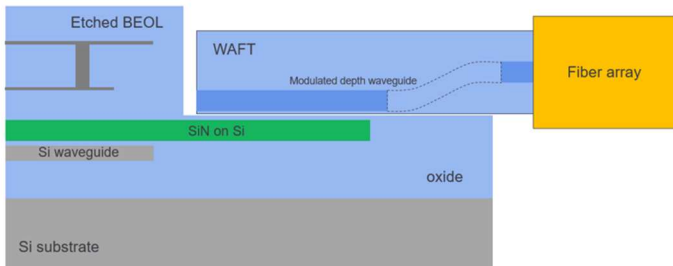
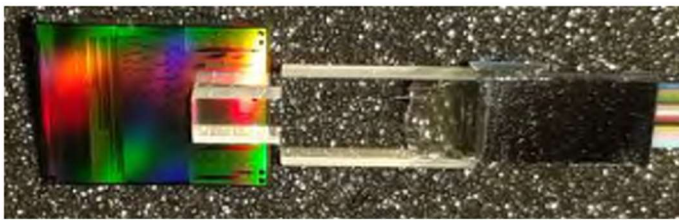


DESCRIPTION



The **Evanescent-Coupling Waveguide Array to Fiber Transposer (EV-WAFT)** is an advanced PIC-to-fiber interposer tailored to **combine the benefits of spot-size converters and gratings couplers**. It allows for light transfer directly from a fiber array to the photonic layer of the photonic integrated circuit. This transfer leverages the evanescent electric field interaction between the ioNext glass waveguide and the Si/SiN tapers, which have previously been exposed through cladding removal.

This interposer can handle **any I/O configuration**, while the improved alignment tolerance and its see-through feature make it **compatible with passive-alignment** assembly.

KEY FEATURES

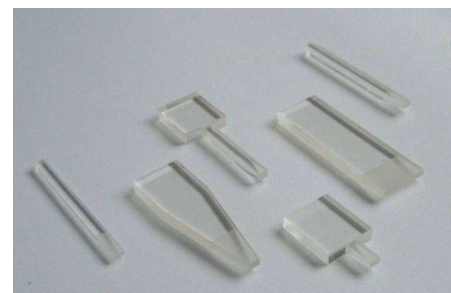
Number of ports	< 32	[32 – 96]	[96 -256]
Max Insertion Loss * (dB)	0.7	0.9	1.1
Insertion Loss Uniformity * (dB)	< 0.2	< 0.3	< 0.3
Max Polarization Dependent Loss (dB)	0.1	0.2	0.2
Max Adjacent Crosstalk (dB)	-30	-30	-25
Typical evanescent interaction length (mm)	3		
Minimum Output Pitch (µm)	20		
Outputs Positioning Relative Accuracy (µm)	+/- 0.05		+/- 0.1
Polarization Extinction Ratio (dB)	> 25		
Operating wavelength (nm)	1200 - 1700		

* without connectors

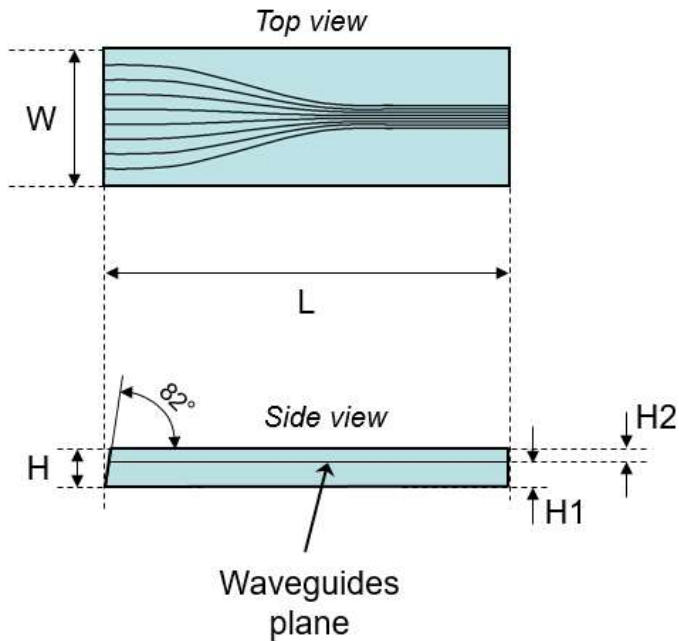
OPTIONS

- ▶ Fibre connection
 - SM or PM fibres
 - FC, SC, ST, LC or MPO connectors
- ▶ Custom chip designs :
 - Variable output pitches
 - Additional optical functions (taps, splitters...)

- ▶ Custom chip dimensions and shaping for footprint reduction



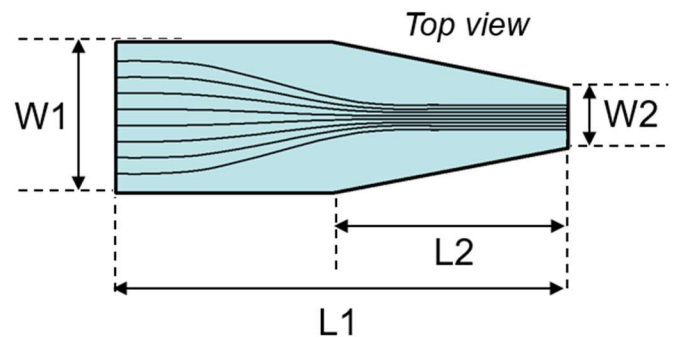
STANDARD EV-WAFT CHIP SHAPE



- W and L depends on :
 - the number of ports
 - input and output pitch
- $H_1 = 1.5 \pm 0.05$ mm
- $H_2 = 2$ μ m

SHAPING OPTIONS

Option 1: Chip tapering
(width reduction)



PART NUMBER DESCRIPTION

P/N : EC-WAFT-NC-IP-OP-SO-FO-FT-FA-CT		
NC	Number of Channels	From 1 to 256
IP	Input Pitch	127 or 250 μ m
OP	Output Pitch	Down to 20 μ m
SO	Shaping Option	00 : No option CM : Custom
FO	Fibering Option	0 : Bare chip F : Chip pigtailed with fiber array
FT	Fiber Type	SM : SMF28 PM : PM1550 CM : Custom
FA	Fiber Arrangement	SF : Singulated fibers FR : Fiber ribbon
CT	Connector Type	FC, SC, LC, ST, MPO