

ABNORMAL TEST RESULT

OF MODEL GHA500F

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 : 2/37 ~ 35/37)

(Abnormal Test Result: 36/37 ~ 37/37)

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)
C13	Open		Normal operation.	AVR1:*
	Short		F101 (F102) opened, No hazard.	AVR1:0
C14	Open		Normal operation.	AVR1:*
	Short		F101 (F102) opened, No hazard.	AVR1:0
C21	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
C22	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
C23	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
C24	Open	(only_30, 56)	Normal operation.	AVR1:*
	Short	(only_30, 56)	See 36 Page.	
C25	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
C27	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
C29	Open		Normal operation.	AVR1:*
	Short		F101 (F102) opened, No hazard.	AVR1:0
C30	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
C31	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
C34	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
C35	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
C36	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
C37	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
C53	Open	(exc. _48, 56)	Normal operation.	AVR1:*
	Short	(exc. _48, 56)	No Hazard.	AVR1:0
C54	Open	(exc. _48, 56)	Normal operation.	AVR1:*
	Short	(exc. _48, 56)	No Hazard.	AVR1:0
C57	Open	(exc. _48, 56)	Normal operation.	AVR1:*
	Short	(exc. _48, 56)	No Hazard.	AVR1:0
C58	Open		Normal operation.	AVR1:*
	Short		Output voltage decreased. No hazard.	AVR1:decreased
C59	Open		Normal operation.	AVR1:*
	Short		Output voltage decreased. No hazard.	AVR1:decreased
C60	Open		Normal operation.	AVR1:*
	Short		Output voltage decreased. No hazard.	AVR1:decreased
C61	Open	(exc. _56)	Normal operation.	AVR1:*
	Short	(exc. _56)	Output voltage decreased. No hazard.	AVR1:decreased
C81	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
C82	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C83	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C84 (opt.)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C101	Open	Normal operation.	AVR1:*
	Short	F101 (F102) opened, No hazard.	AVR1:0
C102	Open	Normal operation.	AVR1:*
	Short	F101 (F102) opened, No hazard.	AVR1:0
C103	Open	Normal operation.	AVR1:*
	Short	F101 (F102) opened, No hazard.	AVR1:0
C106	Open	F101 (F102) opened, No hazard.	AVR1:0
	Short	F101 (F102) opened, No hazard.	AVR1:0
C108	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C109	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C110	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C111	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C112	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C113	Open	Normal operation.	AVR1:*
	Short	See 36 Page.	

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Component	Mode	Comment	Output Voltage (V)
C114	Open	Normal operation.	AVR1:*
	Short	See 36 Page.	
C115	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C116	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C118	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C119	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C120	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C121	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C122	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C123	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C201 (opt.)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C202	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C203	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0

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Component	Mode	Comment	Output Voltage (V)
C206	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C207	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C210	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	No Hazard.	AVR1:0
C214	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C215	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C216	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C217	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C218	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C219	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C220	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

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Component	Mode	Comment	Output Voltage (V)
C221	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C222	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C223	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C224	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C225	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C226	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C227	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C228	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C229	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C230	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C231	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Normal operation.	AVR1:*
C233	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

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Component	Mode	Comment	Output Voltage (V)
C501	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C502 (opt.)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C504	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C505 (opt.)	Open	Normal operation.	AVR1:*
	Short	No Hazard.	AVR1:0
C506	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C507	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C508	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C509	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C514	Open	Normal operation.	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C701 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C702 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C703 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

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Component	Mode	Comment	Output Voltage (V)
C704 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C705 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C706 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C707 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C708 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C709 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C710 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C711 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C712 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C713 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C714 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*
C715 (opt.)	Open	Normal operation.	AVR1:*
	Short	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
C801	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
C802	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
D11	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
D12	Open		Normal operation.	AVR1:*
	Short		See 36 Page.	
D23	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
D24	Open		No Hazard.	AVR1:0
	Short		Output voltage decreased. No hazard.	AVR1:decreased
D25	Open		No Hazard.	AVR1:*
	Short		No Hazard.	AVR1:*
D26	Open		No Hazard.	AVR1:*
	Short		No Hazard.	AVR1:*
D51	Open	(only_48, 56)	Normal operation.	AVR1:*
	Short	(only_48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
D52	Open	(only_48, 56)	Normal operation.	AVR1:*
	Short	(only_48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
D53	Open	(only_48, 56)	Normal operation.	AVR1:*
	Short	(only_48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
D54	Open	(only_48, 56)	Normal operation.	AVR1:*
	Short	(only_48, 56)	Output voltage decreased. No hazard.	AVR1:decreased

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Component	Mode		Comment	Output Voltage (V)
D55	Open	(only_48, 56)	No Hazard.	AVR1:0
	Short	(only_48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
D81	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
D101	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
D104	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D201	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D202	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D203	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D204	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
D205	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
D206	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D207	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D503	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
D504	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D505	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
D701 (opt.)	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D702 (opt.)	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
D703 (opt.)	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
IC21	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		C	No Hazard.	AVR1:0
	Short	D-S	F101 (F102) opened, No hazard.	AVR1:0
		S-C	No Hazard.	AVR1:0
		C-D	F101 (F102) opened, No hazard.	AVR1:0
IC51	Open	1 (exc. _48, 56)	Normal operation.	AVR1:*
		2 (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		3 (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		4 (exc. _48, 56)	Normal operation.	AVR1:*
		5 (exc. _48, 56)	Normal operation.	AVR1:*
		6 (exc. _48, 56)	Normal operation.	AVR1:*
		7 (exc. _48, 56)	Normal operation.	AVR1:*
		8 (exc. _48, 56)	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
IC51	Short	1-2 (exc. _48, 56)	Normal operation.	AVR1:*
		2-3 (exc. _48, 56)	Normal operation.	AVR1:*
		3-4 (exc. _48, 56)	Normal operation.	AVR1:*
		5-6 (exc. _48, 56)	Normal operation.	AVR1:*
		6-7 (exc. _48, 56)	Normal operation.	AVR1:*
		7-8 (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
IC52	Open	1 (exc. _48, 56)	Normal operation.	AVR1:*
		2 (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		3 (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		4 (exc. _48, 56)	Normal operation.	AVR1:*
		5 (exc. _48, 56)	Normal operation.	AVR1:*
		6 (exc. _48, 56)	Normal operation.	AVR1:*
		7 (exc. _48, 56)	Normal operation.	AVR1:*
		8 (exc. _48, 56)	Normal operation.	AVR1:*
	Short	1-2 (exc. _48, 56)	Normal operation.	AVR1:*
		2-3 (exc. _48, 56)	Normal operation.	AVR1:*
		3-4 (exc. _48, 56)	Normal operation.	AVR1:*
		5-6 (exc. _48, 56)	Normal operation.	AVR1:*
		6-7 (exc. _48, 56)	Normal operation.	AVR1:*
		7-8 (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
IC81	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	No Hazard.	AVR1:0
		4	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
IC81	Open	5	No Hazard.	AVR1:0
		1-2	Normal operation.	AVR1:*
	Short	2-3	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
IC101	Open	1	F101 (F102) opened, No hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	F101 (F102) opened, No hazard.	AVR1:0
		4	F101 (F102) opened, No hazard.	AVR1:0
		5	F101 (F102) opened, No hazard.	AVR1:0
		6	Normal operation.	AVR1:*
		7	No Hazard.	AVR1:0
		8	Normal operation.	AVR1:*
		9	Normal operation.	AVR1:*
		10	Normal operation.	AVR1:*
		11	F101 (F102) opened, No hazard.	AVR1:0
		12	No Hazard.	AVR1:0
		13	F101 (F102) opened, No hazard.	AVR1:0
		14	F101 (F102) opened, No hazard.	AVR1:0
		15	Normal operation.	AVR1:*
		16	F101 (F102) opened, No hazard.	AVR1:0
	Short	1-2	F101 (F102) opened, No hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation.	AVR1:*
		4-5	F101 (F102) opened, No hazard.	AVR1:0

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Component	Mode		Comment	Output Voltage (V)
IC101	Short	5-6	F101 (F102) opened, No hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	Normal operation.	AVR1:*
		9-10	Normal operation.	AVR1:*
		10-11	No Hazard.	AVR1:0
		11-12	F101 (F102) opened, No hazard.	AVR1:0
		12-13	No Hazard.	AVR1:0
		13-14	F101 (F102) opened, No hazard.	AVR1:0
		14-15	F101 (F102) opened, No hazard.	AVR1:0
		15-16	F101 (F102) opened, No hazard.	AVR1:0
IC201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
		11	No Hazard.	AVR1:0
		12	Normal operation.	AVR1:*
		13	Normal operation.	AVR1:*
		14	No Hazard.	AVR1:0

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Component	Mode		Comment	Output Voltage (V)
IC201	Open	15	No Hazard.	AVR1:0
		16	No Hazard.	AVR1:0
		17	Normal operation.	AVR1:*
		18	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	Normal operation.	AVR1:*
		7-8	No Hazard.	AVR1:0
		8-9	No Hazard.	AVR1:0
		10-11	No Hazard.	AVR1:0
		11-12	Normal operation.	AVR1:*
		12-13	Normal operation.	AVR1:*
		13-14	Normal operation.	AVR1:*
		14-15	No Hazard.	AVR1:0
		15-16	No Hazard.	AVR1:0
		16-17	Normal operation.	AVR1:*
		17-18	Normal operation.	AVR1:*
IC202	Open	1	No Hazard.	AVR1:0
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
IC202	Open	5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
		11	Normal operation.	AVR1:*
		12	Normal operation.	AVR1:*
		13	Normal operation.	AVR1:*
		14	Normal operation.	AVR1:*
		15	Normal operation.	AVR1:*
		16	Normal operation.	AVR1:*
		17	Normal operation.	AVR1:*
		18	Normal operation.	AVR1:*
		19	Normal operation.	AVR1:*
		20	Normal operation.	AVR1:*
	Short	1-2	No Hazard.	AVR1:0
		2-3	Normal operation.	AVR1:*
		3-4	Normal operation.	AVR1:*
		4-5	Normal operation.	AVR1:*
		5-6	Normal operation.	AVR1:*
		6-7	Normal operation.	AVR1:*
		7-8	Normal operation.	AVR1:*
		8-9	No Hazard.	AVR1:0

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Component	Mode		Comment	Output Voltage (V)
IC202	Short	9-10	No Hazard.	AVR1:0
		11-12	Normal operation.	AVR1:*
		12-13	Output voltage decreased. No hazard.	AVR1:decreased
		13-14	Output voltage decreased. No hazard.	AVR1:decreased
		14-15	Normal operation.	AVR1:*
		15-16	Normal operation.	AVR1:*
		16-17	No Hazard.	AVR1:0
		17-18	Normal operation.	AVR1:*
		18-19	Normal operation.	AVR1:*
		19-20	Normal operation.	AVR1:*
IC203	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*
		2-3	Normal operation.	AVR1:*
		4-5	Normal operation.	AVR1:*
IC501	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
IC501	Short	2-3	Output voltage decreased. No hazard.	AVR1:decreased
		4-5	No Hazard.	AVR1:0
IC701 (opt.)	Open	1	Normal operation.	AVR1:*
		2	Normal operation.	AVR1:*
		3	Normal operation.	AVR1:*
		4	Normal operation.	AVR1:*
		5	Normal operation.	AVR1:*
		6	Normal operation.	AVR1:*
		7	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
	Short	1-2	Normal operation.	AVR1:*
		2-3	Normal operation.	AVR1:*
		3-4	Normal operation.	AVR1:*
		5-6	Normal operation.	AVR1:*
		6-7	Normal operation.	AVR1:*
		7-8	Normal operation.	AVR1:*
J11	Open		F101 (F102) opened, No hazard.	AVR1:0
J101	Open		F101 (F102) opened, No hazard.	AVR1:0
L11	Open	1	F101 (F102) opened, No hazard.	AVR1:0
		2	F101 (F102) opened, No hazard.	AVR1:0
		3	F101 (F102) opened, No hazard.	AVR1:0
		4	F101 (F102) opened, No hazard.	AVR1:0
		5	F101 (F102) opened, No hazard.	AVR1:0
		6	F101 (F102) opened, No hazard.	AVR1:0

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Component	Mode		Comment	Output Voltage (V)
L11	Open	7	F101 (F102) opened, No hazard.	AVR1:0
		8	F101 (F102) opened, No hazard.	AVR1:0
	Short	1-2	F101 (F102) opened, No hazard.	AVR1:0
		2-3	F101 (F102) opened, No hazard.	AVR1:0
		3-4	F101 (F102) opened, No hazard.	AVR1:0
		5-6	F101 (F102) opened, No hazard.	AVR1:0
		6-7	F101 (F102) opened, No hazard.	AVR1:0
		7-8	F101 (F102) opened, No hazard.	AVR1:0
L21	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L51	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L52	Open	(exc. _48, 56)	No Hazard.	AVR1:0
	Short	(exc. _48, 56)	Normal operation.	AVR1:*
L81	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L102	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L104	Open		F101 (F102) opened, No hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L105	Open		F101 (F102) opened, No hazard.	AVR1:0
	Short		Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
L201	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L202	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
L701 (opt.)	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
PC21	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	Normal operation.	AVR1:*
		C-E	Normal operation.	AVR1:*
PC201	Open	A, K	Normal operation.	AVR1:*
		C, E	Normal operation.	AVR1:*
	Short	A-K	Normal operation.	AVR1:*
		C-E	No Hazard.	AVR1:0
PC202	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
PC203 (opt.)	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	Normal operation.	AVR1:*
PC204 (opt.)	Open	A, K	Normal operation.	AVR1:*
		C, E	Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
PC204 (opt.)	Short	A-K	Normal operation.	AVR1:*
		C-E	No Hazard.	AVR1:0
SK101	Open		Normal operation.	AVR1:*
	Short		F101 (F102) opened, No hazard.	AVR1:0
SS11	Open		No Hazard.	AVR1:0
	Short		F101 (F102) opened, No hazard.	AVR1:0
SS12	Open	Anode (A.) J11	F101 (F102) opened, No hazard.	AVR1:0
		A. L11	F101 (F102) opened, No hazard.	AVR1:0
		Cathode (C.)	No Hazard.	AVR1:0
	Short	A. J11-C.	F101 (F102) opened, No hazard.	AVR1:0
		A. L11-C.	F101 (F102) opened, No hazard.	AVR1:0
T11	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		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	Normal operation.	AVR1:*
		8	Normal operation.	AVR1:*
		9	Normal operation.	AVR1:*
	Short	1-2	F101 (F102) opened, No hazard.	AVR1:0
		3-4	Output voltage decreased. No hazard.	AVR1:decreased
		4-5	Output voltage decreased. No hazard.	AVR1:decreased
		5-6	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
T11	Short	7-8	Output voltage decreased. No hazard.	AVR1:decreased
		8-9	Output voltage decreased. No hazard.	AVR1:decreased
T12	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	F101 (F102) opened, No hazard.	AVR1:0
		2-3	See 36 Page.	
		3-4	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
TH21	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
TH101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
TH201	Open		No Hazard.	AVR1:0
	Short		Normal operation.	AVR1:*
TR11	Open	D	See 36 Page.	
		S	See 36 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR11	Open	G	See 36 Page.	
	Short	D-S	See 36 Page.	
		S-G	See 36 Page.	
		G-D	See 36 Page.	
TR12	Open	D	See 36 Page.	
		S	See 36 Page.	
		G	See 36 Page.	
	Short	D-S	See 36 Page.	
		S-G	See 36 Page.	
		G-D	See 36 Page.	
TR21	Open	D	See 36 Page.	
		S	See 37 Page.	
		G	See 37 Page.	
	Short	D-S	See 37 Page.	
		S-G	See 37 Page.	
		G-D	See 37 Page.	
TR22	Open	D	See 37 Page.	
		S	See 37 Page.	
		G	See 37 Page.	
	Short	D-S	See 37 Page.	
		S-G	See 37 Page.	
		G-D	See 37 Page.	
TR23	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*

F M E A

Component	Mode		Comment	Output Voltage (V)
TR23	Open	B	Normal operation.	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	No Hazard.	AVR1:0
		B-C	Normal operation.	AVR1:*
TR24	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
TR51	Open	D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S (exc. _48, 56)	Normal operation.	AVR1:*
		G (exc. _48, 56)	Normal operation.	AVR1:*
	Short	D-S (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S-G (exc. _48, 56)	Normal operation.	AVR1:*
		G-D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
TR52	Open	D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S (exc. _48, 56)	Normal operation.	AVR1:*
		G (exc. _48, 56)	Normal operation.	AVR1:*
	Short	D-S (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S-G (exc. _48, 56)	Normal operation.	AVR1:*
		G-D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
TR53	Open	D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S (exc. _48, 56)	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
TR53	Open	G (exc. _48, 56)	Normal operation.	AVR1:*
	Short	D-S (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S-G (exc. _48, 56)	Normal operation.	AVR1:*
		G-D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
TR54	Open	D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S (exc. _48, 56)	Normal operation.	AVR1:*
		G (exc. _48, 56)	Normal operation.	AVR1:*
	Short	D-S (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
		S-G (exc. _48, 56)	Normal operation.	AVR1:*
		G-D (exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
TR101	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
TR201	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	AVR1:*
		E-B	No Hazard.	AVR1:0
		B-C	Normal operation.	AVR1:*
TR701 (opt.)	Open	C	Normal operation.	AVR1:*
		E	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
TR701 (opt.)	Open	B	Normal operation.	AVR1:*
	Short	C-E	Normal operation.	AVR1:*
		E-B	Normal operation.	AVR1:*
		B-C	Normal operation.	AVR1:*
VR501	Open	brush	Output voltage decreased. No hazard.	AVR1:decreased
			Output voltage decreased. No hazard.	AVR1:decreased
	Short		No Hazard.	AVR1:0
ZD21	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD201	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD202	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD203	Open		Normal operation.	AVR1:*
	Short		Normal operation.	AVR1:*
ZD204	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD501	Open		Normal operation.	AVR1:*
	Short		No Hazard.	AVR1:0
ZD502	Open	(only_30, 48, 56)	Normal operation.	AVR1:*
	Short	(only_30, 48, 56)	No Hazard.	AVR1:0
ZD503	Open	(only_30, 48, 56)	No Hazard.	AVR1:0
	Short	(only_30, 48, 56)	No Hazard.	AVR1:0
ZD701 (opt.)	Open		Normal operation.	AVR1:*

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Component	Mode	Comment	Output Voltage (V)
ZD701 (opt.)	Short	Normal operation.	AVR1:*
002 (C220)	Open	Normal operation.	AVR1:
*002 (D205)	Open	F101 (F102) opened, No hazard.	AVR1:0
*002 (J101)	Open	No Hazard.	AVR1:0
*002 (R133)	Open	No Hazard.	AVR1:0
*003 (D104)	Open	F101 (F102) opened, No hazard.	AVR1:0
*003 (L104)	Open	F101 (F102) opened, No hazard.	AVR1:0
*003 (L105)	Open	F101 (F102) opened, No hazard.	AVR1:0
*003 (R122)	Open	No Hazard.	AVR1:0
*003 (R201)	Open	No Hazard.	AVR1:0
*003 (R211)	Open	No Hazard.	AVR1:0
003 (R87)	Open	Normal operation.	AVR1:
003 (R88)	Open	Normal operation.	AVR1:
*003 (SS12)	Open	No Hazard.	AVR1:0
*003 (TR21-G)	Open	F101 (F102) opened, No hazard.	AVR1:0
*003 (TR21-S)	Open	F101 (F102) opened, No hazard.	AVR1:0
*003 (TR22-G)	Open	F101 (F102) opened, No hazard.	AVR1:0
*004 (L51)	Open	No Hazard.	AVR1:0
*004 (R503)	Open	No Hazard.	AVR1:0
005 (CN108)	Open	Normal operation.	AVR1:
005 (FG)	Open	Normal operation.	AVR1:
*005 (R36)	Open	No Hazard.	AVR1:0
R11	Open	Normal operation.	AVR1:*
R12	Open	No Hazard.	AVR1:0

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Component	Mode		Comment	Output Voltage (V)
R13	Open		Normal operation.	AVR1:*
R14	Open		Normal operation.	AVR1:*
R15	Open		No Hazard.	AVR1:0
R16	Open		Normal operation.	AVR1:*
R24	Open		Normal operation.	AVR1:*
R25	Open		Normal operation.	AVR1:*
R26	Open		Normal operation.	AVR1:*
R27	Open		Normal operation.	AVR1:*
R28	Open		Normal operation.	AVR1:*
R29	Open		Normal operation.	AVR1:*
R30	Open		Normal operation.	AVR1:*
R31	Open		No Hazard.	AVR1:0
R32	Open		Normal operation.	AVR1:*
R33	Open		No Hazard.	AVR1:0
R34	Open		No Hazard.	AVR1:0
R35	Open		No Hazard.	AVR1:0
R36	Open		No Hazard.	AVR1:0
R51	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R52	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R53	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R54	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R55	Open	(exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
R56	Open	(exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
R57	Open	(exc. _48, 56)	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
R58	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R59	Open	(exc. _48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
R60	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R61	Open	(exc. _48, 56)	Normal operation.	AVR1:*
R62	Open	(exc. _48, 56)	No Hazard.	AVR1:0
R63	Open	(exc. _48, 56)	No Hazard.	AVR1:0
R81	Open		No Hazard.	AVR1:0
R82	Open		Normal operation.	AVR1:*
R83	Open		Output voltage decreased. No hazard.	AVR1:decreased
R84	Open		No Hazard.	AVR1:0
R85	Open		No Hazard.	AVR1:0
R86	Open		No Hazard.	AVR1:0
R87	Open		Normal operation.	AVR1:*
R88	Open		Normal operation.	AVR1:*
R89	Open		No Hazard.	AVR1:0
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:*
R106	Open		No Hazard.	AVR1:0
R107	Open		No Hazard.	AVR1:0
R108	Open		No Hazard.	AVR1:0
R109	Open		No Hazard.	AVR1:0

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Component	Mode	Comment	Output Voltage (V)
R110	Open	F101 (F102) opened, No hazard.	AVR1:0
R111	Open	Normal operation.	AVR1:*
R112	Open	Normal operation.	AVR1:*
R113	Open	Normal operation.	AVR1:*
R114	Open	Normal operation.	AVR1:*
R115	Open	F101 (F102) opened, No hazard.	AVR1:0
R116	Open	F101 (F102) opened, No hazard.	AVR1:0
R117	Open	F101 (F102) opened, No hazard.	AVR1:0
R119	Open	F101 (F102) opened, No hazard.	AVR1:0
R121	Open	F101 (F102) opened, No hazard.	AVR1:0
R122	Open	No Hazard.	AVR1:0
R123	Open	No Hazard.	AVR1:0
R124	Open	No Hazard.	AVR1:0
R125	Open	No Hazard.	AVR1:0
R126	Open	No Hazard.	AVR1:0
R127	Open	No Hazard.	AVR1:0
R128	Open	No Hazard.	AVR1:0
R129	Open	No Hazard.	AVR1:0
R130	Open	No Hazard.	AVR1:0
R131	Open	No Hazard.	AVR1:0
R132	Open	No Hazard.	AVR1:0
R133	Open	Normal operation.	AVR1:*
R134	Open	Normal operation.	AVR1:*
R135	Open	Normal operation.	AVR1:*

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Component	Mode	Comment	Output Voltage (V)
R136	Open	Normal operation.	AVR1:*
R137	Open	Normal operation.	AVR1:*
R138	Open	Normal operation.	AVR1:*
R139	Open	Normal operation.	AVR1:*
R140	Open	Normal operation.	AVR1:*
R201	Open	No Hazard.	AVR1:0
R202	Open	No Hazard.	AVR1:0
R203	Open	No Hazard.	AVR1:0
R204	Open	No Hazard.	AVR1:0
R205	Open	Normal operation.	AVR1:*
R206 (opt.)	Open	Normal operation.	AVR1:*
R207	Open	Normal operation.	AVR1:*
R208	Open	Normal operation.	AVR1:*
R209	Open	Normal operation.	AVR1:*
R210	Open	No Hazard.	AVR1:0
R211	Open	No Hazard.	AVR1:0
R215	Open	Normal operation.	AVR1:*
R216	Open	Normal operation.	AVR1:*
R217	Open	Normal operation.	AVR1:*
R218	Open	Normal operation.	AVR1:*
R219	Open	No Hazard.	AVR1:0
R220	Open	No Hazard.	AVR1:0
R221	Open	No Hazard.	AVR1:0
R222	Open	Normal operation.	AVR1:*

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Component	Mode	Comment	Output Voltage (V)
R223	Open	No Hazard.	AVR1:0
R224	Open	Normal operation.	AVR1:*
R225	Open	No Hazard.	AVR1:0
R226	Open	Normal operation.	AVR1:*
R227	Open	Normal operation.	AVR1:*
R228	Open	Normal operation.	AVR1:*
R229	Open	Output voltage decreased. No hazard.	AVR1:decreased
R230	Open	Output voltage decreased. No hazard.	AVR1:decreased
R231	Open	Output voltage decreased. No hazard.	AVR1:decreased
R232	Open	Normal operation.	AVR1:*
R233	Open	Normal operation.	AVR1:*
R234	Open	Normal operation.	AVR1:*
R235	Open	No Hazard.	AVR1:0
R236	Open	Normal operation.	AVR1:*
R237	Open	Normal operation.	AVR1:*
R238	Open	Normal operation.	AVR1:*
R239	Open	Normal operation.	AVR1:*
R240 (opt.)	Open	Normal operation.	AVR1:*
R242	Open	No Hazard.	AVR1:0
R243	Open	No Hazard.	AVR1:0
R244 (opt.)	Open	Normal operation.	AVR1:*
R245	Open	No Hazard.	AVR1:0
R246	Open	Output voltage decreased. No hazard.	AVR1:decreased
R247	Open	Normal operation.	AVR1:*

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Component	Mode		Comment	Output Voltage (V)
R248	Open		Normal operation.	AVR1:*
R249	Open		No Hazard.	AVR1:0
R501	Open	(exc. _30, 48, 56)	Normal operation.	AVR1:*
R502	Open		Normal operation.	AVR1:*
R503	Open		Normal operation.	AVR1:*
R504	Open	(exc. _30, 48, 56)	Output voltage decreased. No hazard.	AVR1:decreased
R505	Open		No Hazard.	AVR1:0
R506	Open		No Hazard.	AVR1:0
R507	Open		Normal operation.	AVR1:*
R508	Open		Output voltage decreased. No hazard.	AVR1:decreased
R509	Open		No Hazard.	AVR1:0
R510	Open		No Hazard.	AVR1:0
R511	Open		No Hazard.	AVR1:0
R514	Open		Normal operation.	AVR1:*
R515	Open		Normal operation.	AVR1:*
R516	Open		Output voltage decreased. No hazard.	AVR1:decreased
R517	Open		Output voltage decreased. No hazard.	AVR1:decreased
R518	Open		No Hazard.	AVR1:0
R519	Open		Output voltage decreased. No hazard.	AVR1:decreased
R701 (opt.)	Open		Normal operation.	AVR1:*
R702 (opt.)	Open		Normal operation.	AVR1:*
R703 (opt.)	Open		Normal operation.	AVR1:*
R705 (opt.)	Open		Normal operation.	AVR1:*
R706 (opt.)	Open		Normal operation.	AVR1:*



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Component	Mode	Comment	Output Voltage (V)
R708 (opt.)	Open	Normal operation.	AVR1:*
R709 (opt.)	Open	Normal operation.	AVR1:*
R710 (opt.)	Open	Normal operation.	AVR1:*
R711 (opt.)	Open	Normal operation.	AVR1:*
R801	Open	Normal operation.	AVR1:*
R802	Open	Normal operation.	AVR1:*
R901 (opt.)	Open	Normal operation.	AVR1:*
R902 (opt.)	Open	Normal operation.	AVR1:*

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C21	Short		F101 (F102) opened, No hazard.	
C22	Short		F101 (F102) opened, No hazard.	
C23	Short		F101 (F102) opened, No hazard.	
C24	Short		F101 (F102) opened, No hazard.	
C25	Short		F101 (F102) opened, No hazard.	
C27	Short		F101 (F102) opened, No hazard.	
C113	Short		F101 (F102) opened, No hazard.	
C114	Short		F101 (F102) opened, No hazard.	
D11	Short		F101 (F102) opened, No hazard.	
D12	Short		F101 (F102) opened, No hazard.	
T12	Short	2-3	F101 (F102) opened, No hazard.	
TR11	Open	D	F101 (F102) opened, No hazard.	
		S	F101 (F102) opened, No hazard.	
		G	F101 (F102) opened, No hazard.	
	Short	D-S	F101 (F102) opened, No hazard.	
		S-G	F101 (F102) opened, No hazard.	
		G-D	F101 (F102) opened, No hazard.	
TR12	Open	D	F101 (F102) opened, No hazard.	
		S	F101 (F102) opened, No hazard.	
		G	F101 (F102) opened, No hazard.	
	Short	D-S	F101 (F102) opened, No hazard.	
		S-G	F101 (F102) opened, No hazard.	
		G-D	F101 (F102) opened, No hazard.	
TR21	Open	D	No hazard.	



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR21	Open	S	F101 (F102) opened, No hazard.	
		G	F101 (F102) opened, No hazard.	
	Short	D-S	F101 (F102) opened, No hazard.	
		S-G	No hazard.	
		G-D	F101 (F102) opened, No hazard.	
TR22	Open	D	F101 (F102) opened, No hazard.	
		S	No hazard.	
		G	F101 (F102) opened, No hazard.	
	Short	D-S	F101 (F102) opened, No hazard.	
		S-G	No hazard.	
		G-D	F101 (F102) opened, No hazard.	