4 channels Tx TGV Photoelectric Interposer Chip

Product Introduction:

The 400G Tx TGV optoelectronic interposer chip uses laser induction and deep silicon etching technology to achieve glass-based signal transmission, and uses redistribution layer (RDL) and micro-bump technology to achieve a wiring bandwidth of more than 110GHz, significantly improving signal transmission efficiency and density; matching the mainstream four-channel silicon photonic modulation chip and electric driver chip to achieve a 4-channel standardized TGV interposer solution, while being compatible with the pin definitions of mainstream silicon photonic chips and electric chips, supporting 2.5D/3D stacking packaging technology, and achieving high integration of optoelectronic hybrid packaging; laser direct writing optical waveguides and interposer internal slots can be integrated on the chip to achieve low-loss and high-density optical path fan-in and fan-out.

Performance Features:

- 8-inch wafer-level TGV process
- RDL and micro-bump process, wiring bandwidth exceeds 110GHz
- Support optoelectronic chip Flipchip packaging
- Support low-loss optical waveguide laser direct writing
- Support three-dimensional structure slotting, support low-loss optical coupling.

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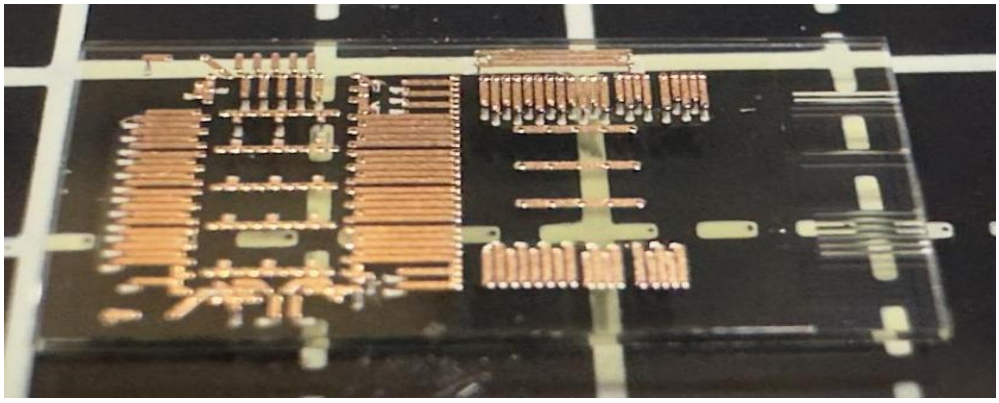
Key parameter indicators:

Parameters	Scope
Interposer chip size	5mm×9mm
Interposer glass thickness	265μm
Wiring bandwidth	> 110GHz
TGV hole opening	60μm—25μm
RDL line width and spacing	80μm/15μm
RDL thickness	3μm
PI thickness	5μm
Bump ball diameter	60μm
T/Rx channel	100G×4

TGV chip application diagram:



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