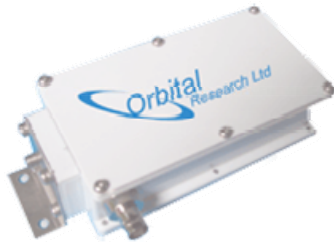


## Orbital Research BDCs

### BDCs - Block DownConverters

For mounting in the rack...

...or in a Rack Mount Chassis



#### Custom made for mounting directly on the rack.

All Ku BDCs are based on the LNB813 series Ku Professional quality LNBS for superior performance.

We also manufacture C band BDCs.

We are soliciting client input for the possible manufacture of Ka band BDCs.

#### Custom made with BDC Chassis Builders in mind:

- ▣ low profile fits in a 1 RU high chassis
- ▣ counter sunk screws
- ▣ built on an allodyned mounting plate which can be pre-drilled to your profile
- ▣ optional power to the crystal to keep the crystal 'warm', for better stability, or instant locking incase of being selected in a redundant operation - no warm-up period required.

#### Both Orbital profiles are available in a wide range of bandwidths and LOs

| LO    | Input          | Output       | Bandwidth |
|-------|----------------|--------------|-----------|
| 9.75  | 10.70 to 11.70 | .95 to 1.95  | 1.000     |
| 10.00 | 10.95 to 11.70 | .95 to 1.70  | 0.800     |
| 10.15 | 11.70 to 12.20 | 1.55 to 2.05 | 0.500     |
| 10.25 | 11.20 to 11.70 | .95 to 1.45  | 0.500     |
| 10.50 | 11.45 to 11.95 | .95 to 1.45  | 0.500     |
| 10.50 | 11.45 to 12.20 | .95 to 1.70  | 0.750     |
| 10.60 | 11.70 to 12.20 | 1.10 to 1.60 | 0.500     |
| 10.75 | 11.70 to 12.20 | .95 to 1.45  | 0.500     |
| 10.75 | 11.70 to 12.75 | .95 to 2.00  | 1.050     |
| 11.25 | 12.20 to 12.75 | .95 to 1.50  | 0.550     |
| 11.30 | 12.25 to 12.75 | .95 to 1.45  | 0.500     |

\* If you don't see what you want here, please

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**website: [www.orbitalresearch.net](http://www.orbitalresearch.net)**

#### Orbital Features:

##### Custom Engineering:

- ▣ Begin with the low noise figure of a proven quality LNB
- ▣ Optimize Input and Output for superior VSWR
- ▣ Modify LO frequencies, preserving phase noise and

#### "Mass-Custom" Solution:

Orbital starts with a proven performance product that is extremely well engineered, with the development costs amortized over hundreds of thousands of

- stability
- ❑ Modify and tune RF & IF filters for optimum response
- ❑ Tune for very low bandpass ripple
- ❑ Optimize Gain distribution for your system parameters

**Environmental:**

- ❑ O ring sealed connectors for weather resistant operation
- ❑ Preserve the environmental engineering of the original LNB

**Options:**

- ❑ External DC connector - F, N, BNC or Feedthrough
- ❑ External DC connector to Crystal for rackmount installation
- ❑ Custom alarm options for redundant switch operations
- ❑ Full test documentation available
- ❑ External reference models available for ultimate stability
- ❑ Custom design and labeling requirements welcomed

units - and the parts costs reduced by volume discounts. We then customize the mass produced LNB into what you want at 1/100 the cost of designing and building from scratch.

**Enhancing Standard Product**

Mass-production means low-cost, reliable, repeatable products. Engineers design these products well within margins on component specifications so that individual tuning is not required to meet desired specifications.

As we modify product, we also tweak the design and components to optimize them for their inherent capabilities. Effectively, we bring out the full potential of the product by adjusting components to their full capability.