










AIC Product Promotion Guideline

Marketing Dept.

2012, Sep

-  LDO
-  DDR Termination Regulator
-  Step-up (Boost) Series
-  Inverting Series
-  LV Step-down (Buck) Series
-  HV Step-down (Buck) Series
-  Buck-Boost Series
-  LED Lighting
-  USB Power Switch



LDO - 150mA Output Current

| Priority | Part No. | V _{IN} | I _Q (uA) | I _{OUT} | Suggested Package |
|----------|----------|-----------------|---------------------|------------------|-------------------|
| 1 | AIC1746 | 2V~6V | 80 | 150mA | SOT23, SC70 |
| 2 | AIC1742 | 2.5V~8V | 35 | 150mA | SOT23 |
| 3 | AIC1730 | 3.6V~12V | 55 | 150mA | SOT23 |
| ★ | AIC1701 | 2V~6V | 3 | 150mA | SOT23 |

- Vin = 6V~8V: AIC1742
- Vin = 8V~12V: AIC1730
- Low I_Q requirement: AIC1701
- P2P parts: AME88XX(AME) , G90X/91X/92X(GMT), RT916X/7X(Richtek), XC62XX(Torex),



LDO - 300/350mA Output Current

| Priority | Part No. | V _{IN} | I _Q (uA) | I _{OUT} | Suggested Package |
|----------|-------------------|-----------------|---------------------|------------------|-------------------|
| 1 | AIC1747 | 2V~6V | 80 | 300mA | SOT23, SC70 |
| 1 | AIC1952 (Dual) | 1.6V~6V | 50 | 300/ 300mA | SOT23, DFN6L |
| 2 | AIC1722A | 1.6V~8V | 55 | 300mA | SOT23 |
| 3 | AIC1734 | 1.6V~12V | 55 | 300mA | SOT23 |
| 3 | AIC1731 | 1.6V~12V | 35 | 300mA | SOT23 |
| ★ | AIC1702 | 2V~6.8V | 3 | 350mA | SOT23 |

- Vin = 6V~8V: AIC1722A
- Vin = 8V~12V: AIC1731/34
- Low I_Q requirement: AIC1702
- P2P parts: AME88XX(AME) , G90X/91X/92X(GMT), RT916X/7X(Richtek), XC62XX(Torex),



LDO – 1~2A Output Current

| Priority | Part No. | V _{IN} | I _{OUT} | Suggested Package |
|----------|----------|-----------------|------------------|-------------------|
| 1 | AIC1221 | 2.3V~6V | 2A | SOP8 EP, SOT223 |
| 2 | AIC1190 | 1.6V~6V | 1A | SOP8 EP, SOT223 |

- P2P parts: AME88XX(AME) , G95X/96X(GMT), RT9183(Richtek)
- Future product: Output with soft-start



DDR Termination Regulator

| Part No. | DDR Spec | I _{OUT} | P2P Parts | Package |
|----------|--------------------|------------------|---|---------|
| AIC1385 | DDR/ DDR2/ DDR3 | 2A | AIC: AIC1383A/B Richtek: RT9 Richtek: RT9 GMT: G2 Anpec: APL5 Fitipower: FP6 | SOP8 EP |
| AIC1387 | DDR/ DDR2/ DDR3 | 3A | | SOP8 EP |
| AIC1386 | DDR/ DDR2/ DDR3 | 2A | AIC: AIC1384 NS: LP2 TI: TPS5 Richtek: RT9 GMT: G2 GMT: 2 GMT: 2 | SOP8 EP |
| AIC1388 | DDR/ DDR2/ DDR3 | 3A | | SOP8 EP |

- Application: Power regulation for DDR RAM
- Segment: PC, NB, Tablet PC, STB, Networking, LCD-TV



Step-up (Boost) Series

| Part No. | V _{IN} | V _{OUT} (MAX.) | I _Q (μ A) | I _{OUT} | Suggested Package | P2P Part | Description |
|----------|-----------------|----------------------------|------------------------------|------------------|----------------------|-------------------------------|-------------|
| AIC1642 | 0.9~6V | 5.0V | 15 | 0.35A | SOT23 | XC9(Torex) RT9(Richtek) | Async. |
| AIC3413 | 1.1~5.5V | 5.5V | 40 | 0.6A | SOT23-6 | | Sync. |
| AIC3415 | 1.1~5.5V | 5.5V | 40 | 1.0A | SOT23-6 | | Sync. |
| AIC1896 | 2.5~10V | 30V | 100 | 0.5A | SOT23-6 | | Async. |
| AIC1634 | 2.6~10V | 30V | 100 | 0.5A | SOT23-6 | | Async. |
| AIC3643 | 2.5~5.5V | 22V | | 1A | SOT23-6 | RT9(Richtek) AAT1(AAT) | Async. |
| AIC1610 | 1.8~5.5V | 5.5V | 20 | 1A | MSOP8 | MAX1 (Maxim) NCP1 (Onsemi) | Sync. COT |

- I_{OUT} need to check with AIC FAE, it depends on V_{IN}/V_{OUT} ratio
- Future product: Lower I_Q; Higher current; Higher V_{IN} max.
- LED Backlight application: AIC1896, AIC1634, AIC3643

Inverting Series

| Part No. | V _{IN} | V _{OUT} | I _Q (uA) | Package | P2P Part |
|----------|-----------------|------------------|---------------------|---------|----------------------------------|
| AIC1652 | 2.4~7.0V | -1.22 ~ -40V | 80 | SOP8 | |
| AIC1653 | 1.8~10V | -1.23 ~ -28V | 15 | SOT23-5 | AME5(AME) LT1(LTC) LM2(NS) |

- Small size LCM (Like 華X, 久X...)



LV Step-Down (Buck) Series

| Part No. | V _{IN} | V _{OUT} (MIN.) | I _Q (μ A) | I _{OUT} | Package | P2P Part |
|----------|-----------------|----------------------------|------------------------------|------------------|------------------|--|
| AIC2352 | 2.5~5.5V | 0.6V | 65 | 0.4A | SOT23-5 | RT8(Richtek); EUP3(Eutech) MP2(MPS); AME5(AME) G5(GMT); APW7(ANPEC) AX3(AXEElite); FP6(Feeling) |
| AIC2354 | 2.5~5.5V | 0.6V | 65 | 1.0A | SOT23-5 DFN6L | RT8(Richtek); MPS(MP2) G5(GMT); AT1(GMT) EUP3(Eutech); APW7(Anpec) |
| AIC2359 | 2.5~5.5V | 0.6V | | 1.0A 1.0A | DFN12 | RT8(Richtek); EUP3(Eutech) |
| AIC2362 | 2.5~6V | 0.8V | | 2.0A | SOP8 | G5(GMT) |
| AIC2363 | 2.5~6V | 0.8V | | 3.2A | SOP8EP | G5(GMT) |

- Competitive Price/Performance
- Future product: 4 or 5A; Dual 2A; COT



HV Step-Down (Buck) Series

| Part No. | V _{IN} | V _{OUT} (MIN.) | I _{OUT} | Package | Note | P2P Part |
|--------------------|-----------------|----------------------------|------------------|---------|---------------|--|
| AIC2857 | 4.75~ 23V | 0.92V | 2.0 A | SOP8 EP | Sync. | MP1(MPS); MP2(MPS) Feeling(FP6);FR9(Fitipower); EUP3(Eutech); ZT7(Zilltek) |
| AIC2858 | 4.75~ 23V | 0.92V | 3.0 A | SOP8 EP | Sync. | MP1(MPS); MP2(MPS) RT8 (Richtek) |
| AIC2862 | 4.75~ 23V | 0.92V | 2.0 A | SOP8 EP | Sync. HLLE | MP1(MPS); RT8(Richtek) |
| AIC2565 AIC2566 | 4.75~ 23V | 1.22V 0.92V | 3.0 A | SOP8 EP | Async. | MP1(MPS); MP2(MPS) CAT7(ITE); RT8(Richtek) |

- HLLE: High Light-load Efficiency
- Future product: 4 or 5A; Dual 2A; COT

| Part No. | V _{IN} | I _{OUT} | Control Mode | Suggested Package | App;ication |
|--------------------|-----------------|------------------|-----------------------------------|-------------------|--------------------|
| AIC2516 AIC2517 | 7V~36V | 1.2A | DC DC | SOP8 EP; SOT23 | MR16 Down Light |
| AIC6600 | 5V~70V | 15~35mA | Linear | SOP8 EP; TO252 | Tube light PAR |
| AIC6601 | 5V~70V | 60mA | | TO252 | |
| AIC6602 | 50V~500V | 30mA | | SOP8 EP | |
| AIC6603 | 5V~70V | 35mA | Constant Current Regulation | TO252-3 | Tube light PAR |
| AIC6604 | 5V~70V | 60mA | | TO252-3 | |
| AIC6605 | 50V~500V | 30mA | | TO252-5 | |

- Future product: Dimming; AC/DC



USB Power Switch

| Part No. | Continuous Load Current | Channel | External Control | Error Flag | Package |
|----------|-------------------------|---------|------------------|------------|---------|
| AIC6161 | 0.5A | 1 | Y | Y | SOT23-5 |
| AIC6162 | 0.75A | 1 | Y | Y | SOT23-5 |
| AIC6163 | 1.0A | 1 | Y | Y | SOT23-5 |
| AIC6164 | 1.5A | 1 | Y | Y | SOT23-5 |
| AIC6176 | 0.5A | 2 | Y | Y | SOP8 |
| AIC6178 | 1.0A | 2 | Y | Y | SOP8 |
| AIC6191 | 0.5A | 1 | N | N | SOT23 |
| AIC6193 | 1.0A | 1 | N | N | SOT23 |
| AIC6196 | 0.5A | 2 | N | N | SOT23-5 |
| AIC6198 | 1.0A | 2 | N | N | SOT23-5 |

- AIC619X series are “Bare-Bond USB Switch” and they can replace poly fuses due to better performance.
- Future product: Adjustable current limit