
MECHATRONICS



MECHATRONICS INC.

Mechatronics Product / Process
Change Notification

MA4010M12C-RSR

09-14-2018

Mechatronics Product / Process Change Notification

Table 1. Change Identification

Product Family / Commercial Product	MA4010M12C-RSR
Type of change	IC change
Reason for change	Discontinuation of current IC
Description of change	Current production of IC part number FS209 has been discontinued. Change to IC part number GH9280 as a suitable replacement.
Product Line(s) and/or Part Numbers	MA4010M12C-RSR
Marking to identify changed product	By lot code
Manufacturing location(s)	China

Table 2. Change Implementation Schedule

Forecasted implementation date for change	July 20, 2018
Forecasted availability date of samples for customer	September 28, 2018
Estimated date of changed product first shipment from factory	September 14, 2018

Test Report on IC GH9280 of GoChip to Replace FS209 of Feeling Technology

一. Statement

Because IC FS209 is discontinued of production, we sourced and tested GH9280 of GoChip as a replacement. After tested the component and assembly, GH9280 can meet the specifications of current FS209.

二. Parameter comparison:

ITEM	FS209 IC	GH9280 IC	Different /Same	備註
Package	SIP-4L	SIP-4L	Same	
VCC	2~20V	2.8~20V	D	GH9280 start up voltage higher
ICC	20mA	3.5mA	D	GH9280 Icc lower (advantage)
IO	450mA	500mA	D	GH9280 Io higher (advantage)
Ip	1000mA	1200mA	D	GH9280 Ip higher (advantage)
PD	700mW	550mW	D	GH9280 lower
V _{ce(sat)}	1.1V	0.75V	D	GH9280 lower (advantage)
Gauss	±65Gs	±50Gs	D	GH9280 sense better (advantage)
Working Temperature	-20~+85℃	-20~+85℃	S	
Drive mode	Double coil drive	Double coil drive	S	
Auto-restart	NO	Y	D	GH9280 has auto-restart function(advantage)

※ Seen from above data, the functions of GH9280 can basically meet FS209. And V_{ce(sat)} is less than FS209 and it has auto-restart function, which are advantages than FS209.

三. Test contents:

- 一) Fan assembly test -----P2
- 二) Trial production test -----P2
- 三) Summary -----P3



70°C temperature baking

P3/3

二) · **Trial production test**

Trial production of 50 pcs MA4010M12C-RSR using H9280 IC have been proceeded, all specifications meet the requirements.

三) · **Summary**

※ It' s concluded that **FS209** can be replaced by **GH9280**.

HK Huang 2018/09/05

一) · Fan assembly test (MA4010M12C-RSR) :

1.Soldering to PCB is acceptable including soldering procedure proceeds well and soldering effect is good.

2 組裝成品測試確認 OK : (烤機前數據)

	1).OK	2).OK	3).OK	4).OK	5).OK
Start up voltage :	3.5V	3.5V	3.5V	3.5V	3.5V
Speed :	4867	5006	4762	5012	4925
Current :	0.03A	0.03A	0.03A	0.03A	0.03A

3. Reliability Test result acceptable (70°C/168Hrs)-----Data after reliability test:)

	1).OK	2).OK	3).OK	4).OK	5).OK
Start up voltage :	3.5V	3.5V	3.5V	3.5V	3.5V
Speed :	4895	5023	4812	5035	5028
Current :	0.03A	0.03A	0.03A	0.03A	0.03A

4. ON/OFF test and hot plug test result are acceptable (Before and after reliability test)

Polarity protect function test is acceptable both before or after Reliability test.