

## ABNORMAL TEST RESULT

OF MODEL MGFW4005□□

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.	
C143	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C151	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C201	Open	Normal operation.	
	Short	Normal operation.	
C211	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C212	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C221	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C231	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C241	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	No Hazard.	AVR1:0 AVR2:0
C242	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C251	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C252	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C253	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C261	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C271	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C281	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	Normal operation.	
C291	Open	No Hazard.	AVR1:0 AVR2:0
	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.	
C511	Open	Normal operation.	
	Short	See 18 Page.	
C512	Open	Normal operation.	
	Short	See 18 Page.	
C513	Open	Normal operation.	
	Short	See 18 Page.	
C531	Open	Normal operation.	
	Short	See 18 Page.	
C532	Open	Normal operation.	
	Short	See 18 Page.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C533	Open	Normal operation.	
	Short	See 18 Page.	
C534	Open	Normal operation.	
	Short	See 18 Page.	
C541	Open	Normal operation.	
	Short	See 18 Page.	
C542	Open	Normal operation.	
	Short	See 18 Page.	
C543	Open	Normal operation.	
	Short	See 18 Page.	
C601	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C611	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C711	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C712	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C713	Open	n.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C801	Open	n.	
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C901	Open	n.	
	Short	n.	



F M E A

Component	Mode	Comment	Output Voltage (V)	
D101	Open			
	Short			
D201	Open			
	Short	No Hazard.	AVR1:0 AVR2:0	
D261	Open	Normal operation.		
	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0	
D262	Open	Normal operation.		
	Short	Normal operation.		
D271	Open	No Hazard.	AVR1:0 AVR2:0	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D281	Open	Normal operation.		
	Short	Normal operation.		
D291	Open	Normal operation.		
	Short	Normal operation.		
D601	Open	See 19 Page.		
	Short	See 19 Page.		
D711	Open	n.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D712	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
IC201	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	AVR1:0 AVR2:0
		4	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)			
IC201	Open	5	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased		
		6	No Hazard.	AVR1:0 AVR2:0		
		7	Normal operation.			
		8	Normal operation.			
		9	Normal operation.			
		10	No Hazard.	AVR1:0 AVR2:0		
		11	Normal operation.			
		12	External Fuse opened, No hazard.	AVR1:0 AVR2:0		
		13	No Hazard.	AVR1:0 AVR2:0		
		14	No Hazard.	AVR1:0 AVR2:0		
		15	No Hazard.	AVR1:0 AVR2:0		
		16	Normal operation.			
		17	No Hazard.	AVR1:0 AVR2:0		
		18	No Hazard.	AVR1:0 AVR2:0		
		19	No Hazard.	AVR1:0 AVR2:0		
		20	Normal operation.			
		Short	Short	1-2	Normal operation.	
				2-3	Normal operation.	
				3-4	No Hazard.	AVR1:0 AVR2:0
				4-5	No Hazard.	AVR1:0 AVR2:0
6-7	No Hazard.			AVR1:0 AVR2:0		
7-8	No Hazard.			AVR1:0 AVR2:0		
8-9	No Hazard.			AVR1:0 AVR2:0		
9-10	No Hazard.			AVR1:0 AVR2:0		



F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Short	11-12	No Hazard.	AVR1:0 AVR2:0
		12-13	No Hazard.	AVR1:0 AVR2:0
		13-14	Normal operation.	
		14-15	Normal operation.	
		16-17	Normal operation.	
		17-18	No Hazard.	AVR1:0 AVR2:0
		18-19	No Hazard.	AVR1:0 AVR2:0
		19-20	No Hazard.	AVR1:0 AVR2:0
IC202	Open	1	No Hazard.	AVR1:0 AVR2:0
		2	No Hazard.	AVR1:0 AVR2:0
		3	Normal operation.	
		4	No Hazard.	AVR1:0 AVR2:0
		5	No Hazard.	AVR1:0 AVR2:0
		6	Normal operation.	
	Short	1-2	No Hazard.	AVR1:0 AVR2:0
		2-3	No Hazard.	AVR1:0 AVR2:0
		3-4	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		4-5	No Hazard.	AVR1:0 AVR2:0
IC203	Open	1	No Hazard.	AVR1:0 AVR2:0
		2	Normal operation.	
		3	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		4	Normal operation.	
		5	No Hazard.	AVR1:0 AVR2:0
		6	No Hazard.	AVR1:0 AVR2:0





F M E A

Component	Mode		Comment	Output Voltage (V)	
IC203	Short	1-2	No Hazard.	AVR1:0 AVR2:0	
		2-3	No Hazard.	AVR1:0 AVR2:0	
		4-5	External Fuse opened, No hazard.	AVR1:0 AVR2:0	
		5-6	No Hazard.	AVR1:0 AVR2:0	
IC221	Open	1	No Hazard.	AVR1:0 AVR2:0	
		2	Normal operation.		
		3	No Hazard.	AVR1:0 AVR2:0	
		4	Normal operation.		
		5	Normal operation.		
		6	No Hazard.	AVR1:0 AVR2:0	
	Short	1-2	Normal operation.		
		2-3	Normal operation.		
		4-5	Normal operation.		
		5-6	Normal operation.		
	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.		



F M E A

Component	Mode		Comment	Output Voltage (V)
IC601	Open	1	See 19 Page.	
		2	See 19 Page.	
		3	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		4	See 19 Page.	
		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.	
	IC611	Open	1	See 19 Page.
2			See 19 Page.	
3			External Fuse opened, No hazard.	AVR1:0 AVR2:0
4			See 19 Page.	
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.	



F M E A

Component	Mode		Comment	Output Voltage (V)	
IC611	Short	3-4	See 20 Page.		
		5-6	See 20 Page.		
		6-7	See 20 Page.		
		7-8	See 20 Page.		
IC701	Open	1	Output voltage increased. No hazard.	AVR1:0 AVR2:0	
		2	Normal operation.		
		3	Output voltage increased. No hazard.	AVR1:0 AVR2:0	
		4	Normal operation.		
		5	Normal operation.		
		6	Output voltage increased. No hazard.	AVR1:0 AVR2:0	
	Short	1-2	Normal operation.		
		2-3	Normal operation.		
		4-5	Normal operation.		
		5-6	Normal operation.		
	L101	Open		No Hazard.	AVR1:0 AVR2:0
		Short		Normal operation.	
L291	Open		No Hazard.	AVR1:0 AVR2:0	
	Short		No Hazard.	AVR1:0 AVR2:0	
L501	Open		Output voltage increased. No hazard.	AVR1:0 AVR2:0	
	Short		Normal operation.		
L511	Open		Output voltage increased. No hazard.	AVR1:0 AVR2:0	
	Short		Normal operation.		
PC201	Open	A, K	Output voltage increased. No hazard.	AVR1:0 AVR2:0	
		C, E	Output voltage increased. No hazard.	AVR1:0 AVR2:0	



F M E A

Component	Mode		Comment	Output Voltage (V)
PC201	Short	A-K	Output voltage increased. No hazard.	AVR1:0 AVR2:0
		C-E	Output voltage increased. No hazard.	AVR1:0 AVR2:0
R101	Open		No Hazard.	AVR1:0 AVR2:0
R102	Open		No Hazard.	AVR1:0 AVR2:0
R103	Open		Normal operation.	
R111	Open		No Hazard.	AVR1:0 AVR2:0
R148	Open		Normal operation.	
R149	Open		Normal operation.	
R150	Open		Normal operation.	
R201	Open		No Hazard.	AVR1:0 AVR2:0
R202	Open		Normal operation.	
R203	Open		Normal operation.	
R204	Open		Normal operation.	
R211	Open		No Hazard.	AVR1:0 AVR2:0
R212	Open		No Hazard.	AVR1:0 AVR2:0
R213	Open		Normal operation.	
R214	Open		No Hazard.	AVR1:0 AVR2:0
R221	Open		Normal operation.	
R223	Open		Normal operation.	
R224	Open		Normal operation.	
R225	Open		Normal operation.	
R226	Open		No Hazard.	AVR1:0 AVR2:0
R227	Open		No Hazard.	AVR1:0 AVR2:0
R228	Open		No Hazard.	AVR1:0 AVR2:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R231	Open	Normal operation.	
R241	Open	No Hazard.	AVR1:0 AVR2:0
R242	Open	No Hazard.	AVR1:0 AVR2:0
R243	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R251	Open	Normal operation.	
R253	Open	Normal operation.	
R254	Open	Normal operation.	
R255	Open	No Hazard.	AVR1:0 AVR2:0
R256	Open	No Hazard.	AVR1:0 AVR2:0
R258	Open	No Hazard.	AVR1:0 AVR2:0
R259	Open	Normal operation.	
R261	Open	No Hazard.	AVR1:0 AVR2:0
R262	Open	No Hazard.	AVR1:0 AVR2:0
R271	Open	External Fuse opened, No hazard.	AVR1:0 AVR2:0
R272	Open	External Fuse opened, No hazard.	AVR1:0 AVR2:0
R273	Open	External Fuse opened, No hazard.	AVR1:0 AVR2:0
R274	Open	Normal operation.	
R275	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 AVR2:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R501	Open	See 20 Page.	
R505	Open	Normal operation.	
R511	Open	See 20 Page.	
R515	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.	
R601	Open	See 20 Page.	
R603	Open	Normal operation.	
R604	Open	See 20 Page.	
R606	Open	External Fuse opened, No hazard.	AVR1:0 AVR2:0
R611	Open	See 20 Page.	
R614	Open	See 20 Page.	
R616	Open	External Fuse opened, No hazard.	AVR1:0 AVR2:0
R701	Open	Output voltage increased. No hazard.	AVR1:0 AVR2:0
R702	Open	Output voltage increased. No hazard.	AVR1:0 AVR2:0
R704	Open	Output voltage increased. No hazard.	AVR1:0 AVR2:0
R711	Open	Normal operation.	
R712	Open	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
R713	Open	Output voltage increased. No hazard.	AVR1:0 AVR2:0
R714	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R715	Open	Output voltage increased. No hazard.	AVR1:0 AVR2:0
R716	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R717	Open	Normal operation.	
SS251	Open	Normal operation.	
	Short	Normal operation.	
CN101	Open	No Hazard.	AVR1:0 AVR2:0
CN102	Open	No Hazard.	AVR1:0 AVR2:0
CN103	Open	No Hazard.	AVR1:0 AVR2:0
CN104	Open	Normal operation.	
CN105	Open	Normal operation.	
CN106	Open	No Hazard.	AVR1:0 AVR2:0
CN107	Open	No Hazard.	AVR1:0 AVR2:0
CN501	Open	No Hazard.	AVR1:0 AVR2:0
CN503	Open	No Hazard.	AVR1:0 AVR2:0
CN505	Open	Normal operation.	
TH101	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
TR101	Open	D	See 20 Page.
		S	See 20 Page.
		G	See 20 Page.
	Short	D-S	See 20 Page.
		S-G	See 20 Page.



F M E A

Component	Mode		Comment	Output Voltage (V)
TR101	Short	G-D	See 20 Page.	
TR221	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		E-B	No Hazard.	AVR1:0 AVR2:0
		B-C	No Hazard.	AVR1:0 AVR2:0
TR223	Open	C	No Hazard.	AVR1:0 AVR2:0
		E	No Hazard.	AVR1:0 AVR2:0
		B	No Hazard.	AVR1:0 AVR2:0
	Short	C-E	No Hazard.	AVR1:0 AVR2:0
		E-B	No Hazard.	AVR1:0 AVR2:0
		B-C	No Hazard.	AVR1:0 AVR2:0
TR501	Open	D	No Hazard.	AVR1:0 AVR2:0
		S	No Hazard.	AVR1:0 AVR2:0
		G	External Fuse opened, No hazard.	AVR1:0 AVR2:0
	Short	D-S	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		S-G	No Hazard.	AVR1:0 AVR2:0
		G-D	External Fuse opened, No hazard.	AVR1:0 AVR2:0
TR511	Open	D	No Hazard.	AVR1:0 AVR2:0
		S	No Hazard.	AVR1:0 AVR2:0
		G	External Fuse opened, No hazard.	AVR1:0 AVR2:0
	Short	D-S	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		S-G	No Hazard.	AVR1:0 AVR2:0





F M E A

Component	Mode		Comment	Output Voltage (V)
TR511	Short	G-D	External Fuse opened, No hazard.	AVR1:0 AVR2:0
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.	
ZD221	Open		No Hazard.	AVR1:0 AVR2:0
	Short		Normal operation.	
ZD271	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
ZD291	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
ZD711	Open		Output voltage increased. No hazard.	AVR1:0 AVR2:0
	Short		Normal operation.	



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
C101	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C102	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C103	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C111	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C112	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C113	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C114	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C115	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C116	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C117	Short	External Fuse opened, No hazard.	AVR1:0 AVR2:0
C501	Short	No Hazard.	AVR1:0 AVR2:0
C502	Short	No Hazard.	AVR1:0 AVR2:0
C503	Short	No Hazard.	AVR1:0 AVR2:0
C504	Short	No Hazard.	AVR1:0 AVR2:0
C511	Short	No Hazard.	AVR1:0 AVR2:0
C512	Short	No Hazard.	AVR1:0 AVR2:0
C513	Short	No Hazard.	AVR1:0 AVR2:0
C531	Short	No Hazard.	AVR1:0 AVR2:0
C532	Short	No Hazard.	AVR1:0 AVR2:0
C533	Short	No Hazard.	AVR1:0 AVR2:0
C534	Short	No Hazard.	AVR1:0 AVR2:0
C541	Short	No Hazard.	AVR1:0 AVR2:0
C542	Short	No Hazard.	AVR1:0 AVR2:0
C543	Short	No Hazard.	AVR1:0 AVR2:0



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)	
D601	Open	No Hazard.	AVR1:0 AVR2:0	
	Short	No Hazard.	AVR1:0 AVR2:0	
IC601	Open	1	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		2	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		4	No Hazard.	AVR1:0 AVR2:0
		5	External Fuse opened, No hazard.	AVR1:0 AVR2:0
		6	No Hazard.	AVR1:0 AVR2:0
		7	No Hazard.	AVR1:0 AVR2:0
		8	No Hazard.	AVR1:0 AVR2:0
		Short	1-2	No Hazard.
	2-3		No Hazard.	AVR1:0 AVR2:0
	3-4		No Hazard.	AVR1:0 AVR2:0
	5-6		No Hazard.	AVR1:0 AVR2:0
	6-7		No Hazard.	AVR1:0 AVR2:0
	7-8		No Hazard.	AVR1:0 AVR2:0
	IC611	Open	1	External Fuse opened, No hazard.
2			External Fuse opened, No hazard.	AVR1:0 AVR2:0
4			No Hazard.	AVR1:0 AVR2:0
5			External Fuse opened, No hazard.	AVR1:0 AVR2:0
6			No Hazard.	AVR1:0 AVR2:0
7			No Hazard.	AVR1:0 AVR2:0
8			No Hazard.	AVR1:0 AVR2:0
Short			1-2	No Hazard.
		2-3	No Hazard.	AVR1:0 AVR2:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)	
IC611	Short	3-4	No Hazard.	AVR1:0	AVR2:0
		5-6	No Hazard.	AVR1:0	AVR2:0
		6-7	No Hazard.	AVR1:0	AVR2:0
		7-8	No Hazard.	AVR1:0	AVR2:0
R501	Open		No Hazard.	AVR1:0	AVR2:0
R511	Open		No Hazard.	AVR1:0	AVR2:0
R601	Open		No Hazard.	AVR1:0	AVR2:0
R604	Open		No Hazard.	AVR1:0	AVR2:0
R611	Open		No Hazard.	AVR1:0	AVR2:0
R614	Open		No Hazard.	AVR1:0	AVR2:0
TR101	Open	D	No Hazard.	AVR1:0	AVR2:0
		S	No Hazard.	AVR1:0	AVR2:0
		G	External Fuse opened, No hazard.	AVR1:0	AVR2:0
	Short	D-S	External Fuse opened, No hazard.	AVR1:0	AVR2:0
		S-G	No Hazard.	AVR1:0	AVR2:0
		G-D	External Fuse opened, No hazard.	AVR1:0	AVR2:0