

## **Brief Technical Description**

In the downlink path, from the Main Hub to the RAU, an RF signal is received via cable by the Main Hub. The Main Hub down-converts this signal to an IF signal and passes it via fiber to the Expansion Hub. The Expansion Hub does some additional filtering and passes the IF signal to the RAU via Cat 5 twisted pair cable. The RAU up-converts the signal back to RF and retransmits the original signal.

In the uplink path, from the RAU to the Main Hub, the RAU receives an RF wireless signal and downconverts it to an IF signal. The IF signal is passed to the Expansion Hub via the same Cat 5 twisted pair cable used in the downlink path. The Expansion Hub does some additional filtering and passes the IF signal to the Main Hub via fiber. The Main Hub up-converts the signal back to an RF signal and passes it via cable to a base station, roof top antenna, etc.