



**M3TEK**

來頡科技股份有限公司

# POWER MANAGEMENT

FOR HIGH-SPEED SYSTEMS

**Advanced Power Management IC Expert**

Powering Future Connectivity with High-Efficiency  
Power Technology

PRODUCT CATALOG

# 2026



**High Efficiency**

Power Management Solutions  
Optimized for Wi-Fi 8 & 5G Core  
Applications



**High Integration**

Minimizing Inductor Size and  
PCB Space with Highly  
Integrated Design



**High Reliability**

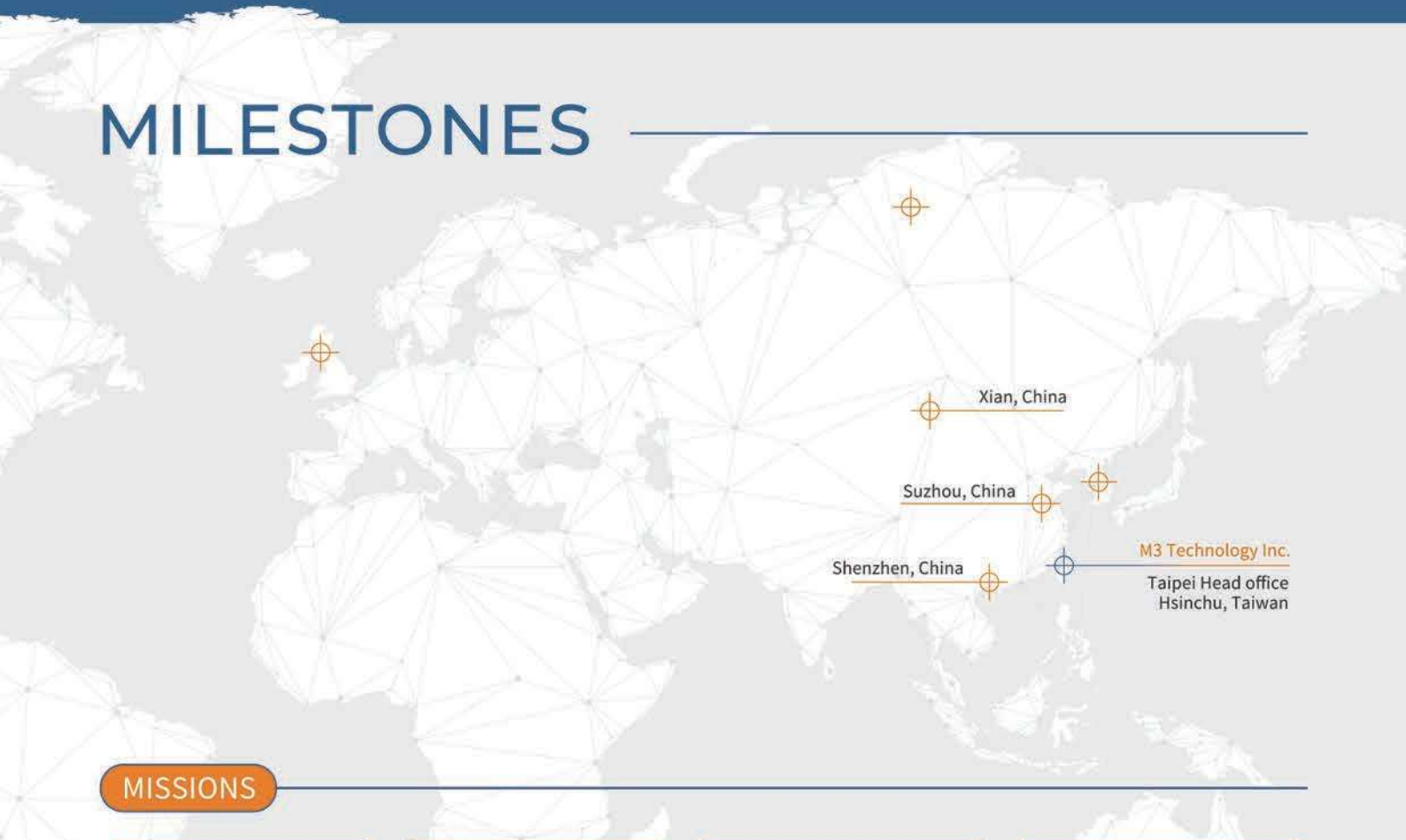
Reliable Power Solutions Designed  
for AI Servers and Cloud Storage  
Applications

# ABOUT US

Founded in 2010, M3 Technology Inc. (M3TEK) design, testing, production and marketing analog and mixed-signal integrated circuits. Our main focus is on high-end power management ICs, providing power management IC chips with high efficiency, low inductance, stable voltage and low interference. Our core team is composed of elites from the United States, Taiwan and Greater China with world class expertise on power IC design, fabrication and packaging.

Power management ICs have been widely used in products such as computers, communication and consumer electronics. Emerging technological innovations such as Wi-Fi 8, 5G, cloud storage and USB Type-C will require higher power, higher performance and highly integrated power management ICs.

## MILESTONES



### MISSIONS

#### Customers' Experience Enhance

M3TEK's mission is to provide customers with innovative, reliable, efficient and high CP value products continuously in order to enhance customers trust and the competitiveness of their products.

#### R&D Investment Continuance

We consistently investing a lot of resources in R&D, and continue to challenge and research new technologies to develop products with higher performance.

#### New Product Development Acceleration

5G+WiFi 8 enables the telemedicine, distance teaching and telecommuting. Through the innovation of M3TEK products, we assist our customers to realize remote applications, reduce carbon emissions, and slow down global warming.

#### Being Ready All of Time

The industrial environment and the end consumer market are subject to external stimuli, and demand is changing rapidly. M3TEK develops products with high specifications, high reliability, and low power consumption to respond to changes in the industry.

Our company is oriented to best serve our customers and establish long-term relationships with customers. We provide customized, highly integrated, high performance, high quality and highly competitive power management solutions to our customers with fast market feedback, and the advantageous environment of local production.

**VISION**

M3TEK the preferred supplier of power management solutions for customers by continuous efforts from the whole company.

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## Boost (Step-Up) DC / DC Converter

| 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<br>0.45<br>0.8 | 0.8                 | Fixed<br>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<br>2.7/3.3/5<br>ADJ | 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~<br>50Vmax           | 160                    | 1                     | ±3           | 1.25    | 83      | V  | V          | V   | X                | SOT23_5L<br>DFN2x2_6L | Asynchronous Step-Up DC/DC Converter with 50V 1A Integrated Switch              |
| MT5037   | 2.5~5.5          | 4                   | 0.8                 | Fixed<br>5.15<br>Vadj     | 125                    | 0.1                   | ±2           | 0.5     | 95      | V  | V          | V   | V                | DFN3x3_10L            | High Current Sync-Boost Converter<br>Light Load Pulse Skip Mode                 |
| MT5033   | 2.5~5.5          | 6                   | 0.8                 | Fixed<br>5.15<br>Vadj     | 125                    | 0.1                   | ±2           | 0.5     | 95      | V  | V          | V   | V                | SOP8_EP               | Foldback High Current Sync-Boost Converter<br>Light Load Pulse Skip Mode        |
| MT5035   | 3~5.5            | 6.5                 | 0.55                | Fixed<br>5.15<br>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 Foldback |
| MT5036   | 2.5~5.5          | 6.6                 | 0.8                 | Fixed<br>5.15<br>Vadj     | 125                    | 0.1                   | ±2           | 0.5     | 95      | V  | V          | V   | V                | QFN4x4_16L            | High Current Sync-Boost Converter<br>Light Load Pulse Skip Mode                 |
| MT5083   | 3~30             | 20                  | Adj<br>50K~<br>1MHz | 30V_Max<br>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                      |
| MT5087N  | 2.7-18           | 20                  | Adj<br>50K~<br>1MHz | 18V_Max<br>Vadj           | 70<br>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<br>50K~<br>1MHz | 18V_Max<br>Vadj           | 70<br>140              | 5                     | ±1.5         | 1.203   | 95      | V  | V          | V   | X                | QFN4x4_20L            | High Current Sync-Boost Converter Forced PWM                                    |
| MT5088N  | 2.7~30           | 20                  | Adj<br>50K~<br>1MHz | 30V_Max<br>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<br>50K~<br>1MHz | 30V_Max<br>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. (MHz)         | 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<br>50K~1<br>MHz | 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 (uA) | Shutdown Current (uA) | Eff (%) | EN | Soft Start | OTP | Short Protection | Package (mm)           | Notes  |
|------------|------------------|--------------------|-------------|--------------|---------|------------------------|------------------------|-----------------------|---------|----|------------|-----|------------------|------------------------|--|
| MT5615N    | 2~5.5            | 2~5V               | 2000        | ±1           | 0.5     | Integrated *4          | 0.045                  | 0.5                   | 94      | V  | V          | V   | V                | TSOT23_8L<br>DFN3x3_8L | 5V 1A Synchronous COT Buck-Boost Converter               |
| MT5635N    | 1.7~5.5          | 2~5V               | 2000        | ±1           | 0.5     | Integrated *4          | 0.045                  | 0.5                   | 95      | V  | V          | V   | V                | TSOT23_8L<br>DFN3x3_8L | 5V Input 3A Synchronous Buck-Boost Converter             |
| MT5628N(A) | 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    |
| MT5629N(A) | 3.1~28           | 1V~28V             | 600         | ±1           | 1       | Integrated<br>17mohm*4 | 1.2                    | 1                     | 97.5    | V  | V          | V   | V                | QFN5x5_28L             | 28VIN up to 6A Synchronous 4-Switch Buck-Boost Converter |
| MT5639N(A) | 3.1~28           | 1V~28V             | 200         | ±1           | 1       | Integrated<br>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

| 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 0.4V~3.6V                                       |
| MT8361A(D)(Q)     | 2~5.5             | 1                  | 1.5         | 0.35                   | ±1           | -       | 100         | V          | V   | V                | 5                      | WCSP_6L                        | Synchronous Step-Down Converter, VSET pin 0.4V~3.6V                                       |
| MT8121N(A)        | 2.7~6             | 1                  | 2.2         | 25                     | ±1.5         | 0.6     | 100         | V          | V   | V                | 20                     | SOT563                         | 6V Input 1A 2.2MHz Synchronous Step-Down Converter, with PG 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                              |
| MT8191A           | 2.7~6             | 1                  | 2.5         | 500                    | ±0.5         | 0.6     | 100         | V          | V   | V                | 20                     | DFN1.5x1.5_6L                  | Synchronous COT Step-Down Converter, With EN, PG, Discharge,                              |
| MT8091A           | 2.7~6             | 1                  | 2.5         | 500                    | ±0.5         | 0.6     | 100         | V          | V   | V                | 20                     | DFN1.5x1.5_6L                  | Synchronous COT Step-Down Converter, With EN, PG, Discharge,                              |
| MT8891U (B)(J)(G) | 2.5~6             | 1                  | 6           | 11                     | ±2           | -       | 100         | V          | V   | V                | 25                     | WCSP_5L                        | Synchronous COT Step-Down Converter, EN, Discharge, PFM Mode, U=0.9V/B=1.1V/J=1.2V/G=2.8V |
| MT8892U           | 2.5~6             | 1                  | 6           | 600                    | ±2           | -       | 100         | V          | V   | V                | 25                     | WCSP_5L                        | Synchronous COT Step-Down Converter, EN, Discharge, Forced PWM Mode, U=0.9V               |
| MT3152N(A)        | 2.5~6             | 1.5                | 1.5         | 28                     | ±1.5         | 0.6     | 100         | V          | V   | V                | 50                     | SOT23_5L<br>DFN2x2_6L          | Sync. COT Buck Converter with Output Discharge (2A Peak)                                  |
| MT8821N(A)        | 2.3~5.5           | 1.5                | 2.3         | 25                     | ±0.5         | 0.6     | 100         | V          | V   | V                | 1000                   | DFN1.0x1.5_6L                  | Synchronous COT Step-Down Converter, EN, Discharge  |
| MT3161N           | 2.5~6             | 1.5                | 2.5         | 15                     | ±1.5         | 0.6     | 100         | V          | V   | V                | 190                    | SOT563<br>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<br>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<br>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  |
| MT3112N           | 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<br>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<br>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                 |
| MT8253N           | 2.5~5.5           | 3                  | 1           | 17                     | ±1           | 0.6     | 100         | V          | V   | V                | 15                     | DFN2x2_8L                      | Synchronous Step-Down DC/DC Converter with PG pin   |
| 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<br>SOT23_5(6)L       | Synchronous Step-Down DC/DC Converter   |
| MT8233N           | 2.5~5.5           | 3                  | 1.5         | 18                     | ±1           | 0.6     | 100         | V          | V   | V                | 20                     | DFN2x2_8L                      | 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<br>DFN2x2_8L       | Sync. COT Buck Converter with PG, Output Discharge  |

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

| Part No.                     | Input Voltage(V) |        | Output Current (A) | Freq. (MHz) | Quiescent Current (uA) | Accuracy (%) | VFB (V) | Max. Duty % | Soft Start | OTP | Short Protection    | Discharge Resistor (Ω)   | Package (mm)  | Notes |
|------------------------------|------------------|--------|--------------------|-------------|------------------------|--------------|---------|-------------|------------|-----|---------------------|--------------------------|---|-------|
| 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   |       |
| MT8593N(A)                   | 2.5~5.5          | 3      | 2.5                | 18          | ±2                     | 0.6          | 100     | V           | V          | V   | 20                  | SOT23_5(6)L<br>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   |       |
| MT3124N                      | 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  |       |
| MT3153N(A)                   | 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<br>MT3123A<br>MT3123B | 2.5~6            | 4      | 1.25               | 15          | ±1.5                   | 0.6          | 100     | V           | V          | V   | 1000<br>1000<br>260 | QFN3x3_16L               | Sync. COT Buck Converter with PG<br>Sync. COT Buck Converter with PG, SS<br>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   |       |
| MT3068N                      | 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   | 10                  | SOT583_8L                | Sync. COT Step-Down DC/DC Converter with PG,EN,   |       |
| MT3126N(A)                   | 2.5~6            | 5      | 1.2                | 15          | ±1                     | 0.6          | 100     | V           | V          | V   | 1000                | QFN2x2_12L               | Sync. COT Buck Converter with PG  |       |
| MT8126N(A)                   | 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  |       |
| MT3035N                      | 2.5~6            | 5      | 1.5                | 15          | ±2                     | 0.6          | 100     | V           | V          | V   | 240                 | DFN3x3_10L               | Sync. COT Buck Converter with SS, PG  |       |
| MT3185N(A)                   | 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  |       |
| MT3076N(A)                   | 2.7~6            | 6      | 1                  | 17          | ±1.0                   | 0.6          | 100     | V           | V          | V   | 6                   | DFN2x2_7L                | Fast PWM Synchronous Step-Down Converter with PG,EN, VOS Pin, Hiccup Mode for Protection                                    |       |
| 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  |       |
| MT8166N(A)                   | 2.7~5.5          | 6      | 1.35               | 18          | ±0.5                   | 0.61         | 100     | V           | V          | V   | 20                  | QFN3x4_14L               | Fast-PWM Synchronous Step-Down Converter,with PG, SS,EN Pin,discharge   |       |
| 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

| 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)   | Notes  |
|------------|------------------|--------------------|-------------|------------------------|--------------|---------|-------------|---------|--------------------|------------|------------------------|----------------|--|
| MTM002     | 2.5~6            | 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                     | ±2           | 0.6     | 100         | 92      | Vadj               | V          | V                      | LGA3x3_7L      | Sync. Buck Converter Module without ext inductor and cap (2A peak) |
| MTM006N(A) | 2.5~5.5          | 3                  | 2.2         | 20                     | ±1           | 0.6     | 100         | 96      | Vadj               | V          | V                      | QFN2.5x3.5_18L | Sync. Buck Converter Module without ext inductor and cap           |

## Multi Channel Power Management IC

| Part No.   | Input Voltage(V) | Freq. (MHz) | Output Current (A) | Quiescent Current (uA) | Output Voltage (V) | Accuracy (%) | VFB (V) | Eff. (%) | Max.Duty (%) | Soft Start | OTP / Short | Package (mm)               | Notes  |
|------------|------------------|-------------|--------------------|------------------------|--------------------|--------------|---------|----------|--------------|------------|-------------|----------------------------|--|
| MT8293A    | 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  |
| MT3222N    | 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   |
| MT3223N    | 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<br>DFN2.5x1.5_8L | Dual Sync COT Buck Converter with Light Load PSM   |
| MT3263N    | 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                                |
| MT8272N(A) | 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               |
| MT8252N(A) | 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 |

## Specific LDO

| Part No. | Input Voltage(V) | Output Current (mA) | Quiescent Current (uA) | Accuracy (%) | VFB (V) | Output Voltage (V)  | Dropout Voltage (mV)   | OTP | Short Protection | PSRR (dB)             | Package (mm)          | Notes   |
|----------|------------------|---------------------|------------------------|--------------|---------|---|------------------------|-----|------------------|-----------------------|-----------------------|---|
| MT7109   | 3.5~60           | 200                 | 1                      | ±2           | -       | Fixed 1.8V,2.8V, 3.0V,3.3V,3.6V,5.0 V,9.0V, 12.0V         | 600@100mA              | V   | V                | 80/1KHz               | SOT23_5L              | 1.5uA Iq 60V Low Dropout voltage Regulator                      |
| MT7110   | 2.5~             | 250                 | 1                      | ±2           | -       | Fixed 1.2V, 1.65V, 1.8V, 2.5V and 3.3V                    | 150@100mA<br>250@200mA | V   | V                | 80/10Hz<br>68/100Hz   | SOT23_5L              | 250mA Low Iq 1uA LDO  |
| MT7106   | 5.5              | 250                 | 14                     | ±2           | -       | Fixed 0.9V,1.2V, 1.5V,1.8V,2.5V, 2.7V,2.8V, 3.3V          | 60@100mA<br>120@200mA  | V   | V                | 80/100Hz<br>50/100KHz | DFN1x1_4L             | 250mA high PSRR Low Dropout Voltage Regulator                   |
| MT7107   | 2.5~             | 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<br>120@200mA  | V   | V                | 80/100Hz<br>50/100KHz | SOT23_5L<br>DFN1x1_4L | 250mA high PSRR Low Dropout Voltage Regulator                   |
| MT7172   | 5.5              | 2000                | 1                      | ±0.5         | -       | 0.8~3.6   | 140@2A                 | V   | V                | 70/1KHz<br>35/300KHz  | DFN3x3_10L            | 2A Ultra Low Dropout Voltage LDO Regulators with Soft-Start,OCP |
| MT7113   | 2.5~             | 3000                | 140                    | ±1.5         | 0.8     | ADJ   | 150@2A<br>250@3A       | V   | V                | 80/1KHz               | SOP8_EP<br>DFN3x3_10L | 3A Ultra Low Dropout voltage Regulator                          |

## HV Buck (Step-Down) DC/DC Converter

| Part No.     | Input Voltage(V) | Output Current(A) | Freq. (KHz) | Accuracy (%) | VFB (V) | Max. Duty % | Eff. (%) | Control Mode      | Soft Start | OTP | Short Protection | Package (mm)         | Notes   |
|--------------|------------------|-------------------|-------------|--------------|---------|-------------|----------|-------------------|------------|-----|------------------|----------------------|---|
| MT3570N(A)   | 4.7~18           | 2                 | 500         | ±2.5         | 0.8     | 100         | 95       | Current Mode      | V          | V   | V                | SOT23_6L             | Sync. Buck Converter with Light Load PSM  |
| MT3770N(A)   | 4.7~24           | 2                 | 500         | ±2.5         | 0.8     | 100         | 95       | Peak Current Mode | V          | V   | V                | SOT23_6L<br>FN2x2_6L | Sync. Buck Converter with Light Load PSM  |
| MT3622N(A)   | 4.3~24           | 2                 | 650         | ±2           | 0.765   | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3682N(A)   | 4.3~24           | 2                 | 650         | ±2           | 0.6     | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3562N(A)   | 4.5~18           | 2                 | 720         | ±2           | 0.804   | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3582N(A)   | 4.5~18           | 2                 | 720         | ±2           | 0.6     | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3552N(A)   | 4.5~18           | 2                 | 720         | ±2           | 0.804   | 100         | 93       | COT               | V          | V   | V                | SOT563               | Fast-PWM Synchronous Step-Down Converter  |
| N MT8952N(A) | 4.5~18           | 2                 | 720         | ±2           | 0.804   | 100         | 95       | COT               | V          | V   | V                | SOT563               | Fast-PWM Synchronous Step-Down Converter,PFM/FPWM mode                                      |
| MT3702N(A)   | 4.7~24           | 2                 | 1400        | ±1.35        | 0.598   | 100         | 92       | Peak Current Mode | V          | V   | V                | SOT23_6L             | Sync. Step-Down Converter with Light Load PSM   |
| N MT8972N(A) | 4.5~18           | 2                 | 1500        | ±2           | 0.6     | 100         | 92       | COT               | V          | V   | V                | SOT563               | Fast-PWM Synchronous Step-Down Converter  |
| N MT8992N(A) | 4.5~18           | 2                 | 1500        | ±2           | 0.804   | 100         | 93       | COT               | V          | V   | V                | SOT563               | Fast-PWM Synchronous Step-Down Converter,PFM/FPWM mode                                      |
| MT8552N(A)   | 4.5~18           | 2                 | 1500        | ±2           | 0.6     | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3592N(A)   | 4.5~18           | 2                 | 1500        | ±2           | 0.804   | 100         | 94       | COT               | V          | V   | V                | SOT563               | Fast-PWM Synchronous Step-Down Converter  |
| MT3510N(A)   | 4.7~18           | 2.5               | 500         | ±2.5         | 0.6     | 100         | 95       | Peak Current Mode | V          | V   | V                | SOT23_6L             | Sync. Buck Converter with Light Load PSM  |
| MT3703N(A)   | 4.7~24           | 2.5               | 1400        | ±1.35        | 0.598   | 100         | 92       | Peak Current Mode | V          | V   | V                | SOT23_6L             | Sync. Step-Down Converter with Light Load PSM   |
| MT8553N(A)   | 4.5~18           | 2.5               | 1500        | ±2           | 0.6     | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3571N(A)   | 4.7~18           | 3                 | 500         | ±2.5         | 0.8     | 100         | 95       | Peak Current Mode | V          | V   | V                | SOT23_6L             | Sync. Buck Converter with Light Load PSM  |
| MT3713N      | 4.7~24           | 3                 | 500         | ±2           | 0.6     | 100         | 95       | Peak Current Mode | V          | V   | V                | SOT23_6L             | Sync. Buck Converter with Light Load PSM  |
| MT3771N(A)   | 4.7~24           | 3                 | 500         | ±2.5         | 0.8     | 100         | 95       | Peak Current Mode | V          | V   | V                | SOT23_6L             | Sync. Buck Converter with Light Load PSM  |
| MT3623N(A)   | 4.3~24           | 3                 | 650         | ±2           | 0.765   | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3683N(A)   | 4.3~24           | 3                 | 650         | ±2           | 0.6     | 100         | 93       | COT               | V          | V   | V                | 10 SOT23_6L          | Fast-PWM Synchronous Step-Down Converter  |
| MT8683N(A)   | 4~24             | 3                 | 700         | ±1.35        | 0.6     | 100         | 92       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3553N(A)   | 4.5~18           | 3                 | 720         | ±2           | 0.804   | 100         | 93       | COT               | V          | V   | V                | SOT563               | Fast-PWM Synchronous Step-Down Converter  |
| MT3563N(A)   | 4.5~18           | 3                 | 720         | ±2           | 0.804   | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| MT3583N(A)   | 4.5~18           | 3                 | 720         | ±2           | 0.6     | 100         | 93       | COT               | V          | V   | V                | SOT23_6L             | Fast-PWM Synchronous Step-Down Converter  |
| N MT8983M    | 4~24             | 3                 | 1200        | ±1.25        | 0.8     | 100         | 92       | COT               | V          | V   | V                | SOT583               | Synchronous Step-Down DC/DC Converter,With SS, BST,EN, Mode pin, Mode for USM, PFM, and PWM |

| Part No.                 | Input Voltage (V) | Output Current (A) | Freq. (KHz)             | Accuracy (%) | VFB (V) | Max. Duty % | Eff. (%) | Control Mode  | Soft Start | OTP | Short Protection | Package (mm)             | Notes   |
|--------------------------|-------------------|--------------------|-------------------------|--------------|---------|-------------|----------|---------------|------------|-----|------------------|--------------------------|---|
| MT8993N                  | 4~24              | 3                  | 1200                    | ±1.25        | 0.8     | 100         | 92       | COT           | V          | V   | V                | SOT583                   | Synchronous Step-Down DC/DC Converter, With SS, BST, EN, Mode pin, Mode for USM, PFM, and PWM   |
| MT8693N(A)               | 4~24              | 3                  | 1400                    | ±1.35        | 0.6     | 100         | 92       | COT           | 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       | COT           | V          | V   | V                | TSOT23_8L DFN3x3_10L     | Fast-PWM Synchronous Step-Down Converter  |
| MT8973N(A)               | 4.5~18            | 3                  | 1500                    | ±2           | 0.6     | 100         | 92       | COT           | V          | V   | V                | SOT563                   | Fast-PWM Synchronous Step-Down Converter  |
| MT3593N(A)               | 4.5~18            | 3                  | 1500                    | ±2           | 0.804   | 100         | 94       | COT           | V          | V   | V                | SOT563                   | Fast-PWM Synchronous Step-Down Converter  |
| MT3513N(A)               | 4.5~18            | 3.5                | 500                     | ±2           | 0.6     | 90          | 95       | Current Mode  | V          | V   | V                | TSOT23_6L                | Sync. Buck Converter with Light Load PSM  |
| MT3503N(A)               | 4.5~18            | 3.5                | 1000                    | ±2           | 0.6     | 85          | 95       | Current Mode  | V          | V   | V                | TSOT23_6L                | Sync. Buck Converter with Light Load PSM  |
| MT3505N(A)(U)            | 4.5~24            | 4                  | 500                     | ±1.5         | 0.6     | 100         | 95       | COT           | V          | V   | V                | TSOT23_8L DFN3x3_10L     | Fast-PWM Synchronous Step-Down Converter, Iout 5A Peak  |
| MT3935N(A)               | 4.3~26            | 4                  | 500                     | ±2           | 0.8     | 100         | 95       | COT           | 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       | COT           | 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           |
| MT8685M                  | 4~24              | 4                  | 670                     | ±1.25        | 0.8     | 100         | 92       | COT           | V          | V   | V                | SOT583                   | Synchronous Step-Down DC/DC Converter, With SS, BST, EN, Mode pin, Mode for USM, PFM, and PWM   |
| MT8965N(A)               | 4.5~18            | 6                  | 500                     | ±1           | 0.6     | 100         | 95       | COT           | V          | V   | V                | TSOT23_6L DFN2.5x1.5_10L | Fast-PWM Synchronous Step-Down Converter with EN Pin, discharge 10 ohm  |
| MT8905N(U)               | 4~32              | 5                  | 500                     | ±2           | 0.8     | 100         | 98       | COT           | V          | V   | V                | SOP8_EP DFN4x3_14L       | Fast-PWM Synchronous Step-Down Converter with SS pin, "N" with pulse skip mode, "U" with ultrasonic skip mode   |
| MT3901N(X)(U)            | 4~36              | 5                  | 180                     | ±2           | 0.8     | 100         | 98       | COT           | 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       | COT           | V          | V   | V                | SOP8_EP                  | Synchronous Step-down Converter with Programmable Current Limit   |
| MT3931N(A)               | 4.3~26            | 5                  | 200                     | ±2           | 0.8     | 100         | 97       | COT           | V          | V   | V                | SOP8_EP                  | Fast-PWM Synchronous Step-Down Converter- "N" with COT UA mode, "A" with COT FPWM mode  |
| MT3906M                  | 4.2~28            | 6                  | 560                     | ±1           | 0.6     | 100         | 95       | COT           | V          | V   | V                | QFN3x3_16L               | Fast-PWM Synchronous Step-Down Converter, Mode Pin to Select PFM, FPWM, UA mode   |
| MT3916M                  | 4.2~28            | 6                  | 560                     | ±1           | 0.6     | 100         | 95       | COT           | V          | V   | V                | QFN3x3_16L               | Fast-PWM Synchronous Step-Down Converter, Mode Pin to Select PFM, FPWM, UA mode   |
| MT3526M                  | 4~33              | 6                  | Programmable, 100K~1MHz | ±1           | I2C     | 100         | 98       | I2C Interface | V          | V   | V                | QFN3X3_18L               | Synchronous Buck Converter with I2C Interface, Output range 3V to 21V with 10mV steps PPS   |
| MT3536M                  | 4~33              | 6                  | Programmable, 100K~1MHz | ±1           | I2C     | 100         | 99       | I2C Interface | V          | V   | V                | QFN3X3_18L               | Synchronous Buck Converter with I2C Interface, Output range 3V to 28V with 20mV steps PPS   |
| MT3886MFFR               | 4.5~33            | 6                  | 700                     | ±1           | 0.604   | 100         | 94       | COT           | V          | V   | V                | QFN2X3_12L               | Fast-PWM Synchronous Step-Down Converter  |
| MT3956N(A)(U)            | 3~18              | 6                  | 1500                    | ±1           | 0.6     | 100         | 94       | COT           | V          | V   | V                | QFN3x3_16L               | Fast-PWM Synchronous Step-Down Converter  |
| MT3968N(A)(U)            | 3~18              | 8                  | 700                     | ±1           | 0.6     | 100         | 94       | COT           | V          | V   | V                | QFN3x3_16L               | Fast-PWM Synchronous Step-Down Converter  |
| MT3998MQDR<br>MT3998MFAR | 3~28              | 8                  | Adj. 200K~1.2MHz        | ±1           | 0.6     | 100         | 95       | COT           | V          | V   | V                | QFN4x4_20L QFN3x3_16L    | Fast-PWM Synchronous Step-Down Converter for Fast Transient Response  |
| MT8478MFUR               | 4.2~18            | 8                  | 1300                    | ±1           | 0.4     | 100         | 95       | COT           | V          | V   | V                | QFN2X3_10L               | Synchronous Step-Down Converter with Mode pin to selec UAM/FPWM, PG pin   |
| MT3912N(A)(U)            | 3~18              | 12                 | 1500                    | ±1           | 0.6     | 100         | 95       | COT           | V          | V   | V                | QFN3x3_16L               | Fast-PWM Synchronous Step-Down Converter with PG, EN pin Hiccup Mode for SCP  |

## 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 (mohm) | I <sub>LIMIT</sub> | Fault | OVP Clamping (V) | SS | Short Circuit Protection | OTP | Package (mm)   | Notes   |
|----------|------------------|-----------------|--------------------|----------------------|--------------------|-------|------------------|----|--------------------------|-----|----------------|---|
| MT7932   | 3.3~33           | 36              | 5                  | 25                   | 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   | 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   | 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 (mohm) | I <sub>LIMIT</sub> | Fault | OVP Clamping (V) | SS | Short Circuit Protection | OTP | Package (mm) | Notes  |
|----------|------------------|-----------------|--------------------|----------------------|--------------------|-------|------------------|----|--------------------------|-----|--------------|--|
| MT7633   | 2.7~5.5          | 6.5             | 3.5                | 40                   | V                  | V     | V                | V  | V                        | V   | TSOT23_6L    | Load Switch with 28V Output Reverse Block & Adjustable Current limit, Fast Role Swap |

## Current Limit Switch

| Part No.  | Input Voltage(V) | Max. Rating (V) | Output Current (A) | Switch Rds_on (mohm) | I <sub>LIMIT</sub> | 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   | SOT23_3L<br>DFN2x2_8L     | Over-Voltage and Over-Current Protection IC, Output Discharge  |
| N MT7653  | 2.7~5.5          | 6.5             | 4                  | 30                   | V                  | V     | V                | V  | V                        | V   | DFN1.5x1.5_6L             | Load Switch with 28V Output Reverse Block & Adjustable Current limit   |
| MT7692    | 1.8~5.5          | 6.5             | 4                  | 26<br>48             | V                  | X     | V                | V  | V                        | V   | DFN1.2x1.6_4L<br>SOT23_5L | Low Ron Power Distribution load switch, Output Discharge   |
| MT7693    | 1.8~5.5          | 6.5             | 4                  | 26<br>48             | V                  | X     | V                | V  | V                        | V   | DFN1.2x1.6_4L<br>SOT23_5L | Low Ron Power Distribution load switch (Reverse Blocking Function allows VOUT be higher than VIN in shutdown)  |
| MT7621    | 0.3~2            | 6               | 5                  | 12                   | V                  | V     | V                | V  | V                        | V   | DFN1.5x1.5_6L             | Low-input-voltage 5A Current-limited Load Switch, with hiccup mode   |
| N MT7622  | 0.4~3.6          | 6               | 5                  | 13                   | V                  | V     | V                | V  | V                        | V   | DFN1.5x1.5_6L             | Low-input-voltage 5A Current-limited Load Switch, with hiccup mode, discharge 12 ohm                           |
| MT7696    | 2.7~5.5          | 18              | 5                  | 30                   | 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   | 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   | 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   | 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   | 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   | QFN4x4_20L                | 28V Bidirectional 5A Load Switch   |
| MT7956    | 4.5~32           | 36              | 5                  | 32<br>55<br>400      | V                  | X     | 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   | DFN2x2_8L                 | 21V Bidirectional 6A Load Switch   |

## Ideal Diode

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

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

| Part No.         | Input Voltage(V) | Max. Rating (V) | OVP Clamping (V) | CC1/CC2 pull down resistors for handling dead battery condition | OTP | Package (mm) | Notes  |
|------------------|------------------|-----------------|------------------|---|-----|--------------|--|
| MT7931           | 0V~32V           | 32              | V                | V   | V   | QFN3x3_20L   | Type-C CC and SBU Over-Voltage and IEC ESD Protection Switch |
| MT7538           | 0~24             | 28              | V                | V   | V   | QFN3x3_16L   | Type-C CC and SBU pin Over-Voltage and IEC ESD Protection    |
| MT7530<br>MT7531 | 0~24             | 28              | V                | V<br>X  | V   | QFN3x3_20L   | Type-C CC and SBU pin Over-Voltage and IEC ESD Protection    |

## DDR Termination

| Part No. | Input Voltage(V) | LDOIN Ranger (V) | VO Ranger (V) | Output Current (Source/Sink) (A) | VO Tracks 1/2 of VDDQSEN | High-Z Stage Accuracy | Soft-stop Stage | Buffered Reference (REFOUT) | Cout (min) | VOSEN | UWLO | Soft Start | OTP OCP | Package (mm) | Notes   |
|----------|------------------|------------------|---------------|----------------------------------|--------------------------|-----------------------|-----------------|-----------------------------|------------|-------|------|------------|---------|--------------|---|
| MT7217   | 3.3<br>5         | 0.4~3.5          | 0.5~0.9       | 2                                | ±1%                      | S3                    | S4<br>S5        | +/-10mA                     | 10uF       | V     | V    | V          | V       | DFN2x2_10L   | Meets DDR DDR2 JEDEC Specifications; Support DDR3 and Low Power DDR3/DDR4 VTT Bus Termination |
| 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 Bus Termination |

## 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 | 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<br>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<br>Auto Input Current Limit Foldback for USB Port and Adapter  |   |
| MT2000   | 4.5~15           | 20              | 3   | ±1           | V        | PWM<br>1.5MHz | 1        | 7hr    | 6.6<br>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<br>1.5MHz | 1        | 7hr    | 6.6<br>16.5   | V          | V             | QFN4x4_20L   | 1 Cell Sync. Switching Charger   |   |
| MT2011   | 4.5~6.5          | 20              | 2   | ±1           | V        | PWM<br>1.5MHz | 1        | 6.7/14 |               | V          | V             | SOP8_EP      | 1 Cell Sync. Switching Charger<br>Built In Reverse Current Blocking Diode  |   |
| MT9528   | 4~6              | 18              | IC <sub>CHG</sub> =2A<br>I <sub>out</sub> =3A | ±0.75        | V        | PMW<br>500KHz | 2        | 8hr    |               | V          | V             | V            | QFN4x4_20L   | 500KHz Boost Charger for 2-Cell (2A) Li-Ion Battery with Reverse Buck Converter |

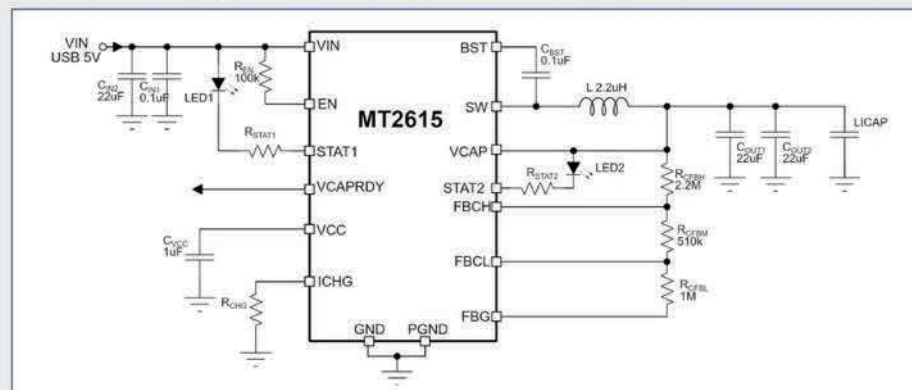
## Super Capacitor Power Manager for Backup Power Applications

| Part No. | Input Voltage(V) | Max. Rating (V) | Output Current (A) | Cap No. | INPUT OVP (V) | Soft Start | OTP OVP Short | 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) |

## NEW GENERATION PRODUCTS

### MT2615

High Current Hybrid Super Capacitor Charger with Monitor Function



#### FEATURES

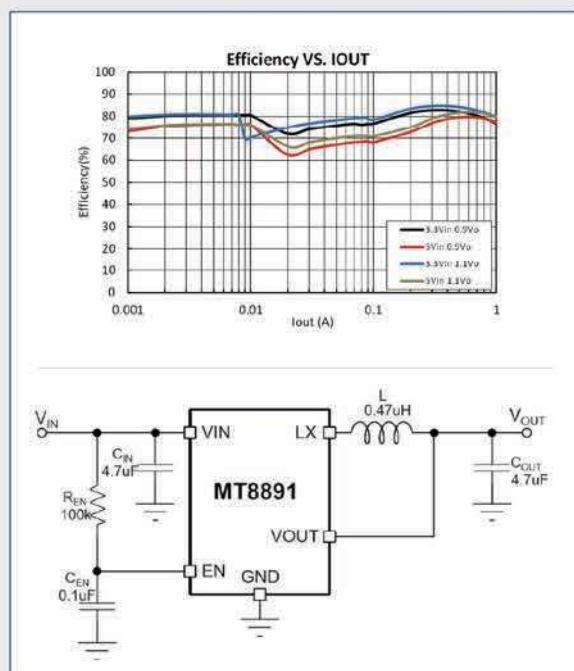
- 3.5V to 6V wide Input Voltage range
- 18V Vin surge capability
- Up to 5A charge current.
- Programmable Super Cap Charge Current
- 1µA Ready Quiescent Current
- 4.5V VIN DPM function
- Programmable Super Cap Under Voltage
- Super Cap Low Voltage Warning
- QFN3x3\_16L Package

#### APPLICATIONS

- Handheld Industrial Equipment
- Portable Computers
- Portable Devices with a Removable Battery
- Industrial Sensor and Actuators
- Aftermarket Automotive Tracking

### MT8891

5V Input 1A 6MHz Step-Down DC/DC Converter



#### FEATURES

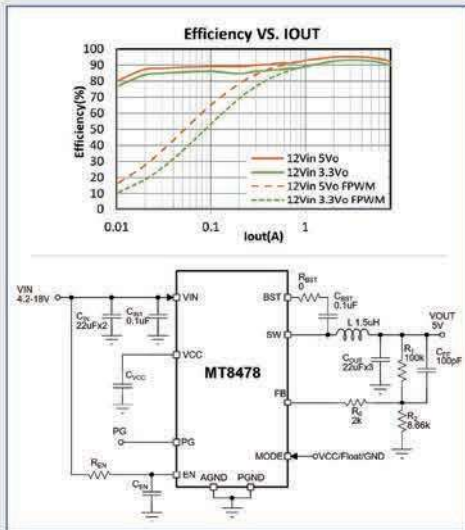
- Wide Input Range from 2.5V to 6V
- Proprietary Fast Transient Constant On Time Architecture Stable with low ESR Ceramic Output Capacitors
- +/- 2% VOUT accuracy
- 11µA Low Quiescent Current
- 1A Continuous Output Current, 1.8A Peak Current
- Built-in HS/LS Ron 115mΩ/50mΩ, Vin=5V Switches
- Internal 200µsec Soft-Start
- Cycle-by-cycle Current Limit Protection
- Over-Load and Short Circuit Hiccup Mode
- Input Under/Over Voltage Lockout
- Output Discharging Function in Shutdown
- Thermal Shutdown Protection
- Hiccup Mode for Short Circuit and Over-Load Protection
- Available in WLCSP\_5L Package

#### APPLICATIONS

- Wireless Earphones / Headset
- Portable game consoles
- Wearable devices
- Smart Phone and Tablets
- DC/DC Micro Modules
- Camera module

| Part No. | Input Voltage(V) | Max. Rating (V) | Output Current (A) | Cap.No. | INPUT OVP (V) | Soft Start | OTP OVP Short | Package (mm) | Notes  |
|----------|------------------|-----------------|--------------------|---------|---------------|------------|---------------|--------------|--|
| MT2603   | 2.5~5.5          | 18              | 4                  | 1       | 6.05          | V          | V             | DFN3x3_12L   | Hybrid Super Capacitor Power Manager for Backup Power Applications (Cap Range 1.8V~3.8V) |
| MT2615   | 3.5~6            | 18              | 5                  | 1       | 6.27          | V          | V             | DFN3x3_12L   | High Current Hybrid Super Capacitor Charger with Monitor Function (Cap Range 1.8V~5V)    |

## MT8478



### FEATURES

|                                   |   |
|-----------------------------------|---|
| Internal 1.5ms Soft-start         | Available in a QFN2X3_10L Package                       |
| 400mV Reference Voltage           | Hiccup mode short circuit protection                    |
| 1.3MHz Switching frequency        | High Efficiency Operation at light load                 |
| Accurate EN UVLO threshold        | Thermal Shutdown with Auto recovery.                    |
| 8A continuous output current      | Integrated 19mΩ/ 9mΩ HS/LS Power Switches               |
| Output Voltage range: 0.4V to 18V | Support 100% duty cycle Low Dropout Operation           |
| Input Voltage Range: 4.2V to 18V  | Stable operation with low ESR ceramic output capacitors |

Fast PWM COT control with superior transient performance and stable switching frequency.

### APPLICATIONS

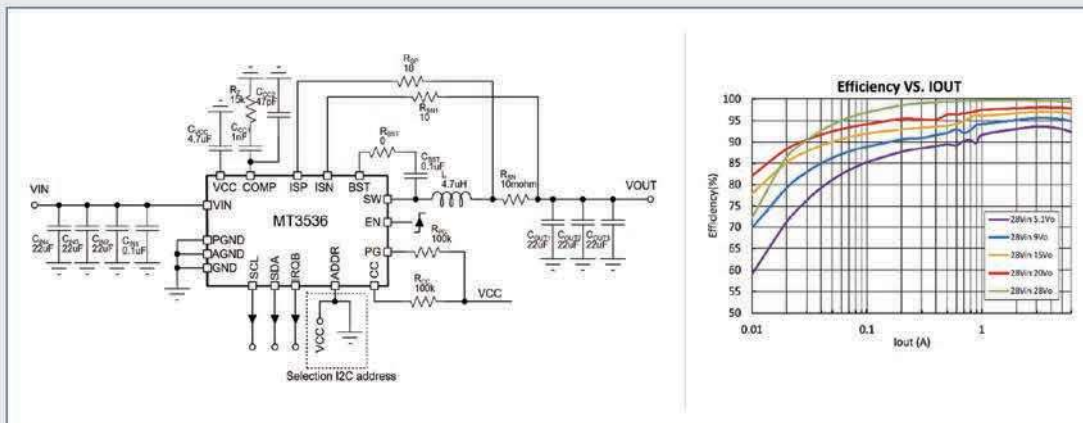
- Digital Set-Top Boxes
- Communication Equipment
- Computing and Edge Devices
- Consumer and Embedded Products
- Gaming consoles and graphics card power supplies

## MT3536

33V 6A Synchronous Buck Converter with I2C Interface & PPS

### FEATURES

|                                       |  |
|---------------------------------------|--|
| Wide Input Range: 4V to 33V           | Integrated 15mΩ and 15mΩ HS/LS power switches                          |
| Wide output range: 3V to 28V          | Support USB PD3.0/QC4.0 with PPS in 20mV steps                         |
| 6A Continuous Output Current          | Programmable output constant-current regulation                        |
| Cycle-by-Cycle peak Current Limit     | Programmable switching frequency : 100K, 200K, 400K, 700KHz, and 1MHz. |
| Small QFN3mmX3mm_18L Package          | Programmable output slew rate, cable compensation, PFM/FPWM mode       |
| 100% Duty Cycle Low Dropout Operation |  |



### APPLICATIONS

- TV monitor
- Wall charger
- USB Type C docking station
- Car USB-C fast charging module
- PMBus-compatible point-of-load converters

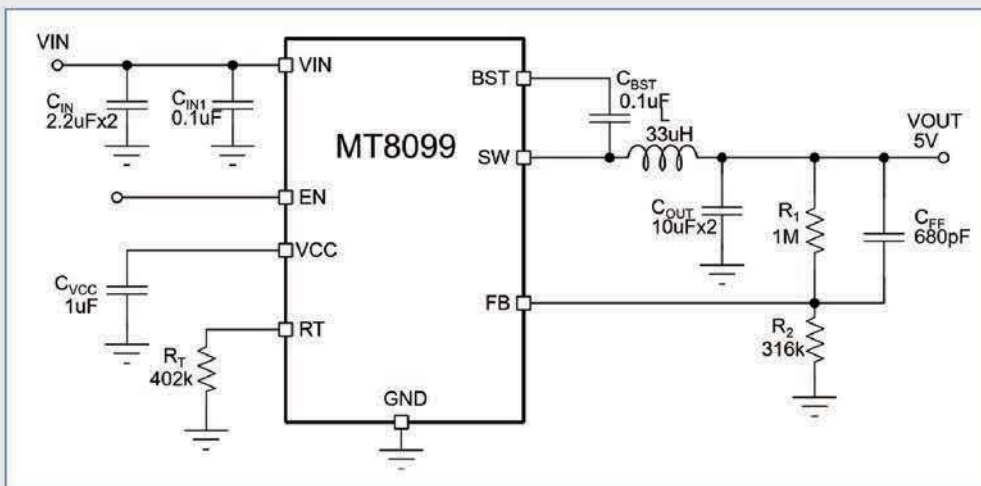
# NEW GENERATION PRODUCTS

## MT8099

80V Input 1A synchronous step-down converter

### FEATURES

|  |  |
|--|--|
| Over-Temperature Protection            | Precision 1.2V internal reference voltage  |
| Available in SOIC8EP Package           | Adjustable switching frequency from 100kHz to 1200kHz  |
| 4.5V to 80V wide operating input range | Internal Soft-Start and loop compensation with pre-biased output capability                      |
| Ultra-low quiescent current 15uA       | Programmable Cycle-by-Cycle current limiting protection and Short Circuit Protection with Hiccup |
| High efficiency PFM control            | Accurate EN pin threshold voltage for programmable input UVLO protection                         |



### APPLICATIONS

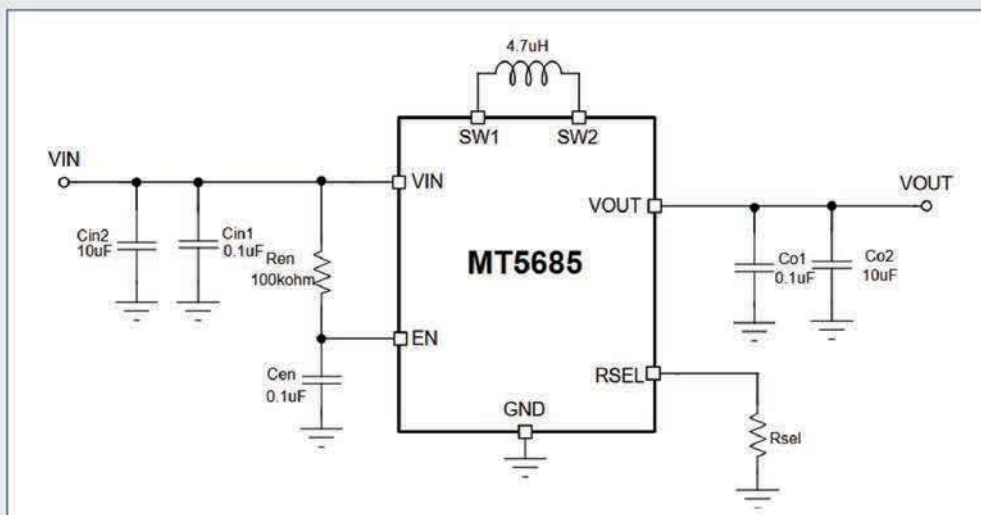
- 48 V Non-Isolated DC-DC Converter
- Automotive applications
- E-bike applications
- USB Type-C Power Delivery
- Industrial DC-DC
- General purpose

## MT5685

250nA Ultra-Low Iq, wide input range, 650mA Synchronous Buck-Boost Converter

### FEATURES

|   |   |
|---|---|
| Input voltage range : 0.4V to 5.5V      | 250nA typical quiescent current   |
| Switching Freq : 2MHz                   | Output voltage range : 1.8V to 5.5V RSEL pin select output voltage.             |
| 0.9V minimum input voltage for start-up | Typical output voltage 1.8V/2V/2.2V/2.5V/2.8V/3V/3.3V/3.5V/3.6V/4V/4.2V/4.5V/5V |
| Input operating voltage down to 0.4V    | 10nA typical shutdown current from VIN and SW                                   |
| Thermal shutdown protections            | Up to 90% efficiency at VIN = 3.6V, VOUT = 5V, and IOU = 10uA                   |
| DFN 2*2mm / SOT583 package              | Up to 88% efficiency at VIN = 3.6V, VOUT = 5V, and IOU = 100mA                  |
| Peak current limit: 650mA               | Automatic Ultra Low Power Mode/DCM/CCM mode transition                          |



### APPLICATIONS

- Wearable devices
- IOT applications
- Battery Powered Applications
- Solar or Fuel Cell Powered Applications
- Consumer and Portable Medical Products
- Personal Care Products

## MT7932

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

### FEATURES

Wide Supply Voltage Range from 3.3V to 33V

36V ABM rating on Port VBUS1 and VBUS2

Integrate a 25mΩ Ultra Low R<sub>dson</sub> Protection Switch

I2C Interface

- Programmable Soft-Start Time
- Programmable current limit
- Programmable ideal diode function
- Programmable Input Over-voltage Threshold
- Programmable power direction

Each Port VBUS1/VBUS2 Independent Control

Analog current monitoring output signal for load current on both ports

Enable Interface Pin

Port Discharge Interface Pin

Bi-direction Control with reverse blocking function

Fast Role Swap

Protection:

- OCP/OVP/UVP
- Thermal Shutdown Protection and Auto Recovery
- Thermal Warning indicator

Fault Indicator

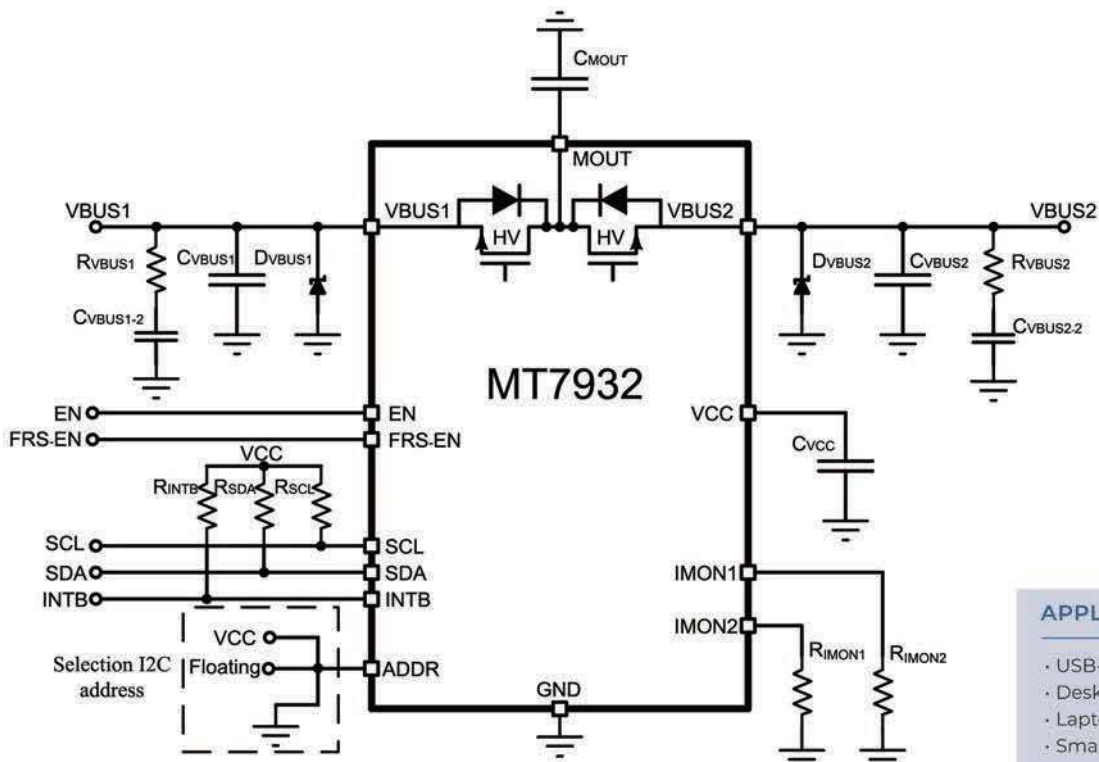
UL/CB IEC 62368-1, File no. E521699

IEC/UL Safety approvals:

Conditions: 33V<sub>in</sub> and 4.5A continues load current

Protective Current Limit Rating: 4.7A

Compact Package QFN 3x3\_16L



### APPLICATIONS

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



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