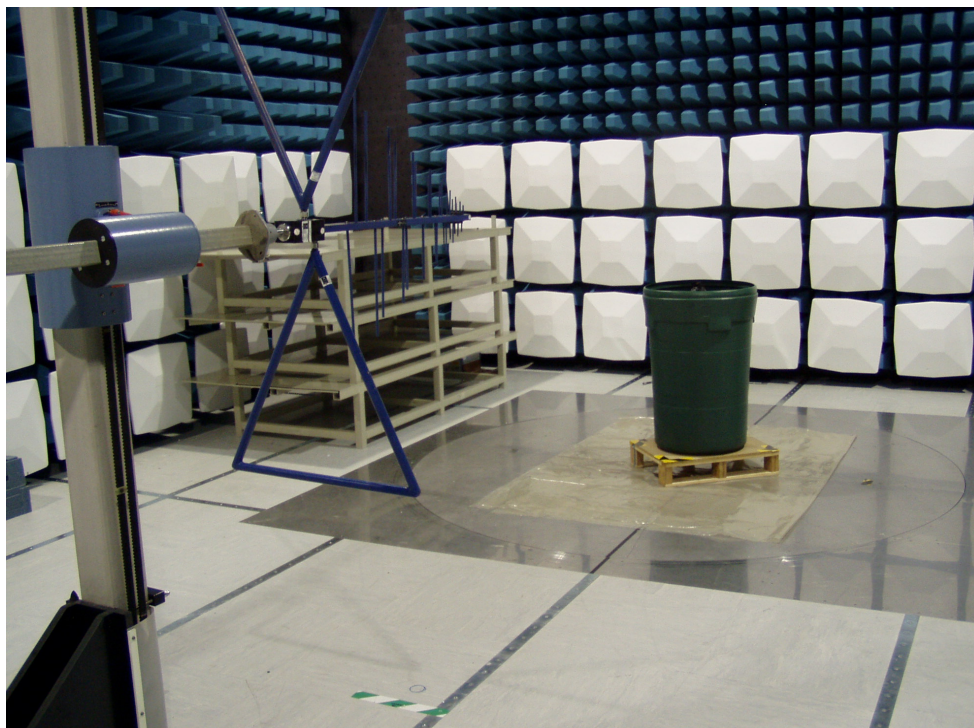
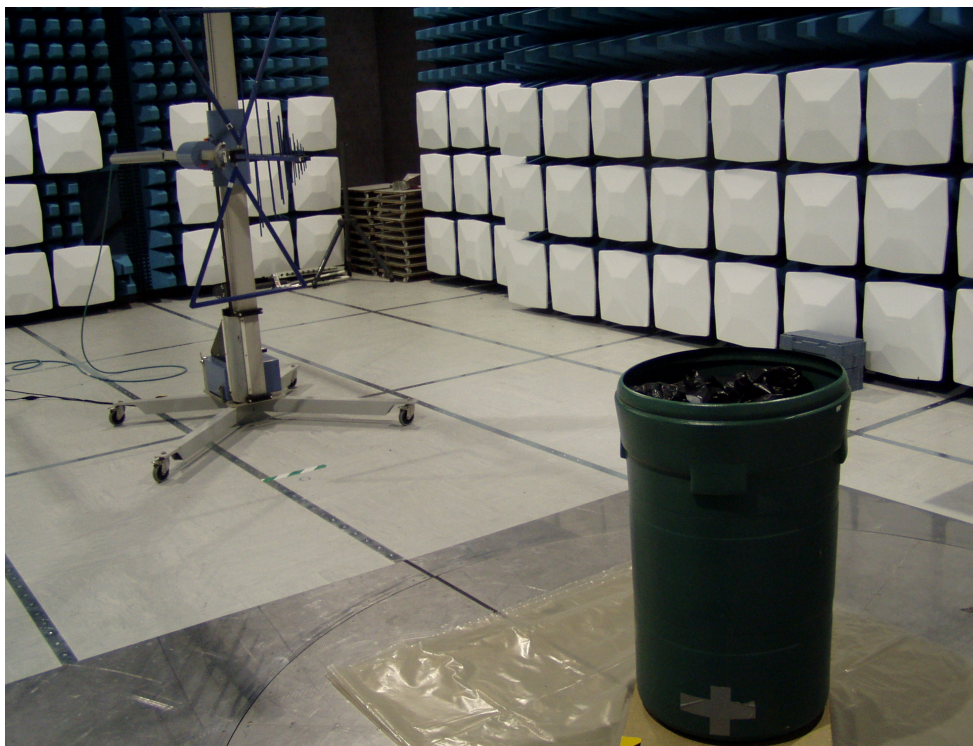


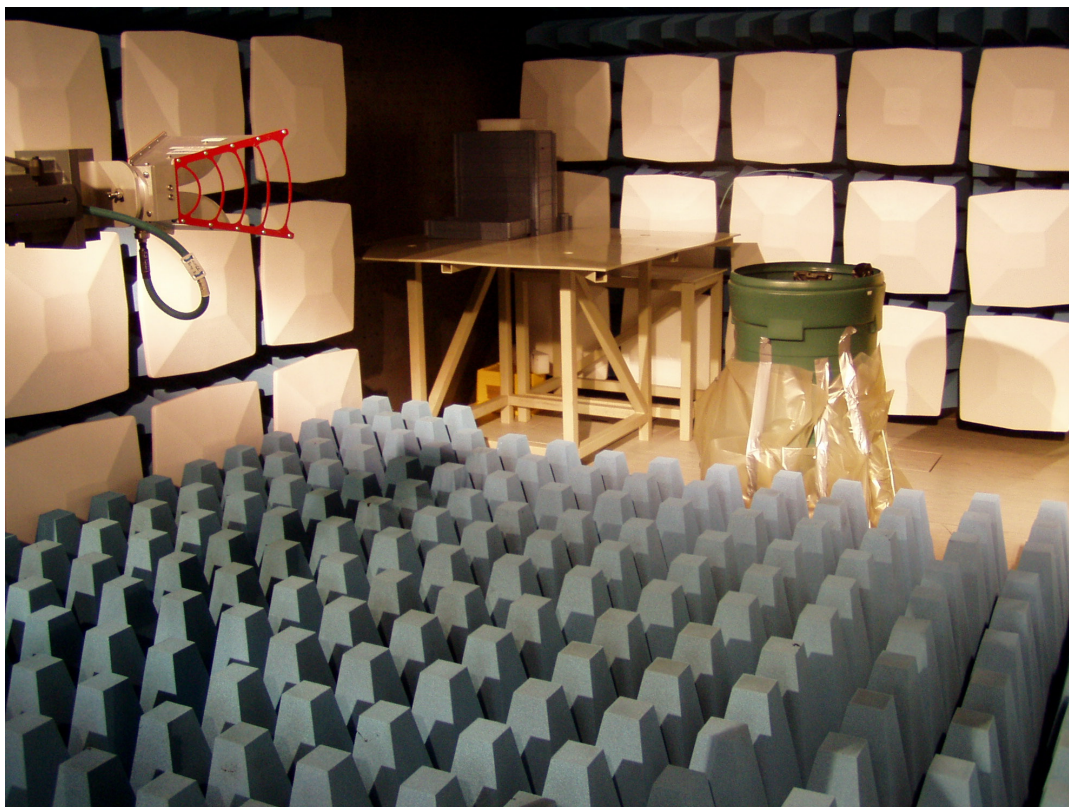
RADIATED EMISSIONS TEST SETUP:



0-1GHz height search, view from Rx antenna



0-1GHz height search, view from EUT.



1-4GHz spurious emissions test at 3m



4-10GHz spurious emissions test at 1m

Annexe A

MS8PTRANSPONDITV2 TEST METHOD

This method of test used was deemed acceptable on earlier versions of this product and to support this is an extract from a test report for an earlier Pit product given FCC certification in 2003, Report Number: 30361246.001, EUT: Water Transponder Model: Ptranspondit V2 submitted by TUV Rheinland of North America refers;

4.1.1.3 PTranspondIT® Test Fixture Description

The test fixture was designed to simulate the actual installation of a PTranspondIT® unit. The unit is always installed inside a pit buried in the ground with the lid of the pit at or slightly below finished grade. The construction of the one cubic meter container is such that the plywood and timber frame is secured with glue and without any metallic fasteners. The cast iron pit has a solid bottom and is fitted with a typical water meter. The cast iron pit is held in place by a surrounding of sand. There is at least six inches of sand at any point around the pit. The cast pit lid is arranged such that its upper surface is level and at a measured 0.8 meters distance above the surface of the turntable. A PVC membrane was installed between the surrounding sand and the container to reduce the likelihood of contaminating the test chamber. The unit under test was mounted to a wood support by securing it with a plastic tie-wrap as would typically occur in an actual installation. The front of the unit under test was facing the antenna while the turntable was at 0° rotation angle. This test configuration represents the worst-case scenario compared to the actual installation.

Annexe B

COMMUNICATION WITH THE FCC

Confirmation was received from the FCC that this method of testing was acceptable providing a cast iron pit was used and not a plastic/aluminium foil simulation. A copy of the enquiry communications are detailed below;

Reply to an OET Inquiry Response
Currently Display Inquiry Tracking Number: 233278

Inquiry Details:
First Inquiry Category: Administrative Requirements
Second Inquiry Category: Measurement Procedures
Third Inquiry Category:

Blue Tower Communications Ltd FCC ID: MS8

We are testing a new radio automatic meter reading transmitter, DataSource915-PIT, to Part 15.249 and we are following the same test method that was employed to certify an earlier product MS8PTransponditV2, in that the equipment is designed to operate in a water meter pit below ground. Therefore to test this product a simulated water pit has been constructed to facilitate testing within a test chamber as utilised during the MS8PTransponditV2 certification process. I am proposing to include the following statement with my submission documents;

1. *Simulated pit description*

The DataSource915-PIT product is designed and certified to be installed inside a water meter pit buried in the ground with the lid of the pit at or slightly below finished grade. Water meter pits are normally made from cast iron and has a solid bottom and solid sides with a cast iron lid providing access to the water meter, three different types of which are shown in the user manual.

In order to simulate the above in a test chamber a fixture was constructed as follows:

A 6 diameter x 14 long plastic tube was wrapped on the bottom and sides with aluminium foil, taped in place with copper tape. This was placed in the centre of a 200-litre plastic container and surrounded by sand. On top of the tube a cast iron pit lid was fitted. The sand was levelled off to the same height as the top of the lid. There was at least 6 of sand at any point around the pit. The cast pit lid was arranged such that its upper surface was level and at a measured 0.8 meters distance above the surface of the turntable. A heavy duty PVC sheet was installed between the surrounding sand and the container to reduce the likelihood of contaminating the test chamber.

The DataSource915-PIT was mounted at the bottom of the tube.

This method of test used and deemed acceptable on earlier versions of this product and to support this is an extract from a test report for an earlier Pit product given FCC certification in 2003, Report Number: 30361246.001, EUT: Water Transponder Model: Ptranspondit V2 submitted by TUV Rheinland of North America refers;

4.1.1.3 PTranspondIT® Test Fixture Description

The test fixture was designed to simulate the actual installation of a PTranspondIT® unit. The unit is always installed inside a pit buried in the ground with the lid of the pit at or slightly below finished grade. The construction of the one cubic meter container is such that the plywood and timber frame is secured with glue and without any metallic fasteners. The cast iron pit has a solid bottom and is fitted with a typical water meter. The cast iron pit is held in place by a surrounding of sand. There is at least six inches of sand at any point around the pit. The cast pit lid is arranged such that its upper surface is level and at a measured 0.8 meters distance above the surface of the turntable. A PVC membrane was installed between the surrounding sand and the container to reduce the likelihood of contaminating the test chamber. The unit under test was mounted to a wood support by securing it with a plastic tie-wrap as would typically occur in an actual installation. The front of the unit under test was facing the antenna while the turntable was at 0° rotation angle. This test configuration represents the worst-case scenario compared to the actual installation.

Could you provide me with FCC's acceptability of employing this method of test so that I may provide clarification to my TCB

Should you require any further information then please do not hesitate to contact me.

Yours sincerely

Peter White

---Reply from Customer on 03/05/2009---

Our new product output power has been set as close as possible to the output power of the MS8TransponditV2 using our in house test facilities. The reason for this is that the new product will use the same production test acceptance parameters as for the MS8TransponditV2. Can this be used to mitigate the difference in simulation?

yours sincerely

Peter White

---Reply from Customer on 03/05/2009---

Response(s):

--OET response sent on Mar 4 2009 2:05PM--

The test procedure used for performing radiated emissions measurements for the MS8PTransponditV2 using a cast iron pit typical of actual installations would be acceptable for testing similar devices. Simulating a cast iron pit with aluminium foil would be questionable.

OET response sent on Mar 6 2009 10:38AM--

Comparison to a previously authorized device does not justify relaxation of the test requirements. To avoid questioning of the test results, you should use the same test procedure as before.