External RF Front-End

Manufacturer:	STMicroelectronics, Inc
Package/Case:	QFN32
Product Type:	Discrete Semiconductor Modules
RoHS:	RoHS Compliant/Lead free ![RoHS]
Lifecycle:	Active
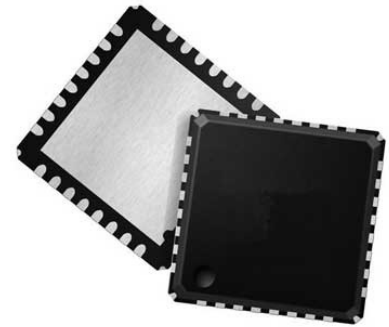
Images are for reference only

Inquiry

General Description

The STA5635S is a fully integrated RF front-end able to support different bands (L1/E1, L2C, L5/E5/E6) thanks to a programmable and flexible RF-IF chain driven by a fractional PLL. In particular, STA5635S is able to manage all the GNSS constellations available and planned in the next future like GPS, Galileo, Glonass, BeiDou, IRNSS and QZSS.The RF_IF chain is followed from a 2-bit ADC able to convert the IF signal to Sign (SIGN) and Magnitude (MAG) bit. The MAG bit is internally integrated in order to control the variable gain amplifiers. The VGA gain can be also set by the SPI interface. The embedded fractional PLL allows supporting a wide range of reference clocks (10 to 55 MHz) and generates a sampling clock available for the baseband.The STA5635S embeds two LDOs to supply at 1.1 V the analog and digital cores of the device facilitating requirements to external power supply. A third LDO can be turned-on to supply at 1.8 V external active components as a TCXO. The chip is manufactured in CMOS040nm technology and housed in a QFN package.

Key Features

AEC-Q100 Grade 2

Multi GNSS band support (L1/E1, L2C, L5/E5/E6)

Programmable IF bandwidth (7 or 13 MHz range)

3.3 V supply voltage

Fractional-N synthesizer with embedded loop filter

SPI Interface for full programmability

2 Bit A/D converter

ASIL compliance

Operating temperature (-40, +105 °C)

CMOS040 technology

QFN5x5 32 leads package

Recommended For You

STA5620

STMicroelectronics, Inc

QFN

ST25RU3993-BQFT

STMicroelectronics, Inc

QFN48

ST25R95-VMD5T

STMicroelectronics, Inc

QFN32

STA8090FG

STMicroelectronics, Inc

BGA

STA8088GA

STMicroelectronics, Inc

QFN

ST95HF-VMD5T

STMicroelectronics, Inc

QFN32

ST25DV16K-JFR6D3

STMicroelectronics, Inc

12UFDFPN

ST25R3920-AQWT

STMicroelectronics, Inc

VFQFPN32

ST25DV04K-IER6C3

STMicroelectronics, Inc

DNF8

STA8089GA

STMicroelectronics, Inc

QFN

STA8088FG

STMicroelectronics, Inc

VFQFPN56

ST25DV04K-IER6S3

STMicroelectronics, Inc

SOP8

SMA661ASTR

STMicroelectronics, Inc

SOT666

ST25R3916-AQWT

STMicroelectronics, Inc

QFN32

STM32WB55CGU7

STMicroelectronics, Inc

UFQFN48