



IEEE C95.1
KDB 447498 D03
RF EXPOSURE REPORT
FOR

Product Name: WiFi module

Model : 6212A
Trade Name: TRANWO

Issued to

TRANWO TECHNOLOGY CORP.
No.236,Sec. 3Huanbei Rd., Jubei City.Hsinchu County, 30265, Taiwan (R.O.C.)

Issued by

Global Certification Corp.
No.146, Sec. 2, Xiangzhang Rd., Xizhi Dist.,New Taipei City 221,
Taiwan (R.O.C.)



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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
1.	780406	780406	Sep. 11, 2017	Original Report	Michelle



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1. GENERAL INFORMATION

Applicant : TRANWO TECHNOLOGY CORP.

Address : No.236,Sec. 3Huanbei Rd., Jubei City.Hsinchu County, 30265,
Taiwan (R.O.C.)

Manufacturer : TRANWO TECHNOLOGY CORP.

Address : No.236,Sec. 3Huanbei Rd., Jubei City.Hsinchu County, 30265,
Taiwan (R.O.C.)

EUT : WiFi module

Model No. : 6212A

IEEE C95.1

KDB 447498 D03

47 C.F.R Part 1, Subpart 1.1310

47 C.F.R Part 2, Subpart 2.1091

Tested By:

Approved by:

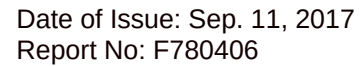
Sep. 11, 2017
Date

Eason Hsu, Engineer

Sep. 11, 2017
Date

Adam Chou, Manager

Designation Number: TW1089





2. TEST RESULTS

No non-compliance noted.

Calculation

$$\text{Given } E = \frac{\sqrt{30 \times P \times G}}{d} \text{ \& } S = \frac{E^2}{377}$$

Where E=Field strength in Volts / meter

P=Power in Watts

G=Numeric antenna gain

d=Distance in meter

S=Power density in watts / meter

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

$$S = \frac{E^2}{377}$$

Changing to units of mW and cm, using:

P(mW) = P(W) / 1000 and

d(cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{2 \times 377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \text{ Equation 1}$$

Where d=Distance in cm

P=Power in mW

G=Numeric antenna gain

S=Power density in mW / cm²



3. MAXIMUM PERMISSIBLE EXPOSURE

Substituting the MPE safe distance using $d=20$ cm into Equation 1 :

$$S=0.000199 \times P \times G$$

Where

P=Power in mW

G=Numeric antenna gain

S=Power density in mW / cm²

IEEE 802.11b :

Frq.(MHz)	P (mW)	Gain (num)	d (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
2462	8.17	2.5	20	0.004	1

IEEE 802.11g

Frq.(MHz)	P (mW)	Gain (num)	d (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
2462	19.32	2.5	20	0.0096	1

IEEE 802.11n20

Frq.(MHz)	P (mW)	Gain (num)	d (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
2462	22.28	2.5	20	0.011	1