



**TEST REPORT
FOR
IEC 61000-4-4 (EFT/BURST IMMUNITY)
IEC 61000-4-5 (SURGE IMMUNITY)**

Report No.: 11-02-MAS-020-06

Client: ComMax International Company
Product: Surge Energy Absorb and Transfer Device
 突波能量吸收及轉換裝置
Model No.: MAT9-C3-30-Y
Comment Issues: N/A

Date test item received: 2011/01/27
Date test campaign completed: 2011/02/10
Date of issue: 2011/02/25

The test result only corresponds to the tested sample. It is not permitted to copy this report, in part or in full, without the permission of the test laboratory.

Total number of pages of this test report: 5 pages

Test Engineer Shin Shin		Checked By Kevin Lin Kevin Lin
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ELECTRONICS TESTING CENTER, TAIWAN
NO.8, LANE 29, WEN-MING RD.,
LO-SHAN TSUN, KUI-SHAN HSIANG,
TAOYUAN HSIEN 33383
TAIWAN, R.O.C.

TEL: (03) 3276170~4
INT: +886-3-3276170~4
FAX: (03) 3276188
INT: +886-3-3276188

Laboratory Introduction: Electronics Testing Center, Taiwan is recognized, filed and mutual recognition arrangement as following:

- ① ISO9001: TüV Product Service
- ② ISO/IEC 17025: BSMI, CNLA, DGT, NVLAP, CCIBLAC, UL, Compliance
- ③ Filing: FCC, Industry Canada, VCCI
- ④ MRA: Australia, Hong Kong, New Zealand, Singapore, USA, Japan, Korea, China, APLAC through CNLA
- ⑤ FCC Registration Number: 90588, 91094, 91095



EFT/BURST IMMUNITY TEST DATA

Test Date: Jan. 27, 2011

Test Specification	IEC 61000-4-4:2004		
Test Equipment		Calibration Data	Recommended Recal. Date
EFT Generator/Clamp\NoiseKen\FNS-AXII		Mar. 19, 2010	Mar. 18, 2011
Climatic Condition	Ambient Temperature: <u>22</u> °C		Relative Humidity: <u>62</u> % RH
Atmospheric Pressure	<u>985</u> mbar		
Power Supply System	AC Power: <u>380</u> Vac <u>50</u> Hz (3 ϕ 5W)		
Operating Conditions of The Device		Operation Mode	

Pulse: 5 /50ns Burst: 15ms /300ms		Repetition Rate: <u>5kHz</u>		Test time: <u>1</u> min/each condition	
\Voltage\Polarity\		<u>4.0</u> kV		___ kV	
\Test Point\Mode\Result\		+	-	+	
Power Line	L1	A	A	--	--
	L2	A	A	--	--
	L3	A	A	--	--
	N	A	A	--	--
	G	A	A	--	--

Note: "A" means the EUT function was correct during the test.

"--" means the test is not applicable.

※ Test Method: Conform with IEC61000-4-4 and CNS14676-4 (C6424-4)

EFT/BURST IMMUNITY TEST SETUP PHOTOS



SURGE IMMUNITY TEST DATA

Test Date: Jan. 27, 2011

Test Specification	IEC 61000-4-5:2005		
Test Equipment		Calibration Data	Recommended Recal. Date
Lightning Surge Simulator Noiseken LSS-15AX		Jan. 07, 2011	Jan. 06, 2012
Climatic Condition	Ambient Temperature: <u>21</u> °C		Relative Humidity: <u>53</u> % RH
Atmospheric Pressure	<u>985</u> mbar		
Power Supply System	AC Power: <u>380</u> V <u>50</u> Hz (3 ϕ 5W)		
Operating Conditions of The Device	Operation Mode		

Waveform: 1.2/50 μ s(8/20 μ s)		Repetition rate: <u>60</u> sec		Times: <u>1</u> times/each condition		Testing port :power port	
\Voltage \Mode \Polarity \Phase \Result			0°	90°	180°	270°	
10kV	L1 - L2	+	A	A	A	A	
		-	A	A	A	A	
	L1 - L3	+	A	A	A	A	
		-	A	A	A	A	
	L1 - N	+	A	A	A	A	
		-	A	A	A	A	
	L2 - L3	+	A	A	A	A	
		-	A	A	A	A	
	L2 - N	+	A	A	A	A	
		-	A	A	A	A	
	L3 - N	+	A	A	A	A	
		-	A	A	A	A	
	L1 - G	+	A	A	A	A	
		-	A	A	A	A	
	L2 - G	+	A	A	A	A	
		-	A	A	A	A	
	L3 - G	+	A	A	A	A	
		-	A	A	A	A	
	L3 - G	+	A	A	A	A	
		-	A	A	A	A	

Note: "A" means the EUT function was correct during the test.

"--" means the test is not applicable.

※ Test Method: Conform with IEC61000-4-5 and CNS14676-5 (C6424-5)

SURGE IMMUNITY SETUP PHOTOS