Date : Dec. 10, 2003

To: Curtis-Straus Certification Dept. Fm: Joseph Poon / VTech

Subject: FCC ID : EW780-5412-00 (Base)

The change made during the testing was deemed to NOT affecting any of the test results done. The following is the explanation of the change & the justification:

1) Discovery of the need of adding the capacitor C123 (1nF)

The capacitor is located at the base spare battery charging circuitry. See separate schematic diagram. Q10 is the trickle charging control transistor. Q1 is the charging current main on/off transistor. Q2 is the constant current transistor. Without the capacitor C123, the circuitry is a little bit unstable & may oscillate at about 70 MHz. We expected a few percents of the future production units might have that problem & affecting the performance of the phones. To prevent the oscillation (by damping the circuitry), the C123 (1nF) is added. This is a very common solution by putting a small capacitor on the B & E terminals of a transistor. The 1nF capacitor has no effect on the low freq. (in the range of Hz) operation of the charging circuitry.

Actually, the use of C123 was already designed in on the schematic diagram & PCB board layout. But for unknown reason, it was removed and marked as N/U before the discovery of the issue.

2) Justification of requiring no additional test

- The tests done before the additions of the capacitor would be a case worse than the one with the change. This applies to AC power line conducted emission & radiated emission. Since the capacitor acts as a damper, no additional digital oscillation is created.
- The involved circuitry is a non-RF circuitry whose operation is in low frequency for spare battery trickle changing.
- This is well within the scope of Class I Permissive Change.
- As the phone designer & manufacturer, we can guarantee that the addition of the said capacitor will only improve the FCC Part 15 test results done by Nemko in the submission.