



DSPiversity™
ATSC four-channel diversity receiver

IFB & Off-Air Reception for Helicopters

Dimensions

- » One rack unit (1RU) high box
 - Size: (HxWxD) 1.75" x 19" x 22.00"

Power Requirements

- » Vehicle/aircraft power (negative ground)
10 to 35 VDC at approximately
30 Watts
 - Rugged Molex Connector
- » 90 to 130 VAC, 50 to 440 Hz
 - Isolated switching supply
 - Highly waveform and transient tolerant for reliable operation from all types of inverters and generators
 - Standard IEC power connector

Fuses

- » Solid state, self resetting DC fuse

Sensitivity

- » -87 dBm typical
- » -78 dBm minimum

Transport Stream Output

- » USB-2
- » DVBT-ASI
- » DVBT-SPI (LVDS)

IFB Coding

- » MPEG-1 layer 2, dual monaural

Input/Output Connections – Rear Panel

- » DC Power - Vehicle
 - 2-conductor Molex® connector
- » IFB Audio Out – A
 - Barrel, 2.1/5.0 mm
- » IFB Audio Out – B
 - Male XLR-type connectors
 - Balanced line-level outputs, low impedance
- » Antenna Input
 - Four (4) BNC connectors
 - Nominal impedance 75Ω
- » Transport Stream – USB-2
 - USB-B Receptacle
- » Transport Stream – DVB-ASI
 - BNC connector
- » Transport Stream – DVB-SPI (LVDS)
 - DB-25 - female

Temperature Range

- » -10° to 50°C

Frequency Coverage

- » North American TV Broadcast channels 2 to 69. Other channel tables on special order

(over)

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Controls

- » Front Panel
 - Channel
Thumbwheel switch, 2 – 69
 - PID
Thumbwheel switch, 0 – 8191
 - Reset
Pushbutton
- » Rear Panel
 - IFB audio line level

Front Panel Indicators

- » **DTV**
 - Four (4)
 - Green
 - Valid DTV signal present – Tuner locked
- » **P Error**
 - Four (4)
 - Red
 - Packet Error
- » **SNR**
 - Four (4)
 - 10 LED green vertical bars
 - Strength of signal

» IFB

- PID
- Amber
 - Valid PID detected

Audio

- A: Audio level on IFB channel A
Amber
- B: Audio level on IFB channel B
Amber

» Diversity

- White
- Diversity board delivering valid data

» Tuner

- Four (4)
- Yellow
- Which tuner selected by diversity board and is providing valid data

» Data Valid

- Blue
- Output transport stream valid

Antenna System

- » An effective antenna system is integral to the successful performance of a news helicopter IFB system. Modulation Sciences has developed a unique approach (patent pending) for helicopter diversity antennas. Key is keeping the antennas inside the aircraft, which avoids much of the expense and paperwork of external mounting.



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Preliminary specifications subject to change without notice.