FOCAL PLANE PROXIMITY BOARD (FPPB)

- **CCD/CMOS detector interface**: amplifies and conditions detectors’ video signals
- Customizable for different focal plane designs
- Compact lightweight design
- Video amplification and offset correction
- Detector supply filtering and regulation

VIDEO UNIT (VU)

- **CCD/CMOS detectors management**: digitalizes and serializes detectors’ video signals
- High resolution and frequency analog to digital conversion
- High radiometric performances, reliability and speed digitized video interface
- Direct analogue telemetries

COMPETITIVE ADVANTAGES

- Reference supplier for ESA and export missions, with a track record of 26 instruments
- End-to-end optical systems design and integration
- State-of-the-art equipment in-house development and production
- High performance image quality solutions adaptable to each observation mission by means of video electronics engineering approach based on reusable and qualified building blocks for all elements of the image chain: FPPB, VASP (video acquisition) and Video Unit
- ISO-5 area for integration and test of optical payloads
- CCD and CMOS sensor procurement and characterization
**MAIN FEATURES**

**FOCAL PLANE PROXIMITY BOARD (FPPB)**
- **Power:** 200 mW per video channel
- **Reliability:** can withstand in excess of 180,000 power ON/OFF cycles for high-resolution Earth imaging applications
- **Pseudo-differential or fully differential channels**
- **Selectable gain per video channel**
- **Low noise and crosstalk**

**VIDEO UNIT (VU)**
- **Mass:** 7 kg
- **Dimensions:** 291 mm (W) x 275 mm (L) x 140 mm (H)
- **Power:** 24.3 W (max)
- **Reliability:** 1260 fit @ 8.5 years in-orbit lifetime
- **Crosstalk:** < -80 dB
- **Video data interface:** SpaceWire, HSSL
- **# of channels:** 15
- **Detectors resolution (5 CMOS):** 14 bits
- **Output data rate:** 120 Mbits/s

**EXPERIENCE**
- Thales Alenia Space high resolution observation products (10 satellites)
- Sentinel 3 Ocean & Land Color Instrument (OLCI)
- Meteosat Third Generation (MTG) FCI and IRS instruments
- SEOSAT/Ingenio
- Thermal Infrared Imager (TIRI)

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