

## LNA (Low Noise Amplifier)

The LNA (Low Noise Amplifier) amplifies the received signal with low noise by installing it at a place where the receiving field strength is weak at the TV transmission site. It consists of a LNA main unit and a power supply unit. The main unit consists of a filter for selecting the frequency to be used in the received signal and an amplifier for amplifying the signal. Inside the power supply unit, there is a Down Transformer.

The Filter has a Notch function that can eliminate strong signals around it. The LNA amplifier consists of an amplifying IC and a power supply to supply the DC power. The power supply detects the AC 15V power supplied through the output feeder line by L1 and rectifies it to the diode, then through the two-stage regulator, DC power is supplied to the LNA IC chip. The power supply unit serves to feed the AC 110/220V power down to AC15V and supply it to the signal feeder line through L101. Fuse is added to the AC 15V line to prevent the internal current from flowing due to the overcurrent flowing in the rear end.

Since AC 15V is supplied to the coaxial feeder cable between LNA main unit and Power Supply Unit, care should be taken not to shot to GND or not to be Short-Circuit.

### Specifications

#### A. Filter Part

Frequency	Nominated Channel
In/Output impedance	50Ω
VSWR	≤ 1.2
Insertion loss	≤ UHF 1.5dB
Bandwidth	6 ~ 8MHz
Frequency characteristics	≤ 0.5dB
In/Output connector	N female

#### B. Amplifier Part

Noise Characteristics	≤ 4dB
Amplifying Gain	≥ 23dB
Operating temperature	-20°C ~ +45°C
Frequency range	UHF band

#### C. Power Part

Input power	AC 110V/220V, 60Hz
Output power	AC 15V, 60Hz



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