

## SUN54180RB54102RB Optical Receiver Module CATV

### Description

1. Designed for FTTH networks ONU side to receive the 1550nm video signal.
2. Contains an Amplitude equilibrium circuit to offer 3dB tilt over the frequency band of 45-1000 Mhz to offset the high frequency attenuation of cable.



### Specifications

| Parameter                       | Symbol | Unit | Min  | Typ  | Max  | Test Condition |
|---------------------------------|--------|------|------|------|------|----------------|
| Electrical Characteristics      |        |      |      |      |      |                |
| Frequency Range                 | Fop    | MHz  | 45   |      | 1000 |                |
| RF Output Level                 | Lo     | dBuV |      | 80   |      | Note 1         |
| Flatness In Band                |        | dB   |      | ±1   | ±1.5 |                |
| Tilt In Band                    |        | dB   |      | 3    | 5    |                |
| Output Return Loss              | RI     | dB   | 14   |      |      |                |
| Output Impedance                | Zo     | Ω    |      | 75   |      |                |
| CNR                             | CNR    | dB   | 46   |      |      | Note 2         |
| CSO                             | CSO    | dB   | 60   |      |      | Note 3         |
| CTB                             | CTB    | dB   | 65   |      |      | Note 3         |
| Optical Receive Characteristics |        |      |      |      |      |                |
| AGC Dynamic Range               | PAGC   | dBm  | -6   |      | +2   | Note 4         |
| Input Optical Power             | Popt   | dBm  | -8   |      | +2   |                |
| Optical Return Loss             |        | dB   | 50   |      |      |                |
| Wavelength Reflect              | l1     | nm   | 1260 | 1310 | 1360 |                |
| Wavelength Reflect              | l2     | nm   | 1480 | 1490 | 1500 |                |
| Wavelength Pass                 | l3     | nm   | 1540 | 1550 | 1560 |                |
| Isolation Com-Pass              | l1     | dB   | 30   |      |      |                |
| Isolation Ref-Pass              | l1     | dB   | 50   |      |      |                |
| Isolation Com-Pass              | l2     | dB   | 30   |      |      |                |
| Isolation Com-Ref               | l3     | dB   | 20   |      |      |                |
| Insertion Loss Reflect          | l1     | dB   |      |      | 1    |                |
| Insertion Loss Reflect          | l2     | dB   |      |      | 1    |                |
| Insertion Loss Pass             | l3     | dB   |      |      | 1    |                |

Note1: Optical Input Power: -6dBm, 527.25 MHz, OMI=3.3%

Note2: Optical Input Power: -6dBm, 84 PAL-D channels, OMI=3.3%

Note3: Optical Input Power: +2dBm, 84 PAL-D channels, OMI=3.3%

Note4: Optical Input Power: -6dBm~+2dBm, 527.25 MHz, OMI=3.3%, Output Level is 80dBuV±2dB

### 肯耐國際股份有限公司

**Order information**

| Item       | Receiver | Frequency Range | Optical AGC Range | Output Level | Output Channel Control | Applied Range |
|------------|----------|-----------------|-------------------|--------------|------------------------|---------------|
| SUN54180RB | WDM-PD   | 45MHz~1000MHz   | -8dBm~2dBm        | 80dBuV       | with                   | FTTH          |
| SUN54102RB | WDM-PD   | 45MHz~1000MHz   | -8dBm~2dBm        | 102dBuV      | without                | FTTB          |