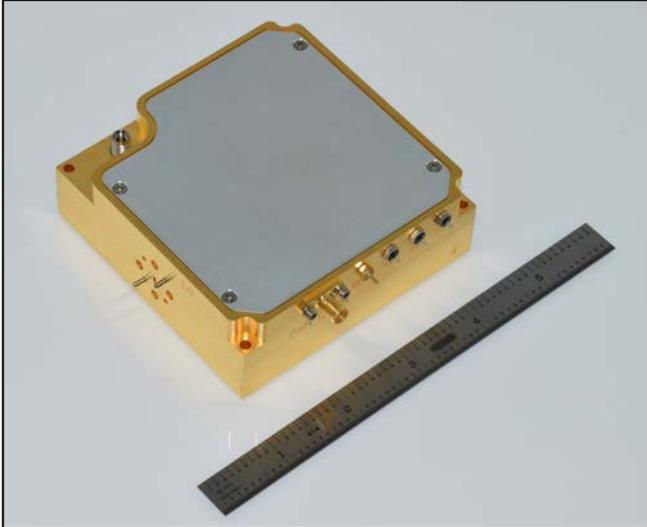


## ACTIVE UP CONVERTERS AND DOWN CONVERTERS



### FEATURES:

- Pulse/Mute Control
- Up/Downconverters share same outline
- Multiple options for gain, output power, noise figure.
- Multiple frequency bands available
- Small size compared to individual components
- Low VSWR (RF)

### APPLICATIONS:

- Test equipment
- Larger assemblies

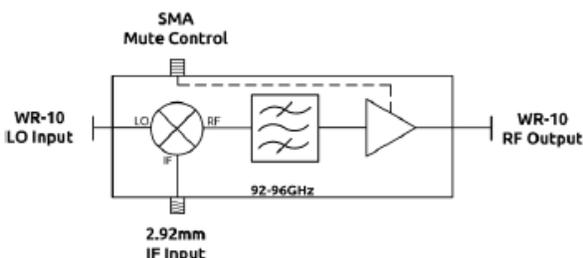
## DESCRIPTION

Millitech series BUC/BDC are active up-converters and down-converters in a small package. Each BUC/BDC integrates amplifiers, a mixer, and a filter to create a high power up-converter or low noise figure down-converter. Combining these components into single packages saves volume, weight, and cost.

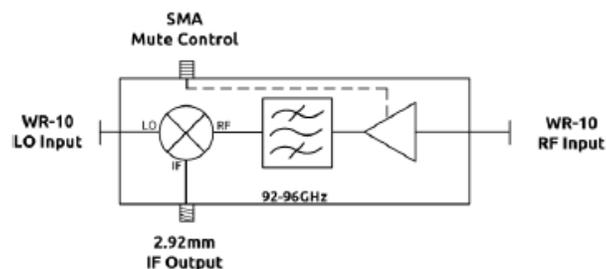
An SMA pulse/mute control input is available on all units for powering down 1 stage of amplifiers.

Custom options are available for gain, output power, noise figure, and other frequencies.

## ELECTRICAL SPECIFICATIONS



**Upconverter**



**Downconverter**

## Upconverters – Series BUC

### Standard Models

Model Number	Frequency Range (GHz)	Gain (dB)	P1dB (dBm)	Psat (dBm)	RF VSWR (typ)
BUC-15-L0001	50 – 55	25	17.5	21.5	1.3:1
BUC-15-L0002	57 – 66	25	17.0	19.5	1.3:1
BUC-15-00002	57 – 66	25	17.0	19.5	1.3:1
BUC-12-00002	71 – 76	40	17.5	20.5	1.3:1
BUC-12-00003	71 – 76	35	26.0	29.0	1.3:1
BUC-12-00004	71 – 76	30	28.5	31.0	1.3:1
BUC-12-00006	81 – 86	40	17.5	20.5	1.3:1
BUC-12-00007	81 – 86	25	23.5	24.5	1.3:1
BUC-12-00008	81 – 86	30	28.5	31.0	1.3:1
BUC-10-00009	92 – 96	30	21.0	24.5	1.3:1
BUC-10-00010	92 – 96	35	16.0	18.5	1.3:1
BUC-10-00011	92 – 96	35	27.0	31.0	1.3:1

## Semi-custom Models

Model Number	Frequency Range (GHz)	Gain (dB)	P1dB (dBm)	Psat (dBm)	RF VSWR (typ)
BUC-12-00005	76 – 81	25	15.5	17.5	1.3:1
BUC-10-00012	90 – 98	35	16.0	18.5	1.3:1
BUC-10-00013	100 – 105	25	17.0	21.0	1.3:1
BUC-08-00007	110 – 120	25	7.0	10.0	1.3:1

More custom options are available for gain, output power, and frequency. Contact Millitech for details.

Some model numbers are ITAR controlled. Please contact Millitech for details.

## Downconverters – Series BDC

### Standard Models

Model Number	Frequency Range (GHz)	Gain (dB)	Noise Figure (dB)	RF VSWR (typ)
BDC-15-L0001	50 – 55	10	5.0	1.3:1
BDC-15-L0002	57 – 66	25	5.0	1.3:1
BDC-15-00002	57 – 66	25	6.0	1.3:1
BDC-12-00002	71 – 76	25	6.0	1.3:1
BDC-12-00003	71 – 76	35	5.0	1.3:1
BDC-12-00005	81 – 86	25	6.0	1.3:1
BDC-12-00006	81 – 86	35	5.0	1.3:1
BDC-10-00007	92 – 96	30	7.0	1.3:1
BDC-10-00010	92 – 96	25	6.0	1.3:1

## Semi-custom Models

Model Number	Frequency Range (GHz)	Gain (dB)	Noise Figure (dB)	RF VSWR (typ)
BDC – 12-00004	76 – 81	25	6.0	1.3:1
BDC – 10-00011	90 – 98	30	5.0	1.3:1
BDC – 10-00012	100 – 105	25	5	1.3:1
BDC – 08-00013	110 – 120	25	5.5	1.3:1

More custom options are available for gain, noise figure, and frequency. Contact Millitech for details.

Some model numbers are ITAR controlled. Please contact Millitech for details.

**\*FOR MECHANICAL SPECIFICATIONS CONTACT MILLITECH.**

## HOW TO ORDER

<b>Specify Model Number</b> <b>BDC-XX-AAAAA or BUC-XX-AAAAA</b>
<b>XX</b> = Waveguide Band <b>WR</b> – number
<b>AAAAA</b> = <b>See above tables</b>