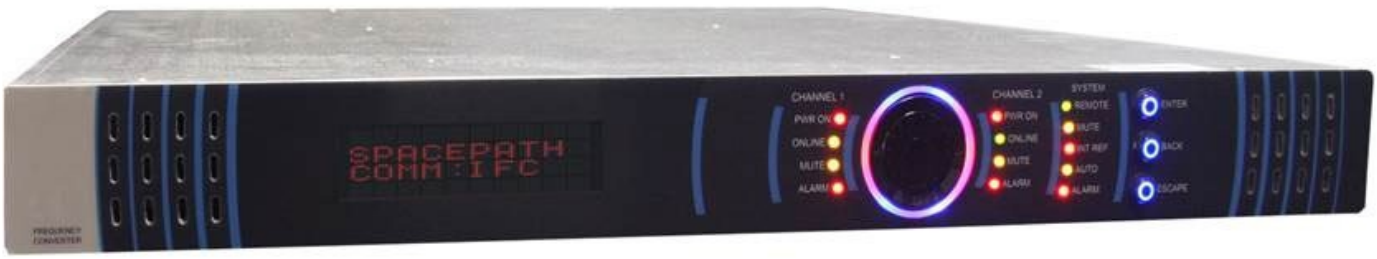
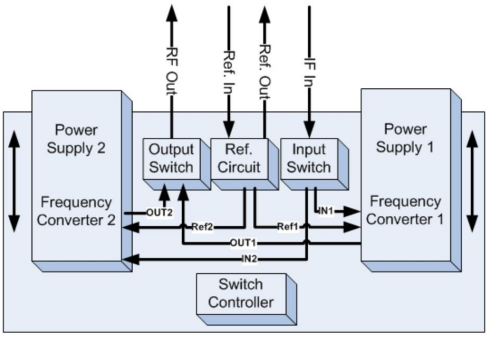
IFC™ Series Ku-Band 1:1 Redundancy Rack Mount Up/Down Converter





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!

Features patent pending hot-swappable power supply and converter module shelf redundancy with embedded switch controller, embedded input and output switches and 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
- Up Converter Switchable LO option—standard and Extended Ku-Band in one unit
- 5 / 10 MHz external reference Autosense
- 1:1 Redundant patent pending real hot swappable in 1RU chassis with no need for additional external 1RU switch controller and external input / output switches
- 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
- External Redundant Interface for higher level redundancy control capability

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Spacepath Communications Ltd. Unit 4 Bartley Point, Osborn Way, Hook, Hampshire RG27 9GX United Kingdom.
Telephone: +44 (0)1256 760525. e-mail: sales@space-path.com. Internet: www.space-path.com

IFC™ Series Ku-Band Up/Down Converter 1:1 Redundancy Rack Mount System Specification

Parameter	Up-Converter		Down-Converter	
RF Performance	Standard Ku	Extended Ku	Ku Sub-Band 1	Ku Sub-Band 2
RF Frequency Range-Available in / switched	14-14.5GHz	13.75-14.5GHz	10.70-11.70GHz	11.70-12.75GHz
IF Frequency Range	950-1450MHz	950-1700MHz	950-1950MHz	950-2000MHz
LO Frequency	13.05GHz	12.80GHz	9.75GHz	10.75GHz
Input Return Lost	16dB		18dB	
Output Return Lost	18dB		16dB	
Noise Figure	5dB Max			
Conversion	Single Conversion; non-inverting			
Output Power at 1dB compression point	10dBm min			
Conversion Gain	35dB			
Gain Flatness	+/- 1dB man 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	-70dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz; -95dBc/Hz @ 100kHz; -115dBc/Hz @ 1MHz			
Spurious: Signal Related	-55dBc			
Non-Signal Related	-60dBc			
Monitor & Control Features				
Interfaces:				
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			
Controls:				
Gain Control	via Serial, Ethernet, Front Panel			
LO Select – Standard / Extended Ku-Band Toggle	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			
Indicators:				
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			

Power Supply		**Mechanical**		**IF/RF Connectors**	
Input Voltage	90-265VAC 50/60Hz PFC	Width	19” Rack	IF	N-type (other options available)
	48VDC Isolated Optional	Height	1RU	RF	N-type
Environmental		Depth	20”	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				