

SFP-10G-LEGC1M-LEG  
ALCATEL-LUCENT 10GBASE-AOC SFP+ DAC  
ACTIVE OPTICAL CABLE 1M



## Features

- Electrical interface compliant to SFF-8431
- Hot Pluggable
- 850nm VCSEL transmitter, PIN photo-detector receiver
- Operating case temperature: 0°C to 70°C
- All-metal housing for superior EMI performance
- RoHS compliant (lead free)



## SFP+AOC Specifications

| Parameter                   | Description                             |
|-----------------------------|-----------------------------------------|
| Module Form Factor          | SFP+ (Supports SFF8431/SFF8432/SFF8472) |
| Protocols Supported         | InfiniBrand, Ethernet, Fiber Channel    |
| Channel Data Rate           | Rate 1 to 10.3125Gbps                   |
| BER                         | $<10^{-12}$                             |
| Operating Case Temperature  | 0°C to 70°C                             |
| Storage Temperature         | -20 to + 85°C                           |
| Supply Voltage              | 3.3V                                    |
| Supply Current (typical)    | 230mA per end                           |
| Management Interface Serial | I <sup>2</sup> C (Supports SFF8472)     |

## Optical Characteristics

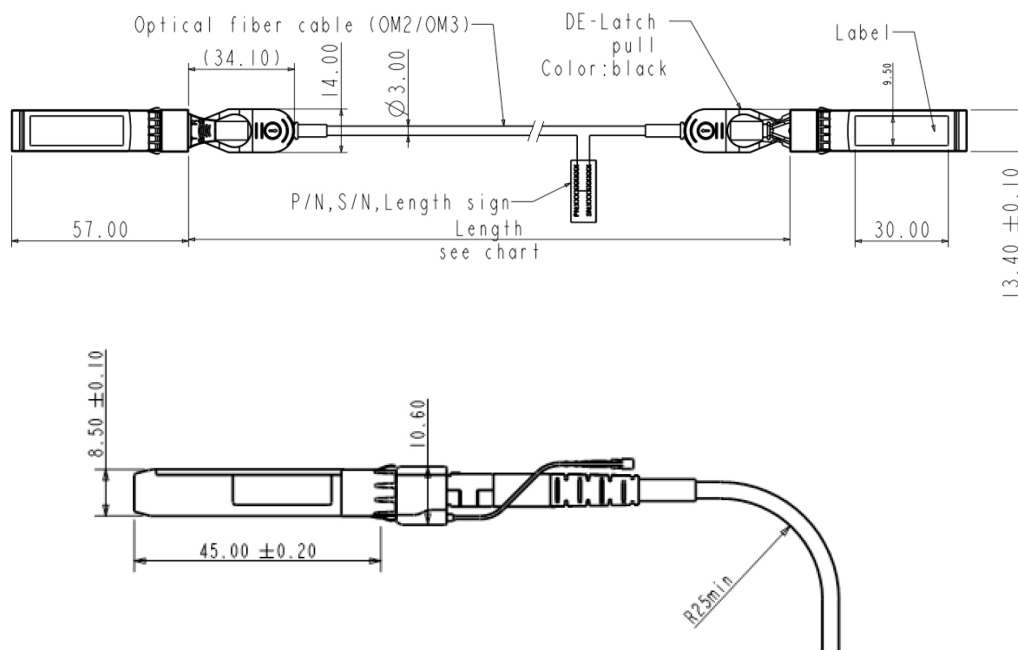
| Parameter                       | Symbol           | Min. | Typ. | Max. | Unit  | Notes |
|---------------------------------|------------------|------|------|------|-------|-------|
| Transmitter                     |                  |      |      |      |       |       |
| Centre Wavelength               | $\lambda_C$      | 840  | 850  | 860  | nm    |       |
| RMS spectral width              | $\Delta\lambda$  |      |      |      | nm    | 1     |
| Average launch power, each lane | P <sub>out</sub> | -6.5 |      | -1   | dBm   | 2     |
| Extinction Ratio                | ER               | 3.5  |      |      | dB    | 3     |
| Transmitter Dispersion Penalty  | TDP              |      |      | 3.9  | dB    |       |
| Relative Intensity Noise        | R <sub>in</sub>  |      |      | -128 | dB/Hz | 4     |
| Optical Return Loss Tolerance   |                  |      |      | 12   | dB    |       |

| Receiver                  |             |     |     |       |     |   |
|---------------------------|-------------|-----|-----|-------|-----|---|
| Center Wavelength         | $\lambda_C$ | 840 | 850 | 860   | nm  |   |
| Receiver Sensitivity      | Psens       |     |     | -11.1 | dBm | 5 |
| Stress Sensitivity in OMA |             |     |     | -7.5  | dBm | 5 |
| Los function              | Los         | -30 |     | -12   | dBm |   |
| Overload                  | Pin         |     |     | -1.0  | dBm | 5 |
| Receiver Reflectance      |             |     |     | -12   | dB  |   |

Note:

1. TradeOffs are available between spectral width, center wavelength and minimum OMA.
2. The optical power is launched into MMF
3. Measured with PRBS  $2^{31}-1$  test pattern @10.3125Gbps
4. 12dB reflection
5. Measured with PRBS  $2^{31}-1$  test pattern @10.3125Gbps,  $BER \leq 10^{-12}$

## Mechanical Specification



### Data Communications

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