# ALLIANCE Multi-Operator DAS Integrated Optical Expansion Unit (iOEU)

### **SOLID** 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.

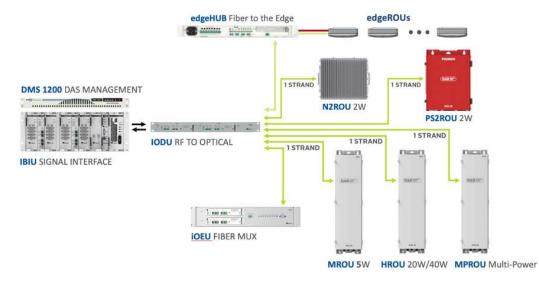
The iOEU connects to the headend optic modules via fiber optic cabling. The unit amplifies the signalling from the headend, compensating for any loss and effectively doubling the optical link budget, before transmitting the signal to the remote units. The uplink path reverses this process.

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

### **ALLIANCE DAS**



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	iOEU	50W fully loaded with two optic modules	
	iOEU_4000	55W 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	4-Port optic unit: 3 dBm ± 1 dB to ROU		
Power	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	USA: UL Listed & FCC. Canada: CUL Listed, Emissions (N. America) FCC Part15 Subpart B, Class A, FDA/CDRH Rules for Class 1 LASER (Canada) ICES-003		

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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