2.2 Forwards

This repeater consist of LNA receiving CDMA signal(UP Link) from the Base Station and amplifying first step after filtering the other company's signal through the Duplexer, Down Converter converting the RF into IF signal, HPA amplifying the power, and PULL Local for the Down/Up converting

DIVIDER DIVIDER 1800L LNA AT-109 (1~40dB,1dB) 12031 202-86 BGA622 HPF Duplexer Low band input PowerDetector IF (110M H z) S tage Fixed ATT LPF 203-86 110M H z 303-86 110M H z 1800L HPF 230 - 86 AH1 RF SAW Duplexer

The functions for each block are as follows:

<Forward Block Diagram >

2.2.1 DUPLEXER

Link Duplexer is a device to transfer Down Link signal and Up Link Signal by using one port.

Down Link signal received Antenna from the BTS, it remove the other band signal and transfer LNA signal.

Up Link signal is being filtered the last and come out forward Base Station.

The signal frequency relaying toward terminal from Base Station is 1850 MHz $\sim 1910 \text{Mhz}$.

The signal frequency relaying toward Base Station from the terminal is KTF:1930 MHz~1990 MHz.

Tx/Rx Isolation is more than 50 dBc.

2.2.2 LNA

LNA is as a AMP amplifying first step received the weak signals through the DUPLEXER, has a excellent specific device of NF(1dB under)

It improves the whole system of NF and IP3 is rather high that can come out the stable output.

2.2.3 DOWN CONVERTER

Down Converter would convert IF signal from low-noise amplified signal for filtering SAW Filter having a good SCIRT.

In case of converting into IF signal it would be easier the process than RF signal, it can receive excellent selectivity only passing through the setting frequency range.

2.2.4 UP CONVERTER

UP Converter is excellent selectivity that the IF signal being filtered can supply the RF signal as service signal.

2.2.5 AMP

AMP receives the converted signal from the UP converter and improves the signal's advantage adjustment and IP3 features together

2.2.6 AMP (AH1)

AM1 is a final output terminal of UP Link, amplifying the high signal output in order to supply the service to the customer using a AMP being satisfied P1 18dBm/total based on 4Fa through the Duplexer & Antenna

2.2.7 PLL

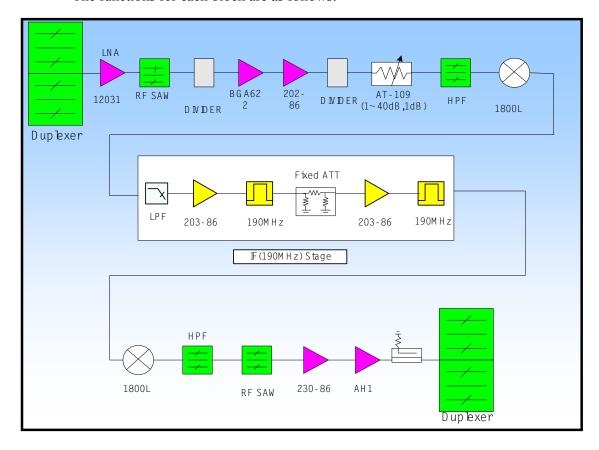
PLL Local Oscillator is Synchronous signal which convert the signal to RF into

IF, IF into RF and has a good phase noise that can convert the frequency without changed the signal features being input.

2.3 Backward

This repeater consist of LNA receiving CDMA signal(UP Link) from the Base Station and amplifying first step after filtering the other company's signal through the Duplexer, Down Converter converting the RF into IF signal, HPA amplifying the power, and PULL Local for the Down/Up converting.

The functions for each block are as follows:



<Backward Block Diagram >

2.3.1 DUPLEXER

Link Duplexer is a device to transfer Down Link signal and Up Link Signal by using one port

UP Link signal received Antenna from the terminal, it remove the other band signal and transfer LNA signal.

Down Link signal is being filtered the last and come out in the way of Terminal.

The signal frequency relaying toward terminal from Base Station is 1930 $MHz \sim 1990MHz$.

The signal frequency relaying toward Base Station from the terminal is KTF:1850 MHz~1910 MHz.

Tx/Rx Isolation is more than 50 dBc.

2.3.2 LNA

LNA is as a AMP amplifying first step received the weak signals through the DUPLEXER, has a excellent specific device of NF(1dB under)

It improves the whole system of NF and IP3 is rather high that can come out the stable output.

2.3.3 DOWN CONVERTER

Down Converter would convert IF signal from low-noise amplified signal for filtering SAW Filter having a good SCIRT.

In case of converting into IF signal it would be easier the process than RF signal, it can receive a excellent selectivity only passing through the set frequency range.

2.3.4 UP CONVERTER

UP Converter is a excellent selectivity that the IF signal being filtered can supply the RF signal after converting into a service signal.

2.3.5 AMP

AMP receives the converted signal from the UP converter and improves the signal's advantage adjustment and IP3 features together.

2.3.6 AMP (AM1)

AM1 is a final output terminal of UP Link, amplifying the high signal output in order to supply the service to the customer using a AMP being satisfied P1 18dBm/total based on 4Fa through the Duplexer & Antenna.

2.3.7 PLL

PLL Local Oscillator is Synchronous signal which convert the signal to RF into IF, IF into RF and has a good phase noise that can convert the frequency without changed the signal features being input.