order codes for IQH3B enclosures

**IQHIP1000-1B3**

3G/HD/SD-SDI Hyperion Intelligent processing and content monitoring module. 7 SDI main or monitoring OSD outputs.

**IQHIP1001-1B3**

3G/HD/SD-SDI Hyperion Intelligent processing and content monitoring module with power fail relay input bypass. 6 SDI main or monitoring OSD outputs.

**IQHIP1003-1B3**

3G/HD/SD-SDI Hyperion Intelligent processing and content monitoring module. 1 SDI configurable input or output, 5 SDI main or monitoring OSD outputs. 1 SFP cage

#### Order codes for IQH3A/1A enclosures

**IQHIP1000-1A3**

3G/HD/SD-SDI Hyperion Intelligent processing and content monitoring module. 7 SDI main or monitoring OSD outputs.

**IQHIP1001-1A3**

3G/HD/SD-SDI Hyperion Intelligent processing and content monitoring module with power fail relay input bypass. 6 SDI main or monitoring OSD outputs.

**IQHIP1003-1A3**

3G/HD/SD-SDI Hyperion Intelligent processing and content monitoring module. 1 SDI configurable input or output, 5 SDI main or monitoring OSD outputs. 1 SFP cage

For more details on enclosure types please refer to datasheet IQH3B

#### Fiber SFP options

**FC1-13T1** - Single 1310nm Tx

**FC1-13T2** - Dual 1310nm Tx

**FC1-15T1** - Single 1550nm Tx

**FC1-15T2** - Dual 1550nm Tx

**FC1-R1** - Single Rx

**FC1-13TR** - Transceiver 1310nm/Rx

**FC1-HDBT2** - HD-BNC Dual Tx

**FC1-HDBR2** - HD-BNC Dual Rx

**FC1-HDMI2** - HDMI Tx with 2m cable

**CWDM Tx** - Wavelengths available on request

**Note:** Fiber SFP type must be ordered in addition to the module.