

AURORA UNIVERSAL

GENERAL SPECIFICATIONS

The Aurora Universal System is a high-performance, customer-premises data management platform for renewable energy plant operations, revenue-grade metering, and smart grid integration.

Aurora Universal interoperates with multi-vendor balance-of-system equipment including inverters, string combiners, meters, and environmental systems, delivering high-frequency/high-accuracy data sampling and high reliability. Together with Power-One's Aurora Vision and Fat Spaniel Prime edition software-as-a-service management solutions, Aurora Universal helps simplify operational management and ensure availability of distributed power plants.

Aurora Universal models include:

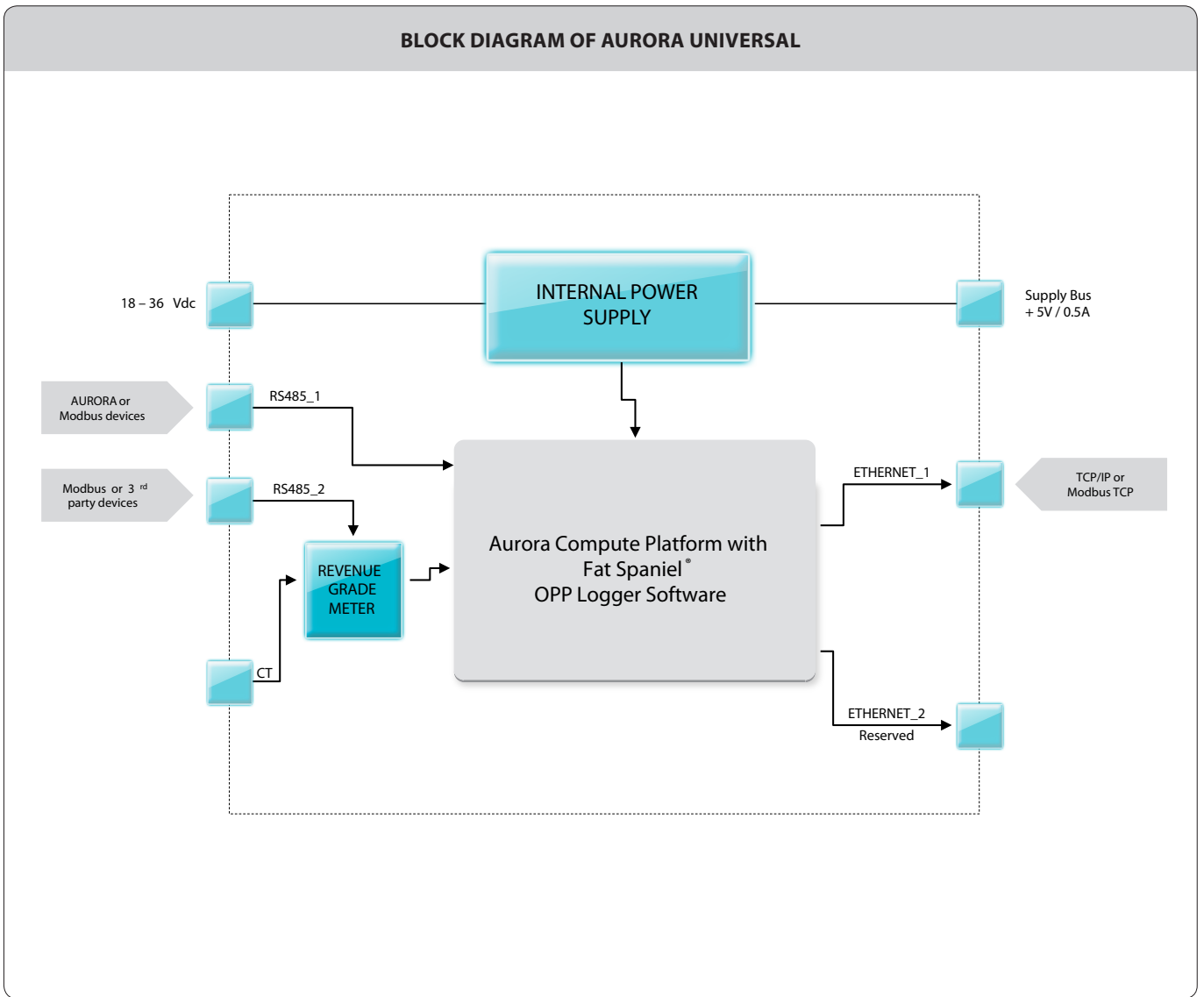
- Aurora Universal Revenue Grade: for high-accuracy energy management and metering for power plants of up to 2 MW in capacity (or segments thereof)
- Aurora Universal Industrial: for continuous monitoring of popular string and central Inverter models
- Aurora Universal Residential: for continuous monitoring of popular residential inverter models



Features

- **Unified Interoperable Platform**
A unified plant data management platform that seamlessly integrates balance-of-system components (inverters, string combiners, environmental systems) from Power-One and a wide-range of 3rd Party vendors. Provides out-of-box integration with Aurora Vision and Fat Spaniel Prime Software-as-a-Service solutions for fast installation and instant plant management.
- **High-Performance Architecture**
Field-tested, scalable and secure architecture enables reliable real-time revenue-grade energy monitoring and management.
- **Extensible & Modular Solution**
Modular design enables extensibility of the platform to support wide range of multi-vendor devices and applications from residential to utility environments.

BLOCK DIAGRAM OF AURORA UNIVERSAL



Block Diagram

PARAMETER	AURORA UNIVERSAL REVENUE GRADE	AURORA UNIVERSAL INDUSTRIAL	AURORA UNIVERSAL RESIDENTIAL
PORTFOLIO DASHBOARD			
Computing Environment	High performance platform and Fat Spaniel Open Premise Platform® software		
Interoperability	Multi-Vendor Interoperability with popular renewable energy vendors and product models		
Data Sampling Rate	High Frequency Data Sampling – 1 minute average – that can be varied to meet application requirements		
Real-Time Management	Compatible with Aurora Vision and Fat Spaniel Prime Software-as-a-Service solutions for real-time performance management and reporting		
Upgradability	Field Upgradable over the Internet		
COMMUNICATIONS			
Serial Port 1	RS485 interface for Power-One Aurora (or Modbus) devices		
Serial Port 2	RS485 interface for 3rd party devices (Modbus or proprietary)		
Maximum Devices Per Serial Port	15 per RS485 (recommended)		
Ethernet 1	10/100 BaseT Ethernet for WAN and LAN communications		
Ethernet 2	Reserved		
PROTOCOLS			
Plant Network Transport Protocols	Modbus/RTU, Modbus/TCP, SunSpec and vendor-specific		
Support LAN/WAN Protocols	TCP/IP, HTTP, DHCP, SSL		
REVENUE GRADE SUPPORT			
Revenue Grade Meters	Integrated revenue grade meter (meets ANSI C.12 for 98%+ accuracy)	Not applicable	Not applicable
CT Integration	Optional 5A CTs allowing for a wide range of current sizes (ordered separately)	Not applicable	Not applicable
POWER SUPPLY			
DC Power Supply Input	90...575 VAC, 50/60 Hz		
ENVIRONMENTAL PARAMETERS			
Ambient Temperature Range	-20...+55°C / -4...+131°F	-20...+55°C / -4...+131°F	-10...+40°C / 14...+104°F
Environmental Protection Rating	NEMA 4X	NEMA 4X	Indoor only
Relative Humidity	<90% Non-Condensing	<90% Non-Condensing	Not applicable
ENVIRONMENTAL PARAMETERS			
Dimension	393.4mm x 352.0mm x 161.0mm / 15.2" x 13.9" x 6.3"	393.4mm x 352.0mm x 161.0mm / 15.2" x 13.9" x 6.3"	77.0mm x 111.0mm x 26.0 mm / 3.03" x 4.4" x 1.0"
Weight	< 3.6 kg / 7.9 lb	< 3.6 kg / 7.9 lb	< 0.2 kg / 0.4 lb