

MST Product Selection Guide

2023

Magnesensor Technology Ltd



IN THIS GUIDE

Foundation

Spirit

Our Missions

Our Products

Product Quality

Application Scope

R&D Strengths

MST Manufacturing

Certification

QA

Contact

Latch

3-3

Direction

3-3

Fan driver

4-4

Linear Hall Effect

5-5

Omni-polar Switch

6-7

Uni-polar Switch

8-8

MH23X-MH25X-MH26X

9-10

MH48X-MH49X

11-11

Magnetic Angular Sensor

12-12

Magnetic Joy Stick

12-12

AMR Position Module

12-12

Hall Element

13-13

Current Sensor

13-13

Pressure Sensor

14-14

Magnetic Encoder

15-16

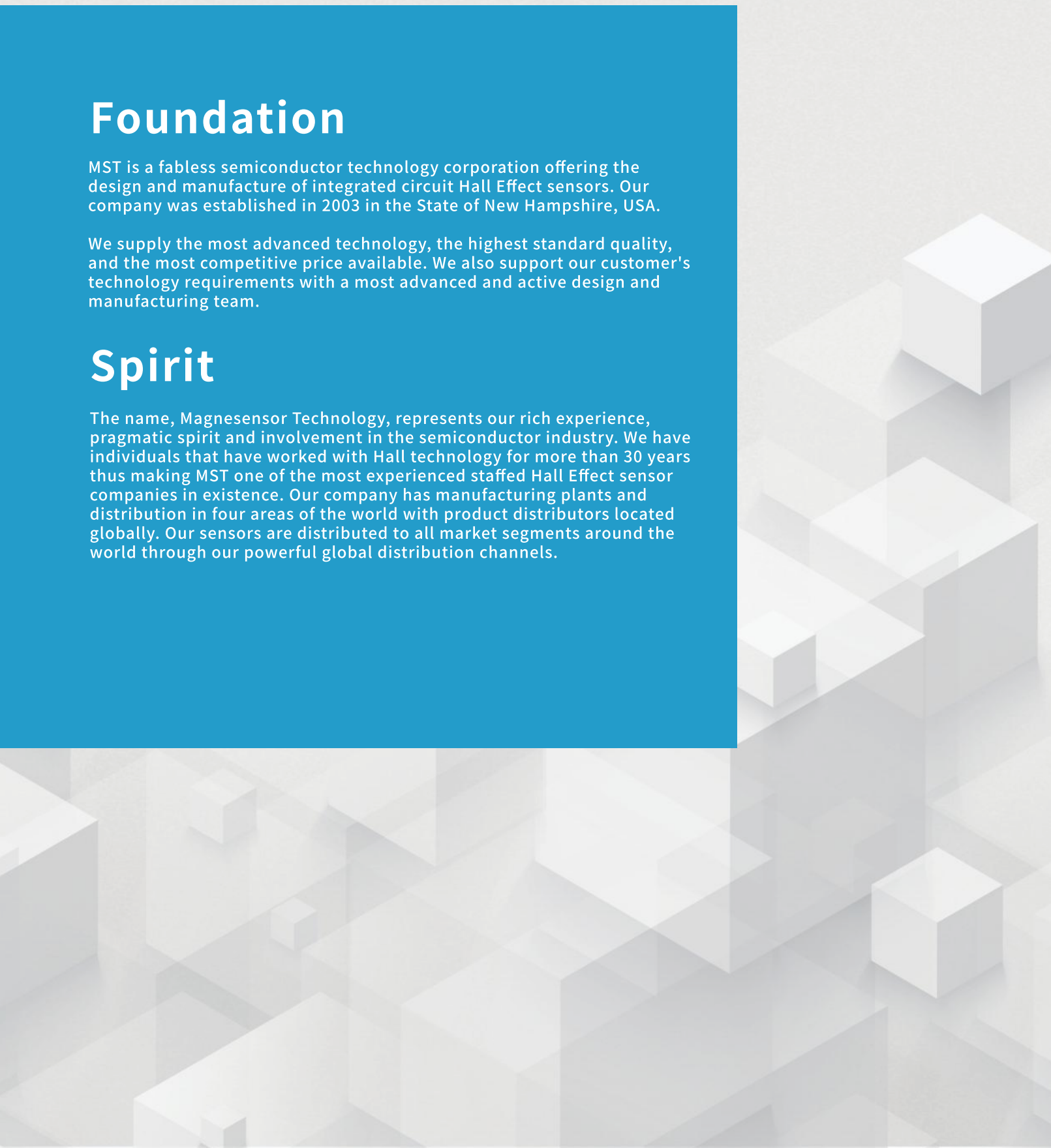
Foundation

MST is a fabless semiconductor technology corporation offering the design and manufacture of integrated circuit Hall Effect sensors. Our company was established in 2003 in the State of New Hampshire, USA.

We supply the most advanced technology, the highest standard quality, and the most competitive price available. We also support our customer's technology requirements with a most advanced and active design and manufacturing team.

Spirit

The name, Magnesensor Technology, represents our rich experience, pragmatic spirit and involvement in the semiconductor industry. We have individuals that have worked with Hall technology for more than 30 years thus making MST one of the most experienced staffed Hall Effect sensor companies in existence. Our company has manufacturing plants and distribution in four areas of the world with product distributors located globally. Our sensors are distributed to all market segments around the world through our powerful global distribution channels.



Our missions



Provide recognizable value to our customers



Provide the most reliable and advanced technology products



Provide products that increase sales and profits of our customers



Provide our customers with an endless supply of innovative products



Maintain a positive environment for our partners and customers



Maintain a "Green" manufacturing environment world wide

*Temperature:E(-20°C~+85°C) ;I (-30°C~+105°C) ;K (-40°C~+125°C) ;L(-40°C~+150°C)

*Package:SO(SOT23-3L);ST(TSOT23-3L);SN(SOT553-5L);SQ(QFN 2020-3L);SP(Micro Sot23-3L);SF(SOT89-5L);
SH(SOT23-5L);SM(DFN1616-6);UA(TO92S-3L);VK(TO94-4L);VF(TO92S-5L);VL(TO94-3L);
SS(DFN1010-4L);SR(SOT23-6L);SD(DFN2020-6)

*OD:Open Drain output

*OC:Open collector output

*TSD:Thermal Shut-Down

*OCP:Over Current Protection

*SW:Soft Switching

*AR:Auto Restart

*FG:Frequency Generation

*RD:Revolution Detection

*PWM:Pulse Width Modulation

Latch

Low Operating Voltage Latch(1.8V/3V/5V)

Part Number	Package	Voltage range	Temperature	Bop/ Brp(Typ/Gauss)	Output current(Max)	OD	OC	Pull up	TSD	Micro Power	Reverse Protection	Note
MH178	UA/SO	2.0V~5.5V	E/K	+/- 30	10mA	V				V		Micropower Hall Effect Latch
MH179	UA/SO	2.0V~5.5V	E/K	+/- 30	10mA	V				V		Micropower Hall Effect Latch(2K Hz)

High Operating Voltage Latch(5V/12V/24V)

MH163	SO	3.5V~24V	E/K	+/- 30	100mA	V		V		V		General Purpose Hall Effect Latch(S->low)
MH173	SO	2.5V~26V	E/K	+/- 30	25mA			V		V		Built-in Pull High Res Hall Effect Latch(S->Low)
MH180	UA/SO/SF	2.5V~26V	E/K	+/- 50	25mA	V				V		General Purpose Hall Effect Latch
MH181	UA	3.5V~20V	E/K	+/- 50	25mA		V			V		General Purpose Hall Effect Latch
MH182	UA/SO	3.0V~24V	E/K	+/- 40	50mA	V						Multi-Purpose Hall Effect Latch
MH183	UA/SO	2.5V~26V	E/K	+/- 150	50mA	V				V		Ultra Low Sensitivity Hall Effect Latch
MH185	SO	2.5V~26V	E/K	+/- 30	25mA	V				V		High Sensitivity Hall Effect Latch (S->Low)
MH186	UA/SO	3.0V~26V	E/K	+/- 30	25mA	V				V		High Sensitivity Hall Effect Latch
MH188	UA/SO/SD	2.5V~26V	E/K	+/- 15	50mA	V				V		Ultra High Sensitivity Hall Effect Latch
MH189	UA/SO	3.0V~26V	E/K	+/- 15	50mA	V						High Sensitivity Hall Effect Latch(AECQ)
MH190	UA/SO	4.0V~30V	E/K	+/- 60	25mA		V			V		High Voltage, Bipolar Process, Hall Effect Latch
MH191	UA	4.0V~30V	E/K	-/+ 55	25mA		V			V		Inverted Output Hall Effect Latch
MH193	UA/SO	2.5V~26V	E/K	+/- 15	25mA			V		V		Built-in Pull High Res Hall Effect Latch
MH195	UA/SO	4.0V~30V	E/K	+/- 60	20mA		V					High Voltage, Bipolar Process, Hall Effect Latch(AECQ)

Direction

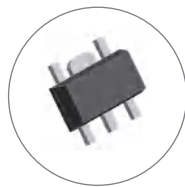
Part Number	Package	Voltage range	Temperature	Bop/ Brp(Typ/Gauss)	Output current(Max)	OD	OC	Pull up	TSD	Micro Power	Reverse Protection	Note
MH452	VK/SD	2.5V~26V	E/K	+/- 15	50mA	V				V		Dual Hall Speed and Direction Sensors



T092S-3L(UA)
4.0*3.0*1.52



SOT23-3L(SO)
2.9*1.6*1.1



SOT89-5L(SF)
4.5*2.5*1.5



DFN2020-6L(SD)
2.0*2.0*0.6



T094-4L(VK)
5.22*3.65*1.56

Fan driver

One coil fan driver

Part Number	Package	Voltage range	Temperature	Bop/Brp(Gauss)	Output current(Max)	Sorting										Short Protect	Reverse Protection	Note
						OD	OC	TP	SW	AR	FG	RD	PWM	TSD				
MH361	VK	3.5V ~ 20V	E/K	+/- 30(Max)	400mA			V		V	V	V		V				Single Phase Fan Motor Driver with Auto-restart
MH365	SR/SD/SM	1.8V ~ 5.5V	E/K	+/- 30(Max)	1000mA			V	V	V	V	V	V	V		V		Single Phase Fan Motor Driver with Soft-Switch
MH477	VK	3.5V ~ 20V	E	+/- 30(Max)	350mA			V						V				Single Phase Fan Motor Driver IC(CMOS Process)

Two coil fan driver

Part Number	Package	Voltage range	Temperature	Bop/Brp(Gauss)	Output current(Max)	Sorting										Short Protect	Reverse Protection	Note
						OD	OC	TP	SW	AR	FG	RD	PWM	TSD				
MH276T	VK	3.5V~20V	E	+/-50 (Max)		A	V							V	V	V	Complementary Output Fan driver (Bipolar Process)	
				+/-70 (Max)	700mA	B	V					V	V	V				
				+/- 100 (Max)		C	V					V	V	V				
MH277	VK	3.5V~20V	E	+/- 30(Max)	700mA		V						V		V		Complementary Output Fan driver(CMOS Process)	
MH284	VK	2.5V ~ 20V	E/K	+/- 30(Max)	1200mA		V			V			V		V		Hall-Effect Smart Fan Motor Controller	
MH381	VK/VF/SF	2.5V ~ 20V	E/K	+/- 30(Max)	1200mA		V			V	V	V		V				High peak current Fan driver + Thermal shut-down + FG/RD
MH382	VK/SF	4.5V ~ 30V	E/K	+/- 30(Max)	700mA		V			V	V	V		V				24V Fan Driver + Thermal shut-down + FG/RD



TO94-4L(VK)
5.22*3.65*1.56



SOT23-6L(SR)
3.0*1.6*1.1



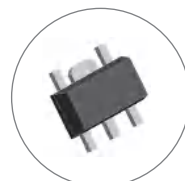
DFN2020-6L(SD)
2.0*2.0*0.6



DFN1616-6L(SM)
1.6*1.6*0.4



TO92S-5L(VF)
5.23*3.51*1.55



SOT89-5L(SF)
4.5*2.5*1.5

Linear Hall Effect

Our Products

Programming Linear

Part Number	Package	Voltage range	Temperature	Sensitivity	Out. Pt current (Max)	TP	Note
MH482	VK/VL	4.5V~5.5V	I	0.9~25mV/G	13mA	V	Programmable High speed Linear Hall
MH485	VL	4.5V~5.5V	I	0.9~25mV/G	13mA	V	High Speed Programming Linear Hall IC
MH486	VK	4.5V~5.5V	I	0.9~25mV/G	13mA	V	High Speed Programming Linear Hall IC+Vref
MH487	VK	4.5V~5.5V	I	0.9~25mV/G	13mA	V	High Speed Programming Linear Hall IC+Micro Power

AEC-Q100

Part Number	Package	Voltage range	Temperature	Sensitivity	Output current (Max)	TP	Note
MH489	VL	4.5V~5.5V	E	0.9~25mV/G	13mA	V	AEC-Q100 Automotive
MH490	VK	4.5V~5.5V	E	0.9~25mV/G	13mA	V	AEC-Q100 Automotive

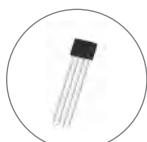
Ratio-Metric Linear

Part Number	Package	Voltage range	Temperature	Sensitivity	Output current (Max)	Sorting	TP	Note
MH465	UA/SO	2.8V~ 6.0V	E/K	4mV/G	5mA		V	Ratio-Metric High precision Low noise Linear hall sensor
MH481	UA/SQ/ST	3.0V~ 6.5V	I	2mV/G	10mA		V	Ratio-metric Linear Hall Effect IC
MH491	UA/SO	2.8V~ 6.0V	I	1.5mV/G	5mA	A	V	CMOS Ratio-Metric Linear Hall Effect IC
				2mV/G		B	V	
				2.5mV/G		C	V	
				3mV/G		D	V	
MH49A1	SD/SM	2.8V~ 6.0V	E/K	1.5mV/G, 2mV/G 2.5mV/G, 3mV/G	20mA		V	Multi-Sensitivity Ratio-Metric Linear Hall Sensor
MH492	UA/SO	2.8V~ 6.0V	I	5mV/G	5mA	A	V	CMOS Ratio_Metric Linear Hall Effect IC
				9mV/G		B	V	
MH49A2	SD/SM	2.8V~ 6.0V	E/K	3mV/G, 5mV/G 7mV/G, 9mV/G	20mA		V	Multi-Sensitivity Ratio-Metric Linear Hall Sensor
MH493	UA/SO	2.8V~ 6.0V	I	4mV/G	5mA	A	V	CMOS Ratio-Metric Linear Hall Effect IC
				7mV/G		B	V	
				10mV/G		C	V	
				13mV/G		D	V	

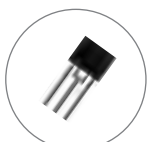


DFN1.6*1.6-6L(SM)
1.6*1.6*0.4

MH49A3 SD/SM 2.8V~ 6.0V E/K 4mV/G, 7mV/G, 10mV/G, 13mV/G 20mA V Multi-Sensitivity Ratio-Metric Linear Hall Sensor



TO94-4L(VK)
5.22*3.65*1.56



TO94-3L(VL)
5.22*3.65*1.56



TO92S-3L(UA)
4.0*3.0*1.52



QFN 2020-3L(SQ)
2.0*2.0*0.55



TSOT23-3L(ST)
2.9*1.6*0.8



SOT23-3L(SO)
2.9*1.6*1.1



DFN2020-6L(SD)
2.0*2.0*0.6

Omni-polar Switch

Low Operating Voltage Omni-polar Switch(1.8V/3V/5V)

Part Number	Package	Voltage range	Temperature	Bops/N(Typ/Gauss)	BH(Typ/Gauss)	Output current(Max)	OD	TP	SPD	Micro Power (µA)	Note
MH235	UA/ST	2.7V~5.5V	E	+/- 30	10	5mA	V	V	V	V	All-polarity (NS) output "action is LO"
	SS										All polarity (NS) output Hi+ Inverted-output high
	SD										All polarity (NS) output Hi+ Inverted-output high+ containing SPD acceleration PIN
MH235T	ST	1.7V~5.5V	E	+/- 30	10	1mA	V	V	V	Micropower 1.5µA CMOS Output Hall Effect Switch	
MH235H	UA/ST	2.7V~5.5V	E	+/- 30	10	5mA	V	V	V	Ultra low power, Inverted Omni-polar Hall Switch	
MH238	UA/ST	2.7V~5.5V	E	+/- 30	10	5mA	V	V	V	V	All-polarity (NS) output "action is LO"
	SS										All polarity (NS) output Hi+ Inverted - output Hi
	SD										All polarity (NS) output Hi+ Inverted-output high+ containing SPD acceleration PIN
MH238H	UA/ST	2.7V~5.5V	E	+/- 30	10	5mA	V	V	V	All polarity (NS) inverse output "action is Hi"	
MH248	UA/SO/ST/SQ	2.5V~3.5V	E	+/- 30	10	5mA	V	V	V	Omnipolar-CMOS Micropower Switch	
MH248-β	ST	2.5V~3.5V	E	+/- 40	10	5mA	V	V	V	Micro power Hall Effect Switch	
MH251	UA/SP/ST/SQ/SN/SO	1.65V~3.5V	E	+/- 30	10	1mA	V	V	V	Micropower CMOS Output Hall Effect Switch	
MH251-β	ST/SQ	1.65V~3.5V	E	+/- 40	10	1mA	V	V	V	Micropower CMOS Output Hall Effect Switch	
MH253	UA/SO	2.5V~6.0V	E/K	+/- 30	10	25mA	V	V	V	High Sensitivity Omni-Polar Hall Effect Switch	
MH253C	UA/SO	2.5V~6.0V	E/K	+/- 30	10	25mA	V	V	V	High Sensitivity Omni-Polar Hall Effect Switch	
MH255	SP/UA/ST	1.7V~5.5V	E	+/- 30	10	5mA	V	V	V	Micro power, General Purpose Hall Effect Switch	
MH256	UA/SO	2.5V~6.0V	E	+/- 30	10	5mA	V	V	V	Micropower CMOS Output Hall Effect Switch	
MH258	ST/UA/SO	1.7V~5.5V	E	+/- 30	10	10mA	V	V	V	Micropower Hall Effect Switch	
MH259	UA/SO	2.5V~6.0V	E	+/- 30	10	10mA	V	V	V	Micropower Open Drain Output Hall Effect Switch	
MH260	SS	1.7V~5.5V	E	+/- 30	10	5mA	V	V	V	Micro power, General Purpose Hall Effect Switch	
MH261	SS	1.7V~5.5V	E	+/- 30	10	10mA	V	V	V	Micro power, General Purpose Hall Effect Switch	
MH262	UA/ST	1.65V~3.5V	E	+/- 20	8	5mA	V	V	V	Ultra High Sensitivity Micropower Hall Switch	

Omni-polar Switch

High Operating Voltage Omni-polar Switch(5V/12V/24V)

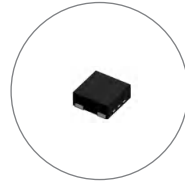
Part Number	Package	Voltage range	Temperature	BopS/N(Typ/Gauss)	BH(Tpy/Gauss)	Output current(Max)	OD	TP	Pull up	Note
MH271	UA/SO	2.5V~26V	E/K	+/- 80	20	25mA	V			Low Sensitivity Omni polar Switch
MH272	UA/SO	2.5V~26V	E/K	+/- 30	10	25mA	V			High Sensitivity Omni polar Hall Effect Switch
MH273	UA/SO	2.5V~26V	E/K	+/- 80	20	25mA		V		Low Sensitivity Omni polar Switch
MH274	UA/SO	2.5V~26V	E/K	+/- 30	10	25mA		V		High Sensitivity Omni polar Hall Effect Switch
MH275	UA/SO	2.5V~26V	E/K	+/- 175	45	25mA	V			Ultra Low Sensitivity Omni polar Switch
MH278	UA/SO	2.5V~26V	E/K	+/- 175	45	25mA		V		Ultra Low Sensitivity Omni polar Switch



TO92S-3L(UA)
4.0*3.0*1.52



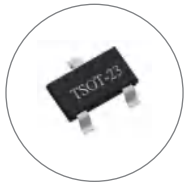
SOT23-3L(SO)
2.9*1.6*1.1



DFN1010-4L(SS)
1.0*1.0*0.4



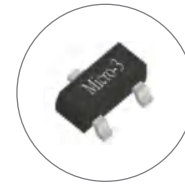
DFN2020-6L(SD)
2.0*2.0*0.6



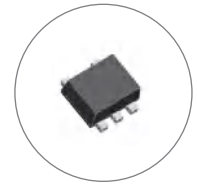
TSOT23-3L(ST)
2.9*1.6*0.8



QFN 2020-3L(SQ)
2.0*2.0*0.55



Micro
Sot23-3L(SP)
2.92*1.3*1.0



SOT553-5L(SN)
1.6*1.2*0.6

Uni-polar Switch

Low Voltage Uni-polar Switch(1.8V/3V/5V)

Part Number	Package	Voltage range	Temperature	Bop(Typ/Gauss)	BH(Typ/Gauss)	Output current(Max)	OD	TP	SPD	Micro Power (μA)	Note
MH232	SS/SD	2.7V~5.5V	E	±30	10	5mA	V	V	V		
MH232N	UA/ST	2.7V~5.5V	E	-30	10	5mA	V		V		Ultra-Low power Dual Output Hall Switch
MH232S	UA/ST	2.7V~5.5V	E	+30	10	5mA	V		V		
MH233	SS/SD	2.7V~5.5V	E	+/- 70	10	5mA	V	V	V		
MH233N	UA/ST	2.7V~5.5V	E	-70	10	5mA	V		V		Ultra-Low power Dual Output Hall Switch
MH233S	UA/ST	2.7V~5.5V	E	+70	10	5mA	V		V		
MH254	SQ/ST/UA/SS/SP SN	1.7V~5.5V	E	-30 +30	10	5mA	V		V		Unipolar Hall Effect Switch, SQ/ST/UA/SS/SP N polar active LO, SN S polar active LO
MH257	ST/SQ/SP/UA SN	1.7V~5.5V	E	+30 -30	10	5mA	V		V		Unipolar Hall Effect Switch,ST/UA S polar active LO, SN N polar active LO

High Voltage Uni-polar Switch(5V/12V/24V)

Part Number	Package	Voltage range	Temperature	Bop(Typ/Gauss)	BH(Typ/Gauss)	Output current(Max)	OD	TP	Reverse Protection	Note
MH281	UA/SO	3.0V~24V	E/K	175	45	50mA	V		V	Ultra Low Sensitivity Unipolar Hall Effect Switch
MH282	UA/SO	3.0V~24V	E/K	90	20	50mA	V		V	General Sensitivity Unipolar Hall Effect Switch
MH283	UA/SO	2.5V~24V	E/K	120	50	50mA	V		V	Low Sensitivity Unipolar Hall Effect Switch
MH285	UA/SO	2.5V~24V	E/K	25	8	50mA	V		V	High sensitivity Unipolar Hall Effect Switch



DFN1010-4L(SS)
1.0*1.0*0.4



DFN2020-6L(SD)
2.0*2.0*0.6



TSOT23-3L(ST)
2.9*1.6*0.8



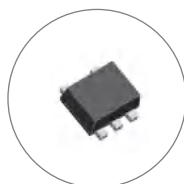
TO92S-3L(UA)
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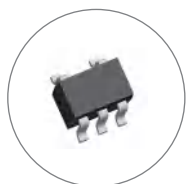
SOT23-3L(SO)
2.9*1.6*1.1



TO94-4L(VK)
5.22*3.65*1.56



SOT553-5L(SN)
1.6*1.2*0.6



SOT23-5L(SH)
2.9*1.6*1.1



QFN 2020-3L(SQ)
2.0*2.0*0.55

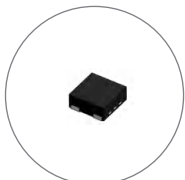


Micro
Sot23-3L(SP)
2.92*1.3*1.0

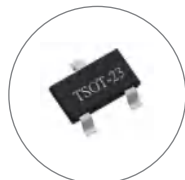
MH23X-MH25X-MH26X

MH23X

Part Number	Package	Voltage range	Temperature	BopS/N(Typ/Gauss)	BH	Output current(Max)	OD	TP	SPD	Micro Power (1.5µA)	Note
MH232	SS/SD	2.7V~5.5V	E	±30	10	5mA	V	V	V		
MH232N	UA/ST	2.7V~5.5V	E	-30	10	5mA	V		V		Ultra-Low power Dual Output Hall Switch
MH232S	UA/ST	2.7V~5.5V	E	+30	10	5mA	V		V		
MH233	SS/SD	2.7V~5.5V	E	+/- 70	10	5mA	V	V	V		
MH233N	UA/ST	2.7V~5.5V	E	-70	10	5mA	V		V		Ultra-Low power Dual Output Hall Switch
MH233S	UA/ST	2.7V~5.5V	E	+70	10	5mA	V		V		
	UA/ST						V		V		All-polarity (NS) output "action is LO"
MH235	SS	2.7V~5.5V	E	+/- 30	10	5mA	V		V		All polarity (NS) output Hi+ Inverted - output high
	SD						V	V	V		All polarity (NS) output Hi+ Inverted output+ containing SPD acceleration PIN
MH235T	ST	1.7V-5.5V	E	+/- 30	10	1mA	V		V		Micropower 1.5µA CMOS Output Hall Effect Switch
MH235H	UA/ST	2.7V~5.5V	E	+/- 30	10	5mA	V		V		Ultra low power, Inverted Omni polar Hall Switch
	UA/ST						V		V		All-polarity (NS) output "action is LO"
MH238	SS	2.7V~5.5V	E	+/- 30	10	5mA	V		V		All polarity (NS) output Hi+ Inverted- output high
	SD						V		V		All polarity (NS) output Hi+ containing SPD acceleration PIN
MH238H	UA/ST	2.7V~5.5V	E	+/- 30	10	5mA	V		V		All polarity (NS) inverted output "action is Hi"



DFN1010-4L(SS)
1.0*1.0*0.4



TSOT23-3L(ST)
2.9*1.6*0.8



TO92S-3L(UA)
4.0*3.0*1.52



DFN2020-6L(SD)
2.0*2.0*0.6

MH23X-MH25X-MH26X

MH25X

Part Number	Package	Voltage range	Temperature	Bop5)(Typ)(Gauss)	BH(Gauss)	Output current	OD	TP	SPD	Micro Power(μA)	Note
MH251	UA/SP/ST/SQ/SN/SO	1.65V~3.5V	E	+/- 30	10	1mA	V	V	V	V	Micropower CMOS Output Hall Effect Switch
MH251-β	ST/SQ	1.65V~3.5V	E	+/- 40	10	1mA	V	V	V	V	Micropower CMOS Output Hall Effect Switch
MH253	UA/SO	2.5V~6.0V	E/K	+/- 30	10	25mA	V				High Sensitivity Omni-Polar Hall Effect Switch
MH253C	UA/SO	2.5V~6.0V	E/K	+/- 30	10	25mA	V				High Sensitivity Omni-Polar Hall Effect Switch
MH254	SQ/ST/UA/SS/SP	1.7V~5.5V	E	-30	10	5mA	V	V	V	V	Unipolar Hall Effect Switch, SQ/ST/UA/SS/SP N polar active LO, SN S polar active LO
	SN			+30	10						
MH257	ST/SQ/SP/UA	1.7V~5.5V	E	+30	10	5mA	V	V	V	V	Unipolar Hall Effect Switch, ST/UA S polar active LO, SN N polar active LO
	SN			-30	10						
MH255	SP/UA/ST	1.7V~5.5V	E	+/- 30	10	5mA	V				Micro power, General Purpose Hall Effect Switch
MH256	UA/SO	2.5V~6.0V	E	+/- 30	10	5mA	V	V	V	V	Micropower CMOS Output Hall Effect Switch (High Speed)
MH258	ST/UA/SO	1.7V~5.5V	E	+/- 30	10	10mA	V				Micropower Hall Effect Switch
MH259	UA/SO	2.5V~6.0V	E	+/- 30	10	10mA	V	V	V	V	Micropower Output Hall Effect Switch (High Speed)

MH26X

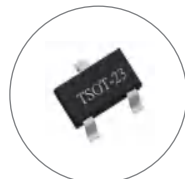
MH260	SS	1.7V~5.5V	E	+/- 30	10	5mA	V	V	V	V	Micro power, General Purpose Hall Effect Switch
MH261	SS	1.7V~5.5V	E	+/- 30	10	10mA	V	V	V	V	Micro power, General Purpose Hall Effect Switch
MH262	UA/ST	1.65V~3.5V	E	+/- 20	8	5mA	V				Ultra High Sensitivity Micropower Hall Switch



T092S-3L(UA)
4.0*3.0*1.52



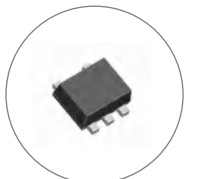
Micro
Sot23-3L(SP)
2.92*1.3*1.0



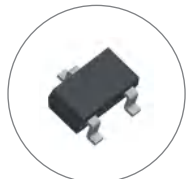
TSOT23-3L(ST)
2.9*1.6*0.8



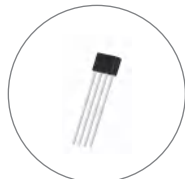
QFN 2020-3L(SQ)
2.0*2.0*0.55



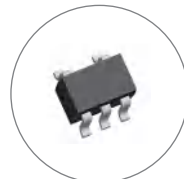
SOT553-5L(SN)
1.6*1.2*0.6



SOT23-3L(SO)
2.9*1.6*1.1



TO94-4L(VK)
5.22*3.65*1.56



SOT23-5L(SH)
2.9*1.6*1.1



DFN1010-4L(SS)
1.0*1.0*0.4

MH48X-MH49X

MH48X

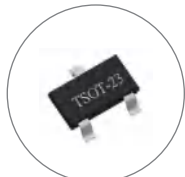
Part Number	Package	Voltage range	Temperature	Sensitivity	Output current (Max)	TP	Note
MH481	UA/SQ/ST	3.0V~ 6.5V	I	2mV/G (Typ)	10mA	V	Ratio-metric Linear Hall Effect Sensor
MH482	VK/VL	4.5V~5.5V	I	0.9~25mV/G	13mA	V	Programming High speed Linear Hall Sensor
MH485	VL	4.5V~5.5V	I	0.9~25mV/G	13mA	V	High Speed Programming Linear Hall IC
MH486	VK	4.5V~5.5V	I	0.9~25mV/G	13mA	V	High Speed Programming Linear Hall+Vref
MH487	VK	4.5V~5.5V	I	0.9~26mV/G	13mA	V	High Speed Programming Linear Hall + Micro Power



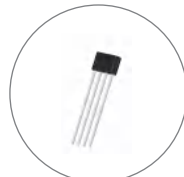
TO92S-3L(UA)
4.0*3.0*1.52



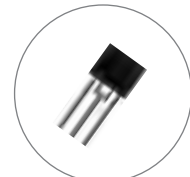
QFN 2020-3L(SQ)
2.0*2.0*0.55



TSOT23-3L(ST)
2.9*1.6*0.8



TO94-4L(VK)
5.22*3.65*1.56



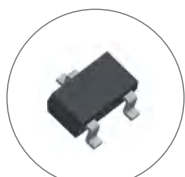
TO94-3L(VL)
5.22*3.65*1.56

MH49X

Part Number	Package	Voltage range	Temperature	Sensitivity	Output current (Max)	Sorting	TP	Note
MH491	UA/SO	2.8V~ 6.0V	I	1.5mV/G	5mA	A	V	CMOS Ratio-Metric Linear Hall Effect IC
				2mV/G		B	V	
				2.5mV/G		C	V	
				3mV/G		D	V	
MH49A1	SD/SM	2.8V~ 6.0V	E/K	1.5mV/G, 2mV/G 2.5mV/G, 3mV/G	20mA		V	Multi-Sensitivity Ratio-Metric Linear Hall Sensor
MH492	UA/SO	2.8V~ 6.0V	I	5mV/G	5mA	A	V	CMOS Ratio-Metric Linear Hall Effect IC
				9mV/G		B	V	
MH49A2	SD/SM	2.8V~ 6.0V	E/K	3mV/G, 5mV/G 7mV/G, 9mV/G	20mA		V	Multi-Sensitivity Ratio-Metric Linear Hall Sensor
MH493	UA/SO	2.8V~ 6.0V	I	4mV/G	5mA	A	V	CMOS Ratio-Metric Linear Hall Effect IC
				7mV/G		B	V	
				10mV/G		C	V	
				13mV/G		D	V	
MH49A3	SD/SM	2.8V~ 6.0V	E/K	4mV/G, 7mV/G 10mV/G, 13mV/G	20mA		V	Multi-Sensitivity Ratio-Metric Linear Hall Sensor



TO92S-3L(UA)
4.0*3.0*1.52



SOT23-3L(SO)
2.9*1.6*1.1



DFN2020-6L(SD)
2.0*2.0*0.6

Magnetic Angular Sensor

AG3

Voltage range(Min)	Operating Current(Max)	Power(Max)	Power On Output Response(Max)	Operating Temperature	Storage Temperature	Effective Electrical Angle	Shaft Rotation Wobble(Max)	Rotational Torque	Output Electric Angle Error	Noise(Max)	Refresh Frequency(Max)	Max Revolution	High Temp/Low Temp/Humid	ESD	Note
3.3V	10mA	0.05W	1 ms	E/K	I	360° Linear	±2°	20 ± 10 gf.cm	±1°	12mV	8.3 KHz	3600 RPM	V	V	360° Contactless Angle Sensor
									±3°	30mV	3.9 KHz	600 RPM	V	V	

Magnetic Joy Stick

HJ-08N

Operating Voltage	Operating Current(Max)	Output Current(Max)	Power	Output Response Time	Operation temperature	Storage temperature	Joystick Rotation type	Joystick operating angle(Max)	Rotational torque	Shaft Rotation Wobble(Max)	Contact Noise	Output Bandwidth	High Temp/Low Temp/Humid	ESD	Note
2.5~5 V	5mA	2.0 mA	0.008W~0.025W	3 μS	K	E	2D Rotating	55°	120 ± 50 gf.cm	±2°	<3mV	<20 KHz	V	V	Contactless Mini 3D Joystick

AMR Position Module

MF8B、MA93

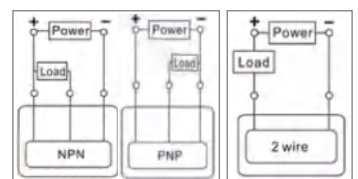
Wiring type	Output type (Auto)	Load voltage	Maximum load current	Internal voltage drop	Switch frequency	Leakage current	Operation temperature	Over current protect	Over temperature protect	Indicator light	Note
3-Wire	NPN , PNP	5V~ 30V	200mA	0.5V	1 KHz	50 uA	I	V	V		
2-Wire	-	5V~ 30V	100mA	3V	1 KHz	60 uA	I	V	V	Red LED	Non Contact Switch PCBA



AX3



HJ-08N



MF8B、MA93

Hall Element

ME101

Grade	Package	Supply Voltage, (V _C)	Temperature	Output Hall Voltage, (V _H) (E Rank)	Output Hall Voltage, (V _H) (F Rank)	Output Hall Voltage, (V _H) (G Rank)
E/F/G	S4/L4/Y4	1.0~2.0V	K	228~274mV	226~320mV	310~370mV

Current Sensor

MCCWxxx-Tx series

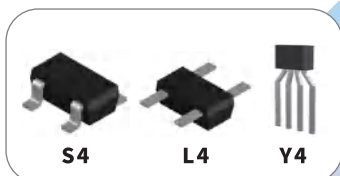
Voltage range	Temperature	Sensitivity	Supply current(Max)	Output current(Max)	Note
4.5V~ 5.5V	K	2.21~5.00mV/A	18mA	40mA	MCCWxxx-Tx Series Current Sensor Specifications

MCS series

Voltage range	Temperature	Sensitivity	Supply current(Max)	Output current(Max)	Note
4.5V~ 5.5V	K	40mV/A(TYP)	18mA	40mA	MCS series current sensor Specifications

MCS06K series

Voltage range	Temperature	Sensitivity	Supply current(Max)	Output current(Max)	Note
4.5V~5.5V	K	200mV/A (MCS06K-010BR (BF))	18mA	40mA	MCS06K Current Sensor Specifications



ME101



MCCWxxx-Tx series



MCS series



MCS06K series

Pressure Sensor

MM0106_10bar_MEMS

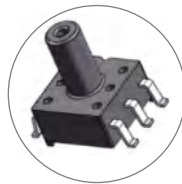
Operation Voltage (Typ.)	Operation Current (Typ.)	Bridge Impedance	Operating Pressure	Full Scale Span (Vin=5V)	Offset (Vin=5V)	Linearity	TC Span (Constan voltage)	TC Span (Constant current)	TC Offset (Typ.)	Temperature Range
5V	1mA	4.5~5.5kΩ	-1~10bar	40~70mV	-15~15mV	0.3~+0.3%F	0.17~-0.27 %FS/°C	-0.08~+0.08 %FS/°C	-0.08~+0.08 %FS/°C	-40~+85°C

MM0105_1bar_MEMS

Operation Voltage (Typ.)	Operation Current (Typ.)	Bridge Impedance	Operating Pressure	Full Scale Span (Vin=5V)	Offset (Vin=5V)	Linearity	TC Span (Constan voltage)	TC Span (Constant current)	TC Offset (Typ.)	Temperature Range
5V	1mA	4.5~5.5kΩ	-1~1bar	140~185mV	-15~15mV	0.3~+0.3%F	0.17~-0.27 %FS/°C	-0.08~+0.08 %FS/°C	-0.08~+0.08 %FS/°C	-40~+85°C

MM0102_0.48bar_MEMS

Operation Voltage (Typ.)	Operation Current (Typ.)	Bridge Impedance	Operating Pressure	Full Scale Span (Vin=5V)	Offset (Vin=5V)	Linearity	TC Span (Constan voltage)	TC Span (Constant current)	TC Offset (Typ.)	Temperature Range
5V	1mA	4.5~5.5kΩ	-0.8~0.48bar	60~90mV	-15~15mV	0.3~+0.3%F	0.17~-0.27 %FS/°C	-0.08~+0.08 %FS/°C	-0.08~+0.08 %FS/°C	-40~+85°C



Pressure Sensor

Magnetic Encoder

KEM2500D-8-OT

Operating Type	Resolution	B channel leading A channel	Rated Power	Operating Current	Output Frequency	Output Digital Voltage	Product Description
Motor Shaft Operating	2500 PPR	CCW, Viewed to the encoder from its mounting side	0.1W @Vdd=5V	Max: <20mA Typical: <10mA	≤12K recommended	HIGH:VOH ≥ 4.9V LOW:VLO ≤ 0.1V	ABZ+UVW DIFFERENTIAL INCREMENTAL ENCODER

KEM500D-OC

Operating Type	Resolution	B channel leading A channel	Rated Power	Operating Current	Output Frequency	Output Digital Voltage	Product Description
Motor Shaft Operating	500 PPR	CCW, Viewed to the encoder from its mounting side	2.4W @Vdd=24V	Max: <100mA	≤3K recommended	HIGH:VOH ≥ 20.0V LOW:VLO ≤ 6V	ABZ+UVW DIFFERENTIAL INCREMENTAL ENCODER

KEM1010B-9AD

Operating Type	Resolution	B channel leading A channel	Rated Power	Operating Current	Output Frequency	Output Digital Voltage	Product Description
Motor Shaft Operating	1024PPR	CCW, Viewed to the encoder from its mounting side	0.1W @ Vdd=24V	Max: <20mA Typical: <10mA	≤20K recommended	HIGH:VOH ≥ 4.9V LOW:VLO ≤ 0.1V	ABZ+DIFF+PWM INCREMENTAL ENCODER

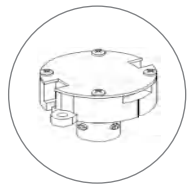
Magnetic Encoder

KEM17S-35-D

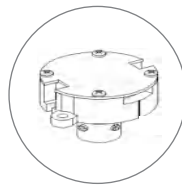
Operating Type	Resolution	Output Signals	Rated Power	Power-up Time	Consumption Current	Rotation Speed	Output Delay	Output Digital Voltage	Data Memory	Serial Communication	Product Description
Motor Shaft Operating	131,072 positions	Pure Binary	0.1W @ Vdd=5V	20ms max.	50mA typ.	≤7K Recommended	5μs	HIGH: VOH≥4.9V LOW: VLO≤0.1V	762 bytes	Communication rate 2.5Mbps	17 BIT ABSOLUTE ENCODER, SINGLE-TURN

KEM17M-OT-35mm

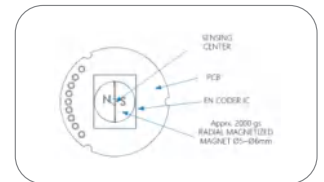
Operating Type	Resolution	Output Signals	Rated Power	Power-up Time	Consumption Current	Rotation Speed	Output Delay	Output Digital Voltage	Data Memory	Serial Communication	Product Description
Motor Shaft Operating	16 bit Multi-Turn, 17-bit one turn 131,072 absolute positions	Pure Binary	0.1W @ Vdd=5V for normal model.	3ms max.	500mA max.	≤6K Recommended	5μs	High: VOH≥4.9V LOW: VLO≤0.1V	762 bytes	Communication rate 2.5Mbps	16 BIT MULTI TURN 17 BIT SINGLE TURN ABSOLUTE ENCODER



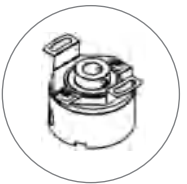
KEM2500D-8-OT



KEM500D-OC



KEM1010B-9AD



KEM17S-35-D



KEM17M-OT-35mm

Product Quality

AECQ-100

**Automotive Line
Qualified by AECQ-100**

JEDEC STD

**Commercial Line
Qualified by JEDEC**

<1.0PPM

**Product Quality Level
<1.0PPM**

Application Scope



BLDC



Automation



Artificial Intelligence



Smart Meter



Industry



Robot



Appliance 3C



Big Data



White Goods

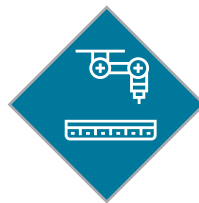


Automotive

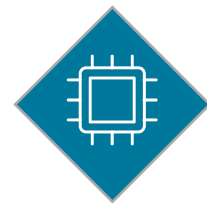
R&D Strengths



**Custom Made
Capability**



**Focus CMOS
Technology**



**Hall IC
MEMS Focus**

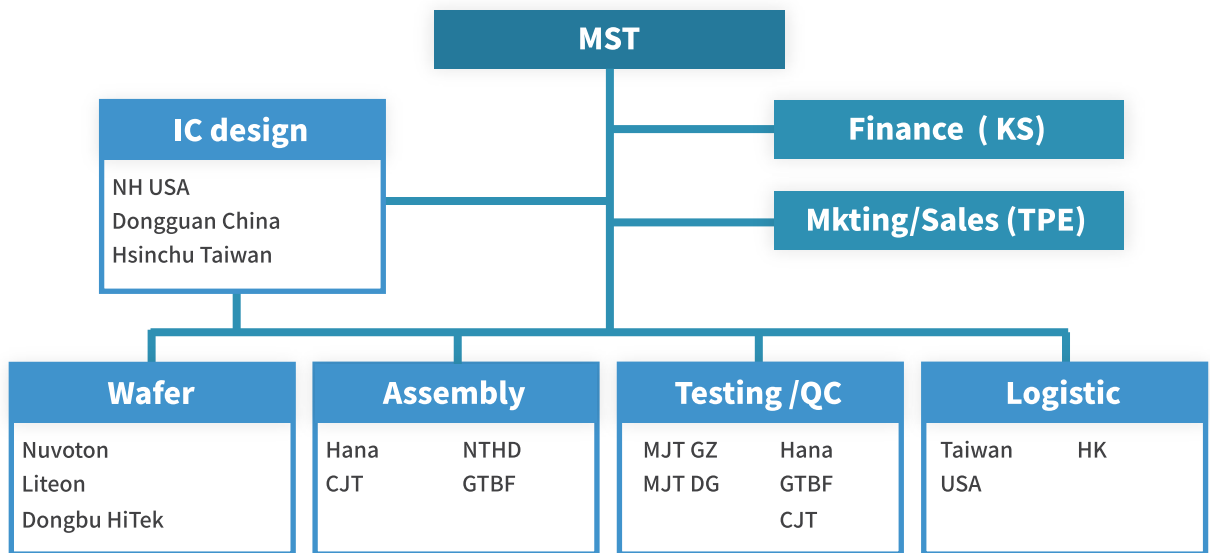


**Advance
Testing Skill**



**Strong
FAE Support**

MST Manufacturing



Certification



QA



Discipline & 6S Audits

Inspectors and Operators discipline will be audited **daily**.



System Audit

Quality Management System Audit will be carried out **twice** per year.



Product Audit

Customer product (base on end Product Requirement) will be audited **every month** based on different customers.



Process Audit

Manufacturing process (base on Control Plan) will be audited **every week** base on different customers.

Contact

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Product Selection Guide

www.magnesensor.com