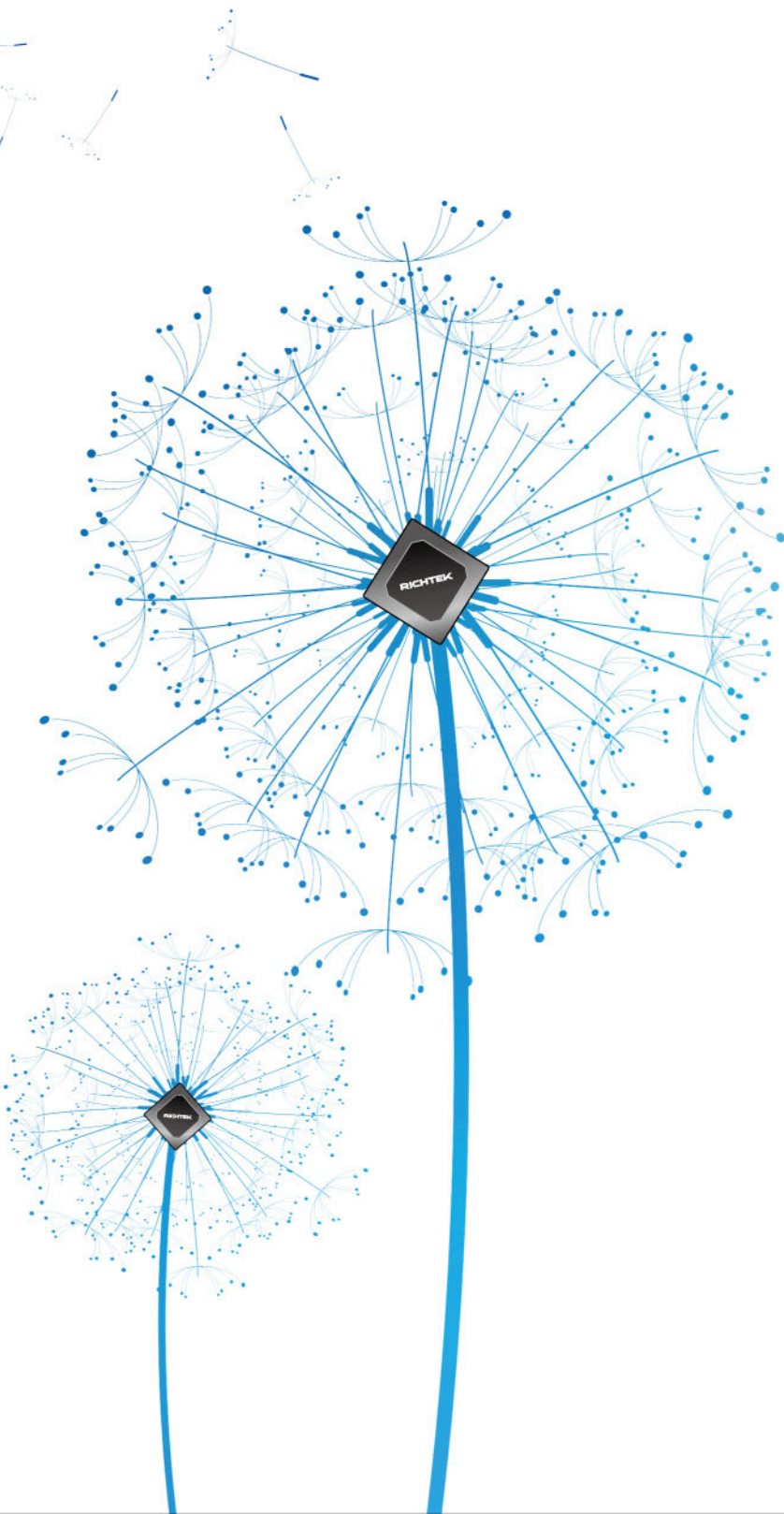


RICHTEK
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About Richtek

Founded in 1998, Richtek Technology Corporation is an analog IC design company, composed of experienced, professional, and innovative technologists. Since our start in 1998, Richtek not only delivers a new generation of cost-effective power management ICs, but also provides clients with customized system design-in services and support. Richtek is a "power partner." We play an active role in the integration of cutting-edge power management solutions into our clients' latest products. Clients increasingly rely on Richtek's proprietary design-in services in order to integrate advanced power management technologies into products when facing tighter and tighter development schedules. These solutions have already made Richtek one of the world's largest supplier of power management ICs for desktop computer mainboards, as well as a leading provider of power management chips used in handsets, digital still cameras, network communications equipment, large-sized flat panel displays, notebooks, and much more.



關於立錡科技

立錡科技為專業之類比IC設計公司，成立於1998年。自成立以來，立錡不斷致力於研發新一代兼具成本與效率的電源管理IC，同時也提供客戶最完整的客製化系統設計支援及服務。立錡科技擁有完整的電源管理解決方案。在應用於桌上型電腦主機板的電源管理IC方面，立錡已成為世界最大供應商之一；在其他產品應用領域，如手持裝置、數位相機、網路通訊裝置、大尺寸的面板顯示器以及筆記型電腦等的電源管理IC供應商中，立錡科技同樣也居於領導地位。立錡科技擁有堅強的經營與研發團隊，以領先的技術，不斷地開發各項新產品，矢志以打造立錡科技為全球客戶心中最佳的"power partner"而努力。



LDO (Single Output)

| Number | Vin (min) (V) | Vin (max) (V) | Vout (min) (V) | Vout (max)(V) | VREF/VFB (V) | Iout (max) (mA) | Quiescent Current (typ) (uA) | Accuracy (%) | Current limit(mA) | Dropout Voltage (mV@mA)(typ) | Output Capacitor (uF) | Output Capacitor Type | Function / Protection | Features | Pb-Free/Green |
|-----------------|---------------|---------------|----------------|---------------|--------------|-----------------|------------------------------|--------------|-------------------|------------------------------|-----------------------|------------------------|---|---|--|
| RT9001 | 3 | 5.5 | 1.2 | 4.5 | -- | 600 | 220 | -1,+3 | 600 (min) | 580 @ 600 | 1 | Ceramic | OCP; OTP | Ultra-FTR | SOT-223 |
| RT9008 | 4 | 13.5 | | | 0.8 | Ext. MOS | | +/-2 | | | | | | Quick Transient Response | SOT-23-6 |
| RT9010 | 2.5 | 5.5 | 1.2 | 3.6 | -- | 300 | 58 | +/-2 | 330 (min) | 240 @ 300 | 1 | Ceramic | OCP; OTP; Short Circuit Thermal Folded Back | | TSOT-23-6 |
| RT9013A | 2.2 | 5.5 | 1.2 | 3.5 | -- | 130 | 25 | +/-2 | 130 (min) | 70 @ 120 | 1 | Ceramic | OCP; OTP; High PSRR | Ultra-FTR; High PSRR | SC-70-5; SC-82 |
| RT9013B | 2.2 | 5.5 | 1.2 | 3.5 | -- | 300 | 25 | +/-2 | 300 (min) | 125 @ 300 | 1 | Ceramic | OCP; OTP | Ultra-FTR; High PSRR | SC-70-5; WDFN-1.6x1.6-6 |
| RT9016 | 2.5 | 5.5 | 1.5 | 3.5 | -- | 500 (Peak) | 90 | +/-2 | 530 (min) | 380 @ 500 | 1 | Ceramic | OCP; OTP; Short Circuit Thermal Folded Back | Ultra-FTR | SOT-23-5; WDFN-2x2-6 |
| RT9017 | 2.5 | 5.5 | 1.5 | 3.5 | -- | 500 (Peak) | 90 | +/-2 | 530 (min) | 380 @ 500 | 1 | Ceramic | OCP; OTP; Short Circuit Thermal Folded Back | | WDFN-2x2-6; SOT-23-5; SOT-23-3 |
| RT9018A/RT9018B | 1.4 | 5.5 | 0.8 | 6 | 0.8 | 3000 (Peak) | 600 | +/-1.5 | 3200 (min) | 210 @ 3000 | 10 | Ceramic | OCP; OTP | Output Voltage Pull Low Resistance when Disable; Power Good Output | PSOP-8 (Option 1); WDFN-3x3-10 |
| RT9020 | 2.2 | 5.5 | 1.5 | 3.3 | -- | 500 | 25 | +/-2 | 500 (min) | 250 (typ) @ 500 | 1 | Ceramic | OCP; OTP | Ultra-FTR; Ultra-Low-Noise; High PSRR | SC-70-5; SOT-23-5 |
| RT9022 | 5 | 20 | | | 1.25 (typ) | 60 | 40 | +/-1.5 | 60 (min) | 200 (typ) @ 30 | 2.2 | Ceramic | OCP; OTP | Ultra-FTR | SOT-23-6; SC-70-6 |
| RT9024 | 3.8 | 13.5 | | | 0.8 (typ) | Ext. MOS | 30 | +/-2 | | | >=100 | | | Quick Transient Response | SOT-23-6 |
| RT9025 | 1.4 | 5 | 0.8 | | 0.8 (typ) | 2000 | 600 | +/-2 | 3500 | 230 @ 2000 | 10 | | OCP; OTP | Output Voltage Pull Low Resistance when Disable | PSOP-8 (Option 1); SOP-8 |
| RT9027A/RT9027B | 4.5 | 5.5 | | | VSET | 1600 | 300 | | 1600 (min) | 150 @ 500 | 2.2 | Ceramic | OCP; OTP | Linear Fan Driver | PSOP-8 (Option 1) |
| RT9028 | 2.2 | 5.5 | | | 1.225 (typ) | 120 | 35 | +/-2.5 | 130 (min) | 100 @ 120 | 1 | Ceramic | OCP; OTP | High PSRR; Ultra-Low Dropout; Ultra-Low-Noise for RF Application; Ultra-FTR | SC-70-5; WDFN-1.6x1.6-6 |
| RT9030 | 1.65 | 5.5 | 1 | 3.3 | | 150 | 25 | +/-2 | 170 (min) | 100 @ 150 | 1 | Ceramic | OCP; OTP | Ultra-Low-Noise for RF Application; Ultra-FTR; High PSRR | SC-70-5; WDFN-1.6x1.6-6 |
| RT9042 | 1.4 | 5 | 0.8 | | 0.8 (typ) | 3000 | 600 | +/-2 | 3100 (min.) | 230 @ 2000 | 10 | Ceramic | OCP; OTP | Output Voltage Pull Low Resistance when Disable; Power Good Output | PSOP-8 |
| RT9043 | 2.2 | 5.5 | 1.2 | | 1.2 (typ) | 400 | 35 | +/-2.5 | 410 (min.) | 230 @ 400 | 1 | Ceramic | OCP; OTP | High PSRR | SOT-23-5 |
| RT9161/RT9161A | | 12 | 1.5 | 5 | -- | 300/500 | | +/-2 | 580/900 (typ) | 450/750 @ 300/500 | 10 | Electrolytic | OCP; OTP | Extremely Tight Load Regulation | SOT-23-3; SOT-223; TO-92; SOT-89-3 |
| RT9162 | | 15 | 3.3 | 3.5 | -- | 300 | 4500 | +/-2 | 400 (min) | 1300 @ 300 (max) | 10 | | OCP; OTP | Bipolar | TO-92; SOT-89-3 |
| RT9163 | | 15 | 3.3 | 5 | -- | 500 | 4500 | +/-2 | 550 (min) | 1400 @ 500 (max) | 10 | | OCP; OTP | Bipolar | TO-252-3; SOT-223; TO-92; SOT-89-3 |
| RT9164 | | 12 | 1.5 | 3.5 | 1.256 (typ) | 1000 | 5000 | +/-2 | 1000 (min) | 1300 @ 1000 | 10 | Tantalum | OCP; OTP | Bipolar | SOT-223; TO-263-3; TO-252-3 |
| RT9164A | 3 | 14 | 1.5 | 3.5 | 1.256 (typ) | 1000 | 5000 | +/-2 | 1000 (min) | 1300 @ 1000 | 10 | Tantalum | OCP; OTP | Bipolar | SOT-223; TO-263-3; TO-252-3 |
| RT9164B | 3 | 12 | 3.2835 | 3.3165 | -- | 1000 | 5000 | +/-0.5 | 1000 (min) | 1300 @ 1000 | 10 | Tantalum | OCP; OTP | Bipolar | TO-252-3 |
| RT9164C | 3 | 12 | 2.5 | 3.3 | 1.256 (typ) | 1000 | 5000 | +/-1 | 1000 (min) | 1100 @ 500 | 10 | Tantalum | OCP; OTP | Fast Transient Response | TO-263-3; TO-252-3; SOT-223 |
| RT9165 | | 16 | 5 | 8 | -- | 150 | 4500 | +/-3 | 300 (min) | 1300 @ 150 (max) | 10 | Electrolytic | OCP; OTP | Bipolar | SOT-89-3; TO-92 |
| RT9166/RT9166A | 2.8 | 5.5 | 1.2 | 4.5 | -- | 300/600 | 220 | -1,+3 | 300/600 (min) | 230/580 @ 300/600 | 1 | Ceramic | OCP; OTP | Ultra-FTR; Custom Voltage Available | SOT-23-3; SOT-223; TO-92; SOT-89-3; TO-252 |
| RT9167/RT9167A | 2.9 | 7 | 1.5 | 5 | -- | 300/500 | 90 | +/-2 | 400/500 (min) | 350/600 @ 300/500 | 1 | Ceramic | OCP; OTP | Custom Voltage Available | SOP-8; SOT-23-5 |
| RT9168/RT9168A | 2.9 | 7 | 1.5 | 5 | -- | 200/500 | 90 | +/-2 | 300/700 (typ) | 220/600 @ 200/500 | 1 | Ceramic | OCP; OTP | Custom Voltage Available | SOP-8; SOT-23-5 |
| RT9169/RT9169H | 2 | 6 | 1.2 | 5 | -- | 100 | 4 | +/-2 | 150 (min) | 450 @ 100 | 1 | Ceramic | OCP | RT9169H package type is available in SOT-23-5 only. Ultra-Low Quiescent Current, High PSRR | SOT-23-5; SOT-23-3; TO-92; SOT-89-3 |
| RT9170 | 2 | 5.5 | 1.2 | 3.3 | -- | 300 | 15 | +/-2 | 300 (min) | 240 @ 300 | 1 | Ceramic | OCP; OTP | High PSRR | SOT-23-5; SOT-89-3; SOT-23-3 |
| RT9172 | 2.25 | 5.5 | 1.5 | 3.3 | -- | 3000 | 1200 | +/-1.5 | 3500 (min) | 400 @ 3000 | 10 | Electrolytic; Tantalum | OCP; OTP | Error Flag Indicates Output Status, Sense Option Improves Better Load Regulation | TO-263-5; TO-263-3; TO-220-5; SOP-8; SOT-223; TO-220 |
| RT9176 | 3 | 12 | 1.5 | 3.5 | 1.256 (typ) | 1500 | 5000 | +/-2 | 1500 (min) | 1300 @ 1500 | 10 | Tantalum | OCP; OTP | -- | SOT-223; TO-263-3; TO-252-3 |
| RT9178 | 2.5 | 6 | 2.4 | 3.2 | -- | 200 | 90 | +/-2 | 400 (typ) | 200 @ 200 | 1 | Ceramic | OCP; OTP | Ultra-Low-Noise; Ultra-FTR; High PSRR | SOT-23-5 |
| RT9179 | 3 | 5.5 | 1.175 | 4.5 | 1.175 (typ) | 300 | 150 | -- | 500 (min) | 300 @ 300 | 1 | Ceramic | OCP; OTP | -- | SOT-23-5 |
| RT9179A | 3 | 5.5 | 1.175 | 4.5 | 1.175 (typ) | 500 | 150 | -- | 700 (min) | 400 @ 500 | 1 | Ceramic | OCP; OTP | -- | SOP-8 |
| RT9181 | 3 | 5.5 | 1.2 | 1.8 | -- | 150 | 160 | +/-1.5 | 160 (min) | -- | 1 | Ceramic | OCP; OTP; UVLO | Power Good (PGOOD) Function | SOT-23-5 |
| RT9183 | 2.3 | 5.5 | 0.8 | 4.5 | 0.8 (typ) | 1500 | 380 | +/-2 | 2000 (min) | 330 @ 1.5A | 10 | Ceramic | OCP; OTP | Ultra-Low Dropout | TO-263-3; TO-263-5; SOT-223; SOP-8; TO252 |
| RT9186A/RT9186B | 2.5 | 5.5 | 0.8 | 4.5 | 0.8 (typ) | 500 | 190 | +/-3 | 900 (min) | 160 @ 500 | 10 | Ceramic | OCP; OTP | PGOOD/RESET | VDFN-3x3-8; MSOP-8 |
| RT9187 | 2.5 | 5.5 | 0.8 | 3.3 | 0.8 (typ) | 1000 | 380 | +/-2 | 2000 (min) | 240 @ 1000 | 2.2 | Ceramic | OCP; OTP | Ultra-FTR, Ultra-Low Dropout, High PSRR | VDFN-3x3-8; PSOP-8 |
| RT9187A | 2.5 | 5.5 | | | 0.8 (typ) | 300 | 210 | +/-2 | 2500 (typ) | 75 @ 300 | 1 | Ceramic | OCP; OTP | Ultra-FTR, Ultra-Low Dropout, High Power Supply Rejection Ratio | SOT-23-5; VDFN-2x2-6 |
| RT9193 | 2.5 | 5.5 | 1.5 | 3.5 | -- | 300 | 90 | +/-2 | 360 (min) | 220 @ 300 | 1 | Ceramic | OCP; OTP | Ultra-Low-Noise, Ultra-FTR, High Power Supply Rejection Ratio | WDFN-2x2-6; SOT-23-5; SC-70-5; MSOP-8 |
| RT9193T | 2.5 | 5.5 | 1.5 | 3.5 | -- | 300 | 90 | +/-2 | 360 (min) | 220 @ 300 | 1 | Ceramic | OCP; OTP; Short Circuit Thermal Folded Back | | WDFN-2x2-6; SOT-23-5; SC-70-5 |
| RT9194 | 4.5 | 13.5 | | | 0.8 (typ) | Ext. MOS | 300 | +/-2 | -- | -- | >=100 | | UVP | Compliant with Intel "Grantsdale Chipset Platform Design Guide" Specification | SOT-23-6 |
| RT9198/RT9198A | 2.5 | 5.5 | 1.5 | 3.5 | -- | 300 | 90 | +/-2 | 360 (min) | 220 @ 300 | 1 | Ceramic | OCP; OTP | High PSRR, RT9198: Chip Enable Function (Active High), RT9198A: Chip Enable Function (Active Low) | SC-82; SOT-23-5; SOT-23-3; SC-70-5; WDFN-2x2-6; MSOP-8 |
| RT9198T | 2.5 | 5.5 | 1.5 | 3.5 | -- | 300 | 90 | +/-2 | 360 (min) | 220 @ 300 | 1 | Ceramic | OCP; OTP; Short Circuit Thermal Folded Back | High PSRR | SOT-23-5; SOT-23-3; SC-70-5 |



LDO (Dual Output)

| Number | Vin (min) (V) | Vin (max) (V) | Vout (min) (V) | Vout (max) (V) | Iout (max) (mA) (Iout1/Iout2) | Quiescent Current (typ) (uA) (IQ1/IQ2) | Accuracy (%) | Current Limit (mA) | Dropout Voltage (mV@mA) (typ) | Protection | Features | Pb-Free/Green |
|-------------------------|---------------|---------------|----------------|----------------|-------------------------------|--|--------------|--------------------|--|-------------------------|---|--|
| RT9002A/RT9002B/RT9002C | 2.5 | 5.5 | 1.5 | 3.3 | 240/500 (min) | 30/40 | +/-2 | 450/800 (typ) | 150 @ 100 | OCP; OTP | Ultra-FTR, Voltage Detector | SOP-8 |
| RT9006A/RT9006B | 2.8/2.5 | 5.5/5.5 | 1.5/1.8 | 3.3/3.3 | 300/500 | 30000/40000 | +/-1.5 | 400/500 (min) | 50 @ 30 (VDROP2_1), 150 @ 100 (VDROP2_2) | OCP; OTP | Voltage Detector, Ultra-FTR | SOP-8 (Exposed Pad-Option 2) |
| RT9011 | 2.5 | 5.5 | 1.2 | 3.6 | 300/300 | 58/58 | +/-3 | 330 (min) | 240 @ 300 | OCP; OTP; Short Circuit | Ultra-low Quiescent Current | TSOT-23-6; WDFN-1.6x1.6-6; WDFN-2x2-8; WDFN-3x3-10; WDFN-3x3-8 |
| RT9012 | 2.5 | 5.5 | 1.2 | 3.6 | 300/300 | 58/58 | +/-3 | 330 (min) | 240 @ 300 | OCP; OTP; Short Circuit | Voltage Detector, Ultra-low Quiescent Current, POR | WDFN-2x2-8 |
| RT9014/RT9014A | 2.5 | 5.5 | 1.2 | 3.6 | 300/300 | 58/58 | +/-2 | 330 (min) | 240 @ 300 | OCP; OTP; Short Circuit | Voltage Detector, Open-Drain Driver, Ultra-low Quiescent Current, POR | WDFN-3x3-10 |
| RT9184A | 2.8 | 5.5 | 1.2 | 4.5 | 500/500 | 440 | -1, +3 | 500 (min) | 600 @ 500 | OCP; OTP | Ultra-FTR | SOP-8 |
| RT9188 | 2 | 6 | 1.2 | 5 | 100/100 | 8 | +/-2 | 150 (min) | 380 @ 100 | OCP; OTP; Short Circuit | Ultra-low Quiescent Current | SOT-23-5 |

LDO (Multiple Output)

| Number | Vin (min) (V) | Vin (max) (V) | Vcc (min) (V) | Vcc (max) (V) | Vout (min) (V) | Vout (max) (V) | VREF/VFB (V) | Iout (max) (mA) (Iout1/Iout2/Iout3) | Quiescent Current (typ) (uA) (IQ1/IQ2) | Accuracy (%) | Current Limit (mA) | Dropout Voltage (mV@mA) (typ) | Protection | Features | Pb-Free/Green |
|--------|---|-----------------------------|---------------|---------------|---|---|--------------|-------------------------------------|--|--------------|---|-------------------------------|---------------|--|---------------------------|
| RT9004 | 2.5 | 5.5 | - | - | 1.5 | 3.3 | Fixed output | 300mA/300mA/300mA (typ) | 90 | +/-2 | 400 | 220 @ 300 | OTP; OCP; SCP | EN, I _Q =90uA, I _{STBY} =0.01uA | VDFN-3x3-10 |
| RT9015 | Vo+(R _{dson} *I _o) | Mosfet PD>Vo/I _o | 4 | 13.5 | 0.8 | V _{CC} (12~5V) >Vo+Mosfet V _{GS} | 0.8 | by MOSFET PD | 6mA | 1.5 | by UVP | by MOSFET | OTP; UVP | EN, provide ref=0.8V, PG | SOT-23-8 |
| RT9174 | Vo+(R _{dson} *I _o) | Mosfet PD>Vo/I _o | 3 | 8 | 0.8 | V _{CC} (12~5V) >Vo+Mosfet V _{GS} | 0.8 | by MOSFET PD | 0.8mA | +/-2.5 | driver =40 (Sink), 300 (Sourcing) (typ) | by MOSFET | OCP; OTP | Ultra-FTR, Triple Linear Regulator Controller with OCP | SOP-8 |
| RT9185 | 3.5 | 5.5 | - | - | "Custom Voltage Available (3.35V/2.55V/1.8 or 1.5V)* (-2%)" | "Custom Voltage Available (3.35V/2.55V/1.8 or 1.5V)* (+2%)" | Fixed output | 1.5A/0.8A/0.3A | 0.4mA | -1, +2 | 1.9A/1.3A/0.5A (typ) | 600mV/700mV (typ) | OCP; OTP | Ultra-FTR | SOP-8; TO-263-5; TO-252-5 |

DDR Bus Termination Regulator

| Number | Memory Supported | Supply Input Voltage (min) (V) | Supply Input Voltage (max) (V) | Stand-by Current (max) (uA) | Sink/Source Current (max) (A) | Output Offset (max) (mV) | Load Regulation (max) (mV) | Current Limit (min) (A) | Protection | Pb-Free/Green |
|-----------------|------------------|--------------------------------|--------------------------------|-----------------------------|-------------------------------|--------------------------|----------------------------|--------------------------|------------|-----------------------------|
| RT9005A/RT9005B | VTT; DDRI; DDRII | 2.5V (VIN1)/1.5V (VIN2) | 5V (VIN1)/3.6V (VIN2) | 90 | 2 | +/-20(VTT) | +/-20(VTT) | 2A (ILIM1), 2.2A (ILIM2) | OCP; OTP | PSOP-8 |
| RT9026 | DDR1; DDR2; DDR3 | 1.4 | 3.3 | 300 | 3 (DDR1/DDR2), 2 (DDR3) | +/-20 | +/-20 | 3 | OCP; OTP | SOP-8; MSOP-10; WDFN-3x3-10 |
| RT9173/RT9173A | DDR1; DDR2 | 1.6 | 6 | 90 | 3 | +/-20 | +/-3% | (+/-1.5)/(+/-3) | OCP; OTP | SOP-8; TO-263-5; TO-252-5 |
| RT9173B | DDR1; DDR2 | 1.7 | 6 | 90 | 2 | +/-20 | +/-20 | +/-2.2 | OCP; OTP | SOP-8; TO-252-5 |
| RT9173C | DDR1; DDR2; DDR3 | 1.5 (+/-3) | 2.5 (+/-3) | 90 | 2 | +/-20 | +/-20 | +/-2.2 | OCP; OTP | PSOP-8 |
| RT9173D | DDR1; DDR2; DDR3 | 1.5 (+/-3) | 2.5 (+/-3) | 90 | 3 | +/-20 | +/-20 | +/-3.4 | OCP; OTP | PSOP-8 |
| RT9199 | DDR2 | 1.6 | 5.5 | 90 | 2 | +/-20 | +/-20 | +/-2 | OCP; OTP | SOP-8; PSOP-8 |

Switching Converter

Boost DC/DC Converter

| Number | Vin (min) (V) | Vin (max) (V) | Vout (max) (V) | Switching Current Limit (A) (min.) | Quiescent Current (uA) | Frequency (kHz) | Efficiency (%) | Protection | Features | Pb-Free/Green |
|-----------------|---------------|---------------|----------------|------------------------------------|------------------------|-----------------|----------------|---|---|-----------------------------------|
| RT8507 | 2.5 | 5.5 | up to 10 WLEDs | 1.0 | 400 | 1000 | 85 | UVLO; OVP; OTP; OCP | SS (Internal), Input OVP, Min. Dimming Ratio to 2% | WDFN-2x2-8; TSOT-23-6 |
| RT8507-20 | 2.5 | 5.5 | up to 3 WLEDs | 1.0 | 400 | 1000 | 85 | UVLO; OVP; OTP; OCP | SS (Internal), Input OVP, Min. Dimming Ratio to 2%, Support 3S10P | WDFN-2x2-8; TSOT-23-6 |
| RT9261/RT9261A | 0.85 | 7 | 5.0 | 0.08 | 5 | 120 | 75 | -- | Low Ripple; Low Noise; Low Temperature-Drift | SOT-23-5; SOT-89-3 |
| RT9261B | 0.8 | 7 | 5.0 | 0.16 | 6.5 | 190 | 80 | -- | Low Ripple; Low Noise; Low Temperature-Drift | SOT-23-5; SOT-89-3 |
| RT9262/RT9262A | 0.8 | 6.5 | 5.0 | 2.0 (typ.) | 17 | 550 | 90 | OTP | LDO; VD | SOP-8 |
| RT9263 | 0.8 | 6.5 | 3.3~15 | 2.0 (typ.) | 17 | 550 | 90 | OTP | | SOT-89-5 |
| RT9266 | 2 | 6 | 3.3~15 | 1.6 | 17 | 500 | 90 | OTP | | SOT-23-6; SOT-89-5 |
| RT9266B | 2 | 6.5 | 5.0 | 0.5 (typ.) | 25 | 550 | 90 | OTP | | SOT-23-6 |
| RT9267 | 0.8 | 6.5 | 3.3~18 | 2.0 (typ.) | 17 | 550 | 90 | OTP | LDO; VD | TSSOP-16 |
| RT9269 | 2 | 6.5 | up to 4 WLEDs | 0.5 (typ.) | 17 | 500 | 85 | OTP | | SOT-23-6 |
| RT9270 | 2.3 | 5.5 | 14.0 | 1.9 (typ.) | 270 | 670/1300 | 90 | UVLO; OVP; OTP; OCP | SS (Programmable) | MSOP-8 |
| RT9271 | 2.4 | 6 | 14.0 | 0.5 | 90 | 1100 | 85 | OVP; UVLO | | SOT-23-6; SOT-23-5 |
| RT9276 | 0.8 | 5.0 | 5.0 | 1.6 | 100 | 1200 | 96 | OVP; OTP; OCP | Voltage Detector, Load Disconnect | WDFN-3x3-10 |
| RT9278 | 1.5 | 5.5 | 5.5 | 2.0 (typ.) | 200 | 650 | 95 | OTP; OVP | SS (Internal) | VDFN-3x3-10 |
| RT9284A/RT9284B | 2.7 | 5.5 | 20.0 | 0.75 (typ.) | 50 | 1200 | 83 | OVP; OCP; UVLO | SS (Internal) | TSOT-23-6; TSOT-23-5 |
| RT9285A/RT9285B | 2.7 | 5.5 | 20.0 | 0.4 (typ.) | 300 | 1000 | 85 | OVP; OCP; UVLO | SS (Internal) | TSOT-23-6; WDFN-2x2-8 |
| RT9285C | 2.7 | 5.5 | 20.0 | 0.4 (typ.) | 300 | 1000 | 85 | OVP; OCP; UVLO | SS (Internal); Digital Dimming with Zero-Inrush | XDFN-2x2-8; WDFN-2x2-8; TSOT-23-6 |
| RT9287 | 2.7 | 5.5 | 20.0 | 0.75 (typ.) | 300 | 1200 | 85 | Short Circuit Thermal Folded Back; UVLO; OTP; OCP | Low-Noise for RF; SS (Internal); Low Temperature Coefficient; LDO | WDFN-3x3-10 |
| RT9288A | 3 | 13.5 | 60.0 | by external MOSFET | | 1000 | 90 | Short Circuit Protection; UVLO | SS (Internal); PWM Dimming | SOT-23-6 |
| RT9291 | 2.5 | 5.5 | up to 6 WLEDs | 0.5 | 400 | 1000 | 85 | UVLO; OVP; OTP; OCP | SS (Internal) | WDFN-3x3-8 |
| RT9292 | 2.5 | 5.5 | up to 6 WLEDs | 0.5 | 400 | 1000 | 85 | UVLO; OVP; OTP; OCP | SS (Internal) | WDFN-2x2-8; TSOT-23-6 |
| RT9293 | 2.5 | 5.5 | up to 10 WLEDs | 1.0 | 400 | 1000 | 85 | UVLO; OVP; OTP; OCP | SS (Internal), Input OVP, Min. Dimming Ratio to 2% | WDFN-2x2-8; TSOT-23-6 |
| RT9293-20 | 2.5 | 5.5 | up to 3 WLEDs | 1.0 | 400 | 1000 | 85 | UVLO; OVP; OTP; OCP | SS (Internal), Input OVP, Min. Dimming Ratio to 2%, Support 3S10P | WDFN-2x2-8; TSOT-23-6 |
| RT9296 | 0.8 | 5.0 | 5.0 | 1.6 | 100 | 1200 | 96 | OVP; OTP; OCP | LDO Controller, Load Disconnect | WDFN-3x3-10 |

Buck DC/DC Converter Maximum Operating Input Value $\leq 6V$

| Number | Vin (min) (V) | Vin (max) (V) | Fixed Output Options (V) | Current Limit (A) (min.) | Iout (A) | Switching Frequency (typ.) (Hz) | VFB (V) (typ) | Adjustable | Protection | Features | Pb-Free/Green |
|----------------|---------------|---------------|--|--------------------------|--------------|---------------------------------|---------------|------------|-------------------------------------|--|--|
| RT8003 | 2.4 | 5.5 | No | | 0.6 | 2M | 0.5 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | VDFN-3x3-10 |
| RT8004 | 2.65 | 5.5 | No | 4 | 3 | 300K~4M (adj.) | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal/External); EN; SYNC; PGOOD | VQFN-4x4-16; TSSOP-16 (Exposed Pad) |
| RT8005 | 2.4 | 5.5 | No | | 1 | 2M | 0.5 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | VDFN-3x3-10 |
| RT8008 | 2.5 | 5.5 | 1.0V, 1.2V, 1.5V, 1.8V, 2.5V, 3.3V | 1 | 0.6 | 1.5M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOT-23-5; TSOT-23-5 |
| RT8009 | 2.5 | 5.5 | 1.0V, 1.2V, 1.3V, 1.5V, 1.8V, 2.5V, 3.3V | 1 | 0.6 | 1.25M | 0.5 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOT-23-5; TSOT-23-5 |
| RT8010/RT8010A | 2.5 | 5.5 | RT8010: 1.0V, 1.2V, 1.5V, 1.6V, 1.8V, 2.5V, 3.3V | 1.4 | 1 | 1.5M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | RT8010: WDFN-2x2-6; RT8010A: WQFN-3x3-16 |
| RT8010B | 2.5 | 4 | No | 1.5 | 0.8 | 1.5M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | WDFN-2x2-8 |
| RT8011A | 2.6 | 5.5 | No | 2.2 | 2 | 300K~4M (adj.) | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN (RT8011 with SYNC and PGOOD; RT8011A without SYNC and PGOOD) | MSOP-10; WDFN-3x3-10; WDFN-3x3-8E |
| RT8012A | 2.6 | 5.5 | No | 1.2/1.7 | 1/1.5 | 1.2M | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN; PGOOD | WQFN-4x4-16 |
| RT8015 | 2.6 | 5.5 | No | 2.2 | 2 | 300K~2M (adj.) | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); SHDN | SOP-8 (Exposed Pad) |
| RT8015A/B | 2.6 | 5.5 | No | 3.2 | 3 | 300K~2M (adj.) | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); SHDN; RT8015B with PGOOD | WDFN-3x3-10 |
| RT8016 | 2.5 | 5.5 | 1.0V, 1.1V~3.2V, 3.3V | 1.4 | 1 | 1.5M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | WDFN-2x2-6 |
| RT8020 | 2.5 | 5.5 | 1.2V, 1.3V, 1.8V, 2.5V, 3.3V | 1.4/1.4 | 1.0/1.0 | 1.5M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | WDFN-3x3-12 |
| RT8023 | 2.6 | 5.5 | No | 1.7/0.7/0.35 | 1.5/0.7/0.35 | 1.2M | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN; PGOOD | WQFN-4x4-24 |
| RT8026 | 2.7 | 5.5 | No | 1.2 | 1 | | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | MSOP-10 |
| RT8030 | 2.6 | 5.5 | No | 2.2 | 1 | 2.2M | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOP-8 |
| RT8058 | 2.6 | 5.5 | No | 2.2 | 2 | 1M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | WQFN-3x3-16 |
| RT8058A | 2.6 | 5.5 | No | 2.2 | 2 | 1.2M | 0.6 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN; PGOOD | WDFN-3x3-10 |

Buck DC/DC Converter Maximum Operating Input Value $\leq 24V$

| Number | Vin (min) (V) | Vin (max) (V) | Fixed Output Options (V) | Current Limit (A) (min.) | Iout (A) | Switching Frequency (typ.) (Hz) | VFB (V) (typ) | Adjustable | Protection | Features | Pb-Free/Green |
|---------|---------------|---------------|--------------------------|--------------------------|----------|---------------------------------|---------------|------------|-------------------------------------|--------------------------------|------------------------------|
| RT8250 | 4.75 | 23 | No | | 3 | 340K | 0.92 | V | OTP, UVLO, Short Circuit Protection | SS (External); EN; Synchronous | PSOP-8 |
| RT8258 | 4.75 | 24 | No | 1.6 | 1.2 | 700K | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOT-23-6; TSOT-23-6 |
| RT8259 | 4.75 | 24 | No | 1.6 | 1.2 | 1.4M | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOT-23-6; TSOT-23-6 |
| RT8259A | 4.5 | 24 | No | 1.8 | 1.5 | 1.4M | 0.8 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOP-8 |
| RT8267 | 4.5 | 22 | No | 2.2 | 2 | 400K | 1.222 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOP-8 |
| RT8268 | 4.75 | 24 | No | | 2 | 400K | 0.92 | V | OTP, UVLO, Short Circuit Protection | SS (Internal/External); EN | MSOP-10 (Exposed Pad); SOP-8 |
| RT8269 | 4.75 | 24 | No | 3.6 | 3 | 400K | 0.92 | V | OTP, UVLO, Short Circuit Protection | SS (External); EN | PSOP-8 |
| RT8270 | 4.5 | 22 | No | 2.2 | 2 | 1.2M | 1.222 | V | OTP, UVLO, Short Circuit Protection | SS (Internal); EN | SOP-8 |
| RT8271 | 4.75 | 24 | No | | 2 | 1.2M | 0.92 | V | OTP, UVLO, Short Circuit Protection | SS (External); EN | MSOP-10 (Exposed Pad); SOP-8 |
| RT8272 | 4.75 | 24 | No | 3.6 | 3 | 1.2M | 0.92 | V | OTP, UVLO, Short Circuit Protection | SS (External); EN | PSOP-8 |



Buck DC/DC Controller

| Number | Supply Voltage (V) | Vin (min) (V) | Vin (max) (V) | Vout Accuracy (%) | Quiescent Current (typ) (mA) | Frequency Adjustable | Frequency (kHz) (typ) | Compensation | Protection | Features | Pb-Free/Green |
|----------------|--------------------|-----------------|---------------|--------------------------|------------------------------|----------------------|-----------------------|--------------|--------------------------|--|---|
| RT34063A | 3-30 | 3 | 30 | +/-2 | 3 | No | 38 | Internal | | | SOP-8; DIP-8 |
| RT8100A | 5V/12V | 2.5 | 12 | +/-1.5 | 10 | Yes | 200 | External | OCP | SS (External), DCR sensing, External Reference Input | VQFN-3x3-16 |
| RT8101/RT8101A | 12 | 3.3V, 5V or 12V | | +/-1 | 3 | No | 300/600 | External | UVP, OCP | SS (Internal) | PSOP-8 (Option 2); SOP-8 |
| RT8105 | 5V/12V | 3.3V, 5V or 12V | | +/-2 | 6 | No | 300 | Internal | UVP, OCP, OVP | SS (Internal), EN | SOP-8; PSOP-8 (Option 1) |
| RT8106 | 5-12 | 3.3 | 12 | +/-0.8 | 4 | No | 300 | External | UVP, OCP, OVP, OTP | SS (Internal), EN | WDFN-3x3-10 |
| RT8108 | 5-12 | 3.3 | 12 | +/-1 | 5 | No | 300/200 | External | UVP, OCP, OVP, OTP | SS (Internal), EN | SOP-8; PSOP-8 (Option 1) |
| RT8109 | 5-12 | 3.3 | 12 | +/-1 | 5 | No | 300 | External | UVP, OCP, OVP, OTP | SS (Internal), EN, PGOOD, External Reference Input | WDFN-3x3-10 |
| RT8110 | 5.3 | 5 | 23 | +/-2 | 3 | No | 400 | Internal | UVP, OCP | SS (Internal), Max duty 80% | SOT-23-8 |
| RT8202/RT8202A | 4.5-5.5 | 4.5 | 26 | +/-1 | 1.25 | Yes | No | Internal | UVP, OCP, OVP, OTP, UVLO | SS (Internal), EN, PGOOD | WDFN-3x3-16; WDFN-4x4-16; WDFN-3.5x3.5-14 |
| RT8203 | 4.75-5.25 | 7 | 24 | 3.3V +/-1.35, 5V +/-1.66 | 0.25 | Yes | No | Internal | UVP, OVP, OTP | SS (Internal), EN, PGOOD | SSOP-28 |
| RT8204B | 4.5-5.5 | 4.5 | 26 | +/-1 | 0.4 | Yes | No | Internal | UVP, OCP, OVP, OTP, UVLO | SS (Internal), EN, PGOOD | WDFN-3x3-16 |
| RT8205A/B/C | 6-25 | 6 | 25 | +/-1.5 | 0.2 | Yes | - | Internal | UVP, OCP, OVP, OTP, UVLO | Dual Vout; Dual 5/3.3V LDO; SS (Internal), EN, PGOOD; Selectable PWM/DEM/Ultrasonic Mode | WQFN-4x4-24 |
| RT8206A/B | 6-25 | 6 | 25 | +/-1.5 | 0.18 | Yes | - | Internal | UVP, OCP, OVP, OTP, UVLO | Dual Vout; 5V LDO; SS (Internal), EN, PGOOD; Selectable PWM/DEM/Ultrasonic Mode | WQFN-5x5-32 |
| RT8207 | 4.5-5.5 | 4.5 | 26 | +/-1 | 0.47 | Yes | - | Internal | UVP, OCP, OVP, OTP, UVLO | 3A LDO (VTT), Buffered Reference (VTTREF); SS (Internal), EN, PGOOD | WQFN-4x4-24 |
| RT8208A | 4.5-5.5 | 4.5 | 26 | +/-1 | 0.47 | Yes | - | Internal | UVP, OCP, OVP, OTP, UVLO | 2bit programmable output; SS (Internal), EN, PGOOD | WQFN-4x4-24 |
| RT8209A/B | 4.5-5.5 | 4.5 | 26 | +/-1 | 0.47 | Yes | - | Internal | UVP, OCP, OVP, OTP, UVLO | SS (Internal), EN, PGOOD | WQFN-3x3-16; WQFN-3.5x3.5-14 |
| RT9202B | 5 | 4.35 | 7 | +/-2 | 3 | No | 300 | Internal | UVP, OCP, OVP | OCSET=20uA; SS (Internal); FTR | SOP-8 |
| RT9203 | 5 | 5 | 5 | +/-2 | 3 | No | 300 | Internal | UVP, OVP | SS (Internal), Dual Vout: Sync PWM + Linear Controller | SOP-8 |
| RT9206 | 4.75-28 | 4.75 | 28 | +/-2 | 4 | Yes | 200 | External | UVP, OCP, OVP, OTP | SS, EN, PGOOD, Triple Vout: Sync PWM + dual Linear Controller | |
| RT9209/RT9209A | 5 | 4.5 | 7 | +/-2 | 3 | No | 260/400 | Internal | UVP, OVP | PWM Freq.: RT9209= 260KHz, RT9209A= 400KHz; PGOOD; SS (Adj); FTR | SOP-8 |
| RT9218 | 5V/12V | 4.5 | 16 | +/-2 | 6 | No | 300 | Internal | UVP, OCP | Dual Vout: Sync PWM + Linear Controller; PGOOD; SS (Internal); FTR | SOP-14 |
| RT9232B | 12 | 10.4 | 15 | +/-1 | 3 | Yes | 200 | External | UVP, OCP | Drive Source= 1A/1.6A; EN; SS (Adj); FTR | SOP-14 |
| RT9259 | 12 | 10.4 | 15 | +/-1 | 3 | Yes | 230 | External | UVP, OCP | Dual Vout: Sync PWM + Linear Controller; OCP (by UG Ron); SS (Internal) | VQFN-4x4-16; SSOP-16; SOP-14 |
| RT9259A | 12 | 10.4 | 15 | +/-1 | 3 | Yes | 230 | External | UVP, OCP | Dual Vout: Sync PWM + Linear Controller; OCP (by Rocset); SS (Internal) | SOP-14 |
| RT9259E | 12 | 10.8 | 13.2 | +/-1 | 3 | Yes | 230 | External | UVP, OCP, OVP | Dual Vout: Sync PWM + Linear Controller; OCP (by UG Ron); SS (Internal) | SOP-14; SSOP-16 |

Multi-Phase PWM Controller

| Number | Phase No. | Built-in MOSFET Driver No. | Built-in DAC Generator | VID Table Support | Supply Voltage (typ) (V) | Frequency Adjustable | Frequency Range (typ) (kHz) | PWM Feature | Protection | Features | Pb-Free/Green |
|----------------|--------------|----------------------------|------------------------|--|--------------------------|----------------------|-----------------------------|-------------------|-------------------------------|--|--------------------------|
| RT8800/RT8800B | 3; 2 | 0 | No | by external reference | 5 | Yes | 50 ~ 600 (per phase) | -- | OVP; OCP | Internal Soft-start, PGOOD. RT8800: 2/3-Phase; RT8800B: 2-Phase. | VQFN-3x3-16; SOP-16 |
| RT8800A | 3; 2 | 0 | No | by external reference | 5 | Yes | 50 ~ 600 (per phase) | -- | OVP; OCP | Internal Soft-Start, PGOOD | VQFN-3x3-16 |
| RT8802A | 5; 4; 3; 2 | 0 | Yes | VR10.x; VR11; K8; K8 M2 | 5 | Yes | 50 ~ 600 (per phase) | VR_FAN; VR_HOT | OVP; OCP | Output Offset Setting, SS (Adjustable), PGOOD | WQFN-6x6-40 |
| RT8803A | 3; 2 | 0 | Yes | VR10.x; VR11; K8; K8 M2 | 5 | Yes | 50 ~ 600 (per phase) | VR_FAN; VR_HOT | OVP; OCP | Output Offset Setting, SS (Adjustable), PGOOD | VQFN-5x5-32 |
| RT8805 | 2 | 2 | No | internal 0.8V or by external reference | 12 | Yes | 50 ~ 1000 (per phase) | -- | OVP; UVP; OCP | SS (Adjustable), PGOOD | VQFN-3x3-16; VQFN-4x4-24 |
| RT8807 | 2; 1 | 2 | No | internal 0.8V or by external reference | 12 | Yes | 50 ~ 1000 (per phase) | -- | OVP; UVP; OCP; OTP | SS (Adjustable), PGOOD | VQFN-4x4-24 |
| RT8841 | 4; 3; 2; 1 | 2 | Yes | VR10.x; VR11; K8; K8 M2 | 12 | Yes | 150 ~ 1000 (per phase) | VR_FAN; VR_HOT | OVP; OCP | Output Offset Setting, SS (Adjustable), PGOOD | WQFN-6x6-40 |
| RT8855 | 4; 3; 2; 1+1 | 2+1 | Yes | AM2+ | 12 | Yes | 200 | PSI | OVP; OCP | Output Offset Setting, SS (Adjustable), PGOOD | WQFN-7x7-48 |
| RT8857 | 4; 3; 2; 1 | 2 | Yes | VR10.x; VR11; K8; K8 M2 | 12 | Yes | 200 | PSI; Imon; VR_HOT | OVP; OCP | Output Offset Setting, SS (Adjustable), PGOOD | WQFN-7x7-48 |
| RT9245 | 4; 3; 2 | 0 | Yes | VR10.x | 5 | Yes | 50 ~ 400 (per Phase) | -- | OVP; OCP; UVLO (Programmable) | Output Offset Setting, SS (Adjustable), PGOOD | TSSOP-28 |
| RT9245A | 4; 3; 2 | 0 | Yes | VR10.x; K8 | 5 | Yes | 50 ~ 400 (per Phase) | -- | OVP; OCP; UVLO (Programmable) | Output Offset Setting, SS (Adjustable), PGOOD | TSSOP-28 |
| RT9245B | 4; 3; 2 | 0 | Yes | K8 | 5 | Yes | 50 ~ 400 (per Phase) | -- | OVP; OCP; UVLO (Programmable) | Output Offset Setting, SS (Adjustable), PGOOD | TSSOP-28 |
| RT9245C | 4; 3; 2 | 0 | Yes | VR10.x; K8 | 5 | Yes | 50 ~ 400 (per Phase) | -- | OVP; OCP; UVLO (Programmable) | Output Offset Setting, SS (Adjustable), PGOOD | TSSOP-28 |
| RT9246A | 3; 2 | 0 | Yes | K8 | 5 | Yes | 50 ~ 400 (per Phase) | -- | OVP; OCP; UVLO (Programmable) | Output Offset Setting, SS (Adjustable), PGOOD | TSSOP-28 |
| RT9258 | 2; 1 | 2 | No | internal 0.8V or by external reference | 12 | Yes | 50 ~ 1000 (per phase) | -- | OVP; UVP; OCP; OTP | SS (Adjustable), PGOOD | VQFN-4x4-24 |



Battery Charger

| Number | Vin (min) (V) | Vin (max) (V) | Battery Charge Voltage (V) | Charge Current (max) (A) | Input Support | Built-in Power FETs | Protection | Pb-free/Green |
|-----------------|---------------|---------------|----------------------------|--------------------------|--------------------------------|---------------------|--|---------------|
| RT9501A/RT9501B | 4.5 | 7 | 4.1/4.2 | 1 | Single (Only AC-Adapter) | No | Battery Temperature Monitoring | MSOP-8 |
| RT9502 | 4.5 | 6 | 4.2 | 1.2 | Dual (AC-Adapter and USB-Port) | Yes | Battery Temperature Monitoring; OVP; UVP | WDFN-3x3-10 |
| RT9503 | 4.5 | 12 | 4.2 | 1.2 | Dual (AC-Adapter and USB-Port) | Yes | Battery Temperature Monitoring; OVP; UVP; Power Path Controller | WQFN-3x3-16 |
| RT9505 | 4.5 | 6 | 4.2 | 1.2 | Single (Only AC-Adapter) | Yes | Battery Temperature Monitoring; OVP; UVP | WDFN-3x3-10 |
| RT9511 | 4.5 | 12 | 4.2 | 1.2 | Dual (AC-Adapter and USB-Port) | Yes | Battery Temperature Monitoring; OVP; UVP; Power Path Controller; Two 1A Sync. Buck | WDFN-4x4-24 |
| RT9513 | 4.5 | 6 | 4.2 | 1.2 | | Yes | OVP; UVP | WDFN-3x3-10 |

WLED Driver

WLED Driver (Charger Pump/Current Source)

| Number | Vin (min) (V) | Vin (max) (V) | Backlight Type | Frequency (MHz) | LED Numbers (max) | Output Current(max)(mA) | Quiescent Current (mA) (typ) | Brightness Control | Type | Protection | Features | Pb-Free/Green |
|-----------------|---------------|---------------|----------------|-----------------|-------------------|-------------------------|------------------------------|--------------------|-------|---------------------|--|---------------------------------|
| RT9300A/RT9300B | 2.5 | 5.5 | Parallel WLED | -- | 4 | 20 x 4 / 15 x 4 | 600uA (max) | PWM | CS | OTP; UVLO | -- | SOT-23-6 |
| RT9301 | 2.8 | 5.5 | Parallel WLED | -- | 3 | 20 x 3 | 0.5 | PWM | CS | UVLO | Individual Current Setting | TSOT-23-8 |
| RT9302 | 2.8 | 5.5 | Parallel WLED | -- | 3 | 20 x 3 | 0.4 | Pulse | CS | UVLO | Low Noise/EMI | TSOT-23-8 |
| RT9361A/RT9361B | 2.8 | 5/4.5 | Parallel WLED | 1 | 4 | 110/150 | 2 | PWM | CP | OCP | SS | TSOT-23-6; SOT-23-6; WDFN-2x2-6 |
| RT9363 | 2.8 | 5 | Parallel WLED | 0.25 | 3 | 20 x 3 | 1 | Pulse | CP+CS | OVP; OCP; UVLO | SS | TSOT-23-8 |
| RT9363A | 2.8 | 5.5 | Parallel WLED | 1 | 3 | 20 x 3 | 1 | Pulse | CP+CS | OVP; UVLO | Low Noise/EMI; SS | WDFN-3x3-10 |
| RT9364 | 2.8 | 5 | Parallel WLED | 0.25 | 4 | 20 x 4 | 0.8 | Pulse | CP+CS | OVP; UVLO | Low Noise/EMI; SS | WQFN-3x3-16 |
| RT9365 | 2.8 | 5 | Parallel WLED | 0.25 | 5 | 20 x 5 | 1 | Pulse | CP+CS | OVP; UVLO | SS | WQFN-3x3-16 |
| RT9366 | 3 | 5.5 | Parallel WLED | 0.25 | 7 | 20 x 4 / 100 x 3 | 3 | Pulse | CP+CS | OVP; OTP; UVLO | Low Noise/EMI; SS | WQFN-4x4-24 |
| RT9367A | 2.8 | 5.5 | Parallel WLED | 1 | 4 | 25 x 4 | 1 | I2C | CP+CS | OVP; OTP; OCP; UVLO | SS; With Dual 300mA LDO | WQFN-3x3-16 |
| RT9368 | 2.8 | 5 | Parallel WLED | 0.25 | 4 | 20 x 4 | 1 | PWM | CP+CS | OVP; UVLO | Low Noise/EMI; SS; Common Cathode | WQFN-3x3-16 |
| RT9368A | 2.8 | 5 | Parallel WLED | 0.25 | 4 | 20 x 4 | 1 | Pulse | CP+CS | OVP; UVLO | Low Noise/EMI; SS; Common Cathode | WQFN-3x3-16 |
| RT9370 | 2.8 | 5 | Parallel WLED | 0.25/1 | 4 | 20 x 4 | 1mA/300uA | Pulse | CP+CS | OVP; OCP; UVLO | SS; With Boost OLED Driver | WQFN-4x4-24 |
| RT9372 | 2.8 | 5 | Parallel WLED | 0.25 | 5 | 20 x 5 | 1mA/58uA | Pulse | CP+CS | OTP; OVP; UVLO | SS; With Dual 300mA LDO | WQFN-4x4-24 |
| RT9373A | 2.8 | 5 | Parallel WLED | 0.25 | 3 | 20 x 3 | 1 | Pulse | CP+CS | OVP; UVLO | Low Noise/EMI; SS; Common Cathode | WQFN-3x3-16 |
| RT9376 | 2.8 | 5 | Parallel WLED | 1 | 6 | 20 x 6 | 1 | Pulse | CP+CS | OVP; UVLO | Low Noise/EMI; SS | WQFN-3x3-16 |
| RT9378 | 2.7 | 4.5 | Parallel WLED | 1 | 4 | 25 x 4 | | Pulse | CP+CS | OVP; OCP; UVLO | Low Noise/EMI; SS | WQFN-2x2-12 |
| RT9379 | 2.7 | 4.5 | Parallel WLED | 1 | 6 | 25 x 6 | | Pulse/PWM | CP+CS | OVP; OCP; UVLO | Low Noise/EMI; SS | WQFN-2x3-16 |
| RT9384 | 2.7 | 4.5 | Parallel WLED | 1 | 6 | 25 x 6 | | Pulse/PWM | CP+CS | OVP; OCP; UVLO | Low Noise/EMI; SS; with Dual 300mA LDO | WQFN-3x3-20 |
| RT9385 | 2.7 | 4.5 | Parallel WLED | 1 | 5 | 25 x 5 | | Pulse/PWM | CP+CS | OVP; OCP; UVLO | Low Noise/EMI; SS | WQFN-2x3-16 |
| RT9386 | 2.7 | 4.5 | Parallel WLED | 1 | 3 | 25 x 3 | | Pulse | CP+CS | OVP; OCP; UVLO | Low Noise/EMI; SS | WQFN-2x2-12 |

Operational Amplifier

| Number | Vs (min) (V) | Vs (max) (V) | Channel Number | Slew Rate (V/us) | Peak Output Current (mA) | Continue Output Current (mA) | Swing | AVOL (dB) (typ) | CMRR (dB) (typ) | PSRR (dB) (typ) | Features | Pb-Free/Green |
|-----------------|--------------|--------------|----------------|------------------|--------------------------|------------------------------|--------------|-----------------|-----------------|-----------------|---|------------------------------|
| RT9133A/RT9133B | 4.5 | 15 | 1/2 | 2 | 120 | 35 | Rail-to-Rail | 95 | 80 | 70 | WDFN-2x2-6 & SOT-23-5 (Single only); MSOP-8 (Dual only) | WDFN-2x2-6; SOT-23-5; MSOP-8 |
| RT9134 | 4.5 | 15 | 4 | 12 | 120 | 35 | Rail-to-Rail | 95 | 80 | 70 | Unity-Gain Stable | VQFN-4x4-16; TSSOP-14 |

Voltage Detector

| Number | Vin (min) (V) | Vin (max) (V) | Threshold Voltage (min) (V) | Threshold Voltage (max) (V) | Threshold Fixed Output Options (V) | Tuning scale (V) | Accuracy (%) | Reset Active | Reset Active Time Out Period (ms) (typ) | VDD Drop to Reset Delay (us)(typ.) | Features | Pb-Free/Green |
|-----------------|---------------|---------------|-----------------------------|-----------------------------|------------------------------------|--------------------------------|--------------|------------------------------------|---|------------------------------------|--|--|
| RT9801A/RT9801B | 0.9 | 6 | 2.5/1.5 | 5V/4V | 1.5~5 | 0.1 (Custom Voltage Available) | +/-3 | Low | 200 | 20 | N-Channel (open-drain output); Programmable Threshold | SOT-23-6 |
| RT9802A/RT9802B | 0.9 | 6 | 2.5/1.5 | 5V/4V | 1.5~5 | 0.1 (Custom Voltage Available) | +/-3 | Low | 200 | 20 | P-Channel & N-Channel (push pull output); Programmable Threshold | SOT-23-6 |
| RT9816 | 0.9 | 6 | 1.2 | 5 | 1.2~5 | 0.1 (Custom Voltage Available) | +/-1.5 | Low (A, B, C, D)/High (E, F, G, H) | A & E:0, B & F:55, C & G:220, D & H:450 | 20 | N-Channel (open-drain output); Manual Reset Input | SC-82 |
| RT9817 | 0.9 | 6 | 1.2 | 5 | 1.2~5 | 0.1 (Custom Voltage Available) | +/-1.5 | Low (A, B, C, D)/High (E, F, G, H) | A & E:0, B & F:55, C & G:220, D & H:450 | 20 | P-Channel & N-Channel (push pull output); Manual Reset Input | SOT-143; SC-82 |
| RT9818 | 0.9 | 6 | 1.2 | 5 | 1.2~5 | 0.1 (Custom Voltage Available) | +/-1.5 | Low (A, B, C, D)/High (E, F, G, H) | A & E:0, B & F:55, C & G:220, D & H:450 | 20 | N-Channel (open-drain output) | SOT-23-5; SOT-23-3; SC-70-3; SC-82; SOT-89-3 |
| RT9819 | 0.9 | 6 | 1.2 | 5 | 1.2~5 | 0.1 (Custom Voltage Available) | +/-1.5 | Low (A, B, C, D)/High (E, F, G, H) | A & E:0, B & F:55, C & G:220, D & H:450 | 20 | P-Channel & N-Channel (push pull output) | SOT-23-3; SC-70-3; SC-82 |

Power Switch/MUX

| Number | Vin (min) (V) | Vin (max) (V) | R(ds)on (typ) (mΩ) | Quiescent Current(μA)(typ) | Current Limit (min) (A) | Fault Indicator | OC Adjustable | UL Listed | Protection | Features | Pb-Free/Green |
|----------------|--------------------------|----------------------------|--------------------|-----------------------------|---|-----------------|---------------|-----------|----------------|-------------------------------|-------------------------------------|
| RT9701 | 2.2 | 6 | 100 | 23 | 1.1 | No | No | #E219878 | OCP; OTP; UVLO | SS; EN | SOT-23-5 |
| RT9701B | 3.5 | 6 | 100 | 23 | 1.1 | No | No | #E219878 | OCP; OTP; UVLO | SS; EN | SOT-23-5 |
| RT9702/RT9702A | 2 | 5.5 | 80 | 25 | 0.5/1.1 | Yes | No | #E219878 | OCP; OTP; UVLO | SS; EN; Flag | SOT-23-5; TSOT-23-5 |
| RT9703 | 2 | 5.5 | 80 | 30 | 3.5 (max) | Yes | Yes | -- | OCP; OTP; UVLO | SS; EN; Flag | SOP-8 |
| RT9706 | 2 | 5.5 | 80 | 25 | 0.5 | Yes | No | #E219878 | OCP; OTP; UVLO | SS; EN; Flag | SOT-23-5 |
| RT9711 | 2.5 | 5.5 | 80 | 25 | 1.6 | Yes | No | #E219878 | OCP; OTP; UVLO | SS; EN; Flag | SOP-8; SOT-23-5 |
| RT9711A/B/C/D | 2.5 | 5.5 | 80 | 25 | 1.6 (A/B)/0.7 (C/D) | Yes | No | #E219878 | OCP; OTP; UVLO | SS; EN; Flag | TSOT-23-5; SOT-23-5; MSOP-8; SOP-8 |
| RT9712 | 2.7 | 5.5 | 90 | 70 | 1.5 (A/B)/1.1 (C/D) | Yes | No | -- | OCP; OTP; UVLO | SS; EN; Flag; Dual Output | SOP-8 |
| RT9715 | 2.7 | 5.5 | 90 | 50 | 2 (A/B)/1.5 (C/D)/1.1 (E/F)/0.7 (G/H) | Yes | No | -- | OCP; OTP; UVLO | SS; EN; Flag | SOT-23-5; MSOP-8; SOP-8; WDFN-3X3-8 |
| RT9716 | 3 (3.3VIN)/1.35 (1.5VIN) | 3.6 (3.3VIN)/1.65 (1.5VIN) | 80 | 25 (IQ33/IQ15)/250 (IQ_AUX) | 1.35 (ISC33)/0.67 (ISC15)/0.275 (ISC_AUX) | Yes | No | -- | OCP; OTP; UVLO | EN; Flag | WQFN-4x4-20 |
| RT9724 | 2.7 | 5.5 | 100 | 50 | 1.5 | No | No | -- | OCP; OTP; UVLO | EN; Turn-On slew rate control | SOT-23-5; WDFN-2X2-8 |

Photoflash Charger

| Number | Supply Input Voltage (min) (V) | Supply Input Voltage (max) (V) | Built-in MOSFET | Drain to Source Voltage (max) (V) | R(ds)on (typ) (mOhm) | Continuous Current (max) (A) | Built-in IGBT Driver | Auto Refresh | Protection | Features | Pb-Free/Green |
|-----------------|--------------------------------|--------------------------------|-----------------|-----------------------------------|----------------------|------------------------------|----------------------|--------------|---------------|---|---------------|
| RT9590 | 1.8 | 6.5 | No | -- | -- | -- | Yes | No | -- | | VQFN-3x3-16 |
| RT9591 | 1.8 | 6.5 | No | -- | -- | -- | Yes | No | -- | | VQFN-3x3-16 |
| RT9592 | 1.8 | 6.5 | No | -- | -- | -- | Yes | Yes | -- | | VQFN-3x3-16 |
| RT9593 | 1.8 | 6.5 | Yes | 55 | 250 | 2 | Yes | No | -- | | VQFN-3x3-16 |
| RT9594A/RT9594B | 1.6 | 13 | Yes | 50 | 300 | 2 | Yes | No | OCP; OTP | RT9594A is for VDD=3.3V application, RT9594B is for VDD=5.0V application. | WQFN-3x3-16 |
| RT9595 | 1.6 | 5.5 | Yes | 45 | 300 | 2 | Yes | No | OCP; OTP; OVP | | WDFN-3x3-10 |

LED Lighting DC/DC Driver



| Number | Vin (Min)(V) | Vin (Max)(V) | Vo (Max)(V) | Number of LEDs | Topology | Frequency (KHz) | Efficiency (%) | Current Feedback (mV) | Current Accuracy (+/-%) | Current Limit (min)(A) | Driving Capability at 24V VIN | Protection | Features | Dimming Type | PB-Free/Green |
|----------------|--------------|--------------|-------------|----------------|-------------------------|-----------------|----------------|-----------------------|-------------------------|------------------------|-------------------------------|---------------------|---|--------------|-----------------------|
| RT8450/RT8450B | 4.5 | 40 | 60 | 15 | Buck, Boost, Buck-Boost | 800/500 | 95 | 190 | 5 | 1.2 | 12W | OCP, OVP, OTP, UVLO | SS (Programmable), EN, Fixed frequency constant current | Analog, PWM | WDFN-3X3-12; TSSOP-16 |
| RT8451 | 4.5 | 40 | 40 | 10 | Buck, Boost, Buck-Boost | 500 | 96 | 190 | 5 | External FET | Limited by FET | OCP, OVP, OTP, UVLO | SS (Programmable), EN, Fixed frequency constant current | Analog, PWM | WDFN-3X3-12; SOP-14 |
| RT8452 | 4.5 | 40 | 60 | 15 | Buck, Boost, Buck-Boost | 450 | 96 | 190 | 5 | External FET | Limited by FET | OCP, OVP, OTP, UVLO | SS (Programmable), EN, Fixed frequency constant current | Analog, PWM | WQFN-3X3-16; SOP-16 |
| RT8453 | 4.5 | 30 | 30 | 7 | Buck | 800 | 95 | 190 | 5 | 1.2 | 12W | OCP, OVP, OTP, UVLO | SS (Programmable), EN, Fixed frequency constant current | Analog, PWM | SOP-8 |



Multi-Channel Regulator

| Number | V _{in} (min) (V) | V _{in} (max) (V) | Numbers of DC/DC Outputs | Numbers of LDO outputs | Features | Pb-Free/Green |
|---------|---------------------------|---------------------------|--|------------------------|-------------------|---------------|
| RT8036 | 2.4 | 5.5 | Buck x 1 | 4 | | WQFN3x3-20 |
| RT9901 | 2.4 | 5.5 | Boost x 1, Buck x 2, Charge Pump x 1 | 0 | SS (Programmable) | VQFN-5x5-32 |
| RT9902 | 2.4 | 5.5 | Boost x 1, Buck x 2, Charge Pump x 1 | 1 | SS (Programmable) | VQFN-5x5-32 |
| RT9903 | 2.4 | 5.5 | Boost x 4, Charge Pump x 1 | 0 | SS (Programmable) | VQFN-4x4-24 |
| RT9903B | 2.4 | 5.5 | Boost x 4 | 0 | SS (Programmable) | VQFN-4x4-24 |
| RT9907 | 2.4 | 5.5 | Boost x 1, Buck x 2 | 0 | SS (Programmable) | VQFN-4x4-24 |
| RT9911 | 2.4 | 5.5 | Syn-Buck/Boost x 1, Syn-Buck x 1, Boost x 1, PWM x 1, Inverter x 1, WLED Driver x 1 | 0 | | VQFN-6x6-40 |
| RT9917 | 2.4 | 5.5 | Syn-Buck/Boost x 1, Syn-Boost x 1, Syn-Buck x 2, HV-Boost x 1, Inverter x 1, WLED Driver x 1 | 0 | SS (Fixed) | WQFN-5x5-40 |

MOSFET Driver

| Number | Driver Channel No. | Built-In Boot Strap Diode | Supply Voltage (typ) (V) | Supply Current (typ) (mA) | Output Disable by | PWM Input Voltage (typ) (V) | PWM Input Current (typ) (mA) | Protection | Pb-Free/Green |
|----------------|--------------------|---------------------------|--------------------------|---------------------------|--------------------------|-----------------------------|---|------------|------------------------|
| RT9605B | 3 | No | 5 | 10 (max) | PWM Tri-State | 5 | 600uA (VPWM_IN = 0V); 350uA (VPWM_IN = 5V) | UVLO | VQFN-4x4-24 |
| RT9607/RT9607A | 2 | Yes | 12 | 5.5 | PWM Tri-State | 5 | | UVLO | VQFN-3x3-16; SOP-14 |
| RT9618/RT9618A | 1 | Yes | 12 | 1 | PWM Tri-State; OD Pin | 5 | | UVLO | SOP-8; WDFN-3x3-8 |
| RT9619/RT9619A | 1 | Yes | 12 | 1 | PWM Tri-State | 5 | | UVLO | SOP-8 |

ACPI Power Regulator

| Number | DC/DC Buck PWM | | | | LDO Converter | LDO Controller | DDR Vtt Regulator | | | | Pb-Free/Green |
|---------------------|-----------------------------|-------|---------------------------------|-----------------|-----------------|------------------|-------------------|----------------------|-----------------------|--|---------------|
| | Supply Voltage (typ) (V) | CH No | Switching Frequency (typ) (kHz) | Built-in Driver | Converter CH No | Controller CH No | Regulator CH No | Switch Control | Protection | Features | |
| RT9641A/ RT9641B | 5V (+/-5%), 12V (+/-10%) | 0 | -- | -- | 0 | 2 | 0 | 3VDL, 5VDL | UVP; OTP | VMEM (A: 2.5V/3.3V, B: 2.6V/3.43V) | SOP-16 |
| RT9641C | 5V (+/-5%), 12V (+/-10%) | 0 | -- | -- | 0 | 2 | 0 | 3VDL, 5VDL | OCP; UVP; OTP | VMEM (C: 2.5V/3.3V) <3VDL & 5VDL controller different with RT9641A> | SOP-16 |
| RT9643 | 5V (+/-10%) | 1 | 300 | 1 | 1 | 1 | 0 | 3VDL, 5VDL | OCP; UVP; OVP; OTP | | VQFN-5x5-24 |
| RT9644/ RT9644A | 5V (+/-5%), 12V (+/-10%) | 1/2 | 250 | 1/1 | 0/0 | 3/2 | 1/1 | -- | OCP; UVP; OVP; OTP | | VQFN-6x6-28 |
| RT9645 | 5V (+/-5%), 12V (+/-10%) | 2 | 300 | 1 | 0 | 2 | 0 | 5VDL | OCP; UVP; OTP | | VQFN-4x4-24 |
| RT9646 | 5V (+/-10%) | 1 | 300 | 1 | 1 | 1 | 1 | 3VDL, 5VDL, 5VUSB | OCP; UVP; OVP; OTP | | VQFN-5x5-24 |

VRM/VRD

| Number | VID Table Support (VRM ver) | Supply Voltage (typ) (V) | Supply Current (typ) (mA) | Protection | Features | Pb-Free/Green |
|-----------------|-----------------------------|--------------------------|---------------------------|------------|----------------|-------------------|
| RT8841 | VR11; VR10.x; K8 M2 | 12 | 6 | OVP; OCP | | WQFN-6x6-40 |
| RT8855 | M2; M2+ | 12 | 10 | OVP; OCP | | WQFN7x7-48 |
| RT8857 | VR11.1; VR11; VR10.x; K8 M2 | 12 | 6 | OVP; OCP | | WQFN7x7-48 |
| RT9401A/RT9401B | VR10; K8 | 5V (+/-10%) | 2 | | A: VR10, B: K8 | SOT-23-8 |
| RT9401C | VR10 | 5V (+/-10%) | 2 | | | PSOP-8 (Option 1) |

Audio Amplifier

| Part No. | Amplifier Type | Speaker Channels | Po/channel at Vin=5V, RL=4ohm | Volume Control | Features | Pb-Free/Green |
|----------|----------------|------------------|-------------------------------|----------------|---|--------------------------|
| RT9101 | D | 1 | 2.65W | N | Fully differential class D amplifier | DFN-3x3-8; DFN2x2-8; CSP |
| RT9103 | D | 1 | 2.65W | N | Constant power class D amplifier | QFN-4x4-20 |
| RT9104 | D | 2 | 2.3W | Y | Stereo class D amplifier with DC volume control | SOP16; QFN-3x3-16 |
| RT9142 | AB | 1 | 2.5W | N | Fully differential class AB amplifier | DFN-3x3-8; CSP |



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