



NXG

Digital Video Platform

UNRIVALED VIDEO SIGNAL PROCESSING

The purpose of our NXG video signal processing platform is to provide our customers with the ability to Build Your Own technologically advanced customized system solution, based on your own specific application needs.



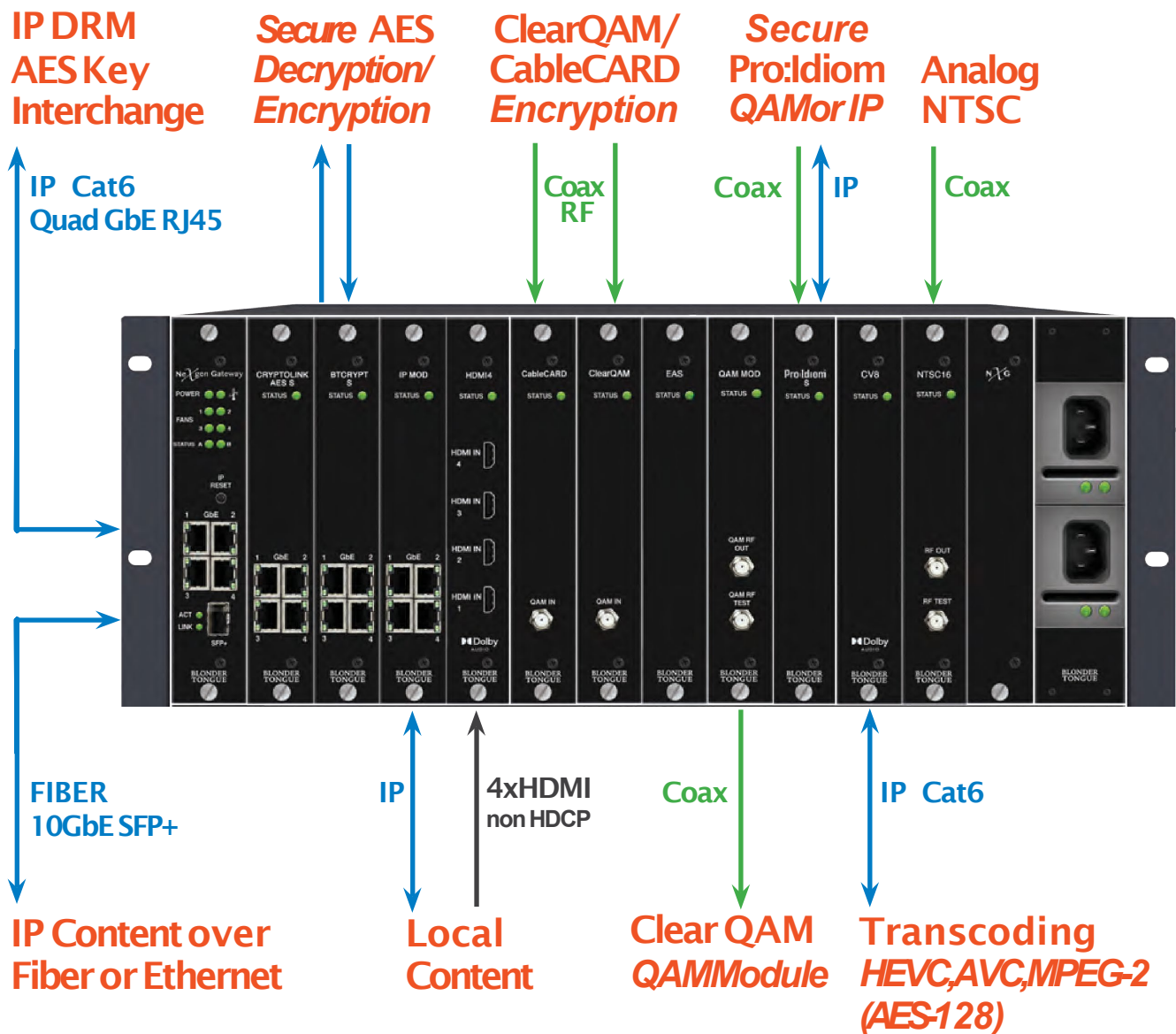
Table of Contents

NXG System Hardware _____ <u>4</u> System Kit (6799)	Middleware _____ <u>10</u> NXG-IPTV InfoValue (6775 3, 6775 3L, 6775 3C)
Input Modules _____ <u>5</u> NXG-IP (6798) NXG-IP-MPTS (6798 M) NXG-CQAM-24 (6777)	Output Modules _____ <u>11</u> NXG-32CH-QM (6785) NXG-QAM32-Proldiom-PT (6785 1) NXG-IP (6798) NXG-NTSC-16 (6773)
Input Decryption _____ <u>6</u> NXG-CCQD-24 (6788) NXG-CRYPTOLINK-AESS (6798 2S) NXG-CRYPTOLINK-MOBITV (6775 2)	Output Encryption _____ <u>12</u> NXG-BTCRYPT-S (6776 S)
Input Transcoding /Encoding ____ <u>7</u> NXG-CV8 (6774) NXG-HDMI-4 (6774 2) NXG-SDI-4 (6734)	Accessories _____ <u>12-13</u> NXG-WMB (6742) SDV-HUB (6744)
Processing /Encryption _____ <u>8-9</u> NXG-EAS(6778) NXG-EPG(6790) NXG-PHP-S (6793 S) NXG-PI-QAM-S (6793 QS) NXG-PI-LIC (6779) NXG-QAM32-Proldiom-PT (6785 1)	

» NXG System Overview



The NXG chassis shown here include the majority of module options available, or soon to be available. All are summarized in this brochure. Please visit www.blondertongue.com for Product Documents, or contact your Blonder Tongue rep for more information.



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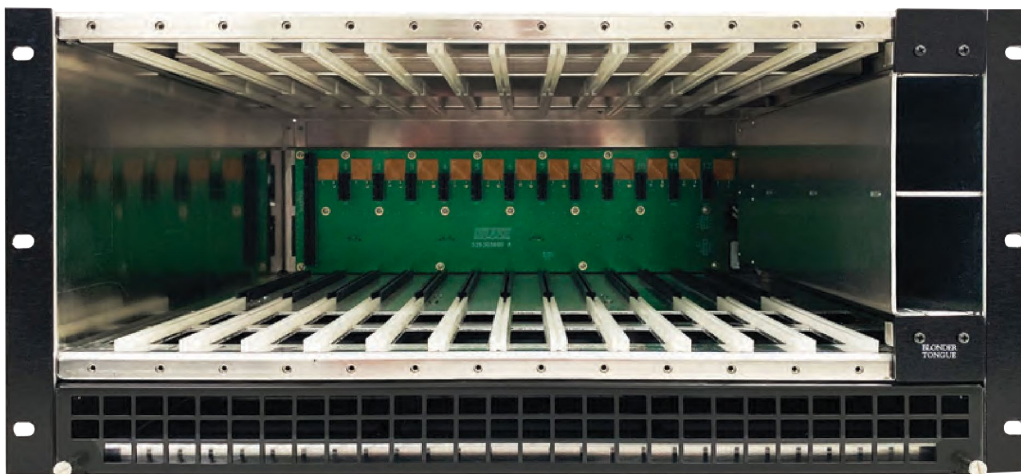
» NXG System Hardware



Master Controller Module, Mainframe Chassis, and Power Supplies provide:



- IP routing and traffic management
- System configuration and management via a powerful Linux-based monitoring and control system
- Module interconnection via a 60 Gbps capacity high-speed back plane
- Distributes DC power to the various sections and modules via (2) fully-redundant, hot-swappable power supplies



Mainframe



Master Controller

Power Supply

NXG System Kit (6799)

Includes (1) NXG Chassis, (1) Master Controller, (2) Power Supplies

- » **Mainframe Chassis:** 12 Module Slot 5RU Chassis; 60 Gb Capacity IP Backplane
- » **Master Controller:** Controls the Entire NXG Platform
- » **Power Supply:** (2) Required for Redundancy; Hot-Swappable

» Input Modules



IP - SPTS

The **NXG-IP (6798)** accepts incoming MPEG-2 or H.264 IP transport streams in SPTS format. It is an **input/output** module made to support up to **256 SPTS** per 1Gb RJ45 Ethernet port, for a total full-duplex capacity of 1024SPTS inputs, and 1024SPTS outputs per module.

The NXG-P module administers P connectivity to the NXG mainframe backplane for further processing with other NXG modules.



IP - MPTS

The **NXG-IP-MPTS (6798 M)** accepts MPTS or SPTS IP transport streams in MPEG-2 or H.264 format and automatically converts them to all SPTS format.

The NXG-IP-MPTS supports up to **32 MPTS** per 1GbE RJ45 Ethernet port, and up to 16 programs per MPTS, for a full capacity of 2048 streams per module.



ClearQAM

The **NXG-CQAM-24 (6777)** processes HD or SD programs from a Cable or Telco TV service provider. It is equipped with multiple full-band-capture QAM tuners to provide the ingest of up to **24** clear QAM input channels in a 54 to 1002MHz frequency range.

» Input Decryption



CableCARD® Decryptor

The NXG-CCQD-24 (6788) decrypts HD or SD programs from a Cable or Telco TV service provider. It is equipped with multiple full-band capture QAM tuners and four CableCARD slots to provide the ingest of up to **24** programs from the incoming cable system in a 54 to 1002 MHz frequency range.

The NXG-CCQD-24 will decrypt any MediaCipher, PowerKey, or NDS encryption based on the customer-installed CableCARDS.



Secure AES-128 Decryption

The NXG-CRYPTOLINK-AES-S (6798 2S) accepts incoming AES-128 encrypted IP single program transport streams (SPTS) for the decryption of up to 256 SPTS channels per front panel RJ45 GbE ports 1 & 2.

It can accept input from the **NXG-BTCrypt-S** module (see page 12), multiple partner devices, and is adaptable to additional partners/keys with very little development time.



Cryptolink™ for MOBTV

The NXG-CRYPTOLINK MOBIV (6775 2) module allows operators to service B2B, Hospitality, and Healthcare customers using the same MobiTV content feeds as residential customer infrastructure.

Bulk decryption of MobiTV channels in 64 channel increments is achieved via NXG platform. It can also be deployed as an Edge/IP architecture or centralized HE/CO-based RFOG distribution design.

» Input Transcoding / Encoding



A/V MPEG Transcoder



The NXG-CV8 (6774) Transcoder will transcode up to 8 individual MPEG-2, H.264, or H.265(HEVC) video streams to MPEG-2, H.264, or H.265(HEVC) video. Input and output resolutions are fully flexible, 480iSD to 1080p30HD.

The CV8 will transcode primary and secondary audio from Dolby® AC3, AAC, MPEG1-Layer2, MP3 to AC3, AAC, MP3, and allow audio pass-through. Advanced lip-sync audio processing features equipped for all modes of audio transcoding and pass-through.

HDMI Video Encoder



The NXG-HDMI-4 (6774 2) Encoder will encode up to 4 channels in MPEG-2, H.264, or H.265 (HEVC) video to IP SPTS onto the NXG mainframe backplane for further NXG processing with optional QAM modulation, DRM/CAS, or IPTV multicast or unicast output.

All major resolutions are supported, 480i up to 1080p60. Video bit rates range from 2mbps to 19mbps, and Dolby® Digital Audio encoding is supported.

SDI Video Encoder



The NXG-SDI-4 (6734) Encoder will encode up to 4 channels in MPEG-2, H.264, or H.265 (HEVC) video to IP SPTS onto the NXG mainframe backplane for further NXG processing with optional QAM modulation, DRM/CAS, or IPTV multicast or unicast output.

The NXG-SDI-4 will accept 3G-/HD-/SD-SDI input sources. All major resolutions are supported, 480i up to 1080p60.

» Processing/ Encryption



EAS Module

The **NXG-EAS (6778)** Emergency Alert System module is a scalable, cost-effective solution to allow video service providers to deliver next generation video content and SCTE-compliant EAS messaging to hospitality locations.

The NXG-EAS handles one (1) zone permitting a single NXG platform to service multiple properties with targeting messages by using multiple EAS and IP or QAM output modules.



EPG Module

The **NXG-EPG (6790)** Electronic Program Guide module allow content service providers to offer a digital program guide for a premises unique channel lineup. The module can be configured to input a Gracenote IDs (TMS) guide data source file from Gracenote.

The EPG is customizable to include a logo, image, or banner ads in the TV screen header or footer sections to promote events or sell ad space.



Secure Pro:Idiom™ for IP

The **NXG-PI-IP-S (6793 S)** was designed to add Pro:Idiom security at transport stream level protection for IP Pro:Idiom deployments.

To receive the 72 module-equipped programs, Pro:Idiom decryption devices are required, such as TV and set-top-boxes mostly used in Hospitality locations.

Secure Pro:Idiom™ for QAM



The NXG-PI-QAM-S (6793 QS) was designed to add Pro:Idiom security at transport stream level protection for Pro:Idiom QAM deployments.

To receive the Z module-equipped programs, Pro:Idiom decryption devices are required, such as TV and set-top-boxes mostly used in Hospitality locations.

Pro:Idiom™ License Option



The NXG-PI-LIC (6779) is the Pro:Idiom license option to add upon purchase an additional 72 programs to the existing 72 program NXG-PI-IP-S (6793 S) or NXG-PI-QAM-S (6793 QS) modules.

Pro:Idiom™ Pass-Through



The NXG-QAM32-PROIDIOM-PT (6785 1) holds the same functionality as the NXG-32CH-QM 3 Channel QAM Modulator module (see page 11) while supporting IP Pro:Idiom encryption pass-through to QAM.

» Middleware



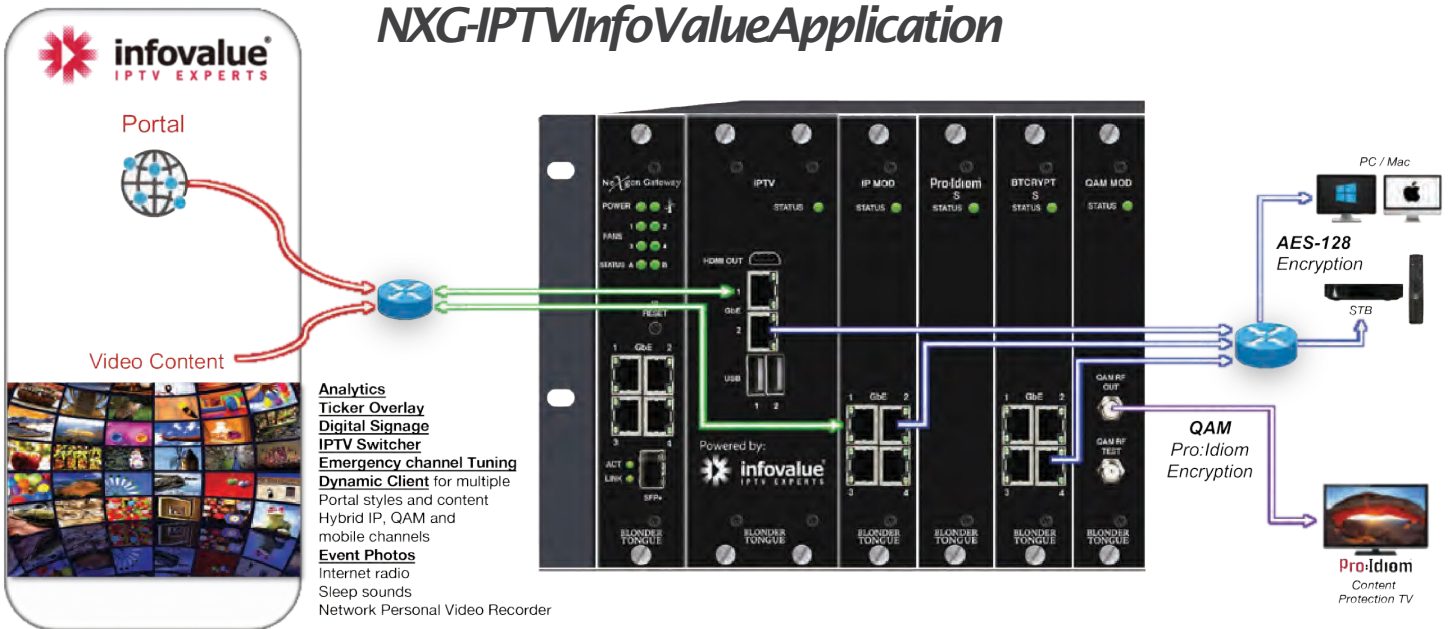
IPTV for InfoValue



The **NXG-IPTV InfoValue (6775 3)** module, powered by InfoValue's middleware allows Cable, Fiber Optic and Telco Operators to support B2B, Hospitality, Enterprise, and Healthcare customers in managing all their video services with one system, and from one location, integrated directly into a Service Operator's primary video distribution system.

The NXG-IPTV module replaces the need to purchase separate high-cost servers. Customers simply add an NXG-IPTV module to a NXG headend, and directly enable InfoValue's award winning IPTV platform.

NXG-IPTV InfoValue Application



NXG-IPTV InfoValue (6775 3) Advanced IPTV Video Services Distribution Module; 2TB Storage

(6775 3L) Framework Server License

(6775 3C) InfoValue IPTV Broadcast Framework STB/Smart TV

» Output Modules



QAM Modulator

The **NXG-32CH-QM (6785)** QAM modulator module provides up to **32** QAM **256** channels. All **2** output channels are fully agile from **54** to **1002** MHz, as long as they stay within a **768** MHz frequency span. Each program can be configured to support a customized channel lineup for desired locations.

» The **NXG-QAM32-PROIDIOM-PT (6785 1)** holds the same functionality while supporting IP Pro:Idiom encryption pass-through to QAM.



IP - SPTS

The **NXG-IP (6798)** accepts incoming MPEG-2 or H.264 IP transport streams in SPTS format. It is an **input/output** module made to support up to **256 SPTS** per 1Gb RJ45 Ethernet port, for a total full-duplex capacity of **1024SPTS** inputs, and **1024SPTS** outputs per module.

The **NXG-P** module administers IP connectivity to the **NXG** mainframe backplane for further processing with other **NXG** modules.



NTSC RF Analog Converter

The **NXG-NTSC-16 (6773)** module is a multi-channel Digital to RF Analog converter. The **NXG-NTSC-16** module converts up to **16 HD or SD** programs and the primary audio channel to **16 NTSC** modulated RF analog channels.

All **16** NTSC Analog RF channels are fully agile from **54** MHz to **1002** MHz, provided that they are within a **208** MHz frequency span.

» Output Encryption



Secure AES-128 Encryption



The NXG-BTCRYPT-S (6776 S) provides standardized AES-128 encryption for quality content to the viewing location. It accepts incoming MPEG-2 IP transport from the NXG backplane containing MPEG-2, H.264, and H.265 video to output up to 256 SPTS channels per RJ45 GbE port.

The managed NXG-BTCRYPT can assist in custom integration projects and can support a fixed, rotating, or custom key exchange.

» Accessories



Horizontally Mounted



Vertically Mounted



Top View (Vertically Mounted)

6RU - holds an extra 1RU device, such as a BT-CMTS Series unit

Wall Mount Bracket

The NXG-WMB (6742) provides users with a convenient installation solution when 19 inches of rack space is not available. The NXG-WMB can be fastened to a wall in either a horizontal, or vertical module configuration. Mounting holes are easily accessible eliminating any need for installation templates.

» Accessories Continued .



Switch Digital Video Hub

The **SDV-HUB (6744)** is a 1RU device made to support up to **4** third-party tuning adapters. Each tuning adapter can support up to **6** switch digital services for a total of **24** programs in a custom channel lineup.

The SDV-HUB connects to the **NXG Master Controller** module via the GbE RJ45 port, to administer a communication link to the **NXG-CCQD-24 (6788)** module(s). Switch digital programs for viewing can be selected in the NXG-CCQD-24 module user interface.



Switch Digital Video Hub Application

