

2met![®] CNV II High Performance L-Band down-converter

Release 1.0

SCISYS 2met![®] CNV II LNA/down-converter has been designed to cope with current series of meteorological satellites for direct dissemination in L-Band and to reduce influences from external sources working under outdoor environmental conditions.



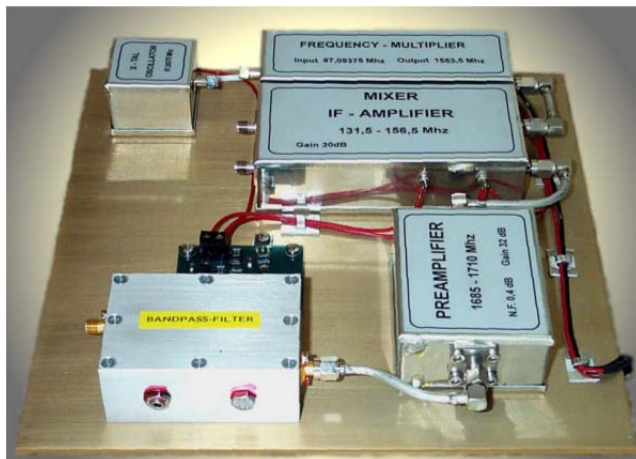
| Potential application areas | ADVANTAGES |
|--|--|
| <ul style="list-style-type: none">▪ Down conversion of all MSG frequencies▪ Down conversion of all METEOSAT, MTSAT and GOES frequencies▪ Down conversion of NOAA/METOP/FY frequencies▪ Power supply for external L-Band LNA▪ Remote S-Meter Output for easy antenna pointing | <ul style="list-style-type: none">▪ Ultra low noise design▪ Meets all MSG, MTSAT and GOES requirements▪ Multi-satellite design and application▪ Pre – LNA filter included▪ Powered by the 2met![®] DSR II▪ High stability TCXO based frequency reference |

General Description

The down-converter unit is self-contained with the LNA and all other associated systems (Pre-LNA filter, power, local oscillator frequency reference, etc.) included within a single enclosure.

The down-converter amplifies the received signal from the antenna and converts it to a suitable frequency for further processing in *2met!® DSR II*.

A high performance, low-loss pre-LNA filter prevents unwanted frequency components from entering the signal path, while maintaining an exceptional low noise figure. In addition, this assembly provides suitable signals for the remote S-meter assembly used to provide the S/N information necessary for adjusting the antenna pointing direction. The unit is designed for outdoor use.



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

The *2met!® CNV II* assembly is housed in a weather-proofed IP65 enclosure with a maintenance-free breathing desiccator to keep the interior dry.

The down-converter gets 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 | 1.685MHz – 1.710MHz |
| Image Rejection | 100dBc |
| Overall Gain | 60dB +/- 3dB |
| Bandwidth | 25MHz |
| IF Output | 131.5MHz – 156.5MHz |
| 1 st LO Frequency | 1553.5MHz |
| 1 st LO Frequency Stability | 1ppm initial adjustment 5ppm over temperature |

Power

| | |
|---------------|---|
| LNA Power | +12V DC, 200mA max |
| LNA Connector | Female |
| Power Current | +20V DC via 1 st IF - Cable Max 0.7A (incl. up to 0.25A for S-meter) |

Environmental

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

Mechanical

| | |
|------------|----------------------|
| Enclosure | IP65 |
| Dimensions | 170mm x 185mm x 95mm |
| Weight | 2.5 kg |

Ordering Information

2met!® CNV II

This version receives data from all relevant HRPT missions.

Contacts

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



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