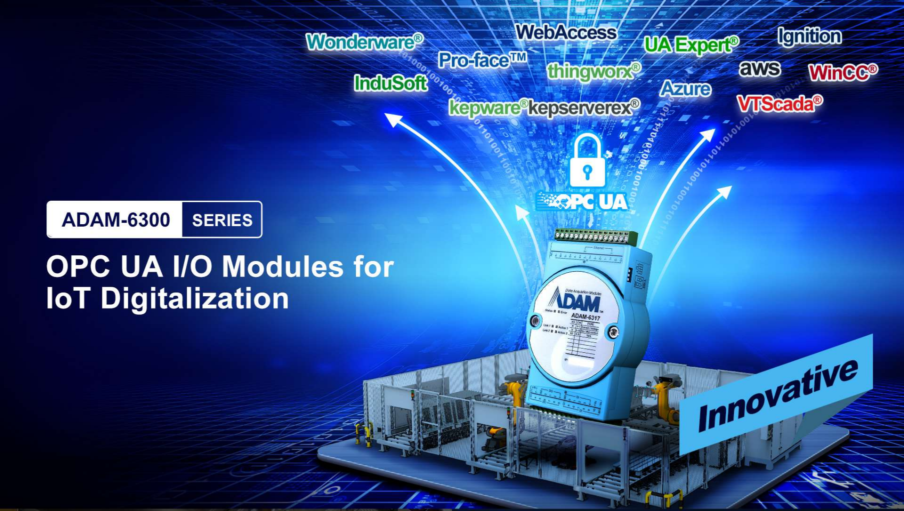

Wonderware®
WebAccess
UA Expert®
Ignition
Pro-face™
thingworx®
aws
WinCC®
InduSoft
Azure
VTScada®
kepware® kepserverex®
OPC UA
ADAM
ADAM-6317
Innovative

ADAM-6300 **SERIES**

OPC UA I/O Modules for IoT Digitalization

OPC UA Empowers Modbus I/O Users to Industrial IoT World

OPC UA I/O ready for both OT & IT users

OT

- ✓ Modbus ready
- ✓ Daisy-chain connectivity
- ✓ Auto bypass
- ✓ High density I/O

ADAM
ADAM-6317

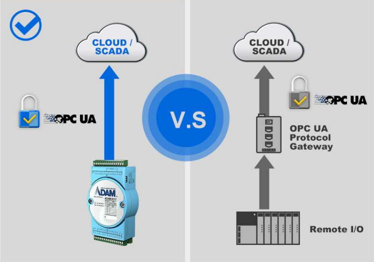
IT

- ✓ OPC UA ready
- ✓ OPC UA software security
  - Certificate (based on X.509)
  - Username / password
  - Encryption & sign in
- ✓ Built-in hardware security IC

Interoperable & Secure OT / IT Convergent Solution

OPC UA I/O links to SCADA and clouds without need for protocol gateways

OPC UA I/O (ADAM-6300)	OPC UA Gateway + Generic I/O	Architecture Comparison


CLOUD / SCADA
OPC UA
V.S
CLOUD / SCADA
OPC UA
OPC UA Protocol Gateway
Remote I/O

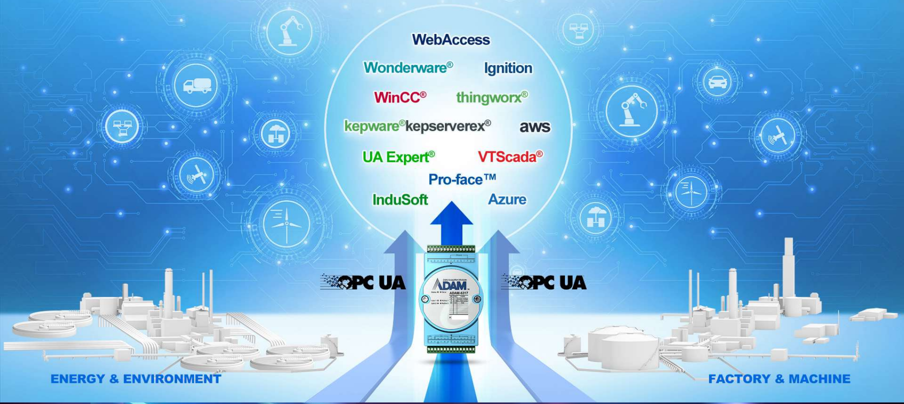
		ADAM-6300 Series	Competitors
Architecture	✓	OPC UA I/O	OPC UA protocol gateway + generic I/O
Connect to Cloud	✓	Yes	Yes
Connect to SCADA	✓	Yes	Yes
Gateway	✓	No need	Yes
Operating System (OS)	✓	No need	Yes

Benefit Comparison

		ADAM-6300 Series		Competitors	
Architecture	✓	OPC UA I/O		OPC UA protocol gateway + generic I/O	
Security	✓	High	• OPC UA security • Built-in security IC • Secured from I/O to Cloud/SCADA • No OS, preventing malware	Low	• Less protection from I/O to gateway • Potential risk for OS malware
Cost	✓	Low	No gateway and switch needed	High	Requires gateway and switch
Effort	✓	Low	Less setup effort	High	Needs to pair with gateway and I/O modules

Interoperable & Secure OT / IT Convergent Solution

Cloud and SCADA ready


WebAccess
Wonderware®
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kepware®
kepserverex®
aws
UA Expert®
VTScada®
Pro-face™
InduSoft
Azure
OPC UA
OPC UA
ENERGY & ENVIRONMENT
FACTORY & MACHINE

SECURITY IC
OPC UA

Double Security Prevents Being Hacked

- OPC UA provides security for certificate sign in and encryption
- Additional security IC for hardware-level protection

Most Cost-Effective I/O

High I/O density and daisy-chaining solution to save cost

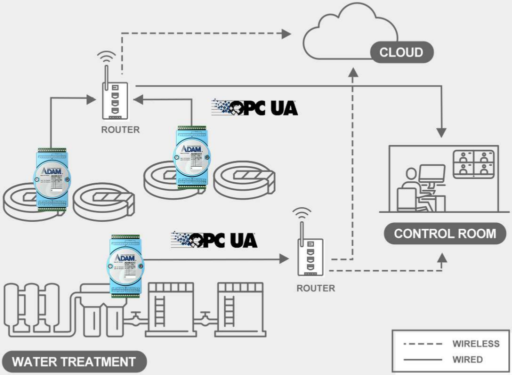
Data Acquisition Modules
ADAM
ADAM-6317

Daisy-Chain Connectivity
No need for extra switches

Uniquely-Designed MCU for OPC UA
No need for extra gateways

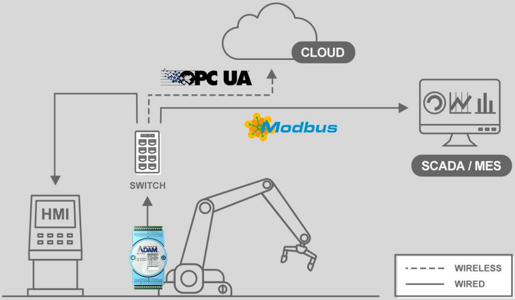
High I/O Density

Current Voltage Meter Vibration Temp Humidity Alarm


CLOUD
ROUTER
OPC UA
OPC UA
ADAM
CONTROL ROOM
ROUTER
WATER TREATMENT
WIRELESS
WIRED

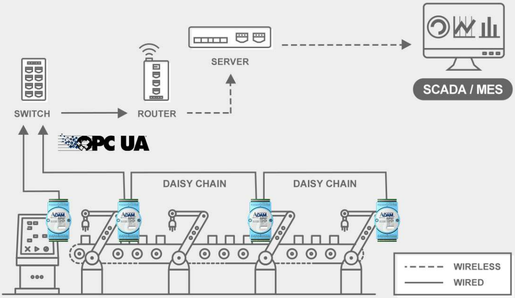
Applications : Water Treatment Management

- Secured data privacy
- OPC UA obtains the status in pumping plants


CLOUD
OPC UA
Modbus
SWITCH
HMI
SCADA / MES
WIRELESS
WIRED

Applications : Machine Status Management

- Modbus integrates with existing local system
- OPC UA connects with private or public cloud
- Secure connection to cloud
- High I/O density for cost effective solution

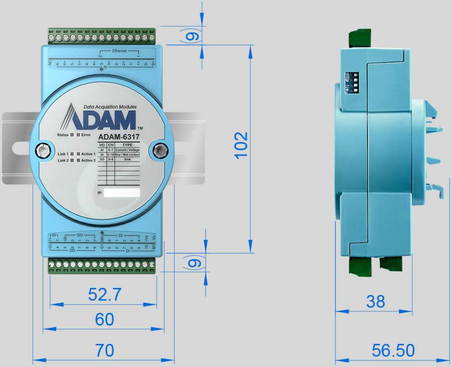

SERVER
SWITCH
ROUTER
SCADA / MES
OPC UA
DAISY CHAIN
DAISY CHAIN
WIRELESS
WIRED

Applications : Factory Process Management

- ADAM-6300 OPC UA integrates with SCADA / MES
- I/O data easily integrates with SCADA
- High I/O density for cost effective solution

Dimensions

ADAM-6300 SERIES


9
102
9
52.7
60
70
38
56.50
Data Acquisition Modules
ADAM
ADAM-6317
Status
Error
Link 1
Active 1
Link 2
Active 2
IP:

Mounting Method

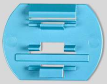
DIN RAIL

Data Acquisition Modules
ADAM
ADAM-6317

Opening the Box

ADAM-6300 SERIES

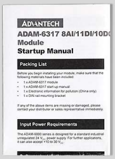
DIN rail Mounting Kit



ADVANTECH
Enabling an Intelligent Planet

Packing Box

ADAM-6300



ADVANTECH

ADAM-6317 8AI/11DI/10D
Module
Startup Manual

Packing List

Before you begin installing your module, make sure that the following materials have been included:

- 1 x ADAM-6317 module
- 1 x ADAM-6317 start up manual
- 1 x Electronic information for pollution (China only)
- 1 x DIN rail mounting bracket

If any of the above items are missing or damaged, please contact your distributor or sales representative immediately.

Input Power Requirements

The ADAM-6000 series is designed for a standard industrial unregulated 24 V_{DC} power supply. For further applications, it can also accept +10 to 30 V_{DC}.

Startup Manual

Product Image					
Model		**ADAM-6317**	**ADAM-6350**	**ADAM-6360D**	**ADAM-6366**
Description		IoT OPC UA Ethernet I/O - Analog Input Module	IoT OPC UA Ethernet I/O - Digital I/O Module	IoT OPC UA Ethernet I/O - SSR Relay Output Module	IoT OPC UA Ethernet I/O - Relay Output Module
General	Power Input	10 ~ 30 VDC			
	Power Consumption	2.9W	2.8W	2.8W	2.8W
	LAN Port	2 x RJ-45 10/100 Mbps			
	Connectors	2 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)			
	Watchdog	System and Communication			
	Protocol	OPC UA, Modbus/TCP			
Protection	Isolation	2500 VDC			
	Power Reversal Protection	YES			
OPC UA	Max Monitored Items	600 (including all sessions)			
	Max Sessions	4 (including security or non-security session)			
	Max Subscriptions per Session	1			
	Support security / certificate management	YES			
Modbus/TCP Connections		4			
Environment	Operating Temperature	-25° C ~ 70° C (-13 ~ 158°F)			
	Storage Temperature	-25° C ~ 85° C (-13 ~ 185°F)			
	Operating Humidity	20 ~ 95% RH (non-condensing)			
	Storage Humidity	0 ~ 95% RH (non-condensing)			
LED Indicator		Status, Error, Link, Active			
Analog Input	Channels	8	-	-	-
	Voltage Input	0 ~ 150mV, 0 ~ 500mV, 0 ~ 1V, 0 ~ 5V, 0 ~ 10V, ±150 mV, ±500 mV, ±1V, ±5 V, ±10 V,	-	-	-
	Current Input	0 ~ 20 mA, 4 ~ 20mA, ± 20mA	-	-	-
	Sampling Rate	10/100 Hz (total)	-	-	-
	Burn-out Detection	Yes (4~20 mA)	-	-	-
	Resolution	16-bit	-	-	-
Digital Input	Digital Input Channels	11	18	14	18
	Counter Input	3 kHz (DI5~DI10)	3 kHz (DI12~DI17)	3 kHz (DI8~DI13)	3 kHz (DI12~DI17)
	Frequency Input	3 kHz (DI5~DI10)	3 kHz (DI12~DI17)	3 kHz (DI8~DI13)	3 kHz (DI12~DI17)
Digital Output	Digital Output Channels	10	18	6	6
	Relay Output Channels	-	-	8 SSR (Form A)	5 (Form A)
	Contact Rating	-	-	1 A @25°C @30 VDC 0.7A @70°C @30 VDC	0.25A@25°C @250VAC 2A@25°C@30VDC
	Pulse Output	3 kHz (DO4~DO9)	3 kHz (DO12~DO17)	3 kHz (DO0~DO5)	3 kHz (DO0~DO5)