



Cable Guys Need Fiber

Fiber-to-the-Home Product for Cable Operators

CommScope, a world leader in coaxial cable products, chose Egret Technologies to design a Cable TV focused FTTH product line. BrightPath, their award-winning portfolio of broadband products, now includes several patented designs, innovative optical tap components, and major service/reliability enhancements resulting from the Egret Technologies design.

Situation: CommScope, the industry leader in optical and coaxial cable products, has the majority of coax cable sales to Cable TV (CATV) operators. They wanted to expand their product line with a bi-directional optical CATV network that could work seamlessly with existing Hybrid Fiber-Coax (HFC) networks. They asked Egret Technologies to provide key elements of a new optical product design. Egret Technologies' team worked with customers, product marketing and technical development to validate specific design goals for the new product to:

- Enable cable operators to better manage network costs with a new, lower cost optical product
- Comply with stringent Rural Utilities Services (RUS) design standards (i.e. enclosure integrity with high-velocity wind-driven rain, solvent exposure, -40°C to 60°C environment, lightning strikes, drop tests) for outdoor residential use

- Improve field installation and maintainability of housing for network components
- Add innovative product functions under an aggressive development schedule, while ensuring company standards for quality excellence and system durability



Solution:

- Evaluate the needs of the company's customers to refine the product definition
- Design and document an innovative, proprietary optical tap product that supports a variety of fiber cables (armored, all-dielectric, flat-drop styles)
- Prototype and demonstrate the tap design in its variations to key customers for early feedback and design changes to gain significant market share
- Collaborate with manufacturing engineers worldwide to manage the design through production tooling

“Turning Innovation Into Profit” Results: Egret Technologies’ work led the company to secure four mechanical patents and achieve a top four-diamond rating from Broadband Gear Report – an accolade awarded by a judging panel of top

cable operators’ engineering executives. The BrightPath product was also a key driver in the SCTE (Society of Cable Telecommunications Engineers) establishing a standards committee to produce an RF over Glass (RFoG) specification for the industry.

Egret Technologies’ design ensured superior cabling flexibility to lower field maintenance and total cost of operation for the entire product line.

John Williams, Optical Solutions Director said, “Egret Technologies’ team has made possible a series of successful launches of our simple and cost-effective Fiber-to-the Home solutions for Hybrid Fiber-Coax architecture, BrightPath. I would recommend them to other divisions in our company as well as to other parties seeking product design, engineering and oversight services.”

Egret Technologies is a superior electronic design partner to global vendors of technology products. We are an innovative, solution-driven, US-based engineering design firm specializing in optical, electronic, and mechanical hardware, as well as embedded software systems. We provide concept development, product design and project engineering. Contact Egret Technologies at (954) 518-9645 or Innovate@EgretTechnologies.com

