

## ABNORMAL TEST RESULT

OF MODEL MGW/MGFW3024/48 (05/12/15)

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 : 2/18 ~ 17/18)

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

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	F101 opened, No hazard.	AVR1:0 AVR2:0
C102	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C103	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C104	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C105	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C106	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C107	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C108	Open	Normal operation.	
	Short	Normal operation.	
C111	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C121	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C122	Open	Normal operation.	
	Short	Normal operation.	
C131	Open	Normal operation.	
	Short	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C141	Open	Normal operation.	
	Short	Normal operation.	
C151	Open	Normal operation.	
	Short	Normal operation.	
C152	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C153	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	No Hazard.	AVR1:0 AVR2:0
C161	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C162	Open	No Hazard.	AVR1:0 AVR2:0
	Short	No Hazard.	AVR1:0 AVR2:0
C171	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C181	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0 AVR2:0
C201	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C202	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C203	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C204	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C205	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C206	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C207	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C211	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C212	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C213	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C214	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C215	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C216	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C217	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0
C221	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C231	Open	Normal operation.	
	Short	No Hazard.	AVR1:0 AVR2:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C232	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C233	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C234	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
C235	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
D101	Open	Normal operation.	
	Short	Normal operation.	
D141	Open	Normal operation.	
	Short	Normal operation.	
D151	Open	Normal operation.	
	Short	Normal operation.	
D171	Open	Normal operation.	
	Short	Normal operation.	
D181	Open	Normal operation.	
	Short	Normal operation.	
D182	Open	Normal operation.	
	Short	Normal operation.	
D183	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
D201	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)	
D202	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D203	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D204	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D205	Open	Normal operation.		
	Short	Normal operation.		
D211	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D212	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D213	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D214	Open	Normal operation.		
	Short	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased	
D215	Open	Normal operation.		
	Short	Normal operation.		
F101	Open	No Hazard.	AVR1:0 AVR2:0	
	Short	Normal operation.		
IC121	Open	1	Normal operation.	
		2	No Hazard.	AVR1:0 AVR2:0
		3	Normal operation.	
		4	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage (V)
IC121	Open	5	Normal operation.	
		6	Normal operation.	
		7	Normal operation.	
		8	No Hazard.	AVR1:0 AVR2:0
	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0 AVR2:0
		3-4	Normal operation.	
		5-6	Normal operation.	
		6-7	Normal operation.	
		7-8	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		IC161	Open	1
2	No Hazard.			AVR1:0 AVR2:0
3	F101 opened, No hazard.			AVR1:0 AVR2:0
4	No Hazard.			AVR1:0 AVR2:0
5	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.	AVR1:0 AVR2:0
	2-3		F101 opened, No hazard.	AVR1:0 AVR2:0
	3-4		No Hazard.	AVR1:0 AVR2:0
	5-6		See 18 Page.	
	6-7		F101 opened, No hazard.	AVR1:0 AVR2:0
	7-8		Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC231	Open	K	No Hazard.	AVR1:0 AVR2:0
		A	No Hazard.	AVR1:0 AVR2:0
		R	No Hazard.	AVR1:0 AVR2:0
	Short	A-K	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		K-R	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		R-A	No Hazard.	AVR1:0 AVR2:0
L101	Open		No Hazard.	AVR1:0 AVR2:0
	Short		Normal operation.	
L181	Open		See 18 Page.	
	Short		See 18 Page.	
L201	Open	1	No Hazard.	AVR1:0 AVR2:0
		2	No Hazard.	AVR1:0 AVR2:0
		3	No Hazard.	AVR1:0 AVR2:0
		4	No Hazard.	AVR1:0 AVR2:0
	Short	1-2	No Hazard.	AVR1:0 AVR2:0
		2-3	No Hazard.	AVR1:0 AVR2:0
		3-4	No Hazard.	AVR1:0 AVR2:0
		1-4	No Hazard.	AVR1:0 AVR2:0
PC141	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	AVR1:0 AVR2:0
PC151	Open	A, K	No Hazard.	AVR1:0 AVR2:0
		C, E	No Hazard.	AVR1:0 AVR2:0





F M E A

Component	Mode		Comment	Output Voltage (V)
PC151	Short	A-K	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		C-E	No Hazard.	AVR1:0 AVR2:0
T101	Open	1	See 18 Page.	
		2	Normal operation.	
		3	Normal operation.	
		4	Normal operation.	
		5	Normal operation.	
		6	See 18 Page.	
		8	No Hazard.	AVR1:0 AVR2:0
		9	No Hazard.	AVR1:0 AVR2:0
		10	No Hazard.	AVR1:0 AVR2:0
		11	No Hazard.	AVR1:0 AVR2:0
		Short	1-2	No Hazard.
	2-3		Normal operation.	
	3-4		F101 opened, No hazard.	AVR1:0 AVR2:0
	4-5		Normal operation.	
	5-6		See 18 Page.	
	8-9		Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	9-10		Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	10-11		Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	T171	Open	1	No Hazard.
2			No Hazard.	AVR1:0 AVR2:0
3			Normal operation.	
4			Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
T171	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0 AVR2:0
		3-4	Normal operation.	
		1-4	F101 opened, No hazard.	AVR1:0 AVR2:0
TH141	Open		Normal operation.	
	Short		No Hazard.	AVR1:0 AVR2:0
TR101	Open	D	See 18 Page.	
		S	See 18 Page.	
		G	See 18 Page.	
	Short	D-S	See 18 Page.	
		S-G	See 18 Page.	
		G-D	See 18 Page.	
TR102	Open	C	Normal operation.	
		E	No Hazard.	AVR1:0 AVR2:0
		B	No Hazard.	AVR1:0 AVR2:0
	Short	C-E	See 18 Page.	
		E-B	Normal operation.	
		B-C	F101 opened, No hazard.	AVR1:0 AVR2:0
TR103	Open	C	See 18 Page.	
		E	F101 opened, No hazard.	AVR1:0 AVR2:0
		B	F101 opened, No hazard.	AVR1:0 AVR2:0
	Short	C-E	No Hazard.	AVR1:0 AVR2:0
		E-B	See 18 Page.	
		B-C	No Hazard.	AVR1:0 AVR2:0

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Component	Mode		Comment	Output Voltage (V)
TR111	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	F101 opened, No hazard.	AVR1:0 AVR2:0
		E-B	Normal operation.	
		B-C	F101 opened, No hazard.	AVR1:0 AVR2:0
TR112	Open	C	F101 opened, No hazard.	AVR1:0 AVR2:0
		E	F101 opened, No hazard.	AVR1:0 AVR2:0
		B	F101 opened, No hazard.	AVR1:0 AVR2:0
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR113	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	F101 opened, No hazard.	AVR1:0 AVR2:0
		E-B	Normal operation.	
		B-C	F101 opened, No hazard.	AVR1:0 AVR2:0
TR114	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	F101 opened, No hazard.	AVR1:0 AVR2:0
		E-B	Normal operation.	
		B-C	F101 opened, No hazard.	AVR1:0 AVR2:0

F M E A

Component	Mode		Comment	Output Voltage (V)
TR131	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	AVR1:0 AVR2:0
		E-B	Normal operation.	
		B-C	No Hazard.	AVR1:0 AVR2:0
TR132	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	Normal operation.	
		E-B	No Hazard.	AVR1:0 AVR2:0
		B-C	Normal operation.	
TR133	Open	C(6)	Normal operation.	
		E(1)	Normal operation.	
		B(2)	Normal operation.	
	Short	C(6)-E(1)	No Hazard.	AVR1:0 AVR2:0
		E(1)-B(2)	Normal operation.	
		B(2)-C(6)	Normal operation.	
	Open	C(3)	Normal operation.	
		E(4)	Normal operation.	
		B(5)	Normal operation.	
	Short	C(3)-E(4)	Normal operation.	
		E(4)-B(5)	Normal operation.	
		B(5)-C(3)	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR141	Open	C(6)	Normal operation.	
		E(1)	Normal operation.	
		B(2)	Normal operation.	
	Short	C(6)-E(1)	No Hazard.	AVR1:0 AVR2:0
		E(1)-B(2)	Normal operation.	
		B(2)-C(6)	No Hazard.	AVR1:0 AVR2:0
	Open	C(3)	Normal operation.	
		E(4)	Normal operation.	
		B(5)	Normal operation.	
	Short	C(3)-E(4)	No Hazard.	AVR1:0 AVR2:0
		E(4)-B(5)	Normal operation.	
		B(5)-C(3)	No Hazard.	AVR1:0 AVR2:0
TR151	Open	C(6)	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		E(1)	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		B(2)	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
	Short	C(6)-E(1)	Normal operation.	
		E(1)-B(2)	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
		B(2)-C(6)	Normal operation.	
	Open	C(3)	Normal operation.	
		E(4)	Normal operation.	
		B(5)	Normal operation.	
	Short	C(3)-E(4)	No Hazard.	AVR1:0 AVR2:0
		E(4)-B(5)	Normal operation.	
		B(5)-C(3)	No Hazard.	AVR1:0 AVR2:0



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Component	Mode		Comment	Output Voltage (V)
TR171	Open	C(6)	Normal operation.	
		E(1)	Normal operation.	
		B(2)	No Hazard.	AVR1:0 AVR2:0
	Short	C(6)-E(1)	No Hazard.	AVR1:0 AVR2:0
		E(1)-B(2)	Normal operation.	
		B(2)-C(6)	No Hazard.	AVR1:0 AVR2:0
	Open	C(3)	Normal operation.	
		E(4)	No Hazard.	AVR1:0 AVR2:0
		B(5)	Normal operation.	
	Short	C(3)-E(4)	Normal operation.	
E(4)-B(5)		Normal operation.		
B(5)-C(3)		No Hazard.	AVR1:0 AVR2:0	
ZD111	Open		F101 opened, No hazard.	AVR1:0 AVR2:0
	Short		Normal operation.	
ZD112	Open		Normal operation.	
	Short		Normal operation.	
ZD231	Open		No Hazard.	AVR1:0 AVR2:0
	Short		Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
ZD232	Open		No Hazard.	AVR1:0 AVR2:0
	Short		Normal operation.	
ZD251	Open		Normal operation.	
	Short		No Hazard.	AVR1:0 AVR2:0
ZD252	Open		Normal operation.	
	Short		No Hazard.	AVR1:0 AVR2:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R101	Open	No Hazard.	AVR1:0 AVR2:0
R102	Open	F101 opened, No hazard.	AVR1:0 AVR2:0
R103	Open	Normal operation.	
R104	Open	No Hazard.	AVR1:0 AVR2:0
R105	Open	Normal operation.	
R106	Open	Normal operation.	
R107	Open	Normal operation.	
R108	Open	Normal operation.	
R111	Open	Normal operation.	
R112	Open	Normal operation.	
R113	Open	Normal operation.	
R114	Open	Normal operation.	
R121	Open	No Hazard.	AVR1:0 AVR2:0
R122	Open	No Hazard.	AVR1:0 AVR2:0
R123	Open	Normal operation.	
R124	Open	Normal operation.	
R125	Open	Normal operation.	
R131	Open	Normal operation.	
R132	Open	Normal operation.	
R133	Open	Normal operation.	
R134	Open	No Hazard.	AVR1:0 AVR2:0
R135	Open	Normal operation.	
R136	Open	Normal operation.	
R137	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R138	Open	Normal operation.	
R141	Open	Normal operation.	
R142	Open	Normal operation.	
R143	Open	Normal operation.	
R144	Open	No Hazard.	AVR1:0 AVR2:0
R151	Open	Normal operation.	
R152	Open	Normal operation.	
R153	Open	Normal operation.	
R154	Open	Normal operation.	
R155	Open	Normal operation.	
R156	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R161	Open	No Hazard.	AVR1:0 AVR2:0
R162	Open	No Hazard.	AVR1:0 AVR2:0
R170	Open	Normal operation.	
R171	Open	Normal operation.	
R172	Open	Normal operation.	
R173	Open	Normal operation.	
R174	Open	Normal operation.	
R175	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R176	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R177	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R181	Open	F101 opened, No hazard.	AVR1:0 AVR2:0
R182	Open	Normal operation.	
R201	Open	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
R202	Open	Normal operation.	
R203	Open	Normal operation.	
R211	Open	Normal operation.	
R212	Open	Normal operation.	
R213	Open	Normal operation.	
R231	Open	No Hazard.	AVR1:0 AVR2:0
R232	Open	No Hazard.	AVR1:0 AVR2:0
R233	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R234	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R235	Open	No Hazard.	AVR1:0 AVR2:0
R236	Open	Normal operation.	
R237	Open	Normal operation.	
R238	Open	Normal operation.	
R239	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R240	Open	Normal operation.	
R241	Open	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
R251	Open	Normal operation.	
R252	Open	Normal operation.	
R253	Open	Normal operation.	



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
IC161	Short	5-6	Output voltage decreased. No hazard.	AVR1:decreased AVR2:decreased
L181	Open		Normal operation.	
	Short		Normal operation.	
T101	Open	1	Normal operation.	
		6	Normal operation.	
	Short	5-6	F101 opened, No hazard.	AVR1:0 AVR2:0
TR101	Open	D	No Hazard.	AVR1:0 AVR2:0
		S	No Hazard.	AVR1:0 AVR2:0
		G	F101 opened, No hazard.	AVR1:0 AVR2:0
	Short	D-S	F101 opened, No hazard.	AVR1:0 AVR2:0
		S-G	No Hazard.	AVR1:0 AVR2:0
		G-D	F101 opened, No hazard.	AVR1:0 AVR2:0
TR102	Short	C-E	No Hazard.	AVR1:0 AVR2:0
TR103	Open	C	Normal operation.	
	Short	E-B	Normal operation.	