70.6.1 Link Block Diagram

For purposes of system conformance, the PMD sublayer is standardized at test points TP1 and TP4 as shown in Figure 70-X. The transmitter and receiver blocks include all off-chip components associated with the respective block. For example, external AC-coupling capacitors, if required, are to be included in the receiver block.

The electrical path from the transmitter block to TP1, and from TP4 to the receiver block, will impact the measured values of electrical parameters used to verify conformance to this specification. It is therefore recommended that this path be carefully designed to achieve an accurate measurement.
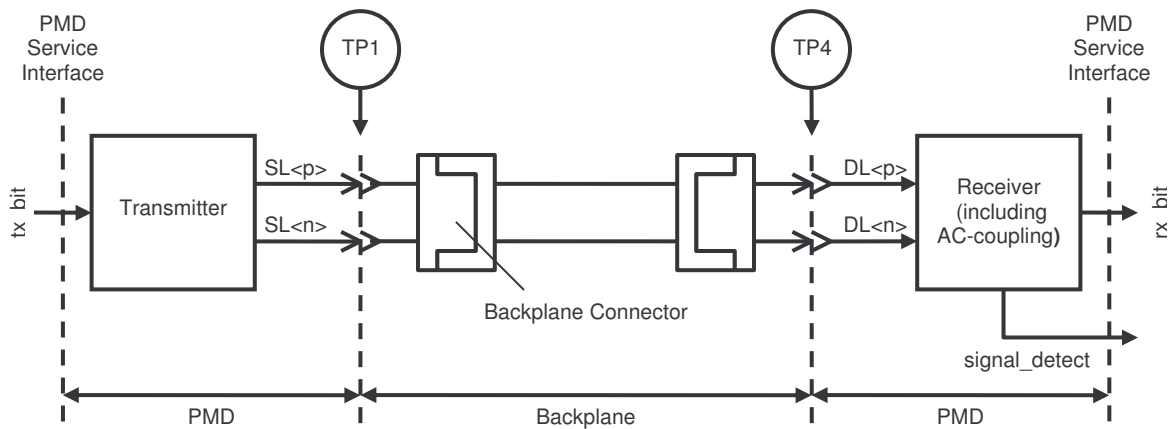
Figure 70–X ─ Block Diagram

71.5.1 Link Block Diagram

For purposes of system conformance, the PMD sublayer is standardized at test points TP1 and TP4 as shown in Figure 71-X. The transmitter and receiver blocks include all off-chip components associated with the respective block. For example, external AC-coupling capacitors, if required, are to be included in the receiver block.

The electrical path from the transmitter block to TP1, and from TP4 to the receiver block, will impact the measured values of electrical parameters used to verify conformance to this specification. It is therefore recommended that this path be carefully designed to achieve an accurate measurement.
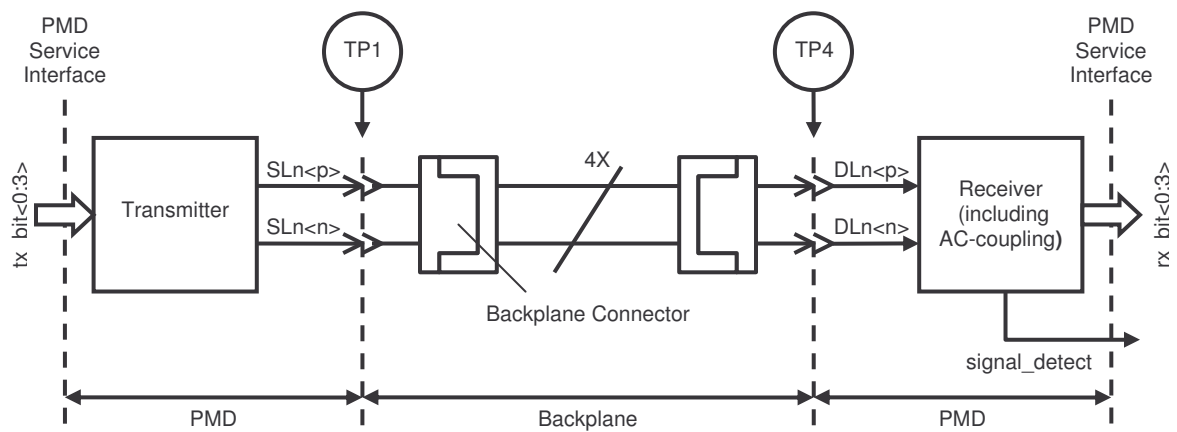

Figure 71–X ─ Block Diagram

72.5.1 Link Block Diagram

For purposes of system conformance, the PMD sublayer is standardized at test points TP1 and TP4 as shown in Figure 72-X. The transmitter and receiver blocks include all off-chip components associated with the respective block. For example, external AC-coupling capacitors, if required, are to be included in the receiver block.

The electrical path from the transmitter block to TP1, and from TP4 to the receiver block, will impact the measured values of electrical parameters used to verify conformance to this specification. It is therefore recommended that this path be carefully designed to achieve an accurate measurement.
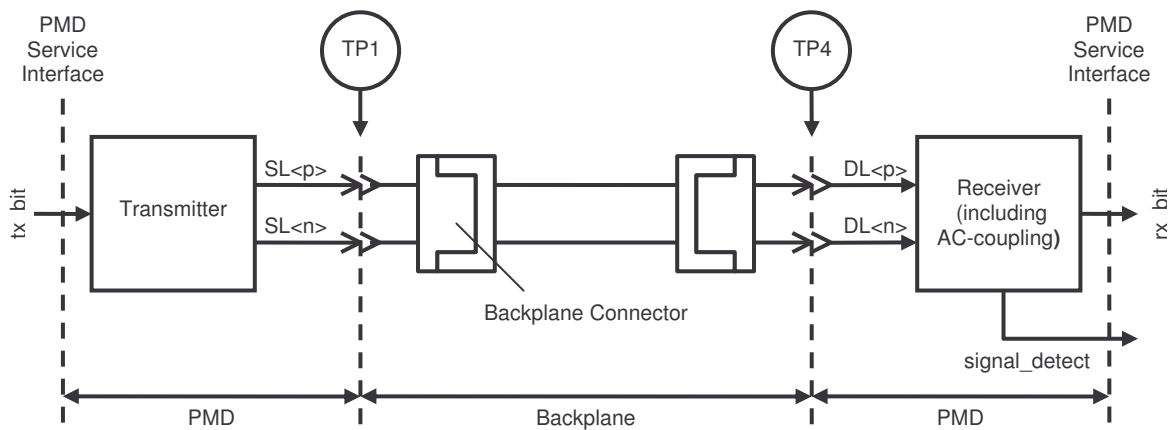
Figure 72–X ─ Block Diagram

Comment #178

72.5.4 PMD Signal Detect Function

The PMD Signal Detect function shall report to the PMD service interface, using the message PMD_SIGNAL.indication(SIGNAL_DETECT) which is signaled continuously. PMD_SIGNAL.indication is intended to be an indicator of the presence of a valid electrical signal at the receiver input. If the MDIO interface is implemented, then PMD_global_signal_detect (1.10.0) shall be continuously set to the value of SIGNAL_DETECT as described in 45.2.1.9.5.

The value of the SIGNAL_DETECT is defined by the training state diagram in Figure 72-X. SIGNAL_DETECT shall be set to FAIL following system reset or the manual reset of the training state machine. Upon completion of training, SIGNAL_DETECT shall be set to OK.

If training is disabled by management, SIGNAL_DETECT shall be set to OK.

> **Comments #67, #71, #84**

7X.Y Environmental specifications

7X.Y.1 General safety

All equipment meeting this standard shall conform to applicable sections (including isolation requirements) of IEC 60950-1: 2001.

7X.Y.2 Network safety

The designer is urged to consult the relevant local, national, and international safety regulations to ensure compliance with the appropriate requirements.

7X.Y.3 Installation and maintenance guidelines

It is recommended that sound installation practice, as defined by applicable local codes and regulations, be followed in every instance in which such practice is applicable.

7X.Y.4 Electromagnetic compatibility

A system integrating the <port type> PHY shall comply with applicable local and national codes for the limitation of electromagnetic interference.

7X.Y.5 Temperature and humidity

A system integrating the <port type> PHY is expected to operate over a reasonable range of environmental conditions related to temperature, humidity, and physical handling (such as shock and vibration). Specific requirements and values for these parameters are considered to be beyond the scope of this standard.