

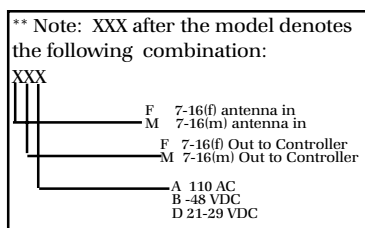
# Link Balancer™ MastHead Messaging Receive Amplifiers

Model #PGLN1SK-Mxxx\*\*



Model R133 Amplifier & Model C132 Controller Shown

- Single or Diversity Low Noise Amplifier (LNA)
- Improve Uplink Sensitivity
- Compact In-line Amplifiers
- Field Adjustable Gain
- LNA Bypass Feature
- Unsurpassed AML Technical Support



# Link Balancer™ Mast Head Messaging Receive Amplifier System

Model#: PGLN1SK-Mxxx\*\*

## Functional Description

The Link Balancer™ messaging mast head Low Noise Amplifier (LNA) system provides enhanced sensitivity, improved receive signal quality and expansion of uplink base station coverage.

These Link Balancer LNA's consist of two modules. The Low Noise Amplifier is mast mounted close to the antenna in order to reduce the receive path noise figure to a minimum. The Controller unit is mounted with the base station equipment. It provides power supply, gain control and alarm monitoring functions. Two LNA's may be supported by one controller for diversity receive installations. The controller is configured for 19 inch rack mount installation.

The mast head amplifier incorporates an RF preselector filter and an amplifier bypass feature. The bypass mode is automatically selected following the detection of LNA alarm. Bypass mode may also be manually selected from the controller panel for test purposes.

The mast head amplifiers employ pseudomorphic HJ FET technology and high Q filtering to provide low noise amplification with substantial rejection of interfering signals. Gain is conveniently field adjustable over a 20 dB range by a calibrated front panel control. This allows system sensitivity to be tailored to individual site requirements. Amplifier operation is continuously

monitored with a visual indicator and dry contact pair to signal an alarm condition. No power cables are required between the Controller and mast mounted units since DC power is fed through the RF coaxial feed line. A "Polyphaser" surge protecting device is supplied for installation at the base station end of the antenna coaxial feedline. This device provides protection from lightning related surges.

The AML Communications Link Balancer line offers these same advantages for Cellular and 1900 MHz PCS operations.

## General Specifications

### Frequency

901-902 MHz

### Gain

14 dB nominal

### Gain Flatness

+/- .25 dB

### Gain Adjust

20 dB

### Noise Figure

2.5 dB max

### VSWR

1.5:1

### Impedance

50 ohms

### Third Order Intercept

+25 dBm

### Rejection

(869-894 MHz and >928 Mhz)  
60 dB min

## Dimensions

LNA 6.68" W X  
Controller

## Operating Temperature

Tower unit: -40°C to 65°C  
Controller: 0°C to 50°C

## Connectors - LNA

"N" type (f) input  
"N" type (m) output

## Connectors - Controller (C127)

"N" type (f)

## Power

### Amplifier

+12 VDC on coaxial feedline from  
controller

### Controller

110 VAC or 21 to 29 VDC

## Alarms

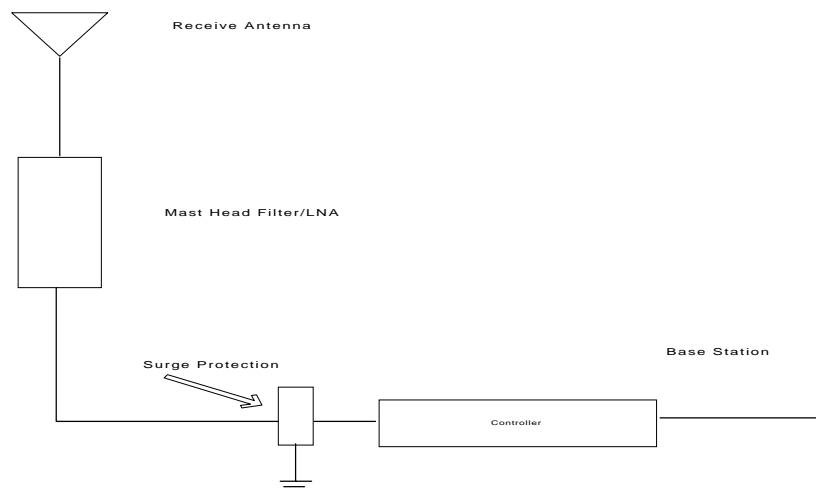
Open Contact Relay on device  
current out of range

Illuminated Red LED for visual  
alarm indication

## Options

- **Connectors**  
TNC, SMA, 7/16" DIN  
User specified connector gender  
orientation
- **Gain**  
23 dB
- **International Frequencies**
- **-48 VDC Operation**

All of the above specifications are subject to  
change without notice.



1000 Avenida Acaso  
Camarillo, CA 93012  
Phone (805) 388-1345  
Fax (805) 484-2191  
E-mail: sales@amlj.com