



ACORDE's ACGNS_L1-E1_FE-V2 consists of a GNSS front-end (FE) with USB interface optimized for real-time Software Defined Radio (SDR) applications and signal recording. The FE is designed to work at GPS L1 and Galileo E1 band. The module is optimized for its use with an external active antenna but can be easily configured to work with passive antennas as well, by switching the input LNA.

The device is fully software reconfigurable and can be customized (filtering, TCXO, Glonass/Compass support, software libraries...) according to user needs.

RECEIVER OEM SPECIFICATIONS

Input frequency.....	1575.42 MHz
Chipset	MAXIM 2769 RF Front End
FE 3dB Analog Bandwidth	{2.5, 4.2, 8 M Hz} band-pass, 9 MHz Low pass
FE NF	1.4 dB (passive antenna mode) / 2.7 (active antenna)
TCXO Frequency	10 to 40 MHz (16.384 MHz by default)
TCXO Stability	0.5 ppm
Sampling Frequency	TCXO/2, TCXO/4
Input Impedance	50 Ω
Optional reference input	10 MHz
Data Output	Interleaved IQ (signed byte I, signed byte Q)
AGC	Custom external AGC (provides gain currently applied)
USB Controller	Cypress FX2LP (High Speed)
Software	Library and examples provided

POWER SUPPLY

DC input voltage	4-5.25 V DC (USB bus powered)
Active Antenna supply voltage	3.3 V DC (provided by FE via input SMA connector)
Antenna Supply Current	20 mA max.

ENVIRONMENTAL SPECIFICATION

Storage temperature	-40 to +85 °C
Operating temperature	-20 to +55 °C
Relative humidity	Up to 95%

MECHANICAL SPECIFICATIONS

Interfaces:	
RF Input	SMA female
Optional Reference input.....	SMA female
Supply input and data output.....	Mini B type
Dimensions	86 mm x 74 mm
Weight	34.6 g

APPLICATIONS

- Research and Education
- Location Based Service
- GNSS applications developments
- Snapshot positioning
- Raw signal recording