GNS
ELECTRONICS

Low Power

Cost Effective

High Sensitivity
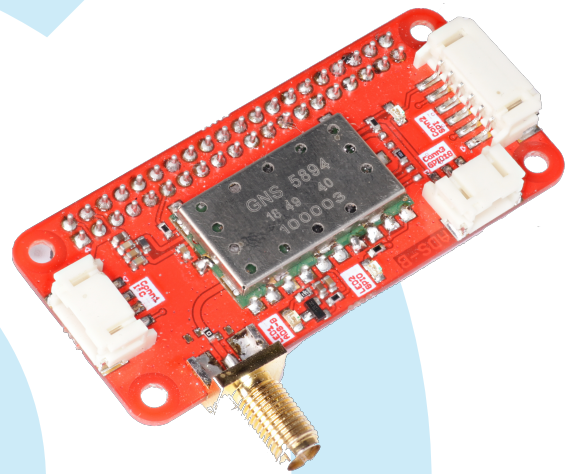
Product Summary

GNS Mode-S HAT - LR

Best in class sensitivity Mode-S HAT for Raspberry Pi

Top performance Mode-S HAT for versatile avionic applications

- Best-in-class sensitivity & frame rate
- No "doughnut effect"
- Ultra low power consumption (No FPGA)
- Low CPU performance requirement
- Switchable phantom power for active antennas

GNS Mode-S HAT

Operation Mode	
Mode-S	●
ADS-B	●
MLAT	●

Interfaces	
UART	1

Compatibility	
Supported Devices	Raspberry Pi & compatible devices

PRODUCT DESCRIPTION

The GNS Mode-S HAT is predestined for avionic applications that require high sensitivity, maximum framerate and reception range.

The GNS Mode-S HAT is ideally suited for Mode-S / ADS-B feeding and other similar demanding applications.

Installing the GNS Mode-S HAT with a Raspberry Pi is a plug & play process. The suited OS image including drivers and applications like virtual radar can be downloaded from our website www.gns-electronics.com.

Industry leading reception sensitivity of up to -95 dBm at an unmatched power consumption of 70 mA make the GNS Mode-S HAT the first choice for state of the art systems.

The low power consumption make the GNS Mode-S HAT much more eco-friendly than any comparable solution.

The unique RF and amplifier design along with optimized firmware realize an up to five times higher frame rate and double reception range than conventional software defined radio (SDR) Mode-S / ADS-B solutions. Additionally the GNS Mode-S HAT features free running MLAT support.

GNS Mode-S HAT - LR

▶ FEATURES

Receiver type	Tuned radio frequency receiver for 1090 MHz Mode-S / ADS-B
Sensitivity	-95 dBm

▶ ENVIRONMENTAL DATA, QUALITY & RELIABILITY

Operating temperature	–20 °C to +70 °C
Storage temperature	0 °C to +70 °C
RoHS compliant (lead-free)	

▶ ELECTRICAL DATA

Power supply (Vdd)	4.0 V to 5.5 V
Digital I/O voltage level	Vdd
Power consumption	70 mA

▶ INTERFACES

Serial interfaces	UART, (baudrate 3000 kbit/s)
Protocols	ASCII (AVR-Format, HULC protocol)

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Further information
For technical or commercial request, visit www.gns-electronics.com
For more product details and ordering information, see the product data sheet.

Made in Germany