

RADIOCOMMUNICATIONS EQUIPMENT
COMPLIANCE ASSESSMENT
FOR
FCC 47 CFR 1.1310
RADIOFREQUENCY RADIATION EXPOSURE LIMITS
MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Client: Seeley International Pty Ltd
Address: 112 O'Sullivan Beach Road, Lonsdale, SA 5160, Australia
Report Number: 0306SEELEY_MQWC(Receiver)_MPE(FCC)
[This report supersedes report 0226SEE_MQWC(Receiver)_SARExempt(FCC)]
File Number: SEELEY161223

Equipment Name: MagIQtouch Wireless Receiver
Equipment Model No: MQWC
Equipment FCC ID: R2ESIA19
Equipment Description: MagIQtouch Wireless Receiver

Result: **COMPLIES**
(General Population/Uncontrolled Exposure)

Assessed by: **Colin Gan**



Approved by: **Phillip Kane**



Date of Issue: 06 Mar. 2019

Results appearing herein relate only to the sample(s) assessed through the submitted test report(s).
This report is issued errors and omissions exempt and is subject to withdrawal at Austest Laboratories discretion.

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EQUIPMENT DETAILS Note 1	
MANUFACTURER:	Seeley International
MODEL:	MQWC
OPERATING FREQUENCY:	915.1 MHz to 927.1 MHz
TRANSMITTER POWER INTO ANTENNA:	12.0 dBm (15.8 mW)
TYPE OF ANTENNA:	Permanently connected wire antenna, approx. 7.5 cm long
ANTENNA GAIN:	-5 dBi (0.316 numeric gain)

Notes:

1. Data taken from Austest FCC report 0228SEELEY_MQWC(Receiver)_FCC15C.
2. Minimum separation distance of equipment from human body is understood to be 20cm or greater.

FCC § 15.247(b) RF Exposure Criteria for Intentional Radiators**RF Exposure Requirements: FCC §1.1307(b)(1), §1.1307(b)(2) and §1.1307(b)(3):**

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines.

RF Radiation Exposure Limit: FCC §1.1310:

As specified in this section, the Maximum Permissible Exposure (MPE) Limit shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Sec. 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Sec. 2.1093 of this chapter.

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Maximum Permissible Exposure

(As specified in Table 1B of 47 CFR 1.1310 – Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure)

<i>Frequency range (MHz)</i>	<i>Power density (mW/cm²)</i>
300 – 1500	f/1500
1,500 – 100000	1.0

MPE Calculations

Results of MPE calculations for the EUT is shown below:

$$S = [(30 \times P \times G) / (377 \times d^2)]$$

Where

S – Power density (mW/cm²)

P – Power (mW)

G – Antenna numeric gain

D – Distance (cm)

$$S = [(30 \times 15.8 \text{ mW} \times 0.316) / (377 \times \{20 \text{ cm}\}^2)] = \mathbf{993.26 \times 10^{-6} \text{ mW/cm}^2}$$

$$\text{Limit} = f/1500 = (915.1 / 1500) = 0.610 \text{ mW/cm}^2$$

Austest Summary and Recommendations

The equipment complies with FCC 47 CFR 1.1310: Limits for Maximum Permissible Exposure (MPE), Limits for General Population / Uncontrolled Exposure, when the indicated **minimum separation distance of 20cm** is adhered to.

If compliance is sought for model numbers other than those listed in the test report, then the compliance folder must hold additional documentation, demonstrating the equivalence of the products between the different model numbers.

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