

The Transmitter's optical outputs Fiber 1 and Fiber 2 have the following characteristics:

- Fully redundant
- Have independent power drivers
- Both remain active in the absence of a failure

The Receiver takes its signal selectively from Fiber 1. If the signal on Fiber 1 is lost, the RX automatically switches to its Fiber 2 input. If the signal on Fiber 1 is restored, and the signal on Fiber 2 is lost, the RX switches back to Fiber 1. If both fibers remain active, pressing the Select button on the front panel will toggle between them.

### **Making the Fiber Connection**

1. Inspect the fiber ends and clean them with dry compressed air or with Kim-Wipes that have been wet with isopropyl alcohol. Fingerprints or other dirt on the optical connector end surfaces will reduce the received optical signal level.
2. Connect the fibers to their matching ports on both the TX and RX units.

### **Optical Transmitter Losses**

The maximum fiber distance is defined by the optical loss operating margin. The RX signal must be - 21 dBm or higher. Losses on single mode fiber are approximately 0.5 dB/km or less. Refer to Table 1 for the expected TX output requirement and the consequent RX input power.

Signal	Min
TX Optical Output	- 6dBm
RX Optical Input	- 21dBm
Optical Loss Margin	15dBm

***Table 2. Optical Loss Margin***

Use an optical power meter for testing the optical signal development and its transmission over the fiber. Instructions for this test are supplied with the meter.