

SCTE 232 2016: Performance Metrics for Energy Efficiency & Functional Density of CMTS, Edge-QAM, and CCAP Equipment

Target audience:

Cable operator headend and hub engineers and procurement teams

What is SCTE 232 2016?

SCTE 232 2016 is a new SCTE standard that provides the cable operator the standard reference to determine how well CMTS, Edge-QAM, and CCAP performs in terms of minimizing the power required to do its particular job. In addition, this standard will provide the means to quantify the amount of useful work the equipment provides per physical space.

What is the function of SCTE 232 2016?

The standard identifies the energy consumed to functional work ratio.

- Enables comparisons of functional work to energy consumed for CCAP, CMTS, and Edge-QAM.
- Provides guidelines for the evaluation and determination of when to replace hardware.
- At the rack level, allows comparisons of product density efficiency.

What are the immediate and long-term benefits of adopting SCTE 232 2016?

- Defines energy specific performance metrics based on service features.
- Identifies standard metrics such as watts/QAM channel and watts/Service Group for cable access equipment.
- Improves the overall energy footprint by enabling engineering driven decisions that reduce energy consumption at the source of power consumption.

How does SCTE 232 2016 impact the industry and fit into Cable's Energy 2020 roadmap?

- Addresses the foundation of the energy supply chain by providing metrics that define measurable energy performance to useful work.
- Prepares for continued cable operator movement to more IP-centric devices with energy in mind.
- This standard promotes energy and functional density decision-making in regards to converged platforms for cable-centric equipment.

What are some of the key provisions of SCTE 232 2016?

- Defines the energy consumption metrics for legacy I-CMTS equipment as:
 - Total Chassis Power (Watts) per Maximum Number of DS/US channels supported by the chassis
- Defines the energy consumption metrics for CCAP equipment as:
 - Total Chassis Power (Watts) per Maximum Number of Service Groups supported by the chassis
 - Total Chassis Power (Watts) per Maximum Upstream and Downstream Throughput supported by the chassis
- Defines the functional density metrics for CCAP equipment as:
 - Maximum Number of Service Groups per CCAP rack unit
 - Maximum Upstream and Downstream Throughput per CCAP rack unit

What can you do to achieve maximum benefit from implementing SCTE 232 2016?

- Work in partnership with equipment suppliers to drive for use of the most efficient new products.
- Create roadmaps and timelines for replacing *legacy* equipment with new equipment that meets the identified cable operator performance levels.
- Create company equipment targets for quantified useful work per physical space.

How can you learn more about SCTE 232 2016?

[Download this standard](#), visit www.scte.org/standards, or email: standards@scte.org