Volume Scaling of Silicon Photonics

CM Perspective

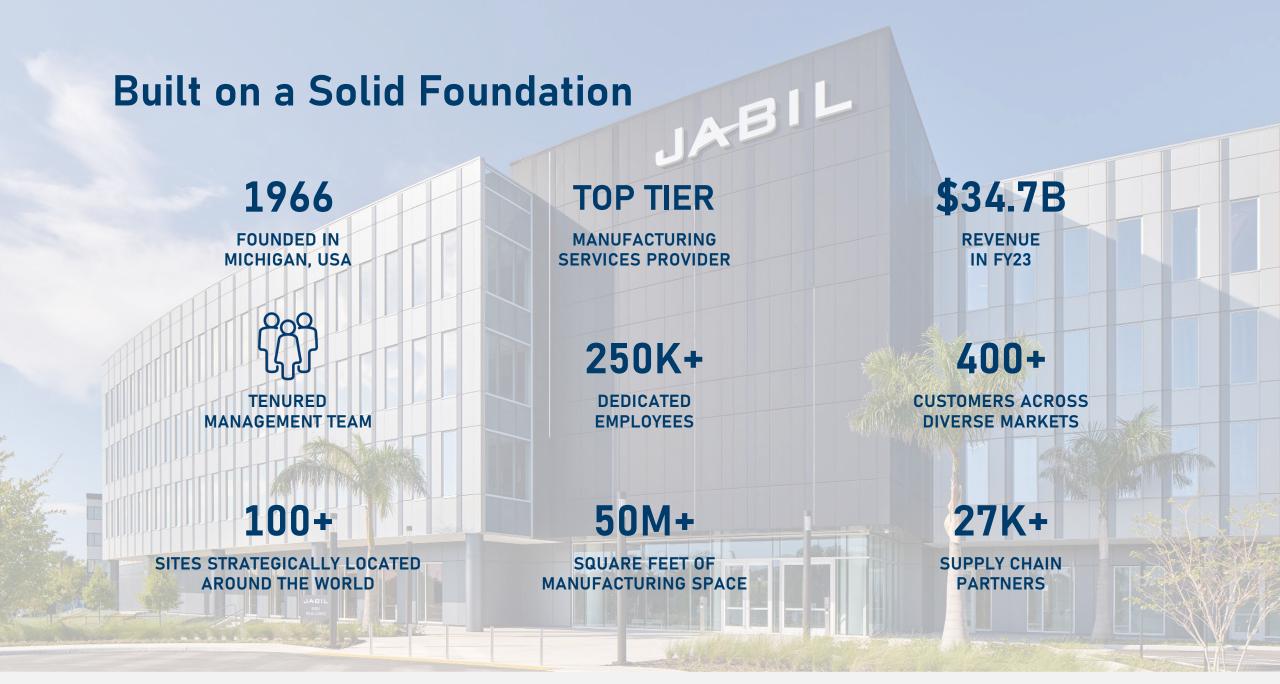
Noam Ophir

Sr. Technical Director OSAT and SiPh

01.10.2024

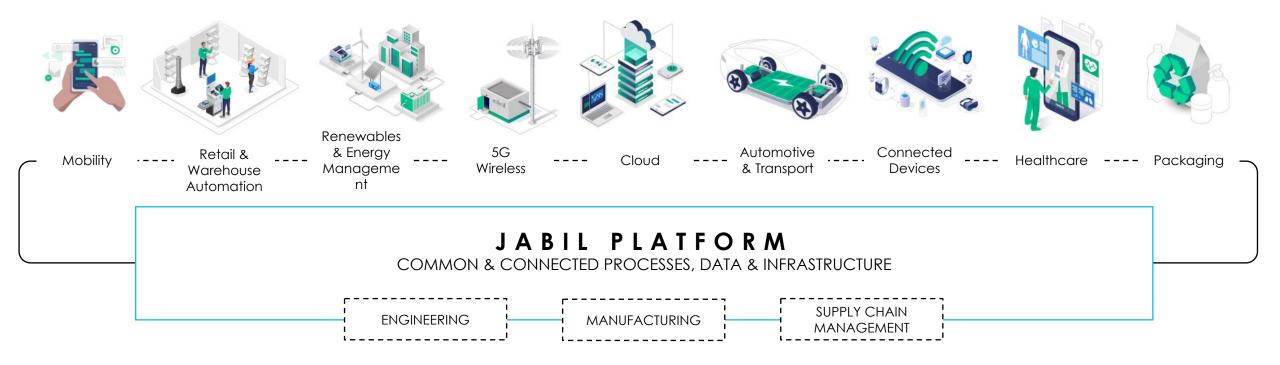






Our Solutions

Enabled by Structure, Investments, Customers



Jabil Cloud Market Inputs

Full lifecycle solutions for cloud data centers



White-box hardware delivered via a customer-centric supply chain





Factory integrated to accelerate time-to-deployment



RETIRE

Security & IP conscious, environmentally responsible retired asset management

Jabil clients requesting:

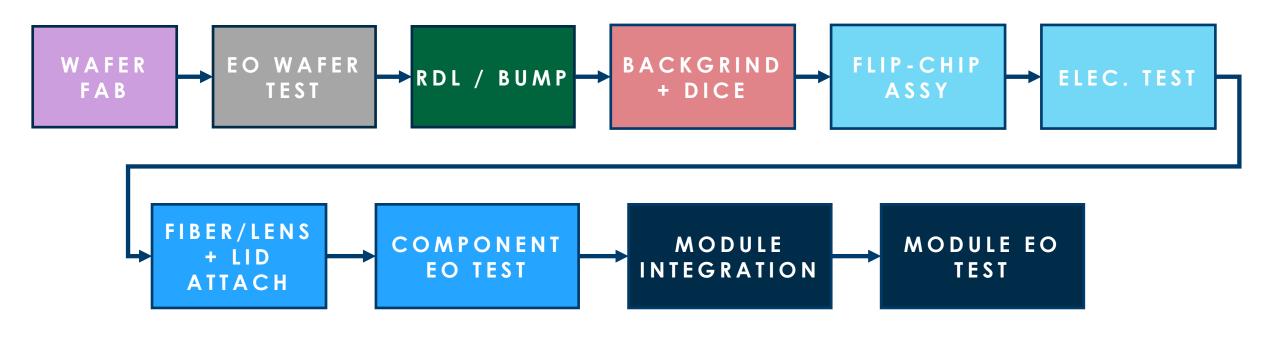
- 1) Design services for white-box servers
- 2) Verticalization, simplified supply chain
- 3) Accelerated technology adoption

Silicon Photonics

Silicon Photonics Mfg Ecosystem

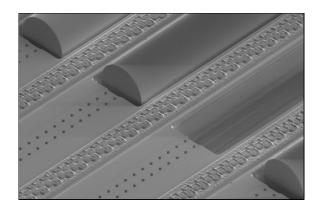
Example high-level pluggable production flow.

Each color denotes potentially different supplier.

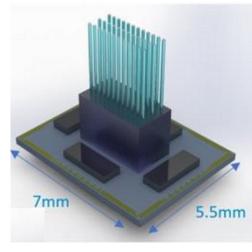


Multi-hop supply chain is a problem

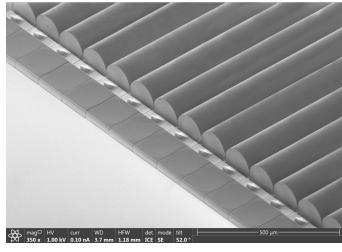
SiPh Optical I/O Solutions



V-groove (Global Foundries)



Vertical Coupling (Nubis Communications)



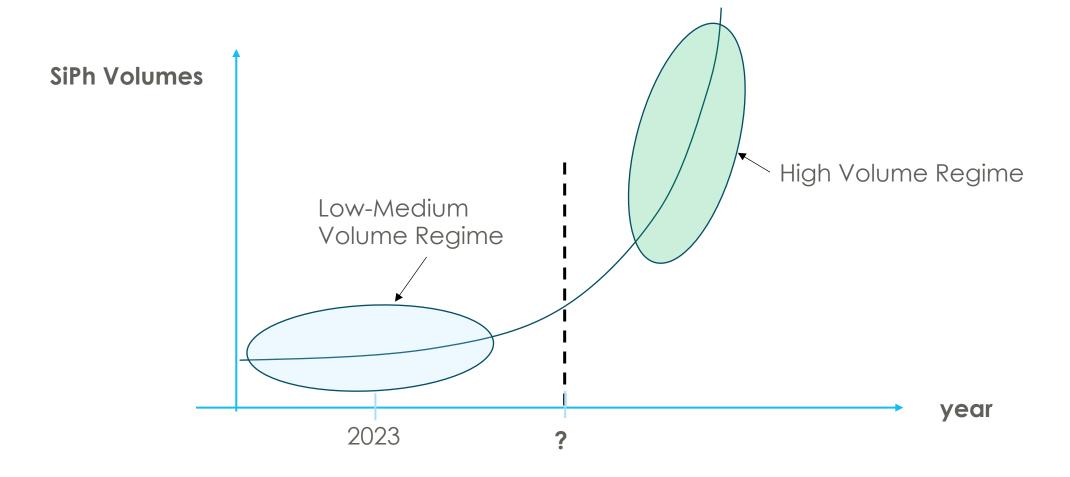
Detachable Connectors (Teramount)

Plurality of optical I/O schemes make it difficult to invest in capital ahead of volume orders.

No one-size-fits-all fiber-attach machine.

Optical I/O method heavily impacts assembly process and electrical I/O configurations.

Demand Growth

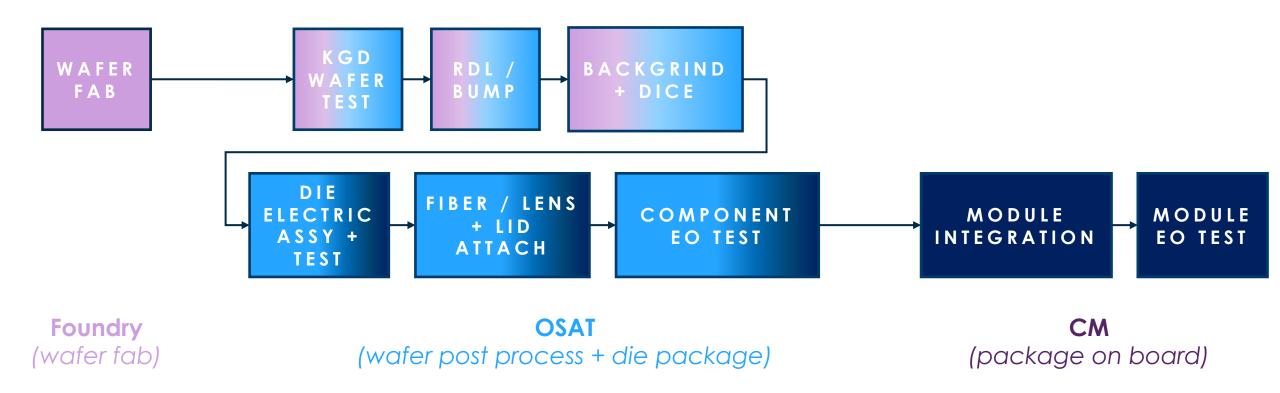


Cross-over to higher volumes inhibited by lack of mfg eco-system support

Blurring of Traditional Lines in Ecosystem

Blurring of traditional separation:

- Foundry → OSAT: custom needs of SiPh require further handholding by foundry
- OSAT ← CM: fiber handling, assembly flow sequence, current volumes



Path Forward - Partnerships?



THANK YOU



JABIL