



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 5dB better than IESS308/309
 - In Band Spurious below -60dBc
 - Superior Gain flatness
- Up Converter Switchable LO option
- 10 MHz external reference
- 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:
 - 30dB Gain Control
 - Input and output power detectors
 - Automated level control (ALC) mode optional
- 1:N Redundant ready

IFC™ Series Ka-Band Up Converter Rack Mount System Specification

Parameter		Up-Converter			
RF Performance		Ka Band			
RF Frequency Range-Available in/switched	27-28GHz	28-29GHz	29-30GHz		
IF Frequency Range	950-1950MHz				
LO Frequency	26.05GHz	27.05GHz	28.05GHz		
Input Return Lost	16dB				
Output Return Lost	18dB				
Noise Figure	5dB Max				
Conversion	Single Conversion; non-inverting				
Output Power at 1dB compression point	15dBm min				
Conversion Gain	45dB +/- 2dB				
Gain Flatness	+/- 1dB max over full band; +/- 0.5dB max over any 40MHz				
Gain Stability	+/- 1 dB over full temperature range, +/-0.25dB over 24 Hour (constant temperature)				
Gain Control	30dB min, 0.2dB step				
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; -75dBc/Hz @ 1kHz; -85dBc/Hz @ 10kHz; -95dBc/Hz @ 100kHz; -105dBc/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 - Ka 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	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				