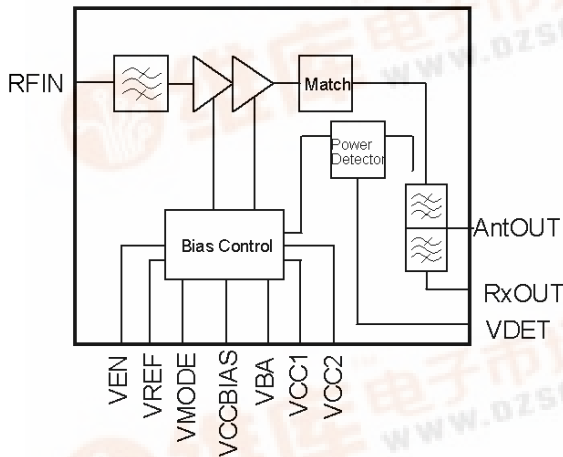


**3V PCS Band WCDMA PA-Duplexer-Module**

**Functional Block Diagram**



**Product Description**

The PowerPAD™ is an integrated 3V linear Power Amplifier, Duplexer and Transmit filter Module including power detection designed for mobile UMTS handset applications, supporting HSDPA operation.

It features high/low output power modes, analog bias control, low off and standby currents, and a separate pin for module enable. RF input and output matching is included within the module; therefore, minimal external circuitry is required.

The 8X5mm PowerPAD™ gives excellent RF performance with low current consumption resulting in longer talk times in portable applications. The small 8 x 5 mm<sup>2</sup> surface mount package is ideal for new generation small and light phones.

**Electrical Specifications**

| Parameter                                 | Min    | Typ  | Max    | Units |
|---|--------|------|--------|-------|
| Tx-Frequency                              | 1852.4 | 1880 | 1907.6 | MHz   |
| Rx-Frequency                              | 1932.4 | 1960 | 1987.6 |       |
| Linear P <sub>OUT</sub> (Voice) high mode | 24.9   |      |        | dBm   |
| Maximum current high mode                 |        | 450  |        | mA    |
| ACLR (HSDPA) 5 MHz                        |        | -45  |        | dBc   |
| ACLR (HSDPA) 10 MHz                       |        | -60  |        | dBc   |
| Ant-to-Rx Insertion Loss                  |        | 2.8  |        | dB    |

**Features**

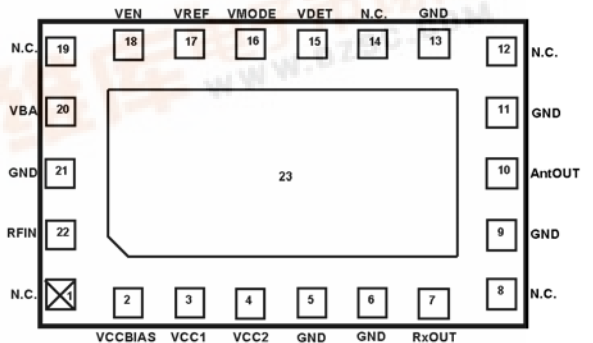
- Handset power amplifier PA / Duplexer Module for W-CDMA PCS Band
- Supports two modulation schemes: standard WCDMA, HSDPA
- Integrates power amplifier, power detector, interstage filter and duplexer
- Low current consumption:
  - high/low power mode
  - analog bias control
- Low V<sub>Ref</sub> = 2.775 V
- Separate 'module enable' pin
- RF input and output matched to 50 Ω
- High-reliability InGaP HBT technology
- 22-pin package
- Compact size: 8 x 5 x 1.5 mm<sup>3</sup>

**Applications**

- 3G Handsets and Data-Cards

**Package Style**

- 8 x 5 mm<sup>2</sup> LGA package



Test Conditions: V<sub>CC1</sub> = V<sub>CC2</sub> = V<sub>CCBIAS</sub> = 3.4 V, V<sub>REF</sub> = 2.775 V, T = 25°C