



EMI/EMS Test Result

According to IEC60601-1-2 4th Edition (EMS)

Model Name : GHA700F series

Approved : Jun Uchida

The EUT is operated with following condition during EMI/EMS test.

Input Voltage : 230VAC / 50Hz
Output Current : Rated Current
Ambient Temperature : 25°C ± 10°C

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| # | Subject | Reference standard | Test Condition | Criteria *1 | Result |
|----|---------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------|
| 1 | EMI | Conducted Emission | EN55011, EN55032 Class B CISPR 32 Class B FCC Part15 Class B FCC Part18 Class B VCCI Class B | - | Pass |
| 2 | | Radiated Emission | EN55011, EN55032 Class B CISPR 32 Class B FCC Part15 Class B FCC Part18 Class B VCCI Class B | - | Pass |
| 3 | | Harmonic Current | IEC61000-3-2 Class A | - | Pass |
| 4 | EMS | Electrostatic discharge immunity test | IEC61000-4-2 Contact Discharge : Level 4 (8kV) Air Discharge : Level 4 (15kV) Applied to Chassis, Input, Output and FG terminal | A | Pass |
| 5 | | Radiated, radio-frequency, electromagnetic field immunity test | IEC61000-4-3 10V/m : (80MHz~2.7GHz) 80% Amplitude modulated | A | Pass |
| 6 | | Electrical fast transient / Burst immunity test | IEC61000-4-4 Level 4 (4kV) Repetition Rate : 5kHz and 100kHz | A | Pass |
| 7 | | Surge immunity test | IEC61000-4-5 Line to Line : Level 4 (2kV) Line to Earth : Level 4 (4kV) | A | Pass |
| 8 | | Immunity to conducted disturbances, induced by radio-frequency fields | IEC61000-4-6 Voltage Level (e.m.f.) : Level 3 (10Vrms) | A | Pass |
| 9 | | Power frequency magnetic field Immunity test | IEC61000-4-8 Magnetic Field Strength : Level 4 (30A/m) | A | Pass |
| 10 | | Voltage dips, short interruptions and voltage variations immunity test | IEC61000-4-11 (1) 100% dip for 10ms, 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° (2) 100% dip for 20ms, 0° (3) 30% dip for 500ms, 0° (4) 100% dip for 5 seconds (short interruption) | A A A B | Pass *2 Pass Pass Pass |

*1 Definition of Criteria

Criteria A : (1) Output voltage fluctuation is less than the following.
 • 5% of rated voltage (Rated output voltage : 5V or less)
 • 10% of rated voltage (Rated output voltage : More than 5V)
 (2) No circuit malfunctions.

Criteria B : (1) The power supply is not failed.
 (2) The output voltage recovers automatically, even if it drops temporarily.

*2 Output current : 40% or less of rated current.

<Notes>

Power supply shall not determine the final equipment performance against EMS test. Therefore we confirmed the output voltage performance only. EMS test should be performed as a final product.