

# E6000<sup>®</sup> Converged Edge Router

## 10G EPON Fiber Module (EPFM)

### PRODUCT OVERVIEW

The E6000<sup>®</sup> Converged Edge Router (CER) is a next-generation CCAP<sup>™</sup> platform that provides cable operators unprecedented advances in channel density, power efficiency, and cost savings in a redundant, integrated architecture designed from the ground up for high availability.

As a full CCAP system, the E6000 CER not only enables operators to converge all services (video, HSD, and voice) on a single physical interface utilizing DOCSIS, but with the addition of the 10G EPON Fiber Module (10G EPFM), the E6000 CER can also deliver all services directly to the customer premises over fiber utilizing the same DOCSIS infrastructure via DPoE.

The 10G EPFM line card brings 10Gbps symmetrical EPON functionality to the E6000 CER platform. The EPFM equipped with EPON optics modules, and the E6000 CER configured with second generation RSM-2 cards, enables the E6000 CER to operate as an access Optical Line Terminal (OLT) supporting delivery of residential and business services over a Fiber to the Premises (FTTP) Access architecture.

The 10G EPFM can also be equipped with DWDM optics modules for connection to node or premises (e.g. MDUs) located PON extenders (e.g., ARRIS Fiber Link Module (FLM)) to increase reach to subscriber locations up to 100Km, and to avoid the need to overbuild existing hub to node trunk fibers by carrying multiple 10G EPON wavelengths over a single fiber. Further, with the ARRIS DPoE V2.0 compliant DOCSIS Control Interface integrated in the 10G EPFM, operators can leverage existing DOCSIS back office systems to seamlessly evolve their access networks to FTTH service delivery.



The RSM-2 with its high-capacity architecture, comprehensive suite of switching and routing protocols and integrated CCAP platform functions, along with the EPFM creates a fully integrated DPoE system, allowing operators to utilize their current DOCSIS provisioning and service models to deploy high speed triple play services with 10G EPON. Thus, the 10G EPFM enables service providers to offer PON applications as a feature of the E6000 CER platform as seamlessly as the standard CCAP services they offer now. The EPFM operates as a standard 10G EPON access network interface module for delivery of services from the E6000 CER to the customer premise 10G EPON Optical Network Units (ONUs), providing fiber network connectivity from the hub or head-end located E6000 CER all the way to the customer premises.



### SUMMARY OF EPFM FEATURES AND HARDWARE CAPABILITIES

Supports (16) 10G-EPON optics modules (XFPs) for direct IEEE 802.3-2012 compliant EPON connections to ONUs

Supports (16) 10G-DWDM Ethernet optics modules (XFPs) for connection to PON Extenders for increased reach and Fiber Conservation

Supports 10G/10G symmetrical and 10G/1G, and 2G (Turbo)/1G asymmetrical EPON operation

Compatible with E6000 CER second generation RSM (RSM-2)

Non-Blocking architecture between the 10G EPFM and E6000 RSM-2

DPoE V2.0 compliant to leverage operators existing DOCSIS back office systems and service provisioning methods

Fully leverages existing E6000 CER features

Interfaces with PON Physical Interface Card (PPIC) for Cable Once architecture

Compliant with industry environmental and regulatory requirements

### GENERAL SPECIFICATIONS

#### Physical

Power	-48 VDC
Power Consumption	400 W max
Operating Temperature:	
Short Term °F (°C)	+23 to +131 (-5 to +55)
Long Term °F (°C)	+41 to +104 (+5 to +40)
Storage Temperature °F (°C)	-40 to +158 (-40 to +70)
Operating Humidity (Min.-Max.)	5 to 85% (Non condensing)
Dimensions (H x W x D) in. (cm)	13.8 x 1.2 x 17.8 (35.0 x 3.0 x 45.3)
Weight lbs. (kg)	Approx. 6 (2.7)

## ORDERING CODES

Part Number	Description
802698	E6000 10G EPON FIBER MODULE WITH 10G EPON Optics
1000517	E6000,PPIC-THRU,PON FIBER MODULE PHYSICAL INTERFACE CARD (used with 802698)
1000622	E6000 10G EPON FIBER MODULE WITH WDM ETHERNET OPTICS (40KM)
1000624	E6000 10G EPON FIBER MODULE WITH WDM ETHERNET OPTICS (80KM)
1000621	E6000,PPIC-THRU-WDM, PON FIBER MODULE PHYSICAL INTERFACE CARD EQUIPPED WITH 16 DUAL LC TYPE CONNECTORS (used with 1000622 or 1000624)

## CUSTOMER CARE

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656