# 1. OVERVIEW

NT1068.2_USB3 is an evaluation platform for performance and capabilities demonstration of NT1068.2: 4-channel GPS/GLONASS/Galileo/BeiDou/NavIC/QZSS S, L1, L2, L3, L5, E1, E5a, E5b, E6, B1, B2, B3 band RF Front-End IC. It includes USB3 data converter thus allowing an user to process captured satellite signals on a PC. Data rate is configurable and may be as high as 800 Mbps (200 Mbps per channel).

2. KEY FEATURES

- IO ports:
  - RF splitter input with active antenna supply option
  - Every channel individual RF input with active antenna supply option
  - External reference frequency input (TCXO)
  - USB3.0 output
- On-board reference frequency sources:
  - 10 MHz 0.28ppm high-stability TCXO
- Additional modules:
  - 1-to-4 RF splitter
  - 2-to-4 RF splitter
  - 4-channel RF preselector
  - 1-to-5 RF splitter (SPL15-45514 or SPL15-465X5 recommended)
- Comprehensive software and manual:
  - NT1068.2 datasheet
  - NT1068.2_USB3 user manual
  - GUI for NT1068.2 registers access (Windows 7/8/8.1/10 compatible; Linux Ubuntu 18.04 compatible)
  - GUI for USB3 data capture
  - NT1068.2 configuration examples
  - Database of reference design
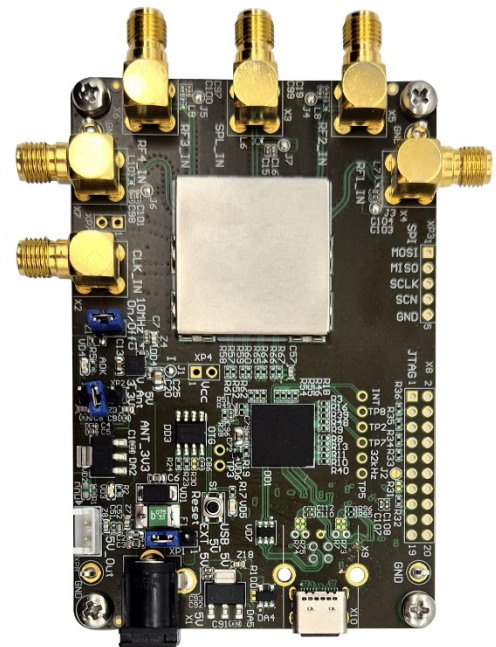
3. PACKAGE CONTENT

- PCB NT1068.2_USB3_v2 (NT1068.2_USB3 demo board)
- Power supply cable
- USB3.0 interface cable
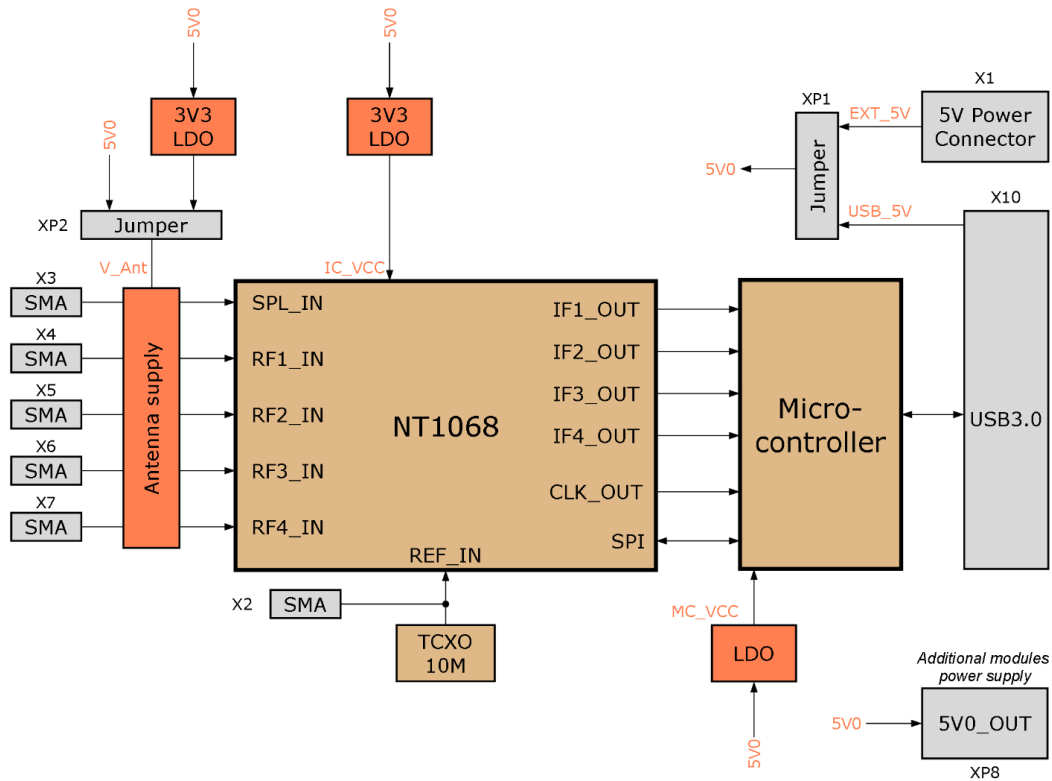- Link to online documentation and GUI

4. STRUCTURE

Figure 1: Block diagram

5. ORDERING INFORMATION

B1068U2 - **X** **X** - **Y**

11	
12	
21	
22	
33	
41	
42	
44	
54	

Additional modules:

X	-	No modules
A	-	1-to-4 RF splitter
B	-	2-to-4 RF splitter
C	-	4-channel RF preselector
D	-	1-to-5 RF splitter

Frequency range for channels 3# and #4:

1	-	L1: 1530 – 1620 MHz
2	-	L2/L3/L5: 1150 – 1250 MHz
3	-	S: 2460 – 2530 MHz
4	-	L1 for channel #3 + L3/L5 for channel #4

Frequency range for channels #1 and #2:

1	-	L1: 1530 – 1620 MHz
2	-	L2/L3/L5: 1150 – 1250 MHz
3	-	S: 2460 – 2530 MHz
4	-	S for channel #1 + L2 for channel #2
5	-	L3 for channel #1 + E6 for channel #2

If several additional modules are required, please, add corresponding symbols consequently, e.g. B1068U2–44–AB. Refer to documents NT1065_Additional modules_vx.xx.pdf and document RF_Splitter_1_to_5_vx.x.pdf for description and assembly options.