# *Development Kit Profile*

FUJITSU

# MB86A15-DK01

## QPSK Silicon Tuner

## OVERVIEW

**Fujitsu's MB86A15 Development Kit** enables the customer to easily evaluate the performance of the MB86A15 and build his own application. Besides the evaluation hardware and the monitoring software, API source code and PCB data will be supplied.

**The MB86A15** is a combined tuner and demodulator in one 120 LQFP package. Only a few registers have to be set to start the acquisition process. Optimisation of the locking speed can be done with special software algorithms. All those algorithms plus all the basic software to operate the MB86A15 is included in the API.

The development kit consists of two boards. The main board is an evaluation platform hosting all necessary connectors to evaluate the performance of the chip. The power supply of 5V, 3.3V and 2.5V can be applied via the transport stream connector that matches 1:1 to the Fujitsu MPEG decoder evaluation boards. For stand alone operation three voltage converters on the main board make it possible to run the evaluation board just from a 5V + 20V supply. The 13/18V LNB-voltage regulation is handled on the main board.

The second board is the $I^2C$ interface to the parallel port of a standard IBM compatible PC. With this interface the MB86A15 can easily be controlled by a Windows$^®$ software. LEDs on this interface allow to monitor the $I^2C$ activity.

## BENEFITS

- Easy to use
- Layout can be copied to make own NIM module
- F-connector for direct input from modulator or standard LNB
- Transport Stream output (TTL) for direct use of the TS data
- Comprehensive signal monitoring software for easy start up
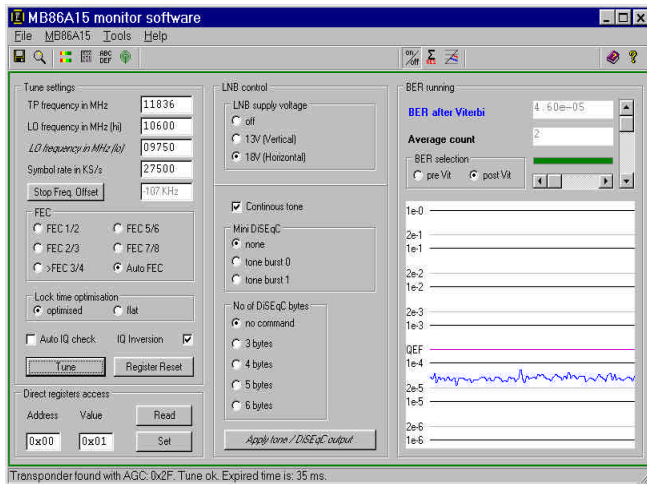- API library for easy integration into STB

## FEATURES

- 75 Ohm Input impedance
- 950-2150 MHz input frequency range
- $I^2C$ control
- 1 MSymbol/s to 45 MSymbol/s
- Automatic FEC detection
- Automatic I/Q detection
- TTL MPEG-2 transport stream output
- Setup and Monitor Software for Windows 95/98



## Software

- Comprehensive monitoring tool for Windows 95/98
- Monitoring of Bit-Error-Rate (before and after Viterbi)
- Monitoring of signal-level and signal-quality (based on C/N estimation) to ease dish adjustment
- Editable transponder list for easy tuning while using the Monitor software
- Well structured API software
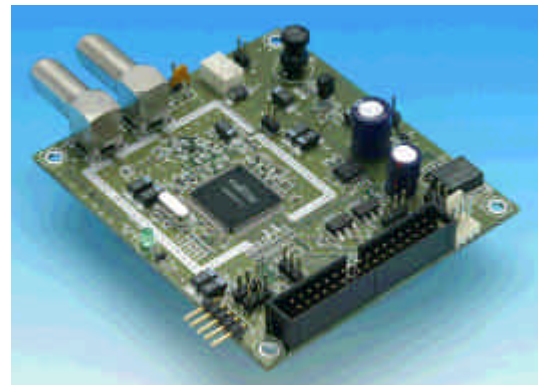
## *Setup and Monitor Software*



## *Ordering Information*

| Part No. | Description |
|---|---|
| MB86A15-DK01 | • Main board (can be run from 5V + 20V supply)<br>• I$^2$C Interface board<br>• Parallel port cable<br>• Cable for power supply<br>• CDROM storing all documentation and software plus PCB data |
| Contact information | eMail: multimedia_info@fme.fujitsu.com |

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