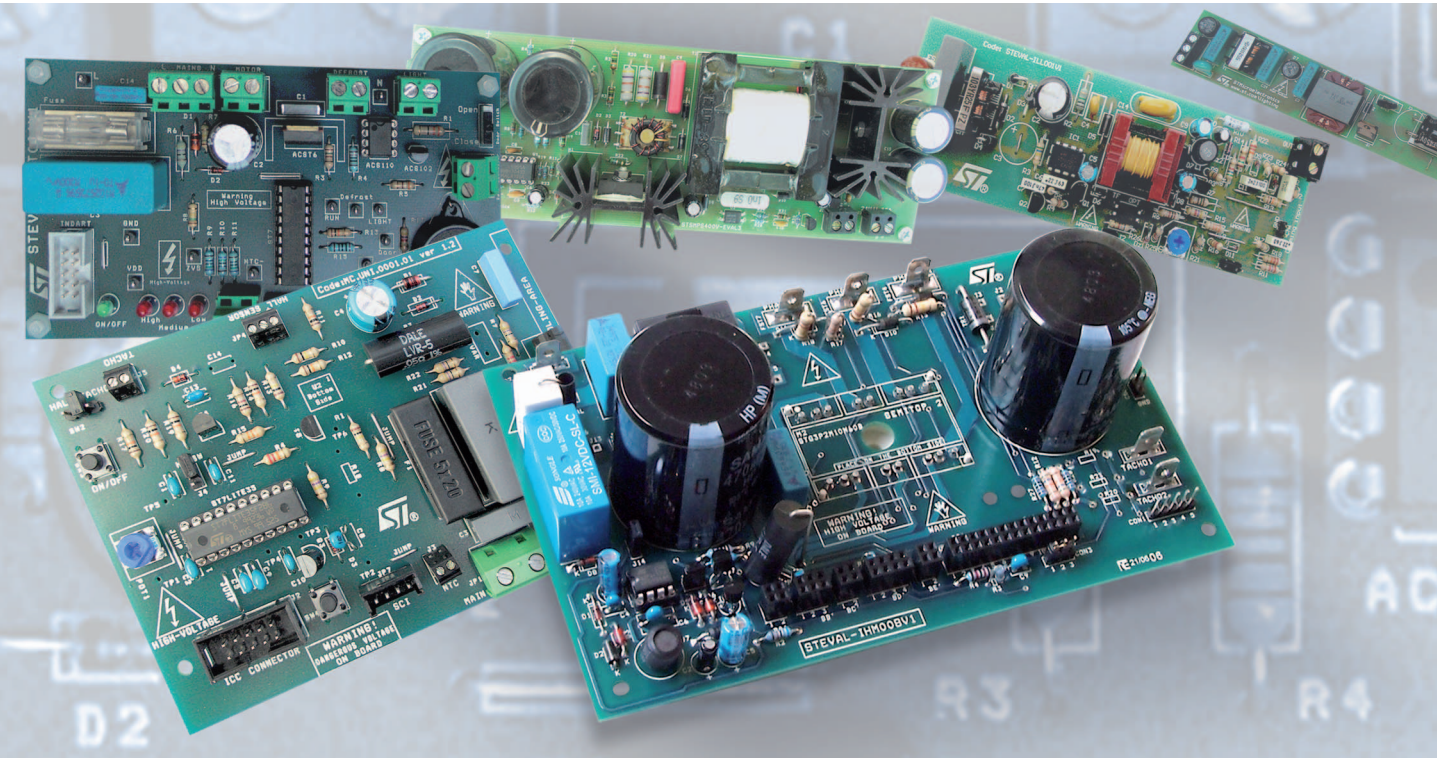


Evaluation boards




STMicroelectronics application support







September 2007

If you want to evaluate ST's microcontrollers, power and analog product families for use in your new design, check out ST's new selection of evaluation boards. These tested and qualified application boards are ready-to-go solutions for your application needs and are available for ordering through www.st.com/evalboards.

Audio

| Sales code | Board | Description | Core products | Document |
|-----------------|---|--|---------------------------------|----------|
| STEVAL-CCA002V1 |  | Low-voltage differential audio power amplifier | Standard linear: TS4994IQT | AN2013 |
| STEVAL-CCA003V1 |  | Low-voltage audio power stereo amplifier | Standard linear: TS4994IQT | AN2049 |
| STEVAL-ICV001V1 |  | Sound / voice playback | 8-bit microcontroller: ST7FLite | AN2400 |

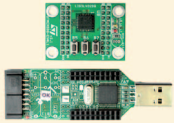
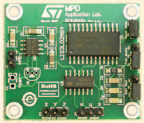
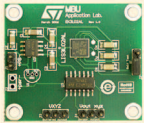
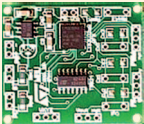





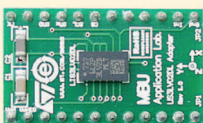
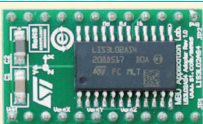
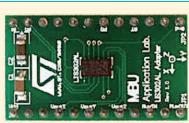
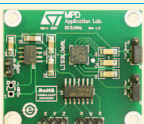
Communication and connectivity

| | | | | |
|----------------|---|---|------------------------------------|----------------------------|
| EVALCOMMBBOARD |  | Communication / control board based on ST72F651AR6 microcontroller for power line communication and industrial products | 8-bit microcontroller: ST72F651AR6 | Data brief: EVALCOMMBBOARD |
| EVALST7538-2 |  | Power-line transceiver board based on ST7538 | Power-line transceiver: ST7538Q | Data brief: EVALST7538-2 |
| EVALST7538DUAL |  | Dual channel power line transceiver board based on ST7538 | Power-line transceiver: ST7538Q | Data brief: EVALST7538DUAL |
| EVALST7540-1 |  | Power-line transceiver board based on ST7540 | Power-line transceiver: ST7540 | AN2451 |





Factory automation

| | | | | |
|-----------------|---|--|----------------------------------|--------|
| STEVAL-IFD001V1 |  | Full USB dongle | 8-bit microcontroller: STR912 | UM0282 |
| STEVAL-IFN001V2 |  | Development kit ST10F276, low cost start development kit | 16-bit microcontroller: ST10F276 | AN2388 |
| STEVAL-IFN002V1 |  | ARMIC30, CAN industrial controller | 32-bit microcontroller: STR730 | UM0193 |
| STEVAL-IFP001V1 |  | High-side driver - 8 channels | High-side drivers: VN808CM | AN2443 |
| STEVAL-IFP002V1 |  | High-side driver - 8 channels | High-side drivers: VN808CM | AN2208 |
| STEVAL-IFP003V1 |  | High-side driver - 4 channels | High-side drivers: VN340 | AN2208 |



Factory automation cont'd.

| Sales code | Board | Description | Core products | Document |
|-----------------|---|--|------------------|----------------------|
| STEVAL-IFS001V1 |  | 3-axis MEMS accelerometer demo | MEMS: LIS3LV02DQ | AN2208 |
| STEVAL-MKI001V1 |  | MEMS analog-output evaluation board | MEMS: LIS3L02AS4 | LIS3L02AS4 datasheet |
| STEVAL-MKI002V1 |  | MEMS analog-output evaluation board | MEMS: LIS3L02AL | LIS3L02AL datasheet |
| STEVAL-MKI003V1 |  | MEMS analog-output evaluation board | MEMS: LIS3L02AQ3 | LIS3L02AQ3 datasheet |
| STEVAL-MKI004V1 |  | MEMS 3-axis $\pm 2g/\pm 6g$ digital-output low-voltage linear accelerometer evaluation board | MEMS: LIS3LV02DQ | LIS3LV02DQ datasheet |
| STEVAL-MKI005V1 |  | MEMS 3-axis $\pm 2g/\pm 6g$ digital-output low-voltage linear accelerometer evaluation board | MEMS: LIS3LV02DL | LIS3LV02DL Datasheet |
| STEVAL-MKI006V1 |  | MEMS 3-axis $\pm 2g/\pm 8g$ digital-output low-power linear accelerometer evaluation board | MEMS: LIS302DL | LIS302DL datasheet |
| STEVAL-MKI007V1 |  | MEMS analog-output low-power 3-axis linear accelerometer | MEMS: LIS302ALB | LIS302ALB datasheet |
| STEVAL-MKI008V1 |  | MEMS analog-output low-power 3-axis linear accelerometer | MEMS: LIS302ALK | LIS302ALK datasheet |
| STEVAL-MKI009V1 |  | Adapter board to be plugged into a standard DIL 20 socket | MEMS: LIS3LV02DL | LIS3LV02DL datasheet |
| STEVAL-MKI010V1 |  | Adapter board to be plugged into a standard DIL 20 socket | MEMS: LIS3L02AS4 | LIS3L02AS4 datasheet |
| STEVAL-MKI011V1 |  | Adapter board to be plugged into a standard DIL 20 socket | MEMS: LIS3L06AL | LIS3L06AL datasheet |
| STEVAL-MKI012V1 |  | MEMS analog-output evaluation board | MEMS: LIS3L06AL | LIS3L06AL datasheet |




Home appliance control

| Sales code | Board | Description | Core products | Document |
|-----------------|---|---|--|----------|
| STEVAL-IHC001V1 |  | Single-plate Induction cooker | 8-bit microcontroller: ST7Lite09 IGBT: STGW40NC60WD | AN2383 |
| STEVAL-IHM012V1 |  | Cordless-drill evaluation board | 8-bit microcontroller: ST7FLITEUS5 | UM0291 |
| STEVAL-IHT001V1 |  | Thermostat control board for refrigerator | 8-bit microcontroller: ST7LITE39 | UM0277 |
| STEVAL-IHT002V1 |  | Basic thermostat control board for cooling applications | 8-bit microcontroller: ST7Ultralite | AN2446 |



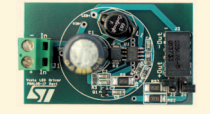


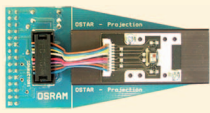
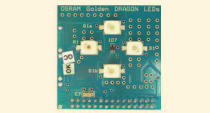






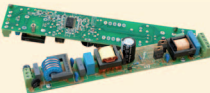
Home automation

| | | | | |
|-----------------|---|---------------------|---|--------|
| STEVAL-IAC001V1 |  | Alarm platform | 8-bit microcontroller: ST72321 | UM0272 |
| STEVAL-SCM001V1 |  | RTC dongle demo USB | Advanced analog: M41T62 8-bit microcontroller: ST7 | |

Lighting

| | | | | |
|-----------------|---|---|--|--------|
| STEVAL-ILB001V2 |  | 36 W - 220 Vac low-cost HF ballast using the bipolar solution for PFC | Diodes | AN2349 |
| STEVAL-ILB002V1 |  | Fixed output digital ballast for T5 and T8 fluorescent tubelamps | 8-bit microcontroller: ST7Flite19BF1B6 Power supply: L6382D5 | AN2459 |
| STEVAL-ILC001V1 |  | CCFL backlight half-bridge | Power MOSFET: STD7NS20T4 | |
| STEVAL-ILL001V1 |  | Dimmable driver for HB power LEDs (DALI connector) | ViPer: ViPer22A | AN2042 |
| STEVAL-ILL002V1 |  | HB LED with diagnostics (40 Osram blue LED) | Advanced logic: STFP311 STP08CDC596 | AN2415 |
| STEVAL-ILL002V2 |  | HB LED with diagnostics (40 Toshiba green LED) | Advanced logic: STP08CDC596 | AN2415 |
| STEVAL-ILL003V1 |  | HB LED without diagnostics (32 LED) | Advanced logic: STP16CP596 | AN2141 |
| STEVAL-ILL004V2 |  | Phase control dimmer board | 8-bit microcontroller: ST7FLITEUS5B6 | AN2425 |

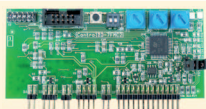
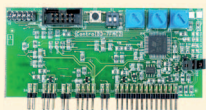
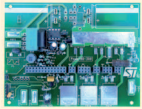
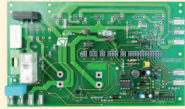
Lighting cont'd.

| Sales code | Board | Description | Core products | Document |
|-----------------|---|--|--|----------|
| STEVAL-ILL005V1 |  | VIPer12A offline, constant-current driver for high-intensity LEDs | VIPer: VIPer12A | AN1916 |
| STEVAL-ILL006V1 |  | VIPer22A offline, constant-current driver for high-intensity LEDs | VIPer: VIPer22A | AN1916 |
| STEVAL-ILL007V1 |  | High-intensity LED driver for MR-16 format | Power supply: L5973D | AN2259 |
| STEVAL-ILL008V1 |  | LED flashlight demo | Power supply: L6920D | AN1941 |
| STEVAL-ILL009V1 |  | RGB color control board | Advanced logic: STP04CM596 | AN2531 |
| STEVAL-ILL009V3 |  | OSTAR projection module | Advanced logic: STP04CM596 | AN2531 |
| STEVAL-ILL009V4 |  | OSRAM dragon LEDs module | Advanced logic: STP04CM596 | AN2531 |
| STEVAL-ILL011V1 |  | RGB color control board for LCD backlighting | Advanced logic: ST6P8CL596 microcontroller: ST7 | UM0419 |
| STEVAL-TLL001V1 |  | White LED controller | Voltage regulator: STLD40D | AN2333 |
| STEVAL-TLL002V1 |  | Flash driver | Voltage regulator: STCF01 | AN2243 |
| STEVAL-TLL003V1 |  | Power Flash driver | Voltage regulator: STCF02 | AN2304 |
| EVAL6569 |  | L6569 high-voltage half-bridge driver with oscillator evaluation board | Ballast half-bridge driver: L6569 | AN880 |
| EVAL6574B |  | L6574 CFL/TL ballast driver preheat and dimming evaluation board | Ballast half-bridge driver: L6574 | AN993 |
| EVAL6585D-230V |  | L6585D Combo IC for PFC and ballast control evaluation board | Ballast half-bridge driver: L6585D | AN2524 |

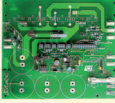




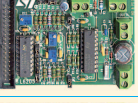


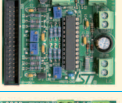




Metering

| Sales code | Board | Description | Core products | Document |
|-----------------|---|--|--|----------|
| STEVAL-IPA001V1 |  | Anti-tamper and security kit | Advanced analog: STM1403 μPSD DK3422 (WAKY) | UM0283 |
| STEVAL-IPB001V1 |  | 2 W 3 -phase SMPS for breaker based on ESBT | ESBT: STC04IE170HP | AN1889 |
| STEVAL-IPC001V1 |  | Electronic fiscal cash register | 8 bits microcontroller: ST7FLite0S2Y0M6 | UM0293 |
| STEVAL-IPE001V1 |  | Energy meter (mono phase) / main board + STEVAL-IPE002V1 | Interface: STPM01 | UM0164 |
| STEVAL-IPE002V1 |  | Energy meter (mono phase) / 2 current transformer measurement board | Interface: STPM01 | UM0128 |
| STEVAL-IPE003V1 |  | Energy meter (mono phase) / 1 current transformer + shunt measurement board | Interface: STPM01 | UM0125 |
| STEVAL-IPE004V1 |  | Energy meter (mono phase) / 1 shunt measurement board | Interface: STPM01 | UM0129 |
| STEVAL-IPE006V2 |  | High-end energy meter | Microcontroller: μPSD33XX | UM0128 |
| STEVAL-IPE007V1 |  | Mono-phase energy meter based on ST7Flite | Micro: ST7Flite | UM0221 |
| STEVAL-IPR001V1 |  | RFID reader evaluation board | Microcontroller: μPSD34XX | UM0230 |


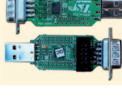
Motor control

| | | | | |
|-----------------|---|--|--------------------------------|--------|
| STEVAL-IHM001V1 |  | BLDC and AC motor control board | 8-bit microcontroller: ST7FMC2 | UM0121 |
| STEVAL-IHM002V1 |  | BLDC and AC motor control board + inDART | 8-bit microcontroller: ST7FMC2 | UM0121 |
| STEVAL-IHM003V1 |  | BLDC and AC motor control: power board 300 W | IGBT: STGB6NC60HD | UM0122 |
| STEVAL-IHM004V1 |  | BLDC and AC motor control: power board 1 kW | IGBT: STGF10NC60KD | UM0122 |

Motor control cont'd.

| Sales code | Board | Description | Core products | Document |
|-----------------|---|---|-------------------------------------|----------|
| STEVAL-IHM005V1 |  | BLDC and AC motor control: power board 3 kW | IGBT: STGW20NC60VD | UM0122 |
| STEVAL-IHM006V1 |  | AC/AC chopper driver | 8-bit microcontroller: ST7LITE05 | AN2316 |
| STEVAL-IHM007V1 |  | Universal motor control starter kit (phase angle partialization) | 8-bit microcontroller: ST7LITE30 | UM0243 |
| STEVAL-IHM008V1 |  | Power board based on SEMITOP 2 | IGBT: STG3P2M10N60B | UM0251 |
| STEVAL-IHM009V1 |  | Power board based on SEMITOP 3 | IGBT: STG3P3M25N60 | UM0252 |
| EVAL6205N |  | L6205 DMOS dual full-bridge driver evaluation board | Dual H-bridge: L6205 | AN1762 |
| EVAL6206N |  | L6206 DMOS dual full-bridge driver in PowerDIP package evaluation board | Dual H-bridge: L6206 | AN1762 |
| EVAL6206PD |  | L6206 DMOS dual full-bridge driver in PowerSO package evaluation board | Dual H-bridge: L6206 | AN1762 |
| EVAL6207N |  | L6207N DMOS dual full-bridge driver with power MOSFET current controller evaluation board | Dual H-bridge: L6207 | AN1762 |
| EVAL6208N |  | L6208 DMOS driver for bipolar stepper motor in PowerDip package evaluation board | Stepper driver: L6208 | AN1451 |
| EVAL6208PD |  | L6208 DMOS driver for bipolar stepper motor in PowerSO package evaluation board | Stepper driver: L6208 | AN1451 |
| EVAL6229PD |  | L6229 DMOS driver for three-phase brushless DC motor evaluation board | Three-phase brushless driver: L6229 | AN1625 |
| EVALPRACTISPIN |  | PractiSPIN interface board | Interface board | AN1794 |














PC peripheral interface

| | | | | |
|-----------------|---|---------------------------------|--------------------------------|--------|
| STEVAL-PCC001V1 |  | Full-speed USB to serial bridge | 8-bit microcontroller: ST72F65 | UM0323 |
| STEVAL-PCC002V1 |  | Low-speed USB to serial bridge | 8-bit microcontroller: ST7263B | UM0250 |

Power supply and power management

| Sales code | Board | Description | Core products | Document |
|-----------------|---|--|--|------------------------------|
| DEMOTSM108 |  | TSM108 voltage and current step-down power MOSFET controller evaluation board | Voltage and current controller: TSM108 | AN1695 |
| EVAL4971 |  | L4971 1.5 A step-down switching regulator evaluation board | Step down: L4971 | AN937 |
| EVAL4973 |  | L4973 3.5 A step-down switching regulator evaluation board | Step down: L4973 | AN938 |
| EVAL5970D |  | L5970D up to 1 A step-down switching regulator evaluation board | Step down: L5970D | AN1330 |
| EVAL5972D |  | L5972D up to 2 A step-down switching regulator evaluation board | Step down: L5972D | AN1517 |
| EVAL5973AD |  | L5973AD 2 A step-down switching regulator evaluation board | Step down: L5973AD | AN1723 |
| EVAL5973D |  | L5973D up to 2.5 A step-down switching regulator evaluation board | Step down: L5973D | AN1518 |
| EVAL6562-250W |  | L6562 250 W high-performance TM PFC | Power factor corrector: L6562 | Data brief: EVAL6562-250W |
| EVAL6562-80W |  | L6562 80 W high-performance transition mode PFC evaluation board | Power factor corrector: L6562 | Data brief: EVAL6562-80W |
| EVAL6563-400W |  | 400 W FOT PFC wide-range mains preregulator | Power factor corrector: L6563 | Data brief: EVAL6563-400W |
| EVAL6563-80W |  | L6563 80 W high-performance TM PFC with active tracking boost function evaluation board | Power factor corrector: L6563 | Data brief: EVAL6563-80W |
| EVAL6599-200W |  | 200 W, 12 V-24 V, half-bridge LLC resonant SMPS with auxiliary for LCD TV evaluation board | Resonant controller: L6599 | AN2393 |
| EVAL6599-400W-S |  | Wide-range 400 W L6599-based HB LLC resonant converter for PDP application | Resonant controller: L6599 | AN2492 |
| EVAL6599-400W-T |  | Wide-range 400 W (+200 V @ 1.6 A / +75 V @ 1 A) L6599-based HB LLC resonant converter | Resonant controller: L6599 | AN2509 |
| EVAL6599-90W |  | L6599 90 W high-performance half-bridge LLC resonant SMPS with PFC evaluation board | Resonant controller: L6599 | AN2321 |

Power supply and power management cont'd.

| Sales code | Board | Description | Core products | Document |
|----------------|---|---|--|-----------------------|
| EVAL6668-STB |  | L6668 40 W high-performance flyback converter evaluation board | Power MOSFET controller: L6668 | AN2242 |
| EVAL6725 |  | L6725 adjustable step-down controller with synchronous rectification evaluation board | Step down: L6725 | Data brief: EVAL6725 |
| EVAL6730 |  | L6730 adjustable step-down controller with synchronous rectification evaluation board | Step down: L6730 | Data brief: EVAL6730 |
| EVAL6732 |  | L6732 adjustable step-down controller with synchronous rectification evaluation board | Step down: L6732 | Data brief: EVAL6732 |
| EVAL6920D |  | L6920D 1 V high-efficiency synchronous step-up converter evaluation board | Step up: L6920 | Data brief: EVAL6920D |
| EVAL6920DB1 |  | L6920DB synchronous rectification step-up converter evaluation board | Step up: L6920DB | AN2206 |
| EVAL6926D |  | L6926 high-efficiency monolithic synchronous step-down regulator evaluation board | Step down: L6926 | AN1882 |
| EVAL6928D |  | L6928D high-efficiency monolithic synchronous step-down regulator evaluation board | Step down: L6928 | AN2115 |
| EVAL6928Q1 |  | L6928Q1 high-efficiency monolithic synchronous step-down converter evaluation board | Step down: L6928 | AN2115 |
| EVALSTSR30-60W |  | 60 W flyback SMPS with secondary synchronous rectification evaluation board | Power MOSFET controller: L6668 Synchronous rectification controller: STSR30 | AN2432 |
| EVALPM6680 |  | Two adjustable outputs power controller for notebook PC chipset power evaluation board | Multi-output regulator: PM6680 | AN2565 |
| EVALPM6680A |  | Dual synchronous step-down controller with adjustable output voltages plus LDO evaluation board | Multi-output regulator: PM6680A | AN2566 |
| EVAL6902D |  | L6902D 1 A constant-current battery charger evaluation board | Step down: L6902D | Data brief: EVAL6924D |
| EVALTSM1052 |  | TSM1052 constant-voltage and constant-current controller for battery chargers and adapters evaluation board | Voltage and current controllers: TSM1052 | AN2448 |
| EVAL6924D |  | L6924D battery charger system with integrated power switch for Li-Ion/Li-Polymer evaluation board | Voltage and current controllers for battery management: L6924D | Data brief: EVAL6902D |




Power supply and power management cont'd.

| Sales code | Board | Description | Core products | Document |
|-----------------|---|---|---|----------|
| STEVAL-ISA001V1 |  | VIPer12A dual-output reference board 85 to 264 Vac input, 6 W output | VIPer: VIPer12A | AN1733 |
| STEVAL-ISA002V1 |  | VIPer12A single-output reference board 85 to 264 Vac input, 6 W output | VIPer: VIPer12A | AN1734 |
| STEVAL-ISA004V1 |  | VIPer22A dual-output reference board 90 to 264 Vac input, 10 W output | Viper: VIPer22 | AN1736 |
| STEVAL-ISA005V1 |  | 1.8 W buck topology power supply with VIPer12AS | VIPer: VIPer12AS | AN1894 |
| STEVAL-ISA006V1 |  | 6 W non-isolated flyback topology power supply with VIPer12AS | VIPer: VIPer12AS | AN1934 |
| STEVAL-ISA007V1 |  | 3-phase auxiliary power supply design (150 W) | ESBT: STC08DE150 Power supply: L5991 | AN2131 |
| STEVAL-ISA008V1 |  | VIPer53 low-cost wide-range power supply for LCD or TV, 28 W output | Viper: VIPer53 | AN1732 |
| STEVAL-ISA009V1 |  | VIPer53 single-output reference board 90 to 264 Vac input, 24 W output | Viper: VIPer53 | AN2001 |
| STEVAL-ISA011V1 |  | Viper12A low-power AC-DC adapter (suitable for STEVAL-ILL002V1) | Viper: Viper12A | AN2272 |
| STEVAL-ISA012V1 |  | 3-phase power supply with VIPer + MOSFETs | Viper: Viper12AS MOSFET: STD3NK50Z | AN2264 |
| STEVAL-ISA013V1 |  | VIPer53 dual-output offline, wide-range power supply, 24 W output | Viper: VIPer53 | AN2000 |
| STEVAL-ISA014V1 |  | VIPer12A travel adaptor 3.6 W output | Viper: Viper12A | AN1484 |
| STEVAL-ISA015V2 |  | 3-phase power supply with ESBT (100 W) | ESBT: STC04IE170HV | AN2252 |
| STEVAL-ISA019V1 |  | 80 W ESBT quasi-resonant wide-range SMPS with L6565 for 3-phase application | Power supply: L6565 ESBT: STC04IE17 | AN2252 |
| STEVAL-ISA021V1 |  | VIPer22A single-output reference board 90 to 264 Vac input, 11 W output | VIPer: VIPer22A | AN1735 |

Power supply and power management cont'd.

| Sales code | Board | Description | Core products | Document |
|-----------------|---|---|---------------------------------|------------------|
| STEVAL-ISA022V1 |  | 6 W isolated flyback topology power supply with VIPer12AS | Viper: VIPer12AS | AN2103 |
| STEVAL-ISA023V1 |  | Flyback AC-DC converter / 24 W positive output | Viper: VIPer53E | AN2426 |
| STEVAL-ISA023V2 |  | Flyback AC-DC converter / 24 W negative output | Viper: VIPer53E | AN2426 |
| STEVAL-ISA024V1 |  | Step-down DC-DC converter at 3.3 Vout / 20 A switching frequency 250 kHz | Power supply: L6725 | L6725 datasheet |
| STEVAL-ISA025V1 |  | Step-down DC-DC converter at 3.3 Vout / 30 A switching frequency 400 kHz | Power supply: L6730 | L6730 datasheet |
| STEVAL-ISA026V1 |  | Step-down DC-DC converter at 3.3 Vout / 20 A switching frequency 250 kHz | Power supply: L6732 | L6732 datasheet |
| STEVAL-ISA027V1 |  | Single-phase step-down converter | Power Supply: L6726A | L6726A datasheet |
| STEVAL-ISA028V1 |  | Single phase step-down converter | Power supply: L6727 | L6727 Datasheet |
| STEVAL-ISA029V1 |  | Compact power supply for DVD / set-top-box with three Vout (-30 V / +3.3 V / +12 V) | Viper: VIPer53 | |
| STEVAL-ISA030V1 |  | 6 W 3-phase SMPS for metering | ESBT: STC04IE170HP | AN2528 |
| STEVAL-ISA037V1 |  | Single-phase 20 A step-down based on power MOSFET controller with PowerGOOD L6728 | Power supply: L6728 | L6728 Datasheet |
| STEVAL-ISA038V1 |  | Single-phase 5 A step-down based on power MOSFET controller with PowerGOOD L6728 | Power supply: L6728 | L6728 Datasheet |
| STEVAL-ISB001V1 |  | Cell-phone battery charger | Power MOSFET: STD1LNK60Z | AN2228 |
| STEVAL-ISB002V1 |  | Digital-camera battery charger design | 8-bit microcontroller: ST72F324 | |

Set-top-box

| Sales code | Board | Description | Core products | Document |
|-----------------|---|--|-------------------------|----------|
| STEVAL-CBP001V2 |  | STB / DVD front panel with LED | Advanced logic: STFP311 | UM0276 |
| STEVAL-ISA016V1 |  | Power supply for STB based on L6565 (EU-220 V) | Power supply: L6565 | AN2447 |
| STEVAL-ISA017V1 |  | Power supply for STB based on L6565 (US-110 V) | Power supply: L6565 | AN2447 |



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