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# DMOT-1500WU×× (ITU standard wavelength adjustable) 1550nm Direct Modulated Narrow-band Multiplexing Optical Transmitter


## Product description

DMOT-1500WU are a series of high quality 1550nm Internal Modulated Narrow-band Multiplexing Optical Transmitter. It adopts high linearly, low chirp, cooling DFB laser and builds-in pre-distortion compensation, which improves the system index obviously. Excellent AGC, APC, ATC control, ensure laser's high reliability and long life of working. It can be used in second-grade service area (sub-headed) of All-optical 1550nm system, spots local multi-channel analog and digital signal, and provide VOD Value-added services for users.
DMOT-1500WU have many configurations for the user' s choice. Through these configurations, we can provide concise and reliable links for the users and thus save much space for them.
DMOT-1500WUOO: ITU standard wavelength, ±1.6nm adjustable, no Wavelength Division Multiplexing (WDM) and variable optical attenuator.
DMOT-1500WUWO: ITU standard wavelength, ±1.6nm adjustable, built-in WDM, provide main-line input and combine- wave output, laser output power not adjustable.
DMOT-1500WUOT: ITU standard wavelength, ±1.6nm adjustable, no Wavelength Division Multiplexing (WDM), single fiber output, built-in variable optical attenuator, TX laser output power adjustable.
DMOT-1500WUWT: ITU standard wavelength, ±1.6nm adjustable, built-in WDM, provide main-line input and combined-wave output, built-in continuous variable optical attenuator, TX laser output power adjustable.

## Product features

- Low chirp, high linearity, cooling DFB laser.
- High efficient laser pre-distortion regulation.

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- Perfect laser APC, ATC closed-loop control.
- ITU standard wavelength optional. Users can adjust and enactment the laser wavelength in the front-panel with ±0.05nm stepping within range ±200GHz (±1.6nm). It is suitable for WDM system, as well as network upgrading expanding.
- Build-in WDM optional (with main-line input and combined-wave output), provide concise and reliable links.
- Build-in VOA optional (TX laser output power continuous adjustable), facilitate system modulating.
- 1+1 backup power supply optional, switch automatically.
- Build-in fan and forced cooling to ensure the long life span of laser.
- SNMP network management optional and RS232 communication interface.
- Excellent P/P ratio.

## Main application

It can be used in second-grade service area (sub-headed) of All-optical 1550nm system, spots local multi-channel analog and digital signal with high quality, and provide individuality local program and VOD Value-added services for users.

## Technical index

| Performance | | | Index | Supplement |
|---|---|---|---|---|
| Optic feature | Wavelength | (nm) | 1548~1563 | DMOT-1500WC: CATV wavelength |
| | | | 1530~1563 | DMOT-1500WU: ITU standard wavelength |
| | Input wavelength | (nm) | 1548~1563 | DMOT-1500WCW |
| | Output wavelength | (nm) | 1530~1563 | DMOT-1500WUW |
| | Linewidth | (MHz) | ≤1 | FWHM(△λ) |
| | Side mode suppression ratio | (dB) | ≥45 | SMSR |
| | Equivalent noise intensity | (dB/Hz) | ≤-160 | RIN (20~1000MHz) |
| | Output power | (dBm) | 6 | 3, 10 Options |
| | Output power adjustable range | (dBm) | 0~20 | DMOT-1500W××T |
| | Return loss | (dB) | ≥55 | |
| | optical fiber connector | | SC/APC | Optional FC/APC |
| RF feature | Work bandwidth | (MHz) | 45-862 | |
| | Input level | (dBmV) | 28~40 | Note 1 |
| | Flatness | (dB) | ≤±0.75 | 45~862MHz |
| | Return loss | (dB) | >16 | |
| | Input impedance | (Ω) | 75 | RF/INPUT |
| | RF test | (dB) | -20 | |

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| | | | | |
|---|---|---|---|---|
| Link feature | Transmit channel | | PAL-D/60CH | NTSC/80CH |
| | CNR | (dB) | ≥52 | -1dBm receive |
| | CTB | (dB) | ≤-65 | |
| | CSO | (dB) | ≤-62 | |
| | SBS restrain | (dBm) | ≥18 | |
| General feature | Network management interface | | RJ45, RS232 | Support I.E. & SNMP |
| | Power supply | (VAC) | 90~265 | 50/60Hz |
| | | (VDC) | -48 | 30~72 |
| | Power Consume | (W) | ≤30 | Single power works |
| | Work temp. | (℃) | -5~65 | Machine temp. control automatically |
| | Storage temp. | (℃) | -40~85 | |
| | Operating relative humidity | (%) | 5~95 | |
| | Size | (") | 19×14.5.7×1.75 | (W)x(D)x(H) |

Note 1: The actual input level of N channel is calculate by this formula: VinN=20-(10lgN/60) dBmV

## Product series

| Model | Wavelength | Output power(dBm) | WDM | VOA |
|---|---|---|---|---|
| DMOT-1503WUOO | ITU standard wavelength, ±1.6nm adjustable | 3 | Without | Without |
| DMOT-1506WUOO | | 6 | Without | Without |
| DMOT-1510WUOO | | 10 | Without | Without |
| DMOT-1503WUWO | ITU standard wavelength, ±1.6nm adjustable | 3 | With | Without |
| DMOT-1506WUWO | | 6 | With | Without |
| DMOT-1510WUWO | | 10 | With | Without |
| DMOT-1503WUOT | ITU standard wavelength, ±1.6nm adjustable | 3 | Without | With |
| DMOT-1506WUOT | | 6 | Without | With |
| DMOT-1510WUOT | | 10 | Without | With |
| DMOT-1503WUWT | ITU standard wavelength, ±1.6nm adjustable | 3 | With | With |
| DMOT-1506WUWT | | 6 | With | With |
| DMOT-1510WUWT | | 10 | With | With |