TD next
A division of Telecom Design

AVNET® SILICA

Zoom in on the
best solution.

For industrial camera module requirements, the focus is on Avnet Silica and TD next!

If you are looking for industrial camera modules, you will be interested in the range, flexibility and cost-effectiveness of TD next products. And combined with professional kits and solutions from Avnet Silica, they are the right choice for your application in so many ways.

WIDE RANGE FOR MULTIPLE REQUIREMENTS

You can choose from a wealth of modules that combine high performance with low power consumption and a small footprint. Whether you need VGA, 720p or 5Mp resolution, there is a module to meet your needs – and they come with an image sensor, an optimised lens and a robust connector as standard. Our team of specialists can help you assemble a solution that comprises the module you need with Avnet Silica development kits or even a ready-to-use embedded vision solution close to your application. That way, you can concentrate on designing the features that will differentiate your product from the competition – and eliminate the risks inherent in developing a camera solution yourself. And if you need some design support or just have a technical query, our team is always ready to help.

TYPICAL APPLICATIONS

- Security and video surveillance
- Door phone and home automation
- Industrial monitoring systems and automated inspection
- HVAC system control
- Access control systems
- Barcode scanning
- Video conferencing
- Drones
- Wearables
- Real-time video streaming and battery powered videocam
- Logistics and retail analysis

MODULES CUSTOMISED TO YOUR NEEDS

If you have a particular application in mind that has special requirements, we can team up with TD next to make you a module that is completely customised. Just get in touch to talk about the specifications and volumes you need.

You have seven excellent reasons to choose TD next modules:

1. **Top quality**. TD next camera modules are assembled in a clean room; the lenses are glued by UV curing and then pass through another quality assurance cycle.

2. **Long lifetime**. Most TD next camera modules are qualified to automotive standards, ensuring that they are robust and minimise the need for frequent replacements.

3. **Fast time to market**. Your time is used to develop the features that make your product stand out from the crowd – there is no need to develop a camera module from scratch!

4. **Cost-effective**. TD next modules are very affordable – and combined with their long lifespan and reliability, their TCO (Total Cost of Ownership) is very low too!

5. **Customisation available**. If none of our modules quite match what you are looking for, discuss your requirements with us – we offer a build-to-order service to meet your needs.

6. **Support**. TD next has a dedicated team to support you in all your development process: hardware, mechanical, software, ...

7. **Complete solutions**. At Avnet Silica, we have a team of specialists who can provide you with a complete embedded vision solution comprising drivers and application examples along with the TD next camera modules. That's on top of the top-flight logistics services we offer!

FOCUS ON VERSATILITY

Along with a choice of VGA, 720p or 5Mp resolution, TD next camera modules also come with a variety of filter types, lens types, connectors and more. Just refer to the list of models on the next pages to identify the one best suited to your requirements.

CHOOSING THE RIGHT FILTER TYPE

Depending on your application, you may require an optical filter on top of the lens. Filters selectively pass light of a specific wavelength, or range of wavelengths, while blocking the other wavelengths. They also improve detection accuracy and facilitate the software and algorithm implementation. You can choose an IR or NIR filter on top of the lens – or no filter at all.

IR FILTER

The single filter is an IR cut-off filter that lets in daytime light to form a colour image, but blocks the full infrared light spectrum. This helps provide a clearer colour image. Choose a module with this filter if you need the best image quality for daytime applications, but don't need night-time images.
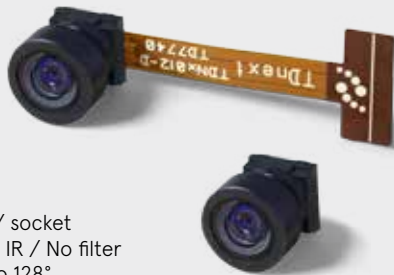
NIR FILTER

The NIR filter is an 850 nm day/night filter, or dual bandpass filter, used for day and night imaging systems. This filter lets in daytime light to form a colour image. It also transmits 850 nm near infrared (NIR) light when 850 nm LED light sources are switched on, delivering a black and white image at night. Because this filter blocks most NIR light except for the 850 nm range, the colour image in the daytime can be clearer. Choose a module with a dual filter if you are developing applications for day and night surveillance cameras, video door phones, medical identification or automated inspection.

NO FILTER

Modules without any filter will let in all light, including IR light. Choose a module without any filter if your application requires all image and colour details.

VGA
Module

TD7740

Connector	Flex / socket
Filter	NIR / IR / No filter
HFOV	42° to 128°
Focus type	Fixed focus
Lens size	M7

720P
Module

TDM114

Connector	Flex
Filter	NIR / IR / No filter
HFOV	55° to 90°
Focus type	Fixed focus
Lens size	M7

5MP
Module

TD5640

Connector	Flex
Filter	IR
HFOV	53,2° to 132°
Focus type	Auto focus / Fixed focus
Lens size	M5 / M12
Compression	JPEG

EVALUATION KITS

For each product family we can provide you with an evaluation kit that includes hardware and software. You can easily test the camera modules and find the right characteristics to optimise the image quality of the camera module for your specific applications.

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VISIONARY EMBEDDED SOLUTIONS WITH AVNET SILICA

If your requirements go beyond camera modules, we can provide you with full embedded vision solutions that include hardware, software, drivers and algorithms together with example applications. With these solutions, we have ensured that the right processor works harmoniously with the right camera module. You can concentrate on what you do best – innovating.

Here are just three examples of Avnet Silica embedded vision solutions:

Kinetis Camera Development Kit
- Cost-optimised, low-power video solution with NXP Kinetis Cortex-M4
- Low resolution video streaming or still image capturing
- Standard USB interface
- TD7740 camera module included

STM32F7 Camera Development Kit
- Video solution with touch screen display and STM32 Cortex-M7
- TD7740 camera module included
- Ideal for IoT, home automation and industrial applications

TD next TDAIP01
- Fast Start-up H.264 video compression solution with very low consumption
- MIPI and DVP camera interface

MORE INFORMATION

If you have any questions or need more information about TD next camera modules or Avnet Silica's embedded vision solutions, please feel free to contact our specialists at

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