

For data sheet and general inquiries on the UCD30xx part family, please contact
ucd30xxdigitalpowersupport@list.ti.com

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

TAPE AND REEL INFORMATION

*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
UCD3020RGZR	VQFN	RGZ	48	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q2
UCD3020RGZR	VQFN	RGZ	48	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q2
UCD3020RGZT	VQFN	RGZ	48	250	180.0	16.4	7.3	7.3	1.5	12.0	16.0	Q2
UCD3020RGZT	VQFN	RGZ	48	250	180.0	16.4	7.3	7.3	1.5	12.0	16.0	Q2
UCD3028RHAR	VQFN	RHA	40	2500	330.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
UCD3028RHAT	VQFN	RHA	40	250	180.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
UCD3040PFCR	TQFP	PFC	80	1000	330.0	24.4	15.0	15.0	1.5	20.0	24.0	Q2
UCD3040RGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.5	12.0	16.0	Q2
UCD3040RGCT	VQFN	RGC	64	250	180.0	16.4	9.3	9.3	1.5	12.0	16.0	Q2

TAPE AND REEL BOX DIMENSIONS



*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
UCD3020RGZR	VQFN	RGZ	48	2500	367.0	367.0	38.0
UCD3020RGZR	VQFN	RGZ	48	2500	367.0	367.0	38.0
UCD3020RGZT	VQFN	RGZ	48	250	210.0	185.0	35.0
UCD3020RGZT	VQFN	RGZ	48	250	210.0	185.0	35.0
UCD3028RHAR	VQFN	RHA	40	2500	367.0	367.0	38.0
UCD3028RHAT	VQFN	RHA	40	250	210.0	185.0	35.0
UCD3040PFCR	TQFP	PFC	80	1000	367.0	367.0	45.0
UCD3040RGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
UCD3040RGCT	VQFN	RGC	64	250	210.0	185.0	35.0

PACKAGING INFORMATION

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
UCD3020ARGZR	Active	Production	VQFN (RGZ) 48	2500 LARGE T&R	Yes	Call TI Nipdau	Level-3-260C-168 HR	-40 to 125	UCD3020A
UCD3020ARGZR.A	Active	Production	VQFN (RGZ) 48	2500 LARGE T&R	Yes	Call TI	Level-3-260C-168 HR	-40 to 125	UCD3020A
UCD3020ARGZT	Active	Production	VQFN (RGZ) 48	250 SMALL T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	UCD3020A
UCD3020ARGZT.A	Active	Production	VQFN (RGZ) 48	250 SMALL T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	UCD3020A

⁽¹⁾ **Status:** For more details on status, see our [product life cycle](#).

⁽²⁾ **Material type:** When designated, preproduction parts are prototypes/experimental devices, and are not yet approved or released for full production. Testing and final process, including without limitation quality assurance, reliability performance testing, and/or process qualification, may not yet be complete, and this item is subject to further changes or possible discontinuation. If available for ordering, purchases will be subject to an additional waiver at checkout, and are intended for early internal evaluation purposes only. These items are sold without warranties of any kind.

⁽³⁾ **RoHS values:** Yes, No, RoHS Exempt. See the [TI RoHS Statement](#) for additional information and value definition.

⁽⁴⁾ **Lead finish/Ball material:** Parts may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

⁽⁵⁾ **MSL rating/Peak reflow:** The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will be used to mount the part to the printed circuit board.

⁽⁶⁾ **Part marking:** There may be an additional marking, which relates to the logo, the lot trace code information, or the environmental category of the part.

Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "-" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

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TAPE AND REEL INFORMATION


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TAPE AND REEL BOX DIMENSIONS



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GENERIC PACKAGE VIEW

RGZ 48

VQFN - 1 mm max height

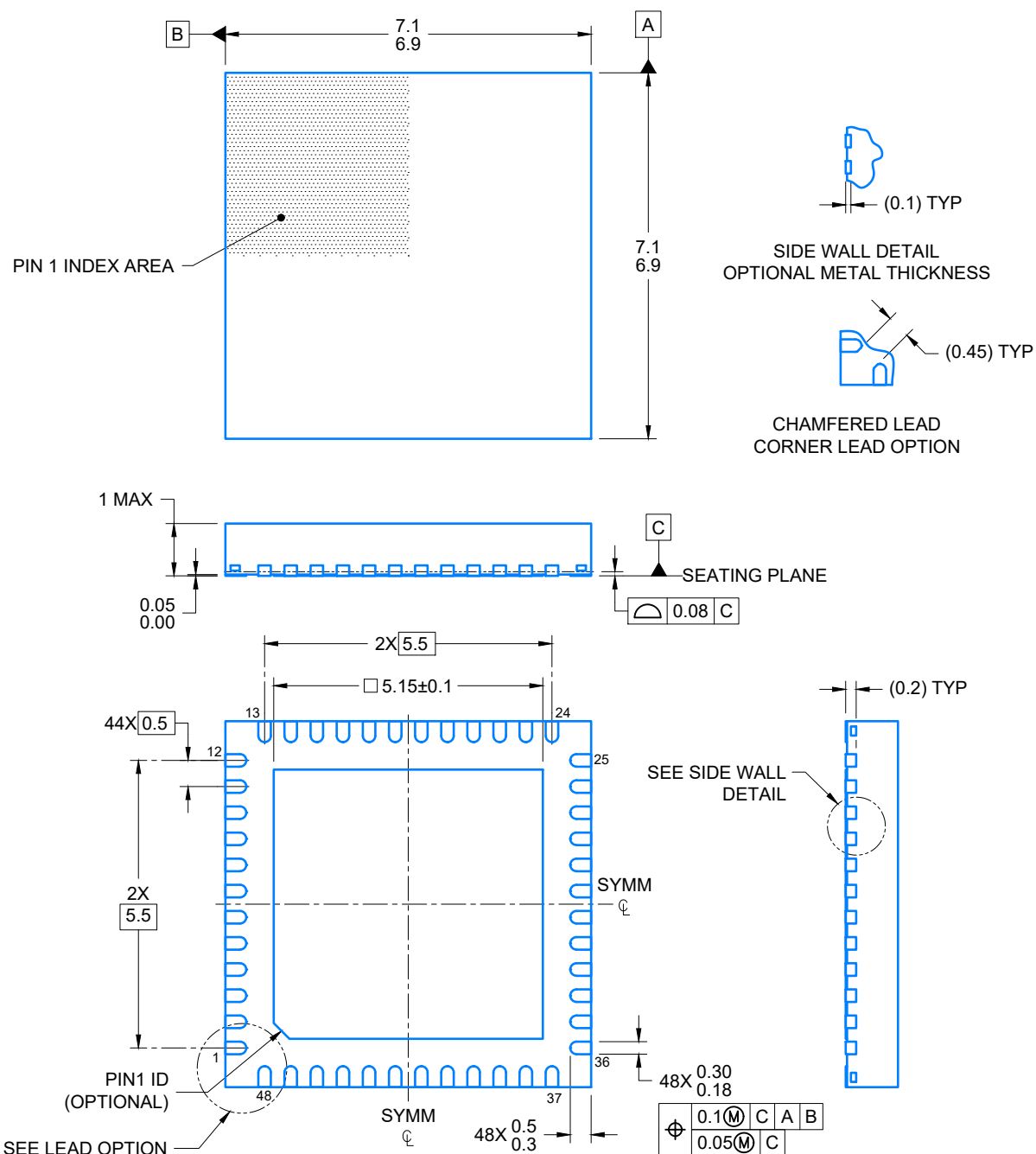
7 x 7, 0.5 mm pitch

PLASTIC QUADFLAT PACK- NO LEAD



Images above are just a representation of the package family, actual package may vary.
Refer to the product data sheet for package details.

4224671/A



4219044/D 02/2022

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 optimal thermal and mechanical performance.

VQFN - 1 mm max height

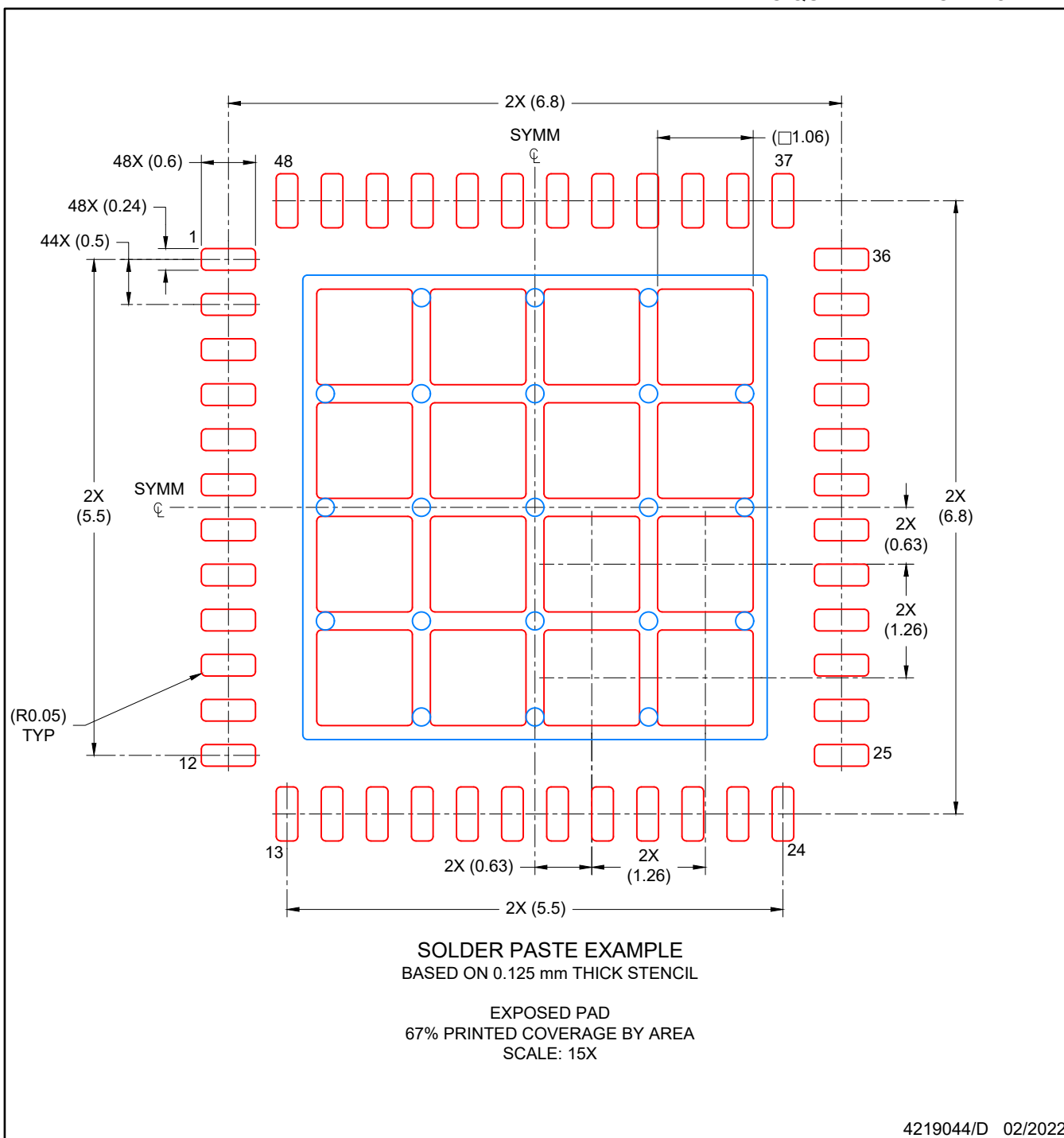
LAND PATTERN EXAMPLE

SCALE: 15X

SOLDER MASK DETAILS

- 0.07 MAX ALL AROUND
- EXPOSED METAL
- SOLDER MASK OPENING
- METAL
- NON SOLDER MASK DEFINED (PREFERRED)
- 0.07 MIN ALL AROUND
- SOLDER MASK OPENING
- EXPOSED METAL
- METAL UNDER SOLDER MASK
- SOLDER MASK DEFINED

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).
5. Vias are optional depending on application, refer to device data sheet. If any vias are implemented, refer to their locations shown on this view. It is recommended that vias under paste be filled, plugged or tented.



NOTES: (continued)

6. 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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