DC/DC regulators up to 16A / 80W

Key Features

- · Surface mountable
- Low profile, max 8.5mm (0.33 in)
- · High efficiency
- Low weight
- · Designed For Environment, DfE
- Lead-free / Bromine-free
- Robust design
- · Standard and full-feature versions



The PMA series of DC/DC regulators (POL) are intended to be used as local distributed power sources in distributed power architecture level 4. The PMA series use a ceramic substrate with fine-pitch components technology and a high degree of silicon integration. Together with the electrical design using low Rds-On MOSFET, this provides excellent thermal management, high reliability and high efficiency. The high efficiency makes it possible to operate over a wide temperature range, without adding any external heat dissipator. At forced convection cooling >1 m/s (200 lfm), the PMA typically delivers full power up to +80 °C ambient temperature.

The high reliability and the low profile of the PMA series makes them particularly suited for the communications equipment of today and tomorrow and applications with board spacing down to 15 mm (0.6 in). The flat case top enables pick-and-place handling and provides a surface for attachment to cooling surfaces in areas with limited air flow. These products are manufactured using the most advanced technologies and materials to comply with environmental requirements. Designed to meet high reliability requirements of systems manufacturers, the PMA responds to world-class specifications. Ericsson Power Modules is an ISO 9001/14001 certified supplier.



Product Program

| Input Voltage | Output Voltage | Output Current | Output Power | Part No. |
|---------------|----------------|----------------|--------------|----------------|
| | 1.2 V | 12 A | 14.4 W | PMA 4118L S/SF |
| 3.0 - 3.6 V | 1.5 V | 12 A | 18.0 W | PMA 4118H S/SF |
| | 1.8 V | 12 A | 21.6 W | PMA 4218G S/SF |
| | 2.5 V | 12 A | 30.0 W | PMA 4119 S/SF |
| | 1.2 V | 12 A | 14.4 W | PMA 5118L S/SF |
| | 1.5 V | 12 A | 18.0 W | PMA 5118H S/SF |
| 4.5 - 5.5 V | 1.8 V | 12 A | 21.6 W | PMA 5218G S/SF |
| | 2.5 V | 12 A | 30.0 W | PMA 5319 S/SF |
| | 3.3 V | 12 A | 39.6 W | PMA 5310 S/SF |
| | 1.5 V | 16 A | 24.0 W | PMA 8218H SF* |
| 9.0 - 16.0 V | 3.3 V | 16 A | 53.0 W | PMA 8510 SF** |
| | 5.0 V | 16 A | 80.0 W | PMA 8811 SF |

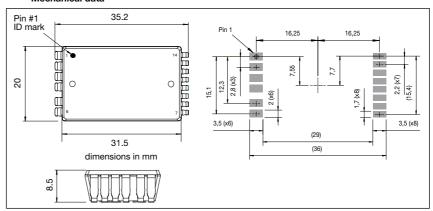
S = Surface mount

Connections

| Pin | Designation | Function | | |
|------|------------------|--|--|--|
| 1-2 | +Out | Positive output | | |
| 3-4 | GND | Ground | | |
| 5-6 | +In | Positive input | | |
| 7 | Sync In | Synchronization input | | |
| 8 1) | Sync select | Connect to ground when used as slave | | |
| 9 | Sync Out | Synchronization output | | |
| 10 | RC | Remote control | | |
| 11 | RC select | Select pin for neg./pos. logic ²⁾ | | |
| 12 | V _{adj} | Output voltage adjust | | |
| 13 | +S | Remote sensing | | |
| 14 | NC | Not connected | | |

Applicable for 4000 and 5000 series. Not connected (NC) for 8000 series.

Mechanical data



New Product Overview is intended for discussion to determine interest and requirements. Information provided is believed to be accurate and reliable. Ericsson Power Modules makes no commitment to sample or manufacture for sale these products and reserves the right to make changes to the product, or information contained herein, without notice.

Ericsson Power Modules

SE-141 75 Kungens Kurva, Sweden Telephone: +46 8 568 69620

For local sales contacts, please refer to our website www.ericsson.com/powermodules

or call: Int +46 8 568 69620, Fax: +46 8 568 69599

Americas

Ericsson Inc., Power Modules

+1-877-374-2642

Asia/Pacific

Ericsson Ltd. +852-2590-7152

New Product Overview

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F = Full-filter feature

^{*} adjustable from 1.0V to 2.3V out

^{**} adjustable from 2.3V to 3.6V out

²⁾ Connect to -In for negative logic or leave open for positive logic on RC pin.