SLC® -2000 MSDT

BYB5 Optical Unit — 5SCTD00AAA

This data sheet describes the BYB5 optical unit (OU) (COMCODE 107215295) and is intended for the end-user of the unit. The BYB5 OU provides electrical-to-optical and optical-to-electrical signal conversions at the end of the fiber optic loop when used in a *SLC* ®-2000 multi-services distant terminal (MSDT) of a *SLC* Carrier System featuring Fiber-In-The-Loop (FITL).

The BYB5 is an extended range optical unit. When this unit operates against the AYB5, the outside plant loss budget is 13.3 dB, instead of 9.8 dB with the BYB1B. This gives the unit approximately a 21-mile range between the host digital terminal (HDT) and the MSDT.

Figure 1 is a functional block diagram of the unit, and Figure 2 shows the faceplate.

The BYB5 OU receives electrical 1.544 Mb/s signals from the MSDT backplane interface units (BIUs). It converts the electrical 1.544 Mb/s signal to an optical 1.544 Mb/s signal using a single-mode laser diode and transmits it over one single-mode fiber, using simultaneous bidirectional transmission at 1310 nm, to the optical unit at the remote terminal (RT). Upon reception of the optical 1.544 Mb/s signal from the RT, the BYB5 OU converts it to an electrical 1.544 Mb/s signal using a positive-intrinsic-negative (PIN) diode detector and feeds it to the MSDTs backplane interface unit (BIU). Transmission in the opposite direction is accomplished in the same manner with both directions of transmission being carried over the same fiber.

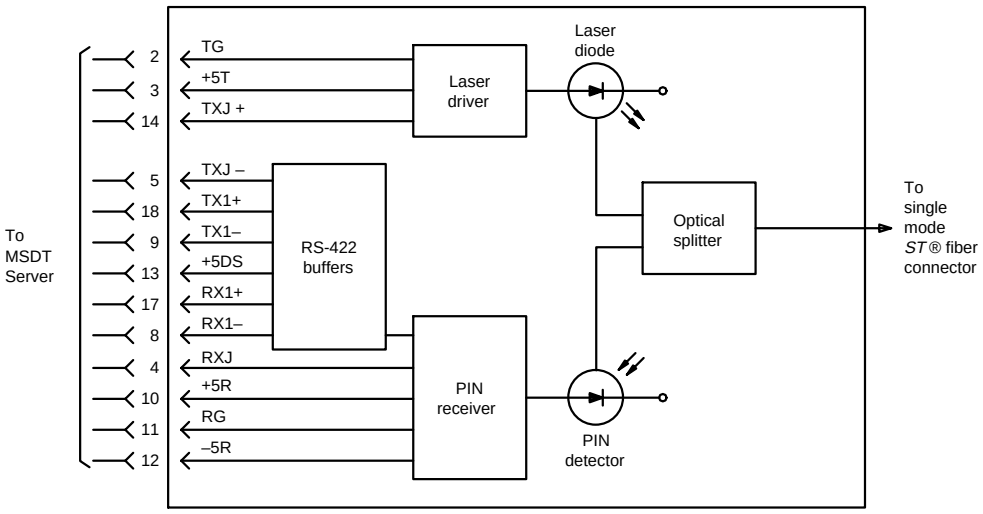

Figure 1. BYB5 OU Block Diagram

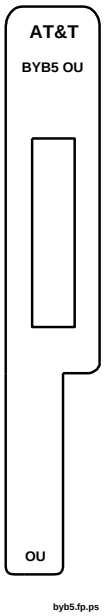

Figure 2. BYB5 OU Faceplate

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

Additional copies of this document (AT&T 363-005-297) are available from the Customer Information Center — call 1-800-432-6600.

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