



ABNORMAL TEST RESULT

OF MODEL TEPS65F/TECS65F

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 ~ 18/21)

(Abnormal Test Result: 19/21 ~ 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.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C111	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	F101 opened, No hazard.	AVR1:0
C112	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C113	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C201	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C202	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C203	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C204	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C205	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C301	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C302	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C303	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

F M E A

Component	Mode	Comment	Output Voltage (V)
C311	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C351	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C361	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C362	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C371	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C391	Open	Normal operation.	AVR1:*
	Short	TR501 opened, No hazard.	AVR1:0
C401	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C402	Open	Normal operation.	AVR1:*
	Short	See page 19.	
C403	Open	Normal operation.	AVR1:*
	Short	See page 19.	
C404	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C411	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C501	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C502	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C503	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C504	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C505	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C506	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C511	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C512	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C513	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C514	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C515	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C516	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C517	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C518	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C601	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C602	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C603	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C604	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C605	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C606	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C607 (Except:-24)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C608 (Except:-24)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C611	Open	See page 19.	
	Short	See page 19.	
C661 (Except:5)	Open	Normal operation.	AVR1:*
	Short	R661 opened, No hazard.	AVR1:*
C701	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C702	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C703	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C704	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C712	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C721	Open	No hazard.	AVR1:*
	Short	No hazard.	AVR1:*
C722 (Only -5)	Open	No hazard.	AVR1:*
	Short	No hazard.	AVR1:*
C731	Open	No hazard.	AVR1:*
	Short	No hazard.	AVR1:*
D111	Open	No hazard.	AVR1:*
	Short	No hazard.	AVR1:*
D201	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D351	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D371	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D372	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
D401	Open		Normal operation.	AVR1:*
	Short		IC301 opened, No hazard.	AVR1:0
D411	Open		See page 19.	
	Short		Normal operation.	AVR1:*
D421	Open		See page 19.	
	Short		Normal operation.	AVR1:*
D501	Open		Normal operation.	AVR1:*
	Short		TR501 opened, No hazard.	AVR1:0
D611	Open		See page 19.	
	Short		See page 19.	
D631	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D711	Open		Normal operation.	AVR1:*
	Short		Output voltage decreased. No hazard.	AVR1:decreased
D712	Open		Normal operation.	AVR1:*
	Short		Output voltage decreased. No hazard.	AVR1:decreased
IC301	Open	1	Normal operation.	AVR1:*
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
		6	No Hazard.	AVR1:0
		7	Normal operation.	AVR1:*
		8	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Open	9	TR501 opened, No hazard.	AVR1:0
		10	Normal operation.	AVR1:*
		11	No Hazard.	AVR1:0
		12	No Hazard.	AVR1:0
		13	Normal operation.	AVR1:*
		14	Normal operation.	AVR1:*
		15	Normal operation.	AVR1:*
		16	No Hazard.	AVR1:0
		17	No Hazard.	AVR1:0
		18	No Hazard.	AVR1:0
		19	No Hazard.	AVR1:0
		20	Normal operation.	AVR1:*
		21	Normal operation.	AVR1:*
		22	Normal operation.	AVR1:*
		23	No Hazard.	AVR1:0
		24	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		2-3	Normal operation.	AVR1:*
		3-4	Output voltage decreased.No hazard.	AVR1:decreased
		4-5	Normal operation.	AVR1:*
		5-6	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
		8-9	No Hazard.	AVR1:0
		9-10	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	10-11	No Hazard.	AVR1:0
		11-12	No Hazard.	AVR1:0
		13-14	Normal operation.	AVR1:*
		14-15	F101 opened, No hazard.	AVR1:0
		15-16	No Hazard.	AVR1:0
		16-17	No Hazard.	AVR1:0
		17-18	Normal operation.	AVR1:*
		19-20	No Hazard.	AVR1:0
		20-21	Normal operation.	AVR1:*
		21-22	Normal operation.	AVR1:*
		22-23	No Hazard.	AVR1:0
		23-24	No Hazard.	AVR1:0
IC401	Open	1	No Hazard.	AVR1:0
		2	See page 19.	
		3	No Hazard.	AVR1:0
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
		6	No Hazard.	AVR1:0
		8	See page 19.	
		9	See page 19.	
		10	See page 19.	
	Short	1-2	F101 opened, No hazard.	AVR1:0
		2-3	F101 opened, No hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC401	Short	4-5	Normal operation.	AVR1:*
		8-9	See page 19.	
		9-10	F101 opened, No hazard.	AVR1:0
IC601	Open	1	See page 19.	
		2	See page 19.	
		3	See page 19.	
		4	See page 19.	
		5	See page 19.	
		6	See page 19.	
	Short	1-2	See page 19.	
		2-3	See page 19.	
		4-5	See page 19.	
		5-6	See page 19.	
IC701	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
	Short	1-3	No Hazard.	AVR1:0
IC702	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
	Short	1-3	No Hazard.	AVR1:0
L101	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
L101	Open	4	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		1-3	F101 opened, No hazard.	AVR1:0
		3-4	Normal operation.	AVR1:*
		2-4	F101 opened, No hazard.	AVR1:0
L111	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L201	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L511	Open		See page 19.	
	Short		Normal operation.	AVR1:*
L601	Open		L602 opened, No hazard.	AVR1:0
	Short		See page 20.	
L602	Open		No hazard.	AVR1:*
	Short		See page 20.	
PC101	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	No Hazard.	AVR1:0
PC102	Open	A, K	Normal operation.	AVR1:*
		C, E	Normal operation.	AVR1:*
	Short	A-K	Normal operation.	AVR1:*
		C-E	No Hazard.	AVR1:0
PTH401	Open		No Hazard.	AVR1:0



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Component	Mode	Comment	Output Voltage (V)
PTH401	Short	Normal operation.	AVR1:*
R101	Open	Normal operation.	AVR1:*
R102	Open	Normal operation.	AVR1:*
R103	Open	Normal operation.	AVR1:*
R104	Open	Normal operation.	AVR1:*
R105	Open	Normal operation.	AVR1:*
R111	Open	No hazard.	AVR1:*
R221	Open	No Hazard.	AVR1:0
R222	Open	No Hazard.	AVR1:0
R223	Open	No Hazard.	AVR1:0
R224	Open	No Hazard.	AVR1:0
R301	Open	No Hazard.	AVR1:0
R304	Open	Normal operation.	AVR1:*
R305	Open	Normal operation.	AVR1:*
R306	Open	Normal operation.	AVR1:*
R307	Open	Normal operation.	AVR1:*
R311	Open	Normal operation.	AVR1:*
R312	Open	Normal operation.	AVR1:*
R321	Open	No Hazard.	AVR1:0
R322	Open	No Hazard.	AVR1:0
R331	Open	No Hazard.	AVR1:0
R332	Open	No Hazard.	AVR1:0
R342	Open	Normal operation.	AVR1:*
R351	Open	Normal operation.	AVR1:*

F M E A

Component	Mode	Comment	Output Voltage (V)
R352	Open	Normal operation.	AVR1:*
R353	Open	Normal operation.	AVR1:*
R361	Open	No Hazard.	AVR1:0
R371	Open	Normal operation.	AVR1:*
R381	Open	No Hazard.	AVR1:0
R382	Open	See page 20.	
R391	Open	TR501 opened, No hazard.	AVR1:0
R392 (Only -12)	Open	Normal operation.	AVR1:*
R393 (Except:-12)	Open	Normal operation.	AVR1:*
R401	Open	See page 20.	
R411	Open	No Hazard.	AVR1:0
R412	Open	See page 20.	
R413	Open	No Hazard.	AVR1:0
R414	Open	Normal operation.	AVR1:*
R421	Open	See page 20.	
R422	Open	See page 20.	
R423	Open	See page 20.	
R424	Open	Normal operation.	AVR1:*
R501	Open	IC301 opened, No hazard.	AVR1:0
R511	Open	Normal operation.	AVR1:*
R512	Open	Normal operation.	AVR1:*
R521 (Only -24)	Open	No Hazard.	AVR1:0
R522 (Except:-24)	Open	No Hazard.	AVR1:0
R611	Open	See page 20.	

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Component	Mode	Comment	Output Voltage (V)
R612	Open	See page 20.	
R613	Open	See page 20.	
R621 (Only -24)	Open	Normal operation.	AVR1:**
R631	Open	See page 20.	
R632	Open	See page 20.	
R633	Open	Normal operation.	AVR1:**
R641	Open	See page 20.	
R651	Open	See page 20.	
R661 (Except:5)	Open	Normal operation.	AVR1:**
R671 (Except:-24)	Open	Normal operation.	AVR1:**
R711	Open	No Hazard.	AVR1:0
R712	Open	No Hazard.	AVR1:0
R713	Open	Output voltage decreased.No hazard.	AVR1:decreased
R715	Open	No Hazard.	AVR1:0
R716	Open	Normal operation.	AVR1:**
R717	Open	Normal operation.	AVR1:**
R721	Open	No Hazard.	AVR1:0
R722	Open	Normal operation.	AVR1:**
R723	Open	No hazard.	AVR1:**
R731	Open	No hazard.	AVR1:**
R741	Open	Normal operation.	AVR1:**
R742	Open	Normal operation.	AVR1:**
R751	Open	Normal operation.	AVR1:**
R752	Open	Normal operation.	AVR1:**



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Component	Mode		Comment	Output Voltage (V)
R753	Open		Normal operation.	AVR1:*
R761	Open		Normal operation.	AVR1:*
R762 (Only -24)	Open		Normal operation.	AVR1:*
R763	Open		Normal operation.	AVR1:*
SS101	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
	Short	1-2	F101 opened, No hazard.	AVR1:0
		3-4	F101 opened, No hazard.	AVR1:0
SS102	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
	Short	1-2	F101 opened, No hazard.	AVR1:0
		3-4	F101 opened, No hazard.	AVR1:0
T101	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

F M E A

Component	Mode		Comment	Output Voltage (V)
T101	Open	9	No Hazard.	AVR1:0
		10	Normal operation.	AVR1:*
		11	Normal operation.	AVR1:*
	Short	1-2	F101 opened, No hazard.	AVR1:0
		2-3	IC301, PTH401 opened, No hazard.	AVR1:0
		3-4	PTH401 opened, No hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		7-8	IC301 opened, No hazard.	AVR1:0
		8-9	No Hazard.	AVR1:0
		9-10	F101 opened, No hazard.	AVR1:0
		10-11	F101 opened, No hazard.	AVR1:0
TH101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
TR301	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	F101 opened, No hazard.	AVR1:0
		S-G	IC301 opened, No hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
TR302	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
TR302	Short	B-C	No Hazard.	AVR1:0
TR303	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*
		B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	AVR1:*
		B-C	Normal operation.	AVR1:*
TR411	Open	C	See page 20.	
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	AVR1:*
		E-B	Normal operation.	AVR1:*
		B-C	Normal operation.	AVR1:*
TR421	Open	C	See page 20.	
		E	See page 20.	
		B	See page 20.	
	Short	C-E	Normal operation.	AVR1:*
		E-B	Normal operation.	AVR1:*
		B-C	Normal operation.	AVR1:*
TR501	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	See page 20.	
		S-G	No Hazard.	AVR1:0

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Component	Mode		Comment	Output Voltage (V)
TR501	Short	G-D	See page 20.	
TR511	Open	D	See page 20.	
		S	See page 20.	
		G	See page 20.	
	Short	D-S	See page 21.	
		S-G	See page 21.	
		G-D	See page 21.	
TR601	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	No Hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	No Hazard.	AVR1:0
ZD301	Open		Normal operation.	AVR1:*
	Short		IC301 opened, No hazard.	AVR1:0
ZD302	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD401	Open		IC401 opened, No hazard.	AVR1:0
	Short		See page 21.	
ZD411	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD421	Open		Normal operation.	AVR1:*
	Short		See page 21.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C402	Short		No Hazard.	AVR1:0
C403	Short		No Hazard.	AVR1:0
C611	Open		No Hazard.	AVR1:0
	Short		R613 opened, No hazard.	AVR1:0
D411	Open		TR501 opened, No hazard.	AVR1:0
D421	Open		TR511 opened, No hazard.	AVR1:0
D611	Open		No Hazard.	AVR1:0
	Short		R613 opened, No hazard.	AVR1:0
IC401	Open	2	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
	Short	8-9	No Hazard.	AVR1:0
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
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		4-5	Normal operation.	AVR1:*
		5-6	No Hazard.	AVR1:0
L511	Open		No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
L601	Short		Normal operation.	AVR1:*
L602	Short		Normal operation.	AVR1:*
R382	Open		No Hazard.	AVR1:0
R401	Open		No Hazard.	AVR1:0
R412	Open		No Hazard.	AVR1:0
R421	Open		No Hazard.	AVR1:0
R422	Open		No Hazard.	AVR1:0
R423	Open		No Hazard.	AVR1:0
R611	Open		No Hazard.	AVR1:0
R612	Open		No Hazard.	AVR1:0
R613	Open		No Hazard.	AVR1:0
R631	Open		No Hazard.	AVR1:0
R632	Open		No Hazard.	AVR1:0
R641	Open		No Hazard.	AVR1:0
R651	Open		No Hazard.	AVR1:0
TR411	Open	C	No Hazard.	AVR1:0
TR421	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
TR501	Short	D-S	F101 opened, No hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
TR511	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR511	Short	D-S	F101 opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
ZD401	Short		No Hazard.	AVR1:0
ZD421	Short		No Hazard.	AVR1:0