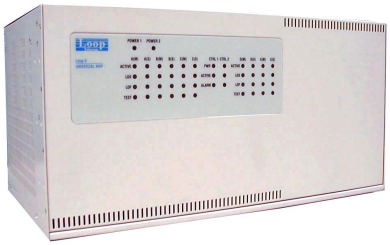
DATA COMM FOR BUSINESS

Loop-V4100
OC-3/DS-3/T-1/DS-0 Cross Connect

ANSI Shelf (Front View)



ETSI Shelf (Front View)/ANSI Shelf (Rear View)

Features:

- Used with STM1 and DS3 network
- Different plug-in types
  a. DS3 (28T1/21E1)
  b. E3 (16E1)
  c. Circuit protection board for DS3
  d. High density 28T1
  e. High density 21E1
- DS0 Digital cross-connect between plug-in ports
- A - μ coding and signaling conversion
- Alarm relay
- Console port, Ethernet, SNMP
- AC or DC redundant power module
- In-band management, out-band management
- Redundant TSI, power and control board
- Up to 17 slots for different plug-ins
- Supports for OC3/STM-1 1+1 line
- Supports for DS3 1+1 line & circuit protection
- Power consumption: to 90W nominal
- YBOX available for 21 E1 interface card hardware protection

Description

Used with STM1 and DS3 networks, Loop-V4100 could provide full STM1 access, OC-3 access, and OC-3 Add-drop. Loop-V4100 has full DS0 cross-connect built inside. The A-μ conversion is also supported. The OC3/STM-1 port could be connected to OC3/STM-1 networks or to Loop-V4200-28 with OC3/STM-1 port. Three DS3 ports could be connected to DS3 networks or Loop-V4200-28 with DS3 port. Local control and diagnostics could be supported by using a VT100 terminal connected to the console port. Loop-V4100 also supports Ethernet, Telnet, and SNMP, so that it can be controlled and diagnosed from remote locations.

Data from any port or any time slot of that port can be channeled to any port or any time slot of any other port. Digitized voice will be appropriately converted between A-law and μ-law. Channel associated signaling (CAS) will be appropriately converted between E1 and T1 formats.

The main chassis, which is 5U high rack mountable box, has 2 slots reserved for the main controller board, 4 slots reserved for OC3/STM-1, 6 slots reserved for DS3 ports, and 4 slots used for the circuit board protection.

ANSI (front and real access) and ETSI (full front access) shelves are available. The LEDs indicators for each port are only available on the front side of ETSI shelf; where the LEDs indicators for each port are available on the front and back sides of ANSI shelf.

Ordering Information for Loop-V4100

To specify options, choose from the list below.

Note: RoHS compliant units are identified by the letter **G** appearing immediately at the end of the ordering code.

Model (non RoHS compliant)	Model (RoHS compliant)	Description	Note
Main Unit			
Loop-V4100-CH	Loop-V4100-CH-**G**	ANSI Shelf Main unit w/o CPU and power	Basic Chassis
Loop-V4100-CHET	Loop-V4100-CHET-**G**	ETSI Shelf Main unit w/o CPU and power	
Loop-V4100-CC-T	Loop-V4100-CC-T-**G**	CPU/DCS card w/ T1 External Clock	Order two for redundancy
Loop-V4100-CC-E	Loop-V4100-CC-E-**G**	CPU/DCS card w/ E1 External Clock	
High-Speed Optical Module (OC-3/STM-1)			
Loop-V4100-STM1-T-opt	Loop-V4100-STM1-T-opt-**G**	STM1 interface w/ T1 mapping	Order two for redundancy
Loop-V4100-STM1-E-opt	Loop-V4100-STM1-E-opt-**G**	STM1 interface w/ E1 mapping	
Loop-V4100-OC3-T-opt	Loop-V4100-OC3-T-opt-**G**	OC3 interface w/ T1 mapping	
Loop-V4100-OC3-E-opt	Loop-V4100-OC3-E-opt-**G**	OC3 interface w/ E1 mapping	
High-Speed Electrical Module (STM1-BNC)			
Loop-V4100-STM1-T-EL	Loop-V4100-STM1-T-EL-**G**	STM1 electric interface (75 ohm) w/ T1 mapping	Order two for redundancy
Loop-V4100-STM1-E-EL	Loop-V4100-STM1-E-EL-**G**	STM1 electric interface (75 ohm) w/ E1 mapping	
Loop-V4100-OC3-T-EL	Loop-V4100-OC3-T-EL-**G**	OC3 electric interface (75 ohm) w/ T1 mapping	
Loop-V4100-OC3-E-EL	Loop-V4100-OC3-E-EL-**G**	OC3 electric interface (75 ohm) w/ E1 mapping	
Low-Speed Module			
Loop-V4100-DS3-T	Loop-V4100-DS3-T-**G**	DS3 interface w/ T1 mapping	Order two for redundancy
Loop-V4100-DS3-E	Loop-V4100-DS3-E-**G**	DS3 interface w/ E1 mapping	
Loop-V4100-E3	Loop-V4100-E3-**G**	E3 interface	
Loop-V4100-HPCel	Loop-V4100-HPCel-**G**	Hardware Protection Card for DS3/E3	
Loop-V4100-28T1	Loop-V4100-28T1-**G**	High Density 28T1 interface card	Order two for redundancy
Loop-V4100-21E1-75	Loop-V4100-21E1-75-**G**	High Density 21E1 interface card (75 ohm)	
Loop-V4100-21E1-120	Loop-V4100-21E1-120-**G**	High Density 21E1 interface card (120 ohm)	
Power Module			
Loop-V4100-DC48	Loop-V4100-DC48-**G**	Single DC supply (48Vdc)	Order two for redundancy
Loop-V4100-AC	Loop-V4100-AC-**G**	Single AC supply (90 to 240 Vac, 50/60Hz) (Please specify which type of power cords you need.)	
Accessories			
Power Cord (All power cords are RoHS compliant.)			
Loop-ACC-PC-USA	AC power cord for Taiwan/USA		
Loop-ACC-PC-EU	AC power cord for Europe		
Loop-ACC-PC-UK	AC power cord for the UK		
Loop-ACC-PC-AUS	AC power cord for Australia		
Loop-ACC-PC-CH	AC power cord for China		
Connector Cage and Panels			
Loop-V4100-CG	Loop-V4100-CG-**G**	Connector Cage	
Loop-V4100-28T1-RJ	Loop-V4100-28T1-RJ-**G**	28T1 RJ48 connector panel for CG cage, 2U height	Connector panel includes two 60cm cables (SCSI 68 pin Male to SCSI 68 pin Male)
Loop-V4100-21E1-BNC	Loop-V4100-21E1-BNC-**G**	21E1 BNC connector panel (for 75 ohm E1 only) for CG cage, 2U height	

Loop-V4100-21E1-RJ	Loop-V4100-21E1-RJ-**G**	21E1 RJ48 connector panel for CG cage, 2U height	
Loop-V4100-RJ21	Loop-V4100-RJ21-**G**	21-port RJ48 connector panel for 19" or 21" Rack, 2U height	Connector panel includes two 100cm cables (SCSI 68 pin Male to SCSI 68 pin Male)
Loop-V4100-RJ28	Loop-V4100-RJ28-**G**	28-port RJ48 connector panel for 19" or 21" Rack, 2U height	
Loop-V4100-BNC	Loop-V4100-BNC-**G**	21-port BNC connector panel for 19" or 21" Rack, 2U height	
Loop-V4100-WW	Loop-V4100-WW-**G**	28-port Wire-Wrap pins connector panel for 19" or 21" Rack, 2U height	
Conversion Cable(All conversion cable are RoHS compliant.)			
Loop-ACC-CAB-SCSI68M-30-1SCSI68M	SCSI68/Male to one SCSI68/Male; Length: 30 cm		
Y-Box			
V4100-21E1- YBOX	V4100-21E1- YBOX-**G**	Y-box with Telco 50 connectors (for hardware protection when using two 21 E1 interface cards)	
Blank Panels			
30.000399.A00	30.000399.A00-**G**	Blank panel for CPU/STM1 slots	
30.000304.A00	30.000304.A00-**G**	Blank panel for Power slot	
30.000268.A00	30.000268.A00-**G**	Blank panel for high density T1/E1 slots	
30.000845.A00	30.000845.A00-**G**	Blank panel for Power slot (u-shape)	
30.000848.A00	30.000848.A00-**G**	Blank panel for CPU/STM1 slots (u-shape)	
30.000849.A00	30.000849.A00-**G**	Blank panel for high density T1/E1 slots (u- shape)	
Tapping Bridge Box			
Loop-ACC-TB	Not available	T1/E1 Tapping Bridge	
User's Manual			
Loop-V4100-UM	User's Manual (paper, hard copy-optional). A CD version of the manual is already included as standard equipment.		

Where **opt=**
Note: All optical modules are RoHS compliant.

opt =	Description	Note
SAA	single optical module with dual uni-directional fiber, 1310 nm, SC optical connector, 30 km reach (20dB) ***- S1.1 physical layer****	• Use 2 fibers • * ITU-T Rec G.957 application code
SDD	single optical module with dual uni-directional fiber, 1550 nm, SC optical connector, 20 km reach (12dB) ***- S1.2 physical layer****	• Use 2 fibers • * ITU-T Rec G.957 application code

Loop-V4100 Product Specification

Time Slot Interchange

Less than 700μs delay
One active map, 3 user stored maps

Voice Channel Conversion

A-law to μ-law G.711
CAS signaling transparent (A=0 from E1 becomes A=0 to T1, etc.)

Electrical Power

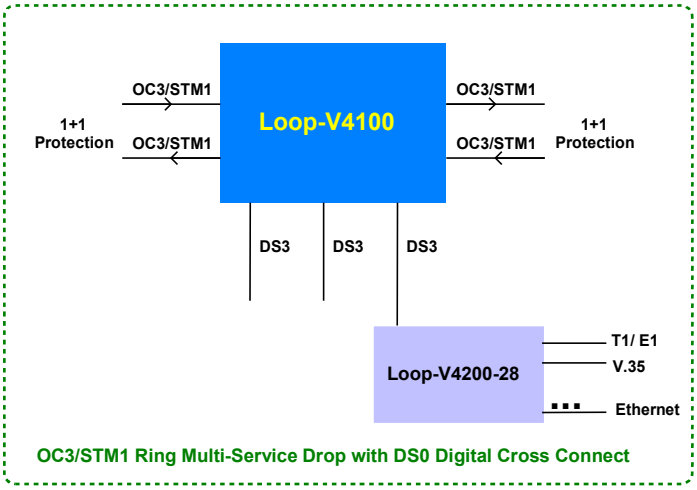
Field changeable AC or DC, single or dual module, including AC and DC mixed
DC: -48 Vdc
AC: 90 to 240 VAC, 50/60Hz

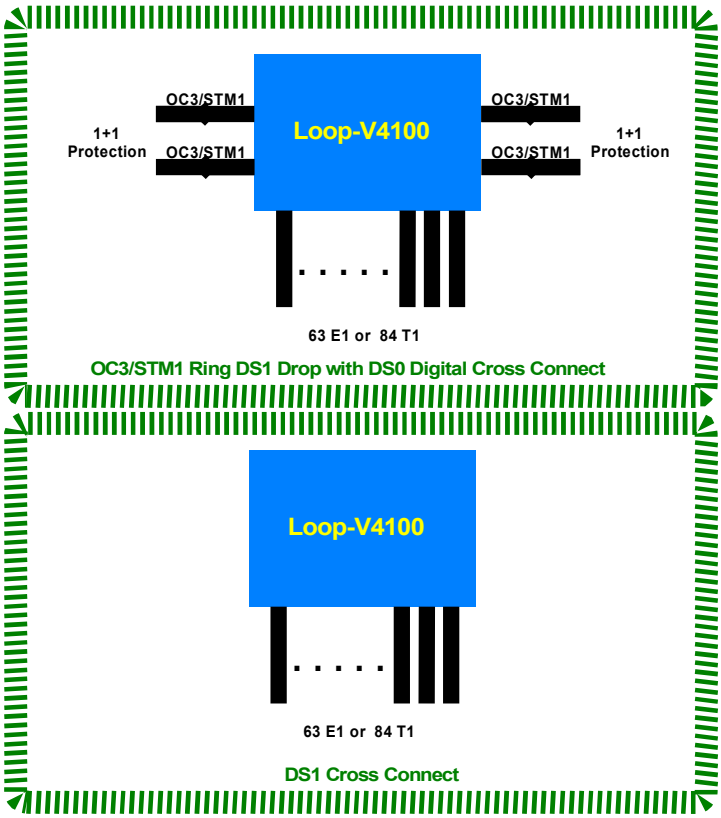
Performance monitor

Performance Store	The last 24 hours performance in 15-minute intervals
Monitor Registers	Line and user
Performance Reports	Date & time, error second, degraded minutes, unavailable second, bursty error second, severe error second, controlled slip second, and loss of frame count

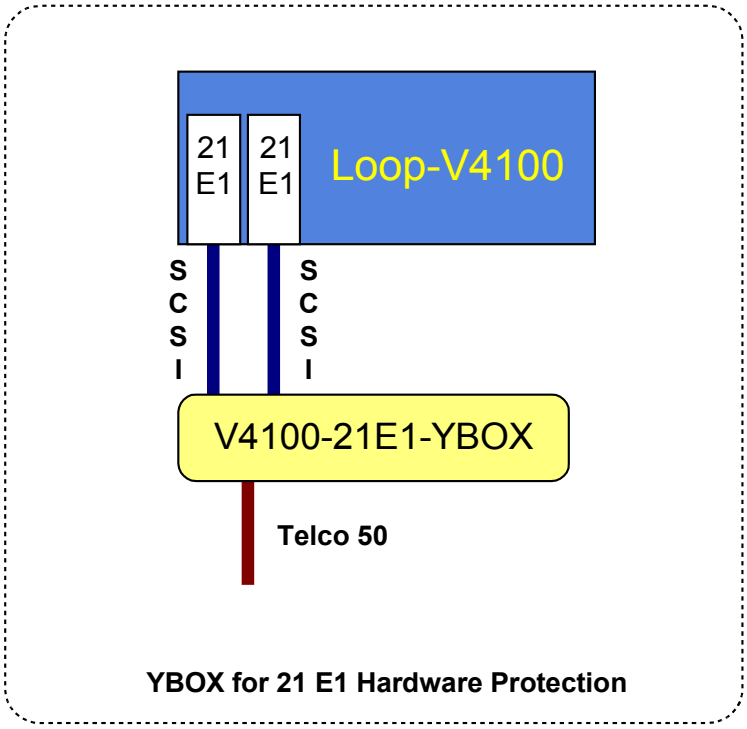
Alarm History	Date & time, alarm type (master clock loss, RAI, AIS, LOS, BPV, ES, CSS) Bursty seconds, severely errored second, degrade minutes
Threshold	BPV (Bipolar Violation), Error Second, Unavailable Second, Controlled Slip Second
Ethernet	
Connector	RJ45
Protocol	Telnet and embedded SNMP
Diagnostics test	
Loopback	Line loopback, payload loopback, and local loopback
Physical	
Dimensions	ANSI shelf: 438 x 220 x 250 mm (WxHxD) ETSI shelf: 438 x 220 x 224 mm (WxHxD)

Application Illustrations





YBOX Application – E1 Only



YBOX for 21 E1 Hardware Protection

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