



The SpacePath Communications Intelligent Frequency Converters (IFC™) shape the next-generation satellite transmission with its breakthrough leading edge technology, state of the art design, and unprecedented reliability with 3 years warrant for this product line!

The SpacePath Communications IFC™ series may combine up to 4 embedded converters in a single 1RU shelf with extensive monitor and control via front panel, serial ports EIA232/EIA485 and Ethernet

Features Best in Class RF characteristics, Flexible reference with autosensing can lock to external 5/10 MHz reference or utilize built-in high stability reference oscillator.

## Options

- RF and L-Band monitoring
- 48VDC isolated power supply

## Features

- Superior RF performance:
  - Phase noise 8dB better than IESS308/309
  - In Band Spurious below -60dBc
  - Superior Gain flatness
- 5 / 10 MHz external reference Autosense
- Single, dual, triple and quad band frequency converters in a single 1RU chassis (4.4cms H x 48cm W x 48cm D)
- User Friendly front panel with menu driven display
- Full featured M&C Interface via RS-232 serial console, packet protocol RS-485 and user friendly HTTP based GUI and SNMP:
  - 20dB Gain Control
  - Input and output power detectors
  - Automated level control (ALC) mode optional
- 1:N Redundant ready

## IFC™ Series DBS-Band Up Converter Rack Mount System Specification

Parameter		Up-Converter			
<b>RF Performance</b>		<b>DBS Band</b>			
RF Frequency Range		17.3-18.1GHz			
IF Frequency Range		950-1750MHz			
LO Frequency		16.35GHz			
Input Return Lost		16dB			
Output Return Lost		18dB			
Noise Figure		5dB Max			
Conversion		Single Conversion; non-inverting			
Output Power at 1dB compression point		7dBm min			
Conversion Gain		30dB			
Gain Flatness		+/- 1dB typ., +/-1.5dB max over full band; +/- 0.5dB max over any 40MHz			
Gain Stability		+/- 1.5dB over full temperature range			
Gain Control		20dB min			
External Reference Frequency		10MHz			
External Reference Required Phase Noise		-130dBc/Hz @ 100Hz; -140dBc/Hz @ 1kHz; -150dBc/Hz @ 10kHz; -155dBc/Hz @ 100kHz			
Phase Noise		-65dBc/Hz @ 100Hz; -78dBc/Hz @ 1kHz; -88dBc/Hz @ 10kHz; -98dBc/Hz @ 100kHz; -115dBc/Hz @ 1MHz			
Spurious:					
Signal Related		-55dBc			
Non-Signal Related		-60dBc			
<b>Monitor &amp; Control Features</b>					
<b>Interfaces:</b>					
Serial – EIA485		DB9 Connector rear panel			
Serial – EIA232		RJ45 or DB9 Connector rear panel			
10/100 base-T Ethernet		RJ45 Connector rear panel			
Alarm and Control		DB9 Connector rear panel			
Redundant protection interface		HD15 Connector rear panel			
<b>Controls:</b>					
Gain Control		via Serial, Ethernet, Front Panel			
Mute Control		via Serial, Ethernet, Front Panel, Redundancy Interface			
Local / Remote Toggle		via Serial, Ethernet, Front Panel			
Clear Alarm		Via Serial, Ethernet, Front Panel			
<b>Indicators:</b>					
Lock Status		Via Serial, Ethernet, Front Panel			
Gain Status		Via Serial, Ethernet, Front Panel			
IF & RF Power Detect		Via Serial, Ethernet, Front Panel			
Temperature		Via Serial, Ethernet, Front Panel			
Summary Alarm Status		Via Serial, Ethernet, Front Panel, Redundancy Interface			
Mute Status		Via Serial, Ethernet, Front Panel, Redundancy Interface			
<b>Power Supply</b>		<b>Mechanical</b>		<b>IF/RF Connectors</b>	
Input Voltage	90-265VAC 50/60Hz PFC	Width	19" Rack	IF	N-type (other options available)
	48VDC Isolated Optional	Height	1RU	RF	N-type
<b>Environmental</b>		Depth	19"	10MHz Ref In / Out	BNC (other options available)
Operating Temperature	0 to 60 deg. C	Cooling	Forced air		
Storage Temperature	-40 to +85 deg. C				