1. Timing Performance

**Timing Accuracy**
- ± 100ns to reference time (UTC)

**Supported Timing Protocols**
- PTP according to IEEE 1588–2008 (IEEE 1588 Version 2)
- NTP v4 according to RFC 5905
- Time (RFC 868)
- Daytime (RFC 867)

**PTP (IEEE 1588) Features**
- Default profile IEEE 1588-2008, Annex J
- Power profile according to IEEE C37.238-2011 (IEEE profile for use of IEEE 1588-2008 Precision Time Protocol in power systems applications)
- One-step and two-step operation
- End-to-end (multicast) and peer-to-peer delay mechanisms
- PTP over UDP/IPv4, UDP/IPv6 and Ethernet/IEEE 802.3 (IEEE 1588-2008 Annex D, E, and F)
- PTP management interface
- High performance (up to 512 messages/second)

2. GPS Performance

**GPS Performance**
- Integrated active GPS antenna
- 12 channel GPS receiver
- Frequency: 1575.42 MHz L1 Band

3. Networking & Management

**Management**
- Web Interface (HTTP/HTTPS)
- TFTP, FTP, and SSH access
- Automated configuration via SSH and XML files
- Fail-safe software upgrade in the field
- Email notifications
- Syslog (local and remote)
- SNMP (for IEEE C37.238-2011)

**Networking**
- One Ethernet port, 10Base-T/100Base-TX Ethernet
- Supports IPv4 and IPv6
- Power over Ethernet (PoE) according to IEEE 802.3af
- DHCP
- Zeroconf (MDNS/DNS-SD)
- Waterproof Ethernet connector according to IEC 61076-3-106 (Variant 4)
## 4. Other

**Power Supply**
- Supplied by Power-over-Ethernet (PoE, IEEE 802.3af)
- PoE Class 1 powered device
- Power consumption < 2W

**EMC**
- This Product adheres to the electromagnetic compatibility (EMC) directive 2004/108/EC (CE conform)

**Safety**

### Environmental

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature range</td>
<td>-40 °C … +70 °C (-40 °F ... +158 °F)</td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>-40 °C … +85 °C (-40 °F ... +185 °F)</td>
</tr>
<tr>
<td>Climate</td>
<td>IEC 60068-2-30, Test Db, damp heat, cyclic (6 cycles, 55 °C)</td>
</tr>
</tbody>
</table>

### Mechanical

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing type:</td>
<td>Waterproof housing (IP 67)</td>
</tr>
<tr>
<td>Dimensions (without connector and</td>
<td>- Diameter: 115,5 mm / 4.55”</td>
</tr>
<tr>
<td>mounting kit)</td>
<td>- Height: 106,2 mm / 4.17”</td>
</tr>
<tr>
<td>Weight (without mounting kit)</td>
<td>&lt; 500g / &lt; 1.1 lbs</td>
</tr>
<tr>
<td>Vibration</td>
<td>IEC 60068-2-6, Test Fc, Vibration sinusoidal</td>
</tr>
<tr>
<td></td>
<td>6 mm at 5-9 Hz, 2 g at 9-200 Hz</td>
</tr>
<tr>
<td>Shock</td>
<td>IEC 680068-2-27, Test Ea</td>
</tr>
<tr>
<td></td>
<td>15 g/11 ms half-sine</td>
</tr>
</tbody>
</table>