

## IRD6200

### 4K UHD HEVC Multi-Format DVB-S2X Integrated Receiver Decoder

The IRD6200 is a compact 4K UHD multi-format IRD - ideally suited to News and Events applications where size, weight and channel density is at a premium.

The IRD6200 offers ultimate satellite bandwidth efficiency by utilising the latest HEVC video compression and DVB-S2X satellite demodulation technology - allowing a 50% reduction in leased satellite bandwidth compared to MPEG-4, DVB-S2 technology dramatically reducing satellite OPEX.

As a multi-format IRD the IRD6200 has the ability to decode video of all resolutions from SD to highest quality 4K UHD including High Dynamic Range. In addition to HEVC decoding, the IRD6200 also supports legacy H.264 and MPEG-2 decoding.

### Key Features

- DVB-S2X, S2, S satellite input
- ASI and IP TS inputs and outputs
- 4K, HD, SD multi-format decoding
- HEVC, MPEG-4, MPEG-2 multi-standard decoding
- High quality 4:2:0, 4:2:2, 8-bit/10-bit profiles
- 1x 4K or up to 4x HD services decoded
- Very low latency decoding
- High Dynamic Range support
- Flexible audio decode with Layer II, AAC
- Linear PCM audio pass-through
- 2x stereo pairs of audio carriage



### Typical Applications

- High quality events coverage
- Sports coverage
- Newsgathering
- Secure SatCom
- MilGov applications



# datasheet

at the heart of the action

## Inputs

- DVB-S2x, S2, S
- 950-2150MHz
- 1-45MSym/s
- 5%, 10%, 15%, 20%, 25, 35% roll-off
- ASI TS input
- IP TS input
- Frame Sync

## Outputs

- 4x 3G-SDI
- SMPTE 2022-6
- ASI TS output
- IP TS output

## Video Decoder

- HEVC 4K, HD, SD decode
- MPEG-4 HD, SD decode
- MPEG-2 HD, SD decode

## Video Profiles

- 10-bit 4:2:2
- 8-bit 4:2:0

## Ancillary Data

- Up to 115200 bps

## Encryption

- 1x 4K service
- Up to 4x HD/SD services

## Unit Control

- Front panel control
- Web GUI
- SNMP

## Control Interface

- Ethernet RJ45

## Software Upgrade

- USB Software upgrade

## Power

- 100 to 240VAC
- DC PSU Option

## Size

- 1RU Half rack width

## Environmental

- Temperature: 0° to 50°C
- Humidity: 95% non-condensing

## Demod Table

- DVB-S (EN300421) QPSK
- DVB-S2 (EN302 307-1 V1.4.1) QPSK/8PSK
- DVB-S2X (EN302 307-1 V1.0.0) QPSK/8PSK, 8/16/32APSK

| Audio Decoding  |                   |                          |                     |               |  |
|-----------------|-------------------|--------------------------|---------------------|---------------|--|
| Audio Codec     | Transport Formats | Encoded Bit-rates (kbps) | Decode Bits/ Sample | Sampling Rate | Total Number of Audio Channels             |
| MPEG-1 Layer I  | ISO13818-3        | 32 to 384                | 16                  | 48 kHz        | Two stereo pairs for a total of 4 channels |
| MPEG-1 Layer II | ISO13818-3        | 32 to 384                | 16                  | 48 kHz        | Tow stereo pairs for a total of 4 channels |
| AAC-LC          | ADTS              | 96 to 576                | 16                  | 48 kHz        | One stereo pair for a total of 2 channels  |
| HE-AAC v2       | ADTS              | 96 to 576                | 16                  | 48 kHz        | One stereo pair for a total of 2 channels  |
| Linear PCM      | SMPTE-302M        | Depends Bits/ Sample     | 16, 20 & 24         | 48 kHz        | One stereo pair for a total of 2 channels  |

| Video Decoding          |   |  |  |
|-------------------------|---|--|--|
| Video Codec             | HEVC/H.265 - UHD  | AVC/H.264 - HD   | MPEG-2/H.262 - HD  |
| Resolutions             | 3840x2160p @ 60/ 59.94/ 50/ 30 /29.94<br>1920x1080p @ 60/59.94/50/30/ 29.97/25/24/23.97<br>1920x1080i @ 60/59.94/50<br>1920x1080PsF @ 30 / 29.97 / 25<br>1280x720p @ 60/59.94/50<br>720x576i @ 50<br>720x480i @ 59.94 | 1920x1080p @ 60/59.94/50/30/ 29.97/25/24/23.97<br>1920x1080i @ 60/59.94/50<br>1920x1080PsF @ 30/29.97/25<br>1280x720p @ 60/59.94/50<br>720x576i @ 50<br>720x480i @ 59.94 | 1920x1080p @ 60/59.94/50/30/ 29.97/25/24/23.97<br>1920x1080i @ 60/59.94/50<br>1920x1080PsF @ 30/29.97/25<br>1280x720p @ 60/59.94/50<br>720x576i @ 50<br>720x480i @ 59.94 |
| Chroma Format           | 4:2:0 and 4:2:2   | 4:2:0 and 4:2:2  | 4:2:0 and 4:2:2  |
| Bit Depth               | 8, 10   | 8, 10  | 8  |
| Maximum Bit Rate (mbps) | 150   | CABAC: 40<br>CAVLC: 80   | 100  |
| Number of Channels      | 1   | 1  | 1  |
| Latency                 | Bit rates lower than 75 Mbps: 1/4th of Frame Duration + 1 msec<br>Bit rates greater than 75 Mbps: 1 Frame Duration + 1 msec   | 1/4th of Frame Duration + 1 msec   | 1/4th of Frame Duration + 1 msec   |
| GOP Structure           | Any   | Any  | Any  |
| Rate Control            | CBR / ABR / VBR / Capped VBR  | CBR / ABR / VBR / Capped VBR   | CBR / ABR / VBR / Capped VBR   |