

Tune-up Procedures

1.1. Range of operating power levels

The operating power level is divided into 16 steps in GSM1900 mode.

1.1.1. GSM1900 mode : 0dBm $\pm$ 5dB(normal) / $\pm$ 6dB(extreme) ~ 30dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)

- Level 0 : 30dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 1 : 28dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 2 : 26dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 3 : 24dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 4 : 22dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 5 : 20dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 6 : 18dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 7 : 16dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 8 : 14dBm $\pm$ 3dB (normal) / $\pm$ 4dB(extreme)
- Level 9 : 12dBm $\pm$ 4dB (normal) / $\pm$ 5dB(extreme)
- Level 10 : 10dBm $\pm$ 4dB (normal) / $\pm$ 5dB(extreme)
- Level 11 : 8dBm $\pm$ 4dB (normal) / $\pm$ 5dB(extreme)
- Level 12 : 6dBm $\pm$ 4dB (normal) / $\pm$ 5dB(extreme)
- Level 13 : 4dBm $\pm$ 4dB (normal) / $\pm$ 5dB(extreme)
- Level 14 : 2dBm $\pm$ 5dB (normal) / $\pm$ 6dB(extreme)
- Level 15 : 0dBm $\pm$ 5dB (normal) / $\pm$ 6dB(extreme)

1.2. Means for variation of operating power

The RF interface of ADI communicates with the RF analog circuitry. This RF interface performs gain controls of Power amplifier (PA) and AGC (automatic gain control) amplifier using digital control signals.

The circuit functions of the SKYWORKS include the Rx AGC amplifier with 90dB dynamic range, quadrature down converting mixer, down-conversion from RF to analog base band, low-pass filters.

The RF power output level is detected and then this information is sent to the ADI. The software controls power management in ADI controls, adjusts TX-signal + RX-signal fixed.