

# Introduction to the MA 1500 System

MA 1500 provides a cost effective solution for extending 450 MHz signal from a single BTS location to remote locations, up to 20 Km away, over SM F/O connections.

Simplex RF inputs and outputs support a wide variety of channel assignments, while maintaining the service integrity via highly linear amplifiers. Intuitive GUI software enables end-to-end setup and adjustment of the coverage to minimize interaction with outdoor signals.

The MA-1500 system is based on the following elements:

- **1500-BU** – A 1500-BU unit is installed, adjacent to the BTS location. It performs the RF to optic signal conversion at the BTS side and transmits the services to the remote location(s) where 1500-RU units are installed.
- **1500-RU** – A 1500-RU is installed at each remote location. This unit reconverts the signals received over the optic fiber to RF and distributes the services to the connected antennas.
- **MA-1500 GUI Tool** – Intuitive GUI used for setting up, adjusting and monitoring the MA 1500 system.

## 1 System Architecture

At the Main building, the 1500-UH-BU interfaces to the BTS via passive interface. It converts the RF signal received from the BTS to an optic signal and transmits it over SM optic fiber to the MA 1500 Remote. At the Remote buildings, the 1500-UHF-RU reconverts the received RF signal to an optic signal and routes the RF signals to the antennas.

The MA-1500 system provides flexible solutions for two types of antennas – simplex and duplex. Both solutions are illustrated in the figure below

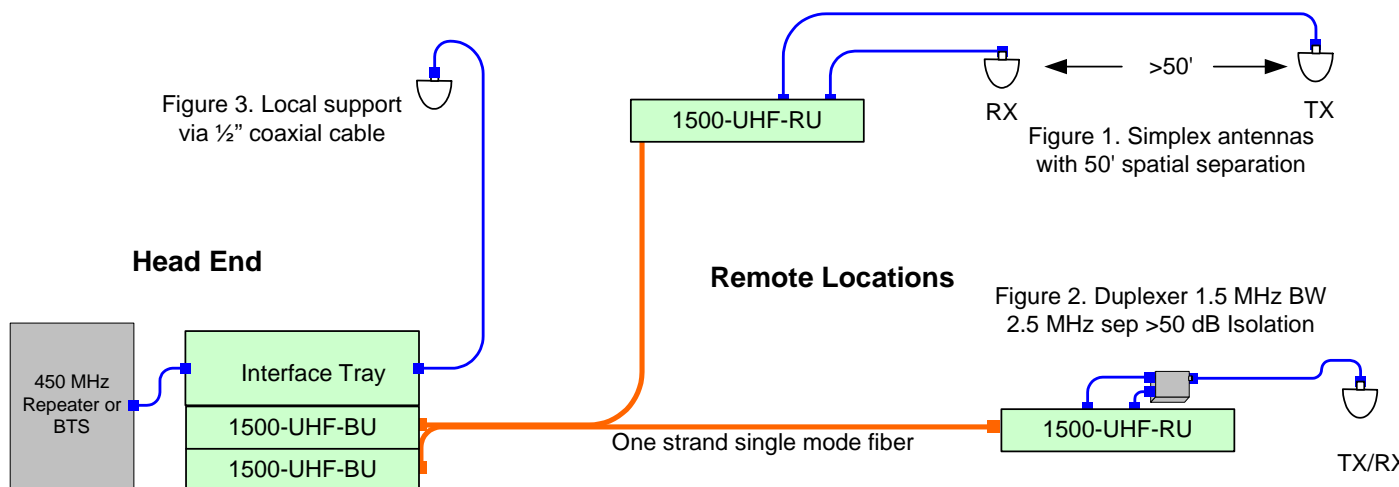


Figure. MA 1500 Installations