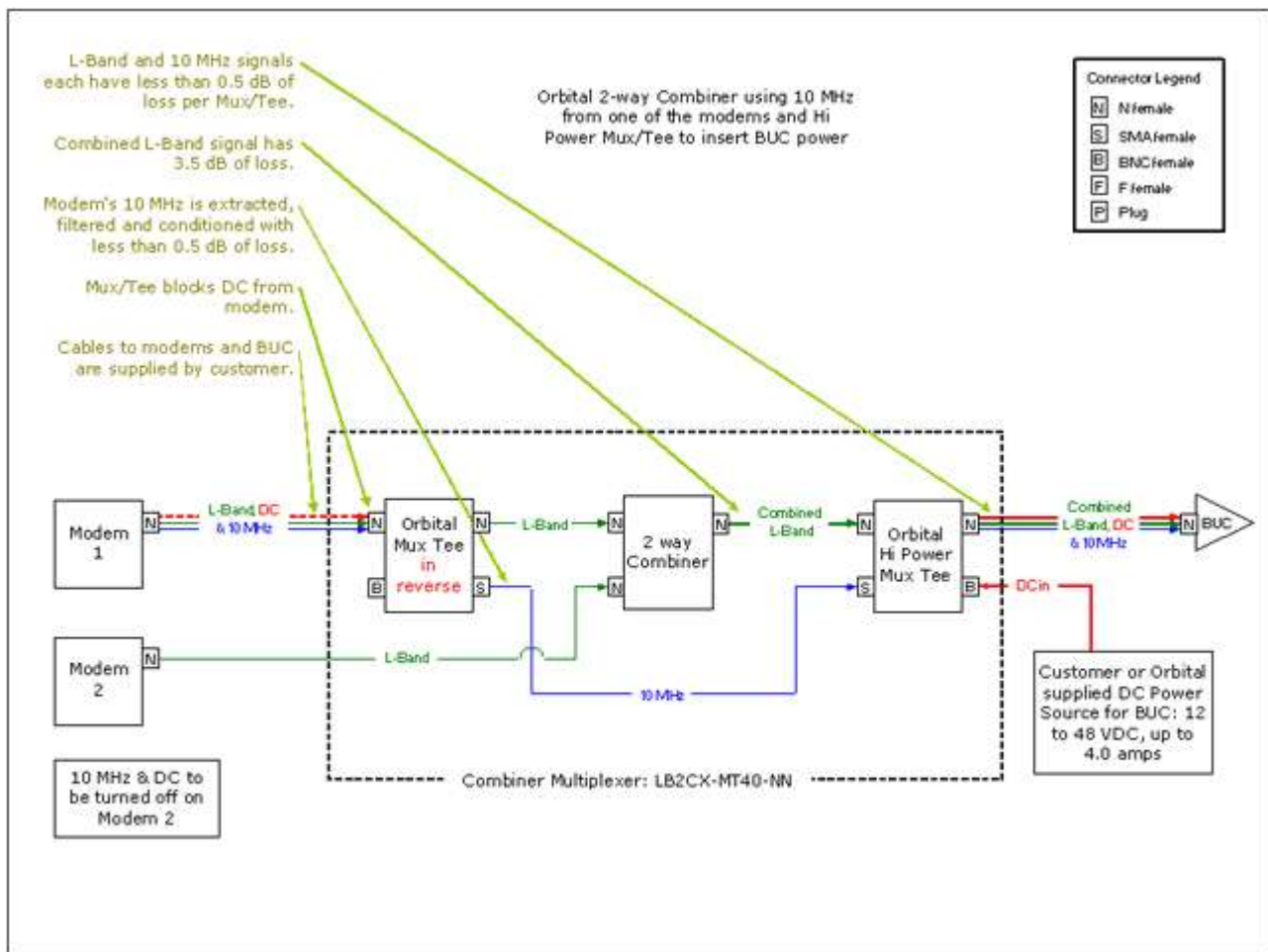


## Adding a Second Modem and a High Power BUC

**Orbital 2-way Combiner using 10 MHz from one of the modems and Hi Power Mux/Tee to insert BUC power.**

An Orbital Mux/Tee in reverse is used to extract the 10 MHz signal from one of the modems, while blocking the modem DC. The L-band signal from both of the modems is combined in a two-way combiner in preparation for being multiplexed with the 10 MHz reference, and the new more powerful DC supply.

This is done in order to properly combine the L-Band signals, and to re-integrate the 10 MHz reference after combining. In addition, in this solution, the DC power from the modem is insufficient to power the new BUC.



Cables from Modem to Combiner and from Combiner to BUC, supplied by customer. All

of jumpers supplied by Orbital.

All modems need to have their DC turned off.

The 10 MHz signal is taken from one of the modems, however, an Orbital standalone, 10 MHz Oscillator (MOS or POS) can be used in place of the modem Oscillator.

The Orbital Hi Power Mux/Tee is required at the output of the Combiner to re-integrate the 10 MHz with the L-Band signal. So at no extra cost, the customer can insert the DC to power the BUC at this point eliminating the need to have an extra cable out to the BUC or to have power outside at the BUC.

