



iDC-3743 37-40/40-43 GHz Block Downconverter

FEATURES

- **Switch Selectable RF Input Band**
- **2 channel (Horizontal/Vertical)**
- **IF Output 1GHz-4GHz**
- **Low Noise Figure (4dB typ)**
- **Modular, Low SWAP**

APPLICATIONS

- **SATCOM**
- **SIGINT**
- **Cross Polarization Reception**

DESCRIPTION

The banded block downconverter covers 37-40GHz and 40-43GHz vertical and horizontal polarizations. The low SWAP allows for mounting directly to the antenna feed. These downconverters provide extremely low noise figure and phase noise to receive and ultimately process high order digital modulation waveforms. Two or more downconverters are capable of being synchronized via an external 10MHz reference.

Intelligent RF Solutions is committed to supporting the SATCOM and SIGINT mission. The iDC-3743 is just one in a family of banded cross pole downconverters.

SPECIFICATIONS AT 25° C

RF Input

Frequency Range (switch selectable)

37GHz-40GHz
40GHz-43GHz

VSWR

3.5:1 into 50 ohms

IIP3

≥-18dBm

Noise Figure

<5.5 dB

LO Radiation

≤-70dBm

IF Output

Frequency Range

1GHz-4GHz

VSWR

2.5:1 into 50 ohms

Gain

14 -26.3dB

10MHz Reference

External Power Level

0dBm ±3dB

Initial Accuracy

±10 PPM

Integrated Phase Noise

(1 kHz to 30MHz)

0.8° rms

Size

Diameter

6.5" (16.5 cm)

Height

4" (10.16 cm)

Power

Voltage

15V

Wattage

<15W

Operating Temperature

-10°C to +70°C

BLOCK DIAGRAM

