DX7582

5GHz 802.11be High Efficiency WLAN FEM

Key Features

- Frequency range: 5.15- 5.85GHz
- 5.0V/3.3V Wide Supply Voltage
- Output Power
  - 19.5dBm @ -45dB EHT160 MCS13 (w/DPD)
  - 22.0dBm @ -43dB HE80 MCS11 (w/ DPD)
  - 23.5dBm @ -35dB VHT80 MCS9 (w/ DPD)
  - 27.0dBm @ HT20 MCS0 Mask
- Current Consumption
  - 165mA Quiescent Current
  - 395mA @ 27dBm HT20 MCS0
- 31.0dB TX Gain
- 16.0dB RX Gain
- 1.8dB Noise Figure
- Superior gain flatness
- Integrated input and output matching circuit
- Small footprint LGA (3.0*3.0*0.684mm package)
- MSL (Moisture Sensitivity Level)= 3

Applications

For devices compliant with IEEE802.11a/n/ac/ax/be WLAN standards:

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

Product Description

The DX7582 is a Wi-Fi 7 (802.11be) RF front-end module (FEM) optimized for 5.15 – 5.85GHz WLAN systems. It integrates an ultra-high efficiency power amplifier (PA), RF coupler, low-noise amplifier (LNA), and low-insertion-loss SPDT switch.

The DX7582 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.

Additionally, the DX7582 integrates an RF power detector with voltage output for accurate RF power monitoring and calibration.

Functional Block Diagram