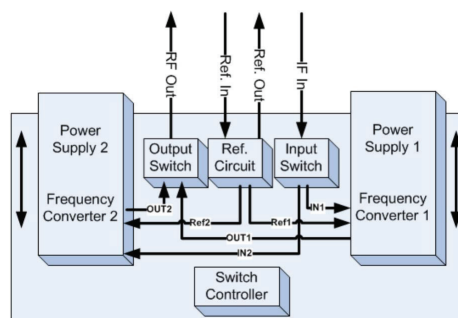


IFC SERIES C-BAND 1:1 Redundancy Rack Mount Up/Down Converter



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 & 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
- Available in all C-Band options—standard, extended, Palapa and Insat
- 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 capability

IFC SERIES C-BAND 1:1 Redundancy Rack Mount Up/Down Converter

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

Parameter		Up-Converter		Down-Converter	
RF Performance		Standard C/Extended C	Palapa/Insat	C-Band	Insat Band
RF Frequency Range-Available in / switched		5.85-6.425GHz	6.425-7.025GHz	3.4-4.2GHz	4.5-4.8GHz
IF Frequency Range		950-1825MHz	950-1550MHz	950-1750MHz	950-1250MHz
LO Frequency		4.9GHz	5.475GHz	5.15GHz	5.75GHz
Input Return Lost		16dB		18dB	16dB
Output Return Lost		18dB		16dB	16dB
Noise Figure		5dB Max			
Conversion		Single Conversion; non-inverting		inverting	
Output Power at 1dB compression point		10dBm min			
Conversion Gain		35dB			
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		-70dBc/Hz @ 100Hz; -80dBc/Hz @ 1kHz; -90dBc/Hz @ 10kHz; -95dBc/Hz @ 100kHz; -115dBc/Hz @ 1MHz			
Spurious:	Signal Related*	-55dBc			
Non-Signal Related		-60dBc			
*For Up Extended C-Band signal related Spurious is -50dBc					
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 C-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				