



November 27, 2019  
Cosel Co.,Ltd  
WS Design Section

## EMI/EMS Test Result

Model Name : WMA150H series

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

Input Voltage : 230,240VAC / 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	EN55032 Class B CISPR 32 Class B	-	Pass
2		Radiated Emission	EN55032 Class B CISPR 32 Class B	-	Pass
3	EMS	Electrostatic discharge immunity test	IEC61000-4-2 Contact Discharge : Level 4 (8kV) Air Discharge : Level 4 (15kV) Applied to Input, Output, FG and Chassis	A	Pass
4		Radiated, radio-frequency, electromagnetic field immunity test	IEC61000-4-3 10V/m : (80MHz~2.7GHz) 80% Amplitude modulated	A	Pass
5		Electrical fast transient / Burst immunity test	IEC61000-4-4 Level 4 (4kV) Repetition Rate : 5kHz and 100kHz	A	Pass
6		Surge immunity test	IEC61000-4-5 (3rd) Line to Line : Level 3 (1kV) Line to Earth : Level 3 (2kV)	A	Pass
7		Immunity to conducted disturbances, induced by radio-frequency fields	IEC61000-4-6 Voltage Level (e.m.f.) : Level 3 (10Vrms)	A	Pass
8		Power frequency magnetic field Immunity test	IEC61000-4-8 Magnetic Field Strength : Level 4 (30A/m)	A	Pass
9		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 10ms, 0° (3) 60% dip for 100ms, 0° (4) 30% dip for 500ms, 0° (5) 100% dip for 5seconds (short interruption)	A A B A B	Pass Pass Pass Pass Pass

\*1 Definition of Criteria

Criteria A : (1) No output voltage drop with control circuit failure.  
(2) No protection circuit and other circuit malfunction.

Criteria B : (1) The output voltage is temporary degradation of performance.  
It recovers its normal performance without operator intervention.  
(2) No protection circuit and other circuit failure.

<Notes>

Power supply can't 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.