



# DA50A

1-Sled Scalable IIoT Gateway

## ▲ FLEXEDGE™ Intelligent Edge Automation Platform

CLOUD, EDGE, WIRED, OR WIRELESS, DESIGN YOUR IDEAL INDUSTRY 4.0 OR IIOT APPLICATION WITH EASE.

- ▲ Modular architecture allows for easy addition of communication capabilities including cellular, Wi-Fi, serial and USB
- ▲ Advanced networking support offers routing, NAT, firewall, and VPN support to ensure data security
- ▲ On-board I/O with configurable AI/DI and DO to monitor and control local sensors
- ▲ Field upgradeable software to enhance capability of gateway if application changes
- ▲ Supports up to 10 simultaneous protocol conversions between over 300 industrial drivers (optional)
- ▲ Real-time data logging to microSD card or via FTP (optional)
- ▲ Industrial construction for reliable operation
- ▲ Intuitive LED status ring



## ▲ Ordering Guide

### MAIN UNIT

PART NUMBER	DESCRIPTION	SW GROUP
DA50A0BNN0000010	FlexEdge 1-Sled Mixed Serial Networking Gateway	Group 1
DA50A0BNN0000020	FlexEdge 1-Sled Mixed Serial Protocol Gateway	Group 2
DA50A0BNN0000030	FlexEdge 1-Sled Mixed Serial Adv IIoT Gateway	Group 3
DA50A0BNN0000040	FlexEdge 1-Sled Mixed Serial Adv Automation Controller	Group 4

### ACCESSORIES

PART NUMBER	DESCRIPTION
DAS00CL9C4SAM000	4G LTE (CAT4) Cellular Sled for AMER (AT&T, Generic)
DAS00CL9C1SAZ000	4G LTE (CAT1) Cellular Sled for AUS (Telstra)
DAS00CL9C4SVZ000	4G LTE (CAT4) Cellular Sled for AMER (Verizon)
DAS00CL9C4SEU000	4G LTE (CAT4) Cellular Sled for EMEA, SAARC, APAC
DAS00WF10NOAM000	802.11n Wi-Fi Sled
DAS00PN40U400000	1 Port USB 2.0 Host Sled
DAS00PN2221IS000	Dual RS232 Ports Sled (Isolated)
DAS00PN2442IS000	Dual RS485 Ports Sled (Isolated)
DAS00PN2245IS000	Mixed RS232/RS485 Ports Sled (Isolated)

See software manual for details on sled operation.

## DA50A Ordering Guide Cont. and Specifications

### SOFTWARE GROUPS

	GROUP 1 NETWORKING	GROUP 2 PROTOCOL	GROUP 3 ADV IIOT	GROUP 4 CONTROLLER
<b>CONFIGURATION</b>				
Web GUI	Y	Y	Y	Y
Crimson	Y	Y	Y	Y
<b>NETWORKING</b>				
Firewall	Y	Y	Y	Y
RADIUS Auth.	Y	Y	Y	Y
Routing	Y	Y	Y	Y
NAT	Y	Y	Y	Y
IP Fallback	Y	Y	Y	Y
VPN Client/Server	Y	Y	Y	Y
<b>AUTOMATION</b>				
300+ Drivers		Y	Y	Y
IIoT Connectors		Y	Y	Y
OPC UA		Y	Y	Y
SQL Sync			Y	Y
Data Logging			Y	Y
Virtual HMI			Y	Y
Advanced Web Server			Y	Y
<b>IEC CONTROL</b>				
Crimson Control				Y

## Specifications

### Power Requirements

Supply Voltage: 12-24 VDC +/-15%, Class 2 source

INPUT VOLTAGE	12 V	24 V
Typ. Power DA50A Gateway Only	2.5 W	2.6 W
Max Power DA50A Gateway Only	3.0 W	3.1 W
Max Power DA50A Gateway, with Sled	5.6 W	5.7 W

### Battery

3 V Lithium coin cell.

### Memory

On Board User Memory: 1 GB of non-volatile Flash memory.  
Memory Card: microSD slot accepts Class 5 or better microSD cards up to 256 GB capacity. FAT32, industrial grade.

### Communication Properties

USB Device Port: One (1) Isolated USB Type B Port Complies with USB Specification 2.0 (Full Speed)

Ethernet Ports: Two (2) 10BaseT / 100BaseTX RJ45 ports (1500 Vrms Network Isolation)

Serial Ports: Two Serial Ports with Individual Port Isolation

One (1) RS232 Serial RJ12 115200 Bps

One (1) RS485/RS422 Serial RJ45 115200 Bps

### Digital Output (DOUT)

Configuration: Open Collector, reference to ground  
Absolute Maximum IDC: 500 mADC (Vce = 750 mVDC)  
Absolute Maximum VDC: 30 VDC (open circuit)  
Absolute Minimum VDC: -0.4 VDC (open circuit)

### Digital Input (DIN)

Configuration: Unisolated level detection, reference to ground  
Active level: 2.5 VDC to 30 VDC  
Inactive level: 0 VDC to 1.3 VDC  
Absolute Minimum VDC: -0.3 VDC  
Absolute Maximum VDC: 33 VDC  
Leakage IDC at 5 VDC: 150  $\mu$ ADC

## DA50A Specifications Cont. and Dimensions

### Analog Input (Shared with Digital Input)

Configuration: Unisolated input, reference to ground  
Resolution: 4096 (ADC 12-bit)  
VDC per step: 9.483 mVDC (full scale level: 38.8 V)  
Accuracy: 2%  
Zero level: 0 VDC  
Absolute Minimum VDC: -0.3 VDC  
Absolute Maximum VDC: 33 VDC  
Leakage IDC at 5 VDC: 265.96  $\mu$ ADC typical

### Networking Capabilities

Tunneling: IPsec, GRE and Open VPN  
IP: NAT, port forwarding, dynamic DNS, DHCP Stateful inspection  
firewall, IP Fallback and IP transparency  
Routing Protocols: VRRP Encapsulation Protocols

### Environmental

Operating Temperature: -40 to 75 °C  
Storage Temperature: -40 to 85 °C  
Operating and Storage Humidity: 0 to 85% max. RH  
noncondensing  
Vibration to IEC 60068-2-6: Operational 5-500 Hz, 2 g  
Shock to IEC 60068-2-27: Operational 15 g  
Altitude: Up to 2000 meters  
Installation Category II, Pollution Degree 2 as defined in IEC/EN  
60664-1.

### Certification & Compliance

CE Approved  
EN 61326-1 Immunity to Industrial Locations

Emission CISPR 11 Class A  
IEC/EN 61010-1  
RoHS Compliant  
ATEX Approved  
II 3 G Ex ec IIC T4 Gc  
DEMKO 20 ATEX 2268X  
IECEX Approved  
IECEX UL 20.0007X  
UL Hazardous: File # E317425  
Rugged IP30 enclosure

### Connections

Wire Strip Length: 0.3" (7.5 mm)  
Wire Gauge Capacity: 12 to 24 AWG (3.31 to 0.20 mm<sup>2</sup>) copper  
wire only

### Construction

Polycarbonate enclosure with IP30 rating.  
Weight: 13 oz (404.3 g)

### Mounting

DIN Rail: Attaches to standard "T" profile DIN rail according to  
EN50022 - 35 x 7.5 and 35 x 15

### Warranty

3 years on design and manufacturing defects.  
Specifications are subject to change.  
Visit [www.redlion.net](http://www.redlion.net) for more information.

## Dimensions In inches (mm)

