

## ABNORMAL TEST RESULT

OF MODEL MGW1512

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 : 2/17 ~ 14/17)

( Abnormal Test Result: 15/17 ~ 17/17)

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.	0[V]
C102	Open	Normal operation.	
	Short	F101 opened, No hazard.	0[V]
C103	Open	Normal operation.	
	Short	F101 opened, No hazard.	0[V]
C104	Open	Normal operation.	
	Short	Normal operation.	
C105	Open	Normal operation.	
	Short	F101 opened, No hazard.	0[V]
C111	Open	Normal operation.	
	Short	See 15 Page.	
C121	Open	Normal operation.	
	Short	No Hazard.	0[V]
C131	Open	Normal operation.	
	Short	Normal operation.	
C141	Open	Normal operation.	
	Short	No Hazard.	0[V]
C142	Open	Normal operation.	
	Short	Normal operation.	
C151	Open	Normal operation.	
	Short	No Hazard.	0[V]
C152	Open	No Hazard.	0[V]
	Short	No Hazard.	0[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C153	Open	Normal operation.	
	Short	No Hazard.	0[V]
C154	Open	Normal operation.	
	Short	No Hazard.	0[V]
C161	Open	Normal operation.	
	Short	See 15 Page.	
C162	Open	Normal operation.	
	Short	F101 opened, No hazard.	0[V]
C181	Open	Normal operation.	
	Short	F101 opened, No hazard.	0[V]
C201	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C202	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C203	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C204	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C205	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C206	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C207	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	

## F M E A

Component	Mode	Comment	Output Voltage (V)
C208	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C209	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C210	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C211	Open	Normal operation.	
	Short	See 15 Page.	
C221	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C222	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C223	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C224	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
D141	Open	Normal operation.	
	Short	Normal operation.	
D161	Open	See 15 Page.	
	Short	See 15 Page.	
D171	Open	Normal operation.	
	Short	Normal operation.	
D181	Open	Normal operation.	
	Short	F101 opened, No hazard.	0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
D201	Open		See 15 Page.	
	Short		Output voltage decreased. No hazard.	
D202	Open		See 15 Page.	
	Short		Output voltage decreased. No hazard.	
D203	Open		See 15 Page.	
	Short		Output voltage decreased. No hazard.	
D204	Open		See 15 Page.	
	Short		Output voltage decreased. No hazard.	
D221	Open		Normal operation.	
	Short		Normal operation.	
D222	Open		Normal operation.	
	Short		Normal operation.	
IC121	Open	1	Normal operation.	
		2	No Hazard.	0[V]
		3	See 15 Page.	
		4	Normal operation.	
		5	Normal operation.	
		6	Normal operation.	
		7	Normal operation.	
		8	Normal operation.	
	Short	1-2	Normal operation.	
		2-3	No Hazard.	0[V]
		3-4	Normal operation.	
		5-6	See 15 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC121	Short	6-7	See 15 Page.	
		7-8	Normal operation.	
IC151	Open	1	No Hazard.	0[V]
		2	No Hazard.	0[V]
		3	See 15 Page.	
		4	No Hazard.	0[V]
		5	See 15 Page.	
		6	No Hazard.	0[V]
		7	No Hazard.	0[V]
		8	No Hazard.	0[V]
	Short	1-2	No Hazard.	0[V]
		2-3	See 15 Page.	
		3-4	See 15 Page.	
		5-6	No Hazard.	0[V]
		6-7	F101 opened, No hazard.	0[V]
		7-8	Normal operation.	
IC221	Open	A	See 15 Page.	
		K	See 15 Page.	
		R	See 15 Page.	
	Short	A-K	Output voltage decreased. No hazard.	
		K-R	Output voltage decreased. No hazard.	
		R-A	See 15 Page.	
L101	Open		No Hazard.	0[V]
	Short		Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
L201	Open		See 15 Page.	
	Short		Normal operation.	
L202	Open		See 15 Page.	
	Short		Normal operation.	
PC151	Open	LED. A, K	See 15 Page.	
		TR. C, E	Output voltage increased. No hazard.	
	Short	LED. A-K	Output voltage increased. No hazard.	
		TR. C-E	No Hazard.	0[V]
R111	Open		Normal operation.	
R112	Open		Normal operation.	
R113	Open		Normal operation.	
R114	Open		Normal operation.	
R121	Open		No Hazard.	0[V]
R122	Open		No Hazard.	0[V]
R123	Open		Normal operation.	
R124	Open		Normal operation.	
R131	Open		Normal operation.	
R132	Open		Normal operation.	
R133	Open		Normal operation.	
R134	Open		Normal operation.	
R135	Open		Normal operation.	
R141	Open		Normal operation.	
R142	Open		Normal operation.	
R143	Open		Normal operation.	

## F M E A

Component	Mode	Comment	Output Voltage (V)
R151	Open	No Hazard.	0[V]
R152	Open	No Hazard.	0[V]
R153	Open	Normal operation.	
R154	Open	No Hazard.	0[V]
R155	Open	No Hazard.	0[V]
R156	Open	Normal operation.	
R157	Open	Normal operation.	
R158	Open	Output voltage decreased. No hazard.	
R159	Open	Normal operation.	
R161	Open	Normal operation.	
R162	Open	Normal operation.	
R163	Open	Normal operation.	
R164	Open	See 16 Page.	
R165	Open	Normal operation.	
R166	Open	Normal operation.	
R167	Open	Normal operation.	
R168	Open	Normal operation.	
R169	Open	Normal operation.	
R171	Open	No Hazard.	0[V]
R172	Open	F101 opened, No hazard.	0[V]
R173	Open	Normal operation.	
R174	Open	Normal operation.	
R175	Open	No Hazard.	0[V]
R176	Open	Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
R181	Open		Normal operation.	
R201	Open		Normal operation.	
R202	Open	Only 05, 12	Normal operation.	
R203	Open	Only 12	Normal operation.	
R204	Open	Only 05, 12	Normal operation.	
R205	Open	Only 12	Normal operation.	
R206	Open		Normal operation.	
R207	Open		Normal operation.	
R221	Open	Only 05	Output voltage increased. No hazard.	
R222	Open		See 16 Page.	
R223	Open		See 16 Page.	
R224	Open		See 16 Page.	
R225	Open		Normal operation.	
R226	Open		Normal operation.	
R227	Open		Output voltage decreased. No hazard.	
R228	Open		Output voltage decreased. No hazard.	
R229	Open		See 16 Page.	
R230	Open		See 16 Page.	
R231	Open		Normal operation.	
R232	Open		Normal operation.	
R233	Open		Normal operation.	
T101	Open	1	Output voltage decreased. No hazard.	0[V]
		2	Output voltage decreased. No hazard.	0[V]
		3	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
T101	Open	4	Normal operation.	
		5	See 16 Page.	
		6	See 16 Page.	
		7	See 16 Page.	
		8	See 16 Page.	
	Short	1-2	Output voltage decreased. No hazard.	
		2-3	Normal operation.	
		3-4	Output voltage decreased. No hazard.	
		5-6	Output voltage decreased. No hazard.	
		6-7	See 16 Page.	
		7-8	Output voltage decreased. No hazard.	
T161	Open	1	No Hazard.	0[V]
		2	No Hazard.	0[V]
		3	See 16 Page.	
		4	See 16 Page.	
	Short	1-2	See 16 Page.	
		3-4	See 16 Page.	
TR101	Open	D	See 16 Page.	
		G	See 16 Page.	
		S	See 16 Page.	
	Short	D-S	See 16 Page.	
		G-D	See 16 Page.	
		S-G	See 16 Page.	
TR111	Open	B	See 16 Page.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR111	Open	C	Normal operation.	
		E	See 17 Page.	
	Short	B-C	Normal operation.	
		C-E	Normal operation.	
		E-B	Normal operation.	
TR112	Open	B	Normal operation.	
		C	Normal operation.	
		E	Normal operation.	
	Short	B-C	Normal operation.	
		C-E	Normal operation.	
		E-B	Normal operation.	
TR113	Open	B	Normal operation.	
		C	Normal operation.	
		E	Normal operation.	
	Short	B-C	Normal operation.	
		C-E	Normal operation.	
		E-B	Normal operation.	
TR131	Open	B	Normal operation.	
		C	Normal operation.	
		E	Normal operation.	
	Short	B-C	No Hazard.	0[V]
		C-E	No Hazard.	0[V]
		E-B	Normal operation.	
TR141	Open	B	Output voltage decreased. No hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR141	Open	C	Output voltage decreased. No hazard.	
		E	Output voltage decreased. No hazard.	
	Short	B-C	Normal operation.	
		C-E	Normal operation.	
		E-B	Output voltage decreased. No hazard.	
TR151	Open	B	No Hazard.	0[V]
		C	Normal operation.	
		E	No Hazard.	0[V]
	Short	B-C	Normal operation.	
		C-E	Normal operation.	
		E-B	Normal operation.	
TR152	Open	B	Normal operation.	
		C	Normal operation.	
		E	Normal operation.	
	Short	B-C	No Hazard.	0[V]
		C-E	No Hazard.	0[V]
		E-B	Normal operation.	
TR161	Open	1E	Normal operation.	
		2B	Normal operation.	
		3C	Normal operation.	
		4E	Output voltage decreased. No hazard.	
		5B	Normal operation.	
		6C	Normal operation.	
	Short	1E-2B	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR161	Short	2B-6C	Output voltage decreased. No hazard.	
		3C-4E	Normal operation.	
		4E-5B	Normal operation.	
		5B-3C	No Hazard.	0[V]
		6C-1E	Output voltage decreased. No hazard.	
TR171	Open	B	No Hazard.	0[V]
		C	See 17 Page.	
		E	No Hazard.	0[V]
	Short	B-C	Normal operation.	
		C-E	F101 opened, No hazard.	0[V]
		E-B	Normal operation.	
TR172	Open	B	Normal operation.	
		C	Normal operation.	
		E	Normal operation.	
	Short	B-C	No Hazard.	0[V]
		C-E	No Hazard.	0[V]
		E-B	F101 opened, No hazard.	0[V]
TR173	Open	B	Normal operation.	
		C	Normal operation.	
		E	Normal operation.	
	Short	B-C	No Hazard.	0[V]
		C-E	No Hazard.	0[V]
		E-B	F101 opened, No hazard.	0[V]
ZD111	Open		Normal operation.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
ZD111	Short		Normal operation.	
ZD112	Open		Normal operation.	
	Short		Normal operation.	
ZD221	Open	Only 12, 15	See 17 Page.	
	Short	Only 12, 15	Normal operation.	
ZD222	Open	Only 12, 15	See 17 Page.	
	Short	Only 12, 15	Normal operation.	
ZD223	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C111	Short		No Hazard.	0[V]
C161	Short		F101 opened, No hazard.	0[V]
C211	Short		Output voltage decreased. No hazard.	
D161	Open		F101 opened, No hazard.	0[V]
	Short		Normal operation.	
D201	Open		Normal operation.	
D202	Open		Normal operation.	
D203	Open		Normal operation.	
D204	Open		Normal operation.	
IC121	Open	3	Normal operation.	
	Short	5-6	No Hazard.	0[V]
		6-7	Normal operation.	
IC151	Open	3	F101 opened, No hazard.	0[V]
		5	No Hazard.	0[V]
	Short	2-3	F101 opened, No hazard.	0[V]
		3-4	No Hazard.	0[V]
IC221	Open	A	Output voltage increased. No hazard.	
		K	Output voltage increased. No hazard.	
		R	Output voltage increased. No hazard.	
	Short	R-A	Output voltage increased. No hazard.	
L201	Open		R206 opened, No hazard.	
L202	Open		R207 opened, No hazard.	
PC151	Open	LED. A, K	Output voltage increased. No hazard.	
		LED. C, E	Output voltage increased. No hazard.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
PC151	Short	TR .A-K	Output voltage increased. No hazard.	
R164	Open		F101 opened, No hazard.	0[V]
R221	Open	Except 15	Output voltage increased. No hazard.	
R222	Open		Output voltage increased. No hazard.	
R223	Open		Output voltage increased. No hazard.	
R224	Open		Output voltage increased. No hazard.	
R229	Open		Output voltage increased. No hazard.	
R230	Open		Output voltage increased. No hazard.	
T101	Open	5	No Hazard.	AVR1:0[V] AVR2:Increased
		6	No Hazard.	AVR1:0[V] AVR2:Increased
		7	No Hazard.	AVR1:Increased AVR2:0[V]
		8	No Hazard.	AVR1:Increased AVR2:0[V]
	Short	6-7	Output voltage decreased. No hazard.	
T161	Open	3	F101 opened, No hazard.	0[V]
		4	F101 opened, No hazard.	0[V]
	Short	1-2	F101 opened, No hazard.	0[V]
		3-4	F101 opened, No hazard.	0[V]
TR101	Open	D	No Hazard.	0[V]
		G	No Hazard.	0[V]
		S	No Hazard.	0[V]
	Short	D-S	F101 opened, No hazard.	0[V]
		G-D	No Hazard.	0[V]
		S-G	No Hazard.	0[V]
TR111	Open	B	Normal operation.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR111	Open	E	Normal operation.	
TR171	Open	C	No Hazard.	
ZD221	Open	Only 12, 15	Output voltage increased. No hazard.	
ZD222	Open	Only 12, 15	Output voltage increased. No hazard.	