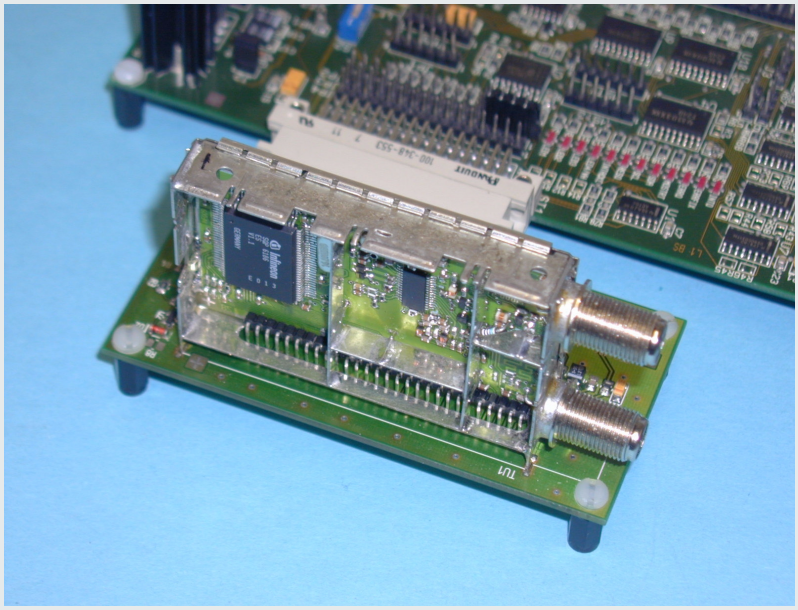
The IDES-NIM 6186-6100 provides a platform for evaluating the functionality of the DCR tuner TUA 6100 and the QPSK demodulator SQP 6186 as well as for demonstrating their performance.

It contains two boards and software. The first board is the compact DVB-S/DSS Digital Network Interface Module. It picks up a satellite signal from the LNB and generates an error-corrected transport stream (DVB-TS or DSS). SCPC (singe channel per carrier) is supported.

The second board, the Frontend Base Board, is common to all our Digital Frontend Packages.

Real time software support is not required for the SQP 6186. The software provided with the boards is based on Visual C++.



TUA 6100 + SQP 6186

Functionality

The IDES-NIM 6186-6100 DVB-S/DSS Network Interface Module demonstrates the performance of the complete Infineon digital satellite frontend.

Controlled by a PC under Windows 95 or Windows 98, a satellite broadcast is received via the LNB of a dish antenna and an error corrected transport stream (DVB-TS or DSS) is generated. The TS can be fed to an MPEG measurement equipment via the LVDS drivers on the base board.

Several registers in the SQP 6186 are available for error statistics to monitor the quality of DVB reception.

The DVB-S/DSS Network Interface Module is very straightforward and consists of a tuner and the demodulator. It shows a proposal for an optimized reference design providing a reduced bill of material.

Hardware Features

The Network Interface Module consists of two functional units:

- The tuner TUA 6100 receives a satellite signal via a dish antenna and generates an I/Q baseband signal.
- The SQP 6186 demodulates the baseband signal (SCPC/MCPC, no coherence required) and processes it in its concatenated FEC (Forward Error Correction) processor.

The Frontend Base Board provides interfaces to the application environment:

- Parallel Interface (LVDS and TTL) and serial interface for the output (DVB-TS or DSS data stream).
- I²C interface for connection to a PC's parallel port.
- Power supply to the LNB. The power supply can be disabled in order to connect test transmitters to the tuner.

Software Features

- The software offers the possibility of fast chip control for evaluation.
- Channel configuration and status is shown in the main window. It is possible to address all functions via dialog boxes.
- Direct I²C-bus register access is supported as well.

IDES-NIM 6186-6100

Digital Frontend Package for Satellite TV (DVB-S / DSS)

Never stop thinking.

Infineon technologies

Hardware Description

The DVB-S/DSS Network Interface Module is equipped with the DCR application tuner TUA 6100 from Infineon.

The AGC of the tuner is controlled directly by the SQP 6186.

The QPSK receiver unit consists of the SQP 6186 chip from Infineon, its crystal and only a few passive components.

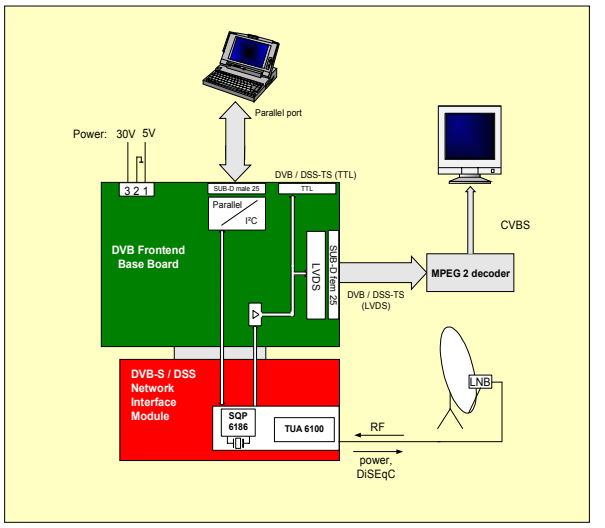
Software Description

The Visual C++ based software is running under Windows 95 or Windows 98.

An I2C bus protocol is emulated via the parallel port and offers the possibility of chip initialization, start of acquisition and tracking monitoring.

There are several dialog boxes to illustrate special chip features i.e. DiSEqC 2.x.

Block diagram of the demonstration setup

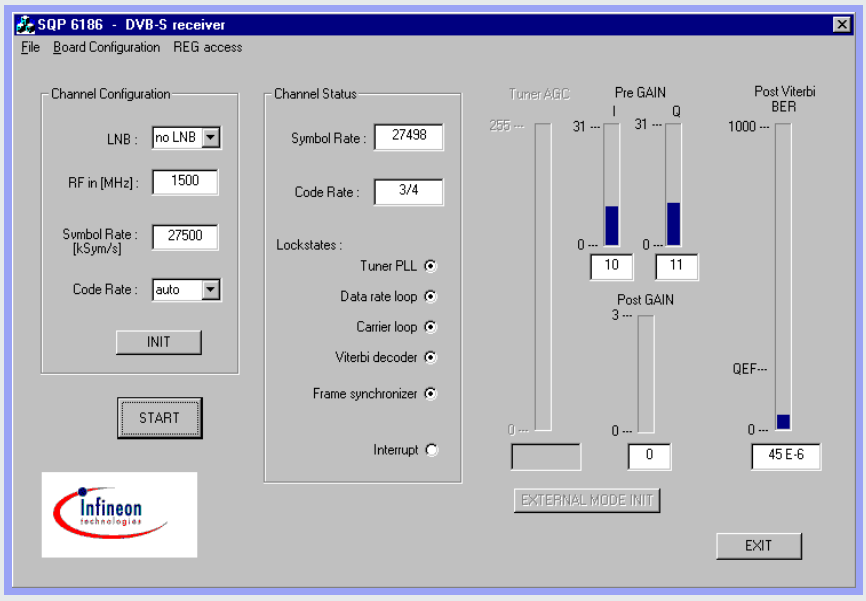


Accessories

- DVB-S/DSS Network Interface Module V1.1
- DVB Frontend Base Board V1.0
- Software for I²C-bus access
- User's Manual
- Data Sheets

Purchase Info

- IDES-NIM 6186-6100: Q67030-A1151



Control Software

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