S12MP Series

High Resolution Smart Camera

▼ High resolution:
12MP CMOS sensor

▼ Programmable FPGA for
image processing

▼ Powerful processing
architecture based on
Zynq SoC

▼ GigE Server on-board
for GigE Vision protocol
management

▼ High speed:
up to 300 frames
per second

▼ Open system with
Linux O.S.

Architecture

The fast acquisition and processing of high-resolution images requires a powerful electronic architecture. The S12MP Smart Camera features a Dual Core Cortex-A9 667MHz CPU and an Xilinx Kintex 125K Logic Cells FPGA working closely together.

Thanks to Tattile's technology based on FPGA, this smart camera can guarantee the real-time execution of critical functions such as image capture, image pre-processing and I/O.

Ultra High-Speed

With a 12 Megapixels resolution and a speed of 300 frame per second, S12MP Smart Camera opens new horizons for your applications.

The frame rate of the camera can be further increased thanks to the windowing features: capturing only a portion of the sensor allows higher frame rates for smallest regions of interest.

FPGA

The image acquisition and analysis are performed by dedicated large FPGA.
The FPGA is programmable by user, in order to allow a real time processing.

Open System.

The S12MP is based on a Linux O.S. making possible to develop Vision Applications with Tattile software (available on demand), or to deploy third parties libraries / software.

GigE Server

The S12MP is equipped with a GigE Server; data and image management of the S12MP can be done using theGigE Vision standard protocol, for easy and quick integration.
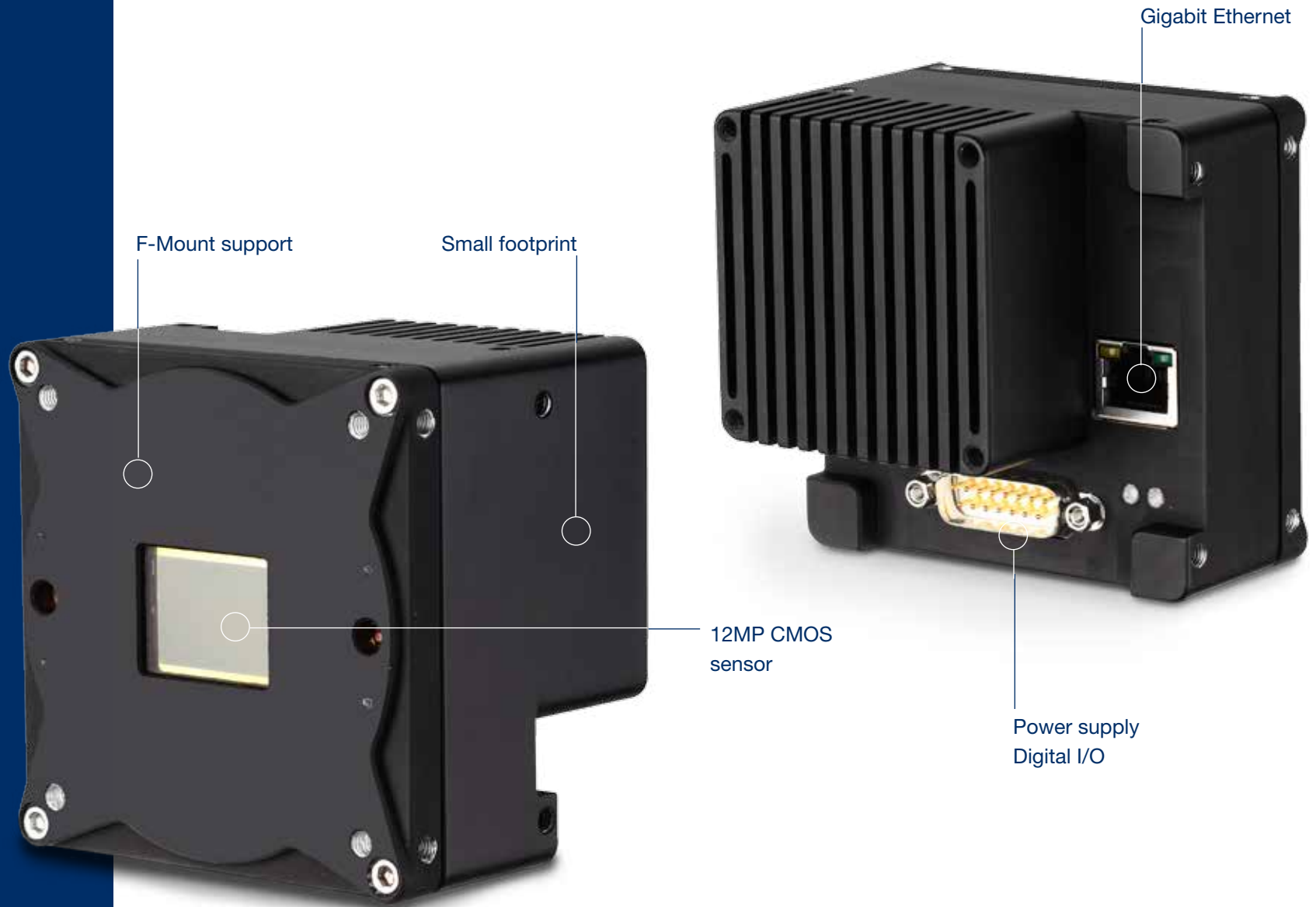
Interface and Communication

The integration of the S12MP Smart Camera is made easy by the full-featured set of interfaces available: Gigabit Ethernet, 2 inputs LVDS, 2 outputs LVDS.

Custom Vision Solutions

S12MP Series

High Resolution Smart Camera

Gigabit Ethernet

F-Mount support

Small footprint

12MP CMOS sensor

Power supply
Digital I/O

Technical Data

Specification	Value
Resolution	4096 x 3072 pixels
Frame rate	12MP 4096x3072@300 (10bit mode)
Sensor type	CMOS Global shutter
Sensor model	CMOSIS CMV12000
System architecture	Xilinx Zynq 7030
CPU	Dual core ARM Cortex-A9 667 MHz
System RAM	1 GB DDR3
FPGA	Xilinx Kintex 125K LEs
FPGA-CPU interface	High Speed Amba bus internal to chip (10Gbit/s every channel)
Storage	Secure Digital 8 GB (up to 32 GB)
Digital inputs	2x LVDS
Digital outputs	2x LVDS
Interface	Gigabit Ethernet
Lens	F-Mount
Operating system	Linux
Power supply	12 VDC ±10%
Power consumption	~ 12W
Operation temperature	0 to 45°C
Dimension	80 x 80 x 60 mm

Part Numbers

F01835	S12MP Smart Camera
T19014	Adattatore 'F' Mount