

# Gooch & Housego



## OCT Coupler 1060nm Wideband

Fibre optic couplers are used in the OCT light engine to form the interferometer that OCT systems use to generate depth information. A coupler with low wavelength dependence allows the system to operate over a wide wavelength range which increases depth resolution.

The OCT Wideband Coupler splits over a wide bandwidth at the popular OCT wavelength band centred around 1060nm.

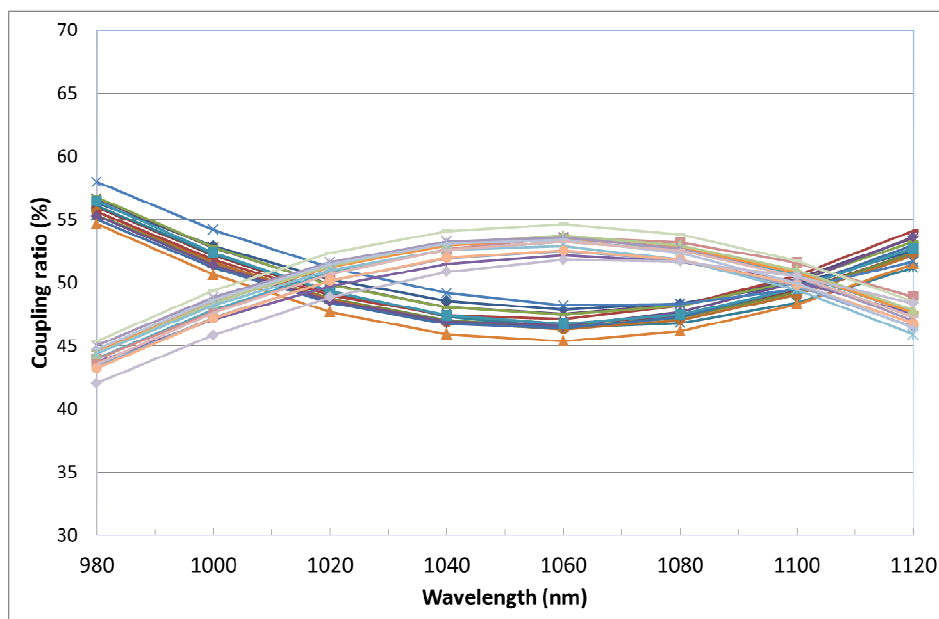
Designed for low loss and wide bandwidth operation, the coupler utilises Gooch & Housego's proprietary fused fibre technology.

### Key Features:

- Very low light loss
- Any coupling ratio available
- Wide bandwidth operation
- Various fibre options available

### Associated Documents:

- OCT Coupler 850nm & 1300nm
- OCT Coupler Ultra Wideband
- OCT Fibre Collimators
- OCT Coupler Application Note



A sample of 10 50/50% couplers plotted in the wavelength range 980nm to 1120nm



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### Typical Optical Specifications

Coupling Ratio (%) <sub>1</sub>	Measured Bandwidth	1060nm Band Excess Loss (dB) <sub>2, 3</sub>	1060nm Band Coupling Ratio Tolerance <sub>2</sub>	Available Housing Option
1	A = ±20nm	0.10	±0.30%	3,4,5,6
	B = ±35nm	0.10	±0.40%	
	C = ±50nm	0.10	±0.50%	
10	A = ±20nm	0.10	±1.5%	3,4,5,6
	B = ±35nm	0.10	±2.5%	
	C = ±50nm	0.10	±3.5%	
20	A = ±20nm	0.13	±2%	3,4,5,6
	B = ±35nm	0.13	±3%	
	C = ±50nm	0.13	±4%	
30	A = ±20nm	0.13	±2.5%	3,4,5,6
	B = ±35nm	0.13	±3.5%	
	C = ±50nm	0.13	±4.5%	
50	A = ±20nm	0.15	±3.5%	3,4,5,6
	B = ±35nm	0.15	±5%	
	C = ±50nm	0.15	±6.5%	

- Any coupling ratio available. Please contact sales office for details on coupling ratios not listed.
- Measured through P1 to P2 and P3

Parameter	Specification	Unit
Operating / Storage Temperature Range <sub>1</sub>	-40 to +75 / -40 to + 85	°C
Pigtail Tensile Load	5	N
Fibre Type <sub>2</sub>	Speciality singlemode fibre	

- For connectorised component, operating temperature range is -5 to +75°C.
- Fibre type to be confirmed upon request.
- Excess Loss dependent on fibre type.

### Housing Option

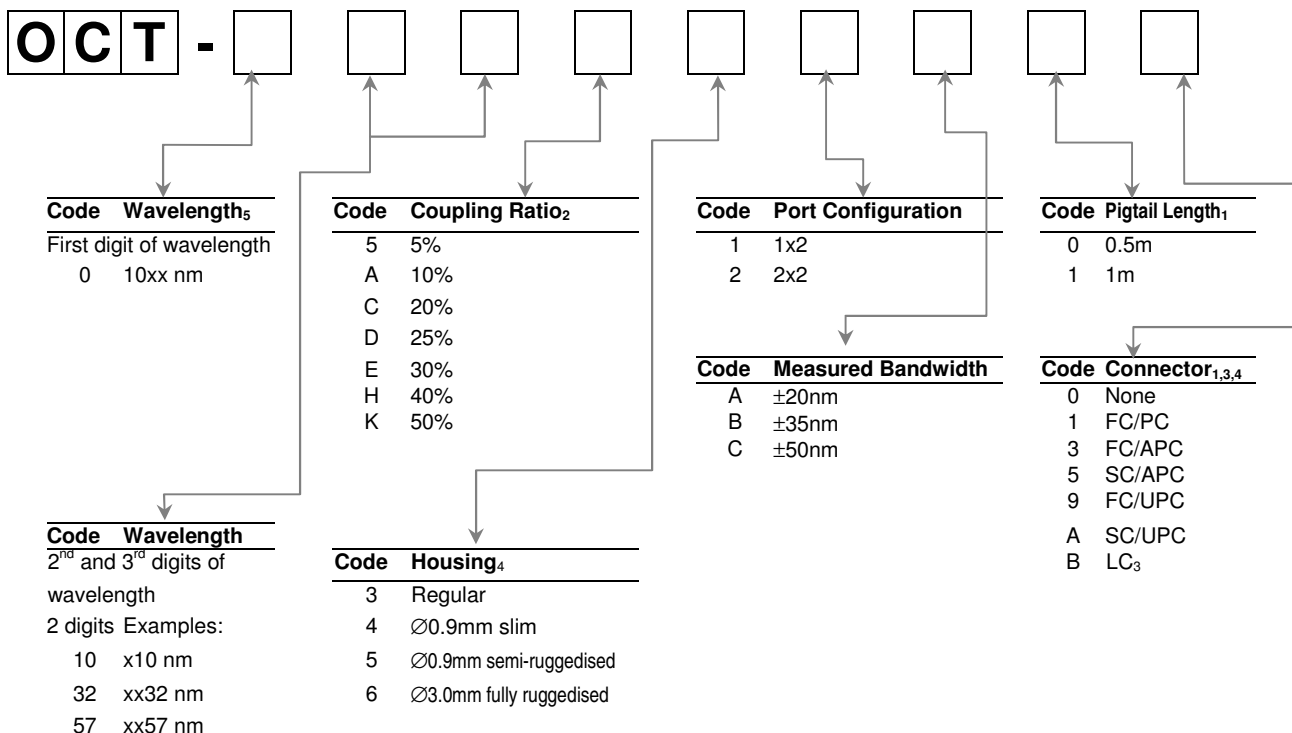
Housing Code	Description	1x2, 2x2 Dimensions (mm)	Pigtail
3	Regular	3.0 (∅) x 50 (L)	Primary-coated fibre
4	∅0.9 mm slim	3.0 (∅) x 60 (L)	∅ 0.9mm loose-tube
5	∅ 0.9 mm semi-ruggedised	5.0 (∅) x 75 (L)	∅ 0.9 mm loose-tube
6	∅ 3.0 mm fully-ruggedised	80 (L) x 10 (W) x 8 (H)	∅ 3.0 mm fan-out sleeving

### Configuration



### Ordering Code Information

**OCT-040K31A10** (OCT Wideband Coupler, 1040nm centre wavelength, 50/50 coupling ratio, regular housing, 1x2 port configuration, ±20nm measured bandwidth, 1m pigtailed, no connectors)



1. Minimum pigtail length. Further pigtail lengths available on request. Where connectorised, pigtail length is to connector end face.
2. Any coupling ratio available. Please contact G&H for ordering codes of coupling ratios not listed.
3. LC connector not available for housing code 6, fully ruggedised housing.
4. Connectors may be fitted to housing types 4, 5 and 6. For connectorisation of housing type 3 please contact the sales office.
5. Various fibre options available. Please contact sales office to discuss fibre choice.