

1 OVERVIEW

NT1065_FMC is an evaluation platform for performance and capabilities demonstration of NT1065 "Nomada": 4-channel GPS/GLONASS/Galileo/Beidou/IRNSS/QZSS L1/L2/L3/L5 band RF Front End. All outputs as well as controls are routed to FMC connector thus allowing to pair evaluation board to any compatible FPGA to build your system prototype with the platform you got used to work.

2 KEY FEATURES

- IO ports:
 - Every channel individual RF input with active antenna supply option
 - External reference frequency input (TCXO)
 - FMC LPC connector compatible to PicoZed FMC Carrier V2 and FPGA development boards: ZC702/ZC706/ML605/ Arria V GX and others
 - 2-bit @50MSPS NT1065 output or 12-bit @100MSPS external ADC output (optional)
- On-board reference frequency sources:
 - 10 MHz 0.28ppm high-stability TCXO
 - 24.84 MHz 1.5ppm TCXO
- Additional modules:
 - 1 to 4 RF splitter
 - 2 to 4 RF splitter
 - 4-channel RF preselector
- Comprehensive software and manual:
 - NT1065 FMC user manual
 - GUI for NT1065 registers access (Windows 7/8/8.1/10 and Linux Ubuntu 16.04 compatible)
 - NT1065 "Nomada" configuration examples
 - FPGA design examples for ZC702/ZC706/ ML605 boards
 - Database of PCB reference design



3 STRUCTURE

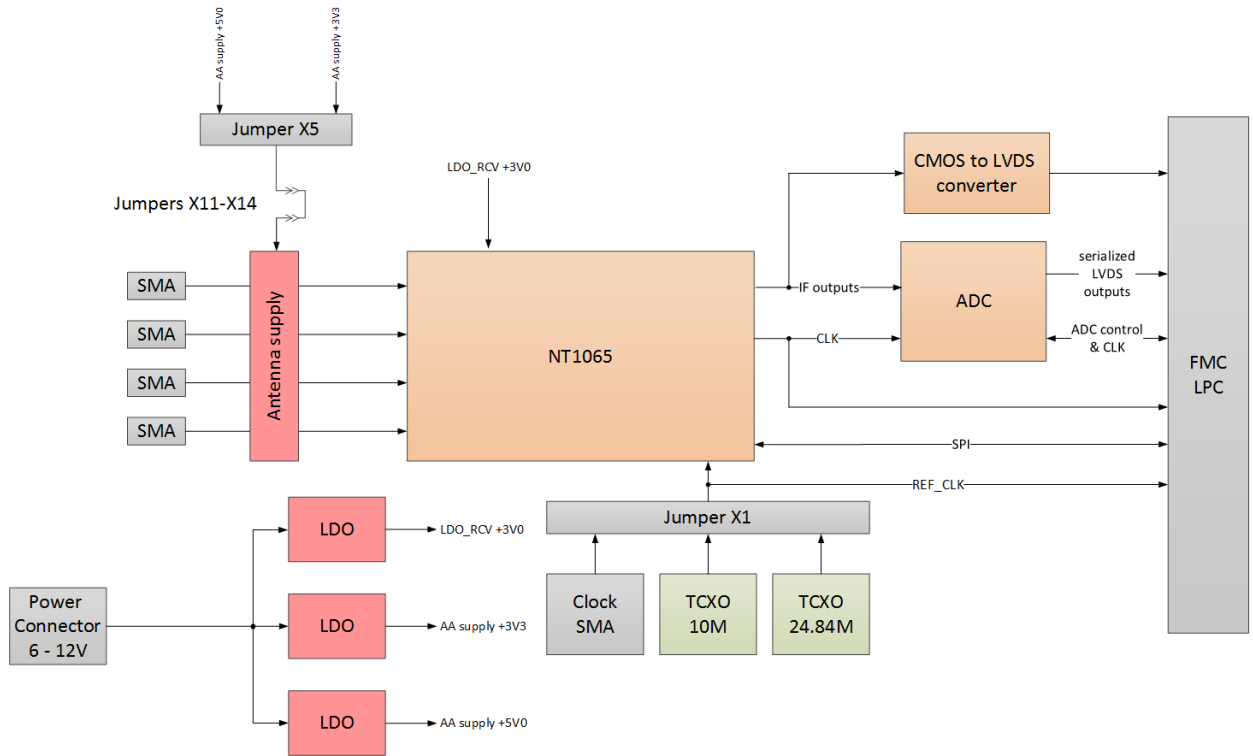


Figure 1: Block diagram

4 ORDERING INFORMATION

B1065F1 - X X Y - Y

Additional modules¹:

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

Output data interface:

- A - 2-bit (LVDS from converter)
- B - 12-bit (2-lane LVDS from LTC2174-12)

Frequency range for channels #3 and #4:

- 1 - L1: 1550 – 1620 MHz
- 2 - L2, L3, L5: 1150 – 1300 MHz

Frequency range for channels #1 and #2:

- 1 - L1: 1550 – 1620 MHz
- 2 - L2, L3, L5: 1150 – 1300 MHz

¹ If several additional modules are required, please, add corresponding symbols consequently, e.g. B1065F1-12A-AB. Refer to document "Additional modules_NT1065.pdf" for description and assembly options.