

Selection Guide



Product Portfolio

<i>EPD Panel Power</i>	<i>1</i>
<i>Motor Driver</i>	<i>1</i>
<i>HV Buck DC/DC Converter</i>	<i>1</i>
<i>.....</i>	<i>2</i>
<i>LV Buck DC/DC Converter</i>	<i>3</i>
<i>Boost DC/DC Controller</i>	<i>3</i>
<i>USB Power Switch</i>	<i>4</i>
<i>Low Dropout Regulator</i>	<i>4</i>
<i>White LED Driver</i>	<i>4</i>
<i>Li-ion Charger</i>	<i>5</i>
<i>DDR5</i>	<i>5</i>
<i>Reset</i>	<i>5</i>
<i>BLDC</i>	<i>5</i>

Selection Guide

EPD Panel Power

Part No.	Key Features	V _{IN} (V)	V _{OUT} (V)	I Limit (mA)	Freq. (KHz)	I _q (μA)	I _s (μA)	OCP	OVP	Package
FP9931	Power Supplier Solution with I2C Interface for EPD Panels	2.9~5.5	VPOS (7~15V), VNEG (-7~-15V), VGH (15~30V), VGL (-15~-25V), VCOM (1ch, 8bit)	VPOS=350mA, VNEG=350mA	1MHz	1500	0.1	V	V	TQFN-40 (5×5)

Motor Driver

Part No.	Key Features	V _{IN} (V) Range	Output Current (mA)	Control Volt. Range (V) / Interface	Thermal Shut Down	Package
FP5501	Low-saturation, Low-voltage 2 Channels Bi-directional	1.8~5.5	0~400/Channel	1.8~5.5	V	TDFN-10(3×3)
FP5502	Low-saturation, Low-voltage Bi-directional	1.8~5.5	0~400	1.8~5.5	V	SOT-23-6
FP5530	Dual H-Bridge Motor Driver Driver Two DC Motors or One Stepper Motor	2.7~15V	0~700 Channel	0~5.5 PWM	150C	TSSOP-16 TQFN-16
FP5532	One H-Bridge Motor Driver Bi-Directional	0~11V	0~1800	1.8~6 PWM	150C	DFN8

HV Buck DC/DC Converter

Part No.	Key Features	Type	V _{IN} (V)	V _{OUT} (V)	I _{OUT} (mA)	Eff. % Max.	Freq. (KHz)	I _q (μA)	I _s (μA)	Shut Down	OCP	Package
FR9204	18V, 2.5A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~18	0.8V to 8V	2500	94	500	250	1	V	V	SOT-563
FR9204F	18V, 2.5A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.8V to 8V	2500	94	500	250	1	V	V	SOT-563
FR9204FH	18V, 2.5A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.765V to 8V	2500	93	1200	250	1	V	V	SOT-563
FR9205	18V, 2A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~18	0.765V to 8V	2000	94	850	250	1	V	V	SOT-23-6
FR9205F	18V, 2A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.765V to 8V	2000	94	850	250	1	V	V	SOT-23-6
FR9206	18V, 3A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~18	0.765V to 8V 0.8V to 8V	3000	94	500	250	1	V	V	SOT-563 TSOT-23-6
FR9206F	18V, 3A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.765V to 8V 0.8V to 8V	3000	94	500	250	1	V	V	SOT-563 TSOT-23-6
FR9206FH	18V, 3A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.765V to 8V	3000	94	500	250	1	V	V	TSOT-23-6
FR9207	18V, 4A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~18	0.76V to 8V	4000	94	500	400	1	V	V	TSOT-23-6
FR9207F	18V, 4A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.76V to 8V	4000	94	500	400	1	V	V	TSOT-23-6
FR9208F	18V, 5A Synchronous Step-Down 85T DC/DC Converter	HV Sync.	4.3~18	0.765~8V	5000	94	500	400	1	V	V	TSOT-23-6
FR9208	18V, 5A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.3~18	0.765~8V	5000	94	500	400	1	V	V	TSOT-23-6
FR9209	16V, 12A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	6~16	0.6V to 5.5V	12000	94	600 800 1000	300	1	V	V	TQFN-21 3x4

Selection Guide

HV Buck DC/DC Converter

Part No.	Key Features	Type	V _{IN} (V)	V _{OUT} (V)	I _{OUT} (mA)	Eff.% Max.	Freq. (KHz)	I _q (μA)	I _s (μA)	Shut Down	OCP	Package
 FR9212A	18V, 2A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.2~18	0.768V to 8V	2000	94	600	250	1	V	V	SOT-23-6
 FR9212B	18V, 2A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.2~18	0.6V to 8V	2000	94	600	250	1	V	V	SOT-23-6
 FR9212AF	18V, 2A Synchronous Step-Down DC/DC Converter	HV Sync.	4.2~18	0.768V to 8V	2000	94	600	250	1	V	V	SOT-23-6
 FR9212BF	18V, 2A Synchronous Step-Down DC/DC Converter	HV Sync.	4.2~18	0.6V to 8V	2000	94	600	250	1	V	V	SOT-23-6
FR9838	36V, 5A, 130KHz Synchronous Step-Down DC/DC Converter for Charger Application	HV Sync.	4.5~36	0.8~20	5000	97	130	1000	NA	X	V	TDFN-10 (5x6)
FR9835A	28V, 5A Asynchronous Step-Down DC/DC Converter	HV ASync.	3.5~28	0.75 to ~Vin	5000	92	Adj 200~2500	100	1	V	V	SOP-8 (EP)
FR9837A	40V, 5A Asynchronous Step-Down DC/DC Converter	HV ASync.	3.5~40	0.75 to ~Vin	5000	92	Adj 200~2500	100	1	V	V	SOP-8 (EP)
FR9839A	40V, 5A Asynchronous Step-Down DC/DC Converter	HV ASync.	3.5~40	0.75 to ~Vin	5000	92	Adj 200~2500	100	1	V	V	SOP-8 (EP)
FR9608	28V, 3A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~28	0.925~16V	3000	93	340	1200	2	V	V	SOP-8 (EP)
FR9609	28V, 3A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~28	0.925~16V	3000	93	340	1200	2	V	V	SOP-8 (EP)
FR9850	18V, 2A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~18	0.765V to 8V	2000	94	850	250	1	V	V	SOT-23-6
FR9850F	18V, 2A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~18	0.765V to 8V	2000	94	850	250	1	V	V	SOT-23-6
FR9854	Sync. 4A Buck Internal Comp. Converter with fast constant on time control technique (FCOT)	HV Sync.	4.5~18	0.765~8V	4000	94	630	600	1	V	V	SOP-8 (EP)
FR9855	Sync. 5.5A Buck Internal Comp. Converter with fast constant on time control technique (FCOT) External SS/PG	HV Sync.	4.5~18	0.765~8V	5500	94	630	600	1	V	V	SOP-8 (EP)
FR9855B	Sync. 5.5A Buck Internal Comp. Converter with fast constant on time control technique (FCOT) External SS/PG	HV Sync.	4.5~18	0.6~8V	5500	94	630	600	1	V	V	TDFN-10 (3x3)
FR9856B	Sync. 6A Buck Internal Comp. Converter with fast constant on time control technique (FCOT) External VREG/PG	HV Sync.	4.5~18	0.765~8V	6000	94	630	600	1	V	V	SOP-8 (EP)
FR9863	28V, 3A Synchronous Step-Down DC/DC Converter with High Efficiency at Light Load	HV Sync.	4.5~28	0.596V to 12V	3000	94	500	150	3	V	V	TSOT-23-6
FR9863F	28V, 3A Synchronous Step-Down DC/DC Converter	HV Sync.	4.5~28	0.596V to 12V	3000	94	500	150	3	V	V	TSOT-23-6

Selection Guide

LV Buck DC/DC Converter

Part No.	Key Features	Type	V _{IN} (V)	V _{OUT} (V)	I _{OUT} (mA)	Eff.% Max.	Freq. (KHz)	I _q (μA)	I _s (μA)	Shut Down	OCP	Package
 FP6311	1A High Efficiency Sync. Buck Converter	Low V Sync.	2.6~5.5	0.6~Vin	1000	95	1500	60	0.1	V	V	SOT-563
 FP6312	2A High Efficiency Sync. Buck Converter	Low V Sync.	2.6~5.5	0.6~Vin	2000	95	1500	60	0.1	V	V	SOT-563
 FP6315	3A High Efficiency Sync. Buck Converter	Low V Sync.	2.6~5.5	0.6~Vin	3000	95	1100 2200	25	0.1	V	V	SOT-563
FP6335	1.2A High Efficiency Sync. Buck Converter, Pure PWM	Low V Sync.	2.5~6.0	0.6~Vin	1200	95	1500	400	0.1	V	V	SOT-23-5/6
FP6356	2A High Efficiency Sync. Buck Converter, Pure PWM	Low V Sync.	2.5~6.0	0.6~Vin	2000	95	1000	400	0.1	V	V	SOT-23-5
FP6359	3A High Efficiency Sync. Buck Converter, Pure PWM	Low V Sync.	2.5~6.0	0.6~Vin	3000	95	1000	80	0.1	V	V	SOT-23-6
FP6373A	3A High Efficiency Sync. Buck Converter	Low V Sync.	2.7~5.5	0.6~Vin	3000	96	1000	80	0.1	V	V	SOT-23-6
FP6381	1.5A High Efficiency Sync. Buck Converter	Low V Sync.	2.5~6.0	0.6~Vin	1500	95	1500	80	0.1	V	V	TDFN-6 (2×2)
FP6392	3.5A High Efficiency Sync. Buck Converter	Low V Sync.	2.7~5.5	0.6~Vin	3500	96	1000	80	0.1	V	V	TDFN-10 (3×3)
FP6385	3.5A High Efficiency Sync. Buck Converter	Low V Sync.	2.5~6.0	0.6~Vin	3500	95	1000	80	0.1	V	V	SOT-23-6 (FC)
FP6396	1.2A High Efficiency Sync. Buck Converter	Low V Sync.	2.5~6.0	0.6~Vin	1200	95	1500	30	0.1	V	V	SOT-23-5 TSOT23-5
FP6397	2A High Efficiency Sync. Buck Converter	Low V Sync.	2.5~6.0	0.6~Vin	2000	95	1000	40	0.1	V	V	SOT-23-5/6

Boost DC/DC Converter

Part No.	Key Features	V _{IN} (V)	V _{OUT} (V)	I Limit (mA)	Eff.% Max.	Freq. (KHz)	I _q (μA)	I _s (μA)	Shut Down	OTP	Package
FP6715	Low Start-up Sync. Boost Converter, Automatically PWM or PFM Mode	1.9~Vout	1.9~5.25	2500	93	550	25	1	V	V	SOT-23-6
FP6722	Low Quiescent Current Boost Converter	0.7~5.5	1.8~5.5	500	96	-	5	1	V	V	SOT-23-6
FP6730	Large Input Voltage Range, Current Mode Step-up Converter	3~24	Vin~24	2500	93	1000	120	1	V	-	SOT-23-5 SOT-23-6
FP67380	1Mhz 2.5A Current-Mode Step-Up DC/DC Converter	3~24	Vin~24	2500	95	1000	250	0.1	V	V	TDFN-6 (2×2)
FP6770	Low Noise, DC/DC Charge Pump Regulator	2.7~5	2.7~5	300	90	2000	3000	0.01	V	V	SOT-23-6

Selection Guide

USB Power Switch

Part No.	Output Current (A)	Channel No.	V _{IN} (V)	Current Limit Type (A)	RDS(ON) (mΩ)	Package
FP6861C	0.55, 0.7, 1, 1.1, 1.5, 2.1, 2.5, 3 (min)	1	2.7~5.5	0.775, 1, 1.25, 1.4, 1.75, 2.45, 2.95, 3.5	70/100	SOT-23-5 SOP-8
FP6861E-A	Adjustable	1	2.7~6	0.17~3.76	55	SOT-23-6 TDFN-6 (2×2)
FP6861E- /E/F/H	0.7, 1.1, 1.5, 2.1 (min)	1	2.7~5.5	1, 1.4, 1.75, 2.45	110	SOT-23-5
FP6861G	2.2, 2.56, 3.2 (min)	1	2.5~5.5	2.6, 3.0, 3.76	45	SOT-23-5 (FC)
FP6861J	Adjustable	1	2.7-6	0.17~3.76	35 55	TSOT-23-6 (FC) TDFN-6 (2×2) SOT-23-6 (WB)

Low Dropout Regulator

Part No.	Key Features	I _{OUT} (mA)	V _{IN} (V)	V _{drop} (mV)	V _{OUT} (V)	Accuracy	I _q (μA)	I _s (μA)	Shut Down	OTP	OCP	Package
FP6145	3A Ultra-Low Dropout with Low ESR Cap.	3000	1.2~5.5	240	ADJ	±2%	1000	10	V	V	V	SOP-8 (EP) TDFN-10 (3x3)
FP6145B	2A Ultra-Low Dropout with Low ESR Cap.	2000	1.2~5.5	240	ADJ	±2%	1000	10	V	V	V	SOP-8 (EP)
FP6166	600mA, Low Noise, High PSRR 70dB	600	2.0~5.5	800	ADJ	±2%	35	0.1	V	V	V	SOT-23-5
FP6183	300mA, Low I _q LDO	300	1.75~5.5	250	0.9, 1.0, 1.1, 1.2, 1.8, 2.5, 2.8, 3.0, 3.3	±1%	2	0.1	V	V	V	TDFN (1x1)
FP6185	Low Noise, High PSRR 70dB	300	1.75~5.5	250	1.2, 1.5, 1.8, 2.5, 2.8, 3.0, 3.3	±1%	2	0.1	V	V	V	SOT-23-5
FP6186	Low Noise, High PSRR 75dB	300	2.2~5.5	230	ADJ	±1%	60	0.1	V	V	V	SOT-23-5
FP6186A	Low Noise, High PSRR 75dB	600	2.2~5.5	400	ADJ	±1%	60	0.1	V	V	V	SOT-23-5
FP6187	Low Noise, High PSRR 75dB	300	1.5~5.5	160	1.2, 1.8, 2.8, 3.0	±1%	45	0.1	V	V	V	TDFN (1x1)
FP6168	Low Noise, High PSRR 80dB	300	1.9~5.5	160	1.0, 1.05, 1.1, 1.2, 1.5, 1.8, 2.2, 2.5, 2.8, 3.0, 3.3	±1%	10	0.1	V	V	V	SOT-23-5 UTDFN-4(1x1)

White LED Driver

Part No.	V _{IN} (V)	V _{OUT} (V) Max.	LED Numbers Max.	Driving Type	Brightness Control	Eff. (%) Max.	Freq. (Hz)	OVP	Package
FP6395	2.5~6	6	2	Buck	-	95	1.5M	V	TDFN-6 (2×2) SOT-23-6
FP6745	2.5~5.5	40	10	Boost	PWM or Linear	87	1.3M	V	TSOT-23-5
FP6755	2.5~5.5	29	8	Boost	PWM	87	1.3M	V	SOT-23-6
FP6757	2.5~5.5	29	8	Boost	PWM	87	1.3M	V	TDFN-6 (3x3)
FR9708/A	2.8~24	24	8	Buck, Boost, Buck-Boost	PWM or Linear	95	1.2M	V	SOT-23-6

Selection Guide

Li-ion Charger

Part No.	V _{IN} (V)	I _{OUT} Max. (A)	V _{OUT} TYP. (V)	Vol. Accy. (%)	VSEN	Temp. Sense	Safety Timer	Package
FP6908	4.5~28	1	4.2 ; 4.35	1	V	v	V	SOP-8 SOT-23-5 TDFN-8 (2mmx2mm)

DDR5

Part No.	Application	V _{IN} (V)	V _{OUT} (V)	I _{OUT} (mA)	Accuracy	Freq. (Hz)	I _q (μA)	OCP	OVP	Package
FP9968	DDR5, SO-DIMM & UDIMM	4.25~5.5	0.8V ~ 2.5V	8.5A	0.75%	750k ~ 1.5MHz	25	V	V	TQFN-28L (3mmx4mm)

Reset

Part No.	V _{IN} (V)	Supply Current (μA)	V _{TH} (V)	VTH. Accy. (%)	Low I _q (μA)	Reset Output	Circuit Type	Package
FP6805	1.5~6	1.5	2.2/2.3/2.6/2.7/2.8/2.9/ 3.1/4.0/4.4/4.6V/Adjust	±1	1.5/2.5	Active Low/High	Open-Drain	TSOT-23-3 TSOT-23-5 TSOT-23-6 TDFN-6
FP6806	1.5~6	1.6	2.2/2.3/2.6/2.7/2.8/2.9/ 3.1/4.0/4.4/4.6V	±1	1.6/2.6	Active Low/High	Push-Pull	TSOT-23-3 TSOT-23-5 TSOT-23-6

BLDC

Part No.	Key Features	V _{IN} (V) Range	Flash (KB)	SRAM (KB)	ADC	Timer	Interfac e	PWM	Others	I/O	Package
FP5600	Cortex-M0+ 96MHz MCU Motor Accelerator CORDIC IP 12 bit ADC with 2 S/H circuit 0.8us conversion time	2.7~5.5	64	16	12Bit*16ch/1MSPS	QEI*2/Timer*2 Etimer*3/RTC*1 WDT*1	UART*3 SPI*1 I2C*1	2*6ch (Motor)	OP/PGA*4 CMP*4	25/45	QFN-32/ LQFP-48