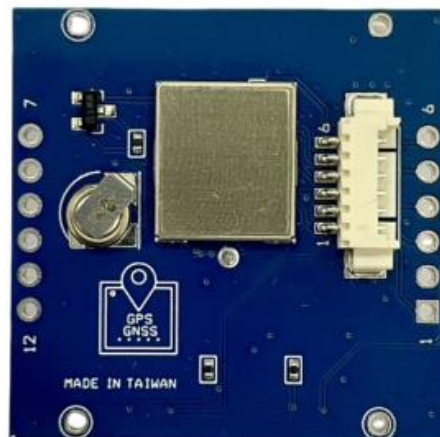


# RYS352A

+3.3V UART interface GNSS antenna module

Datasheet



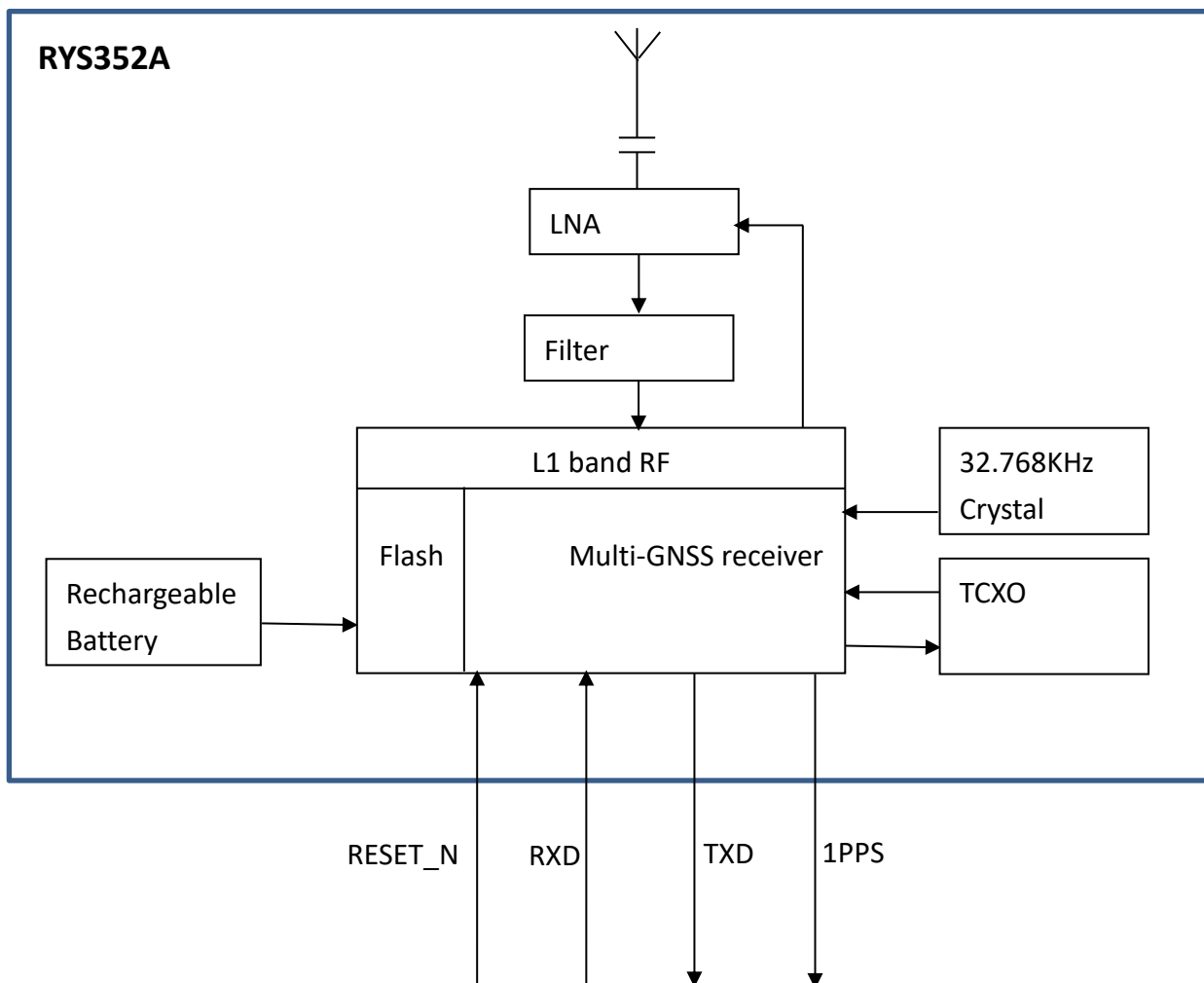
## PRODUCT DESCRIPTION

The RYS352A +3.3V GNSS antenna module is a multi-GNSS module with high sensitivity and performance, It supports GPS, GLONASS, Galileo, BeiDou and QZSS systems. It also supports SBAS, WAAS, EGNOS, MSAS and GAGAN and AGNSS functions.

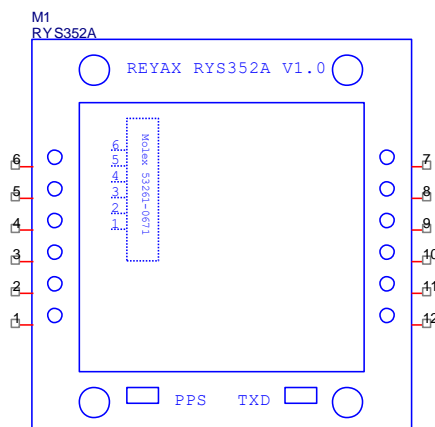
## FEATURES

- Multi-GNSS GPS/GLONASS/Galileo/BeiDou module.
- 72 Receiver channel number.
- Support for multi-GNSS including QZSS and SBAS ranging.
- Integrated 12 multi-tone active interference cancellers.
- Indoor and outdoor path detection and compensation.
- Including enhanced SAW filter, LNA and TCXO.
- Embedded GPS/Glonass/BeiDou Antenna
- RTC battery backup
- Max. 10Hz Navigation update rate
- PPS & TXD LED Indicator

## BLOCK DIAGRAM



## PIN DESCRIPTION



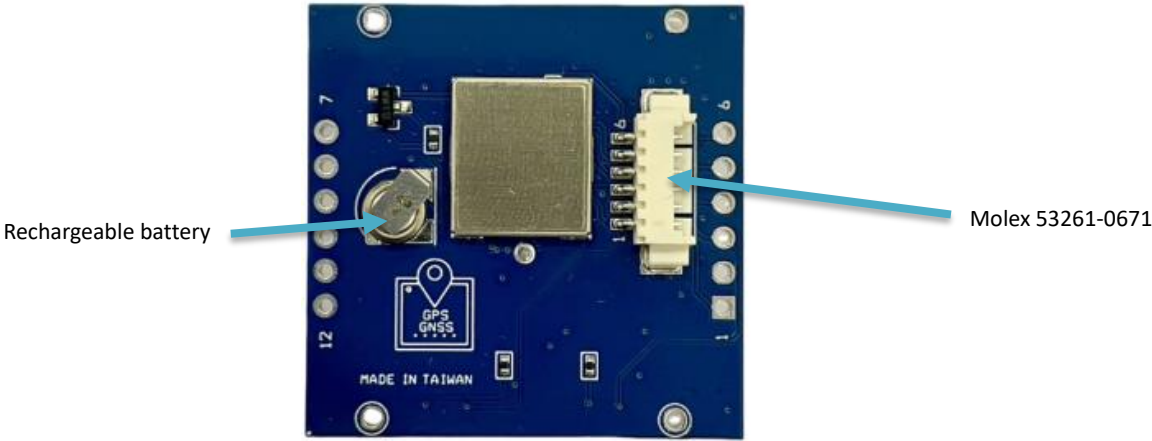
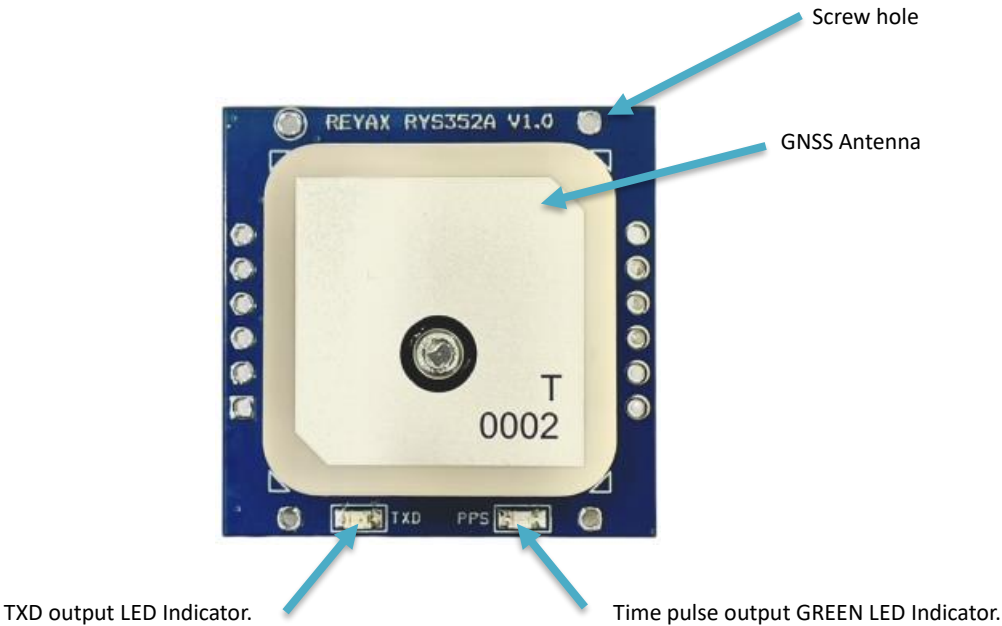
### Molex 53261-0671

Pin	Name	I/O	Condition
1	1PPS	O	Time pulse output.
2	GND	-	Ground
3	TXD	O	Serial interface Output.
4	RXD	I	Serial interface Input.
5	VCC	I	Power Supply and I/O Voltage. (+2.5~3.63V)
6	RESET_N	I	Pull down at least 100ms to reset the module.

### Pin

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1	1PPS	O	Time pulse output.
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6	RESET_N	I	Pull down at least 100ms to reset the module.
7	GND	-	Ground
8	GND	-	Ground
9	GND	-	Ground
10	GND	-	Ground
11	GND	-	Ground
12	GND	-	Ground

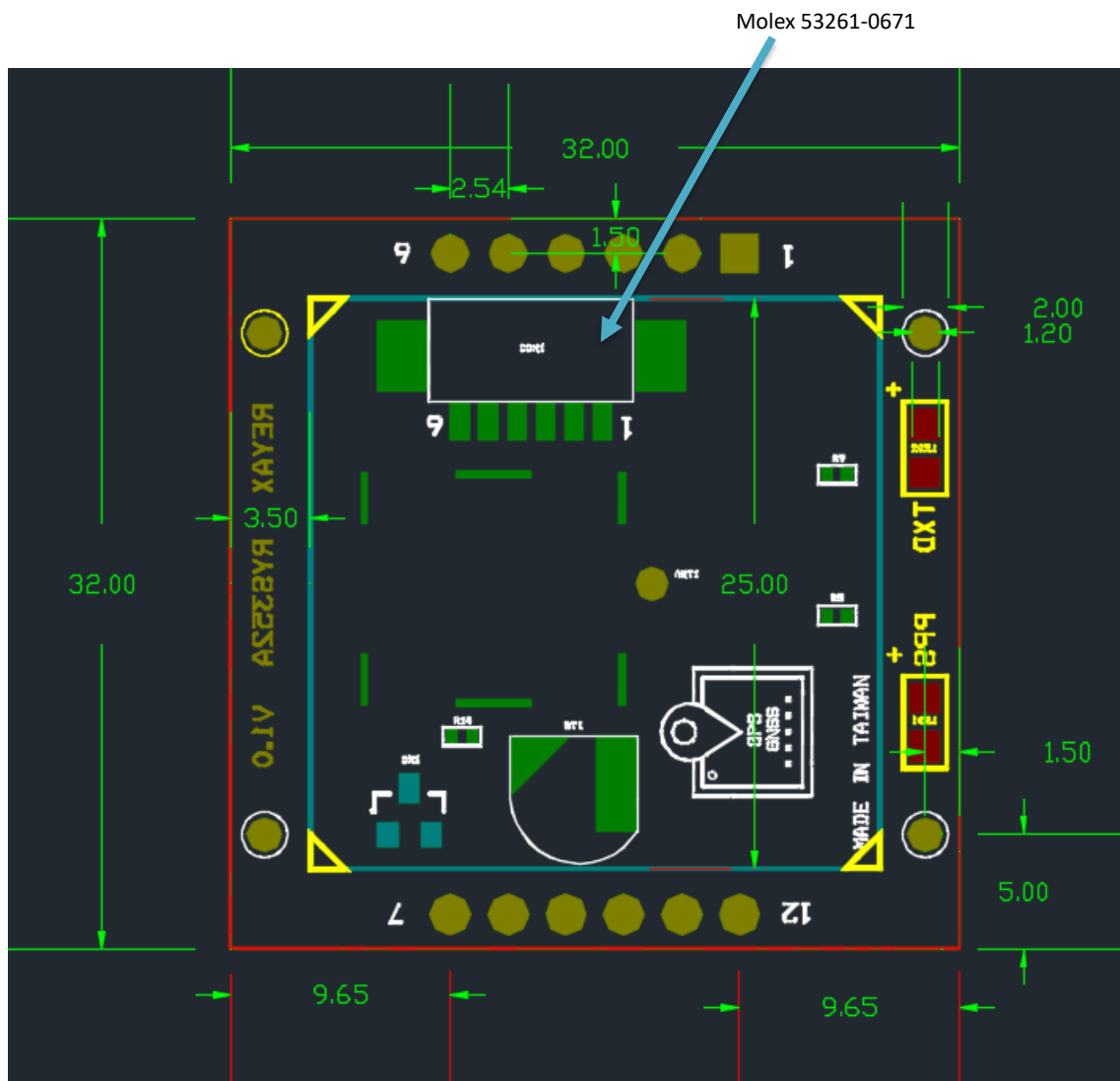
# PART FUNCTION



## SPECIFICATION

Item	Min.	Typical	Max.	Unit	Condition
Power Supply Voltage	2.5	3.3	3.63	V	VCC
Satellite acquisition Current		33		mA	
Satellite tracking Current		33		mA	
RTC backup Current		12		uA	
Default Baud Rate		115200		bps	8,N,1
Digital input level high	2		VCC+0.3	V	VIH
Digital input level low	-0.3		0.8	V	VIL
Digital output level high	2.4		VCC	V	VOH
Digital output level low			0.4	V	VOL
GNSS Center Frequency		1561.098 1575.42 1602.5625		MHz	BeiDou GPS、Galileo Glonass
Accuracy of 1PPS Signal		100		ns	
Navigation update rate		1	10	Hz	
Accuracy		1.5		M	CEP 50%, 24 hours static, more than 6 satellites, Signal strength is -130dBm
Cold starts without AGNSS		26		Sec.	Signal strength is -130dBm
Warm starts without AGNSS		20		Sec.	Signal strength is -130dBm
Hot starts without AGNSS		1		Sec.	Signal strength is -130dBm
Cold starts with EASY®		12		Sec.	Signal strength is -130dBm
Warm starts with EASY®		2		Sec.	Signal strength is -130dBm
Hot starts with EASY®		1		Sec.	Signal strength is -130dBm
Cold starts with Flash EPO®		5		Sec.	Signal strength is -130dBm
Tracking Sensitivity		-167		dBm	
Hot starts Sensitivity		-160		dBm	
Cold starts Sensitivity		-148		dBm	
Velocity		0.2		m/s	
Altitude		10000		M	
Acceleration		4		G	
Operating Temperature	-40	25	+85	°C	
Battery Capacity		1		mAHr	
Weight		13.6		gram	

## DIMENSIONS (BOTTOM VIEW)



Height : GNSS Antenna 4mm + PCB 1.6mm + Molex 53261-0671 3.4mm = 9mm

Unit : mm