FOP-xxFXS-yy-MM/SM30
FOP-xxFXO-yy-MM/SM30

SIMPLE POTS TRANSPORT OVER FIBER

Features

- Low cost and easy solution to deploy analogue voice over fiber

- Point to point solution to extend 1, 4, 8, 16 or 30 FXO to FXS or FXS to FXS in PLAR mode.

- PCM 64K with CAS signalization support modem and fax

- Ring detection from 17 to 60Hz, ring and emission 25 or 50Hz on order

- Optional Ethernet port for LAN connection in complement of E1

- Easy install, plug and play

- Fiber: Single mode of 30 or 60km or WDM with a single fiber à 20km or Multi mode at 2km

- Power supply DC 48v with AC/DC adapter.

This equipment is used to extend point to point analogue voice lines over fiber optic link in dark fiber with the transport of services for private environment to extend PBX or by Telco as channel bank over fiber.

The *FOP-xxFXS/FXO* fiber multiplexer is available with 1, 4, 8, 16 or 30 channels, of telephone extension through optical cable.

This solution support the extension of analog lines from PBX or Telco's switch to analogues phone set or fax with *FOP-xxFXO* in the PBX side and the *FOP-xxFXS* at the other side.

With 2 *FOP-xxFXS* telephone sets can be connected face to face over fiber and ring without PBX as the phone set in one side is hang off by using PLAR mode.
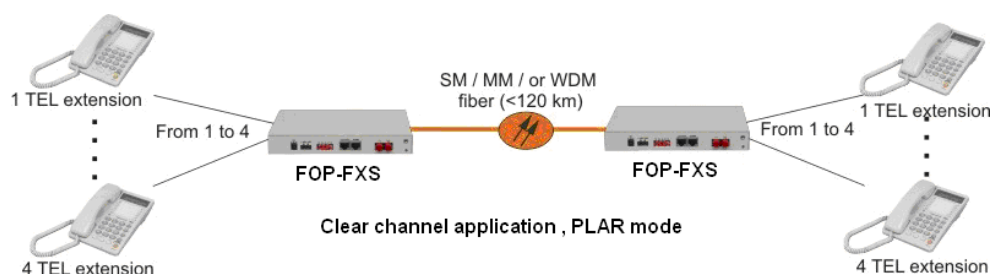
The fiber is caring a 2Mbps signal. In case of 1, 4, 8 and 16 voice channels an optional transparent bridge support a 10/100 Ethernet trunk together with the voice limited to 2Mbps—nb voice x 64k.

The *FOP-xxFXS/FXO* provide one RJ45 port per voice channel.

Fiber link can be order with standard connection of 2 fibers Multimode (MM) up to 2km, Single Mode (SM) with a budget for 30km or 60km or with a single fiber WDM (1310/1550nm) up to 20km.
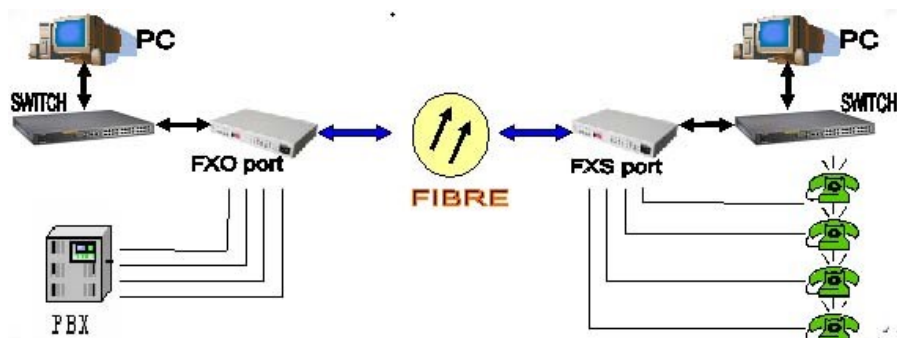
APPLICATION 1

PLAR mode application. When one telephone is hang off , the phone set is ringing in the other side. Phone 1 correspond to phone 1 on the other side.

Clear channel application , PLAR mode

Optical Modem for PCM voice

APPLICATION 2

This application is provide the extension of 4 analogue telephones or fax from or a PBX connection to another site over a fiber. Fiber can be use also for carry together an Ethernet bridge to the distant site. All voice information (dial-in, ring, service) are transparently carried to the other end.

SPECIFICATIONS

Phone lines
Line input impedance: 600 Ohms (hanging off)
Insertion loss : -3+/-0,75dB
Frequency range 300 to 3400Hz (-0,6 to +3dB)
Weighted noise < 63,7dBmop
Crosstalk loss >65dB
Loop impedance <1800 Ohms
Voice coding PCM 64 with CAS signalization.

FXS
Ringing voltage: 75V
Ringing frequency: 25Hz or 50Hz on order.

FXO
Ringing detecting voltage: 35V
Ringing detection : 17-60hz

Optical Interface Parameter
optical wavelength on order
MM2= 1310nm for multimode SC/PC support 2km
MM2-ST= 1310nm for multimode ST support 2km

SM30= 1310nm for single-mode SC/PC support 30 to 40km
SM20W3 single fiber bidirectional WDM with transmitter at 1310nm
SM20W5 single fiber bidirectional WDM with transmitter at 1550nm

Vibration characteristic:
Conforms G.742 and G.832 standard

Power
Internal DC –36 to 72Vdc
Delivered with external AC/DC converter 50/60Hz
Power Consumption: < 48W

Typical Operation & Storage
Operation:0° to 45℃
Storage Temperature: -20° to 60℃
Humidity:5% ~ 90% non-condensing

Dimension & Weight
1 U 19" metal box
Size : 480 x 210 x 44 mm (WxDxH).
Shipping Weight : 4kg.
MTBF 100.000 hours

ORDERING INFORMATIONS

Ref   FOP-nFXt—hz-opt-xxxx-

n	Number of port	1, 4, 8, 16 and 30
t	Type of interface	FXS or FXO
hz	Ring frequency	25 or 50 Hz
Opt	Option	TTX Pont Ethernet rate 1,6Mbps
xxxx	Fiber type	MM2: multimode 1310nm, 2km , SC/PC connector
		MM2—ST: multimode 1310nm, 2km , ST connector
		SM30 : single mode 1310 nm, 30km, SC/PC
		SM60 : single mode 1310 nm, 60km, SC/PC
		SM20W3: single fiber WDM single mode 1310 nm, SC/PC
		SM20W5: single fiber WDM single mode 1550 nm, SC/PC

Examples
FOP-4FXS—50-MM2
is a 4 channels voice FXS 50Hz ring on fiber, SC/PC connector, multi-mode 1310nm fiber 2km,
FOP-4FXO-50– TTX-SM30
Is a 4 channels voice FXO 50Hz (to connect to the PBX) on single mode fiber 1310nm with a budget for 30km, SC/PC connector, Ethernet link