Tune-up Procedure over Power Range M600W Adjustment and Test Procedure

1. Overview
With ordinary use in clean, dry environments, no periodical alignment should be necessary for M600W.

2. Test equipment & Accessory
The equipments and accessories listed below requires in order to proper test in the shield room.
- Equipment
  - WIMAX

No.	Equipment Name	Company	Part Number
1	Spectrum Analyzer	Agilent	N9020A
2	Signal Generator	Agilent	N5183A
3	Power Supply	Agilent	E3648A

- Accessory

WIMAX
RF Cable, USB A type receptacle Cable, Power Splitter, Coupler, etc..

3. Test Configuration
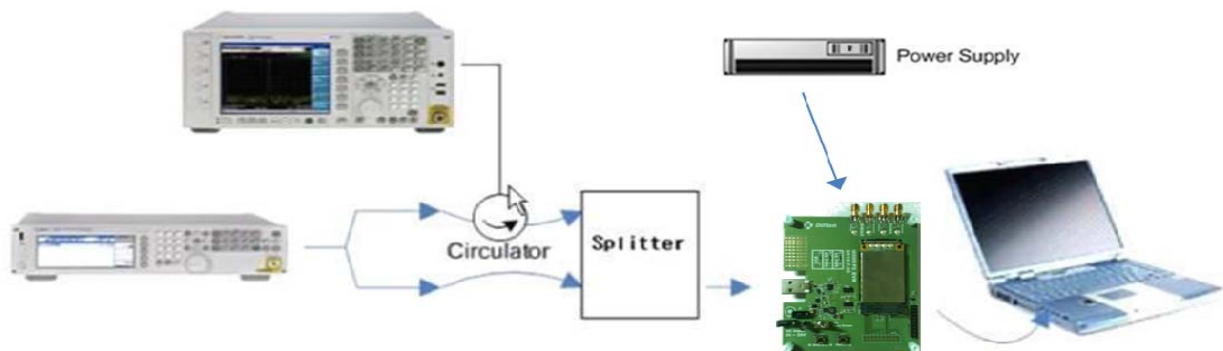The configuration for adjustment and test is shown in below WIMAX Figure1

Figure 1. Configuration for Adjustment and Test of WIMAX mode

4. Test Procedure
A. Calibration equipment N9020A, N5183A and the M600W are connected through GPIB.
B. Target power (required power level according to the specification which should be set by calibration Program) is set to equipment as power level (ex : WIMAX max power is 23dBm).
C. Active M600W in Test mode.
D. N9020A, N5183A equipment measures transmitted power through RF test cable from the M600W and reports measured level to calibration program.
E. The program compares measured power with the target power.
F. The calibration program decides power code which is defined in advance in the program and writes the code to the flash memory in the M600W.

5. Range of operating power levels
The operating power levels is divided into step WIMAX mode

TX PA Driver steps 1-20 (0dB<step<1.5dB)

TX PA Driver step 21 (9dB<step<12dB)

All TX PGA steps (1.5dB<step<2.5dB)

6. Range of operating power levels

The TX PA Driver(TX PADRV) has22 steps that range from index 0 to 21. For indices 0 though 21, the step values from one TX PA Driver attenuation index to the next are stored in the TX1 PA Drv attn Steps table in the EEPROM. The difference in attenuation between index 0 and index 1 is stored in the pa Drv Attn step index 1 field, while the difference in attenuation between index 1 and index 2 is stored in the PA Drv Attn step index 1 field, and so on. The approximate step size for steps 1 through 20 is 1 dB. The Difference in attenuation between index 20 and index 21 is approximately 10dB and is stored in the TX PA Drv Index 21 field in the EEPROM. The Tx1 PA Drv index 0 should never be modified.