

# In-band Managed Family

## In-band Managed slide-in card POTS (FXO/FXS) to fiber converter

### FRM220-FXO/FXS, FXO/FXS-S



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.

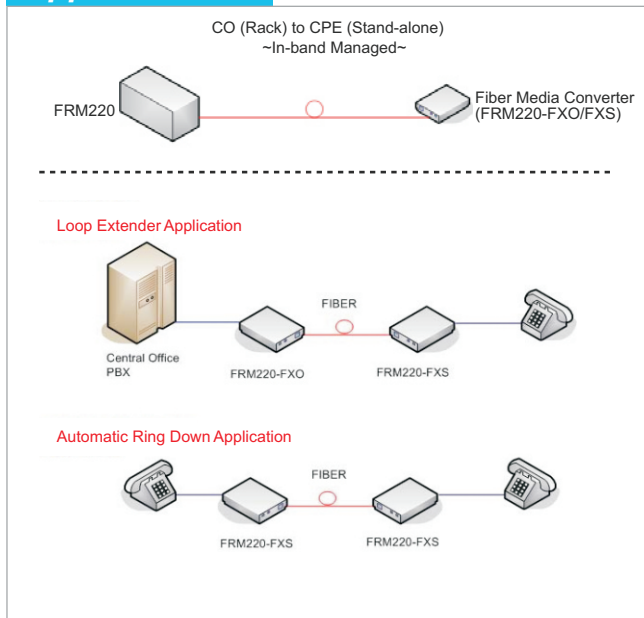
#### Features

- 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

#### Specifications

Ports	Connector :	1x9 (SC, ST, FC) or SFP LC
Optical Interface :	Cable type :	MM 62.2/125µm, 50/125µm. SM 9/125µm
	Cable length:	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 :
FXO mode:	Impedance :	600 ohms
	Coding :	16 bits liner
	Loop Current :	10~100mA
	Ring 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 Paul
	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)	

#### Application



LEDs	Power, FX Link, Phone Act, Test
Power	DC In 12V
Power Consumption	< 5W
Dimensions (D x W x H)mm	155 x 88 x 23mm
Weight	120g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, LVD, RoHS
MTBF	65,000 h (25°C)

#### Ordering Information

- **FRM220-FXO/FXS** POTS to fiber slide-in card
- **FRM220-FXO/FXS-S** POTS to fiber SFP slide-in card

#### Stand-alone:

Please refer to FRM220-CH01 data sheet page 2.