

S76G Rev.04

Product Brief



FEATURE

● Platform Features

- ST micro controller: STM32L073Z
- High performance ARM® Cortex®-M0+ 32-bit RISC core operating at a 32 MHz frequency
- 192 Kbytes of Flash memory
- 20 Kbytes of SRAM
- Serial wire debug (SWD) & JTAG
- USB 2.0 full-speed device/host

● LORA Features

- LORA chip: Semtech SX1276
- LoRa Modem
- +20 dBm constant RF output vs. V supply
- Programmable bit rate up to 37500 bps
- High sensitivity: down to -137 dBm
- Excellent blocking immunity
- Preamble detection
- Automatic RF Sense and CAD with ultra-fast AFC
- Payload up to 128 bytes with CRC

● GNSS Features

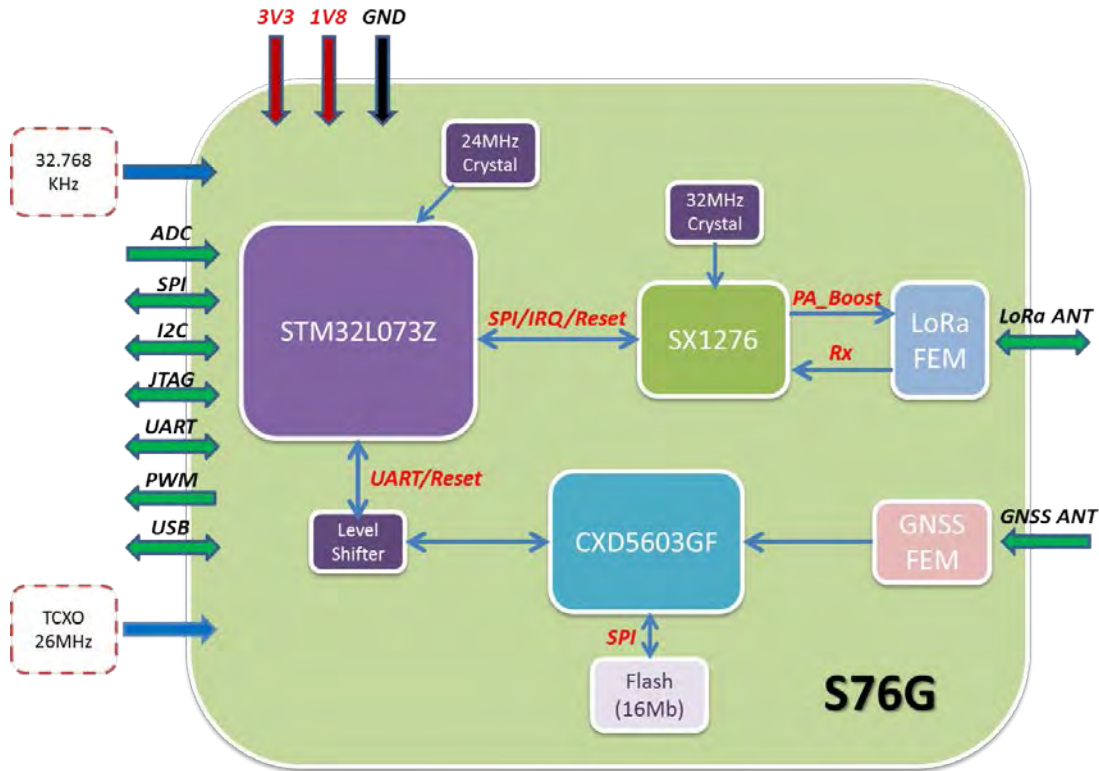
- GNSS chip: SONY CXD5603GF
- GPS/GLONASS/GALILEO/BEIDOU(after ICD released) receiver
- Ultra-low power consumption
- Embedded noise filters and spectrum analyzer for development
- Supports SBAS/QZSS

● Other Features

- 24MHz crystal for STM32L073Z and 32MHz crystal for SX1276 are inside module
- 16Mbits Flash for CXD5603GF is inside module
- Level shifter for communication between STM32L073Z and CXD5603GF is inside module
- LoRa FEM(with matching) and GNSS(GPS/GLONASS/GALILEO/BEIDOU) FEM(with matching) are inside module
- Additional 32.768KHz crystal and 26MHz TCXO signal sources are needed
- Epoxy molding finished module in LGA type
- Small size : 13m X 11 X 1.55 mm

● RoHS & Halogen free compliant / Lead free

S76G Block Diagram



Technical Specification	
Model Name	S76G
Product Description	LoRa and GNSS Wireless Communication Module
Package	LGA type
Host Interface	UART
Dimension	13 mm x 11 mm x 1.55 mm
Operation Conditions	
Operating Voltage	<ul style="list-style-type: none"> ■ 3.3V for MCU / LoRa function ■ 1.8V for GNSS function
Temperature	<ul style="list-style-type: none"> ■ Storage : -50°C ~ +105°C ■ Operating : -25°C ~ +85°C
Humidity	<ul style="list-style-type: none"> ■ Operating : 10 ~ 95% (Non-Condensing) ■ Storage : 5 ~ 95% (Non-Condensing)
Electrical Specifications	
Frequency	<ul style="list-style-type: none"> ■ LoRa frequency band: EU868 / US915 ■ GNSS frequency band: GPS/GLONASS/GALILEO/BEIDOU