

PLANAR OPTICAL SPLITTER/COUPLER CHIP (APSPL-C0XXXXXX)

APSPL planar optical splitters/couplers are developed based on Enablence Technologies' patented CVD process. The high performance silica waveguides exhibit low insertion loss and low polarization dependent loss (PDL) over a wide wavelength range. The small footprint allows for a compact package. Additionally, the silicon substrate serves as an assembly platform to integrate with other active or passive optical devices.



BENEFITS

- Channel counts from 4, 8, and 16 to 32.
- 2xN Available Upon Request
- Customized chip size and topology for integration platform
- Quartz or Silicon Substrate

FEATURES

- High Channel Count
- Compact Design
- Wide Band
- Wide operating temperature
- Polarization maintaining

APPLICATIONS

- Intensity coupling and splitting in FTTH, PON, etc.
- Wavelength combiner in multi-channel transmit side optical subassembly (TOSA)

DATA SHEET

OPTICAL PERFORMANCE

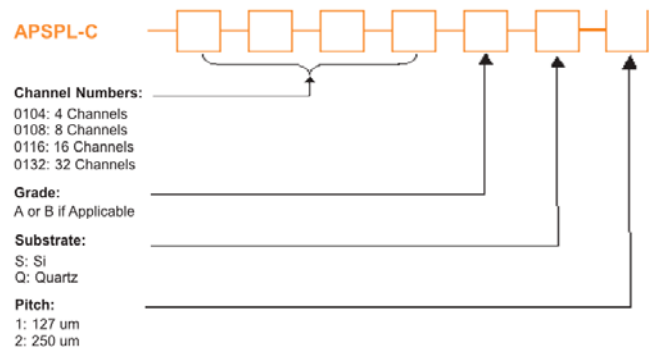
| Parameter | Specification | | | | | | | | Units | Comments |
|-----------------------------|-----------------------------|-------|--------|--------|--------|--------|--------|--------|-------|-------------------------|
| | 1x4 | | 1x8 | | 1x16 | | 1x32 | | | |
| Ports | A | B | A | B | A | B | A | B | | |
| Grade | A | B | A | B | A | B | A | B | | |
| Operational Wavelength | 1310± 40, 1490± 20, 1550±40 | | | | | | | | nm | |
| Insertion Loss (IL) Maximum | ≤6.90 | ≤7.00 | ≤10.00 | ≤10.30 | ≤13.20 | ≤13.50 | ≤16.30 | ≤16.80 | dB | Worst Case |
| Uniformity | ≤0.60 | ≤0.60 | ≤0.80 | ≤0.80 | ≤1.00 | ≤1.20 | ≤1.20 | ≤1.50 | dB | Difference between best |
| Polarization Dependent Loss | ≤0.15 | ≤0.20 | ≤0.15 | ≤0.20 | ≤0.15 | ≤0.20 | ≤0.25 | ≤0.30 | dB | |
| Return Loss/Directivity | >55 | | | | | | | | dB | |
| Operation Temperature Range | -40 ~ 85 | | | | | | | | °C | |
| Storage Temperature Range | -40 ~ 85 | | | | | | | | °C | |
| Waveguide Pitch | 250 | | | | 127 | | | | um | |
| Polish Angle (θ) | -8, 0 or +8 | | | | | | | | deg | |

PHYSICAL DIMENSIONS (UNITS: MM)

| Parameters | Symbol | Units | Specification | | | | |
|----------------|--------|-------|---------------|----------|---------|---------|---------|
| | | | 1x4 | 1x8 D | 1x8 C | 1x16 | 1x32 |
| Length | L | mm | 9.5±1 | 13±1 | 9.7±1 | 16.5±1 | 23±1 |
| Width | W | mm | 2.5±0.2 | 3.75±0.2 | 2.5±0.2 | 3.5±0.2 | 5.6±0.2 |
| Height | H | mm | 2.55±0.2 | | | | |
| Substrate | T | mm | 1.05±0.05 | | | | |
| Polish Angle | - | ° | 8±0.4 | | | | |
| Output Spacing | - | um | 250±0.1 | | | 127±0.1 | |

ORDERING INFORMATION

Example: APSPL-C0108AQ1: 1x8 grade A quartz optical splitter chip with waveguide pitch of 127 um



For more information
 visit www.enablence.com