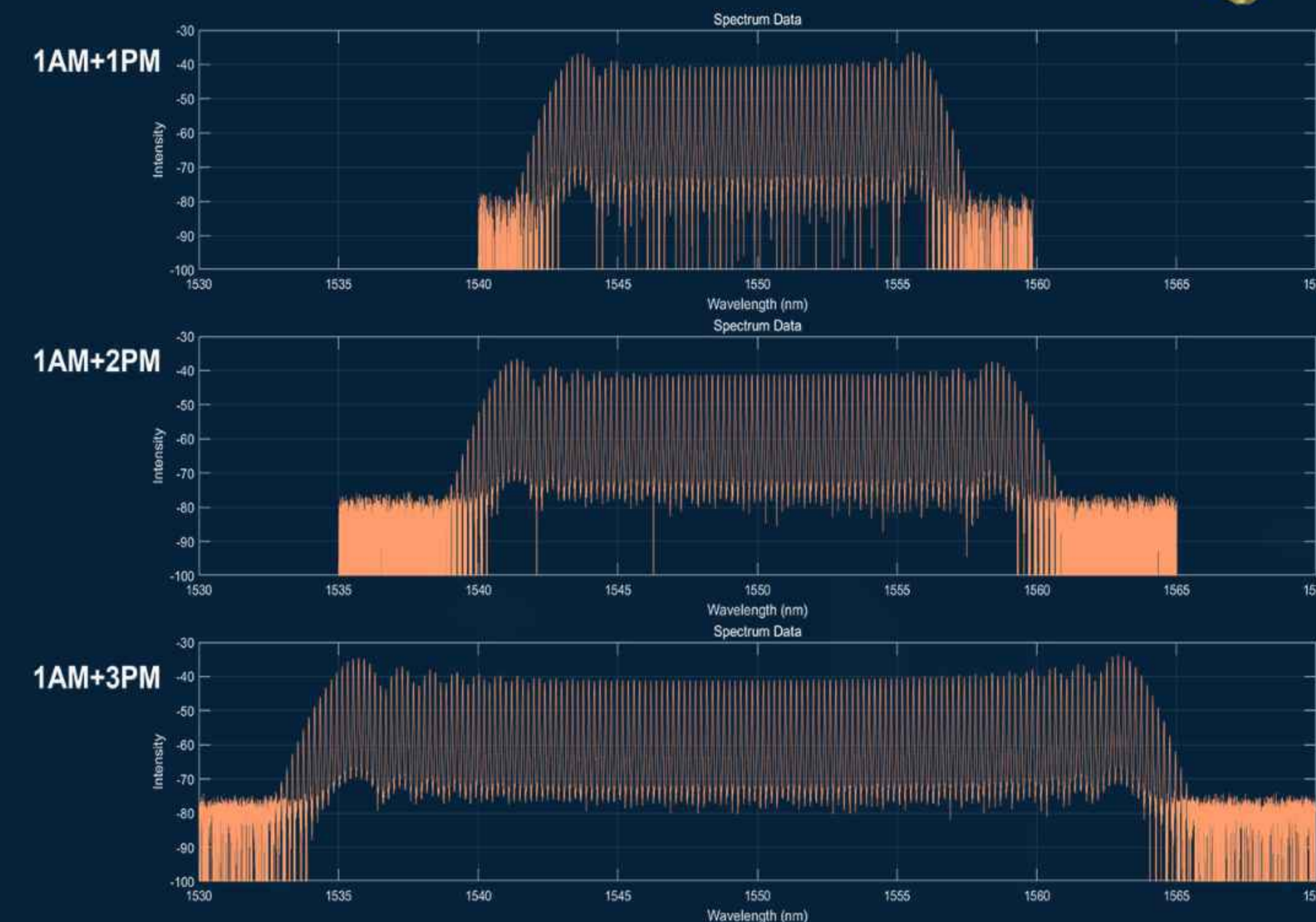
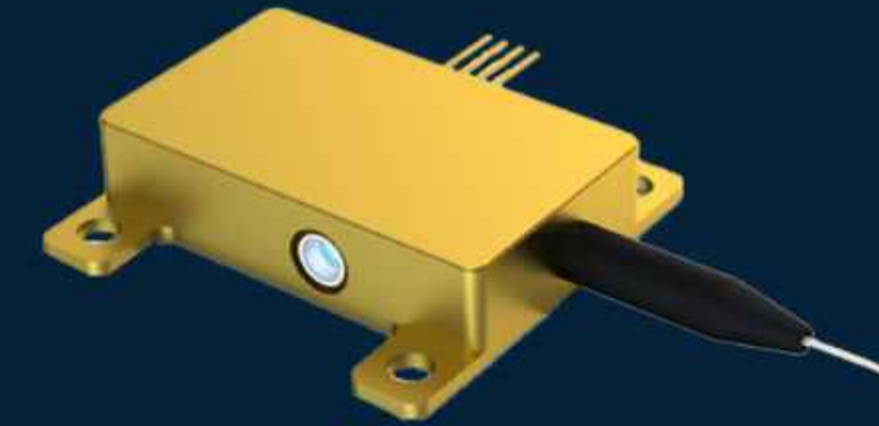


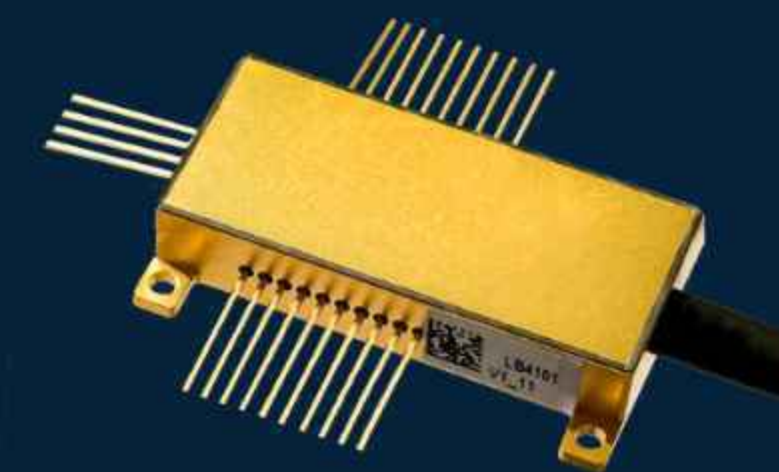
Customization

We provide all kinds of TFLN-based chip customization, including various waveguide structures, edge and grating coupling structures, wave division structures, high-speed electro-optical modulators, phase modulators, multi-mode interference structures, monitoring optical structures, etc.

Comb



Lidar



Insertion loss < 10 dB

Detection distance: > 300 m

SSC: 9 μ m

DC-ER > 35 dB

The frequency shift amount is adjustable

Fab



DUV-Stepper

Coating
Developing

Lift-of



E-Beam Litho



TFLN Etching



CD-SEM



Metal
Evaporator



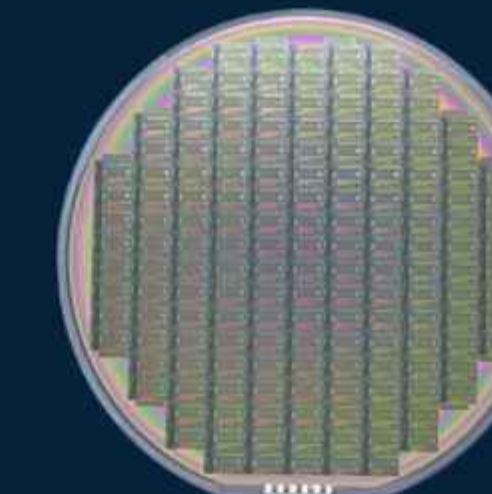
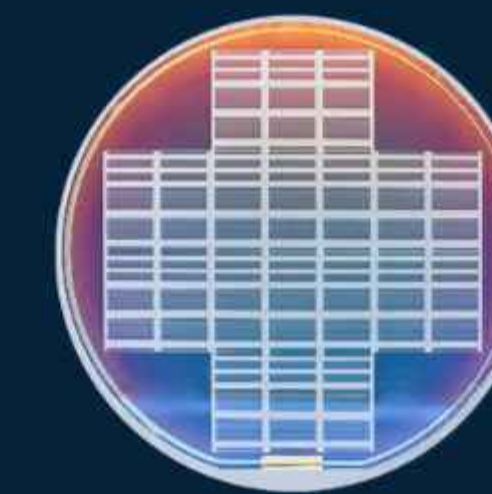
Dielectric
Deposition



Dielectric
Etching



Liobate
6-inch TFLN wafer
mass production line



Monthly
Production capacity:
>500 wafers



Wafer Tester



Wafer Tester
II



Dicing



Die Tester



Polishing



Reliability Test Chambers

LIQBATE

A LEADING TFLN IDM COMPANY

Contact us
sales@liobate.com



国内販売代理店
サンインストルメント株式会社



TEL : 03-5436-9361
MAIL : sun@sun-ins.com
HP : www.sun-ins.com

COMPANY INTRODUCTION

Liobate Technologies Limited (Liobate) was incorporated in July 2020 as a high-tech enterprise dedicated to developing lithium niobate modulator photonic integrated circuits (PICs) and related optical communications and interconnect sub-assemblies. Liobate is headquartered in Gulou District, Nanjing, in a facility that houses R&D, device pilot testing, and component packaging. Our wholly-owned subsidiary company, Guangzhou Liobate Semiconductor Technology Co., Ltd., is located in Guangzhou and is mainly developing lithium niobate on insulator (LNOI) modulators.

Liobate gathers specialists who worked in top-notch international institutions and enterprises in the field. Prof. Cai, the board chairman and the core technology leader, is the world-known expert in optoelectronics and was awarded the “China Top 10 Breakthroughs in Optics” in 2019,2020 and 2022. The technical team has made significant breakthroughs in LNOI modulator chip technology and has built a complete process platform and mass production line covering chip design, fabrication, and device packaging. The company owns top-of-the-field level invention patents and leading technologies.

Liobate focuses on the design, fabrication, and sales of PICs and optical modules based on lithium niobate modulators. Liobate specializes in the telecommunication and data interconnect market, creating faster and more energy-efficient physical transmission channels. Liobate is committed to high standards of social and environmental responsibility.

Liobate has key expertise and is well equipped for making significant technical progress in advanced optical communications and interconnects technologies. Liobate adopts a strict product quality assurance system as well as a flexible and efficient management structure.

www.liobate.com

contact:sales@liobate.com

Modulators

Intensity Modulator

RF bandwidth: 67/110 GHz
Half-wave voltage: ≥ 3.0 V
Insertion loss: ≥ 4.5 dB



67/110 GHz



Intensity Modulator with Build-in LD

- Integrated low RIN light source
- 3dB-bandwidth 40 GHz
- Half-wave voltage 3.0 V
- Output optical power at ON state 12 dBm



20/40 GHz Intensity Modulator

- 3dB-bandwidth 40 GHz
- Compact size
- Insertion loss as low as 4 dB
- Half-wave voltage as low as 2.5 V

20/40 GHz IQ / Phase Modulator



IQ Modulator

- 3dB-bandwidth 40 GHz
- Half-wave voltage 3.5 V
- Insertion loss 6 dB
- High stability and reliability



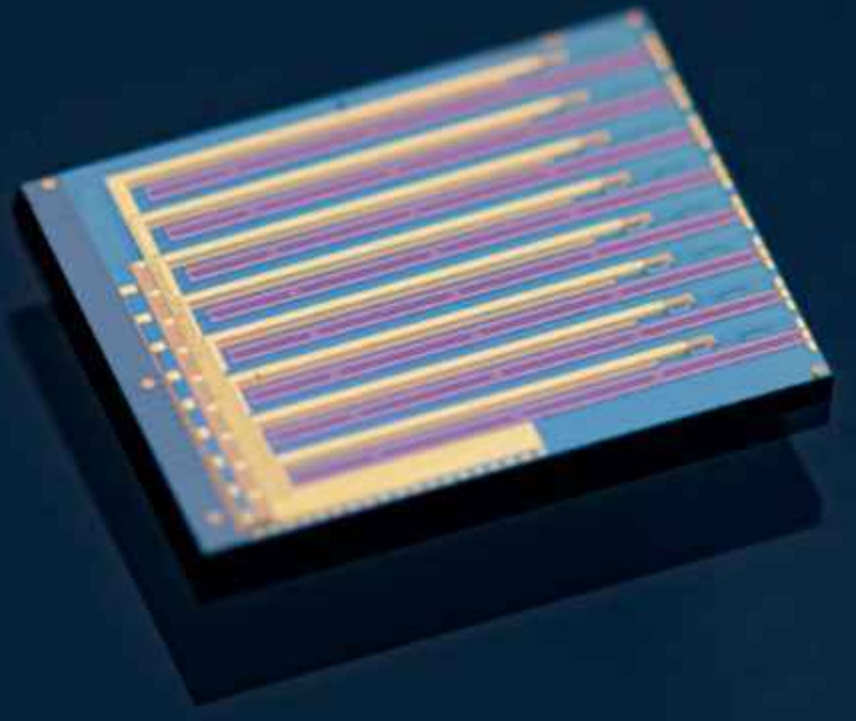
Phase Modulator

- 3dB-bandwidth 40 GHz
- Insertion loss 3 dB
- Half-wave voltage 3.5 V
- MAX input RF power 33 dBm

PICs

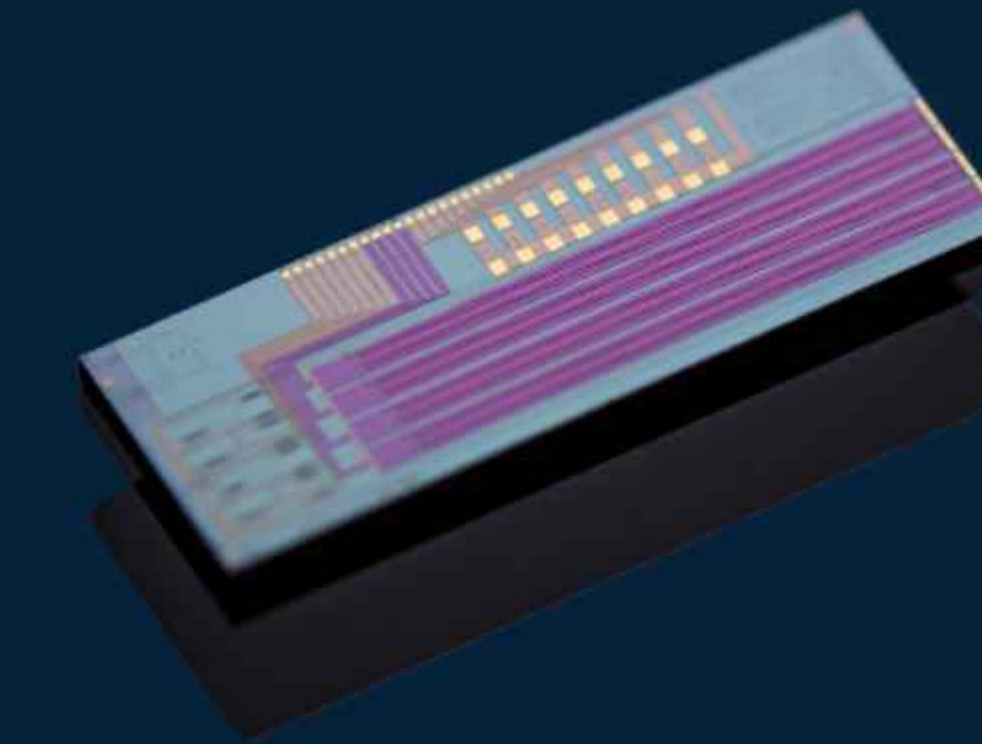
Ultra High Bandwidth Chip >110 GHz (Substrate:Quartz)

- Application: 400G/ lane (3.2T DR8) , testing equipment
- 3dB-bandwidth > 110 GHz
- Half-wave voltage < 1.5 V



1.6T/800G ZR Coherent PDMIQ

- RF bandwidth 70 GHz
- Insertion loss < 7 dB
- Half-wave voltage < 4.5 V @diff.
- DC-ER > 25 dB



1.6T/800G DR8 & 800G DR4 IMDD

- RF bandwidth > 70 GHz
- Insertion loss < 14.5 dB (DR8) < 11.5 dB (DR4)
- Half-wave voltage < 2 V
- DC-ER > 25 dB

