

# MSA FIXED Gain with Electrical Control

## Features:

- Compact MSA Compliant Size
- Available in Both Single Channel & Gain-flattened Versions
- Analogue Output for Input & Output Power Monitoring

## Applications:

- Metro/Access Networks
- DWDM System
- Single Channel or Narrowband Amplification



## Specifications:

| Parameter                 |                               | Unit | Min. | Typ.         | Max. |
|---------------------------|-------------------------------|------|------|--------------|------|
| Operating wavelength      | C-Band                        | nm   | 1528 |              | 1564 |
| Input Power               |                               | dBm  | -6   |              | 4    |
| Output Power              |                               | dBm  |      |              | 18   |
| Gain                      |                               | dB   |      |              | 23   |
| Gain Accuracy             |                               | dB   |      | +/-0.25      |      |
| Gain Flatness             | Peak-to-Peak                  | dB   |      | 1            |      |
| Noise Figure              | Max. Gain & Max. Output Power |      |      | 5            |      |
| Input/Output Isolation    |                               | dB   | 30   |              |      |
| Input/Output Remnant Pump |                               | dBm  |      |              | -30  |
| Input/Output Return loss  | with Pump Off                 | dB   | 45   |              |      |
| PMD                       |                               | ps   |      |              | 0.5  |
| PDG                       |                               | dB   |      |              | 0.5  |
| Package Dimension         | L * W * H                     | mm   |      | 90 * 70 * 15 |      |

### Electric Pin Assignments:

| Pin | Definition             | Description                   |
|-----|------------------------|-------------------------------|
| 1   | +3.3V                  | +/-5%                         |
| 2   | +3.3V                  | +/-5%                         |
| 3   | +3.3V                  | +/-5%                         |
| 4   | +3.3V                  | +/-5%                         |
| 5   | Case Temperature Alarm | Output Pin, Alarm=LVTTL Low   |
| 6   | Loss of Output Alarm   | Output Pin, Alarm=LVTTL Low   |
| 7   | Pump Bias Alarm        | Output Pin, Alarm=LVTTL Low   |
| 8   | Pump Temperature Alarm | Output Pin, Alarm=LVTTL Low   |
| 9   | GND                    |                               |
| 10  | GND                    |                               |
| 11  | GND                    |                               |
| 12  | GND                    |                               |
| 13  | RXD                    | Input Pin                     |
| 14  | TXD                    | Output Pin                    |
| 15  | Loss of Input Alarm    | Output Pin, Alarm=LVTTL Low   |
| 16  | Reset                  | Input Pin, LVTTL Low          |
| 17  | Disable                | Input Pin, LVTTL Low1=Pump on |
| 18  | NC                     |                               |
| 19  | GND                    |                               |
| 20  | GND                    |                               |