The T400 Frequency Conversion System (T400FC) is a modular frequency conversion solution designed for applications where availability, size/weight, power, and life cycle cost are critical. It performs multichannel frequency up/downconversion at UHF, L-, S-, C-, X-, and Ku-band. The T400FC is available in 1U, 2U, and 5U rack-mount chassis packaging options.

**Application**

The T400FC is populated with a combination of individual up/downconverter modules selected specifically for the customer’s application. A Single Board Computer (SBC) is housed in the chassis to provide control/status and run any additional software. Four Compact Peripheral Component Interconnect (cPCI) slots are available to house boards, such as DSP and digital I/O to enhance the capability of the T400FC. For local control/status, a PC module provides Graphical User Interface (GUI) control and also handles additional ancillary applications.

The T400FC is completely modular and easily scalable, making it the perfect solution for your multiband/multichannel needs. Its compact size and weight make it particularly appealing for mobile applications.

**Features**

- **Individual Up/Downconverter modules**
  - Up to 17 converter modules (5U chassis)
  - Up to 4 converter modules (2U chassis)
  - Up to 2 converter modules (1U chassis)
  - RF/IF connections on front of each module
  - Blind-mated power, control/status, and reference frequency on rear connector
  - Interchangeable modules (module type detected and automatically configured)
  - Status via front-panel indicators and remote PC Client
- **Block Up/Downconverter modules**
  - C-, X-, and Ku-Band (RF) with L-band (IF)
- **Tunable Up/Downconverter modules**
  - L-, S-band and UHF (RF) with 70 MHz and 266 MHz (IF)
  - Industry standard cPCI for optional digital modules
  - Pentium processor (integrated PC option)
  - Up to 4 peripheral modules
  - Digital Signal Processor/Digitizer
  - Modulated Signal Generator
  - Channel Simulator
  - Redundant hot-swappable power supplies (2U and 5U versions)
- **Control and status interface**
  - Local GUI via keypad and LCD display (1U and 2U versions)
  - Remote via Ethernet and RS-485
  - Ruggedized 19-inch chassis in 1U, 2U, or 5U height

**Downconverter**

<table>
<thead>
<tr>
<th>Downconverter</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ku-Band (1)</td>
<td>10.7 to 11.5 GHz</td>
<td>950 to 1750 MHz</td>
</tr>
<tr>
<td>Ku-Band (2)</td>
<td>10.95 to 11.75 GHz</td>
<td>950 to 1750 MHz</td>
</tr>
<tr>
<td>Ku-Band (3)</td>
<td>11.7 to 12.25 GHz</td>
<td>950 to 1500 MHz</td>
</tr>
<tr>
<td>Ku-Band (4)</td>
<td>12.2 to 12.75 GHz</td>
<td>950 to 1500 MHz</td>
</tr>
<tr>
<td>X-Band</td>
<td>7.25 to 7.75 GHz</td>
<td>950 to 1450 MHz</td>
</tr>
<tr>
<td>C-Band</td>
<td>3.4 to 4.2 GHz</td>
<td>950 to 1750 MHz</td>
</tr>
<tr>
<td>S-Band</td>
<td>1650 to 2400 MHz</td>
<td>70 MHz</td>
</tr>
<tr>
<td>L-Band</td>
<td>950 to 1750 MHz</td>
<td>266 MHz</td>
</tr>
<tr>
<td>L-Band (extended)</td>
<td>950 to 2150 MHz</td>
<td>266 MHz</td>
</tr>
<tr>
<td>UHF</td>
<td>225 to 400 MHz</td>
<td>70 MHz</td>
</tr>
</tbody>
</table>

**Up/Downconverter RF**

<table>
<thead>
<tr>
<th>Up/Downconverter RF</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ku-Band</td>
<td>950 to 1700 MHz</td>
<td>13.75 to 14.5 GHz</td>
</tr>
<tr>
<td>X-Band</td>
<td>950 to 1450 MHz</td>
<td>7.9 to 8.4 GHz</td>
</tr>
<tr>
<td>C-Band</td>
<td>950 to 1525 MHz</td>
<td>5.85 to 6.425 GHz</td>
</tr>
<tr>
<td>S-Band</td>
<td>70 MHz</td>
<td>1650 to 2400 MHz</td>
</tr>
<tr>
<td>L-Band</td>
<td>70 MHz</td>
<td>950 to 1750 MHz</td>
</tr>
<tr>
<td>UHF</td>
<td>70 MHz</td>
<td>225 to 400 MHz</td>
</tr>
</tbody>
</table>

**Up/Downconverter IF**

<table>
<thead>
<tr>
<th>Up/Downconverter IF</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/S-Band</td>
<td>950 to 2400 MHz</td>
<td>70 MHz or 266 MHz</td>
</tr>
</tbody>
</table>

**Frequency Converter Options**

- Custom converter options available upon request
- Individual frequency converter modules can also be used with other T400 products such as the T400CS Channel Simulator and T400XR Modem

---

SPECIFICATIONS AND FEATURES SUBJECT TO CHANGE.