



## 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**  
≥ - 21dBm

**Noise Figure**  
≤3.5dB

**LO Radiation**  
≤-70dBm

### IF Output

**Frequency Range**  
1GHz-4GHz

**VSWR**  
2.5:1 into 50 ohms

**Gain**  
28dB ± 4dB

**10MHz Reference**  
**External Power Level**  
0dBm ±3dB

**Internal Accuracy**  
±10 PPM

**Integrated Phase Noise**  
**(1kHz to 30MHz)**  
0.4° rum

**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

