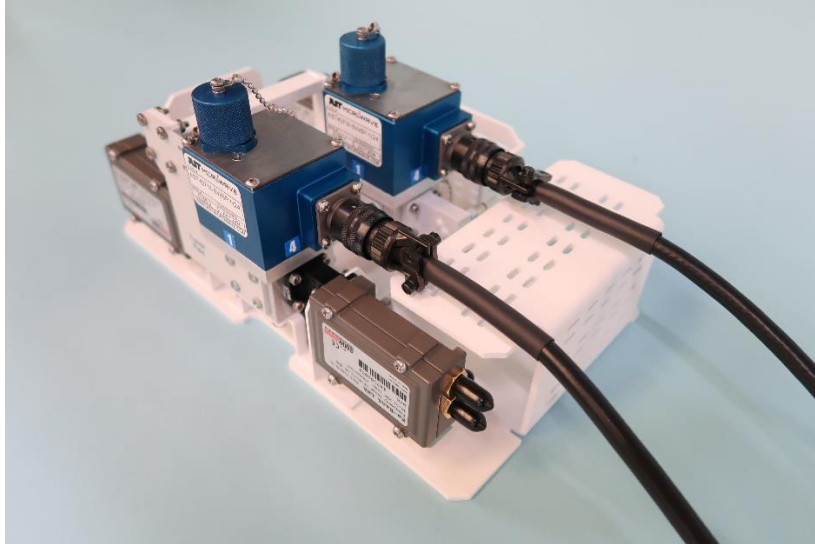


## PNB Series

### 1+1 & 2+1 Redundant LNB/LNA Waveguide Systems



- PNBC1+1, 2+1** for use with C-Band LNB units
- PNBX1+1, 2+1** for use with X-Band LNB units
- PNBKu1+1, 2+1** for use with Ku-Band LNB units
- PNBKa1+1, 2+1** for use with Ka-Band LNB units

The **PNBX1+1** & **PNBX2+1** low noise block (LNB) & low noise amplifier (LNA) redundancy waveguide systems are designed to operate with the Peak **RCU50/ RCUH50 series** of indoor rack mounted controllers and the Peak **RCU50R series** of outdoor controllers.

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







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

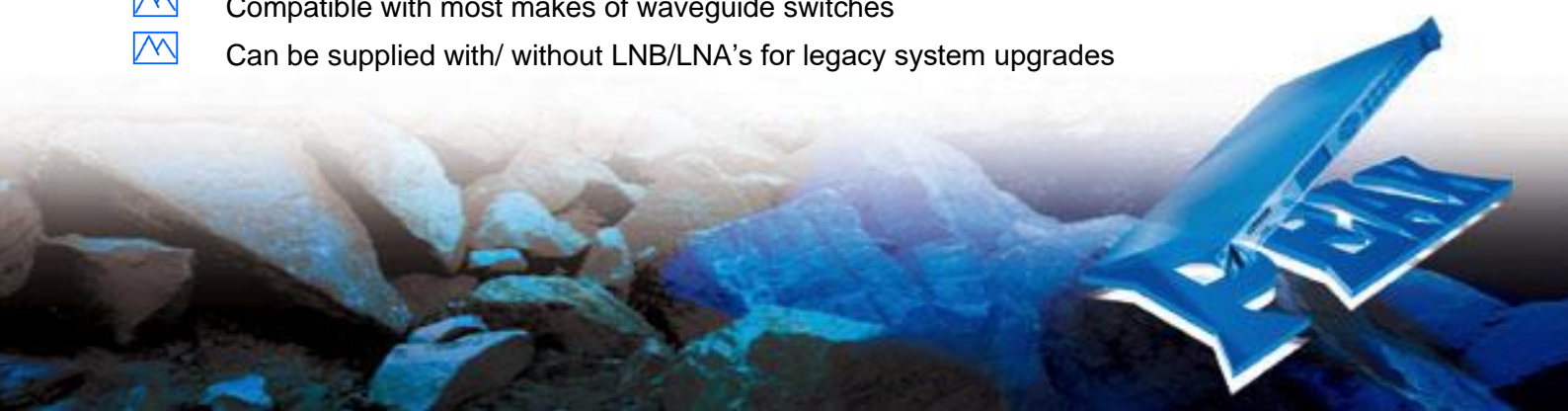
The **RCU** units are designed to provide LNB referencing, LNB/LNA DC power (with current monitoring & user settable alarms) and waveguide switch drives. LNB/LNA drives are normally supplied multiplexed onto the L-Band signal cables & can also be configured for separate discrete connections.

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 LNB/LNA output option
-  Transmit reject filtering options
-  Compatible with most makes of single, multi & simultaneous range LNB/LNA's
-  Compatible with most makes of waveguide switches
-  Can be supplied with/ without LNB/LNA's for legacy system upgrades



# PNB series – Typical Specification

## LNB/LNA Output Interfaces

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 Input Interfaces

Type	
C-Band	UDR70 (or CPR137F EIA equivalent), plain rectangular flange for WR137/WG14.
Ku-Band	UBR120 (or EIA equivalent), plain square flange for WR75/WG17.

Note; other flange types available including sealing grooves & choke, with O-ring and fixing kit provided as necessary.

Finish Aluminium, gloss white

## Switching Parameters (waveguide switch)

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

## Waveguide Input Coupler

Provides a waveguide cross-guide coupler at the input 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 a waveguide transmit reject filter at the input.

Rejection Typically 80 to 90dB

Note; please specify the transmit frequency range required.

## Offline LNB/LNA Monitor

Provides a co-axial input to the normally terminated spare waveguide switch port, allowing a test signal to be applied to the offline LNB/LNA.

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 LNB/LNA's & waveguide switches are made directly, however for more complex systems a bulkhead interface plate is available providing a convenient central connection point for cross-site 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 available, please contact factory, or provide custom requirement drawing for consideration.

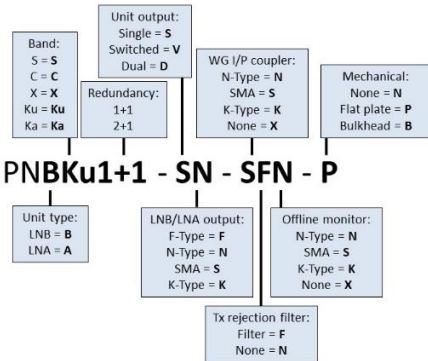
Typical plate dimensions & weight (configuration dependent);

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

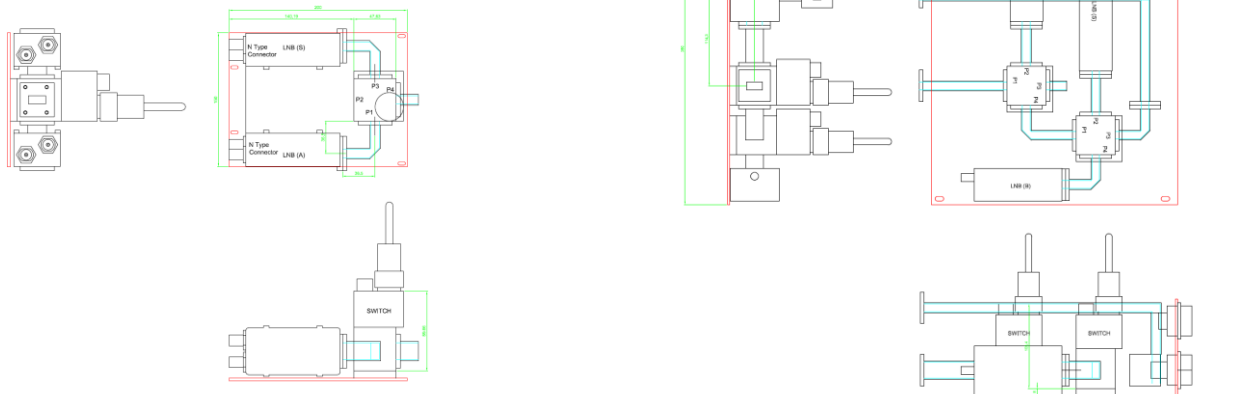
Operating temp	-40°C to +75°C (less solar gain)
Humidity	0-100%, condensing
EMC	EN55022 part B & EN50082-1
Safety	EN60950

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



## Mechanical Configuration

### (1+1, 2+1 Ku-Band sample outline drawing)



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. PNBseries-260523.

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