

# Powerful and flexible Edge processing to reduce distribution costs

The Media Edge Gateway (MEG) is a software defined flexible receiver which comes with powerful edge processing functions to provide ground-to-cloud connectivity and tailor content handoff to the needs of Affiliates and MVPDs. Some examples of powerful edge processing functions are transcode, regionalization, time-delay and, blackout across Satellite/CDN/IP networks.

The future-proof gateway leverages multiple deployment options, such as Synamedia appliance, COTS server, container, and full virtual environments, making it ideal for businesses that require agility in their operations. You can work in your environment of choice, including on-premises, public cloud, and hybrid cloud, to control costs and simplify management. Integrate with Synamedia's PowerVu or third-party content protection solutions to secure your entire video network chain from distribution, through processing, to delivery.

MEG includes two Satellite RF ports per Satellite input card, providing support for up to four satellite demodulators with DVB-S, DVB-S2, and DVB-S2X support.

Synamedia's Media Edge Gateway gives you the flexibility to cost-effectively create new application-specific gateways, such as Satellite/ ATSC 3.0 receivers and SMPTE ST 2110/SMPTE ST 2022-6/3G-SDI output decoders, enabling you to deliver innovative experiences that bring more value for your customers and unlock new monetization opportunities for your business.

## Key Functionalities

### Optimized distribution and flexible deployment options

- Leverages state of art, in-house-developed, video/audio codecs to optimize distribution bandwidth cost
- Consolidates workflows to run multiple video applications across all screens efficiently and easily
- Deploys edge application either in cloud or on-premises with Synamedia VIVID workflows to increase flexibility

### Flexible decoding and transcoding across single or multiple streams for greater control

#### Decoding

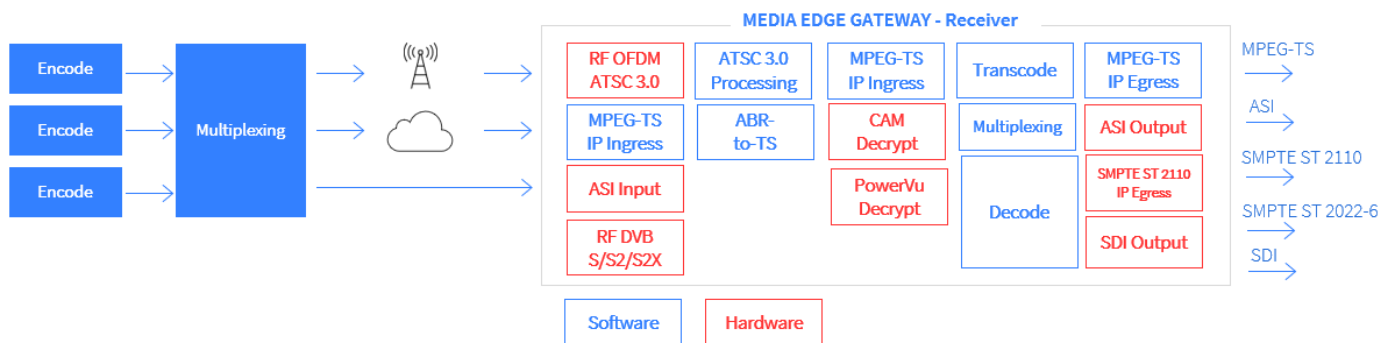
- Up to two full high definition (1080p)
- Up to six high definition (1080i, 720p)
- Up to eight standard definition (480i) MPEG-2, advanced video coding (AVC) or HEVC video-encoded services,
- Support for SMPTE ST 2110 or SMPTE ST 2022-6 or SDI/3G-SDI outputs. Future UHD decode support.

#### Transcoding/ Processing

- Targets applications requiring transcoding of multiple video services within single or multiple transport streams, including HEVC, AVC and AVC/MPEG-2
- Offers advanced re-multiplexing and PID management

## Technical Advantages

- Scalable, dense platform with MPEG-2, AVC and HEVC decoding support as well as high-density, HEVC and AVC transcoding support
- Extensive IP delivery support options, such as SMPTE ST 2022-2 with FEC, Zixi, RIST and SRT, including TSOVERHTTP, HLS and DASH with ABR2TS conversion
- SMPTE ST 2022-6 and SMPTE ST 2110 output and NMOS support for integration with all-IP production and playout solutions
- 3G-SDI Output support, ASI Input and Output support
- Satellite RF DVB-S/S2/S2X input support
- Appliance option to support ATSC 1.0 and 3.0 reception
- Integrated with Synamedia's PowerVu Network Center, including PowerVu monitoring via PowerVu Insight
- Conditional Access Module (CAM) Card
- BISS-1/E support
- PowerVu Conditional Access Support
- Flexible TS backup options: any to any input type
- Time Delay
- A wealth of graphic overlay functions for the content identification
- A versatile deployment options: Synamedia appliance, COTS server, virtualized environments, container



## Product Specifications

Processing	
Input Types	<ul style="list-style-type: none"> <li>SMPTE ST 2022-2 (MPTS or SPTS)</li> <li>Zixi/ SRT/ RIST/ TSoverHTTP / HLS/ RTMP</li> <li>RF ATSC 3.0</li> <li>RF DVB-S/S2/S2X (LNB Power insertion (13V, 18V) and 22Khz)</li> <li>ASI</li> </ul>
Output Types	<ul style="list-style-type: none"> <li>SMPTE ST 2022-2(MPTS or SPTS)</li> <li>Zixi/ SRT/ RIST/ RTMP</li> <li>ASI</li> <li>SDI</li> <li>SMPTE2110-10/-20/-21/-30/-40</li> </ul>
Video Processing	<ul style="list-style-type: none"> <li>4:2:0/8-bit or 4:2:2/10-bit decoding to SMPTE ST 2110, SMPTE ST 2022-6 and 3G-SDI output: <ul style="list-style-type: none"> <li>Up to (2) full high definition (1080p) services</li> <li>Up to (6) high definition (1080i, 720p) services</li> <li>Up to (8) standard definition (480i) services</li> <li>Future quad-link 3G-SDI and 12G-SDI support</li> </ul> </li> <li>HEVC, AVC, MPEG-2</li> <li>SD, HD, FHD including down conversion support (Future UHD)</li> <li>Video transcoding option for HEVC, AVC inputs to AVC, MPEG-2 outputs for SD, HD, FHD</li> <li>Time Delay</li> </ul>
Splicing and Switching	<ul style="list-style-type: none"> <li>Live linear broadcast splicing</li> <li>Linear stream switching</li> </ul>
Graphical overlays in the decoded output	<ul style="list-style-type: none"> <li>Static logos</li> <li>Scrolling text banner</li> <li>EAS banner</li> <li>Slate on input loss</li> <li>Time ticker</li> <li>Teletext and subtitle burn-in</li> </ul>
Redundancy	<ul style="list-style-type: none"> <li>1:1 IP interface backup</li> <li>SMPTE ST 2110 port mirroring</li> <li>Input service and transport stream redundancy Hitless merge for MPEG-2 transport stream input using user configurable triggers</li> <li>1:1 MEG node redundancy</li> <li>TS backup: any to any input type</li> </ul>
Monitoring and Management	<ul style="list-style-type: none"> <li>Integrated Grafana dashboards</li> <li>Elasticsearch, Logstash and Kibana (ELK) stack support</li> <li>Alarm notifications, including SNMP traps</li> <li>Syslog</li> <li>Easily controlled via local web GUI</li> <li>Fully documented open API enabling third-party component integration</li> <li>AMWA IS-04 NMOS Discovery and Registration</li> <li>AMWA IS-05 NMOS Device Connection Management</li> </ul>

## Platform Support and Compatibility

### Appliance Chassis Specifications (MEG-ATSC3RF-A, MEG-DEC-A, MEG-IPGW-A)

Physical and Power	
Size	1RU, 1.70 x 17.11 x 15.05 in, 4.32 x 43.46 x 38.22 cm
Weight	17.41 lb/7.9 kg
Power Supply	2 AC PSU, AC input 100 to 120 VAC/ 200 to 240 VAC
Consumption	550W (at 100 VAC)
Environmental	
Operating Temperature	50-95°F (10-35°C)
Storage Temperature	-40-140°F (-40-60°C)
Operating Humidity	8-90% (non-condensing)
Operating Altitude	0-3,050 m (0-10,000 ft)

## Ordering Information

Applicaiton	Part Number
Synamedia MEG Software Application (to be installed on Synamedia servers or in data centre)	R-MEG-APPS
Media Edge Gateway ATSC 3.0 RF receiver appliance	MEG-ATSC3RF-A
Media Edge Gateway IP receiver Decoder appliance (SMPTE ST 2110 and SDI output)	MEG-DEC-A
Media Edge Gateway IPGW appliance	MEG-IPGW-A

## Services & Support

Synamedia provides a broad portfolio of services and support to increase your network's business value and return on investment. We take a customer-centric approach, aligning our level of support to your technological requirements and network complexity. That way, you can successfully operate our products and solutions to ensure that you achieve optimal performance throughout your network's life cycle.

## Warranty & Contact Information

[Read our detailed warranty information.](#)

Learn more about Synamedia's [video network distribution solutions](#).

For more information, contact your account manager or [visit our site](#).

## About Synamedia Video Network Distribution Solution

Synamedia offers a comprehensive distribution solution for content providers to securely deliver video to multichannel programming video distributors (MPVDs). Part of Synamedia's end-to-end video network portfolio, the solution is anchored by a converged platform enabling the distribution of linear channels via satellite and/or terrestrial networks. Our cost-effective solution leverages network control, reception and managerial capabilities to ensure the reliable delivery of premium quality video through flexible transmission options tailored to your working environment.