

Bidirectional Buck-Boost Voltage Regulator

| | |
|---------------|---|
| Manufacturers | Renesas Technology Corp |
| Package/Case | 32pin-TQFN |
| Product Type | Power Management ICs |
| RoHS | |
| Lifecycle | |



Images are for reference only

Please submit RFQ for RAA489800ARGNP#HA0 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The RAA489800 is a bidirectional, buck-boost voltage regulator that provides buck-boost voltage regulation and protection features. The advanced Renesas R3™ Technology provides high light-load efficiency, fast transient response, and seamless DCM/CCM transitions.

The RAA489800 takes input power from a wide range of DC power sources up to 23V (such as conventional AC/DC adapters (ADP), USB PD ports, travel ADP) and safely converts it to a regulated voltage up to 21V. The RAA489800 can also convert a wide range DC power source connected at its output (system side) to a regulated voltage to its input (ADP side). This bidirectional buck-boost regulation feature makes the RAA489800's application very flexible. In addition to 4-switch buck-boost configuration, it can also support 2-switch Buck mode operation.

The RAA489800 includes various system operation functions such as the Forward mode enable pin, Reverse mode enable pin, programmable soft-start time, and adjustable forward and reverse VOUT. It also has forward and reverse power-good indicators. The protection functionalities include OCP, OVP, UVP, and OTP.

The RAA489800 has serial communication through SMBus/I2C that allows programming of many critical parameters to deliver a customized solution. These programming parameters include, but are not limited to: output current limit, input current limit, and output voltage setting.

Features

Bidirectional buck, boost, and buck-boost operation

Configurable for 4-switch buck-boost or 2-switch buck operation

Input voltage range: 3.8V to 23V (no dead zone)

Output voltage: up to 21V

Up to 1MHz switching frequency

Pin programmable soft-start time

LDO output for VDD and VDDP

System FAULT status ALERT function

Input/output internal discharge function

Active switching for negative voltage transitions

Pass Through mode in both directions

Forward and Reverse mode enable pins

OCP, OVP, UVP, and OTP protection

Absolute overvoltage protection

SMBus and auto-increment I²C compatible

Pb-free (RoHS compliant)

32 Ld 4x4 TQFN package

UL 2367, IEC 62368-1: File No. E520109



ovaga

(P) CUST P/N:
[Barcode]

(1P) RENESAS P/N: **RAA489800ARGNP#HA0**
[Barcode]

(1T) LOT NBR: **Y1H745.1C**
[Barcode]

(D) **2038**
[Barcode]

(Q) QTY: **6000**
[Barcode]

MSL 3 PBT: 260 Deg C

(V) SUPPLIER: **RENESAS**
[Barcode]

LLQ: 6000

27388A

~~Pb~~ e3

QQA
D15
ACC

COUNTRY OF ORIGIN
MALAYSIA



Related Products



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DFN-10



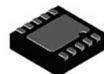
[ISL80510IRAJZ](#)

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8pin-DFN



[ISL80113IRAJZ](#)

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[ISL80103IRAJZ-TK](#)

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DFN-10, 3 x 3



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