Compact Ku-BAND BUC Specifications

ALGA LOW COST COMPACT KU-BAND BUC

The Alga low cost Compact Ku-band BUC is built for VSAT stabilized platforms and mobile stations, while also offering benefits for fixed site and offshore applications. Weighing less than 8 lbs, makes it ideal for feed mounting.

KEY FEATURES

- Available in AC or DC
- Up to 50 W of available Power
- Up to 25 W of Linear power
- Dual LO (Switchable), Covers both regular and ext. Ku
- Built-in Telemetry for critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- WEB interface, SNMP monitoring, RS 485, RS232, Ethernet and dry-contacts M&C interface
- 1:1 switching logic built into the BUC eliminating expensive external controller (Optional)
- IP65 rated housing and Fan (weather proof construction)
ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Power Level</th>
<th>8 W</th>
<th>12 W</th>
<th>16 W</th>
<th>25 W</th>
<th>25 W GaN</th>
<th>40 W GaN</th>
<th>50 W GaN</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Output at P1 dB</td>
<td>39 dBm</td>
<td>41 dBm</td>
<td>42 dBm</td>
<td>44 dBm</td>
<td>44 dBm</td>
<td>46 dBm</td>
<td>47 dBm</td>
</tr>
<tr>
<td>RF Output at P Sat</td>
<td>36 dBm</td>
<td>38 dBm</td>
<td>39 dBm</td>
<td>41 dBm</td>
<td>41 dBm</td>
<td>43 dBm</td>
<td>44 dBm</td>
</tr>
<tr>
<td>Local Oscillator Frequency</td>
<td>Lower: 11.80 GHz</td>
<td>Standard: 13.05 GHz</td>
<td>Extended: 12.80 GHz</td>
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</table>

Gain Stability Over Temperature
± 2 dB nominal; ± 2.0 dB max

Gain Variation at fixed temperature
± 2.0 dB over 40 full band; ± 0.5 dB over MHz

Linear Gain
60 dB nominal

Gain Control
20 dB Nominal in 0.5 dB Steps

Output VSWR
1.50:1

Intermodulation
-25 dBc, with 2 equal carriers at 3dB total power back off from rated P1dB

10 MHz Reference
0 dBm ± 5.0 dB

10 MHz Phase Noise Requirement
-130 dBc/Hz max
-140 dBc/Hz max
-150 dBc/Hz max
-155 dBc/Hz max

Local Oscillator Phase Noise
-63 dBc/Hz max
-73 dBc/Hz max
-83 dBc/Hz max
-93 dBc/Hz max
-103 dBc/Hz max

Output Spurious
-55 dBc max.

Input Impedance
50 Ohms

Power consumption (at rated power)
85W
100W
170W
190W
150W
250W
275W

Power requirement
110 /220 AC  Or  +36 to +72 VDC

INTERFACE

Output Interface
Waveguide, WR75G (Grooved)

Input Interface
N-Type Female, 50 Ohms

Connectors
DC Connector : MS3102R14S-9P
AC Connector : MS3102R14S-7P
M&C: MS3112E14-19P
Redundancy: 3112E14-15P (Optional)

MECHANICAL

Cooling
Forced Air

Dimensions (L x W x H)
DC Model 7.8 x 4.72 x 4.13 in (198 x 120 x 105 mm)
AC Model 7.8 x 4.72 x 5.36 in (198 x 120 x 136 mm)

Weight
DC Model 8 lbs (3.65 kg)
AC Model 9 lbs (4.1 kg)

ENVIRONMENTAL

<table>
<thead>
<tr>
<th>Temperature Range (ambient)</th>
<th>Humidity</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>40°C to + 55°C (operating):</td>
<td>0 to 100% (condensing)</td>
<td>10,000 ft ASL</td>
</tr>
<tr>
<td>-40°C to + 75°C (storage)</td>
<td></td>
<td></td>
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</table>

ORDERING INFORMATION

To place an order, build your specific Ku-BAND BUC by specifying the following in your ordering number:


AAAA: Band
1213  Lower Ku Band
1314  Extended Ku Band
1414  Regular Ku Band

BBY: RF Power Level
39  (8 W GaAs)
41  (12 W GaAs)
42  (16 W GaAs)
44  (25 W GaAs)
44G  (25 W GaN)
46G  (40 W GaN)
47G  (50 W GaN)

CCC: DC Supply
448  (36 – 72 VDC)
7  (110 /220 VAC)

“Other voltage available upon request”

XXXX: Options
1050  M&C
1051  M&C and Redundant Ready