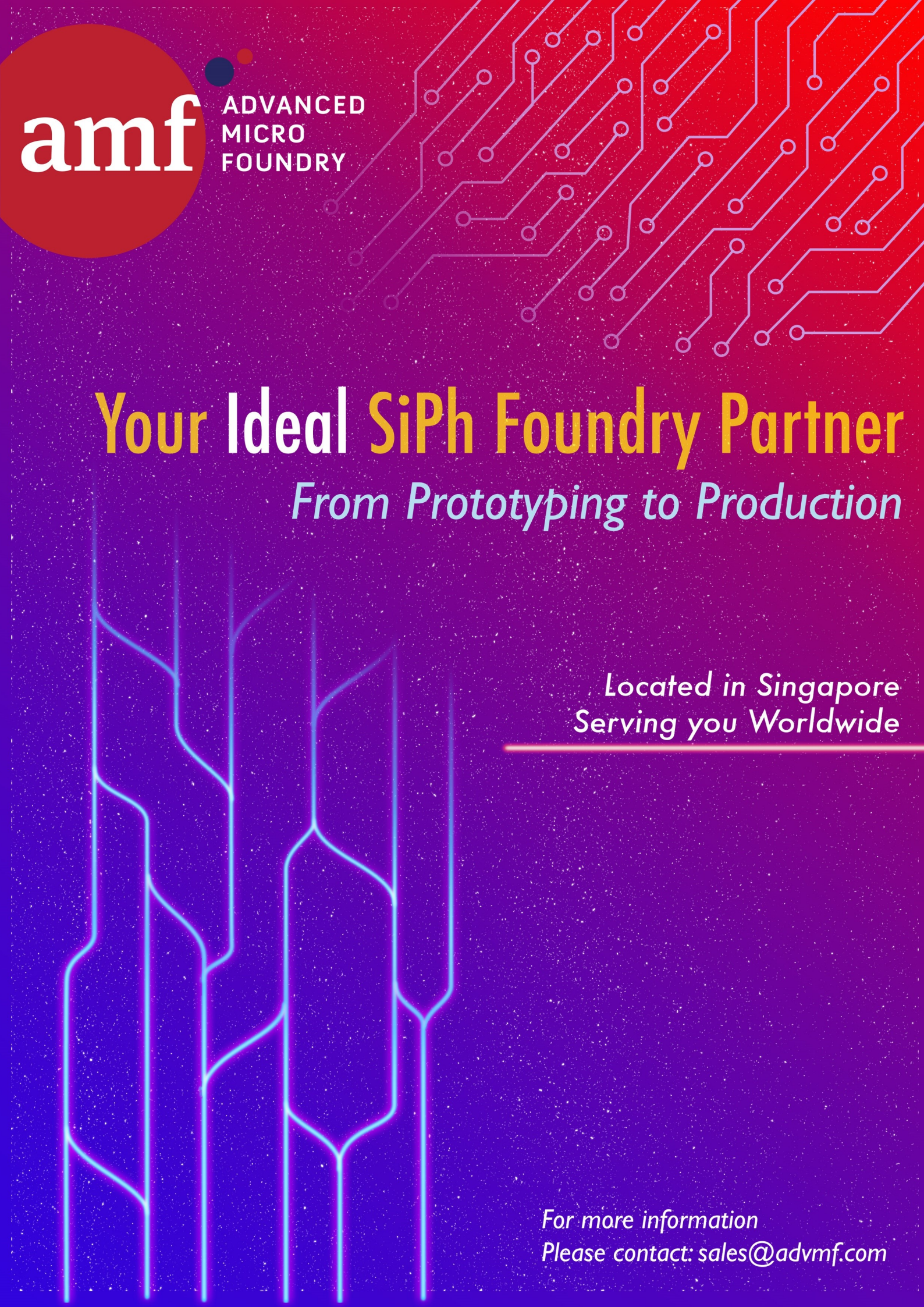




amf



ADVANCED
MICRO
FOUNDRY



Your Ideal SiPh Foundry Partner

From Prototyping to Production

*Located in Singapore
Serving you Worldwide*

*For more information
Please contact: sales@advmf.com*

YOUR IDEAL FOUNDRY PARTNER

AMF is a leading commercial pure-play Silicon Photonics specialty foundry serving customers in various market segments including Telecommunication, Data Centres, LiDAR, Sensing, AR/VR and Optical Computing. We aim at becoming the de-facto Si Photonics foundry by providing best-in-class solutions supported by our proprietary IP and services from our team of Optical and Semiconductor experts who will work closely with you to support your project from concept to volume production.

Customer Concept

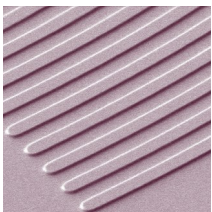


Prototyping

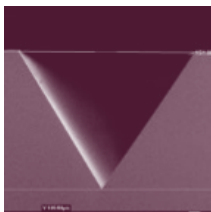
Volume Production

COMPREHENSIVE PDK

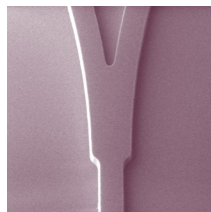
- Most comprehensive device library (ready to use device design blocks)
- PDK Support — Available on Luceda, Lumerical, Mentor, Synopsys, Cadence & KLayout platforms
- Optical, Electro-Optical & Opto-Electrical Testing Services



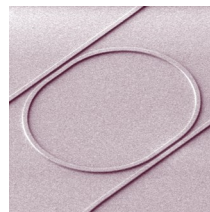
Grating Coupler



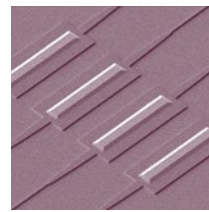
V-Groove



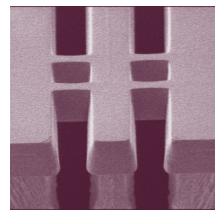
Splitter



High speed
modulator



Ge Detector
Array



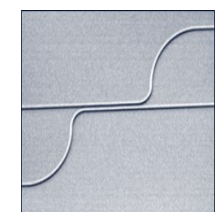
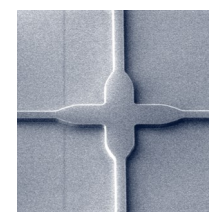
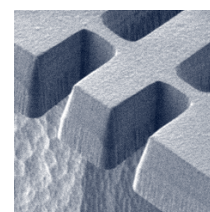
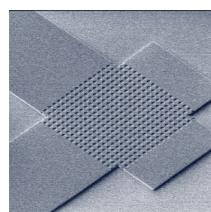
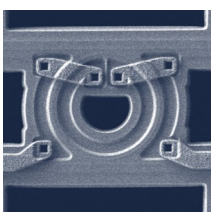
Suspended
Edge Coupler

HIGH PERFORMANCE DEVICES

- Proprietary building blocks for high-bandwidth Photonics Integrated Circuits for 400Gbps and above
- 80+ PDK devices (O-Band, C-Band, L-Band, Visible) available for integration in customer layout
- Application & Wavelength specific PDK

PDK Devices	Performance
Edge Coupler	TE: <1.4dB/facet TM: <1.4dB/facet
Grating Coupler	≈ 4dB/facet
1X2 MMI 2X2 MMI	≈0.15dB ≈0.18dB
Polarization Beam Rotator & Splitter	TE <0.1dB, TM <0.2dB PER ~19dB
APD	Contact us for details

PDK Devices	Performance
Ge Photodetector	BW: > 89GHz (C-Band), > 78GHz (O-Band), R ~ 1A/W, Dark Current < 50nA
High Speed SPP Mod.	EO BW: >50 GHz (C-Band, O-band),
Differential Mod.	EO BW: 50 GHz (C-Band, O-band)
Crossing	<0.15dB, crosstalk <-40dB
Thermal-Optical Phase Shifter	Power consumption <2 mW/P π



COMPREHENSIVE SERVICE OFFERINGS

MANUFACTURING SOLUTIONS

- 200mm wafer platform
- 5 Technology Platforms on SOI / Si / Glass Substates
- 90nm equivalent lithography for low loss WG
- Silicon Germanium & Germanium Epitaxy
- MEMS processes for Photonics integration solutions
- Dicing and backgrinding services
- Wafer Level Testing Services (Optical & Electrical)
- Comprehensive Defect Scanning
- Inline and Outgoing Quality Control

FLEXIBLE SERVICES & SUPPORT

AMF team has a proven track record for the past twenty years (since 2003) as the leading technology provider for Integrated Optics solutions. Through our newly upgraded cleanrooms, AMF also offers customized manufacturing services with competitive Cycle time, Quality and Reliability assurance

- Large Volume manufacturing services for product deployment
- Small Volume Prototyping services for product qualification
- MPW & Dedicated platforms for proof of concept

MULTIPLE SI PHOTONICS PLATFORMS

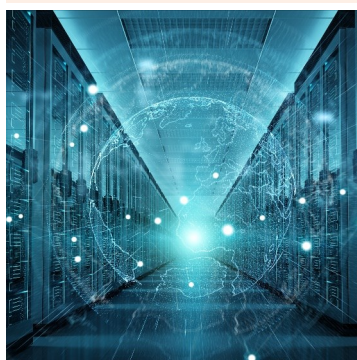
O-Band C-Band L-Band	• Silicon-On-Insulator (SOI)	Mature platform for multiple functional devices, such as High BW Modulators, Optical Phase Array, Optical Sensors, etc.
O-Band C-Band L-Band	• SOI + SiN	Material platform with low optical loss, which can integrate with Si and operate a wide range of wavelengths.
O-Band C-Band	• SOI + SiN + Hybrid	Advanced platform that integrates Thin Film Lithium Niobate and BTO on baseline platform for ultra high BW Modulation schemes beyond 800GHz, for communication products.
Visible	• Si + SiN	Material platform for ultra low loss passive discrete products in visible wavelengths, sensors and communication products.
Visible	• Glass + SiN	Platform to input, route and manipulate light typically in VIS spectrum, on a transparent substrate. The system is well suited for applications requiring transparency (e.g. AR/VR).

AMF platforms support a wide range of applications

Telecom



Data Centers



LiDAR & Sensors



AR/VR



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For additional information, please contact us at the address below or visit our website

若需要更多信息・请发送邮件联系我们的工作人员或访问我们的网站

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