

PM Fused Fibre Splitters

The fibre range of PM fused fibre splitters have been developed to offer the designer flexibility in optimizing system performance. The proven FBT technology base has been utilized to optimize specific device parameters, reflected in product categorisation. The polarization maintaining couplers give excellent loss performance whilst preserving the integrity of the input on-axis polarization state.

All of the coupler options offer very low excess loss, good polarization isolation, and are available in a range of coupling ratios from 1% to 50% and have 1x2 or 2x2 configuration.



Features

- Near Zero Excess Loss
- Low Back reflection
- Thermally stable
- Low PDL
- Accurate Split Ratio
- All-Fibre Technology FBT
- Excellent Uniformity
- Compact packaging
- Manufactured using G657A bend insensitive fibre
- Available with bare fibre for splicing or 900µm or 2mm tails with connectors
- Ruggedised module housing available for all split counts

Specification

OPTICAL CHARACTERISTICS

Parameters	1x2	2x2
Operating Wavelength	1260 - 1360 and 1460 - 1650nm	1260 - 1360 and 1460 - 1650nm
Max. Insertion Loss (dB)(Symmetrical Split Ratio's) (Unconnectorised)	3.8	4.3
Max. Insertion Loss (dB)(Symmetrical Split Ratio's) (Preconnectorised)	4.1	4.6
Uniformity	0.8	0.8
PDL (Max.)	0.15	0.3
Return Loss	≥55 dB	≥55 dB
Directivity	≥55 dB	≥55 dB

Unsymmetrical Split Ratio (Unconnectorised)

Split Ratio	Max. Insertion Loss Channel 1	Max. Insertion Loss Channel 2
90/10	0.8	12.7
80/20	1.4	8.5
70/30	2.1	6.4
60/40	2.9	5

Unsymmetrical Split Ratio ((Preconnectorised)

Split Ratio	Max. Insertion Loss Channel 1	Max. Insertion Loss Channel 2
90/10	1.1	13
80/20	1.7	8.8
70/30	2.4	6.7
60/40	3.2	5.3

Mechanical Characteristics

Parameters	1x2	2x2
Dimensions (Unconnectorised)	40x4x4	40x4x4
Dimensions (Connectorised)	100 x 30 x 10	100 x 30 x 10

Environmental Characteristics

Operating Temperature	-40°C - 85°C	-40°C - 85°C
-----------------------	--------------	--------------

Ordering Information

FBT	Configuration		Wavelength		Cable Type		Fibre Type		Input Connectors		Output Connectors		Lead Length Input		Lead Length Output	
	A	1 x 2	A	1310nm / 1550nm	0	250µm	A	Singlemode	A	None	A	None	1	1 metre	1	1 metre
	B	1 x 3	B	1310nm / 1490nm / 1550nm	1	900µm			B	E2000/UPC	B	E2000/UPC	1.5	1.5 metre	1.5	1.5 metre

C	1 x 4	C	Broadband 1260-1625nm	2	2mm cable
D	2 x 2			3	3mm cable
E	2 x 4				

C	E2000/APC	C	E2000/APC
D	FC/UPC	D	FC/UPC
E	FC/APC	E	FC/APC
F	LC/UPC	F	LC/UPC
G	LC/APC	G	LC/APC
H	MU/APC	H	MU/APC
I	MU/UPC	I	MU/UPC
J	SC/UPC	J	SC/UPC

2	2 metre	2	2 metre
2.5	2.5 metre	2.5	2.5 metre
3	3 metre	3	3 metre

Example Part Number

FBT	A	A	2	A	B	B	1	1
------------	----------	----------	----------	----------	----------	----------	----------	----------

This part number has created a fused fibre splitter 1x2 1310/1550nm with 1m of 2mm E2000 pigtailed.