

Product Change Notification (PCN)

Device affected (product name): nRF2401AG, nRF2402G, nRF24E1G, nRF24E2G	PCN no.: PCN-nRF24xx-004 rev. 1.1
Agreement reference (number + version): N/A	Date: 2006-03-10
Customers reference: N/A	Nordic Semiconductor reference: ERO

Description of change:
 Change of production site for Assembly and Test from ASE Chung-Li, Taiwan to Amkor Technology - Philippines, Inc. (ATP).

 Package Outline changed from Punch to Saw singulated design for all applicable products.

 Transfer of ATE Test platform to LTX-CX.

Reason:
 Increased production capacity

Consequences:
 No changes in functionality, parametric performance or reliability.
 Packages will be compatible with current products according to Jedec MO-220.
 While the current punch and future saw singulated packages look different in appearance, they are designed to be interchangeable and fit the same PCB land pattern. However, there are marginal changes to package pad dimensions that should be verified. For details, see package outline diagram and tables on the subsequent pages.

Verification:
 Nordic guarantees that the performance and reliability of the new products is equal to or better compared to existing nRF24XX products.
 Package qualification to MSL 2 for nRF2401AG, nRF24E1G and nRF24E2G. Package qualification expected to MSL 2 for nRF2402G, MSL 3 guaranteed. All levels @ 260 °C (three times reflow).
 Test programs will undergo extensive correlation tests before released for production.

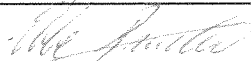
Traceability:
 For a limited period of time, products will be available from both production sites.
 All new products will be marked with unique build codes. For details, see below.

Change active from (date): <product> - <samples> / <production> nRF2401AG - August 2005 / August 2005 nRF2402G - May 2006 / June 2006 nRF24E1G - August 2005 / August 2005 nRF24E2G - August 2005 / August 2005	Change active from (marking): nRF2401AG - Build code "B" nRF2402G - Build code "C" nRF24E1G - Build code "B" nRF24E2G - Build code "B"
The production change over is influenced by the projected depletion of inventory of the current nRF24XXG products and may change in either direction by fluctuations in demand	

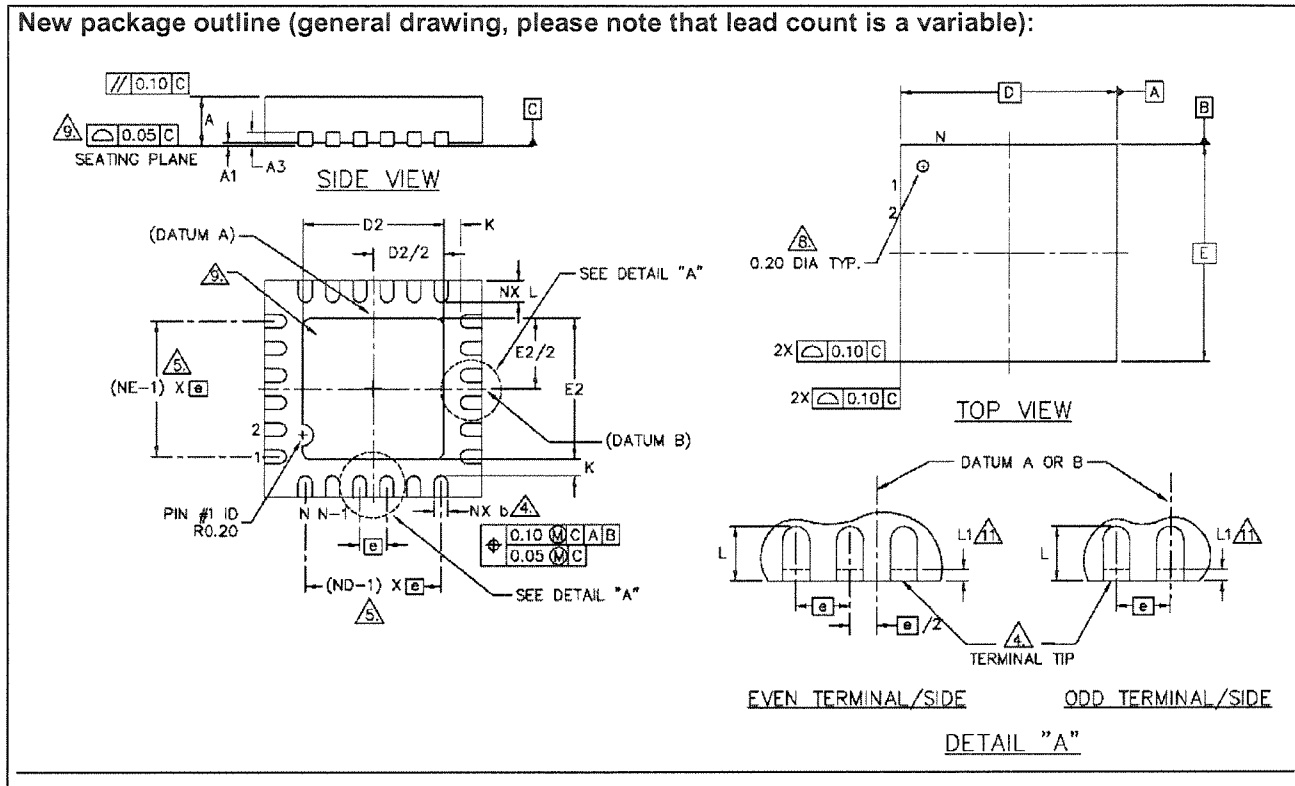
Last order date (optional): N/A	Final shipment date (optional): N/A
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Authorization for Nordic Semiconductor

Ebbe Rømcke

Quality Director Date: 2006-03-10 Sign: 

New package outline (general drawing, please note that lead count is a variable):



The drawing is cut from the Amkor Package Outline Diagram 48011, rev. A3

Package dimensions nRF2401AG

Package Type QFN 24 leads, pitch 0.65, 5x5mm		A	A1	A3	b	D/E	e	D2/E2	L
New	Min.	0.80	0.00		0.25			3.50	0.35
(Saw singulation)	Typ.	0.85	0.02	0.20 REF	0.30	5.0 BSC	0.65 BSC	3.60	0.40
Build "B"	Max.	0.90	0.05		0.35			3.70	0.45

Package dimensions nRF2402G

Package Type QFN 16 leads, pitch 0.65, 4x4mm		A	A1	A3	b	D/E	e	D2/E2	L
New	Min.	0.80	0.00		0.25			2.00	0.45
(Saw singulation)	Typ.	0.85	0.02	0.20 REF	0.30	4.0 BSC	0.65 BSC	2.10	0.50
Build "C"	Max.	0.90	0.05		0.35			2.20	0.55

Package dimensions nRF24E1G / nRF24E2G

Package Type QFN 36 leads, pitch 0.5, 6x6mm		A	A1	A3	b	D/E	e	D2/E2	L
New	Min.	0.80	0.00		0.18			4.50	0.35
(Saw singulation)	Typ.	0.85	0.02	0.20 REF	0.25	6.0 BSC	0.50 BSC	4.60	0.40
Build "B"	Max.	0.90	0.05		0.30			4.70	0.45

New package marking:

n	R	F		B	X
D	D	D	D	D	D
Y	Y	W	W	L	L

Abbreviations:

- DDDDDD – Product number, e.g. 2401AG, 2402G, 24E1G, 24E2G
(G is an identifier for matt Sn plating and RoHS / Sony SS-0259 compliance)
- B – Build Code, i.e. unique code for production sites, package type and test platform
- X - "X" grade, i.e. Engineering Samples (optional)
- YY - 2 digit Year number
- WW - 2 digit Week number
- LL - 2 letter wafer lot number code