

# IRD5200

## DVB-S2 Receiver with H.264 / MPEG2 Decoding

The IRD5200 is the highest performing feature-rich SD/HD Contribution IRD available for lightweight SNG Flyaway or Terrestrial ENG receive applications. Utilising Vislink's core technologies the IRD5200 combines leading edge high order DVB-S2 demodulation with highly configurable FPGA circuitry providing an abundance of user selectable features all in one streamlined 19" x 1RU Half-Rack Width unit. This revolutionary concept for SNG /ENG and OB receive operations reduces the complexities and operating costs of today's economically challenged businesses.

The 5200 IRD accepts up to two L band and one 58-860MHz RF input, in addition to two individual ASI inputs, RF signal inputs, providing reliable and comprehensive coverage for any SNG or ENG/OB receiving site. The integral demodulator can be configured for DVB-S QPSK and DVB-S2 schemes from QPSK through to 32APSK

In addition, with the relevant software license, the IRD5200 will accept ASI over IP input (decapsulating an ASI video from an IP transport stream and can encapsulate up to two ASI videos into an IP stream for routing to an alternate destination for decoding.

With the relevant license the integral decoder will decode MPEG2 SD/HD 4:2:0 and 4:2:2 video (including Vislink's ultra low delay encoding) in addition to H.264 4:2:0 SD/HD and 4:2:2 10bit HD video.

A powerful, yet simple to operate, web-based graphical user interface (GUI) provides complete remote control and monitoring for the receiver by means of an integrated Ethernet/SNMP (RJ45) interface. This can be operated by connecting the IRD to a laptop or other device where the control screen will function in most web browsers. This further reduces capital equipment expenditures by eliminating the need for expensive third party remote control systems.

The IRD5200 is part of a complete suite of units aimed at high quality or versatile contribution links where live video or content is required to be routed back to base via Satellite, Microwave or IP connectivity. The range includes HD and SD Video Encoders, DVB-S, DVB-S2, DVB-T and LMS-T Modulators, IP Satellite Modems, Diversity Receivers, IRDs and associated units. All units utilise a 19"x1RU half rack width housing for compactness and extremely light weight. This packaging has proved its worth in the portable applications where these type of units are typically deployed.



DVB-S2 Satcom and ENG IRD

### FEATURES

- 2 x L-band input with L-band loop-through monitor
- 1 x VHF/UHF\* and 1 x ASI inputs
- ASI decapsulation from IP input\*
- ASI encapsulation onto IP output\*
- LNB/Downconverter powering
- L3025 Downconverter powering via VHF/UHF input
- DVB-S QPSK demodulation
- DVB-S2 QPSK, 8PSK, 16APSK & 32APSK demodulation\*
- ASI Output
- BISS 1/E Descrambling,
- MPEG-2 4:2:0 & 4:2:2 SD generic and ultra low delay decoding (with Vislink Encoder)
- MPEG-2 4:2:0 & 4:2:2 HD generic and ultra low delay decoding\* (with Vislink Encoder)
- H.264 4:2:0 Main Profile and High-profile SD and HD Decoding\*
- H.264 4:2:2 8,9 & 10-bit High-profile SD & HD decoding\*
- Web browser and SNMP control,
- SDI-HD/SD and CVBS outputs with embedding of up to 4 pairs of decoded audios
- Independent output of Audio Pairs #1 and #2 as analog audio or balanced AES on LEMO connector (XLR breakout lead supplied)
- Field upgradeable via USB
- Typical uses include:
  - Lightweight Monitoring IRD for SNG applications
  - Satcom Contribution or Cable-Head Receiver
  - ENG Point-to-Point DVB-S2 Receiver using L3025 Downconverter

(\* optional license key upgrade

**DEMODULATOR:**

**DVB-S**

- QPSK

**DVB-S2**

- QPSK / 8PSK / 16APSK / 32APSK

**L Band Input Range**

- 950-2150MHz

**VHF/UHF input range**

- 58-860MHz

**Symbol Rate**

- Up to 45Msymbols

**DECODER:**

**SD**

- MPEG-2 4:2:0 & 4:2:2

**HD**

- MPEG2 4:2:0 & 4:2:2
- Low delay MPEG-2, 4:2:0 & 4:2:2
- H.264 4:2:0 MP, 8-bit
- H.264 4:2:2 HP, 8-bit
- H.264 4:2:2 HP, 10-bit

**Audio**

- 4 pairs Audio MPEG-2 Layer 1 & 2,

**Descrambling:**

- BISS-1 & E
- AES 128 & 256bit (future software upgrade)

**Inputs:**

- 2 x L band RF inputs - F-Type(f). Switchable LNB power
- 1 x UHF inputs, 58-860MHz – BNC(f). Switchable Downconverter power
- 1 x ASI input – BNC(f) (ISO/IEC 13818-2 188 bytes),
- 10/100/1000 Ethernet connection for Video-over-IP connections - RJ45
- 10/100 Ethernet connection for IP-based unit control – RJ45
- USB2 connector for code updates and profile transfers

**Outputs**

- SDI-SD/HD/Composite Video – BNC(f)
- ASI output – BNC(f) (ISO/IEC 13818-2 188 bytes),
- L band Loophrough – BNC(f)
- Audio Pairs #1 and #2 (analog or AES) – LEMO 4 x XLR3P breakout lead

**IRD5200 BASE CONFIGURATION**

- Base Unit Part Number: 9002965
- 2 x L band Inputs and 1 x L band loopthrough
- 2 x ASI inputs
- 1 x ASI output
- DVB-S QPSK Demodulation 950-2150MHz
- MPEG2 SD 4:2:0 and 4:2:2 Generic and Vislink Low Delay Decoding
- Integral web browser control
- SDI-SD and CVBS Video outputs
- 2-pair audio decoding (with upgrade to 4-pair decoding when available)

**ENVIRONMENTAL & PHYSICAL**

**Temperature Operational**

- 0°C to +50°C (32°F to 122°F)

**Temperature Storage**

- -20°C to +70°C (-4°F to 158°F)

**Size**

- 210mm wide x 350mm deep (8.27" wide x 13.78" deep)
- 1U half rack width

**Weight**

- 1.5 Kg (3.5lbs)

**Power**

- Frequency
- 47 to 63 Hz @ <100W

**Operating Voltage**

- 100 to 240 Vac +/- 10%

**Power**

- IEC Input
- 100-240VAC ±10%, 47-63Hz <100W

**IRD5200 LICENSE KEY UPGRADES**

9002230	58-860MHz input enable
L9556	ASI over IP Encapsulation
L9557	ASI over IP Decapsulation
L9565	MPEG2 HD (Generic) upgrade
L9564	MPEG2 HD (Ultra Low delay) upgrade
L9560	H.264 4:2:0 MP & HP SD/HD Decoding
L9561	H.264 4:2:2 10-bit HP SD/HD Decoding
060-5858	DVB-S2 QPSK/8PSK Upgrade
9000415	DVB-S2 16APSK/32APSK Upgrade



IRD5200 in AFC5003 Half Width Lightweight Flightcase with 5100 Exciter and AUC5814 BUC

