



## Advance Product Information

WIRELESS COMMUNICATIONS DIVISION

Preliminary: Subject to change without notice

### 3V HBT TDMA Power Amplifier IC

**TQ7125**

#### Selected Electrical Characteristics

Test Conditions:  $V_{CC} = +3.5V$ ,  $T_C = 25^\circ C$ ,  $V_{bias} = 2.75V$

| Parameter                                    | Min.      | Typ. | Max. | Units     |
|----------------------------------------------|-----------|------|------|-----------|
| Usable Frequency Range                       | 824       |      | 849  | MHz       |
| TDMA Output Power                            |           | 29.5 |      | dBm       |
| TDMA Power Added Efficiency                  |           | 47   |      | %         |
| ACP, $P_{out} = +29.5$ dBm                   |           | -30  |      | dBc       |
| ALT, $P_{out} = +29.5$ dBm                   |           | -52  |      | dBc       |
| Large Signal Gain                            |           | 27   |      | dB        |
| Small Signal Gain                            |           | 26.5 |      | dB        |
| Receive Band Noise                           |           | -92  |      | dBm/30KHz |
| Quiescent Current, uses $V_{mode}$ Switching | AMPS Mode | 55   |      | mA        |
|                                              | TDMA Mode | 70   |      | mA        |
| $V_{mode}$ , Externally Switched.            | AMPS Mode | 0    | 0    | 0.3       |
|                                              | TDMA Mode | 2.4  | 2.7  | 3.0       |
| Second Harmonic, $P_{OUT} = +29.5$ dBm       |           | -30  |      | dB        |
| Third Harmonic, $P_{OUT} = +29.5$ dBm        |           | -40  |      | dB        |
| AMPS Output Power                            |           | 29.5 |      | dBm       |
| AMPS Power Added Efficiency                  |           | 47   |      | %         |

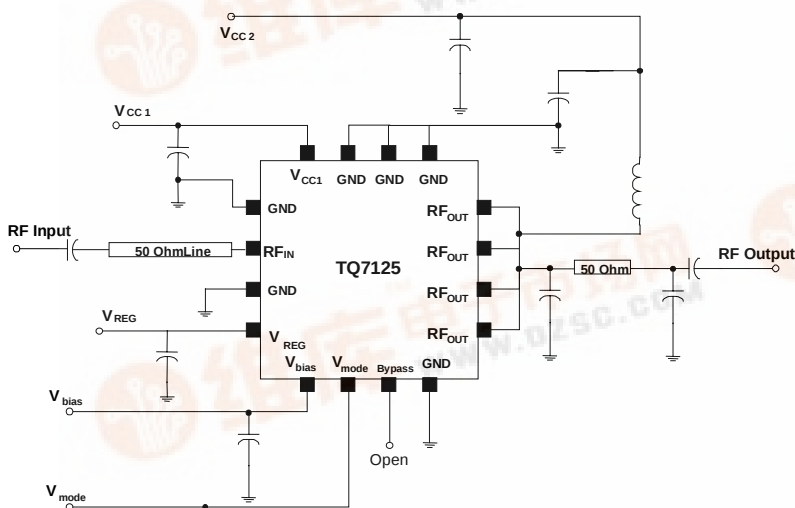
#### Primary Application(s)

- IS-136 Mobile Phones
- AMPS Mobile phones
- Dual Mode Mobile phones
- CDPD Modems

#### Key Features

- High Efficiency
- Low Quiescent Current, Mode Selectable
- Small size: 3x3 mm leadless package
- Few external components
- Excellent ACP Performance
- Single +2.7V Supply

#### Application Circuit, US Cellular Band



#### Package: 3x3 mm

Leadless 16 pin

