**IBUC Advantages**

Integrated BUC/SSPA for higher performance and reliability.

All models available with integral AC power supply or separate DC power supply.

Internal 10MHz reference option automatically switches to internal reference when external reference is not detected.

Low phase noise exceeds IESS308/309 requirements by a minimum of 10 dB.

NMS-friendly interfaces enable remote management of your earth station RF.

Embedded Web pages provide management for small networks using any Web browser.

AGC or ALC circuits hold gain or output level constant.

16dB User-adjustable gain in 0.1dB steps preserves modem dynamic range.

Output sample port included.

Advanced user interfaces:
- TCP/IP HTTP with embedded Web pages
- SNMP
- TELNET through TCP/IP
- FSK through TX IFL cable
- RS232/485 serial port
- Hand-held terminal

The revolutionary **IBUC** has advanced features to take your network to new heights.

**IBUC** offers significant benefits:
- Low terminal cost
- Simple design and installation
- Superior RF performance
- Simplified 1+1 configuration

New interfaces connect you to extensive M&C facilities for network management or local access. This powerful new M&C enables:
- **Trouble-free commissioning** with easy, point-and-click installation/configuration
- Continuous **verification** of performance with time-stamped alarm history
- Simplified **monitoring** of terminal status

The **IBUC** comes with a complete set of diagnostic tools including:
- 10 MHz input detector
- Input voltage and current monitoring
- Transmit L-band input level detector
- Transmit RF output level detector
- User configurable thresholds and alarms

Unique to the **IBUC** are internal AGC and ALC functions that satisfy demanding applications with stringent specifications.
**Terrasat IBUC - High Power C-Band Intelligent Block Upconverter**

<table>
<thead>
<tr>
<th>Frequency range</th>
<th>RF</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 1 Std C-Band</td>
<td>5850 to 6425 MHz</td>
<td>950 to 1525 MHz</td>
</tr>
<tr>
<td>Band 2 Palapa/ST-1</td>
<td>6425 to 6725 MHz</td>
<td>975 to 1275 MHz</td>
</tr>
<tr>
<td>Band 3 Inset</td>
<td>6725 to 7025 MHz</td>
<td>1150 to 1450 MHz</td>
</tr>
<tr>
<td>Band 4 Ext. C-Band</td>
<td>5850 to 6650 MHz</td>
<td>950 to 1750 MHz</td>
</tr>
<tr>
<td>Band 5 Full C-Band</td>
<td>5850 to 6725 MHz</td>
<td>975 to 1850 MHz</td>
</tr>
</tbody>
</table>

**Input**

- **VSWR / Impedance**: 1.5:1 max / 50 Ohm
- **Input Connector**: Type N female (50 Ohm)
- **Input Connector options**: Type F (75 Ohm), TNC (50 Ohm)
- **Input power detector**: -55 to -20 dBm

**Gain**

- Small Signal Gain (L-band to RF) with attenuator set to 0 dB:
  - 100W: 81 dB min
  - 125W: 82 dB min
  - 150W: 83 dB min
  - 175W: 83 dB min
  - 200W: 84 dB min

- **Attenuator range**: 16 dB variable in 0.1 dB steps
- **Gain flatness**:
  - Full band: 3 dB p-p max
  - 36 MHz: 1 dB p-p max
  - 1 MHz: 0.25 dB p-p

- **Gain variation over temperature**:
  - Open loop: 3 dB p-p max
  - With AGC: 1 dB p-p max

**RF Output**

- **Interface**: CPR-137G
- **VSWR**: 1.3:1 max
- **Rated output power (P1dB)**:
  - 100 W: +50 dBm min
  - 125 W: +51 dBm min
  - 150 W: +51.8 dBm min
  - 175 W: +52.4 dBm min
  - 200 W: +53 dBm min

- **IMD3 (2 carriers, 3 dB TOBO)**: -27 dBc max
- **Level stability with ALC**: ±0.5 dB
- **Output power detector range**: Rated power to -20 dB
- **Power reading accuracy**: ± 1.0 dB max.
- **Spurious**:
  - In Band: -70 dBc
  - Out of Band: Complies with EN 301 443 and MIL-STD 188-164B
- **Harmonics**: -50 dBc max.
- **Output Noise Power Density**:
  - TX: < -74 dBm/Hz
  - RX: < -145 dBm/Hz

**SSB Phase Noise**

- **External reference**: IBUC
- **Frequency**: 10 MHz
- **Level**: -12 to +5 dBm

**Internal Reference - optional**

**Local Oscillator Frequency**

- **Sensing**: Inverting
- **Band 1**: 7375 MHz
- **Band 2**: 7700 MHz
- **Band 3**: 8175 MHz
- **Band 4**: 7600 MHz
- **Band 5**: 7700 MHz

**IBUC Power Supply**

- **Voltage**:
  - DC: 42 V min, 60 V max
  - AC: 100 to 240 VAC, 100W to 125W
  - 200 to 240 VAC, 150W to 200W

- **Power Consumption**:
  - DC: 100 W, 700 W, 800 VA
  - AC: 125 W, 800 W, 900 VA
  - 150 W, 1056 W, 1200 VA
  - 175 W, 1100 W, 1250 VA
  - 200 W, 1150 W, 1300 VA

**Monitor and Control**

- **Ethernet**: (HTTP, Telnet, SNMP), RS232/485, Hand-held Terminal via MS-type connector, FSK multiplexed on TX IFL.

**Environmental**

- **Operating temperature**: -40°C to +55°C
- **Relative humidity**: 100% condensing
- **Altitude**: 10,000 ft., (3,000 m) ASL

**Mechanical**

- **Size**: 19.5 x 10 x 7.8 in.
  - 495 x 254 x 198 mm
- **Weight**: 32 lbs, 14.5 kg (DC powered)
  - 33 lbs, 15 kg (AC powered)

Specifications are subject to change without notice.