DX7282
2.4GHz 802.11be DPD FEM

Key Features

- Frequency Range: 2.4- 2.5GHz
- 5.0/3.3V Wide Supply Voltage
- Output Power
  - · 22.0dBm @ -45dB HE40 MCS13 (w/ DPD)
  - · 23.0dBm @ -43dB HE40 MCS11 (w/ DPD)
  - · 25.0dBm @ -35dB VHT40 MCS9 (w/ DPD)
  - · 27.5dBm @ HT20 MCS0 Mask
- Current Consumption
  - · 165mA Quiescent Current
  - · 395mA @ 28.0dBm HT20 MCS0
- 31.5dB TX Gain
- 13.5dB RX Gain
- 1.7dB Noise Figure
- Superior gain flatness
- Integrated input and output matching circuit
- Small footprint LGA (3.0 x 3.0 x 0.684mm package)
- MSL (Moisture Sensitivity Level)= 3

Applications

For devices compliant with IEEE802.11b/g/n/ax/be WLAN standards:

- Access Points
- Wireless Routers
- Residential Gateways
- Customer Premise Equipment
- Internet of Things

Product Description

The DX7282 is a Wi-Fi 7 (802.11be) RF front-end module (FEM) optimized for 2.4GHz WLAN systems. It integrates a super high efficiency 2.4GHz power amplifier (PA), RF coupler, low-insertion-loss SPDT switch.

The DX7282 provides a comprehensive transmit and receive solution, leveraging its high-efficiency PA, low-noise LNA, and low-loss SPDT switch to enhance signal quality, extend communication range, and improve energy efficiency for WLAN devices.

The DX7282 also integrates an RF power detector with voltage output, enabling precise RF power monitoring and calibration.

Functional Block Diagram