

GDS-6804 (47~862MHz & 950~6000MHz)

4-Band SAT-TV & CATV Direct Modulated Optical Transmitter

PRODUCT DESCRIPTION

GDS-6804 series micro-wave Direct Modulated Optical Transmitter, the working broadband is 47~862MHz & 950~6000MHz. By internal frequency overlay, can transmit 4SAT-IF, 4 roads sat TV signals and CATV signal of 47~862MHz with high quality by one fiber.

It can supply high quality of satellite live TV service that come from maximum 4 satellites & CATV service for many users by FTTH, FTTB.

GDS-6804 working wavelength is optional 1310nm or 1550nm. Choose 1550nm working wavelength can use EDFA & EYDFA to realize large area coverage. It is compatible with any FTTx

PON technology. Realize multi-way satellite TV, CATV TV and internet integration of three networks.

GDS-6804 can choose 1550nm ITU-T standard wavelength to realize DWDM system application, can transmit 8SAT-TV, 12SAT-TV or 16SAT-T by one fiber.

SAT-IF input signal of GDS-6800 can come from 4 different satellites, and also can come from one satellite's 4SAT-IF signal. If adopt one satellite's 4SAT-IF, can adopt Quattro LNB 4SAI-IF output tuner, such as UX-QT.

GDS-6804 adopts high linearity broadband and microwave direct Modulated DFB laser. Excellent laser APC, ATC control, perfect SNMP, RS232 interface. High performance, high flexibility, high reliability and excellent performance price ratio. It is the ideal choice for subscribers.



PRODUCT FEATURES

- ▶ 47~862MHz & 950~6000MHz RF working bandwidth
- ▶ Transmit CATV signal& 4SAT-IF overlay signal by one fiber at same time
- ▶ 1550nm Can use EDFA, YEDFA, can compatible with any FTTx PON
- ▶ 1550nm can select ITU-T standard wavelength, suitable for DWDM systems applications
- ▶ 4 SAT-IF input interfaces, all can supply power to LNB, all with +18V or +13V power switching, can realize the choice of horizontal and vertical polarization
- ▶ 4 SAT-IF input interfaces, the 2 interfaces are High Band(22KHz), another 2 interfaces are Low Band(0Hz)
- ▶ High linear broadband micro-wave (microwave) direct modulated DFB Laser
- ▶ Laser APC, ATC
- ▶ Telecommunication-grade security and reliability and network management

► SNMP support remote management and control

► Excellent performance price ratio in this area

MAIN APPLICATION

► FTTH, FTTB(CATV & 4 SAT-TV)

► Triple-play(CATV, 4SAT-TV & Intranet)

TECHNICAL INDEX

| Performance | | | Index | | | Supplement |
|-------------------|---|---------|---------|------|---------|--|
| | | | Min. | Typ. | Max. | |
| Optical feature | Working wavelength | (nm) | 1300 | 1310 | 1320 | 13 |
| | | | 1547 | | 1563 | CR |
| | | | 1528 | | 1543 | CB |
| | | | 1528.77 | | 1563.86 | XX (ITU standard wavelength) |
| | Laser type | | DFB | | | |
| | Laser grade | | 1M | | | |
| | Side mode suppression ratio | (dB) | 35 | 45 | | |
| | Equivalent noise intensity | (dB/Hz) | 155 | | | |
| | Output optical power | (dBm) | 2 | | 10 | |
| | SBS | (dBm) | 18 | | | 1550nm, 25KM Fiber |
| | Return loss | (dB) | 40 | 45 | | FC/PC, SC/PC |
| | | | 55 | 60 | | FC/APC, SC/APC |
| | Optical fiber connector | | SC/APC | | | Optional FC/APC, SC/PC, FC/PC |
| Frequency feature | Frequency IF input | VL | (MHz) | 950 | 1950 | |
| | | VH | | 1100 | 2150 | |
| | | HL | | 950 | 1950 | |
| | | HH | | 1100 | 2150 | |
| | 4 SAT-IF superposition working frequency range | | (MHz) | 950 | 6000 | |
| | In-band gain flatness | | (dB) | -2.0 | +2.0 | |
| | 40MHz gain flatness | | (dB) | -0.5 | +0.5 | |
| | IM2 | | (dB) | 40 | | 2 tone measurement, OMI=20% per carrier |
| | IM3 | | (dB) | 40 | | |

| | | | | | | | | |
|-----------------|----------------------------|--------------|--------|---------------|------------|-----|--------------|----------------------|
| | Input level | | (dBm) | -60 | | -22 | | |
| | Input impedance | | (Ω) | | 75 | | | |
| | RF return loss | | (dB) | 8 | | | | |
| | RF connector type | | | F-Female | | | | |
| | The number of SAT-IF input | | | | 4 | | | |
| | Frequency Workig | CATV | | (MHz) | 47 | | 862 | Digital or Analog TV |
| | | DAB | | | 213 | | 854 | |
| | | DTT | | | 470 | | 854 | |
| | | FM | | | 88 | | 108 | |
| | Input level | | (dBmV) | 15 | | 28 | | |
| | Flatness | | (dB) | -1 | | +1 | 47~862MHz | |
| | Return loss | | (dB) | 14 | | | | |
| | Input impedance | | | | 75 | | | |
| | Connector type | | | F-Female | | | | |
| | Link feature | Test channel | | | PAD-D/60CH | | | |
| | | CNR | | (dB) | 51 | | | -1dBm receiver |
| | | CTB | 1310nm | (dB) | | | -65 | |
| | | | 1550nm | (dB) | | | -63 | |
| | | CSO | 1310nm | (dB) | | | -60 | |
| | | | 1550nm | (dB) | | | -57 | |
| General feature | SNMP interface | | | RJ45 | | | | |
| | Communication interface | | | RS232 | | | | |
| | Power supply | AC | (V) | 90 | 220 | 265 | | |
| | | DC | | -30 | -48 | -72 | | |
| | Power consume | | (W) | | | 25 | | |
| | Work temp. | | (℃) | -5 | | +65 | | |
| | Storage temp. | | (℃) | -40 | | +85 | | |
| | Work relative humidity | | (%) | 5 | | 95 | | |
| | Size | | (") | 19 ×14.5×1.75 | | | (W) x(D)x(H) | |

MODEL EXPLANATION

| Product type | | Operating bandwidth | | SAT-IF input number | | Output power | | Operating wavelength | | Connector | | Power supply | |
|--------------|--|---------------------|--|---------------------|---------|--------------|-------|----------------------|-------------------------------------|-----------|--------|--------------|--------|
| GDS | Satellite direct modulated optical transmitter | 68 | 47~862MHz & 950~6000MHz CATV + 4SAT-IF | 04 | 4 ports | 02 | 2dBm | 13 | 1310nm | SA | SC/APC | 48 | -48VDC |
| | | 60 | 950~6000MHz 4SAT-IF | | | 04 | 4dBm | CR | 1547~1563nm | FA | FC/APC | 22 | 220VAC |
| | | | | | | 06 | 6dBm | CB | 1528~1543nm | SP | SC/PC | 11 | 110VAC |
| | | | | | | 08 | 8dBm | XX | 1528~1563nm ITU standard wavelength | FP | FC/PC | | |
| | | | | | | 09 | 9dBm | | | | | | |
| | | | | | | 10 | 10dBm | | | | | | |