# Avago Compatible AFBR-5701LZ Quick Spec:

| | |
|---|---|
| Part Number: | AFBR-5701LZ |
| Form Factor: | SFP |
| TX Wavelength: | 850nm |
| Reach: | 500m |
| Cable Type: | MMF |
| Rate Category: | 1000Base |
| Interface Type: | SX |
| DDM: | No |
| Connector Type: | Dual-LC |

## Avago Compatible AFBR-5701LZ Features

- Up to 1.25Gb/s data links
- Hot-pluggable SFP Footprint
- Compliant with specifications for IEEE802.3Z 1000Base-SX
- Supported distance in accordance with 1000Base-SX standard: up to 220m via 62.5/125µm multimode fiber, up to 550m via 50/125µm multimode fiber
- Eye Safety Designed to meet Laser Class1 Compliant with IEC60825-1
- Single +3.3V Power Supply
- RoHS compliance
- Operating temperature range:
  - Standard 0 to +70 °C
  - Industrial -40 to +85 °C

## Avago Compatible AFBR-5701LZ Applications

- Gigabit Ethernet
- 1x Fiber Channel
- Other optical links

# Avago Compatible AFBR-5701LZ Specification

## Electrical Characteristics (Condition: Ta=TOP)

| Parameter | Symbol | Min. | Typ | Max. | Unit |
|---|---|---|---|---|---|
| Transmitter Differential Input Volt | +/-TX_DAT | 650 | | 2000 | mV p-p |
| Supply Current | $I_{CC}$ | | 200 | 250 | mA |
| Tx_Disable Input Voltage – Low | $V_{IL}$ | 0 | | 0.8 | V |
| Tx_Disable Input Voltage – High | $V_{IH}$ | 2.0 | | Vcc | V |
| Tx_Fault Output Voltage – Low | $V_{OL}$ | 0 | | 0.8 | V |
| Tx_Fault Output Voltage – High | $V_{OH}$ | 2.0 | | Vcc | V |
| Receiver Differential Output Volt | +/-RX_DAT | 0.4 | | 2000 | mV p-p |
| Rx_LOS Output Voltage- Low | $V_{OL}$ | 0 | | 0.8 | V |
| Rx_LOS Output Voltage- High | $V_{OH}$ | 2.0 | | Vcc | V |

## Optical Characteristics

| TX | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Symbol** | **Min** | **Typ** | **Max** | **Unit** |
| Data Rate | B | - | 1.25 | - | Gb/s |
| Centre wavelength | λc | 830 | 850 | 860 | nm |
| Output Spectral Width | △λ | - | - | 0.85 | nm |
| Average Output Power | $P_o$ | -9 | - | -3 | dBm |
| Extinction Ratio | EXT | 10 | - | - | dB |
| Data Input Voltage-High | $V_{IHS}$ | $V_{cc}$-1.16 | - | $V_{cc}$-0.89 | V |
| Data Input Voltage -Low | $V_{ILS}$ | $V_{cc}$-1.82 | - | $V_{cc}$-1.48 | V |
| Supply Current | $I_{CC}$ | - | 90 | 130 | mA |
| Output Optical Eye | Compliant with IEEE802.3Z | | | | |

| RX | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Symbol** | **Min** | **Typ** | **Max** | **Unit** |
| Receive Sensitivity | $P_{min}$ | - | - | -17 | dBm |
| Maximum Input Power | $P_{MAX}$ | -3 | 0 | - | dBm |
| Signal Detect Threshold-Assertion: | $SD_{HIGH}$ | - | - | -18 | dBm |
| Signal Detect Threshold-Deassertion: | $SD_{LOW}$ | -30 | - | - | dBm |
| Hysteresis | - | - | 2.0 | - | dBm |
| Output High Voltage | $V_{OH}$ | $V_{cc}$-1.03 | - | $V_{cc}$-0.89 | V |
| Output Low Voltage | $V_{OL}$ | $V_{cc}$-1.82 | - | $V_{cc}$-1.63 | V |
| Operating Wavelength | λc | 770 | - | 860 | nm |
| Supply Current | $I_{CC}$ | - | 80 | 110 | mA |

## Absolute Maximum Ratings ($T_C$=25°C)

| Parameter | Symbol | Min | Max | Unit |
|---|---|---|---|---|
| Storage Temperature | $T_{ST}$ | -40 | +85 | °C |
| Operating Temperature (Standard) | $T_{IP}$ | 0 | +7- | °C |
| Operating Temperature (Industrial) | $T_{IP}$ | -40 | +85 | °C |
| Input Voltage | $T_{CC}$ | 0 | 5 | V |

## Recommend Operation Environment

| Parameter | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| Supply Voltage | $V_{CC}$ | +3.0 | 3.3 | +3.6 | V |
| Operating Temperature | $T_{OP}$ | 0 | - | +50 | °C |