



SPPL12420RH

2 A Synchronous Rectified Step-Down Converter

ORDERING INFORMATION

ORDER NUMBER	DESCRIPTION
SPPL12420RH-EM	Engineering Model (EM)
SPPL12420RH-QM	Qualification Model (QM)
SPPL12420RH-FM	Flight Model (FM)
SPPL12420EVK	Standard Evaluation Kit: 2 A buck application board with 1x SPPL12420RH-EM configured for 3.3 V _{OUT} ¹⁾
SPPL12420EVK-BB	Buck-Boost Evaluation Kit: buck-boost application board with 1x SPPL12420RH-EM configured for -3.3 V _{OUT} ¹⁾
SPPL12420EVK-LS	Load-Sharing Evaluation Kit: 4 A dual buck application board with 2x SPPL12420RH-EM configured for 3.3 V _{OUT} ¹⁾

¹⁾ Customization on request

QUALITY LEVELS

SYMBOL	EM	QM	FM ²⁾
Wafer selection			■
WLAT including SEM, TID and lifetime tests			■
Ceramic dual in-line FP-16 package	■	■	■
Internal visual inspection according to ESCC 2049000		■	■
Hermetically sealed		■	■
Electrical test @ room temperature	■	■	■
Electrical test @ low and high temperature		■	■
Screening according to ESCC 9000		□ ³⁾	■
Lot failure checks according to ESCC 9000			■
Production lot validation testing (LAT) according to ESCC 9000			■
Customer pre-cap inspection possible			□
Data package available for order			□
Dedicated tests available on request			□
Parts selection available for order			□

²⁾ For Flight Models the related Procurement Specification is relevant only.

³⁾ Partial screening. Full screening available for 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 qualification tested and intended for flight missions. They are compliant with the SPPL12420RH Procurement Specification.

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.

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