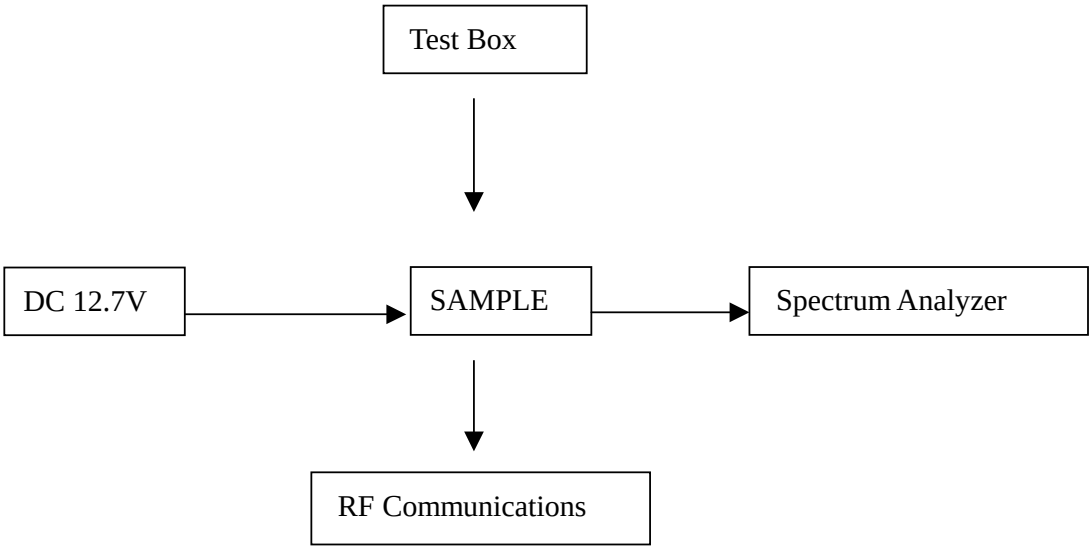
CB Module Tuning Procedure



1. RX TUNING

1.VCO

Adjust TC 20P variable capacitor till tolerance of 10MHz reference point is within ± 100Hz.(measure at TP8 by cymometer)

Adjust T12 coil, let VCO output is 1.9V ±0.2V at 40CH.(Measure point is at TP3 by mechanical Voltage meter)

2. TX.

Press TEST BOX AM/FM button to switch between AM and FM

2.1 AM/FM: Press PTT, adjust TC (Frequency Tolerance TUNING), so that the output frequency is similar to desire channel such as 27.405MHZ for channel 40.

2.2 AM: adjust VR2 (AM MODULATION TUNING) to let AM MOD at 80%~85% and MAX is not over 100%.

2.3 AM/FM: tune T6 T7 T8 and VR200(TX POWER /TX DIST TUNING) to adjust the TX POWER and find out the distortion is minimum point. (AM AT 80% MOD, DIST is less than 10%; FM DIST is less than 8%). After that we have to tune the TX Power within 3.6W to 4W by adjusting VR200.

2.4 FM: Adjusting VR4 (Frequency Deviation) to let FM frequency shift between 1.7K~1.9K and Maximum is not over 2K.

3. RX TUNING

. Press TEST BOX AM/FM button to switch between AM and FM.

3.1 AM/FM: Adjust L1~L3, T1, T2 to make the best sensitivity and S/N. It should be at 12dB SINAD and the S/N is at least –109dB..

3.2 FM : AdjustT3(SENSITIVITY AND S/N) to let the SINAD be the best..

3.3 AM/FM : Adjust VR1(AUDIO OUTPUT) to let the audio output for FM 0.1~0.32V and AM 0.12~0.16V

3.4 Adjust VR20(SQ), when INPUT is 62dBuV and OUTPUT would be 3.8V. Testing Point is at TP1.

2.WX Tuning

Description: WX is just a 1050Hz signal warning system.

A. Frequency reference point is as TP5. It should be 10.25MHz ±60Hz.

B. The voltage at TP6 should be 1.5 to 1.75V. If not, tune L6 till get the desired value

C. Set the testing point at the output of TP4, tune T4 till getting maximum sensitivity and minimum distortion.

D. Set the testing point at TP10 for 1050Hz signal testing. Usually, voltage at TP10 should be high (4.9V). Upon receipt 1050Hz signal, the voltage should be low (0V).

The above testing is following ETS300-135 standard for FM, EIA/TIA-382-A for AM including (FCC/CE and client requirement)

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