

Kinetic Technologies

PRODUCT
GUIDE 2024 **Q1**



Innovation in motion™

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USB and USB-C Overvoltage and Surge Protection ICs

Device	VIN (V)	VIN MAX (V)	SURGE (V)	RON (mΩ)	IMAX (A)	RBP	RCP	OCP	CL	OTG	OVP Adj	Package	Package Size (L x W)
Single-channel Load Switches with OVP													
KTS1640/1 ¹	6.0 - 40	-30 & 42		41	6.0	✓						TDFN-12	4.0 x 4.0mm
NEW KTS1642Q ¹	4.0 - 40	-30 & 42		41	6.0	✓						TDFN-12	4.0 x 4.0mm
KTS1662	2.5 - 40	42		26	4.5					✓	✓	WLCSP-12	1.28 x 1.94mm
KTS1670	2.7 - 30	30		60	3.0					✓	✓	WLCSP-6 UDFN-8	1.0 x 1.2mm 2.0 x 2.0mm
KTS1671	2.7 - 28	30		60	3.0					✓	✓	WLCSP-6	1.0 x 1.2mm

Current Limited Load Switch with Reverse Blocking Protection													
KTS1688	2.5 - 5.5	28 (V _{OUT})		68	2.5	✓				✓	✓	WLCSP-9	1.22 x 1.22mm

Single-Channel Load Switches with OVP and Surge Protection													
KTS1650B	2.3 - 28	29	±200	36	4.5					✓	✓	WLCSP-12	1.49 x 2.16mm
KTS1682	2.3 - 28	29	±100	38	4.0					✓	✓	WLCSP-12	1.29 x 1.99mm
KTS1668	2.3 - 30	30	±100	38	4.0					✓	✓	WLCSP-12	1.29 x 1.99mm
KTS1675	3.0 - 28	28	±100	20	5.0	✓				✓		WLCSP-20	2.22 x 1.82mm
KTS1675A	3.0 - 28	28	±100	25	5.0	✓				✓		WLCSP-20	2.22 x 1.82mm
KTS1676	3.0 - 28	28	±100	20	5.0	✓				✓		WLCSP-20	2.22 x 1.82mm
KTS1680A/C/D	2.3 - 28	29	±100	28	4.5					✓	✓	WLCSP-12	1.21 x 1.7mm
KTS1681A	2.3 - 28	29	±100	28	4.0					✓	✓	WLCSP-12	1.21 x 1.7mm
KTS1686	3.0 - 28	29	±100	65	4.5	✓				✓	✓	WLCSP-15	1.6 x 2.1mm
KTS1693 ²	2.7 - 28	30	±110	9	6.0			✓		✓	✓	WLCSP-20	2.13 x 1.905mm

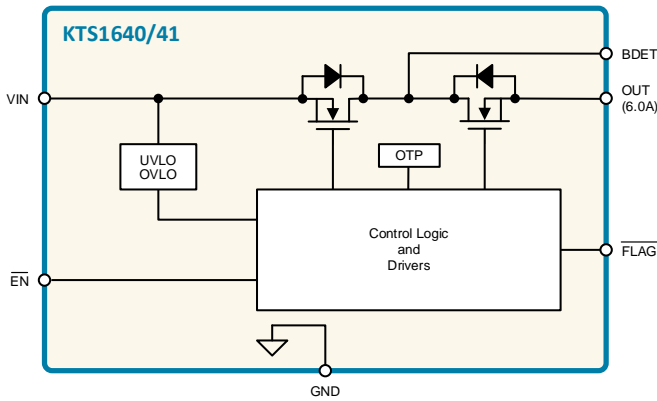
Single Input, Dual Output Load Switches with OVP and Surge Protection													
KTS1678B	2.7 - 13.5	-2 to 28	±100	23/30	3.5/6	✓					✓	WLCSP-28	1.67 x 2.96mm

USB-PD Protected Switch													
Current Sink													
KTS1677A	3.0 - 23	30	±90	30	5.0	✓		✓			✓	WLCSP-15	2.57 x 1.57mm
KTS1697A	3.0 - 23	29	±90	11	7.0	✓	✓	✓			✓	WLCSP-25	2.7 x 2.7mm
KTS1698	3.0 - 23	29	±90	25	5.0	✓	✓	✓			✓	WLCSP-15	2.62 x 1.64mm
NEW KTS1898	3.0 - 33	35	±100	24	6.0	✓	✓	✓			✓	WLCSP-25	2.56 x 2.56mm
Current Source													
KTS1690A ²	2.5 - 5.5	29 (V _{OUT})	±80	30	3.3	✓	✓	✓	✓	✓		WLCSP-16	1.98 x 1.98mm
NEW KTS1890 ²	2.5 - 5.5	35 (V _{OUT})	±130	27	4.0	✓	✓	✓	✓	✓		WLCSP-20	2.49 x 1.99mm

Definitions	
OVP - Overvoltage protection	OCP - Overcurrent protection
RBP - Reverse blocking protection	RCP - Reverse current protection
CL - Current limit	OTG - USB On-the-Go

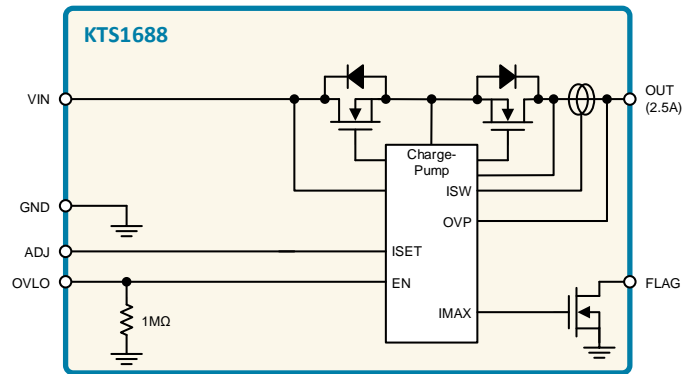
1. AEC-Q100 Automotive qualified parts available. Please contact your local sales representative.
 2. Safety approvals: UL 2367 and IEC 62368-1.

Single-channel Load Switches with OVP



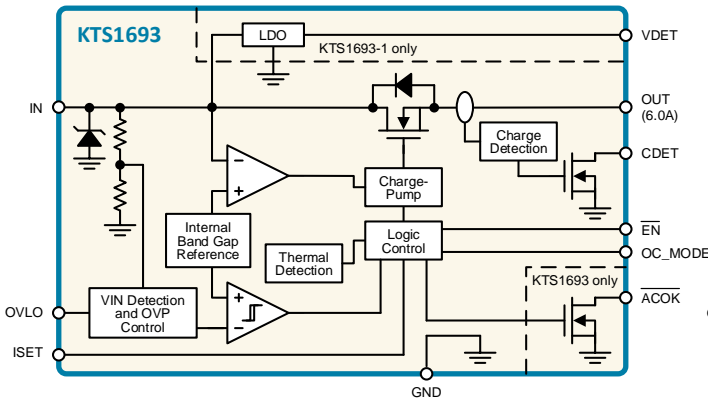
6.0A, Fixed OVP with -28V Reverse Input Voltage Protection and RBP

Current Limited Load Switch with Reverse Blocking Protection



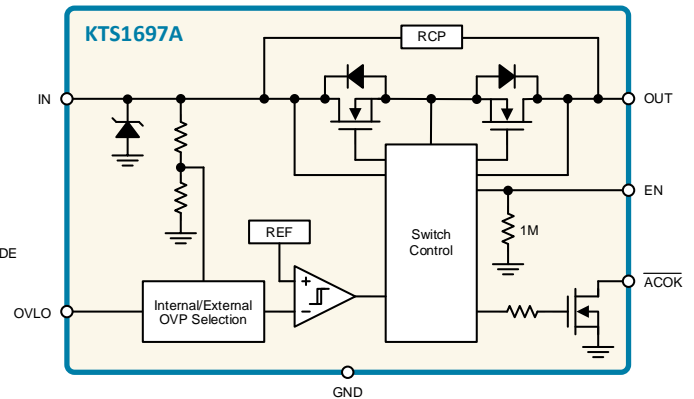
2.5A, Adjustable, Fixed OVP Switch with RBP

Single-channel Load Switches with OVP and Surge Protection



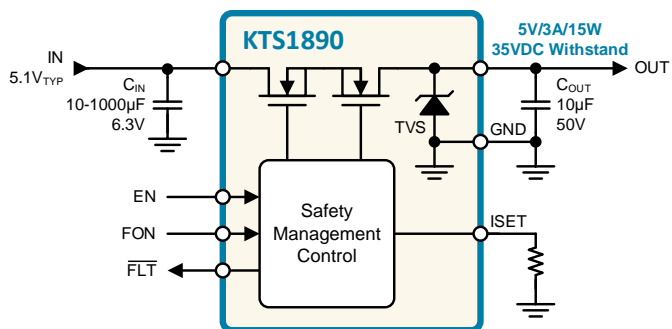
6A, ±110V Surge, 28V Fixed or Adjustable OVP with OCP, CL, CDET, ACOK

USB-PD Protected Switches – Current Sink



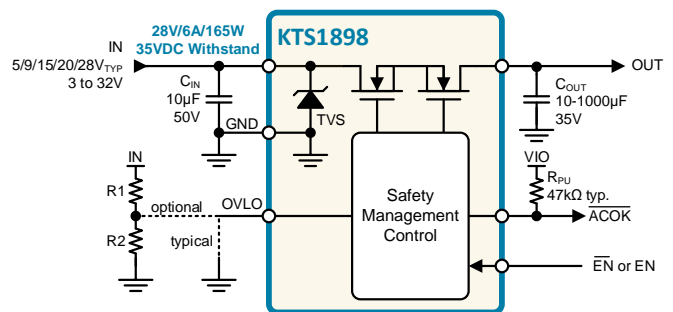
20V/7A/140W, ±90V Surge, 23V Fixed or Adjustable OVP with RCB, RCP, OCP

USB-PD 28V EPR Protected Switches – Current Source



4.0A, ±130V Surge, 5V Adjustable Current Limit Load Switch with RBP, RCP and SCP on V_{OUT}

USB-PD 28V EPR Protected Switches – Current Sink



6A, ±100V Surge, 35V OVP Switch with RBP, RCP and SCP

USB Data Line Protection ICs

Device	VIN (V)	Protects			Protection			Switches		Package	Package Size (L x W)
		D+/D-	CC1/2	SBU1/2	OVP	Surge	ESD	r _{DS}	Cap		
KTU1001A	2.7 - 5.5	✓ ³		✓ ³	+24V in 100ns	+25V		6Ω	4.0pF	WLCSP-12	1.17 x 1.57mm
KTU1101	2.5 - 5.5		✓	✓	+24V in < 15ns	CC1/2 = ±80V SBU1/2 = ±35V	Air: ±15kV Contact: ±8kV	CC = 0.3Ω SBU = 4Ω	CC = 370pF SBU = 27pF	WLCSP-20	1.7 x 2.1mm
KTU1108	2.5 - 5.5		✓		+24V in < 15ns	CC1/2 = ±80V	Air: ±15kV Contact: ±8kV	0.24Ω	370pF	WLCSP-12	1.29 x 1.69mm
KTU1120	2.5 - 5.5		✓	✓ OVP=3.83V	+24V in < 15ns	CC1/2 = ±40V SBU1/2 = ±30V	Air: ±15kV Contact: ±8kV	CC = 0.27Ω SBU = 3Ω	CC = 40pF SBU = 11pF	WLCSP-16 TQFN33-20	1.7 x 1.7mm 3.0 x 3.0mm
KTU1121	2.5 - 5.5		✓	✓ OVP=4.8V	+24V in < 15ns	CC1/2 = ±40V SBU1/2 = ±30V	Air: ±15kV Contact: ±8kV	CC = 0.27Ω SBU = 3Ω	CC = 40pF SBU = 11pF	WLCSP-16 TQFN33-20	1.7 x 1.7mm 3.0 x 3.0mm
KTU1121A ⁴	2.5 - 5.5		✓	✓ OVP=4.8V	+24V in < 70ns	CC1/2 = ±40V SBU1/2 = ±30V	Air: ±15kV Contact: ±8kV	CC = 0.27Ω SBU = 3Ω	CC = 40pF SBU = 11pF	WLCSP-16 TQFN33-20	1.7 x 1.7mm 3.0 x 3.0mm
NEW KTU1128	2.5 - 5.5		✓	✓ OVP=4.8V	+32V in < 30ns	CC1/2 = ±60V SBU1/2 = ±40V	Air: ±25kV Contact: ±10kV	CC = 0.27Ω SBU = 3Ω	CC = 33pF SBU = 11pF	WLCSP-16 WQFN33-20	1.694 x 1.694mm 3.0 x 3.0mm
KTU1131 ⁴	2.5 - 5.5	✓	✓	✓	+22V in < 15ns		Air: ±10kV Contact: ±5kV	CC = 0.27Ω SBU = 3Ω	CC = 15pF SBU = 6pF	UQFN33-20	3.0 x 3.0mm

Interface and Isolation ICs

Single-channel, Slew-Rate Controlled Load Switches with Reverse Blocking

Device	VIN (V)	RON (mΩ)	IMAX (A)	RBP	Package	Package Size (L x W)
KTS1601	1.5 - 5.5	24.0 @3.3V _{IN}	2.0	✓	WLCSP-4	1.0 x 1.0mm
KTS1605	1.5 - 5.5	13.4 @3.3V _{IN}	5.0	✓	WLCSP-6	1.0 x 1.5mm

Load Switch Controller

Device	VIN (V)	Reverse Voltage Rating	Gate Peak Sink Current(A)	Regulated Source to Drain Voltage(mV)	Package	Package Size (L x W)
NEW KTS1900	4.0 - 60	-65V	1.5	40	SOT23-6	2.9 x 1.6mm

General Purpose I/O Expanders

Device	VIN (V)	Max. Driver Current per Channel (mA)	# of I/Os	Interrupt Out	Addresses	Package	Package Size (L x W)
KTS1620	1.65 - 5.5	25	24	✓	4	FO-WLP66-36 TQFN55-32L	2.6 x 2.6mm 5.0 x 5.0mm
KTS1622	1.65 - 5.5	25	16	✓	4	FO-WLP55-25 TQFN44-24L	2.0 x 2.0mm 4.0 x 4.0mm

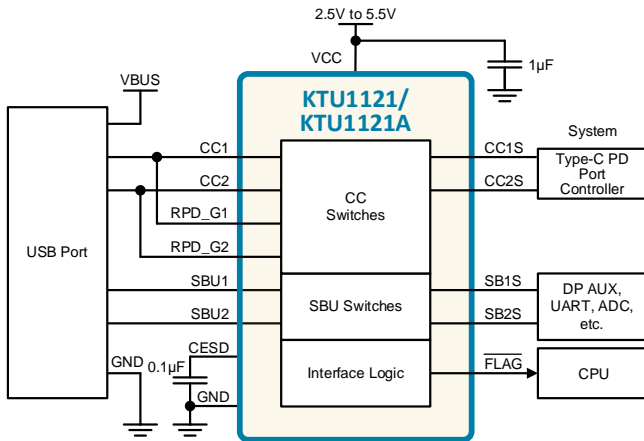
Smart Push Button Reset ICs

Part Number	VIN (V)	Quiescent Current (μA)	Ship Mode Current (μA)	Reset Request Time (s)	Discharge Paths	Discharge Time (ms)	Discharge Current (mA)	Package	Package Size
KTS1612	2.2 - 5.5	<1	<1	10	2	400	52	UQFN2.0x1.5-10	2.0 x 1.5mm
KTS1613	1.6 - 5.5	<1	<1	10	-	400	-	UQFN2.0x1.5-10	2.0 x 1.5mm

3. KTU1001A can protect D+/D- or SBU1/2.

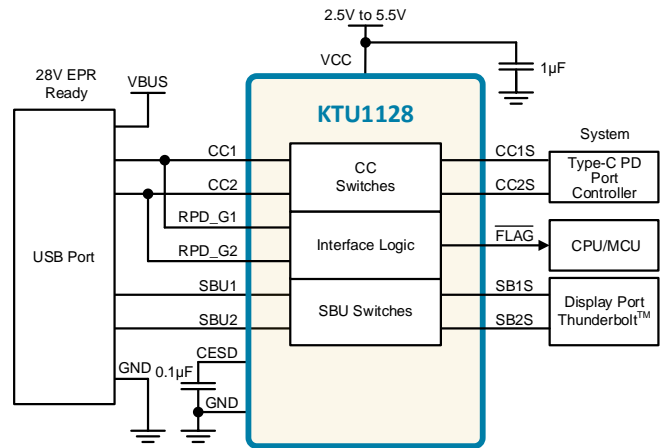
4. Thunderbolt™ Compatible.

USB Type-C Port Protectors



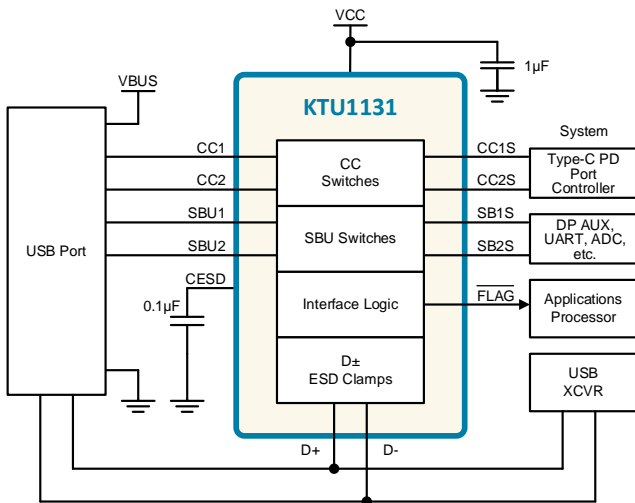
USB Type-C Port Protector (Thunderbolt™ compatible option) for CC and SBU Pins

USB Type-C Port Protectors



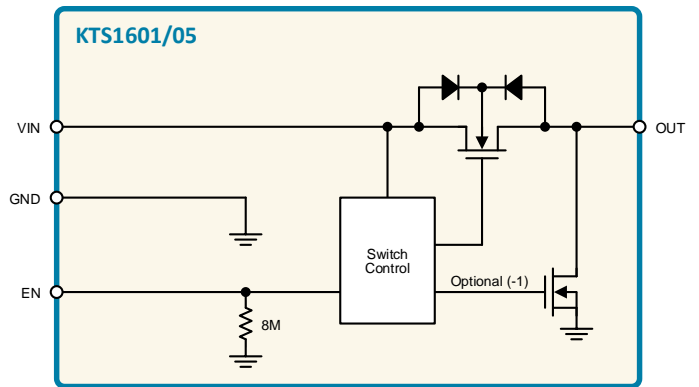
USB Type-C 28V EPR Port Protector (Thunderbolt™ compatible) for CC and SBU Pins

USB Type-C Port Protectors



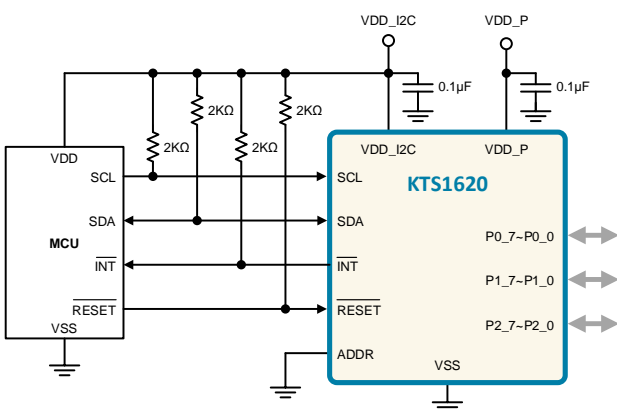
USB Type-C Port Protector for CC, SBU, and D+/D- Pins

Load Switch ICs



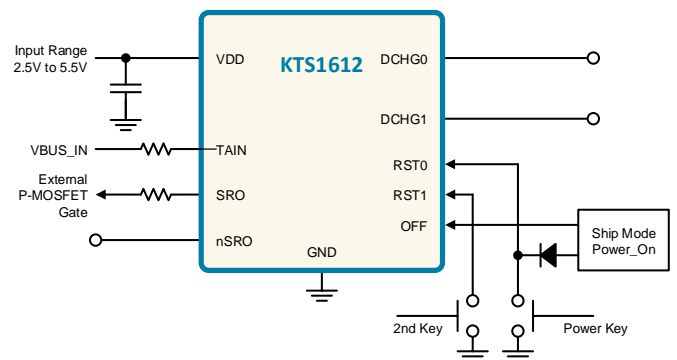
2A/5A Slew Rate Controlled Load Switch with RBP

General Purpose I/O Expander ICs



Low Voltage 24-bit I²C I/O Expander

Dual-Input Smart Push Button Reset ICs



Dual-Input Push Button Reset IC with Two Discharge Paths

LCD Backlight and Bias Power ICs

Single-Channel Backlight LED Driver										
Device	VIN (V)	# LED Channels	LEDs/CH	Total LEDs	Switch Current (A)	I ² C	Single Wire	PWM	OVP (V)	Package
KTD2801B	2.7 - 5.5	1	6	6	0.52		✓	✓	24	TDFN22-6
KTD2801A	2.7 - 5.5	1	8	8	0.52		✓	✓	30	TSOT23-6/TDFN22-6
KTD2801	2.7 - 5.5	1	10	10	0.52		✓	✓	36	TSOT23-6/TDFN22-6
KTD2500	2.7 - 5.5	1	10	10	0.75		✓	✓	38	TDFN22-6
KTD2505R	2.7 - 5.5	1	10	10	1.2		✓	✓	38	TDFN22-6
KTD257M	2.7 - 5.5	1	10	10	0.9			✓	39	TSOT23-6
KTZ8850 ⁵	3.0 - 5.5	1	10	10	1.3	✓		✓	Adj < 36	WLCSP-18

Multi-Channel Backlight LED Driver										
Device	VIN (V)	# LED Channels	LEDs/CH	Total LEDs	Switch Current (A)	I ² C	Single Wire	PWM	OVP (V)	Package
KTD3112	2.7 - 5.5	2	6	12	1.5			✓	25	WLCSP-9
KTD3133	2.7 - 5.5	2	8	16	1.8	✓		✓	25.9/32	WLCSP-12
KTD3134	2.7 - 5.5	2	8	16	2.6	✓		✓	25.9/32	WLCSP-12
KTD3113	2.7 - 5.5	3	6	18	1.8			✓	25	WLCSP-9
KTD3136	2.7 - 5.5	3	8	24	2.6	✓		✓	25.9/32	WLCSP-12
KTD3137	2.7 - 5.5	3	8	24	2.6	✓		✓	25.9/32	WLCSP-12
KTZ8863A ⁵	2.9 - 5.5	3	8	24	2.1	✓		✓	Adj < 32	WLCSP-24
KTZ8864A ⁵	2.7 - 5.5	4	8	32	2.1	✓		✓	Adj < 32	WLCSP-24
KTZ8866 ⁵	2.7 - 5.5	6	10	60	2.5	✓		✓	Adj < 40	WLCSP-28
KTZ8868 ⁵	2.7 - 5.5	8	10	80	2.5	✓		✓	Adj < 40	WQFN55-32
KTD3156B	2.7 - 5.5	6	10	60	2.5			✓	Adj < 40	TQFN33-16

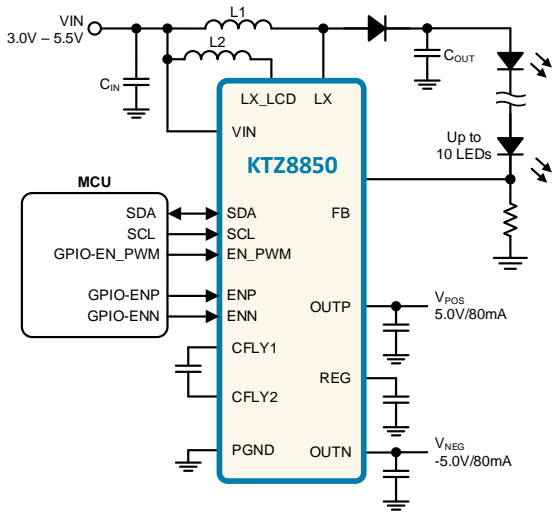
LCD Bias Power Supply							
Device	VIN (V)	Control	Max. Current per Output (mA)	VOUT (V)	Accuracy (%)	IQ Shutdown (SDA=SCL=1.8V) (µA)	Package
KTD2151	2.7 - 5.5	I ² C	80	4.0~5.2V, -4.0~-5.2V, 100mV Steps	1.5	6	WLCSP-15
KTZ8850 ⁵	3.0 - 5.5	I ² C	80	4.0~6.3V, -4.0~-6.3V, 12.5mV Steps	2.0	1	WLCSP-18
KTZ8863A ⁵	2.9 - 5.5	I ² C	150	4.0~6.3V, -4.0~-6.3V, 50mV Steps	1.5	1	WLCSP-24
KTZ8864A ⁵	2.7 - 5.5	I ² C	150	4.0~6.3V, -4.0~-6.3V, 50mV Steps	1.5	1	WLCSP-24
KTZ8866 ⁵	2.7 - 5.5	I ² C	200	4.0~6.3V, -4.0~-6.3V, 50mV Steps	1.5	1	WLCSP-28
KTZ8868 ⁵	2.7 - 5.5	I ² C	250	4.0~6.3V, -4.0~-6.3V, 50mV Steps	1.5	1	WQFN55-32

Camera LED Flash Driver ICs

High Current LED Flash Drivers							
Device	VIN (V)	# LED Channels	IMAX (A)	Interface	Type	Package	Package Size (L x W)
KTD2692	2.7 - 5.5	1	1.5	SINGLE-WIRE	BOOST	TDFN-14	2 x 3mm
KTD2681	2.7 - 5.5	1	1.5	I ² C	BOOST	WLCSP-12	1.3 x 1.57mm
KTD2688A	2.7 - 5.5	2	1.5/1.5	I ² C	BOOST	WLCSP-12	1.3 x 1.57mm
KTD2686	2.7 - 5.5	3	1.5/1.0/0.5	I ² C	BOOST	WLCSP-12	1.42 x 1.66mm
KTD2690	2.7 - 5.5	1	1.5	I ² C	BOOST	WLCSP-8/ UDFN-10	1.519 x 0.808mm / 2mm x 2mm
KTD2691	2.7 - 5.5	1	1.5	I ² C	LINEAR	WLCSP-8	1.519 x 0.808mm

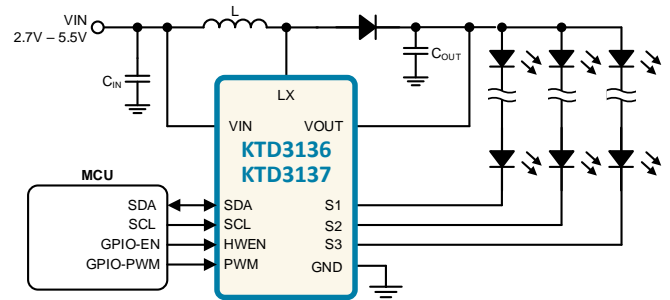
5. Integrated LED Driver IC and LCD Bias IC.

Single-Channel LED Backlight Driver ICs with LCD Bias



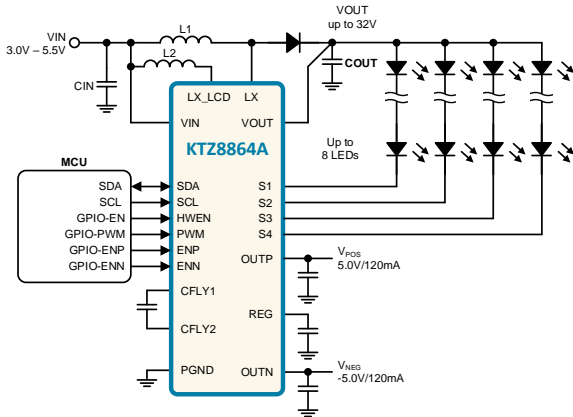
Complete LCD Backlight and Bias Power

Multi-Channel LED Backlight Driver ICs



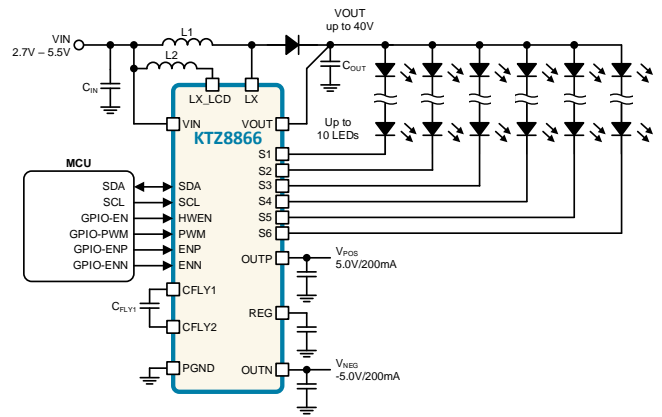
3-Channel, 2.6A/32V Integrated Switch (KTD3136) with Panel Flash (KTD3137)

Multi-Channel LED Backlight Driver ICs with LCD Bias



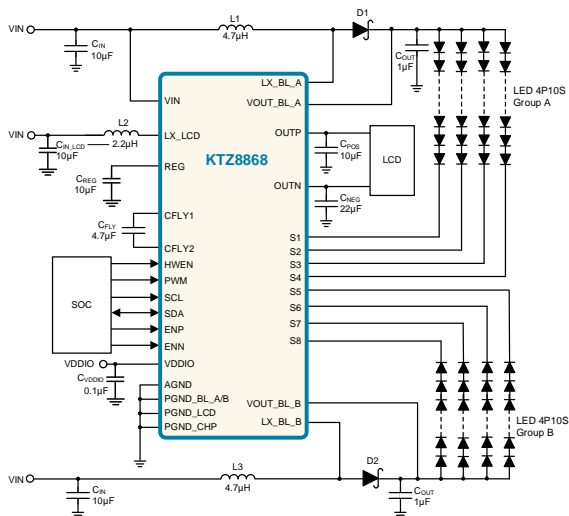
4-Channel, Complete LCD Backlight and Bias Power

Multi-Channel LED Backlight Driver ICs with LCD Bias



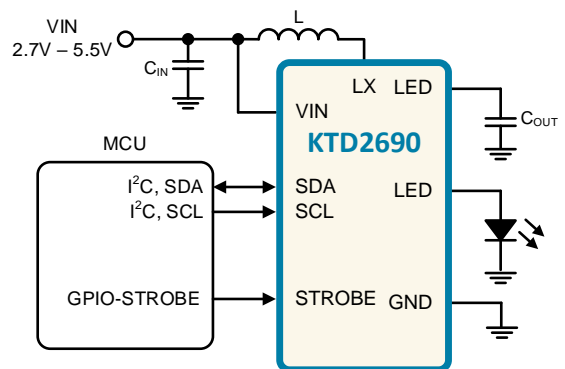
6-Channel, Complete LCD Backlight and Bias Power

Multi-Channel LED Backlight Driver ICs with LCD Bias



8-Channel, Complete LCD Backlight and Bias Power

Flash LED Driver ICs



1-Channel, 1.5A Flash/Torch/IR Mode LED Driver

RGB LED Driver ICs

Device	VIN (V)	# LED Channels	IMAX (mA)	Levels	Interface	AECQ100 Approved	Package	Package Size (L x W)
Constant Current RGB LED Drivers								
KTD2026	2.7 - 5.5	3	24	192	I ² C		UTDFN-8	1.5 x 1.5mm
KTD2027	2.7 - 5.5	4	24	192	I ² C		UTDFN-8	1.5 x 1.5mm
KTD2037	2.7 - 5.5	3	24	191	I ² C		UTDFN-8	1.5 x 1.5mm
KTD2052A/C ⁶	2.5 - 5.5	12	24	192	I ² C		UDFN-8	2.0 x 2.0mm
KTD2052B/D ⁶	2.5 - 5.5	12	24	192	I ² C		UDFN-8	2.0 x 2.0mm
KTD2058 (Q) ⁷	2.5 - 5.5	36	24	192	I ² C	✓	UQFN-20	3.0 x 3.0mm
KTD2059 (Q) ⁷	2.5 - 5.5	36	24	192	I ² C	✓	UQFN-20	3.0 x 3.0mm
KTD2060 (Q) ⁷	2.5 - 5.5	36	24	192	I ² C	✓	UQFN-20	3.0 x 3.0mm
KTD2061 (Q)	2.5 - 5.5	36	24	192	I ² C	✓	UQFN-20	3.0 x 3.0mm
KTD2064A	2.5 - 5.5	24	24	192	I ² C		UQFN-20	3.0 x 3.0mm
KTD2064B ⁸	2.5 - 5.5	24	24	192	I ² C		UQFN-20	3.0 x 3.0mm

IR LED Drivers								
KTD2041	2.7 - 5.5	9	32	64	I ² C		UQFN-20	3.0 x 3.0mm

Wireless Power Receiver

Device	Function	Wireless Power Standard	Recommended Operating Range (V)	Output Voltage (V)	Output Power Max (W)	Maximum Output Current (A)	Package	Package Size (L x W)
Receiver								
KTE7000	Power Receiver	WPC/Qi 1.3 BPP	4.0 to 18.0	5.0	5	1.5	WLCSP-52	2.66 x 3.90mm
KTE7001	Power Receiver	WPC/Qi 1.3 EPP	4.0 to 18.0	5.0 in BPP Mode 9/12 in EPP Mode	15	1.5	WLCSP-52	2.66 x 3.90mm
NEW KTE7200	Power Receiver	WPC/Qi 1.3 BPP	3.6 to 10 V	5.1	5	1	TQFN-24	5 x 5mm

Power Over Ethernet ICs

Device	VIN (V)	Power (W)	802.3af/at/bt Power Level				PD and DC-DC Control	Power Supply Configuration				Package
			Type 1	Type 2	Type 3	Type 4		Flyback	Forward	PSR	Buck	
KTA1136	37 - 57	13	✓				PD, DC-DC and FET	✓		✓	✓	QFN44-16
KTA1137A	9.5 - 57	13/30	✓	✓			PD and DC-DC	✓		✓	✓	QFN55-20
NEW KTA1140	9.5 - 57	13/30/71	✓	✓	✓	✓	PD only	✓	✓	✓	✓	QFN55-20

EMI/ESD Suppressor

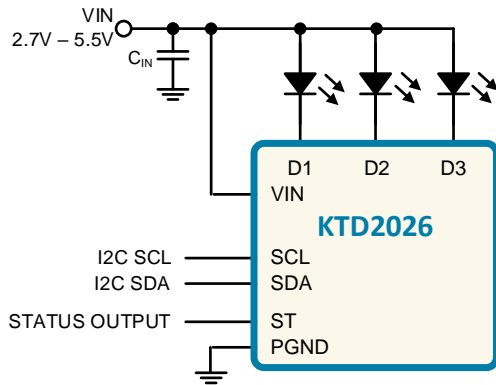
Device	VIN (V)	# of Channels	CISPR22 and FCC Part 15	IEC 61000-4-2 ESD (Air Discharge)	IEC 61000-4-2 ESD (Contact Discharge)	Cable Discharge Event (CDE)	Package
KTA1550	2.17 - 3.47	2	Class B, for Radiated and Conducted Emissions	±25kV	±25kV	±25kV	QSOP-16L
KTA1552	2.17 - 3.47	4					TDFN-4 x 2.5 - 16L
							DFN94-36L

6. KTD2052A/C = defaults disabled at initial power-up; KTD2052B/D = execute AutoBreathe™ pattern by default at initial power-up or at reset

7. Alternate I2C Address to KTD2061.

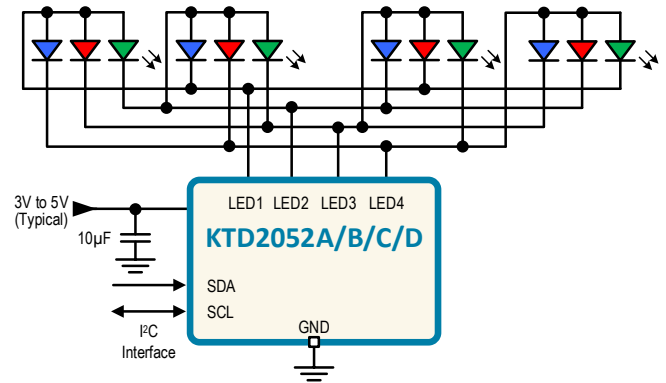
8. Alternate I2C Address to KTD2064A.

Constant Current RGB LED Driver ICs



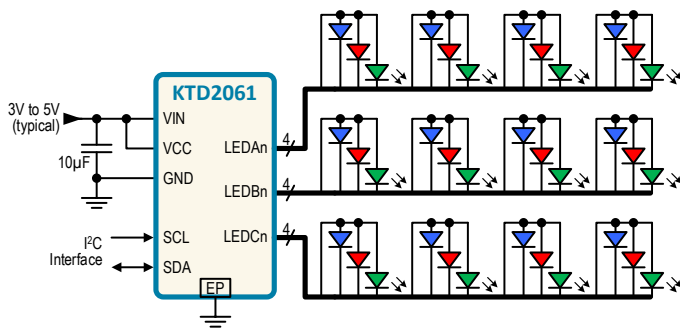
3-Channel RGB LED Driver with I²C Dimming

Constant Current RGB LED Driver ICs



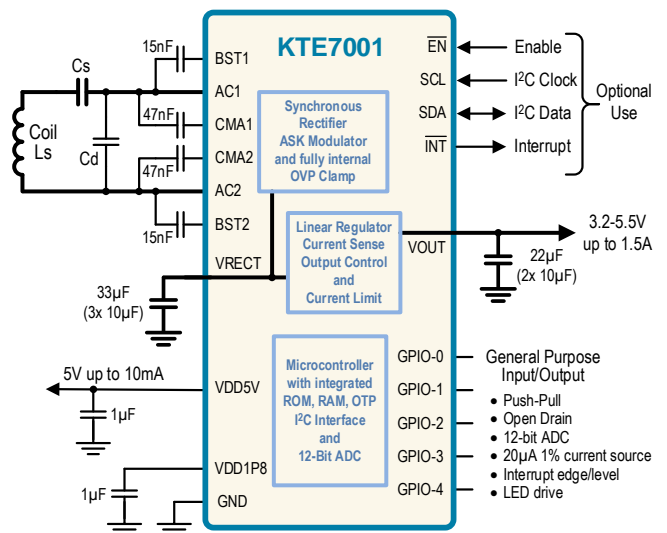
12-Channel RGB LED Driver with I²C Control

Constant Current RGB LED Driver ICs



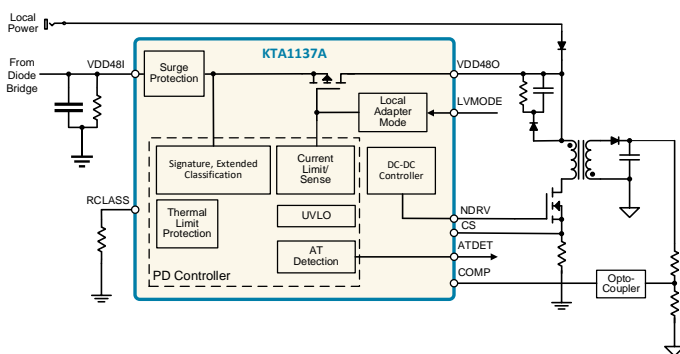
36-Channel RGB LED Driver with I²C Control

Wireless Power Receivers



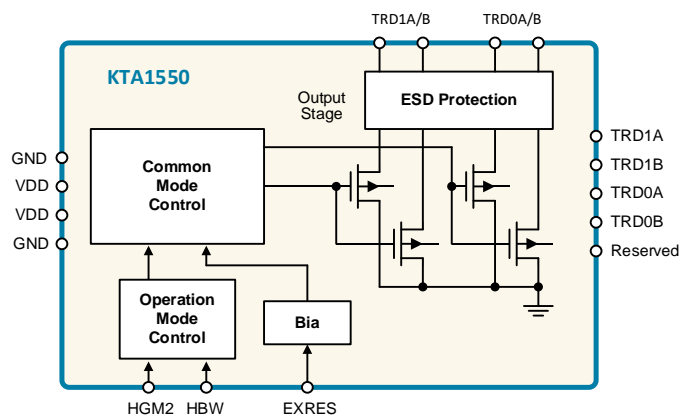
15W Wireless Power Receiver for WPC/Qi BPP/EPP

PoE PD and DC-DC Controllers/Regulators



13W/30W PoE PD and DC-DC Controller

EMI/ESD Suppression ICs



Dual Channel Active EMI & ESD Suppressor

DC-DC Converters

Device	VIN (V)	VOUT (V)	IMAX Current (mA)	IQ (µA)	Interface	Output Auto-Discharge	OptiComp™	Package	Package Size (L x W)
Buck									
KTB8331 ⁹	2.5 - 5.5	0.6 - 3.345	3000	48	I ² C/EN	Yes		WLCSP-15	1.31 x 2.015mm
KTB8399 ⁹	2.5 - 5.5	0.6 - 3.345	3000	46	I ² C/EN	Yes		WLCSP-15	1.34 x 2.045mm
KTB8370A ⁹	4.7 - 17	5.0V	5000	50	EN/PG	Yes		WLCSP-20	1.7 x 2.0mm
KTB8370B ⁹	4.7 - 17	3.3V	5000	50	EN/PG	Yes		WLCSP-20	1.7 x 2.0mm
KTB8370C ⁹	4.7 - 17	1.8V	5000	50	EN/PG	Yes		WLCSP-20	1.7 x 2.0mm
KTB8371 ⁹	4.7 - 17	0.8V to 5.5V	5000	50	I ² C	Yes		WLCSP-20	1.7 x 2.0mm
NEW KTB8372 ⁹	4.7 - 18	0.8 to - 18	5000	50	EN/PG	Yes		FCQFN-11	2.5 x 2.2mm
KTB8400 ⁹	2.5 - 5.5	0.6 - 3.345	3000	46	I ² C/EN	Yes	✓	WLCSP-15	1.34 x 2.045mm

Dual Buck + Quad LDO									
KTZ8701 ¹⁰	2.7 - 5.5	Bucks: 0.6 - 3.3, 12mV Steps LDOs: 1.2 - 3.5, 25mV Steps	Bucks: 1200 LDOs: 300	140	I ² C		Yes	WLCSP-25	2.42 x 2.35mm

Boost									
KTC2110	2.5 - 5.5	5	1000	60	EN/PT		-	WLCSP-9	1.38 x 1.38mm
KTC2110A	2.5 - 5.5	5.4	1000	60	EN		-	WLCSP-9	1.38 x 1.38mm
KTC2115	2.5 - 5.5	5	1500	56	EN/PT		-	WLCSP-9	1.27 x 1.30mm

Buck & Boost									
KTZ8812	2.5 - 5.5	+4.0 - 5.2, 100mV Steps -4.0 to -5.2, 100mV Steps	150	-	I ² C/ENP/ENN		Yes	WLCSP-15 TDFN3x2.5-14	2.2 x 1.45mm 3.0 x 2.5mm

Isolated DC-DC Converter/Controller									
Device	VIN (V)	VOUT (V)	Output Power (W)	IQ (mA)	Interface	Isolation Voltage	DC-DC Topology	Package	Package Size (L x W)
KTB1100	7 - 100	3.3 - 48	15	2.5	EN/PG	3kV	Flyback With FET	SOIC-16	10.3mm x 7.5mm

Non-Isolated DC-DC Converter/Controller									
Device	VIN (V)	VOUT (V)	Output Power (W)	IQ (mA)	Interface	DC-DC Topology	Package	Package Size (L x W)	
KTC3500	3.5 - 60	3.3 - 48	100	0.5	EN	Boost, Flyback, SEPIC	DFN33-10	3mm x 3mm	

6-wire, 3 Phase Motor Controllers

Part Number	Description	Specification	Package	Package Size (L x W)
KTX9602 ¹⁰	3-phase BLDC Motor Controller for 6-wire	Designed to work with IPM, IGBT, Independent Gate Drivers and Inverters	QFN66-48	6 x 6mm
KTX9612 ¹⁰	3-phase BLDC Motor Controller for 6-wire with Built-in Gate Drivers	Integrated 100V gate driver with advanced control techniques, targeted at high electrical efficiency	QFN88-72	8 x 8mm

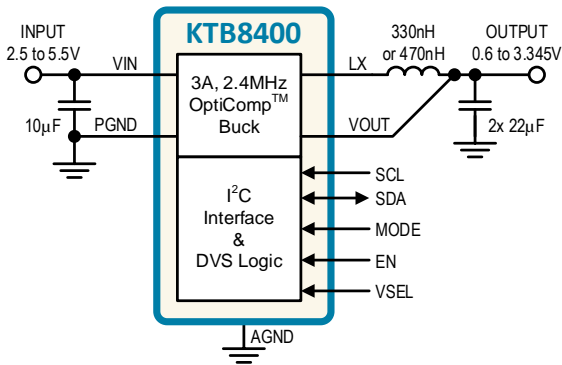
3-wire, 3 Phase Motor Controllers

Part Number	Description	Specification	Package	Package Size (L x W)
KTX9302 ¹⁰	3-phase BLDC Motor Controller for 3-wire	Designed to work with IPM, IGBT, Independent Gate Drivers and Inverters	QFN66-48	6 x 6mm
KTX9312 ¹⁰	3-phase BLDC Motor Controller for 3-wire with Built-in Gate Drivers	Integrated 100V gate driver and advanced control techniques	QFN77-56	7 x 7mm

9. Default output voltage & mode options available. Please contact Kinetic Sales for detailed ordering information.

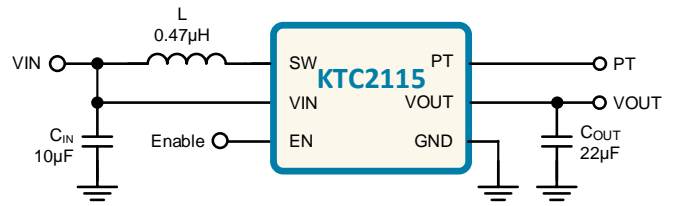
10. Please contact Kinetic Technologies Sales for availability.

Buck Converters



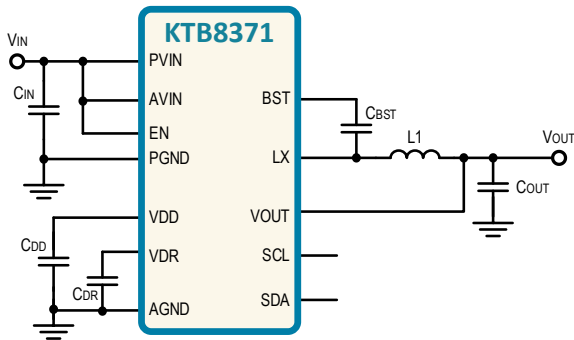
3A Synchronous AOT Buck with OptiComp™

Boost Converters



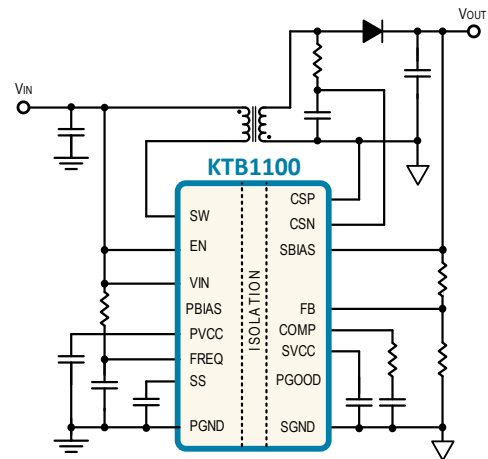
1.5A, Low Iq, Synchronous Boost

Buck Converters



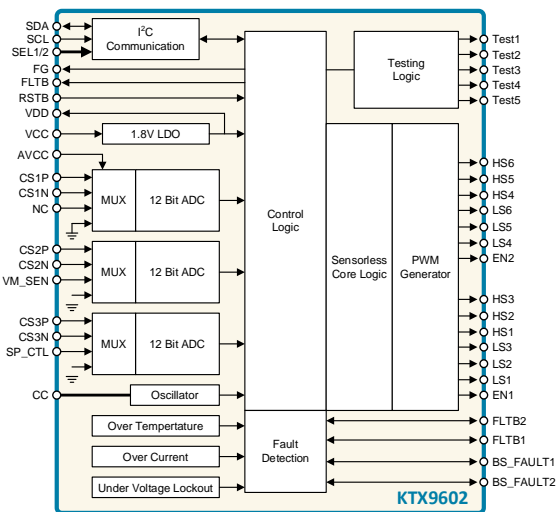
4.7V to 17V Input, 5A Synchronous Buck Regulator with I²C Interface

Isolated Flyback Converters



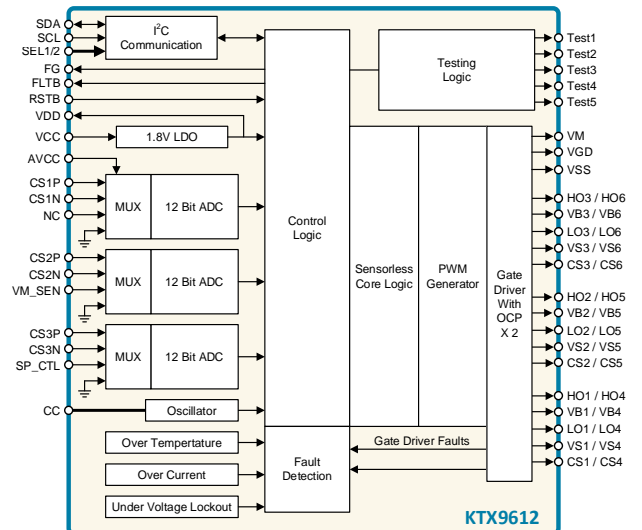
Isolated Flyback Regulator with Integrated Feedback and Digital Isolator

6-wire Motor Controllers



3-phase BLDC Motor Controller for 6-wire

6-wire Motor Controllers



3-phase BLDC Motor Controller for 6-wire with Built-in Gate Drivers

Repeaters

Part Number	Input	Application	Package	Package Size (L x W)
MCDP6000	6:4 USB-C DP 1.4a Alt-mode Retimer	Laptop, 2-in-1 PC, Desktop, AIO PC, Tablet, Smartphone, Set-top-box, active cable, KVM switch, motherboard enabling USB Type-C DP Alt-mode	QFN4.5x6.5-46	4.5 x 6.5mm
MCDP6150	DP 1.4a Retimer	Laptop, 2-in-1 PC, Desktop, AIO PC, Tablet, Smartphone, Gaming monitor, DP active cable, KVM switch, public display	QFN4.5x6.5-46	4.5 x 6.5mm
MCDP6200	USB3.2 x1 Gen1/Gen2 Retimer	Laptop, 2-in-1 PC, Desktop, AIO PC, Tablet, Smartphone, USB active cable	QFN4.5x6.5-46	4.5 x 6.5mm

Single Port Converters

Part Number	Input	Output	Application	Package	Package Size (L x W)
MCDP5200	USB-C/DP 1.4a (USB3.2, HBR3, HDCP 2.3)	HDMI 2.0b/USB-A	Notebook, Tablet Accessories (USB Type-C dongles, docking stations), TV, Game Console, STB, etc.	TFBGA77-169	7 x 7mm
MCDP5240	USB-C/DP 1.4a (USB3.2, HBR3, HDCP 2.3)	DP++/USB-A	Notebook, Tablet Accessories (USB Type-C dongles, docking stations), TV, Game Console, STB, etc.	TFBGA77-169	7 x 7mm
MCDP5250	DP 1.4a	HDMI 2.0b	Notebook, Tablet Accessories (Adapters (Dongles), docking stations, and other AV accessories)	TFBGA77-169	7 x 7mm
MCDP5290	DP 1.4a	DP++	Notebook, Tablet Accessories (Adapters (Dongles), docking stations, and other AV accessories)	TFBGA77-169	7 x 7mm

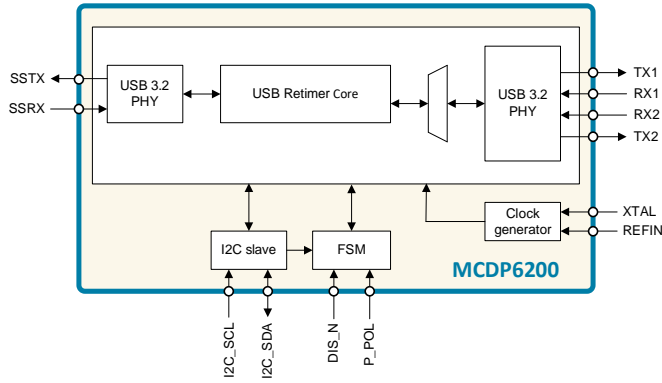
Multiport Converters

Part Number	Input	Output	Application	Package	Package Size (L x W)
KTM5000	DP (4 Lanes)	3x DP++ (DP or HDMI)	Audio-video router, Docking station, Hub, 4K2K TV, Signage, Daisy chain monitor, Digital signage	LFBGA-289 0.65mm pitch	12 x 12mm
KTM5010	DP (4 Lanes)	3x DP++ (DP or HDMI)	Audio-video router, Docking station, Hub, 4K2K TV, Signage, Daisy chain monitor, Digital signage	LFBGA-289 0.65mm pitch	12 x 12mm
KTM5020	USB-C (DP alt-mode) (DP 4 lanes OR 2 lanes DP and 2 lanes USB3.2)	3x DP++ (DP or HDMI) 1x USB3.2	Audio-video router, Docking station, Hub, 4K2K TV, Signage, Daisy chain monitor, Digital signage	LFBGA-289 0.65mm pitch	12 x 12mm
KTM5030	USB-C (DP alt-mode) (DP 4 lanes OR 2 lanes DP and 2 lanes USB3.2)	3x DP++ (DP or HDMI) 1x USB3.2	Audio-video router, Docking station, Hub, 4K2K TV, Signage, Daisy chain monitor, Digital signage	LFBGA-289 0.65mm pitch	12 x 12mm

USB Type-C Port Controllers

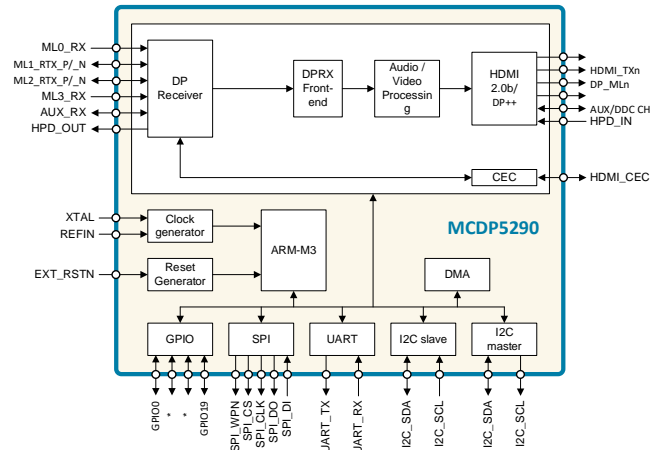
Part Number	Input	Application	Package	Package Size (L x W)
MCDP9000	USB Type-C Port Controller	Laptop, 2-in-1 PC, Desktop, AIO PC, Tablet, Smartphone, USB-C Docking station, USB-C DA/V dongle, Set-top-box, USB-C monitor, KVM switch, public display	QFN44-24	4.0 x 4.0mm

Repeaters (Retimers)



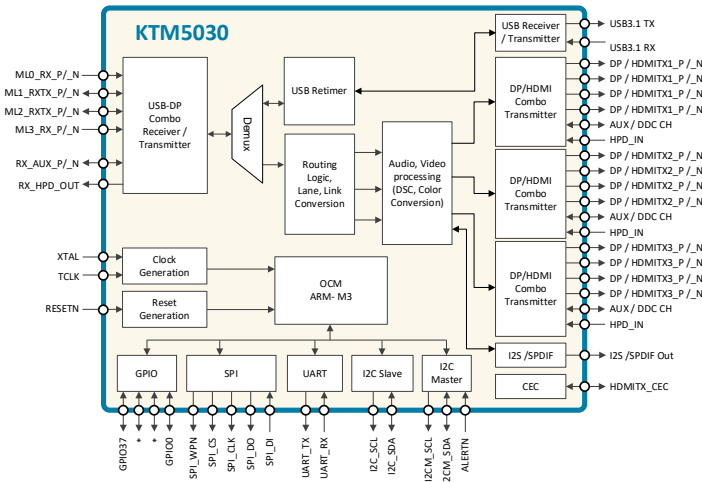
6:4 USB-C DP 1.4a Alt-mode Retimer

Single Port Converters



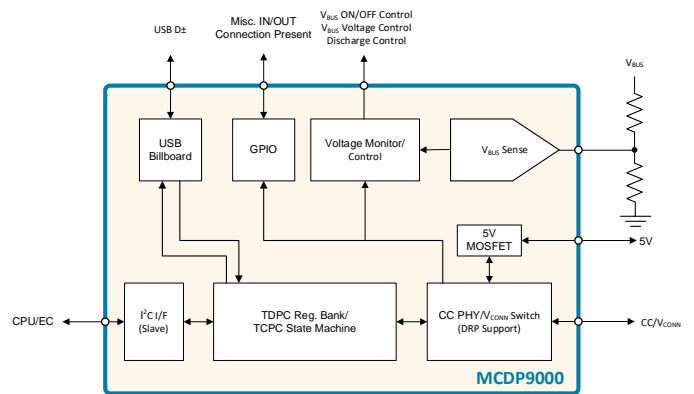
1.4a-to-DP++ Converter

Multiport Converters



USB Type-C / DisplayPort 1.4 MST Hub (DSC)

USB Type-C Port Controllers



USB Type-C Port Controller

Evaluation Kits

Smart Connectivity Reference Designs

Part Number	Evaluation Kit Number	Description
KTM50x0	RD4-5000	USB-C to USB-A / 3x DP 1.4a or HDMI 2.0b (DP++)
MCDP5200	RD1-5200	USB Type-C/DP Alt Mode to HDMI2.0 & USB Type-A
MCDP6000	RD4-6000	USB Type-C DP Alt-mode Switching Retimer

Power ICs Evaluation Kits

Part Number	Evaluation Kit Number	Description
KTB1100	KTB1100EYAA-MMEV01	15W Flyback Regulator with Digital Isolator Integrated Feedback
KTC2110	KTC2110ECAA-MMEV01	3.0MHz High Efficiency Low I _Q Boost Regulator
KTB8331	KTB8331DEDAA-MMEV02	3A, 2.4MHZ, Low-Voltage, I ² C Programmable Buck Regulator
KTD2026	KTD2026EWE-MMEV01	Constant Current RGB LED Driver with I ² C Control
KTD2027	KTD2027EWE-MMEV01	Constant Current RGB/White LED Driver with I ² C Control
KTD2052	KTD2052AEVAA-MMEV01	12-Channel RGB LED Drivers with I ² C Control
KTD2061	KTD2061EUAC-MMEV02	36-Channel RGB LED Drivers with I ² C Control
KTD2690	KTD2690ERAA-MMEV01	Single Flash LED Driver with Programmable 1.5A Current Source
KTS1601	KTS1601EUM-1-MMEV01	2.0A Slew Rate Controlled Load Switch with Reverse Blocking
KTS1622	KTS1622EUAA-MMEV01	KTS1622 Eval Kit – Low Voltage 16-Bit I ² C-bus I/O Expander
KTS1640	KTS1640EDV-MMEV01	Load Switch with OVP and Reverse Polarity Protection
KTS1677A	KTS1677AEVH-MMEV01	5A _{RMS} VBUS Current-Sink Protection Load Switch
KTS1688	KTS1688EUH-MMEV01	Low Resistance Load Switch with Current Limit Control and Over-Voltage Reverse Blocking Protection
KTS1690A	KTS1690AEGAA-MMEV01	USB VBUS I _{SOURCE} Load Switch with Current Limit Control
KTS1693	KTS1693EVB-MMEV01	Surge Protected Load Switch with OVP and OCP
KTS1697A	KTS1697AEOAB-MMEV01	7A _{RMS} VBUS Current-Sink Protection Load Switch
KTS1698	KTS1698AEDAB-MMEV01	5A _{RMS} VBUS Current-Sink Protection Load Switch
KTU1108	KTU1108EFAA-MMEV01	USB Type-C Protector for CC Pins
KTU1121A	KTU1121AEUAJ-MMEV01	USB Type-C Protector for CC and SBU Pins



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