MPF Technologies Inc.

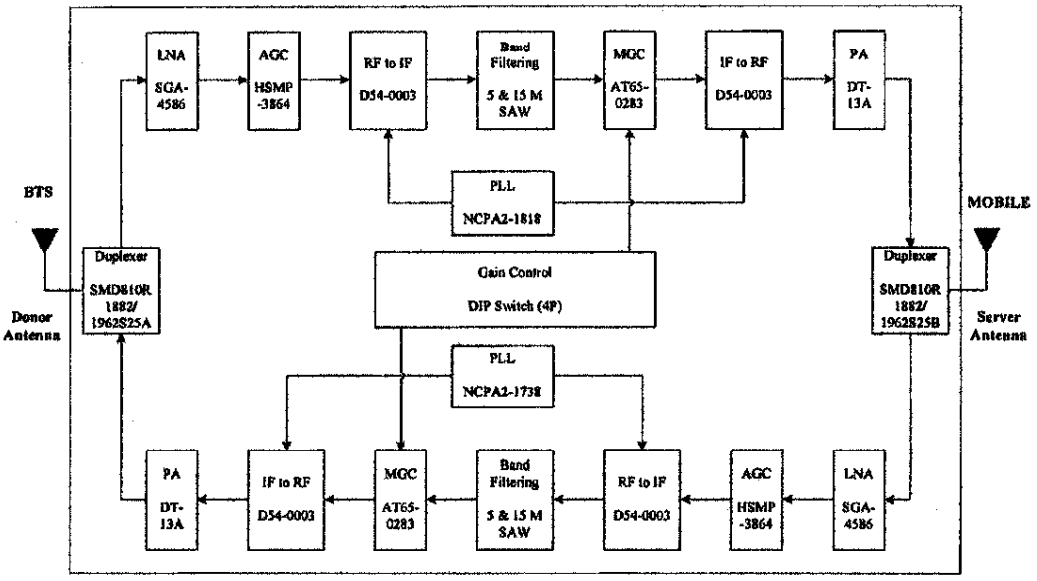

Figure 1

Figure 1 describes the operation of the repeater. The donor antenna points to the Base Station and receives the signal from the Base Station and feeds it to the downlink (DL) path of the repeater. The DL signal is then amplified and radiated by the server antenna. On the other side, the uplink (UL) signal from the mobile station (MS) is received by the server antenna and is then amplified by the repeater and re-radiated by the donor antenna to the BTS.

Signal flow on the downlink is as follows:

- The donor duplexer (SMD810R1882/1962S25A) separates the UL and DL

frequencies.

- The LNA (SGA-4286) reduces the total noise figure and amplifies the DL signal.
- Automatic gain control (HSMP-3864) is performed to meet the third order inter-modulation value.
- Mixer (D54-0003) down-converts the RF signal (PCS B&F Tx Bands) into IF frequencies (140 & 155 MHz) with the help of two SAW filters (15 MHz & 5 MHz) which lowers the out-of–band gain of the repeater. The mixer then up-converts the signal back to a RF signal again.
- MGC (AT65-0283) is a step attenuator that controls the gain of the repeater.
- PA (DT-13A) operates in the final stages and it does most of the major amplifying within the repeater.
- The server duplexer (SMD810R1882/1962S25B) delivers the DL signal to the server antenna.

Signal flow on the uplink is as follows:

- The server duplexer (SMD810R1882/1962S25B) separates the UL and DL frequencies.
- The LNA (SGA-4286) reduces the total noise figure and amplifies the DL signal.
- Automatic gain control (HSMP-3864) is performed to meet the third order inter-modulation value.
- Mixer (D54-0003) down-converts the RF signal (PCS B&F Tx Bands) into IF frequencies (140 & 155 MHz) with the help of two SAW filters (15 MHz & 5 MHz) which lowers the out-of–band gain of the repeater. The mixer then up-converts the signal back to a RF signal again.
- MGC (AT65-0283) is a step attenuator that controls the gain of the repeater.
- PA (DT-13A) operates in the final stages and it does most of the major amplifying within the repeater.
- The server duplexer (SMD810R1882/1962S25B) delivers the UL signal to the donor antenna.