



RF EXPOSURE REPORT

REPORT NO.: SA130307C06A
MODEL NO.: WMTB-158N_MHL, WMTB-158N
FCC ID: MXF-WMTB-158N
RECEIVED: Feb. 05, 2013
TESTED: Feb. 25 ~ Mar. 25, 2013
ISSUED: Apr. 03, 2013

APPLICANT: Gemtek Technology Co., Ltd.

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ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

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TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130307C06A	Original release	Apr. 03, 2013



1. CERTIFICATION

PRODUCT: Wireless Display Dongle
MODEL NO.: WMTB-158N_MHL, WMTB-158N
BRAND: Gemtek
APPLICANT: Gemtek Technology Co., Ltd.
TESTED: Feb. 25 ~ Mar. 25, 2013
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 2 (Section 2.1091)**
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1

The above equipment (model: WMTB-158N_MHL, WMTB-158N) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Celine Chou , **DATE :** Apr. 03, 2013
Celine Chou / Specialist

APPROVED BY : Ken Liu , **DATE :** Apr. 03, 2013
Ken Liu / Senior Manager



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2. RF EXPOSURE

2.1 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 (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

2.2 MPE CALCULATION FORMULA

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Frequency band (MHz)	Conducted power (dBm)	Antenna Gain (dBi)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2412~2462	26.30	4.24	0.225	1
5180~5240	16.80	5.23	0.032	1
5745~5825	24.97	5.23	0.208	1

Note:

For 2.4GHz:

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.24\text{dBi}$

For 5GHz:

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.23\text{dBi}$