



# SPPL12420RH

## 2 A Synchronous Rectified Step-Down (PoL) Converter

### ORDERING INFORMATION

ORDER NUMBER	DESCRIPTION
SPPL12420RH-EM	Engineering Model (EM)
SPPL12420RH-QM	Qualification Model (QM)
SPPL12420RH-FM	Flight Model (FM) - ESCC 9000 certified (ESCC Component Number 910201401P)
SPPL12420EVK	Standard Evaluation Kit: 2 A buck application board with 1x SPPL12420RH-EM configured for 3.3 V <sub>OUT</sub> <sup>1)</sup>
SPPL12420EVK-BB	Buck-Boost Evaluation Kit: buck-boost application board with 1x SPPL12420RH-EM configured for -3.3 V <sub>OUT</sub> <sup>1)</sup>
SPPL12420EVK-LS	Load-Sharing Evaluation Kit: 4 A dual buck application board with 2x SPPL12420RH-EM configured for 3.3 V <sub>OUT</sub> <sup>1)</sup>

<sup>1)</sup> Customization on request

### QUALITY LEVELS

SYMBOL	EM	QM	FM <sup>2)</sup>
Wafer selection			■
WLAT according to ESCC 9000			■
Ceramic dual in-line FP-16 package	■	■	■
Internal visual inspection according to MIL-STD-883 TM 2010		■	■
Hermetic seal tested		■	■
Electrical test @ room temperature	■	■	■
Electrical test @ low and high temperature		■	■
Screening according to ESCC 9000		□ <sup>3)</sup>	■
Lot failure checks according to ESCC 9000			■
ESCC 9000 certified (Certificate of Qualification No. 376)			■
Customer pre-cap inspection possible			□
Data package available for order			□
Dedicated tests available on request			□
Parts selection available for order			□

<sup>2)</sup> For Flight Models the related ESCC Detail Specification 9102/014 is relevant only.

<sup>3)</sup> Partial screening. Full screening available on order.

## INTENDED USE

The SPPL12420RH is a radiation hardened high-reliability integrated circuit for space applications. It comes in a hermetic ceramic power flatpack 16 with heatsink. The device can be ordered in 3 quality levels - EM, QM and FM:

**Engineering Models (EM)** are basically electrically tested. They are for evaluation purposes only and are NOT suitable for qualification of modules or for flight missions. Engineering Models are sold „AS IS“ with no warranty of full datasheet compliance.

**Qualification Models (QM)** are screened for datasheet compliance. They are intended for qualification of modules but are NOT suitable for flight missions.

**Flight Models (FM)** are ESCC 9000 certified (ESCC P/N 910201401P, Certificate of Qualification No. 376) and intended for flight missions. They are compliant with the ESCC Detail Specification 9102/014.

## PACKING

- The SPPL12420RH in flatpack 16 are individually inserted in protective plastic carriers.
- The devices in the carriers are inserted in ESD protective plastic bags which are marked with an ESD warning imprint and labelled with the respective device serial number.
- The devices in the ESD bags are packed and delivered in sealed shipping boxes with antistatic foam.

## HANDLING PRECAUTIONS

The SPPL12420RH is susceptible to damage by improper handling:

- Although the SPPL12420RH features ESD protection circuitry, permanent damage may occur on devices subjected to high energy ESD. Do not unbag or handle the device without proper ESD precautions applied.
- Take care when removing the device from the protective plastic carrier to avoid bending of the leads and mechanical damage. Please check out the [instructional video](#).

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