APPENDIX A

Using Optical Splitters with 10GBE Links

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Introduction

When designing a deployment with the SCE8000, it is important to keep in mind certain characteristics of the 10GBE link that affect the configuration of optical splitters and SPAN ports.

- Ten Gigabit Ethernet does not support autonegotiation (unlike regular GBE). The fixed 10GBE configuration is as follows:
  - duplex = full
  - speed = 10 GBE
- The 10GBE port is UP once it detects light (and correct sync pattern) in the RX input.
- A Switch or Router port will not transmit data unless it is UP (that is, it detects a good signal on the RX input).

Supported Configurations

Due to the 10GBE characteristics described above, the following configurations are supported in the 10 GBE environment as shown on Figure A-1 and Figure A-2.

Figure A-1 Supported Optical Splitter Configuration

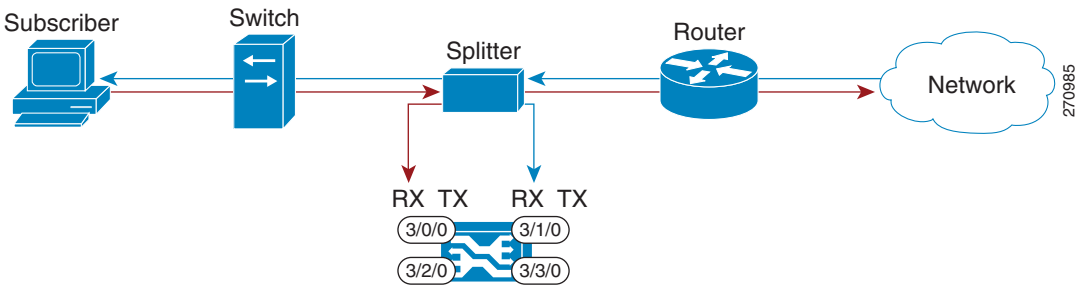
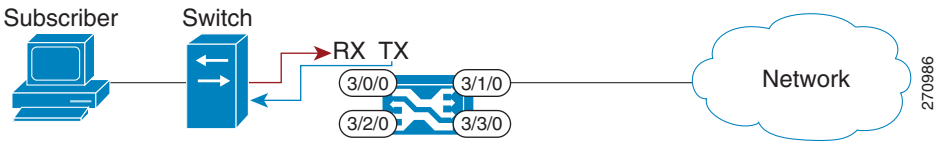


Figure A-2 Supported SPAN Port Configuration



Note In the above configuration, it is essential that the SCE8000 be operating in receive-only mode. Other configurations may cause SPAN port traffic to be returned to the switch, causing unpredictable behavior.

Unsupported Configuration

Due to the 10GBE characteristics described above, the following configuration is not supported in the 10 GBE environment as shown in Figure A-3. In this configuration, the switch port remains in the DOWN state and therefore does not transmit.

Figure A-3 Unsupported SPAN Port Configuration