

Leverage Software-Based Media Edge Gateway for ATSC Distribution

Synamedia's Media Edge Gateway (MEG) is the industry's most comprehensive edge reception and processing platform. The software-centric, cloud-native integrated receiver/decoder (IRD) performs all distribution and processing functions – from secure reception, through transcoding and decoding with grooming/multiplexing capabilities, to IP transport.

Synamedia's MEG ATSC 3.0 Receiver is a new application-specific gateway supporting ATSC 1.0/3.0 applications. Scalable and efficient, the future-proof gateway leverages multiple deployment options, such as bare metal, container, and full virtual. Designed with software-based architecture, the platform supports on-premises applications and public or hybrid clouds.

Key Functionalities

Software-centric application and converged platform

- Translates from one transmission scheme to another
- Easily upgrades as your ATSC 3.0 network evolves
- Utilises intuitive drag-and-drop interface, rich APIs, flexible workflows and automation

Transport stream redundancy

- Maintains embedded failover mechanisms to protect against input loss by facilitating failover across RF to IP inputs
- Features failover processes such as PID filtering and remapping, fixed output PID remapping, dynamic PSI/SI/PSIP regeneration, and service/component merging
- Includes advanced re-multiplexing and PID management options

Future-flexible decoding and transcoding

- Simultaneously outputs up to full high definition (FHD) and UHD
- Transcodes multiple video services within single or multiple transport streams, including HEVC, AVC and MPEG-2
- Transcodes to ABR profiles for transport into CDN networks

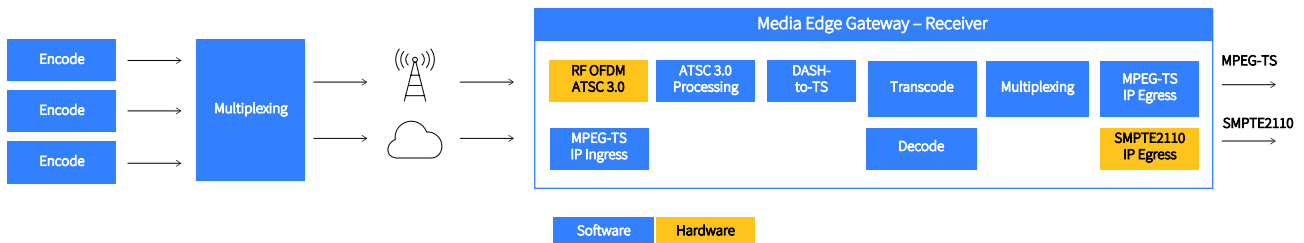
Built-in dashboard capabilities

- Offers Triveni digital StreamScope dashboard (optional)
- Provides comprehensive ATSC 3.0 analysis engine, visual verification, and custom dashboard

Technical Advantages

- Optional transcode to MPEG2 and AVC from HEVC and AVC
- Architecture accommodating multiple RF channels with each RF channel supporting multiple services
- ATSC 1.0 and 3.0 reception support
- Future appliance options for decoding MPEG-2, AVC and HEVC services to SMPTE2110 or SDI
- Extensive IP support options such as MPEGoIP with FEC, Zixi and SRT





Product Specifications

Processing	
Input Formats	<ul style="list-style-type: none"> • MPEG TS over IP • Multiple program transport stream (MPTS) or single program transport stream (SPTS) • SD, HD, full HD (FHD), and future ultra-HD (UHD) format support • Unicast or multicast • Adaptive transport stream (ATS) input for ABR-to-TS functionality (optional) • Zixi and SRT support for reliable transport over Internet (optional) • ATSC3.0 RF input (as part of ATSC 3.0 receiver bundle) • ROUTE support single RF channel • Future DRM input support
Output Formats	<ul style="list-style-type: none"> • MPEG TS over IP • MPTS or SPTS • Live linear ABR support (optional) • ATS • Embedded packaging, including HLS and MPEG-DASH • SD, HD and FHD, including down conversion support
Video Processing	<ul style="list-style-type: none"> • Optional support for up to 4 CH decodes in future ATSC receiver models • HEVC, AVC, MPEG-2 • HD, FHD • Video transcoding option for HEVC, AVC inputs to AVC, MPEG-2 outputs for SD, HD, FHD, and UHD (number of services is limited based on resolution) • ATSC 3.0 DASH-to-MPEG TS conversion; future AC4-to-AC3 transcoding
Splicing and Switching	<ul style="list-style-type: none"> • Live linear broadcast splicing • Linear stream switching
Redundancy	<ul style="list-style-type: none"> • 1:1 IP interface backup • IP port mirroring • Input service and transport stream redundancy • Hitless merge for MPEG-2 transport stream input • User-configurable triggers • 1:1 and N:M MEG node redundancy
Monitoring and Management	<ul style="list-style-type: none"> • Integrated Grafana dashboards • Elasticsearch, Logstash and Kibana (ELK) stack support • Alarm notifications, including SNMP traps • Syslog • Easily controlled local web GUI • VSM support for line-up configuration, resource pool redundancy, capacity modelling, and centralised monitoring • Fully documented open API enabling third-party component integration

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)
Regulatory Compliance	
Compliance	CE Markings per directives 2004/108/EC and 2006/95/EC

Ordering Information

Feature	Part Number
Synamedia ATSC 3.0 Receiver appliance	MEG-ATSC3RF-A
Synamedia MEG license options	R-MEG-APPS (contact Sales)

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 Solutions

Synamedia's video network solutions enable media, web and pay TV providers to deliver pristine-quality broadcast and broadband video securely over any network to any screen. Anchored by the industry's most comprehensive processing platform and built with high-quality standards, our solutions ensure outstanding performance and reliability for over 1,000 customers worldwide. Synamedia's solution portfolio covers the entire video network chain – from distribution, through processing, to delivery – enabling you to offer outstanding value-added and personalised experiences while saving costs.