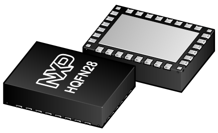
SOT2228-1(D)

HQFN28, thermal enhanced quad flat package, no leads, 0.1 dimple wettable flank, 28 terminals, 0.8 mm pitch, 8 mm x 6 mm x 1.9 mm body

30 January 2024

Package information



1 Package summary

Terminal position code	Q (quad)
Package type descriptive code	HQFN28
Package style descriptive code	HQFN (thermal enhanced quad flatpack; no leads)
Package body material type	P (plastic)
Mounting method type	S (surface mount)
Issue date	15-12-2023
Manufacturer package code	98ASA02130D

Table 1. Package summary

Parameter	Min	Nom	Max	Unit
package length	7.9	8	8.1	mm
package width	5.9	6	6.1	mm
seated height	1.85	1.9	1.95	mm
nominal pitch	-	0.8	-	mm
actual quantity of termination	-	28	-	

2 Package outline

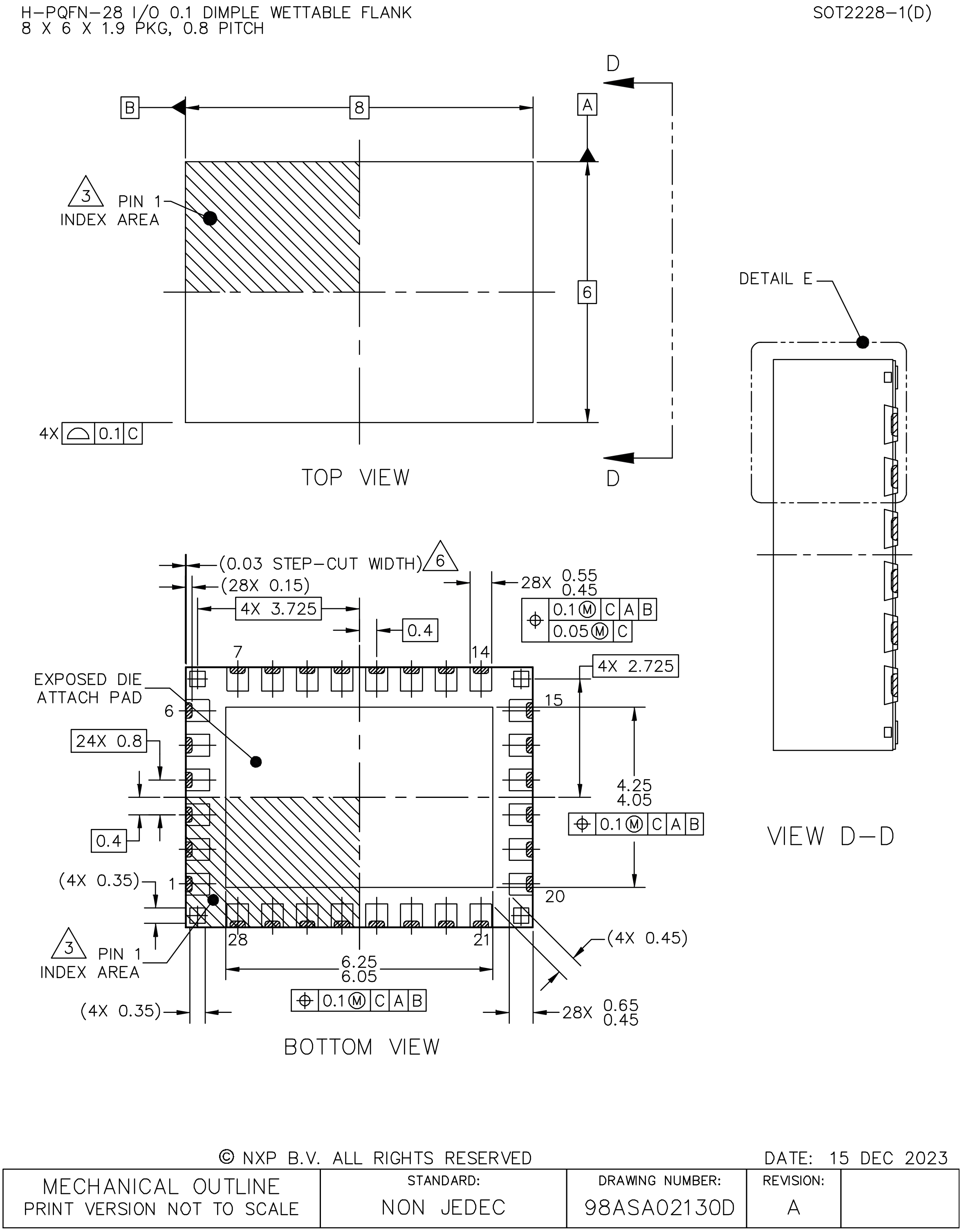
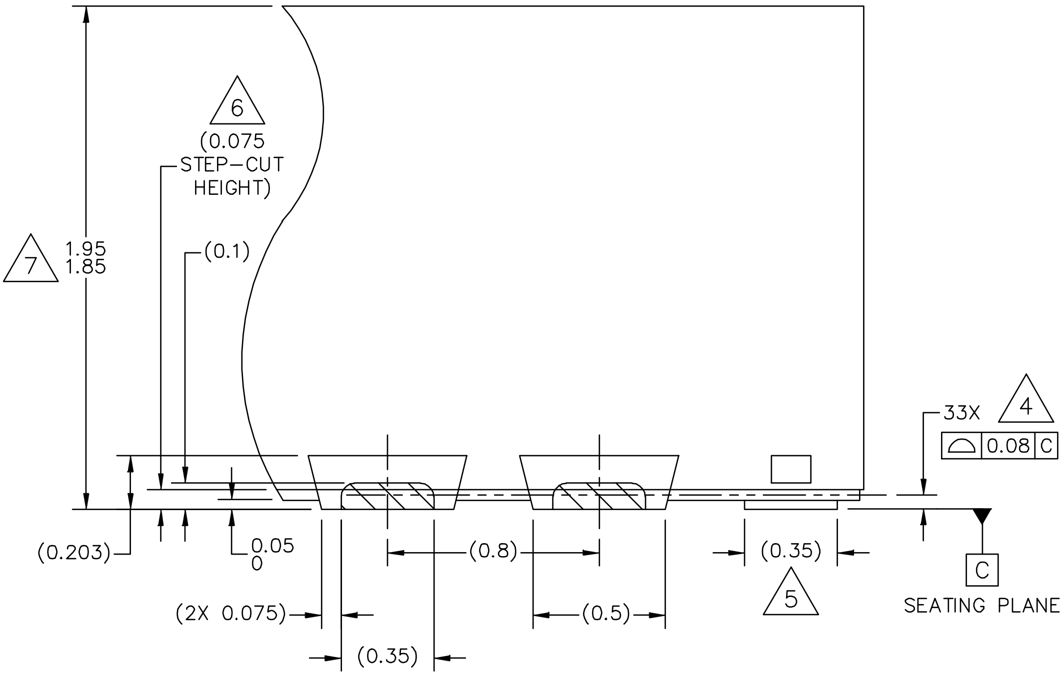


Figure 1. Package outline HQFN28 (SOT2228-1(D))

H-PQFN-28 I/O 0.1 DIMPLE WETTABLE FLANK
8 X 6 X 1.9 PKG, 0.8 PITCH

SOT2228-1(D)



DETAIL E
VIEW ROTATED 90° CW

DATE: 15 DEC 2023

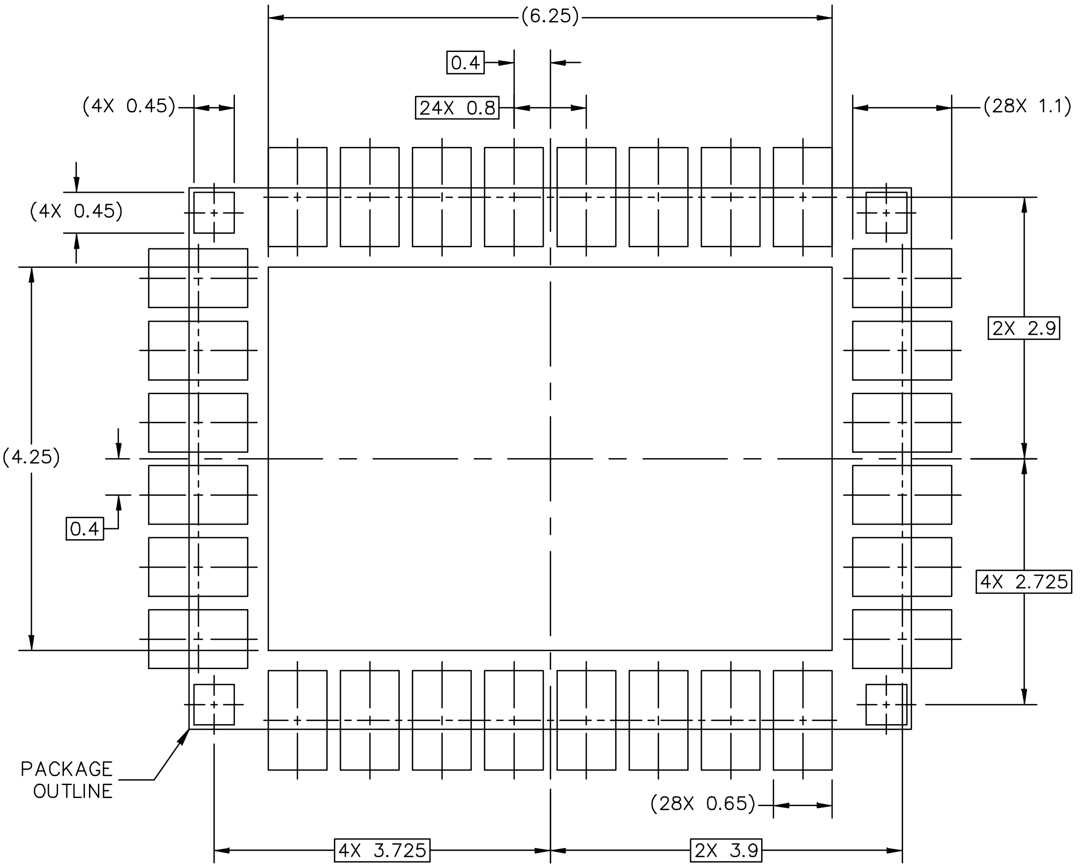
MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: 98ASA02130D	REVISION: A	

Figure 2. Package outline detail E of HQFN28 (SOT2228-1(D))

3 Soldering

H-PQFN-28 I/O 0.1 DIMPLE WETTABLE FLANK
8 X 6 X 1.9 PKG, 0.8 PITCH

SOT2228-1(D)



PCB DESIGN GUIDELINES – SOLDER MASK OPENING PATTERN

THIS SHEET SERVES ONLY AS A GUIDELINE TO HELP DEVELOP A USER SPECIFIC SOLUTION. DEVELOPMENT EFFORT WILL STILL BE REQUIRED BY END USERS TO OPTIMIZE PCB MOUNTING PROCESSES AND BOARD DESIGN IN ORDER TO MEET INDIVIDUAL/SPECIFIC REQUIREMENTS.

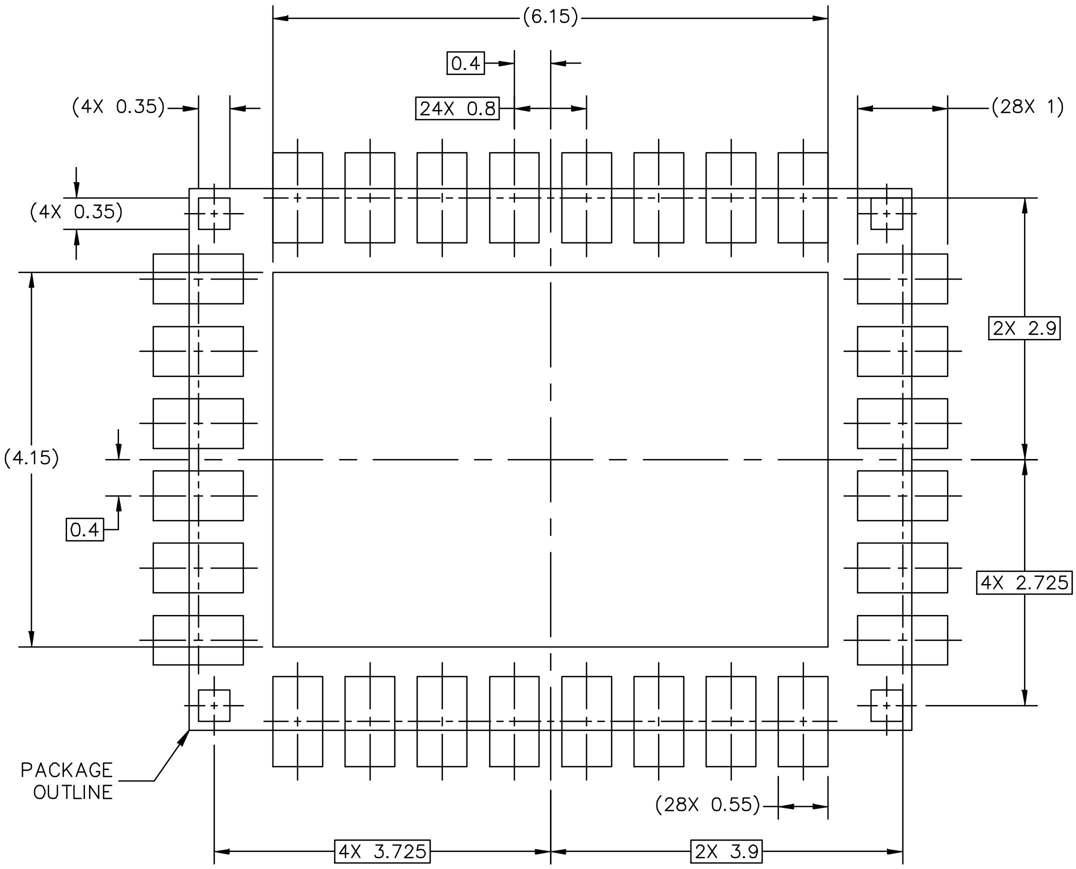
DATE: 15 DEC 2023

MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD:	DRAWING NUMBER:	REVISION:	
	NON JEDEC	98ASA02130D	A	

Figure 3. Reflow soldering footprint part1 for HQFN28 (SOT2228-1(D))

H-PQFN-28 I/O 0.1 DIMPLE WETTABLE FLANK
8 X 6 X 1.9 PKG, 0.8 PITCH

SOT2228-1(D)



PCB DESIGN GUIDELINES – I/O PADS AND SOLDERABLE AREA

THIS SHEET SERVES ONLY AS A GUIDELINE TO HELP DEVELOP A USER SPECIFIC SOLUTION. DEVELOPMENT EFFORT WILL STILL BE REQUIRED BY END USERS TO OPTIMIZE PCB MOUNTING PROCESSES AND BOARD DESIGN IN ORDER TO MEET INDIVIDUAL/SPECIFIC REQUIREMENTS.

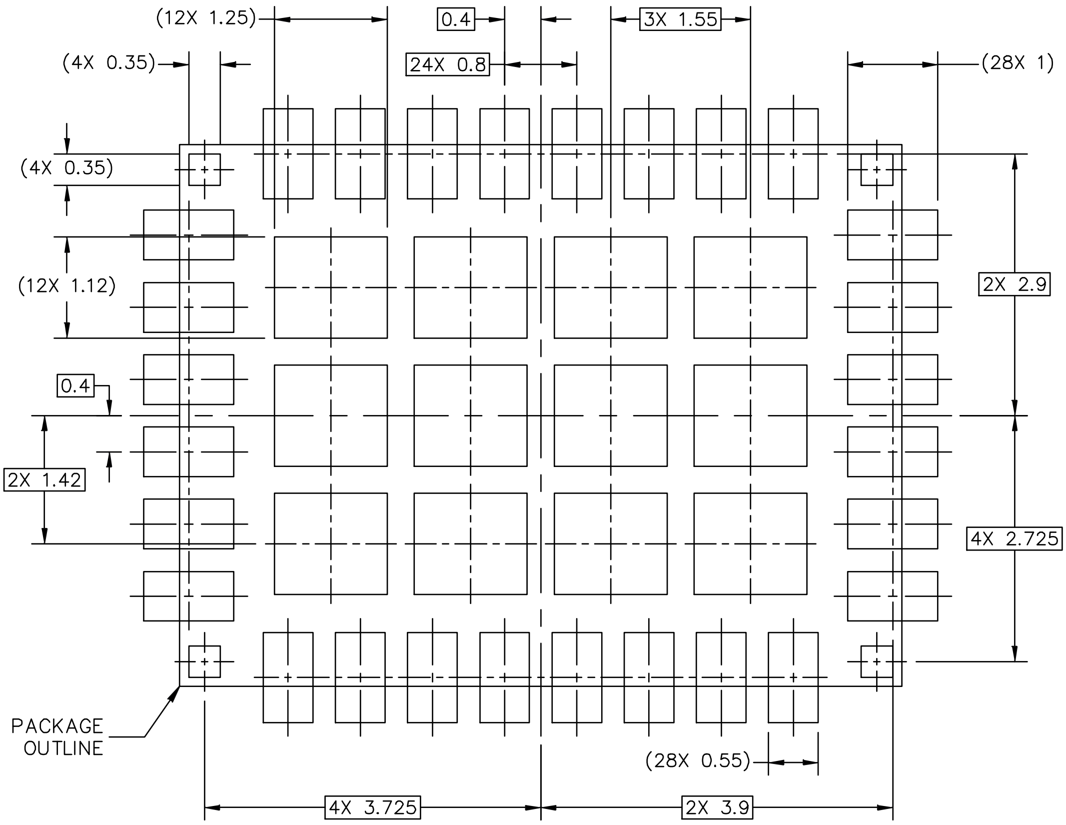
DATE: 15 DEC 2023

MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: 98ASA02130D	REVISION: A	

Figure 4. Reflow soldering footprint part2 for HQFN28 (SOT2228-1(D))

H-PQFN-28 I/O 0.1 DIMPLE WETTABLE FLANK
8 X 6 X 1.9 PKG, 0.8 PITCH

SOT2228-1(D)



RECOMMENDED STENCIL THICKNESS 0.125

PCB DESIGN GUIDELINES – SOLDER PASTE STENCIL

THIS SHEET SERVES ONLY AS A GUIDELINE TO HELP DEVELOP A USER SPECIFIC SOLUTION. DEVELOPMENT EFFORT WILL STILL BE REQUIRED BY END USERS TO OPTIMIZE PCB MOUNTING PROCESSES AND BOARD DESIGN IN ORDER TO MEET INDIVIDUAL/SPECIFIC REQUIREMENTS.

DATE: 15 DEC 2023

MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: 98ASA02130D	REVISION: A	

Figure 5. Reflow soldering footprint part3 for HQFN28 (SOT SOT2228-1(D))

H-PQFN-28 I/O 0.1 DIMPLE WETTABLE FLANK
8 X 6 X 1.9 PKG, 0.8 PITCH

SOT2228-1(D)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.

2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

△3. PIN 1 FEATURE SHAPE, SIZE AND LOCATION MAY VARY.

△4. COPLANARITY APPLIES TO LEADS, DIE ATTACH FLAG AND CORNER NON-FUNCTIONAL PADS.

△5. ANCHORING PADS.

△6. STEP-CUT IS APPLIED FOR BURR REMOVAL ONLY.

△7. SPUTTER LAYER OF STAINLESS STEEL SUS316 IS INCLUDED IN THE TOP SIDE SURFACE.

DATE: 15 DEC 2023

MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: 98ASA02130D	REVISION: A	

Figure 6. Package outline note HQFN28 (SOT2228-1(D))

4 Legal information

Disclaimers

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, NXP Semiconductors does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. NXP Semiconductors takes no responsibility for the content in this document if provided by an information source outside of NXP Semiconductors.

In no event shall NXP Semiconductors be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, NXP Semiconductors' aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the Terms and conditions of commercial sale of NXP Semiconductors.

Right to make changes — NXP Semiconductors reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

Contents

For more information, please visit: http://www.nxp.com

Date of release: 30 January 2024