



FRM220-FXO/FXS POTS phone line converter extender is used to connect PSTN voice signals to distant Plain Old Telephone (POTS) devices. FRM220-FXO/FXS provides a fiber media transport for POTS transmission and features an RJ-11C for copper connection. A pair of FRM220-FXO/FXS is required to implement an end to end system. FXO mode connects to a telephone line or PBX and has ability to detect ringing voltages and to act as a telephone. FXS mode is the reciprocal unit and has ability to act as PSTN and connects to a telephone device. When the FRM220-FXO/FXS card is placed in the FRM220 rack with SNMP management, in-band management allows viewing the card and remote converter's status, type, version, fiber link status, on hook status and alarms. Both card and remote can be configured to enable or disable the port, reset the port and set the FXO or FXS mode.

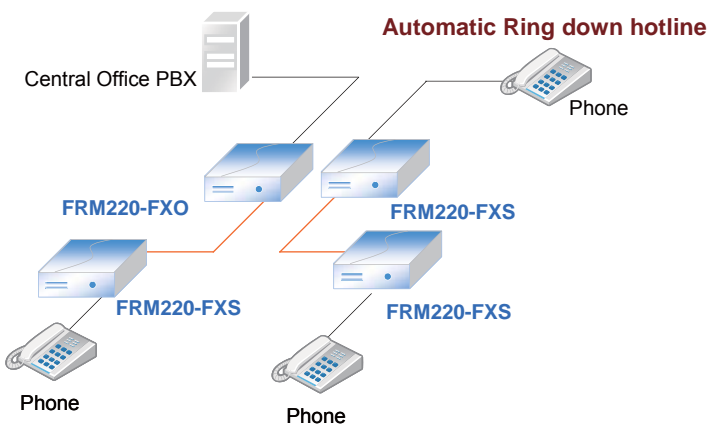
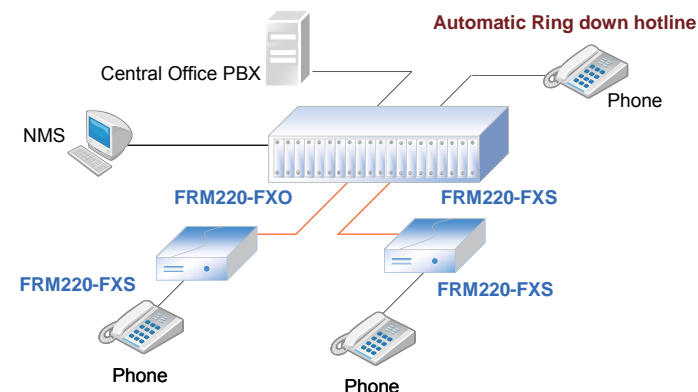
FXO/FXS 2-wire Fiber Converter

FRM220-FXO/FXS FRM220-FXO/FXS-S

Features

- Extend telephone voice transmission from 2km to 120km over fiber
- Network management via terminal, web or SNMP in FRM220-CH20 chassis
- Supports telephone voice transmission
- Supports caller ID pass through
- Selectable FXO or FXS mode
- Supports FXS to FXS hot line

In-band Managed FXO/FXS Fiber Loop Extender



FRM220-FXO/FXS can be inserted in any FRM220 chassis.

Optical Interface

Connector	1x9 (SC) or SFP LC
Fiber	MM 62.2/125µm, 50/125µm, SM 9/125µm
Distance	MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km
Wavelength	MM 1310nm, SM 1310, 1550nm, WDM 1310Tx/1550Rx(type A), 1550Tx/1310Rx(type B)

Electrical Interface

Connector	RJ-11
FXO mode	Impedance : 600 ohms Coding : 16 bits liner Loop Current : 10~100mA Ringing Frequency : Acceptable 20 ~50Hz Insertion Loss: 0.0 ± 1.0dB at 1000Hz
FXS mode	Impedance : 600 ohms Coding : 16 bits liner Dial: DTMF and Dial Pulse Battery Source: 48VDC ± 4V Ringing Waveform : Sine wave Ringing Frequency : 20/25/30/50 Hz selectable Ring Cadence: FXS to FXS : On / 1 sec, Off / 2 sec FXO to FXS; Reproduces the cadence detected by FXO Insertion Loss 0.0 ± 1.0dB at 1000Hz REN: 4.0B(Ring Equivalence Number)

Indications
Power Input

LED (Power, FX Link, Phone Act, Test)	
Card	: 12VDC
Standalone	: AC, DC options

Power Consumption
Dimensions
Weight
Temperature
Humidity
Certification
MTBF

< 5W
155 x 88 x 23mm (D x W x H)
120g
0 ~ 50°C (Operating), -10 ~ 70°C (Storage)
10~90% non-condensing
CE, FCC, LVD, RoHS
65,000 hrs (25°C)

Ordering Information

FRM220-□□□□□ Optional card
FXO/FXS
FXO/FXS-S

Example: FRM220-FXO/FXS