2025

3C-OLP-A/B

OPTICAL LINE PROTECTION DEVICE

20200425-1178

3C-LINK OPTO CO,.LIMITED

Optic Protected Auto-switch Instrument

Applications

·CATV ring network
·main line host and standby system
·Optical channel protected system

- Support single route or multi-route
- signal 1+1or 1:1 protected
- Monitoring channel and networkmanager control

OLP adopts advanced module of optic auto-switch, which is often used to auto-recognize the signal of the host and standby components and switch the signal from the host to the standby components according to the line problems. It can keep the system working in gear. Use of optic protected auto-switch instrument can make different form of accesses easily and economically, main line host and standby system and different kinds of network for optical switch.。meanwhile, it ‘s also used to line monitoring、transducer switch、the optical protected system。Optic protected auto-switch instrument has the great feature is the signal can transform directly on the light path，not only reliable，but predigest system form，achieve good benefit in many respects.

Specifications

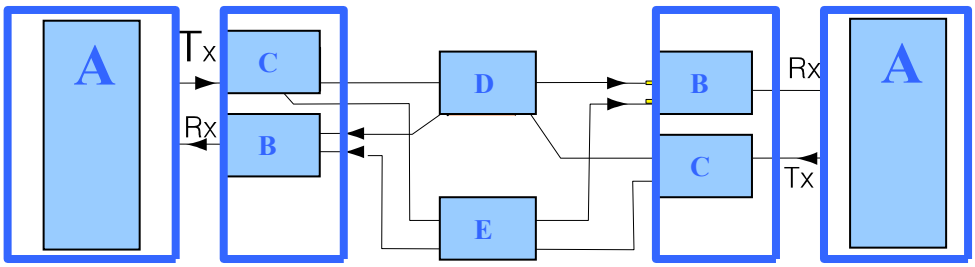
Type	3C-OLP-A / 3C-OLP-B
Performance data	Single channel
wavelength(nm)	1100-1610nm
Monitoring light power(dBm)	-50~+23
Light power monitoring precision	±0.25dB
Light power monitoring resolution	0.01dB
Switch light power(dBm)	-20.00dBm（Original setup ）
Insert loss (dB)	<1.2
Switch time(ms)	≤10
Life (times)	>10,000,000
Work temperature(℃)	-5to+50℃
Deposited temperature (℃)	-10to+65℃
Power	AC 220V or DC—48V（built-in double power supply）
Dimensions(mm)	standard1Ustyle

Working principle

General line protected has 1+1 and 1:1 two modes, we suggest that adopt 1+1 mode with the high loss, and use the 1:1 mode with the low loss.

1+1 protected manner (3C-OLP-A)

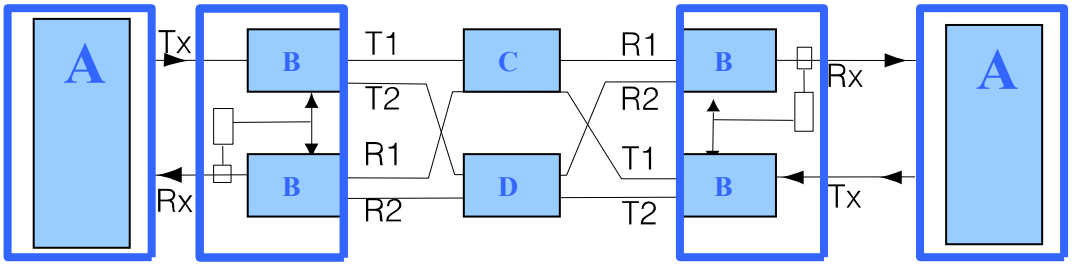
At the sending port adopt splitter to separate the signal, generally adopt 50:50 splitter (because the working fiber is not accord with the protected fiber in the practical application, it can adopt different splitter), the separated signal will transmit in working channel and standby channel. At the receiving port adopt optical channel selective receiver to select the working fiber and standby fiber. When the working fiber in trouble, receiving port can auto-selected receive from the standby channel.



P.S: A=transmission equipment B=optical switch C=splitter D=host cable E=standby cable

1:1 protected manner (3C-OLP-B)

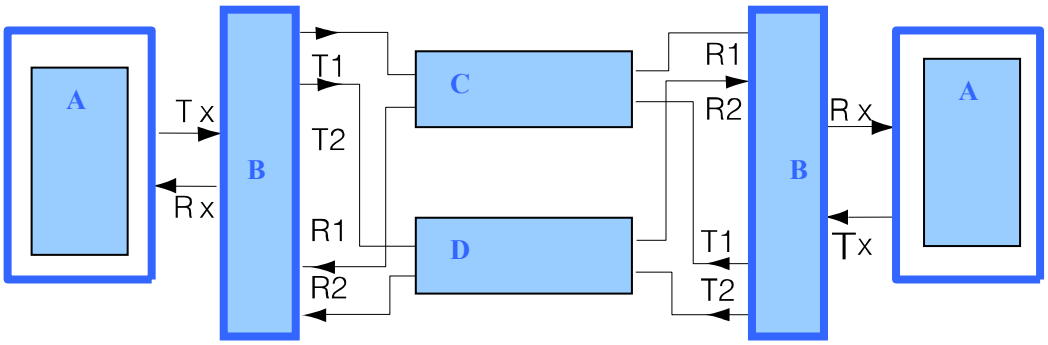
At the sending port adopt optical channels selective receiver to select the route of the sending optical channels, optical signal can along the working channel or the standby channel transmit only (1+1 can transmit along this two channels at the same time) at the receiving port also use -----to select the working channel and standby channel, it should be ensure of that the receiving channel consistent with the sending port, when the working channel in trouble ,sending port and receiving port switch to the standby channel at the same time.



P.S: A=transmission equipment B=optical switch C=host cable D=standby cable

Long distance host/standby fiber auto-switch I

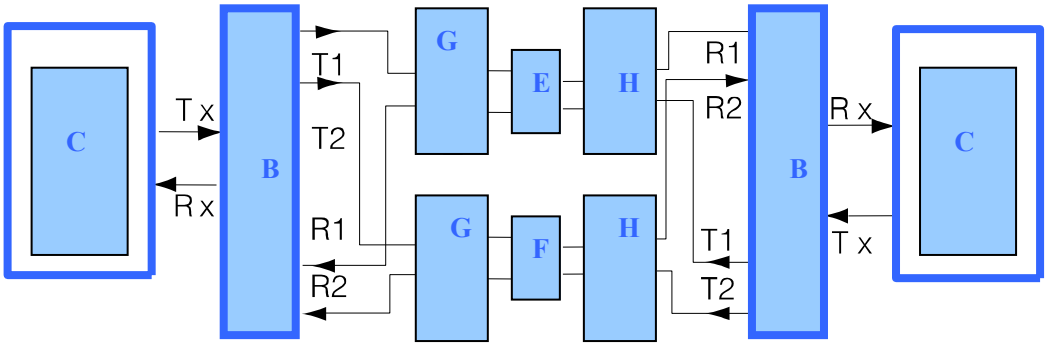
Long distance host and standby optical cable relay station 50 to 100 km, base on the sensitivity of the receiving port ----,to ensure the whole communication line works in gear, use of the standby optical fiber between port A and B , and apply optical auto-protected switch instrument ,ensure the system index and communicate in gear.



Long distance host/standby fiber auto-switch II

Go through relay station, long distance host/ standby can auto-switch many relay stations between port A and B, with long span, many sections need to be protected.

Optical protected applied in the main optical fiber and cable of port A and B, use of the standby optical fiber between port A and B, setup optical magnifier, building the relay stations ,long distance optical auto-protected switch instrument between port A and B, large switch range, high application, secure and reliable.



P.S: B=FSA C=transmission equipment G=relay station1 H=relay station2 E=host cable F=standby cable