



REPORT

For

Galardy Technical Services Ltd.

23973 McClure Avenue
Maple Ridge, British Columbia
V2W 0B3, Canada

Date: May 28, 2014
Report No.: 11988-1S
Revision No.: 0
Project No.: 11988
Equipment: Video Surveillance Camera
Model No.: GTS-CA24IR-2.8, GTS-CA24IR-4
GTS-CA24IR-6, GTS-CA24IR-8

ONE STOP GLOBAL CERTIFICATION SOLUTIONS



3133-20800 Westminster Hwy, Richmond, BC
V6V 2W3, Canada
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Prepared by: LabTest Certification Inc. Client: Galardy Technical Services Ltd.
Date Issued: May 28, 2014 Report No.: 11988-1S
Project No: 11988 Revision No.: 0

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TEST REPORT

Report reference No..... : 11988-1S

Report Revision History: 0

Tested by
(printed name and signature) : Constantin Gavrilas

Approved by
(printed name and signature) : Sandeep Bhayana

Date of issue : May 28, 2014



Note: By signing this report, both the Testing Technician and the Reviewer hereby declare to abide by the applicable LabTest policies:

- 1.) Statement of Independence # 3014 (LabTest Employees),
- 2.) Independence, Impartiality, and Integrity #1039, clause 11 (Engineering Service Subcontractors), or
- 3.) Independence, Impartiality, and Integrity #1019, clause 3.5 (Testing Subcontractors).

Testing Laboratory Name : LabTest Certification Inc.

Address : 3133 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3, Canada

Test Location Name : Same as Test Laboratory

Address : Same as Test Laboratory

Applicant's Name : Galardy Technical Services Ltd.

Address : 23973 McClure Avenue, Maple Ridge, British Columbia V2W 0B3, Canada

Test specification

Standards : N/A

Test procedure : ➤ Cold Resistance Test

Non-standard test method : N/A

Test item description : Video Surveillance Camera

Trademark : N/A

Manufacturer : Galardy Technical Services Ltd.

Model and/or type reference : GTS-CA24IR-2.8, GTS-CA24IR-4, GTS-CA24IR-6, GTS-CA24IR-8

Serial number : N/A

Rating(s)..... : 12Vdc, 350mA

Sampling Plan Used..... : Client Test Plan

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Particulars: test item vs. test requirements

Equipment mobility: Fixed
Operating condition.....: -50°C to 25°C
Mass of equipment (Kg).....: 0.19Kg
Protection against ingress of water: N/A

Test case verdicts

Test case does not apply to the test object : (N)/A
Test item does meet the requirement: (P)ass
Test item does not meet the requirement ...: (F)ail

Testing

Date of receipt of test item: May 7, 2014
Date(s) of performance of test: May 7, 2014

General remarks

"This report is not valid as a CB Test Report unless appended by an approved CB Testing Laboratory and appended to a CB Test Certificate.

The test result presented in this report relate only to the object(s) tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

- Throughout this report a comma is used as the decimal separator.
- Throughout this report a period is used as the decimal separator.

General product information:

The video cameras tested will be used in a video surveillance system and are intended to be connected to a controller with the ability to record the signal and/or display it on a monitor.

Note: 4 different Video Surveillance Camera models were tested, all using the same enclosure and circuitry but with different lenses.

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SUMMARY OF TESTING

	TEST	DESCRIPTION OF TEST	VERDICT
1	Cold Resistance Test	<ul style="list-style-type: none">The test has been started from room temperature then the temperature has been gradually lowered down to -50°C while keeping the units operationalThe units have been connected as in normal operation and their functionality has been verified continuously and they have kept operating normally for the full length of the test	Pass

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TEST EQUIPMENT USED

Item	Type	Equipment No	Calibration date		Calibration Certificate No	Calibration Laboratory
			Last	Due		
1	Temperature Chamber	23	Not required as equipment no. 236 & 501 are calibrated		—	—
2	Multiplexer Module	236	July 29, 2013	July 29, 2014	353782	Wescan Calibration
3	Data Acquisition Unit	501	September 17, 2013	September 17, 2014	335779	Wescan Calibration

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PRODUCT DESCRIPTION

Product Name: Video Surveillance Camera

Model Number: GTS-CA24IR-2.8, GTS-CA24IR-4, GTS-CA24IR-6, GTS-CA24IR-8

The video cameras tested will be used in a video surveillance system and are intended to be connected to a controller with the ability to record the signal and/or display it on a monitor.

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PICTURES



Picture 1 – GTS-CA24IR-xx Front View

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Picture 2 – GTS-CA24IR-xx Right Side View

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Picture 3 – GTS-CA24IR-xx Left Side View

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Picture 4 – GTS-CA24IR-xx Top View

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APPENDIX A – TEST DATA SECTION

Project No.:	<u>11988</u>	Date:	<u>May 07, 2014</u>
Equipment ID#:	<u>23, 236, 501</u>	Room Temp/Humidity:	<u>23.9°C/38.5%</u>
Model No(s):	<u>GTS-CA24IR-2.8, GTS-CA24IR-4, GTS-CA24IR-6, GTS-CA24IR-8</u>	Barometric Pressure:	<u>102.3kPa</u>
Sample No(s):	<u>1218696, 1218697, 1218698, 1218699</u>	Serial No(s):	<u>N/A</u>

Use the barometric pressure reported at: <http://www.flightstats.com/go/Airport/weather.do?airportCode=YVR>

USE A SEPARATE DATA SHEET FOR EACH MODEL. ALL TEST RESULTS MUST BE TRACEABLE TO THE SN# OF THE TESTED UNIT

Note: By signing the below, both the Issuer and the Reviewer hereby declare to abide by the applicable LabTest policies:

- 1.) Statement of Independence # 3014 (LabTest Employees), or
- 2.) Independence, Impartiality, and Integrity #1019, clause 3.5 (Testing Subcontractors).

Tested By: Constantin Gavrilas
Print


Signature

Reviewed by: Sandeep Bhayana
Print


Signature

Cold Resistance Test

METHOD

Test procedure:

1. The 4 models tested have been placed in the environmental chamber, where all of them have been connected to the controller and powered up for normal operation. The video feed and functionality of all the 4 units has been monitored simultaneously on the system's screen throughout the test.
2. A Type J thermocouple has been placed on each of the samples and the temperature of their enclosures has been continuously measured and recorded by means of a Data Acquisition Unit.
3. The test has been started from room temperature then the temperature has been gradually lowered down to -50°C while keeping the units operational. The functionality of the units has been constantly tested during this period.

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Test data:

The table below shows for each of the samples the period of time spent below the corresponding ambient temperature in steps of 5°C in the range between -10°C and -50°C:

Ambient temperature (°C)	Time spent in the chamber at the corresponding temperature (hrs:min:sec)					Time elapsed under this temperature (hrs:min:sec)
	GTSCA24AIR6	GTSCA24AIR4	GTSCA24AIR28	GTSCA24AIR8	Ambient	
-10	01:30:59	01:30:20	01:30:00	01:31:20	01:21:00	4:49:00
-15	01:57:20	01:55:00	01:54:39	01:58:00	01:40:40	4:29:20
-20	02:27:39	02:25:00	02:24:39	02:27:59	02:12:20	3:57:40
-25	02:50:19	02:46:19	02:45:20	02:51:20	02:42:20	3:27:40
-30	03:13:20	03:11:40	03:10:59	03:13:40	03:07:20	3:02:40
-35	03:30:20	03:27:40	03:26:40	03:30:40	03:20:39	2:49:21
-40	03:55:00	03:50:39	03:49:40	03:55:00	03:41:59	2:28:01
-45	04:47:39	04:39:19	04:36:19	04:47:19	04:19:19	1:50:41
-50	06:08:40	06:02:19	05:58:39	06:08:40	05:30:40	0:39:20
-50	06:10:00	06:10:00	06:10:00	06:10:00	06:10:00	-

Table Cold Test Temperature

Observation:

Total duration of the test was 6h 10min.

All 4 units have remained functional and have been operating normally throughout the whole period of the cold resistance test.

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APPENDIX B – ISO 17025:2005 ACCREDITATION CERTIFICATE

International Accreditation Service

CERTIFICATE OF ACCREDITATION

This is to signify that

LABTEST CERTIFICATION, INC.
3133-20800 WESTMINSTER HIGHWAY
RICHMOND, BRITISH COLUMBIA V6V 2W3
CANADA

Testing Laboratory TL-367
(Revised March 21, 2013)

has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005, *General requirements for the competence of testing and calibration laboratories*, and has been accredited, commencing May 5, 2011, for the test methods listed in the approved scope of accreditation.


Patrick V. McCullen
Vice President


C. P. Ramani, P.E.
President

 

Print Date: 04/25/2013
This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation. See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

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For complete scope of certification use <http://www.iasonline.org/PDF/TL/TL-367.pdf>.

END OF REPORT

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