



D5™ Universal Edge QAM (UEQ)

Release 3.0



Features

- QAM Density—up to 192 QAM256 channels in Annex B/C (144 QAM256 in Annex A) . Power <2.7W per Channel
- Support for Dual WAN Configuration and upto 8 GBs on Unicast Video of M-CMTS DEPI ingest
- Support for ~ 3,000 simultaneous video streams using Dual WAN configuration
- QAM Sharing: simultaneous processing of VOD, SDV, Linear Digital Broadcast, and DOCSIS 3.0 M-CMTS downstream using the same software image
- Redundancy: WAN, Power, Fan, QAM, GbE, & Transport Stream
- Multiple GUI, SNMP and CLI Management Options
- Linear Broadcast Digital Programming
- M-CMTS Edge Device (DEPI Static and Control Plane)
- SDV(RPC and RTSP)
- Radius and TACACS+ Authentication support
- CA: Privacy Mode, DVS-042, DVB Simulcrypt, CSA & OpenCAS
- Bulk Configuration and Operational Management Tool

The ARRIS D5™ UEQ is a unique class of IP edge network device that enables delivery of a wide variety of multimedia content in a redundant, modular, and cost-effective package. It supports a complete QAM-Sharing solution with simultaneous delivery of any combination of Video On Demand (VOD), Digital Broadcast, Switched Digital Video (SDV) Services, and DOCSIS® downstream data using the Modular Cable Modem Termination System (M-CMTS™) architecture. Deploying a D5™ UEQ class of device allows an operator to wire once for future applications such as converge of service and QAM Sharing. The ARRIS D5 UEQ offers extensive, industry-leading, remote or locally-attached graphical and command line tools for operations management. All management options provide complete access control to all elements of the D5 UEQ. For those operators seeking additional user-level access control, Radius and TACACS+ authentication is offered as well bringing CMTS grade Networks side technology to the Edge QAM market.

Overview

As an integral part of an operator's HFC infrastructure, Edge QAMs supply digital broadcast and VOD services to subscribers. Increases in subscriber penetration, variety of content, and rates of concurrence of linear, SDV, and VOD, drive the need for additional QAM streams in a dense and space-saving package. Operators looking for the next-generation of Edge QAMs to support additional features, highest density and lowest power with full flexibility, and functionality will find the ARRIS D5 UEQ an optimum choice. Additionally, the ARRIS D5 UEQ supports open approaches for SDV using either RPC or RTSP protocols. Inclusive on the D5 UEQ and to SDV is support for automatic hot-hot/warm GigE network redundancy using IGMPv3 and source specific multicasting.

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The M-CMTS architecture of DOCSIS/IP delivery has been adopted by a number of Operators for both HSD and Video over IP delivery. The M-CMTS architecture defines the Edge QAM requirement to host the Downstream DOCSIS channels and its location in the HeadEnd architecture also allows the same Edge QAM to be used for combined MPEG Video Services. The ARRIS D5 UEQ efficiently and economically addresses both video Edge QAM requirements and downstream DOCSIS market segments in one flexible solution that evolves with the operator's needs.

The ARRIS D5 UEQ fully supports DOCSIS downstream traffic when deployed as part of an M-CMTS or data by-pass solution. As well, it fully supports data delivery from the M-CMTS Core using the M-CMTS DEPI MPT-mode interface. The D5 UEQ fully supports the Cablelabs specification for DOCSIS Timing Interface (DTI), and DOCSIS 3.0 DRFI. For QAM sharing applications, the ARRIS D5 UEQ delivers DOCSIS 2.0/3.0 downstream packets while simultaneously supporting all of the rich Edge QAM functionality for delivery of digital video services within a single D5 UEQ chassis.

The ARRIS D5 UEQ processes MPEG-2 SPTS and MPTS streams from IP-based Gigabit Ethernet metro networks and creates multiplexes to QAM-based HFC networks. The platform can ingest approximately 3,000 simultaneous MPEG transport streams using four GbE interfaces per WAN Module (Supporting 2 WAN modules in Release 3.0) and flexibly multiplex them across any of its available output channels. Traditional MPEG-2 functions such as PSI table handling, automatic PID re-mapping, PCR re-stamping, and encryption are supported. The ARRIS D5 UEQ supports highly dense QAM output configurations at low power with capacity for up to 192 Annex B QAM channels in a 2 RU chassis. The ARRIS D5 UEQ has six QAM card slots, and each QAM card supports up to eight QAM channels, thus affording the operator population flexibility for growth without stranding capacity.

The ARRIS D5 UEQ supports edge-based encryption using Privacy Mode, DVB Simulcrypt, and OpenCAS techniques at full line rate for all streams supported offering cost effective and highly flexible session based encryption solutions.

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Find more information about the D5™ Universal Edge QAM (UEQ).

- Product Specifications—D5™ Universal Edge QAM (UEQ) Technical Specifications (Publication Code: D5UEQ_TS.pdf)

Customer Care

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