

# AST - GNSS RF

## NAVIC/GPS/GLONASS/BeiDou RF Downconverter

The AST - GNSS RF Downconverter is a high performance, wide bandwidth, programmable content chip, suitable for Multi Frequency, Multi Constellation GNSS receivers. It can be conveniently used to receive signals from GPS, GLONASS, NavIC, Galileo, BeiDou, QZSS and GAGAN in L1/L2/L5 bands.



### Features

- AST - GNSS RF Downconverter supports all multiband signals NavIC, GPS, GLONASS, GALILEO, BeiDou, QZSS and GAGAN (L1/L2/L5 and S band)
- 64 MHz wide signal reception
- Low Active power consumption
- Highly Integrated, Minimal external components
- Near Zero, Complex IF Down Conversion
- 2-bit / 5-bit Digital outputs
- Programmable gain control
- Serial programming interface
- 32 Pin, 5x5 mm QFN package
- Temperature Grade -40 °C to +85 °C

### Applications

- Avionics
- IoT
- Wearables
- Asset Tracking
- Automotive

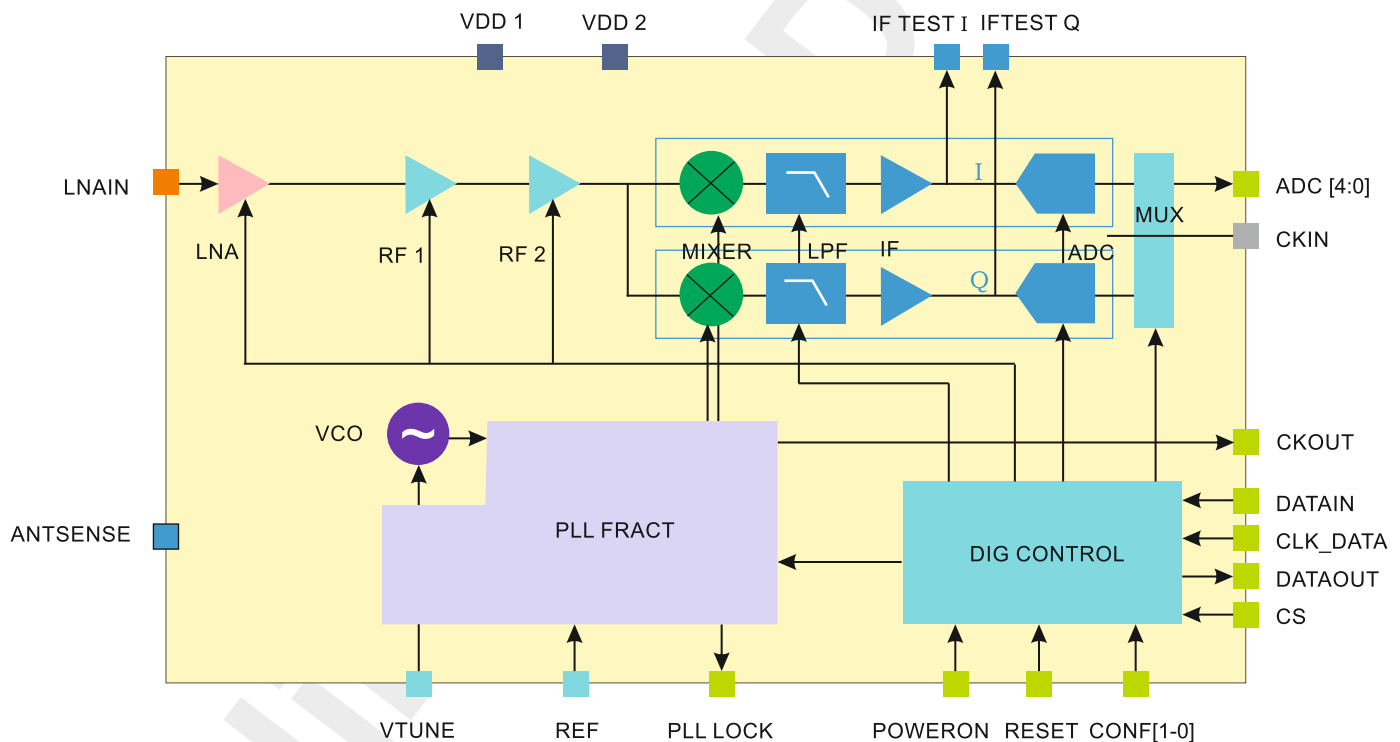
## AST-GNSS RF

The RF chip is a near-zero, complex IF down-conversion receiver.

The front end is highly integrated with an on-chip low noise amplifier (LNA), local oscillator, programmable gain blocks, single stage complex down-conversion, IF amplifier, wide bandwidth IF low pass filter and 2/5 bits analog-to-digital converter (ADC).

The on-chip PLL accepts a 16.369 MHz / 10 MHz reference clock. The Local oscillator is widely programmable to support down conversion of GNSS Signals in L1, L2, L5 frequency bands.

The RF chip supports wide bandwidth reception to accommodate signals from multiple constellations in any given GNSS band.



Functional Block Diagram

\* Information mentioned in this document is subject to change. Please contact us for more details.