



**ADVANTAGE SERIES**  
**FIRMWARE RELEASE NOTES**

Version 2.0.4.2

20-JUL-2022

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## 1 GENERAL

### 1.1 SCOPE

This document is the Release Notes for Advantage Series Firmware Version 2.0.4.2

### 1.2 ABBREVIATIONS AND ACRONYMS

A list of the principal abbreviations and acronyms used in the document is provided here for a better understanding of this document.

<i>PDU</i>	Power Distribution Unit
<i>GUI</i>	Graphical User Interface
<i>SSH</i>	Secure shell
<i>SNMP</i>	Simple Network Management Protocol
<i>SMTP</i>	Simple Mail Transfer Protocol
<i>LDAP</i>	Lightweight Directory Access Protocol
<i>CLI</i>	Command Line Interface
<i>Conf</i>	Configuration
<i>CB</i>	Circuit Breaker
<i>FTPS</i>	File Transfer Protocol Secure
<i>MAC</i>	Media Access Control
<i>NTP</i>	Network Time Protocol
<i>IP</i>	Internet Protocol
<i>ETH</i>	Ethernet
<i>SKU</i>	Stock Keeping Unit

## 2 RELEASED FILES

### 2.1 PACKAGED FILE

**ENLOGIC.TAR** - [SHA256: 1053361de248f42eed148dd1e53fe0ef36bee95d58e0826598ed20b0c6b43f8d]

<i>Image File</i>	<i>SHA256</i>
<i>zimage</i>	b87d92d0253070d92449d072e9ab1b6fcc432d2a43132a975e7eda95eb2e5d21
<i>u-boot.bin</i>	983905b607b235745320dfb3ddb08bda181403694738f9d33a01723cca25feef
<i>rootfs.ubi</i>	acc3c331a2c63353da5cf6a05cf45dced3d8aae0f28f8cd40fe8d14181a57168
<i>at91bootstrap.bin</i>	8096ec83fb3f045ecd6f8fe37d3b93616959f1c768f3bdd0a378869ec01ea29
<i>at91-sama5d3_xplained.dtb</i>	559874566b82455a7e14f5040c2c0d4ad20236997ecd0901142f1fc34baf8315

## 2.2 SOFTWARE VERSION

FIRMWARE VERSION – 2.0.4.2

## 3 PRODUCT FAMILY

<i>Product Type</i>	<i>Description</i>
<i>Input Metered (MI)</i>	PDU that have ability for aggregate power monitoring
<i>Outlet Metered (MO)</i>	PDU that have ability to aggregate outlet level power monitoring
<i>Switched (MISO)</i>	PDU that have ability to aggregate power monitoring and outlet level switching capability
<i>Metered and Switched per Outlet (MOSO)</i>	PDU that have ability to aggregate outlet level power monitoring and outlet level switching capability
<i>Inline Energy Meter (IEM)</i>	Inline Energy Meter that has ability to monitor power for attached IT equipment

## 4 SKU SUPPORTED

<i>Type</i>	<i>SKU Numbers</i>
<i>Input Metered (MI)</i>	EN1403, EN1805S, EN1902, EN1906, <b>EN1337</b> , <b>EN1315</b> , <b>EN1806</b> , <b>EN1326</b> , <b>EN1811</b> , EN1815, <b>EN1908</b> , EN1907, <b>EN1339</b> , <b>EN1341</b> , EN1927, <b>EN1822</b> , <b>EN1814</b> , EN1823, EN1821, EN1926, EN1343, <b>EN1805</b> , <b>EN1917</b> , <b>EN1915</b> , <b>EN1919</b> , <b>EN1325</b> , EN1932
<i>Outlet Metered (MO)</i>	EN5808, EN5810, <b>EN5402</b> , <b>EN5329</b> , <b>EN5325</b>
<i>Switched (MISO)</i>	EN2316E, EN2804S, EN2808, <b>EN2324</b> , <b>EN2325</b> , EN2810, <b>EN2326</b> , <b>EN2333</b> , <b>EN2329</b> , EN2402, <b>EN2902</b> , <b>EN2804</b> , <b>EN2907</b> , EN2317, <b>EN2812</b> , <b>EN2337</b> , <b>EN2403</b> , <b>EN2823</b> , <b>EN2339</b>
<i>Metered and Switched per Outlet (MOSO)</i>	EN6324, EN6804, EN6333, EN6808, EN6810, EN6902, <b>EN6325</b> , <b>EN6602</b> , <b>EN6329</b> , <b>EN6402</b> , EN6804S, <b>EN6338</b> , <b>EN6326</b> , EN6337, <b>EN6833</b> , <b>EN6829</b> , <b>EN6909</b> , <b>EN6908</b> , <b>EN6834</b> , <b>EN6905</b> , <b>EN6812</b>
<i>Inline Energy Meter (IEM)</i>	<b>EZ1732</b> , <b>EZ1632</b> , <b>EZ1616</b> , EZ1430, <b>EZ1663</b> , <b>EZ1560</b> , <b>EZ1550</b> , <b>EZ1716</b> , <b>EZ1763</b> , <b>EZ1530</b>

5 PDU FEATURES ENABLED

FEATURES	Input Metered (MI)	Outlet Switched (MS)	Outlet Metered (MO)	Metered and Switched per Outlet (MOSO)
<p><b>DESIGN</b></p> <ul style="list-style-type: none"> <li>▪ Low profile, space saving design</li> <li>▪ Ultra-low-profile circuit breakers on most models</li> <li>▪ Adjustable tool-less mounting system</li> </ul>	YES	YES	YES	YES
<p><b>PDU POWER MONITORING</b></p> <ul style="list-style-type: none"> <li>▪ PDU level watt hour power metering (kWh)</li> <li>▪ PDU level power measurements (W)</li> <li>▪ Input phase level power measurements (V, A, VA, kWh, pf)</li> <li>▪ Circuit Breaker level current measurements</li> <li>▪ High accuracy, billing grade metering capabilities</li> <li>▪ Embedded memory log to record/view/report historical data</li> <li>▪ User customizable alarm thresholds &amp; notifications</li> </ul>	YES	YES	YES	YES
<p><b>OUTLET LEVEL SWITCHING</b></p> <ul style="list-style-type: none"> <li>▪ Remote ON/OFF Power control by individual outlet</li> <li>▪ User defined power-on time delay to sequence IT equipment</li> <li>▪ Automatic sequencing to avoid inrush current overload</li> <li>▪ Controlled with assignable roles and user access</li> </ul>		YES		YES
<p><b>OUTLET LEVEL POWER MONITORING</b></p> <ul style="list-style-type: none"> <li>▪ Outlet level watt-hour power metering(kWh)</li> <li>▪ Outlet level power measurements (V, A, VA, W, pf)</li> </ul>			YES	YES
<p><b>ENVIRONMENTAL MANAGMENT</b></p> <ul style="list-style-type: none"> <li>▪ Optional Plug and Play environmental sensors including temperature, humidity and water leak</li> </ul>	YES	YES	YES	YES
<p><b>PHYSICAL SECURITY MANAGEMENT</b></p> <ul style="list-style-type: none"> <li>▪ Rack access monitoring with door contact switch</li> </ul>	YES	YES	YES	YES

<ul style="list-style-type: none"> <li>▪ Customizable alarm thresholds and notifications</li> </ul>				
<p><b>NETWORK MANAGEMENT AND LOCAL DISPLAY INTERFACE</b></p>	YES	YES	YES	YES
<ul style="list-style-type: none"> <li>▪ Active LED display for power measurements</li> <li>▪ OLED Display with high contrast ratio, easy to navigate menu and visual graphic bars for phase load balancing</li> <li>▪ Full featured network management and alerting capabilities supporting HTTP, HTTPS, SSH, SNMP, FTP and EMAIL</li> <li>▪ Strong encryption, passwords and advanced authorization options including local permissions, LDAP and Active Directory</li> <li>▪ Daisy Chain up to 4 Rack PDU and 16 environmental sensors through single IP address</li> </ul>				
<p><b>BRANCH CIRCUIT LOAD MONITORING</b></p>	YES	YES	YES	YES
<p><b>CIRCUIT BREAKER STATUS</b></p>		YES	YES	YES

## 6 ISSUES AND TASKS ADDRESSED

<i>Issue ID</i>	<i>Description</i>
EEFR-14	FW/HW version of Handle is not consistent
EEFR-15	Handle LED never sets color
EEFR-16	Sensor Harness does not the correct value on Handle
EEFR-6	Sync Lock/Unlock in SSH
EEFR-18	Verifying functionality in Dual handle connected to one NMC
EEFR-6	Lock/Unlock synchronization in all the interface.
EEFR-56	Alarm representation in beacon
EEFR-38	Lock unlock activity not working in combine mode
EEFR-49	Card creation time is taking LOCAL time rather than NMC time after creating the users from WEBUI
EEFR-49	Combined Mode for 2 handles connected to master pdu
EEFR-75	Handle User will not display if there is no user id is provided and created only with username and pin
EEFR-73	Card Addition without card id will replace the user which is not having the Card id

## 7 FEATURE UPDATES FROM 1.0.6.1 BUILD TO 2.0.4.2

- Daisy Chain up to 64 PDU
- Redfish Support as per latest DMTF
- IPv6 Support Enabled
- Radius Server support Enabled
- Alarm Count increased to 80
- Trap OID mapping to its severity
- Daisy Chain communication optimized between Master and Slave PDUs
- GUI automatic refresh introduced for Control & Manage, Thresholds
- 7 Segment Border color selection for all PDUs connected in Daisy Chain
- Ehandle Support Enabled
- Automatic Firmware update to Daisy chain PDUs
- New Kernel (5.10.56) Update
- Modbus Support
- System Log Support
- Implemented Reset Crash Dump
- 1 Gbps Support