

## Operational Description

The product, RK950NAT, is a remote keyless entry. It transmits activation codes to the receiver in vehicles in order to lock/unlock the car door.

The EUT is powered from a 3V Lithium battery.

See block diagram and schematics.

RF module consists of a fully integrated voltage-controlled oscillator (VCO), a divide-by-32 divider (div32), a phase-frequency detector (PFD) and a charge pump (CP). An internal loop filter determines the dynamic behavior of the PLL and suppresses reference spurious signals. A Colpitts crystal oscillator (XOSC) is used as the reference oscillator of a phase-locked loop (PLL) synthesizer. The VCO's output signal feeds the power amplifier (PA). The RF signal power  $P_{out}$  is adjusted by the resistor, R1-120kohms. The open-collector output (OUT) is used to be matched to PCB pattern antenna.

