



Test Report

Product Name	CAMINO-201 Class B AIS Transponder
Model No.	CAMINO-201

Applicant	Alltek Marine Electronics Corp.
Address	7F, No.605, Ruei Guang Rd., Neihu, Taipei, Taiwan, 114 R.O.C.

Date of Receipt	Apr. 27, 2010
Issued Date	Sep. 24, 2010
Report No.	105024R-RFCEP03V01
Report Version	V1.0

The Test Results relate only to the samples tested.

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Test Report Certification

Issued Date: Sep. 24, 2010

Report No.: 105024R-RFCEP03V01



Accredited by DNV, Nemko and NIST (NVLAP)

Product Name	CAMINO-201 Class B AIS Transponder
Applicant	Alltek Marine Electronics Corp.
Address	7F, No.605, Ruei Guang Rd., Neihu, Taipei, Taiwan, 114 R.O.C.
Manufacturer	Alltek Marine Electronics Corp.
Model No.	CAMINO-201
EUT Rated Voltage	DC 12-28V
EUT Test Voltage	DC 12V and DC 24V
Trade Name	AMEC
Applicable Standard	ETSI EN 301 843-1:V1.2.1 (2004.06) ETSI EN 301 843-2:V1.2.1 (2004.06)
Test Result	Complied

The test results relate only to the samples tested.

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Documented By : Leven Huang
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Tested By : Joe Guo
(Engineer / Joe Guo)



Approved By : Vincent Lin
(Manager / Vincent Lin)



TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	5
1.1. EUT Description.....	5
1.2. Tested System Details.....	6
1.3. Configuration of tested System	6
1.4. EUT Exercise Software	6
1.5. Test Facility	7
2. Conducted Emission.....	8
2.1. Test Equipmen	8
2.2. Test Setup	8
2.3. Limits	9
2.4. Test Procedure	9
2.5. Test Specification	10
2.6. Uncertainty	10
2.7. Test Result	10
3. Radiated Emission.....	11
3.1. Test Equipment.....	11
3.2. Test Setup	11
3.3. Limits	12
3.4. Test Procedure	12
3.5. Test Specification	13
3.6. Uncertainty	13
3.7. Test Result	13
4. Electrostatic Discharge (ESD)	14
4.1. Test Equipment.....	14
4.2. Test Setup	14
4.3. Test Level	14
4.4. Test Procedure	15
4.5. Test Specification	15
4.6. Uncertainty	15
4.7. Test Result	15
5. Radiated Susceptibility (RS).....	16
5.1. Test Equipment.....	16
5.2. Test Setup	16
5.3. Test Level	16
5.4. Test Procedure	17
5.5. Test Specification	17
5.6. Uncertainty	17
5.7. Test Result	17
6. Electrical Fast Transient/Burst (EFT/B)	18
6.1. Test Equipment.....	18
6.2. Test Setup	18
6.3. Test Level	19
6.4. Test Procedure	19
6.5. Test Specification	19
6.6. Uncertainty	19
6.7. Test Result	19
7. Conducted Susceptibility (CS).....	20
7.1. Test Equipment.....	20
7.2. Test Setup	20
7.3. Test Level	20
7.4. Test Procedure	21

7.5.	Test Specification	22
7.6.	Uncertainty	22
7.7.	Test Result	22
8.	EMC Reduction Method During Compliance Testing	23
9.	Test Result	24
9.1.	Test Data of Conducted Emission	25
9.2.	Test Data of Radiated Emission	27
9.3.	Test Data of Electrostatic Discharge	33
9.4.	Test Data of Radiated Susceptibility	35
9.5.	Test Data of Electrical Fast Transient.....	37
9.6.	Test Data of Conducted Susceptibility	39
Attachment 1:	EUT Test Photographs	
Attachment 2:	EUT Detailed Photographs	

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	CAMINO-201 Class B AIS Transponder
Trade Name	AMEC
Model No.	CAMINO-201
Frequency Range	156.025MHz~162.025MHz
Type of Modulation	GMSK / FM
Data Rate	9600bps / per channel
Channel Separation	25KHz
Antenna Type	Dipole
Channel Control	Auto
NMEA Cable	Shielded, 1.5m
VHF Antenna Cable	Shielded, 0.6m
RS-232 Cable	Shielded, 1.2m
Hardware	M-PCB-AISPF03P51,M-PCB-AISCTL01P52,M-PCB-AISDCBV2, M-PCB-AISPOWV3
Software	Version S7SE 2.7.1

Note:

1. Quietek verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

EMI Mode	Mode 1: Normal Operation (DC 12V)
	Mode 2: Normal Operation (DC 24V)
EMS Mode	Mode 1: Normal Operation (DC 12V)
	Mode 2: Normal Operation (DC 24V)

2. The Device have Bluetooth 、GPS and VHF function, this test report is for VHF function.

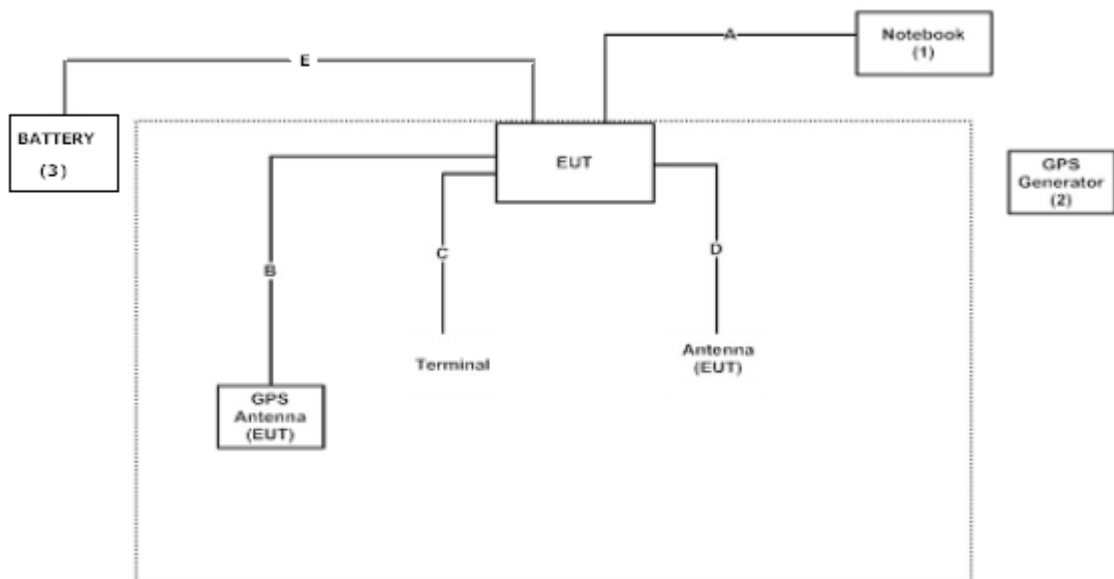
1.2. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Notebook	DELL	PP04X	7607342512	Non-Shielded, 0.8m
2 GPS Generator	IFR	GPS-101-2	264007013	Non-Shielded, 1.8m
3 Lead-acid Battery	GS	N/A	N/A	N/A

EUT Cable Type	Signal cable Description
A RS-232 Cable	Shielded, 1.2m
B GPS Antenna Cable	Shielded, 10m
C NMEA Cable	Shielded, 1.5m
D Antenna Cable	Shielded, 0.6m
E Power Cable	Non-Shielded, 1.8m

1.3. Configuration of tested System



1.4. EUT Exercise Software

- (1) Setup the EUT and Peripherals as shown on 1.3
- (2) Turn on the power of all equipments.
- (2) Enable the VHF function of the EUT.
- (3) The VHF function is used to perform the wireless data transmission.
- (5) Verify that the EUT works properly.

1.5. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	IEC 61000-4-2	15-35	20-35
Humidity (%RH)		30-60	50-55
Barometric pressure (mbar)		860-1060	950-1000
Temperature (°C)	IEC 61000-4-5	15-35	20-35
Humidity (%RH)		10-75	50-65
Barometric pressure (mbar)		860-1060	950-1000
Temperature (°C)	IEC 61000-4-4	15-35	20-35
Barometric pressure (mbar)		860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation’s Web Site : <http://www.quietek.com/tw/ctg/cts/accreditations.htm>
 The address and introduction of Quietek Corporation’s laboratories can be founded in our Web site : <http://www.quietek.com/>

Site Description:

Accredited by NVLAP
 NVLAP Lab Code: 200533-0



Accredited by DNV
 Statement No. : 413-99-LAB11



Accredited by Nemko
 Certificate No.: ELA 165



Accredited by TUV Rheinland
 Certificate No.: 10011438-1-2009



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2. Conducted Emission

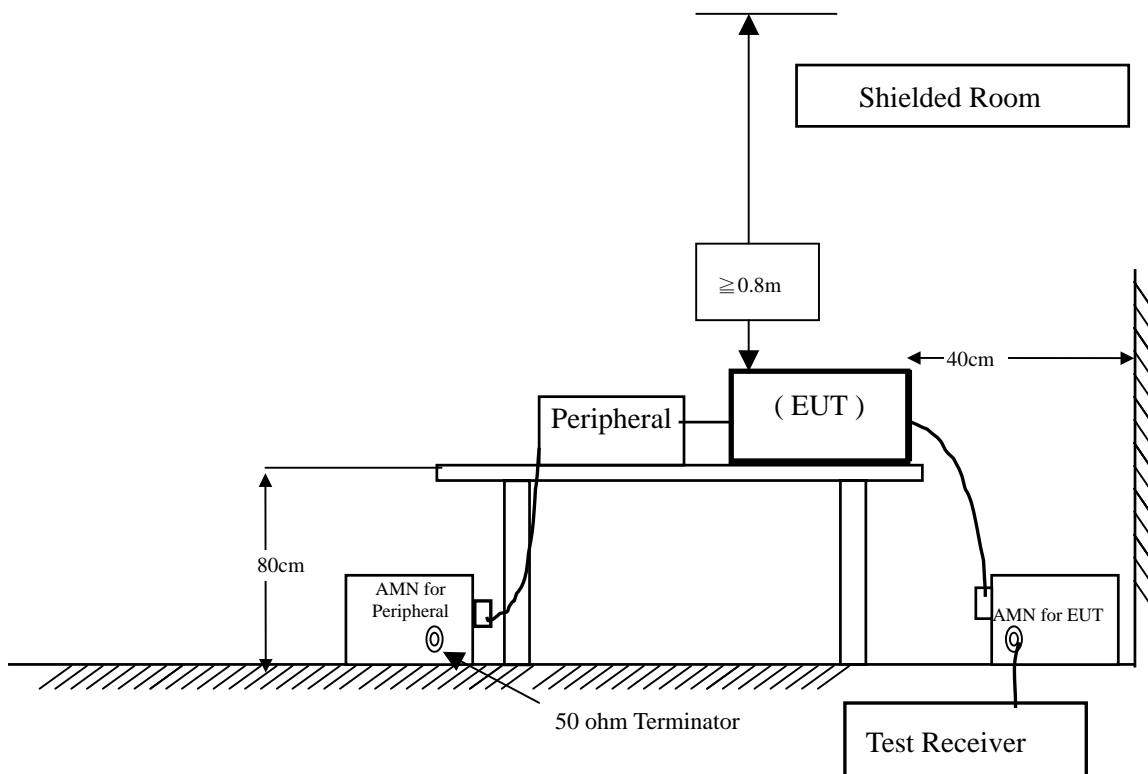
2.1. Test Equipmen

The following test equipment are used during the conducted emission test:

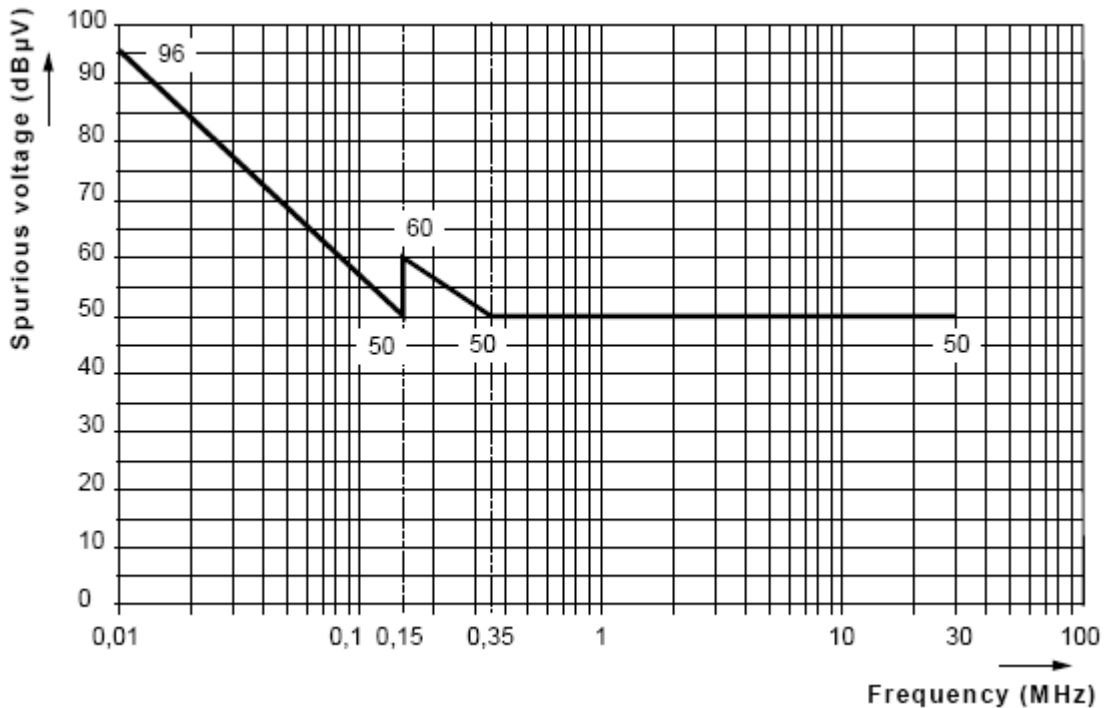
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2010	
2	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2010	Peripherals
3	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2010	EUT
4	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2010	
5	4-wire ISN	R & S	ENY41 / 837032/001	Feb., 2010	
6	Double 2-Wire ISN	R & S	ENY22 / 835354/008	Feb., 2010	
7	No.1 Shielded Room				

Note: All equipments are calibrated every one year.

2.2. Test Setup



2.3. Limits



Maximum permissible level (quasi-peak) of conducted EMC emissions into the mains.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of DC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ETSI EN 301 843-1: V1.2.1 (2004-06) on conducted measurement.

The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at

- 200Hz in the frequency range 10KHz~150KHz and
- 9KHz to 10KHz in the frequency range 150KHz ~30MHz.

2.5. Test Specification

According to ETSI EN 301 843-1: V1.2.1 (2004-06)

2.6. Uncertainty

± 2.26 dB

2.7. Test Result

The emission from the EUT was below the specified limits. The worst-case emissions are shown in section 9. The EUT complies the acceptance criterion and passes the test.

3. Radiated Emission

3.1. Test Equipment

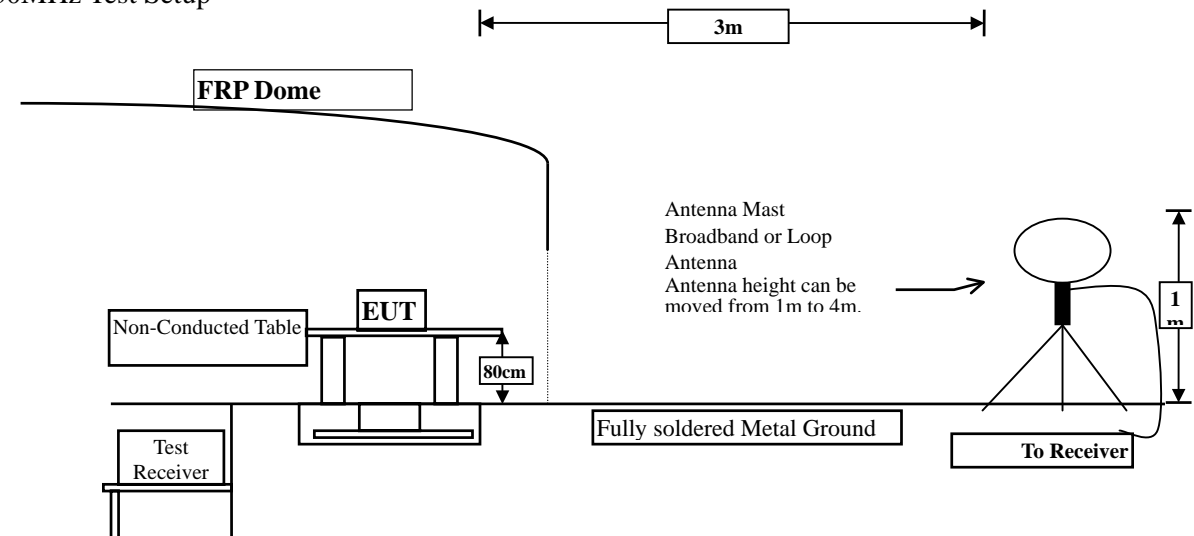
The following test equipment are used during the Radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
<input type="checkbox"/> Site # 1	Test Receiver	R & S	ESVS 10 / 834468/003	July, 2010
	Spectrum Analyzer	Advantest	R3162/ 00803480	May, 2010
	Pre-Amplifier	Advantest	BB525C/ 3307A01812	May, 2010
	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	Nov., 2009
<input type="checkbox"/> Site # 2	Test Receiver	R & S	ESCS 30 / 836858 / 022	Nov., 2009
	Spectrum Analyzer	Advantest	R3162 / 100803466	May, 2010
	Pre-Amplifier	Advantest	BB525C/3307A01814	May, 2010
	Bilog Antenna	SCHAFFNER	CBL6112B / 2705	Oct., 2009
	Horn Antenna	ETS	3115 / 0005-6160	July, 2010
	Pre-Amplifier	QTK	QTK-AMP-01/ 0001	July, 2010
<input checked="" type="checkbox"/> Site # 3	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2010
	Spectrum Analyzer	Advantest	R3162 / 100803480	May, 2010
	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2010
	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2010
	Horn Antenna	ETS	3115 / 0005-6160	July, 2010
	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2010

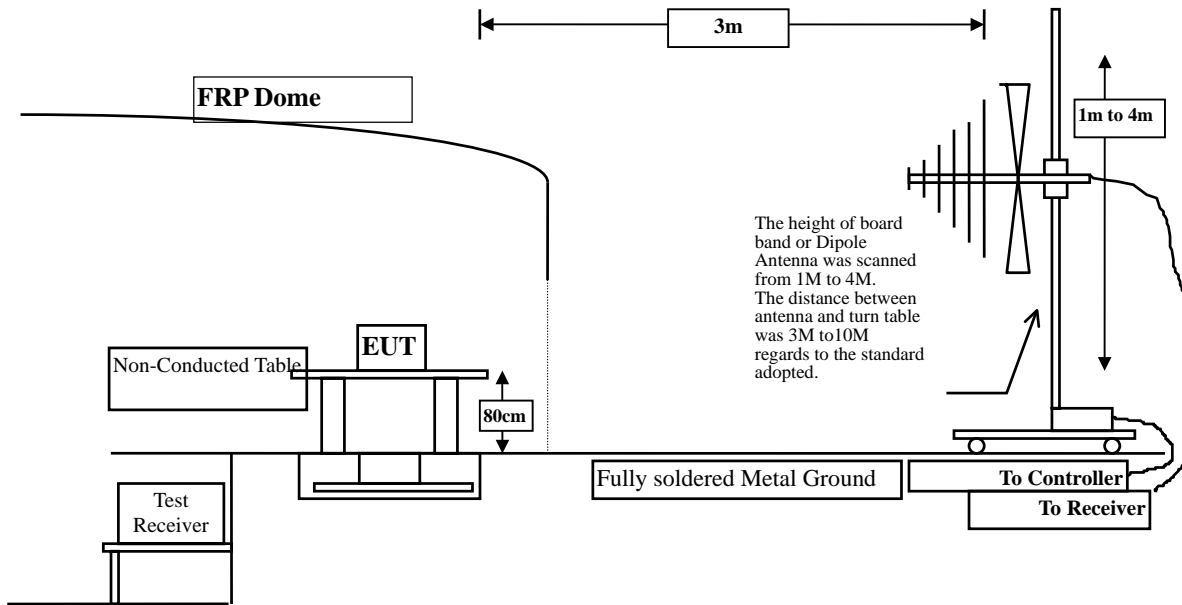
- Note:
1. All equipments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup

Under 30MHz Test Setup



Above 30MHz Test Setup



3.3. Limits

Frequency range	Limit (Quasi Peak)	Limit (Peak)	Measuring distance
150kHz to 300kHz	80dBuV/m to 52dBuV/m		3m
300kHz to 30MHz	52dBuV/m to 34dBuV/m		3m
30MHz to 1GHz	54dBuV	Not defined	3m
1GHz to 2GHz	Not defined	54dBuV	3m
156MHz to 165MHz	24dBuV/m	30dBuV	3m

3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ETSI EN 301 843-1: V1.2.1 (2004-06) on radiated measurement.

The measuring bandwidth shall be in accordance with table

Frequency range	Measuring bandwidth
30MHz to 2GHz	100kHz to 120kHz
156MHz to 165MHz	9kHz to 10kHz
150kHz to 30MHz	9kHz to 10kHz

3.5. Test Specification

According to ETSI EN 301 843-1: V1.2.1 (2004-06)

3.6. Uncertainty

± 3.8 dB

3.7. Test Result

The emission from the EUT was below the specified limits. The worst-case emissions are shown in section 9. The EUT complies the acceptance criterion and passes the test.

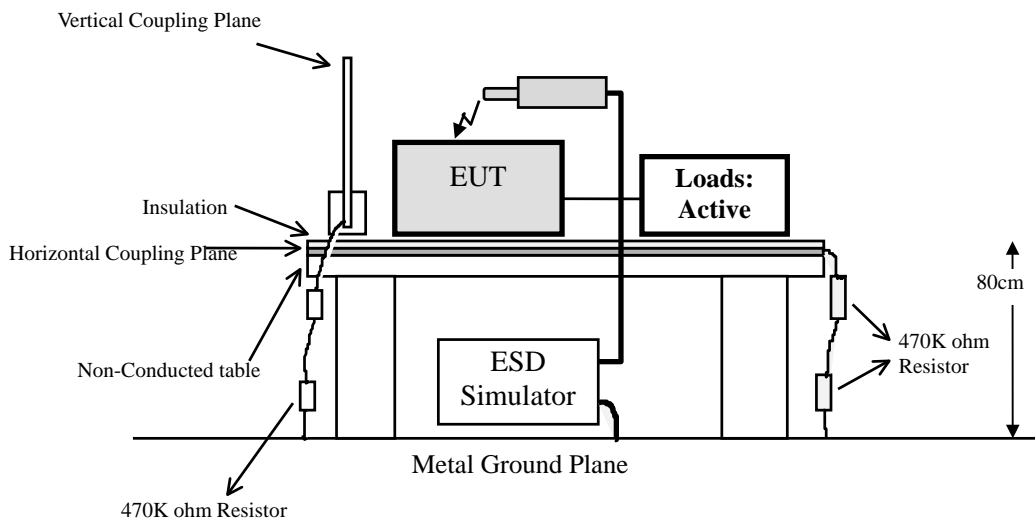
4. Electrostatic Discharge (ESD)

4.1. Test Equipment

Item	Instrument	Manufacturer	Type No/Serial No.	Last Calibration
1	ESD Simulator System	SCHAFFNER	NSG-438 S/N: 167	June, 2010
2	Horizontal Coupling Plane (HCP)	Quietek	HCP AL50	N/A
3	Vertical Coupling Plane (VCP)	Quietek	VCP AL50	N/A
4	No.3 Shielded Room			

Note: All equipments are calibrated every one year.

4.2. Test Setup



4.3. Test Level

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
	Electrostatic Discharge	kV(Charge Voltage)	±8 Air Discharge ±6 Contact Discharge	B

4.4. Test Procedure

Direct application of discharges to the EUT:

Contact discharge was applied only to conductive surfaces of the EUT.

Air discharges were applied only to non-conductive surfaces of the EUT.

During the test, it was performed with single discharges. For the single discharge time between successive single discharges will be keep longer 1 second. It was at least ten single discharges with positive and negative at the same selected point.

The selected point, which was performed with electrostatic discharge, was marked on the red label of the EUT.

Indirect application of discharges to the EUT:

Vertical Coupling Plane (VCP):

The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least ten single discharges with positive and negative at the same selected point.

Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least ten single discharges with positive and negative at the same selected point.

4.5. Test Specification

According to IEC 61000-4-2 : 2008

4.6. Uncertainty

± 6.003 %

4.7. Test Result

The measurement of the electrostatic discharge was investigated and test result was shown in section 9. The EUT complies the acceptance criterion and passes the test.

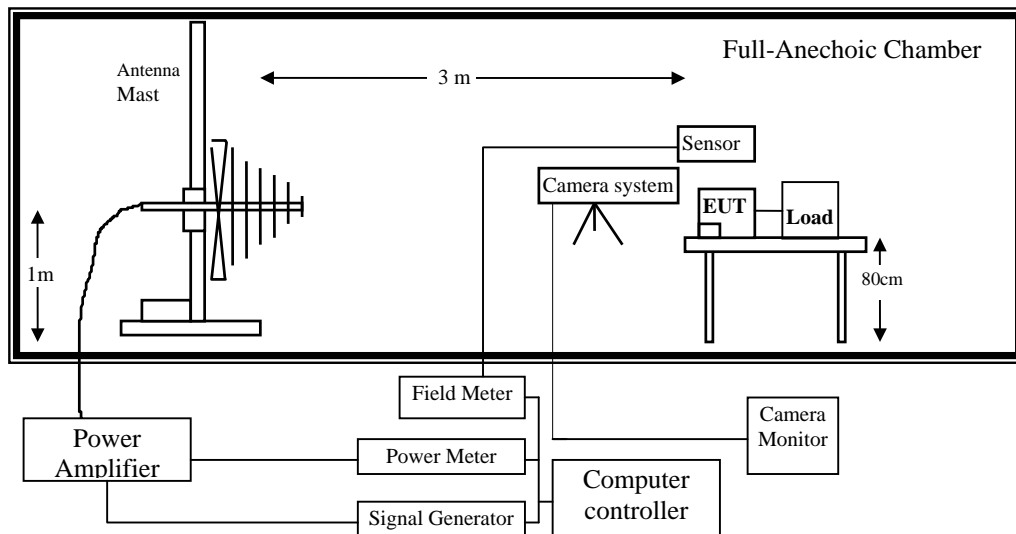
5. Radiated Susceptibility (RS)

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Signal Generator	R & S	SML03/103330	Sep., 2010
2	Power Amplifier	Schaffner	CBA9413B/4020	N/A
3	Power Amplifier	A & R	30S1G3/309453	N/A
4	Biconilog Antenna	EMCO	3149/00071675	N/A
5	Power Meter	R & S	NRVD / 100219	Jan., 2010
6	Directional Coupler	A & R	DC6180/22735	N/A
7	Directional Coupler	A & R	DC7144A/312249	N/A
8	No.2 EMC Fully Chamber			

Note: All equipments are calibrated every one year.

5.2. Test Setup



5.3. Test Level

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Enclosure Port				
	Radio-Frequency	MHz	80-1000 1400-2000	A
	Electromagnetic Field	V/m(Un-modulated, rms)	3	
	Amplitude Modulated	% AM (400Hz)	80	

5.4. Test Procedure

The EUT and load, which are placed on a table that is 0.8 meter above ground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT was 3 meters.

Both horizontal and vertical polarization of the antenna and four sides of the EUT are set on measurement.

In order to judge the EUT performance, a CCD camera is used to monitor EUT screen.

All the scanning conditions are as follows:

Condition of Test	Remarks
1. Field Strength	3 V/m Level 2
2. Radiated Signal	AM 80% Modulated with 400Hz sinusoidal audio signal
3. Scanning Frequency	80MHz - 1000MHz, 1400MHz - 2000MHz
4. Dwell Time	3 Seconds
5. Frequency step size Δf :	1%
6. The rate of Swept of Frequency	1.5×10^{-3} decades/s

5.5. Test Specification

According to IEC 61000-4-3: 2008

5.6. Uncertainty

$\pm 6.17 \%$

5.7. Test Result

The measurement of the radiated susceptibility was investigated and test result was shown in section 9. The EUT complies the acceptance criterion and passes the test.

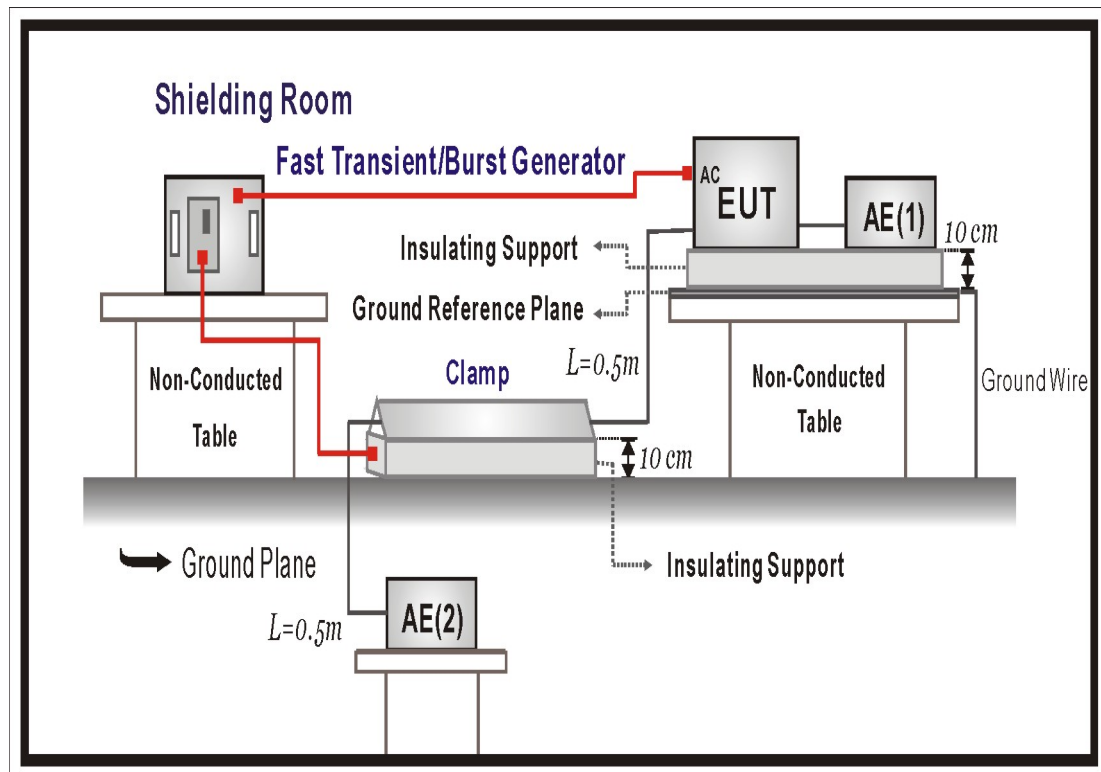
6. Electrical Fast Transient/Burst (EFT/B)

6.1. Test Equipment

Item	Instrument	Manufacturer	Type No/Serial No.	Last Calibration
1	Fast Transient/Burst Generator	SCHAFFNER	NSG 2050 S/N: 200124-031AR	June, 2010
2	No.3 Shielded Room			

Note: All equipments are calibrated every one year.

6.2. Test Setup



6.3. Test Level

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
Ports for signal lines and control lines				
	Fast Transients Common Mode	kV (Peak)	± 1	B
		Tr/Th ns	5/50	
		Rep. Frequency kHz	5	
Input DC Power Ports				
	Fast Transients Common Mode	kV (Peak)	± 1	B
		Tr/Th ns	5/50	
		Rep. Frequency kHz	5	
Input AC Power Ports				
	Fast Transients Common Mode	kV (Peak)	± 2	B
		Tr/Th ns	5/50	
		Rep. Frequency kHz	5	

6.4. Test Procedure

The EUT and load are placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m min. and 0.65mm thick min. And projected beyond the EUT by at least 0.1m on all sides.

For Signal Ports and Telecommunication Ports:

The EFT interference signal is through a coupling clamp device couples to the signal and control lines of the EUT with burst noise for 1min.

For Input DC and AC Power Ports:

The EUT is connected to the power mains through a coupling device that directly couples the EFT interference signal.

Each of the Line and Neutral conductors is impressed with burst noise for 1 min.

The length of power cord between the coupling device and the EUT shall be 1m.

6.5. Test Specification

According to IEC 61000-4-4: 2004

6.6. Uncertainty

$\pm 8.80 \%$

6.7. Test Result

The measurement of the Electrical Fast Transient/Burst was investigated and test result was shown in section 9. The EUT complies the acceptance criterion and passes the test.

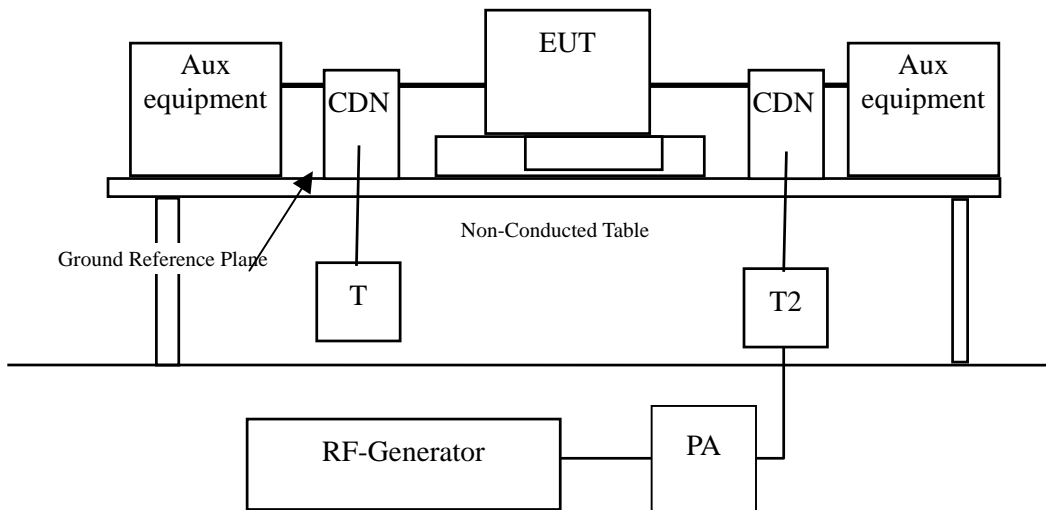
7. Conducted Susceptibility (CS)

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	CS SYSTEM	SCHAFFNER	NSG 2070	March, 2010
2	CDN	SCHAFFNER	CDN M016S / 20822	Dec., 2009
3	CDN	SCHAFFNER	CDN M016S / 20823	Dec., 2009
4	FIXED PAD	SCHAFFNER	INA 2070-1 / 2115	N/A
5	EM Clamp		KEMZ 801 / 21024	March, 2010
6	No.6 Shielded Room			

Note: All equipments are calibrated every one year.

7.2. Test Setup



7.3. Test Level

Item	Environmental Phenomena	Units	Test Specification	Performance Criteria
AC Input and AC Output & DC Input and DC output Power Ports & Functional Earth Ports				
	Radio-Frequency	MHz	0.15-80	A
	Common Mode.	V (rms, Unmodulated)	3	
	Amplitude Modulated	% AM (1kHz)	80	
		Source Impedance Ω	150	

7.4. Test Procedure

The EUT are placed on a table that is 0.8 meter height, and a Ground reference plane on the table, EUT are placed upon table and use a 10cm insulation between the EUT and Ground reference plane.

For Signal Ports and Telecommunication Ports

The disturbance signal is through a coupling and decoupling networks (CDN) or EM-clamp device couples to the signal and Telecommunication lines of the EUT.

For Input DC and AC Power Ports

The EUT is connected to the power mains through a coupling and decoupling networks for power supply lines. And directly couples the disturbances signal into EUT.

Used CDN-M2 for two wires or CDN-M3 for three wires.

All the scanning conditions are as follows:

Condition of Test	Remarks
1. Field Strength	130dBuV(3V) Level 2
2. Radiated Signal	AM 80% Modulated with 400Hz sinusoidal audio signal
3. Scanning Frequency	0.15MHz – 80MHz
4 Dwell Time	3 Seconds
5. Frequency step size Δf :	1%
6. The rate of Swept of Frequency	1.5×10^{-3} decades/s

Additionally, a test shall be performed with a test level of 10V rms at the following frequencies;

Condition of Test	Remarks
1. Field Strength	140dBuV(10V) Level 2
2. Radiated Signal	AM 80% Modulated with 400Hz sinusoidal audio signal
3. Scanning Frequency	2MHz , 3MHz , 4MHz , 6.2MHz , 8.2MHz , 12.2MHz , 16.5MHz , 18.8MHz , 22MHz , 25MHz
4 Dwell Time	3 Seconds
5. Frequency step size Δf :	1%
6. The rate of Swept of Frequency	1.5×10^{-3} decades/s

7.5. Test Specification

According to IEC 61000-4-6 :2008

7.6. Uncertainty

$\pm 6.17 \%$

7.7. Test Result

The measurement of the Conducted Susceptibility was investigated and test result was shown in section 9. The EUT complies the acceptance criterion and passes the test.

8. EMC Reduction Method During Compliance Testing

No modification was made during testing.

9. Test Result

The test results in the emission and the immunity were performed according to the requirements of measurement standard and process. Quietek Corporation is assumed full responsibility for the accuracy and completeness of these measurements. The test data of the emission is listed as below. All the tests were carried out with the EUT in normal operation, which was defined as:

EMI Mode	Mode 1: Normal Operation (DC 12V) Mode 2: Normal Operation (DC 24V)
EMS Mode	Mode 1: Normal Operation (DC 12V) Mode 2: Normal Operation (DC 24V)

9.1. Test Data of Conducted Emission

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Conducted Emission
 Test Site : No.1 Shielded Room
 Test Mode : Mode 1: Normal Operation (DC 12V)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE (+)					
Quasi-Peak					
0.027	3.227	43.860	47.087	-43.178	90.264
0.065	0.506	29.540	30.046	-47.905	77.951
0.287	0.281	22.560	22.841	-30.323	53.164
0.939	0.270	19.340	19.610	-30.390	50.000
16.474	0.634	19.020	19.654	-30.346	50.000
28.158	0.837	32.620	33.457	-16.543	50.000
LINE (-)					
Quasi-Peak					
0.027	3.119	44.230	47.349	-42.915	90.264
0.065	0.526	31.390	31.916	-46.035	77.951
0.302	0.255	11.730	11.985	-40.398	52.383
0.857	0.242	23.390	23.632	-26.368	50.000
14.916	0.574	23.350	23.924	-26.076	50.000
28.158	0.805	32.030	32.835	-17.165	50.000

Note:

1. All Reading Levels are Quasi-Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Conducted Emission
 Test Site : No.1 Shielded Room
 Test Mode : Mode 2: Normal Operation (DC 24V)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE (+)					
Quasi-Peak					
0.027	3.227	45.200	48.427	-41.838	90.264
0.065	0.506	30.850	31.356	-46.595	77.951
0.287	0.281	29.710	29.991	-23.173	53.164
0.572	0.270	26.710	26.980	-23.020	50.000
16.462	0.633	21.990	22.623	-27.377	50.000
28.158	0.837	32.030	32.867	-17.133	50.000
LINE (-)					
Quasi-Peak					
0.027	3.119	45.110	48.229	-42.185	90.414
0.065	0.526	31.030	31.556	-46.373	77.929
0.287	0.256	31.100	31.356	-21.794	53.150
0.935	0.241	24.840	25.081	-24.919	50.000
15.041	0.576	23.360	23.936	-26.064	50.000
28.158	0.805	32.300	33.105	-16.895	50.000

Note:

1. All Reading Levels are Quasi-Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

9.2. Test Data of Radiated Emission

Product : CAMINO-201 Class B AIS Transponder
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Normal Operation (DC 12V)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
(Loop Antenna)					
0.177	-4.114	23.300	19.186	-55.774	74.960
0.287	-4.202	21.670	17.468	-37.011	54.479
0.357	-4.222	10.280	6.058	-45.907	51.965
0.572	-4.264	13.340	9.077	-42.759	51.835
0.861	-4.338	12.070	7.732	-43.928	51.660
1.916	-4.279	15.170	10.892	-40.129	51.021

Note:

1. All Reading Levels are Quasi-Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : CAMINO-201 Class B AIS Transponder
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Normal Operation (DC 24V)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		
(Loop Antenna)					
0.172	-4.110	22.860	18.750	-57.196	75.946
0.287	-4.202	22.280	18.078	-36.401	54.479
0.572	-4.264	12.660	8.397	-43.439	51.835
0.857	-4.338	8.180	3.842	-47.821	51.662
0.982	-4.342	6.550	2.208	-49.379	51.587
1.904	-4.281	20.220	15.938	-35.090	51.028

Note:

1. All Reading Levels are Quasi-Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : CAMINO-201 Class B AIS Transponder
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Normal Operation (DC 12V)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
57.600	7.406	12.500	19.905	-34.095	54.000
140.800	13.563	23.300	36.863	-17.137	54.000
161.301	12.226	0.200	12.426	-11.574	24.000
197.112	11.287	32.500	43.787	-10.213	54.000
239.600	13.922	31.900	45.822	-8.178	54.000
337.900	17.062	30.600	47.662	-6.338	54.000
478.694	21.930	22.200	44.130	-9.870	54.000
739.019	25.169	18.300	43.469	-10.531	54.000
984.022	28.504	12.800	41.305	-12.695	54.000
Vertical					
61.850	7.244	16.100	23.344	-30.656	54.000
123.160	13.112	23.500	36.613	-17.387	54.000
143.750	12.549	18.100	30.649	-23.351	54.000
160.005	11.475	2.300	13.775	-10.225	24.000
197.115	11.261	27.600	38.861	-15.139	54.000
239.606	14.295	29.600	43.895	-10.105	54.000
337.897	16.841	25.100	41.941	-12.059	54.000
575.038	24.900	20.690	45.590	-8.410	54.000
623.000	24.856	18.800	43.656	-10.344	54.000
985.356	27.846	11.400	39.246	-14.754	54.000

Note:

1. All Reading Levels are Quasi-Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : CAMINO-201 Class B AIS Transponder
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Normal Operation (DC 24V)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
157.250	12.710	7.700	20.410	-3.590	24.000
253.420	15.739	32.400	48.139	-5.861	54.000
366.070	18.323	31.590	49.912	-4.088	54.000
575.050	22.984	22.830	45.814	-8.186	54.000
623.000	24.463	21.340	45.803	-8.197	54.000
985.500	28.493	22.500	50.992	-3.008	54.000
Vertical					
140.800	12.648	29.350	41.999	-12.001	54.000
157.220	11.609	8.700	20.308	-3.692	24.000
191.680	11.134	33.650	44.784	-9.216	54.000
478.730	21.642	17.860	39.502	-14.498	54.000
622.970	24.858	20.300	45.158	-8.842	54.000
739.021	27.499	15.500	42.999	-11.001	54.000

Note:

1. All Reading Levels are Quasi-Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : CAMINO-201 Class B AIS Transponder
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Normal Operation (DC 12V)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
1012.000	-6.560	53.060	46.500	-7.500	54.000
1124.000	-6.142	49.910	43.768	-10.232	54.000
1354.000	-5.290	51.960	46.670	-7.330	54.000
1394.000	-5.141	55.270	50.129	-3.871	54.000
1478.000	-4.830	53.650	48.819	-5.181	54.000
1673.000	-4.265	53.910	49.644	-4.356	54.000
Average Detector					
--					
Vertical					
1012.000	-6.560	51.480	44.920	-9.080	54.000
1354.000	-5.290	50.980	45.690	-8.310	54.000
1364.000	-5.249	50.760	45.511	-8.489	54.000
1378.000	-5.196	52.810	47.614	-6.386	54.000
1434.000	-4.999	52.340	47.341	-6.659	54.000
1478.000	-4.830	55.070	50.239	-3.761	54.000
Average Detector					
--					

Note:

1. All Reading Levels are Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : CAMINO-201 Class B AIS Transponder
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Normal Operation (DC 24V)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		

Horizontal

Peak Detector:

1012.000	-6.560	51.590	45.030	-8.970	54.000
1108.000	-6.205	48.540	42.335	-11.665	54.000
1124.000	-6.142	50.420	44.278	-9.722	54.000
1354.000	-5.290	51.250	45.960	-8.040	54.000
1436.000	-4.993	49.570	44.578	-9.422	54.000
1478.000	-4.830	53.920	49.089	-4.911	54.000

Average Detector

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Vertical

1012.000	-6.560	51.340	44.780	-9.220	54.000
1062.000	-6.366	52.120	45.754	-8.246	54.000
1124.000	-6.142	52.150	46.008	-7.992	54.000
1378.000	-5.196	53.130	47.934	-6.066	54.000
1436.000	-4.993	51.500	46.508	-7.492	54.000
1478.000	-4.830	54.400	49.569	-4.431	54.000

Average Detector

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Note:

1. All Reading Levels are Peak value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

9.3. Test Data of Electrostatic Discharge

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Electrostatic Discharge
 Test Site : No.3 Shielded Room
 Test Mode : Mode 1: Normal Operation (DC 12V)

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A, B, C)	Results
Air Discharge	10	+2kV, +4kV, +8kV	B	A	Pass
	10	-2kV, -4kV, -8kV	B	A	Pass
Contact Discharge	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (HCP)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Front)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Left)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Back)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Right)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

NR: No Requirement

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at ____ kV.
 - No false alarms or other malfunctions were observed during or after the test.

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Electrostatic Discharge
 Test Site : No.3 Shielded Room
 Test Mode : Mode 2: Normal Operation (DC 24V)

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria (A, B, C)	Results
Air Discharge	10	+2kV, +4kV, +8kV	B	A	Pass
	10	-2kV, -4kV, -8kV	B	A	Pass
Contact Discharge	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (HCP)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Front)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Left)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Back)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass
Indirect Discharge (VCP Right)	25	+2kV,+4kV, +6kV	B	A	Pass
	25	-2kV,-4kV, -6kV	B	A	Pass

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

NR: No Requirement

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at ____ kV.
 - No false alarms or other malfunctions were observed during or after the test.

9.4. Test Data of Radiated Susceptibility

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Radiated Susceptibility
 Test Site : No.2 EMC fully Chamber
 Test Mode : Mode 1: Normal Operation (DC 12V)

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A, B, C)	Results
80-1000	Front	H	10	A	A	Pass
80-1000	Front	V	10	A	A	Pass
80-1000	Back	H	10	A	A	Pass
80-1000	Back	V	10	A	A	Pass
80-1000	Left	H	10	A	A	Pass
80-1000	Left	V	10	A	A	Pass
80-1000	Right	H	10	A	A	Pass
80-1000	Right	V	10	A	A	Pass
80-1000	Top	H	10	A	A	Pass
80-1000	Top	V	10	A	A	Pass
80-1000	Down	H	10	A	A	Pass
80-1000	Down	V	10	A	A	Pass
1000-2000	Front	H	10	A	A	Pass
1000-2000	Front	V	10	A	A	Pass
1000-2000	Back	H	10	A	A	Pass
1000-2000	Back	V	10	A	A	Pass
1000-2000	Left	H	10	A	A	Pass
1000-2000	Left	V	10	A	A	Pass
1000-2000	Right	H	10	A	A	Pass
1000-2000	Right	V	10	A	A	Pass
1000-2000	Top	H	10	A	A	Pass
1000-2000	Top	V	10	A	A	Pass
1000-2000	Down	H	10	A	A	Pass
1000-2000	Down	V	10	A	A	Pass

Note:

- The exclusion band=center frequency \pm 50kHz for Transmitter.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - There was no observable degradation in performance.
 - EUT stopped operation and could / could not be reset by operator at _____ V/m at frequency _____MHz.
 - No false alarms or other malfunctions were observed during or after the test.

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Radiated Susceptibility
 Test Site : No.2 EMC fully Chamber
 Test Mode : Mode 2: Normal Operation (DC 24V)

Frequency (MHz)	Position (Angle)	Polarity (H or V)	Field Strength (V/m)	Required Criteria	Complied To Criteria (A, B, C)	Results
80-1000	Front	H	10	A	A	Pass
80-1000	Front	V	10	A	A	Pass
80-1000	Back	H	10	A	A	Pass
80-1000	Back	V	10	A	A	Pass
80-1000	Left	H	10	A	A	Pass
80-1000	Left	V	10	A	A	Pass
80-1000	Right	H	10	A	A	Pass
80-1000	Right	V	10	A	A	Pass
80-1000	Top	H	10	A	A	Pass
80-1000	Top	V	10	A	A	Pass
80-1000	Down	H	10	A	A	Pass
80-1000	Down	V	10	A	A	Pass
1000-2000	Front	H	10	A	A	Pass
1000-2000	Front	V	10	A	A	Pass
1000-2000	Back	H	10	A	A	Pass
1000-2000	Back	V	10	A	A	Pass
1000-2000	Left	H	10	A	A	Pass
1000-2000	Left	V	10	A	A	Pass
1000-2000	Right	H	10	A	A	Pass
1000-2000	Right	V	10	A	A	Pass
1000-2000	Top	H	10	A	A	Pass
1000-2000	Top	V	10	A	A	Pass
1000-2000	Down	H	10	A	A	Pass
1000-2000	Down	V	10	A	A	Pass

Note:

- The exclusion band=center frequency±50kHz for Transmitter.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - There was no observable degradation in performance.
 - EUT stopped operation and could / could not be reset by operator at _____ V/m at frequency _____MHz.
 - No false alarms or other malfunctions were observed during or after the test.

9.5. Test Data of Electrical Fast Transient

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Electrical Fast Transient
 Test Site : No.3 Shielded Room
 Test Mode : Mode 1: Normal Operation (DC 12V)

Inject Line	Polarity	Voltage (kV)	Inject Time (Minute)	Inject Method	Required Criteria	Complied to Criteria	Result
DCIN	±	2kV	3	Direct	B	B	PASS
GPS Antenna, NMEA Cable, RS-232 Cable, VHF Antenna	±	1kV	3	Clamp	B	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

Cable length of VHF for test is 10m, cable length of RS-232 and NMEA for test is 3m.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Electrical Fast Transient
 Test Site : No.3 Shielded Room
 Test Mode : Mode 2: Normal Operation (DC 24V)

Inject Line	Polarity	Voltage (kV)	Inject Time (Minute)	Inject Method	Required Criteria	Complied to Criteria	Result
DCIN	±	2kV	3	Direct	B	B	PASS
GPS Antenna, NMEA Cable, RS-232 Cable, VHF Antenna	±	1kV	3	Clamp	B	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

Cable length of VHF for test is 10m, cable length of RS-232 and NMEA for test is 3m.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
 - No false alarms or other malfunctions were observed during or after the test.

9.6. Test Data of Conducted Susceptibility

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Conducted Susceptibility
 Test Site : No.2 EMC fully Chamber
 Test Mode : Mode 1: Normal Operation (DC 12V)

Frequency Range (MHz)	Voltage Applied (dBuV(V))	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	130(3V)	CDN	DC IN	A	A	PASS
2	140(10V)	CDN	DC IN	A	A	PASS
3	140(10V)	CDN	DC IN	A	A	PASS
4	140(10V)	CDN	DC IN	A	A	PASS
6.2	140(10V)	CDN	DC IN	A	A	PASS
8.2	140(10V)	CDN	DC IN	A	A	PASS
12.2	140(10V)	CDN	DC IN	A	A	PASS
16.5	140(10V)	CDN	DC IN	A	A	PASS
18.8	140(10V)	CDN	DC IN	A	A	PASS
22	140(10V)	CDN	DC IN	A	A	PASS
25	140(10V)	CDN	DC IN	A	A	PASS
0.15~80	130(3V)	Clamp	VHF Cable	A	A	PASS
2	140(10V)	Clamp	VHF Cable	A	A	PASS
3	140(10V)	Clamp	VHF Cable	A	A	PASS
4	140(10V)	Clamp	VHF Cable	A	A	PASS
6.2	140(10V)	Clamp	VHF Cable	A	A	PASS
8.2	140(10V)	Clamp	VHF Cable	A	A	PASS
12.2	140(10V)	Clamp	VHF Cable	A	A	PASS
16.5	140(10V)	Clamp	VHF Cable	A	A	PASS
18.8	140(10V)	Clamp	VHF Cable	A	A	PASS
22	140(10V)	Clamp	VHF Cable	A	A	PASS
25	140(10V)	Clamp	VHF Cable	A	A	PASS
0.15~80	130(3V)	Clamp	GPS Cable	A	A	PASS
2	140(10V)	Clamp	GPS Cable	A	A	PASS
3	140(10V)	Clamp	GPS Cable	A	A	PASS
4	140(10V)	Clamp	GPS Cable	A	A	PASS
6.2	140(10V)	Clamp	GPS Cable	A	A	PASS
8.2	140(10V)	Clamp	GPS Cable	A	A	PASS
12.2	140(10V)	Clamp	GPS Cable	A	A	PASS
16.5	140(10V)	Clamp	GPS Cable	A	A	PASS
18.8	140(10V)	Clamp	GPS Cable	A	A	PASS
22	140(10V)	Clamp	GPS Cable	A	A	PASS
25	140(10V)	Clamp	GPS Cable	A	A	PASS
0.15~80	130(3V)	Clamp	NMEA Cable	A	A	PASS
2	140(10V)	Clamp	NMEA Cable	A	A	PASS
3	140(10V)	Clamp	NMEA Cable	A	A	PASS
4	140(10V)	Clamp	NMEA Cable	A	A	PASS
6.2	140(10V)	Clamp	NMEA Cable	A	A	PASS
8.2	140(10V)	Clamp	NMEA Cable	A	A	PASS
12.2	140(10V)	Clamp	NMEA Cable	A	A	PASS
16.5	140(10V)	Clamp	NMEA Cable	A	A	PASS
18.8	140(10V)	Clamp	NMEA Cable	A	A	PASS
22	140(10V)	Clamp	NMEA Cable	A	A	PASS
25	140(10V)	Clamp	NMEA Cable	A	A	PASS

Frequency Range (MHz)	Voltage Applied (dBuV(V))	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	130(3V)	Clamp	RS-232 Cable	A	A	PASS
2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
3	140(10V)	Clamp	RS-232 Cable	A	A	PASS
4	140(10V)	Clamp	RS-232 Cable	A	A	PASS
6.2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
8.2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
12.2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
16.5	140(10V)	Clamp	RS-232 Cable	A	A	PASS
18.8	140(10V)	Clamp	RS-232 Cable	A	A	PASS
22	140(10V)	Clamp	RS-232 Cable	A	A	PASS
25	140(10V)	Clamp	RS-232 Cable	A	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

Cable length of VHF for test is 10m, cable length of RS-232 and NMEA for test is 3m.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
 - No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Product : CAMINO-201 Class B AIS Transponder
 Test Item : Conducted Susceptibility
 Test Site : No.2 EMC fully Chamber
 Test Mode : Mode 2: Normal Operation (DC 24V)

Frequency Range (MHz)	Voltage Applied (dBuV(V))	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	130(3V)	CDN	DC IN	A	A	PASS
2	140(10V)	CDN	DC IN	A	A	PASS
3	140(10V)	CDN	DC IN	A	A	PASS
4	140(10V)	CDN	DC IN	A	A	PASS
6.2	140(10V)	CDN	DC IN	A	A	PASS
8.2	140(10V)	CDN	DC IN	A	A	PASS
12.2	140(10V)	CDN	DC IN	A	A	PASS
16.5	140(10V)	CDN	DC IN	A	A	PASS
18.8	140(10V)	CDN	DC IN	A	A	PASS
22	140(10V)	CDN	DC IN	A	A	PASS
25	140(10V)	CDN	DC IN	A	A	PASS
0.15~80	130(3V)	Clamp	VHF Cable	A	A	PASS
2	140(10V)	Clamp	VHF Cable	A	A	PASS
3	140(10V)	Clamp	VHF Cable	A	A	PASS
4	140(10V)	Clamp	VHF Cable	A	A	PASS
6.2	140(10V)	Clamp	VHF Cable	A	A	PASS
8.2	140(10V)	Clamp	VHF Cable	A	A	PASS
12.2	140(10V)	Clamp	VHF Cable	A	A	PASS
16.5	140(10V)	Clamp	VHF Cable	A	A	PASS
18.8	140(10V)	Clamp	VHF Cable	A	A	PASS
22	140(10V)	Clamp	VHF Cable	A	A	PASS
25	140(10V)	Clamp	VHF Cable	A	A	PASS
0.15~80	130(3V)	Clamp	GPS Cable	A	A	PASS
2	140(10V)	Clamp	GPS Cable	A	A	PASS
3	140(10V)	Clamp	GPS Cable	A	A	PASS
4	140(10V)	Clamp	GPS Cable	A	A	PASS
6.2	140(10V)	Clamp	GPS Cable	A	A	PASS
8.2	140(10V)	Clamp	GPS Cable	A	A	PASS
12.2	140(10V)	Clamp	GPS Cable	A	A	PASS
16.5	140(10V)	Clamp	GPS Cable	A	A	PASS
18.8	140(10V)	Clamp	GPS Cable	A	A	PASS
22	140(10V)	Clamp	GPS Cable	A	A	PASS
25	140(10V)	Clamp	GPS Cable	A	A	PASS
0.15~80	130(3V)	Clamp	NMEA Cable	A	A	PASS
2	140(10V)	Clamp	NMEA Cable	A	A	PASS
3	140(10V)	Clamp	NMEA Cable	A	A	PASS
4	140(10V)	Clamp	NMEA Cable	A	A	PASS
6.2	140(10V)	Clamp	NMEA Cable	A	A	PASS
8.2	140(10V)	Clamp	NMEA Cable	A	A	PASS
12.2	140(10V)	Clamp	NMEA Cable	A	A	PASS
16.5	140(10V)	Clamp	NMEA Cable	A	A	PASS
18.8	140(10V)	Clamp	NMEA Cable	A	A	PASS
22	140(10V)	Clamp	NMEA Cable	A	A	PASS
25	140(10V)	Clamp	NMEA Cable	A	A	PASS

Frequency Range (MHz)	Voltage Applied (dBuV(V))	Inject Method	Tested Port of EUT	Required Criteria	Performance Criteria Complied To	Result
0.15~80	130(3V)	Clamp	RS-232 Cable	A	A	PASS
2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
3	140(10V)	Clamp	RS-232 Cable	A	A	PASS
4	140(10V)	Clamp	RS-232 Cable	A	A	PASS
6.2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
8.2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
12.2	140(10V)	Clamp	RS-232 Cable	A	A	PASS
16.5	140(10V)	Clamp	RS-232 Cable	A	A	PASS
18.8	140(10V)	Clamp	RS-232 Cable	A	A	PASS
22	140(10V)	Clamp	RS-232 Cable	A	A	PASS
25	140(10V)	Clamp	RS-232 Cable	A	A	PASS

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

Cable length of VHF for test is 10m, cable length of RS-232 and NMEA for test is 3m.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
 - No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs