

Chamberlain TCB job #38915

Issues with the 15.249 report

### RF Carrier Power

- Procedure calls out the use of TIA 603 instead of C63.4
- Substitution was used when the limit is in uV/m not dBm
- The procedure makes no mention of rotating the DUT through 360 degrees
- The procedure mentions licensed devices and equivalent power when this is an unlicensed device with a field strength limit
- The procedure mentions average power when readings below 1GHz must be made using a QP detector not an average detector
- The data sheets do show field strength readings for the transmit frequencies. The readings are below the 15.249 limits but I am not sure if they used a QP detector or an average detector.

### Spurious emissions

- Procedure call out TIA 603 and CFR 22 instead of C63.4 and CFR 15
- Procedure states that the test item is transmitting into a non-radiating load (did they really do this? Doesn't this test item have a permanently attached antenna?)
- Procedure calls out substitution method.
- Procedure makes no mention of rotating the test item through 360 degrees.
- Procedure calls out a VBW of 3 x the RBW or 30 kHz per 22.917...why are they using 30kHz and what does 22.917 have to do with this test?

The equipment list for RF Carrier power (radiated) shows that the amplifier is out of cal (cal was due in May of 2005 and the test was performed in Sept of 2005). Then the same amplifier is used for field strength of spurious radiated emissions and it shows a cal due date of May 2006. Which is correct?

The spectrum analyzer (HP 8563E) used in RF Carrier power (radiated) is out of cal (cal was due May 05). But the same analyzer was used for spurious radiated emissions (same serial number) and it shows a cal due date of May 06. Which is correct?

The equipment used for substitution was also out of cal but substitution was not required so I guess that does not matter.

The spurious emissions met the limits but I am unsure how exactly the readings were taken.

Radiated Spurious emissions (non-harmonic) call out TIA 603.

### Emissions Masks (Occupied BW)

- Call out TIA 603
- Procedure states that they connected the antenna port of the test item directly to the spectrum analyzer input. Did they really do this for a permanently attached antenna?

I really have no idea what they are trying to show with these plots. There are plots with a few limit lines but no explanation of the plots.

Page 18 sort of looks like they are trying to show band edge compliance at 926.7MHz  
(89.68dBuV/m – 46 dBuV/m limit) = 43.68 dB down.

But page 19 is not correct for the band edge compliance at 903.19MHz.  
(81.63dBuV/m – 46dBuV/m) = 35.67 dB down. The plot is not even close to this.

Is their test site listed with FCC?

There are no photographs of the test setup.