



RF EXPOSURE REPORT

REPORT NO.: SA130610C19

MODEL NO.: Picasso, NA9xx (where "x" can be used as "A-Z"
or "0-9" or "-" or blank for marketing purposes only)

FCC ID: P27NA930ZW2G

RECEIVED: Jun. 10, 2013

TESTED: Jun. 25 ~ Jul. 02, 2013

ISSUED: Jul. 16, 2013

APPLICANT: SerComm Corp.

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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
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130610C19	Original release.	Jul. 16, 2013

1. CERTIFICATION

PRODUCT: Smart Home Gateway
MODEL: Picasso, NA9xx (where "x" can be used as "A-Z" or "0-9" or "-" or blank for marketing purposes only)
BRAND: Telefonica
APPLICANT: SerComm Corp.
TESTED: Jun. 25 ~ Jul. 02, 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: Picasso) 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.

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Suntee Liu / Specialist

APPROVED BY : Anderson Chiu , **DATE :** Jul. 16, 2013
Anderson Chiu / Senior Engineer

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

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 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 22cm 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	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
WLAN 2.4GHz	24.27	3.78	22	0.105	1

FREQUENCY BAND	ERP (dBm)	EIRP (dBm)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
GPRS 824.2MHz~848.8MHz	32.20	34.35	22	0.448	0.549

FREQUENCY BAND	EIRP (dBm)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
GPRS 1850.2~1909.8MHz	32.94	22	0.355	1

CONCLUSION:

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

$WLAN\ 2.4GHz + GSM\ 850 = 0.105/1 + 0.448/0.549 = 0.921$

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