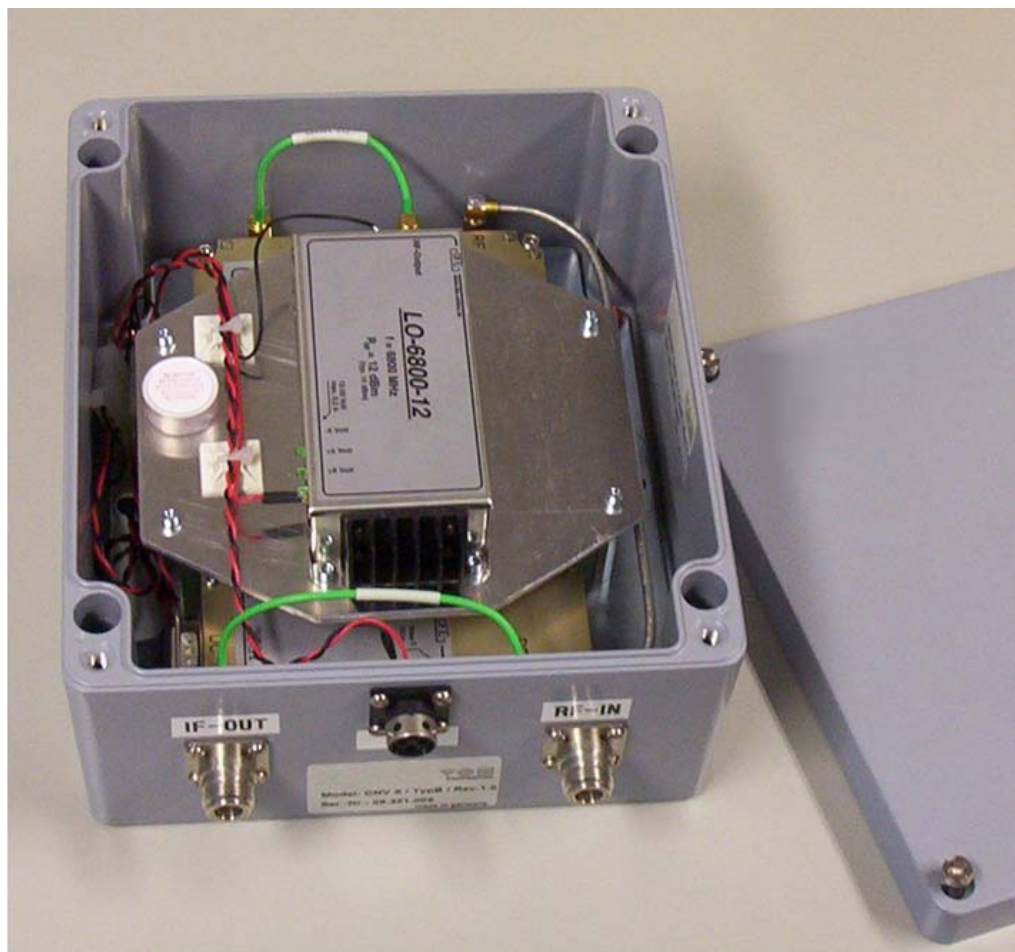


2met![®] CNV X Type B High Performance X-Band down-converter

Release 1.0

SCISYS 2met![®] CNV X Type B down-converter has been designed to cope with current and future series of Earth Observation Satellites (EOS) for direct dissemination in X-Band working under outdoor environmental conditions.



Potential application areas

- Down conversion of X-Band signals for TERRA, AQUA, NPP and JPSS frequencies
- Input filter prepared for future JPSS frequencies
- Power supply for external X-Band LNA
- Built-in image rejection filter

Advantages

- Low noise design
- Multi-satellite design and application
- External LNA power supply via separate connector or via RF cable (option)
- Powered via IF cable
- High performance image rejection filter as option

General Description

The 2met![®] CNV X Type B down-converter amplifies the received signal from the LNA and converts the RF signal from X-Band to L-Band for connection to a receiver, for example the 2met![®] DSR III. A built-in image rejection filter reduces the unwanted image signals by approximately 20dB.

As an option, a four section cavity filter in front of the mixer provides highest image rejection while maintaining a suitable passband bandwidth for later JPSS extensions.

The local oscillator used for the frequency translation is based on a high stability TCXO.

The 2met![®] CNV X Type B assembly is housed in a weather-proofed IP65 enclosure with a maintenance-free breathing desiccator to keep the interior dry.

The down-converter receives the DC power via the IF Out connector. The LNA DC power supply is provided via a LNA power connector. LNA power supply via the RF IN connector is available as an option.

Technical Characteristics

Electrical

RF Input	7.75 – 8.25GHz, N-Female
Image Rejection	20dBc
Overall Gain	95dB, typ. incl. Ext. LNA (50dB)
Bandwidth	500MHz
IF Output	0.95 – 1.45GHz, N-Female
1 st LO Frequency	6.8GHz
1 st LO Frequency Stability	±10 ppm

Power

LNA Power	+12V DC, 200mA max
LNA Connector	Female
Current	typically 0.4A incl. LNA
Power	15 - 20V DC via IF-Cable

Environmental

Temp. Operations	-20° ...+50° C
Temp. Storage	-30° ...+60° C

Mechanical

Enclosure	IP65
Dimensions	230mm x 200mm x 110mm
Weight	4.0kg

Ordering Information

2met![®] CNV X Type B

Options

CAVITY Option – four section cavity filter with 60dBc image rejection

LNA-RF-POWER Option – power supply of LNA via RF cable

Contacts

If you have any questions, please contact our Marketing and Sales Department at 2met@scisys.de



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