HFC Enhance® 6920 NODE DFB RETURN PATH TRANSMITTER

D3.1/CCAP™ Compliant

1. Overview

Figure #1 illustrates the HESA2xxxx DFB-based Return Path Transmitter.

Figure #1

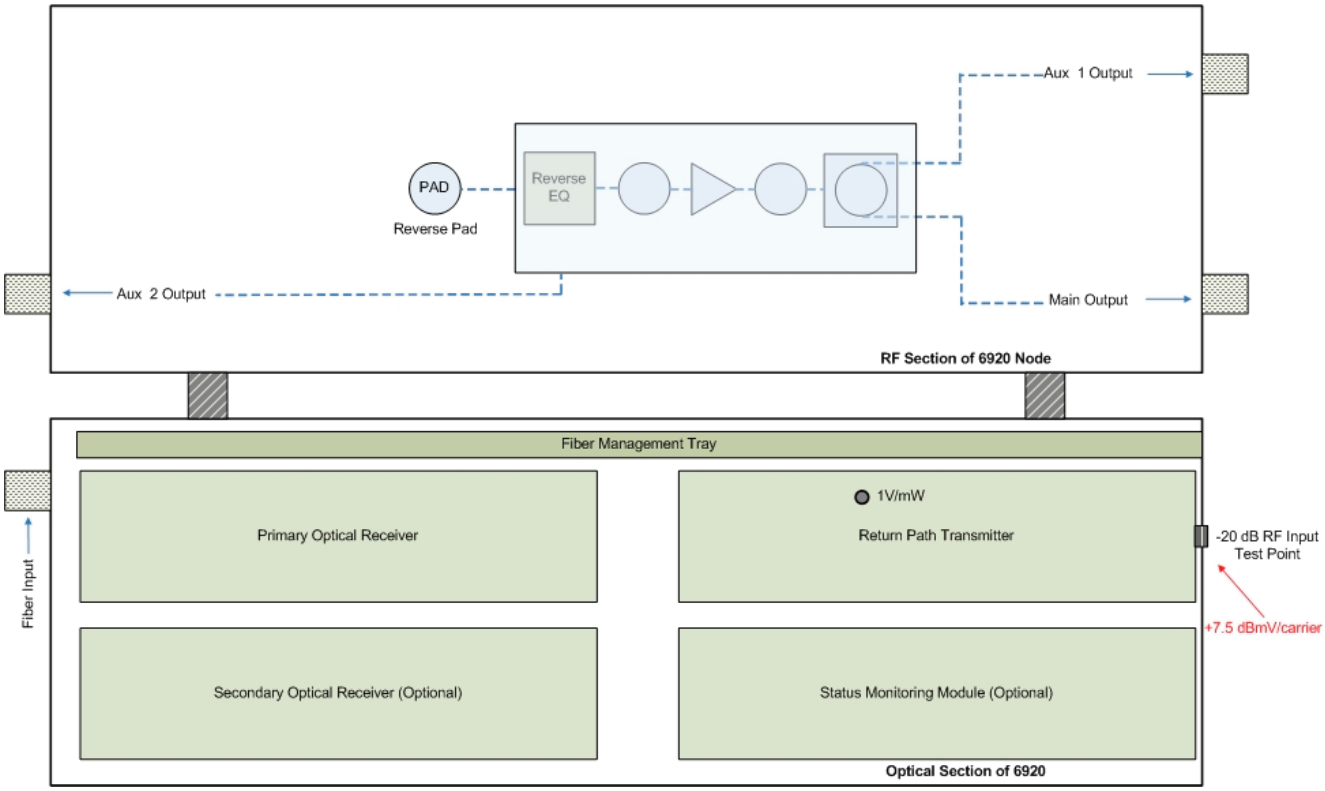

Figure #2 RF and Optical Section of 6920 Node

2. Installation

1. The transmitter module can be hot-swapped without damage to the module or node. Powering off the 6920 Node is optional.
2. Open the 6920 Node, locate the slot for the Return Path Transmitter in the optical section of the 6920 Node.
3. Remove the FP-based or failed Return Path Transmitter and install the DFB-based Return Path Transmitter. The unit should be installed in the module slot identified as Return Path Transmitter as indicated in Figure #2.
4. The primary RF connection is made through the RF connector which is located on the bottom of the transmitter.
5. Simultaneously tighten the retaining screws on the transmitter module.
6. Connect the Optical connector to the transmitter.
7. Power the 6920 Node back on.
8. Optical output power can be measured at the 1V/mW test point on the transmitter.
9. When everything is installed and the unit is powered, adjust the level of the transmitter for optimum RF drive level (see Section #3).

3. Setting Laser Drive Levels

The recommended RF input level into the transmitter is +27.5 dBmV[(1)] or +7.5 dBmV ±1[(1)] if measured at the transmitter's -20 dB RF Input Test Point. The return path can be optimized by measuring the carrier level seen at the -20 dB test point on the transmitter and adjusting the reverse pad on the RF section of the 6920 Main Board. If the signal level as measured at the -20 dB RF Input Test Point on the transmitter is greater than +7.5 dBmV, install an appropriate pad at the return pad location until the recommended level is achieved.

(1) The optimum drive level for the transmitter has been selected to be the level that is 3 dB offset (on the noise side) of the peak NPR on the device's NPR curve. The total power for the optimum drive level (assuming 37 MHz loading) is +35 dBmV or +7.5 dBmV per carrier, assuming a total of 6 carriers.

Service & Support

Contact ATX Networks

Please contact ATX Technical Support for assistance with any ATX products. Please contact ATX Customer Service to obtain a valid RMA number for any ATX products that require service and are in or out-of-warranty before returning a failed module to the factory.

RF Products
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TECHNICAL SUPPORT
Tel: (905) 428-6068 – press *3 then press 2
Toll Free: (800) 565-7488 – press *3 then press 2 (USA & Canada only)
Email: rfsupport@atxnetworks.com

CUSTOMER SERVICE
ATX Networks
1-501 Clements Road West
Ajax, ON L1S 7H4 Canada

Tel: (905) 428-6068 – press *1
Toll Free: (800) 565-7488 – press *1 (USA & Canada only)
Fax: (905) 427-1964
Toll Free Fax: (866) 427-1964 (USA & Canada only)
Email: support@atxnetworks.com
Web: www.atxnetworks.com

Warranty Information

All of ATX Networks' products have a 1-year warranty that covers manufacturer's defects or failures.

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ATX Networks
1-501 Clements Road West, Ajax, ON L1S 7H4 Canada
Tel: 905.428.6068 | Toll Free: 800.565.7488 | support@atxnetworks.com