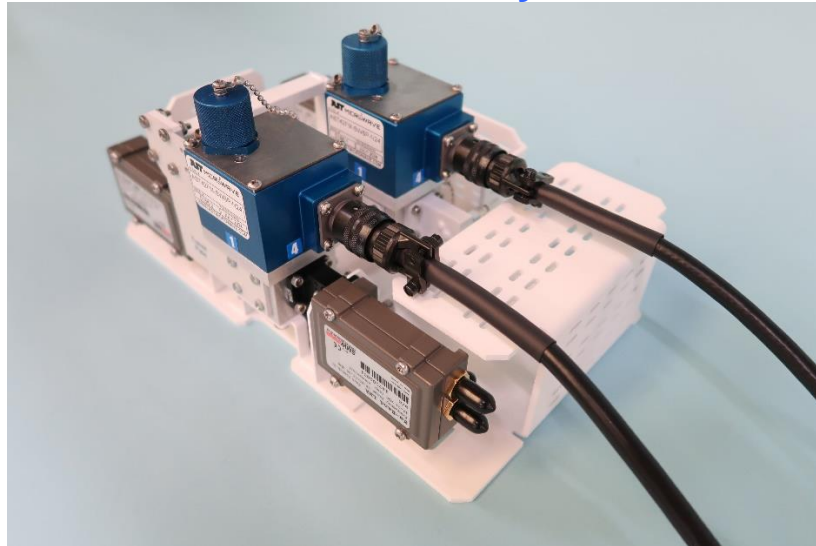


## PNB Series

### 1+1 & 2+1 Redundant LNA/LNB/BUC RF Systems



The **PNBx1+1** & **PNBx2+1** low noise block (LNB), low noise amplifier (LNA) & block up converter (BUC) redundancy RF systems are designed to operate with the Peak **RCUH50 series** of indoor rack mounted controllers and the Peak **RCU50R series** of outdoor controllers.

The **PNB series** can be supplied with or without LNA/LNB/BUC's devices and can accommodate most customer preferences of manufacturer. The systems support single, multi-range (voltage/tone-switched) and simultaneous range devices.







Various waveguide interface configurations can be provided for either direct or flexy-guide coupling. Tx filtering, input/output coupler and offline device monitoring options are available.

The **RCU** units are designed to provide device referencing, DC power (with current monitoring & user settable alarms) and waveguide switch drives. Drives are normally supplied multiplexed onto the L-Band signal cables & can also be configured for separate discrete connections.

The **RCU** units provide manual and automatic switching functionality with full remote control and typically contain all L-Band switching. Dual 'ganged' waveguide switch configurations can also be supported, as necessary.

The flexibility of the design allows for customisation, so please consult the factory if the features that you require are not shown on this data sheet.

### Peak Features

-  Standard and custom mechanical configurations available
-  Monitoring of off-line device options
-  Transmit reject filtering options
-  Compatible with most makes of single, multi & simultaneous range devices
-  Compatible with most makes of waveguide switch
-  Can be supplied with/ without LNA/LNB/BUC's for legacy system upgrades



# PNB series – Typical Specification

## LNA/LNB/BUC Interface Co-axial Connections

Unit output;	Code S; Single range Code V; Switched range Code D; Dual simultaneous range
Connections;	Code F; F-Type(f), 75Ω (LNB only) Code N; N-Type(f), 50Ω Code S; SMA(f), 50Ω Code K; K-Type(f), 50Ω

Note: For other interface types please contact the factory.

## Waveguide System Interfaces

A range of waveguide flange types are available for each band, including sealing grooves & choke, with O-ring and fixing kit provided as necessary.  
Waveguide finish Typically gloss white

## Switching Parameters (waveguide switch)

Switch type	negative pulse activation (unless specified otherwise)
Insertion loss	0.1dB
Isolation	60dB
Switching speed	150ms

## Waveguide Coupler

Provides a waveguide cross-guide coupler for signal monitoring purposes.

Connection;	Code N; N-Type(f), 50Ω Code S; SMA(f), 50Ω Code K; K-Type(f), 50Ω Code X; None
Level	-20dBc

## Transmit Reject Filtering

Provides waveguide transmit reject filtering at the input of typically LNB systems.

Rejection Typically 80 to 90dB

Note: Please specify the transmit frequency range required.

## Offline Device Monitor

Provides co-axial access to the normally terminated spare waveguide switch port, allowing easy test/ monitoring signal connection.

Connection;	Code N; N-Type(f), 50Ω Code S; SMA(f), 50Ω Code K; K-Type(f), 50Ω Code X; None
-------------	---

## Mechanical

Basic 1+1 PNB series systems are provided with mechanical mounting via the waveguide switch only, as standard. 2+1 and more complex 1+1 systems are provided with a flat Aluminium mechanical interface plate with M5 mounting slots, as standard.

As standard, electrical/RF connections to devices & waveguide switches are made directly, however for more complex systems a bulkhead interface plate is available providing a convenient central connection point for control & RF connections.

The factory will provide recommendations on the above during the bidding process however the following code is used to define the configuration.

Code N;	No mechanical mounting plate & direct electrical/RF connections.
Code P;	Mechanical mounting plate & direct electrical/RF connections.
Code B;	Mechanical mounting plate with bulkhead electrical/RF interface point.

Note: Detailed dimensional drawing or 3D model available, please contact factory or provide custom requirement drawing for consideration.

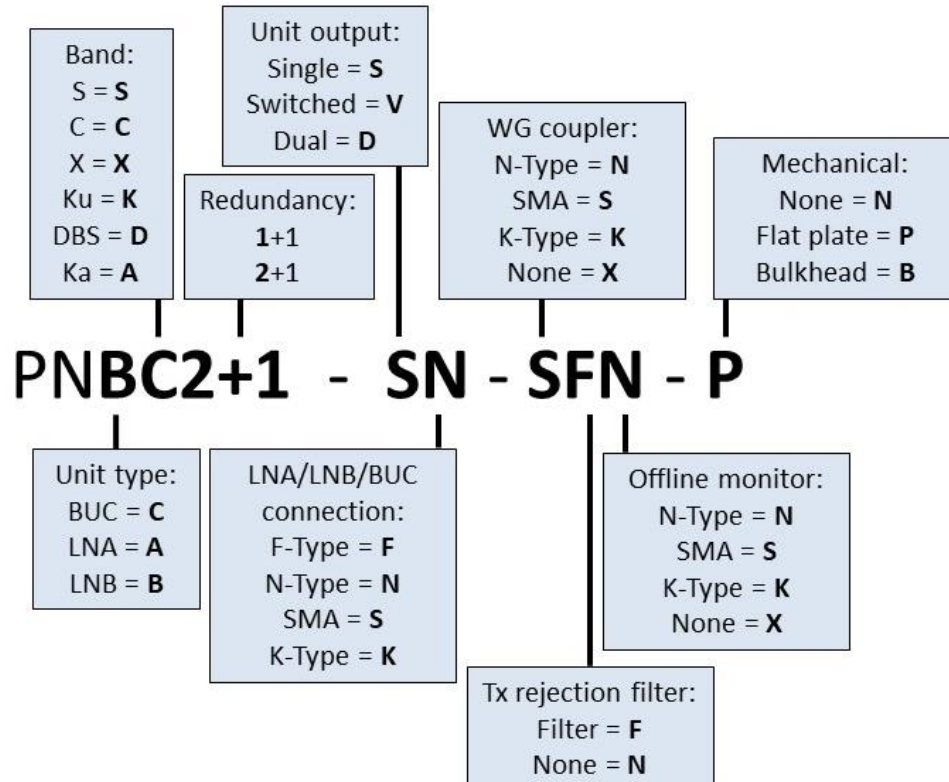
Typical plate dimensions & weight (configuration dependent);

1+1 (Ku)	220x160x120mm (8.7x6.3x4.8 in), plus connections. 4.0kgs (8.8 lbs)
2+1 (Ku)	300x350x140mm (11.8x13.8x5.5 in), plus connections. 6.0kgs (13.2 lbs)

## Environmental

Operating temp	-40°C to +75°C (less solar gain)
Humidity	0-100%, condensing
EMC	EN55022 part B & EN50082-1
Safety	EN60950

## Ordering Code (for help or clarifications please contact the factory)



**Mechanical Configuration** (sample 2+1 3D images)

