

4Channels TRx TGV Photoelectric Interposer Chip

Product introduction:

TRx TGV optoelectronic interposer chip realizes glass-based signal switching through laser induction and deep silicon etching, 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 mainstream four-channel silicon photonic modulation chip, electric driver chip and transimpedance amplifier chip to achieve a 4-channel standardized solution, while being compatible with the pin definitions of mainstream silicon photonic chips and electric chips, 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 characteristics:

- 8-inch wafer-level TGV MPW tape-out
- RDL and micro-bump technology, 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.

Key parameter indicators:

Parameters	Scope
Interposer chip size	10mm×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:

