## **Space Division Multiplexing Module**

## Multi-core Fibre Fan-in & Fan-out Module

Multi-core fibre fan-in and fan-out module is a module to realize the high coupling efficiency between the multi-core fibre and single-mode fibres, to realize the channel space division multiplexing and demultiplexing function in the applications. The optical fibre tapering technology is used to realize the optical power coupling between multi-core fibre and single mode fibres with low insertion loss, low core crosstalk and high return loss. YOFC multi-core fibre fan-in and fan-out module adopts seven channel structure, with YOFC's multi-core fibre (MCF), a complete communication and sensor system can be built, which means a broad application prospect.



## Characteristics

- · Encapsulated in metal tube
- · Low and consistent insertion loss

- · Ultra low crosstalk
- · FC/PC, FC/APC or bare fibre

## **Specifications**

Module Type	FAN-7-42  Seven Cores Fibre Fan-in & Fan-out Module	
Type Description		
Optical Properties	Value	Typical
Average Insertion Loss (dB)	< 1.5	1.0
Max.Insertion Loss (dB)	< 2.0	1.5
Return Loss (dB)	> 45	50
Crosstalk Index-Adjacent Core (dB)	< -50	-55
Geometrical Properties		
Multi-core Pigtail Length (m)	> 1.0	1.5
Single-mode Pigtail Length (Bare Fibre) (m)	> 1.0	2.0
Single-mode Pigtail Length (Patch-cord) (m)	> 0.5	1.0
Encapsulation Box Description		
Box Size (mm)	Φ4×180	
Operating Temperature (°C)	-40 to +70	