

# Rackmount Embedded Computers



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## IEC 61850-3 & IEEE 1613 Certified

The IEC 61850-3 and IEEE 1613 standards define the highest standard of EMI immunity and error free communication requirements for network equipment used in substations. Moxa's substation Ethernet

switches and embedded computers comply with the IEC 61850-3 and IEEE 1613 standards, guaranteeing that the computers are protected against various environmental factors.

## Power Applications Evolve

- A powerful controller with multiple serial ports for legacy devices
- Multiple LAN ports for network redundancy
- Carry out front-end tasks or remote monitoring and management

### 19-inch Rackmount Installation for Easy Deployment

All DA series computers come in a 19-inch rackmount design that is well-suited for data collection and computing in power automation. These computers are also the ideal front-end controllers for dealing with complicated protocol conversion scenarios in substation automation.

### Powerful Serial and Network Communication

Multiple serial ports and network interfaces allow more options for device connections. They also offer a convenient way to build a redundant system architecture. You can also easily add WLAN/Cellular connections by adding the appropriate interface card into the PCMCIA slot.

### Dual Power Input for Reliable Operation

With dual power inputs featuring 100-240 VAC/VDC compatibility, DA series computers are resistant to power interruptions.

### Versatile Storage Options for Data Logging

DA series computers come with Compact Flash sockets, USB ports, and even additional hard disk expansion slots, which provide many convenient options for storage expansion and data options.

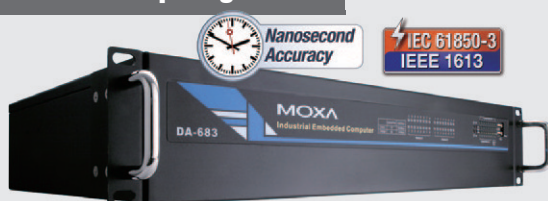
### Industrial-grade Design for Stable System Operations

The industrial-grade design of DA series computers ensure reliable and stable operations for various industrial applications. The DA design philosophy forgoes fans and cables in order to reduce part count, wear and tear, and points of failure. The DA-681-I-DPP-T is even IEC 61850-3 certified, making it the optimal solution for power substation applications that require IEC 61850.

### Multiple Expansion Modules for Great Flexibility

The DA-682 and DA-710 offer two or four expansion slots that can be used with the seven available DA series expansion modules, allowing you to tailor the perfect communications suite for your specific application. Expansion modules include 8-port RS-232/422/485 modules, 4-port 10/100 Mbps LAN modules, 8-port RS-422/485 modules, 8-port switch modules, and universal PCI expansion modules. The modules include a user-centric design that allows you to swap modules quickly and easily.

## Product Spotlight



### DA-683

#### x86-based rackmount embedded computer

- Intel Dual Core Atom D510 1.66GHz processor with 1MB L2 cache
- 6 10/100/1000 Mbps Ethernet ports, 2 RS-232 serial ports and 4 DIs, 4 DOs
- 2 PCI expansion slots for inserting expansion modules
- IEC 61850-3 and IEEE 1613 certified (DPP-T models only)
- IEEE 1588 supported (Linux models only)



DA Series Expansion Modules



**DA-SP08-DB**  
8 RS-232/422/485 ports with DB9 connectors



**DA-SP08-I-DB**  
8 RS-232/422/485 ports with DB9 connectors, 2 KV isolation



**DA-SP38-I-TB**  
8 RS-422/485 ports, terminal block, 2 KV Isolation



**DA-LN04-RJ**  
4-port 10/100 Mbps LAN module with RJ45 connectors



**DA-SW08-RJ**  
8-port 10/100 Mbps switch module with RJ45 connectors



**DA-SP08-I-TB**  
8 RS-232/422/485 ports, terminal block, 2 KV isolation



**DA-UPCI-DK**  
1-slot Universal PCI expansion adaptor

Model Name	Serial Ports	LAN Ports 10/100 Mbps	Storage			DI/DO		OS			PCI Slot	Power		IEC 61850-3 Certified
			SATA	CF	USB	30 VDC	CE	XPE	Linux	Single		Dual		
DA-681	RS-232: 4 (isolated) RS-485: 8 (isolated)	6	✓	✓	2	-	✓	✓	✓	-	✓	✓	✓	
DA-682	-	4 (Gigabit)	✓	✓	4	-	✓	✓	✓	2	✓	✓	-	
DA-710	RS-232:2	4 (Gigabit)	✓	✓	4	4/4	-	✓	✓	4	✓	✓	-	
DA-683	RS-232:2	6 (Gigabit)	✓	✓	4	4/4	-	✓	✓	2	✓	✓	✓	

Model Name	Serial Ports		Isolation 2 KV Digital	Switch 10/100 Mbps	LAN 10/100 Mbps	Connector			PCI 3.3/5 V
	RS-232/422/485	RS-232/485				DB9	RJ-45	Terminal Block	
DA-SP08-I-DB	8	-	✓	-	-	✓	-	-	-
DA-SP08-DB	8	-	✓	-	-	✓	-	-	-
DA-SP08-I-TB	8	-	✓	-	-	-	-	✓	-
DA-SP38-I-TB	-	8	✓	-	-	-	-	✓	-
DA-SW08-RJ	-	-	-	8	-	-	✓	-	-
DA-LN04-RJ	-	-	-	-	4	-	✓	-	-
DA-UPCI-DK	-	-	-	-	-	-	-	-	✓