

ABNORMAL TEST RESULT

OF MODEL CHS20048

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 : 2/27 ~ 25/27)

(Abnormal Test Result: 26/27 ~ 27/27)

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)
C100	Open	Normal operation.	
	Short	Normal operation.	
C101	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C102	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C103	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C104	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C105	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C107	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C108	Open	Normal operation.	
	Short	Normal operation.	
C109	Open	Normal operation.	
	Short	Normal operation.	
C110	Open	Normal operation.	
	Short	See 26 Page.	
C111	Open	Normal operation.	
	Short	No Hazard.	
C112	Open	Normal operation.	
	Short	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
C113	Open		See 26 Page.	
	Short		No Hazard.	
C114	Open		See 26 Page.	
	Short		No Hazard.	
C115	Open	(only 3R3, 05	Normal operation.	
	Short	(only 3R3, 05	No Hazard.	
C116	Open	(only 3R3, 05	Normal operation.	
	Short	(only 3R3, 05	No Hazard.	
C121	Open		Output voltage decreased. No hazard.	
	Short		Normal operation.	
C122	Open		Normal operation.	
	Short		Normal operation.	
C123	Open		Normal operation.	
	Short		Normal operation.	
C124	Open		Normal operation.	
	Short		See 26 Page.	
C201	Open		Normal operation.	
	Short		See 26 Page.	
C202	Open		Normal operation.	
	Short		No Hazard.	
C203	Open		Normal operation.	
	Short		No Hazard.	
C204	Open		Normal operation.	
	Short		No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C211	Open	Normal operation.	
	Short	No Hazard.	
C212	Open	Normal operation.	
	Short	See 26 Page.	
C221	Open	Normal operation.	
	Short	Normal operation.	
C233	Open	No Hazard.	
	Short	No Hazard.	
C241	Open	Normal operation.	
	Short	No Hazard.	
C242	Open	Normal operation.	
	Short	No Hazard.	
C301	Open	Normal operation.	
	Short	See 26 Page.	
C321	Open	Normal operation.	
	Short	See 26 Page.	
C322	Open	Normal operation.	
	Short	No Hazard.	
C501	Open	Normal operation.	
	Short	No Hazard.	
C502	Open	Normal operation.	
	Short	No Hazard.	
C503	Open	Normal operation.	
	Short	No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C504	Open	Normal operation.	
	Short	No Hazard.	
C505	Open	Normal operation.	
	Short	No Hazard.	
C506	Open	Normal operation.	
	Short	No Hazard.	
C507	Open	Normal operation.	
	Short	No Hazard.	
C508	Open	Normal operation.	
	Short	No Hazard.	
C509	Open	Normal operation.	
	Short	No Hazard.	
C510	Open	Normal operation.	
	Short	No Hazard.	
C511	Open	Normal operation.	
	Short	No Hazard.	
C512	Open	Normal operation.	
	Short	No Hazard.	
C513	Open	Normal operation.	
	Short	No Hazard.	
C515	Open	Normal operation.	
	Short	No Hazard.	
C516	Open	Normal operation.	
	Short	No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C517	Open	Normal operation.	
	Short	No Hazard.	
C518	Open	Normal operation.	
	Short	Normal operation.	
C525	Open	Normal operation.	
	Short	No Hazard.	
C526	Open	Normal operation.	
	Short	No Hazard.	
C527	Open	Normal operation.	
	Short	No Hazard.	
C528	Open	Normal operation.	
	Short	Normal operation.	
C531	Open	Normal operation.	
	Short	No Hazard.	
C602	Open	Normal operation.	
	Short	No Hazard.	
C701	Open	No Hazard.	
	Short	No Hazard.	
C706	Open	Normal operation.	
	Short	No Hazard.	
C707	Open	No Hazard.	
	Short	No Hazard.	
C708	Open	Normal operation.	
	Short	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
C709	Open		Normal operation.	
	Short		No Hazard.	
C710	Open		No Hazard.	
	Short		No Hazard.	
C713	Open		Normal operation.	
	Short		No Hazard.	
C714	Open		Normal operation.	
	Short		No Hazard.	
C717	Open		Normal operation.	
	Short		Normal operation.	
C718	Open		Normal operation.	
	Short		Normal operation.	
C721	Open		Normal operation.	
	Short		No Hazard.	
C722	Open		Normal operation.	
	Short		No Hazard.	
C729	Open		No Hazard.	
	Short		No Hazard.	
D105	Open		Normal operation.	
	Short		Normal operation.	
D106	Open		Normal operation.	
	Short		Normal operation.	
D115	Open	(only 3R3, 05	Normal operation.	
	Short	(only 3R3, 05	External Fuse opened, No hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
D116	Open	(only 3R3, 05)	Normal operation.	
	Short	(only 3R3, 05)	External Fuse opened, No hazard.	
D231	Open		No Hazard.	
	Short		Normal operation.	
D232	Open		Normal operation.	
	Short		Normal operation.	
D241	Open		No Hazard.	
	Short		No Hazard.	
D301	Open		Normal operation.	
	Short		Normal operation.	
D311	Open		See 26 Page.	
	Short		No Hazard.	
D511	Open		Normal operation.	
	Short		Normal operation.	
D521	Open		Normal operation.	
	Short		Normal operation.	
D701	Open		No Hazard.	
	Short		Normal operation.	
D705	Open		Normal operation.	
	Short		No Hazard.	
D706	Open		Normal operation.	
	Short		No Hazard.	
D716	Open		Normal operation.	
	Short		No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC111	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
		6	No Hazard.	
		7	No Hazard.	
		8	No Hazard.	
	Short	1-2	See 26 Page.	
		2-3	External Fuse opened, No hazard.	
		3-4	No Hazard.	
		5-6	External Fuse opened, No hazard.	
		6-7	No Hazard.	
		7-8	No Hazard.	
IC112	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
		6	No Hazard.	
		7	No Hazard.	
		8	No Hazard.	
	Short	1-2	See 26 Page.	
		2-3	External Fuse opened, No hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC112	Short	3-4	No Hazard.	
		5-6	External Fuse opened, No hazard.	
		6-7	No Hazard.	
		7-8	No Hazard.	
IC201	Open	1	No Hazard.	
		2	Normal operation.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
		6	No Hazard.	
		7	No Hazard.	
		8	No Hazard.	
		9	No Hazard.	
		10	No Hazard.	
		11	No Hazard.	
		12	Normal operation.	
		13	Normal operation.	
		14	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	No Hazard.	
		3-4	Normal operation.	
		4-5	Normal operation.	
		5-6	No Hazard.	
		6-7	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Short	8-9	Normal operation.	
		9-10	No Hazard.	
		10-11	No Hazard.	
		11-12	Normal operation.	
		12-13	Normal operation.	
		13-14	Output voltage decreased. No hazard.	
IC232	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	No Hazard.	
		3-4	External Fuse opened, No hazard.	
		4-5	No Hazard.	
IC233	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	No Hazard.	
		3-4	No Hazard.	
		4-5	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC234	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	No Hazard.	
		3-4	No Hazard.	
		4-5	No Hazard.	
IC235	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	No Hazard.	
		3-4	External Fuse opened, No hazard.	
		4-5	No Hazard.	
IC321	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	
		4	See 26 Page.	
		5	Normal operation.	
	Short	1-2	Normal operation.	

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Component	Mode		Comment	Output Voltage (V)
IC321	Short	2-3	See 26 Page.	
		3-4	See 26 Page.	
		4-5	See 26 Page.	
IC702	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	Output voltage decreased. No hazard.	
		3-4	No Hazard.	
		4-5	No Hazard.	
IC703	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	
		4	No Hazard.	
		5	Normal operation.	
	Short	1-2	Normal operation.	
		2-3	No Hazard.	
		3-4	Normal operation.	
L101	Open		No Hazard.	
	Short		Normal operation.	
PC201	Open	A, K	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
PC201	Open	C, E	No Hazard.	
	Short	A-K	No Hazard.	
		C-E	No Hazard.	
SS121	Open		Output voltage decreased. No hazard.	
	Short		No Hazard.	
SS531	Open		No Hazard.	
	Short		No Hazard.	
TH201	Open		No Hazard.	
	Short		Normal operation.	
TR101	Open	D	See 26 Page.	
		S	See 26 Page.	
		G	See 26 Page.	
	Short	D-S	See 26 Page.	
		S-G	See 26 Page.	
		G-D	See 26 Page.	
TR102	Open	D	See 26 Page.	
		S	See 26 Page.	
		G	See 26 Page.	
	Short	D-S	See 27 Page.	
		S-G	See 27 Page.	
		G-D	See 27 Page.	
TR103	Open	D	See 27 Page.	
		S	See 27 Page.	
		G	See 27 Page.	

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Component	Mode		Comment	Output Voltage (V)
TR103	Short	D-S	See 27 Page.	
		S-G	See 27 Page.	
		G-D	See 27 Page.	
TR104	Open	D	See 27 Page.	
		S	See 27 Page.	
		G	See 27 Page.	
	Short	D-S	See 27 Page.	
		S-G	See 27 Page.	
		G-D	See 27 Page.	
TR121-1	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	Output voltage decreased. No hazard.	
TR121-2	Open	C	Output voltage decreased. No hazard.	
		E	Output voltage decreased. No hazard.	
		B	Output voltage decreased. No hazard.	
	Short	C-E	Output voltage decreased. No hazard.	
		E-B	Normal operation.	
		B-C	Output voltage decreased. No hazard.	
TR123-1	Open	C	Normal operation.	
		E	Output voltage decreased. No hazard.	
		B	Output voltage decreased. No hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR123-1	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR123-2	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR211	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	Normal operation.	
		G-D	No Hazard.	
TR301	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	See 27 Page.	
		E-B	Normal operation.	
		B-C	See 27 Page.	
TR320	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	

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Component	Mode		Comment	Output Voltage (V)
TR320	Short	C-E	See 27 Page.	
		E-B	Normal operation.	
		B-C	See 27 Page.	
TR511	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	Normal operation.	
		G-D	No Hazard.	
TR512	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	Normal operation.	
		G-D	No Hazard.	
TR514	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	
	Short	C-E	Normal operation.	
		E-B	No Hazard.	
		B-C	Normal operation.	
TR515	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR515	Short	D-S	Normal operation.	
		S-G	No Hazard.	
		G-D	Normal operation.	
TR516	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	No Hazard.	
TR517	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	No Hazard.	
TR518	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
TR521	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR521	Short	D-S	No Hazard.	
		S-G	Normal operation.	
		G-D	No Hazard.	
TR522	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	Normal operation.	
		G-D	No Hazard.	
TR524	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	
	Short	C-E	Normal operation.	
		E-B	No Hazard.	
		B-C	Normal operation.	
TR525	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	
	Short	D-S	Normal operation.	
		S-G	No Hazard.	
		G-D	Normal operation.	
TR526	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR526	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	No Hazard.	
TR527	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	No Hazard.	
TR528	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
TR601	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	
	Short	C-E	Normal operation.	
		E-B	No Hazard.	
		B-C	Normal operation.	
TR702	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR702	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	No Hazard.	
ZD221	Open		Normal operation.	
	Short		Normal operation.	
ZD301	Open		See 27 Page.	
	Short		Normal operation.	
ZD511	Open		No Hazard.	
	Short		No Hazard.	
ZD521	Open		No Hazard.	
	Short		No Hazard.	
ZD601	Open		Normal operation.	
	Short		No Hazard.	
R101	Open		Normal operation.	
R102	Open		Normal operation.	
R103	Open		Normal operation.	
R104	Open		Normal operation.	
R105	Open		No Hazard.	
R107	Open		No Hazard.	
R109	Open		No Hazard.	
R111	Open		No Hazard.	
R113	Open		No Hazard.	
R114	Open		No Hazard.	
R115	Open		No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R116	Open	No Hazard.	
R120	Open	Output voltage decreased. No hazard.	
R121	Open	Output voltage decreased. No hazard.	
R122	Open	Normal operation.	
R123	Open	Normal operation.	
R124	Open	Normal operation.	
R127	Open	Normal operation.	
R128	Open	Output voltage decreased. No hazard.	
R129	Open	No Hazard.	
R130	Open	Normal operation.	
R201	Open	No Hazard.	
R202	Open	No Hazard.	
R203	Open	Normal operation.	
R206	Open	No Hazard.	
R207	Open	Normal operation.	
R211	Open	No Hazard.	
R213	Open	No Hazard.	
R214	Open	Normal operation.	
R215	Open	Normal operation.	
R216	Open	No Hazard.	
R221	Open	No Hazard.	
R222	Open	No Hazard.	
R223	Open	Normal operation.	
R234	Open	No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R235	Open	No Hazard.	
R236	Open	No Hazard.	
R241	Open	No Hazard.	
R242	Open	No Hazard.	
R243	Open	No Hazard.	
R244	Open	Normal operation.	
R245	Open	Normal operation.	
R301	Open	Normal operation.	
R302	Open	Normal operation.	
R303	Open	Normal operation.	
R304	Open	Normal operation.	
R305	Open	Normal operation.	
R311	Open	See 27 Page.	
R322	Open	See 27 Page.	
R323	Open	No Hazard.	
R324	Open	No Hazard.	
R510	Open	Normal operation.	
R511	Open	No Hazard.	
R512	Open	No Hazard.	
R513	Open	No Hazard.	
R514	Open	No Hazard.	
R515	Open	No Hazard.	
R516	Open	Normal operation.	
R517	Open	Output voltage decreased. No hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R518	Open	No Hazard.	
R519	Open	No Hazard.	
R520	Open	Normal operation.	
R521	Open	No Hazard.	
R522	Open	No Hazard.	
R523	Open	No Hazard.	
R524	Open	No Hazard.	
R525	Open	No Hazard.	
R526	Open	Normal operation.	
R527	Open	No Hazard.	
R528	Open	No Hazard.	
R529	Open	No Hazard.	
R531	Open	Normal operation.	
R532	Open	Normal operation.	
R536	Open	No Hazard.	
R601	Open	No Hazard.	
R707	Open	Normal operation.	
R713	Open	No Hazard.	
R714	Open	No Hazard.	
R716	Open	No Hazard.	
R718	Open	No Hazard.	
R719	Open	No Hazard.	
R720	Open	No Hazard.	
R722	Open	No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R723	Open	No Hazard.	
R724	Open	No Hazard.	
R725	Open	No Hazard.	
R727	Open	No Hazard.	
R728	Open	Normal operation.	
R729	Open	No Hazard.	
R733	Open	Normal operation.	
R734	Open	Normal operation.	
R750	Open	No Hazard.	
R751	Open	No Hazard.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C110	Short		No Hazard.	
C113	Open		External Fuse opened, No hazard.	
C114	Open		External Fuse opened, No hazard.	
C124	Short		No Hazard.	
C201	Short		No Hazard.	
C212	Short		No Hazard.	
C301	Short		No Hazard.	
C321	Short		No Hazard.	
D311	Open		Normal operation.	
IC111	Short	1-2	External Fuse opened, No hazard.	
IC112	Short	1-2	External Fuse opened, No hazard.	
IC321	Open	4	External Fuse opened, No hazard.	
	Short	2-3	No Hazard.	
		3-4	No Hazard.	
		4-5	External Fuse opened, No hazard.	
TR101	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	
	Short	D-S	External Fuse opened, No hazard.	
		S-G	No Hazard.	
		G-D	External Fuse opened, No hazard.	
TR102	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR102	Short	D-S	External Fuse opened, No hazard.	
		S-G	No Hazard.	
		G-D	External Fuse opened, No hazard.	
TR103	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	
	Short	D-S	External Fuse opened, No hazard.	
		S-G	No Hazard.	
		G-D	External Fuse opened, No hazard.	
TR104	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	
	Short	D-S	External Fuse opened, No hazard.	
		S-G	No Hazard.	
		G-D	External Fuse opened, No hazard.	
TR301	Short	C-E	No Hazard.	
		B-C	No Hazard.	
TR320	Short	C-E	External Fuse opened, No hazard.	
		B-C	External Fuse opened, No hazard.	
ZD301	Open		External Fuse opened, No hazard.	
R311	Open		Normal operation.	
R322	Open		External Fuse opened, No hazard.	