

# Ekinox Series

## Product Change Notice

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PCN: New Ekinox-D internal GNSS receiver

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This notice is to inform you about an Ekinox-D hardware update.

### 1. Description of change

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In order to keep our Ekinox-D on the edge of performance and to be more competitive for our customers, we have updated the internal GNSS receiver inside the Ekinox-D for a more powerful and featured model.

The new model is triple band enabled (L1/L2/L5) and tracks most constellations and signals.

### 2. Impact of change

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SBG Systems has taken all actions to ensure a smooth transition for all users.

New hardware revision is 100% form and fit compatible. Function is compatible as well for most users but some advanced features might be slightly different from previous units. Changes are listed below. Other specification and performance parameters remain the same.

New Hardware revision is rev 4.

#### 2.1. Overall power consumption

The typical power consumption increases from 5 W to 5.9 W when using all constellations and signals. In case this power consumption increase is an issue, contact SBG System for advanced configuration options that would allow decreasing it closer to V3 hardware value.

## 2.2. New receiver specifications

|                              | Specification  | Remark   |
|------------------------------|--|--|
| Channels                     | 544  |  |
| Signal tracking              | <b>GPS:</b> L1 C/A, L2, L2C, L5<br><b>GLONASS:</b> L1 C/A, L2 C/A, L2P, L3<br><b>GALILEO:</b> E1, E5a, E5b<br><b>Beidou:</b> B1I, B1C, B2a, B2I, B3I             | <b>QZSS:</b> L1 C/A, L2C, L5<br><b>SBAS</b><br>All constellations & signals enabled by default |
| Horizontal position accuracy | Single Point L1/L2/L5      1.2 m<br>SBAS / DGNSS              0.6 m / 0.4 m<br>RTK                              0.6 cm + 0.5 ppm<br>PPP (MARINESTAR™)      10 cm | RTK enabled by default   |
| Velocity Accuracy            | 0.03 m/s RMS   |  |
| True Heading Accuracy        | 0.15°<br>0.03°   | 1 m baseline<br>5 m baseline   |
| Velocity limit               | 515 m/s  | Due to export licenses   |
| Time to First Fix            | Cold start   | < 45 s   |
|                              | Hot start  | < 20 s   |
| Signal reacquisition         | L1/L2/L5   | < 1 s  |
| Output frequency             | PVT: 5 Hz (Max 20 Hz)<br>RAW data: 1 Hz (Max 100 Hz)   |  |
| Diff. Corrections            | RTCM V2.x, V3.x<br>CMR V2.0, CMR+  |  |

## 2.3. Antennas requirements

- The allowed antenna gain at Ekinox-D input is reduced from 15-50 dB to 15-45 dB.
- The requirement of max current that Ekinox-D can provide to LNA changes from 100 mA to 150 mA per antenna.
- Full benefit of new band plan requires adapted antennas matching the new constellations and signal bands. Antenna models recommended by SBG Systems for the previous hardware revision remains fully compatible.



**Note:** If this increased power consumption is an important matter for your application, please contact SBG Systems support.

### 3. New commercial offer

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#### 3.1. Old product code & part numbers equivalence table

The product part numbers are replaced as described in the following table.

| P/N      | Product Name                       | Hardware rev. | New P/N  | New Product Name                   | Hardware rev. |
|----------|------------------------------------|---------------|----------|------------------------------------|---------------|
| 100-2068 | EKINOX-D   Marine INS - GNSS RTK   | 3             | 100-2891 | EKINOX-D   Marine INS - GNSS RTK   | 4             |
| 100-2070 | EKINOX-D   Land Air INS - GNSS RTK | 3             | 100-2892 | EKINOX-D   Land Air INS - GNSS RTK | 4             |

#### 3.2. Hardware revision 3 EOL announcement

Depending on product variant, we may not have any more stock of the previous hardware revision. Please contact your sales representative if you need to purchase rev 3 hardware.

 **Note:** This EOL has a short notice, as the new hardware is fully compatible with the previous one and therefore does not require specific re-qualification.

- Last buy order for rev. 3 hardware will be at December 30<sup>th</sup> 2022.  
Note that despite SBG Systems best efforts, following supply chain constraints, rev 3. part numbers may be in shortage before that date.
- Last shipment for rev. 3 hardware will be at May 31<sup>th</sup> 2023
- End of support for rev. 3 hardware will be at May 31<sup>th</sup> 2025

## 4. Sales contact

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If you need any further information after reading this document, please contact us by email or phone.

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