General Description

The OCH1661Omnipolar Hall effect sensor IC is fabricated from mixed signal CMOS technology. It is comprised of two Hall plates and a CMOS output driver, mainly designed for battery-operation. The total power consumption in normal operation is typically 3.6μW with a 1.8V power source and 18.5μW with a 5V power source. Either north or south poles of suffici

Ordering Information

Part Number	Package Type	Packing Qty	B_{OP} (Gauss)	B_{RP}(Gauss)	Temperature	Eco Plan	Lead
OCH1661WAD	SOT23-3L	3000pcs/Reel	±40(Typ.)	±30(Typ.)	-40~ +85°C	ROHS	Cu
OCH1661MD	SIP-3L	1000pcs/Bag	±40(Typ.)	±30(Typ.)	-40~ +85°C	ROHS	Cu

Block Diagram

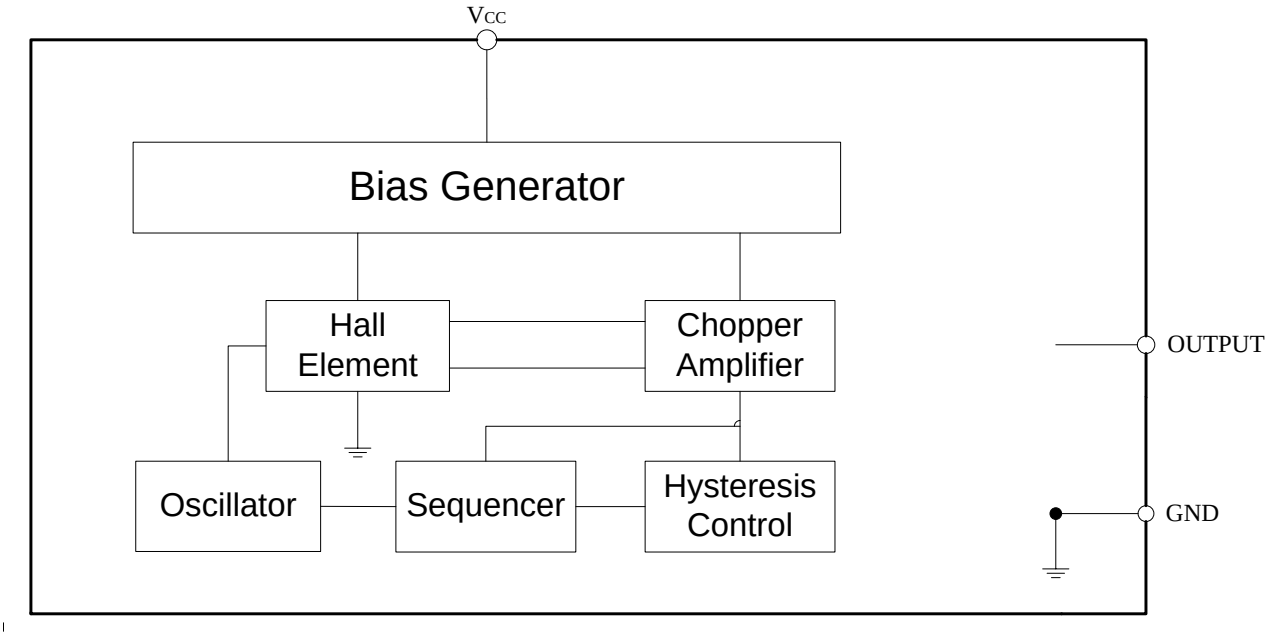


Figure 2, Block Diagram Of OCH1661

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

Parameter	Symbol	Rating	Unit
V_{CC} to GND	V_{CC}	-0.3 to6	V
Magnetic Flux Density	B	Unlimited	

Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_{OH}	Output On Voltage (High side)	T_A=-40~85°C, V_{DD}= 1.65~5.5V I_{OUT}=+1mA	V_{DD}-0.3	V_{DD}-0.02	V_{DD}	V
V_{OL}	Output On Voltage (Low side)	T_A=-40~85°C, V_{DD}= 1.65~5.5V I_{OUT}=-1mA	-	0.01	0.1	V
I_{cc}(EN)	Supply Current	Chip enable, T_A=25°C, V_{DD}= 1.8V		0.5	1.2	mA
I_{cc}(EN)		Chip enable, T_A=25°C, V_{DD}= 5V	-	1.1	1.8	mA
I_{cc}(EN)		Chip enable, T_A=-40~85°C, V_{DD}= 1.65~5.5V	-	1.1	2.6	mA
I_{cc}(DIS)		Chip disable, T_A=25°C, V_{DD}= 1.8V		0.8	2	μA
I_{cc}(DIS)		Chip disable, T_A				

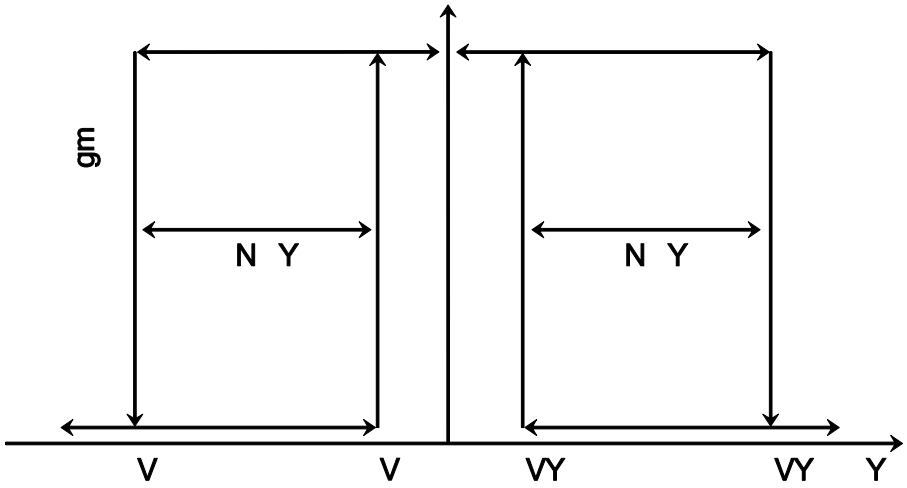


Figure 3, Magnetic Operational Characteristics Of OCH1661

Hall Sensor Location

(Top View)

Orientation	Value	Unit

SOT23-3L SIP-3L

Figure4, Hall Sensor Location

Land Pattern (for reference only)

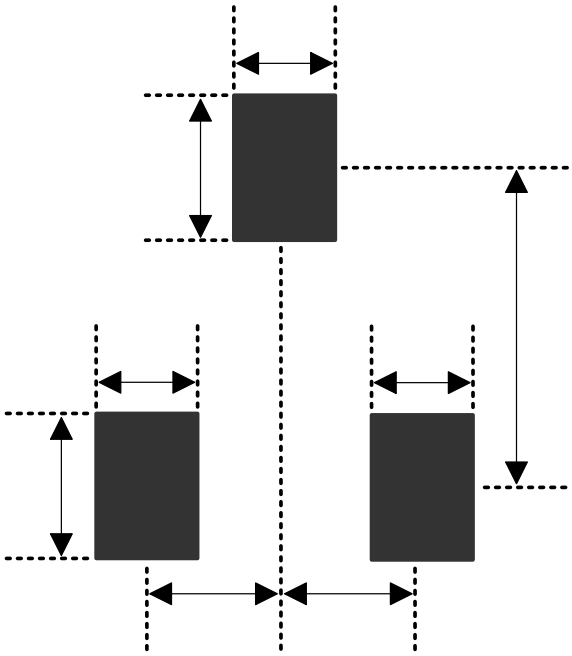


Figure 5, Land Pattern Dimension (SOT23-3L)

Marking Information

(Top View)

SOT23

Package Information

2) SIP-3L

Symbol	Dimensions In Millimeters			Dimensions In Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.90	3.00				

IMPORTANT NOTICE

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