

# Magnetic Field Test Report

**Applicant: Chung Cheng Electric Heating Co.Ltd**

**Address of applicant: No.39, Huan Kung Rd., Yung Kang City., Tainan  
Hsien , Taiwan**

**Equipment under Test (EUT):**  
**Product Name : Relax FIR Sauna**  
**Product Model : CH-9008**

**Date of Tests: June 11, 2010**  
**Date of Issue: June 14, 2010**

<b>Test Result :</b>	<b>PASS.</b>
----------------------	--------------

**Remarks:**

This report detail the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS EMC Services or testing done by SGS EMC Services in connection with distribution or use of the product described in this report must be approved by SGS EMC Services in writing.

**Authorized Signatory:**  
**SGS TAIWAN LTD.**



**Jason Lin**  
**Technical Manager**

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

## 1. General Information

### 1.1 Client Information

Applicant: Chung Cheng Electric Heating Co.Ltd

Address of application: No.39, Huan Kung Rd., Yung Kang City., Tainan Hsien , Taiwan

### 1.2 General Description of EUT

Product Name : Relax FIR Sauna

Product Model : CH-9008

Specifications: AC 220~240V , 1500 W, 50/60 Hz

The testing is mainly performed according to the following rules:

1. ANSI / IEEE Std. 644-1994

2. NIEA P202.90C of Environmental Analysis Laboratory EPA Executive YUAN R.O.C.

3. The other detailed testing points are according to the requirements of customer.

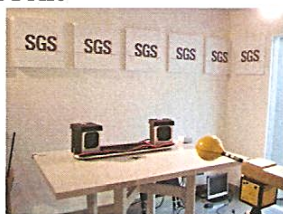
### 1.3 Results

Maximum Gauss Reading @ 2.0cm: 46.510mGauss, Limit: 833 mGauss.

### 1.4 Test Distance Criteria: Less then 1 meter , (All measurements are in mGauss)

## Measured Pictures

1. Front



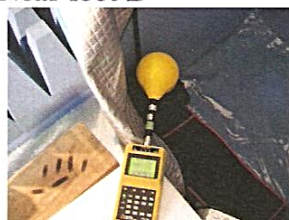
2. Rear



3. Near foot A



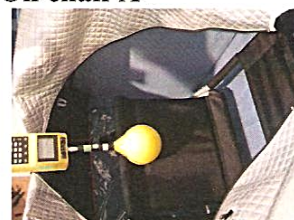
4. Near foot B



5. Near foot C



6. On chair A



7. On chair B



8. Near neck



## Measured Results

Side Position	Magnetic Field Strength ( less than 833 mGauss )	Observed distance
1. Front	0.4025 mGauss	1.0 m
2. Rear	0.5620 mGauss	1.0 m
3. Near foot A	4.7790 mGauss	2.0cm
4. Near foot B	46.510 mGauss	2.0cm
5. Near foot C	24.660 mGauss	2.0cm
6. On chair A	2.3980 mGauss	3 5cm
7. On chair B	1.8580 mGauss	4 0cm
8. Near neck	0.5478 mGauss	8 0cm

### Conclusion:

The maximum field strength (46.510mGauss) observed at a distance less than of 2.0cm is less than 833mGauss .

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

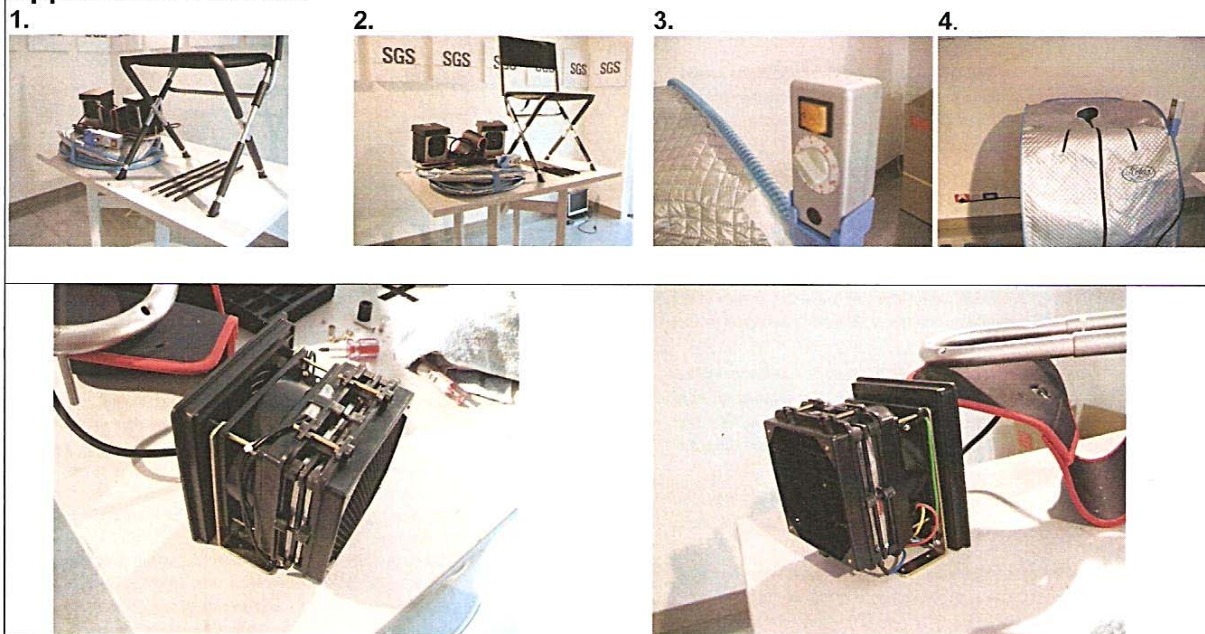


## 2. Attachments

Measured Date: June 11, 2010  
Applicant : Chung Cheng Electric Heating Co.Ltd  
Address of Applicant: No.39, Huan Kung Rd., Yung Kang City., Tainan Hsien , Taiwan  
Product Name : Relax FIR Sauna  
Product Model : CH-9008  
Specifications: AC 220~240V , 1500 W, 50/60 Hz

### Product Pictures

#### Appearance Pictures



### Testing Instruments

Object	Manufacturer	Type	Serial No.	Calibration Date
B-Field Probe 100cm <sup>2</sup>	Narda	2245/90.10	Y-0016	06, April 2009
B-Field Meter EFA-300	Narda	2245/30	K-0009	06, April 2009

### Testing Environments

Temperature = 25°C

Humidity = 52%RH

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



臺灣檢驗科技股份有限公司-電子通訊實驗室  
台北縣五股工業區五工路 134 號  
電話：(02) 22993279 傳真：(02) 22999489

## 電磁波功率密度測試方法 及附件

## 附錄

### 一、使用儀器

Description	Manufacturer	Model No.	Serial No.	Date of Calibration
B-Field Analyzer	NARDA	2245/30	K-0009	APR 06,2009
E-Field Sensor	NARDA	2245/90.31	H-0005	APR 06,2009
B-Field Sensor	NARDA	2245/90.10	Y-0016 K-0009	APR 06,2009

### 二、先進國家對於電磁場之電磁輻射強度限制之推薦值

國家／單位	磁場(磁場密)限制值(mG)		電場限制值(V/m)		
	職場人員		一般民眾	職業人員	一般民眾
國際輻射保護協會	全天	5,000	1,000	10,000	5,000
	數小時	50,000	10,000	30,000	10,000
日本	連續暴露	50,000	2,000		
	短時間暴露	100,000	10,000		
蘇聯	八小時	18,000	—		
	一小時	75,000	—		
英國國家輻射保護局		13,300	5,300	10,000	10,000
美國政府工衛學者聯會		10,000	—		
德國		50,000	50,000		
澳洲	全天	5,000	1,000		
	數小時	50,000	10,000		

註：1. 本報告之評估標準採用「國際輻射保護協會」所公佈之標準。(最嚴格的標準)

1.1 一般民眾全天候磁場最大限制值是 1000 mG。

1.2 一般民眾全天候電場最大限制值是 5000 V/m。



2. 英國 ENV50166-1:1995 標準的磁場限制值是 5300mG(60Hz)。

2.1 英國 ENV50166-1:1995 標準的電場限制值是 10000V/m(60Hz)。  
我國環保署於民國九十年元月 12 日公佈「非游離輻射環境建議值」。  
九十年元月十二日環署空字 3219 號公告

頻 段	電場強度(V/m)	磁場強度(A/m)	磁通量密度( $\mu$ T)	功率密度 Seq(W/m <sup>2</sup> )
<1Hz	-	3.2x10 <sup>4</sup>	4x10 <sup>4</sup>	-
1-8Hz	10,000	3.2x10 <sup>4</sup> /f <sup>2</sup>	4x10 <sup>4</sup> /f <sup>2</sup>	-
8-25Hz	10,000	4,000/f	5,000/f	-
0.025-0.8KHz	250/f	4/f	5/f	-
0.8-3KHz	250/f	5	6.25	-
3-150KHz	87	5	6.25	-
0.15-1MHz	87	0.73/f	0.92/f	-
1-10MHz	87/f <sup>1/2</sup>	0.73/f	0.92/f	-
10-400MHz	28	0.073	0.092	2
400-2000MHz	1.375f <sup>1/2</sup>	0.0037f <sup>1/2</sup>	0.0046f <sup>1/2</sup>	f/200
2-300GHz	61	0.16	0.2	10

依該建議值公式計算後:60 赫，磁場建議值為 833.3 毫高斯(mG)，也就是 83.33 微特斯拉( $\mu$ T)。

### 三、參考標準規範

1. 國際輻射防護協會 (ICNIRP) 所公佈之限值。
2. 歐洲英國 ENV50166-1:1995 Human Exposure to electromagnetic fields 的限值。
3. 環境中電場與磁場檢測方法 - 架空高壓線路、變電所、落地型變壓器
4. 環保署民國九十年元月十二日公告之“非游離輻射環境建議值”

### 四、儀器校正報告


# Calibration Certificate


Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to DIN EN ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

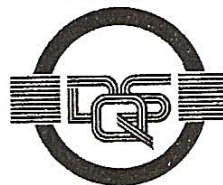
Object	<b>B-Field Meter EFA-300</b>
Type	<b>2245/30</b>
Serial Number	<b>K-0009</b>
Manufacturer	<b>Narda Safety Test Solutions</b>
Customer	
Date of Calibration	<b>06-Apr-2009</b>
Confirmation interval (recommended)	<b>24 months</b>
Ambient conditions	<b>23 °C ± 3 °C (20 ... 60) % rel. humidity</b>
Calibration procedure	<b>2245-8710-00C</b>

Pfullingen, 06-Apr-2009

  
Person in charge  
M. Budim

  
Quality management representative  
W. Kumbler

MANAGEMENT  
SYSTEM



Certified by DQS against  
DIN EN ISO 9001:2000  
(Reg.-No. 99379-QM)

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Managing Director.


## Calibration Certificate

Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to DIN EN ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	<b>E-Field Unit</b>
Type	<b>2245/90.31</b>
Serial Number	<b>H-0005</b>
Manufacturer	<b>Narda Safety Test Solutions</b>
Customer	
Date of Calibration	<b>06-Apr-2009</b>
Confirmation interval (recommended)	<b>24 months</b>
Ambient conditions	<b>23 °C ± 3 °C (20 ... 60) % rel. humidity</b>
Calibration procedure	<b>2245-8712-00A</b>

Pfullingen, 06-Apr-2009

  
Person in charge  
M. Budim

  
Quality management representative  
W. Kumbier

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Managing Director.

MANAGEMENT  
SYSTEM



Certified by DQS against  
DIN EN ISO 9001:2000  
(Reg.-No. 99379-QM)




# Calibration Certificate

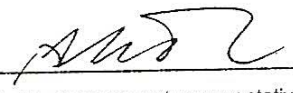
Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to DIN EN ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	<b>B-Field Probe 100 cm<sup>2</sup></b> <b>B-Field Meter EFA-300</b>
Type	<b>2245/90.10</b> <b>2245/30</b>
Serial Number	<b>Y-0016</b> <b>K-0009</b>
Manufacturer	Narda Safety Test Solutions
Customer	
Date of Calibration	06-Apr-2009
Confirmation interval (recommended)	24 months
Ambient conditions	23 °C ± 3 °C (20 ... 60) % rel. humidity
Calibration procedure	2245-8711-00C

Pfullingen, 06-Apr-2009

  
Person in charge  
M. Budim

  
Quality management representative  
W. Kumbier



This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Managing Director.

Certified by DQS against  
DIN EN ISO 9001:2000  
(Reg.-No. 99379-QM)



證書編號：L0513-090505

財團法人全國認證基金會  
Taiwan Accreditation Foundation

## 認證證書

茲證明

台灣檢驗科技股份有限公司

電子通訊實驗室

台北縣五股工業區五工路 134 號

為本會認證之實驗室

認證依據：ISO/IEC 17025：2005

認證編號：0513

初次認證日期：八十九年二月十五日

認證有效期間：九十八年六月十四日至一百零一年六月十三日止

認證範圍：測試領域，如續頁

特定服務計畫：商品檢驗指定試驗室認證服務計畫

電信設備測試實驗室認證服務計畫

經濟部標準檢驗局與國外相互承認協議實驗室認證服務計畫

董事長

陳介山

中華民國九十八年五月五日