INTERNET OF THINGS

IEI TANK* AIOT DEVELOPER KIT

Experience the performance of Intel® Core™ processors and accelerators

- Support for CPU, GPU, and future accelerators
- Preinstalled developer tools and SDKs
- Quick setup with preloaded samples

Buy Now  Get Started

Overview | Kit Details | Specifications | Documentation | Support | Tools
# Overview

## Optimal Performance
Get optimal performance to analyze multiple high-definition (HD) video streams and large amounts of sensor data with an Intel® Core™ i5 or Intel® Core™ i7 processor and Intel® HD Graphics 530.

## Preinstalled Software Stack
Exploit hardware performance using the OpenVINO™ toolkit, Intel® Media SDK, and other libraries—all included with the out-of-the-box samples.

## Rapid Development & Deployment
Reduce time to market and simplify software development using preloaded tools such as Intel® System Studio and Arduino Create*

## Who Needs This Product
Information technologists and operational technologists who:
- Are new to IoT commercial platforms and need a simple path without a steep learning curve
- Require an industrialized solution to meet the rigors of their implementation
- Need a quicker path to deployment

## Industrial Use Cases
- Factory automation
- Warehouse management
- Intelligent energy management
- Machine vision

IEI Smart Factory Solution (PDF)

## Reference Implementation
- Build a Store Aisle Monitor
- Develop a Motor Defect Detector
- Create a Facial Recognition Access Application

## Kit Details

### Hardware
- IEI TANK* 870-Q170
- Power cable

### Preinstalled Software
- OpenVINO™ toolkit
- Intel® Media SDK
- Ubuntu* 16.04 desktop LTS
- Intel® System Studio 2018
Hardware Specifications

**System Board**

Choose either:

- 6th generation Intel® Core™ i5-6500TE processor (2.3 GHz quad core, 35 W thermal design power)
- Intel® Core™ i7-6700TE processor (2.4 GHz, quad core, 35 W thermal design power)

Intel® Q170 Chipset
8 GB DDR4 system memory
1 TB hard disk drive (HDD)

**I/O Interfaces**

- 4 - USB 3.0
- 4 - USB 2.0
- 4 - RS-232 (2 - RJ-45, 2 - DB-9 with isolation)
- 2 - RS-232/422/485 (DB-9)
- 8-bit digital input (4-bit input, 4-bit output)
- 1 - VGA
- 1 - HDMI plus DisplayPort*
- 1 - Line out, 1 - microphone-in audio
- Intel® Ethernet Connection I219-LM
- Intel® Ethernet Controller I210

**Expansion Slots**

- 2 - PCIe* with 8 data lines
  - PCIe* Mini: 1 - half size, 1 - full size (supports mSATA, colay with SATA)

**Operating Temperature**

-20°C to 60°C with air flow

**Documentation**

Datasheet

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**Dimensions**

Height x width x depth: 5 in. x 8 in. x 10 in.
(121.5 mm x 205 mm x 255.2 mm)
13.9 lbs (6.3 kg)
### Documentation & Support

#### Tutorials
- Deep Learning Inference Engine Samples
- Image Segmentation Sample
- Neural Style Transfer Sample
- Browse All Code Samples on GitHub*

#### OpenVINO™ Toolkit
- Enables convolutional neural network-based deep learning inference on the edge
- Supports heterogeneous execution across various accelerators—CPU, GPU, Intel® Movidius™ Neural Compute Stick, and FPGA—using a common API
- Speeds time to market via a library of functions and preoptimized kernels

#### Support
- IEI TANK* AIoT Developer Kit: Support
- OpenVINO™ toolkit: Forum
- Intel® Media SDK: Support
- Arduino* Create: Forum
- Intel® System Studio 2018: Support

### Tools

#### Arduino Create*
- Cloud-based development solution
- Integrated with Intel®-based boards and libraries
- Large community collection of guides, projects, and training for all levels

**Support | Get Started**

#### Intel® System Studio 2018
- Optimize production and performance
- Get cross-platform support
- Quickly identify and analyze performance across network, devices, and remote systems
- Reduce system power consumption by collecting and analyzing power behavior
- Access Intel® Advanced Vector Extensions 512 instructions

**Support | Get Started**
### Tools
- Intel® Distribution of OpenVINO™ Toolkit
- Intel® Media SDK
- Intel® System Studio
- Intel® Software Development Kits

### Training
- IoT Training
- Tech.Decoded
- GitHub*: Intel® IoT Developer Kit
- 01.org
- YouTube*: Intel® IoT

### Related Programs
- Intel® AI: In Production
- Intel® Internet of Things Solutions Alliance