



ALGA Microwave Inc.

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Outdoor C-Band Upconverter (BUC)

| | | |
|------------------|---|--------------------------|
| FEATURES: | Weatherproof Pressure tested up to 10 psi | Redundancy option |
| | Light weight & Compact | Overtemperature Shutdown |

| MODEL | OUTPUT POWER at PSAT typ. [Watts] | OUTPUT POWER at P1dB min [Watts] / [dBm] | GAIN, dB Min | POWER CONSUMPTION [Watts] | Weight [lbs / kgs] | SIZE Length X Width X Height [Inches] |
|------------------|---|--|-----------------|---------------------------------|-----------------------|---|
| NJALC-16 | 16 | 12 W / 41 dBm | 70 | 150 | 15 / 7 | 11 X 9.6 X 5.2 (FANLESS) |
| NJALC-25 | 25 | 20 W / 43 dBm | 70 | 300 | 18 / 8 | 11 X 9.6 X 8.5 |
| NJALC-50 | 50 | 40 W / 46 dBm | 70 | 450 | 18 / 8 | 11 X 9.6 X 8.5 |
| NJALC-60 | 60 | 50 W / 47 dBm | 70 | 500 | 18 / 8 | 11 X 9.6 X 8.5 |
| NJALC-80 | 80 | 60 W / 47.8 dBm | 70 | 550 | 24 / 11 | 11.5 X 11.2 X 11.3 |
| NJALC-100 | 100 | 80 W / 49 dBm | 80 | 600 | 31 / 14 | 11.5 X 11.2 X 11.3 |
| NJALC-125 | 125 | 100 W / 50 dBm | 80 | 750 | 31 / 14 | 11.5 X 11.2 X 11.3 |
| NJALC-250 | 250 | 200 W / 53 dBm | 80 | 1200 | 65 / 29 | 21.3 X 18.3 X 10.2 |

| ELECTRICAL CHARACTERISTICS | TECHNICAL SPECIFICATIONS |
|--|---|
| Output Frequency Range, | see options |
| Input Frequency Range | 5.85 to 6.425 GHz, options XXX |
| Gain flatness over any 40 MHz | 950 to 1450 MHz, |
| Gain flatness over full band | +/-1.0 dB max at room temperature |
| Gain Variation | +/-2.75 dB max at room temperature |
| Input VSWR (L-Band) | ± 2.5 dB over operating temperature range |
| Output Return Loss | 2.0 : 1, max |
| Spurious at rated power | -17dB, max |
| Third order IMD (two equal tones 5Mhz apart) | -50 dBc max. |
| | -34dBc max. @ 7dB back off from rated P1dB, |
| | -26dBc max. @ 3dB back off from rated P1dB |
| Output Phase Noise | @ 1KHz -70 dBc / Hz |
| | @ 10 KHz -80 dBc / Hz |
| | @ 100 KHz -90 dBc / Hz |

| POWER REQUIREMENTS | |
|----------------------|--|
| Input supply voltage | see options |
| | 110/220 VAC ±15% (47-63 HZ) Auto Ranging 48 VDC optional for certain models |

| MECHANICAL CHARACTERISTICS | |
|------------------------------|--|
| IF input (L-Band) Interface | Type N Connector (Type F Connector Optional) |
| RF output (C-Band) Interface | CPR137 Grooved (Type N optional) |
| Power Input | MS3102R16-10P |
| M&C Interface | MS3102R20-29S |
| Redundant Interface | MS3102R18-1S |
| Temperature Operating | -40° C to +55°C |
| Storage | -55°C to +85°C |
| Humidity | 100%, considering, rain 2" per hour |
| Altitude | 10000' AMSL |

| Options (XXX) | Output Frequency | (X) 5.85 - 6.725 GHz | (X) 6.725 - 7.025 GHz | (X) other |
|----------------------------|---|------------------------|-------------------------------|-------------|
| | Power Supply | 110 / 220 VAC | (X) 48 VDC | (X) other |
| | Input Connector | N-Type | (X) F-Type | (X) other |
| | Output Connector | CPR137 Grooved | (X) N-Type | (X) other |
| | M & C Interface | Analog (TTL) | (X) Digital (RS 232 or 485) | (X) other |
| M & C functions | Output Level control, RF Power detection, Temperature Monitor & Mute Control, etc... | | | |

Note: The specifications are subject to change without notice.