

CLASS B CERTIFICATION APPLICATION
UNDER PART 18

EUT: ENERGY SAVING LAMPS
MODEL: QEFL23/GEFL23/TEFL23
FCC ID: KQP03
(CLASS II CHANGE)

SRT REPORT # T8B28-2

PREPARED FOR :

CHUAN SHIH INDUSTRIAL CO., LTD.
NO. 59, SHING-KONG 4TH RD.,
TA-SHING INDUSTRIAL DISTRICT,
TIEN-CHUNG, CHANG-HUA,
TAIWAN, R.O.C.



川石照明工業股份有限公司

彰化縣田中鎮大新工業區新工四路59號
Manufacturer and Exporter

CHUAN SHIH INDUSTRIAL CO., LTD.

No 59, Shing-Kong 4th Rd., Ta-Shing Industrial
District, Tien-Chung, Chang-Hua, Taiwan, R.O.C.

TEL: 04-8748130 FAX: 04-8752064-8741584

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern:

This is to serve as proper notice that our company agrees to make all modifications
to FCCID: KQP03
as listed in section 3.0 of the test report submitted by Spectrum Research and Testing
Laboratory, Inc.

Respectfully,

Effective Dates:

Lu, Lian-Fu
(Name, Surname)

From 9/01/98 to 9/01/99

manager
(Position/Title)

DATE: 9/01/98



川石照明工業股份有限公司
彰化縣田中鎮大新工業區新工四路59號
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Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern:

This is to serve as proper written authorization that Spectrum Research and Testing Laboratory, Inc., 1603 Skinners Turn Road, Owings, Maryland 20736, will act as our representative in all matters relating to FCC applications for equipment approval. This includes the signing of all related documents, the transmitting of required fees, and receiving correspondence and notifications from the FCC. All acts performed by Spectrum Research and Testing Laboratory, Inc., especially modifications to our equipment under testing will be carried out on our behalf.

Meantime, the applicant certifies that in the case of an individual applicant(e.g., corporation), no party to the applicant is subject to s denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862. For a definition of a "party" for these purposes see 47 C.F.R. 1.2002(b).

If you have any questions regarding our applications for equipment approval, please contact Spectrum Research and Testing Laboratory, Inc. by calling (301)855-2262.

Respectfully,

Effective Dates:

Lu, Lian-Fu
(Name, Surname)

From 9/01/98 to 9/01/99

manager
(Position/Title)

DATE: 9/01/98

EMI TESTING REPORT

EUT : ENERGY SAVING LAMPS

MODEL: QEFL23/GEFL23/TEFL23

FCCID: KOP03

PREPARED FOR:

CHUAN SHIH INDUSTRIAL CO., LTD.

NO. 59, SHING-KONG 4TH RD.,

TA-SHING INDUSTRIAL DISTRICT,

TIEN-CHUNG, CHANG-HUA,

TAIWAN, R.O.C.

PREPARED BY:

SPECTRUM RESEARCH & TESTING
LABORATORY INC.

NO. 101-10, LING 8, SHAN-TONG LI
CHUNG-LI CITY, TAOYUAN, TAIWAN, R.O.C.

TEL: (03) 4987684
FAX: (03) 4986528

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1. TEST REPORT CERTIFICATION

APPLICANT : CHUAN SHIH INDUSTRIAL CO., LTD.ADDRESS : NO. 59, SHING-KONG 4TH RD.,
TA-SHING INDUSTRIAL DISTRICT,
TIEN-CHUNG, CHANG-HUA,
TAIWAN, R.O.C.EUT DESCRIPTION : ENERGY SAVING LAMPS(A) POWER SUPPLY : 120VAC(B) MODEL : QEFL23/GEFL23/TEFL23(C) FCCID : KOP03FINAL TEST DATE : 09/02/1998

MEASUREMENT PROCEDURE USED :

PART 18 OF FCC RULES AND REGULATIONS
FCC / ANSI C63.4 - 1992 & MP-5

WE HEREBY SHOW THAT:

THE MEASUREMENTS SHOWN IN THE ATTACHMENT WERE
MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED,
AND THE ENERGY EMITTED BY THE EQUIPMENT WAS
FOUND TO BE WITHIN THE LIMITS APPLICABLE.TESTING ENGINEER : Taylor anth DATE 09/02/98
Taylor HoSUPERVISOR : Jesse Ho DATE 9/2/98
Jesse HoAPPROVED BY : Johnson Ho DATE 9/2/98
Johnson Ho

2. TEST STATEMENT

2.1 TEST STATEMENT

TO whom it may concern,

This letter is to explain the EUT (Energy Saving Lamps) will be class II changed. All circuit are same, except bulb size change and circuit board size has litter reduce.

The original FCC ID: KQP03 was approved by FCC.

2. TEST STATEMENT

2.2 DEPARTURE FROM DOCUMENT POLICIES, PROCEDURE OR SPECIFICATIONS

DID HAVE
ANY DEPARTURE FROM DOCUMENT POLICIES
& PROCEDURES OR FROM SPECIFICATIONS.

YES _____ , NO N/A .

IF YES, THE DESCRIPTION AS BELOW.

2.3 TEST STATEMENT

1. THE CERTIFICATE OR REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.
2. THE REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

3. EUT MODIFICATIONS

THE FOLLOWING ACCESSORIES WERE ADDED TO THE EUT
DURING TESTING:

- 1). AC INPUT ADDED A X-CAP (0.1uf) AND SERIES INDUCTOR
(imp: 100uH).

4. MODIFICATION LETTER

THIS SECTION CONTAINS THE FOLLOWING DOCUMENTS:

A. LETTER OF MODIFICATIONS

5. CONDUCTED POWER LINE TEST

5.1 TEST EQUIPMENT

THE FOLLOWING TEST EQUIPMENT WAS USED DURING THE
CONDUCTED POWER LINE TEST :

| EQUIPMENT/ FACILITIES | SPECIFICAT -IONS | MANUFACTURER | MODEL#/ SERIAL# | DATE OF CAL. & CAL.CENTER | DUE DATE |
|--------------------------|--------------------------------|----------------------|--------------------------------|------------------------------|-------------|
| SPECTRUM ANALYZER | 9 KHz TO 1 GHz | HP | 8590L/ 3624A1317 | OCT, 1997 HP | 1Y |
| EMI TEST RECEIVER | 9 KHz TO 30 MHz | ROHDE & SCHWARZ | ESHS30/ 826003/008 | OCT, 1997 ETC | 1Y |
| LISN | 50 uH, 50 ohm | SOLAR ELECTRONICS | 9252-50- R24-BNC/ 951315 | AUGUST, 1997 ETC | 1Y |
| LISN | 50 uH, 50 ohm | SOLAR ELECTRONICS | 9252-50- R24-BNC/ 951318 | AUGUST, 1997 ETC | 1Y |
| SIGNAL GENERATOR | 9 KHz TO 1080 MHz | ROHDE & SCHWARZ | SMY01/ 841104/019 | APRIL, 1998 ITRI | 1Y |
| POWER CONVERTER | 0 TO 300 VAC 47 - 500 Hz | AFC | AFC-1KW/ 850510 | APRIL, 1998 SRT | 1Y |

5.2 CONFIGURATION OF THE EUT

THE EUT WAS CONFIGURED ACCORDING TO ANSI C63.4 - 1992 & MP-5 ALL INTERFACE PORTS WERE CONNECTED TO THE APPROPRIATE PERIPHERALS. ALL PERIPHERALS AND CABLES ARE LISTED BELOW.

-EUT

| DEVICE | MANUFACTURER | MODEL # | FCCID |
|---------------------|---------------------------------|----------------------|-------|
| ENERGY SAVING LAMPS | CHUAN SHIH INDUSTRIES CO., LTD. | QEFL23/GEFL23/TEFL23 | KQP03 |

-REMARK-INTERNAL DEVICES

| <u>DEVICE</u> | <u>MANUFACTURER</u> | <u>MODEL #</u> | <u>DoC/FCCID</u> |
|---------------|---------------------|----------------|------------------|
|---------------|---------------------|----------------|------------------|

-PERIPHERALS

| DEVICE | MANUFACTURER | MODEL# / SERIAL# | FCCID | CABLE |
|--------|--------------|---------------------|-------|-------|
| N/A | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

-REMARK

- (1) . CABLE - UNS : UNSHIELDED CABLE
 S : SHIELDED CABLE
- (2) . CABLES - ALL 1m OR GREATER IN LENGTH-
 BUNDLED ACCORDING TO ANSI C63.4 - 1992
 & MP-5.

5.3 EUT OPERATING CONDITION

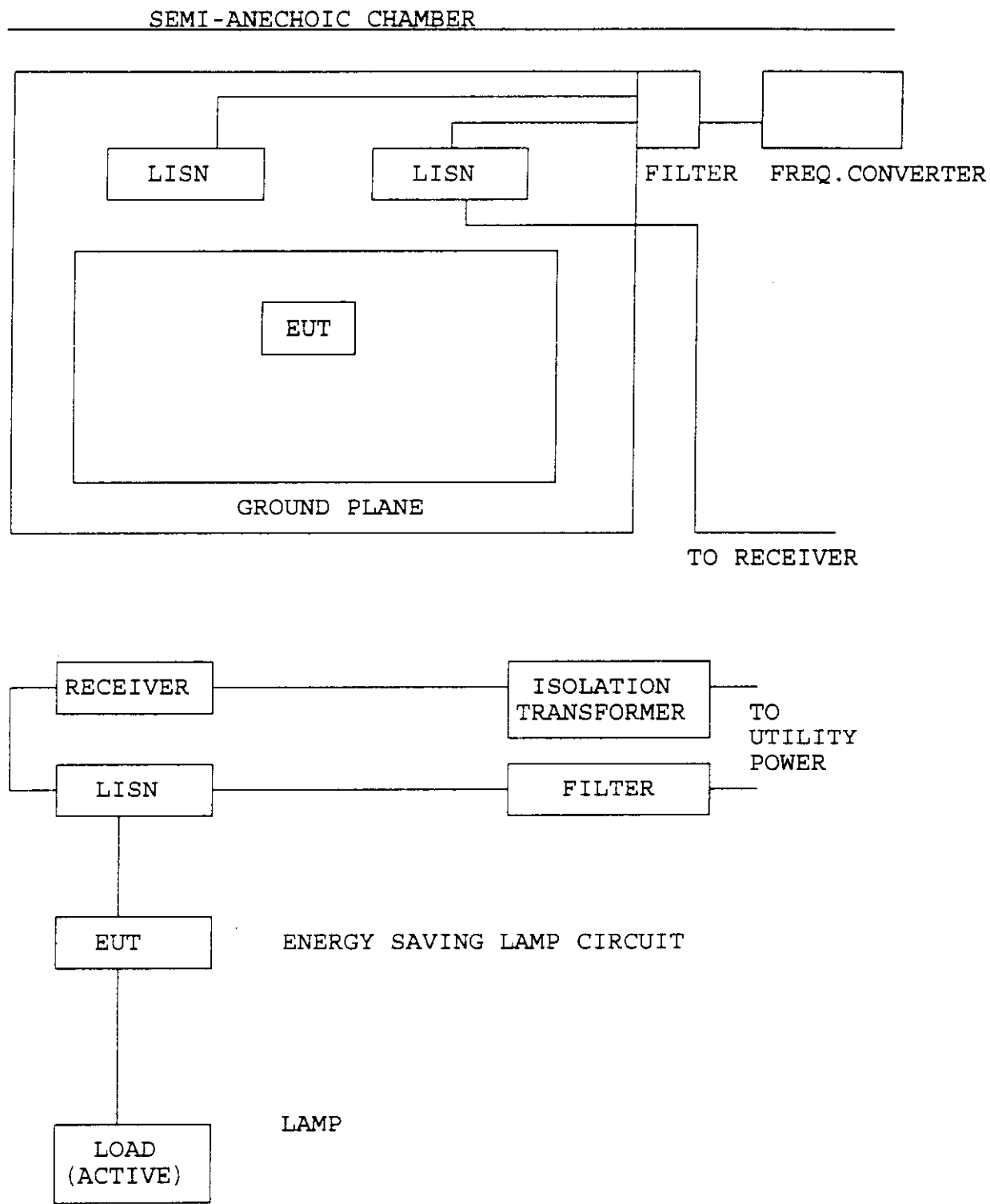
OPERATING CONDITION IS ACCORDING TO ANSI C63.4 - 1992
& MP-5.

1. EUT POWER ON.

5.4 TEST PROCEDURE

THE EUT WAS TESTED ACCORDING TO ANSI C63.4 - 1992 & MP-5. THE CONDUCTED TEST WAS PERFORMED IN AN ANECHOIC CHAMBER. THE FREQUENCY SPECTRUM FROM 0.45MHz TO 30MHz WAS INVESTIGATED. THE LISN USED WAS 50 ohm / 50 uHenry AS SPECIFIED BY SECTION 5.1 OF ANSI C63.4 - 1992 & MP-5. CABLES AND PERIPHERALS WERE MOVED TO FIND THE MAXIMUM EMISSION LEVELS FOR EACH FREQUENCY.

5.5 TEST SETUP



5.6 CONDUCTED POWER LINE EMISSION LIMIT

| FREQUENCY RANGE (MHz) | |
|-----------------------|--------|
| 0.045 - 1.705 | 250 uV |
| 1.705 - 30 | 250 uV |

NOTE : IN THE ABOVE TABLE, THE TIGHTER LIMIT
APPLIES AT THE BAND EDGES.

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHz.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

| FREQUENCY(MHz) | LINE 1 (uv) | LINE 2 (uv) | LIMIT (uv) |
|----------------|-------------|-------------|------------|
| 0.53 | 82.22 | 113.5 | 250 |
| 0.58 | 87.10 | 91.20 | 250 |
| 0.85 | 103.5 | 80.35 | 250 |
| 0.93 | 127.4 | 104.7 | 250 |
| 1.24 | * | 96.61 | 250 |
| 1.32 | 97.72 | * | 250 |
| | | | |
| | | | |
| | | | |
| | | | |

REMARKS : (1). * = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2). UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS
<+/-2dB

(3). QEFL23

(4). TEST CONFIGURATION PLEASE SEE 4.2

(5). TEST EQUIPMENT PLEASE SEE 4.1

(6). ANY DEPARTURE FROM SPECIFICATION: N/A

SIGNED BY TESTING ENGINEER :

Tonylin anth

5.7 CONDUCTED POWER LINE TEST RESULT

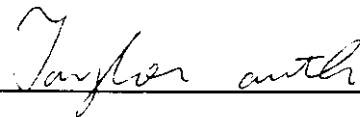
THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHz.

TEMPERATURE : 28 CHUMIDITY : 78 %RH

| FREQUENCY (MHz) | LINE 1 (uv) | LINE 2 (uv) | LIMIT (uv) |
|-----------------|-------------|-------------|------------|
| 0.48 | * | 87.10 | 250 |
| 0.90 | 107.2 | * | 250 |
| 1.19 | 123.0 | * | 250 |
| 3.70 | 35.89 | 29.51 | 250 |
| 6.22 | * | 6.607 | 250 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

- REMARKS : (1) . * = MEMENT DOES NOT APPLY FOR THIS FREQUENCY
(2) . UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB
(3) . GEFL23
(4) . TEST CONFIGURATION PLEASE SEE 4.2
(5) . TEST EQUIPMENT PLEASE SEE 4.1
(6) . ANY DEPARTURE FROM SPECIFICATION: N/A

SIGNED BY TESTING ENGINEER :



5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHz.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

| FREQUENCY (MHz) | LINE 1 (uv) | LINE 2 (uv) | LIMIT (uv) |
|-----------------|-------------|-------------|------------|
| 0.48 | 81.28 | 72.44 | 250 |
| 0.85 | * | 120.2 | 250 |
| 1.00 | 138.0 | * | 250 |
| 2.53 | 53.09 | 35.89 | 250 |
| 4.13 | 26.30 | * | 250 |
| 17.9 | * | 17.58 | 250 |
| | | | |
| | | | |
| | | | |
| | | | |

- REMARKS : (1) . * = MEMENT DOES NOT APPLY FOR THIS FREQUENCY
- (2) . UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB
- (3) . TEFL23
- (4) . TEST CONFIGURATION PLEASE SEE 4.2
- (5) . TEST EQUIPMENT PLEASE SEE 4.1
- (6) . ANY DEPARTURE FROM SPECIFICATION: N/A

SIGNED BY TESTING ENGINEER :

Taylor anth

6. RADIATED EMISSION TEST

6.1 TEST EQUIPMENT

THE FOLLOWING TEST EQUIPMENT WAS USED DURING THE
RADIATED EMISSION TEST :

| EQUIPMENT / FACILITIES | SPECIFICAT -IONS | MANUFACTUR -ER | MODEL#/ SERIAL# | DATE OF CAL. & CAL. CENTER | DUE DATE |
|---------------------------|------------------------|--------------------|------------------------|-------------------------------|-------------|
| RECEIVER | 20 MHz TO 1000 MHz | R & S | ESVS 30/ 841977/003 | APRIL, 1998 ITRI | 1Y |
| SPECTRUM ANALYZER | 100 Hz TO 1500 MHz | HP | 8568B/ 3019A05294 | OCT, 1997 ETC | 1Y |
| SPECTRUM ANALYZER | 9 KHz TO 22 GHz | HP | 8593E/ 3322A00670 | APRIL, 1998 ITRI | 1Y |
| SPECTRUM ANALYZER | 100 Hz TO 1000 MHz | IFR | A-7550/ 2684/1248 | JULY, 1998 ETC | 1Y |
| SIGNAL GENERATOR | 9 KHz TO 1080 MHz | ROHDE & SCHWARZ | SMY01/ 841104/019 | APRIL, 1998 ITRI | 1Y |
| DIPOLE ANTENNA | 28 MHz TO 1000 MHz | EMCO | 3121C/ 9003-535 | DEC, 1997 SRT | 1Y |
| DIPOLE ANTENNA | 28 MHz TO 1000 MHz | EMCO | 3121C/ 9611-1239 | DEC, 1997 SRT | 1Y |
| BI-LOG ANTENNA | 26 MHz TO 2000 MHz | EMCO | 3142/ 9509-1152 | DEC, 1997 SRT | 1Y |
| BI-LOG ANTENNA | 26 MHz TO 1100 MHz | EMCO | 3143/ 9509-1152 | DEC, 1997 SRT | 1Y |
| PRE-AMPLIFIER | 0.1 MHz TO 1300 MHz | HP | 8447D/ 2944A08402 | APRIL, 1998 ITRI | 1Y |
| PRE-AMPLIFIER | 0.1 MHz TO 1300 MHz | HP | 8447D/ 2944A06412 | OCT, 1997 ETC | 1Y |
| HORN ANTENNA | 1 GHz TO 18 GHz | EMCO | 3115/ 9012-3619 | DEC, 1997 SRT | 1Y |

6.2 CONFIGURATION OF THE EUT

SAME AS SECTION 5.4 OF THIS REPORT.

6.3 EUT OPERATING CONDITION

SAME AS SECTION 5.3 OF THIS REPORT.

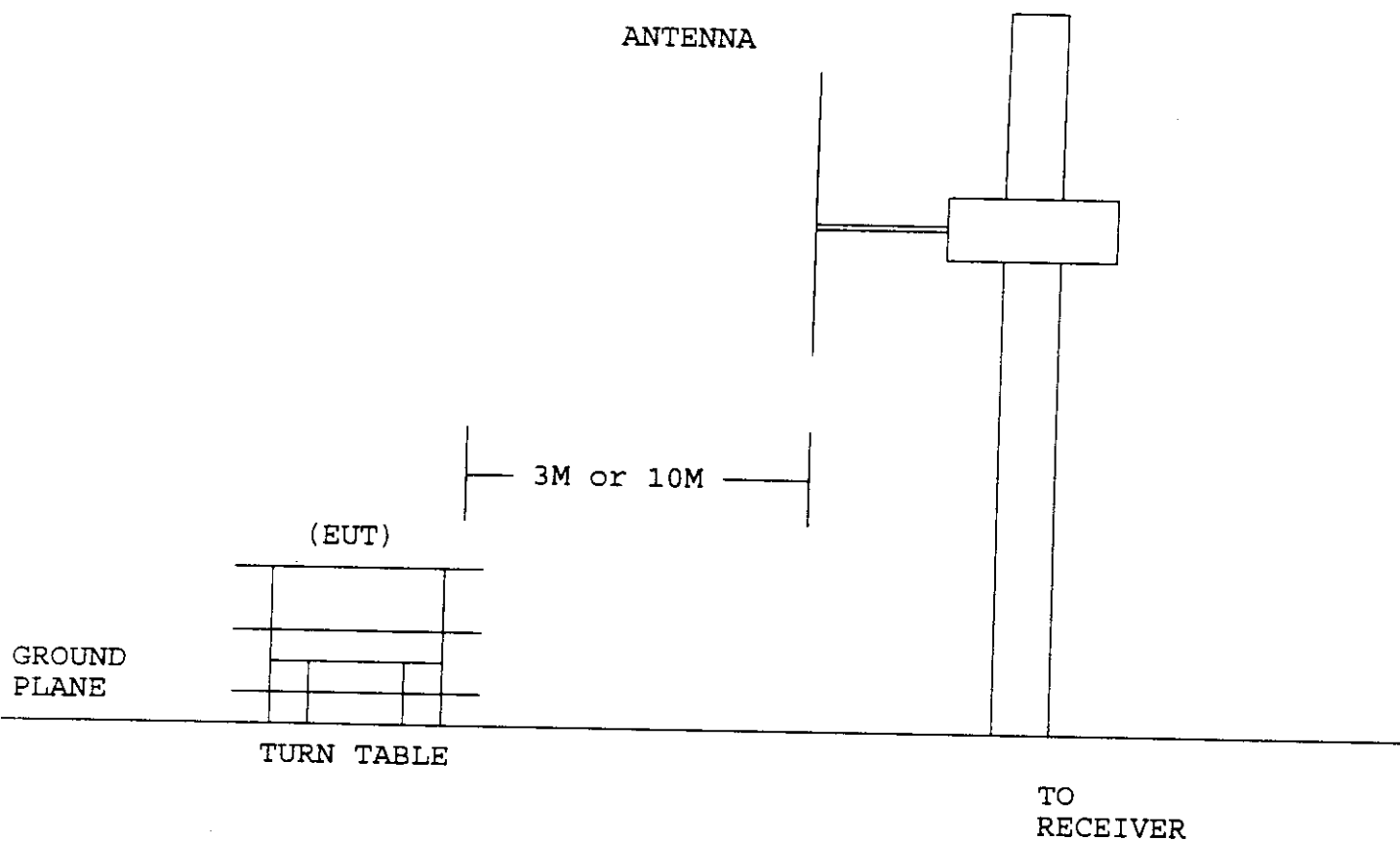
6.4 TEST PROCEDURE

THE EUT WAS TESTED ACCORDING TO ANSI C63.4 - 1992 & MP-5. THE RADIATED TEST WAS PERFORMED AT SRT LAB'S OPEN SITE. THIS SITE IS ON FILE WITH THE FCC LABORATORY DIVISION, REFERENCE 31040/SIT.

THE FREQUENCY SPECTRUM FROM 30 MHz TO 1 GHz WAS INVESTIGATED. MEASUREMENTS WERE MADE AT THREE METERS WITH AN ADJUSTABLE DIPOLE ANTENNA. PERIPHERALS, CABLES, EUT ORIENTATION, AND ANTENNA HEIGHT WERE VARIED TO FIND THE MAXIMUM EMISSION FOR EACH FREQUENCY.

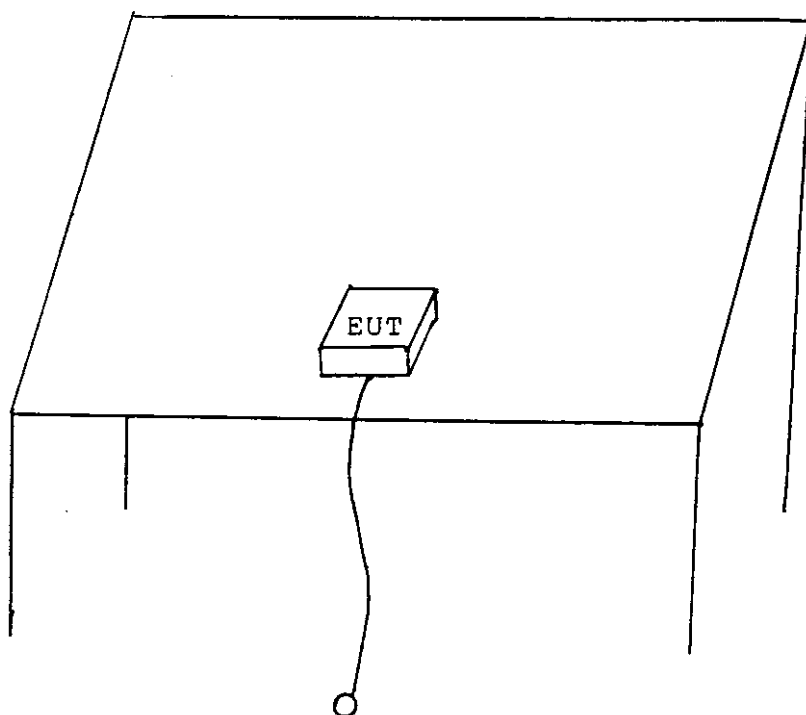
THE FREQUENCY SPECTRUM FROM 30 MHz TO 1 GHz WAS INVESTIGATED. THE MEASUREMENTS UNDER 1 GHz WITH RESOLUTION BANDWIDTH OF 120 KHz ARE QUASI-PEAK READING MADE AT THREE METERS USING AN ADJUSTABLE DIPOLE ANTENNA. PERIPHERALS, CABLES, EUT ORIENTATION, AND ANTENNA HEIGHT WERE VARIED TO FIND THE MAXIMUM EMISSION FOR EACH FREQUENCY.

6.5 RADIATED TEST SETUP



6.5 RADIATED TEST SETUP

* ANSI C63.4-1992



6.6 RADIATED EMISSION LIMIT

ALL EMISSION SHALL NOT EXCEED THE LEVEL OF FIELD STRENGTH SPECIFIED BELOW :

CLASS B

| FREQUENCY (MHz) | DISTANCE (m) | FIELD STRENGTH (uV/m) |
|--------------------|-----------------|--------------------------|
| 30 - 88 | 3 | 100 |
| 88 - 216 | 3 | 150 |
| 216 - 960 | 3 | 200 |
| ABOVE 960 | 3 | 500 |

NOTE : 1. IN THE EMISSION TABLES ABOVE, THE TIGHTER LIMIT APPLIES AT THE BAND EDGES.

2. DISTANCE REFERS TO THE DISTANCE BETWEEN MEASURING INSTRUMENT, ANTENNA, AND THE CLOSEST POINT OF ANY PART OF THE DEVICE OR SYSTEM.

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 1 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHz. MEASUREMENTS WERE MADE AT 3 METERS. THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 CHUMIDITY : 78 %RH

| FREQ. (MHz) | CABLE LOSS (dB) | ANT. FACTOR (dB) | READING (dBuV) | | EMISSION (uV) | | LMTS (uV) |
|----------------|-----------------------|------------------------|----------------|-------|---------------|-------|--------------|
| | | | HORIZ | VERT | HORIZ | VERT | |
| 30.00 | 0.7 | 13.2 | 14.00 | 20.90 | 24.83 | 54.95 | 100 |
| 123.1 | 1.4 | 7.20 | 16.45 | 19.67 | 17.89 | 25.91 | 150 |
| 768.2 | 3.3 | 20.9 | * | 11.43 | * | 60.46 | 200 |
| 774.0 | 3.3 | 20.9 | 12.47 | * | 68.16 | * | 200 |
| 960.2 | 4.0 | 22.2 | 11.50 | * | 76.74 | * | 200 |
| 971.9 | 4.1 | 22.5 | * | 11.35 | * | 78.98 | 500 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS : (1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.

(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.

(3). SAMPLE CALCULATION

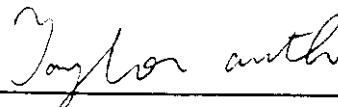
$$20 \text{ LOG (EMISSION) uV/m} = \text{CABLE LOSS (dB)} + \text{FACTOR (dB)} + \text{READING (dBuV/m)}$$

(4). TEST EQUIPMENT PLEASE SEE 5.1

(5). UNCERTAINTY IN RADIATED EMISSION MEASURED IS ± 4 dB(6). ANY DEPARTURE FROM SPECIFICATION: N/A

(7). QEFL23

SIGNED BY TESTING ENGINEER :



6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 1 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHz. MEASUREMENTS WERE MADE AT 3 METERS. THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 CHUMIDITY : 78 %RH

| FREQ. (MHz) | CABLE LOSS (dB) | ANT. FACTOR (dB) | READING (dBuV) | | EMISSION (uV) | | LMTS (uV) |
|----------------|-----------------------|------------------------|----------------|-------|---------------|-------|--------------|
| | | | HORIZ | VERT | HORIZ | VERT | |
| 35.82 | 0.8 | 9.80 | 20.50 | * | 35.89 | * | 100 |
| 47.46 | 0.8 | 6.60 | * | 23.74 | * | 36.06 | 100 |
| 319.1 | 2.2 | 14.7 | 11.12 | 11.60 | 25.18 | 26.61 | 200 |
| 684.8 | 3.3 | 20.1 | 11.83 | * | 57.74 | * | 200 |
| 721.6 | 3.4 | 20.5 | * | 11.85 | * | 61.31 | 200 |
| 900.1 | 3.9 | 22.6 | 11.30 | 12.00 | 77.62 | 84.14 | 200 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS : (1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.

(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.

(3). SAMPLE CALCULATION

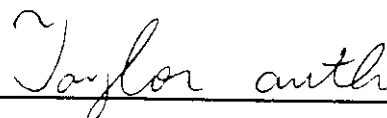
$$20 \text{ LOG}(\text{EMISSION}) \text{ uV/m} = \text{CABLE LOSS (dB)} + \text{FACTOR (dB)} + \text{READING (dBuV/m)}$$

(4). TEST EQUIPMENT PLEASE SEE 5.1

(5). UNCERTAINTY IN RADIATED EMISSION MEASURED IS $\pm 4\text{dB}$ (6). ANY DEPARTURE FROM SPECIFICATION: N/A

(7). GEFL23

SIGNED BY TESTING ENGINEER :



6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 1 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHz. MEASUREMENTS WERE MADE AT 3 METERS. THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 CHUMIDITY : 78 %RH

| FREQ. (MHz) | CABLE LOSS (dB) | ANT. FACTOR (dB) | READING (dBuV) | | EMISSION (uV) | | LMTS (uV) |
|----------------|-----------------------|------------------------|----------------|-------|---------------|-------|--------------|
| | | | HORIZ | VERT | HORIZ | VERT | |
| 35.82 | 0.8 | 9.80 | 18.20 | 16.88 | 27.54 | 23.66 | 100 |
| 319.1 | 2.2 | 14.5 | 11.12 | 23.36 | 24.60 | 100.7 | 200 |
| 480.1 | 2.6 | 17.0 | * | 18.33 | * | 78.80 | 200 |
| 699.3 | 3.4 | 20.2 | 11.89 | 12.99 | 59.50 | 67.53 | 200 |
| 921.4 | 3.9 | 22.3 | 11.54 | * | 77.09 | * | 200 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS : (1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.

(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.

(3). SAMPLE CALCULATION
 $20 \text{ LOG}(\text{EMISSION}) \text{ uV/m} = \text{CABLE LOSS (dB)} + \text{FACTOR (dB)} + \text{READING (dBuV/m)}$

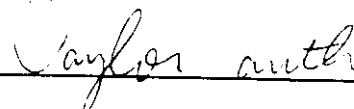
(4). TEST EQUIPMENT PLEASE SEE 5.1

(5). UNCERTAINTY IN RADIATED EMISSION MEASURED IS $< +/- 4\text{dB}$

(6). ANY DEPARTURE FROM SPECIFICATION: N/A

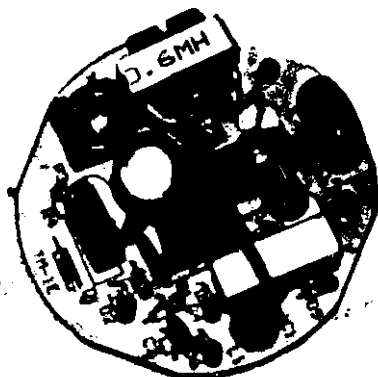
(7). TEFL23

SIGNED BY TESTING ENGINEER :



7. PHOTOS OF TESTING

A. MAIN BOARD COMPONENT SIDE VIEW (QEFL23)

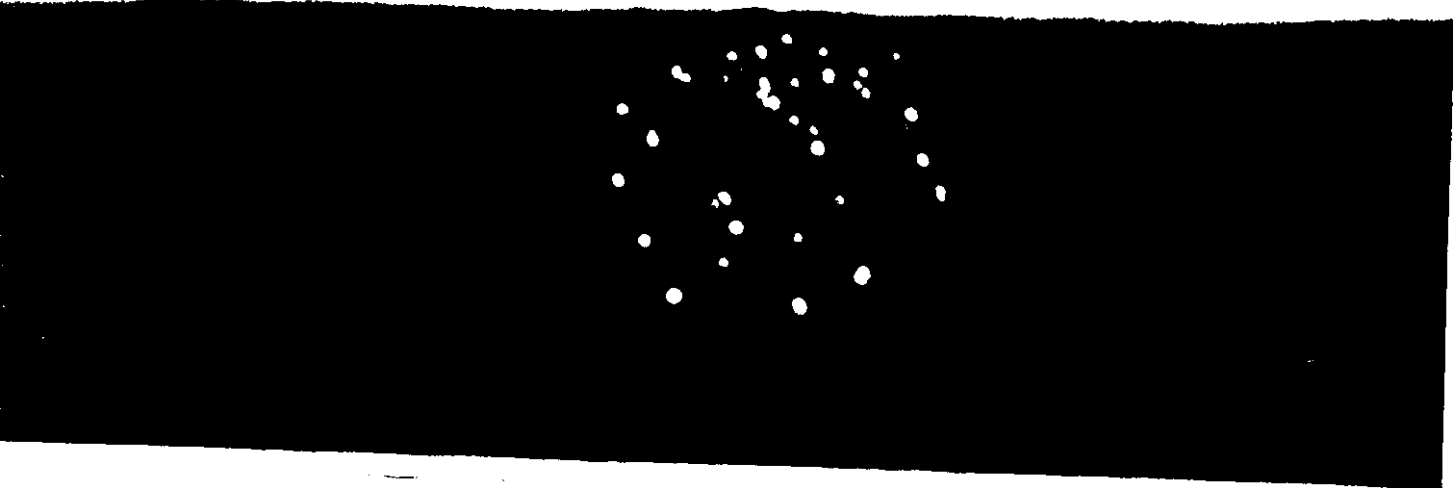


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QEFL23 120V

7. PHOTOS OF TESTING

B. MAIN BOARD SOLDER SIDE VIEW (QEFL23)



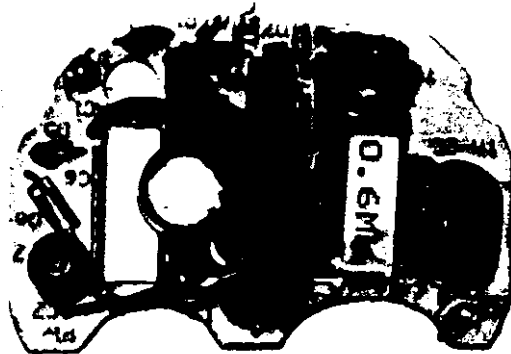
8B28-2

QEFL23 120V



7. PHOTOS OF TESTING

C. MAIN BOARD COMPONENT SIDE VIEW (GEFL23)

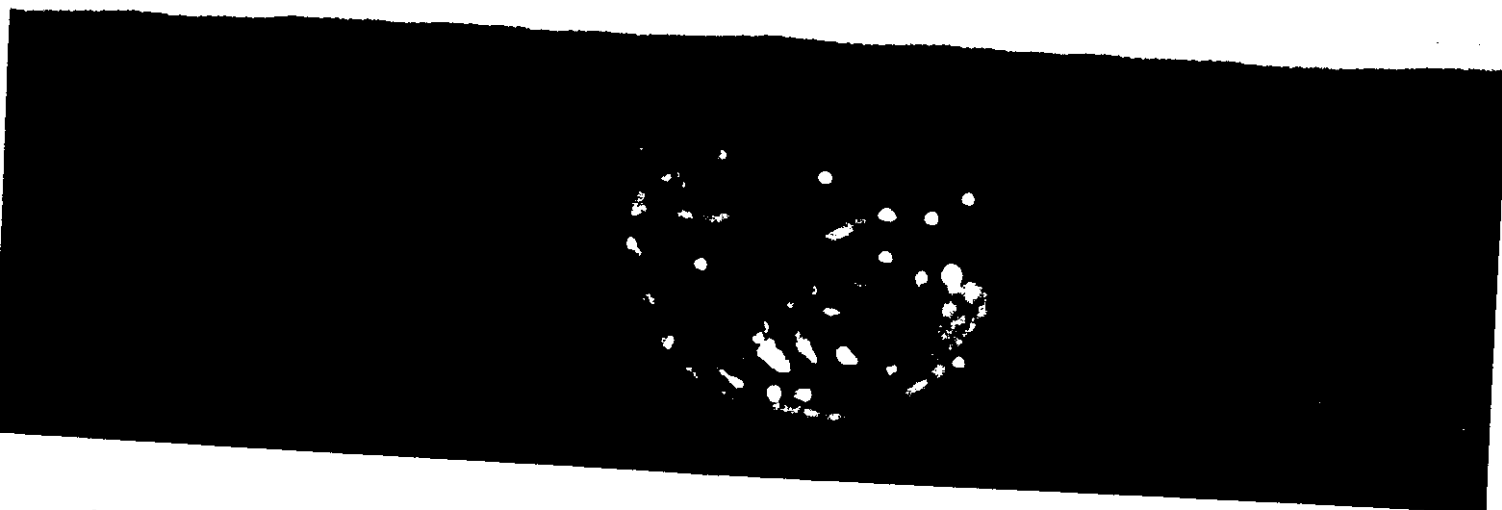


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GEFL23 120V

7. PHOTOS OF TESTING

D. MAIN BOARD SOLDER SIDE VIEW (GEFL23)



8B28-2

GEFL23 120V



7. PHOTOS OF TESTING

E. MAIN BOARD COMPONENT SIDE VIEW (TEFL23)



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TEFL23 120V

7. PHOTOS OF TESTING

F. MAIN BOARD SOLDER SIDE VIEW (TEFL23)



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TEFL23 120V