

Radio Frequency (RF)

Transmitter

The internal PA has a maximum output power of +4dBm with level control 8dB from amplitude control. This is applied into Class2/3 radios without external RF PA. If you want a larger output power for Class1 application, the external PA can be used. The transmitter features IQ direct conversion to minimize the frequency drift. And it can excess 30dB power range with temperature compensation machine.

Receiver

The LNA can be operated into two type modes. One type is TR-combined mode for single port application. The other type is TR-separated mode for dual port application that used an external PA/LNA application. The image rejection filter is to reject image frequency for low-IF architecture. This filter for low-IF architecture is implied to reduce external BPF component for super heterodyne architecture. The ADC is utilized to sample input analogue wave to convert into digital for de-modulator analysis. Before the ADC, a channel filter has been integrated into receiver channel that can reduce the external component count and increase the anti-interference capacity. For avoiding temperature variation issues, a temperature sensor with temperature calibration is utilized into bias current and gain control of LNA, Mixers, and RF AMP.