

## Single-Chip Low-Power FM Receiver for Portable Devices

### General Description

The QN8025 is a high performance, low power, full-featured single-chip stereo FM receiver designed for cell phones, MP3 players, and portable radios. The QN8025 also supports RDS/RBDS data reception.

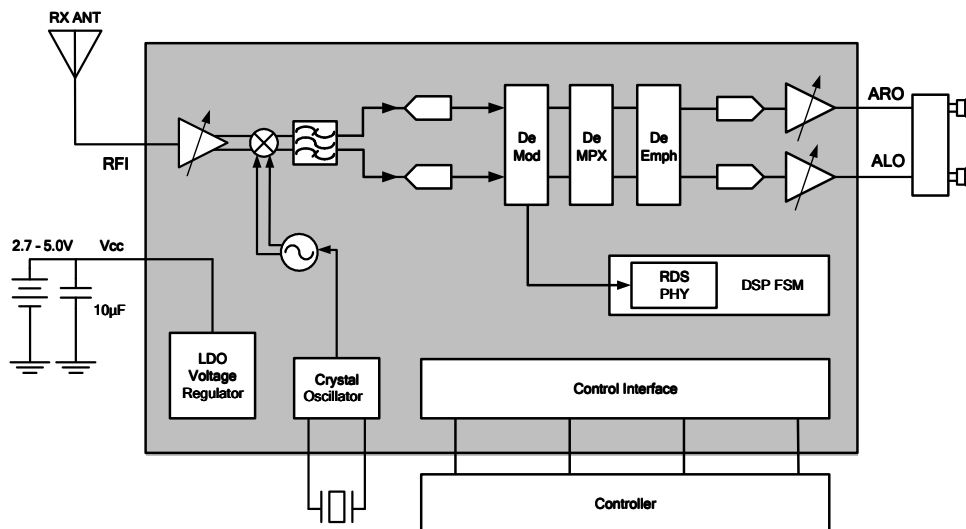
### Typical Applications

- Cell Phones / PDAs / Smart Phones
- Portable Audio & Media Players
- MP3/MP4 player, PMP, PND
- GPS Personal Navigation Devices
- Automotive and Accessories

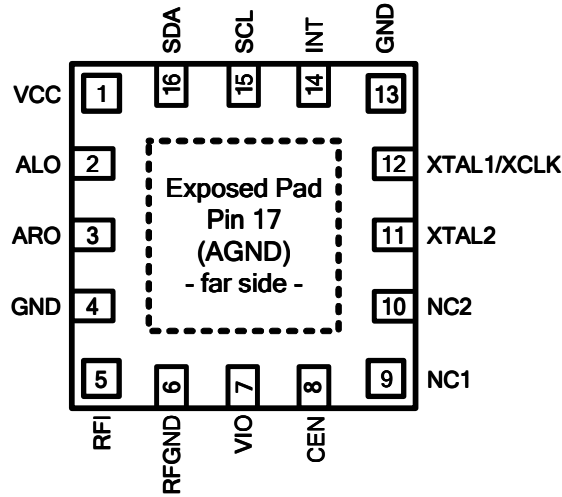
### Key Features

- **Worldwide FM Band Coverage**
  - 62 MHz to 108 MHz full band tuning in 50/100/200 kHz step sizes
  - 50/75µs de-emphasis
- **Ease of Integration**
  - Small footprint, available in 2.5 x2.5 QFN16 and 4x4 QFN24 packages
  - 32.768 kHz and MHz crystal and direct clock input supported
  - I<sup>2</sup>C control interface
- **Very Low Power Consumption**
  - 15 mA typical
  - Integrated LDO
  - V<sub>IO</sub>: 1.6~3.6V, V<sub>CC</sub>: 2.7~5.0V
  - Power saving IDLE and Standby modes
  - Low shutdown leakage current
  - Volume control
- **Adaptive Noise Cancellation**
  - Mono/stereo blend
  - High cut
  - Soft mute
- **High Performance**
  - Superior sensitivity, better than 1.78µV<sub>EMF</sub>
  - 63dB stereo SNR, 0.03% THD
  - Integrated audio processing (SNC, HCC, SM)
  - Auto channel seek
  - L/R separation 40dB
- **RDS/RBDS**
  - Supports US and European data services
- **Robust Operation**
  - -25<sup>o</sup>C to +85<sup>o</sup>C operation
  - ESD protection on all input and output pads

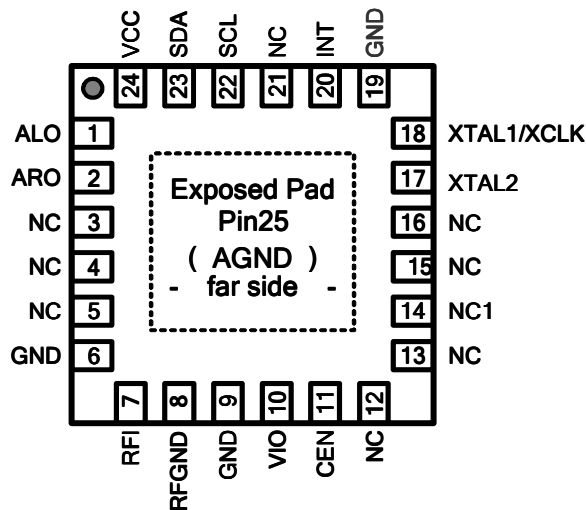
### QN8025-NCNB/NGNB Functional Blocks:



(Top View)



QN8025-NCNB Pin Out QFN16 2.5x2.5mm



QN8025-NGNB Pin Out QFN24 4x4mm

**CONTACT INFORMATION**

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