RECOM POWER MODULE COLLECTION

Isolated and Non-isolated Miniature DC/DC Converters

3D POWER PACKAGING 3D PP ®

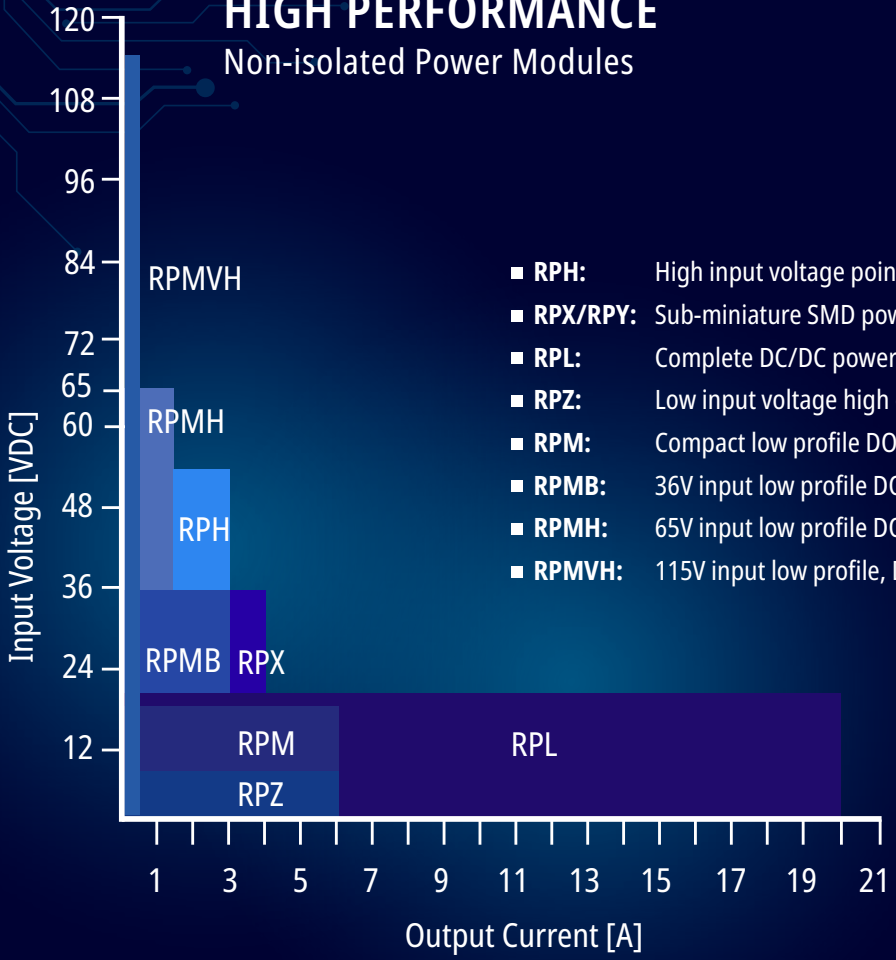
WE POWER YOUR PRODUCTS

POWER SUPPLIES FOR DISTRIBUTED POWER ARCHITECTURE

RECOM

HIGH PERFORMANCE

Non-isolated Power Modules

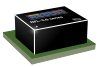


- **RPH:** High input voltage point of load converters
- **RPX/RPY:** Sub-miniature SMD power modules
- **RPL:** Complete DC/DC power supplies with integrated inductors
- **RPZ:** Low input voltage high current power modules
- **RPM:** Compact low profile DOSA-compatible LGA converters
- **RPMB:** 36V input low profile DOSA-compatible LGA converters
- **RPMH:** 65V input low profile DOSA-compatible LGA converters
- **RPMVH:** 115V input low profile, DOSA-compatible LGA converters

Series		Iout (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Other Features
	RPZ-0.5	0.5	2.3-5.5	0.6-5.375	QFN 2.0 x 2.0 x 1.6 mm (0.08" x 0.08" x 0.06")	SCP, OCP, OVP, and UVLO, efficiency up to 91% operating temperature range: -40°C to +125°C (with derating)
	RPZ-1.0	1	2.3-5.5	0.6-5.25	QFN 2.0 x 2.0 x 1.6 mm (0.08" x 0.08" x 0.06")	SCP, OCP, and UVLO, efficiency up to 88%, operating temperature range: -40°C to +125°C (with derating) ultra compact design with low profile (1.6mm)
	RPZ-2.0	2	2.75-6	0.6-5.74	QFN 2.5 x 3.5 x 1.6 mm (0.1" x 0.14" x 0.06")	SCP, OCP, and UVLO, efficiency up to 90%,operating temperature range: -40°C to +90°C (full load) ultra compact design with low profile (1.6mm)
	RPZ-3.0A	3	2.75-6	0.6-5.5	QFN 2.5 x 3.5 x 1.6 mm (0.1" x 0.14" x 0.06")	SCP, OCP, OTP, and UVLO, efficiency up to 92% operating temperature range:-40°C to +125°C (with derating)
	RPZ-6.0	6	2.75-7	0.6-6.65	QFN 4.0 x 6.0 x 1.6 mm (1.16" x 0.24" x 0.63")	SCP, OCP, OTP, and UVLO, efficiency up to 90% operating temperature range: -40°C to +125°C (with derating)
	RPL-1.0	1	3-22	0.6-12	LGA-11 3.0 x 3.0 x 2.0 mm (0.12" x 0.12" x 0.08")	SCP, OCP, OTP, and UVLO, efficiency up to 84% operating temperature range: -40°C to +125°C (with derating), compact design with low profile (2mm)
	RPM-1.0	1	3-17	3.3, 5 trimmable 0.9- 6.0V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Operating temperature range: -40°C to +107°C at full load, very high efficiency up to 99% 6-sided shielding for low EMI
	RPM-2.0	2	3-17	3.3, 5 trimmable 0.9- 6.0V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Operating temperature range: -40°C to +105°C at full load, very high efficiency up to 98% 6-sided shielding for low EMI

12VIN BUCK

24VIN BUCK

Series	Iout (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Other Features
 RPL-3.0	3	4-18	0.8-5.2	LGA-10 3.0 x 3.0 x 1.45 mm (0.1" x 0.1" x 0.06")	Very high power density, 3A maximum output current very low 1.45mm profile enable, sense, and power good functions
 RPM-3.0	3	3-17	3.3, 5 trimmable 0.9-6.0V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Operating temperature range: -40°C to +105°C at full load, very high efficiency up to 97% 6-sided shielding for low EMI
 RPL-5.0	5	2.75-17	0.6-12	QFN 4.0 x 6.0 x 1.6 mm (1.16" x 0.24" x 0.63")	SCP, OCP, and UVLO, efficiency up to 90% operating temperature range: -40°C to +125°C (with derating)
 RPM-6.0	6	3-17	3.3, 5 trimmable 0.9-6.0V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Operating temperature range: -40°C to +90°C at full load, very high efficiency up to 99% 6-sided shielding for low EMI
 RPL-10	10	4-16	0.6-5.5	LGA-29 7.0 x 7.0 x 4.4 mm (0.28" x 0.28" x 0.17")	SCP, OCP, OTP, and UVLO, efficiency up to 94% operating temperature range: -40°C to +125°C (with derating)
 RPL-20	20	4-16	0.6-5.5	LGA-29 7.0 x 7.0 x 4.4 mm (0.28" x 0.28" x 0.17")	SCP, OCP, OTP, and UVLO, efficiency up to 94% operating temperature range: -40°C to +125°C (with derating)
 RPX-0.5Q 	0.5	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	Wettable flank, SCP, OCP, OTP, and UVLO protection operating temperature range: -40°C to +125°C trimmable output
 RPX-1.0	1	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	SCP, OCP, OTP, and UVLO protection operating temperature range: -40°C to +125°C trimmable output

Series	Iout (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Other Features
 RPX-1.5	1.5	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	SCP, OCP, OTP, and UVLO protection operating temperature range: -40°C to +125°C trimmable output
 RPX-1.5Q	1.5	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	Wettable flank, SCP, OCP, OTP, and UVLO protection operating temperature range: -40°C to +125°C trimmable output
 RPY-1.5Q	0-1.5	4-36	0.8-34.8	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	Wettable flank, constant current module with integrated shielded inductor, 1.5A output with 0-100% PWM dimming, enable, fault thermal shutdown, and soft-start functions
 RPMB-2.0	2	4-36	3.3, 5, 12, 15 trimmable 1-24V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Operating temperature range: -40°C to +100°C with derating, convection cooled adjustable output up to 24V
 RPX-2.5	2.5	4.5-28	1.2-6	QFN 4.5 x 4.0 x 2.0 mm (0.2" x 0.1" x 0.07")	Very high power density with SCP, OCP, OTP, OVP, and UVLO protection, efficiency up to 91% trimmable output
 RPMB-3.0	3	4-36	3.3, 5, 12, 15 trimmable 1-24V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Operating temperature range: -40°C to +100°C with derating, convection cooled adjustable output up to 24V
 RPX-4.0	4	3.8-36	1-7	QFN 5.0 x 5.5 x 4.0 mm (0.2" x 0.2" x 0.2")	Very high power density excellent thermal performance power good, enable, and trimmable output

Series	Iout (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Other Features
 RPMH-0.5	0.5	4.3-65	3.3, 5, 12, 15, 24	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Wide input range, operating temperature range: -40°C to +95°C at full load, on/off, sense, trim, power good, and sequencing functions
 RPMVH-0.5	0.5	6-115	3.3, 5, 12, 24	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Ultra-wide input range on/off, sense, trim, power good, and sequencing functions
 RPMH-1.5	1.5	5-60	3.3, 5, 12, 15, 24	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	Wide input voltage range operating temperature range: -40°C to +100°C at full load
 RPH-3.0	3	4.5-55	1-15	QFN 10.0 x 12.0 x 4.0 mm (0.39" x 0.47" x 0.16")	SCP, OCP, OVP, and UVLO, efficiency up to 91% operating temperature range: -40°C to +125°C (with derating)

EVALUATION BOARDS

An evaluation board is a PCB designed for flexible configuration, allowing easy adaptation to specific applications. It includes test points to measure performance and lets you select the best components for your design.

5VIN BUCK:
RPZ evaluation boards support 5V input (2.3V-7V), with pre-soldered DC/DC modules and push-in terminals. Selectable outputs (0.8V, 3.3V, 5V) at 0.5A-8A and easily test key functions. They include an EMC filter with tuning options.

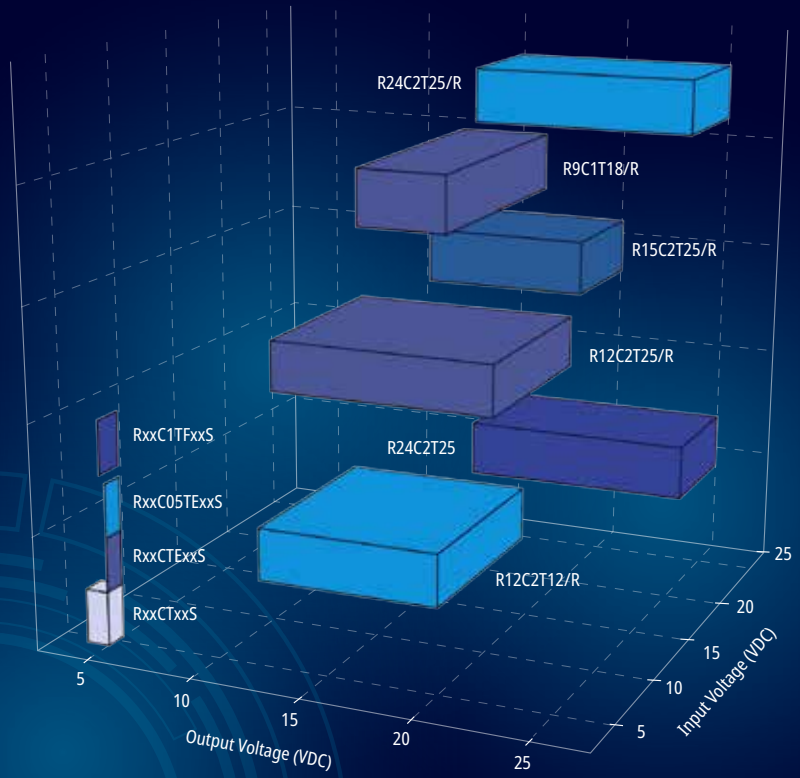
12VIN BUCK:
RPL and RPM evaluation boards support a 12V nominal input (2.75V-17V), with pre-soldered DC/DC modules and push-in terminals. They offer selectable output (1.8V, 3.3V, 5V) at 1A-20A, allowing easy testing of key functions. They also feature an EMC class A/B filter with options for tuning.

24VIN BUCK:
Evaluation boards for RPX, RPY, and RPMB modules support 24V input with selectable outputs (0.8V-24V) and currents (0.5A-4A). Key functions like output control and fault testing are accessible. Automotive-grade versions include EMC class B filters with customizable options.

HIGH VIN BUCK:
Evaluation boards for the RPMH-0.5, RPMH-1.5, and RPH-3.0 series support up to 65V input (55V for RPH) with selectable outputs (3.3V, 5V, 12V, 15V, 24V). They allow testing of functions like trimming, sequencing, and on/off control, along with overload and temperature performance. An EMI filter ensures class B compliance.

HIGH PERFORMANCE

Isolated Power Modules



- **RxxC05TExxS:** 0.5W 3kVDC isolation SOIC16
- **RxxCTxxS:** 0.5W 5kVAC reinforced isolation SOIC16
- **RxxCTExxS:** 1W 3kVDC isolation SOIC16
- **RxxC1TFxxS:** 1W 3kVAC isolation LGA
- **R9C1T18/R:** 1.5W 5kVAC reinforced isolation SSOP
- **R12C2T12/R:** 1.5W 5kVAC reinforced isolation SSOP
- **R24C2T25:** 2W 3kVAC isolation SSOP
- **R12C2T25/R:** 2.5W 5kVAC reinforced isolation SSOP
- **R15C2T25/R:** 2.5W 5kVAC reinforced isolation SSOP
- **R24C2T25/R:** 2.5W 5kVAC reinforced isolation SSOP

Series	Power (W)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Other Features
 R05C05TE05S	0.5	4.5-5.5	5	SMD 10.35 x 7.5 x 2.5 mm (0.4" x 0.3" x 0.1")	3kVDC / 1 min isolation, ultra-wide operating temperature range: -40°C to +125°C, low EMI emissions, low profile (2.5mm), economical design
 R05CT05S	0.5	4.5-5.5	3.3, 3.7, 5.0, 5.4	SMD 10.3 x 7.5 x 2.65 mm (0.4" x 0.3" x 0.1")	5kVDC / 1 min isolation, 1kVAC working voltage operating temperature range: -40°C to +140°C CTRL, SYNC, and UVLO, selectable outputs
 R05CTE05S	1	4.5-5.5	5	SMD 10.35 x 7.5 x 2.5 mm (0.4" x 0.3" x 0.1")	3kVDC / 1 min isolation, low EMI emissions, ultra-wide operating temperature range: -40°C to +125°C, low profile (2.5mm), economical design
 RxxC1TFxxS	1	3-5.5	3.3, 5	LGA 5.0 x 4.0 x 1.18 mm (0.2" x 0.2" x 0.05")	3kVAC / 1s isolation operating temperature range: -40°C to +125°C ultra-compact SMD package with low profile
 R9C1T18/R	1.5	8.5-18	2.5-15.5 -2.5 to (-15.5)	SMD 12.83 x 7.5 x 3.55 mm (0.5" x 0.3" x 0.1")	5kVAC / 1 min reinforced isolation operating temperature range: - 40°C to +120°C programmable asymmetrical output voltage
 R12C2T12/R	1.5	9-18	2.5-15.5 -2.5 to (-15.5)	SMD 12.83 x 7.5 x 3.55 mm (0.5" x 0.3" x 0.1")	5kVAC / 1 min reinforced isolation operating temperature range: - 40°C to +120°C (with derating) programmable asymmetrical output voltage
 R24C2T25	2	21-27	2.5-22.5 -2.5 to (-22.5)	SMD 7.5 x 12.83 x 3.55 mm (0.3"x 0.5"x 0.1")	3kVAC / 1 min isolation operating temperature range: - 40°C to +125°C (with derating programmable asymmetrical output voltage
 R15C2T25/R	2.5	13.5-18	2.5-22.5 -2.5 to (-22.5)	SMD 12.83 x 7.5 x 3.55 mm (0.5" x 0.3" x 0.1")	5kVAC / 1 min reinforced isolation operating temperature range: - 40°C to +125°C (with derating) programmable asymmetrical output voltage

Series	Power (W)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Other Features
 R12C2T25/R	2.5	9-18	2.5-22.5 -2.5 to (-22.5)	SMD 12.83 x 7.5 x 3.55 mm (0.5" x 0.3" x 0.1")	5kVAC / 1 min reinforced isolation operating temperature range: - 40°C to +125°C (with derating) programmable asymmetrical output voltage
 R24C2T25/R	2.5	21-27	2.5-22.5 -2.5 to (-22.5)	SMD 7.5 x 12.83 x 3.55 mm (0.3"x 0.5"x 0.1")	5kVAC / 1 min reinforced isolation operating temperature range: - 40°C to +125°C (with derating) programmable asymmetrical output voltage

WHERE YOU'LL FIND RECOM POWER MODULES

HANDHELD DEVICES
From battery-powered warehouse scanners to non-isolated medical equipment, the miniature power footprint is ideal for products on the go.

DRONES
Last-mile delivery. Capturing the bird's-eye perspective on a movie set. Drone demand is soaring higher than ever. Support lighting, navigation sensors, and cameras with compact power modules ready to fly.

IoT SENSORS
Every device, vehicle, home, and manufacturing facility is alive with an armada of smart sensors. Sensing components are squeezed closer together than ever, requiring power modules that fit.

INDUSTRIAL MOBILITY
Robots, drones, and autonomous guided vehicles are taking over busy warehouse floors. Industrial mobility and automation is on the move. Ultra-reliable, lightweight power modules improve up-time to keep businesses running no matter what.

AUTOMOTIVE
Modern cars are mini data centers, piloting traction control systems, heated seats, and self-driving sensors. RECOM is qualified under AEC-Q and ISO/TS 16949 specifications to supply automotive manufacturers with power modules that keep the industry driving forward.

www.recom-power.com

RECOM Power GmbH
RECOM Engineering GmbH & Co KG
Münzfeld 35 | A - 4810 Gmunden

Phone: +43 7612 88325 700
info@recom-power.com