This device is designed specifically to power IMVP Mobile Processors under a strict disclosure agreement with Intel. The end user must have a current *CNDA* Agreement in place with Intel. For more information please contact IMVP@list.ti.com.
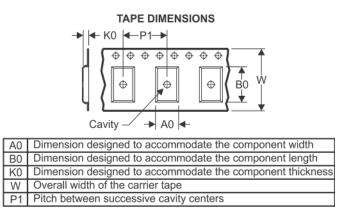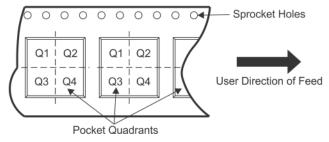
PACKAGE MATERIALS INFORMATION

TAPE AND REEL INFORMATION

REEL DIMENSIONS

TAPE DIMENSIONS

A0	Dimension designed to accommodate the component width
B0	Dimension designed to accommodate the component length
K0	Dimension designed to accommodate the component thickness
W	Overall width of the carrier tape
P1	Pitch between successive cavity centers

QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE

*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
TPS51620RHAR	VQFN	RHA	40	2500	330.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
TPS51620RHAT	VQFN	RHA	40	250	180.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2

![Texas Instruments logo]

PACKAGE MATERIALS INFORMATION

TAPE AND REEL BOX DIMENSIONS

*All dimensions are nominal

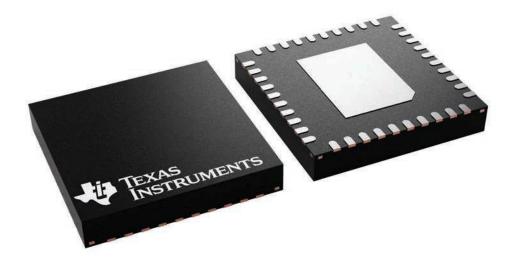| Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
TPS51620RHAR	VQFN	RHA	40	2500	367.0	367.0	38.0
TPS51620RHAT	VQFN	RHA	40	250	210.0	185.0	35.0

RHA 40

6 x 6, 0.5 mm pitch

PLASTIC QUAD FLATPACK - NO LEAD

This image is a representation of the package family, actual package may vary.
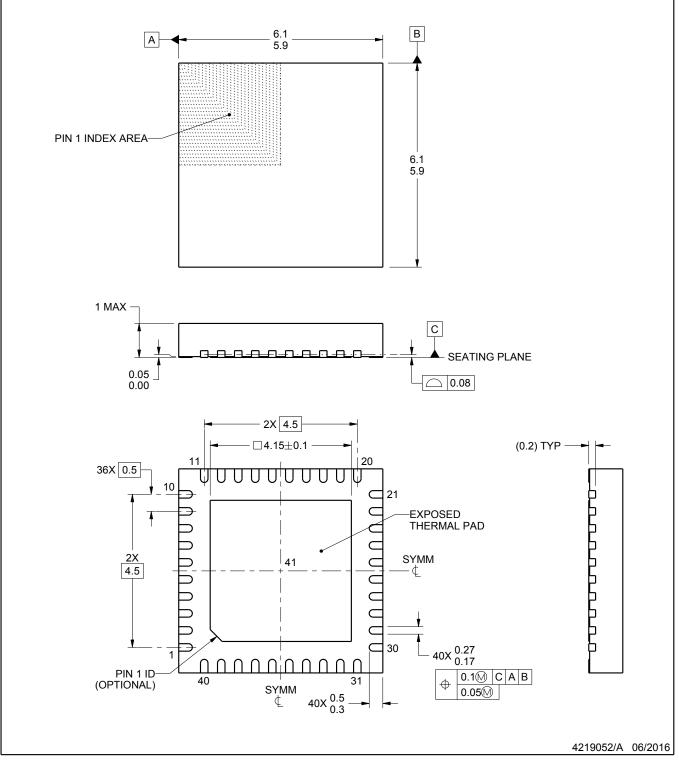Refer to the product data sheet for package details.

4225870/A

A   6.1
     5.9   B

PIN 1 INDEX AREA

6.1
5.9

1 MAX

C

SEATING PLANE

0.05
0.00

0.08

2X 4.5

□ 4.15±0.1

(0.2) TYP

36X 0.5

11   20

10   21

2X
4.5   41   SYMM
                                              ℄

EXPOSED
THERMAL PAD

1

PIN 1 ID
(OPTIONAL)

40   31
        SYMM
         ℄

30

40X 0.27
     0.17

⊕ 0.1Ⓜ C A B
   0.05Ⓜ

40X 0.5
     0.3

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NOTES:

1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing
   per ASME Y14.5M.
2. This drawing is subject to change without notice.
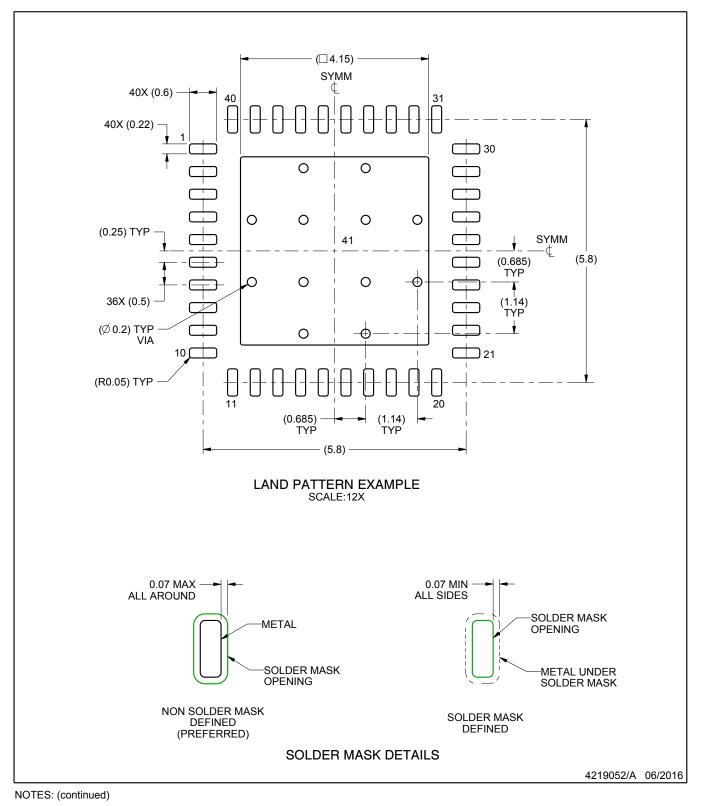3. The package thermal pad must be soldered to the printed circuit board for thermal and mechanical performance.

LAND PATTERN EXAMPLE
SCALE:12X

(□4.15)
SYMM ℄

40X (0.6)
40X (0.22)
1
40
31
30
(0.25) TYP
41
SYMM ℄
36X (0.5)
(0.685) TYP
(1.14) TYP
(∅ 0.2) TYP VIA
(5.8)
10
(R0.05) TYP
11
20
21
(0.685) TYP
(1.14) TYP
(5.8)

0.07 MAX
ALL AROUND
METAL
SOLDER MASK OPENING
NON SOLDER MASK DEFINED (PREFERRED)

0.07 MIN
ALL SIDES
SOLDER MASK OPENING
METAL UNDER SOLDER MASK
SOLDER MASK DEFINED

SOLDER MASK DETAILS

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NOTES: (continued)

4. This package is designed to be soldered to a thermal pad on the board. For more information, see Texas Instruments literature
   number SLUA271 (www.ti.com/lit/slua271).

9X (□ 1.17)

(1.37) TYP

40X (0.6)

40X (0.22)

40

31

1

41

30

(0.25) TYP

(1.37)
TYP

SYMM
℄

(5.8)

36X (0.5)

(R0.05) TYP

10

11

20

21

METAL
TYP

SYMM
℄

(5.8)

SOLDER PASTE EXAMPLE
BASED ON 0.125 mm THICK STENCIL

EXPOSED PAD 41:
72% PRINTED SOLDER COVERAGE BY AREA UNDER PACKAGE
SCALE:12X

4219052/A   06/2016

NOTES: (continued)

5. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release. IPC-7525 may have alternate
   design recommendations.

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