# PLANETSPARK BLACK TITAN EDGE AI SERIES



# PLANETSPARK EDGEAI BOX X7

## DESIGNED FOR EDGE AI AND MACHINE VISION

The PlanetSpark EdgeAl Box X7 is an arm-based, Xilinx Zynq Ultrascale+ MPSOC computing device for easy deployment on-site or mobile deployments.

With it's included middleware and support for many common peripherals and interfaces, this EdgeAI Box can help developers jumpstart designs for Industrial internet-of-Things applications, machine vision and embedded vision applications.

It can also be paired with our partner's applications for real-time analytics.





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# HIGHLIGHTS

#### High Performance, Low System Power EdgeAI Box

With support for many high speed interfaces like USB3.0, Tri-mode Gigabit Ethernet and SATA 3.1, developers can use this to jumpstart their embedded vision designs.

#### Partner AI Applications for Deployment

We have partnered AI Application solution providers like Aupera to provide commercial grade AI Applications like ANPR and Crowd Statistics for real-time analytics.

## **Development Environment**

The Vitis<sup>™</sup> AI development environment is Xilinx's development platform for AI inference on Xilinx hardware platforms, including both edge devices and Alveo<sup>™</sup> cards. It consists of optimized IP, tools, libraries, models, and example designs. It is designed with high efficiency and ease-of-use in mind, unleashing the full potential of AI acceleration on Xilinx FPGA and ACAP.

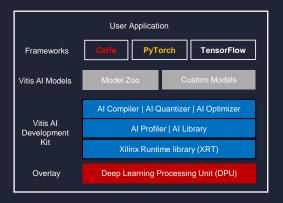
Open to all users rich and off-the-shelf deep learning models from the most popular frameworks, Pytorch, Tensorflow, Tensorflow 2 and Caffe. AI model zoo provides optimized and retrainable AI models, with which you will be able achieve faster deployment, performance acceleration and productization on all Xilinx platforms.

#### Pre-trained Models for Development (by Xilinx)

A comprehensive set of preoptimized models are provided. Developers can leverage this to find the closest model and start retraining for your targeted applications.

#### Multiple interfaces & Peripheral Options

With it's efficient, scalable and programmable IP cores, customization can be done for many different applications to achieve a balance of performance at the lowest system power.





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# **Technical Specifications**

COMPUTE	
Application Processor	64-bit Quad-Core Arm® Cortex®- A53
Real-Time Processor	32-bit Dual-Core Arm Cortex-R5
Graphics Processor	Arm Mali <sup>™</sup> -400MP2
Programmable Logic	504K System Logic Cells
Deep Learning Processor	4K INT8 (upgradable to INT4)
Video Codec (H.264/H.265)	Up to 32 Streams (total resolution ≤ 4Kp60)
Memory	4GB DDR4
Security	IEC62443 Security w/ HW Root-of- Trust





INTERFACES		
USB	4x USB 3.0	
Multi-Media	DisplayPort, HDMI	
Network	1Gb (w/GigE Vision)	
SD Card	2x microSD Card Slot	

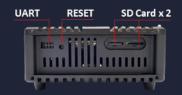
Display Port x 1	HDMI x 1
Lan x 1	DC 12V3A
USB 3.0 x 4	Power
W	T

GENERAL	
Mechanical	151 x 111 x 53mm
Operating Temperature	-30°C to +70°C

## What's Inside the Box

- EDGEAI BOX X7
- ADAPTER
- GETTING STARTED GUIDE

PRELIMINARY INFORMATION. THIS MATERIAL IS SUBJECT TO CHANGE WITHOUT NOTICE.



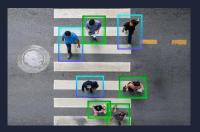


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# **Partner Applications**



Smart parking utilises various different forms of technology, including sensors and edae computing, to create real-time heat maps of available parking lots within a certain area. This information can be used in a variety of ways, including but not limited to: helping drivers find parking lots near them easily using an application, redirecting traffic to prevent congestion in an area in the case of a lack of parking spaces, as well as relaying information to the traffic authorities in the case of parking violations.



Crowd Statistics involve using sensors and cameras to capture data of the flow of human traffic in certain areas. Certain relevant data is collected, such as movement of the crowd, number of people, among other forms of data.

## **Distributor / Enquiries**

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