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# FPGA Cloud Connectivity Kit

Build your FPGA-based IoT application with this "cloud-ready" development kit

**FPGAs can overcome the limitations of sequential processing, limited instruction sets, and basic I/O in your Internet of Things (IoT) Edge device. Intel has a complete cloud-to-edge solution based on Cyclone® V SoC FPGAs. These FPGAs make it easy for you to develop your own FPGA-based application that can collect, analyze, and react to data from cloud-connected IoT equipment.**

## Solution Overview

The FPGA Cloud Connectivity Kit is designed to help you build FPGA-based IoT "cloud-ready" applications with a comprehensive set of hardware and software to kick start your project.

The development kit includes:

- Complete kit to connect an FPGA-based edge device to the cloud
- Certified for Microsoft Azure IoT and qualified for AWS Greengrass
- Free, open-source FPGA-based design examples from the Intel® Developer Zone
- Reference designs for sensor data aggregation applications
- Ambient light, temperature, and humidity sensors as well as other sensors, such as accelerometer, gyroscope, and magnetometer

The development kit is available at $239 from Terasic.

## Customer Benefits

- Get started with immediate access to free, open-source designs
- Complete and intuitive tutorials that help you install the Azure IoT Edge Runtime and build container-based applications using Microsoft Visual Studio
- Learn how to build an IoT Edge Module that gathers sensor data and stores it in the Azure Container Registry (ACR)
- Reconfigure an FPGA from the Azure Cloud using a Container Application
- Customers benefit from the Intel and Microsoft partnership to build and scale their solutions

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Enabled by Intel® Edge-Centric FPGAs

## Target Application

- General edge IoT and gateway applications
- Industrial IoT, manufacturing, and process automation for anomaly detection and predictive maintenance
- Smart city infrastructure, building environmental sensing and energy optimization
- Connected transportation and logistics control system
- Remote medical devices for real-time sensing and machine learning-based diagnosis
- Smart agriculture and primary industry digitization
- Test and measurement connected devices

## Learn More

- Edge-Centric Overview Page
- Free, open-source design examples and tutorials
- Cyclone V FPGAs and SoC FPGAs
- FPGA Could Connectivity Kit Online Purchase
- Microsoft Azure Certified Device
- AWS Greengrass Qualified Device

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