

- LAN extension over Fractional E3/DS3 services
- Dual copper 10/100/1000 Ethernet ports plus SFP for choice of fibre module
- Link state forwarding
- Jumbo Frame Support (10kbyte)
- 802.3ah OAM Support
- 802.1q VLAN support (pass-through and tag switching)
- 802.1q priority queuing (4 queues)
- TACACS+ for secure authentication
- SNMP Management (Local & Remote)
- Extensive Statistics & Performance monitoring
- Alarm Extension relay
- Integral auto-sensing PSU, optional integral -48VDC supply
- Simple to install & maintain



**WCM3100 Managed LAN Extender over Fractional E3/DS3 circuit**

The WCM3100 is a manageable member of the WAN-in-a-Can product family, offering LAN extension over a fractional E3/DS3 wide area link. The WCM3100 is a switching media converter operating in store and forward mode. The WCM3100 supports auto-negotiation, and auto MDI/MDIX cross-over switching on the copper LAN interfaces. The WCM3100 has an SFP module which could support for example 1000Base-SX for 550 metres operation over multi-mode fibre, or 1000Base-LX for up to 10km over a single-mode fibre using LC connectors.

To ensure reliable operation, the WCM3100 supports Link State Forwarding, whereby a fault on the serial port will automatically force a link down on the user ports to indicate to the attached device that there is a link problem. The WCM3100 supports the transmission of Jumbo frames. Internal packet buffering enables the WCM3100 to smooth out bursty traffic without packet loss.

The WCM3100 supports 802.3ah OAM which means that the Ethernet service can be managed and monitored right up to the customer delivery point. The future WCM3100 development roadmap includes support for RSTP, IEEE802.3ad with LACP support, IEEE802.1ag and Y.1731 OAM standards.

Management is offered using OAM, SNMP or Telnet, either locally via any of the available subscriber ports or remotely over a WAN connection. With VLAN support enabled, management access is enabled individually on a per port basis to provide secure access to the unit. Using SNMP, a network manager will have full GET/SET access to all configurable MIB items, and will have access to all statistics and other performance monitoring items including alarms. Separate communities will be supported for GET/SET and TRAP access. The LAN ports will be supported per RFC-1213 MIB-2, whilst the E3 port will

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operate according to RFC-1407. Unsolicited trap generation will be according to MIB RFC-1215. Additional parameters and traps will be supported via the Metrodata Enterprise MIB.

The WCM3100 supports VLAN in two ways. In normal mode, VLAN tagged frames are passed unmodified; however when VLAN support is enabled, the WCM3100 supports VLAN tag-based switching whereby access may be controlled using VLAN IDs. The unit is password protected for Telnet access for security, and for SNMP is configured with a primary and multiple back-up NMS stations. SNMP access will only be accepted from an authorised NMS.

### Compatibility:

- Unframed HDLC mode for use with the WC3445 product.
- Single-ended Cisco HDLC mode for use with Cisco routers.
- GFP mode for use with LAN Extension Aggregation equipment

## Specifications

WCM3100 Subscriber Port Specs		WCM3100 WAN Port Specs	
Port	2x 10/100/1000baseT port with auto-negotiation and Jumbo frame support	Mode	Fractional E3 or DS3
Interface	RJ45 (Auto Crossover MDI/MDIX)	Presentation	E3 75ohm dual BNC, DS3 75ohm dual BNC
Operating modes	Auto Negotiate, 10M, 100M, 1000M	Line Rate	E3 34.368Mbps DS3 44.736Mbps
LEDs	Link Activity, Speed	Timing	Internal or loop
1000Base-X Fibre Interface		Encapsulation	HDLC, GFP G.8040
SFP Port	IEEE802.3z 1000Base-X	Compliance & Approvals	
Interface	Dual LC	Safety	EN60950, IEC-60825-1 (Class I Laser Eye Safety)
SFP 1000Base SX		EMC	EN55022, EN50082
Wavelength	850nm Multimode	Environment	
Max Rx input power	0 dBm	Temp	0 to 50 deg C
Rx sensitivity	-17 to 0 dBm	Humidity	0 - 95% RH, non condensing
Optical loss budget	7.5dB (550m)	Pressure	86 - 100 KPa
Tx power	-9.5 to -3 dBm	Storage Temp	-40 to 100 deg C
SFP 1000Base LX		Power supply	
Wavelength	1300nm Singlemode	-48VDC	-36 to -72VDC, 125 - 65mA
Max Rx input power	0 dBm	AC Mains	100 - 250 VAC 50 - 60 Hz, 60 - 25mA
Rx sensitivity	-17 to 0 dBm	Power consumption	6 watts approx when operating
Optical Loss budget	9.5dB (10km)	Packaging	
Tx power	-9.5 to -3 dBm	Type	Modem, 1U high without feet
		Dimensions (W x D x H mm)	
		Rackmount	202 x 132 x 44 (without feet)
		Tabletop	202 x 132 x 48 (with feet)

## Order codes

Product	100 - 250 VAC	-48 VDC
WCM3100	80-70-543	80-71-543
SFP 1000baseSX	80-31-011	80-31-011
SFP 1000baseLX	80-31-031	80-31-031
1U 2 Unit Rackmount Kit	80-05-256	80-05-256
6U 18 unit Rackmount Kit	80-05-250	80-05-255

datasheet WCM3100