FCC 47 CFR PART 15 SUBPART C AND ANSI C63.4:2003
MAXIMUM PERMISSIBLE EXPOSURE

TEST REPORT

For

Wireless Day/Night Surveillance Camera

Model : TL-SC3171G

Trade Name : TP-LINK

Issued for

TP-LINK TECHNOLOGIES CO.,LTD.

1-6F, Building 2, Pingshandayuan Industrial, South Zone,
Taoyuan Street, Nanshan District, Shenzhen, P.R.C.

Issued by

Compliance Certification Services Inc.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	08/12/2010	Initial Issue	All Page 8	Kate Shi

TABLE OF CONTENTS

TITLE PAGE NO.

1. TEST REPORT CERTIFICATION

Applicant	：	TP-LINK TECHNOLOGIES CO.,LTD.
Address	：	1-6F, Building 2, Pingshandayuan Industrial, South Zone, Taoyuan Street, Nanshan District, Shenzhen, P.R.C.
Equipment Under Test	：	Wireless Day/Night Surveillance Camera
Model	：	TL-SC3171G
Trade Name	：	TP-LINK
Tested Date	：	May 25 ~ June 30, 2010; July 27 ~ August 11, 2010

APPLICABLE STANDARD	
Standard	**Test Result**
FCC Part 15 Subpart C AND ANSI C63.4:2003	PASS

WE HEREBY CERTIFY THAT: The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Alex Chiu
Director

Reviewed by:

Gundam Lin
Team Leader

2. EUT DESCRIPTION

2.1 DESCRIPTION OF EUT & POWER

Product Name	Wireless Day/Night Surveillance Camera
Model Number	TL-SC3171G
Received Date	May 25, 2010
Frequency Range	IEEE 802.11b/g : 2412MHz ~ 2462MHz
Transmit Power	IEEE 802.11b : 21.75dBm (0.1496W) IEEE 802.11g : 19.68dBm (0.0929W)
Channel Spacing	IEEE 802.11b/g : 5MHz
Channel Number	IEEE 802.11b/g : 11 Channels
Transmit Data Rate	IEEE 802.11b : 11, 5.5, 2, 1 Mbps IEEE 802.11g : 54, 48, 36, 24, 18, 12, 9, 6 Mbps
Type of Modulation	IEEE 802.11b : DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g : OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Type	Dipole Antenna , Antenna Gain 2dBi Connector : SMA Male RP
DC Power Cord Type	Unshielded cable 1.8 m (no detachable) Unshielded cable 1.5m (no detachable)
Power Source	12VDC, 1.25A/1.0A (From Power Adapter)
I/O Port	RJ-45 port × 1, Audio In port × 1, Audio Out port × 1, Power port × 1, DI+DI-Com No port × 1

Power Adapter :

No.	Manufacturer	Model No.	Power Input	Power Output
1	FAIRWAY	WRG15F-120A	100-240VAC, 1.0A max, 50/60Hz	12V, 1.25A
2	LEADER	MU12-2120100-A1	100-240VAC, 50/60Hz, 0.5A	12V, 1.0A

Remark :

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.

2. For more details, please refer to the User's manual of the EUT.

3. This report is modified from T100525302-RP1.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4: 2003/ FCC DTS Measurement procedure KDB558074 March, 2005 and FCC CFR 47, 15.207, 15.209 and 15.247.

4. FACILITIES AND ACCREDITATION

4.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

NO. 989-1 Wen Shan Rd., Shang Shan Village,
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C

The sites are constructed in conformance with the requirements of ANSI C63.4:2003 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4, CISPR 16-1-5.

4.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Taiwan	TAF

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Taiwan	BSMI
USA	FCC MRA

Copies of granted accreditation certificates are available for downloading from our web site, http:///www.ccsrf.com

5.MAXIMUM PERMISSIBLE EXPOSURE

According to FCC 1.1310 : The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time
(A) Limits for Occupational / Control Exposures				
300-1,500	--	--	F/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Population / Uncontrol Exposures				
300-1,500	--	--	F/1500	6
1,500-100,000	--	--	1	30

CALCULATIONS

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

Where E = Field strength in Volts / meter
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and
d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$

Where d = Distance in cm
P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm2

LIMIT

Power Density Limit, S=1.0mW/cm^2

TEST RESULTS

Mode	Antenna Gain (dBi)	Minimum separation distance (cm)	Output Power (dBm)	Numeric antenna gain (mW)	Power Density Limit (mW/cm^2)	Power Density at 20cm (mW/cm^2)
IEEE 802.11b	2	20.0	21.75	1.58	1.00	0.047176
IEEE 802.11g	2	20.0	19.68	1.58	1.00	0.029290

Remark: *For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm^2 even if the calculation indicates that the power density would be larger.*