

ABNORMAL TEST RESULT

OF MODEL SUW/SUCW101212
SUW/SUCW101215

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 : 2/12 ~ 10/12)

(Abnormal Test Result: 11/12 ~ 12/12)

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 | See 11 Page. | |
| C21 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| C22 | Open | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | Short | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| C23 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| C31 | Open | Normal operation | |
| | Short | See 11 Page. | |
| C32 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| C34 | Open | Normal operation | |
| | Short | Normal operation | |
| C41 | Open | Normal operation | |
| | Short | Normal operation | |
| C42 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| C43 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| C51 | Open | Normal operation | |
| | Short | See 11 Page. | |
| C53 | Open | Normal operation | |
| | Short | See 11 Page. | |



F M E A

| Component | Mode | Comment | Output Voltage |
|-----------|-------|---------------------|--|
| C54 | Open | Normal operation | |
| | Short | See 11 Page. | |
| C56 | Open | Normal operation | |
| | Short | See 11 Page. | |
| C71 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| D12 | Open | Normal operation | |
| | Short | Normal operation | |
| D31 | Open | Normal operation | |
| | Short | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| D32 | Open | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | Short | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| D41 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| D51 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| D52 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| D53 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| D54 | Open | Normal operation | |
| | Short | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| F11 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | Short | Normal operation | |



F M E A

| Component | Mode | | Comment | Output Voltage |
|-----------|-------|------------------|----------------------------|--|
| IC11 | Open | 1 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 2 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 3 | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 4 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 5 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 6 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 7 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 8 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | Short | 1-2 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 2-3 | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 3-4 | Normal operation | |
| | | 5-6 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 6-7 | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 7-8 | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| IC51 | Open | K | See 11 Page. | |
| | | A | See 11 Page. | |
| | | R | See 11 Page. | |
| | Short | A-K | Normal operation | |
| | | K-R | Normal operation | |
| | | R-A | See 11 Page. | |
| L11 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | Short | Normal operation | | |
| L51 | Open | See 11 Page. | | |
| | Short | Normal operation | | |



F M E A

| Component | Mode | | Comment | Output Voltage |
|-----------|-------|------|---------------------|----------------------------|
| L52 | Open | | See 11 Page. | |
| | Short | | Normal operation | |
| PC11 | Open | A, K | See 11 Page. | |
| | | C, E | See 11 Page. | |
| | Short | A-K | See 11 Page. | |
| | | C-E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| T11 | Open | 1 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 2 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 4 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 5 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 6 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 7 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 9 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 10 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | Short | 1-2 | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 2-3 | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 4-5 | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | 6-7 | Normal operation | |
| | | 8-9 | Normal operation | |
| | | 9-10 | Normal operation | |
| T12 | Open | 1 | Normal operation | |
| | | 2 | Normal operation | |
| | | 3 | See 11 Page. | |
| | | 4 | See 11 Page. | |

F M E A

| Component | Mode | | Comment | Output Voltage | |
|-----------|-------|------|---------------------|--|----------------------------|
| T12 | Short | 1-2 | See 11 Page. | | |
| | | 3-4 | See 11 Page. | | |
| TR11 | Open | C | Normal operation | | |
| | | E | Normal operation | | |
| | | B | Normal operation | | |
| | Short | C-E | No Hazard | AVR1:* Decreased. AVR2:* Decreased. | |
| | | E-B | Normal operation | | |
| | | B-C | F11 opend No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| TR12 | Open | C | Normal operation | | |
| | | E | Normal operation | | |
| | | B | Normal operation | | |
| | Short | C-E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | | E-B | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | | B-C | Normal operation | | |
| | Open | C | Normal operation | | |
| | | E | Normal operation | | |
| | | B | Normal operation | | |
| | Short | C-E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | | E-B | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | | B-C | Normal operation | | |
| | TR21 | Open | C | Normal operation | |
| | | | E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | | B | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| Short | | C-E | See 11 Page. | | |



F M E A

| Component | Mode | | Comment | Output Voltage | |
|-----------|-------|------|------------------|--|----------------------------|
| TR21 | Short | E-B | Normal operation | | |
| | | B-C | Normal operation | | |
| TR22 | Open | C | Normal operation | | |
| | | E | Normal operation | | |
| | | B | Normal operation | | |
| | Short | C-E | No Hazard | AVR1:* Decreased. AVR2:* Decreased. | |
| | | E-B | Normal operation | | |
| | | B-C | No Hazard | AVR1:* Decreased. AVR2:* Decreased. | |
| | Open | C | Normal operation | | |
| | | E | Normal operation | | |
| | | B | Normal operation | | |
| | Short | C-E | No Hazard | AVR1:* Decreased. AVR2:* Decreased. | |
| | | E-B | Normal operation | | |
| | | B-C | No Hazard | AVR1:* Decreased. AVR2:* Decreased. | |
| | TR31 | Open | D | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | | S | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | | G | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| Short | | D-S | See 11 Page. | | |
| | | S-G | Normal operation | | |
| | | G-D | See 11 Page. | | |
| TR32 | Open | C | Normal operation | | |
| | | E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | | B | No Hazard | AVR1:* 0[V] AVR2:* 0[V] | |
| | Short | C-E | Normal operation | | |



F M E A

| Component | Mode | | Comment | Output Voltage |
|-----------|-------|-----|------------------|--|
| TR32 | Short | E-B | Normal operation | |
| | | B-C | Normal operation | |
| TR33 | Open | C | Normal operation | |
| | | E | Normal operation | |
| | | B | Normal operation | |
| | Short | C-E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | E-B | Normal operation | |
| | | B-C | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| TR34 | Open | C | Normal operation | |
| | | E | Normal operation | |
| | | B | Normal operation | |
| | Short | C-E | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| | | E-B | Normal operation | |
| | | B-C | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| ZD11 | Open | | Normal operation | |
| | Short | | Normal operation | |
| ZD12 | Open | | Normal operation | |
| | Short | | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| ZD71 | Open | | No Hazard | AVR1:* Increased. AVR2:* Increased. |
| | Short | | Normal operation | |
| ZD72 | Open | | No Hazard | AVR1:* Increased. AVR2:* Increased. |
| | Short | | Normal operation | |
| ZD73 | Open | | Normal operation | |
| | Short | | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |



F M E A

| Component | Mode | Comment | Output Voltage |
|-----------|------|------------------|--|
| R11 | Open | Normal operation | |
| R12 | Open | Normal operation | |
| R13 | Open | Normal operation | |
| R14 | Open | Normal operation | |
| R15 | Open | Normal operation | |
| R16 | Open | Normal operation | |
| R17 | Open | See 11 Page. | |
| R21 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R22 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R23 | Open | No Hazard | |
| R24 | Open | No Hazard | |
| R25 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R26 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R27 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R28 | Open | Normal operation | |
| R29 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R31 | Open | Normal operation | |
| R32 | Open | Normal operation | |
| R33 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R34 | Open | Normal operation | |
| R35 | Open | No Hazard | AVR1:* 0[V] AVR2:* 0[V] |
| R36 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R37 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R38 | Open | Normal operation | |

F M E A

| Component | Mode | Comment | Output Voltage |
|-----------|------|------------------|--|
| R41 | Open | Normal operation | |
| R42 | Open | Normal operation | |
| R44 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R45 | Open | Normal operation | |
| R46 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R47 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R48 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R51 | Open | Normal operation | |
| R52 | Open | Normal operation | |
| R71 | Open | See 11 Page. | |
| R72 | Open | See 12 Page. | |
| R73 | Open | See 12 Page. | |
| R74 | Open | Normal operation | |
| R75 | Open | See 12 Page. | |
| R76 | Open | See 12 Page. | |
| R77 | Open | No Hazard | AVR1:* Decreased. AVR2:* Decreased. |
| R78 | Open | Normal operation | |
| R79 | Open | Normal operation | |
| R81 | Open | Normal operation | |
| R82 | Open | Normal operation | |



ABNORMAL TEST RESULT

| Component | Mode | | Comment | Output Voltage |
|-----------|-------|------|------------------------|--------------------------------------|
| C11 | Short | | F11 opened, No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| C31 | Short | | F11 opened, No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| C51 | Short | | No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| C53 | Short | | No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| C54 | Short | | No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| C56 | Short | | No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| IC51 | Open | K | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | | A | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | | R | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | Short | R-A | No Hazard. | AVR1: Increased. AVR2: Increased. |
| L51 | Open | | No Hazard. | AVR1: 0[V] AVR2: Increased. |
| L52 | Open | | No Hazard. | AVR1: Increased. AVR2: 0[V] |
| PC11 | Open | A, K | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | | C, E | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | Short | A-K | No Hazard. | AVR1: Increased. AVR2: Increased. |
| T12 | Open | 3 | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | | 4 | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | Short | 1-2 | No Hazard. | AVR1: Increased. AVR2: Increased. |
| | | 3-4 | No Hazard. | AVR1: Increased. AVR2: Increased. |
| TR21 | Short | C-E | No Hazard. | AVR1: Increased. AVR2: Increased. |
| TR31 | Short | D-S | F11 opened, No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| | | G-D | F11 opened, No Hazard. | AVR1: 0[V] AVR2: 0[V] |
| R17 | Open | | No Hazard. | AVR1: Increased. AVR2: Increased. |
| R71 | Open | | No Hazard. | AVR1: Increased. AVR2: Increased. |



ABNORMAL TEST RESULT

| Component | Mode | Comment | Output Voltage |
|-----------|------|------------|--------------------------------------|
| R72 | Open | No Hazard. | AVR1: Increased. AVR2: Increased. |
| R73 | Open | No Hazard. | AVR1: Increased. AVR2: Increased. |
| R75 | Open | No Hazard. | AVR1: Increased. AVR2: Increased. |
| R76 | Open | No Hazard. | AVR1: Increased. AVR2: Increased. |