



i

Product Profile of





Technical Description

Article Details	
Product Name	
Match Code	
Article No.	
Category	

Device Features	
Processor	
On Board Memory	
Processor Board Interface	
Data Forwarding	
I/O Module Interfaces	



Camera Interface

Standard

Configurations

Connectors

Cable Length

Power Output

Camera Support

Sensor Type

Sensor Resolution

Bit Depth

Data Bandwidth

Test Environment

Controls and General Purpose I/Os

Trigger Board GPIO
Interfaces

On-board GPIO
Interface

On-board Front GPIO
Interface

Synchronization and
Control

GPIO Summary



Host PC Interface

PC Bus Interface

PC Bus Interface
Performance

Physical and Environmental Information

Dimensions

Approximate Weight

Power Consumption /
Power Source

Operating
Temperature

Storage Temperature

Relative Humidity

MTBF

Compliances

Software

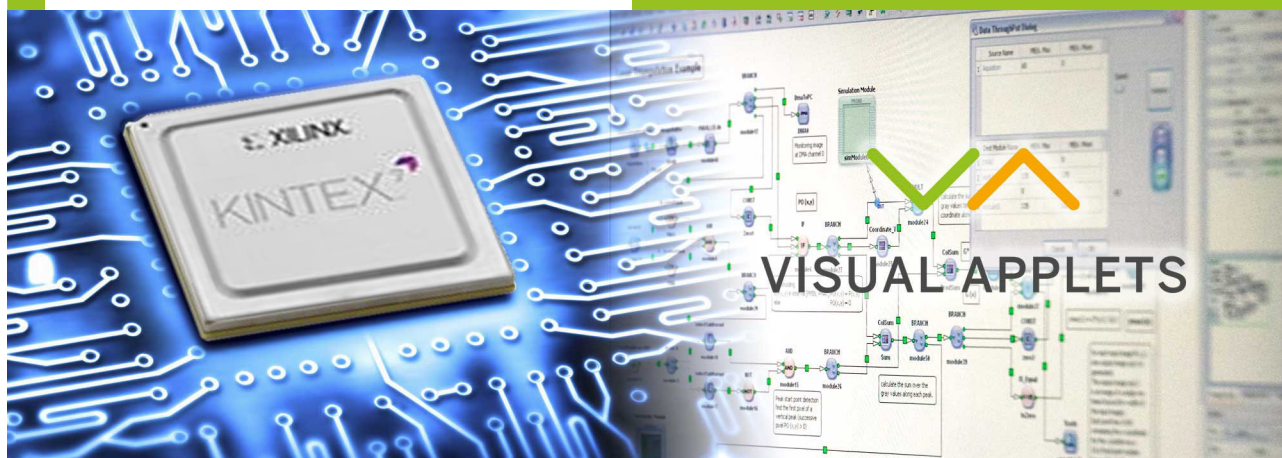
Software Drivers

Software Tools

Software API

FPGA Programming

BV Software
Compatibility



VisualApplets

Often, the goal of industrial image processing applications is to find 100% of all errors and to work in high resolution to identify even the smallest details, to acquire images in the shortest time possible, to detect defects and to forward the results. These tasks frequently require more computing power than a "standard system" can offer. There are solutions that begin the image processing right after the acquisition process but before the camera images are written to storage and taken over by the software.

The processors used in such solutions are designed for image processing. They process data with extremely high parallelism, thus guaranteeing the necessary data throughput. On all its frame grabbers, Silicon Software uses this FPGA technology. In the A-Series (frame grabbers with expanded image recording functions), we have already programmed important and valuable functions that can be activated via the configuration software. For V-Series models (programmable frame grabbers for individual image processing functions), we have released the FPGA for you, as our customer, for individual programming.

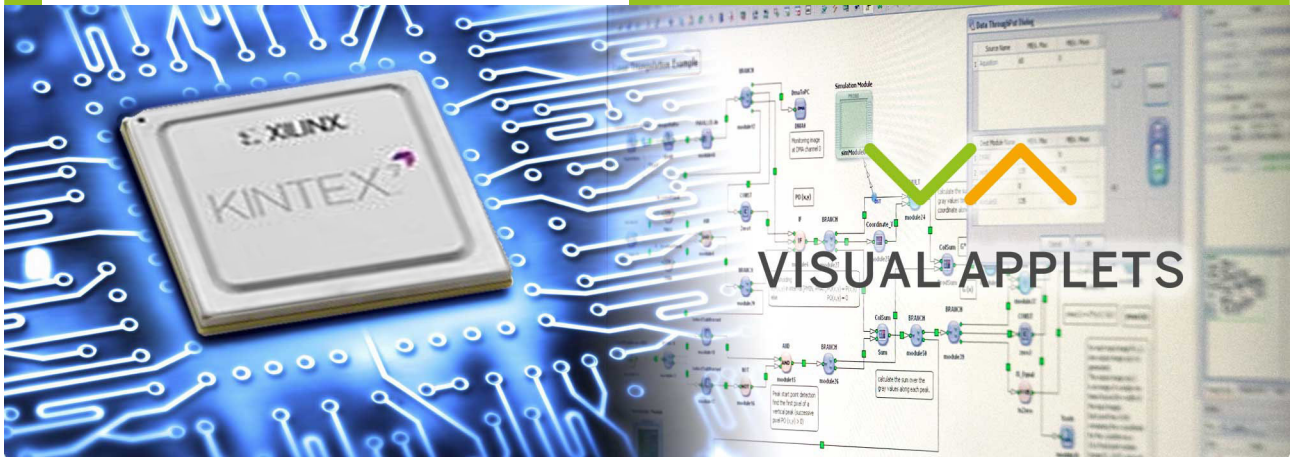
To ease your entry into hardware programming, we have developed software that enables you to graphically program FPGAs using data flow diagrams. This program is called VisualApplets.

VisualApplets makes it possible for you to write complex applications on your own, even after a short time, for the special processor. Even without hardware programming expertise. The program is geared toward both software programmers and application engineers. Program in the language of image processors without using hardware code. The simulation works with a rapid image output with which you can immediately check your algorithms and image processing steps.

We have built in many automatic correction functions and generators so that you can concentrate on your actual work. And should an error sneak in, you are immediately made aware of it in color, and solution approaches are offered to you.

An SDK output generates executable example code in C/C++, listing all the parameters (hardware register), in order to control the image processing application out of your software.

What does real time mean? By using FPGA technology, you have a deterministic relationship to the application that works after the start with a constant delay (latency) that is determined by the image processing algorithm. In most cases, this latency lies in the micrometer range.



VisualApplets (ctd.)

VisualApplets simplifies image processing programming for you. You can fall back on libraries with over 200 operators. You can create your own libraries for commonly used image processing steps or import them from available hardware code (EDIF over VHDL/Verilog).

With VisualApplets, you acquire a powerful tool that offers you new ways forward for your system solution.

VisualApplets is available for Silicon Software V-Series frame grabbers, including VisualApplets-compatible cameras and imaging devices.

V-Series frame grabbers are already pre-licensed for use with VisualApplets in the basic version. VisualApplets offers several versions of its programming environment; additionally, you can license further operator libraries to expand the range of functions.

In 2006, VisualApplets was honored with the international Vision Award. It has been successfully used in the most diverse industrial applications, both using frame grabbers and in VisualApplets-compatible industrial cameras and image processing devices.

Technical Setup

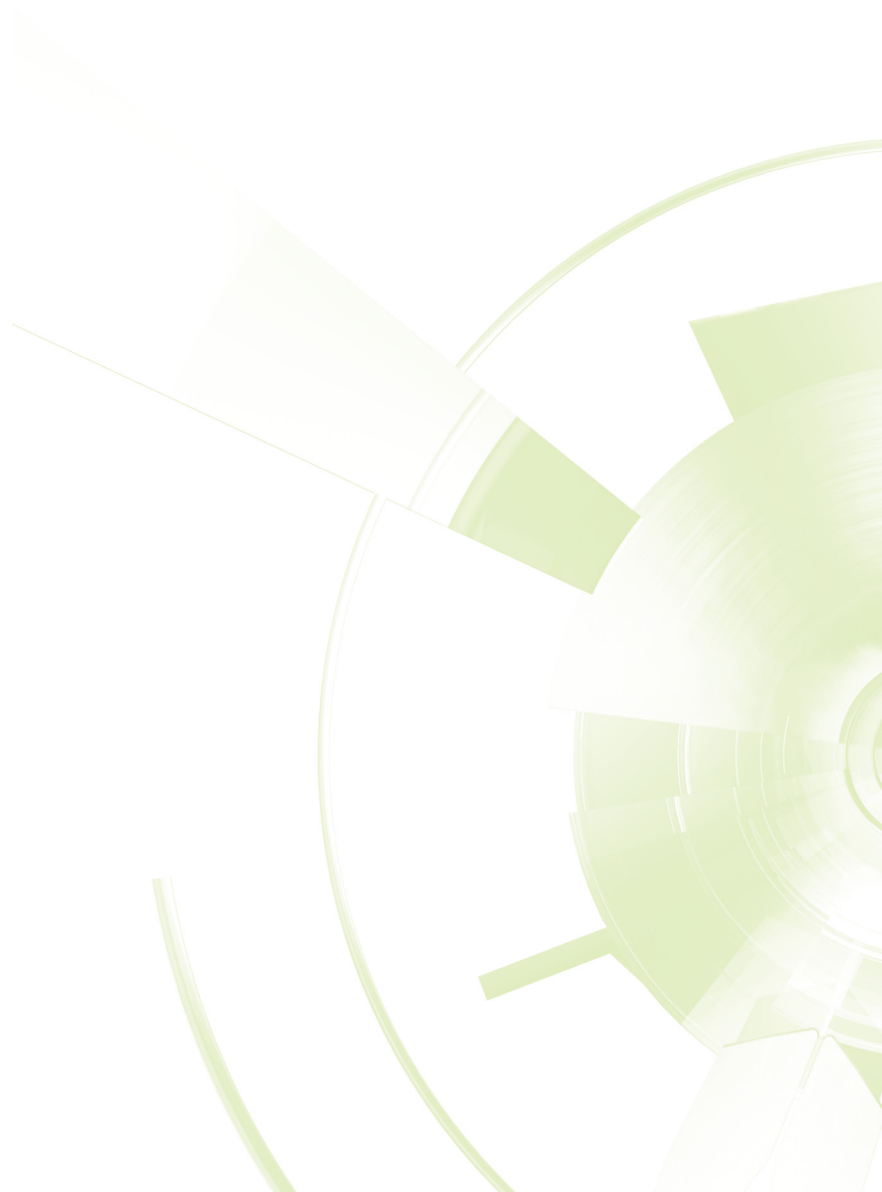
Board/Housing Measurement

PRODUCT VARIATIONS

PRODUCT EXTENSIONS

ORDERING INFO

◆ ,
 , Art No.:





Copyright © Silicon Software, 2019

Generated on 22. August 2019



Silicon Software GmbH
Konrad-Zuse-Ring 28
68163 Mannheim
Germany

[t] +49.621.798507-0
[f] +49.621.798507-10
[e] info@silicon.software
[w] <https://silicon.software>

INQUIRIES

Germany, Austria and Switzerland (DACH)
email: dach@silicon.software
phone: +49.170.799 745 5

Asia and Pacific Rim (APAC)
email: apac@silicon.software
phone: +49.151.121 922 03

Europe, Middle East and Africa (EMEA)
email: emea@silicon.software
phone: +49.170.799 745 7

The Americas
email: americas@silicon.software
phone: +1.610.280 0171 x2

We reserve the right of technical modifications, changes of the equipment features and adaptations to current specification. Typing and setting mistakes and other errors cannot be excluded and are therefore also reserved. In recent publications availability, also by technical generation, previous cease to be valid.