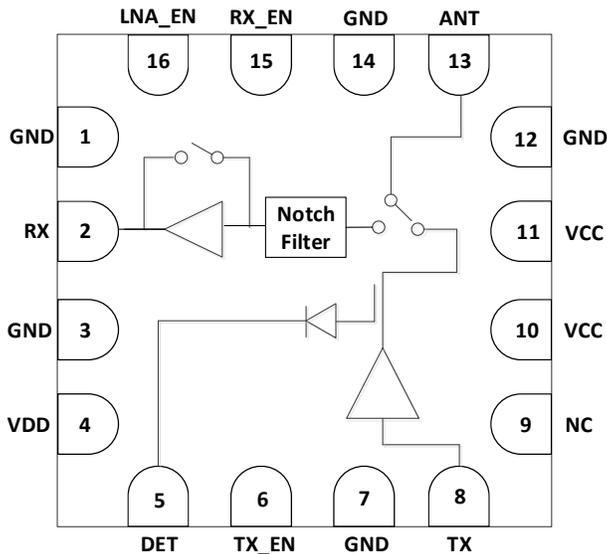




5GHz WLAN 802.11ac RFIC WITH PA, LNA AND SPDT



Description

KCT8525D is a highly integrated RF Front-End Integrated Circuit incorporates key RF functionality needed for IEEE 802.11a/n/ac WLAN systems operating in the 5.15-5.85GHz range. KCT8525D integrates a high-linearity power amplifier (PA), a low noise amplifier (LNA) with bypass, the associated matching network, LO rejection, and harmonic filters all in one device.

KCT8525D has simple and low-voltage control logic, and requires minimal external components. A power detector is also integrated for accurate monitoring of output power from the PA.

KCT8525D is assembled in a compact, low-profile 2.5x2.5x0.55mm 16-lead QFN package. KCT8525D is the ideal RF front-end solution for implementing 5GHz high-power WLAN systems supporting multiple standards including 802.11a/n/ac.

Applications

- ▶ 802.11ac Wi-Fi Devices
- ▶ Tablets / MIDs
- ▶ Wi-Fi Media Gateways
- ▶ Consumer Electronics
- ▶ Notebook / Netbook / Ultrabook
- ▶ Access Points / Routers
- ▶ Set Top Boxes / Wireless IPTVs
- ▶ Other 5GHz ISM Platforms

FEATURES

- ▶ Integrated high performance 5GHz PA, LNA with bypass and T/R switch
- ▶ Fully-matched input and output
- ▶ Integrated power detector
- ▶ Transmit gain : 30.5dB
- ▶ Receive gain: 13.5dB
- ▶ Output power: +20.5dBm @ 1.8% DEVM, VHT80/MCS9, 5V
- ▶ Output power: +21.5dBm @ 3% DEVM, HT40/MCS9, 5V
- ▶ Integrated 2.4GHz Notch Filter
- ▶ ESD protection circuitry on all PINs
- ▶ DC decoupled RF ports
- ▶ Minimal external components required
- ▶ Small package: QFN16 2.5mm x 2.5mm x0.55mm (MSL3, 260 °C per JEDEC J-STD-020)
- ▶ ROHS and REACH Compliant