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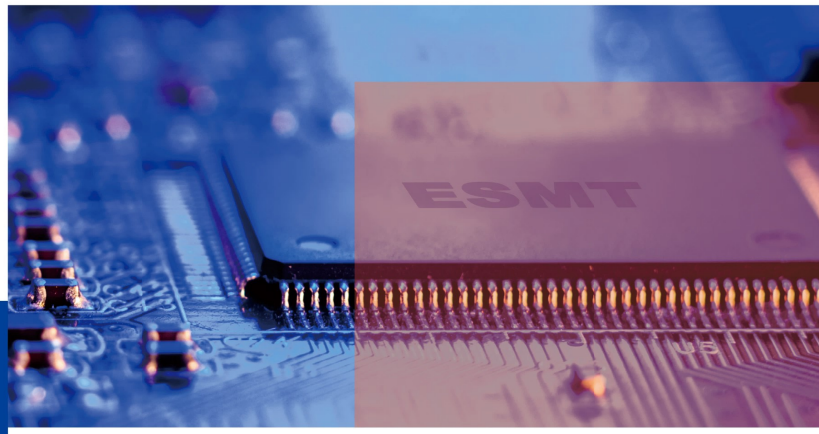


# 2023 SELECTION GUIDE

- WIRELESS APPLICATIONS
- POWER AND MOTOR CONTROL APPLICATIONS
- SENSOR AND MCU APPLICATIONS

## WIRELESS APPLICATIONS

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### WIRELESS SOC

| Product ID | MCU | Frequency | Modulation | power | Tx Current | Sleep current | Memory | Peripheral | Data Rate | Power supply | Operation Temp. | Package | SDK/DVB/EVB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XS8001-T | 32bits Andes Core | 778Mhz-928Mhz | BPSK / GFSK (SW) | 23dbm max. | 130mA @22dbm | 7uA | 128kB flash / 24kB ram | GPIO,SPI,UART, PWM,I2C | 100 to 600bps (Sigfox) 50k to 100kbps (TrExt) | 2.5V to 3.5V | -40°C to 85°C | QFN 5x5 48L | available |

### WIRELESS TRANSCEIVER

| Product ID | Frequency | Modulation | Tx / Rx (100kbps) | Tx Current | shut down current | Rx Current @ 915Mhz, 100kbps | NFC ISO 14443A | Peripheral | Data Rate | Power supply | Operation Temp. | Package | SDK/DVB/EVB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ER4101 | 778MHz<->1020MHz | GFSK / FSK | 10dbm / -102dbm | 18mA | 0.9uA | 12mA | V | 4-wire SPI , GPIO | 1.25Kbps to 2Mbps | 1.8V to 3.6V | -40°C to 85°C | QFN 4x4 24L | available |
| ER4100 | 389MHz<->510MHz | GFSK / FSK | 10dbm / -102dbm | 18mA | 0.9uA | 12mA | - | 4-wire SPI , GPIO | 1.25Kbps to 2Mbps | 1.8V to 3.6V | -40°C to 85°C | QFN 4x4 24L | available |
| ER4110 | 194.5MHz<->255MHz | GFSK / FSK | 23dbm / -102dbm | 160mA | 0.9uA | 12mA | - | 4-wire SPI , GPIO | 1.25Kbps to 2Mbps | 1.8V to 3.6V | -40°C to 85°C | QFN 4x4 24L | available |
| ER4111 | 97.25MHz<->127.5MHz | GFSK / FSK | 23dbm / -102dbm | 160mA | 0.9uA | 12mA | V | 4-wire SPI , GPIO | 1.25Kbps to 2Mbps | 1.8V to 3.6V | -40°C to 85°C | QFN 4x4 24L | available |

### RF MODULE

| Product ID | MCU | Protocol | Frequency | Operation Voltage | Modulation | NFC | Tx / Rx | Tx current | Rx current | Operating Temp | Data Rate | Peripheral | Form factor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BSM8001-02 | 32bit AndesCore | Sigfox | 902Mhz-928MHz | 3.3V to 5.5V | BPSK | - | 23dbm /- | 130mA@22dbm | - | -40°C to 85°C | 100 to 600bps | UART, GPIO | LGA 29 24mm x 13.5mm |
| BSM8001-05 | 32bit AndesCore | Sigfox | 868MHz-928MHz | 3.3V to 5.5V | BPSK | - | 13/14/22dbm /- | 130mA@22dbm | - | -40°C to 85°C | 100 to 600bps | UART, GPIO | LGA 29 24mm x 13.5mm |
| BTM8001-05-T | 32bit AndesCore | TrExt | 920-925Mhz | 3.3V to 5.5V | GFSK | - | 17dbm /- | 49mA@17dbm | - | -40°C to 85°C | 50k to 100k bps | UART, GPIO | 24mm x 13.5mm (RF IPEX connector) |
| BTM8001-06-TRF | 32bit AndesCore | TrExt | 920-925Mhz | 3.3V to 5.5V | GFSK | - | 17dbm / -105dbm | 49mA@17dbm | 28mA | -40°C to 85°C | 50k to 100k bps | UART, GPIO | 42.5 x 40 x 1.2mm,4L (RF IPEX connector) |
| BTM8001-07-TRF | 32bit AndesCore | TrExt | 920-925Mhz | 3.3V to 5.5V | GFSK | - | 17dbm / -105dbm | 102mA@17dbm | 66mA | -40°C to 85°C | 50k to 100k bps | UART, GPIO | |
| BTM8001-19-G1-NDY | 32bit AndesCore | TrExt | 920-925Mhz | 2.7V~3.6V | GFSK | - | 15dbm / -105bdm | 49mA@15dbm | 28mA | -20°C to 70°C | 50k to 100k bps | UART, GPIO | 25mm x 25mm x 0.8mm (RF IPEX connector) or SMA (option) |
| BRM4111XX | - | - | 230Mhz;315Mhz;433Mhz; 470Mhz;490Mhz;868Mhz; 915Mhz | 1.8V to 3.3V | GFSK / FSK | V | 23dbm /-102dbm | 160mA | | -40°C to 85°C | 1.25k to 2M bps | SPI, GPIO | 25mm x 20mm x 1mm |
| BRM4101XX | - | - | 230Mhz;315Mhz;433Mhz; 470Mhz;490Mhz;868Mhz; 915Mhz | 1.8V to 3.3V | GFSK / FSK | V | 10dbm /-102dbm | 18mA | | -40°C to 85°C | 1.25k to 2M bps | SPI, GPIO | 25mm x 20mm x 1mm |
| BRM4110XX | - | - | 230Mhz;315Mhz;433Mhz; 470Mhz;490Mhz;868Mhz; 915Mhz | 1.8V to 3.3V | GFSK / FSK | - | 23dbm /-102dbm | 160mA | | -40°C to 85°C | 1.25k to 2M bps | SPI, GPIO | 25mm x 20mm x 1mm |
| BRM4100XX | - | - | 230Mhz;315Mhz;433Mhz; 470Mhz;490Mhz;868Mhz; 915Mhz | 1.8V to 3.3V | GFSK / FSK | - | 10dbm /-102dbm | 18mA | | -40°C to 85°C | 1.25k to 2M bps | SPI, GPIO | 25mm x 20mm x 1mm |

### WIRELESS SYSTEM BOARD

| Product ID | MCU | Protocol | Operation Voltage | Frequency | Temperature accuracy | Humidity accuracy | Tx power | Tx current @ 20dbm | Data Rate | Operation Temp | NFC ISO14443A | LED | Form Factor | Others |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cars-S | 32bits AndesCore | Sigfox | 2.5V to 5.5V | RCZ1-6 Autozone | - | - | 8 to 20dbm | 130mA | 100bps to 600bps | -30C~+80C | - | - | 52mm x 40mm | Integrate GPS module |
| TriGo | 32bits AndesCore | Sigfox TrExt | 2.5V to 3.0V | RCZ1-7 868~928Mhz | ±3°C | - | 8 to 20dbm | 130mA | 100bps to 600bps 50k to 100k bps | -10°C~+60°C | - | V | 75mm x 37mm x17mm | |
| Senlog Pro | 32bits AndesCore | Sigfox TrExt | 2.5V to 3.0V | RCZ1-7 868~928Mhz | ±0.5°C | - | 8 to 20dbm | 130mA | 100bps to 600bps 50k to 100k bps | -10°C~+60°C | - | V | 75mm x 37mm x17mm | Micro USB connector |
| Senlog Pro II | 32bits AndesCore | Sigfox TrExt | 2.5V to 3.0V | RCZ1-7 868~928Mhz | ±0.5°C | ±2% RH | 8 to 20dbm | 130mA | 100bps to 600bps 50k to 100k bps | -10°C~+60°C | V | V | 75mm x 37mm x17mm | |

## SENSORS AND MCU APPLICATIONS

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### HIGH-PRECISION AFE MICRO-CONTROLLER

| Product ID | Supply voltage | MTP | SRAM | Timer/ PWM | UART | SPI | I2C | HW INT | CMP | ADC | OP | RTC | OCD | LCD | Package Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FE81160A | 2.4 ~ 3.6V | 4K x 16 bits | 1KB | 6 | • | • | • | 4 | 1 | 8CH | 1 | • | • | 4 x 20 | LQFP-48L |
| FE81161A | 2.4 ~ 3.6V | 4K x 16 bits | 1KB | 1 | • | X | • | 1 | 1 | 3CH | 1 | • | • | X | TSSOP-24L |
| FE81162A | 2.4 ~ 3.6V | 4K x 16 bits | 1KB | 6 | • | X | • | 1 | 1 | 3CH | 1 | • | • | 4 x 14 | TSSOP-28L |

### HIGH-PRECISION ANALOG-FRONT END

| Product ID | Supply voltage | Supply curren: Active | Supply curren: Standby | ENOB | Signal Channel | VREF Channel | PGA gain | # IDAC Channel | Diagnoitic function | Internal T sensor | Package Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AFE6160A | 2.5~3.6V | 300uA | 6uA | 20 bits | 3 | 2 | 1x~2048x | 2 | YES | YES | QFN3x3-16L |

### IR-CUT DRIVER

| Product ID | Supply voltage | Control Mode | Output headroom voltage 200mA | 300mA | 400mA | Operation Temperature | Package Type | Staus |
|---|---|---|---|---|---|---|---|---|
| ET1511A | 1.8~5.5V | Dual-wire | 0.36V | 0.57V | 0.81V | -40~85°C | SOT23-6L | MP |
| ET1511B | 1.8~5.5V | Single-wire | 0.36V | 0.57V | 0.81V | -40~85°C | SOT23-6L | MP |

### TEMPERATURE SENSOR

| Product ID | Type | Supply voltage | TEMP accuracy (max.) | Supply current Active | Supply current shutdown | resolution | # device addresses | digital interface | Operation Temperature | Package Type |
|---|---|---|---|---|---|---|---|---|---|---|
| ETS75A | Local | 2.5~5.5V | 1°C@0~100°C 2°C@-40~125°C | 125uA | 4.5uA | 0.0625°C | 32 | I2C | -40~85°C | EMSOP-8L |

# POWER AND MOTOR CONTROL APPLICATIONS

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## LDO

| Part # | Product Status | Package | Iout (mA) | Vin (Max) | Vin (Min) | Vout | Vout Accuracy | Iq (uA) | Dropout Voltage (Vout=3.3V) | Fold-back SCP | Soft-start | Auto Discharge | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EHP878L | Under dev. | TO-92, SOT-23-3, SOT-89-3, SOP-8 | 100 | 30 | 7 | Fixed | ±5% | 300 | 800mV | | N | N | Fixed for 3.3 / 5V |
| EHP8042 | MP | SOT-23-3, SOT-23-5, SOT-89-3, xDFN1x1-4 | 150 | 24 | 2.7 | Fixed | ±2% | 1.5 | 1200mV@150mA | N | N | Y | |
| ○ EMP8042B | MP | SOT-23-5, SOT-89-3 | 150 | 20 | 3 | Adj, Fixed | ±1% | 13 | 780mV@150mA Vout=5V | N | N | Y | ±1% Vout Accurency |
| ○ EMP8040B | MP | SOT-23-5 | 150 | 40 | 3 | Adj | ±1% | 10 | 780mV@150mA Vout=5V | N | N | Y | ±1% Vout Accurency |
| ○ EMP8041B | MP | SOT-23-5, SOT-89-3 | 150 | 40 | 3 | Fixed | ±1% | 12 | 780mV@150mA Vout=5V | N | N | Y | ±1% Vout Accurency |
| EMP8045 | MP | E-SOP-8L | 150 | 32 | 3 | Fixed | ±1.5% | 10 | 780mV@150mA Vout=5V | Y | N | Y | Automotive Grade |
| EHP8041 | MP | SOT-23-3, SOT-23-5, SOT-89-3, WDFN3x3-8 | 250 | 40 | 2.7 | Fixed | ±2% | 1.5 | 1200mV@250mA | N | N | Y | Fixed for 1.5/1.8/2.5/3.3/5V |
| EMP8150 | MP | SOT-23-5, uDFN1x1-4 | 250 | 5.5 | 1.8 | Fixed | ±1% | 1 | 220mV@250mA Vout=3.3V | Y 50mA | Y | Y | Low Iq: 1μA typical quiescent current at no Load |
| EHP8150 | MP | SOT-23-3, SOT-23-5, uDFN1x1-4 | 300 | 5.5 | 2.5 | Fixed | ±2% | 0.5 | 400mV@300 mA | N | N | Y | Low Iq: 0.5μA typical quiescent current at no Load |
| ○ EMP8130 | MP | SOT-23-5, uDFN1x1-4 | 300 | 5.5 | 1.7 | Fixed | ±1% | 52 | 260mV@300mA Vout=3.3V | Y, 40mA | N | Y | uDFN package. Auto-Grade available. |
| ○ EMP8731 | MP | SOT-23-5 | 300 | 5.5 | 2.2 | Adj | ±2% | 60 | 260mV@300mA Vout=3.0V | N | N | Y | |
| EMP8965 | MP | SOT-23-5, SOT-23-6, TDFN 2x2-6 | 600 | 5.5 | 2.2 | Fixed | ±2% | 110 | 270mV@600mA | N | Y | N | |
| EMP8966 | MP | SOT-23-5, SOT-23-6 | 600 | 5.5 | 2.2 | Adj | ±2% | 110 | 270mV@600mA | N | N | N | |
| EMP8161/A | MP | E-SOP-8L | 1000 | 5.5 | 1 | Adj | ±2% | 5 | 90mV@1A Vout=0.8V | Y, 150mA | Y(6CuS) | Y | NMOS LDO;Low Dropout;Need another Controlled voltage, Vctrl |
| ○ EMP8166/A | MP | E-SOP-8L, SOT-23-6 | 1000 | 5.5 | 1 | Adj | ±2% | 5 | 90mV@1A Vout=0.8V | Y, 150mA | Y(600uS) | Y | NMOS LDO;Low Dropout;Need another Controlled voltage, Vctrl |
| ○ EMP8110 | MP | SOT-223, SOP-8 | 1500 | 6.5 | 2.5 | Adj, Fixed | ±2% | 65 | 570mV@1.5A Vout=1.8V | Y, 250mA | Y | Y | Fixed or Adj both available |
| ○ EMP8160/A | MP | E-SOP-8L | 2000 | 5.5 | 1 | Adj, 1.2V | ±2% | 5 | 185mV@2A Vout=0.8V | Y, 150mA | Y(6CuS) | Y | NMOS LDO;Low Dropout;Need another Controlled voltage, Vctrl |
| ○ EMP8165/A | MP | E-SOP-8L | 2000 | 5.5 | 1 | Adj | ±2% | 5 | 185mV@2A Vout=0.8V | Y, 150mA | Y(600uS) | Y | NMOS LDO;Low Dropout;Need another Controlled voltage, Vctrl |
| EMP8170/A | MP | E-SOP-8L | 3000 | 5.5 | 1 | Adj | ±2% | 5 | 280mV@3A Vout=0.8V | Y, 150mA | Y(6CuS) | Y | NMOS LDO;Low Dropout;Need another Controlled voltage, Vctrl |
| EMP8175/A | MP | E-SOP-8L | 3000 | 5.5 | 1 | Adj | ±2% | 5 | 280mV@3A Vout=0.8V | Y, 150mA | Y(600uS) | Y | NMOS LDO;Low Dropout;Need another Controlled voltage, Vctrl |

## BUCK DC/DC

| Part # | Product Status | Package | Iout (A) | Vin (Max) | Vin (Min) | Sync | Modulation | Vout | fb (V) | Iq (uA) | Switching Freq (MHz) | PGood | Soft start | Input UVP | OVP | OTP | OCP | Output SCP | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EML3380 | MP | SOT23-5, TDFN2x2-6 | 1 | 5.5 | 2.6 | Y | PFM/PWM | Adj. | 0.6 | 30 | 1.5 | N | Y | Y | Y | Y | Y | Y | |
| ○ EML3383 | MP | SOT23-5 | 1 | 5.5 | 2.6 | Y | PFM/PWM | Adj. | 0.6 | 30 | 1.5 | N | Y | Y | Y | Y | Y | Y | |
| ○ EML3350 | MP | E-SOP-8 | 1.5 | 60 | 4.5 | N | PSM/PWM | Adj. | 0.808 | 600 | R_set, up to 1.5MHz | N | Y | Y | Y | Y | Y | Y | |
| EHP7120 | Under dev. | SOT23-6 | 2 | 18 | 4.5 | Y | PSM/PWM | Adj. | 0.6 | 400 | 0.6 | N | Y | Y | | Y | Y | Y | |
| ○ EML3320 | MP | SOT23-5 SOT23-6 | 2 | 5.5 | 2.6 | Y | PSM/PWM | Adj. | 0.6 | 45 | 1 | N Y | Y | Y | Y | Y | Y | Y | |
| ○ EML3322 | MP | TDFN3x3-10 | 2/2 | 5.5 | 2.6 | Y | PSM/PWM | Adj. | 0.6 | 45 | 1 | N | Y | Y | Y | Y | Y | Y | Dual CH |
| ○ EML3321 | MP | SOT23-6, TDFN-8L | 3 | 5.5 | 2.6 | Y | PSM/PWM | Adj. | 0.6 | 45 | 1 | Y | Y | Y | Y | Y | Y | Y | |
| EML3230 | MP | E-SOP-8 | 3 | 23 | 4.5 | Y | PWM | Adj. | 0.923 | 1100 | 0.34 | N | Adj. | Y | Y | Y | Y | N | |
| EML3193B | MP | E-SOP-8, TDFN-10L | 3 | 40 | 4.5 | N | PSM/PWM | Adj. | 0.808 | 600 | R_set, up to 2MHz | N | Y | Y | Y | Y | Y | Y | Auto-Grade available. |
| ○ EML3290 | MP | E-SOP-8 | 3 | 40 | 4.5 | Y | PSM/PWM | Adj. | 0.805 | 800 | R_set, up to 2MHz | N | Y | Y | Y | Y | Y | Y | Auto-Grade available. |
| ○ EML3420 | MP | E-SOP-8 | 6 | 40 | 4.5 | N | PSM/PWM | Adj. | 0.8 | 330 | R_set, up to 2.1MHz | N | Y | Y | Y | Y | Y | Y | Auto-Grade available. |
| EML3421 | MP | E-SOP-8 | 6 | 40 | 4.5 | N | PSM/PWM | Adj. | 0.8 | 330 | R_set, up to 2.1MHz | N | Y | Y | Y | Y | Y | Y | Auto-Grade available. |

## BOOST DC/DC

| Part # | Product Status | Package | Sync | Iout (A) | Vin (Max) | Vin (Min) | Vout (Max) | Vout (Min) | Modulation | Output Type | Iq (uA) | Switching Freq (MHz) | True Shutdown | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMH7070 | MP | SOT-23-6 | N | 1A@5V | 5.5 | 2.6 | 12 | - | PWM | Adj | 190 | 1 | N | |
| EMH7090 | MP | SOP-8-E | N | 4A@5V | 12 | 2.9 | 14 | 5 | PWM | Adj | 150 | 0.5 | N | |

## CHARGER

| Part # | Product Status | Package | Topology | Cell | Vbat (V) | Iout (A) | Vin (Min) | Vin (Max) | Timer | Temp Sense | Smart Path | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ○ EMC5754 | MP | SOT-23-5, SOP-8-E | Linear | 1 | 4.1, 4.2, 4.35 | 1.0 | 4.25 | 5.5 | N | N | N | |
| ○ EMC5755 | MP | TDFN-3x3-6 | Linear | 1 | 4.1, 4.2, 4.35 | 1.2 | 4.25 | 5.5 | N | N | N | |
| EMC5040 | MP | TDFN-3x3-10, SOP-8-E | Linear | 1 | 4.2 | 1.2 | 4.5 | 6.5 | N | Y | N | |
| EMC5042 | MP | TDFN-3x3-10 | Linear | 2 | 8.4 | 1.2 | 9 | 13.5 | N | Y | N | |

## PHOTOCOUPLER GATE DRIVE

| Part # | Catalog | Product Status | Package | Iout max(A) | Output Form | Data Rate typ. (Mbps) | Operation Vin (V) | tPLH max (us) | tPHL max (us) | CMH typ. (kV/us) | CML typ. (kV/us) | Viso min (Vrms) | Clearance (mm) | VDE Option | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMD2A314 | IGBT Gate Driver | MP | LSOP-6 | 1.5 | | | 10~30 | 0.11 | 0.11 | 40 | 40 | 5000 | 7mm / 8mm | Yes | |
| EMD2A341 | IGBT Gate Driver | MP | LSOP-6 | 3 | | | 15~30 | 0.11 | 0.11 | 40 | 40 | 5000 | 7mm / 8mm | Yes | |
| EMD2A343 | IGBT Gate Driver | MP | LSOP-6 | 4 | | | 15~30 | 0.11 | 0.11 | 40 | 40 | 5000 | 7mm / 8mm | Yes | |
| EMD2A611 | High Speed Photocoupler | MP | LSOP-6 | | Open collector (Inverter) | 10 | 4.5~5.5 | 0.075 | 0.075 | 10 | 10 | 5000 | 7mm / 8mm | Yes | |
| EMD2A480 | IPM Photocoupler | MP | LSOP-6 | | Totem pole | 5 | 4.5~30 | 0.22 | 0.22 | 20 | 20 | 5000 | 7mm / 8mm | Yes | |
| EMD2A481 | IPM Photocoupler | MP | LSOP-6 | | Totem pole (Inverter) | 5 | 4.5~30 | 0.22 | 0.22 | 20 | 20 | 5000 | 7mm / 8mm | Yes | |

## H-BRIDGE DRIVER

| Part # | Product Status | Package | Architecture | # of input Channels | Interface and Input Control | Motor power supply voltage (VM) min (V) | Motor power supply voltage (VM) max (V) | Motor peak curren: (Iout) (A) | Logic power supply voltage (Vcc) min (V) | Logic power supply voltage (Vcc) max (V) | Applied PWM frequency max (KHz) | $R_{DS\_ON}$ HS + LS (mohm) | Sleep mode | UVLO | Protection Type | Operating Temperature | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EHB0528 | Under dev. | DFN2x2-8 | Integrated NMOS x4 | 2 | PWM | 3.0 | 11 | 1 | 3.0 | 5.5 | 250 | 1000 | Y, 120nA | Y | Vcc Under voltage lockout (UVLO), Over current protection (OCP), Short-circuit protection (SCP), Over temperature (TSD) | -40°C to 85°C | |
| EHB0529 | Under dev. | DFN2x2-8 SOP8 | Integrated NMOS x4 | 2 | PWM | 3.0 | 11 | 1.8 | 3.0 | 5.5 | 250 | 300 | Y, 120nA | Y | Vcc Under voltage lockout (UVLO), Over current protection (OCP), Short-circuit protection (SCP), Over temperature (TSD) | -40°C to 85°C | |
| EHB0530 | Under dev. | ESOP-8 | Integrated NMOS x4 | 2 | PWM | 6.5 | 45 | 3.6 | No need | No need | 200 | 600 | Y, | Y | VM Under Voltage Lockout (UVLO), Over current protection (OCP), Short-circuit protection (SCP), Over temperature (TSD) | -40°C to 85°C | Doesn't need an extra Vcc power. |

## 3-PHASE GATE DRIVE

| Part # | Product Status | Package | Architecture | # of input Channels | Interface and Input Control | Motor power supply voltage (VM) min (V) | Motor power supply voltage (VM) max (V) | Max source current (Iosc) (A) | Max sink current (Iosi) (A) | Adjustable dead-time | Dedicated Fault pin output | Sleep mode | UVLO | Protection Type | Operating Temperature | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EHB0630 | Under dev. | QFN4x4-28 E-TSSOP-28 | Gate driver (6 External NMOS) | 3 | PWM | 5 | 50 | 0.8 | 1 | 30ns ~ 6us | Y | Y | Y | Programmable short-circuit protection, Over-current protection, Adjustable dead-time control to prevent shoot-through, Undervoltage lockout, Thermal shutdown. | -40°C to 105°C | Bootstrap High-Side Driver with Trickle-Charge Circuit |

## 3-PHASE MOTOR CONTROLLER

| Part # | Product Status | Package | Embedded MCU | System clock | Flash | RAM | ADC | OP Amp | Analog Comparator | Multiplication and Division Units (MDU) | Motor Arithmetic Unit(MAU) | SVPWM module | PWM | Capture (PWMIN) | FG output | Timer | WatchDog Timer | UART | GPIO | Operating Voltage | Operating Temperature | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMT1042 | Under dev. | E-TSSOP-28 WQFN4x4-28L | 8051 | 24MHz | 32KB + 128B x2 | 4KB XRAM, 256B IRAM | 12bit x8ch 750Ksps | OP x3 (w/ PGA) | 5 | Y. Support Signed/ unsigned 32x32, 16x16, 32/16, 16/16 | Y. 180° Sine-wave | 1 | 16bit x6ch. (w/ Dead time control) | 12bit x1ch | Y | 16bit x2 | 1 | 1 | Up to 22 GPIOs | 4.5V ~ 5.5V | -40°C to 105°C | Support sensor or sensorless. -Sensorless + 1 or 3 shunts -3 Hall ICs + 1 or 3 shunts -1 Hall IC + 1 shunt |

Note1: ○ Hot Part

Note2: For more information and devices, please visit our website or contact us.