HIGHLIGHTS

- Ultra Low Power Design
- Compact, Rugged, Reliable
- Full AGA-3, AGA-5, AGA-7, AGA-8 (Detail/Gross I & II), NX-19 Calculations
- Flexible Communications Options
- Operating Temperatures from -40°C to 70°C
- On-Board 24V Transmitter Power
- Diverse and Expandable I/O
- Multiple Run Capability
- Multitasking Operating System
- Full Remote Monitoring and Control
- Local and/or Remote Data Collection

COMMUNICATIONS & DATA COLLECTION

- USB & Serial Field Laptop Interface
- Ethernet TCP-IP (Supports 16 Simultaneous Connects)
- Land Line Telecom Modem
- Cellular
- Satellite (LEO & GEO)
- Radio (Spread Spectrum & Licensed Frequency)
- Data Concentrators with Real Time and Pass-through Capability to Field RTUs
- Protocols: ERC-HexASCII (Native), MODBUS Serial, & MODBUS TCP

Field to Front Office Solutions™
# TECHNICAL SPECIFICATIONS

## Features
- Enclosure: Rugged, UV Resistant Polycarbonate, Hinged & Lockable
- Mounting: Pole, Wall, Panel

## Display Options
- Single Line Alphanumeric Static
- Four Line Alphanumeric Scrolling
- Magnetic Scroll

## Temperature
- Operating: -40°C to +70°C (-40°F to +160°F)
- Ambient Humidity: 0 to 95% Non-Condensing

## Power
- Input Power: 9 to 30 VDC

## Performance
- Processor: ARM-Dual Core 32 Bit at 204 MHz
- SRAM Memory: 8 MB
- SPI Flash Memory: 8 MB
- Support for Months / Years of Data Storage, Dependent on Configuration
- A/D: 16-Bit Analog to Digital Conv. with Optional HART Filtering
- Serial Speeds up to 921,600 BPS may be Limited by Field Hardware

## ON-BOARD I/O WITH IOT (INPUT/OUTPUT TERMINATION) EXPANSION BACKPLANE

### Available On-Board
- USB Host & USB Device Ports
- Ethernet Port (16 - Simultaneous Connections)
- (2) RS232 only ports
- (2) RS232 / RS485 Ports with On-Board Power Control for Communications Devices
- (8) Analog Inputs (4-20mA/1-5VDC) with optional HART filtering
- (16) Digital I/O
- (8) Form A / Form C Pulse Input
- High and Low Speed Operation

## EXPANSION CAPABILITY

The table below lists the expansion modules that are independent of the expansion chassis selected.

<table>
<thead>
<tr>
<th>Independent Modules</th>
<th>Max # of Cards</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog Output (XA-AO) - 9010140</td>
<td>8</td>
<td>Dual Channel optically isolated analog output card (4-20 mA)</td>
</tr>
<tr>
<td>Serial Port (XA-ESP) - 9010426</td>
<td>4</td>
<td>Single Channel Expansion Serial Port</td>
</tr>
<tr>
<td>Digital Expansion - 9010113</td>
<td>8</td>
<td>8-slot I²C Opto Card</td>
</tr>
</tbody>
</table>

The table below list the XA Series™ RTU expansion capability using the non-addressable (limited) IOT Backplane and cards. It supports a maximum of 16 analog inputs and 28 digital I/0s with this config. Any combination of 1 analog input card and a max of up to 3 digital I/0s cards (3 slots total) can be selected.

<table>
<thead>
<tr>
<th>Non-addressable Cards</th>
<th>Max # of Cards</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog Input (EBM80/AI8) - 9010012</td>
<td>1</td>
<td>8-Channel analog input conditioning card (4-20 mA or 0-5 volts providing gas tube and transorb surge protection of all inputs</td>
</tr>
<tr>
<td>Digital I/O (EBM80/RC4) - 9010013</td>
<td>4</td>
<td>4-Channel mechanical relay card</td>
</tr>
<tr>
<td>Digital I/O (EBM80/RC4SS) - 9010014</td>
<td>4</td>
<td>4-Channel solid state relay card</td>
</tr>
</tbody>
</table>

The table below list the XA Series™ RTU expansion capability using the addressable (expandable EBM800/BP4) expansion chassis and cards. It supports a maximum of 136 analog inputs and 528 digital I/0s with this config. The EBM800 ID can be used with any combination of the Opto Mother Boards

<table>
<thead>
<tr>
<th>Addressable Cards</th>
<th>Max # of Cards</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion Chassis (EBM800/BP4) - 9010020</td>
<td>10</td>
<td>4-slot expansion chassis</td>
</tr>
<tr>
<td>Analog Input (EBM800/AI) - 9010122</td>
<td>8</td>
<td>16-Channel analog input card (4-20 mA or 0-5 volts)</td>
</tr>
<tr>
<td>Digital I/O (EBM800/ID) - 9010018</td>
<td>32</td>
<td>16-Channel digital input/output card</td>
</tr>
<tr>
<td>Digital I/O (EBM800/SSRC8) - 9010074</td>
<td>8</td>
<td>8-Channel solid state relay card</td>
</tr>
<tr>
<td>(PB4-Opto Mother Board) - 2030025</td>
<td>128</td>
<td>4-slot board for AC/DC, input/output Opto Modules</td>
</tr>
<tr>
<td>(PB8-Opto Mother Board) - 9010113</td>
<td>64</td>
<td>8-slot board for AC/DC, input/output Opto Modules</td>
</tr>
<tr>
<td>(PB16-Opto Mother Board) - 2030027</td>
<td>32</td>
<td>16-slot board for AC/DC, input/output Opto Modules</td>
</tr>
</tbody>
</table>