specs

UDC SERIES

RF Converter Series

Getting the most performance out of a communications system means minimizing sources of error wherever possible. dBm's UDC series of RF Converters perform broadband frequency translation with low distortion, high dynamic range, and low phase noise.

The UDC is a laboratory instrument designed to upconvert, downconvert, or frequency translate a signal with minimal disortion. Center frequency can be programmed, and optionally, attenuation of each channel can be controlled. The instrument is controllable from the front panel or remotely via LAN or GPIB.

dBm has an extensive range of RF Converters that can be customized to suit your specific application. And although these converters can be customized, we use standard building blocks so that you don't have to wait forever to get one

The UDC is ideally suited for extending the operating frequency range of multipath fading emulators for IEEE Std 802.11a Wireless LAN test applications.

Applications

Typical applications for the **RF Converter** Series include:

♦ Mobile phone baseband chipset test

♦ Satellite system integration

♦ Frequency translation to microwave and millimeter wave devices

♦ Multimedia Mobile Access (MMAC)

Features

Flexibility

Using standard building blocks for single, double, and triple conversion converters, each RF Converter can be customized in accordance with your specific test needs. Functionality, performance, and even connector location, are optimized.

Block or Tunable, IF or Baseband

Whether performing block up and down conversion or tunable translation, we have a solution. RF to baseband units can provide I/Q interfaces with programmable AGC and AFC.

Rack Mounting and Custom Enclosures

All RF Converters are available in 19" rack mountable enclosures, or as an option can be designed as an embedded chassis.

Multiple Control Options

TCP/IP LAN V and IEEE-488.2 are standard.

Specifications

Number of converters   up to 8 chassis
Step size (tunable)   typical 1MHz

Down converter

Input requency range:	typically L, C, S, Ku, or Ka bands
Output frequency:	typically 70 or 140MHz
Input power (max):	0 dBm typical
Conversion gain:	0 dB +/- 1.0 dB typical
IF bandwidth:	125 MHz typical
In band spurious:	-55 dBc typical
Out of band spurious:	-50 dBc typical
Amplitude flatness:	< 0.2 dBpp/2MHz typical
	< 1.0 dBpp/100MHz typical
Phase linearity:	+/- 2° /10MHz
VSWR:	1.5:1 maximum into 50 ohms

Up converter

Input frequency:	typically 70MHz or 140MHZ
Input power(max):	0 dBm typical
Conversion loss:	0 dB +/- 1.0 dB
IF bandwidth:	125MHz typical
Amplitude Flatness:	< 0.2 dBpp / 2MHz
	< 1.0 dBpp/ 100MHz
Phase linearity:	+/-2°/ 10MHz typical
Output frequency range:	typically L, C, S, Ku, or Ka bands
In band spurious:	< -55 dBc typical
Out of band Spurious:	< -50 dBc typical
VSWR:	1.5:1 maximum into 50 Ohms

General

RF Connectors:	type N or K (3.5mm) typical
Control:	IEEE 488.2, TCP/IP LAN

Primary power

Voltage:	90-264 VAC auto ranging
Frequency:	48-66Hz
Consumption:	1.0A maximum
Fuse:	2A
Ambient (operating):	+10℃ to +40℃
Dimensions:	5.25" H x 19" W x 21" D

Distributor

dBm

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