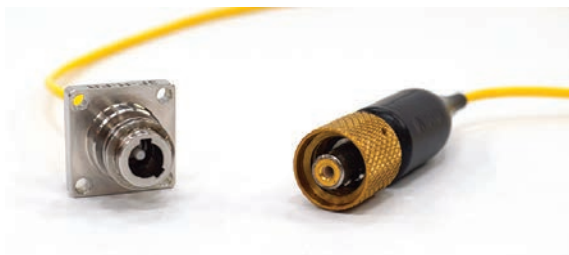


BIRNS Millennium optical and EO configurations deliver the ultimate in high-performance data transmission, with designs qualified in cold-water high pressure testing and proven in service. Configurations are available for both SM and MM fibers, as well as hybridized with electrical conductors for power and/or control.

- Insertion Loss<sup>1</sup>
  - SM: .5dB max [typical: .1dB]
  - MM: 1dB max [typical: .25dB]
- Return Loss
  - 35 dB min



## 3F-1F-PAIR

The popular 3F-1F-FR (L) and mating 3F-1F-CP (R).



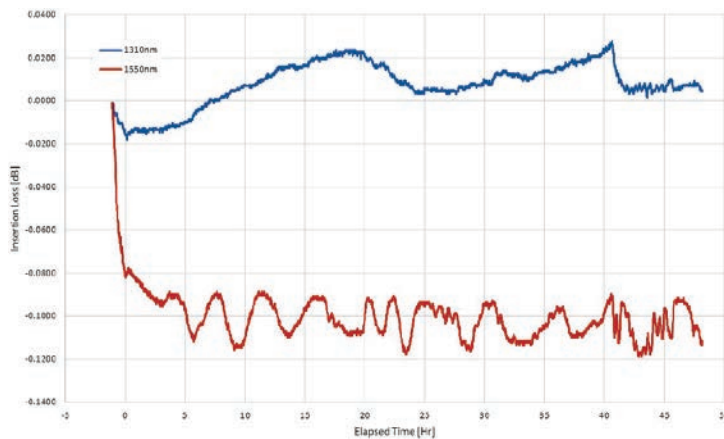
## FERRULES

BIRNS makes ceramic zirconia ferrules in 2.5mm and 1.25mm styles.



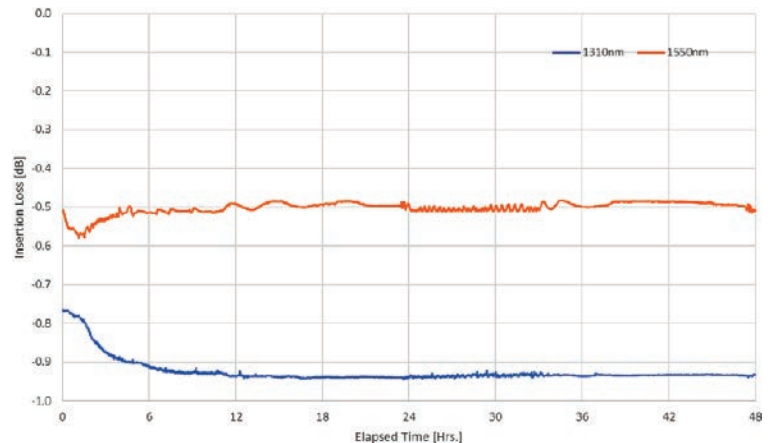
## HYBRID

A 1.25mm ferrule in a hybridized high-density electro-opto-RF configuration.



## 3O-1F3

Insertion loss for the 3O-1F3 at 625 bar/1°C for 48 hours.  
At both 1310nm and 1550nm, insertion loss  $\leq -0.1$  dB.  
Return loss was  $\geq 75$  dB.



## 3F-1F

Insertion loss for the 3F-1F3 at 625 bar/1°C for 48 hours.

<sup>1</sup>. Tested in accordance with ANSI/TIA/EIA-455.