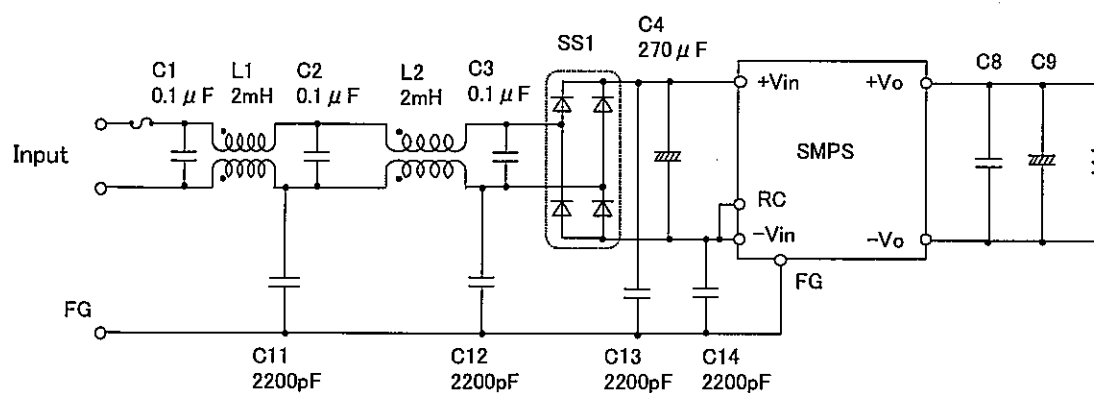


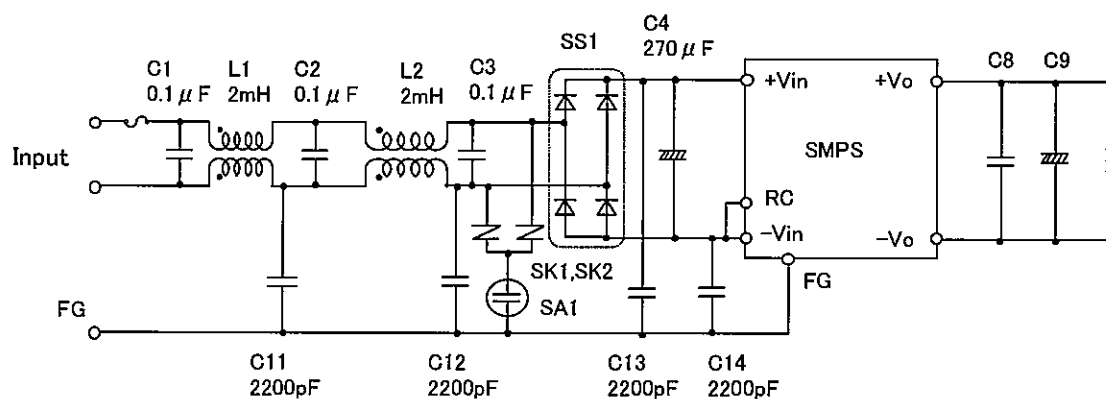
DHS50A series EMI/EMS Test resultApproved : *Tatsuya Mano*  
Tatsuya ManoPrepared : *Tetsuro Hirata*  
Tetsuro Hirata

No.	Test item	Conditions	Conditions of Acceptability	Result
1	Line conduction	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR11 classA , EN55011-A	OK
2	Radiated emission	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR11 classA , EN55011-A	OK
3	Static electricity immunity test (EN61000-4-2)	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Contact discharge voltage 8[kV] (EN61000-4-2 Level 4) (5) Testing circuitry Fig.1	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
4	Radiated, radio-frequency, electromagnetic field immunity test (EN61000-4-3)	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4)Testing field strength 10[V/m] (EN61000-4-3 Level 3) (5) Testing circuitry Fig.1	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
5	Electrical fast transient/ burst immunity test (EN61000-4-4)	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test peak voltage 4[kV] (IEC61000-4-4 Level 4) (5) Testing circuitry Fig.1	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
6	Surge immunity test (EN61000-4-5)	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test voltage Line to line 2[kV] (Level 3) Line to earth 4[kV] (Level 4) (5) Testing circuitry Fig.2	(1)The power supply is not stop (2)Circuit does not malfunction. (3)No abnormality of the insulation destruction etc. (4)Parts are no damaged.	OK
7	Immunity to conducted disturbances, induced by radio-frequency fields (EN61000-4-6)	(1) Rated input(DC110V/AC90V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Voltage level (e.m.f.) 10[V] (Level 3) (5) Testing circuitry Fig.1	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK



- L1,L2 : SC-05-200(NEC TOKIN)  
 SS1 : D3SBA60(SINDENGEN)  
 C8 : DHS50A24/DHS100A24 4.7  $\mu$ F  
      Others 10  $\mu$ F  
 C9 : DHS50A05/DHS100A05 2200  $\mu$ F  
      DHS50A12/DHS100A12 470  $\mu$ F  
      DHS50A15/DHS100A15 470  $\mu$ F  
      DHS50A24/DHS100A24 220  $\mu$ F

Fig.1 Testing circuitry



- L1,L2 : SC-05-200(NEC TOKIN)  
 SS1 : D3SBA60(SINDENGEN)  
 SK1,SK2 : ENE471D-10A(FUJI ELECTRIC CO.,LTD)  
 SA1 : DSA-302MA(MITSUBISHI MATERIALS COAP.)  
 C8 : DHS50A24/DHS100A24 4.7  $\mu$ F  
      Others 10  $\mu$ F  
 C9 : DHS50A05/DHS100A05 2200  $\mu$ F  
      DHS50A12/DHS100A12 470  $\mu$ F  
      DHS50A15/DHS100A15 470  $\mu$ F  
      DHS50A24/DHS100A24 220  $\mu$ F

Fig.2 Surge immunity Testing circuitry