

Loop-V4200-9

MuxMaster/ Wideband IAD

CSU/DSU, E1/T1 Converter, & DACS

The truly Integrated Access Device can support, control, and multiplex a wide variety of devices.



Features

- 9 hot plug-in capable slots
- Available plug-in types:
 - T1, E1 interface cards
 - V.35, EIA530, RS232, X.21 interface cards
 - QFXS, QFXO, PLAR, E&M interface cards
 - MDSL, G.shdsl interface cards
 - T1/ E1 ATM Frame Relay interface cards
 - Router interface card with Subnet management (SNMC)
 - G.703 (co-directional) interface card
 - OCU DP interface card
 - Terminal Server interface card
 - Fiber Optical Interface Card
- Usable as a CSU/DSU, E1 to T1 converter, multiple CSUs, or a DACS.
- Full TSI capability among all slots in main unit.
- Remote diagnostic capabilities.
- 2-line by 40-character LCD display for maintenance, performance monitoring, and administration.
- Management through Console port, Ethernet port, and SNMP agents.
- Inband Subnet Management facility for remote management through national networks.
- LED indicators for power, test, alarm, and each of 9 ports.
- Field changeable AC power supply, or dual feed dual DC power supply.
- Software field upgradeable through download.
- Optional GUI NMS with LoopView.

Description

The Loop-V4200-9 is a versatile 9-port device. Depending on the plug-in cards selected, this unit can be configured (a) as a CSU/DSU with drop and insert and voice capabilities, (b) as a 4 E1 to 5 T1 converter or fractions of them, (c) as a digital cross-connect system (DACS), (d) as sets of ICSU combined in one box, and (e) as a channel bank. As a CSU/DSU, data from the V.35 or X.21 port can occupy any fraction of an E1 or T1 port. As an E1 to T1 converter, A to μ law and coding and signaling conversions are correctly handled. For both E1 and T1 ports, continuous error checking, performance polling, and in-service diagnostics are provided. In any of the above combinations, full time slot interchange (TSI) among the ports are possible, making the Loop-V4200-9 a small DACS (digital access cross-connect system). The ports can further be used in pairs as ICSUs (intelligent CSU) at lower cost and smaller space than individual ICSUs. Lastly, the Loop-V4200 can be configured as a channel bank.

The Loop-V4200-9 supports local control and diagnostics by using a 2-line by 40-character LCD display and keypads on the front panel, or by using a VT-100 terminal connected to the console port. The Loop-V4200-9 also supports Ethernet, Telnet, and SNMP, so it can be controlled and diagnosed from remote locations. The Loop-V4200-9 also supports inband Management, where management data is carried the same way as user data, traversing national networks.

In addition to the LCD display, 12 multicolor LEDs provide status indication for power, test condition, alarm, and each of the 9 ports. Internal firmware is stored in flash memory so that future software upgrades can be downloaded.

CERTIFIED
ISO-9001

Ordering Information

To specify options, choose from list below:

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

Model (non RoHS compliant)	Model (RoHS compliant)	Description	Note
Main Unit			
Loop-V4200-9	Loop-V4200-9-G	Main unit w/ CPU and DCS, w/o power	Basic Chassis
Low Speed Module (Select 1 to 9 cards.)			
Loop-V4200-T1	Loop-V4200-T1-G	T1 interface card	
Loop-V4200-E75	Loop-V4200-E75-G	E1 interface card with 75 ohm	
Loop-V4200-E120	Loop-V4200-E120-G	E1 interface card with 120 ohm	
Loop-V4200-E1-MON	Loop-V4200-E1-MON-G	E1 interface card (MON.)	
Loop-V4200-V35	Loop-V4200-V35-G	V.35/DB25 interface card	
Loop-V4200-E530	Loop-V4200-E530-G	EIA530 interface card	
Loop-V4200-RS232	Loop-V4200-RS232-G	RS232 interface card	
Loop-V4200-X21	Loop-V4200-X21-G	X.21 interface card	
Loop-V4200-QFXS-x	Loop-V4200-QFXS-x-G	Quad FXS voice card	<ul style="list-style-type: none"> ■ GS = Ground Start ■ MP = Metering Pulse TX 12K/ 16KHz ■ For AC, -48Vdc power supply only.
Loop-V4200-QFXS-M-x	Loop-V4200-QFXS-M-x-G	Quad FXS with MP 16KHz voice card	
Loop-V4200-QFXS-M12-x	Loop-V4200-QFXS-M12-x-G	Quad FXS with MP 12KHz voice card	
Loop-V4200-QFXS-GS-x	Loop-V4200-QFXS-GS-x-G	Quad FXS with GS	
Loop-V4200-QFXS-GM-x	Loop-V4200-QFXS-GM-x-G	Quad FXS with GS and MP voice card	
Loop-V4200-QFXO-x	Loop-V4200-QFXO-x-G	Quad FXO voice card	<ul style="list-style-type: none"> ■ GS = Ground Start ■ MP = Metering Pulse RX 12K/ 16KHz
Loop-V4200-QFXO-M-x	Loop-V4200-QFXO-M-x-G	Quad FXO with MP 16KHz voice card	
Loop-V4200-QFXO- M12-x	Loop-V4200-QFXO- M12-x-G	Quad FXO with MP 12KHz voice card	
Loop-V4200-QFXO-GS-x	Loop-V4200-QFXO-GS-x-G	Quad FXO with GS	
Loop-V4200-QFXO-GM-x	Loop-V4200-QFXO-GM-x-G	Quad FXO with GS and MP voice card	<ul style="list-style-type: none"> ■ For AC, -24Vdc, -48Vdc power supply only.
Loop-V4200-Q2EM-m-Tn-x	Loop-V4200-Q2EM-m-Tn-x-G	Quad 2 Wire E&M voice card	<ul style="list-style-type: none"> ■ For AC, -24Vdc, -48Vdc power supply only. ■ Where <ul style="list-style-type: none"> m = B for normal E&M, or TO = A for tandem operation n = 1 to 5 of E&M Signaling Type = O for TO (transmission only)
Loop-V4200-Q4EM-m-Tn-x	Loop-V4200-Q4EM-m-Tn-x-G	Quad 4 Wire E&M voice card	
Loop-V4200-PLAR	Not available	PLAR voice card	
Loop-V4200-PLM(A)	Not available	Phone Line Monitor card (A)	<ul style="list-style-type: none"> ■ For AC, -24Vdc, -48Vdc power supply only.
Loop-V4200-PLM(B)	Not available	Phone Line Monitor card (B)	
Loop-V4200-MDSL	Not available	Multi-rate SDSL interface card	
Loop-V4200-GH	Loop-V4200-GH-G	G.SHDSL interface card	
Loop-V4200-AFRT	Loop-V4200-AFRT-G	T1 Frame Relay to ATM interworking or Frame Relay to Frame Relay concentration	
Loop-V4200-AFRE	Loop-V4200-AFRE-G	E1 Frame Relay to ATM interworking or Frame Relay to Frame Relay concentration	
Loop-V4200-RT	Loop-V4200-RT-G	Dual LAN port (10 & 10/100 BaseT) Router card, w/ Subnet management (SNMC)	
Loop-V4200-TS	Loop-V4200-TS-G	Terminal Server interface card	

Loop-V4200-CD	Loop-V4200-CD-G	Co-directional interface card	
Loop-V4200-ODP	Not Available	OCU DP interface card	
Loop-V4200-SNMP	Loop-V4200-SNMP-G	SNMP module	Optional
Loop-V4200-FOM-opt	Loop-V4200-FOM-opt-G	Fiber Optical Interface	
Power Module (Select one.)			
Loop-V4200-SA	Loop-V4200-SA-G	Single AC power supply (90 to 240Vac, 50/60 Hz, 2A Max.). Please choose an appropriate power cord.	
Loop-V4200-SD24 Loop-V4200-SD48 Loop-V4200-DD24 Loop-V4200-DD48	Not Available Loop-V4200-SD48-G Not Available Loop-V4200-DD48-G	Single DC supply (24 Vdc) Single DC supply (48 Vdc) Dual feed dual DC supply (24 Vdc) Dual feed dual DC supply (48 Vdc)	Select one.

Accessories

User's Manual (All User's Manuals are RoHS compliant)

Loop-V4200-9-UM	Loop-V4200-9-UM	User's Manual (paper hard copy--optional). A CD version of the manual is already included as standard equipment.	
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Tapping Bridge Box

Loop-ACC-TB	Not available	T1/E1 Tapping Bridge	
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Cables

Loop-ACC-CAB-EXT-003	Loop-ACC-CAB-EXT-003-G	100cm conversion cable. One DSUB-44 pin Male splits off to two DSUB-25 pin Females and one DSUB-9 pin Female.	For Terminal Server Card only
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Power Cord (All power cords are RoHS compliant)

		90 to 240 Vac, 50/60 Hz, 2A Max.	
Loop-ACC-PC-USA	Loop-ACC-PC-USA	AC power cord for Taiwan/USA	
Loop-ACC-PC-EU	Loop-ACC-PC-EU	AC power cord for Europe	
Loop-ACC-PC-UK	Loop-ACC-PC-UK	AC power cord for the UK	
Loop-ACC-PC-AUS	Loop-ACC-PC-AUS	AC power cord for Australia	
Loop-ACC-PC-CH	Loop-ACC-PC-CH	AC power cord for China	

Blank Panels

30.000112.A00	30.000112.A00-G	Dummy Panel for V4200-9	
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For example:

Loop-V4200-9 1 each

Loop-V4200-T1 4 each

Loop-V4200-E75 5 each

Loop-V4200-SA 1 each

Loop-ACC-PC-UK 1 each

For model 4200 with 4 T1 cards, 5 E75 cards and single AC power with AC power cord for the UK.

■ where **opt** is used to select optical module type:

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*	<ul style="list-style-type: none"> • Use 2 fibers • Units delivered * ITU-T Rec G.957 application code
SBB	single optical module with dual uni-directional fiber, 1310 nm, SC optical connector, 50 km reach (30dB) - L1.1 physical layer*	
SCC	single optical module with dual uni-directional fiber, 1310 nm, FC optical connector, 30 km reach (20dB) - S1.1 physical layer*	
SDD	single optical module with dual uni-directional fiber, 1550 nm, SC optical connector, 20 km reach (12dB) - S1.2 physical layer*	
SEE	single optical module with dual uni-directional fiber, 1550 nm, SC optical connector, 100 km reach (40dB) - L1.2 physical layer*	
SSM	single optical module with single bi-directional fiber (master), 1310 nm transmit and 1550 receive, SC optical connector, 30 km reach (20dB) - S1.1/ S1.2 physical layer*	<ul style="list-style-type: none"> • 1310 nm from master to slave • Order SSM to use with SSS • Use 1 fiber * ITU-T Rec G.957 application code
SSS	single optical module with single bi-directional fiber (slave), 1310 nm receive and 1550 transmit, SC optical connector, 30 km reach (20dB) - S1.1/ S1.2 physical layer*	<ul style="list-style-type: none"> • 1550 nm from slave to master • Order SSS to use with SSM • Use 1 fiber * ITU-T Rec G.957 application code

NOTE: For other special optical modules, please contact your nearest Loop sales representative.

■ where **x** is used to select version type:

x =	Description	Note
E	follows ETSI signaling bits	■ for QFXS, QFXO, Q2EM, Q4EM
A	follows ANSI signaling bits	
S	follows customer's special bits assignment	
T	trunk condition OFF-HOOK	■ T, AT, ST are only for QFXO
AT	follows ANSI signaling bits w/ trunk condition OFF-HOOK	
ST	follows customer's special bits assignment w/ trunk condition OFF-HOOK	

[Loop-V4200-9 MuxMaster/ Wideband IAD Product Specifications](#)

[Time Slot Interchange](#)

Less than 400 μ s delay

One active map, one user stored map

[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 30W 24Vdc or 30W 48Vdc power supply module

DC : 24Vdc, 3A Max. (12-36Vdc)

48Vdc, 1.6A Max. (36-72Vdc)

AC : 90 to 240 Vac, 50/60 Hz, 2A Max.

[Physical](#)

Dimensions 428.8 x 43.5 x 331.3 mm. (WxHxD)

Temperature Range 0 – 50 °C

Humidity 0 – 95% RH (non-condensing)

Mounting Desk-top stackable, 19/23 inch rack mountable

Weight 7.7 lb., (3.5Kg) without plug-in cards

[Clock Source](#)

Internal, E1/T1 Line, External

[Performance Monitor](#)

Performance Store The last 24 hours performance in 15-minute intervals

Monitor Registers Line, user

Performance Reports Date & Time, Errored Second, Degraded Minutes, Unavailable Second, Bursty Errored Second, Severe Errored Second, Controlled Slip Second, and Loss of Frame Count

Alarm History Date & Time, Alarm Type (i.e. Master Clock Loss, RAI, AIS, LOS, BPV, ES, CS)

Threshold Bipolar Violation, Error Second, Unavailable Second, Controlled Slip Second

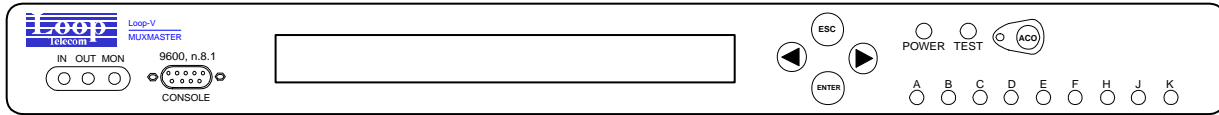
Network Management

Connector DB9 at front panel
Electrical RS232 interface
Protocol Menu driven VT-100 terminal

Ethernet Port (optional)

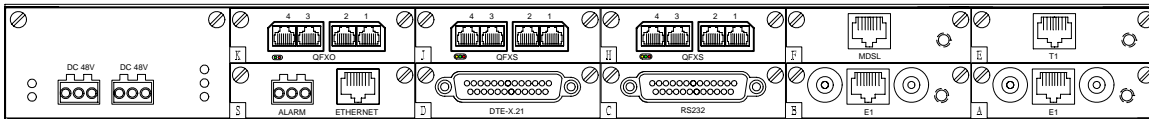
Connector RJ45 in rear
Protocol Telnet and Embedded SNMP

Front Panel



Keypads 5 keys, ACO (alarm cut-off), left and right arrows, ESC, and ENTER
LCD 2 lines by 40 characters LCD display
LED 12 - one for each of 9 plug-in slots, power, test, and alarm
Bantam Jacks Network IN, OUT, and Monitor

Rear Panel

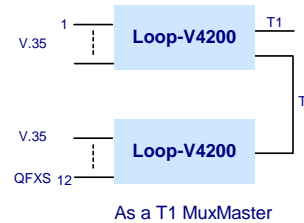
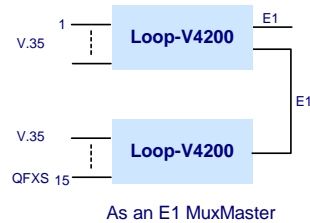
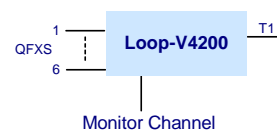
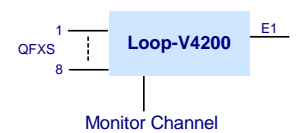
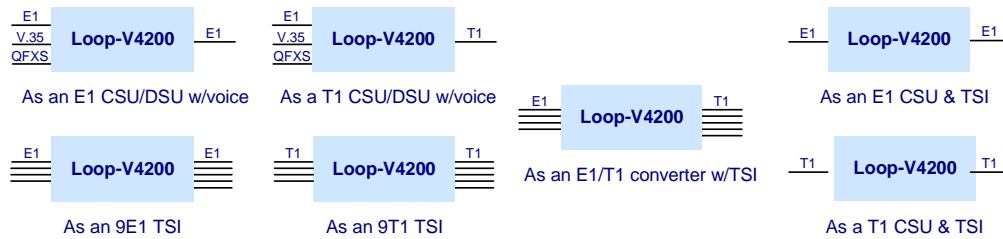


Power module slot, Ethernet slot, and 9 signal slots.

Compliance

CISPR 22 Class A, EN55022 Class A, EN50081, EN50082, FCC Part 15, FCC Part 68, CS-03 Issue 8, CE168X, NTR4, UL1950, CSA22.2 No.950, EN60950, NEBS Level 3: GR-1089-CORE, GR-63-CORE

Applications Illustrations



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ISO 9001/ISO 14001

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