INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)
COMMISSION ELECTROTECHNIQUE INTERNATIONALE (CEI)

Ref. Certif. No.
JPTUV-003560-M3

IEC SYSTEM FOR CONFORMITY TESTING AND CERTIFICATION OF ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTÈME CEI D'ESSAIS DE CONFORMITÉ ET DE CERTIFICATION DES EQUIPEMENTS ELECTRIQUE (IECEE) METHODE OC

CB TEST CERTIFICATE
CERTIFICAT D'ESSAI OC

Product *Produit*	LCD Monitor
Name and address of the applicant *Nom et adresse du demandeur*	Compal Electronics, Inc. No. 581, Jui-Kuang Rd., Neihu TAIPEI 114, TAIWAN, R.O.C.
Name and address of the manufacturer *Nom et adresse du fabricant*	Compal Electronics, Inc. No. 581, Jui-Kuang Rd., Neihu TAIPEI 114, TAIWAN, R.O.C.
Name and address of the factory *Nom et adresse de l'usine*	(See appendix for factories information)
Rating and principal characteristics *Valeurs nominales et caractéristiques principales*	Input rating : DC 12V, 5A Protection Class : III
Trade mark (if any) *Marque de fabrique (si elle existe)*	1) COMPAL 2) TOSHIBA, HITACHI, LEGEND, Compaq 3) HITACHI
Model/type Ref. *Ref. de type*	1) Cx8yy 2) xMx7x 3) CML170SX* 2 (x, yy, * = 0-9, A-Z or blank)
Additional information (if necessary) *Information complémentaire (si nécessaire)*	For differences between the models, refer to the test report. Remark : Replaces JPTUV-003560-M2 dated 05.03.2002, due to third modification.
A sample of the product was tested and found to be in conformity with *Un échantillon de ce produit a été essayé et a été considéré conforme à la*	**PUBLICATION** **EDITION** IEC 60950:1991+A1+A2+A3+A4 inclusive CENELEC Common Modifications National differences see test report
as shown in the Test Report Ref. No. which form part of this certificate *comme indiqué dans le Rapport d'essais numéro de référence qui constitue une partie de ce certificat*	12001312 004

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

TÜV

TÜV Rheinland Japan Ltd.
3-19-5 Shin-Yokohama
222-0033 Japan

Date 16.05.2002

Signature Dipl.-Ing. N. Herlitschke

Issue 1998-09

Appendix to CB Certificate JPTUV-003560-M3
Report Number: 12001312 004

Name and address of the manufacturer
Compal Electronics, Inc.
No. 581, Jui-Kuang Rd., Neihu
Taipei 114
Taiwan, R.O.C.

Name and address of the factory(ies)
Compal Electronics Inc.

8, Nan Tung Road
Ping Cheng Hsiang, Taoyuan Hsien
Taiwan, R.O.C. 32428

Compal Electronics (China) Co., Ltd.

Tong Feng East Road, Kunshan
Economic Technical Development Zone
Kunshan, Jiangsu, P.R. China

Date: 16.05.2002

Dipl.-Ing. J. Herlitschke

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TEST REPORT FOR AN ADDITIONAL APPROVAL

IEC 950

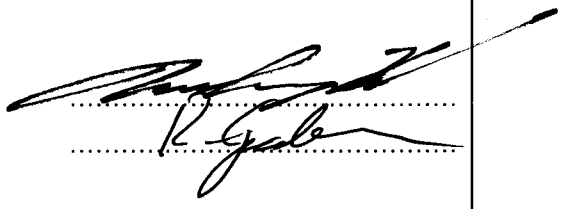
Safety of information technology equipment

Report

Reference No. ..... : 12001312 004

Compiled by (+ signature) ..... : M. Kera

Approved by (+ signature) ..... : R. Gratton



Date of issue ..... : May, 14, 2002

Contents ..... : 4 pages

..... :

This report is based on a blank test report that was prepared by KEMA using information obtained from the TRF originator (see below).

Testing laboratory

Testing laboratory ..... : TÜV Rheinland Japan Ltd., Yokohama Laboratories

Address ..... : Festo Bldg. 5F, 1-26-10 Hayabuchi, Tsuzuki-Ku, Yokohama 224-0025, Japan

Testing location ..... : TÜV Rheinland Japan Ltd., Yokohama Laboratories

Client

Name..... : Compal Electronics, Inc.

Address ..... : No. 581, Juikuang Rd., Nei Hu, Taipei 114, Taiwan, R.O.C.

Test specification

Standard ..... : IEC 60950:1991+ A1:1992+ A2:1993+ A3:1995+ A4:1996
EN 60950:1992+ A1:1993+ A2:1993+ A3:1995+ A4:1997+ A11:1997
EMKO-TSE(74-SEC)207/94, UL 1950, C22.2 No. 950 3rd edition, AS 3260

Test procedure ..... : CB Scheme

Procedure deviation ..... : Austria, Australia, Belgium, Canada, The Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, India, Ireland, Israel, Italy, Japan, The Republic of Korea, The Netherlands, Norway, Poland, Russian, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States of America

Non-standard test method..... : N.A.

Test Report Form/blank test report

Test Report Form No. ..... : Cbaddapp.doc

TRF originator. ..... : TÜV Rheinland

Test item

Description ..... : LCD Monitor

Trademark..... : COMPAL

Model and/or type reference..... : Cx8yy (x= 0-9, A-Z or blank, yy = 0-9, A-Z or blank)

Manufacturer..... : Same as client

Rating..... : 12Vdc, 5A

The construction of the LCD Monitor model Cx8yy was modified as follows:

1. Add alternate source of DC/AC inverter.

For the above described modification the following testing was considered to be necessary:

Modification	Testing	Comments	Result
1	- Limited current circuits measurements	Test result see appended table 2.4. For source, see appended table 1.5.1.	**P**

Factory:
1. Compal Electronics Inc.
   8, Nan Tung Road, Ping Cheng Hsiang, Taoyuan Hsien 32428, Taiwan, R.O.C.
2. Compal Electronics (China) Co., Ltd.
   Tong Feng East Road, Kunshan, Economic Technical Development Zone, Kunshan, Jiangsu, P. R. China

Remark:
The history of modification as below:

- Modification: 002, 003
- Non-technical change:

IEC 950			
Clause	Requirement – Test	Result – Remark	Verdict

2.4	Limited current circuits		**P**
2.4.2	Frequency (Hz) ..... :	The peak drop voltage was measured with a scope at a 2kΩ resistor. Results see appended table.	¾
	Measured current (mA) ..... :	See above.	**P**
2.4.3	Measured voltage (V) ..... :	> 450Vpeak	¾
	Measured capacitance (µF) ..... :		**N**
2.4.4	Measured voltage (V) ..... :	< 2440Vpeak	¾
	Measured charge (µC) ..... :	< 45µC	**P**
2.4.5	Measured voltage (V) ..... :		¾
	Measured energy (mJ) ..... :		**N**
2.4.6	Limited current circuit supplied from or connected to other circuits ..... :		**P**

1.5.1	TABLE: list of critical components				**P**
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity[1])
DC/AC Inverter	Line Chang	PK070011400 (LI-2098)	I/P: DC 13.5Vdc, 2.4A max. O/P: 1500Vrms, 7.0mA max.	--	--
- DC/AC inverter transformer (T1, T2)	Line Chang	IT-0076	Class 105°C	--	--
[1]) an asterisk indicates a mark which assures the agreed level of surveillance					

2.4	TABLE: limited current circuit measurement				**P**
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments
CN3 pin 1 - 4	34.8	17.4	49.14	34.39	at normal condition
CN3 pin 1 – earth	54.8	27.4	45.72	32.0	at normal condition
CN3 pin 4 – earth	43.2	21.6	45.53	31.87	at normal condition
T2 pin 8 - 12	--	--	--	--	at normal condition, the unit shut down immediately.

IEC 950			
Clause	Requirement – Test	Result – Remark	Verdict

CN3 pin 1 - 4	76.0	38.0	106.2	70	with C27A short
CN3 pin 1 – earth	--	--	--	--	with C27A short, the unit shut down immediately.
CN3 pin 4 – earth	--	--	--	--	with C27A short, the unit shut down immediately.
T2 pin 8 - 12	--	--	--	--	with C27A short, the unit shut down immediately.
CN3 pin 1 - 4	43.6	21.8	51.18	35.82	with L2 short
CN3 pin 1 – earth	45.2	22.6	41.19	28.83	with L2 short
CN3 pin 4 – earth	32.8	16.4	41.60	29.12	with L2 short
T2 pin 8 - 12	--	--	--	--	with L2 short, the unit shut down immediately.
CN3 pin 1 - 4	--	--	--	--	with Q22 (B-C) short, the unit shut down immediately.
CN3 pin 1 – earth	--	--	--	--	with Q22 (B-C) short, the unit shut down immediately.
CN3 pin 4 – earth	--	--	--	--	with Q22 (B-C) short, the unit shut down immediately.
T2 pin 8 - 12	--	--	--	--	with Q22 (B-C) short, the unit shut down immediately.
CN3 pin 1 - 4	--	--	--	--	with Q22 (C-E) short, the unit shut down immediately.
CN3 pin 1 – earth	--	--	--	--	with Q22 (C-E) short, the unit shut down immediately.
CN3 pin 4 – earth	--	--	--	--	with Q22 (C-E) short, the unit shut down immediately.
T2 pin 8 - 12	--	--	--	--	with Q22 (C-E) short, the unit shut down immediately.
Output measured with an 2 kΩ resistor as load.					