

# TEST REPORT

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**Test Report Number: SKT-ECE-170008****Date of issue: March 7, 2017****Applicant:**

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**Manufacturer:**

**Brigade Electronics Group PLC**  
Brigade House, The Mills Trading Estate, Station Road, South Darenth, Kent,  
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**Product:**

BackEye Vehicle CCTV

**Model:**

**BE-821C**  
(please see P5 for all the model numbers)

**Project number:**

SKTEU17-0166

**EUT received:**

February 22, 2017

**Applied standards:**

**EN 61000-6-3:2007+A1:2011**

**EN 61000-6-2:2005**

IEC 61000-4-2:2008

IEC 61000-4-3:2006+A1:2007+A2:2010

IEC 61000-4-4:2012

IEC 61000-4-6:2013

IEC 61000-4-8:2009

**Remarks to the standards:** None

The above equipment has been tested by SK Tech Co., Ltd., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product or system, which was tested.

D.Y. La / **Testing Engineer**

J.S. Yoon / **Technical Manager**

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## Revision History of Test Report

Rev.	Revisions	Effect page	Approved by	Date
-	Initial issue	All	J. S. Yoon	Mar. 7, 2017



## TABLE OF CONTENTS

<b>1</b>	<b>Summary of test results</b>	<b>4</b>
<b>2</b>	<b>Description of equipment under test (EUT)</b>	<b>5</b>
<b>3</b>	<b>Test and measurement conditions</b>	<b>7</b>
3.1.	Operating modes	7
3.2.	Description of support units (accessory equipment)	7
3.3.	Interconnection and I/O cables	7
3.4.	Test configuration (arrangement of EUT)	8
3.5.	Test date and environmental conditions	8
<b>4</b>	<b>Facilities and accreditations</b>	<b>9</b>
4.1.	Facilities	9
4.2.	Accreditations	9
4.3.	List of test and measurement instruments	9
4.4.	Measurement uncertainty	11
<b>5</b>	<b>Technical requirements</b>	<b>12</b>
5.1.	Emission limits	12
5.2.	General performance criteria description	14
<b>6</b>	<b>EMISSION TEST</b>	<b>15</b>
6.1.	Conducted emission test at AC mains port	15
6.2.	Discontinuous disturbance (click noise)	16
6.3.	Conducted emission test at DC mains port	17
6.4.	Conducted emission test at telecommunication port	19
6.5.	Radiated emission test below 1 GHz	20
6.6.	Radiated emission test above 1 GHz	21
6.7.	Harmonic current emission test	22
6.8.	Voltage fluctuations and flicker test	23
<b>7</b>	<b>IMMUNITY TEST</b>	<b>24</b>
7.1.	Electrostatic discharge immunity test (ESD)	24
7.2.	Radiated, radio-frequency, electromagnetic field immunity test (RS)	26
7.3.	Electrical fast transient/burst immunity test (EFT/Burst)	27
7.4.	Surge immunity test	28
7.5.	Immunity to conducted disturbances, induced by radio-frequency fields (CS)	29
7.6.	Power frequency magnetic field immunity test	30
7.7.	Voltage dips and short interruptions immunity test	31
<b>8</b>	<b>Photographs of the test set-up</b>	<b>32</b>
<b>9</b>	<b>Photographs of EUT</b>	<b>40</b>



## 1 Summary of test results

Please refer to the specific reference standards (identified by date of publication and/or edition number or version number) on the cover page (P1). The cited version applied, unless otherwise specified in this test report.

EMISSION [EN 61000-6-3:2007+A1:2011]			
Standard	Test	Result	Remarks
EN 61000-6-3	Conducted emissions at AC mains port	N/A	
	Discontinuous disturbance (click noise)	N/A	
	Conducted emissions at DC mains port	PASS	Meets the requirements
	Conducted emissions at telecommunication port	N/A	
	Radiated emissions below 1 GHz	PASS	Meets the requirements
	Radiated emissions above 1 GHz	PASS	Meets the requirements
IEC 61000-3-2	Harmonic current emissions	N/A	
IEC 61000-3-3	Voltage fluctuations & flicker	N/A	

IMMUNITY [EN 61000-6-2:2005]			
Standard	Test	Test parameters and severity levels	Result
IEC 61000-4-2	Electrostatic discharge (ESD)	±4 kV Contact discharges ±2 kV; ±4 kV & ±8 kV Air discharges	PASS
IEC 61000-4-3	Radiated immunity (RS)	10 V/m (80 MHz to 1000 MHz) 3 V/m (1.4 GHz to 2.0 GHz) 1 V/m (2.0 GHz to 2.7 GHz) AM 80 %, 1 kHz, sinusoidal	PASS
IEC 61000-4-4	EFT/Burst on AC power ports and DC power ports, signal ports	±2 kV: AC power ports ±2 kV: DC power ports ±1 kV: signal ports	PASS
IEC 61000-4-5	Surge immunity on AC power ports and DC power ports, signal ports	±1 kV: AC power ports (L-L) ±2 kV: AC power ports (L-G) ±0.5 kV: DC power ports (L-L & L-G) ±1 kV: signal ports (L-G)	N/A
IEC 61000-4-6	Injected current (CS) on AC power ports and DC power ports, signal ports	10 V 150 kHz to 80 MHz AM 80 %, 1 kHz, sinusoidal	PASS
IEC 61000-4-8	Power frequency magnetic field	30 A/m	PASS
IEC 61000-4-11	Voltage dips and interruptions	100 % reduction 1 cycle 60 % reduction, 10/12 cycles 30 % reduction, 25/30 cycles 100 % reduction, 250/300 cycles	N/A

**Note:** The EUT is operated from the battery installed in vehicles, and therefore the test suites related to AC Mains port were not applicable.



2 Description of equipment under test (EUT)

Product: BackEye Vehicle CCTV
Model: BE-821C
Serial number: None (prototype)

Model differences:

Table with 3 columns: Model name, Difference, Tested (checked). Rows include BE-821C, BE-821C(XXX), BE-823C, and BE-823C(XXX).

Note: All the differences were compared with the test sample. The tested model BE-821C was used for NTSC, Mirror image and the variant model BE-823C was used for NTSC, Normal image. Where (XXX) represented other associated variant.

Technical data:

Table with 2 columns: Parameter, Value. Rows include Rated voltage, Rated frequency, Voltage during the Test, Frequency during the Test, and AC power input cord type.

Note: The EUT was powered from Rear view monitor that was connected to the battery

Table with 4 columns: I/O port, Type, Q'ty, Remark. Row includes DC power input and Video output.

Table with 2 columns: Internal Clock Frequency, Value. Row includes Internal Clock Frequency.

Note: The information on the internal clock frequency mentioned above was supplied by the applicant.

Modification of EUT during the compliance testing: none