

M3TEK

A Passion for High Performance Power IC



高阶电源管理IC设计
效率高、电感少、电压稳定、低干扰

- BUCK Converter
- PMUS
- Load Switch, Type-C port protector
- Linear Regulators
- Charger
- Boost Converter/Controller,
Buck Boost Controller,

选型手册

Product Selection Guide

2024-2025

公司介绍

成立于2010年，来硕科技主要从事模拟(Analog)暨混合讯号(Mixed-signal)集成电路设计、测试、生产及营销等业务，并专注于高阶电源管理IC设计与销售，提供效率高、电感少、电压稳、定、低干扰的电源管理IC芯片。主要团队是由美国、中国台湾和大中华地区精英所组成的电源IC设计公司。

电源管理IC已被广泛使用于计算机、通讯及消费性电子等产品。新兴的科技变革如通讯产业的Wi-Fi 8、5G、云端储存产品以及USB Type-C的导入，对高阶电源管理IC将有更高规格及高整合之需求。

公司以客户服务为导向，建立与客户的长期合作关系，藉由客制化、高整合度、高效能、高质量与具竞争力的电源管理快速的市场回馈，以及在地生产的优势环境下，为顾客提供解决方案。

愿景

透过M3TEK经营团队的持续努力，让M3TEK 成为客户首选电源管理方案供应商。

公司沿革



强化客户体验

M3TEK以持续提供客户创新、可靠、高效率及高CP值的产品为使命。借以增强客户信赖度及其产品的竞争力。

持续研发投入

持续投入大量研发资源,持续挑战及研究新技术,开发更高规格的产品。

加速新产品开发

5G+WiFi 8提供了远程医疗,远程教学和远程办公可行性。通过M3TEK产品的创新,协助我们客户去实现远程应用,并降低碳排放量、减缓全球暖化。

随时做好准备

产业环境及终端消费市场因受到外在刺激,需求瞬息万变,M3TEK开发具高规格、可靠性高、低功耗之产品以因应产业之变化。

2020-2021

- 发表28V 高耐压4A小封装过电压过电流保护切换开关IC
- 发表高集成Type C 过压保护IC 内部集成TVS 保护元件
- 发表低电压4A小封装DFN1.2*1.6 保护开关IC
- 发表高集成升降压转换器及控制器
- 发表低电压高输出电流6A小封装DFN2*3 同步降压转换器
- 登录兴柜,准备申请上市/柜
- 发布超级电容电源管理器,用于备用电源应用
- 推出24V高压2A/3A支持100%占空比高效能同步降压IC
- 推出双路36V 3A同步降压转换器,具有四路恒流限制输出
- 推出高压24V输入支持4A输出电流,集成于小封装SOT23-8的同步降压转换器
- 推出高压24V输入支持5A输出电流并带外部可调限流的高集成同步降压转换器
- 推出高压28V输入支持6A输出电流及100%占空比高效率降压转换器,应用于网路通讯及电脑周边
- 推出切换频率1.2MHZ,支持7A连续输出电流的同步低压降压转换器,集成于小封装QFN2mm*3mm
- 发表高集成高压同步升压转换器,支持切换电流达18A,集成于小封装QFN3mm*4mm

2024-2025

- MT8351超低Iq 350nA产品荣获 2024 EE Awards 最佳电源管理半导体奖
- 推出超小型封装DFN 1.5x1.0_5L 支持3A输出电流降压转换器
- 推出低电压高电流5A 降压转换器 QFN3X3_16
- 推出低电压高电流6A 降压转换器 QFN2X2_12
- 推出 28V/6A/500KHZ 高集成升压-降压转换器 QFN5X5-28 封装
- 推出 28V/6A/200KHZ 高集成升压-降压转换器 QFN5X5-28 封装。
- 推出低电压 6A/2.2MHz 快速响应同步降压转换器
- 推出宽电压 28V/6A 升压-降压控制器
- 推出支持DDR2-IV 3A 电流调节转换器
- 推出双向电流开关及过电压保护的 21V/6A 负载开关驱动器
- 推出低电压 1.2MHz 输出电流 6A/10A 快速响应同步降压转换器
- 推出 28V/8A 可调频率 200K~1.2MHZ 同步降压转换器
- 推出 18V/8A/700KHZ 高集成 QFN3*3_16 同步降压转换器

2022-2023

- 发表多路LDO输出集成负载开关小型化PMIC
- 发表高电压28V 输入,高电流6A 输出同步降压 100% Duty 降压转换器
- 发表超小封装1.6*1.2,大电流4A 负载开关保护IC
- 发表高集成同步升压20A 转换器

- 推出先进制程低电压高频率2.5MHZ切换式降压IC
- 推出超小型封装DFN1.5*1.5高频率切换式降压IC
- 发布高精度充放电及内建平衡的超级电容电源管理IC
- 推出18V高压1.5MHZ高频率小封装SOT563切换式降压IC
- 推出超小型封装SOT-563、高频率2.5MHZ切换式降压IC
- 推出高耐压28V过电流过电压,可调整电流限DFN2*2封装负载开关IC
- 推出宽电压输入、过电压过电流、防逆电压功率管控制器的负载开关
- 发布高耐压支持单节/双节高精度充放电及内建平衡的超级电容电源管理IC
- 推出高耐压26V/5A, 200KHZ/500KHZ自带可调整限电流同步降压转换器
- 推出18V耐压具外接反向功率管控制器的大电流负载开关器
- 推出单输入双输出低压2A、高频率2.5MHZ、小尺寸降压转换器
- 推出高耐压28V小封装DFN2*2

M3 TECHNOLOGY INC.

产品类别

- Boost DC-DC PWM Converter/Control
- Buck-Boost DC-DC PWM Converter/Control
- LV Buck (Step-Down) DC/DC Converter
- HV Buck (Step-Down) DC/DC Converter
- Current Limit Load Switch
- Type-C CC & SBU Protection IC
- Multi-Channel PMUs
- Super Capacitor Power Manager
- LDO Regulators
- DDR Termination
- Lithium Battery Charger
- Ideal Diode



A PASSION FOR
HIGH PERFORMANCE POWER IC

M3 TECHNOLOGY INC.

Boost (Step-Up) DC/DC Converter

 New product

Part No.	Input Voltage(V)	Switch Current(A)	Freq. (MHz)	Output Voltage(V)	Quiescent Current(uA)	Shutdown Current(uA)	Accuracy(%)	VFB(V)	Eff(%)	EN	Soft Start	OTP	Short Protection	Package(mm)	Notes
MT5075	0.9~5	0.35 0.45 0.8	0.8	Fixed 2.8/3.3/5	9	0.01	-	-	92	V	X	X	X	SOT23_5L	Low Input Voltage Step-up Converter with Low Quiescent Current
MT5070	0.9~5	0.45	0.8	Fixed 2.7/3.3/5 Vadj	12	0.01	±3	0.5	97	V	X	X	X	SOT23_6L	Low Input Voltage Step-up Converter with Low Quiescent Current
MT5080	2.7 ~ 6	1	1.5	Vadj ~50Vmax	160	1	±3	1.25	83	V	V	V	X	SOT23_5L DFN2x2_6L	Asynchronous Step-Up DC/DC Converter with 50V 1A Integrated Switch
MT5037	2.5 ~ 5.5	4	0.8	Fixed 5.15 Vadj	125	0.1	±2	0.5	95	V	V	V	V	DFN3x3_10L	High Current Sync-Boost Converter Light Load Pulse Skip Mode
MT5033	2.5 ~ 5.5	6	0.8	Fixed 5.15 Vadj	125	0.1	±2	0.5	95	V	V	V	V	SOP8_EP	High Current Sync-Boost Converter Light Load Pulse Skip Mode
MT5035	3 ~ 5.5	6.5	0.55	Fixed 5.15 Vadj	80	0.2	±3	0.5	95	V	V	V	V	SOP8_EP	High Current Sync-Boost Converter, Light Load Pulse Skip Mode, Thermal Fallback
MT5036	2.5 ~ 5.5	6.6	0.8	Fixed 5.15 Vadj	125	0.1	±2	0.5	95	V	V	V	V	QFN4x4_16L	High Current Sync-Boost Converter Light Load Pulse Skip Mode
MT5083	3~30	20	Adj 50K~1MHz	30V_Max Vadj	70	3.5	±1.5	1.203	95	V	V	V	X	QFN4x4_22L	High Current Sync-Boost Converter with Light Load PSM Mode
MT5087	2.7~18	20	Adj 50K~1MHz	18V_Max Vadj	70 140	5	±1.5	1.203	95	V	V	V	X	QFN4x4_20L	High Current Sync-Boost Converter with Light Load PSM Mode
MT5087A	2.7~18	20	Adj 50K~1MHz	18V_Max Vadj	70 140	5	±1.5	1.203	95	V	V	V	X	QFN4x4_20L	High Current Sync-Boost Converter Forced PWM
MT5088	2.7~30	20	Adj 50K~1MHz	30V_Max Vadj	70	5	±1.5	1.203	95	V	V	V	X	QFN4x4_20L	High Current Sync-Boost Converter with Light Load PSM Mode
MT5088A	2.7~30	20	Adj 50K~1MHz	30V_Max Vadj	70	5	±1.5	1.203	95	V	V	V	X	QFN4x4_20L	High Current Sync-Boost Converter Forced PWM

Boost (Step-Up) DC/DC PWM Control

Part No.	Input Voltage(V)	Freq.	MOSFET Type	Output Voltage(V)	Quiescent Current(uA)	Shutdown Current(uA)	Accuracy(%)	VFB(V)	Eff(%)	EN	Soft Start	OTP	Short Protection	Package(mm)	Notes
MT5086	2.7 ~ 30	Adj 50K~1MHz	Dual N	30V_Max	55	5	±1.5	1.203	95	V	V	V	V	QFN3x3_16L	2.7V to 30V Input 55µA Quiescent Current Synchronous Boost Controller

Buck-Boost (Step Down-Up) DC/DC PWM Control and Converter

Part No.	Input Voltage(V)	Output Voltage(V)	Freq. (kHz)	Accuracy(%)	VFB(V)	MOSFET Type	Quiescent Current(mA)	Shutdown Current(uA)	Eff(%)	EN	Soft Start	OTP	Short Protection	Package(mm)	Notes
 MT5615	2~5.5	2~5V	2000	±1	0.5	Integrated *4	0.045	0.5	94	V	V	V	V	TSOT23_8L DFN3x3_8L	5V 1A Synchronous COT. Buck-Boost Converter
MT5628	3.1~28	1V~28V	600	±1	1	External	1.2	1	97.5	V	V	V	V	QFN4x4_20L	28V Wide Voltage Range 4-Switch Buck-Boost Controller
MT5629	3.1~28	1V~28V	600	±1	1	Integrated 17mohm*4	1.2	1	97.5	V	V	V	V	QFN5x5_28L	28VIN up to 6A Synchronous 4-Switch Buck-Boost Converter
MT5639	3.1~28	1V~28V	200	±1	1	Integrated 17mohm*4	1.2	1	97.5	V	V	V	V	QFN5x5_28L	28VIN up to 6A Synchronous 4-Switch Buck-Boost Converter

LV Buck (Step-Down) DC/DC Converter

 New product

	Part No.	Input Voltage(V)	Output Current(A)	Freq. (MHz)	Quiescent Current(μA)	Accuracy (%)	VFB (V)	Max. Duty %	Soft Start	OTP	Short Protection	Discharge Resistor(Ω)	Package (mm)	Notes
	MT8351A (D)(Q)	2~5.5	1	1.5	0.35	±1	-	100	V	V	V	5	DFN2x2_6L	Synchronous Step-Down Converter, VSET pin
	MT8361D	2~5.5	1	1.5	0.35	±1	-	100	V	V	V	5	WCSP_6L	Synchronous Step-Down Converter, VSET pin
	MT8101	2.5~6	1	2.3	26	±2	-	100	V	V	V	15	DFN1.2x1.2_6L	Synchronous Step-Down Converter, Vout Fixed 0.9/1.1/1.2/1.3V
	MT8821N(A)	2.3~5.5	1	2.6	25	±0.5	0.6	100	V	V	V	1000	DFN1.0x1.5_6L	Synchronous COT Step-Down Converter, EN, Discharge
	MT3152N(A)	2.5~6	1.5	1.5	28	±1.5	0.6	100	V	V	V	50	SOT23_5L DFN2x2_6L	Sync. COT Buck Converter with Output Discharge (2A Peak)
	MT3161	2.5~6	1.5	2.5	15	±1.5	0.6	100	V	V	V	190	SOT563 QFN1.1x1.1_6L	Sync. COT Buck Converter with Light Load PSM (2A Peak)
	MT8161N(A)	2.7~6	1.5	2.5	25	±1.5	0.6	100	V	V	V	20	SOT563	Sync. COT Buck Converter with Light Load PSM (2A Peak)
	MT3132N(A)	2.5~6	1.5	2.5	28	±2	0.6	100	V	V	V	50	SOT23_5L DFN2x2_6L	Sync. COT Buck Converter with Output Discharge (2A Peak)
	MT8152N(A)	2.7~6	2	1.5	28	±1.5	0.6	100	V	V	V	20	SOT23_5L DFN2x2_6L	Sync. COT Buck Converter with PG, Output Discharge (3A Peak)
	MT8182A	2.7~5.5	2	1.5	500	±0.5	0.6	100	V	V	V	20	DFN1.5x1.5_6L	Fast PWM Synchronous Step-Down Converter (2.5A Peak)
	MT8183A	2.5~5.5	2	1.5	600	±0.5	0.6	100	V	V	V	20	DFN1.5x1.5_6L	Synchronous Step-Down DC/DC Converter (3A Peak)
	MT3122A	2.5~6	2	2.5	500	±1	0.6	100	V	V	V	1400	DFN1.5x1.5_6L	Sync. COT Buck Converter with PG, Output Discharge
	MT3112	2.5~6	2	2.5	15	±2	0.6	100	V	V	V	1500	SOT23_5L	Sync. COT Buck Converter with PG, Output Discharge for 1-Cell Li-Ion Application
	MT8102N(A)	2.7~6	2	2.5	28	±1.5	0.6	100	V	V	V	50	SOT23_5L SOT23_6L DFN2x2_6L	Sync. COT Buck Converter with PG, Output Discharge (3A Peak)
	MT8192N(A)	2.7~5.5	2	2.5	25	±0.5	0.6	100	V	V	V	20	DFN2x2_6L DFN1.5x1.5_6L	Fast PWM Synchronous Step-Down Converter
	MT3162	2.5~6	2	2.5	15	±1.5	0.6	100	V	V	V	150	SOT563	Sync. COT Buck Converter with Light Load PSM
	MT8162N(A)	2.7~6	2	2.5	25	±1.5	0.6	100	V	V	V	20	SOT563	Sync. COT Buck Converter with Light Load PSM (2.8A Peak)
	MT8172N	2.7~6	2	2.5	25	±1.5	0.6	100	V	V	V	20	SOT563	Sync. COT Buck Converter with Light Load PSM (2.8A Peak) With PG Function
	MT8103N(A)	2.5~5.5	3	1.25	18	±1	0.6	100	V	V	V	10	SOT563	Sync. COT Buck Converter with PG, Output Discharge (4A Peak)
	MT8163A	2.7~5.5	3	1.4	600	±0.5	0.6	100	V	V	V	20	DFN 1.5x1.5_6L	Synchronous Step-Down DC/DC Converter
	MT8173N(A)	2.5~5.5	3	1.5	18	±0.5	0.6	100	V	V	V	20	DFN1.5x1.0_5L	Synchronous Step-Down DC/DC Converter
	MT8373N(A)	2.5~5.5	3	1.5	18	±0.5	0.6	100	V	V	V	12	DFN2x2_8L	Synchronous Step-Down DC/DC Converter
	MT8133N	2.5~5.5	3	1.5	18	±2	0.6	100	V	V	V	50	DFN2x2_8L SOT23_5(6)L	Synchronous Step-Down DC/DC Converter
	MT8193N(A)	2.5~5.5	3	1.5	18	±2	0.6	100	V	V	V	20	SOT23_5(6)L DFN2x2_8L	Sync. COT Buck Converter with PG, Output Discharge
	MT8068N	2.5~5.5	3	1.5	18	±2	0.6	100	V	V	V	50	DFN3x3_10L	Synchronous Step-Down DC/DC Converter
	MT8168N(A)	2.5~5.5	3	1.5	18	±2	0.6	100	V	V	V	20	DFN3x3_10L	Synchronous Step-Down DC/DC Converter

LV Buck (Step-Down) DC/DC Converter

 New product

Part No.	Input Voltage(V)	Output Current(A)	Freq. (MHz)	Quiescent Current(μA)	Accuracy (%)	VFB (V)	Max. Duty %	Soft Start	OTP	Short Protection	Discharge Resistor(Ω)	Package (mm)	Notes
MT8593N(A)	2.5~5.5	3	2.5	18	±2	0.6	100	V	V	V	20	SOT23_5(6)L DFN2x2_8L	Sync. COT Buck Converter with PG, Output Discharge
MT8568N(A)	2.5~5.5	3	2.5	18	±2	0.6	100	V	V	V	20	DFN3x3_10L	Synchronous Step-Down DC/DC Converter
MT3124	2.5~6	3.5	1.2	15	±1.5	0.6	100	V	V	V	1000	QFN2x2_12L	Sync. COT Buck Converter with PG
MT8124N(A)	2.5~5.5	3.5	1.25	20	±0.5	0.6	100	V	V	V	20	QFN2x2_12L	Fast-PWM Synchronous Step-Down Converter
MT3153	2.5~6	3.5	1.5	15	±2	0.6	100	V	V	V	240	TSOT23_5L	Sync. COT Buck Converter with PG, Output Discharge
MT3194N	2.7~6	4	1.2	18	±1	0.6	100	V	V	V	65	QFN2x3_12L	Fast-PWM Synchronous Step-Down Converter
MT8194N	2.7~5.5	4	1.2	20	±1	0.6	100	V	V	V	20	QFN2x3_12L	Fast-PWM Synchronous Step-Down Converter
MT3123 MT3123A MT3123B	2.5~6	4	1.25	15	±1.5	0.6	100	V	V	V	1000 1000 260	QFN3x3_16L	Sync. COT Buck Converter with PG Sync. COT Buck Converter with PG, SS Sync. COT Buck Converter with PG, SS, Discharge
MT8123N	2.5~5.5	4	1.25	18	±1	0.6	100	V	V	V	20	QFN3x3_16L	Low Iq FAST-PWM Synchronous Step-Down Converter
MT3068	2.5~6	4	1.5	15	±2	0.6	100	V	V	V	240	DFN3x3_10L	Sync. COT Buck Converter with PG, Output Discharge
 MT8365N(A)	2.5~5.5	5	1.2	21	±1	0.4	100	V	V	V	X	SOT583_8L	Sync. COT Step-Down DC/DC Converter with PG,EN,
MT3126	2.5~6	5	1.2	15	±1	0.6	100	V	V	V	1000	QFN2x2_12L	Sync. COT Buck Converter with PG
MT8126	2.5~5.5	5	1.25	20	±0.5	0.6	100	V	V	V	20	QFN2x2_12L	Fast-PWM Synchronous Step-down Converter
MT8165A	2.7~5.5	5	1.35	500	±0.5	0.61	100	V	V	V	15	QFN3x4_14L	Fast-PWM Synchronous Step-Down Converter
MT3035	2.5~6	5	1.5	15	±2	0.6	100	V	V	V	240	DFN3x3_10L	Sync. COT Buck Converter with SS, PG
MT3185	2.7~6	5	2.5	17	±1.0	0.8	100	V	V	V	50	DFN2x2_7L	Fast PWM Synchronous Step-Down Converter with PG
MT3196N	2.7~6	6	1.2	18	±1	0.6	100	V	V	V	65	QFN2x3_12L	Fast-PWM Synchronous Step-Down Converter
MT8196N	2.7~5.5	6	1.2	20	±1	0.6	100	V	V	V	20	QFN2x3_12L	Fast-PWM Synchronous Step-Down Converter
MT3127N(A)	2.7~6	6A/10A	1.2	18	±1.0	0.61	100	V	V	V	X	QFN3x3_9L	Sync. FAST PWM Buck Converter with PFM Mode "A" with Force PWM mode
MT3128N	2.7~6	6A/8A	1.2	18	±1.0	0.61	100	V	V	V	X	QFN4x4_20L	Sync. FAST PWM Buck Converter with PFM Mode
MT3128A	2.7~6	6A/8A	1.2	500	±1.0	0.61	100	V	V	V	X	QFN4x4_20L	Sync. FAST Force PWM Buck Converter with Force PWM mode
MT8129A	2.7~5.5	6A/10A	1.2	500	±0.5	0.61	100	V	V	V	20	QFN3x4_14L	Fast-PWM Synchronous Step-Down Converter
MT8859A	2.7~5.5	6A	1.2	500	±0.5	0.5	100	V	V	V	20	QFN2x3_14L	Fast-PWM Synchronous Step-Down Converter
MT3125	2.5~6	6	1.25	15	±1	0.6	100	V	V	V	1000	QFN3x3_16L	Sync. COT Buck Converter with PG
MT8139A	2.7~5.5	6A/10A	2.2	500	±0.5	0.5	100	V	V	V	20	QFN3x4_14L	Fast-PWM Synchronous Step-Down Converter
MT8106A	2.7~5.5	6	2.2	500	±0.5	0.61	100	V	V	V	20	QFN3x4_14L	Fast-PWM Synchronous Step-Down Converter

LV Buck (Step-Down) DC/DC Converter module

N New product

Part No.	Input Voltage(V)		Output Current(A)		Freq. (MHz)	Quiescent Current (uA)	Accuracy (%)	VFB (V)	Max. Duty %	Eff. (%)	Output Voltage(V)	Soft Start	OTP / Short Protection	Package(mm)	Advantage
MTM002	2.5~6	1.5	1.5	15	15	±2	0.6	100	92	Vadj	V	V	LGA3x3_7L	Sync. Buck Converter Module without ext inductor and cap (2A peak)	
MTM003	2.5~6	1.5	2.5	15	15	±2	0.6	100	92	Vadj	V	V	LGA3x3_7L	Sync. Buck Converter Module without ext inductor and cap (2A peak)	
N MTM006N(A)	2.5~5.5	3	2.2	20	20	±1	0.6	100	96	Vadj	V	V	QFN2.5x3.5_18L	Sync. Buck Converter Module without ext inductor and cap	

HV Buck (Step-Down) DC/DC Converter

Part No.	Input Voltage (V)		Output Current(A)		Freq. (KHz)	Accuracy (%)	VFB (V)	Max. Duty %	Eff. (%)	Soft Start	OTP	Short Protection	Package(mm)	Notes
MT3570N(A)	4.7~18	2	500	500	500	±2.5	0.8	100	95	V	V	V	SOT23_6L	Sync. Buck Converter with Light Load PSM
MT3770N(A)	4.7~24	2	500	500	500	±2.5	0.8	100	95	V	V	V	SOT23_6L DFN2x2_6L	Sync. Buck Converter with Light Load PSM
MT3622	4.3~24	2	650	650	650	±2	0.765	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3682	4.3~24	2	650	650	650	±2	0.6	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3562N(A)	4.5~18	2	720	720	720	±2	0.804	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3582N(A)	4.5~18	2	720	720	720	±2	0.6	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3552N(A)	4.5~18	2	720	720	720	±2	0.804	100	93	V	V	V	SOT563	Fast-PWM Synchronous Step-Down Converter
N MT3702N(A)	4.7~24	2	1400	1400	1400	±1.35	0.598	100	92	V	V	V	SOT23_6L	Sync. Step-Down Converter with Light Load PSM
N MT8552N(A)	4.5~18	2	1500	1500	1500	±2	0.6	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3592N(A)	4.5~18	2	1500	1500	1500	±2	0.804	100	94	V	V	V	SOT563	Fast-PWM Synchronous Step-Down Converter
MT3510	4.7~18	2.5	500	500	500	±2.5	0.6	100	95	V	V	V	SOT23_6L	Sync. Buck Converter with Light Load PSM
N MT3703N(A)	4.7~24	2.5	1400	1400	1400	±1.35	0.598	100	92	V	V	V	SOT23_6L	Sync. Step-Down Converter with Light Load PSM
MT8553N(A)	4.5~18	2.5	1500	1500	1500	±2	0.6	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3571	4.7~18	3	500	500	500	±2.5	0.8	100	95	V	V	V	SOT23_6L	Sync. Buck Converter with Light Load PSM
MT3713	4.7~24	3	500	500	500	±2	0.6	100	95	V	V	V	SOT23_6L	Sync. Buck Converter with Light Load PSM
MT3771N(A)	4.7~24	3	500	500	500	±2.5	0.8	100	95	V	V	V	SOT23_6L	Sync. Buck Converter with Light Load PSM
MT3623	4.3~24	3	650	650	650	±2	0.765	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3683	4.3~24	3	650	650	650	±2	0.6	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
N MT8683N(A)	4~24	3	700	700	700	±1.35	0.6	100	92	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter

HV Buck (Step-Down) DC/DC Converter

 New product

Part No.	Input Voltage (V)	Output Current(A)	Freq. (KHz)	Accuracy (%)	VFB (V)	Max. Duty %	Eff. (%)	Soft Start	OTP	Short Protection	Package(mm)	Notes
MT3553N(A)	4.5~18	3	720	±2	0.804	100	93	V	V	V	SOT563	Fast-PWM Synchronous Step-Down Converter
MT3563N(A)	4.5~18	3	720	±2	0.804	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3583N(A)	4.5~18	3	720	±2	0.6	100	93	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
 MT8693N(A)	4~24	3	1400	±1.35	0.6	100	92	V	V	V	SOT23_6L	Fast-PWM Synchronous Step-Down Converter
MT3515N(A) (U)	4.5~24	3	1400	±1.5	0.8	100	93	V	V	V	TSOT23_8L DFN3x3_10L	Fast-PWM Synchronous Step-Down Converter
MT3593N(A)	4.5~18	3	1500	±2	0.804	100	94	V	V	V	SOT563	Fast-PWM Synchronous Step-Down Converter
MT3513	4.5~18	3.5	500	±2	0.6	90	95	V	V	V	TSOT23_6L	Sync. Buck Converter with Light Load PSM
MT3513A	4.5~18	3.5	500	±2	0.6	90	95	V	V	V	TSOT23_6L	Sync. Buck Converter Forced PWM Mode
MT3503	4.5~18	3.5	1000	±2	0.6	85	95	V	V	V	TSOT23_6L	Sync. Buck Converter with Light Load PSM
MT3503A	4.5~18	3.5	1000	±2	0.6	85	95	V	V	V	TSOT23_6L	Sync. Buck Converter Forced PWM Mode
MT3505	4.5~24	4	500	±1.5	0.6	100	95	V	V	V	TSOT23_8L	Fast-PWM Synchronous Step-Down Converter, Iout 5A Peak
MT3935N(A)	4.3~26	4	500	±2	0.8	100	95	V	V	V	SOP8_EP DFN4x3_14L	Fast-PWM Synchronous Step-Down Converter- COT UA mode, "A" with COT FPWM mode
MT3905N(U) (A)(H)	4~30	4	500	±2	0.8	100	95	V	V	V	SOP8_EP DFN4x3_14L	Fast-PWM sync BUCK converter, Iout 5A Peak "U" with ultra sonic mode, "A" with Forced PWM mode "H" with ultra sonic mode + Vo short Hiccup mode
MT3901N(X) (U)	4~36	5	180	±2	0.8	100	98	V	V	V	SOP8_EP	Sync. Buck Converter with Dual-Channel Current limit "N" With CC foldback, "X" Without CC foldback, "U" With CC foldback + Ultra-sonic mode at light load
MT3991N(U)	4~36	5	180	±2	0.8	100	98	V	V	V	SOP8_EP	Synchronous Step-down Converter with Programmable Current Limit
MT3931U	4.3~26	5	200	±2	0.8	100	97	V	V	V	SOP8_EP	Fast-PWM Synchronous Step-Down Converter- COT UA mode
MT3931A	4.3~26	5	200	±2	0.8	100	97	V	V	V	SOP8_EP	Fast-PWM Synchronous Step-Down Converter- COT FPWM mode
MT3906	4.2~28	6	560	±1	0.6	100	95	V	V	V	QFN3x3_16L	Fast-PWM Synchronous Step-Down Converter
MT3916	4.2~28	6	560	±1	0.6	100	95	V	V	V	QFN3x3_16L	Fast-PWM Synchronous Step-Down Converter for Fast Transient Response
 MT3526M	4~33	6	Program. 100~1000	±1	I2C	100	98	V	V	V	QFN3X3_18L	Synchronous Buck Converter with I2C Interface
MT3886MFFR	4.5~33	6	700	±1	0.604	100	94	V	V	V	QFN2X3_12L	Fast-PWM Synchronous Step-Down Converter
 MT3956N(A) (U)	3~18	6	1500	±1	0.6	100	94	V	V	V	QFN3x3_16L	Fast-PWM Synchronous Step-Down Converter
 MT3968N(A) (U)	3~18	8	700	±1	0.6	100	94	V	V	V	QFN3x3_16L	Fast-PWM Synchronous Step-Down Converter
MT3998MQDR MT3998MFAR	3~28	8	Adj. 200~1200	±1	0.6	100	95	V	V	V	QFN4x4_20L QFN3x3_16L	Fast-PWM Synchronous Step-Down Converter for Fast Transient Response

Current Limit Switch

N New product

Part No.	Input Voltage (V)		Max. Rating(V)	Output Current(A)	Switch Rds_on (mΩ)	I _{LMIT}	Fault	OVP Clamping(V)	SS	Short Circuit Protection	OTP	Package(mm)	Notes
MT7255	2.7~6	30	3	50	V	X	V	V	V	V	V	SOT23_3L DFN2x2_8L	Over-Voltage and Over-Current Protection IC, Output Discharge
MT7692	1.8~5.5	6.5	4	26 48	V	X	V	V	V	V	V	DFN1.2x1.6_4L SOT23_5L	Low Ron Power Distribution load switch, Output Discharge
MT7693	1.8~5.5	6.5	4	26 48	V	X	V	V	V	V	V	DFN1.2x1.6_4L SOT23_5L	Low Ron Power Distribution load switch (Reverse Blocking Function allows VOUT be higher than VIN in shutdown)
N MT7696	2.7~5.5	18	5	30	V	V	V	V	V	V	V	QFN2x2_9L	Programmable High Current Protection Switch with Reverse Blocking Programmable Soft-Start Time
MT7256	2.7V~6	30	5	50	V	X	V	V	V	V	V	DFN2x2_8L	Over-Voltage and Over-Current Protection IC, Output Discharging
MT7201(A)	2.7~18	20	5	25	V	X	V	V	V	V	V	DFN3x3_10L	Programmable Current Limit Load Switch with Clamping Output Voltage, Output Discharge
MT7203	4.5~18	20	5	25	V	X	V	V	V	V	V	DFN3x3_10L	Load Switch with Over-voltage Protection and Blocking FET Control, Clamping Output Voltage, Output Discharging
MT7281	3~24	28	5	35	V	V	V	V	V	V	V	QFN4x4_20L	Unidirectional 5A Load Switch with True Reverse Blocking and Fast Role Swap
MT7282	3~24	28	5	35	V	V	V	V	V	V	V	QFN4x4_20L	28V Bidirectional 5A Load Switch
N MT7956	4.5~36	45	5	32 55 400	V	X	V	V	V	V	V	QFN5x5_40L	2 to 1 Power MUX and Overvoltage protection for USB PD Application
MT7262	3~21	30	6	X	V	V	V	V	V	V	V	DFN2x2_8L	21V Bidirectional 6A Load Switch

Current Limit Switch With IEC/UL Safety approvals (IEC/UL 62368-1)

Part No.	Input Voltage (V)		Max. Rating(V)	Output Current(A)	Switch Rds_on (mΩ)	I _{LMIT}	Fault	OVP Clamping(V)	SS	Short Circuit Protection	OTP	Package(mm)	Notes
N MT7932	3.3~33	36	5	25	V	V	V	V	V	V	V	QFN3x3_16L	Load Switch with I2C Interface and Programmable Over-current Over-voltage protection for USB PD Application
MT7231	3~24	28	6	24	V	V	V	V	V	V	V	QFN2.5x3.2_16L	28V Unidirectional 6A Load Switch with True Reverse Blocking and Fast Role Swap
MT7232	3~24	28	6	24	V	V	V	V	V	V	V	QFN2.5x3.2_16L	28V Bidirectional 6A Load Switch

Current Limit Switch With IEC/UL Safety approvals (IEC/UL 2367)

Part No.	Input Voltage (V)		Max. Rating(V)	Output Current(A)	Switch Rds_on (mΩ)	I _{LMIT}	Fault	OVP Clamping(V)	SS	Short Circuit Protection	OTP	Package(mm)	Notes
N MT7633	2.7~5.5	6.5	3.5	40	V	V	V	V	V	V	V	TSOT23_6L	Load Switch with 28V Output Reverse Block & Adjustable Current limit, Fast Role Swap

Type-C CC and SBU pin ESD & High Voltage Short Protection Function

 New product

Part No.	Input Voltage (V)	Max. (V)	OVP Clamping (V) down resistors for handling dead battery condition	CC1/CC2 pull	OPT	Package(mm)	Notes
MT7538	0~24	28	V	V	V	QFN3x3_16L	Type-C CC and SBU pin Over-Voltage and IEC ESD Protection Switch
MT7530 MT7531	0~24	28	V	V X	V	QFN3x3_20L	Type-C CC and SBU pin Over-Voltage and IEC ESD Protection Switch

Multi Channel Power Management IC

Part No.	Input Voltage(V)	Freq. (MHz)	Output Current(A)	Quiescent Current(μA)	Output Voltage(V)	Accuracy(%)	VFB(V)	Eff. (%)	Max.Duty(%)	Soft Start	OTP/Short protection	Package(mm)	Notes
MT8293	2.5~5.5	1.25	3 x 2CH	500	Vadj	±0.5	0.6	93	100	V	V	DFN4x3_14L	Dual Sync COT Buck Converter with Light Load FPWM
MT3222	2.5~6	1.5	2.5 x 2CH	38	Vadj	±1.5	0.6	95	100	V	V	TSOT23_8L	Dual Sync COT Buck Converter with Light Load PSM
MT3223	2.5~6	1.5	3 x 2CH	38	Vadj	±1.5	0.6	95	100	V	V	DFN3x3_10L	Dual Sync COT Buck Converter with Light Load PSM
 MT3253N(A)	2.5~6	2.5	2.5 x 2CH	38	Vadj	±1.5	0.6	93	100	V	V	TSOT23_8L DFN2.5x1.5_8L	Dual Sync COT Buck Converter with Light Load PSM
MT3263	2.5~6	2.5	2.5 x 2CH	38	Vadj	±1.5	0.6	93	100	V	V	DFN2.5x1.5_8L	Dual Sync COT Buck Converter with Light Load PSM With Deep Sleep Function
 MT8272	4.5~18	1.5	2.5 x 2CH	250	Vadj	±2	0.6	94	100	V	V	DFN3x3_10L	Dual Fast-PWM Synchronous Step-Down Converter with Light Load PFM With Deep Sleep Function
 MT8252	4.5~18	0.72	3 x 2CH	250	Vadj	±2	0.6	96	100	V	V	DFN3x3_10L	Dual Fast-PWM Synchronous Step-Down Converter with Light Load PFM With Deep Sleep Function
MT3902U	4~36	0.18	4/CH	100	Vadj	±2	0.8	98	100	V	V	QFN5x5_20L	Dual Buck Converter with Quad-Channel Current limit With CC foldback + Ultra-sonic mode at light load
MT3902X	4~36	0.18	4/CH	100	Vadj	±2	0.8	98	100	V	V	QFN5x5_20L	Dual Buck Converter with Quad-Channel Current limit Without CC foldback + Ultra-sonic mode at light load

Super Capacitor Power Manager for Backup Power Applications

Part No.	Input Voltage(V)	Max.Rating(V)	Output Current(A)	Cap No.	INPUT OVP(V)	Soft Start	OTP/OVP/ Short Protection	Package(mm)	Notes
MT2600	2.5~5.5	12	2	2	6	V	V	DFN3x3_10L	Super Capacitor Power Manager for Backup Power Applications
MT2601N	2.5~5.5	18	2	2	6	V	V	DFN3x3_10L	Super Capacitor Power Manager for Backup Power Applications
MT2601B	2.5~5.5	18	2	2	6	V	V	DFN3x3_10L	Super Capacitor Power Manager for Backup Power Applications (w/o Automatic Cell Balancing)
 MT2603	2.5~5.5	18	4	2	6	V	V	DFN3x3_12L	Super Capacitor Power Manager for Backup Power Applications

Specific LDO

 New product

Part No.	Input Voltage (V)	Output Current(A)	Quiescent Current(μA)	Accuracy (%)	VFB (V)	Output Voltage(V)	Dropout Voltage(mV)	OTP	Short Protection	PSRR(dB)	Package(mm)	Notes
MT7110	2.5 ~ 5.5	250	1	±2	-	Fixed 1.2V, 1.65V, 1.8V, 2.5V and 3.3V	150@100mA 250@200mA	V	V	80/10Hz 68/100Hz	SOT23_5L	250mA Low Iq 1uA LDO
MT7107	2.5 ~ 5.5	250	12	±2	-	Fixed 0.9V, 1.05V, 1.1V, 1.2V, 1.5V, 1.8V, 2.5V, 2.8V, 3V, 3.3V	60@100mA 120@200mA	V	V	80/100Hz 50/100KHz	SOT23_5L DFN1x1_4L	250mA high PSRR Low Dropout Voltage Regulator
MT7113	1~5.5	3000	140	±1.5	0.8	Vadj	150@2A 250@3A	V	V	80/1KHz	SOP8_EP DFN3x3_10L	3A Ultra Low Dropout voltage Regulator

DDR termination

Part No.	Input Voltage (V)	LDOIN Ranger(V)	VO Ranger(V)	Output Current (Source/Sink Current from OUT)(A)	VO Tracks 1/2 of VDDQSEN Accuracy	High-Z Stage	Soft-stop Stage	Buffered Reference (REFOUT)	Cout (min)	VOSEN	UVLO	Soft Start	OTP/OVP	Package(mm)	Notes
MT7217	3.3 5	0.4~3.5	0.5~0.9	2	±1%	S3	S4/S5	+/-10mA	10uF	V	V	V	V	DFN2x2_10L	Meets DDR DDR2 JEDEC Specifications; Support DDR3 and Low Power DDR3/DDR4 VTT BusTermination
 MT7216	3.3	1.1~3.5	0.6~1.25	3	±1%	S3		+/-10mA	10uF	V	V	V	V	DFN3x3_10L	Meets DDR DDR2 JEDEC Specifications; Support DDR3 and Low Power DDR3/DDR4 VTT BusTermination

Lithium Ion Battery Charger

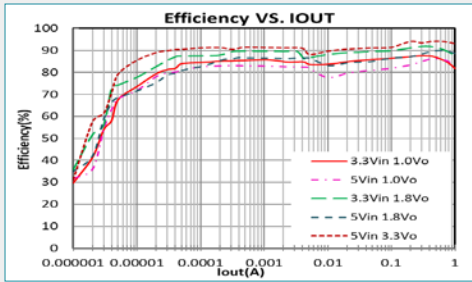
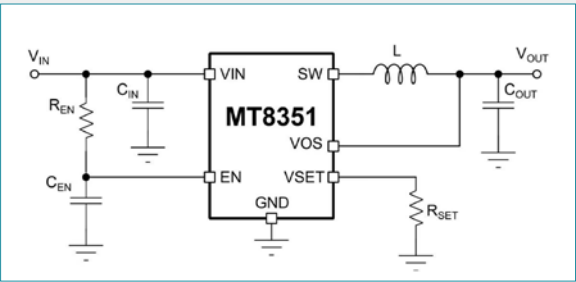
Part No.	Input Voltage (V)	Max. Rating(V)	Output Current(A)	Accuracy(%)	Recharge	Mode	Cell No.	Timer	INPUT OVP(V)	Soft Start	OTP/OVP Short Protection	Package(mm)	Notes
MT2575	4.5~6.5	20	1.5	±1	V	Linear	1	Adj	6.6	V	V	QFN3x3_16L	1 Cell Linear Charger Auto Input Current Limit Foldback for USB Port and Adapter Integrated Dynamic Power Path Management
MT2580	4.5~6.5	20	1.6	±1	V	Linear	1		6.6	V	V	SOP8_EP	1 Cell Linear Charger Auto Input Current Limit Foldback for USB Port and Adapter
MT2000	4.5 ~ 15	20	3	±1	V	PWM 1.5MHz	1	7hr	6.6 16.5	V	V	QFN4x4_20L	1 Cell Sync. Switching Charger with Power Path Control Dynamic Power Management
MT2001	4.5 ~ 15	20	3	±1	V	PWM 1.5MHz	1	7hr	6.6 16.5	V	V	QFN4x4_20L	1 Cell Sync. Switching Charger
MT2011	4.5 ~ 6.5	20	2	±1	V	PWM 1.5MHz	1		6.7/14	V	V	SOP8_EP	1 Cell Sync. Switching Charger Built In Reverse Current Blocking Diode
MT9528	4~6	18	ICHG=2A Iout=3A	±0.75	V	PMW 500KHz	2	8hr	V	V	V	QFN4x4_20L	500KHz Boost Charger for 2-Cell (2A) Li-Ion Battery with Reverse Buck Converter

Ideal Diode

Part No.	Input Voltage (V)	Max. Rating(V)	Output Current(A)	Fast Turn-off Limits Reverse Current	OPT	Package(mm)	Notes
MT7235	2.7~24	28	5	V	V	DFN2x3_8L	Very Low Forward Voltage Diode, Surge up to 28V

MT8351(wins 2024 EE Awards) /MT8361

5V Input 1A 1.5MHz 350nA I_Q Synchronous Step-Down Converter

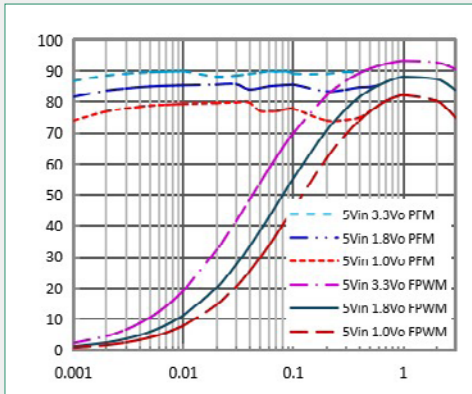
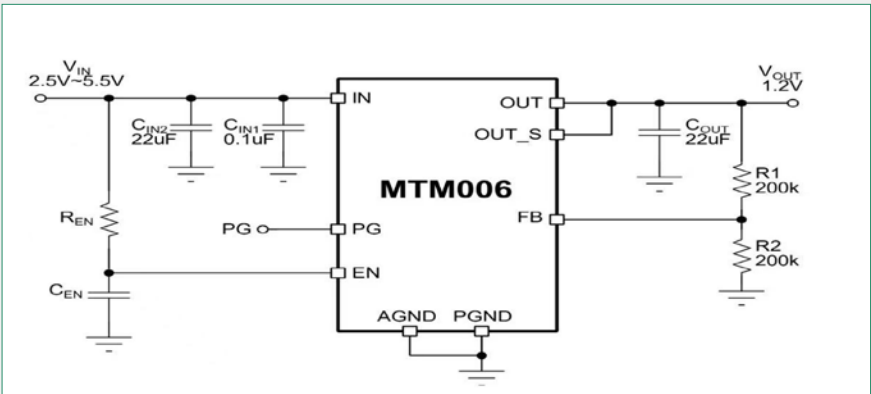


APPLICATIONS

- Wearable Electronics
- Headsets, Headphones, and Earbuds
- Medical Sensor Patches
- Smart Phone and Tablets
- Solid-State and Hard Disk Drivers
- DC/DC Micro Modules

MTM006

5.5V 3A 2.2MHz Ultra-Small and Ultra-Low Noise Power Module



APPLICATIONS

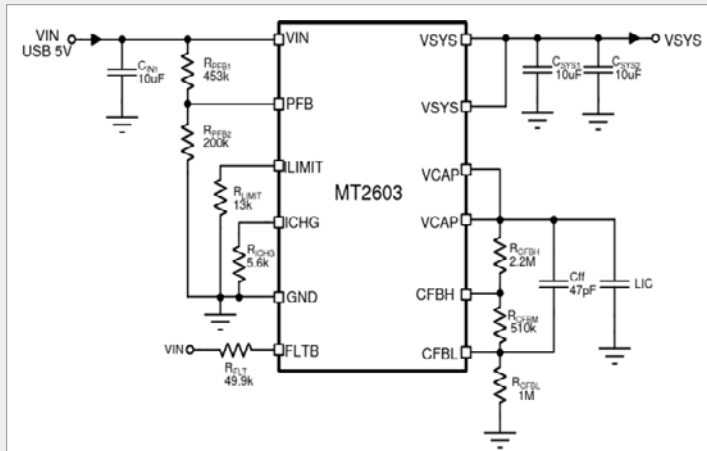
- Solid-State and Hard Disk Drives
- Set-top Boxes.
- DC/DC Micro Modules
- Portable / Handheld Devices

FEATURES	MT8351	MT8361	MTM006
350nA Operating Quiescent Current	V	V	20uA
Input Range from 2.0V to 5.5V	V	V	2.5V to 5.5V
18 Selectable Output Voltage from 0.4V to 3.6V through VSET pin	V	V	Output Voltage as low as 0.6V
Built-in Power Switches	215mΩ/105mΩ	145mΩ/70mΩ	25mΩ/16mΩ
Internal Soft-Start	V	V	V
Cycle-by-cycle Current Limit Protection	V	V	V
Input Under/Over Voltage Lockout	V	V	V
Output Discharging Function in Shutdown	V	V	V
Hiccup Mode for Short Circuit and Over-Load Protection	V	V	V
Thermal Shutdown Protection	V	V	V
Available in package.	DFN 2x2_6L	WCSP_6B	QFN 2.5x3.5_18L
Pb-Free RoHS Compliant	V	V	V

New Generation Super Capacitor

MT2603

Super Capacitor Power Manager for Backup Power Applications



FEATURES

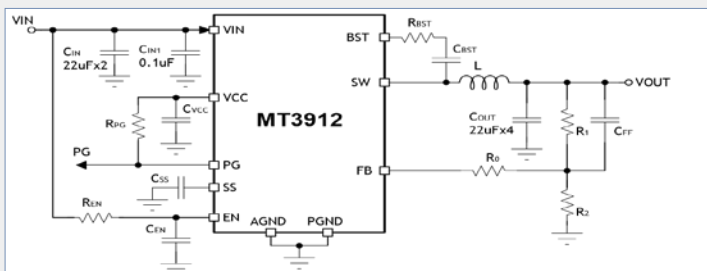
Input Range from 2.5V to 5.5V
18V input rating with OVP
Charge Current 750mA
Programmable 1.1V to 3.8V Cap Voltage Range
Programmable Super Cap Charge Current
Programmable Input Over Current Protection
Programmable Voltage and Current Thresholds
Automatic Main/Backup Switchover
Up to 4A Discharge Current
2.5μA Quiescent Current
DFN3x3_12L

APPLICATIONS

- Handheld Industrial Equipment
- Portable Computers
- Portable Devices with a Removable Battery

MT3912

18V 12A 1.5MHz Fast-PWM Synchronous Step-Down Converter



FEATURES

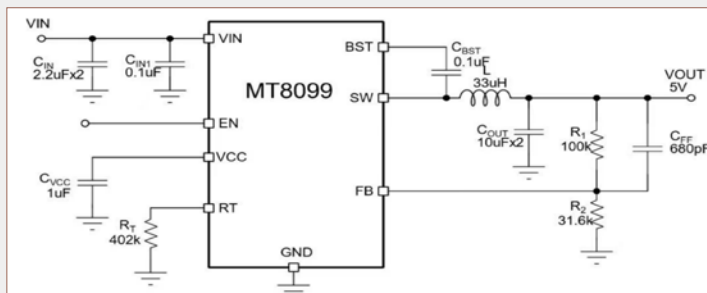
Wide Input Range from 3V to 18V
Fast-PWM COT control with superior transient performance
Integrate 13mΩ/5.5mΩ HS/LS Power Switches
Accurate 1.26V EN threshold with 260mV Hysteresis
200μA Low Quiescent Current for UA mode
150μA Low Quiescent Current for PFM mode
Internal fixed or External programmable Soft-start Time
Hiccup Mode Short Circuit Protection
Over-Temperature Protection
QFN3x3_16L

APPLICATIONS

- USB Type-C/PD Docking Station
- Networking Systems
- Laptop Computer
- Distributed Power Systems
- Flat Panel Television and Monitors

MT8099

100V Input 1A synchronous step-down converter



FEATURES

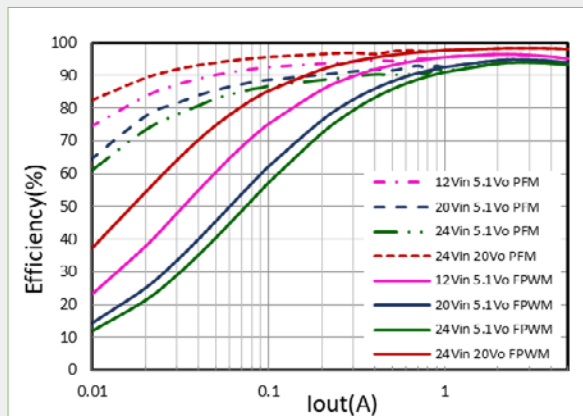
Wide Input Range from 4.5V to 100V
Ultra-low quiescent current <40uA
Adjustable switching frequency from 100kHz to 1200kHz
Internal Soft — Start and loop compensation with pre-biased output capability
High efficiency PFM control
Programmable Cycle-by-Cycle current limiting protection and Short Circuit Protection
Accurate EN pin threshold voltage for programmable input UVLO protection
Over-Temperature Protection
SOIC8EP

APPLICATIONS

- 48V Non — Isolated DC — DC Converter
- Automotive applications
- E-bike applications
- USB Type-C Power Delivery
- Industrial DC-DC
- General purpose

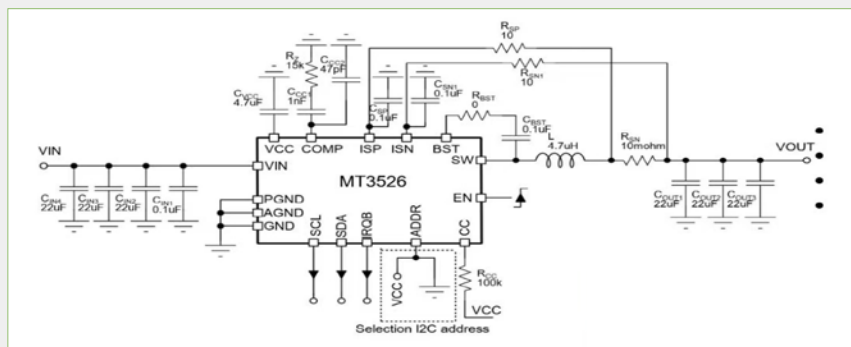
MT3526

33V 6A Synchronous Buck Converter with I²C Interface



FEATURES

- Wide Input Range: 4V to 33V
- Wide Output Range: 3V to 21V
- Support USB PD3.0/QC4.0 with PPS in 10mV steps
- Programmable output constant-current regulation
- Programmable output constant-current regulation 100K, 200K, 400K, 700KHz, and 1MHz
- Programmable output slew rate, cable compensation
- Quiescent Current 1035uA
- QFN3mmX3mm_18L

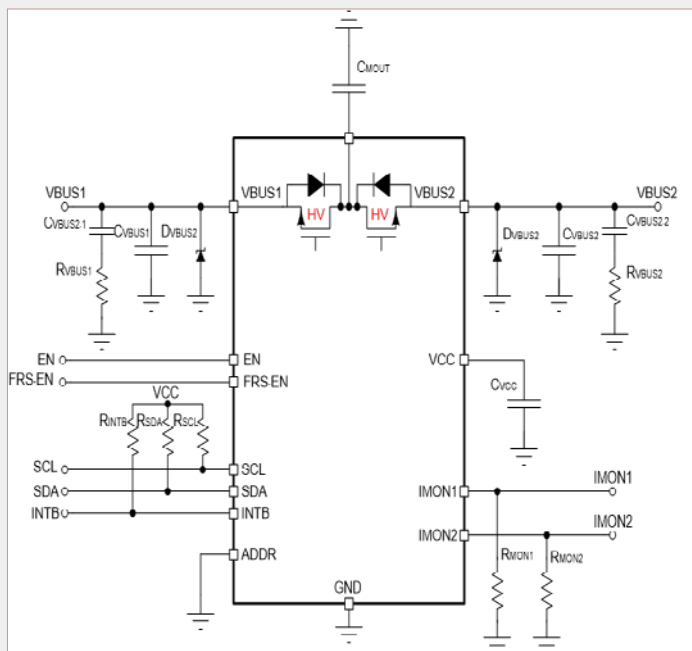


APPLICATIONS

- USB Type C docking station
- USB Type C monitor
- Power Banks
- Tablet Computer Accessories

MT7932

32V 5A Load Switch with I²C Interface and Programmable Over-current Over-voltage protection for USB PD Application(IEC/UL 62368-1)



FEATURES

- Input Voltage Range: 3.3V to 32V
- Integrate a 25mΩ Ultra Low Rdson Protection Switch
- I²C Interface
 - Programmable Soft-Start Time
 - Programmable Input Over-voltage Threshold
 - Programmable current limit
 - Programmable power direction
 - Programmable ideal diode function
- Protection:
 - OCV/OVP/UVF
 - Thermal Warning indicator
 - Thermal Shutdown Protection and Auto Recovery
- Bi-direction Control with reverse blocking function
- Fast Role Swap
- Enable Interface Pin
- Port Discharge Interface Pin
- Fault Indicator
- Compact Package QFN 3x3_16L

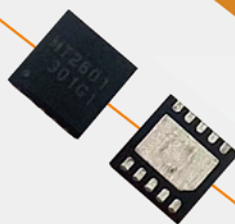
APPLICATIONS

- USB-C/ PD HUB
- Desktop PC
- Laptop PC
- Smart Phone

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Selection Guide

