

## ABNORMAL TEST RESULT

OF MODEL DBS100A05/13R8, DBS150A12/15/24

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 : 2/23 ~ 22/23)

( Abnormal Test Result: 23/23 ~ 23/23)

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
C11	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	0 [V]
C12	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	0 [V]
C13	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	0 [V]
C16	Open	Normal operation.	
	Short	Normal operation.	
C18	Open	Normal operation.	
	Short	Normal operation.	
C19	Open	Normal operation.	
	Short	External Fuse opened, No hazard.	0 [V]
C51	Open	Normal operation.	
	Short	Normal operation.	
C52	Open	Normal operation.	
	Short	Normal operation.	
C53	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C54	Open	Normal operation. (24V only)	
	Short	No Hazard. (24V only)	0 [V]
C60	Open	Normal operation.	
	Short	Normal operation.	
C61	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage
C65	Open	Normal operation.	
	Short	No Hazard.	0 [V]
D11	Open	Normal operation.	
	Short	Normal operation.	
J11	Open	No Hazard.	0 [V]
L11	Open	No Hazard.	0 [V]
	Short	Normal operation.	
L51	Open	No Hazard.	0 [V]
	Short	No Hazard.	Decreased
R11	Open	Normal operation.	
R12	Open	Normal operation.	
R14	Open	No Hazard.	Decreased
R15	Open	No Hazard.	0 [V]
R16	Open	No Hazard.	Decreased
R17	Open	Normal operation.	
R18	Open	Normal operation.	
R19	Open	Normal operation.	
R20	Open	Normal operation.	
R21	Open	Normal operation.	
R22	Open	No Hazard.	Decreased
R23	Open	No Hazard.	Decreased
R51	Open	Normal operation.	
R54	Open	Normal operation.	
R55	Open	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage
R56	Open		Normal operation.	
R57	Open		Normal operation.	
R58	Open		Normal operation.	
R59	Open		Normal operation.	
SS51	Open		No Hazard.	0 [V]
	Short		No Hazard.	Decreased
SS52	Open		Normal operation.	
	Short		No Hazard.	Decreased
SS53	Open		Normal operation.	
	Short		No Hazard.	Decreased
T11	Open	1	No Hazard.	0 [V]
		2	No Hazard.	0 [V]
		3	No Hazard.	0 [V]
		4	No Hazard.	0 [V]
	Short	1-2	External Fuse opened, No hazard.	0 [V]
		3-4	External Fuse opened, No hazard.	0 [V]
TH51	Open		Normal operation.	
	Short		Normal operation.	
TR11	Open	D	See 23 Page.	
		S	See 23 Page.	
		G	See 23 Page.	
	Short	D-S	See 23 Page.	
		S-G	See 23 Page.	
		G-D	See 23 Page.	



F M E A

Component	Mode	Comment	Output Voltage
ZD11	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C101	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C102	Open	Normal operation.	
	Short	R15 opened.No Hazard.	0 [V]
C103	Open	Normal operation.	
	Short	R15 opened.No Hazard.	0 [V]
C104	Open	Normal operation.	
	Short	Normal operation.	
C105	Open	Normal operation.	
	Short	Normal operation.	
C106	Open	Normal operation.	
	Short	Normal operation.	
C107	Open	No Hazard.	Decreased
	Short	Normal operation.	
C108	Open	Normal operation.	
	Short	Normal operation.	
C109	Open	Normal operation.	
	Short	Normal operation.	
C110	Open	Normal operation.	
	Short	Normal operation.	
C111	Open	Normal operation.	
	Short	No Hazard.	Decreased

F M E A

Component	Mode	Comment	Output Voltage
C112	Open	Normal operation.	
	Short	Normal operation.	
C113	Open	Normal operation.	
	Short	Normal operation.	
C114	Open	Normal operation.	
	Short	No Hazard.	Decreased
C115	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C116	Open	No Hazard.	0 [V]
	Short	Normal operation.	
C117	Open	No Hazard.	Decreased
	Short	Normal operation.	
C120	Open	Normal operation.	
	Short	Normal operation.	
C122	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C123	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C124	Open	Normal operation.	
	Short	Normal operation.	
C501	Open	Normal operation.	
	Short	No Hazard.	Decreased
C502	Open	Normal operation.	
	Short	Normal operation.	

## F M E A

Component	Mode	Comment	Output Voltage
C503	Open	Normal operation.	
	Short	Normal operation.	
C504	Open	Normal operation.	
	Short	Normal operation.	
C505	Open	Normal operation.	
	Short	No Hazard.	1.0 [V]
C506	Open	Normal operation.	
	Short	No Hazard.	Decreased
C507	Open	Normal operation.	
	Short	No Hazard.	Decreased
C508	Open	Normal operation.	
	Short	Normal operation.	
C509	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C510	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C511	Open	Normal operation.	
	Short	Normal operation.	
C512	Open	Normal operation.	
	Short	Normal operation.	
C513	Open	Normal operation.	
	Short	Normal operation.	
C514	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage
C515	Open	Normal operation.	
	Short	Normal operation.	
C516	Open	Normal operation.	
	Short	No Hazard.	Decreased
C519	Open	Normal operation.	
	Short	Normal operation.	
C521	Open	Normal operation.	
	Short	No Hazard.	0 [V]
C522	Open	Normal operation.	
	Short	Normal operation.	
C523	Open	Normal operation.	
	Short	No Hazard.	Decreased
C525	Open	Normal operation.	
	Short	Normal operation.	
C526	Open	Normal operation.	
	Short	Normal operation.	
C527	Open	Normal operation.	
	Short	No Hazard.	Increased(105%)
C528	Open	Normal operation.	
	Short	No Hazard.	Decreased
C530	Open	Normal operation.	
	Short	No Hazard.	1.0 [V]
D103	Open	Normal operation.	
	Short	No Hazard.	0 [V]

F M E A

Component	Mode	Comment	Output Voltage
D104	Open	Normal operation.	
	Short	No Hazard.	0 [V]
D105	Open	No Hazard.	Decreased
	Short	No Hazard.	Decreased
D106	Open	Normal operation.	
	Short	Normal operation.	
D107	Open	Normal operation.	
	Short	Normal operation.	
D108	Open	Normal operation.	
	Short	Normal operation.	
D109	Open	Normal operation.	
	Short	Normal operation.	
D502	Open	No Hazard.	0 [V]
	Short	Normal operation.	
D504	Open	Normal operation.	
	Short	Normal operation.	
D506	Open	No Hazard.	0 [V]
	Short	ZD103 shorted.No Hazard.	0 [V]
D507	Open	Normal operation.	
	Short	Normal operation.	
D508	Open	Normal operation.	
	Short	Normal operation.	
D509	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage
IC101	Open	1	No Hazard.	0 [V]
		2	No Hazard.	0 [V]
		3	External Fuse opened, No hazard.	0 [V]
		4	Normal operation.	
		5	Normal operation.	
		6	Normal operation.	
		7	No Hazard.	0 [V]
		8	Normal operation.	
		9	Normal operation.	
		10	No Hazard.	0 [V]
		11	No Hazard.	0 [V]
		12	No Hazard.	Decreased
		13	No Hazard.	Decreased
		14	Normal operation.	
		15	Normal operation.	
		16	Normal operation.	
		17	No Hazard.	Decreased
		18	No Hazard.	0 [V]
		19	No Hazard.	0 [V]
		20	No Hazard.	0 [V]
	Short	1-2	No Hazard.	0 [V]
		2-3	No Hazard.	0 [V]
		3-4	Normal operation.	
		4-5	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage
IC101	Short	5-6	Normal operation.	
		6-7	Normal operation.	
		7-8	Normal operation.	
		8-9	Normal operation.	
		9-10	No Hazard.	0 [V]
		11-12	No Hazard.	0 [V]
		12-13	No Hazard.	0 [V]
		13-14	Normal operation.	
		14-15	Normal operation.	
		15-16	Normal operation.	
		16-17	Normal operation.	
		17-18	Normal operation.	
		18-19	Normal operation.	
		19-20	No Hazard.	0 [V]
IC501	Open	1	No Hazard.	Increased (105%)
		2	No Hazard.	Increased (105%)
		3	Normal operation.	
		4	No Hazard.	0 [V]
		5	No Hazard.	0 [V]
		6	No Hazard.	0 [V]
		7	No Hazard.	0 [V]
		8	No Hazard.	0 [V]
	Short	1-2	No Hazard.	Increased (105%)
		2-3	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage
IC501	Short	3-4	No Hazard.	Increased(105%)
		5-6	No Hazard.	0 [V]
		6-7	No Hazard.	0 [V]
		7-8	No Hazard.	0 [V]
IC502	Open	K	No Hazard.	0 [V]
		A	No Hazard.	0 [V]
		R	No Hazard.	0 [V]
	Short	A-K	No Hazard.	0 [V]
		K-R	Normal operation.	
		R-A	No Hazard.	0 [V]
J501	Open		Normal operation. (5V, 12V only)	
PC101	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	0 [V]
PC102	Open	A, K	No Hazard.	0 [V]
		Vo, GND	No Hazard.	0 [V]
		Vcc	No Hazard.	0 [V]
	Short	A-K	No Hazard.	0 [V]
		Vo-GND	No Hazard.	0 [V]
		Vcc-GND	No Hazard.	0 [V]
PC501	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage
PC501	Short	C-E	No Hazard.	0 [V]
R101	Open		Normal operation.	
R104	Open		Normal operation.	
R107	Open		Normal operation.	
R111	Open		Normal operation.	
R112	Open		Normal operation.	
R113	Open		No Hazard.	0 [V]
R114	Open		No Hazard.	0 [V]
R115	Open		Normal operation.	
R116	Open		Normal operation.	
R117	Open		Normal operation.	
R118	Open		Normal operation.	
R119	Open		Normal operation.	
R120	Open		Normal operation.	
R121	Open		Normal operation.	
R122	Open		Normal operation.	
R123	Open		No Hazard.	Decreased
R124	Open		No Hazard.	Decreased
R125	Open		Normal operation.	
R126	Open		No Hazard.	Decreased
R127	Open		No Hazard.	0 [V]
R128	Open		No Hazard.	Decreased
R129	Open		No Hazard.	0 [V]
R131	Open		Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage
R132	Open	Normal operation.	
R133	Open	Normal operation.	
R135	Open	Normal operation.	
R136	Open	No Hazard.	0 [V]
R137	Open	Normal operation.	
R138	Open	Normal operation.	
R139	Open	Normal operation.	
R140	Open	Normal operation.	
R141	Open	Normal operation.	
R146	Open	Normal operation.	
R147	Open	Normal operation.	
R148	Open	Normal operation.	
R149	Open	Normal operation.	
R150	Open	Normal operation.	
R151	Open	Normal operation.	
R152	Open	Normal operation.	
R153	Open	Normal operation.	
R501	Open	Normal operation.	
R502	Open	Normal operation.	
R503	Open	Normal operation.	
R504	Open	No Hazard.	0 [V]
R505	Open	No Hazard.	0 [V]
R506	Open	Normal operation.	
R507	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage
R508	Open	Normal operation.	
R509	Open	Normal operation.	
R511	Open	Normal operation.	
R512	Open	Normal operation.	
R513	Open	Normal operation.	
R514	Open	Normal operation.	
R515	Open	No Hazard.	0 [V]
R516	Open	Normal operation.	
R517	Open	Normal operation.	
R518	Open	No Hazard.	Increased(105%)
R519	Open	No Hazard.	Decreased
R520	Open	Normal operation.	
R521	Open	Normal operation.	
R522	Open	Normal operation.	
R524	Open	Normal operation.	
R525	Open	No Hazard.	0 [V]
R526	Open	Normal operation.	
R527	Open	Normal operation.	
R528	Open	Normal operation.	
R531	Open	No Hazard.	0 [V]
R532	Open	No Hazard.	0 [V]
R534	Open	No Hazard.	0 [V]
R535	Open	Normal operation.	
R536	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage
R539	Open	No Hazard.	0 [V]
R540	Open	No Hazard.	0 [V]
R541	Open	Normal operation.	
R542	Open	Normal operation.	
R543	Open	Normal operation.	
R544	Open	Normal operation.	
R545	Open	Normal operation.	
R546	Open	No Hazard.	Increased (105%)
R547	Open	No Hazard.	0 [V]
R548	Open	No Hazard.	0 [V]
R549	Open	Normal operation.	
R550	Open	Normal operation.	
R551	Open	Normal operation.	
R552	Open	Normal operation.	
R558	Open	No Hazard.	0 [V]
R559	Open	Normal operation.	
R560	Open	Normal operation.	
R563	Open	No Hazard.	0 [V]
R564	Open	Normal operation.	
R565	Open	Normal operation.	
R566	Open	No Hazard.	0 [V]
R568	Open	Normal operation.	
R569	Open	No Hazard.	0 [V]
R570	Open	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage
SS101	Open	R111 side	Normal operation.	
		C112 side	Normal operation.	
	Short	R111 side	Normal operation.	
		C112 side	Normal operation.	
SS102	Open	R112 side	Normal operation.	
		IC101 side	No Hazard.	0 [V]
	Short	R112 side	No Hazard.	0 [V]
		IC101 side	Normal operation.	
SS501	Open	-S side	Normal operation.	
		R546 side	Normal operation.	
	Short	-S side	Normal operation.	
		R546 side	Normal operation.	
SS502	Open	C501 side	Normal operation.	
		R525 side	No Hazard.	0 [V]
	Short	C501 side	Normal operation.	
		R525 side	Normal operation.	
SS503	Open	R544 side	Normal operation.	
		R543 side	Normal operation.	
	Short	R544 side	Normal operation.	
		R543 side	Normal operation.	
T101	Open	1or3	No Hazard.	0 [V]
		2or4	No Hazard.	0 [V]
		5or6	No Hazard.	0 [V]
	Short	1-3	Z No hazard. 03 shorted. No Hazard.	0 [V]

F M E A

Component	Mode		Comment	Output Voltage
T101	Short	2-4	No Hazard.	0 [V]
		5-6	No Hazard.	0 [V]
TR101	Open	C	See 23 Page.	
		E	See 23 Page.	
		B	See 23 Page.	
	Short	C-E	See 23 Page.	
		E-B	See 23 Page.	
		B-C	See 23 Page.	
TR102	Open	C	No Hazard.	Decreased
		E	No Hazard.	Decreased
		B	No Hazard.	Decreased
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	No Hazard.	Decreased
TR103	Open	C	Normal operation.	
		E	No Hazard.	Decreased
		B	No Hazard.	Decreased
	Short	C-E	No Hazard.	Decreased
		E-B	Normal operation.	
		B-C	No Hazard.	Decreased
TR104	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage
TR104	Short	S-G	Normal operation.	
		G-D	Normal operation.	
TR105	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0 [V]
		E-B	Normal operation.	
		B-C	No Hazard.	0 [V]
TR106	Open	C	Normal operation.	
		B, E	No Hazard.	0 [V]
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR501	Open	C	No Hazard.	0 [V]
		E	No Hazard.	0 [V]
		B	No Hazard.	0 [V]
	Short	C-E	Normal operation.	
		E-B	No Hazard.	0 [V]
		B-C	Normal operation.	
TR502	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0 [V]
		E-B	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage
TR502	Short	B-C	No Hazard.	0 [V]
TR503	Open	C	No Hazard.	Increased (105%)
		E	No Hazard.	Increased (105%)
		B	No Hazard.	Increased (105%)
	Short	C-E	No Hazard.	Decreased
		E-B	No Hazard.	Increased (105%)
		B-C	No Hazard.	Decreased
TR504	Open	C	Normal operation.	
		E	No Hazard.	Decreased
		B	No Hazard.	Decreased
	Short	C-E	No Hazard.	Increased (105%)
		E-B	No Hazard.	Increased (105%)
		B-C	Normal operation.	
TR505	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR507	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0 [V]
		E-B	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage
TR507	Short	B-C	No Hazard.	0 [V]
TR508	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR509	Open	D	No Hazard.	Increased (105%)
		S	No Hazard.	Increased (105%)
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
ZD101	Open		No Hazard.	0 [V]
	Short		No Hazard.	0 [V]
ZD102	Open		No Hazard.	0 [V]
	Short		No Hazard.	0 [V]
ZD103	Open		Normal operation.	
	Short		R15 opened. No Hazard.	0 [V]
ZD104	Open		Normal operation.	
	Short		No Hazard.	0 [V]
ZD501	Open		Normal operation.	
	Short		No Hazard.	0 [V]
ZD502	Open		Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage
ZD502	Short	Normal operation.	
ZD503	Open	Normal operation.	
	Short	No Hazard.	Decreased
ZD504	Open	Normal operation.	
	Short	Normal operation.	
ZD505	Open	Normal operation.	
	Short	No Hazard.	0 [V]
ZD506	Open	Normal operation.	
	Short	No Hazard.	0 [V]
ZD507	Open	Normal operation. (13.8V, 15V, 24V only)	
	Short	No Hazard. (13.8V, 15V, 24V only)	0 [V]

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR11	Open	D	No Hazard.	0[V]
		S	No Hazard.	0[V]
		G	External Fuse opened, No hazard.	0[V]
	Short	D-S	External Fuse opened, No hazard.	0[V]
		S-G	No Hazard.	0[V]
		G-D	External Fuse opened, No hazard.	0[V]
TR101	Open	C	No Hazard.	0[V]
		E	Normal operation.	
		B	R15 opened, No hazard.	0[V]
	Short	C-E	Normal operation.	
		E-B	R15 opened, No hazard.	0[V]
		B-C	No Hazard.	0[V]