



■ **General Description**

OCH1918 is 3-axis electronic compass IC with high sensitive Hall sensor technology. Small package of OCH1918 incorporates magnetic sensors for detecting terrestrial magnetism in the X-axis, Y-axis, and Z-axis, a sensor driving circuit, signal amplifier chain, and an arithmetic circuit for processing the signal from each sensor. Self-test function is also incorporated. From its compact foot print and thin package feature, it is suitable for map heading up purpose in Smart phone to realize pedestrian navigation function.

■ **Features**

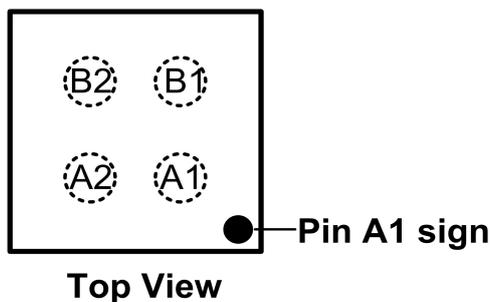
- 3-axis magnetometer device suitable for compass application
- Built-in A to D Converter for magnetometer data out
- 16-bit data out for each 3-axis magnetic component
 - ★ Sensitivity: 0.15 μ T/LSB (typ.)
- Serial interface
 - ★ I2C bus interface
 - ★ Standard and Fast modes compliant with Philips I2C specification Ver.2.1

- Operation mode
 - ★ Power-down, Single measurement, Continuous measurement and Self-test
- DRDY function for measurement data ready
- Magnetic sensor overflow monitor function
- Built-in oscillator for internal clock source
- Power on Reset circuit
- Self-test function with internal magnetic source
- Built-in magnetic sensitivity adjustment circuit
- Operating temperatures: -40°C to +85°C
- Operating supply voltage: +1.65V to +1.95V
- Current consumption:
 - Power-down: 1 μ A (typ.)
 - Measurement: Average current consumption at 100 Hz repetition rate: 2.3mA (typ.)
- Package: WL-CSP

■ **Applications**

- Smart phone
- Smart Watch
- Pad
- Consumer Applications

■ **Pin Configuration**

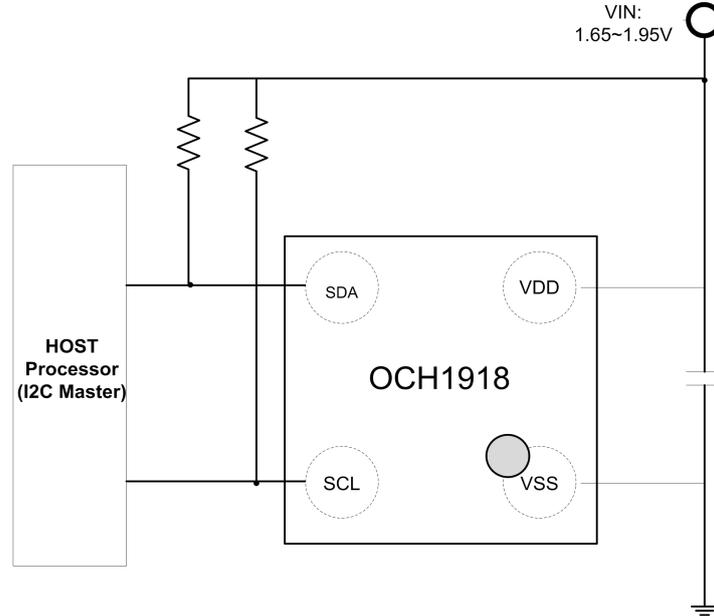


4-pin WL-CSP
Figure 1. Pin Assignments of OCH1918

Pin Name	Pin No.	I/O	Pin Function
VSS	A1	-	Ground pin
SCL	A2	I	Control clock input pin.
VDD	B1	-	Positive power supply pin
SDA	B2	I/O	Control data input/output pin.



■ Application circuit



■ Ordering Information

Part Number	Package Type	Packing Qty	Temperature	Eco Plan	Lead
OCH1918WPAD	WL-CSP	3000pcs	-40°C ~85°C	ROHS	Cu

■ Block Diagram and Functions:

