

SUN5004A Optical Relay Station

Features

SUN5004A optical relay station is a relay equipment that applied to return path. It can receive return four way extra low optical power separately, then do RF processing and transmit return one way optical signal. Its main features are as following:

- 1 、 Four way optical input separately. one way output.
- 2 、 Network state monitoring function.
- 3 、 LED display device working status with input, output light power DC voltage monitor port.
- 4 、 New aluminum alloy die-casting, all seal waterproof shell, good sealed and waterproof.
- 5 、 High performance of price ratio



Specifications

Items	Parameters
Optical receiving part performance requirments	
RF Broadband	25~65(MHz)
Optical wavelength	1310nm,1610nm; Double Window
Receiving Optical Power	-18~0dBm
Optical Reflect Loss	>45dB
Flatness	±0.5dB
Nominal RF Output level (Note1) (Note2)	≥90 dBμV
RF Impedance	75Ω
Equivalent Input Noise Current	≤8 PA /
Thunder Stroke Immunity	> 5 KV (8/20μS)
Note1 : When -18dBm receiving, output total power≥90dBμV : optical receiving RF output detection port ≥70dBμV.	
Note2 : Low optical power return path planning 10 path, total optical power 90dBμV · each path 80dBμV.	
Optical transmitting part performance requirements	
Optical Wavelength	1310±20 nm(others optional)
Laser Type	FP PON Block or DFB
Output Optical Power	≥0 dBm
Output Optical Power Stability	±1 dB
Low Pass Filter Bandwidth	5~200 MHz
RF Bandwidth Except Low Pass Filter Bandwidth (Including gain and optical transmit module)	5~200 MHz
RF Input Level (Note 1)	93 dBμV
optical Transmit Drive Insert Port (Note 1)	113 dBμV
Return Optical Transmit Drive Level Test Port (Note 2)	75 dBμV
RF Impedance	75Ω
Link Flatness (Note 3)	±0.5 dB
Light Modulation System (Note 4)	34%±1
NPR Range (Note 3)	≥15 dB (NPR≥30dB)
Note1: Return signal total power that added to optical transmitting part of the main path. Planning path at the range 5-200MHz is 19, each path signal power 80 dBμV. Optical transmit drive insert port input total power is 113dBμV (each path 100dBμV).	
Note2: When Optical transmit main path input 93dBμV, return optical transmit drive level test port can be measured total power 75dBμV.	
Note3: Link flatness, NPR dynamic range is composed with all upstream optical transmitter and upstream optical receiver Link index, Optical link loss is 5dB.	
Note4: When optical workstation return optical transmit drive level test port measured total power 75dBμV, the modulation degree of return optical transmit is 34%±1.	
Others	
Power Consumption	< 10W
Operating Temperature	-20...+55℃
Dimension(S×W×G)	244×164×120 mm