

IF series

Fixed Frequency IF 70MHz/140MHz Up & DownConverters



IF Frequency Converter Products;

IF70 70MHz to 140MHz UpConverter.





IF140 140MHz to 70MHz DownConverter.

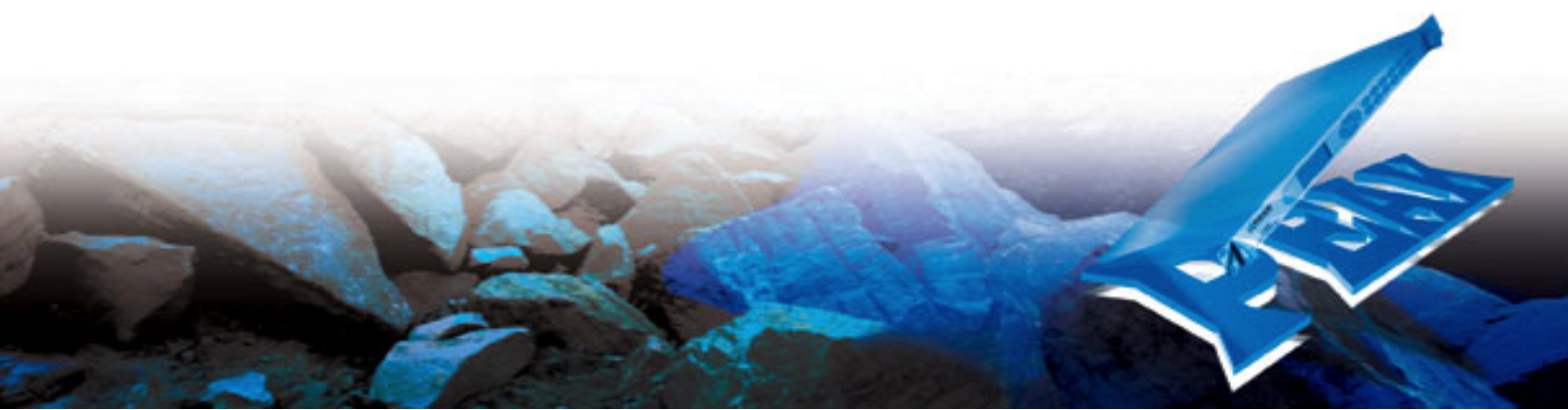
The **IF series** Converters are 19 inch 1U rack mounted, 140MHz/70MHz Up & DownConverters. These Converters provide a low-cost solution for matching the IF's of modems, converters and other units. Incorporated are high stability Ovenised Crystal Oscillators to ensure excellent stability and phase noise. Full alarm monitoring ensures that these units are fully compatible with the **RCU100** and **RCU200** 1:1 and 1:2 redundancy controller units.

The **IF series** Converters are designed to meet the phase noise, spurious, level and frequency stability requirements of Intelsat IBS/Eutelsat SMS specifications and are compliant with IESS 308/309. The products are suitable for both very high and very low data rates and both digital and analogue TV signals.

The versatility of the design of these units ensures that customers' specific requirements, such as gain and center frequency, can be accommodated.

Peak Features

-  Compliant with IESS 308 /309 requirements.
-  Full Alarm monitoring
-  High stability and excellent phase noise
-  Fully compatible with RCU100 & RCU200 series redundancy controllers



IF series - Specification

IF Input

Frequency	70MHz ±20MHz (IF70 unit) 140MHz ±20MHz (IF140 unit)
Connection	50Ω, BNC (f)

IF Output

Frequency	140MHz ±20MHz (IF70 unit) 70MHz ±20MHz (IF140 unit)
Connector	50Ω, BNC (f)
Output 1dB GCP	0dBm

Transfer Characteristics

Conversion gain	0dB nominal
Gain stability	±1dB from 0 to 40°C ±0.1dB per week, const. temp.
Gain flatness	±0.5dB across any 40MHz band

RF Performance

Phase noise	-80dBc/Hz at 100Hz -85dBc/Hz at 1kHz -87dBc/Hz at 10kHz -90dBc/Hz at 100kHz
Harmonics	Better than -25dBc at 0dBm
Spurious	≤-55dBm (in band non-carrier related) ≤-55dBc (in band carrier related) ≤-45dBc (always out of band)

Standard Internal Reference

Stability (1sec)	$<1 \times 10^{-10}$ per second
Stability (temp)	$<\pm 1 \times 10^{-7}$ (0 to +50°C)
Ageing (day)	$<\pm 5 \times 10^{-9}$
Ageing (year)	$<\pm 1 \times 10^{-7}$

External Reference Input (Option 1)

Frequency	Factory selectable 5 or 10MHz
Connection	50Ω, BNC (f)
Level	0dBm ±3dB

Mechanical

Width	19" standard rack mount
Height	1U (1.75")
Depth	~400mm (15.7"), plus connectors
Construction	Aluminium chassis
Weight	4kgs (8.8lbs)

Control System Interface

Alarms	LO lock fail PSU fail Summary failure relay (form C)
--------	--

Environmental

Operating temp.	-10°C to +50°C
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

Power Supply

Voltage	115/230VAC ±10%, Switch selectable
Frequency	50/60Hz
Power	50 Watts max.

Options

1)	5/10MHz external reference input
----	----------------------------------

Associated Products;

RCU100	1+1 Redundancy Unit.
RCU200	2+1 Redundancy Unit.

Rear Panel



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. IF2000-220808.

Peak Communications Ltd, 22 West Park Street, Brighouse, HD6 1DU, England

Tel; +44 (0)1484 714200 Sales; +44 (0)1484 714299 Fax; +44(0)1484 723666 Email; sales@peakcom.co.uk Web; www.peakcom.co.uk