



HIGHLIGHTS

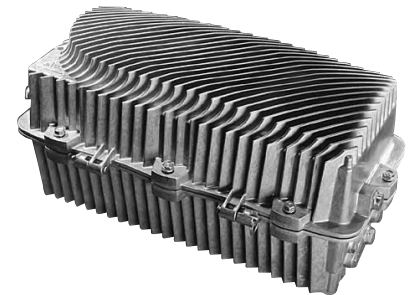
- **Full segmentation allows each output to be fed by an optical receiver and/or return transmitter, providing dedicated bandwidth. The demand for dedicated bandwidth increases as the need for narrowcasting services become more widespread.**
- **Full output scalability and flexible node configuration permits customizing the node specifically for the RF plant. This tailoring results in lower-cost installation.**
- **Two ports, usable for either direct input or direct powering, provide even greater flexibility in network design.**
- **Supports highly reliable networks with redundant fiber routes and power.**
- **Provides RF functionality out to 1 GHz**
- **Applications include trunk cascading and distribution**

The PWRBlazer™ Scalable Optical Node addresses the need for a flexible network which can economically deliver today's broadcast services while supporting additional future advanced services.

This easy-to-configure node consists of a housing (NRH 3867A), fiber tray (NFT 3000 or NFT 5000), and various combinations of power supplies (NPS 3815), optical receiver modules (NRM 3111A), return transmitter modules (NTM 3244E, NTM 3245, NTM 3247, NTM 3248L, NTM 3248, NTM 3249, NDT 3049A and NDT 314x), output modules (NOM 3121A) and an optional status monitoring transponder module. By varying the arrangement and interconnection of these modules, the node can be configured many possible configurations. At any time in the future, the node can be easily reconfigured to support changing broadcast needs, or to add narrowcast services, by simply installing and/or removing modules.

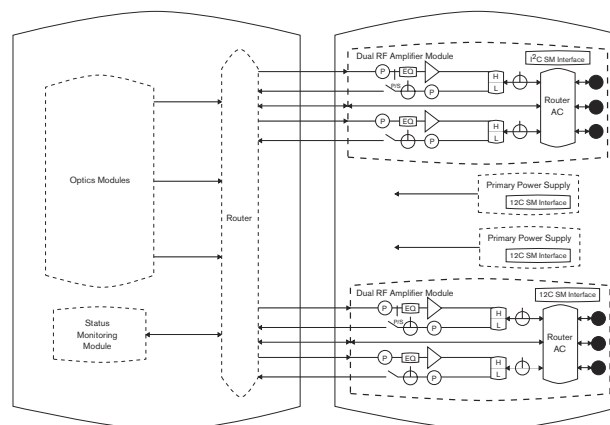
Reconfiguring the node is much less difficult and less costly than rebuilding the RF network, thereby saving system operators valuable time, money and other resources.

The node can support one to four RF output ports. This flexibility allows installation of a node exactly tailored to the RF plant following the node. Operators can also configure the PWRBlazer Scalable Node to support redundant fiber-routes as well as redundant powering. As the majority of services outages are caused by either power outages or fiber breaks, having power and fiber redundancy greatly increases network reliability.



The optional status monitoring transponder interfaces with Harmonic's NETWatch™ Element Management System and many other third party solutions. The transponder provides local and remote monitoring and control of all critical node parameters - a necessity for reliable networks. Redundant elements are not in use unless the operator is aware that a failure has occurred. (However if two power supplies are installed, they are load-sharing.)

Standard Configuration



1. Housing (model NRH 386x)¹

NRH 3867A Dimensions (WxHxD)	20" x 9" x 11" 51cm x 23cm x 28cm
Weight	35 lbs / 16 kg

2. Power Supplies (model NPS 38xx)¹

NPS 3815	150 W
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3. Output Modules (model NOM 31xx-yy)¹

NOM 3121A-30:	Dual amplified output, 5-30 MHz return, 46-1003 MHz forward
NOM 3121A-42:	Dual amplified output, 5-42 MHz return, 52-1003 MHz forward
NOM 3121A-65:	Dual amplified output, 5-65 MHz return, 85-1003 MHz forward

4. Optical Receivers (model NRM 3111A)¹

NRM 3111A	1003 MHz
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5. Fiber Trays

NFT 3000, NFT 5000L

6. Return Transmitters (model NTM 32xx and NDT 30xx)¹

NTM 3244E	Isolated 1310 nm, Fabry-Perot laser, 0 dBm ²
NTM 3245	1310 nm DFB laser, +3 dBm ²
NTM 3247	Isolated 1310 nm cooled CWDM laser, +3 dBm ²
NTM 3248	1550 nm DFB laser, +3 dBm ²
NTM 3248L	1550 nm DFB laser, 0 dBm
NTM 3249	1550 nm DWDM ITU 16 wavelengths, cooled DFB, +3 dBm
NDT 3049A	1550 nm uncooled DFB laser, +3 dBm
NDT314x	Digital CWDM, uncooled DFB, +3 dBm
NOA 7014-GF	NODEdfa, gain flattened optical amplifier, +14 dBm

7. Configuration Modules (model NCM 3xxx)¹

Forward

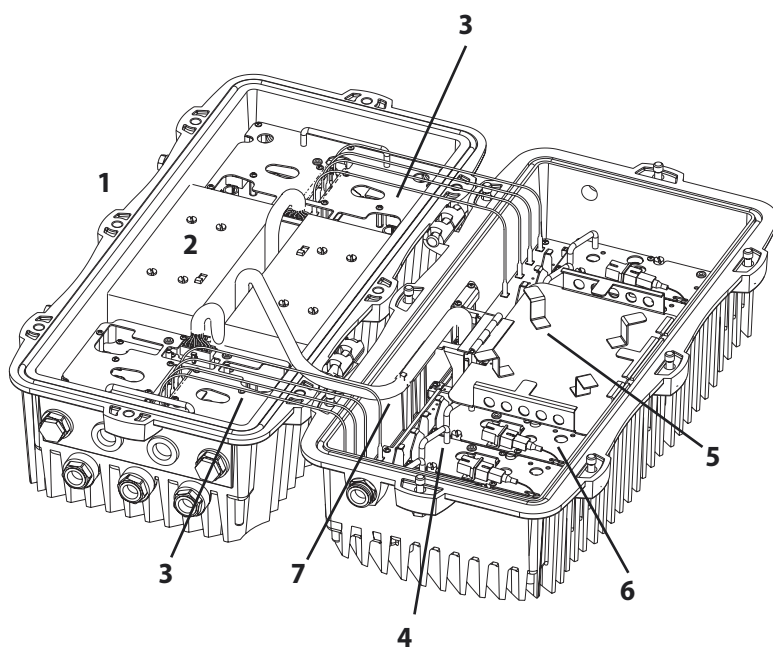
NCM3800	Jumper
NCM 3801	1x2 splitter
NCM 3802	A/B switch
NCM 3803	A/B switch with splitter
NCM 3804	Diplex filter 45-550 MHz/600-1003 MHz
NCM 3805	Diplex filter/splitter 50-550 MHz/600-1003 MHz
NCM 3806	Narrowcast highpass filter combiner 550-1003 MHz
NCM 3807	Narrowcast highpass filter combiner/splitter 550-1003 MHz
NCM 3808	Narrowcast highpass filter combiner 650-1003 MHz
NCM 3809	Narrowcast highpass filter combiner/splitter 650-1003 MHz
NCM 3810/3811	Forward splitter for top-bottom segmentation
NCM3813	Narrowcast highpass filter combiner 600 - 1003 MHz
NCM3814	De-segmentation module
NCM3815	Combiner
NCM3816	Combiner/splitter

Return

NCM3200	Jumper
NCM 3201	2x1 splitter
NCM 3202:	2x2 combiner/splitter
NCM 3203:	Directional coupler
NCM 3204:	Combiner/splitter

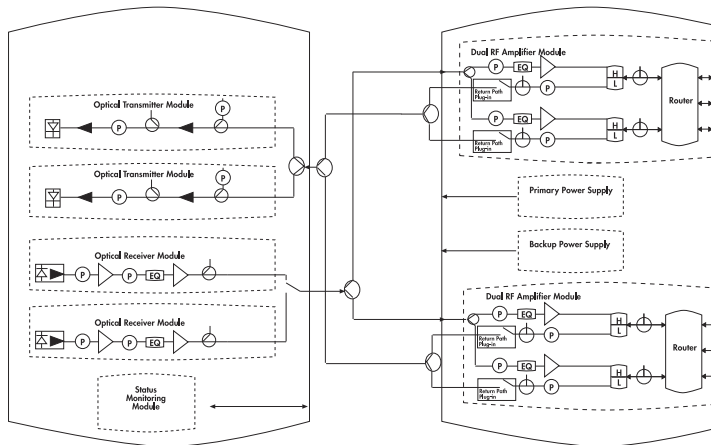
Notes:

1. For physical information and other detail specifications, please refer to individual product data sheets.
2. The following connector types are available: SC/APC, SC/UPC, FC/APC, FC/UPC.

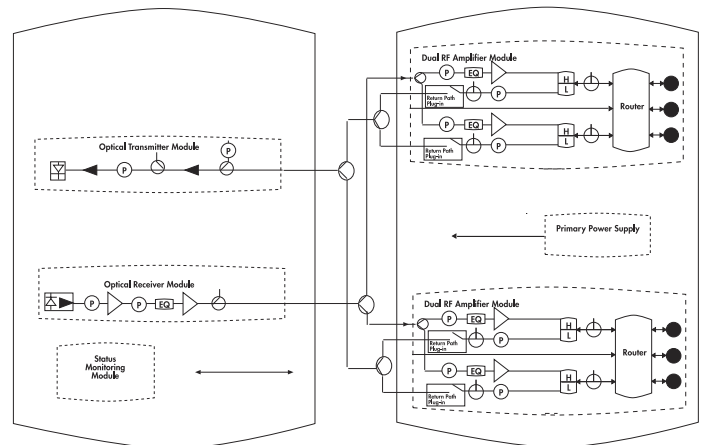


Typical Configurations

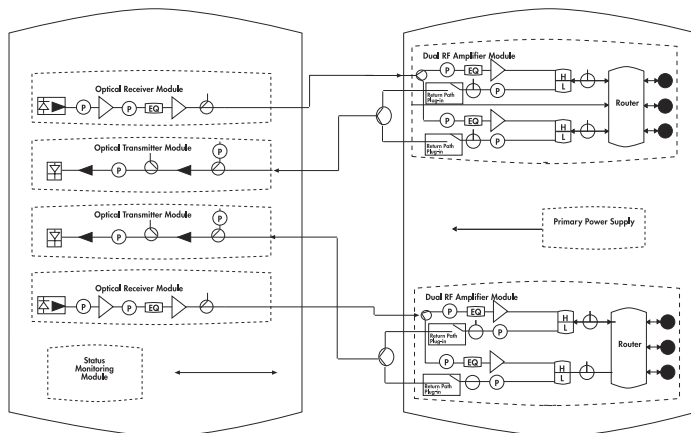
Redundant, Four Output



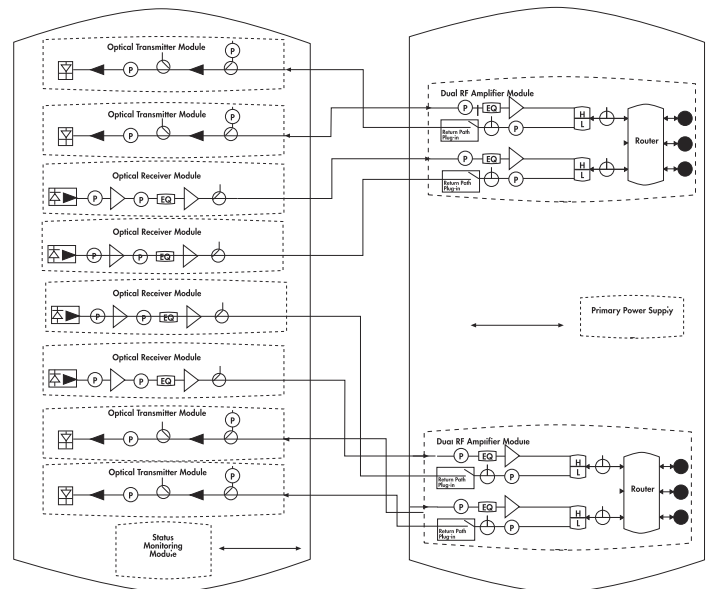
Two-Way, Four Output



Segmented 2 x 2



Fully Segmented 4 x 4



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