Rationale to limit 2.4GHz testing

The Long Range Reader circuitry consists of the pre-approved 2.4GHz Interface Board and a variant of the pre-approved 125KHz P200 proximity reader circuit. The Long Range Reader Interface Board will have the same PCB layout and components as the pre-approved Hands Free Interface. It is essentially the same circuit board but in a different housing. The signal and grounding system between the interface and reader is the same for any Paxton Access Hands Free System. Figure 1 is a representative test system diagram from the previous approval of the hands free system as authorised under FCC ID: USE477222. It shows the three elements of a hands free system; 125KHz reader, 2.4GHz Interface and ACU. Figure 2 is a representative test system diagram for the Long Range Reader. Again it shows the three system elements, and demonstrates that the 125kHz reader circuit board and 2.4GHz interface circuit board are contained within the same enclosure to form the Long Range Reader.
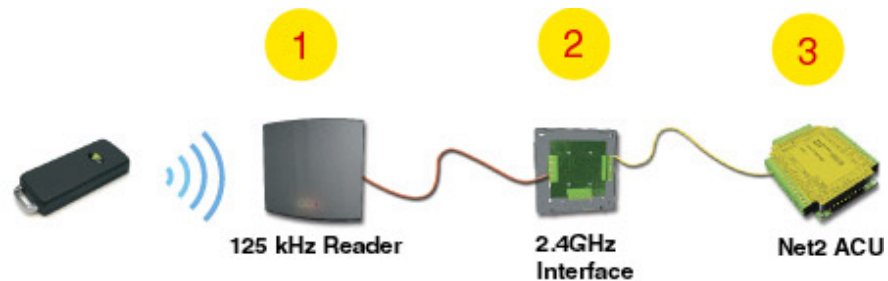

Fig 1: Test System Diagram for Hands Free Interface and P200 reader (FCC ID: USE477222)
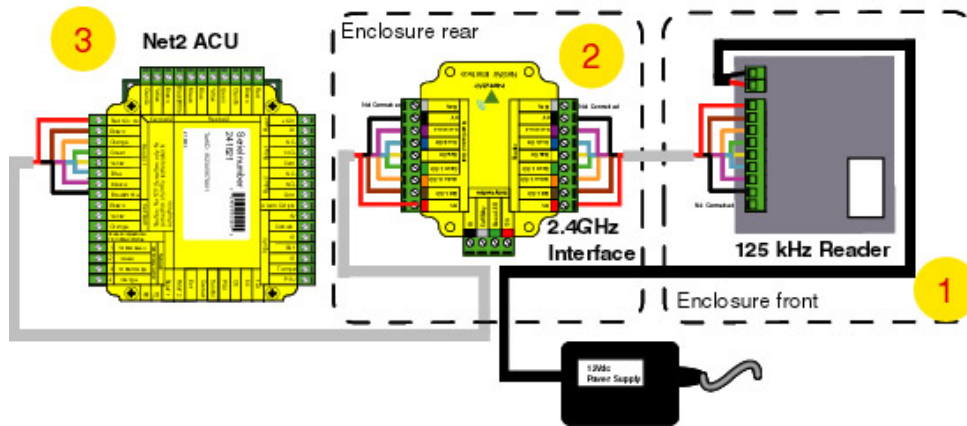

Fig 2: Test System Diagram for the Long Range Reader (FCC ID: USE313110)

The rationale to limit testing at 2.4GHz to spurious emissions collocation testing is founded on the basis that the test report for the pre-approved Hands Free Interface covers the remaining test requirements.

The following is a list of changes to the Hands Free Interface circuit, that have occurred since the original authorisation under FCC ID: USE477222. It has been recognised that none of the following circuit changes would affect the radio performance of the product:

Date	Change Note	Description	PCB revision	CCT Revision
11/12/06	0090	Added 27K resistor (rs4-27d) to fix CC2430 bug.	F	11
02/08/07	0127	Update to latest revision of CC2430. (Sic-cc32 replaced with scc-001)	F	12
11/10/07	0188	R8 and R12 change in value to regulate reader voltage. (220R to 47R)	F	13
01/11/07	0194	R5, R7, R9 changed in value to regulate reader LEDs. (560R changed to 2k2)	F	14