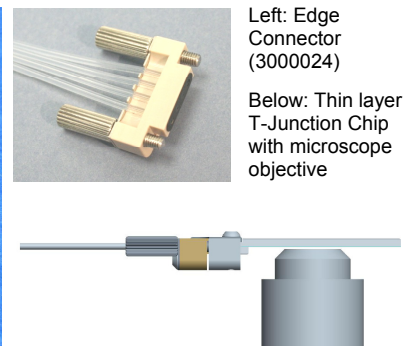
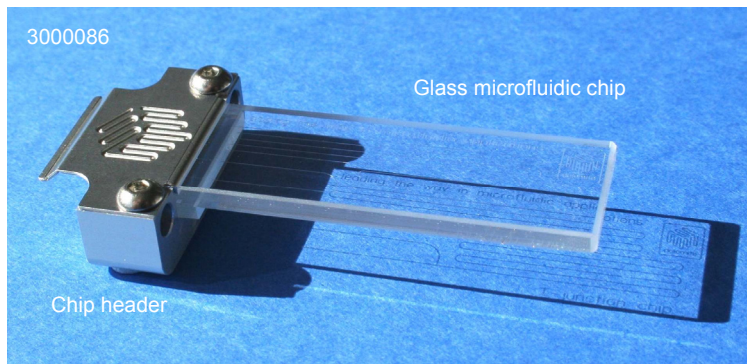


INFORMATION SHEET

Part name	Mitos Thin Layer T-Junction Chip with Header	Part number	3000086
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Description

The Thin Layer T-Junction Chip is a glass microfluidic device designed for a range of applications including mixing fluids, microreactions and droplet formation. Specifically the chip has an ultra thin 150 µm base layer for high magnification microscopy applications. The chip is supplied with a chip header (below). The header allows connection to the Dolomite 4-way Edge Connector (part number 3000024).



Left: Edge Connector (3000024)

Below: Thin layer T-Junction Chip with microscope objective

Benefits

- Ultra thin design (specifically for high magnification microscopy applications)
- Compact
- Low dead volume
- Quick connect/disconnect
- Extremely smooth channel surface
- Excellent chemical compatibility
- Wide temperature and pressure range

	Chip Specification	Value
1	Number of inputs	2
2	Number of outputs	1
3	Internal channel cross-section* (standard)	20 µm x 50 µm (depth x width)
4	Channel length after T-junction	278 mm (feed channels = 20 mm and 22 mm)
5	Volume of channel after T-junction	0.23 µl
6	Back pressure with 10µl/min flow (water)	24 bar
7	Surface roughness of channels (R _a)	5 nm
8	Chip size	45.0 mm x 15.0 mm
9	Chip top layer thickness	2.0 mm
10	Chip base layer thickness	150 µm
11	Operating pressure	Up to 30 Bar
12	Operating temperature	400° C
13	Material	Glass
14	Fabrication process	HF etching and thermal bonding

Channel cross-sectional profile

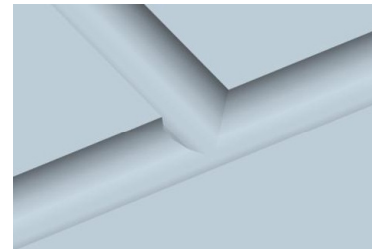
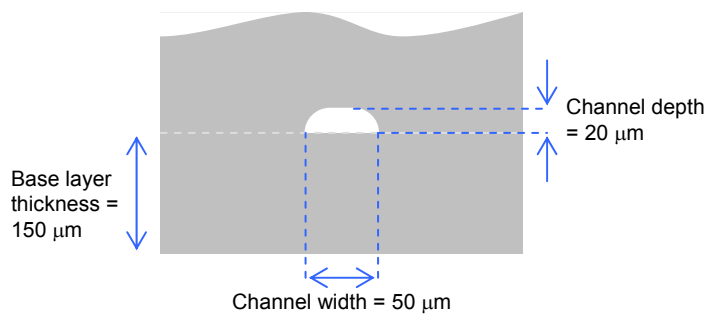


Image of T-junction etched into top layer

Custom options*

The channel may be etched to different depths, for example from 20 μm x 30 μm up to 100 μm x 110 μm (depth x width). The top layer or base layer can also be etched giving a near circular channel cross-section.

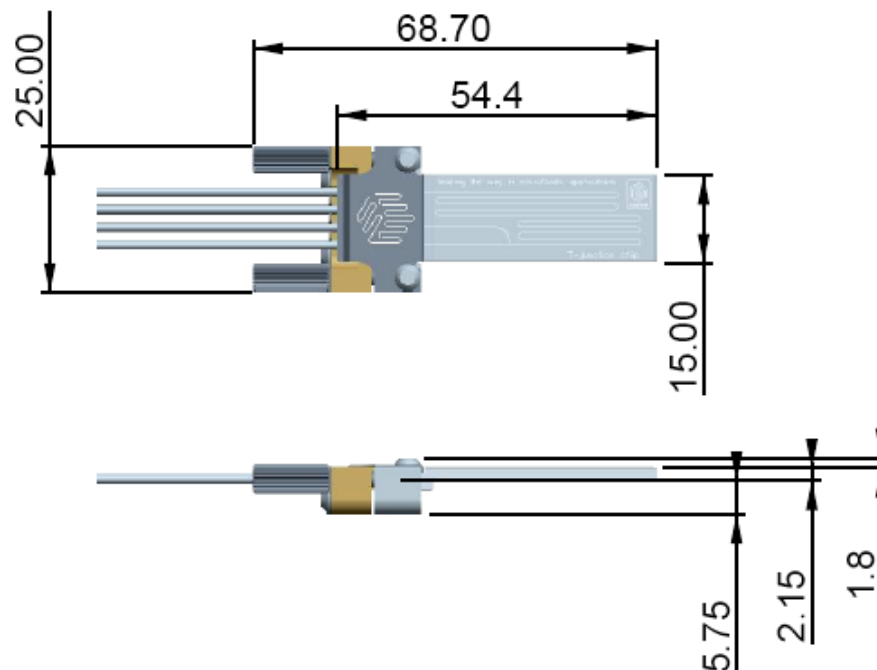
Custom channel layouts can also be specified.

Custom surface coatings

The channel surface is hydrophilic. The chip can also be supplied with:

- Hydrophobic coating on channel surfaces
- Platinum coating on channel surfaces

Edge connector geometry



Optical transmission

