

T400FC

Frequency Conversion System

KRATOS | RT LOGIC



Overview

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)
 - 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
- 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	Input	Output
Ku-Band (1)	10.7 to 11.5 GHz	950 to 1750 MHz
Ku-Band (2)	10.95 to 11.75 GHz	950 to 1750 MHz
Ku-Band (3)	11.7 to 12.25 GHz	950 to 1500 MHz
Ku-Band (4)	12.2 to 12.75 GHz	950 to 1500 MHz
X-Band	7.25 to 7.75 GHz	950 to 1450 MHz
C-Band	3.4 to 4.2 GHz	950 to 1750 MHz
S-Band	1650 to 2400 MHz	70 MHz
L-Band	950 to 1750 MHz	266 MHz
L-Band (extended)	950 to 2150 MHz	266 MHz
UHF	225 to 400 MHz	70 MHz
Upconverter	Input	Output
Ku-Band	950 to 1700 MHz	13.75 to 14.5 GHz
X-Band	950 to 1450 MHz	79 to 8.4 GHz
C-Band	950 to 1525 MHz	5.85 to 6.425 GHz
S-Band	70 MHz	1650 to 2400 MHz
L-Band	70 MHz	950 to 1750 MHz
UHF	70 MHz	225 to 400 MHz
Up/Downconverter	RF	IF
L/S-Band	950 to 2400 MHz	70 MHz or 266 MHz