

# **MICRONODO-OPT Series Optical Receiver Instructions**

### 1. Application

The MICRONODO-OPT is a home optical receiver with optical fiber access as its ultimate goal. It is suitable for FTTH (Fiber to the Home) network optical fiber subscriber access terminals, enabling analog or digital signals to enter the home. The machine uses low-power photodetectors, GaAs and optical AGC technology to meet the fiber-to-the-home CATV reception needs. Among them MICRONODO-OPT is based on WDM as the main push product, and it is a home-based equipment tailored to realize triple play.

### 2. Performance Characteristic

■ RF channel full GaAs low noise amplifier circuit. Digital signal can satisfy -18dBm reception, analog signal minimum meet -10dBm reception;

■ With light input AGC (AGC range can be customized according to the user);

Anti-high frequency surge device protection, GaAs amplification chip;

• Low-power design, using high-efficiency switching power supply to ensure high reliability and high stability of the power supply. The overall power consumption is less than 2W, with a light detection circuit;

■ FC/APC or SC/APC or FC/PC or SC/PC, male or female RF interface (customizable according to customer requirements);

■Multi-stage lightning protection device (TVS transient suppression diode), lightning protection system is tight, to ensure the safe operation of the equipment;

It can realize the power supply mode of output feed.

#### 3. Technical Indicators

CATV Working wavelength	1200~1600nm&1550nm	Carrier to noise ratio	≥51dB
Input optical power	0dBm~-10dBm(Analog signal)	СТВ	≥65dB
	0dBm~-18dBm(Digital signal)	CSO	≥62dB
Optical reflection loss	>45 dB	Host voltage	DC5V
Optical connector form	FC/APC or SC/APC or FC/PC or SC/PC	Infeed voltage	DC5V
Bandwidth	47~1006MHz	Adapter voltage	AC90V~145V or AC145V~265V
In-band flatness	±1dB@45~862MHz	Power consumption	<2W
RF output reflection	≥16dB@ 47~550MHz; ≥14dB@550~862MHz	Operating temperature	-20℃ ~+45℃
Output level	(80~82) dBuV (AGC:@-9~+0dBm, Pin=0dBm)	Package Size	315*242*110mm(10pcs)
RF output impedance	75Ω	FCL product weight	1.78kg (10pcs)
AGC range	(0~-9) dBm (default) / (-3~-12) dBm/ (-6~-15) dBm		

Note: Test conditions: 59 PAL-D analog TV channel signals in the 550 MHz frequency range and digital modulation signals in the 550 MHz to 862 MHz frequency range (8 MHz) under specified link loss conditions Within the bandwidth, the carrier level of the analog signal is 10 dB lower, and the optical receiver input optical power is 0 dBm, measuring C/N, CTB, and CSO.

# 4. Principle Diagram



#### 5. Product Description



# 6. Model Description

MICRONODO-OPT optical receiver nomenclature: RF single output of this product, PIN tube only with pigtail style, add WDM.

MICRONODO-OPT-Optical Connectors - RF Connectors - Photocell Types - Wavelength - Wave Taps

(black boxes are not written when order is not required)



Optical connector (SA: SC / APC; FA: FC / APC; SP: SC / PC; FP: FC / PC; can be customized)

Example: MICRONODO-OPT-SA-M-5-WSP

Explanation: This is a FTTH. Device model is MICRONODO-OPT ,the input optical connector is SC/APC, the RF connector is in metric format, the photocell uses only 1550nm light, and the WDM, WDM connector is SC/APC.

# 7. Product Maintenance

The warranty period for our company's equipment is one year. The company is responsible for the maintenance of the product for life. The equipment outside the warranty period will be charged with certain materials, maintenance and transportation costs.

The company does not assume any legal liability for any direct or indirect damage to the device or any consequential liability arising from improper use of the product by the user or the ability to make changes or force majeure on the product itself.