

F1201





Fixed Frequency DownConverter



The **F1201** is a fixed frequency, fixed gain, L-Band to IF DownConverter. The **F1201** provides a low-cost solution for systems requiring conversion between L-Band and 70MHz \pm 20MHz (or 140MHz \pm 40MHz). The unit can be used to interface L-Band modems with 70/140MHz transceivers or 70/140MHz modems to L-band transceivers.

The standard F1201 L-band frequency is fixed at 1200MHz, for different frequencies please contact the factory.

Peak Features

-  Compliant with IESS 306 and IESS 309 requirements.
-  Used for 8PSK and 16QAM modulations in excess of 50Mbits/sec.
-  Fully compatible with **RCU101** & **RCU201** 1+1 & 2+1 redundancy switch units.
-  Customising available.



F1201 – Typical Specification

L-Band Input

Frequency	1200 ±18MHz fixed (Option 1a; ±36MHz). For other frequencies please contact the factory.
Connection	50Ω, N-type (f)

IF Output

Frequency	70 ±18MHz (Option 1b; 140 ±36MHz)
Connection	50Ω, BNC (f) (Option 3b; 75Ω)

Transfer Characteristics

Conversion gain	Zero
1 dB GPC	0dBm
Gain flatness	±0.5dB across 40MHz

RF Performance

Phase noise	-80dBc/Hz at 100Hz -90dBc/Hz at 1kHz -95dBc/Hz at 10kHz -100dBc/Hz at 100kHz -120dBc/Hz at 1MHz
Spurious	<-60dBm (in band, non-carrier related) <-60dBc (in band, carrier related)
Group delay	Linear 0.025nS Ripple 1nS p-p Parabolic 0.015nS/MHz ²

External Reference Input

Frequency	Factory selectable 5 or 10MHz
Connector	50Ω, BNC
Level	0dBm ±3dB

Internal Reference

Frequency	10MHz
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Stability

Stability	<5 x 10 ⁻¹⁰ over 1s, <5 x 10 ⁻⁹ per day
Ageing	<5 x 10 ⁻⁷ per year
Temp. stability	<5 x 10 ⁻⁸ over 0 to 50°C

Mechanical

Width	19", standard rack mount
Height	1U (1.75")
Depth	400mm (15.7"), plus connectors
Construction	Aluminium chassis
Weight	Approx. 4kgs (9lbs)

Environmental

Operating temp.	-10°C to +50°C
EMC	EN55022 part B & EN50082-1
Safety	EN60950

Power supply

Voltage	100-120/200-240VAC, auto-switching
Frequency	50/60Hz
Power	60 Watts max.

Control System

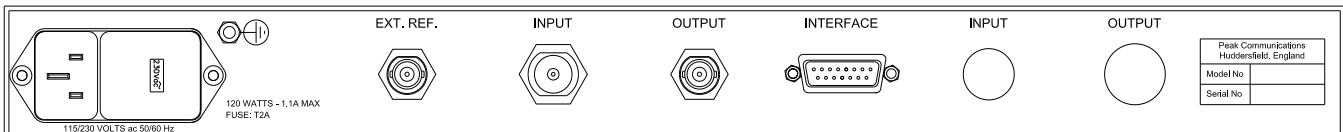
Alarms	Summary failure relay (form C)
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Options

- 1b) 140MHz IF Output.
- 2) Front panel with custom logo and colours
- 3b) 75Ω IF Output.

Note: Some of the above options have an impact on the general performance specification, factory guidance should be sought if this is thought to be critical.

Rear Panel View



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. F1201-230511.

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