AK09919C

MP

3-axis electronic compass IC

Description

The AK09919C is a 3-axis electronic compass IC, also known as a magnetometer, with high-sensitibity Hall sensor technology.

The AK09919C has a built-in hihg-sensitibity magnetic sensor that detects geomagnetism, a sensor drive circuit, a signal amplifier, and a processing calculation logic, and outputs the magnitude of the magnetic field in each of X, Y, Z axes as digital value.
The AK09919C is ideal for application such as smartphone and smart watch that provide azimuth information for pedestrian navigation functions.

Key Features

- Upward compatible with AK09918C
- Supports I3C bus interface
- Built-in FIFO (16 steps) & 1.2V IO is supported.

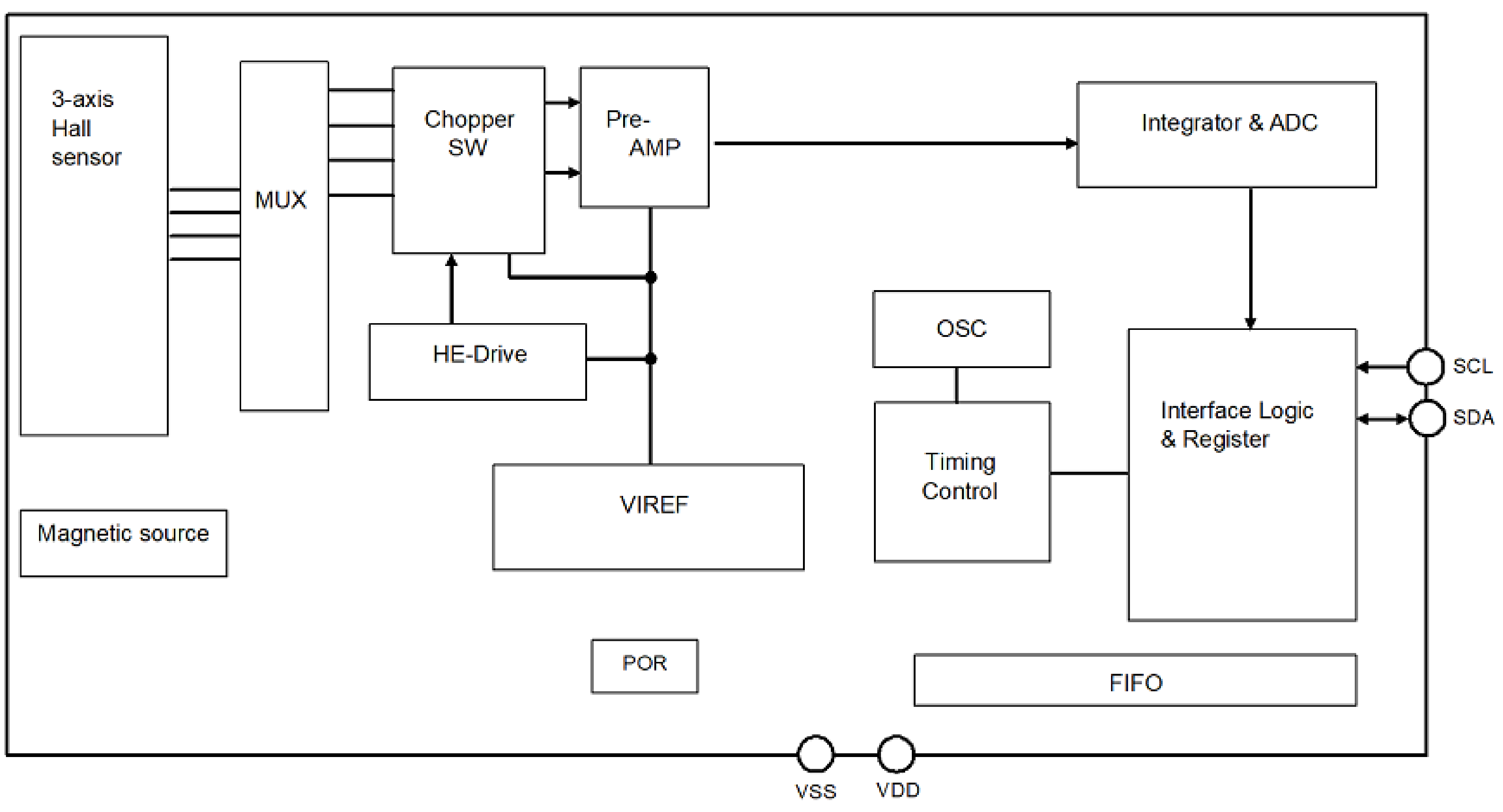
Applications

Smartphone, smart watch, Wireless headphone, AR/VR devices, etc.

Part Number	AK09919C
Sensitivity (TYP.) [μT/LSB]	0.15
Analog Power Supply Voltage (MIN.) [V]	1.65
Analog Power Supply Voltage (TYP.) [V]	1.8
Analog Power Supply Voltage (MAX.) [V]	1.95
Digital Interface Power Supply Voltage (MIN.) [V]	
Current Consumption Power-down (TYP.) [μA]	1
Current Consumption Measurement (TYP.) [μA]	1100 @100Hz
Control Interface	I3C/I²C
Operating Temperature [°C]	-30 to 85
Device Package	WLCSP
Number of Pins	4

Part Status	MP
Pb Free	Yes
Halogen Free	Yes
MSL	MSL1
Packaging	TAPE
JEDEC Standard Packaging	Compliant
Minimum Order Quantity [pcs.]	15000
Replacement P/N	

Block Diagram



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AK09919C Datasheet
English [200300034-E-00]
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