Page 1 of 3 Block Downconverters

### **Block Downconverter Modules...**

#### Does this look familiar?



Most of the Orbital BDCs you have seen before wore someone else's label because we have acted as an OEM manufacturer, but now you can get Orbital BDC modules directly. You have used Orbital BDC modules before, but not known their true origin. They may have been inside the racks that you purchased from an integrator. You may have needed the invaluable monitor and control systems that integrators provide. But sometimes you need a standalone unit, or you don't elaborate m & c, so you could build your own system - if you only had the base modules to start with. Some of our customers even put together their own racks with our BDC modules, oscillators and Systems Interface Products at the core.

But, why would you ever need a BDC anyway? Block downconverter modules are used when you want to cover the full band with a single antenna. All you need is an LNA that covers the entire bandwidth of the satellite, then order Orbital BDC modules to cover the specific sections of the band that you need. For instance, you might want to cover from 20.7 GHz to 12.75 GHz - this can be done with a pair of Orbital BDCs. You can stack the output from 950 MHz to 2000 MHz.

Orbital BDC modules with countersunk screws, will fit inside a 1 RU chassis, or you can have them with a bracket for mounting back o' rack.

You can specify input and output connector types.

You can have external DC input, co-axial DC input, or a dual power option.

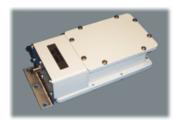
You can have customized gain, compression point, and noise distribution.

You can have always on oscillators, so that you can have instant re-acquisition of signal in case of switching in a redundancy system.

You can have custom frequencies and bandwidths.

And best of all, for common frequencies we have stock that can be delivered with in a week, all it needs is for you to make your connector choices for them to be configured and in a package on its way to you.

#### C-Band BDC Modules...



Orbital BDC804 Series

Additional options include:

External DC (F, N, BNC, or Feed-through)

External DC connection to crystal (for rackmount installation)

Special dual DC option via output coax and ext DC port

Custom alarm options for redundant switch operations

Custom IF amps capable of +17 dBm 3rd order intercept

External reference models available for ultimate stability

Custom design and labeling requirements welcome

And just because you don't see it here, does not mean we don't or can't build to your requirements. Please Call.

Part Number	LO	Input (GHz)	Output (GHz)	Bandwidth (GHz)
BDC515S-500P-?-???	5.15	3.70 to 4.20	0.95 to 1.45	.500
BDC515S-600P-?-??-???	5.15	3.60 to 4.20	0.95 to 1.55	.600
BDC515S-800P-?-??-???	5.15	3.40 to 4.20	0.95 to 1.75	.800

Or perhaps you need an ODU or IDU solution:

Page 2 of 3 **Block Downconverters** 

? Input Connector (N,S) ?? Output Conneter (F,N,S,T) ??? Gain (in dB)

## **Connector Types**

- F F Connector 75 Ohm N N Connector 50 Ohm
- S SMA Connector 50 Ohm T TNC Connector 50 Ohm

#### Gain Choices:

σ	0	d	В
		-	-
10	10	d	R

- 20 20 dB
- 30 30 dB





Part Number	LO	Input (GHz)	Output (GHz)	Bandwidth (GHz)
BDC975S-1000P-?-???	9.75	10.70 to 11.70	0.95 to 1.95	1.000
BDC1000S-750P-?-???	10.00	10.95 to 11.70	0.95 to 1.70	0.750
BDC1015S-500P-?-???	10.15	11.70 to 12.20	1.55 to 2.05	0.500
BDC1025S-500P-?-???	10.25	11.20 to 11.70	0.95 to 1.45	0.500
BDC1050S-500P-?-???	10.50	11.45 to 11.95	0.95 to 1.45	0.500
BDC1050S-750P-?-???	10.50	11.45 to 12.20	0.95 to 1.70	0.750
BDC1060S-500P-?-??-???	10.60	11.70 to 12.20	1.10 to 1.60	0.500
BDC1075S-500P-?-???	10.75	11.70 to 12.20	0.95 to 1.45	0.500
BDC1075S-1000P-?-??-???	10.75	11.70 to 12.75	0.95 to 2.00	1.050
BDC1125S-550P-?-???	11.25	12.20 to 12.75	0.95 to 1.50	0.550
BDC1130S-500P-?-???	11.30	12.25 to 12.75	0.95 to 1.45	0.500

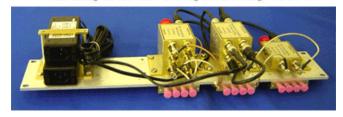
#### Orbital BDCs can be combined with our SIP products

Bias Tees, Mux Tees, Diplexers, Thru Tees, and **Dual Power Tees** 

Master and Precision Oscillators

**Combiners and splitters** 

**Combining Networks and Signal Routing Solutions** 



? Input Connector (\$) ?? Output Connetor (F,N,S,T) ??? Gain (in dB)

## **Connector Types**

- F F Connector = 75 Ohm N N Connector 50 Ohm
- S SMA Connector 50 Ohm T TNC Connector 50 Ohm

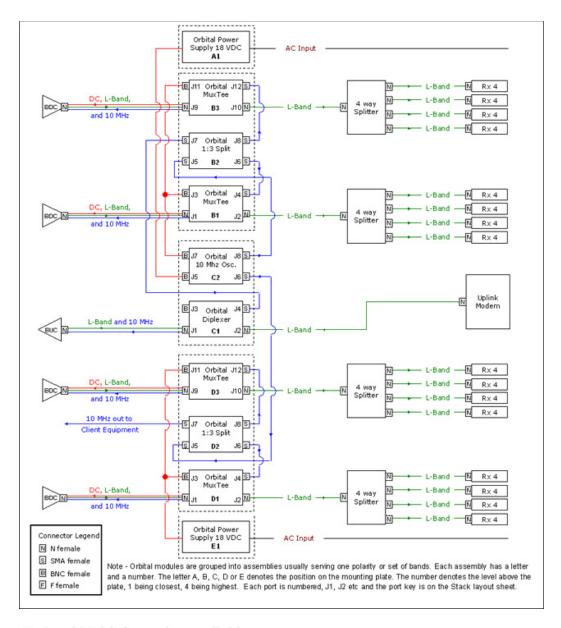
## Gain Choices:

- Q dB
- 10 10 dB
- 20 20 dB
- 30 30 dB
- 40 40 dB

How to use Orbital BDCs

Just an example of how BDCs can be used in a system

Block Downconverters Page 3 of 3



# Ka Band BDC information available on request.

Check out out website for dozens of solutions and signal routing designs.

**Contact Orbital Research at:** 

Tel: (604)856-0305 Fax: (604)856-0315

email: <u>davidzuvic@orbitalresearch.net</u> website: <u>www.orbitalresearch.net</u>