NISE 50-IoT

Main Features

- Ready-to-use IoT Gateway to accelerate IoT project deployment
- Easy connectivity via IoT studio, drag-and-drop managing data flow
- Connecting Max. 5 devices via Modbus TCP/RTU protocol for data acquisition
- Support wired or wireless cloud connectivity via publish-subscribe-based MQTT protocol
- Open architecture support both Windows-based and Ubuntu-based IoT Gateway

Product Overview

NISE 50-IoT series is designed to acquire data from PLC or device in the field side, and upload or push it to the database or cloud. The NISE 50-IoT Gateway could also take simple logic control without another computer. With these acquired data, it could help user to improve their process parameter or to predict the machine's maintenance schedule to reduce the machine's down time. The build-in application: IoT-Studio, which will speed up the developed and deploy time.

Hardware Specification

Communication Protocols

- Modbus TCP
- Modbus RTU
- MQTT
- OPC UA client
- OPC UA server (NISE 50-IoT-UB support)

System Configuration

- Intel Atom® E3826, 1.46GHz
- On-board 2GB DDR3L 1066/1333 RAM
- 16G mSATA SSD installed
- 3 x mini-PCIe socket for optional Wi-Fi/3.5G modules

System I/O Interface

- ATX power on/off switch
- 1 x Storage, 2 x GPIO programmable LED
- 1 x SIM card holder
- 2 x Intel® I210AT GbE LAN ports
- 1 x HDMI display output
- 4 x USB 2.0
- 2 x Antenna holes for optional Wi-Fi/3.5G antenna
- 3 x COM for DB9 connector

Power and Dimension

- Power input: 24V DC +/-20%
- Dimensions: 162mm(W) x 26mm(H) x 150mm(D) without wall-mount bracket

Software Package

- Windows 10 IoT Enterprise 2016 LTSB Entry 64-bit
- Ubuntu 14.04.5 64-bit
- IoT Studio with dashboard
- OPC UA Server (NISE 50-IoT-UB only)

Certification

- CE
- FCC Class A
- UL/cUL

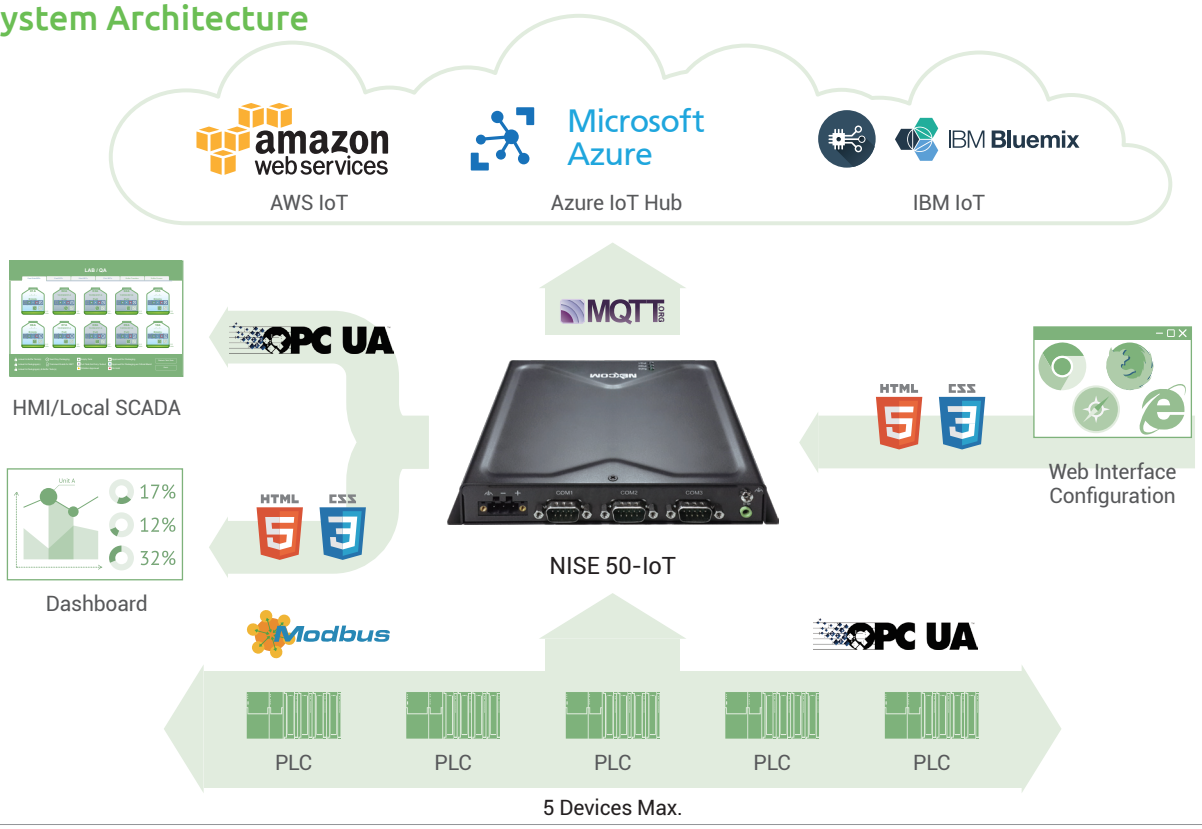
Ordering Information

- **NISE50-IoT-W10 (P/N: 10J00005030X0)**
  NISE50-IoT Gateway with Win10 and IoT Studio
- **NISE 50-IoT-UB (P/N: 10J00005023X0)**
  NISE 50 IoT Gateway with Ubuntu and IoT Studio

Optional

- **24V, 60W AC/DC power adapter w/o power cord (P/N: 7400060033X00)**

System Architecture



Gateway Feature

Communication Protocols

- Modbus TCP/RTU
  - Most common communication protocol
  - Connect up to 5 devices max
- OPC UA Client/Server
  - OPC UA Client for getting data from the device
  - OPC UA Server for access and display data to HMI (NISE 50-IoT-UB only)
- MQTT
  - A lightweight messaging protocol
  - Push data or message to the cloud or database

Web Configuration

- IoT Studio
  - Rapid prototyping/engineering tool
  - With IoT-Studio, user can easy to configure the NISE50-IoT setting
- Remote Access
  - Access and management NISE50-IoT anywhere via browser
  - Support popular browser based on HTML5 & CSS3

Cloud Connectivity Available

- Azure IoT Hub
  - Service of reliable and secure bidirectional communications between IoT devices and cloud
- AWS IoT
  - The AWS IoT message broker is a publish/subscribe broker service that enables the sending and receiving of messages to and from AWS IoT
- IBM IoT
  - Fully managed, cloud-hosted service that makes it simple to derive value from Internet of Things (IoT) devices

Dashboard UI/HMI Support

- Dashboard
  - Quickly create a dynamic data dashboard
  - Provide variety of widgets for user to directly use via simple configuration
- Connect to HMI
  - Build in OPC UA Server function which provides data access for SCADA, HMI or controller used