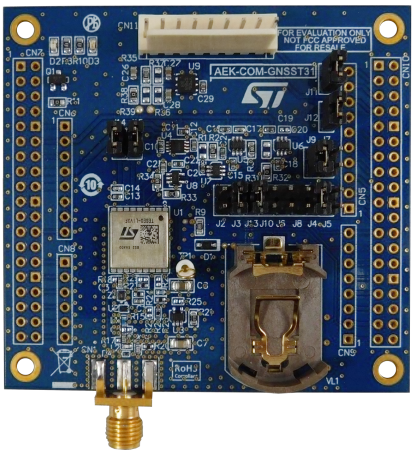
AEK-COM-GNSST31

Data brief

GNSS evaluation board based on Teseo-LIV3F for SPC5 microcontrollers



AutoDevKit

LONGEVITY 10 YEARS COMMITMENT

SPC5 Studio

Features

- Sensitivity: -162 dBm indoor (tracking mode)
- Interfaces:
  - UART and I²C ports
  - Configurable digital I/O timepulse
  - EXTINT input for wakeup
- NMEA protocol
- Assisted GNSS:
  - Predictive autonomous
  - Predictive server-based
  - Real-time server-based
- Compatible with SPC5
- LNA and SAW filter on the RF path
- SMA female antenna connector
- Battery holder
- Highly compact design: 70 x 65 mm
- Operating supply voltage: 3.3 - 5 V
- Ambient temperature: -40/+85 °C
- Part of the AutoDevKit™ initiative
- RoHS and WEEE compliant

Product summary	
GNSS evaluation board based on Teseo-LIV3F for SPC5 microcontrollers	AEK-COM-GNSST31
Tiny GNSS module	Teseo-LIV3F
Code generator, quick resource configurator and Eclipse development environment for SPC5 MCUs	SPC5-STUDIO
AutoDevKit library plugin for SPC5-STUDIO	STSW-AUTODEVKIT
Global navigation satellite system software expansion for STM32Cube	X-CUBE-GNSS1
Applications	Tracking Smart City GNSS/GPS Mobility Services

Description

The AEK-COM-GNSST31 evaluation board is based on the certified Teseo-LIV3F global navigation satellite system (GNSS) module with embedded TeseoIII single die standalone positioning receiver IC.

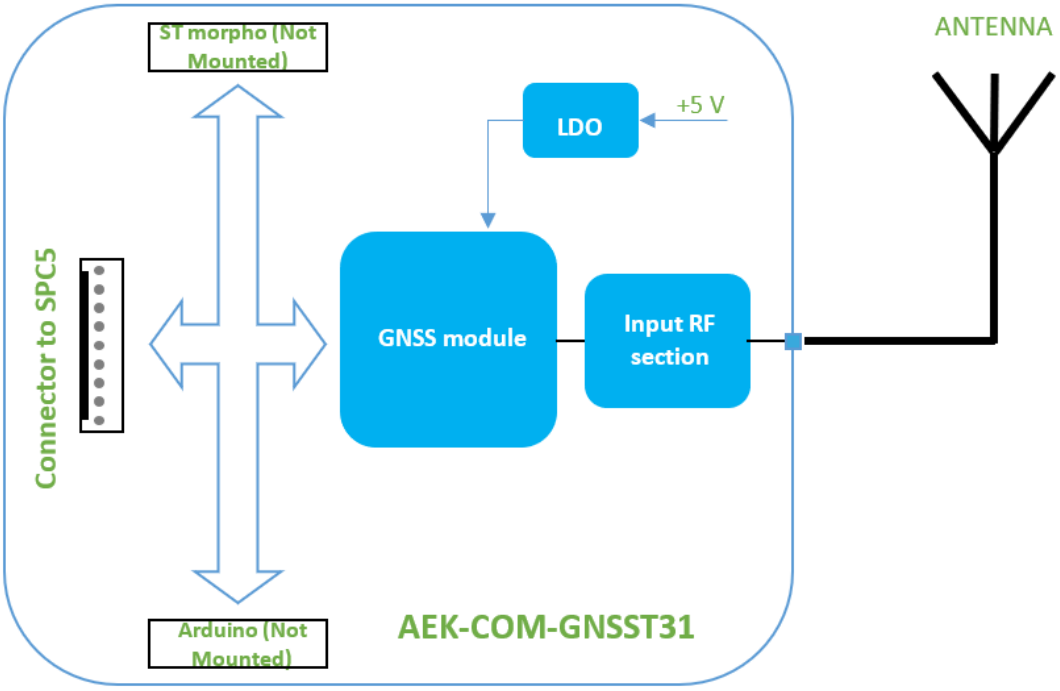
The tiny, affordable, and easy-to use module guarantees superior accuracy and reduced time to first fix (TTFF) thanks to the on-board 26 MHz temperature compensated crystal oscillator (TCXO) and dedicated 32 KHz real-time clock (RTC) oscillator.

The evaluation package is used in conjunction with the X-CUBE-GNSS1 firmware to provide the necessary acquisition, tracking, navigation and data output functionality without external memory support.

The AEK-COM-GNSST31 evaluation board can be readily connected with an SPC5 MCU for automotive application development as part of the AutoDevKit™ initiative.

1 Block diagram

Figure 1. **AEK-COM-GNSST31 block diagram**



2 Schematic diagrams

Figure 2. AEK-COM-GNSST31 schematic diagram (1 of 3)

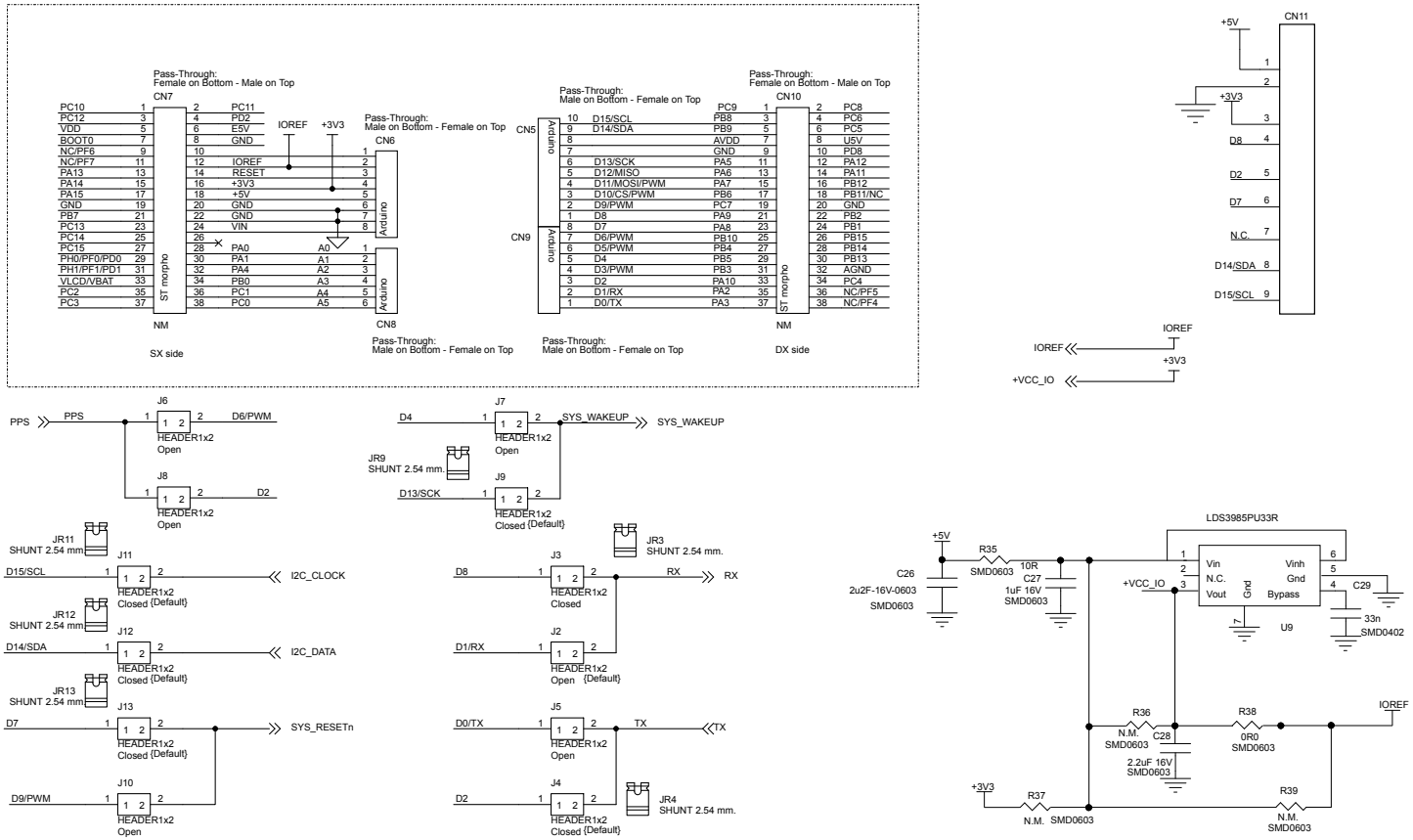


Figure 3. AEK-COM-GNSST31 schematic diagram (2 of 3)

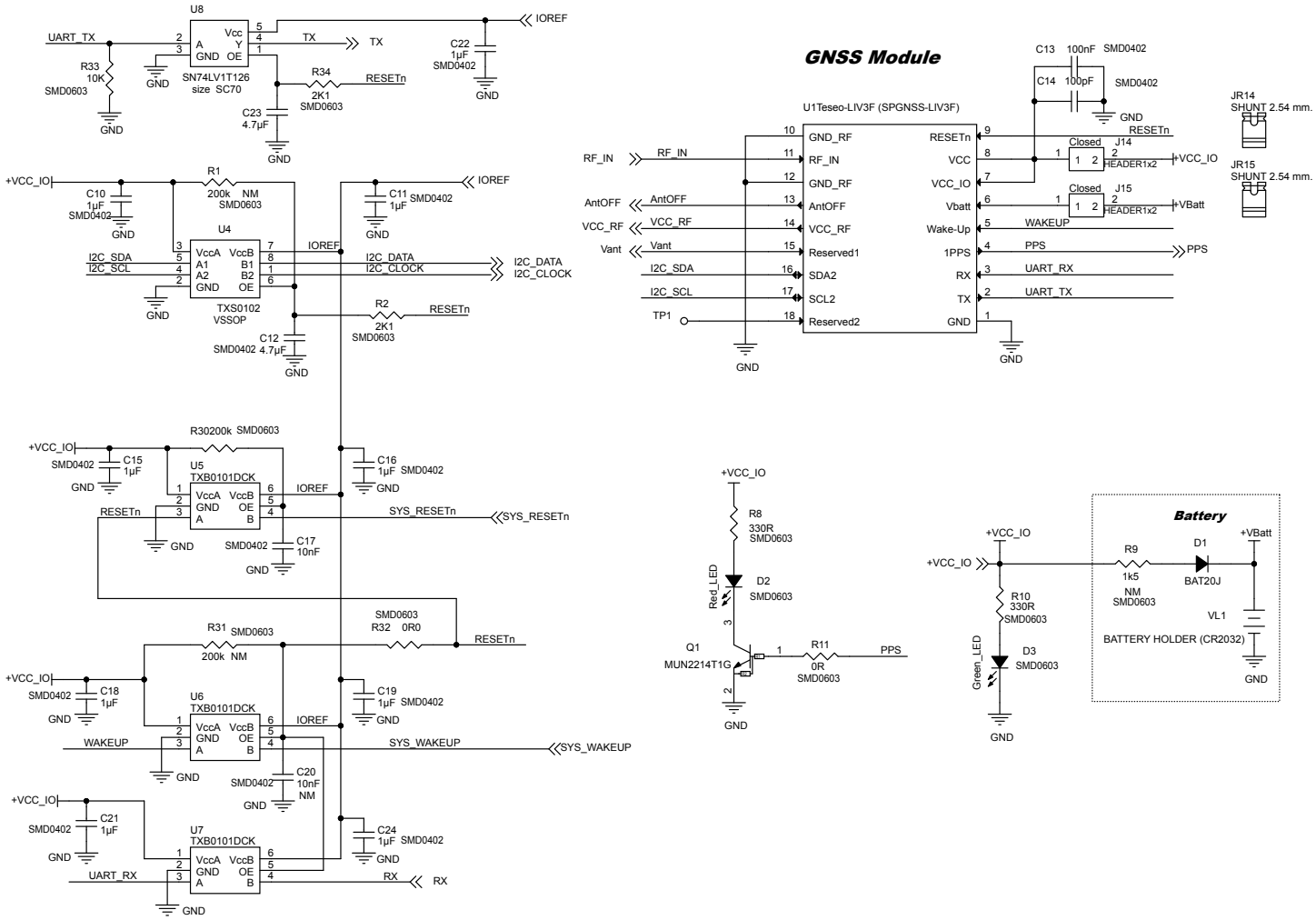
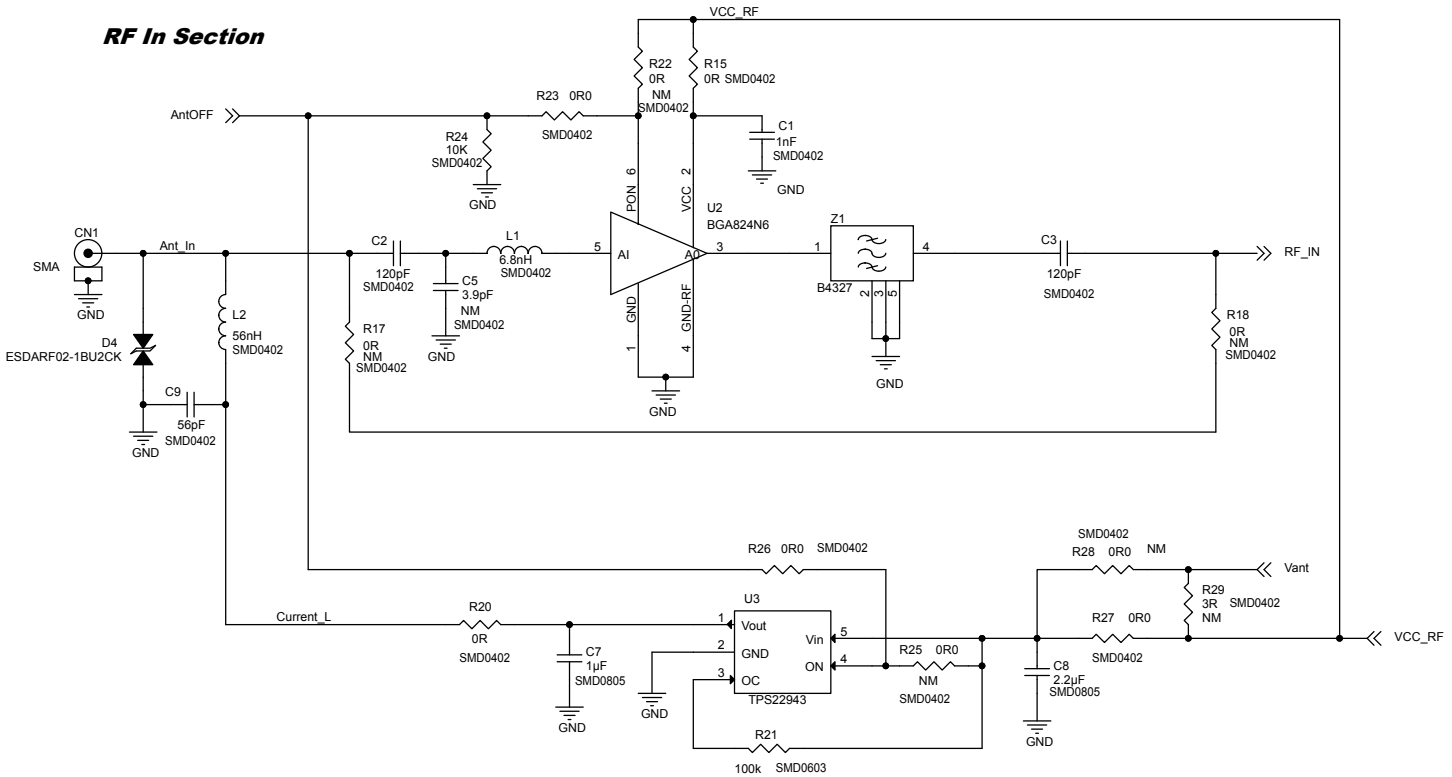


Figure 4. **AEK-COM-GNSST31 schematic diagram (3 of 3)**



Revision history

Table 1. **Document revision history**

Date	Version	Changes
03-Feb-2020	1	Initial release.

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