

SOT684-21(DD/SC)

HVQFN56, plastic, thermally enhanced very thin quad flat package, no-leads, wettable flanks; 56 terminals; 0.5 mm pitch; 8 mm x 8 mm x 0.85 mm body

27 August 2025

Package information



1 Package summary

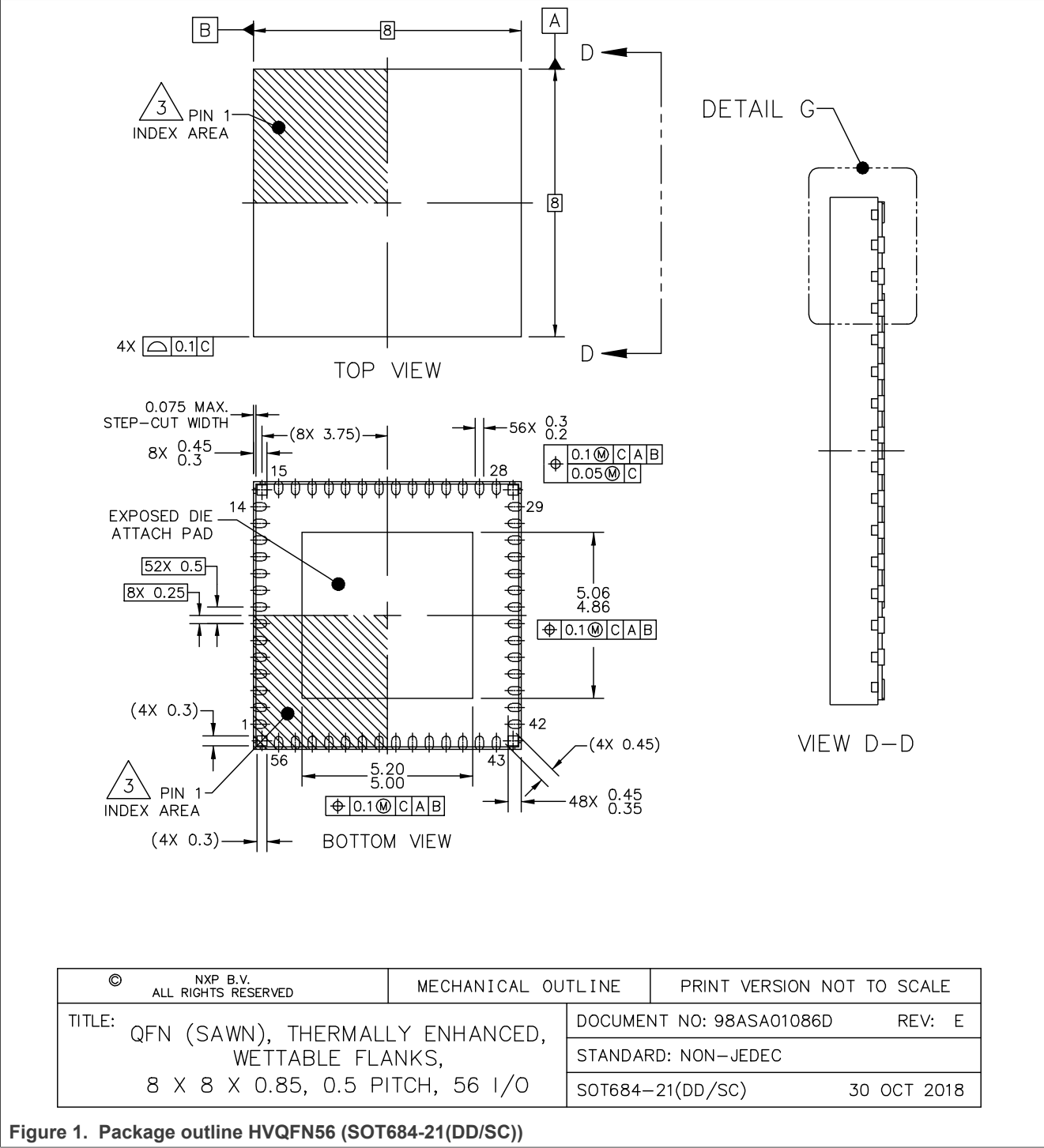
Terminal position code	Q (quad)
Package type descriptive code	HVQFN56
Package style descriptive code	HVQFN (thermal enhanced very thin quad flatpack; no leads)
Package body material type	P (plastic)
Mounting method type	S (surface mount)
Issue date	30-10-2018
Manufacturer package code	98ASA01086D

Table 1. Package summary

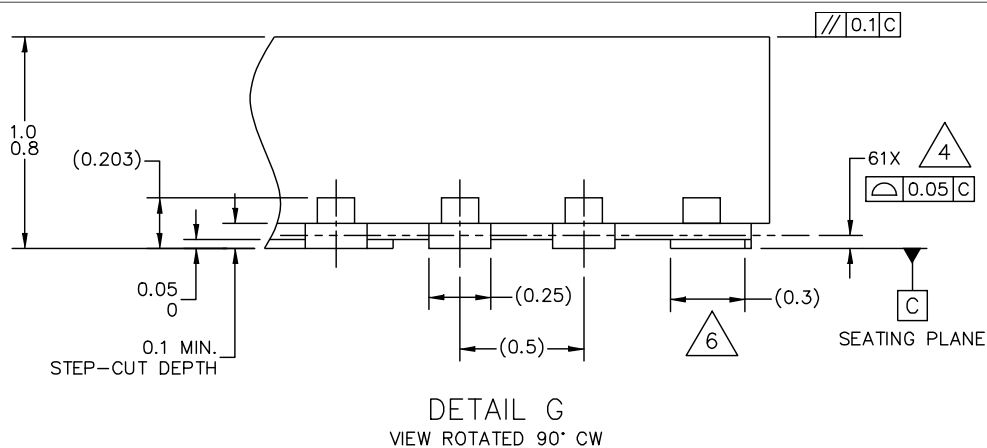
Parameter	Min	Nom	Max	Unit
package length	-	8	-	mm
package width	-	8	-	mm
seated height	-	0.85	-	mm
nominal pitch	-	0.5	-	mm
actual quantity of termination	-	56	-	

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2 Package outline



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© NXP B.V. ALL RIGHTS RESERVED		MECHANICAL OUTLINE		PRINT VERSION NOT TO SCALE	
TITLE: QFN (SAWN), THERMALLY ENHANCED, WETTABLE FLANKS, 8 X 8 X 0.85, 0.5 PITCH, 56 I/O	DOCUMENT NO: 98ASA01086D			REV: E	
	STANDARD: NON-JEDEC				
	SOT684-21(DD/SC)			30 OCT 2018	

Figure 2. Package outline detail G of HVQFN56 (SOT684-21(DD/SC))

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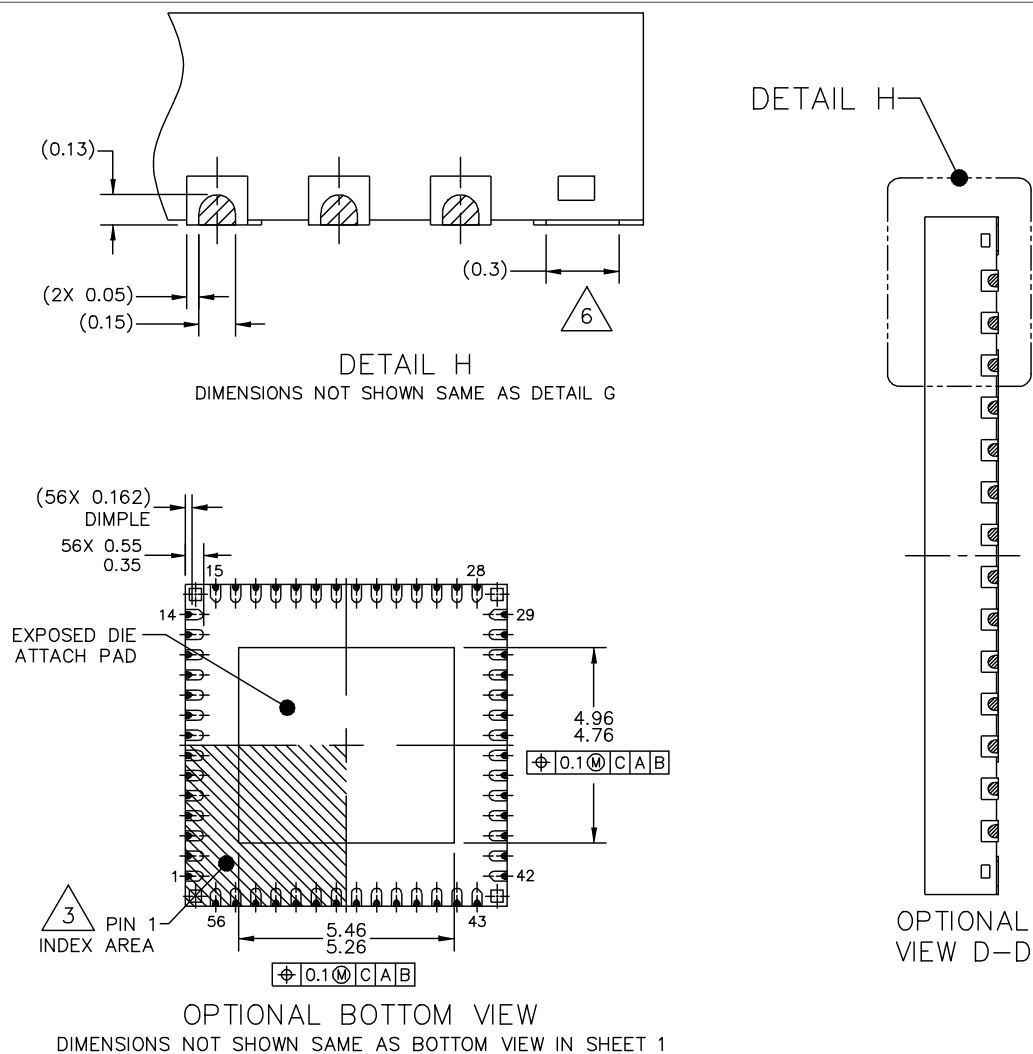
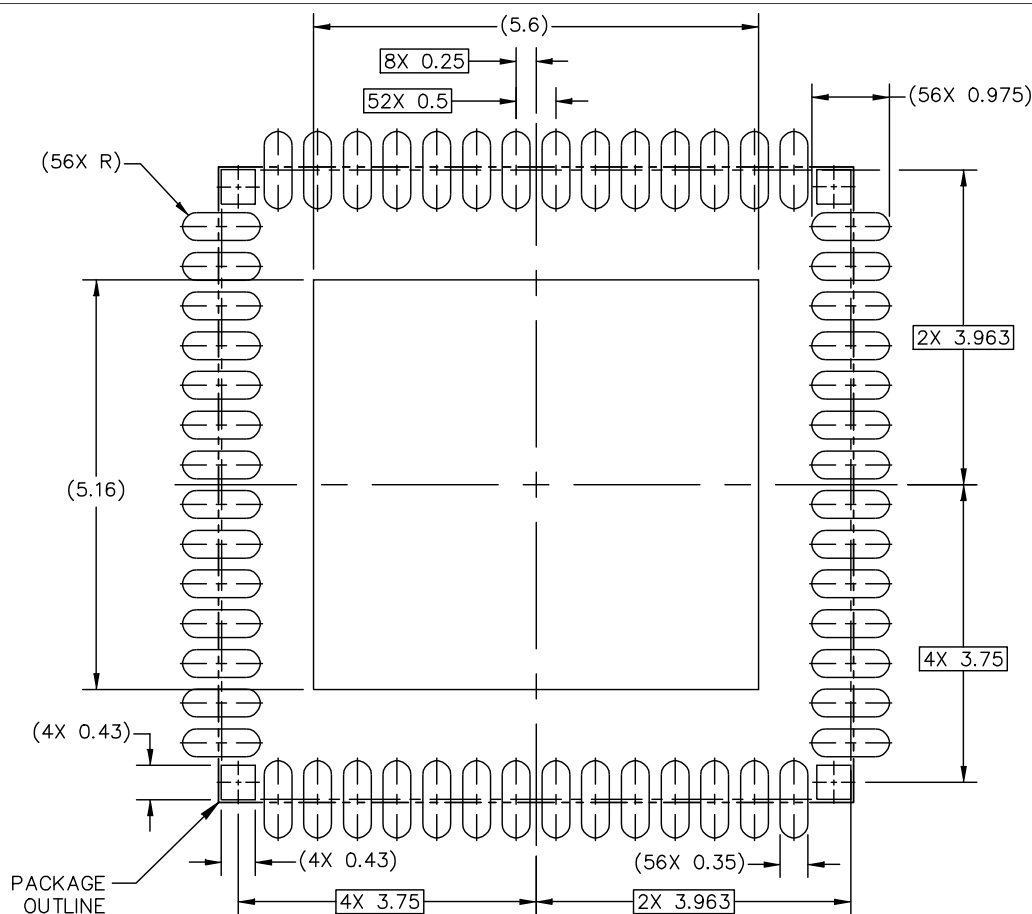


Figure 3. Package outline detail H of HVQFN56 (SOT684-21(DD/SC))

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3 Soldering



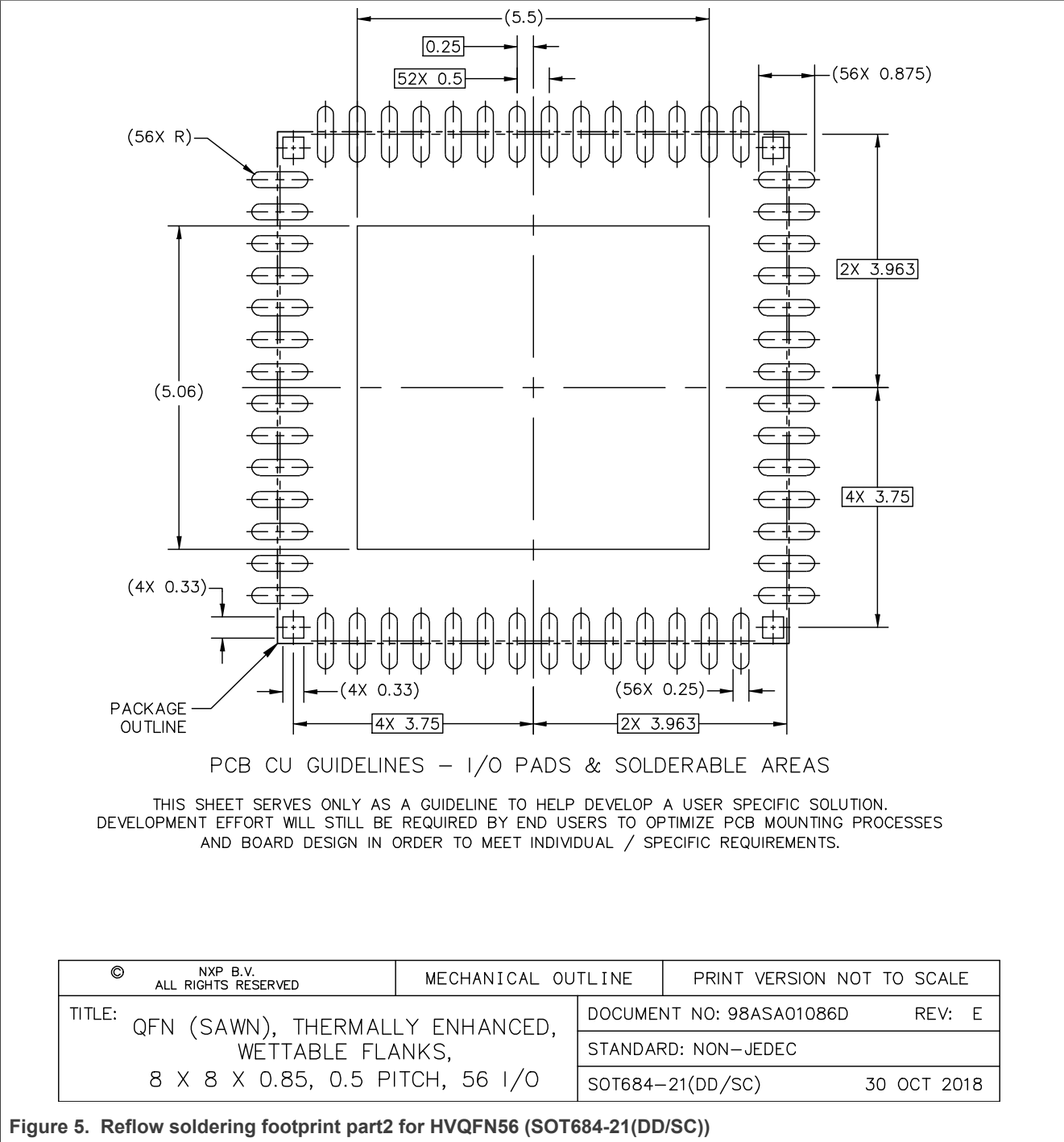
PCB DESIGN GUIDELINES – SOLDER MASK OPENING PATTERN

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.

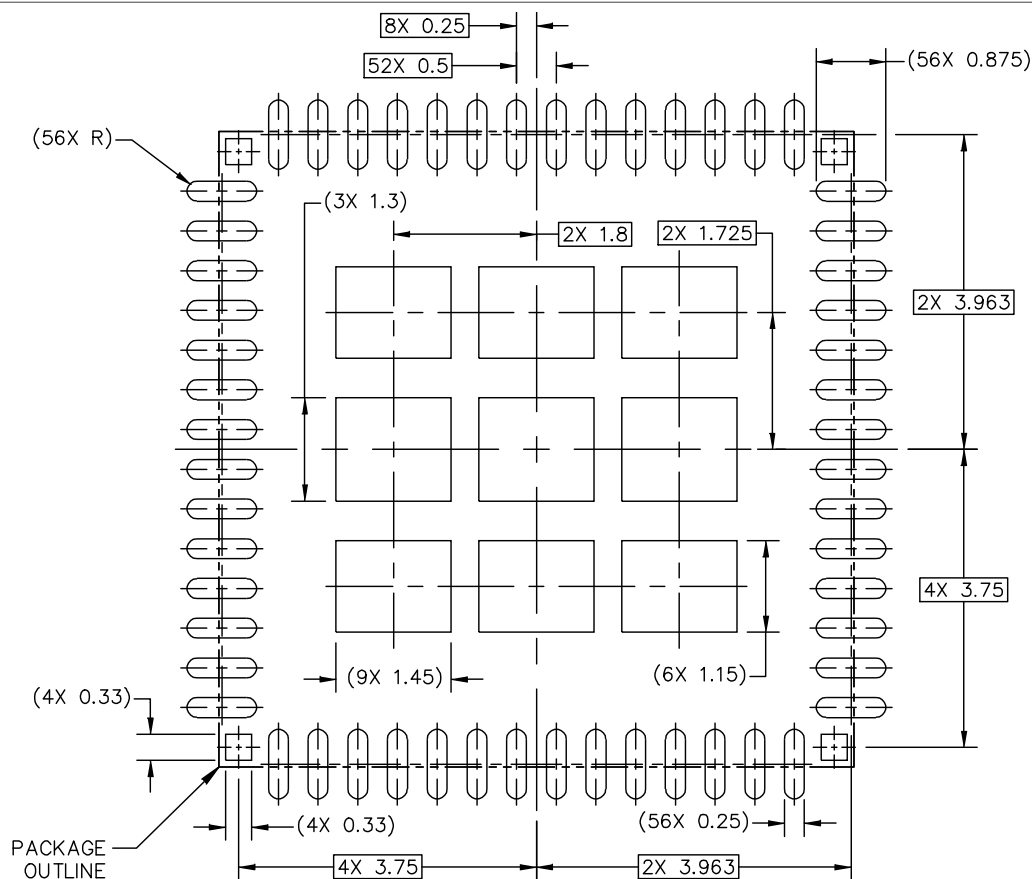
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TITLE: QFN (SAWN), THERMALLY ENHANCED, WETTABLE FLANKS, 8 X 8 X 0.85, 0.5 PITCH, 56 I/O	DOCUMENT NO: 98ASA01086D	REV: E
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Figure 4. Reflow soldering footprint part1 for HVQFN56 (SOT684-21(DD/SC))

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RECOMMENDED STENCIL THICKNESS 0.15 OR 0.125

PCB DESIGN GUIDELINES – SOLDER PASTE STENCIL

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Figure 6. Reflow soldering footprint part3 for HVQFN56 (SOT684-21(DD/SC))

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- NOTES:
- 1. ALL DIMENSIONS ARE IN MILLIMETERS.
 - 2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
 - 3. PIN ONE CONFIGURATION MAY VARY.
 - 4. COPLANARITY APPLIES TO LEADS, DIE ATTACH FLAG AND CORNER NON-FUNCTIONAL PADS.
 - 5. MIN. METAL GAP SHOULD BE 0.25 MM.
 - 6. ANCHORING PADS.

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Figure 7. Package outline note HVQFN56 (SOT684-21(DD/SC))

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