ALLIANCE Multi-Operator DAS
Integrated Optical Expansion Unit (iOEU)
Product Specifications / Parts List

The integrated Optic Expansion Unit (iOEU) is an optional fiber MUX device designed to connect a DAS throughout multiple buildings or structures across a campus environment. The iOEU is typically located separately from the BTS Interface Unit (iBIU) headend and used primarily to drive multiple ROUs while limiting the amount of fiber required and increasing the optical link budget.

The iOEU connects to the headend optic modules via fiber optic cabling. The unit amplifies the signalling from the headend, compensating for any loss and effectively doubling the optical link budget, before transmitting the signal to the remote units. The uplink path reverses this process.

For deployments that support bands above 3GHz (C-Band and/or Auction 110), an iOEU_4000 is available.

Features

- Optical to optical
- Modular design – up to 8 optical ports
- 5 or 10 dBo link budget to ROU
- Single strand per ROU
- Single mode, SC-APC connection
- Compact from factor (2U) – 19” rack mount

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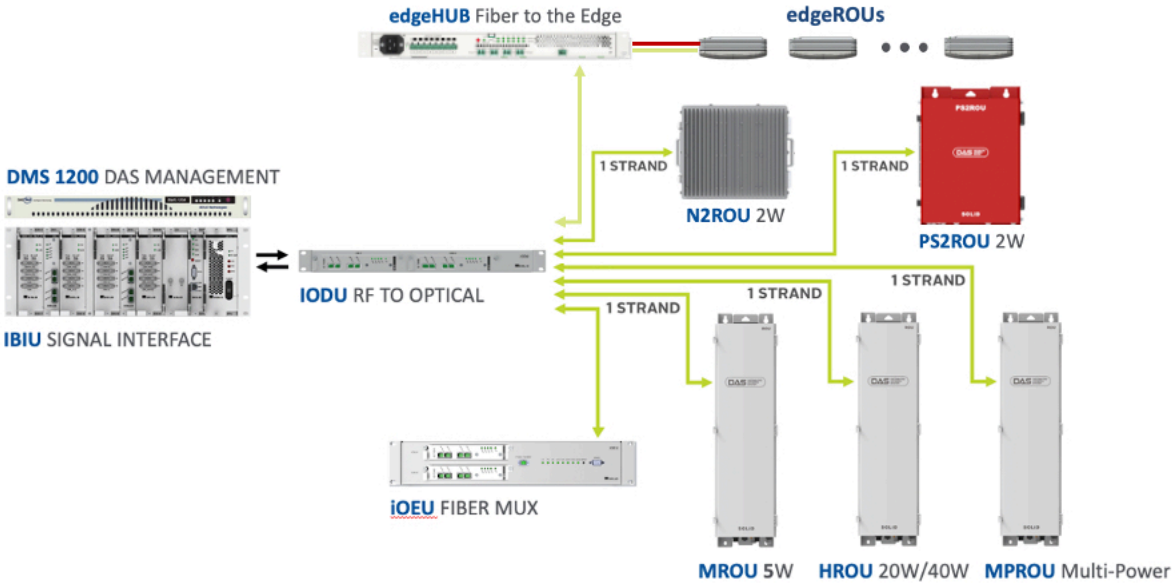

Specification	Description
Fiber connector	SC/APC. Maximum eight ports (with two 4-port optic modules)
Dimensions WxHxD	19"W x 3.5"H (2U) x 17.7"D (482.6 x 88.1 (2U) x 450mm). Fits 19" rack
Operating Temp	14 to 122°F (-10 to +50°C)
Weight	20.5 lbs (8.14 Kg) fully loaded with two optic modules
Input Power (AC or DC)	Input range: AC: 100 to 240V; DC: -42 to -56V
Power consumption	50W fully loaded with two optic modules
Optical Wavelength	TX: 1310nm, 1330nm* (*Applies to iOM_4000 modules which use both 1310 and 1330.) RX: 1550nm
Optical Module Transmit Power	4-Port optic unit: 3 dBm ± 1 dB to ROU 1-Port optic unit: 10 dBm ± 1 dB to ROU
Optical Link Budget	iODU to iOEU or iOEU to ROU or iODU to ROU or iOEU to ROU: 10 dBo for 1-port Optic Unit / 5 dBo for 4-port Optic Unit
Compliance	Emissions (N. America) FCC Part15 Subpart B, Class A, FDA/CDRH Rules for Class 1 LASER

Part Numbers	Integrated Optical Expansion Unit
iOEU_AC	Optical Expansion Unit Chassis for iOM_2700, AC
iOEU_DC	Optical Expansion Unit Chassis for iOM_2700, DC
iOEU_4000_AC*	Optical Expansion Unit Chassis for iOM_4000, AC
iOEU_4000_DC*	Optical Expansion Unit Chassis for iOM_4000, DC
iOM_1_2700	1 Port optical module, use with iBIU, iODU, iOEU, supports 136~2700MHz
iOM_4_2700	4 Port optical module, use with iBIU, iODU, iOEU, supports 136~2700MHz
iOM_1_4000	1 Port optical module, use with iBIU, iODU, iOEU, supports 136~4000MHz
iOM_4_4000	4 Port optical module, use with iBIU, iODU, iOEU, supports 136~4000MHz
iOM_B	Blank optical module, use with iBIU, iODU, iOEU
*For deployments that support bands above 3GHz (C-Band and/or Auction 110)	

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