

Information note

Topic **u-blox M9-F9-D9 documentation update**
 UBX-23000084 C1-Public
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1 Affected products

Product name	Ordering code	DS	Remarks
ZED-F9P	ZED-F9P-01B	[1]	
ZED-F9P	ZED-F9P-02B	[2]	
ZED-F9P	ZED-F9P-04B	[3]	High Precision GNSS
ZED-F9H	ZED-F9H-01B	[4]	
UBX-F9140-KA	UBX-F9140-KA-C1006A	[5]	
ZED-F9R	ZED-F9R-01B	[6]	
ZED-F9R	ZED-F9R-02B	[7]	
ZED-F9R	ZED-F9R-03B	[8]	High Precision GNSS, with Dead Reckoning
ZED-F9K	ZED-F9K-00B	[9]	
UBX-F9940-KA-DR	UBX-F9940-KA-C1003A	[10]	
NEO-D9C	NEO-D9C-00A	[11]	
NEO-D9C	NEO-D9C-00B	[12]	
NEO-D9S	NEO-D9S-00A	[13]	High Precision GNSS, with correction data
NEO-D9S	NEO-D9S-01A	[14]	
NEO-D9S	NEO-D9S-00B	[15]	
ZED-F9T	ZED-F9T-00B	[16]	
ZED-F9T	ZED-F9T-10B	[17]	Timing
NEO-M9N	NEO-M9N-00B	[18]	
UBX-M9140-KA	UBX-M9140-KA-C1100A	[19]	Standard Precision GNSS
UBX-M9140-KB	UBX-M9140-KB-C1100A	[20]	
NEO-M9L	NEO-M9L-01A	[21]	
NEO-M9L	NEO-M9L-20A	[22]	
UBX-M9140-KA-DR	UBX-M9140-KA-C1009A	[23]	Standard Precision GNSS, with Dead Reckoning
NEO-M9V	NEO-M9V-20B	[24]	

2 Type

- | | |
|--|--|
| <input type="checkbox"/> Product status change | <input checked="" type="checkbox"/> Documentation update |
| <input type="checkbox"/> Hardware/component change | <input type="checkbox"/> Certification information |
| <input type="checkbox"/> Firmware/software update | <input type="checkbox"/> Security advisory |
| <input type="checkbox"/> Label change | <input type="checkbox"/> Other |

3 Description

The documentation of the affected u-blox generation 9 products listed above has been improved by updating the following data sheet sections:

1. *Electrical specifications* → *Absolute maximum ratings*: increased the **maximum VCC_RF output current** (ICC_RF) (update not applicable to chipsets).
2. *Electrical specifications* → *Operating conditions*: added a description of the **backup power sequence** and updated the **I_BCKP typical value** accordingly (update not applicable to D9 products). Added a note on the **current drive/sink** capability of **TIMEPULSE** pin.
3. *Communication interfaces* → *SPI*: added a table with additional **SPI slave input timing parameters (1 – 12)**.
4. *Communication interfaces* → *I2C*: restored decimal units in **I2C timings and specifications** table and removed standard mode values.

4 Customer impact and recommended action

It is recommended that customers acquire the latest documentation and check the revision history for details on the changes.

Note that the minimum I2C data setup time for the u-blox 9 receivers is lower than the I2C Fast-mode specification. As a result, the performance of the I2C connection may be influenced by the specific master device and PCB layout.

5 Related documentation

- [1] ZED-F9P-01B data sheet, [UBX-17051259](#)
- [2] ZED-F9P-02B data sheet, [UBX-21023276](#)
- [3] ZED-F9P-04B data sheet, [UBX-21044850](#)
- [4] ZED-F9H-01B data sheet, [UBX-21025012](#)
- [5] UBX-F9140-KA data sheet, UBX-20053413, NDA required
- [6] ZED-F9R-01B data sheet, [UBX-19054459](#)
- [7] ZED-F9R-02B data sheet, [UBX-21017486](#)
- [8] ZED-F9R-03B data sheet, [UBX-22024085](#)
- [9] ZED-F9K-00B data sheet, [UBX-17061422](#)
- [10] UBX-F9940-KA-DR data sheet, [UBX-19028878](#)
- [11] NEO-D9C-00A data sheet, UBX-20057098, NDA required
- [12] NEO-D9C-00B data sheet, [UBX-17053092](#)
- [13] NEO-D9S-00A data sheet, [UBX-21008859](#)
- [14] NEO-D9S-01A data sheet, [UBX-21008860](#)
- [15] NEO-D9S-00B data sheet, [UBX-18012996](#)
- [16] ZED-F9T-00B data sheet, [UBX-18053713](#)
- [17] ZED-F9T-10B data sheet, [UBX-20033635](#)
- [18] NEO-M9N-00B data sheet, [UBX-19014285](#)
- [19] UBX-M9140-KA data sheet, UBX-18021372, NDA required
- [20] UBX-M9140-KB data sheet, UBX-18020412, NDA required
- [21] NEO-M9L-01A data sheet, [UBX-20016394](#)
- [22] NEO-M9L-20A data sheet, [UBX-21028129](#)
- [23] UBX-M9140-KA-DR data sheet, UBX-20030337, NDA required
- [24] NEO-M9V-20B data sheet, [UBX-21029781](#)