

IFC™ SERIES DBS-BAND UP CONVERTER RACK MOUNT SYSTEM



The IRT Technologies 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 warranty for this product line!

IRT Technologies 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.

IFC™ Series features Best in Class RF characteristic, Flexible reference with autosensing can lock to external 5/10 MHz reference or utilize built-in high stability reference oscillator.

KEY FEATURES

- Superior RF performance:
 - Phase noise 8dB better than IESS308/309
 - In Band Spurious below -60dBc
 - Superior Gain flatness
- User Friendly front panel with menu driven display
- 5 /10MHz external reference Autosense
- Up to four frequency converters in a single 1RU chassis (1.75" H x 19" W x 19" D)
- Full featured M&C Interface via serial EIA485, EIA232 and Ethernet HTTP based GUI and SNMP:
 - 20dB Gain Control
 - Input and output power detectors
 - Automated level control (ALC) mode optional
- 1:N Redundant ready
- RF and L-Band monitoring optional
- 48VDC isolated power supply optional

800 Boulevard Saint-Jose
La Prairie, QC
Canada J5R 6W9
+1-450-444-1227
www.irttechnologies.com

Canada (Headquarters)
canada_sales@irttechnologies.com

Europe
europe_sales@irttechnologies.com

USA
usa_sales@irttechnologies.com

Asia-Pacific
asia_sales@irttechnologies.com



IFC™ SERIES DBS-BAND UP CONVERTER RACK MOUNT SYSTEM SPECIFICATION

Parameter		Up-Converter	
RF Performance		DBS Band	
RF Frequency Range		17.3 to 18.1 GHz	
IF Frequency Range		950 to 1750 MHz	
LO Frequency		16.35 GHz	
Input Return Lost		16 dB	
Output Return Lost		18 dB	
Noise Figure		5 dB Max	
Conversion		Single Conversion; non-inverting	
Output Power at 1dB compression point		7dBm min	
Conversion Gain		30 dB	
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 @ 100 Hz	
Up-Converter 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	
Monitor & Control Features			
Interfaces:			
	Serial - EIA485	DB9 Connector rear panel	
	Serial - EIA232	RJ45 or DB9 Front Panel	
	10/100 base-T Ethernet	RJ45 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, Red Int.	
	Local/Remote toggle	Serial(Ethernet)/Front panel toggle	
	Clear Alarm	via Serial, Ethernet, Front panel	
Indicators:			
	Lock Status	via Serial, Ethernet, Front panel	
	Gain Status	via Serial, Ethernet, Front panel	
	IF Power Detect	via Serial, Ethernet, Front panel	
	RF Power Detect	via Serial, Ethernet, Front panel	
	Temperature	via Serial, Ethernet, Front panel	
	Summary Alarm Status	via Serial, Ethernet, Front panel, Red Int	
	Mute Status	via Serial, Ethernet, Front panel, Red Int	
Power Supply		Mechanical	
Input Voltage	90 to 265VAC 50/60Hz PFC	Width	19" Rack
	48VDC Optional	Height	1RU
Environmental	Operating temperature 0 to 60 deg.C	Depth	19"
		Color	Metallic
Storage Temperature	-40 to +85 deg.C	Cooling	Forced air
			IF/RF Connectors
			IF N-type (other options available)
			RF N-type
			10MHz Ref In/Out BNC (other options available)

*Contact us for detailed ordering information at sales@irttechnologies.com

Rev.04

800 Boulevard Saint-Jose
La Prairie, QC
Canada J5R 6W9
+1-450-444-1227
www.irttechnologies.com

Canada (Headquarters)
canada_sales@irttechnologies.com

USA
usa_sales@irttechnologies.com

Europe
europe_sales@irttechnologies.com

Asia-Pacific
asia_sales@irttechnologies.com

