

# **RICHTEK**

## **AUTOMOTIVE PRODUCT SELECTION GUIDE 2025**



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## ABOUT RICHTEK

Founded in 1998, Richtek is one of the leading global analog chip design companies, specializing in the design and development of comprehensive power solutions that range from DC/DC regulators to power management multi-channel ICs. Since 2015, Richtek has been a subsidiary of MediaTek, allowing us to leverage MediaTek's expertise to expand our product portfolio through consolidation and collaboration. Richtek aims to accelerate your design with a variety of design support resources, such as Richtek Designer™, application notes, technical documents, and more. Additionally, you can sign up for 'MyRichtek' to access free samples, exclusive product information and the latest product newsletters.

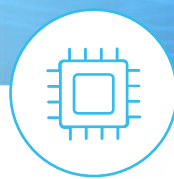
Richtek has established an innovative and dynamic quality management system. As a result of this system, we have attained and continued to maintain ISO 9001, ISO 14001, ISO 45001 and ISO 26262 certifications. Richtek is committed to protecting the environment and conforming to the regulation requirements with the declaration of RoHS, the declaration of REACH and more green product files for download.



High Quality



Excellent Accuracy



High Reliability



High Safety

## AUTOMOTIVE PRODUCTS

With AEC-Q100 qualifications, Richtek's innovative automotive products are primed for present and future automotive qualification requirements. Richtek has received the IATF 16949 and ISO 26262 standards. By aligning with APQP (Automotive Product Quality Planning), safety planning, implementing safety analysis, confirmation measures, and safety case documentation, we have established a robust foundation for functional safety in our projects. Our automotive products, known for high performance and reliability, have been successfully selected by automotive manufacturers worldwide.



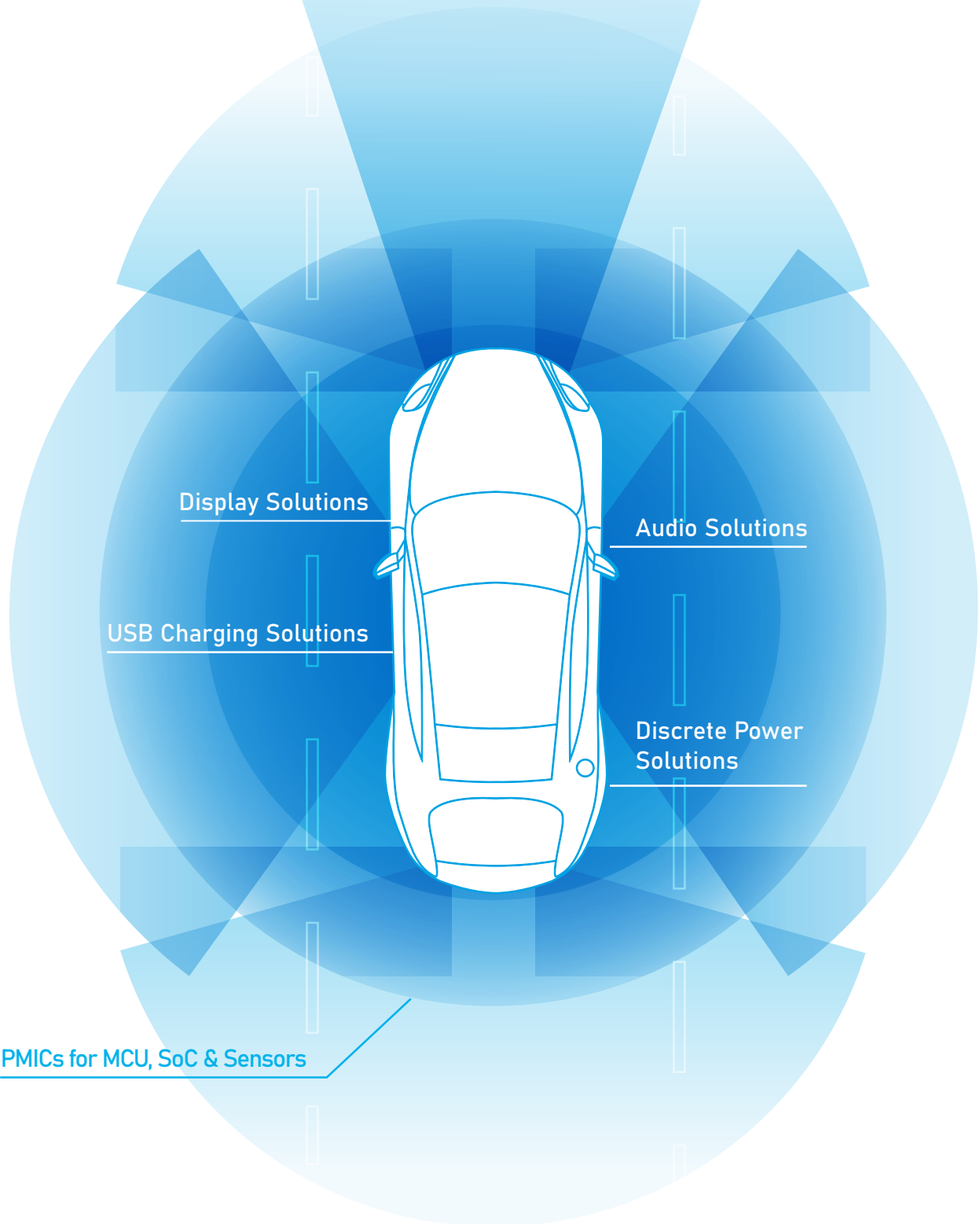


## GET RICHTEK PRODUCTS ONLINE

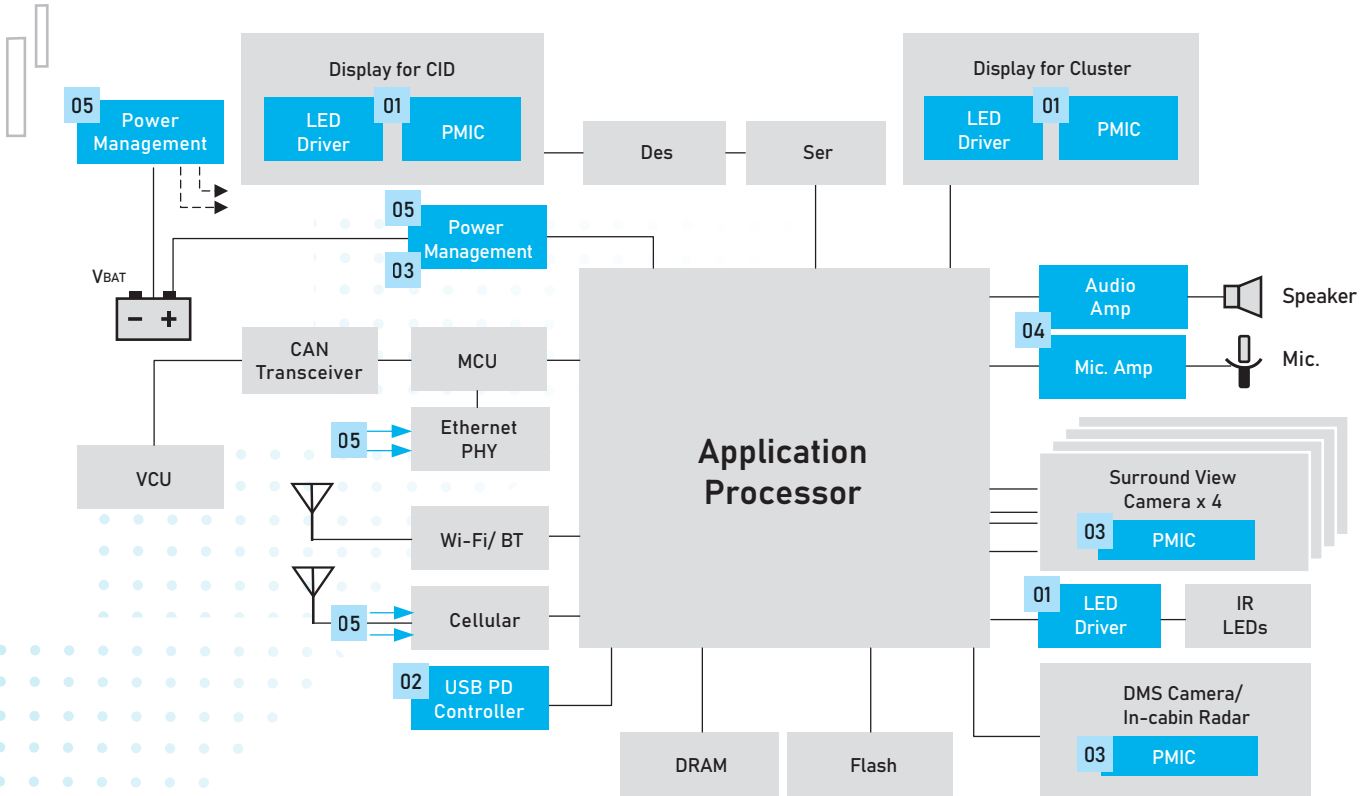
Richtek works with both DigiKey and Mouser Electronics, our global distributors to offer a broad variety of products including ICs, EVBs and design tools to make your designing easier.

# RICHTEK

# AUTOMOTIVE SYSTEM BLOCK DIAGRAM & RICHTEK POWER SOLUTIONS







### Display Solutions

- Display PMICs, Level Shifter & Gamma Correction ICs
- LED Drivers

01

### USB Charging Solutions

- USB Type-C Charging Port & Integrated Buck Converters
- USB Type-C PD & PWM Controllers

02

### PMICs for MCU, SoC & Sensors

- Camera Power Solutions
- Radar Power Solutions
- Cockpit SoC Power Solutions

03

### Audio Solutions

- Audio Amplifiers

04

### Discrete Power Solutions

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- Boost Converters
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- DDR Power Solutions
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## DISPLAY PMICS, LEVEL SHIFTER & GAMMA CORRECTION ICs

Part Number	Description	Vin Range (V)	Regulator Blocks	Interface	Features	Package(s)
RTQ6513-QT	10-Bit Programmable Gamma Reference for TFT-LCD Panels	2.9 to 18	16x Gamma Correction; 1x VCOM Op Amp; 1x Rail-to-Rail HAVDD Buffer	I <sup>2</sup> C	AEC-Q100 Grade 2; OCP; OVP; SCP Protection	WQFN5x5-32
RTQ6749-QT-A2	TFT LCD Integrated Power Module for Automotive Infotainment Applications	2.5 to 5.5	1x 0.2A Boost for PAVDD; 1x 0.06A Boost for VGH; 1x 0.2A Buck-Boost for NAVDD; 1x 0.06A VGL Charge Pump; 1x VCOM; 1x RESET Voltage Detector	I <sup>2</sup> C	AEC-Q100 Grade 2; Outputs Power-off Discharge Function; Programmable Voltage Detector	WQFN5x5-32
† RTQ6751-QT	PMIC for AMOLED Panels	2.8 to 5	1x 0.8A Sync./ Async. Boost for AVDD; 1x 1A Buck for VCORE; 1x 0.3A Buck for VIO; 1x 0.1A Negative Inverting for VGL; 1x Negative OP Amp. for VINI; 1x 0.15A Boost for VGH; 2x Gamma Buffers	I <sup>2</sup> C	AEC-Q100 Grade 2; Programmable Voltage Detector; UVLO; UVP; OVP; SCP; OTP Protection; EEPROM Memory	UQFN5x5-32(FC)
RTQ6752-QT	TFT LCD Integrated Power Module for Automotive Infotainment Applications	2.5 to 5.5	1x 0.2A Boost for PAVDD; 1x 0.2A Buck-Boost for NAVDD; 1x 8-bit Calibrator; 1x RESET Voltage Detector	I <sup>2</sup> C	AEC-Q100 Grade 2; Outputs Power-off Discharge Function; Programmable Voltage Detector	WET-WQFN5x5-20
† RTQ6801-QT	Boost Converter with VGH/ VGL Charge Pump and High Current OP Amp for TFT-LCD Panels	2.5 to 5.5	1x Boost for AVDD; 1x VGH Charge Pump; 1x VGL Charge Pump; 1x Gate Pulse Modulator	-	AEC-Q100 Grade 2; Incorporate One Gate Shading Functions with Adjustable Falling Time	WQFN4x4-24
† RTQ8954-QA	High Voltage Level Shifter with Gate Shaping Function for TFT-LCD/ POLED Panel	VGH: 8 to 32 VGL: -25 to -2	12 Outputs: G1_CLK1 to 4, G1_VST, G1_QRST, 2_CLK1 to 4, G2_VST and G2_QRST	-	AEC-Q100 Grade 2; Slew Rate to Drive up to 4.7nF Load; Short Circuit Protect; Over-Temperature Protection; CLK Gate Shaping Function	WQFN-6x6-36

† Customized products : Please contact our branch office for further information.

## LED DRIVERS

Part Number	Vin Range (V)	Vout Range (V)	LED Channels	ILED/CH (mA)	Ext. Sync	Dimming Resolution	LED Configurations	Features	Package(s)
*RTQ4544-QB	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	4	30 to 170	-	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	3 Configurations: 2 to 4 Separate Strings	AEC-Q100 Grade 1; ISO 26262 ASIL B Compliance; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WQFN4x4-24S
*RTQ4546-QB	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	6	30 to 200	-	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	8 Configurations: 2 to 6 Separate Strings/ Group of 2/ Group of 3/ All Connected	AEC-Q100 Grade 1; ISO 26262 ASIL B Compliance; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WQFN4x4-24S
*RTQ4547-QB	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	6	30 to 200	Y	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	8 Configurations: 2 to 6 Separate Strings/ Group of 2/ Group of 3/ All Connected	AEC-Q100 Grade 1; ISO 26262 ASIL B Compliance; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WET-VDFN9.8x6.4-38
*RTQ4549-QT	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	6	30 to 200	-	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	8 Configurations: 2 to 6 Separate Strings/ Group of 2/ Group of 3/ All Connected	AEC-Q100 Grade 1; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WQFN4x4-24S
*RTQ4550-QT	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	6	30 to 200	Y	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	8 Configurations: 2 to 6 Separate Strings/ Group of 2/ Group of 3/ All Connected	AEC-Q100 Grade 1; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WET-VDFN9.8x6.4-38
†RTQ4552-QT	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	6	30 to 170	-	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	8 Configurations: 2 to 6 Separate Strings/ Group of 2/ Group of 3/ All Connected	AEC-Q100 Grade 1; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WQFN4x4-24S
†RTQ4554-QT	5 to 40	Boost: 20 to 45; SEPIC: 6 to 24	4	30 to 170	-	16-bit (I <sup>2</sup> C/PWM); 12-bit (Analog)	3 Configurations: 2 to 4 Separate Strings	AEC-Q100 Grade 1; Automatic Output Voltage Discharge; Phase Shift PWM/ Direct PWM/ DC/ Mixed Dimming	WQFN4x4-24S
†RTQ8306-QT	VDDA: 5 VDDD: 1.8	24	36	5 to 120	-	12-bit (PWM); 8-bit (Analog)	-	AEC-Q100 Grade 1; Integrated Dynamic Headroom Control; Support Dot Correlation Function; HDR Mode	WET-WQFN7x7-56
*RTQ8310-QT	VDDA: 5 VDDD: 1.8	24	48	5 to 120	-	12-bit (PWM); 8-bit (Analog)	-	AEC-Q100 Grade 1; Integrated Dynamic Headroom Control; Support Dot Correlation Function; HDR Mode	WQFN8x8-72

\* Preview : Please contact our branch office for further information.

† Customized products : Please contact our branch office for further information.



## USB TYPE-C CHARGING PORT & INTEGRATED BUCK CONVERTERS

Part Number	Buck Converter			Supported Cable Type	USB Charging Port Controller						Features	Package(s)
	V <sub>in</sub> (V)	I <sub>out</sub> (A)	Freq (MHz)		SDP	CDP	DCP	CC1/CC2	VCONN	DFP		
RTQ2115A-QA	3 to 36	3	0.3 to 2.2	· Type-A to Micro-B · Type-A to Lightning	Y	Y	Y	-	-	-	AEC-Q100 Grade 1	WET-WQFN5x5-32
RTQ2115C-QA	3 to 36	3.5	0.3 to 2.2	· Type-C to Type-C · Type-C to Micro-B · Type-C to Lightning	Y	Y	Y	Y	Y	-	AEC-Q100 Grade 1	WET-WQFN6x6-40
RTQ2116A-QA	3 to 36	3	0.3 to 2.2	· Type-A to Micro-B · Type-A to Lightning	-	-	Y	-	-	-	AEC-Q100 Grade 1	WET-WQFN5x5-32
RTQ2116C-QA	3 to 36	3.5	0.3 to 2.2	· Type-C to Type-C · Type-C to Micro-B · Type-C to Lightning	-	-	Y	Y	Y	-	AEC-Q100 Grade 1	WET-WQFN6x6-40
RTQ2117A-QA	3 to 36	3	0.3 to 2.2	· Type-A to Micro-B · Type-A to Lightning	Y	Y	Y	-	-	-	AEC-Q100 Grade 1	WETD-VQFN5x5-32
RTQ2117C-QA	3 to 36	3.5	0.3 to 2.2	· Type-C to Type-C · Type-C to Micro-B · Type-C to Lightning	Y	Y	Y	Y	Y	Y	AEC-Q100 Grade 1	WETD-VQFN6x6-40
RTQ2118A-QA	3 to 36	3	0.3 to 2.2	· Type-A to Micro-B · Type-A to Lightning	-	-	Y	-	-	-	AEC-Q100 Grade 1	WETD-VQFN5x5-32
RTQ2118C-QA	3 to 36	3.5	0.3 to 2.2	· Type-C to Type-C · Type-C to Micro-B · Type-C to Lightning	-	-	Y	Y	Y	Y	AEC-Q100 Grade 1	WETD-VQFN6x6-40

## USB TYPE-C PD & PWM CONTROLLERS

Part Number	Built-in PWM Controller	V <sub>in</sub> (V)	Policy Management	Alternate Mode	USB Protocol	Power Role	Features	Package(s)
RTQ7860-QT	Buck-Boost Controller	4.5 to 30	Integrated	-	PD2.0; PD3.0; PD3.1; PPS	Provider	AEC-Q100 Grade 2; Adj. Current Limit; Adj. Freq. Adj. Soft-Start; I <sup>2</sup> C; AnyPower™; PD Safe®	WQFN6x6-48
RTQ7880-QT	Buck-Boost Controller	4 to 36	Integrated	Y	PD2.0; PD3.0; PPS	Provider	AEC-Q100 Grade 2; Adj. Current Limit; Adj. Freq. Adj. Soft-Start; I <sup>2</sup> C; AnyPower™; PD Safe®	WET-WQFN6x6-48
RTQ7880A-QT	Buck-Boost Controller	4 to 36	Integrated	Y	PD2.0; PD3.0; PPS	Provider	AEC-Q100 Grade 2; Adj. Current Limit; Adj. Freq. Adj. Soft-Start; I <sup>2</sup> C; AnyPower™; PD Safe®	WQFN6x6-48
RTQ7882-QT	Buck-Boost Controller	4.5 to 30	Integrated	Y	PD2.0; PD3.0; PD3.1; PPS	Provider	AEC-Q100 Grade 2; Adj. Current Limit; Adj. Freq. Adj. Soft-Start; I <sup>2</sup> C; AnyPower™; PD Safe®	WET-WQFN6x6-48; WQF6x6-48
*RTQ7883B-QT	Buck Converter	4.5 to 30; 4.5 to 36 (<0.4s)	Integrated	Y	PD2.0; PD3.0; PD3.1; PPS	Provider	AEC-Q100 Grade 2; Adj. Freq.; I <sup>2</sup> C; AnyPower™; PD Safe®	WQFN6x6-42

\* Preview : Please contact our branch office for further information.

\* AnyPower™ : Constant Voltage Output in 10-Bit Resolution & Constant Current Output Settings in 9-Bit Resolution.

\* PD Safe® : Adjustable Converter Input Current Limit, Programmable VBUS OVP and VO UVP, Adjustable External OTP & VCONN1/2 Output Current Limit.

# 03 | PMICS FOR MCU, SOC & SENSORS

Part Number	Description	Vin Range (V)	Regulator Blocks	Interface	Features	Package(s)
RT2070	4-Regulator PMIC for Automotive Digital Camera Module	4.5 to 15	1x 2A HV Buck; 2x 1A LV Buck; 1x 0.5A LDO; 1x 0.5A Power Switch	I <sup>2</sup> C	AEC-Q100 Grade 1; POC Step-Down & Secondary Regulators; High PSRR LDO for Analog Supply; Power Sequence Programming	WQFN4x4-24
RTQ2072-QA	Automotive CIS/CCM PMIC for Ultra Compact Camera and High Image Quality System	4 to 18.5	1x 2A HV Buck; 1x 1.5A LV Buck; 1x 0.75A LV Buck; 1x 0.3A LDO	-	AEC-Q100 Grade 1; FMEA Compliant; 10 Adj. Output Settings; 10 Flexible Power Sequence; Sequence Control for External Power IC via SEQOUT (A); Power Status Indication via PG (B)	WETD-VQFN3x3-16
RTQ2072-QT	Automotive CIS/CCM PMIC for Ultra Compact Camera and High Image Quality System	4 to 18.5	1x 2A HV Buck; 1x 1.5A LV Buck; 1x 0.75A LV Buck; 1x 0.3A LDO	-	AEC-Q100 Grade 1; FMEA Compliant; 10 Adj. Output Settings; 10 Flexible Power Sequence; Sequence Control for External Power IC via SEQOUT (A); Power Status Indication via PG (B)	WETD-VQFN3x3-16
RTQ2076-QT	Automotive CIS/CCM PMIC for Ultra Compact Camera and High Image Quality System	4 to 18.5	1x 2A HV Buck; 1x 1.5A LV Buck; 1x 0.75A LV Buck; 1x 0.3A LDO	-	AEC-Q100 Grade 1; FMEA Compliant; 10 Adj. Output Settings; 10 Flexible Power Sequence; Sequence Control for External Power IC via SEQOUT (A); Power Status Indication via PG (B)	WETD-VQFN3x3-16
RTQ2077S-QT	DC-DC Converters + LDO PMIC for Automotive/Industrial Applications	4.5 to 15	1x 0.4A HV Buck; 1x 0.2A LDO	-	AEC-Q100 Grade 1; Enable Input; Internal Compensation; Power Good; OCP; OVP; SCP Protection	WQFN3x3-16
† RTQ2078-QF	System Optimization FuSa PMIC for Extremely High Image Quality Automotive Camera Sensor/Module	4 to 24	1x 1.5A HV Buck; 2x 1.5A LV Buck; 1x 0.3A LDO	I <sup>2</sup> C	AEC-Q100 Grade 1; ISO 26262 ASIL B Compliance; Power-On BIST for OV/UV Monitor, I <sup>2</sup> C CRC, and OTP CRC Protection; Power and Error Status Indication via PG	WET-UQFN3x3-16 (FC)

† Customized products : Please contact our branch office for further information.



Part Number	Description	Vin Range (V)	Regulator Blocks	Interface	Features	Package(s)
*RTQ2079-QF	System Optimization FuSa PMIC for Extremely High Image Quality Automotive Camera Sensor/ Module	4 to 24	1x 1.5A HV Buck; 2x 1.5A LV Buck; 1x 0.3A LDO; 1x 0.4A LDO	I <sup>2</sup> C	AEC-Q100 Grade 1; ISO 26262 ASIL B Compliance; Power-On BIST for OV/ UV Monitor, I <sup>2</sup> C CRC, and OTP CRC Protection; Two Error Signal Receivers via ERRIN1/ ERRIN2	WET-WQFN4x4 -24A
*RTQ2081-QF	System Optimization Automotive FuSa PMIC with Built-in WDT Function	4 to 24	1x 1.5A HV Buck; 2x 1.5A LV Buck; 1x 0.3A High PSRR LDO; 1x 0.4A LDO	I <sup>2</sup> C	AEC-Q100 Grade 1; ISO 26262 ASIL B Compliance; FPWM/ PSM Control Support; Safety Mechanisms Include Power-On BIST for OV/ UV Monitors, I <sup>2</sup> C CRC, and OTP CRC; Built-in Watchdog Timer Function	WET-WQFN4x4-24A
RTQ2134-QA	4-Phase, 2-Channel, or 3-Channel High Current Buck for MediaTek MT2712 Car Infotainment Chipset	3 to 6	4x 5.5A LV Buck Total 20A, 5.5A per Phase	I <sup>2</sup> C	AEC-Q100 Grade 1; 2 + 2/2 + 1 + 1 Phase Output; Remote Sense; DVS with Programmable Slew Rate Control; Watchdog Timer	WET-WQFN4.5x5-30(FC)
*RTQ2209-QA	10-Channel Multi-Configuration PMIC	3.6 to 5.5	8x 4A LV Buck; 2x 0.02A LDO	I <sup>2</sup> C	AEC-Q100 Grade 1; Dual Multi-Configurable Buck Converter with 4 + 0/3 + 1/2 + 2/2 + 1 + 1 Configurations; MTP memory for Parameter; Support Low Power Mode	WET-WQFN6x6-52
RTQ5115-QA	12-Regulator PMIC with MTP Non-Volatile Memory for MediaTek MT2712 Car Infotainment Chipset	3.15 to 5.5	1x 2.4A LV Buck; 2x 2A LV Buck; 1x 1.6A LV Buck; 8x 0.3A LDO	I <sup>2</sup> C	AEC-Q100 Grade 2; MTP Memory for Parameter Pre-set; Power Sequence Programming	WQFN7x7-56

\* Preview : Please contact our branch office for further information.

# 04 | AUDIO SOLUTIONS

## AUDIO AMPLIFIERS

Part Number	Description	Vin Range (V)	Regulator Blocks	Interface	Features	Package(s)
† RTQ9128DH-QA	75W, Ultra-Low Noise, High-Efficiency, Digital Input 4-Channel Automotive Audio Amplifier with I <sup>2</sup> C Diagnostics	4.5 to 26.4	4x22W, THD+N=1%, 4Ω, 14.4V; 4x27W, THD+N=10%, 4Ω, 14.4V; 4x45W, THD+N=10%, 2Ω, 14.4V; 4x75W, THD+N=10%, 4Ω, 25V	I <sup>2</sup> C	AEC-Q100 Grade 1; Up to 16 Channel TDM Input; Ultra-Low Noise = 18μV; Sampling Frequency up to 192kHz; Switching Frequency up to 2.1MHz; Thermal Fold-Back and Clip Detection; Load Diagnostics; 40V Load Dump	RLQFP10x10-64(PP)
† RTQ9128DL-QA	45W, Ultra-Low Noise, High-Efficiency, Digital Input 4-Channel Automotive Audio Amplifier with I <sup>2</sup> C Diagnostics	4.5 to 18	4x22W, THD+N=1%, 4Ω, 14.4V; 4x27W, THD+N=10%, 4Ω, 14.4V; 4x45W, THD+N=10%, 2Ω, 14.4V	I <sup>2</sup> C	AEC-Q100 Grade 1; Up to 16 Channel TDM Input; Ultra-Low Noise = 18μV; Sampling Frequency up to 96kHz; Switching Frequency up to 2.1MHz; Thermal Fold-Back and Clip Detection; Load Diagnostics; 40V Load Dump	RLQFP10x10-64(PP)

† Customized products : Please contact our branch office for further information.

# 05 | DISCRETE POWER SOLUTIONS

## BUCK CONVERTERS / <7V LOW VIN

Part Number	Vin		Vout		Iout max (A)	Freq (kHz)	Ron		Iq typ (mA)	PSM / Forced PWM	Control Mode	Adj. Soft-Start	Power Good	Features	Package(s)
	min (V)	max (V)	min (V)	max (V)			HS typ (mΩ)	LS typ (mΩ)							
RTQ2102A-QA	3	6	0.45	3.3	1.5	2700	110	90	0.03	PSM	ACOT	-	Y	AEC-Q100 Grade 1; 100% Duty Cycle	WDFN3x3-8
RT2101B	2.95	6	0.827	3.6	2	700 to 2000	45	42	0.55	Forced PWM	CM	Y	Y	AEC-Q100 Grade 2; Ext. Comp. & Sync.	WQFN3x3-16
RTQ2103A-QA	3	6	0.45	3.3	2	2700	130	105	0.03	PSM	ACOT	-	Y	AEC-Q100 Grade 1; 100% Duty Cycle	PSOP-8
RT2101A	2.95	6	0.827	3.6	3	700 to 2000	45	42	0.55	Forced PWM	CM	Y	Y	AEC-Q100 Grade 2; Ext. Comp. & Sync.	WQFN3x3-16
RTQ2158-QA	2.85	6.5	0.6	3.3	8	2100	15	10	0.5	Forced PWM	ACOT	Y	Y	AEC-Q100 Grade 1; Hiccup UVP	WET-WQFN4x4-21(FC)
RTQ2158B-QA	2.85	6.5	0.6	3.3	8	460	15	10	0.5	Forced PWM	ACOT	Y	Y	AEC-Q100 Grade 1; Hiccup UVP	WET-WQFN4x4-21(FC)
RTQ2159-QA	2.85	6.5	0.6	1.5	8	460/690/920/2100	15	10	0.5	Forced PWM	ACOT	Y	Y	AEC-Q100 Grade 1; I <sup>2</sup> C Control	WET-WQFN4x4-21(FC)
RTQ2158A-QA	2.85	6.5	0.6	3.3	12	460	15	10	0.5	Forced PWM	ACOT	Y	Y	AEC-Q100 Grade 1; Hiccup UVP	WET-WQFN4x4-21(FC)

**BUCK CONVERTERS / >30V WIDE VIN**

Part Number	Vin		Vout		Iout max (A)	Freq (kHz)	Ron		Iq typ (mA)	PSM / Forced PWM	Control Mode	Adj. Soft- Start	Power Good	Features	Package(s)
	min (V)	max (V)	min (V)	max (V)			HS typ (mΩ)	LS typ (mΩ)							
RTQ2940-QA	4	42	0.8	42	0.5	100 to 2500	170	-	0.09	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN3x3-10S
RTQ2960-QA	4	60	0.8	60	0.5	100 to 2500	170	-	0.09	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN3x3-10S
RTQ2130B-QT	3	36	0.8	36	0.7	2100	200	160	1.1	Forced PWM	CM	-	-	AEC-Q100 Grade 1; Ext. Comp.	WDFN2x3-8S
RTQ2131B-QA	3	36	0.8	36	1	2100	200	160	1.1	Forced PWM	CM	-	Y	AEC-Q100 Grade 1; Ext. Comp.	WDFN3x3-10S
RTQ2132B-QT	3	36	0.8	36	1.2	2100	200	160	1.1	Forced PWM	CM	Y	Y	AEC-Q100 Grade 1; Ext. Comp.	TSSOP-14(PP)
RTQ2941-QA	4	42	0.8	42	1.5	100 to 2500	160	-	0.09	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN3x3-10S
RTQ2961-QA	4	60	0.8	60	1.5	100 to 2500	160	-	0.09	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN3x3-10S
RTQ2942-QA	4	42	0.8	42	2.5	100 to 2500	150	-	0.09	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN3x3-10S
RTQ2962-QA	4	60	0.8	60	2.5	100 to 2500	150	-	0.09	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN3x3-10S
RTQ2104-QA	3	36	0.8	36	3	2100	80	80	0.04	PSM	CM	-	Y	AEC-Q100 Grade 1; 100% Duty Cycle	PSOP-8
RTQ2104B-QA	3	36	0.8	36	3	2100	80	80	1.2	Forced PWM	CM	-	Y	AEC-Q100 Grade 1; 100% Duty Cycle	PSOP-8
RTQ2105-QA	3	36	0.8	36	3	300 to 2200	70	70	0.04	PSM/ Forced PWM	CM	Y	Y	AEC-Q100 Grade 1; 100% Duty Cycle	WET-WQFN4x4-24S
RTQ2106-QA	3	36	0.8	36	3	2100	90	90	0.04	PSM/ Forced PWM	CM	Y	Y	AEC-Q100 Grade 1; 100% Duty Cycle	TSSOP-14(PP)
RT2872	4.5	36	0.8	30	3	300 to 1000	105	80	1	Forced PWM	CM	-	-	AEC-Q100 Grade 3	PSOP-8
RT2875AQ	4.5	36	0.6	24	3	300 to 2100	95	70	1.3	Forced PWM	CM	Y	Y	AEC-Q100 Grade 2; Latched UVP	TSSOP-14(PP)
RT2875BQ	4.5	36	0.6	24	3	300 to 2100	95	70	1.3	Forced PWM	CM	Y	Y	AEC-Q100 Grade 2; Hiccup UVP	TSSOP-14(PP)
RT2875DQ	4.5	36	0.6	24	3	300 to 2100	95	70	1.3	Forced PWM	CM	Y	Y	AEC-Q100 Grade 2; Hiccup UVP	TSSOP-14(PP)
RTQ2949A-QA	4	42	0.8	42	3	100 to 2500	150	-	0.09	PSM	CM	-	-	AEC-Q100 Grade 1; Async.	PSOP-8
RTQ2943-QA	4	42	0.8	42	3.5	100 to 2500	80	-	0.1	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN4x4-10
RTQ2963-QA	4	60	0.8	60	3.5	100 to 2500	80	-	0.1	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN4x4-10
RTQ2945-QA	4	42	0.8	42	5	100 to 2500	70	-	0.1	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN4x4-10
RTQ2945A-QA	4	42	0.8	42	5	100 to 2500	70	-	0.1	PSM	CM	-	-	AEC-Q100 Grade 1; Async.	PSOP-8
RTQ2965-QA	4	60	0.8	60	5	100 to 2500	70	-	0.1	PSM	CM	Y	Y	AEC-Q100 Grade 1; Async.	PSOP-8; WDFN4x4-10

## BOOST CONVERTER

Part Number	Vin		Vout		SW Current Limit	Iq	Freq	Switch Ron	Features	Package(s)
	min (V)	max (V)	min (V)	max (V)	typ (A)	typ (mA)	typ (kHz)	typ (Ω)		
RTQ9297-QT	2.6	5.5	2.6	24	3.8	0.5	640; 1240	0.125	AEC-Q100 Grade 2; Adj. Soft-Start; Enable Input	WDFN3x3-10S

## LINEAR REGULATORS / <7V LOW VIN

Part Number	Vin		Vout		Iout	Iq	Vdropout@ Rated Current	Features	Package(s)
	min (V)	max (V)	min (V)	max (V)	max (mA)	typ (μA)	typ (mV)		
RTQ2510-QA	2.2	6	0.8	5.5	1000	190	170@1A	AEC-Q100 Grade 1; Adj. Vout; Extra Low Noise & High PSRR; Enable Input	VDFN3x3-8
RTQ2510-QT	2.2	6	0.8	5.5	1000	190	170@1A	AEC-Q100 Grade 1; Adj. Vout; Extra Low Noise & High PSRR; Enable Input	VDFN3x3-8
RT2517B	2.2	6	1.2	5	1000	700	200@1A	AEC-Q100 Grade 2; Adj. Vout; Enable Input	PSOP-8
*RTQ2551A-QA	0.8	5.5	0.8	3.6	1000	1000	50@1A	AEC-Q100 Grade 1; VBIAS Voltage Range: 2.7V to 5.5V	WDFN3x3-10
RTQ2516-QT	1.4	6	0.5	5.5	2000	700	240@2A	AEC-Q100 Grade 2; Adj. Vout; Enable Input	PSOP-8
RTQ2527A-QA	0.8	5.5	0.8	3.6	2000	1000	100@2A	AEC-Q100 Grade 1; VBIAS Voltage Range: 2.7V to 5.5V	WDFN3x3-10

\* Preview : Please contact our branch office for further information.

## LINEAR REGULATORS / >30V WIDE VIN

Part Number	Vin		Vout		Iout	Iq	Vdropout@ Rated Current	Features	Package(s)
	min (V)	max (V)	min (V)	max (V)	max (mA)	typ (μA)	typ (mV)		
RT2560Q	3.5	36	2.5	12	100	2	320@0.01A	AEC-Q100 Grade 3; Fixed Vout; Low Iq	PSOP-8
RTQ2569-QA	3.5	36	2.5	12	100	2	200@0.01A	AEC-Q100 Grade 1; Fixed Vout; Low Iq; Enable Input	WDFN3x3-8
RTQ2569R-QA	3.5	36	2.5	12	100	2	200@0.01A	AEC-Q100 Grade 1; Fixed Vout; Low Iq; Enable Input	WDFN3x3-8



## DDR POWER SOLUTION

Part Number	Supported DDR type	Vin		Vcntl	VTT Output Tolerance	Isource/Isink	Standby Current	Current Limit	Features	Package(s)
		min (V)	max (V)	(V)	max (+/- mV)	max (A)	typ (mA)	typ (A)		
RTQ2536-QA	DDR1/2/3/4; LP3/4	1	3.5	2.9 to 5.5	30	±2	0.5	2	AEC-Q100 Grade 1; S3; S5; VDDQ Sense; REFOUT; VTT Sense; MLCC Stable	WDFN3x3-10S

## HIGH SPEED OPERATION AMPLIFIER

Part Number	Vs		Voffset	Iout	Ipeak	Slew Rate	Features	Package(s)
	min (V)	max (V)	typ (mV)	typ (mA)	typ (mA)	(V/us)		
RTQ9148-QT	6	20	2	50	350	35	AEC-Q100 Grade 2; Rail-to-Rail Swing; High Speed; High Peak Current	WDFN3x3-6

## POWER SWITCH

Part Number	Vin		Current Limit	Ron	Iq	FLAG Indicator	Adj. Current Limit	Features	Package(s)
	min (V)	max (V)	typ (A)	typ (mΩ)	typ (mA)				
RT2528A	2.5	5.5	0.5 to 2.5	74	0.12	Y	Y	AEC-Q100 Grade 3; Built-in PMOSFET; OCP; SCP; OTP Protection	PSOP-8

## REST IC

Part Number	Vin		High Threshold Accuracy		Factory-Setting Threshold (%)	Reset Recovery Time Delay for Options(sec.)	Features	Package(s)
	min (V)	max (V)	Typical (%)	Full Temp. Range (%)				
† RTQ2588-QB	1.7	5.5	±0.25	±0.78	±4; ±5; ±7; ±9	A: 50μ, 200μ; B: 1m, 20m; C: 5m, 100m; D: 10m, 200m	AEC-Q100 Grade 1; ISO 26262 Quality-Managed Product; Low Supply Current with 3.5μA in Typical; Factory-Setting for Wide Voltage-Sensing Range From 0.5V to 5V; Built-In Self Test (BIST) for OV/UV Monitors	WDFN1.5x1.5-6(COL)

† Customized products : Please contact our branch office for further information.

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