

Tune up procedure

The output power setting of EUT is set in the factory and followed the max average level in below. There is no tune up procedure except factory default setting.

RF average conduct power range:

► 1.1 GSM850

Output power of range:

GSM: $32\text{dBm} \pm 1\text{dBm}$

GPRS (GMSK):

1TXslot: $32.0\text{dBm} \pm 1.0\text{dBm}$

2TXslot: $31.0\text{dBm} \pm 1.0\text{dBm}$

3TXslot: $29.0\text{dBm} \pm 1.0\text{dBm}$

4TXslot: $27.0\text{dBm} \pm 1.0\text{dBm}$

EGPRS(8PSK):

1TXslot: $26.0\text{dBm} \pm 1.0\text{dBm}$

2TXslot: $26.0\text{dBm} \pm 1.0\text{dBm}$

3TXslot: $25.0\text{dBm} \pm 1.0\text{dBm}$

4TXslot: $22.0\text{dBm} \pm 1.0\text{dBm}$

► 1.2 GSM1900

Output power of range:

GSM: $30\text{dBm} \pm 1.0\text{dBm}$

GPRS(GMSK):

1TXslot: $30.0\text{dBm} \pm 1.0\text{dBm}$

2TXslot: $27.0\text{dBm} \pm 1.0\text{dBm}$

3TXslot: $25.0\text{dBm} \pm 1.0\text{dBm}$

4TXslot: $23.5\text{dBm} \pm 1.0\text{dBm}$

EGPRS(8PSK):

1TXslot: $25.0\text{dBm} \pm 1.0\text{dBm}$

2TXslot: $25.0\text{dBm} \pm 1.0\text{dBm}$

3TXslot: $24.5\text{dBm} \pm 1.0\text{dBm}$

4TXslot: $22.5\text{dBm} \pm 1.0\text{dBm}$

► 1.3 WCDMA850:

Output power of range:

WCDMA: $24.0 \pm 1.0\text{dBm}$

HSDPA: $22.5 \pm 1.0\text{dBm}$

HSUPA: $21.5 \pm 1.0\text{dBm}$

► 1.4 WCDMA1700:

Output power of range:

WCDMA: $22.5 \pm 1.0\text{dBm}$

HSDPA: $22.0 \pm 1.0\text{dBm}$

HSUPA: $21.5 \pm 1.5 \text{ dBm}$

► **1.5 WCDMA1900:**

Output power of range:

WCDMA: $23.5 \pm 1.0 \text{ dBm}$

HSDPA: $23.5 \pm 1.0 \text{ dBm}$

HSUPA: $21.5 \pm 1.0 \text{ dBm}$

► **1.6 LTE Band 2:**

Output power of range:

1.4M:QPSK: 1RB: $22.0 \pm 1.0 \text{ dBm}$

3%RB: $22.0 \pm 1.0 \text{ dBm}$

6%RB: $21.5 \pm 1.5 \text{ dBm}$

16-QAM: 1RB: $22.0 \pm 1.0 \text{ dBm}$

3%RB: $22.0 \pm 1.0 \text{ dBm}$

6%RB: $21.5 \pm 1.5 \text{ dBm}$

3M:QPSK:1RB: $22.0 \pm 1.0 \text{ dBm}$

7%RB: $21.0 \pm 1.0 \text{ dBm}$

15%RB: $21.0 \pm 1.0 \text{ dBm}$

16-QAM: 1RB: $21.0 \pm 1.0 \text{ dBm}$

7%RB: $21.0 \pm 1.0 \text{ dBm}$

15%RB: $21.0 \pm 1.0 \text{ dBm}$

5M: QPSK:1RB: $22.0 \pm 1.0 \text{ dBm}$

12%RB: $21.0 \pm 1.0 \text{ dBm}$

25%RB: $21.5 \pm 1.0 \text{ dBm}$

16-QAM: 1RB: $20.0 \pm 1.0 \text{ dBm}$

12%RB: $21.0 \pm 1.0 \text{ dBm}$

25%RB: $20.0 \pm 1.0\text{dBm}$

10M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $21.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

50%RB: $20.0 \pm 1.0\text{dBm}$

15M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

36%RB: $21.0 \pm 1.0\text{dBm}$

75%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $21.0 \pm 1.0\text{dBm}$

36%RB: $21.0 \pm 1.0\text{dBm}$

75%RB: $20.0 \pm 1.0\text{dBm}$

20M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

100%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $21.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

100%RB: $20.0 \pm 1.0\text{dBm}$

► 1.8 LTE Band 4:

Output power of range:

1.4M:QPSK: 1RB: $23.0 \pm 1.0\text{dBm}$

3%RB: $23.0 \pm 1.0\text{dBm}$

6%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $23.0 \pm 1.0\text{dBm}$

3%RB: $23.0 \pm 1.0\text{dBm}$

6%RB: $21.5 \pm 1.0\text{dBm}$

3M:QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

7%RB: $22.0 \pm 1.0\text{dBm}$

15%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

7%RB: $22.0 \pm 1.0\text{dBm}$

15%RB: $21.0 \pm 1.0\text{dBm}$

5M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

12%RB: $22 \pm 1.0\text{dBm}$

25%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $21.0 \pm 1.0\text{dBm}$

12%RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

10M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

15M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

36%RB: $22.0 \pm 1.0\text{dBm}$

75%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

36%RB: $22.0 \pm 1.0\text{dBm}$

75%RB: $21.0 \pm 1.0\text{dBm}$

20M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

50%RB: $22.0 \pm 1.0\text{dBm}$

100%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22 \pm 1.0\text{dBm}$

50%RB: $22 \pm 1.0\text{dBm}$

100%RB: $21.0 \pm 1.0\text{dBm}$

► 1.9 LTE Band 5:

Output power of range:

1.4M:QPSK: 1RB: $23.0 \pm 1.0\text{dBm}$

3%RB: $23.0 \pm 1.0\text{dBm}$

6%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $23.0 \pm 1.0\text{dBm}$

3%RB: $23.0 \pm 1.0\text{dBm}$

6%RB: $21.5 \pm 1.0\text{dBm}$

3M:QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

7%RB: $22.0 \pm 1.0\text{dBm}$

15%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

7%RB: $22.0 \pm 1.0\text{dBm}$

15%RB: $21.0 \pm 1.0\text{dBm}$

5M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

12%RB: $22 \pm 1.0\text{dBm}$

25%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $21.0 \pm 1.0\text{dBm}$

12%RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

10M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.5 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

► 2.0 LTE Band 7:

Output power of range:

5M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

12%RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

12%RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

10M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

15M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

36%RB: $22 \pm 1.0\text{dBm}$

75%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

36%RB: $22.0 \pm 1.0\text{dBm}$

75%RB: $21.0 \pm 1.0\text{dBm}$

20M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

50%RB: $22.0 \pm 1.0\text{dBm}$

100%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $22.0 \pm 1.0\text{dBm}$

100%RB: $21.0 \pm 1.0\text{dBm}$

► 2.1 LTE Band 12:

Output power of range:

1.4M:QPSK: 1RB: $23.0 \pm 1.0\text{dBm}$

3%RB: $23.0 \pm 1.0\text{dBm}$

6%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $23.0 \pm 1.0\text{dBm}$

3%RB: $22.0 \pm 1.0\text{dBm}$

6%RB: $21.0 \pm 1.0\text{dBm}$

3M:QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

7%RB: $22.0 \pm 1.0\text{dBm}$

15%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

7%RB: $22.0 \pm 1.0\text{dBm}$

15%RB: $21.0 \pm 1.0\text{dBm}$

5M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

12%RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

12%RB: $21.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

10M: QPSK:1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $22.0 \pm 1.0\text{dBm}$

50%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $22.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

► 2.2 LTE Band 13:

Output power of range:

5M:QPSK: 1RB: 23.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 21.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 21.0 ± 1.0 dBm

10M:QPSK:1RB: 23.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 21.0 ± 1.0 dBm

► 2.3 LTE Band 17:

Output power of range:

5M: QPSK:1RB: 23.0 ± 1.0 dBm

12%RB: 22 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 22.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 21.0 ± 1.0 dBm

10M: QPSK:1RB: 23.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 23.0 ± 1.0 dBm

25%RB: 21.0 ± 1.0 dBm

50%RB: 21.0 ± 1.0 dBm

► 2.4 LTE Band 26:

Output power of range:

1.4M:QPSK: 1RB: $20.0 \pm 1.0\text{dBm}$

3%RB: $19.0 \pm 1.0\text{dBm}$

6%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $17.0 \pm 1.0\text{dBm}$

3%RB: $19.0 \pm 1.0\text{dBm}$

6%RB: $21.0 \pm 1.0\text{dBm}$

3M:QPSK:1RB: $16.0 \pm 1.0\text{dBm}$

7%RB: $17.0 \pm 1.0\text{dBm}$

15%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $17.0 \pm 1.0\text{dBm}$

7%RB: $17.0 \pm 1.0\text{dBm}$

15%RB: $20.0 \pm 1.0\text{dBm}$

5M: QPSK:1RB: $20.0 \pm 1.0\text{dBm}$

12%RB: $21.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $17.0 \pm 1.0\text{dBm}$

12%RB: $21.0 \pm 1.0\text{dBm}$

25%RB: $20.0 \pm 1.0\text{dBm}$

10M: QPSK:1RB: $19.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

50%RB: $21.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $17.0 \pm 1.0\text{dBm}$

25%RB: $21.0 \pm 1.0\text{dBm}$

50%RB: $20.0 \pm 1.0\text{dBm}$

► 2.5 LTE Band 38:

Output power of range:

5M:QPSK: 1RB: 23.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 22.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

10M:QPSK:1RB: 23.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 21.0 ± 1.0 dBm

15M: QPSK:1RB: 23.0 ± 1.0 dBm

36%RB: 22.0 ± 1.0 dBm

75%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 22.0 ± 1.0 dBm

36%RB: 22.0 ± 1.0 dBm

75%RB: 21.0 ± 1.0 dBm

20M: QPSK:1RB: 23.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

100%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 23.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

100%RB: 22.0 ± 1.0 dBm

► 2.6 LTE Band 40:

Output power of range:

5M:QPSK: 1RB: 21.0 ± 1.0 dBm

12%RB: 20.0 ± 1.0 dBm

25%RB: 20.0 ± 1.0 dBm

16-QAM: 1RB: 21.0 ± 1.0 dBm

12%RB: 20.0 ± 1.0 dBm

25%RB: 20.0 ± 1.0 dBm

10M:QPSK:1RB: 21.0 ± 1.0 dBm

25%RB: 20.0 ± 1.0 dBm

50%RB: 20.0 ± 1.0 dBm

16-QAM: 1RB: 21.0 ± 1.0 dBm

25%RB: 20.0 ± 1.0 dBm

50%RB: 20.0 ± 1.0 dBm

► 2.7 LTE Band 41:

Output power of range:

5M:QPSK: 1RB: 23.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 23.0 ± 1.0 dBm

12%RB: 22.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

10M:QPSK:1RB: 23.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 23.0 ± 1.0 dBm

25%RB: 22.0 ± 1.0 dBm

50%RB: 22.0 ± 1.0 dBm

15M: QPSK:1RB: 23.0 ± 1.0 dBm

36%RB: 22.0 ± 1.0 dBm

75%RB: 22.0 ± 1.0 dBm

16-QAM: 1RB: 23.0 ± 1.0 dBm

36%RB: 22.0 ± 1.0 dBm

75%RB: 22.0 ± 1.0 dBm

20M: QPSK:1RB: $23.0 \pm 1.0\text{dBm}$

50%RB: $22.0 \pm 1.0\text{dBm}$

100%RB: $22.0 \pm 1.0\text{dBm}$

16-QAM: 1RB: $23.0 \pm 1.0\text{dBm}$

50%RB: $22.0 \pm 1.0\text{dBm}$

100%RB: $22.0 \pm 1.0\text{dBm}$

► 2.8 WIFI:

△ For 802.11b:

Power= $12.5\text{dBm} \pm 2.0\text{dBm}$

△For 802.11g:

Power= $12.5\text{dBm} \pm 2.0\text{dBm}$

△For 802.11n(20M):

Power= $12.5\text{dBm} \pm 2.0\text{dBm}$

► 2.9 BT:

Power $\leq 5.0\text{dBm}$

By:



Signature

ZHU TAN

Printed

Title:

Certification Manager

On behalf of :

HONGKONG U-CLOUDLINK NETWORK
TECHNOLOGY LIMITED