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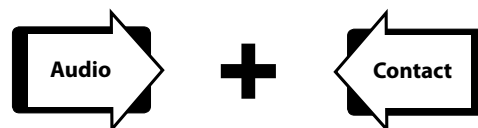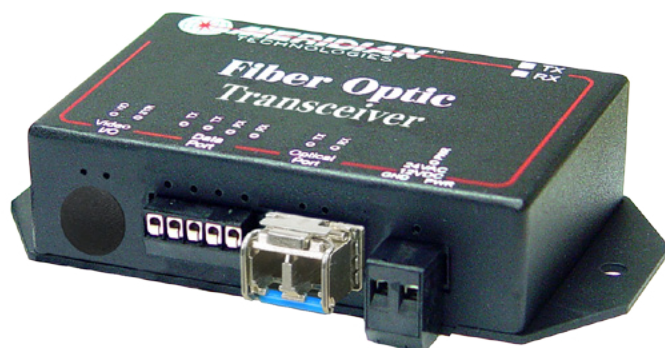
Digitally Encoded One 24-Bit Audio and One Return Channel of Contact Closure with Small Form Pluggable (SFP) Optical Device

FEATURES:

- Real Time Audio and Data Transmission

- Low Power Consumption

- High Efficiency, Isolated Power Supply

- Simplex 24-Bit Audio

- Return Contact Closure Channel

- Wide Optical Dynamic Range

- Multimode, Singlemode and CWDM fiber options via SFP modules

- Local LED Status Indicators to Monitor Critical System Parameters

- LC, SC Optical Connector (SFP dependent)

- Screw Terminal Connector for Audio & Contact

DESCRIPTION:

This NTNR-1A/1C-SFP module incorporates an all-digital encoding technology and transmits following signals:

1. One simplex 24 bit audio
2. One return contact closure

The Contact Closure channel can be configured as either Normally Open (N.O.) or Normally Closed (N.C.).
Contact will return to N.O. state in case of a fiber break, but can be configured individually as per clients needs.
This product incorporates the industry standard Small Form Pluggable (SFP) optical device. This SFP gives you the option for either singlemode, multimode or CWDM wavelength selections by simply plugging in the appropriate SFP module.
This module belongs to new *DigiCool™* series which features very Low Power Consumption an Isolated High Efficiency Power Supply.
Standard 5-pin terminal blocks are used for easy connection of the audio & contact channel interfaces.

Note: See the FT/FR-1A/1C-SFP data sheet for the complementary rack mount card version of this module.

CONFIGURATIONS:

The NTNR-1A/1C-SFP products are available in small stand-alone modules for easy mounting on walls, shelves and other convenient flat surfaces.

MARKETS:

- ✓ Intelligent transportation systems (ITS)
- ✓ Security and surveillance
- ✓ Access Control

SPECIFICATIONS:

Contact Closure

Contact Type .... Normally Open (N.O.) or Normally closed (N.C.) - jumper selectable
Rate .... 10 Hz.(Per Channel)
Contact Rating .... 0.3A, 30V AC / DC
Contact Bounce Time .... 5 ms

Audio

I/O Impedance .... 600 Ohm (Bal.), 47 KOhm (Un Bal.)
Frequency Response .... 10 Hz to 20 KHz
SNR .... >90dB (Weighted)@ 1 KHz
In/Out Level .... -8 to +8 dBm ($4V_{p\text{-}p}$ max.)
(+18 dBm available on request)
Total Harmonic Distortion .... <0.01% @ 1KHz
Resolution .... 24 Bit

Optical

Fiber Data Rate .... 350 Mb/s

Connectors

Optical .... LC, SC - SFP dependent
Power (module) .... 2-pin Screw Terminal
Audio & Contact .... 5-pin Screw Terminal

Power **

Input Power............................. 12-24VAC / DC
Power Consumption .... 2.8 W

Indicators

1 - Green .... Power On
1 - Bi-color .... Tx Laser driver Normal / Error
1 - Bi-color .... Rx Optical signal Present / Error
1 - Green .... Tx Audio Present
1 - Green .... Rx Data Present

Physical

Dimensions (Module) .... 117 mm (H), 61 mm (W) 25.5 mm (D)
(4.6 x 2.4 x 1.1 inch) with flanges
Weight (Module) .... 150 gms (0.34 lb)

Environmental

Operating Temperature ... -40ºC to +74ºC
Storage Temperature .... -55ºC to +85ºC
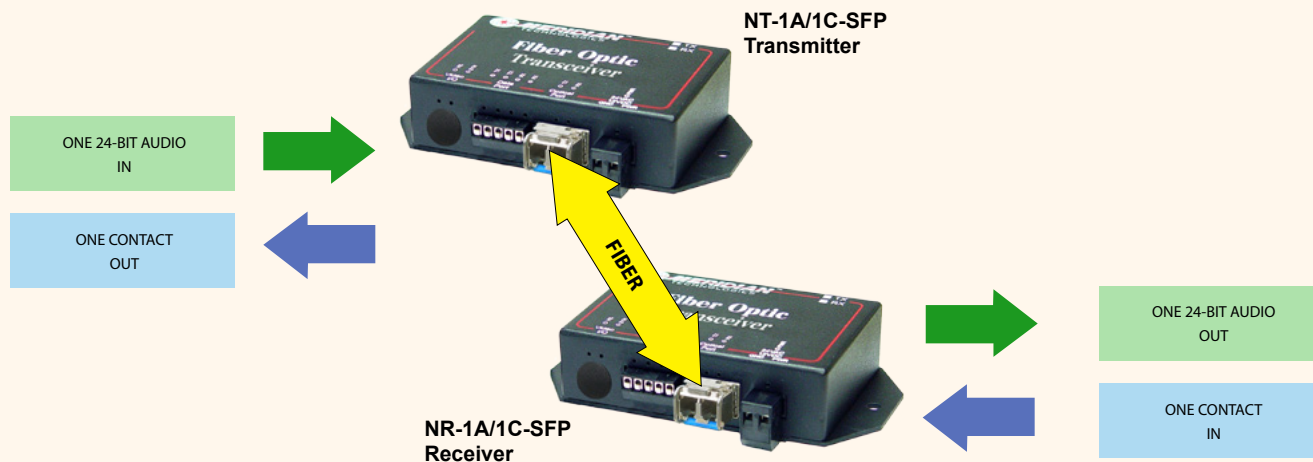Relative Humidity .... 0 to 95% Non-condensing

Quality

MTBF .... >170,000 hours @ Ground Fix 35ºC per MIL217F

Part Numbers:

N [ ] —— 1A/1C - SFP — [ ]

T - TRANSMITTER
R - RECEIVER
C - CONFORMAL COATING

* measured @ max. optical budget   ** Due to variations of drivers and diagnostic options, power shown @ max value

NT-1A/1C-SFP
Transmitter

ONE 24-BIT AUDIO IN

ONE CONTACT OUT

FIBER

NR-1A/1C-SFP
Receiver

ONE 24-BIT AUDIO OUT

ONE CONTACT IN

SFP OPTIONS:

The SFP series products are available for both singlemode and multimode fiber applications and ether one or two fiber versions. Recommended optical speed for this product is 155 Mb/s.

For more specifications on a SFP optical devices go to SFP data sheet or go to:

WWW.MERIDIAN-TECH.COM -> PRODUCTS -> ACCESSORIES -> SFP OPTICAL DEVICES

Common SFP modules		
Part #	Fiber type	# of Fibers
MM1313F2	Multimode	2
MM1315F2 & MM1513F2	Multimode	1
SM1313F20	Single-mode	2
SM1315F20 & SM1315F20	Single-mode	1