NORDIC
SEMICONDUCTOR

Product Anomaly Notification (PAN)

Device affected (product name):	Device version(s) affected:
nRF24LE1-F17Q24/Q32/Q48	C
Date (YYYY-MM-DD):	**PAN no.:**
2010-09-10	PAN-020
Nordic Semiconductor reference:	**Document version:**
Thomas Embla Bonnerud, Product Manager	3.0

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
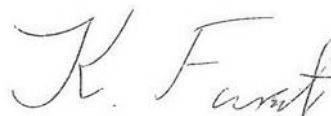
Marking / tracing:

n	R	F		B	X
2	4	L	E	1	Z
Y	Y	W	W	L	L

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

Authorization for Nordic Semiconductor

Product Manager   Date: Sign: For Thomas Bonnerud:

Thomas Embla Bonnerud   2010-09-10

K. Fant

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