

# Optical Master Unit (OMU)

130-180MHz, 300-400, 400-540 and 694-960MHz

OM Series



RFI's Optical Master Unit (OMU) is housed in a compact 19-inch rack mountable enclosure. The OMU utilises one or several RF over Fibre (RfF) modules to convert the RF signals from a donor radio site into optical carriers and vice versa so that the donor signals can be transported via optical fibre cables over relatively long distances with minimal loss.

The OMU is usually located close to the donor radio site and it feeds one or several remote fibre-fed Bi-Directional Amplifiers (BDAs) to rebroadcast RF coverage in confined areas such as inside the buildings, tunnels and mining sites as well as remote locations.

OMU is RF-transparent. It passes signals without demodulation. Network protocol features such as encryption and over-the-air-rekeying are also passed securely.



## Features:

- Analogue and Digital compatible – supports most network technologies
- Adjustable RF Input Level into the Optical Module(s)
- Compact 19-inch Rackmount Enclosure
- Available in Single Fibre (WDM) and Dual Fibre (Simplex) Models
- 90-264VAC Input Power
- Dry Relay Summary Alarm Output
- Scalable Capacity to Support from 1 to 12 Remote BDAs (higher capacities are available)

## Technical Specifications

Model Number		OMxxxx-0yyy-AC											
Frequency Range MHz		130-180, 300-400, 400-540, 694-960											
Model Number Derivative - OMxxxx-0yyy-AC		0y01	0y02	0y03	0y04	0y05	0y06	0y07	0y08	0y09	0y10	0y11	0y12
Number of Remote BDAs Supported		1	2	3	4	5	6	7	8	9	10	11	12
RFoF Type	OMxxxx-01yy-AC	Single Fibre (WDM - Two Wavelengths)											
	OMxxxx-02yy-AC	Dual Fibre (Simplex)											
	OMxxxx-03yy-AC	Single Fibre (WDM - Three Wavelengths)											
Input RF Power Into Each RFoF Module (damage limit) dBm		0											
Input RF Power Into Each RFoF Module (recommended maximum) dBm		-5											
Input RF Power Into the OMU (maximum) dBm		+30*											
Impedance Ohms		50											
RF Connector Type		N(f)											
Optical Connector Type		FC / APC											
Input Power Range VAC		90-264											
Operational Temperature Range C / F		-30° to +60° / -22° to 140°											
Alarm Interface		"Form C" Dry Relay Contact Summary Alarm per Enclosure											
Cooling		Passive (Convection)											
Required 19" Rack Space	OMxxxx-01yy-AC OMxxxx-03yy-AC	4RU			8RU				12RU				
	OMxxxx-02yy-AC	3RU				6RU				9RU			
	Net Dimensions mm / in	H	OMxxxx-01yy-AC OMxxxx-03yy-AC	177 / 6.96			354 / 13.93				531 / 20.90		
OMxxxx-02yy-AC			133 / 5.23			266 / 10.47				399 / 15.70			
W		All Models	483 / 19										
D	All Models	403.5 / 15.88											
Mounting		Rackmount											
Compliance		RoHS											

\*The internal variable attenuator shall be adjusted so that the input into each RFoF module does not exceed 0dBm

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## Ordering Information

Model Number	OMxxxx-0yyy-AC
<b>Frequency Range</b>	
OM1318-0yyy-AC	130-180MHz
OM3040-0yyy-AC	300-400MHz
OM4054-0yyy-AC	400-540MHz
OM6994-0yyy-AC	694-960MHz
<b>RF over Fibre Type</b>	
OMxxxx-01yy-AC	Single Fibre (WDM – Two Wavelengths)
OMxxxx-02yy-AC	Dual Fibre (Simplex)
OMxxxx-03yy-AC	Single Fibre (WDM – Three Wavelengths)
<b>Number of Supported Remote BDAs</b>	
OMxxxx-0y01-AC	1 X Remote BDA
OMxxxx-0y02-AC	2 x Remote BDAs
OMxxxx-0y03-AC	3 x Remote BDAs
OMxxxx-0y04-AC	4 x Remote BDAs
OMxxxx-0y05-AC	5 x Remote BDAs
OMxxxx-0y06-AC	6 x Remote BDAs
OMxxxx-0y07-AC	7 x Remote BDAs
OMxxxx-0y08-AC	8 x Remote BDAs
OMxxxx-0y09-AC	9 x Remote BDAs
OMxxxx-0y10-AC	10 x Remote BDAs
OMxxxx-0y11-AC	11 x Remote BDAs
OMxxxx-0y12-AC	12 x Remote BDAs