

BPSK/QPSK Modulators

BPSK/QPSK Modulate Data onto the Transmitted Carrier

Applications

- ◆ In Data transmission subsystems for Earth Observation and Scientific satellites and platforms.
- ◆ In payloads for advanced communication satellites.

Features

- ◆ Very low modulation losses.
- ◆ Baseband signal processing section fully configurable.
- ◆ Internal carrier generation.
- ◆ Architectures featuring direct carrier modulation or intermediate carrier modulation with frequency up-conversion.
- ◆ Cold internal redundant configurations for increased reliability.



**METOP Modulator for
image data transmission**

Heritage

- ♦ **METEOSAT 2nd Generation Raw Data Modulator:** 127 MHz carrier, 7 Mbps QPSK modulator for transmission of SEVIRI's images. High stability carrier generation. Analog pulse shaping filters. Internal cold redundancy. Cross-strapped RF outputs.

- ♦ **METOP LRPT Modulator:** 72 Kbps on 137 MHz carrier QPSK modulator for data transmission.

Baseband section including convolutional and differential encoders, interleaving and synchronisation marker insertion.
Digital pulse shaping filtering.

High stability carrier generation. Two carrier frequencies selectable by telecommand.

Internal cold redundancy. Cross-strapped RF outputs.

- ♦ **METOP HRPT Modulator:** 3.5 Mbps on 1.7 GHz carrier QPSK modulator for data transmission.

Baseband section including convolutional and puncturing encoders.
Digital pulse shaping filtering.

High stability carrier generation. Two carrier frequencies selectable by telecommand.

Internal cold redundancy. Cross-strapped RF outputs.

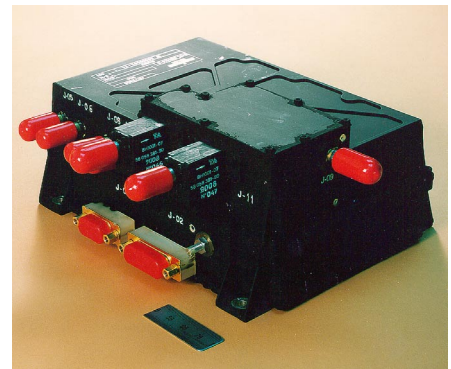
- ♦ **PROTEUS Transceiver Transmitter:** 2.2 GHz carrier QPSK modulator. Different bit rates for telemetry and data transmissions. Direct carrier modulation. 37 dBm output power.

- ♦ **ARTEMIS Optical Modulator:** 5.5 GHz carrier, 100 Mbps BPSK modulator belonging to the SILEX payload.

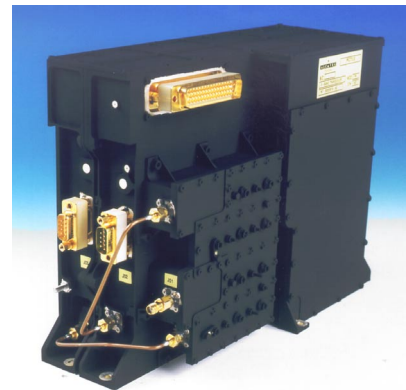
Baseband section including differential and convolutional encoding and shaping driver.



METEOSAT Raw Data Modulator



ARTEMIS Modulator



PROTEUS Transceiver

This datasheet is not contractual and can be changed without any notice.

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