

# CORNERSTONE

## Quick reference design guidelines for the eighth fabrication call – June 2018

### Mask submission deadline – Friday 31<sup>st</sup> August 2018

File format = *.gdsII*.

Manufacturing grid size = 1 nm.

Design area = **11.47 x 4.9 mm<sup>2</sup>**, with 0.5 mm bleed regions on the east and west facets if desired.

Top cell name: 'Cello\_*[Name of Institution]*'.

### 1. Design rules summary

A summary of the design rules and GDS layer numbers can be found in Table 1 below.

*Table 1 – Design rules summary.*

Layer description	GDS number	Field	Min. feature size	Min. gap	Max. feature width
Silicon Etch 1 (70 nm ± 10 nm)	6	Dark	250 nm	250 nm	N/a
Silicon Etch 2 (120 nm ± 10 nm)	3	Light	250 nm	250 nm	N/a
	4	Dark			
Cell Outline	99	N/a	N/a	N/a	N/a
Bleed Area	98	N/a	N/a	N/a	N/a

\* Since this call only offers rib waveguides, all features drawn in GDS layer 3 and GDS layer 4 must be covered with GDS layer 5, as in the 'CORNERSTONE MPW Run 8 GDSII Template' file. This is to ensure that designs submitted to this call are compatible with future calls that offer both rib and strip waveguides.

### 2. Minimum feature sizes, tolerances and other design rules

- Minimum feature sizes and maximum feature widths (where applicable) for each GDS layer are detailed in Table 1.
- A minimum spacing between waveguides of at least 5 μm is recommended to avoid power coupling.
- All structures drawn in GDS layer 6 (Grating couplers) must overlap by at least 200 nm with GDS layer 3 (Waveguides).

### 3. Technical support

For all queries, email [cornerstone@soton.ac.uk](mailto:cornerstone@soton.ac.uk).