



## ABNORMAL TEST RESULT

OF MODEL TEPS20F/TECS20F

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 : 2/13 ~ 11/13)

( Abnormal Test Result: 12/13 ~ 13/13)

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)
C111	Open	Output voltage decreased.No hazard.	AVR1:decreased
	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	Normal operation.	AVR1:*
C211	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C212	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased.No hazard.	AVR1:decreased
C213	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C221	Open	No Hazard.	AVR1:*
	Short	No Hazard.	AVR1:0
C222 (Only -5)	Open	No Hazard.	AVR1:*
	Short	No Hazard.	AVR1:*
C231	Open	Normal operation.	AVR1:*
	Short	F101 opened, No hazard.	AVR1:0
C241	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C251	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*



## F M E A

Component	Mode	Comment	Output Voltage (V)
C252	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C291 (Only -5)	Open	No Hazard.	AVR1:0
	Short	Normal operation.	AVR1:*
C301	Open	See page 12.	
	Short	F101 opened, No hazard.	AVR1:0
C302	Open	See page 12.	
	Short	F101 opened, No hazard.	AVR1:0
C311	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
C641 (Only -5)	Open	Normal operation.	AVR1:*
	Short	See page 12.	
C661	Open	Normal operation.	AVR1:*
	Short	See page 12.	
C671	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C672 (Except:-24)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C673 (Only -5)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0



## F M E A

Component	Mode	Comment	Output Voltage (V)
C681 (Except:-5)	Open	Normal operation.	AVR1:*
	Short	R681 opened, No hazard.	AVR1:*
C711	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C721	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:*
C731	Open	No Hazard.	AVR1:*
	Short	No Hazard.	AVR1:*
C741 (Only -5)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C742 (Only -5)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C801	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D111	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
D201	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
D251	Open	TR301 opened, No hazard.	AVR1:0
	Short	Normal operation.	AVR1:*
D291 (Only -5)	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D301	Open	Normal operation.	AVR1:*
	Short	TR301 opened, No hazard.	AVR1:0



## F M E A

Component	Mode		Comment	Output Voltage (V)
D311	Open		Normal operation.	AVR1:*
	Short		TR301 opened, No hazard.	AVR1:0
D611	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D661 (Only -5)	Open		See page 12.	
	Short		Normal operation.	AVR1:*
D671	Open		See page 12.	
	Short		See page 12.	
D672	Open		See page 12.	
	Short		See page 12.	
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
IC201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	TR301 opened, No hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		8	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	F101 opened, No hazard.	AVR1:0



## F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	Short	5-6	IC201 opened, No hazard.	AVR1:0
IC601	Open	1	See page 12.	
		2	See page 12.	
		3	See page 12.	
		4	No Hazard.	AVR1:0
		5	See page 12.	
		6	See page 12.	
	Short	1-2	See page 12.	
		2-3	See page 12.	
		4-5	Normal operation.	AVR1:*
		5-6	See page 12.	
IC701	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
IC702 (Only -12, -5)	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
L111	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L201	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
L671	Open		See page 12.	



## F M E A

Component	Mode		Comment	Output Voltage (V)
L671	Short		See page 12.	
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
PTH241	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
R111	Open		Normal operation.	AVR1:*
R201	Open		Normal operation.	AVR1:*
R203	Open		Normal operation.	AVR1:*
R204	Open		Normal operation.	AVR1:*
R211	Open		No Hazard.	AVR1:0
R212	Open		No Hazard.	AVR1:0
R221 (Only -5)	Open		No Hazard.	AVR1:*
R231	Open		F101 opened, No hazard.	AVR1:0
R232 (Only -5)	Open		No Hazard.	AVR1:0
R233	Open		Normal operation.	AVR1:*
R241	Open		Normal operation.	AVR1:*
R243	Open		Normal operation.	AVR1:*
R251	Open		No Hazard.	AVR1:0



## F M E A

Component	Mode	Comment	Output Voltage (V)
R253	Open	See page 12.	
R254	Open	No Hazard.	AVR1:0
R255	Open	Normal operation.	AVR1:*
R281	Open	Normal operation.	AVR1:*
R291 (Only -5)	Open	Normal operation.	AVR1:*
R292 (Only -5)	Open	Normal operation.	AVR1:*
R293 (Only -5)	Open	No Hazard.	AVR1:0
R301	Open	No Hazard.	AVR1:0
R302	Open	No Hazard.	AVR1:0
R311	Open	Normal operation.	AVR1:*
R312	Open	Normal operation.	AVR1:*
R611	Open	See page 12.	
R612	Open	Normal operation.	AVR1:*
R641	Open	No Hazard.	AVR1:0
R651	Open	See page 12.	
R661	Open	See page 12.	
R662 (Only -5)	Open	See page 12.	
R681 (Except:-5)	Open	Normal operation.	AVR1:*
R711	Open	No Hazard.	AVR1:0
R712	Open	No Hazard.	AVR1:0
R713	Open	No Hazard.	AVR1:0
R714	Open	No Hazard.	AVR1:0
R715	Open	Normal operation.	AVR1:*
R716	Open	Normal operation.	AVR1:*





## F M E A

Component	Mode		Comment	Output Voltage (V)
R721	Open		No Hazard.	AVR1:0
R722	Open		No Hazard.	AVR1:*
R731	Open		No Hazard.	AVR1:*
R732	Open		No Hazard.	AVR1:0
R741	Open		No Hazard.	AVR1:*
R742 (Except:-5)	Open		No Hazard.	AVR1:*
R751 (Only -12, -5)	Open		Normal operation.	AVR1:*
R752 (Only -12, -5)	Open		Normal operation.	AVR1:*
R753 (Only -12, -5)	Open		No Hazard.	AVR1:0
R761	Open		Normal operation.	AVR1:*
R762 (Only -24)	Open		Normal operation.	AVR1:*
R764	Open		Normal operation.	AVR1:*
SS101	Open		No Hazard.	AVR1:0
	Short		F101 opened, No hazard.	AVR1:0
T101	Open	1	No Hazard.	AVR1:0
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
	Short	1-2	F101 opened, No hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		4-5	F101 opened, No hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0



## F M E A

Component	Mode		Comment	Output Voltage (V)
TH101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
TR241	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	No Hazard.	AVR1:0
TR251	Open	C	No Hazard.	AVR1:0
		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:*
TR301	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	See page 13.	
		S-G	No Hazard.	AVR1:0
		G-D	See page 13.	
TR601	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	See page 13.	
	Short	D-S	No Hazard.	AVR1:0



## F M E A

Component	Mode		Comment	Output Voltage (V)
TR601	Short	S-G	See page 13.	
		G-D	See page 13.	
ZD201	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
ZD251	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD661 (Only -5)	Open		See page 13.	
	Short		Normal operation.	AVR1:*
ZD751 (Only -15, -24)	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0



## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C301	Open		Normal operation.	AVR1:*
C302	Open		Normal operation.	AVR1:*
C641	Short		Normal operation.	AVR1:*
C661	Short		Normal operation.	AVR1:*
D661	Open		Normal operation.	AVR1:*
D671	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D672	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
IC601	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	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
		5-6	No Hazard.	AVR1:0
L671	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0
R253	Open		No Hazard.	AVR1:0
R611	Open		No Hazard.	AVR1:0
R651	Open		No Hazard.	AVR1:0
R661	Open		No Hazard.	AVR1:0
R662	Open		No Hazard.	AVR1:0



## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR301	Short	D-S	F101 opened, No hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
TR601	Open	G	No Hazard.	AVR1:0
	Short	S-G	No Hazard.	AVR1:0
		G-D	No Hazard.	AVR1:0
ZD661	Open		No Hazard.	AVR1:0