Product Anomaly Notification (PAN)

**Device affected** (product name): nRF24LE1-F17Q24/Q32/Q48

**Device version(s) affected:**

C

**Date (YYYY-MM-DD):**

2010-09-10

**PAN no.:**

PAN-020

**Nordic Semiconductor reference:**

Thomas Embla Bonnerud, Product Manager

**Document version:**

3.0

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**Summary**

**Anomalies:**
Wakeup from Register Retention power-down mode when pin is wakeup source fails under the conditions that XOSC16M is ON in power-down and XOSC16M is the only 16 MHz clock source

**Marking / tracing:**

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Please refer to nRF24LE1 product specification for package marking details. Any package type, year, week and lot number does have this anomaly.

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**Authorization for Nordic Semiconductor**

**Product Manager**

Thomas Embla Bonnerud

**Date:**

2010-09-10

**Sign:** For Thomas Bonnerud:

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**Detailed Description**

**Symptoms:**
Code execution after wakeup from Register Retention will behave unpredictably

**Conditions:**
The following firmware settings for clock to the microcontroller system are made before entering power-down:

- **CLKCTRL[7] = '1'** (Keep XOSC16M on in Register Retention mode)
- **CLKCTRL[5:4] = '10'** (Start XOSC16M only)

**Consequences:**
The device will not wake up from Register Retention when using pin as wakeup source.

**Workaround:**
In nRF24LE1-O firmware, preset start of both 16 MHz oscillators before entering Register Retention:

**CLKCTRL[5:4] = '00'**

Clock will be sourced from RCOSC16M initially and automatically switched to XOSC16M. At this point in time RCOSC16M will be stopped by hardware.