

## Tune up procedure

To set up transmit power before shipping, the calibration should use a manufacturing process which is called "Calibration of Rx and Tx power over the dynamic range"

GSM technical standard requires GSM module to transmit more than +33dBm output power when it is required to transmit its maximum power. Therefore,

GSM test sets the maximum power of the module to +33dBm (+/-) 2dB.

(DCS: +30dBm (+/-) 2dB, PCS: +30dBm (+/-) 2dB) . By adjusting Tx AGC Amplifier built in the GSM module, transmit power can be limited to +33dBm (+/-) 2dB. (DCS: +30dBm (+/-) 2dB, PCS: +30dBm (+/-) 2dB.)

Transmit power calibration consists of transmit linearizer calibration, and power compensation calibration over the frequency.

During the transmit linearizer calibration, the module searches for 16 AGC adjust values for the 16 power levels within the dynamic range including the maximum output power and saves these AGC adjust values in the memory device in the module. These searched AGC adjust values set the maximum power of the module.

To prevent the variation in maximum power over the frequency, the transmit circuit is calibrated over the frequency and compensation values are found. These values are also used to limit the maximum output power to +33dBm (+/-) 2dB.

(DCS : +30dBm (+/-) 2dB, PCS: +30dBm (+/-) 2dB.)

Also to prevent the variation in maximum power over the frequency, the transmit circuit is calibrated over the frequency and compensation values are found. These are also used to limit the maximum output power to +33dBm (+/-) 2dB (DCS : +30dBm (+/-) 2dB, PCS: +30dBm (+/-) 2dB.) when there is a variation in frequency..