

# 20W Ka-band BUC

## SCMBU16001NW5D (Rev.01)

### Features

- ◆ Wide Ka Band frequency range from 28 GHz to 31 GHz
- ◆ LO frequency from 27.05 GHz, 27.55 GHz, 28.05 GHz, 28.55 GHz, 29.05 and 29.55 GHz adjustable
- ◆ Excellent gain flatness of  $\pm 1.5$  dB over full frequency band
- ◆ Excellent gain stability of  $\pm 1.5$  dB over temperature
- ◆ RMS output power detection
- ◆ Reverse power protection
- ◆ Very compact size 148L  $\times$  98W  $\times$  90H mm
- ◆ Very light Weight
- ◆ Low Power Consumption

### RF Specifications

#### Input L-band frequency Range

950 MHz to 1450 MHz

950 MHz to 1950 MHz (Optional)

#### Output Ka-band Frequency Range

28 GHz to 31 GHz

#### Output Power

P1dB 20W (43dBm)

#### Inter Modulation

-25dBc

(Two tones test at combined power of 40dBm)

#### Conversion Gain

69 dB nominal

#### Gain Flatness

Over full band:  $\pm 1.5$  dB maximum

Over 36MHz:  $\pm 0.5$  dB maximum

#### Gain Stability over Temperature

$\pm 1.5$  dB maximum



#### Phase Noise

100 Hz	-65 dBc/Hz Max
1 KHz	-75 dBc/Hz Max
10 KHz	-85 dBc/Hz Max
100 KHz	-95 dBc/Hz Max

#### Spurious

Inband Carrier related	-55dBc Max
Inband Carrier Non-related	-31dBm Max
Outband	-31dBm Max

#### Output Noise floor

-85 dBm/Hz maximum

#### IF Input Interface

N-type Female

#### RF Output Interface

WR-28G

#### Input VSWR

1.5:1 maximum

#### Output VSWR

1.5:1 maximum

#### Receive band noise

-165 dBm/Hz maximum

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### Reference Frequency

#### External Reference Frequency

10 MHz / 50 MHz auto selection

#### External Reference Level

-5 to +5 dBm

#### Internal 50MHz reference

Optional

### Monitoring and Controlling

#### Interface

RS232/485

Ethernet Optional

#### Gain Control

20dB range in 0.1dB step size

#### Output Power Detection

20dB range RMS Output Power Detection

Reverse power protection

### Power Supply

#### Operating voltage

48VDC

#### Power consumption

200W maximum at 43dBm output

### Environmental Conditions

#### Operating temperature

-40°C to +55°C

#### Relative Humidity

Up to 100%



### Mechanical

#### Dimensions

148L × 98W × 90H mm Weight

3 Kg

#### Color

White powder coat

### Mechanical Drawing

