# Tune up procedure

## mBSC0800S-005-RUCM11

**V1.0**

November 16, 2014

# 1. purpose

This manual is intended to document the design and structure of the MBSC0800S-005-RUCM11 test, with all other relevant topics to provide users with instructions on its usage and maintenance.

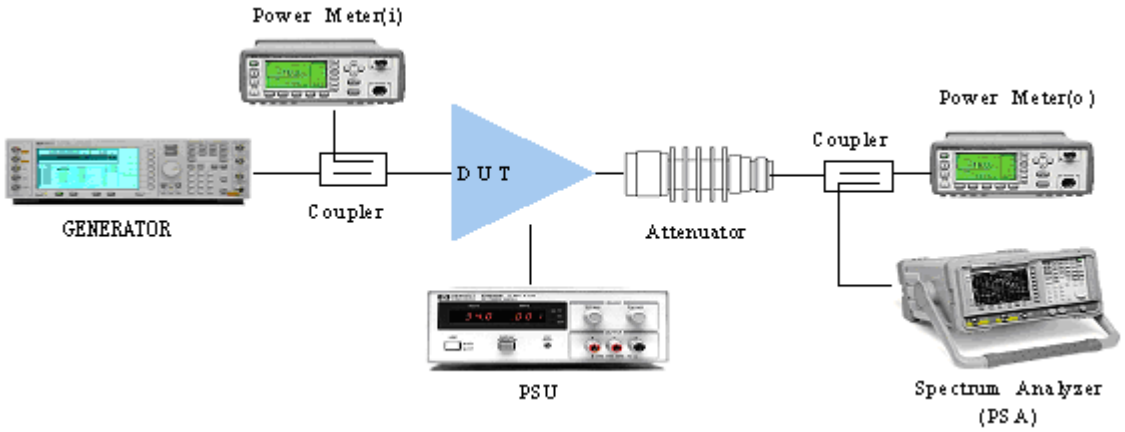
# 2. Hardware

Test setup consists of some instrument, a computer system and software, table 1 contains a list of the included equipment and components. Figure 1 show s the setup for DAS system test.

Table 1: List of equipment

| Qty. | Description | Manufacture | Part Number | Option | Comments |
|---|---|---|---|---|---|
| 1 | Signal generator | IRF | IRF3413 | | Or Equivalent |
| 1 | Spectrum analyzer | R&S | FSEA | | Or Equivalent |
| 2 | Power meter | Agilent | E4418B | | Or Equivalent |
| 1 | Power supply | Lambda | GN60-55 | | Or Equivalent |
| 1 | RS232 serial cable | | | | |
| 1 | 150W attenuator 30dB | HuaXiang | | | |
| 2 | Wideband coupler 20dB | HuaXiang | | | |
| 1 | 10W attenuator 20dB | HuaXiang | | | |
| 1 | Computer workstation | IBM | | | |
| 4 | RF cable 2 meter | | | | |

Figure 1: Downlink test setup




# 3. Calibration

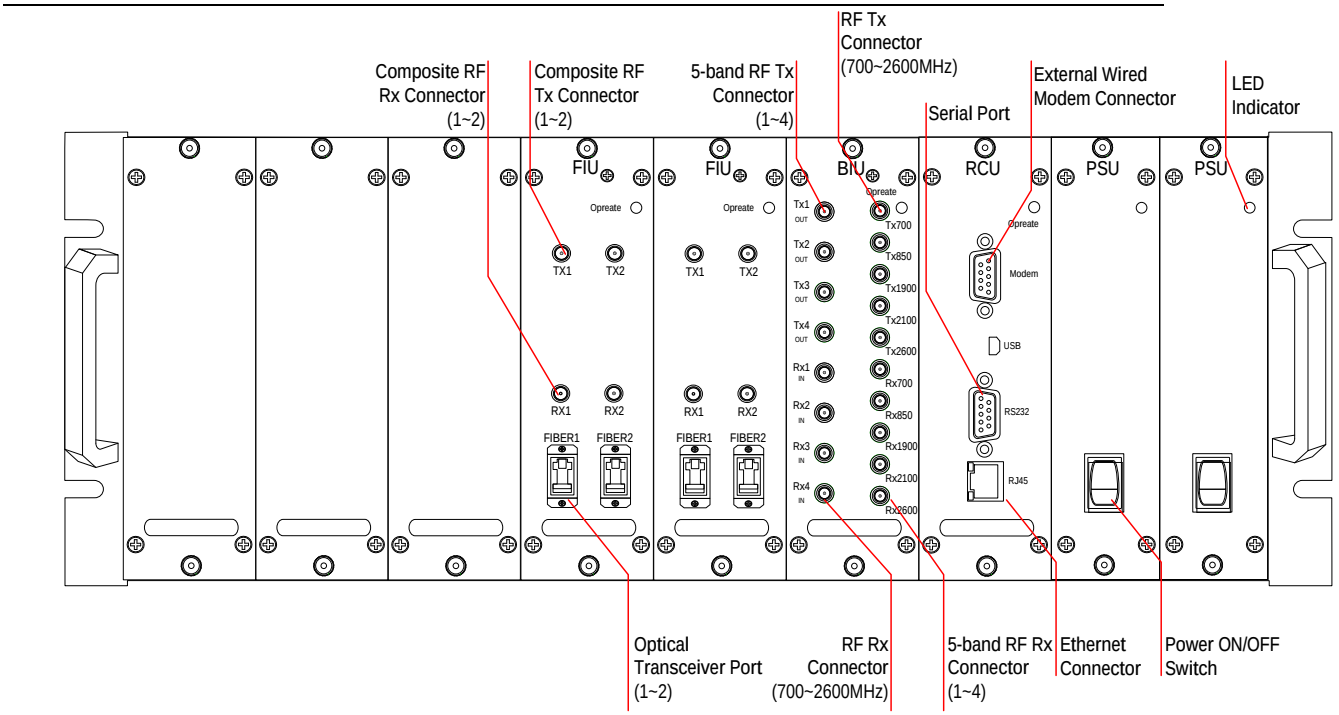
We must measure the insertion loss form MBSC system output port to output power meter sensor, and set the value to output power meter and spectrum analyzer as offset;

Setting the coupling ratio of input coupler to input power meter as offset;

# 4. Interface introduce

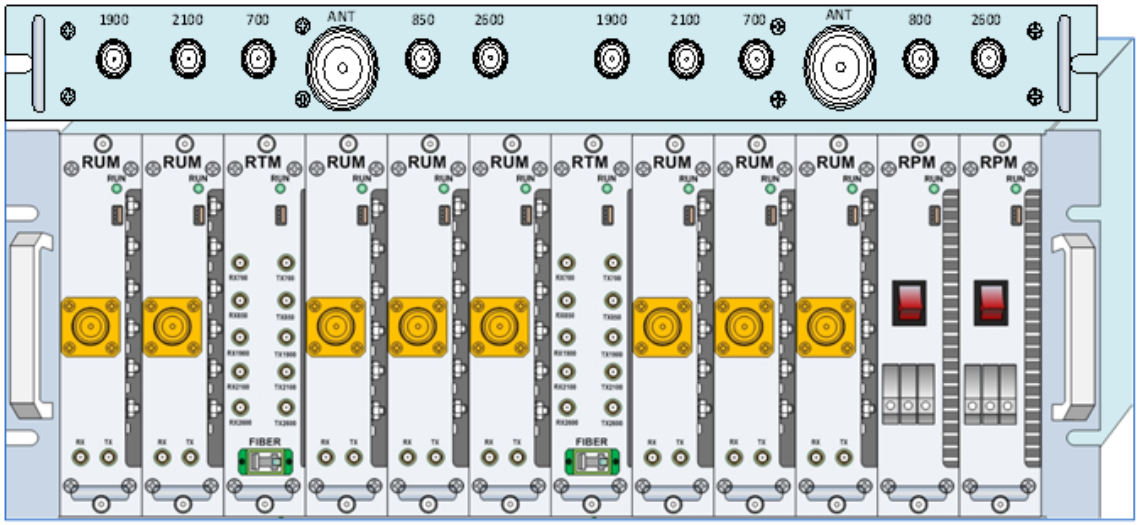
## Host unit interface

Figure 3: Host unit interface




**Remote unit interface**

Figure 4: Remote unit interface




## 5. Adjustment description

### Downlink test

1). Set up the structure according to the figure 1.

2). Connect the signal generator to TX-1 port or TX-2 port of Host unit BIU module, connect the Remote unit and Host unit with fiber cable, output signal comes from

ANT port of 0800RUM.

3). Signal generator setup:

Signal type: RFN11_Spaced_5MHz_1489

Frequency allocation:

Lower frequency: 855MHz

Middle frequency: 860MHz

High frequency: 865MHz.

4). Spectrum analyzer setup:

RBW→30KHz; VBW→300KHz; SPAN: 30MHz; Sweep time: 1S;

Spectrum Analyzer's offset value according the attenuation from PA output to input port of spectrum analyzer.

5). Power meter must to be calibration and set the offset value according to attenuation from PA output to power sensor.

6). Turn on the signal generator.

7). than confirm standard Unwanted emissions etc.