SLC®-2000 MSDT

BYB3 Optical Unit — LFOCGN0

Features/Functions

- Converts electrical DS1 signal to optical
- Converts optical DS1 signal to electrical
- Located at MSDT
- No option switches
- Conforms to appropriate industry standards

Description

This data sheet describes the BYB3 optical unit (OU) (COMCODE 106358476, BYB3) and is intended for the end-user of the unit. The BYB3 optical unit provides electrical-to-optical and optical-to-electrical conversions at the fiber interface when used in a *SLC*-2000 multi-services distant terminal (MSDT) of a *SLC* Series 5 Carrier System or *SLC* -2000 Access System featuring Fiber-In-The-Loop (FITL). The BYB3 optical unit replaces the BYB1( ) optical units.

The BYB3 optical unit receives electrical 1.544 Mb/s DS1 signals from the MSDT backplane interface unit (BIU). The BYB3 OU converts the electrical 1.544 Mb/s signal to an optical 1.544 Mb/s signal using a laser diode and transmits it over single-mode fiber, using simultaneous bidirectional transmission at 1300 nm, to the optical unit at the remote terminal (RT). Upon reception of the optical 1.544 Mb/s signal from the RT, the BYB3 OU converts it to an electrical 1.544 Mb/s signal using positive-intrinsic-negative (PIN) diode detection and feeds it to the MSDT's backplane interface unit. Transmission in the opposite direction is accomplished in the same manner with both directions of transmission being carried over the same fiber.

NOTE:
1. The AYB3 optical unit at the HDT HDOS shelf and the BYB3 optical unit at the MSDT must be used as pairs and are not compatible with the AYB1( ) optical units and BYB1( ) optical units.

2. BYB3 OU is not used to process T1 signals.

Figure 1 shows the faceplate diagram for the BYB3 optical unit. Table 1 lists the environmental specifications. Table 2 lists the power drain requirements and Table 3 lists the edge connections for the BYB3 optical unit.

Table 1. Environmental Specifications

A. Temperature Range (Ambient)

1. Operating, per TR-NWT-000057*: in Lucent Technologies cabinet mounted RT, outside ambient temperatures of -40° F with no solar load to +115° F with maximum solar load and maximum power dissipation. Lucent Technologies cabinets are designed to assure that the components within do not exceed their rated temperatures for the above conditions.
2. Storage, per TR-NWT-000057: ambient temperatures of -40° to 140° F.

B. Relative Humidity

1. Operating, per TR-NWT-000057. For outside ambient temperature 84° F or less, relative humidity of 5% to 95%. For ambient temperatures above 84° F, the relative humidity is limited to that corresponding to a specific humidity of 0.024 pounds of water per pound of dry air.
2. Storage, per TR-NWT-000057: ambient temperatures 84° F or less, 10% to 95%. For ambient temperatures above 84° F, the relative humidity is limited to that corresponding to a specific humidity of 0.024 pounds of water per pound of dry air.

* Bellcore Technical Reference TR-NWT-000057, Issue 2, January 1993, and all Revisions and Supplements, "*Functional Criteria For Digital Loop Carrier Systems*," Bell Communications Research

Table 2. Power drain for BYB3 Optical Unit

Supply	Maximum Value
+ 5 Volts dc	700 mW
- 5 Volts dc	300 mW

Installation and Testing

There are no switches to set on this unit.

Faceplate Features and Options

The BYB3 optical unit faceplate is shown in Figure 1.

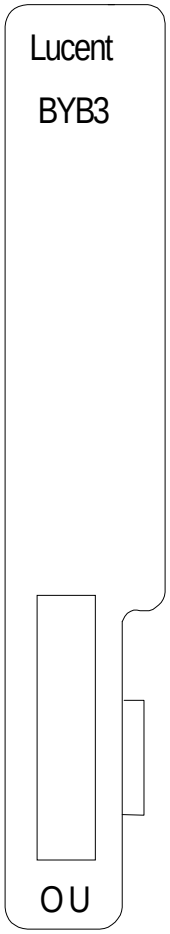

Figure 1. BYB3 Optical Unit Faceplate Diagram

Table 3. Edge Connections For BYB3 Optical Unit

Finger	Function
1	Frame Ground
2	Transmit Ground
3	+ 5T Volts dc
10	+ 5R Volts dc
11	Receive Ground
12	- 5R Volts dc
13	+ 5DS Volts dc

References

The following documents provide additional information about the use of this line interface unit in the *SLC* Series 5 Carrier System and *SLC*-2000 Access System:

363-205-004	*SLC-2000 Access System, Multi-Services Distant Terminal Feature, User/Service and Ordering Manual*
363-205-010	*SLC Series 5 Carrier System Applications, and Planning Guide*
363-208-000	*SLC*-2000 *Access System Applications, Planning, and Ordering Guide*
363-208-001	*SLC-2000 Access System User/Service Manual*
363-208-003	*SLC-2000 Access System Command and Message Manual*
915-710-115	*SLC Series 5 Carrier System Application Engineering Practice*

Technical Assistance

Follow local procedures for obtaining technical assistance. Lucent Technologies also provides in-hours or emergency out-of-hours help for the *SLC* Series 5 Carrier System and *SLC*-2000 Access System. Call the Lucent Technologies Regional Technical Assistance Center at 1-800-225-RTAC.

Ordering Information

Additional copies of this document (363-005-406) are available from the Customer Information Center — call 1-888-584-6366.

Comments

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Lucent Technologies
Customer Training and Information Products (CTIP)
Documentation Services
2400 Reynolda Road
Winston-Salem, NC 27106-4606

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