

ABNORMAL TEST RESULT

OF MODEL CES Type-P

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 : 2/21 ~ 19/21)

(Abnormal Test Result: 20/21 ~ 21/21)

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.	0[V]
C102	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C103	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	
C105	Open	Normal operation.	
	Short	See 20 Page.	
C106	Open	No Hazard.	
	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	Normal operation.	
C161	Open	Normal operation.	
	Short	See 20 Page.	
C162	Open	Normal operation.	
	Short	See 20 Page.	
C163	Open	Normal operation.	
	Short	No Hazard.	
C201	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C202	Open	Normal operation.	
	Short	Normal operation.	
C203	Open	No Hazard.	
	Short	Normal operation.	
C204	Open	No Hazard.	
	Short	Normal operation.	
C205	Open	Normal operation.	
	Short	Normal operation.	
C211	Open	Normal operation.	
	Short	Normal operation.	
C301	Open	Normal operation.	
	Short	See 20 Page.	
C302	Open	No Hazard.	
	Short	No Hazard.	
C303	Open	No Hazard.	
	Short	No Hazard.	
C306	Open	No Hazard.	
	Short	No Hazard.	
C307	Open	Normal operation.	
	Short	No Hazard.	
C311	Open	Normal operation.	
	Short	See 20 Page.	
C321	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
C331	Open		Normal operation.	
	Short		No Hazard.	
C332	Open		Normal operation.	
	Short		No Hazard.	
C341	Open		No Hazard.	
	Short		No Hazard.	
C501	Open	only 033 050	Normal operation.	
	Short	only 033 050	Normal operation.	
C502	Open	only 033 050	Normal operation.	
	Short	only 033 050	Normal operation.	
C509	Open		Normal operation.	
	Short		Normal operation.	
C510	Open		Normal operation.	
	Short		Normal operation.	
C511	Open		Normal operation.	
	Short		No Hazard.	
C512	Open		Normal operation.	
	Short		No Hazard.	
C513	Open		Normal operation.	
	Short		No Hazard.	
C514	Open		Normal operation.	
	Short		No Hazard.	
C515	Open		Normal operation.	
	Short		No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
C516	Open		Normal operation.	
	Short		No Hazard.	
C517	Open		Normal operation.	
	Short		No Hazard.	
C518	Open		Normal operation.	
	Short		No Hazard.	
C604	Open		No Hazard.	
	Short		No Hazard.	
C703	Open	only 050	Normal operation.	
	Short	only 050	No Hazard.	
C704	Open		Normal operation.	
	Short		No Hazard.	
C705	Open		No Hazard.	
	Short		No Hazard.	
C706	Open		Normal operation.	
	Short		No Hazard.	
C707	Open		Normal operation.	
	Short		No Hazard.	
C708	Open		Normal operation.	
	Short		No Hazard.	
C709	Open		Normal operation.	
	Short		No Hazard.	
C710	Open		Normal operation.	
	Short		No Hazard.	

F M E A

Component	Mode	Comment	Output Voltage (V)
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.	
D101	Open		
	Short	No Hazard.	
D102	Open	Normal operation.	
	Short	Normal operation.	
D151	Open	Normal operation.	
	Short	Normal operation.	
D161	Open	See 20 Page.	
	Short	No Hazard.	
D201	Open	Normal operation.	
	Short	No Hazard.	
D301	Open	No Hazard.	
	Short	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
D331	Open		No Hazard.	
	Short		No Hazard.	
D603	Open		No Hazard.	
	Short		No Hazard.	
D604	Open		Normal operation.	
	Short		Normal operation.	
D605	Open		Normal operation.	
	Short		No Hazard.	
D606	Open		Normal operation.	
	Short		Normal operation.	
D701	Open		No Hazard.	
	Short		Normal operation.	
D702	Open		Normal operation.	
	Short		No Hazard.	
D705	Open		Normal operation.	
	Short		No Hazard.	
D706	Open		Normal operation.	
	Short		No Hazard.	
IC161	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	
		4	See 20 Page.	
		5	Normal operation.	
	Short	1-2	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC161	Short	3-5	See 20 Page.	
		4-5	See 20 Page.	
IC301	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
		6	No Hazard.	
		7	Normal operation.	
		8	No Hazard.	
		9	No Hazard.	
		10	Normal operation.	
		11	Normal operation.	
		12	No Hazard.	
		13	Normal operation.	
		14	Normal operation.	
		15	No Hazard.	
		16	No Hazard.	
	Short	1-2	No Hazard.	
		2-3	No Hazard.	
		3-4	No Hazard.	
		4-5	See 20 Page.	
		5-6	No Hazard.	
		6-7	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	7-8	No Hazard.	
		9-10	No Hazard.	
		10-11	Normal operation.	
		11-12	No Hazard.	
		12-13	Normal operation.	
		13-14	Normal operation.	
		14-15	Normal operation.	
		15-16	No Hazard.	
IC302	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		3-4	No Hazard.	
		4-5	No Hazard.	
IC303	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	No Hazard.	
		3-4	External Fuse opened, No hazard.	
		4-5	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC702	Open	1	No Hazard.	
		2	No Hazard.	
		3	No Hazard.	
		4	No Hazard.	
		5	No Hazard.	
	Short	1-2	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.	
		3-4	Normal operation.	
		4-5	No Hazard.	
L101	Open		No Hazard.	
	Short		Normal operation.	
PC201	Open	A, K	No Hazard.	
		C, E	No Hazard.	
	Short	A-K	No Hazard.	
		C-E	No Hazard.	
PTH301	Open		No Hazard.	
	Short		Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TH201	Open		Normal operation.	
	Short		No Hazard.	
TR103	Open	D	No Hazard.	
		S	No Hazard.	
		G	No Hazard.	
	Short	D-S	See 20 Page.	
		S-G	No Hazard.	
		G-D	See 20 Page.	
TR104	Open	3 (D)	No Hazard.	
		5 (G)	No Hazard.	
		4 (S)	No Hazard.	
	Short	3-4 (D-S)	See 20 Page.	
		4-5 (S-G)	No Hazard.	
		5-3 (G-D)	No Hazard.	
	Open	6 (D)	See 20 Page.	
		1 (S)	See 20 Page.	
		2 (G)	See 20 Page.	
	Short	6-2 (D-S)	No Hazard.	
		1-2 (S-G)	See 20 Page.	
		2-6 (G-D)	No Hazard.	
TR151	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	See 20 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR151	Short	E-B	Normal operation.	
		B-C	See 20 Page.	
TR161	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	
	Short	C-E	See 20 Page.	
		E-B	Normal operation.	
		B-C	See 20 Page.	
TR201	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	
	Short	C-E	No Hazard.	
		E-B	No Hazard.	
		B-C	No Hazard.	
TR202	Open	C	No Hazard.	
		E	No Hazard.	
		B	No Hazard.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	No Hazard.	
TR211	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR211	Short	S-G	Normal operation.	
		G-D	Normal operation.	
TR212	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	
		E-B	Normal operation.	
		B-C	No Hazard.	
TR302	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	See 20 Page.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR501	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	No Hazard.	
		G-D	No Hazard.	
TR502	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR502	Short	S-G	No Hazard.	
		G-D	No Hazard.	
TR503	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	No Hazard.	
		G-D	No Hazard.	
TR504	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	No Hazard.	
		G-D	No Hazard.	
TR601	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	
		S-G	Normal operation.	
		G-D	No Hazard.	
TR602	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR602	Short	S-G	Normal operation.	
		G-D	No Hazard.	
TR603	Open	4(D)	Normal operation.	
		5(G)	Normal operation.	
		3(S)	Normal operation.	
	Short	4-5(D-S)	No Hazard.	
		3-5(S-G)	Normal operation.	
		5-4(G-D)	Normal operation.	
	Open	6(D)	Normal operation.	
		1(S)	Normal operation.	
		2(G)	Normal operation.	
	Short	6-2(D-S)	Normal operation.	
		1-2(S-G)	Normal operation.	
		2-6(G-D)	No Hazard.	
TR701	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.	
	Short	C-E	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR702	Short	E-B	Normal operation.	
		B-C	No Hazard.	
ZD151	Open		See 20 Page.	
	Short		No Hazard.	
ZD211	Open		Normal operation.	
	Short		No Hazard.	
ZD301	Open		Normal operation.	
	Short		No Hazard.	
ZD321	Open		Normal operation.	
	Short		Normal operation.	
ZD701	Open		Normal operation.	
	Short		No Hazard.	
R101	Open		No Hazard.	
R102	Open		Normal operation.	
R103	Open		Normal operation.	
R104	Open		No Hazard.	
R105	Open		See 20 Page.	
R108	Open		Normal operation.	
R109	Open		Normal operation.	
R151	Open		Normal operation.	
R152	Open		Normal operation.	
R153	Open		Normal operation.	
R154	Open		Normal operation.	
R155	Open		Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R161	Open	See 21 Page.	
R164	Open	See 21 Page.	
R165	Open	No Hazard.	
R166	Open	No Hazard.	
R201	Open	Normal operation.	
R202	Open	Normal operation.	
R203	Open	Normal operation.	
R204	Open	No Hazard.	
R205	Open	Normal operation.	
R206	Open	Normal operation.	
R207	Open	No Hazard.	
R208	Open	Normal operation.	
R211	Open	No Hazard.	
R212	Open	No Hazard.	
R213	Open	Normal operation.	
R214	Open	Normal operation.	
R215	Open	Normal operation.	
R301	Open	No Hazard.	
R302	Open	No Hazard.	
R303	Open	Normal operation.	
R305	Open	No Hazard.	
R309	Open	No Hazard.	
R310	Open	No Hazard.	
R312	Open	No Hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
R313	Open		Normal operation.	
R321	Open		Normal operation.	
R322	Open		No Hazard.	
R323	Open		No Hazard.	
R331	Open		No Hazard.	
R332	Open		No Hazard.	
R333	Open		No Hazard.	
R341	Open		No Hazard.	
R342	Open		No Hazard.	
R343	Open		Normal operation.	
R344	Open		No Hazard.	
R501	Open	only 033 050	Normal operation.	
R502	Open		Normal operation.	
R505	Open		Normal operation.	
R506	Open		Normal operation.	
R507	Open		Normal operation.	
R508	Open		Normal operation.	
R509	Open	only 050 120	Normal operation.	
R510	Open	only 050 120	Normal operation.	
R603	Open		No Hazard.	
R604	Open		No Hazard.	
R605	Open		No Hazard.	
R606	Open		Normal operation.	
R607	Open		Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
R608	Open		Normal operation.	
R609	Open		Normal operation.	
R610	Open		Normal operation.	
R701	Open		No Hazard.	
R702	Open		No Hazard.	
R703	Open	only 050	Normal operation.	
R704	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.	
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.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C105	Short		No Hazard.	AVR1:*0[V]
C161	Short		No Hazard.	AVR1:*0[V]
C162	Short		No Hazard.	AVR1:*0[V]
C301	Short		No Hazard.	AVR1:*0[V]
C311	Short		No Hazard.	
D161	Open		Normal operation.	
IC161	Open	4	External Fuse opened, No hazard.	
	Short	3-5	No Hazard.	
		4-5	External Fuse opened, No hazard.	
IC301	Short	4-5	No Hazard.	
TR103	Short	D-S	External Fuse opened, No hazard.	
		G-D	External Fuse opened, No hazard.	
TR104	Short	3-4 (D-S)	External Fuse opened, No hazard.	
		6 (D)	External Fuse opened, No hazard.	
	Open	1 (S)	External Fuse opened, No hazard.	
		2 (G)	External Fuse opened, No hazard.	
	Short	1-2 (S-G)	External Fuse opened, No hazard.	
TR151	Short	C-E	No Hazard.	
		B-C	No Hazard.	
TR161	Short	C-E	External Fuse opened, No hazard.	
		B-C	External Fuse opened, No hazard.	
TR302	Short	C-E	No Hazard.	
ZD151	Open		External Fuse opened, No hazard.	
R105	Open		External Fuse opened, No hazard.	



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
R161	Open	Normal operation.	
R164	Open	External Fuse opened, No hazard.	