■ General Description

The OCH1602S is Unipolar Hall effect sensor IC is fabricated from mixed signal CMOS technology. It is comprised of one Hall plate and a CMOS output drive, mainly designed for battery-operation. The total power consumption in normal operation is typically 5.6μW with a 2.8V power source.South/North poles of sufficient strength will turn the output on. The output will be turned off under no magnetic field.

The OCH1602S is available in SOT23-3L、DFN1216-4L-EP and SOT553 Package. Operating temperature range of the OCH1602S is from -40°C to 85°C.

■ Features

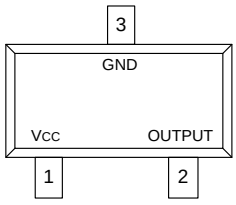
- 2uA Micro power consumption ideal for battery-powered applications
- Input Voltage Range:1.65V to 5.5V
- Very High Sensitivity Hall Sensor
- Chopper stabilized amplifier stage
- Good RF noise immunity
- CMOS Output
- SOT23-3L、DFN1216-4L-EP、SOT553 package

■ Applications

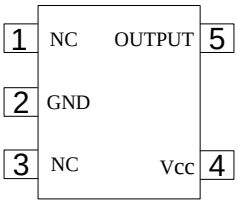
- Solid State Switch
- Bluetooth Headset

■ Pin Configuration

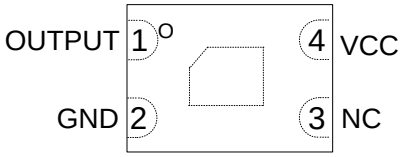
(Top View)



SOT23-3L



SOT553



DFN1216-4L-EP

Pin Name	Pin Number			Description
	SOT23-3L	SOT553	DFN1216-EP	
V_{CC}	1	4	4	IC Power Supply
OUTPUT	2	5	1	It is low state during the S magnetic field
GND	3	2	2	IC Ground
NC	-	1、3	3	Nc Pin

■ Application Circuit

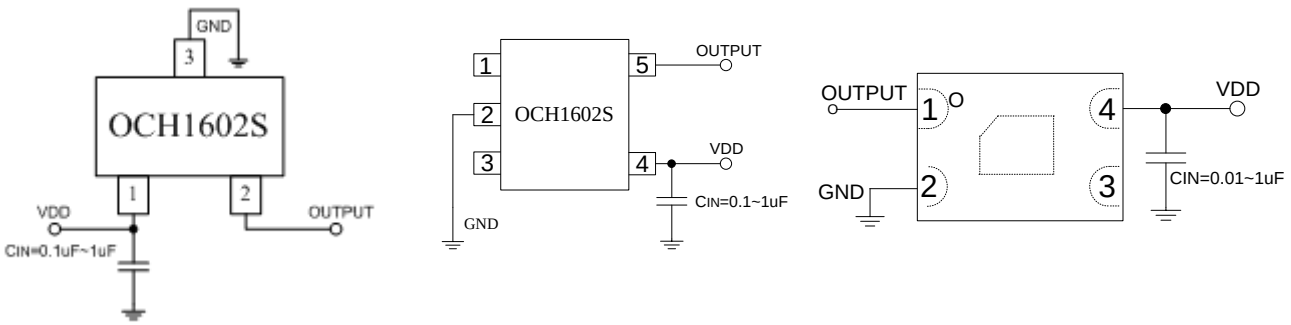


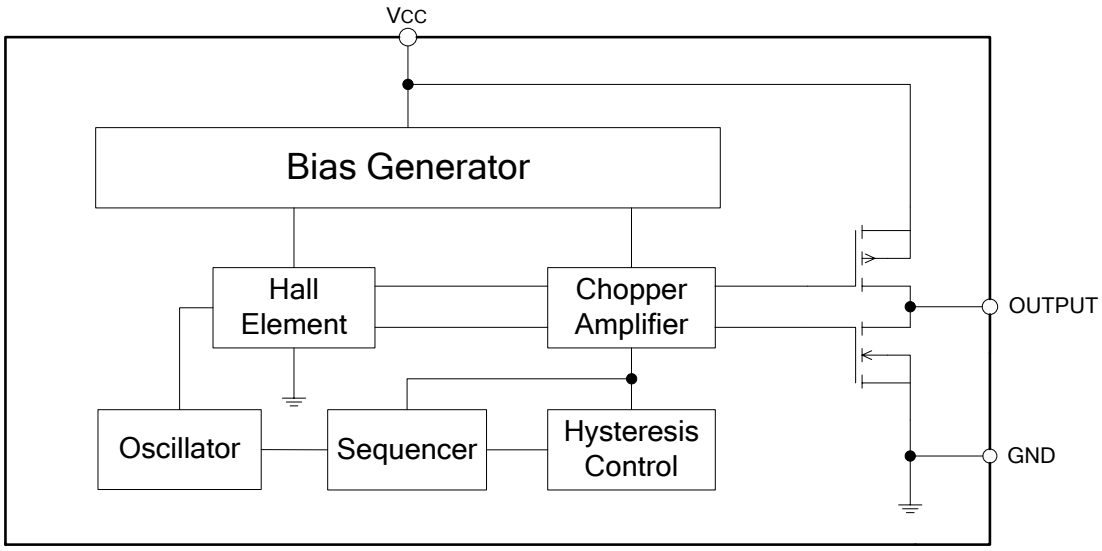
Figure 1, application circuit

Note: C_{IN} is for power stabilization and to strengthen the noise immunity, the recommended capacitance is 0.1~1uF.

■ Ordering Information

Part Number	Package Type	Packing Qty	B_{OP} (Gauss)	B_{RP}(Gauss)	Temperature	Eco Plan	Lead
OCH1602SWAD	SOT23-3L	3000pcs/Bag	40(Typ.)	30(Typ.)	-40~ +85℃	ROHS	Cu
OCH1602SSTAD	SOT553	3000pcs/Bag	40(Typ.)	30(Typ.)	-40~ +85℃	ROHS	Cu
OCH1602SEV4AD	DFN1216-4L-EP	3000pcs/Bag	40(Typ.)	30(Typ.)	-40~ +85℃	ROHS	Cu

■ Block Diagram



■ Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter		Symbol	Rating	Unit
V_{CC} to GND		V_{CC}	-0.3 to 6	V
Magnetic Flux Density		B	Unlimited	
Storage Temperature Range		T_S	-65 to +150	℃
Operating Junction Temperature Range		T_J	-40 to +150	℃
Maximum Power Dissipation	SOT553	P_D	230	mW
	DFN1216-4L-EP		500	
Maximum Soldering Temperature(at leads, 10 sec)		T_{LEAD}	260	℃

■ Recommended Operating Conditions (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Rating	Unit
Supply Voltage	V_{DD}	Operating	1.65 ~ 5.5	V
Operating Temperature Range	T_A	Operating	-40 ~ +85	℃