

## ABNORMAL TEST RESULT

OF MODEL MGFS4048□□

1. Did Cheese Cloth or Paper Glow?

No.

2. Did Ground Fuse Open?

No.

3. Dielectric breakdown?

No.

4. Other Results?

See the following pages .

( FMEA : 2/20 ~ 17/20)

( Abnormal Test Result: 18/20 ~ 20/20)

There was no emission of flame, molten metal, ignition of cheesecloth, dielectric breakdown, opening of the ground fuse, other indication of a shock or fire hazard.

## F M E A

Component	Mode	Comment	Output Voltage (V)
C101	Open	Normal operation.	
	Short	See 18 Page.	
C102	Open	Normal operation.	
	Short	See 18 Page.	
C103	Open	Normal operation.	
	Short	See 18 Page.	
C111	Open	Normal operation.	
	Short	See 18 Page.	
C112	Open	Normal operation.	
	Short	See 18 Page.	
C113	Open	Normal operation.	
	Short	See 18 Page.	
C114	Open	Normal operation.	
	Short	See 18 Page.	
C115	Open	Normal operation.	
	Short	See 18 Page.	
C116	Open	Normal operation.	
	Short	See 18 Page.	
C117	Open	Normal operation.	
	Short	See 18 Page.	
C141	Open	Normal operation.	
	Short	Normal operation.	
C142	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C143	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0
C151	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0
C201	Open	Normal operation.	
	Short	Normal operation.	
C211	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C212	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C231	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C241	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
C242	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C251	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	External Fuse opened, No hazard.	AVR1:0
C252	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C253	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C261	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C271	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	External Fuse opened, No hazard.	AVR1:0
C281	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Normal operation.	
C291	Open	No Hazard.	AVR1:0
	Short	Normal operation.	
C292	Open	Normal operation.	
	Short	Normal operation.	
C501	Open	Normal operation.	
	Short	See 18 Page.	
C502	Open	Normal operation.	
	Short	See 18 Page.	
C503	Open	Normal operation.	
	Short	See 18 Page.	
C504	Open	Normal operation.	
	Short	See 18 Page.	
C505	Open	Normal operation.	
	Short	See 18 Page.	
C506	Open	Normal operation.	
	Short	See 18 Page.	
C507	Open	Normal operation.	
	Short	See 18 Page.	
C508	Open	Normal operation.	
	Short	See 18 Page.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C509	Open	Normal operation.	
	Short	See 18 Page.	
C510	Open	Normal operation.	
	Short	See 18 Page.	
C511	Open	Normal operation.	
	Short	See 18 Page.	
C512	Open	Normal operation.	
	Short	See 18 Page.	
C513	Open	Normal operation.	
	Short	See 18 Page.	
C514	Open	Normal operation.	
	Short	See 18 Page.	
C521	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0
C601	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C602 (Only 3.3, 5)	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C711	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C712	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C713	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
C901	Open	Normal operation.	
	Short	Normal operation.	
D101	Open	Normal operation.	
	Short	Normal operation.	
D141	Open	Normal operation.	
	Short	Normal operation.	
D201	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D252	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D261	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0
D271	Open	No Hazard.	AVR1:0
	Short	Output voltage decreased. No hazard.	AVR1:decreased
D281	Open	Normal operation.	
	Short	Normal operation.	
D291	Open	Normal operation.	
	Short	Normal operation.	
D501	Open	See 19 Page.	
	Short	See 19 Page.	
D601	Open	See 19 Page.	
	Short	See 19 Page.	
D711	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
D712	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	
IC201	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	AVR1:0
		4	Normal operation.	
		5	Output voltage decreased. No hazard.	AVR1:decreased
		6	No Hazard.	AVR1:0
		7	Normal operation.	
		8	Normal operation.	
		9	Normal operation.	
		10	No Hazard.	AVR1:0
		11	Normal operation.	
		12	External Fuse opened, No hazard.	AVR1:0
		13	No Hazard.	AVR1:0
		14	No Hazard.	AVR1:0
		15	No Hazard.	AVR1:0
		16	Normal operation.	
		17	No Hazard.	AVR1:0
		18	No Hazard.	AVR1:0
		19	No Hazard.	AVR1:0
		20	Normal operation.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Short	3-4	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
		8-9	No Hazard.	AVR1:0
		9-10	No Hazard.	AVR1:0
		11-12	No Hazard.	AVR1:0
		12-13	No Hazard.	AVR1:0
		13-14	Normal operation.	
		14-15	Normal operation.	
		16-17	Normal operation.	
		17-18	No Hazard.	AVR1:0
		18-19	No Hazard.	AVR1:0
		19-20	No Hazard.	AVR1:0
IC202	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	Normal operation.	
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	Normal operation.	
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		4-5	External Fuse opened, No hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC203	Open	1	No Hazard.	AVR1:0
		2	Normal operation.	AVR1:0
		3	External Fuse opened, No hazard.	AVR1:0
		4	Normal operation.	
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		4-5	External Fuse opened, No hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
IC581	Open	1	Normal operation.	
		2	Normal operation.	
		3	Normal operation.	
		4	Normal operation.	
		5	Normal operation.	
		6	Normal operation.	
	Short	1-2	Normal operation.	
		2-3	Normal operation.	
		4-5	Normal operation.	
		5-6	Normal operation.	
IC601	Open	1	See 19 Page.	
		2	See 19 Page.	
		3	External Fuse opened, No hazard.	AVR1:0
		4	See 19 Page.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC601	Open	5	See 19 Page.	
		6	See 19 Page.	
		7	See 19 Page.	
		8	See 19 Page.	
	Short	1-2	See 19 Page.	
		2-3	See 19 Page.	
		3-4	See 19 Page.	
		5-6	See 19 Page.	
		6-7	See 19 Page.	
		7-8	See 19 Page.	
IC701	Open	1	Output voltage increased. No hazard.	AVR1:0
		2	Normal operation.	
		3	Output voltage increased. No hazard.	AVR1:0
		4	Normal operation.	
		5	Normal operation.	
		6	Output voltage increased. No hazard.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	Normal operation.	
		4-5	Normal operation.	
		5-6	Normal operation.	
L101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
L291	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0

## F M E A

Component	Mode		Comment	Output Voltage (V)
L501	Open		Output voltage increased. No hazard.	AVR1:0
	Short		Normal operation.	
PC201	Open	A, K	Output voltage increased. No hazard.	AVR1:0
		C, E	Output voltage increased. No hazard.	AVR1:0
	Short	A-K	Output voltage increased. No hazard.	AVR1:0
		C-E	Output voltage increased. No hazard.	AVR1:0
R101	Open		No Hazard.	AVR1:0
R102	Open		No Hazard.	AVR1:0
R103	Open		Normal operation.	
R111	Open		No Hazard.	AVR1:0
R141	Open		Normal operation.	
R142	Open		Normal operation.	
R143	Open		Normal operation.	
R145	Open		Normal operation.	
R146	Open		Normal operation.	
R147	Open		Normal operation.	
R201	Open		No Hazard.	AVR1:0
R202	Open		Normal operation.	
R203	Open		Normal operation.	
R204	Open		Normal operation.	
R211	Open		No Hazard.	AVR1:0
R212	Open		No Hazard.	AVR1:0
R213	Open		Normal operation.	
R214	Open		No Hazard.	AVR1:0

## F M E A

Component	Mode	Comment	Output Voltage (V)
R221	Open	Normal operation.	
R222	Open	Normal operation.	
R223	Open	Normal operation.	
R224	Open	Normal operation.	
R225	Open	Normal operation.	
R231	Open	Normal operation.	
R241	Open	No Hazard.	AVR1:0
R242	Open	No Hazard.	AVR1:0
R243	Open	Output voltage decreased. No hazard.	AVR1:decreased
R251	Open	Normal operation.	
R253	Open	Normal operation.	
R254	Open	Normal operation.	
R255	Open	No Hazard.	AVR1:0
R256	Open	No Hazard.	AVR1:0
R257	Open	No Hazard.	AVR1:0
R258	Open	No Hazard.	AVR1:0
R259 (Except 3.3)	Open	Normal operation.	
R260 (Only 3.3)	Open	Normal operation.	
R261	Open	No Hazard.	AVR1:0
R262	Open	No Hazard.	AVR1:0
R271	Open	External Fuse opened, No hazard.	AVR1:0
R272	Open	External Fuse opened, No hazard.	AVR1:0
R273	Open	External Fuse opened, No hazard.	AVR1:0
R274	Open	Normal operation.	

## F M E A

Component	Mode	Comment	Output Voltage (V)
R275	Open	Normal operation.	
R276	Open	Normal operation.	
R277	Open	Normal operation.	
R281	Open	Normal operation.	
R282	Open	Normal operation.	
R291	Open	Normal operation.	
R292	Open	Normal operation.	
R293	Open	No Hazard.	AVR1:0
R501	Open	See 19 Page.	
R505	Open	Normal operation.	
R581	Open	Normal operation.	
R582	Open	Normal operation.	
R583	Open	Normal operation.	
R584	Open	Normal operation.	
R585	Open	Normal operation.	
R586	Open	Normal operation.	
R587	Open	Normal operation.	
R588	Open	Normal operation.	
R589	Open	Normal operation.	
R590	Open	Normal operation.	
R601 (Except 3.3)	Open	See 19 Page.	
R602 (Only 3.3)	Open	See 19 Page.	
R603	Open	Normal operation.	
R604	Open	See 19 Page.	

## F M E A

Component	Mode	Comment	Output Voltage (V)
R606	Open	External Fuse opened, No hazard.	AVR1:0
R701	Open	Output voltage increased. No hazard.	AVR1:0
R702	Open	Output voltage increased. No hazard.	AVR1:0
R704	Open	Output voltage increased. No hazard.	AVR1:0
R705	Open	Output voltage increased. No hazard.	AVR1:0
R711	Open	Normal operation.	
R712	Open	Normal operation.	
R713	Open	Output voltage increased. No hazard.	AVR1:0
R714	Open	Output voltage decreased. No hazard.	AVR1:decreased
R715	Open	Output voltage increased. No hazard.	AVR1:0
R716	Open	Output voltage decreased. No hazard.	AVR1:decreased
R717	Open	Output voltage decreased. No hazard.	AVR1:decreased
R718	Open	Output voltage increased. No hazard.	AVR1:0
R721	Open	Normal operation.	
SS251	Open	Normal operation.	
	Short	Normal operation.	
CN101	Open	No Hazard.	AVR1:0
CN102	Open	No Hazard.	AVR1:0
CN103	Open	No Hazard.	AVR1:0
CN104	Open	Normal operation.	
CN105	Open	Normal operation.	
CN106	Open	No Hazard.	AVR1:0
CN107	Open	No Hazard.	AVR1:0
CN501	Open	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
CN503	Open		No Hazard.	AVR1:0
CN505	Open		Normal operation.	
TH101	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
TR101	Open	D	See 19 Page.	
		S	See 19 Page.	
		G	See 19 Page.	
	Short	D-S	See 20 Page.	
		S-G	See 20 Page.	
		G-D	See 20 Page.	
TR141	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
TR221	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	External Fuse opened, No hazard.	AVR1:0
		E-B	No Hazard.	AVR1:0
		B-C	No Hazard.	AVR1:0
TR222	Open	C	Normal operation.	
		E	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR222	Open	B	Normal operation.	
	Short	C-E	External Fuse opened, No hazard.	AVR1:0
		E-B	No Hazard.	AVR1:0
		B-C	No Hazard.	AVR1:0
TR501	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	External Fuse opened, No hazard.	AVR1:0
	Short	D-S	External Fuse opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	External Fuse opened, No hazard.	AVR1:0
TR581	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR582	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR583	Open	C	Normal operation.	
		E	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage (V)
TR583	Open	B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
ZD221	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
ZD271	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased
ZD291	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased

ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
C101	Short	External Fuse opened, No hazard.	AVR1:0
C102	Short	External Fuse opened, No hazard.	AVR1:0
C103	Short	External Fuse opened, No hazard.	AVR1:0
C111	Short	External Fuse opened, No hazard.	AVR1:0
C112	Short	External Fuse opened, No hazard.	AVR1:0
C113	Short	External Fuse opened, No hazard.	AVR1:0
C114	Short	External Fuse opened, No hazard.	AVR1:0
C115	Short	External Fuse opened, No hazard.	AVR1:0
C116	Short	External Fuse opened, No hazard.	AVR1:0
C117	Short	External Fuse opened, No hazard.	AVR1:0
C501	Short	No Hazard.	AVR1:0
C502	Short	No Hazard.	AVR1:0
C503	Short	No Hazard.	AVR1:0
C504	Short	No Hazard.	AVR1:0
C505	Short	No Hazard.	AVR1:0
C506	Short	No Hazard.	AVR1:0
C507	Short	No Hazard.	AVR1:0
C508	Short	No Hazard.	AVR1:0
C509	Short	No Hazard.	AVR1:0
C510	Short	No Hazard.	AVR1:0
C511	Short	No Hazard.	AVR1:0
C512	Short	No Hazard.	AVR1:0
C513	Short	No Hazard.	AVR1:0
C514	Short	No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
D501	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
D601	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0
IC601	Open	1	External Fuse opened, No hazard.	AVR1:0
		2	External Fuse opened, No hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	External Fuse opened, No hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
R501	Open		No Hazard.	AVR1:0
R601	Open		No Hazard.	AVR1:0
R602	Open		No Hazard.	AVR1:0
R604	Open		No Hazard.	AVR1:0
TR101	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	External Fuse opened, No hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR101	Short	D-S	External Fuse opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	External Fuse opened, No hazard.	AVR1:0