

## ABNORMAL TEST RESULT

OF MODEL CHS1202412

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 : 2/19 ~ 16/19)

( Abnormal Test Result: 17/19 ~ 19/19)

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	External fuse opened.No hazard.	AVR1:0
C102	Open	See 17 Page.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C103	Open	See 17 Page.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C110	Open	Normal operation.	
	Short	Normal operation.	
C111	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C112	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	See 17 Page.	
C121	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C122	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C123	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C141	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C142	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C201	Open	Normal operation.	
	Short	No hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C211	Open	Normal operation.	
	Short	Normal operation.	
C221	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C301	Open	See 17 Page.	
	Short	Output voltage increased.No hazard.	AVR1:increased
C303	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C311	Open	No hazard.	AVR1:decreased or increased
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C312	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C313	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C314	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C351	Open	Normal operation.	
	Short	Normal operation.	
C352	Open	Normal operation.	
	Short	Normal operation.	
C353	Open	Normal operation.	
	Short	Normal operation.	
C354	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C401	Open	Normal operation.	
	Short	No hazard.	AVR1:0
C501	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C502	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C503	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C504	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C511	Open	Normal operation.	
	Short	See 17 Page.	
C521	Open	Normal operation.	
	Short	See 17 Page.	
C601	Open	Normal operation.	
	Short	Output voltage increased.No hazard.	AVR1:increased
C602	Open	Normal operation.	
	Short	Output voltage increased.No hazard.	AVR1:increased
C701	Open	No hazard.	AVR1:decreased or increased
	Short	Output voltage increased.No hazard.	AVR1:increased
C703	Open	Normal operation.	
	Short	Output voltage increased.No hazard.	AVR1:increased
C711	Open	Normal operation.	
	Short	Output voltage increased.No hazard.	AVR1:increased

F M E A

Component	Mode	Comment	Output Voltage (V)
C712	Open	Normal operation.	
	Short	Output voltage increased.No hazard.	AVR1:increased
C713	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C714	Open	No hazard.	AVR1:decreased or increased
	Short	No hazard.	AVR1:decreased or increased
C715	Open	Normal operation.	
	Short	No hazard.	AVR1:decreased or increased
C716	Open	Normal operation.	
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C721	Open	No hazard.	AVR1:decreased or increased
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C801	Open	Normal operation.	
	Short	Normal operation.	
C802	Open	Normal operation.	
	Short	Normal operation.	
D121	Open	See 17 Page.	
	Short	No hazard.	AVR1:0
D122	Open	Output voltage decreased.No hazard.	AVR1:decreased
	Short	See 17 Page.	
D131	Open	Normal operation.	
	Short	Normal operation.	
D301	Open	Output voltage increased.No hazard.	AVR1:increased
	Short	Output voltage decreased.No hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
D351	Open		Normal operation.	
	Short		Normal operation.	
D701	Open		Output voltage increased.No hazard.	AVR1:increased
	Short		Output voltage decreased.No hazard.	AVR1:decreased
IC111	Open	1	No hazard.	AVR1:0
		2	Output voltage decreased.No hazard.	AVR1:decreased
		3	Output voltage decreased.No hazard.	AVR1:decreased
		4	Output voltage decreased.No hazard.	AVR1:decreased
		5	Output voltage decreased.No hazard.	AVR1:decreased
		6	Output voltage decreased.No hazard.	AVR1:decreased
		7	No hazard.	AVR1:0
		8	Output voltage decreased.No hazard.	AVR1:decreased
	Short	1-2	See 17 Page.	
		2-3	See 17 Page.	
		3-4	Output voltage decreased.No hazard.	AVR1:decreased
		5-6	No hazard.	AVR1:0
		6-7	Output voltage decreased.No hazard.	AVR1:decreased
		7-8	Output voltage decreased.No hazard.	AVR1:decreased
IC141	Open	1	No hazard.	AVR1:0
		2	No hazard.	AVR1:0
		3	No hazard.	AVR1:0
	Short	1-2	No hazard.	AVR1:0
		2-3	No hazard.	AVR1:0
IC301	Open	1	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Open	2	No hazard.	AVR1:0
		3	Output voltage decreased.No hazard.	AVR1:decreased
		4	Normal operation.	
		5	Output voltage decreased.No hazard.	AVR1:decreased
		6	Output voltage increased.No hazard.	AVR1:increased
		7	Output voltage increased.No hazard.	AVR1:increased
		8	See 17 Page.	
		9	See 17 Page.	
		10	Output voltage decreased.No hazard.	AVR1:decreased
		11	Output voltage decreased.No hazard.	AVR1:decreased
		12	No hazard.	AVR1:0
		13	No hazard.	AVR1:0
		14	Output voltage decreased.No hazard.	AVR1:decreased
		15	Normal operation.	
		16	Normal operation.	
		17	No hazard.	AVR1:0
		18	No hazard.	AVR1:0
		19	Normal operation.	
		20	Normal operation.	
		IC301	Short	1-2
2-3	Output voltage decreased.No hazard.			AVR1:decreased
3-4	Output voltage decreased.No hazard.			AVR1:decreased
4-5	Output voltage decreased.No hazard.			AVR1:decreased
6-7	Output voltage increased.No hazard.			AVR1:increased

F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	7-8	Output voltage decreased.No hazard.	AVR1:decreased
		8-9	See 17 Page.	
		9-10	See 17 Page.	
		11-12	Normal operation.	
		12-13	Normal operation.	
		13-14	Output voltage decreased.No hazard.	AVR1:decreased
		14-15	Output voltage decreased.No hazard.	AVR1:decreased
		16-17	Normal operation.	
		17-18	No hazard.	AVR1:0
		18-19	Normal operation.	
		19-20	Normal operation.	
IC401	Open	1	Normal operation.	
		2	See 17 Page.	
		3	See 17 Page.	
		4	See 17 Page.	
		5	See 17 Page.	
		6	See 17 Page.	
		7	See 17 Page.	
		8	See 17 Page.	
	Short	1-2	Output voltage decreased.No hazard.	AVR1:decreased
		2-3	See 17 Page.	
		3-4	See 17 Page.	
		5-6	See 17 Page.	
		6-7	Output voltage decreased.No hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
IC401	Short	7-8	Output voltage decreased.No hazard.	AVR1:decreased
IC601	Open	1	See 18 Page.	
		2	See 18 Page.	
		3	See 18 Page.	
		4	See 18 Page.	
		5	See 18 Page.	
		6	See 18 Page.	
		7	See 18 Page.	
		8	See 18 Page.	
	Short	1-2	See 18 Page.	
		2-3	See 18 Page.	
		3-4	See 18 Page.	
		5-6	Output voltage decreased.No hazard.	AVR1:decreased
		6-7	Output voltage decreased.No hazard.	AVR1:decreased
		7-8	Output voltage decreased.No hazard.	AVR1:decreased
IC701	Open	1	Output voltage increased.No hazard.	AVR1:increased
		2	Output voltage increased.No hazard.	AVR1:increased
		3	See 18 Page.	
		4	See 18 Page.	
		5	Output voltage increased.No hazard.	AVR1:increased
	Short	1-2	Output voltage decreased.No hazard.	AVR1:decreased
		2-3	Output voltage decreased.No hazard.	AVR1:decreased
		4-5	Output voltage decreased.No hazard.	AVR1:decreased
		IC702	Open	1

F M E A

Component	Mode		Comment	Output Voltage (V)
IC702	Open	2	Normal operation.	
		3	Output voltage increased.No hazard.	AVR1:increased
		4	Normal operation.	
		5	Normal operation.	
	Short	1-2	Normal operation.	
		2-3	Normal operation.	
		4-5	Normal operation.	
L101	Open		No hazard.	AVR1:0
	Short		Normal operation.	
PC311	Open	A, K	Output voltage increased.No hazard.	AVR1:increased
		C, E	Output voltage increased.No hazard.	AVR1:increased
	Short	A-K	Output voltage increased.No hazard.	AVR1:increased
		C-E	Output voltage decreased.No hazard.	AVR1:decreased
R101	Open		Normal operation.	
R103	Open		Normal operation.	
R105	Open		See 18 Page.	
R111	Open		Output voltage decreased.No hazard.	AVR1:decreased
R113	Open		Normal operation.	
R114	Open		Output voltage decreased.No hazard.	AVR1:decreased
R116	Open		Normal operation.	
R117	Open		Normal operation.	
R118	Open		Normal operation.	
R121	Open		Output voltage decreased.No hazard.	AVR1:decreased
R123	Open		Output voltage decreased.No hazard.	AVR1:decreased

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Component	Mode	Comment	Output Voltage (V)
R124	Open	Output voltage increased. No hazard.	AVR1: increased
R125	Open	See 18 Page.	
R131	Open	Normal operation.	
R132	Open	Normal operation.	
R133	Open	Normal operation.	
R135	Open	Normal operation.	
R141	Open	No hazard.	AVR1: 0
R201	Open	No hazard.	AVR1: 0
R202	Open	No hazard.	AVR1: 0
R203	Open	Normal operation.	
R211	Open	No hazard.	AVR1: 0
R212	Open	Normal operation.	
R213	Open	No hazard.	AVR1: 0
R221	Open	Output voltage decreased. No hazard.	AVR1: decreased
R301	Open	Output voltage increased. No hazard.	AVR1: increased
R302	Open	Output voltage increased. No hazard.	AVR1: increased
R303	Open	Output voltage increased. No hazard.	AVR1: increased
R311	Open	Output voltage decreased. No hazard.	AVR1: decreased
R312	Open	Output voltage decreased. No hazard.	AVR1: decreased
R313	Open	Normal operation.	
R315	Open	Normal operation.	
R316	Open	Output voltage increased. No hazard.	AVR1: increased
R321	Open	Normal operation.	
R351	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R352	Open	Normal operation.	
R353	Open	Output voltage decreased.No hazard.	AVR1:decreased
R354	Open	Normal operation.	
R355	Open	Normal operation.	
R357	Open	Normal operation.	
R401	Open	Normal operation.	
R402	Open	Normal operation.	
R511	Open	See 18 Page.	
R512	Open	Normal operation.	
R513	Open	Normal operation.	
R514	Open	Normal operation.	
R515	Open	Normal operation.	
R516	Open	Normal operation.	
R521	Open	See 18 Page.	
R522	Open	Normal operation.	
R523	Open	Normal operation.	
R524	Open	Normal operation.	
R525	Open	Normal operation.	
R526	Open	Normal operation.	
R601	Open	Output voltage increased.No hazard.	AVR1:increased
R701	Open	Output voltage increased.No hazard.	AVR1:increased
R702	Open	Output voltage increased.No hazard.	AVR1:increased
R703	Open	Output voltage increased.No hazard.	AVR1:increased
R711	Open	Output voltage decreased.No hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
R712	Open		Output voltage decreased.No hazard.	AVR1:decreased
R713	Open		Output voltage increased.No hazard.	AVR1:increased
R714	Open		No hazard.	AVR1:decreased or increased
R715	Open		Normal operation.	
R716	Open		Output voltage increased.No hazard.	AVR1:increased
R717	Open		Normal operation.	
R721	Open		Output voltage increased.No hazard.	AVR1:increased
R722	Open		Output voltage increased.No hazard.	AVR1:increased
R723	Open		Output voltage decreased.No hazard.	AVR1:decreased
R725	Open		Normal operation.	
R726	Open		No hazard.	AVR1:decreased or increased
R801	Open		Output voltage increased.No hazard.	AVR1:increased
R802	Open		Output voltage increased.No hazard.	AVR1:increased
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	D	See 18 Page.	
		S	See 19 Page.	
		G	See 19 Page.	
	Short	D-S	See 19 Page.	
		S-G	See 19 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR102	Short	G-D	See 19 Page.	
TR131	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No hazard.	AVR1:0
		E-B	Normal operation.	
		B-C	No hazard.	AVR1:0
TR351	Open	1(1)	Output voltage decreased.No hazard.	AVR1:decreased
		2(2)	Normal operation.	
		2(3)	Normal operation.	
		2(4)	Normal operation.	
		1(5)	Output voltage decreased.No hazard.	AVR1:decreased
		1(6)	Output voltage decreased.No hazard.	AVR1:decreased
	Short	1-2(1-2)	Normal operation.	
		2-2(2-3)	Normal operation.	
		2-1(4-5)	Output voltage decreased.No hazard.	AVR1:decreased
		1-1(5-6)	Output voltage decreased.No hazard.	AVR1:decreased
TR511	Open	D	Output voltage decreased.No hazard.	AVR1:decreased
		S	Output voltage decreased.No hazard.	AVR1:decreased
		G	Output voltage decreased.No hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased.No hazard.	AVR1:decreased
		S-G	See 19 Page.	
		G-D	Output voltage decreased.No hazard.	AVR1:decreased
TR521	Open	D	Output voltage decreased.No hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
TR521	Open	S	Output voltage decreased. No hazard.	AVR1: decreased
		G	Output voltage decreased. No hazard.	AVR1: decreased
	Short	D-S	Output voltage decreased. No hazard.	AVR1: decreased
		S-G	See 19 Page.	
		G-D	Output voltage decreased. No hazard.	AVR1: decreased
TR601	Open	D	Output voltage increased. No hazard.	AVR1: increased
		S	Output voltage increased. No hazard.	AVR1: increased
		G	Output voltage increased. No hazard.	AVR1: increased
	Short	D-S	Output voltage increased. No hazard.	AVR1: increased
		S-G	Output voltage increased. No hazard.	AVR1: increased
		G-D	Output voltage increased. No hazard.	AVR1: increased
TR701	Open	C	Normal operation.	
		E	Output voltage increased. No hazard.	AVR1: increased
		B	Output voltage increased. No hazard.	AVR1: increased
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Output voltage increased. No hazard.	AVR1: increased
TR702	Open	C	Output voltage increased. No hazard.	AVR1: increased
		E	Output voltage increased. No hazard.	AVR1: increased
		B	Output voltage increased. No hazard.	AVR1: increased
	Short	C-E	Output voltage decreased. No hazard.	AVR1: decreased
		E-B	No hazard.	AVR1: decreased or increased
		B-C	Output voltage decreased. No hazard.	AVR1: decreased
ZD131	Open		Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
ZD131	Short	Normal operation.	
ZD132	Open	Normal operation.	
	Short	Normal operation.	
ZD201	Open	Normal operation.	
	Short	Normal operation.	
ZD601	Open	See 19 Page.	
	Short	Output voltage increased.No hazard.	AVR1:increased
ZD701	Open	Normal operation.	
	Short	Output voltage increased.No hazard.	AVR1:increased

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C102	Open		No hazard.	
C103	Open		No hazard.	
C112	Short		No hazard.	AVR1:0
C301	Open		Output voltage decreased.No hazard.	AVR1:decreased
C511	Short		Output voltage decreased.No hazard.	AVR1:decreased
C521	Short		Output voltage decreased.No hazard.	AVR1:decreased
D121	Open		No hazard.	
D122	Short		Output voltage decreased.No hazard.	AVR1:decreased
IC111	Short	1-2	No hazard.	AVR1:0
		2-3	Output voltage decreased.No hazard.	AVR1:decreased
IC301	Open	8	No hazard.	AVR1:0
		9	No hazard.	AVR1:0
	Short	8-9	Output voltage decreased.No hazard.	AVR1:decreased
		9-10	No hazard.	AVR1:0
IC401	Open	2	No hazard.	AVR1:0
		3	No hazard.	AVR1:0
		4	No hazard.	AVR1:0
		5	No hazard.	AVR1:0
		6	No hazard.	AVR1:0
		7	No hazard.	AVR1:0
		8	No hazard.	AVR1:0
	Short	2-3	No hazard.	
		3-4	No hazard.	AVR1:0
		5-6	No hazard.	AVR1:0

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
IC601	Open	1	No hazard.	AVR1:0
		2	No hazard.	AVR1:0
		3	No hazard.	AVR1:0
		4	No hazard.	AVR1:0
		5	No hazard.	AVR1:0
		6	No hazard.	AVR1:0
		7	No hazard.	AVR1:0
		8	No hazard.	AVR1:0
	Short	1-2	Output voltage decreased.No hazard.	AVR1:decreased
		2-3	No hazard.	AVR1:0
		3-4	No hazard.	AVR1:0
IC701	Open	3	Output voltage increased.No hazard.	AVR1:increased
		4	Output voltage decreased.No hazard.	AVR1:decreased
R105	Open		No hazard.	AVR1:0
R125	Open		No hazard.	
R511	Open		No hazard.	AVR1:0
R521	Open		No hazard.	AVR1:0
TR101	Open	D	Output voltage decreased.No hazard.	AVR1:decreased
		S	Output voltage decreased.No hazard.	AVR1:decreased
		G	Output voltage decreased.No hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased.No hazard.	AVR1:decreased
		S-G	No hazard.	AVR1:0
		G-D	External fuse opened.No hazard.	AVR1:0
TR102	Open	D	Output voltage decreased.No hazard.	AVR1:decreased

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR102	Open	S	Output voltage decreased.No hazard.	AVR1:decreased
		G	No hazard.	AVR1:0
	Short	D-S	Output voltage decreased.No hazard.	AVR1:decreased
		S-G	Output voltage decreased.No hazard.	AVR1:decreased
		G-D	Output voltage decreased.No hazard.	AVR1:decreased
TR511	Short	S-G	No hazard.	AVR1:0
TR521	Short	S-G	No hazard.	AVR1:0
ZD601	Open		No hazard.	