

## Tune-up procedures

### 1.1 Test Equipment List

- GSM tester: CMU200
- Dummy battery or Power Supply: Agilent 66319D
- PC with serial port
- GPIB card

### 1.2 VCTCXO frequency accuracy adjust procedure

**Function:**

To calibrate the VCTCXO frequency accuracy

**Procedure:**

Step1: Set CMU200 to GSM850 to none signal test mode.

Step2: Set up T520 GSM Handset to transmit at channel 190 at power level 12 by tuning the CMU200.

Step3: Use the CMU200 to measure the frequency error at different AFC DAC.

Step4: Download the parameters to the T520 GSM Handset and AFC algorithm until the frequency error  $\leq 300\text{Hz}$ .

Step5: Set CMU200 to PCS1900 to none signal test mode, repeat from step2 ~ step4, differ from GSM850, channel set up at 661.

### 1.3 The GSM power adjust procedure

**Function:**

After the GSM transmit POWER calibration the T520 can find the relationship between the APC and output power. So it can transmit the specific power according to the 3GPP protocol.

**Procedure:**

Step1: Set CMU200 to GSM850 to none signal test mode.

Step2: Set up T520 GSM Handset to transmit at channel 190 from power level 5 to 19 by tuning the CMU200.

Step3 Tuning the APC steps of T520 GSM Handset from 50 to 400 and measure the output power of the T520 GSM Handset via CMU200, so we can find the relationship between the APC steps and output power.

Step4: Set CMU200 to PCS1900 to none signal test mode, repeat from step2 ~ step3, differ from GSM850 , channel set up at 661.

**Note: The user has no possibility to change these settings later on.**