

RBB10-2.0



The RBB10-2.0 series is a 4A non-isolated buck/boost regulator power module where the input voltage can be higher, lower or same as output voltage. Transition from buck to boost mode is smooth without any interruption to the output. The compact DOSA-compatible footprint module has a low profile of only 3.9mm, but with an efficiency of up to 95%, the RBB10-2.0 can operate at full load in ambient temperatures as high as 85°C without forced air cooling. The package has 6-sided shielding for optimal EMC performance and excellent thermal management. Typical applications include USB voltage regenerators, 3.3V<->5V converters and supercapacitor or Li-Ion battery regulators.

Unique selling proposition:	Buck/Boost regulator with up to 4A output//input voltage can be higher, lower or the same as output voltage//Up to 95% efficiency//low profile (3.75mm) // DOSA conform 25pad LGA package// -40°C to +85°C operation without forced cooling
Target customer:	Embedded controllers//Supercap regulator//USB 3.1 voltage stabilizer// Li-Ion Battery-powered IoT
Main features:	Up to 4A output current//Vin range 2.3V-5.5V// 3.3V and 5V outputs as standard, trimmable from 1.0V-5.5V // 6-sided EMC shielding// high efficiency from 2%-100% load// 7µA standby
Web release date:	October 8th, 2018
Available from sample stock:	RBB10-2.0;

RBB10-2.0-EVM-xx



The RBB10-2.0-EVM-1 evaluation board generates a regulated output voltage with a current up to 4A from an external DC supply which can be higher, lower or the same as the set output voltage. The output voltage is preset to 3.3V or 5V but can be adjusted between 1.0V and 5.5V using on-board resistors. All of the functions of the RBB10-2.0 regulator such as the different operating modes, output trim, enable, and the sense input can be easily evaluated using the break out connectors.

Unique selling proposition:	Evaluation platform for the RBB10 buck/boost regulator //Input voltage can be lower, higher or the same as output voltage// Class B EMC filter layout //Built-in thermal management//Easy evaluation of trim, enable and sensing function of the RBB10 modules
Target customer:	Embedded design engineers// IoT systems//USB3.1 powered devices// 3.3V<->5.0V conversion// supercapacitor regulators
Main features:	Fast prototyping//Regulated 3.3 or 5V output// trimmable over 1.0-5.5V range with on-board resistors// enable and sense pins// on-board EMC filter
Web release date:	October 29th, 2018
Available from sample stock:	RBB10-2.0-EVM-1;

RPM-1.0



1A SMD low-profile non-isolated switching regulator power module with a full set of features including adjustable output, sequencing, soft-start control, on/off control, and power good signals. The ultra-compact module has a profile of only 3.75mm, but with an efficiency of up to 99%, the device can operate at full load in ambient temperatures as high as +107°C without forced air cooling. The package is complete with 6-sided shielding for optimal EMC performance and excellent heat management.

Unique selling proposition:	High power density SMD power module // Low-profile DOSA pinout // Extended temperature range to 107°C at 1A without derating // 6-sided shielding for superior EMI performance // 99% maximum efficiency – no heatsinks needed
Target customer:	Industrial // Networks // Storage // FPGA // Battery-powered equipment // Telecommunications // POL applications
Main features:	12.19x12.19x3.75mm SMD package // 3 – 17VDC input // 0.9 – 6.0VDC adjustable output // 99% maximum efficiency // 107°C maximum operating temperature at full load // 8K/W thermal impedance // sequencing // soft-start control // on/off control // power good signal
Web release date:	October 8th, 2018
Available from sample stock:	RPM3.3-1.0; RPM5.0-1.0;

RPM-2.0



2A SMD low-profile non-isolated switching regulator power module with a full set of features including adjustable output, sequencing, soft-start control, on/off control, and power good signals. The ultra-compact module has a profile of only 3.75mm, but with an efficiency of up to 98%, the device can operate at full load in ambient temperatures as high as +105°C without forced air cooling. The package is complete with 6-sided shielding for optimal EMC performance and excellent heat management.

Unique selling proposition:	High power density SMD power module // Low-profile DOSA pinout // Extended temperature range to 105°C at 2A without derating // 6-sided shielding for superior EMI performance // 98% maximum efficiency – no heatsinks needed
Target customer:	Industrial // Networks // Storage // FPGA // Battery-powered equipment // Telecommunications // POL applications
Main features:	12.19x12.19x3.75mm SMD package // 3 – 17VDC input // 0.9 – 6.0VDC adjustable output // 98% maximum efficiency // 105°C maximum operating temperature at full load // 8K/W thermal impedance // sequencing // soft-start control // on/off control // power good signal
Web release date:	October 8th, 2018
Available from sample stock:	RPM3.3-2.0; RPM5.0-2.0;

RPM-3.0



3A SMD low-profile non-isolated switching regulator power module with a full set of features including adjustable output, sequencing, soft-start control, on/off control, and power good signals. The ultra-compact module has a profile of only 3.75mm, but with an efficiency of up to 97%, the device can operate at full load in ambient temperatures as high as +105°C without forced air cooling. The package is complete with 6-sided shielding for optimal EMC performance and excellent heat management.

Unique selling proposition:	High power density SMD power module // Low-profile DOSA pinout // Extended temperature range to 105°C at 3A without derating // 6-sided shielding for superior EMI performance // 97% maximum efficiency – no heatsinks needed
Target customer:	Industrial // Networks // Storage // FPGA // Battery-powered equipment // Telecommunications // POL applications
Main features:	12.19x12.19x3.75mm SMD package // 3 – 17VDC input // 0.9 – 6.0VDC adjustable output // 97% maximum efficiency // 105°C maximum operating temperature at full load // 8K/W thermal impedance // sequencing // soft-start control // on/off control // power good signal
Web release date:	October 8th, 2018
Available from sample stock:	RPM3.3-3.0; RPM5.0-3.0;

RPM-6.0



6A SMD low-profile non-isolated switching regulator power module with a full set of features including adjustable output, sequencing, soft-start control, on/off control, and power good signals. The ultra-compact module has a profile of only 3.75mm, but with an efficiency of up to 99%, the device can operate at full load in ambient temperatures as high as +90°C without forced air cooling. The package is complete with 6-sided shielding for optimal EMC performance and excellent heat management.

Unique selling proposition:	High power density SMD power module // Low-profile DOSA pinout // Extended temperature range to 90°C at 6A without derating // 6-sided shielding for superior EMI performance // 99% maximum efficiency – no heatsinks needed
Target customer:	Industrial // Networks // Storage // FPGA // Battery-powered equipment // Telecommunications // POL applications
Main features:	12.19x12.19x3.75mm SMD package // 4 – 17VDC input // 0.9 – 6.0VDC adjustable output // 99% maximum efficiency // 90°C maximum operating temperature at full load // 8K/W thermal impedance // sequencing // soft-start control // on/off control // power good signal
Web release date:	October 8th, 2018
Available from sample stock:	RPM3.3-6.0; RPM5.0-6.0;

RPMx.x.x-EVM-xx



Evaluation boards for RPM-1.0, RPM-2.0, RPM-3.0, and RPM-6.0 power modules which generate a constant output voltage with an output current up to 6A from an external DC Source. All the functions of the RPM power modules such as trimming, sequencing, soft-start, enable and sensing can be evaluated. Also the behavior in overload or over temperature can be easily evaluated early in the design phase.

Unique selling proposition:	Evaluation board for RPM power modules // Quick, easy analysis of power module performance // Complete EMC and thermal design // Fast prototyping
Target customer:	Design Engineers // Industrial // Networks // Storage // FPGA // Battery-powered equipment // Telecommunications // POL applications
Main features:	4-layer PCB // Thermal management // Class B EMC // Connectors to test trimming, sequencing, soft-start, enable, and sensing functions
Web release date:	October 29th, 2018
Available from sample stock:	RPM3.3-1.0-EVM-1; RPM5.0-1.0-EVM-1; RPM3.3-2.0-EVM-1; RPM5.0-2.0-EVM-1; RPM3.3-3.0-EVM-1; RPM5.0-3.0-EVM-1; RPM3.3-6.0-EVM-1; RPM5.0-6.0-EVM-1;

RP40Q-RUW



The quarter-brick RP40Q series DC/DC converter is designed for railway rolling stock and high voltage battery applications. It has a 12:1 input voltage range to cover all input voltages from nominal 24VDC up to 110VDC in a single product (including EN50155 transients) and offers isolated and regulated 5V, 12V, 15V, 24V or 48VDC outputs with sense and trim pins. The converter has a consistently high efficiency over the entire input voltage range and has an operating temperature range from -40°C to +85°C without forced air cooling or derating. The case is fitted with threaded inserts for secure mounting in high shock and vibration environments. The converter is CE marked and comes with a three year warranty.

Unique selling proposition:	12:1 input voltage range// covers all standard railway voltages from 24V to 110VDC with one part// 3kVDC isolation// High efficiency over entire input voltage range// Quarter brick case with threaded inserts//EN 50155 conform
Target customer:	Railway Rolling Stock// High voltage battery systems// UPS battery back-up
Main features:	40W converter in quarter brick format//16-160VDC nominal input range, 14-185V abs. max. // 5, 12, 15, 24 or 48V output // 3kVDC/1minute isolation // 90% efficiency (typ.) // Output sense and trim // -40°C to +85°C with natural convection only //CE marked // 3 year warranty
Web release date:	January 7th, 2019
Available from sample stock:	RP40Q-11005SRUW/P; RP40Q-11012SRUW/P; RP40Q-11015SRUW/P; RP40Q-11024SRUW/P;

RP60Q-RUW



The quarter-brick RP60Q series DC/DC converter is designed for railway rolling stock and high voltage battery applications. It has a 12:1 input voltage range to cover all input voltages from nominal 24VDC up to 110VDC in a single product (including EN50155 transients) and offers isolated and regulated 5V, 12V, 15V, 24V or 48VDC outputs with sense and trim pins. The converter has a consistently high efficiency over the entire input voltage range and has an operating temperature range from -40°C to +68°C without forced air cooling or derating. The case is fitted with threaded inserts for secure mounting in high shock and vibration environments. The converter is CE marked and comes with a three year warranty.

Unique selling proposition:	12:1 input voltage range// covers all standard railway voltages from 24V to 110VDC with one part// 3kVDC isolation// High efficiency over entire input voltage range// Quarter brick case with threaded inserts//EN 50155 conform
Target customer:	Railway Rolling Stock// High voltage battery systems// UPS battery back-up
Main features:	60W converter in quarter brick format//16-160VDC nominal input range, 14-185V abs. max. // 5, 12, 15, 24 or 48V output // 3kVDC/1minute isolation // 90% efficiency (typ.) // Output sense and trim // -40°C to +68°C with natural convection only // CE marked // 3 year warranty
Web release date:	January 7th, 2019
Available from sample stock:	RP60Q-11005SRUW/P; RP60Q-11012SRUW/P; RP60Q-11015SRUW/P; RP60Q-11024SRUW/P

REM3.5E



The REM3.5E series of medical grade regulated DC/DC converters feature reinforced 250VAC continuous working isolation with >8mm creepage/clearance. The compact DIP24 package offers industry standard pinouts with tightly regulated single/dual outputs and UVLO, SCP, OCP and OVP. The operating ambient temperature range is from -40°C to +85°C without derating. The converters are UL marked and certified to CB, IEC, EN and ANSI/AAMI 60601 3rd. Ed. Safety and 4th Ed. EMC medical standards. The low 1µA leakage current makes them suitable for medical B, BF and CF applications.

Unique selling proposition:	2MOPP/250VAC working// creepage/clearance > 8mm// 10kVDC reinforced isolation// IEC/EN/UL60601 certified with CB Report// -40°C to +85°C operation without derating.
Target customer:	Medical applications // high isolation DC/DC
Main features:	3.5W Medical grade DC/DC converter in industry standard DIP24 package// 5V, 12V, 24V or 48V input// single and dual outputs//10kVDC reinforced isolation// certified to 3rd Edition 60601-1 safety (2MOPP/250VAC working) and 4th Edition 60601-1-2 EMC// Suitable for B/BF and CF applications (Leakage < 1µA)
Web release date:	November 12th, 2018
Available from sample stock:	REM3.5E-0505S/R8/A; REM3.5E-1205S/R8/A;

REM5E



The REM5E series of medical grade regulated DC/DC converters feature reinforced 250VAC continuous working isolation with >8mm creepage/clearance. The compact DIP24 package offers industry standard pinouts with tightly regulated single/dual outputs and UVLO, SCP, OCP and OVP. The operating ambient temperature range is from -40°C to +80°C without derating. The converters are UL marked and certified to CB, IEC, EN and ANSI/AAMI 60601 3rd. Ed. Safety and 4th Ed. EMC medical standards. The low 1µA leakage current makes them suitable for medical B, BF and CF applications.

Unique selling proposition:	2MOPP/250VAC working// creepage/clearance > 8mm// 10kVDC reinforced isolation// IEC/EN/UL60601 certified with CB Report// -40°C to +80°C operation without derating.
Target customer:	Medical applications // high isolation DC/DC
Main features:	5W Medical grade DC/DC converter in industry standard DIP24 package// 5V, 12V, 24V or 48V input// single and dual outputs//10kVDC reinforced isolation// certified to 3rd Edition 60601-1 safety (2MOPP/250VAC working) and 4th Edition 60601-1-2 EMC// Suitable for B/BF and CF applications (Leakage < 1µA)
Web release date:	November 12th, 2018
Available from sample stock:	REM5E-0505S/R8/A; REM5E-1205S/R8/A;

REM6E



The REM6E series of medical grade regulated DC/DC converters feature reinforced 250VAC continuous working isolation with >8mm creepage/clearance. The compact DIP24 package offers industry standard pinouts with tightly regulated single/dual outputs and UVLO, SCP, OCP and OVP. The operating ambient temperature range is from -40°C to +75°C without derating. The converters are UL marked and certified to CB, IEC, EN and ANSI/AAMI 60601 3rd. Ed. Safety and 4th Ed. EMC medical standards. The low 1µA leakage current makes them suitable for medical B, BF and CF applications.

Unique selling proposition:	2MOPP/250VAC working// creepage/clearance > 8mm// 10kVDC reinforced isolation// IEC/EN/UL60601 certified with CB Report
Target customer:	Medical applications // high isolation DC/DC
Main features:	6W Medical grade DC/DC converter in industry standard DIP24 package// 5V, 12V, 24V or 48V input// single and dual outputs//10kVDC reinforced isolation// certified to 3rd Edition 60601-1 safety (2MOPP/250VAC working) and 4th Edition 60601-1-2 EMC// Suitable for B/BF and CF applications (Leakage < 1µA)
Web release date:	November 12th, 2018
Available from sample stock:	REM6E-1212S/R8/A; REM6E-2412S/R8/A;

RAC15-K extension



To expand upon the early success of the RAC15-K series, new modules with 12V, 15V and 24V output are now available. The RAC15-K series are highly efficient PCB-mount power conversion modules with ultra-low energy losses especially in light load conditions, making them a benchmark for always-on and standby mode operations, which are typically coming along with IoT and smart applications. The power supply units cover worldwide mains input range of 85VAC up to 264VAC and come with international safety certifications for industrial, AV and ITE as well as household standards. These AC/DC modules operate in a temperature range of -40°C to +85°C and offer fully protected single or dual outputs as well as EMC class B compliance without the need of any external components.

Unique selling proposition:	Wide input range 85-264VAC // Standby mode optimized PSU (ENER Lot 6) // Ultra-high efficiency over entire load range // Operating temperature range: -40°C to +85°C // Overvoltage and overcurrent protected // excellent EMC performance without external components // No load power consumption < 75mW // Household certified
Target customer:	Automation // Industry 4.0 // IoT // Household applications // Smart buildings
Main features:	15 Watt AC/DC power module // Wide input range 85-264VAC // Operating temperature range: -40°C to +85°C // Fully protected outputs // 50mm x 25mm x 23mm case
Web release date:	October 22st, 2018
Available from sample stock:	RAC15-12SK; RAC15-15SK; RAC15-24SK;

RAC20-K extension



To expand upon the early success of the RAC20-K series, new modules with 12V, 15V, 24V and 48V output are now available. The RAC20-K series are highly efficient PCB-mount power conversion modules with ultra-low energy losses especially in light load conditions, making them a benchmark for always-on and standby mode operations, which are typically coming along with IoT and smart applications. The power supply units cover worldwide mains input range of 85VAC up to 264VAC and come with international safety certifications for industrial, AV and ITE as well as household standards. These AC/DC modules operate in a temperature range of -40°C to +85°C and offer fully protected single or dual outputs as well as EMC class B compliance without the need of any external components.

Unique selling proposition:	Wide input range 85-264VAC // Standby mode optimized PSU (ENER Lot 6) // Ultra-high efficiency over entire load range // Operating temperature range: -40°C to +85°C // Overvoltage and overcurrent protected // excellent EMC performance without external components // No load power consumption < 75mW // Household certified // Wired versions available // Dual output versions available
Target customer:	Automation // Industry 4.0 // IoT // Household applications // Smart buildings
Main features:	20 Watt AC/DC power module // Wide input range 85-264VAC // Operating temperature range: -40°C to +85°C // Fully protected outputs // 50mm x 25mm x 23mm case
Web release date:	October 22st, 2018
Available from sample stock:	RAC20-12SK; RAC20-15SK; RAC20-24SK; RAC20-48SK; RAC20-12DK; RAC20-15DK; RAC20-12SK/W; RAC20-15SK/W; RAC20-24SK/W;