

[Electronic Compass](#)> AK09917D

AK09917D

3-axis electronic compass IC

 Inquiry

Description

Electronic Compass

Proven and trusted

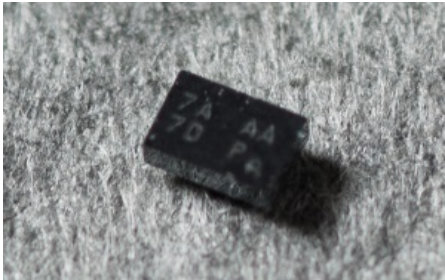
AKM Electronic Compass Technology



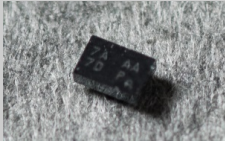
• **Three axis electronic compass compatible with I3C interface**

AK09917D adopted the I3C interface compatible with high-speed communication. Furthermore, while maintaining the high performance of AK09915D, the package size has been reduced to the same size as our product AK09916C.

AK09917D will contribute to the needs such as low power consumption of the system and reduction of the mounting area.




Key Features

	AK09917D Three axis electronic compass compatible with I3C interface	
Product Name	Product Name	AK09917D
Sensitivity	Sensitivity [μT/LSB]	0.15 / 0.30*
Output Bit	Output bit [bits]	16
Measurement Range	Measurement range [μT]	±4900
Maximum ODR	Maximum ODR [Hz]	100 / 200*
Peak Current	Peak current [mA]	2
Current Consumption	Current consumption(@100Hz ODR) [mA]	1.1 / 0.6*
Supply Voltage	Vdd [V]	1.65 to 1.95

Supply Voltage	V <sub>id</sub> [V]	N/A
Interface	I/F	I <sup>2</sup> C / I3C
Package	Package WL-CSP size [mm]	5-pin WLCSP(BGA) 0.4mm pitch 1.2 x 0.8 x 0.5

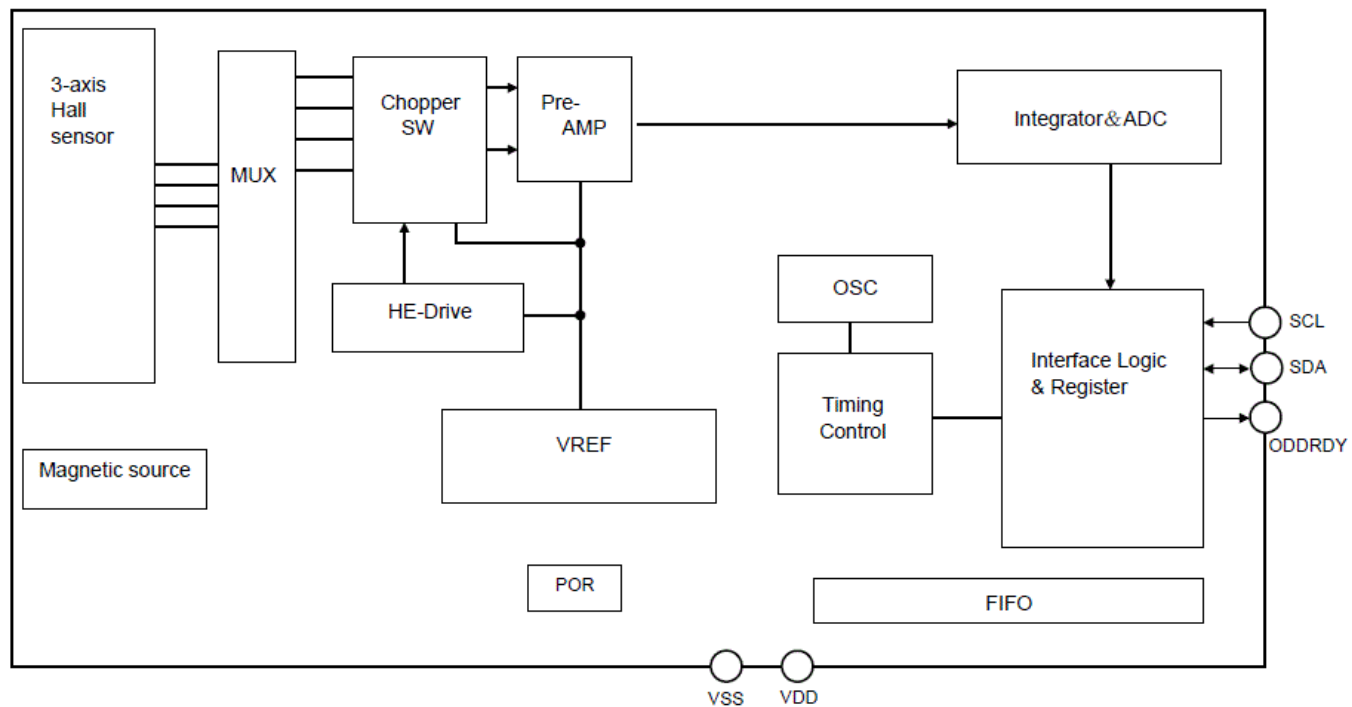
[Notes] \* Low Power Drive

## Line-up

Product Name		<b>NEW AK09917D</b> 3-axis electronic compass IC	<b>AK09918C</b> 3-axis electronic compass IC	<b>AK09915C/D</b> <a href="#">3-axis electronic compass IC</a>
Sensitivity	[ $\mu$ T/LSB]	0.15/0.30	0.15	
Output Bit	[bits]	16		
Measurement Range	[ $\mu$ T]	±4900		
Maximum ODR	[Hz]	100 / 200	100	200
Peak Current	[mA]	2	2	2.1
Current Consumption	(@100Hz ODR) [mA]	1.1 / 0.6*	1.1	0.9
Supply Voltage	[V]	VDD: 1.65 to 1.95		VDD: 1.65 to 3.6
Interface	I/F	I <sup>2</sup> C / I3C	I <sup>2</sup> C	I <sup>2</sup> C / 4-wire SPI
Data Ready output pin		Open drain	—	Push pull / Open drain
FIFO buffer	FIFO buffer	32-step	—	32-step
Operation Temperature		-30 to 85 °C		
Package	size [mm]	5-pin WLCSP(BGA) 0.4mm pitch (1.2 x 0.8 x 0.5)	4-pin WLCSP 0.4mm pitch (0.76 x 0.76 x 0.5)	14-pin WLCSP 0.4mm pitch (1.6 x 1.6 x 0.5)
Sales Start		Jan 2018	Feb 2017	2016
Status		Available Now RND*		
Samples <a href="#">Distributors /</a> <a href="#">Representatives</a>				Global WEB Distributor 

[Notes] \* Low Power Drive

## Block Diagram

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