



iDC-1720

17-20GHz Block Downconverter

FEATURES

- **2 channel (Horizontal/Vertical)**
- **IF Output 1GHz-4GHz**
- **Low Noise Figure (<3dB typ.)**
- **Modular, Low SWAP**

APPLICATIONS

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

DESCRIPTION

The banded block downconverter covers 17-20GHz 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-1720 is just one in a family of banded cross pole downconverters.

SPECIFICATIONS AT 25° C

RF Input

Frequency Range
17GHz-20GHz

VSWR
2.5:1 into 50 ohms

IIP3
-14dBm

Noise Figure
<2.5dB typ.

LO Radiation
<-50dBm

IF Output

Frequency Range
1GHz-4GHz

VSWR
2.5:1 into 50 ohms

Gain
20dB \pm 3dB

10MHz Reference
External Power Level
0dBm \pm 3dB

Internal Accuracy
 \pm 10 PPM

Integrated Phase Noise
(300Hz to 30MHz)
0.20° rms to 0.40° (Frequency Dependent)

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

