## AN-ACC-SFP-E-100

 RJ45 Electrical SFP
## AN-ACC-SFP-MMF-350 MM Fiber SFP



## Welcome to Araknis ${ }^{\circledR}$ Networks

Thank you for choosing an Araknis AN-ACC-SFP-MMF-350 or AN-ACC-SFP-E-100 Small Form Plug (SFP) module. This product is part of a carefully selected line of accessories that compliment Araknis Network switches product lines. The AN-ACC-SFP utilizes the extra ports available in AN-300-SW series to provide uplinks to another network switch or Layer 3 device.

AN-ACC-SFP-MMF-350 provides an LC interface for multimode fiber patch cable while the AN-ACC-SFP-E-100 provides a standard RJ45 Gigabit Ethernet Interface.

## Features

- Compliant with IEEE802.3z Gigabit Ethernet standard
- Industry standard small form pluggable (SFP) package
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1 (for ANACC-SFP-MMF-350)
- Compact RJ45 connector (for AN-ACC-SFP-E-100) and duplex LC connector (for AN-ACC-SFP-MMF-350)


## SFP Installation



## Applications

## Switch to Switch



Switch to Patch Panel


Note: Only MMF shown, E RJ45 may also be used with patch panel.

## AN-ACC-SFP-E-100 Specifications

| PARAMETER | SYMBOL | MIN | MAX | UNITS | Note |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Storage Temperature | $T_{S}$ | -40 | 85 | ${ }^{\circ} \mathrm{C}$ |  |
| Supply Voltage | $V_{C C}$ | -0.5 | 4 | V |  |
| Input Voltage | $V_{I N}$ | -0.5 | $V_{C C}$ | V |  |
| Output Current | $I_{O}$ | --- | 50 | mA |  |
| Operating Current | $I_{O P}$ | --- | 400 | mA |  |

## AN-ACC-SFP-MMF-350 Specifications

| PARAMETER | SYMBOL | MIN | MAX | UNITS | Note |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Case Operating <br> Temperature | $T_{C}$ | 0 | 70 | ${ }^{\circ} \mathrm{C}$ |  |
| Supply Voltage | $V_{C C}$ | 3.1 | 3.5 | V |  |
| Supply Current | $I_{T X}+I_{R X}$ | --- | 250 | mA |  |

## Transmitter Electro-Optical Characteristics

$V c c=3.1 \mathrm{~V}$ to $3.5 \mathrm{~V}, T c=0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.85^{\circ} \mathrm{C}\right)\left(-40^{\circ} \mathrm{C}\right.$ to $\left.85^{\circ} \mathrm{C}\right)$

| PARAMETER | SYMBOL | MIN | TYP. | MAX | UNITS | Note |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Optical Output Power (50/125 $/ \mathrm{m}$ fiber, NA=0.20) (62.5/125 $/ \mathrm{m}$ fiber, $\mathrm{NA}=0.275$ ) | $P_{\text {OUT }}$ | -9.5 | --- | -4 | dBm |  |
| Extinction Ratio | $E R$ | 9 | --- | --- | dB |  |
| Coupled Power Ratio | CPR | 9 | --- | --- | dB |  |
| Center Wavelength | $\lambda_{C}$ | 830 | 850 | 860 | nm |  |
| Spectral Width (RMS) | $\Delta \lambda$ | --- | --- | 0.85 | nm |  |
| Rise/Fall Time, (20-80\%) | $T_{r, f}$ | --- | --- | 260 | ps |  |
| Relative Intensity Noise | RIN | --- | --- | -117 | dB/Hz |  |
| Total Jitter | TJ | --- | --- | 227 | ps |  |
| Output Eye | Compliant with IEEE802.3z |  |  |  |  |  |
| $\begin{gathered} \text { Max } P_{\text {out }} \\ \text { TX-DISABLE Asserted } \end{gathered}$ | $P_{\text {OFF }}$ | --- | --- | -45 | dBm |  |
| Differential Input Voltage | $V_{\text {DIFF }}$ | 0.4 | --- | 2 | V |  |

Receiver Electro-optical Characteristics
$V c c=3.1 \mathrm{~V}$ to $3.5 \mathrm{~V}, T c=0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$

| PARAMETER | SYMBOL | MIN | TYP. | MAX | UNITS | Note |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Optical Input <br> Power-maximum | $P_{I N}$ | 0 | --- | --- | dBm | $\mathrm{BER}<10^{-12}$ |
| Optical Input <br> Power-minimum <br> (Sensitivity) | $P_{I N}$ | --- | --- | -18 | dBm | $\mathrm{BER}<10^{-12}$ |
| Operating Center <br> Wavelength | $\lambda_{C}$ | 770 | --- | 860 | nm |  |
| Optical Return Loss | $O_{\text {ORL }}$ | 12 | --- | --- | dB |  |
| Loss of Signal-Asserted | $P_{A}$ | --- | --- | -18 | dBm |  |
| Loss of Signal-Deasserted | $P_{D}$ | -35 | --- | --- | dBm | V |
| Differential Output Voltage | $V_{D I F F}$ | 0.5 | --- | 1.2 | V |  |
| Data Output Rise, <br> Fall Time (20-80\%) | $T_{r, f}$ | --- | --- | 0.35 | ns |  |
| Receiver Loss of Signal <br> Output Voltage-Low | $R X_{-} L_{L O S}$ | 0 | --- | 0.5 | V |  |
| Receiver Loss of Signal <br> Output Voltage-High | $R X_{-L O S_{H}}$ | 2.4 | --- | $V_{c c}$ | V |  |

## Warranty

## 2 Year Limited Warranty

Araknis Networks ${ }^{\circledR}$ products have a 2 -Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).

## Contacting Technical Support

Phone: (866) 838-5052
Email: Techsupport@snapav.com

