

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.

PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead finish/ Ball material (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
TPS51640ARSLR	ACTIVE	VQFN	RSL	48	2500	RoHS & Green	NIPDAU	Level-1-260C-UNLIM	-10 to 105	TPS 51640A	Samples
TPS51640ARSLT	ACTIVE	VQFN	RSL	48	250	RoHS & Green	NIPDAU	Level-1-260C-UNLIM	-10 to 105	TPS 51640A	Samples
TPS59640RSLR	ACTIVE	VQFN	RSL	48	2500	RoHS & Green	NIPDAU	Level-1-260C-UNLIM	-40 to 105	TPS 59640	Samples
TPS59640RSLT	ACTIVE	VQFN	RSL	48	250	RoHS & Green	NIPDAU	Level-1-260C-UNLIM	-40 to 105	TPS 59640	Samples
TPS59641RSLR	ACTIVE	VQFN	RSL	48	2500	RoHS & Green	NIPDAU	Level-1-260C-UNLIM	-40 to 105	TPS 59641	Samples
TPS59641RSLT	ACTIVE	VQFN	RSL	48	250	RoHS & Green	NIPDAU	Level-1-260C-UNLIM	-40 to 105	TPS 59641	Samples

(1) The marketing status values are defined as follows:

ACTIVE: Product device recommended for new designs.

LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

PREVIEW: Device has been announced but is not in production. Samples may or may not be available.

OBSOLETE: TI has discontinued the production of the device.

(2) **RoHS:** TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".

RoHS Exempt: TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.

Green: TI defines "Green" to mean the content of Chlorine (Cl) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of <=1000ppm threshold. Antimony trioxide based flame retardants must also meet the <=1000ppm threshold requirement.

(3) MSL, Peak Temp. - The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

(4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.

(5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.

⁽⁶⁾ Lead finish/Ball material - Orderable Devices 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.

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TAPE AND REEL INFORMATION

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
TPS51640ARSLR	VQFN	RSL	48	2500	330.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
TPS51640ARSLT	VQFN	RSL	48	250	180.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
TPS59640RSLR	VQFN	RSL	48	2500	330.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
TPS59640RSLT	VQFN	RSL	48	250	180.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
TPS59641RSLR	VQFN	RSL	48	2500	330.0	16.4	6.3	6.3	1.1	12.0	16.0	Q2
TPS59641RSLT	VQFN	RSL	48	250	180.0	16.4	6.3	6.3	1.1	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)
TPS51640ARSLR	VQFN	RSL	48	2500	367.0	367.0	38.0
TPS51640ARSLT	VQFN	RSL	48	250	182.0	182.0	20.0
TPS59640RSLR	VQFN	RSL	48	2500	367.0	367.0	38.0
TPS59640RSLT	VQFN	RSL	48	250	182.0	182.0	20.0
TPS59641RSLR	VQFN	RSL	48	2500	367.0	367.0	38.0
TPS59641RSLT	VQFN	RSL	48	250	182.0	182.0	20.0

GENERIC PACKAGE VIEW

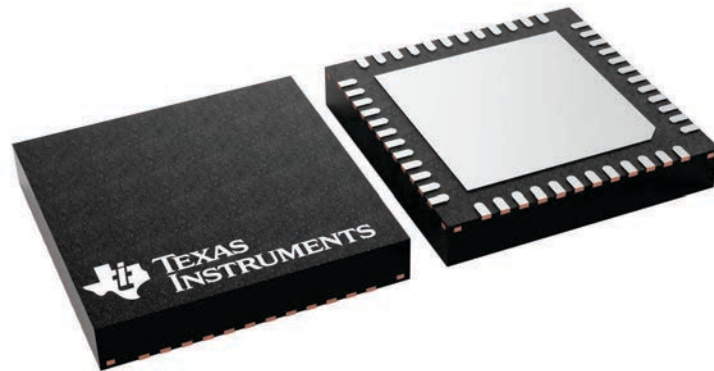
RSL 48

VQFN - 1 mm max height

6 x 6, 0.4 mm pitch

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.



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