



EMC Technologies (NZ) Ltd
47 Mackelvie St, Grey Lynn
Auckland 1021
Phone 09 360 0862
Fax 09 360 0861
E-Mail Address: aucklab@emctech.co.nz
Web Site: www.emctech.co.nz

RF Exposure Report for NFC

Test Site Information

FCC Test Site Name EMC Technologies PTY Ltd (New Zealand)

Address EMC Technologies NZ Ltd
47 Mackelvie Street, Grey Lynn
Auckland 1021
New Zealand

Phone +64-9-360-0862

Email aucklab@emctech.co.nz

FCC Test Site no NZ0002

Product Information

Brand Name Gallagher

Model Number C300440-T12 Multi Tech Reader

Product Proximity Card Reader

Manufacturer Gallagher Group Ltd

Country of Origin New Zealand

Serial Number 2235462096

FCC ID M5VC30044XB

IC ID 7369A-C30024XB

Antenna Internal to product

Highest oscillator frequency 27.12 MHz

Bluetooth facility Product supports bluetooth.

FCC ID of the bluetooth module QOQ-GM220P

Has the module been insltated as per manufacturer instructions Yes

Operating frequency 125 kHz RFID, 13.56 MHz NFC, 2.4 GHz Bluetooth

Exposure of humans to RF fields

Documents applied:

- FCC KDB 447498 D01 General RF Exposure Guidance v06
- 47 CFR § 2.1093 - Radiofrequency radiation exposure evaluation: portable devices.

As per Section 2.3.2 of § 2.1093

Evaluation of compliance with the exposure limits in § 1.1310 of this chapter, and preparation of an EA if the limits are exceeded, is necessary for portable devices having single RF sources with more than an available maximum time-averaged power of 1 mW, more than the ERP listed in Table 1 to § 1.1307(b)(3)(i)(C)

Calculation for SAR exemption:

For the Device under tests, it contains a 13.560 MHz transmitter.

As this device is fixed where normal operations would require the users hand to come close to the transmitting antenna when a card is used, a separation distance between the user and the device's radiating element of greater than 20 cm cannot be guaranteed.

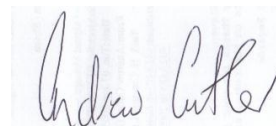
When transmitting on 13.560 MHz, a field strength of 56.7 dB μ V/m was measured at 10 metres.

The transmitter output power was calculated using the formula below:

$$\text{Power (watts)} = ((\text{field strength (V/m)} \times \text{distance (metres)})^2) / 30$$

A transmitter power of 1.6 μ W was determined.

Result: SAR exemption applied.



This document is issued with the authority of: _____
Andrew Cutler - General Manager