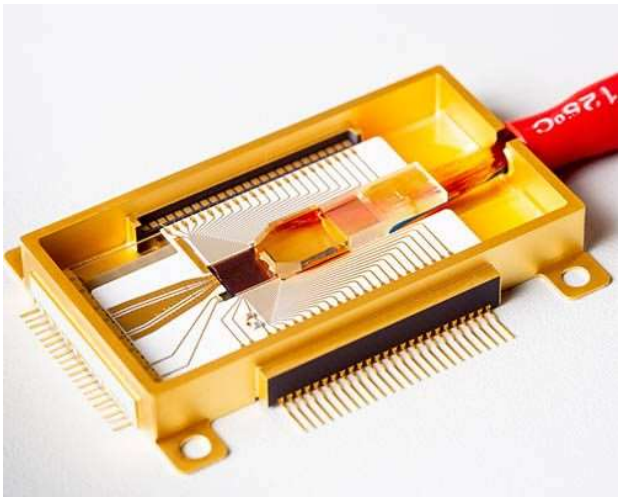
WAFT Series

The Silicon Chip-to-Fiber Interface Solution

DESCRIPTION



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The Edge-Coupling Waveguide Array to Fiber Transposer (EC-WAFT) is the must-have **PIC-to-fiber interface for edge coupling configurations**. It combines a **spot size converter and waveguide pitch matching** to offer **seamless coupling compatible with any I/O configuration**.

Thanks to its **ioNext platform** (Photonics Integrated Circuits on glass), TEEM offers a whole range of bare and pigtailed EC-WAFT products, with user-defined port number, output pitch and output mode size.

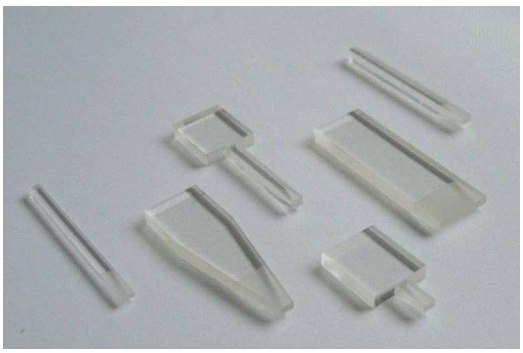
KEY FEATURES

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
Output Mode Size @1550nm (µm @ 1/e²)	4.2 x 3.2		
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 :
  - Tilted output waveguides for low return loss
  - Variable output pitches
  - Additional optical functions (taps, splitters…)
- Custom chip dimensions and shaping for footprint reduction



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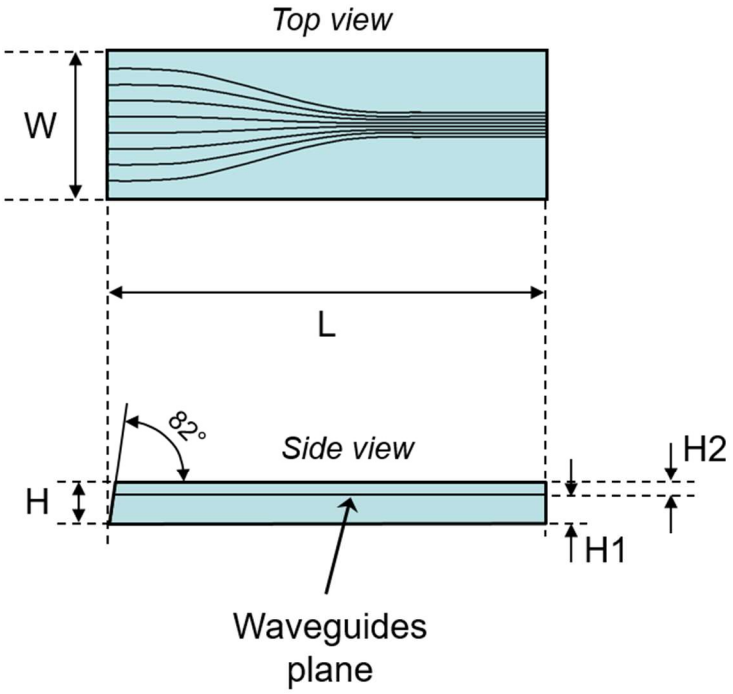
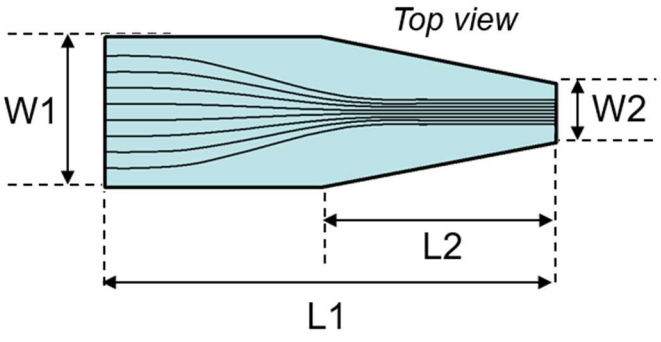
STANDARD EC-WAFT CHIP SHAPE



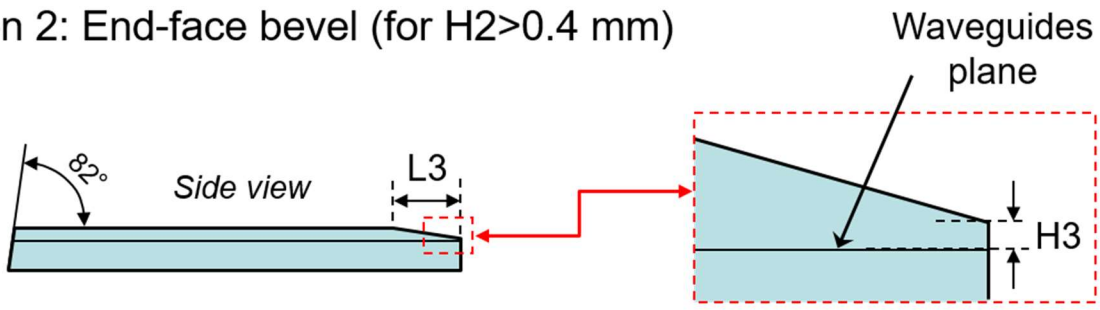
- W and L depend on the:
  - number of ports
  - input and output pitch
- H1 = 1.5 ± 0.05 mm
- H2 = 0.05 mm
  or 0.4 mm
  or 0.8 mm

SHAPING OPTIONS

Option 1: Chip tapering (width reduction)



Option 2: End-face bevel (for H2>0.4 mm)



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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 µm
OP	Output Pitch	Down to 20 µm
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