

FWT-1550EA Series wavelength: 1528~1563nm adj. or customized the wavelength



1. Product Description

FWT-1550EA series C-band tunable 1550nm externally modulated optical transmitter is a new product independently developed, designed and produced by Fullwell. Tunable wavelength range: 1528.77 ~ 1563.86nm, adjustable width: > 35nm. The light source of the device adopts narrow line width, Typ. = 0.65 MHz, low noise, continuous wave DFB laser, which is propitious to reduce the influence of dispersion.

Adopting the LiNbO₃ external modulator specially developed and produced by USA Oclaro for CATV signal modulation, and independently developed and designed dual microwave source optimization control technology, which achieves transmission of more than 120KM, CNR \geq 53dB, CTB \leq -65dB, CSO \leq -65dB, 47 ~ 862 MHz, SBS: 13-19dBm continuous adjustable. Equipped with SNMP network management, 1 + 1 power supply backup, and chassis temperature automatic control.

The FWT-1550EA type includes all available wavelengths in the C-band (the effective range of the CATV wavelength is 1540 to 1563nm). Users can quickly and accurately implement the selection and conversion of wavelengths according to the needs of the network. Convenient in the application of DWDM system, backbone network and metropolitan area network are limited to the number of fiber cores during long-haul transmission. DWDM technology can make full use of the existing fiber optic resources, ultra-large capacity for networking, and has high flexibility, economy and high reliability.

2. Product feature

- ◆ High quality: the original dual microwave innovative new technology, RF predistortion technology insure in the situation of quality CNR \geq 53dB, system can get largest CTB.CSO. SBS index.
- ◆ Flexibility: The phase modulation technology of the external modulator maximizes the optical power of the fiber to obtain long-haul transmission while ensuring the excellent CSO performance of the system, and the SBS threshold is continuous adjustable: 13-19 dBm; OMI, ITU wavelength adjustable, AGC/MGC selectable, suitable for different network transmissions.
- ◆ High wavelength accuracy: wavelength (frequency) locking accuracy (\pm 0.02nm), wavelength stability \pm

0.01nm.

- ◆ Intuitive: The external modulator and laser are the most expensive components of the device. The built-in microprocessor monitors the external modulator and laser working status, and the working parameters are displayed on LCD.
- ◆ Network management type: SNMP network management, can realize the network management WEB monitoring function.
- ◆ Power plug-in type: The aluminum-type plug-in switching power supply can work at 86 ~ 265Vac city voltage, and can also be easily replaced by -48Vdc DC power supply, and 1 + 1 power backup, supports hot-pluggable.

3. Technical Parameters

| Items | Unit | Parameter | Note |
|--------------------------------------|------|---------------------------------|------------------------------------|
| Laser Model | | | Oclaro (Made in USA) |
| Wavelength | nm | 1528.77~1563.86 | CATV Effective Range 1540 ~ 1563nm |
| Wavelength Stability | nm | ±0.01 | |
| Power Flatness | dB | ±0.75 | |
| Optical Modulation Method | | Externally Modulated | |
| Optical Output Power | dBm | 2x7 | Can Customize 2x8, 2x9,2x10 |
| SBS Threshold | dBm | 18(Default) | 13~19 continuous adj. |
| Optical Connector | | FC/APC or SC/AP | Specified Before Ordering |
| Frequency Range | MHz | 47~1000 | |
| CNR | dB | ≥53.0 | GY/T143-2000 6.2.3.5 |
| Flatness | dB | ±0.75(860MHZ), ±1.5(1000MHZ) | GY/T143-2000 6.2.4 |
| RF Input Level | dBuV | 77~83 | AGC Automatic Control |
| C/CTB | dB | ≥65.0 | GY/T143-2000 6.2.5 |
| C/CSO | dB | ≥65.0 | GY/T143-2000 6.2.6 |
| RF Input Impedance | Ω | 75 | |
| RF Input Return Loss | dB | > 16 | GB/T11381.1 4.2.2.2.5 |
| Power Supply (Dual Hot-pluggable) | V | 86~265VAC | Optional -48VDC |
| Power Consumption | W | ≤50 | Single Power Supply Operation |
| Working Temperature | ℃ | 0~50 | Automatic Temperature Control |
| Storage Temperature | ℃ | -20~85 | |
| Working Relative Humidity | % | 20%~85% | |
| Dimension | " | 19"×11"×1.75" | (W)×D)×(H) |
| Network Management Interface | | RJ45 | Supporting Web Browser and SNMP |

4. Product model series

FWT-1550EA -2×7 (two outputs, ≥7dBm)

FWT-1550EA -2×8 (two outputs, ≥8dBm)

FWT-1550EA -2×9 (two outputs, ≥9dBm)

FWT-1550EA -2×10 (two outputs, ≥10dBm)

