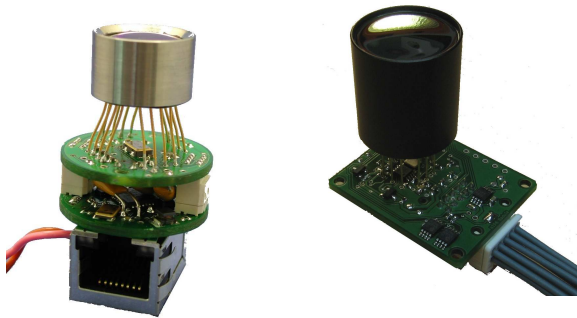


## HTPA Modules

For easy development of thermal imaging, hotspot detection, person detection and other thermo graphical devices our calibrated modules are the ideal solution. We provide them for all the HTPA types (8x8, 16x16, 32x31 and 64x62). The module's field of view depends on the optics and can be varied on demand.

Furthermore, we offer three different interfaces: UDP, UART and SPI. Which interface should be chosen, depends on the needs of the customer. For example, the UDP module is ready to plug via a CAT5 cable to network and can be controlled via a customized software or the Heimann Sensor HTPA ArraySoft. The UART module is the ideal solution for embedding the module i.e. in handheld devices. Limitations of the UART interface are the limited MCLK frequency of max. 2.2 MHz. It is possible to connect the UART module to a standard RS232 transceiver and to use it with the Heimann GUI (Graphical User Interface). If the customer wants to connect more than one module (or a module with MCLK > 2.2 MHz) to a microcontroller, the SPI interface should be chosen. For the SPI version there is our SDK available, which also transfers the fetched SPI data to the GUI via Ethernet.

It is possible to build customer specific optics, as well as to use customer specific measurement ranges for calibration.



### Module dimension:

- UDP Module: Diameter 26mm  
(circular PCB, rectangular PCB will be available soon)
- SPI / UART Module: 28x35 mm<sup>2</sup>

### Benefit:

- Different optics available
- Calibrated, ready to assemble

## SPI Module SDK

Since the controlling of the HTPA SPI module is much more complicated than the other versions, we offer a SDK (Software Development Kit) for this module type. The SDK was designed to do all the necessary settings of the module, fetch single frames and data streams and forward them via UDP to the GUI. The program running on the SDK is open source and is delivered with the SDK. For development a programming tool from Microchip Technology is required (not included) as well as the MPLAB IDE (downloadable free of charge at [www.microchip.com](http://www.microchip.com)). The SDK has several test pads and LED's for easy debugging. Furthermore, it is equipped with a 128kbit EEPROM. The circuitry of the SDK PCB is supplied, too.



### Benefits:

- Fast development
- Workspace and circuitry can be easily adapted for the control of several modules
- Fully compatible designed to Heimanns GUI

Disclaimer: MPLAB IDE is a registered trade mark of Microchip Technology Inc.

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