

### Features

- 120dB typical Isolation (HPA to LNA OUT @Tx Mode)
- 2.5dB typical Insertion Loss (HPA to Ant @ Tx Mode)
- Fast Switching Time (0.5  $\mu$ sec)
- 6V DC supply ( I<sub>dc</sub> = 800mA Max.)
- TTL compatible control
- 3.0 dB Typical Noise Figure and 20 dB Rx. Gain
- 33dBm Output IP3
- 30dBm dynamic range detector



### Description

ADMOTECH's RF Switch-LNA designed for Wibro and WiMAX TDD systems feature high performance isolation characteristics and very fast switching time at high power signals. It also offer good insertion loss and Noise Figure in the market.

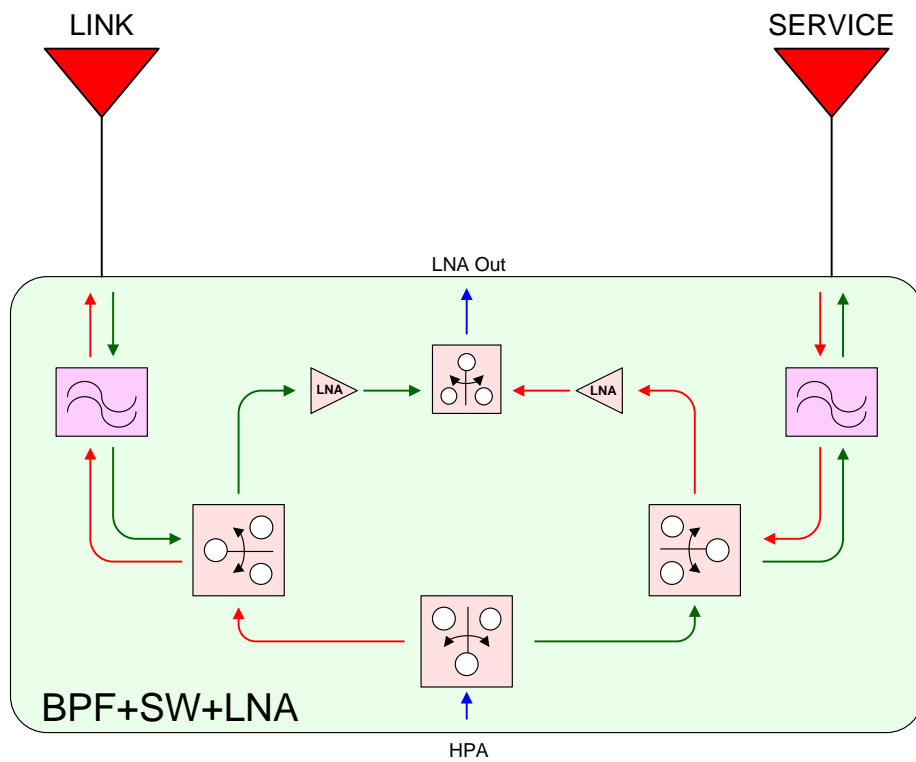
### Electrical Specifications

ITEM	SPECIFICATION	REMARK
Frequency Range	2496~2690 MHz	BW=188MHz
LNA Path Gain	20dB $\pm$ 1 dB.	Donor & Server -> LNA OUT
Noise Figure	3.5dB max.	3.3dB typical
Flatness	1.5 dB max.	BW=194MHz
Control Logic	TTL	Downlink=High
		Uplink=Low
Insertion Loss	2.5 dB max.	HPA $\rightarrow$ ANT
Isolation	120dB Typ, 110 dB min.	HPA $\rightarrow$ LNA Out
VSWR	1.3 dB max.	@ ANT port, Input VSWR
OIP3		
Consume Current	800mA max.	@+6V
Max HPA Input Power	37dBm	OFDMA_3FA
Operating Temp.	-10°C ~ +60°C	
	ANT	SMA 2hole Female
	HPA,LNA	SMA 2hole Female

## PIN Configuration

항목		규격	비고
I/O Port  (Molex 5267 05Pin)	#1	+6V	
	#2	GND	
	#3	-12V	
	#4	GND	
	#5	Switch Control	Downlink=High Uplink=Low

## BLOCK DIAGRAM



# Typical Response

- Noise Figure and LNA GAIN

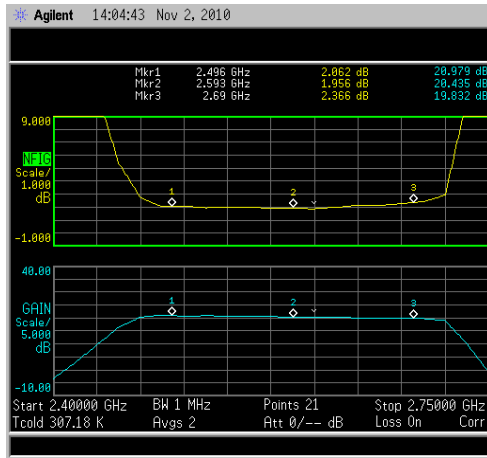


Fig. 1 Downlink LNA NF 및 GAIN

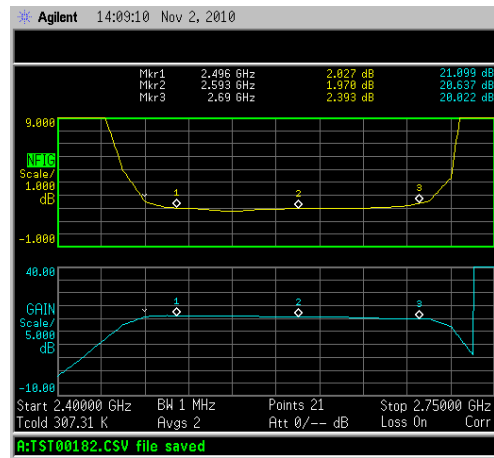
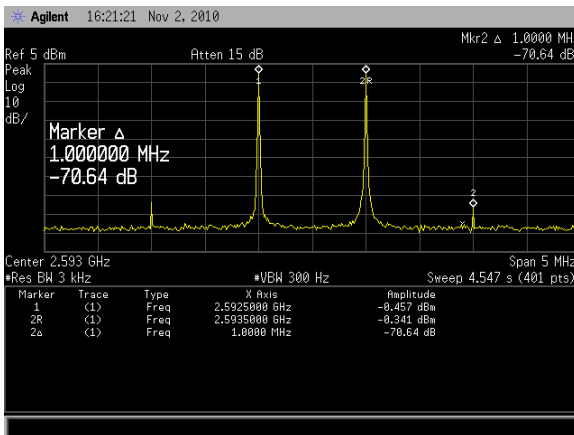


Fig. 2 Uplink LNA NF 및 GAIN

- Output IM3



- Output IM3  
(10dBm two tone signals are applied at LNA input for measuring IM3.)

$$OIP3 = 10dB_m + IM3/2$$

- Insertion Loss(HPA → ANT)

