# BOOSTRAL 7820

Segmentable optical node 2x2, 2 active outputs, 1.2 GHz / 200 MHz

VECTOR TECHNOLOGIES

## FORWARD PARAMETERS

| | |
|---|---|
| Wavelength | 1260 - 1620 nm |
| Bandwidth | 85…258 - 1218 MHz |
| Optical input power range | -9.9 - 2 dBm |
| Optical AGC range | -7 - 0 dBm |
| Flatness [1] | ±0.5 dB |
| Equivalent Input Noise Current [2] | 5 pA / √Hz |
| Output level: [3] | |
| CTB ≤ -60 dBc | 2 x 117 dBµV |
| CSO ≤ -60 dBc | 2 x 119 dBµV |
| Umax [4] | 2 x 112 dBµV |
| Gain limited output level [5] | 2 x 119 dBµV |
| Number of outputs | 2 active, up to 3 with passive splitting |

## RETURN PARAMETERS

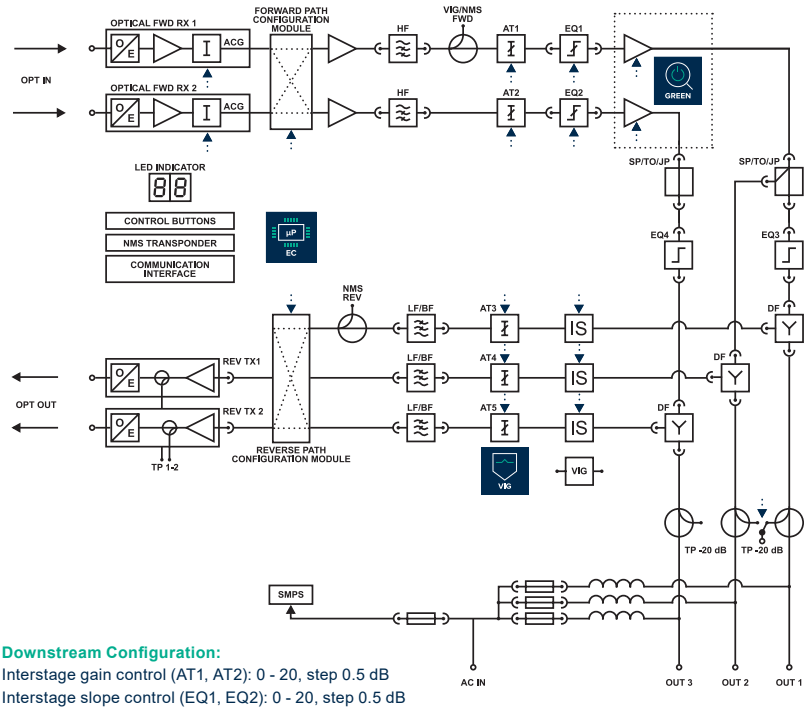
| | |
|---|---|
| Bandwidth | 5 - 65 … 204 MHz |
| Flatness [6] | ±0.5 dB |
| Optical output power [7] | 3 or 6 dBm ± 0.5 dB |
| Min RF input level to get 10% OMI [8] | 70 dBµV |
| NPR / Dynamic range [9] | 40 dB / 5 dB |

## OTHERS

| | |
|---|---|
| Return loss [10] | > 18 dB |
| AC voltage range: remote powering | 30 - 65 V AC |
| Max. current for RF / AC IN ports | 10 / 15 A |
| Power consumption [11] | < 49 W |
| Operation temperature range | -40 - 60 °C |
| Optical connectors | SC / APC |
| RF connectors | 3 x PG11 |
| Protection class | IP 67 |
| Dimensions (W x L x H) | 255 x 234 x 128 mm |
| Weight | < 4.0 kg |

## AVAILABLE VERSIONS

| | |
|---|---|
| BOOSTRAL 7820 489Y | remote powering; max. config: 2Rx x 2Tx |




**Downstream Configuration:**
Interstage gain control (AT1, AT2): 0 - 20, step 0.5 dB
Interstage slope control (EQ1, EQ2): 0 - 20, step 0.5 dB
Output (Bridge ports) slope control (EQ3): 0 - 20, step 1.0 dB

**Upstream Configuration:**
Input gain control (AT3, AT4, AT5): 0 - 20, step 0.5 dB
Ingress switches: 0, -6, -∞ dB

**1.2 GHz technology**
An extended bandwidth in downstream up to 1.2 GHz; DOCSIS 3.1 standard compliant

**200 MHz technology**
A possibility of extending bandwidth in upstream up to 200 MHz

**GaN Technology**
The Output parameters for analog and digital carriers improved for lower power consumption

**Electronic control**
A quick and uninterrupted device configuration

**VMC (VECTOR Mobile Commander)**
Convenient and user-friendly configuration through mobile devices

**Electronic adjustment**
Easy configuration by using buttons and LED Indicator

**NMS transponder**
Reduced operating costs thanks to the remote monitoring and configuration

**VIG (VECTOR Ingress Guard)**
System compliant; Verification and elimination of the source of ingress in the network

**Integration of optical passives**
A possibility of installing CWDM / DWDM / WDM filters inside the housing

**GREEN mode**
A significant reduction of power use thanks to optimization of its consumption

1. In range 85 - 600 MHz; ± 0.75 dB in range 600 - 1006 MHz; ± 1.0 dB in range 1006 - 1218 MHz
2. Typical value; the worst case 6 pA / √Hz
3. According to EN 50083-3, 9 dB slope between 85 to 862 MHz, 42 channels CENELEC, typ. value
4. Full digital load 258 - 1218 MHz, 110 channels QAM 256, 12 dB slope
5. AGC on, 3.25% OMI, -7 dBm optical input level, 1310 nm
6. Up to 85 MHz; ± 0.75 dB up to 204 MHz
7. For CWDM lasers, up to 16 wavelengths are available in 3 dBm version and 8 wavelengths are available in 6 dB version
8. With AT3, AT4, AT5 =0dB regardless of US configuration
9. Measured with 12 dB link (15 km fiber + loss), 60 MHz BW noise load, EINC 7pA / √Hz
10. In 5 - 65 MHz; 18 dB for f < 40 MHz; 18 dB -1.5 dB / oct for f > 40 MHz, but > 11 dB
11. 50 V AC; Configuration: 2x FWD Rx, 2x 6 dBm CWDM lasers, EDCM

Unless otherwise specified, the whole specifications are tested with 65 / 85 diplex filters installed; at room temperature 25°C and present typical values.