

Tune Up Procedure

TX Calibration

- Auto Frequency Control (AFC) Calibration
- Auto Power Control (APC) Calibration

RX Calibration

- Auto Gain Control (AGC) Calibration
- Radio Signal Strength Indicator (RSSI) Calibration

Initiation

- Format the Flash File System.
- List the files and check whether the directories are created or not.

AFC Calibration

- Setup the mobile to transmit on the Channel 190 Power level 12
- Measure the Frequency Error
- Adjust AFC to make the Frequency Error approach zero
- Write down AFC value
- Store AFC value

APC Calibration

- Setup the mobile to transmit on the Channel 190 for GSM850, 700 for DCS and 660 for PCS. GSM850 Power Level (PL)= 5~19, DCS/PCS (PL)= 0~15.
- Measure the output power corresponding to the APC.
- Adjust APC to make the output power close to the expected output power for different power level.
- Store APC levels.

AGC Calibration

- Setup the mobile to receive on the ARFCN.
- Set the AGC 34dB in the receiver.
- Set the Generator Level to $TL = -74.5\text{dBm}$.
- Measure the DSP_PM
- Calculate Gmagic value
- Store Gmagic value

RSSI Calibration

- Setup the mobile to receive on the ARFCN, GSM850: $n=190$, DCS: $n=700$, PCS: $n=660$.
- Set the AGC 34dB in the receiver.
- Set the Generator Level to $TL = -74.5\text{dBm}$.
- Measure the DSP_PM
- Calculate ChanCalX value.
- Store ChanCalX value.

RSSI Calibration

- For GSM, DCS and PCS

GSM has 10 intervals of ARFCN to be calibrated.

DCS/PCS has 7 intervals of ARFCN to be calibrated.