



TEST REPORT

Details of Applicant	Applicant	E-TECH Co., Ltd.			
	Address	#403-901, Techno Park Complex, 193, Yakdae-dong, Wonmi-gu, Bucheon-city, Kyunggi-do, 420-734, Korea			
	Contact Person	Jong-woon Kim			
	Telephone No.	82 32-328 5740	FAX No.	82 32 328 0612	
Details of Manufacturer	Kind of Product	Private Land Mobile Radio for Vehicle (UHF)			
	Model Name	IM400	Serial No.	N/A	
	Manufacturer	E-TECH Co., Ltd.			
	Address	#403-901, Techno Park Complex, 193, Yakdae-dong, Wonmi-gu, Bucheon-city, Kyunggi-do, 420-734, Korea			
Testing Laboratory	Test Report No.	AT-07-03 (R1)			
	Name	SGS Testing Korea Co., Ltd.			
	Address	#435-040 Wireless Div. 2F, 18-34, Sanbon-dong, Gunpo-city, Gyeonggi-do, Korea			
	Telephone No.	82 31 428 5740	FAX No.	82 31 427 2371	
	Date of Test(s)	2007.02.09 ~ 2007.02.23			
	Date of Issue	2007.02. 23			
	Standard	Test Condition from Client as MIL-STD-810F			
	Test Result	Complies			
Tested by	 <hr/> Denny Ham		Approved by	 <hr/> James Kwon	
SGS Testing Korea Co., Ltd.					

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

INDEX

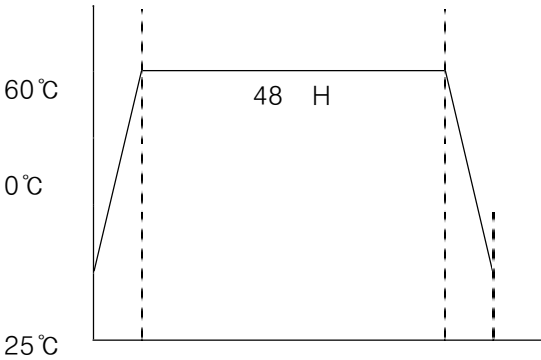
TABLE OF CONTENTS

	Page
1. High Temperature Storage Test	3
2. Temperature Cycle Test	4
3. Low Temperature Storage Test	5
4. Temp & Humidity Cycle Test	6
5. Drop Test (Non Packing Set)	7
6. Drop Test (Packing C/T)	8
7. Vibration & Shock Test	9
8. The Photos of Measurement	10
9. The Photos of EUT	12

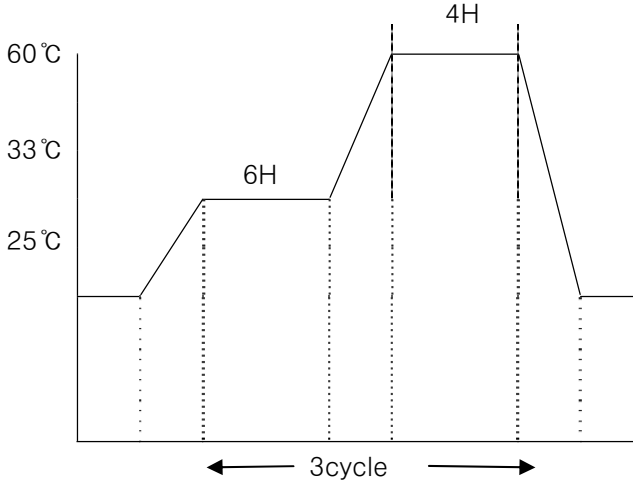
Attached Report for Vibration & Shock Test



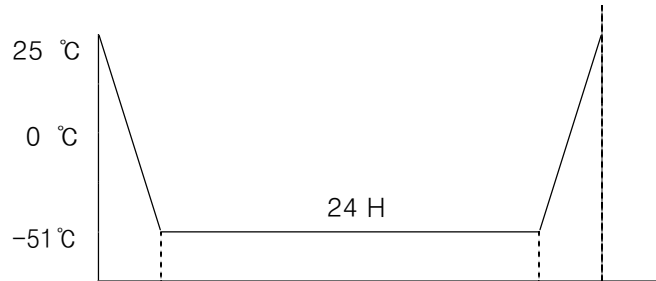
1. High Temperature Storage Test

Test spec	MIL-STD-810F 501.4	
Test Condition from Client	1. Temperature : 60°C 2. Humidity : 0% 3. Test Time : 48 H 4. Check Cycle : After Test 5. Packing Standard 6. Sample : 1 set 7. Test Equipment : Temperature & Humidity Chamber	 <p>The graph shows a temperature profile starting at 25°C, ramping up to 60°C, holding at 60°C for 48 hours, and then ramping down to 25°C. Vertical dashed lines indicate the start and end of the 48-hour hold period.</p>
Test Result		
After Test		
The appearance, function and performance must be O.K.		
<p>※ This is to certify that the sample submitted by client above has been tested.</p>		

2. Temperature Cycle Test

Test spec	MIL-STD-810F 507.4	
Test Condition from Client	1. Temperature : 33~60 °C 2. Humidity : 0% 3. Test Time : 40 H 4. Check Cycle : After Test 5. Packing Standard 6. Sample : 1 set 7. Test Equipment : Temperature & Humidity Chamber	
Test Result		
After Test		
The appearance, function and performance must be O.K.		
<p>※ This is to certify that the sample submitted by client above has been tested.</p>		

3. Low Temperature Storage Test

Test spec	MIL-STD-810F 502.4	
Test Condition from Client	1. Temperature : -51 °C 2. Humidity : 0% 3. Test Time : 24 H 4. Check Cycle : After Test 5. Packing Standard 6. Sample : 1 set 7. Test Equipment : Temperature & Humidity Chamber	 <p>The graph shows a temperature profile starting at 25 °C, decreasing linearly to -51 °C. It then remains constant at -51 °C for a duration of 24 hours. Finally, it increases linearly back to 25 °C. Vertical dashed lines indicate the start and end of the 24-hour hold period.</p>
Test Result		
After Test		
The appearance, function and performance must be O.K.		
<p>※ This is to certify that the sample submitted by client above has been tested.</p>		

4. Temp & Humidity Cycle Test

<p>Test spec</p>	<p>MIL-STD-810F 507.4</p>	
<p>Test Condition from Client</p>	<p>1. Temperature : 23~30°C 2. Humidity : 55~95% 3. Test Time : 53 H 4. Check Cycle : After Test 5. Packing Standard 6. Sample : 1 set 7. Test Equipment : Temperature & Humidity Chamber</p>	
<p>Test Result</p>		
<p>After Test</p>		
<p>The appearance, function and performance must be O.K.</p>		
<p>※ This is to certify that the sample submitted by client above has been tested.</p>		

5. Drop Test (Non Packing Set)

Test spec	MIL-STD-810F 516.5
Test Condition from Client	1. Weigh(Non packing) : 1.47 kg 2. Height of drop : 120 cm 3. Drop section : 4 corners (Bottom side)
Test Result	
After Test	
The appearance, function and performance must be O.K.	
<p>※ This is to certify that the sample submitted by client above has been tested.</p>	

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

6. Drop Test (Packing C/T)

Test spec	MIL-STD-810F 516.5
Test Condition from Client	1. Weigh(Packing) : 2.15 kg 2. Height of drop : 120 cm 3. Drop section : 8 corners, 12 edges, 6 sides
Test Result	
After Test	
The appearance, function and performance must be O.K.	
<p>※ This is to certify that the sample submitted by client above has been tested.</p>	

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.



7. Vibration & Shock Test

– Refer attached test report

Test spec	MIL-STD-810F 514.5 PROC I
Test Condition from Client	Vibration Test 1. Test Axes : X, Y, Z 2. Acceleration : 19.6 m/s ² (2.0 G) 3. Frequency : 5 ~ 500 Hz 4. Test duration : 60 min /axis
Test Result	
After Test	
The appearance, function and performance must be O.K.	
<p>※ This is to certify that the sample submitted by client above has been tested.</p>	

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

Test spec	MIL-STD-810F 516.5 PROC I
Test Condition from Client	<p>Shock Test</p> <ol style="list-style-type: none"> 1. Test Axes : X, Y, Z 2. Acceleration : 392 m/s² (40 G) 3. Test duration : 11 min /axis
Test Result	
After Test	
The appearance, function and performance must be O.K.	
<p>※ This is to certify that the sample submitted by client above has been tested.</p>	

8. The Photos of Measurement



The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.



The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.



9. The Photos of EUT



The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.





시험 성적서

TEST REPORT

발급 번호: 의시2007-0213 페이지: 2
 Report No Page
 시험 일자: 2007. 02. 10 ~ 2007. 02. 23 접수 일자: 2007. 02. 09
 Date of Test Date of receipt
 신청인 주소: 경기도 부천시 원미구 약대동 193 부천 테크노파크 403-901
 Address
 회사명: 이테크(주)
 Manufacturer (Client)
 대표자명: 김 일 증
 Representative
 품명: Private Land Mobile Radio (UHF)
 Product (rating/model)
 용도: 신뢰성 평가용
 Purpose of use
 시험방법: 의뢰자 제시 규격
 Test method

시험 결과

Test Result

시험 항목	시험 기준 및 방법	시험 결과
" 불 임 "		

이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로서 전체제품에 대한 품질을 보증하지는 않습니다.

As a test result of sample which was submitted from the client, this test report does not guarantee the whole product quality.

※ 이 시험성적서는 당 시험연구원의 사전 서면 동의 없이 홍보, 선전, 광고 및 소송용으로 사용될 수 없으며, 용도 이외의 사용을 금하며, 유효기간은 발행일로부터 90일임.

This test report should not be used for public relations, advertisement, conduct propaganda and raised for a suit without a written agreement of testing institute, and should not be used for various purposes besides subscribed use, and is valid for 90 days from date of issue.

※ 이 시험성적서의 사본은 무효임.

The copy of this test report is invalid for use.

※ 이 시험성적서는 의뢰자가 제시한 시험방법에 의한 시험결과를 포함하고 있습니다.

This test report including test result conducted by using the test method which was suggested from a client.

Date 2007 년 02 월 23 일



한국전기전자시험연구원장

KOREA ELECTRIC TESTING INSTITUTE

경기도 군포시 금정동 692-8

692-8 Keumjung-dong, Kunpo-city,

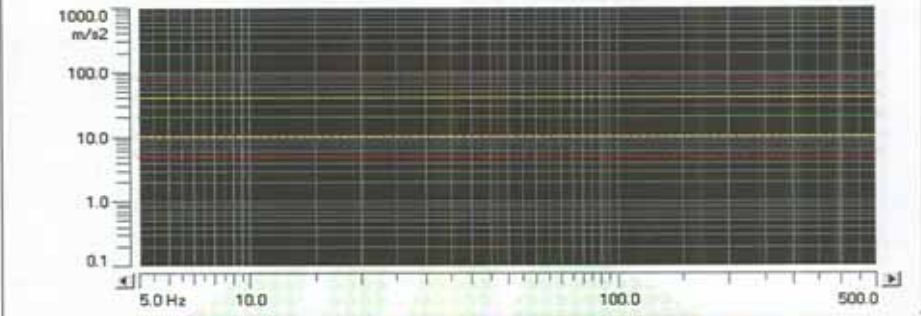




Kyungki-do, 435-050, KOREA

TEL : (031) 455-1744-7

FAX : (031) 455-2925



시험 결과

시험 항목	시험 기준 및 방법	시험 결과																														
<p>진동 시험 (MIL-STD-810F 514.5 PROC 1)</p>	<p>X,Y,Z 각 축당 60 분씩 5 ~ 500 Hz의 주파수에 충격 가속도 19.6 m/s² (=2.0 G)로 진동시험 후 동작에 이상이 없을 것.</p>  	<p>이상없음 (시료참조)</p>																														
<p>충격 시험 (MIL-STD-810F 516.5 PROC 1)</p>	<p>충격 가속도 40.0 G ± 4, 지속시간 11 ms ±2 로 시험품의 3축 방향 각 3회 충격 후 동작에 이상이 없을 것.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr> <th>Name</th> <th>Axis</th> <th>Filter Freq. (Hz)</th> <th>Peak Accel. (g)</th> <th>Pulse Dur. (ms)</th> <th>Delta V (m/s)</th> </tr> </thead> <tbody> <tr> <td>CH1</td> <td>keet</td> <td>2</td> <td>40.6367</td> <td>10.900</td> <td>2.056</td> </tr> <tr> <td>CH2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CH3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CH4</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>  	Name	Axis	Filter Freq. (Hz)	Peak Accel. (g)	Pulse Dur. (ms)	Delta V (m/s)	CH1	keet	2	40.6367	10.900	2.056	CH2						CH3						CH4						
Name	Axis	Filter Freq. (Hz)	Peak Accel. (g)	Pulse Dur. (ms)	Delta V (m/s)																											
CH1	keet	2	40.6367	10.900	2.056																											
CH2																																
CH3																																
CH4																																
<p>비고:</p> <ol style="list-style-type: none"> 1. 시험기준 및 방법은 의뢰자의 제시기준 및 시료에 의거함. 2. 주위 온도 : 25 °C, 60 % R.H. 3. 모델명 : IM400 4. 1 G = 9.807 m/s² 																																