UDS-140

LIF901

Unit Data Sheet

PART NUMBER/ MNEMONIC	NAME	STATUS
3AL 00374 AA/ LIF901	Four 10 MB/s or one 100 MB/s Low Speed Ethernet LAN Interface Plug-in Unit	Active

FEATURES AND APPLICATION NOTES

- Requires 1603 SM ATM12 system software R08.00 and later.
- Requires VSCC501 cross-connect for the ATM routing function.
- Provides four non-redundant 10BaseT Ethernet LAN interfaces or one 100BaseTx Ethernet LAN interfaces.
- Maps Ethernet packets into ATM cells and vice-versa.
- Provides one STS1 or one STS3c to the VT/STS1 cross-connect (VSCC) plug-in unit.
- Four front panel mounted Light Emitting Diodes (LEDs) indicate port status (fail or active) for each Ethernet port. A fifth LED indicates the alarm status of the plug-in unit.
- Works in conjunction with the VT/STS cross-connect plug-in unit VSCC101, VSCC30x, or VSCC501.

DESCRIPTION

The LIF901 is a double-wide plug-in unit consisting of two boards, the Star and Ethernet boards, that function together to provide the Ethernet interface. The double-wide LIF901 occupies both the A and B location of a drop group. The Star card connects into the A side connector and the Ethernet card connects into the B side connector. The Star card provides the STS1*/** interface to the cross-connect function. The Ethernet card provides the 10BaseT and 100BaseTX Ethernet facility interface.

The LIF901 plugs into the same shelf location as the DMI plug-in unit using both A and B slots. The LIF901 can be used with either OC3, OC12, or OC48 line group configurations. Depending on the provisioning, the LIF901 can provide an STS1 or STS3c to the cross-connect unit. Figure 1 shows the traffic path from the high speed (OC3 or OC12) HIF interface through the VSCC cross-connect unit to the LIF unit.

Figure 1. Traffic Flow to/from LIF901

Table A lists the pinouts for the RJ45 connectors. Figure 2 is a face view and side view of the LIF901 unit. Figure 3 is the block diagram of the LIF901. Tables B through D lists the LIF901 performance specifications.

Table A. RJ45 Connector Pinouts

PIN	SIGNAL
1	TXP
2	TXN
3	RXP
4	RESERVED
5	RESERVED
6	RXN
7	RESERVED
8	RESERVED

Figure 2. LIF901 Plug-in Unit

Figure 3. LIF901 Block Diagram

Table B. 10BaseT Input/Output Ethernet LAN Interface, LIF901

PARAMETER	CHARACTERISTIC
Physical Interface	RJ45 Connector
Line Frequency	10MB/s
Frequency Tolerance	± 50 ppm
Line Code	Manchester
Impedance	100
Cable Length	100 Meters/328 Feet
Transmitter Differential Return Loss	8 dB over the range of 5 MHz to 10 MHz
Receiver Differential Return Loss	8 dB over the range of 5 MHz to 10 MHz

Table C. 100BaseTx Input/Output Ethernet LAN Interface, LIF901

PARAMETER	CHARACTERISTIC
Physical Interface	RJ45 Connector
Line Frequency	100MB/s
Frequency Tolerance	± 50 ppm
Line Code	Manchester
Impedance	100
Cable Length	100 Meters/328 Feet
Transmitter Differential Return Loss	8 dB
Receiver Differential Return Loss	8 dB

Table D. LIF901 Operational Specifications

PARAMETER	CHARACTERISTIC	SPECIFICATION
External Interfaces		4 x 10BaseT Ethernet or 1 x 100BaseTx Ethernet
SONET Payload	SONET Payload Size With SONET Path Termination	STS1 or STS3c (Uses any SONET Cross-connect)
	SONET Payload Size With ATM Stream	STS1 or STS3c (Requires VSCC501 ATM Cross-connect)
VP Values	Number of ATM Connections	4 x 10 MB/s Ethernet or 1 x 100 MB/s Ethernet
	VP Address Range on Ring	0 - 511 NNI or 0 - 255 UNI

	VC Address Range on Ring	32 - 65,535
Traffic Generation	Traffic Descriptors	32 User Provisionable Traffic Descriptors
	Provisionable Policing Paramters	Peak Cell Rate 0 + 1 0-353,207 Cells/Second
		Sustained Cell Rate 0 + 1 0-353,207 Cells/Second
		Maximum Burst Size 0 + 1 32, 50, 100, 150, or 210 Cells
Traffic Types	ATM Forum Traffic Management 4.0	CBR.1 rt VBR.1 nrt VBR.1 rt VBR.2 nrt VBR.2 rt VBR.3 nrtVBR.3*
	ATM Forum UNI 3.1	CBR.A CBR.B nrt VBR.A nrt VBR.B nrt VBR.C nrt VBR.2 nrt VBR.3*
Performance	Bandwidth (4 x 10MB/s Ethernet)	Greater than 70,000 Packets/Second
	Latency (4 x 10MB/s Ethernet)	Less than 1 milliseconds Maximum
	Bandwidth (1 x 100MB/s Ethernet)	Greater than 75,000 Packets/Second
	Latency (1 x 100MB/s Ethernet)	Less than 1 milliseconds
** CBR = Constant Bit Rate, VBR = Variable Bit Rate, rt = realtime, nrt = non-realtime*		