HFC Enhance® BTN-M NODE DFB RETURN PATH TRANSMITTER

D3.1/CCAP™ Compliant

1. Overview

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

NOTE: If replacing both Return Path Transmitters, this may require 2.

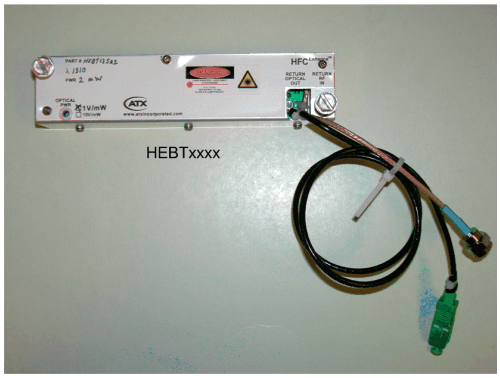

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Figure #1

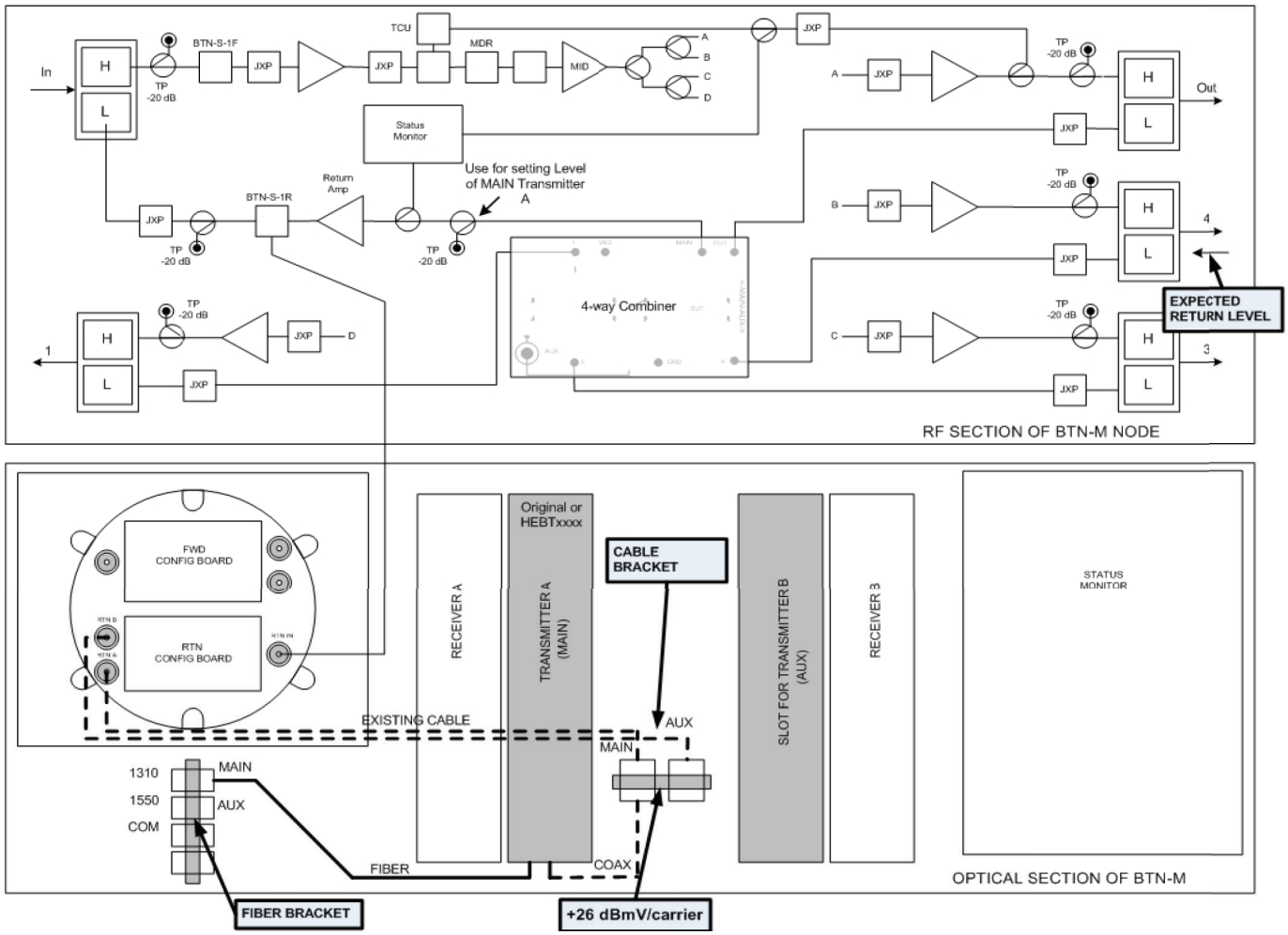

Figure #2

2. Installation

1. Power off the BTN-M Node.
2. Open the BTN-M Node; locate the existing FP-based Return Path Transmitter(s) in the optical section of the BTN-M Node. Remove the FP-based or failed Return Path Transmitter(s) and install the DFB-based Return Path Transmitter(s). The unit(s) should be installed in the appropriate module slot identified as Transmitter A and/or Transmitter B.
3. Connect the fiber from the HEBT**** Transmitter(s) to the appropriate (MAIN or AUX) optical connector on the Fiber Bracket in the node.
4. Power the BTN-M Node back on.
5. Optical output power can be measured at the 1V/mW test point on the transmitter(s).
6. When everything is installed and the unit is powered, adjust the levels of the transmitters for optimum RF drive level (see Section #3).

3. Setting Laser Drive Levels

7. Inject a CW signal into each node port at a level equivalent to the EXPECTED RETURN LEVEL as determined according to network design specifications.
8. Monitor the output of the signal at the appropriate (MAIN or AUX) F connector at the Cable Bracket (see Figure #1).
9. Adjust the signal using the RF Pad location which corresponds to the port that the signal is being injected into until the level at the port reads +26 dBmV.
10. Repeat steps 7 to 9 for all remaining ports.
11. Connect the HEBT**** Transmitter(s) coaxial connector to the appropriate connector on the Cable Bracket.

NOTE:
The optimum operating point for the transmitter is selected as the point which is 5 dB above the point at which the noise side of the NPR curve intersects an NPR of 41 dB. The NPR curve is generated using 37 MHz of noise loading and the per carrier power level is calculated assuming that the total power as calculated at the optimum operating point is spread across 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
(MAXNET, SignalOn, HFC Enhance, PCI Filters, Q-Series, SCN, SMAC, FiberLinx)

TECHNICAL SUPPORT
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Warranty Information

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

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