

# LiNbO<sub>3</sub> Modulator

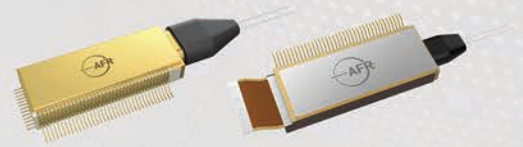


## Thin-Film

### 96/130 GBaud CDM

- Insertion loss < 8 dB
- Compatible with OIF-HB-CDM

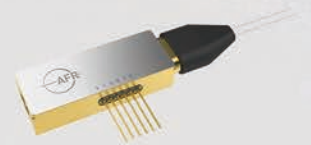
For Long-Haul, Metro and DCI



### 70 GHz Intensity Modulator

- Low Drive Voltage
- Optical Extinction Ratio  $\geq 25$  dB

For Digital/Analog Transmission



### 40 GHz TFLN IQ Modulator

- Bandwidth > 40 GHz
- Excellent Linearity

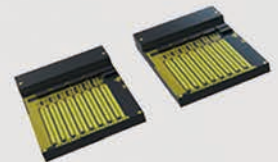
For OFDM, QPSK, QAM Coding and FMCW LiDAR



### 100/200/400 Gbps/Lane O-Band Modulator Chip

- Low Drive Voltage
- Low Optical Insertion Loss

For QSFP-DD/OSFP/OSFP-XD Type Transceiver Modules



## Bulk

### 20/40 GHz Intensity Modulator

- Electro-Optic Bandwidth > 32 GHz
- Low Optical Insertion Loss & Low Drive Voltage
- Extended Operating Temperature at - 55 to + 85 °C

For Digital/Analog Transmission



### 40 GHz IQ Modulator

- Electro-Optic Bandwidth > 30 GHz
- Optical Insertion Loss: 5 dB (typ.)
- Optical Extinction Ratio  $\geq 24$  dB

For Satellite Communication and LiDAR Applications



### 10 GHz Zero-Chirp Modulator

- Electro-Optic Bandwidth > 12.5 GHz
- Optical Insertion Loss < 4.5 dB
- RF V<sub>π</sub> Voltage: 5 V (typ. @ 1 kHz)

For High Frequency RF Signal Over Fiber Optic Links



### Phase Modulator

- Low Optical Insertion Loss @ 1060 nm Band or C-Band
- Frequency Response up to 10 GHz
- Extended Operating Temperature at - 55 to + 85 °C

For Ultra-Fast High Power Lasers and Quantum Applications



# AFR Company Profile

Founded in 2000 and publicly listed in China in 2017, Advanced Fiber Resources (AFR) has expanded to over 3,000 employees, including 500 engineers and technicians. AFR designs and manufactures fiber optic components and lithium niobate modulators across 136,000 m<sup>2</sup> of global facilities, including AFR Zhuhai, AFR Jinding, AFR Wuhan, and B&A in China, AFR Milan in Italy, and AFR Thailand. Our products are widely applied in telecommunications, data centers, fiber lasers, fiber sensing, autonomous driving, and biomedical equipment, and have been delivered to more than 600 customers in over 40 countries and regions worldwide.

**26**  
Years of History

**500**  
Technical Expertise

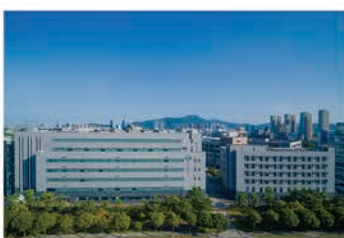
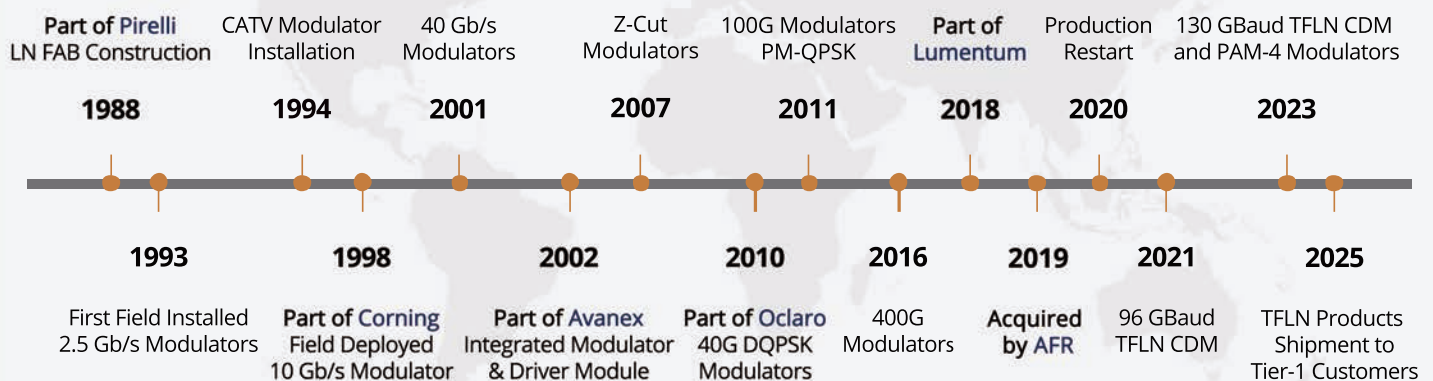
**3,000**  
Employees

**600**  
Customers

**6**  
Sites (China/Italy/Thailand)

**136,000**  
m<sup>2</sup> Facility

## AFR MILAN: A world leader in LN modulators with 40+ years of history



### Advanced Fiber Resources

No. 399, Chuangxin 3<sup>rd</sup> Road, Tangjia, Zhuhai, China 519080  
Tel: +86 756 389 8088  
Email: [sales@fiber-resources.com](mailto:sales@fiber-resources.com)  
[www.fiber-resources.com](http://www.fiber-resources.com)



### AFR Milan

Via Federico Fellini, 4  
San Donato Milanese (MI)-20097, Italy  
Tel: +39 02 51884 1  
Email: [salesmilan@fiber-resources.com](mailto:salesmilan@fiber-resources.com)  
[www.afrmilan.com](http://www.afrmilan.com)