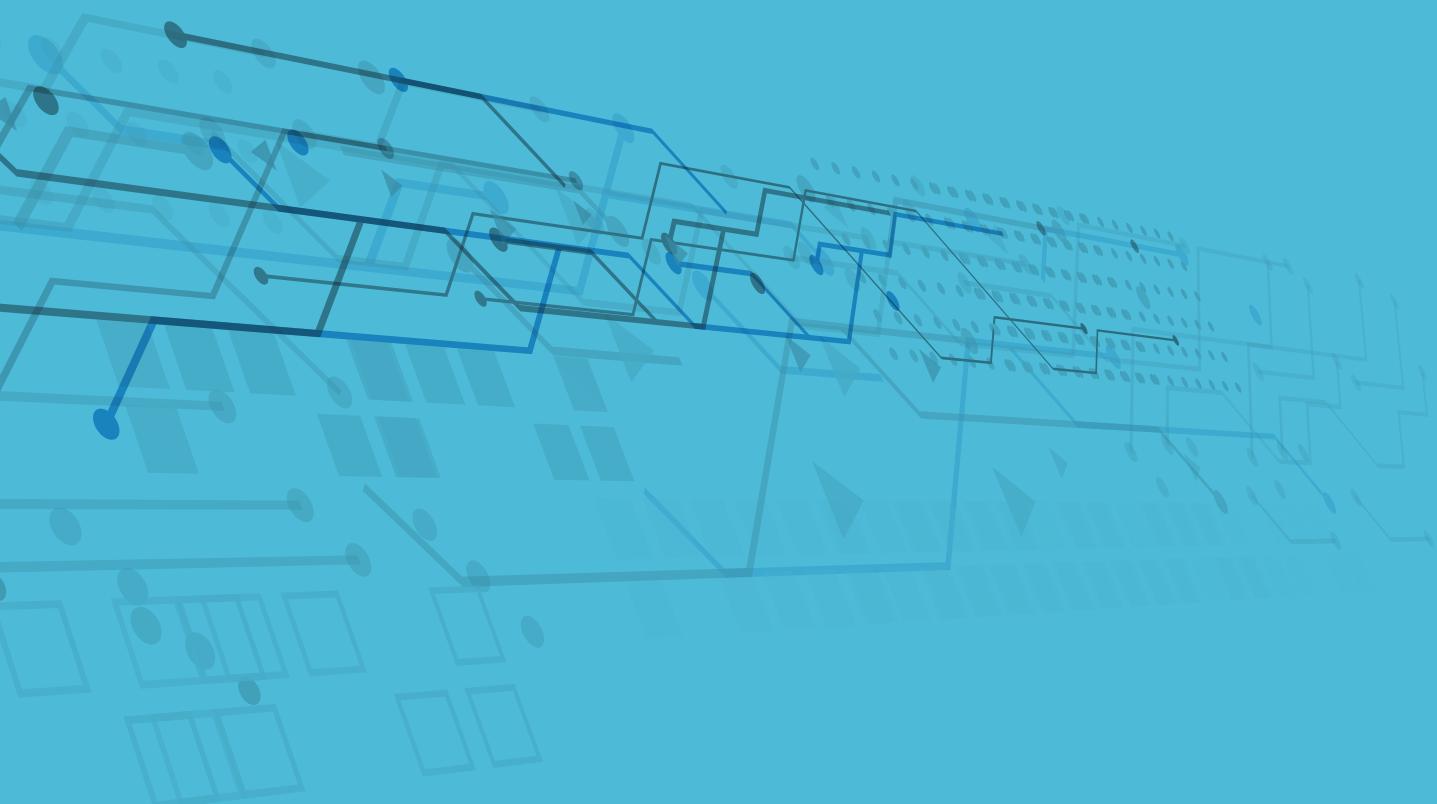
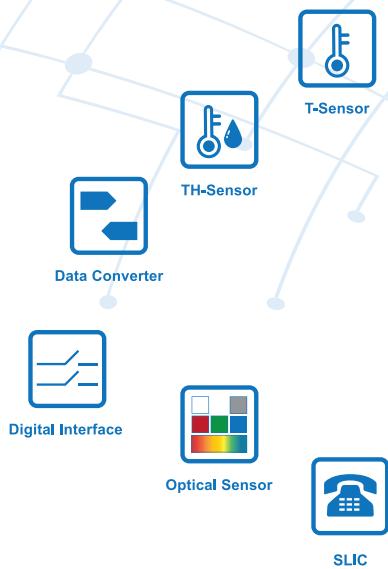


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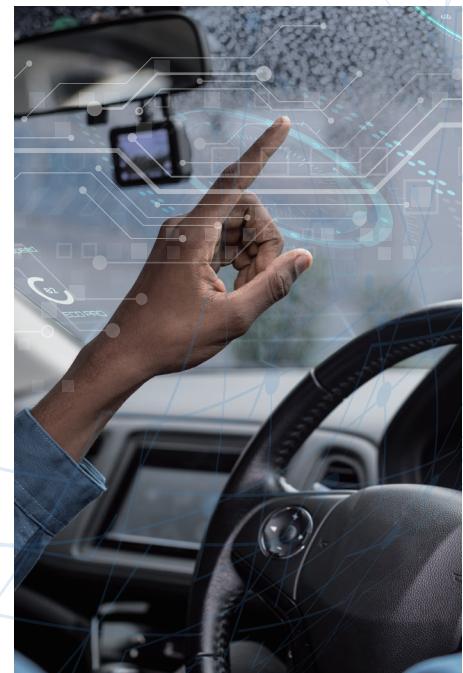
## Product Selection Guide



 **SENSYLINK**



A High Performance ICs Design Company Focusing on Sensor Chips and Mixed-Signal Chips



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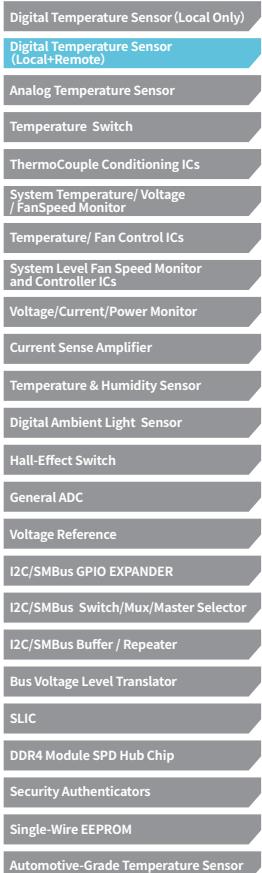
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## Digital Temperature Sensor (Local Only)

| PN        | VCC (V)               | Interface        | Accuracy (°C) | Package   |
|-----------|-----------------------|------------------|---------------|---|
| CT1801    | 1.8 to 5.5            | Single-Wire      | ±0.1          | CSP-4   |
| CT1711    | 1.8 to 5.5            | S-Wire           | ±0.1          | MCLGA 3x3-4                                     |
| CT7117    | 1.4 to 5.5            | I2C/SMBus        | ±0.1          | CSP-4   |
| CT75      | 1.75 to 5.5           | I2C/SMBus        | ±0.5          | SOP-8<br>MSOP-8<br>DFN-3x3-8<br>DFN-2x2-8       |
| CT7112A/B | 1.75 to 5.5           | I2C/SMBus        | ±0.5          | DFN-1.6x1.6-6                                   |
| CT7112C   | 1.75 to 5.5           | I2C/SMBus        | ±0.5          | SOT563-6<br>SOT-23-6                            |
| CT7113    | 1.4 to 5.5            | I2C/SMBus        | ±1.0          | CSP-4<br>SOT-23-5                               |
| CT7118    | 1.4 to 5.5            | I2C/SMBus        | ±0.75         | CSP-6<br>SOT-23-6                               |
| CT7525    | 1.4 to 5.5            | I2C/SMBus        | ±1.0          | CSP-4   |
| CT1820    | 1.8 to 5.5            | Single-Wire      | ±0.5          | SOT-23<br>TO-92<br>TO-92S<br>TO-92S-2<br>MSOP-8 |
| CT1820B   | 1.8 to 5.5            | Single-Wire      | ±0.5          | TO-92<br>TO-92S-2<br>SOP-8<br>MSOP-8            |
| CT1820S   | 1.8 to 5.5            | Single-Wire      | ±0.5          | TO-92   |
| CT1830    | 2.1 to 5.5            | Single-Wire      | ±0.5          | TO-92<br>SOT-23-3                               |
| CT1720    | 1.8 to 5.5            | S-Wire           | ±1.0          | SOT-23<br>TO-92S                                |
| CT1721    | 1.4 to 5.5            | Pulse Count      | ±0.5          | SOT-23<br>TO-92S-2<br>CSP-4<br>DFN-1.6x0.8-2    |
| CT7511    | I/O: 1V<br>Core: 1.8V | I <sup>3</sup> C | ±0.5          | CSP-6   |

## Digital Temperature Sensor (Local+Remote)

| PN       | VCC (V)     | Interface | Accuracy (°C) | Channel              | Package                      |
|----------|-------------|-----------|---------------|----------------------|------------------------------|
| CT7318   | 1.75 to 5.5 | I2C/SMBus | ±1.0          | 1* Local + 1* Remote | SOP-8<br>MSOP-8<br>DFN-3x3-8 |
| CT7319   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 1* Remote | SSOP-16                      |
| CT7451   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 1* Remote | DFN-2x2-8                    |
| CT7481   | 1.75 to 5.5 | I2C/SMBus | ±1.0          | 1* Local + 2* Remote | MSOP-10                      |
| CT7423   | 1.8 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 3* Remote | SOP-8                        |
| CT7424   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 4* Remote | QFN-3x3-16                   |
| CT7425   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 5* Remote | QFN-3x3-16                   |
| CT7426   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 6* Remote | QFN-3x3-16                   |
| CT7427   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 7* Remote | QFN-3x3-16                   |
| CT7428   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 8* Remote | QFN-3x3-16                   |
| CT7468   | 1.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 8* Remote | QFN-3x3-16                   |
| CT7431/A | 2.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 1* Remote | MSOP-8<br>DFN-3x3-8          |
| CT7432/A | 2.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 2* Remote | MSOP-10<br>DFN-3x3-10        |
| CT7433/A | 2.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 3* Remote | MSOP-10<br>DFN-3x3-10        |
| CT7453/A | 2.7 to 5.5  | I2C/SMBus | ±1.0          | 1* Local + 3* Remote | MSOP-10<br>DFN-3x3-10        |



|   |
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| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## Analog Temperature Sensor

| PN      | VCC (V)    | Interface | Temperature@ (Ta=10°C~30°C) | Slope Gain (mV/°C) | Vout@ 25°C (mV) | Package       |
|---------|------------|-----------|-----------------------------|--------------------|-----------------|---------------|
| CT7035A | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | 19.5               | 887.5           | SOT-23 SC70-5 |
| CT7035B | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | 10                 | 850             | SOT-23 SC70-5 |
| CT7035C | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | 6.25               | 580             | SOT-23 SC70-5 |
| CT7035D | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | -5.5               | 895.5           | SOT-23 SC70-5 |
| CT7035E | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | -8.2               | 1365            | SOT-23 SC70-5 |
| CT7035F | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | -10.9              | 1834.5          | SOT-23 SC70-5 |
| CT7035G | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | -11.77             | 1574            | SOT-23 SC70-5 |
| CT7035H | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | -13.6              | 2293            | SOT-23 SC70-5 |
| CT7035J | 1.8 to 5.5 | Analog    | Accuracy: ±0.5°C            | 10                 | 750             | SOT-23 SC70-5 |
| CT7035K | 1.8 to 5.5 | Analog    | Accuracy: ±0.15°C           | -5.8               | 1914.7          | SOT-23 SC70-5 |

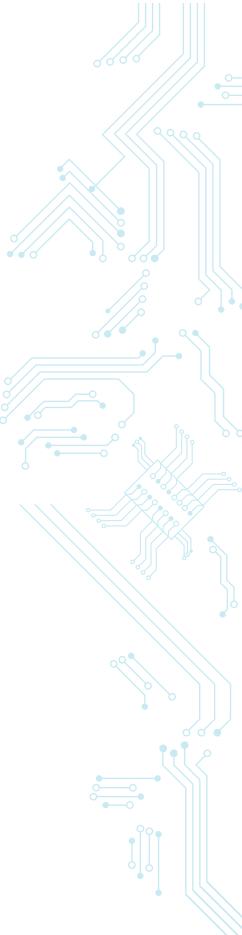
## Temperature Switch

| PN      | VCC (V)     | Accuracy (°C) | Trigger Temperature                      | Output Logic  | Package           |
|---------|-------------|---------------|--|---|-------------------|
| CT1722  | 1.75 to 5.5 | ±0.5°C        | Pre-ProgramRange:<br>-40°C to 125°C      | Active Low,<br>(OD, external resistor)  | CSP-3<br>SOT-23-5 |
| CT1723  | 1.4 to 5.5  | ±0.25°C       | Pre-ProgramRange:<br>0°C to 125°C        | Active Low,<br>(OD, external resistor)  | CSP-4<br>SOT-23-5 |
| CTS7509 | 2.5 to 5.5  | ±2.0°C        | Resistor ProgramRange:<br>-40°C to 125°C | Active Low,<br>(OD, external resistor)  | SOT-23-5          |
| CTS7510 | 2.5 to 5.5  | ±2.0°C        | Resistor ProgramRange:<br>-40°C to 125°C | Active Low,<br>(OD, internal resistor)<br><br>Active Low,<br>(Push-pull)<br><br>Active High,<br>(Push-pull) | SOT-23-6          |

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| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## ThermoCouple Conditioning ICs

| PN     | VCC (V)    | Interface | Temperature Spec   | Protection               | Description  | Package    |
|--------|------------|-----------|--|--------------------------|--|------------|
| CT1780 | 3.0 to 5.5 | 1-wire    | Thermocouple Types:K,J,N,T,E-<br>Resolution:0.25°C, 14bit ADC<br>Internal Cold-Junction<br>Range: -40 to 125°C | Detect Open Thermocouple | Cold-Junction Compensated, Single-Wire Thermocouple-to-Digital Convert | DFN-4x3-10 |



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| SLIC  |
| DDR4 Module SPD Hub Chip                              |
| Security Authenticators                               |
| Single-Wire EEPROM                                    |
| Automotive-Grade Temperature Sensor                   |

## System Temperature/ Voltage/ FanSpeed Monitor

| PN   | VCC (V)    | Interface | Temperature   | Analog Voltage   | Fan Speed | Logic                     | Package  |
|------|------------|-----------|---|--|-----------|---------------------------|----------|
| CT80 | 2.7 to 5.5 | I2C/SMBus | 1-CH, Local only<br>Accuracy: 1.0°C<br>Resolution: 0.0625°C | 7-CH<br>Range: 0-2.56V or 0-VCC<br>Resolution: 2.56mV or 6.0mV | 2-CH      | 3-CH Input<br>2-CH Output | TSSOP-24 |

## Temperature/ Fan Control ICs

| PN       | VCC (V)    | Interface | Temperature  | Fan control   | Outputs Fan Drive | Package               |
|----------|------------|-----------|--|---|-------------------|-----------------------|
| CTF2301A | 3.0 to 3.6 | I2C/SMBus | 1-CH Local 1-CH Remote<br>Lo_Resolution:0.0625°C<br>Re_Resolution:0.125°C<br>Lo_Accuracy:±0.1°C<br>Re_Accuracy:±1°C<br>Range: -40 to 125°C | Temperature-based<br>Fan Speed Control<br>PWM Freq:22.7Hz~180kHz<br>Duty Cycle:0~100%<br>TCRIT Function   | 1 PWM             | MSOP-10<br>DFN-3x3-10 |
| CTF2301B | 3.0 to 3.6 | I2C/SMBus | 1-CH Local 1-CH Remote<br>Lo_Resolution:0.0625°C<br>Re_Resolution:0.125°C<br>Lo_Accuracy:±0.1°C<br>Re_Accuracy:±1°C<br>Range: -40 to 125°C | Temperature-based<br>Fan Speed Control<br>PWM Freq:22.7Hz~180kHz<br>Duty Cycle:0~100%   | 1 PWM             | MSOP-10<br>DFN-3x3-10 |
| CTF2302  | 3.0 to 5.0 | I2C/SMBus | 1-CH Local 4-CH Remote<br>Lo_Resolution:0.0625°C<br>Re_Resolution:0.0625°C<br>Lo_Accuracy:±1°C<br>Re_Accuracy:±2°C<br>Range: -40 to 125°C  | Temperature-based<br>Fan Speed Control<br>PWM Freq:10Hz~40kHz<br>Duty Cycle:0~100%<br>Duty Cycle Resolution:0.39%<br>THERM Temperature with<br>Hysteresis Fan Failures Detect | 2 PWM             | QFN-3x3-16-A          |
| CTF2304  | 3.0 to 5.0 | I2C/SMBus | 1-CH Local 8-CH Remote<br>Lo_Resolution:0.0625°C<br>Re_Resolution:0.0625°C<br>Lo_Accuracy:±1°C<br>Re_Accuracy:±1°C<br>Range: -40 to 125°C  | Temperature-based<br>Fan Speed Control<br>PWM Freq:10Hz~40kHz<br>Duty Cycle:0~100%<br>Duty Cycle Resolution:0.39%<br>THERM Temperature with<br>Hysteresis Fan Failures Detect | 4 PWM             | QFN-3x3-24            |

## System Level Fan Speed Monitor and Controller ICs

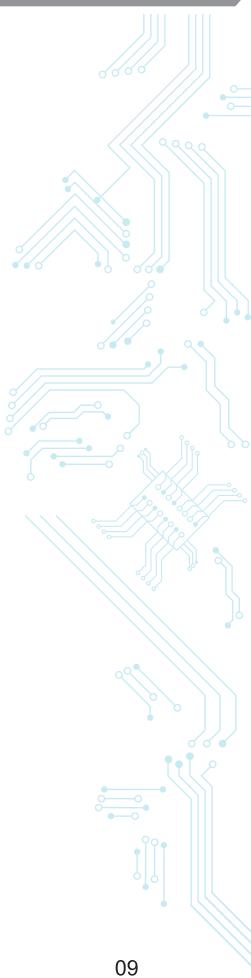
| PN      | VCC (V)    | Interface | Fan control  | Control Mode                | Outputs Fan Drive | Tach Input Num. | GPIO Num. | Package   |
|---------|------------|-----------|--|-----------------------------|-------------------|-----------------|-----------|-----------|
| CTF2816 | 3.0 to 3.6 | I2C/SMBus | PWM Freq:1kHz~50kHz<br>Duty Cycle:0~100%,<br>8 bits Duty Cycle<br>Resolution:0.39%<br>Intelligent Fan Failures<br>Detect SMBus & I2C | Takeover Mode or Fixed-Freq | 6 PWM             | 12              | -         | QFN4x4-32 |
| CTF2836 | 3.0 to 3.6 | I2C/SMBus | PWM Freq:1kHz~50kHz<br>Duty Cycle:0~100%,<br>8 bits Duty Cycle<br>Resolution:0.39%<br>Intelligent Fan Failures<br>Detect SMBus & I2C | Takeover Mode or Fixed-Freq | 6 PWM             | 12              | 21        | QFN5x5-36 |
| CTF2838 | 3.0 to 3.6 | I2C/SMBus | PWM Freq:1kHz~50kHz<br>Duty Cycle:0~100%,<br>8 bits Duty Cycle<br>Resolution:0.39%<br>Intelligent Fan Failures<br>Detect SMBus & I2C | Takeover Mode or Fixed-Freq | 8 PWM             | 16              | 21        | QFN6x6-64 |

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| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## Voltage/Current/Power Monitor

| PN       | VCC (V)    | Interface | Channel No. | Resolution (bit) | Gain (V/V)          | Common Mode Voltage (V) | Package               |
|----------|------------|-----------|-------------|------------------|---------------------|-------------------------|-----------------------|
| CAD2719  | 2.7 to 5.5 | I2C/SMBus | 1           | 12               | 1, 0.5, 0.25, 0.125 | 0 to 26                 | SOP-8<br>SOT23-8      |
| CAD2720  | 2.7 to 5.5 | I2C/SMBus | 1           | 12               | 1, 0.5, 0.25, 0.125 | 0 to 26                 | MSOP-10<br>DFN-3x3-10 |
| CAD2726  | 2.7 to 5.5 | I2C/SMBus | 1           | 16               | 1                   | 0 to 36                 | MSOP-10<br>DFN-3x3-10 |
| CAD2730  | 2.7 to 5.5 | I2C/SMBus | 1           | 16               | 1                   | 0 to 36                 | QFN 3x3-16<br>MSOP-10 |
| CAD27323 | 2.7 to 5.5 | I2C/SMBus | 3           | 13               | 1                   | 0 to 26                 | QFN 4x4-16            |
| CAD27334 | 2.7 to 5.5 | I2C/SMBus | 4           | 16               | 1                   | 0 to 32                 | QFN 4x4-16<br>CSP-16  |

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| Hall-Effect Switch                                |
| General ADC                                       |
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| I2C/SMBus Switch/Mux/Master Selector              |
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| Automotive-Grade Temperature Sensor               |



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## Current Sense Amplifier

| PN      | Common-mode voltage (V) | Supply voltage (V) | Input offset ( $\pm$ ) (max) ( $\mu$ V) | Voltage gain (V/V) | CMRR (min) (dB)           | Bandwidth (kHz) | Gain error (%) | Package       |
|---------|-------------------------|--------------------|---|--------------------|---------------------------|-----------------|----------------|---------------|
| CLA2215 | -0.3 to 26              | 2.7 to 26          | 60                                      | 75                 | 105                       | 40              | 0.4,0.9        | SOT-SC70 UQFN |
| CLA2216 | 1.8 to 5.5              | 1.8 to 5.5         | 75,100                                  | 25,50,<br>100,200  | 90                        | 2.5,5,<br>10,20 | 0.2            | DSBGA UQFN    |
| CLA2212 | -0.3 to 26              | 2.7 to 26          | 35                                      | 1000               | 105                       | 4               | 0.4,0.9        | SOT-SC70 UQFN |
| CLA2211 | -0.3 to 26              | 2.7 to 26          | 60                                      | 500                | 105                       | 7               | 0.4,0.9        | SOT-SC70 UQFN |
| CLA2214 | -0.3 to 26              | 2.7 to 26          | 60                                      | 100                | 105                       | 30              | 0.4,0.9        | SOT-SC70 UQFN |
| CLA2213 | -0.3 to 26              | 2.7 to 26          | 100                                     | 50                 | 100                       | 80              | 0.4,0.9        | SOT-SC70 UQFN |
| CLA2210 | -0.3 to 26              | 2.7 to 26          | 35                                      | 200                | 105                       | 14              | 0.4,0.9        | SOT-SC70 UQFN |
| CLA2281 | -4 to 110               | 2.7 to 20          | 150                                     | 0.07               | 20,50,<br>100,200,<br>500 | 120             | 2.25           | SOT-23        |

## Temperature & Humidity Sensor

| PN        | VCC (V)     | Interface   | Temperature (typ.) (°C) | Humidity (typ.) (%RH)     | I_Aoc/1Hz | I_SD    | ADD | Package   |
|-----------|-------------|-------------|-------------------------|---------------------------|-----------|---------|-----|-----------|
| CHT8305E  | 2.5 to 5.5  | I2C         | $\pm 0.2$               | $\pm 2.0 @ 50\%RH$        | 1.5uA     | 0.05uA  | 4   | DFN-3x3-6 |
| CHT8315   | 1.35 to 5.5 | I2C/SMBus   | $\pm 0.2$               | $\pm 1.5 @ 20\%RH-80\%RH$ | 1.0uA     | 0.035uA | 4   | DFN-3x3-6 |
| CHT8310   | 1.65 to 5.5 | I2C/SMBus   | $\pm 0.2$               | $\pm 2.0 @ 20\%RH-80\%RH$ | 2.0uA     | 0.055uA | 4   | DFN-3x3-6 |
| CHT1305   | 2.2 to 5.5  | Single-Wire | $\pm 0.2$               | $\pm 2.0 @ 50\%RH$        | 2.5uA     | 0.1uA   | /   | DFN-3x3-6 |
| CHT8550C  | 1.65 to 5.5 | I2C/SMBus   | $\pm 0.2$               | $\pm 2.5 @ 20\%RH-80\%RH$ | 2.1uA     | 0.05uA  | /   | CSP-4     |
| CHT8325   | 1.8 to 5.5  | I2C/SMBus   | $\pm 0.1$               | $\pm 1.5 @ 20\%RH-80\%RH$ | 5.5uA     | 0.36uA  | 4   | DFN-2x2-4 |
| CHT8325-Q | 1.8 to 5.5  | I2C/SMBus   | $\pm 0.1$               | $\pm 1.5 @ 20\%RH-80\%RH$ | 5.5uA     | 0.36uA  | 4   | DFN-2x2-4 |
| CHT8336   | 1.8 to 5.5  | Analog      | $\pm 0.2$               | $\pm 2.0 @ 20\%RH-80\%RH$ | 220uA     | /       | /   | DFN-2x2-4 |

## Digital Ambient Light Sensor

| PN        | VCC (V)    | Resolution | Measurement          | Power consumption          | Feature                           | Package   |
|-----------|------------|------------|----------------------|----------------------------|-----------------------------------|-----------|
| COA3001   | 1.6 to 3.6 | 0.01 lux   | 0.01 lux to 83 k lux | 10uA(working)/0.5(standby) | 550nm, 99% IR rejection           | DFN-2x2-6 |
| COA3001-Q | 1.6 to 3.6 | 0.01 lux   | 0.01 lux to 83 k lux | 10uA(working)/0.5(standby) | Automotive AEC-Q100               | DFN-2x2-6 |
| COA3004   | 1.6 to 3.6 | 0.01 lux   | 0.01 lux to 83 k lux | 10uA(working)/0.5(standby) | 550nm,<br>99% IR rejection@+/-85° | DFN-2x2-6 |
| COA3007   | 1.6 to 3.6 | 0.01 lux   | 0.01 lux to 83 k lux | 10uA(working)/0.5(standby) | Ultra small size                  | CSP-4     |

|   |
|---|
| Digital Temperature Sensor (Local Only)           |
| Digital Temperature Sensor (Local+Remote)         |
| Analog Temperature Sensor                         |
| Temperature Switch                                |
| ThermoCouple Conditioning ICs                     |
| System Temperature/ Voltage / FanSpeed Monitor    |
| Temperature/ Fan Control ICs                      |
| System Level Fan Speed Monitor and Controller ICs |
| Voltage/Current/Power Monitor                     |
| Current Sense Amplifier                           |
| Temperature & Humidity Sensor                     |
| Digital Ambient Light Sensor                      |
| Hall-Effect Switch                                |
| General ADC                                       |
| Voltage Reference                                 |
| I2C/SMBus GPIO EXPANDER                           |
| I2C/SMBus Switch/Mux/Master Selector              |
| I2C/SMBus Buffer / Repeater                       |
| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## Hall-Effect Switch

| PN      | VCC (V)  | Operating Temperature (°C) | Polarity  | B <sub>OPS</sub>   | B <sub>RPS</sub>   | Hyst | Package                           |
|---------|----------|----------------------------|-----------|--------------------|--------------------|------|-----------------------------------|
| CAH1912 | 3 to 3.6 | -40 to 85                  | Omnipolar | 21Gs / 30Gs / 39Gs | 14Gs / 23Gs / 30Gs | 7Gs  | DFN1.6x1.2-4<br>SOT23-3<br>SOT-23 |

## General ADC

| PN         | VCC (V)    | Interface | Resolution (bit) | Channel | Description   | Package                |
|------------|------------|-----------|------------------|---------|---|------------------------|
| CAD2512A04 | 3.0 to 5.5 | I2C/SMBus | 12               | 4-CH    | Internal Temperature Sensing: ±1°C Accuracy<br>9 selectable addresses | MSOP-8<br>DFN 3x3-8    |
| CAD2512A08 | 3.0 to 5.5 | I2C/SMBus | 12               | 8-CH    | Internal Temperature Sensing: ±1°C Accuracy<br>9 selectable addresses | TSSOP-16<br>QFN-3x3-16 |



|   |
|---|
| Digital Temperature Sensor (Local Only)           |
| Digital Temperature Sensor (Local+Remote)         |
| Analog Temperature Sensor                         |
| Temperature Switch                                |
| Thermocouple Conditioning ICs                     |
| System Temperature/ Voltage / FanSpeed Monitor    |
| Temperature/ Fan Control ICs                      |
| System Level Fan Speed Monitor and Controller ICs |
| Voltage/Current/Power Monitor                     |
| Current Sense Amplifier                           |
| Temperature & Humidity Sensor                     |
| Digital Ambient Light Sensor                      |
| Hall-Effect Switch                                |
| General ADC                                       |
| Voltage Reference                                 |
| I2C/SMBus GPIO EXPANDER                           |
| I2C/SMBus Switch/Mux/Master Selector              |
| I2C/SMBus Buffer / Repeater                       |
| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## Voltage Reference

| PN     | Rating     | Output Voltage                | Vin (min)(V)        | Vin (max)(V) | Iq (max) (uA) | Accuracy (max) | TC (-40~125°C) (ppm/°C) | Line Regulation (max)(ppm/V) | Load Regulation (max)(ppm/mA) | Output Capacitor Load (μF) | Package |
|--------|------------|-------------------------------|---------------------|--------------|---------------|----------------|-------------------------|------------------------------|-------------------------------|----------------------------|---------|
| CREF33 | Industrial | Fixed (1.2,1.8, 2.5,3.0, 3.3) | max (Vout +0.2,1.7) | 5.5          | 8.5           | 0.0015         | 30                      | 50                           | 20                            | 0.1~10                     | SOT23-3 |

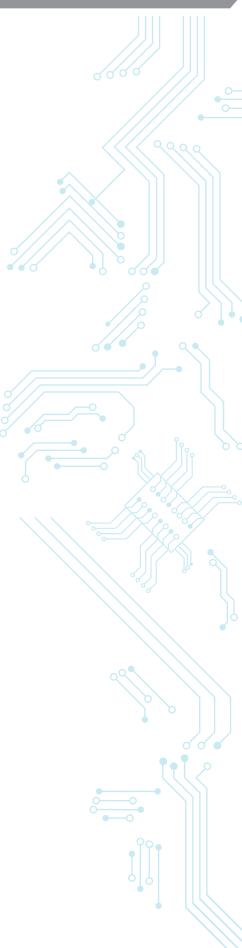
## I2C/SMBus GPIO EXPANDER

| PN      | VCC (V)     | I/O   | Supply | Reset | INT | Address | I2C Address   | Description  | Package                      |
|---------|-------------|-------|--------|-------|-----|---------|---------------|--|------------------------------|
| CA9536  | 1.65 to 5.5 | 4bit  | 1      | no    | no  | 1       | 1000001R/W    | I2C/SMBus I/O Expander   | SOP-8 MSOP-8                 |
| CA9534  | 1.65 to 5.5 | 8bit  | 1      | no    | yes | 8       | 0100A2A1A0R/W | I2C/SMBus I/O Expander with Interrupt Output                                   | TSSOP-16 QFN4x4-16           |
| CA9534A | 1.65 to 5.5 | 8bit  | 1      | no    | yes | 8       | 0111A2A1A0R/W | I2C/SMBus I/O Expander with Interrupt Output                                   | TSSOP-16 QFN4x4-16           |
| CA9538  | 1.65 to 5.5 | 8bit  | 1      | yes   | yes | 4       | 11100A1A0R/W  | I2C/SMBus I/O Expander with Interrupt Output, Reset                            | TSSOP-16                     |
| CA9554  | 1.65 to 5.5 | 8bit  | 1      | no    | yes | 8       | 0100A2A1A0R/W | I2C/SMBus I/O Expander with Interrupt Output, Input I/O with internal pull-up  | TSSOP-16 QFN4x4-16 QFN3x3-16 |
| CA9554A | 1.65 to 5.5 | 8bit  | 1      | no    | yes | 8       | 0111A2A1A0R/W | I2C/SMBus I/O Expander with Interrupt Output, Input I/O with internal pull-up  | TSSOP-16 QFN4x4-16 QFN3x3-16 |
| CA9557  | 2.3 to 5.5  | 8bit  | 1      | yes   | no  | 8       | 0011A2A1A0R/W | I2C/SMBus I/O Expander with Reset  | TSSOP-16 SOP-16 QFN4x4-16    |
| CA9535  | 1.65 to 5.5 | 16bit | 1      | no    | yes | 8       | 0100A2A1A0R/W | I2C/SMBus I/O Expander with Interrupt Output                                   | TSSOP-24 QFN4x4-24           |
| CA9539  | 1.65 to 5.5 | 16bit | 1      | yes   | yes | 4       | 11101A1A0R/W  | I2C/SMBus I/O Expander with Interrupt Output, Reset                            | TSSOP-24 QFN4x4-24           |
| CA9555  | 1.65 to 5.5 | 16bit | 1      | no    | yes | 8       | 0100A2A1A0R/W | I2C/SMBus I/O Expander with Interrupt Output, Input I/O with internal pull-up  | TSSOP-24 QFN4x4-24           |
| CA6408  | 1.65 to 5.5 | 8bit  | 2      | yes   | yes | 2       | 010000A0R/W   | I2C/SMBus I/O Expander with Interrupt Output, Reset, Voltage-Level Translation | TSSOP-16 QFN3x3-16           |
| CA6416  | 1.65 to 5.5 | 16bit | 2      | yes   | yes | 2       | 010000A0R/W   | I2C/SMBus I/O Expander with Interrupt Output, Reset, Voltage-Level Translation | TSSOP-24 QFN4x4-24 QFN3x3-24 |

## I2C/SMBus Switch/Mux/Master Selector

| PN     | VCC (V)     | M:S | Reset | INT | I_standby | Address | I2C Address                   | Description   | Package                             |
|--------|-------------|-----|-------|-----|-----------|---------|-------------------------------|---|-------------------------------------|
| CA9641 | 2.3 to 3.6  | 2:1 | 1     | 3   | 100uA     | 112     | A6A5A4A3A2A1A0 <sub>R/W</sub> | 2 master to 1 slaves I2C/SMBus Master Selector with an Arbiter Function | TSSOP-16 QFN3X3-16                  |
| CA9542 | 1.65 to 5.5 | 1:2 | 0     | 3   | 1.5uA     | 8       | 1110A2A1A0 <sub>R/W</sub>     | 1 master to 2 slaves I2C/SMBus Multiplexer with Interrupt               | SOP-14 TSSOP-14                     |
| CA9543 | 1.65 to 5.5 | 1:2 | 1     | 3   | 1.5uA     | 4       | 11100A1A0 <sub>R/W</sub>      | 1 master to 2 slaves I2C/SMBus Switch with Interrupt and Reset          | SOP-14 TSSOP-14                     |
| CA9544 | 1.65 to 5.5 | 1:4 | 0     | 5   | 1.5uA     | 8       | 1110A2A1A0 <sub>R/W</sub>     | 1 master to 4 slaves I2C/SMBus Multiplexer with Interrupt               | SOP-20 TSSOP-20 QFN3x3-20 QFN5x5-20 |
| CA9545 | 1.65 to 5.5 | 1:4 | 1     | 5   | 1.5uA     | 4       | 11100A1A0 <sub>R/W</sub>      | 1 master to 4 slaves I2C/SMBus Switch with Interrupt and Reset          | SOP-20 TSSOP-20                     |
| CA9546 | 1.65 to 5.5 | 1:4 | 1     | 0   | 1.5uA     | 8       | 11100A1A0 <sub>R/W</sub>      | 1 master to 4 slaves I2C/SMBus Switch with Reset                        | SOP-16 TSSOP-16 QFN4x4 -16          |
| CA9547 | 1.65 to 5.5 | 1:8 | 1     | 0   | 1.5uA     | 8       | 11100A1A0 <sub>R/W</sub>      | 1 master to 8 slaves I2C/SMBus Multiplexer with Reset                   | TSSOP-24 QFN4x4 -24                 |
| CA9548 | 1.65 to 5.5 | 1:8 | 1     | 0   | 1.5uA     | 8       | 11100A1A0 <sub>R/W</sub>      | 1 master to 8 slaves I2C/SMBus Switch with Reset                        | TSSOP-24 QFN4x4 -24                 |

|   |
|---|
| Digital Temperature Sensor (Local Only)           |
| Digital Temperature Sensor (Local+Remote)         |
| Analog Temperature Sensor                         |
| Temperature Switch                                |
| ThermoCouple Conditioning ICs                     |
| System Temperature/ Voltage / FanSpeed Monitor    |
| Temperature/ Fan Control ICs                      |
| System Level Fan Speed Monitor and Controller ICs |
| Voltage/Current/Power Monitor                     |
| Current Sense Amplifier                           |
| Temperature & Humidity Sensor                     |
| Digital Ambient Light Sensor                      |
| Hall-Effect Switch                                |
| General ADC                                       |
| Voltage Reference                                 |
| I2C/SMBus GPIO EXPANDER                           |
| I2C/SMBus Switch/Mux/Master Selector              |
| I2C/SMBus Buffer / Repeater                       |
| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |



## I2C/SMBus Buffer / Repeater

| PN     | VCCA (V)   | VCCB (V)   | Freq (Hz) | CH | Enable | Description  | Package               |
|--------|------------|------------|-----------|----|--------|--|-----------------------|
| CA9511 | 2.3 to 5.5 | /          | 1M        | 2  | 1      | Hot-swappable FM+ I2C/SMBus Buffer                     | SOP-8 MSOP-8          |
| CA9512 | 2.3 to 5.5 | 2.3 to 5.5 | 1M        | 2  | 0      | Hot-swappable FM+ I2C/SMBus Buffer with Level Shifting | MSOP-8                |
| CA9617 | 0.8 to 5.5 | 2.2 to 5.5 | 1M        | 2  | 1      | Level Translating FM+ I2C-bus Repeater                 | SOP-8 MSOP-8 DFN2X3-8 |

|   |
|---|
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| Analog Temperature Sensor                         |
| Temperature Switch                                |
| Thermocouple Conditioning ICs                     |
| System Temperature/ Voltage / FanSpeed Monitor    |
| Temperature/ Fan Control ICs                      |
| System Level Fan Speed Monitor and Controller ICs |
| Voltage/Current/Power Monitor                     |
| Current Sense Amplifier                           |
| Temperature & Humidity Sensor                     |
| Digital Ambient Light Sensor                      |
| Hall-Effect Switch                                |
| General ADC                                       |
| Voltage Reference                                 |
| I2C/SMBus GPIO Expander                           |
| I2C/SMBus Switch/Mux/Master Selector              |
| I2C/SMBus Buffer / Repeater                       |
| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## Bus Voltage Level Translator

| PN         | VCCA (V)    | VCCB(V)      | DIR Ctrl | CH   | Description  | Package                       |
|------------|-------------|--------------|----------|------|--|-------------------------------|
| CAG92102F  | 0 to 5      | 0 to 5       | AUTO     | 2bit | 2-Bit Bidirectional Voltage-Level Translator with Auto-Direction Sensing for Open-Drain and Push-Pull Applications | MSOP-8<br>DFN3X4-8<br>VSSOP-8 |
| CAG94204F  | 0 to 5      | 0 to 5       | AUTO     | 4bit | 4-Bit Bidirectional Voltage-Level Translator with Auto-Direction Sensing for Open-Drain and Push-Pull Applications | TSSOP-14<br>QFN2X1.7-12       |
| CAG98108F  | 0 to 5      | 0 to 5       | AUTO     | 8bit | 8-Bit Bidirectional Voltage-Level Translator with Auto-Direction Sensing for Open-Drain and Push-Pull Applications | TSSOP-20                      |
| CAG92102S  | 1.65 to 3.6 | 2.3 to 5.5   | AUTO     | 2bit | 2-Bit Bidirectional Voltage-Level Translator with Auto-Direction Sensing for Open-Drain and Push-Pull Applications | VSSOP-8                       |
| CAG94104S  | 1.65 to 3.6 | 2.3 to 5.5   | AUTO     | 4bit | 4-Bit Bidirectional Voltage-Level Translator with Auto-Direction Sensing for Open-Drain and Push-Pull Applications | TSSOP-14                      |
| CAG98108S  | 1.65 to 3.6 | 2.3 to 5.5   | AUTO     | 8bit | 8-Bit Bidirectional Voltage-Level Translator with Auto-Direction Sensing for Open-Drain and Push-Pull Applications | TSSOP-14                      |
| CAG94014GY | 3 to 3.6    | 0.5 to VCC/2 | DIR      | 4bit | 4-bit LVTTL to GTL Transceiver   | TSSOP-14                      |
| CA9306Y    | 1.2 to 3.3  | 1.8 to 5.5   | AUTO     | 2bit | Dual Bidirectional I2C Bus and SMBus Voltage-Level Translator  | MSOP-8<br>VSSOP-8             |
| CA99306    | 0.9 to 3.3  | 1.8 to 5.5   | AUTO     | 2bit | Dual Bidirectional I3C Bus and SMBus Voltage-Level Translator  | SOT23-8<br>VSSOP-8            |

## SLIC

| PN       | FXS Port | Interface                  | Vbat  | Package    |
|----------|----------|----------------------------|-------|------------|
| CLE2171  | 1        | PCM+SPI                    | -100V | QFN-5x7-39 |
| CLE2171V | 1        | PCM+SPI / 4 wire interface | -100V | QFN-5x6-44 |
| CLE2191  | 1        | 3 wire SSI                 | -100V | QFN-4X6-38 |

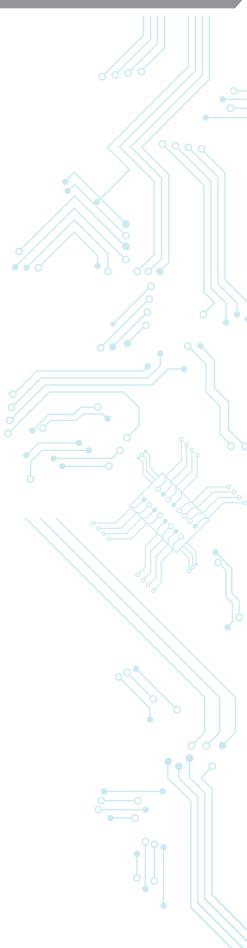
## DDR4 Module SPD Hub Chip

| PN     | Supply Voltage | Temperature Accuracy                                       | EEPROM Size | Byte Write Time | Write Cycles | Data Retention | Package   |
|--------|----------------|--|-------------|-----------------|--------------|----------------|-----------|
| CT7524 | 2.2V to 3.6V   | ±0.5°C over +75°C to +95°C<br>±0.75°C over -40°C to +125°C | 4 Kb        | <5ms            | >1M cycles   | >40 years      | DFN 2x3-8 |

|   |
|---|
| Digital Temperature Sensor (Local Only)           |
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| Analog Temperature Sensor                         |
| Temperature Switch                                |
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| System Temperature/ Voltage / FanSpeed Monitor    |
| Temperature/ Fan Control ICs                      |
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| Voltage/Current/Power Monitor                     |
| Current Sense Amplifier                           |
| Temperature & Humidity Sensor                     |
| Digital Ambient Light Sensor                      |
| Hall-Effect Switch                                |
| General ADC                                       |
| Voltage Reference                                 |
| I2C/SMBus GPIO EXPANDER                           |
| I2C/SMBus Switch/Mux/Master Selector              |
| I2C/SMBus Buffer / Repeater                       |
| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

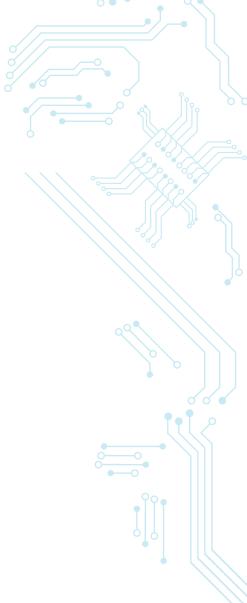
## Security Authenticators

| PN      | Input Voltage(V) | Interface | EEPROM   | Security Memory                             | HMAC Algorithm | ESD(KV)  | Description   | Package   |
|---------|------------------|-----------|----------|---|----------------|----------|---|-----------|
| CSA2815 | 1.8 to 3.3       | 1-Wire    | 0.5kbits | Authentication Mode+ Write and Read Protect | SHA-256        | ±8kV HBM | Authentication of Network-Attached Appliances ; Reference Design License Management ; System Intellectual Property Protection ; Secure Feature Setting for Configurable Systems | TDFN TSOC |



## Single-Wire EEPROM

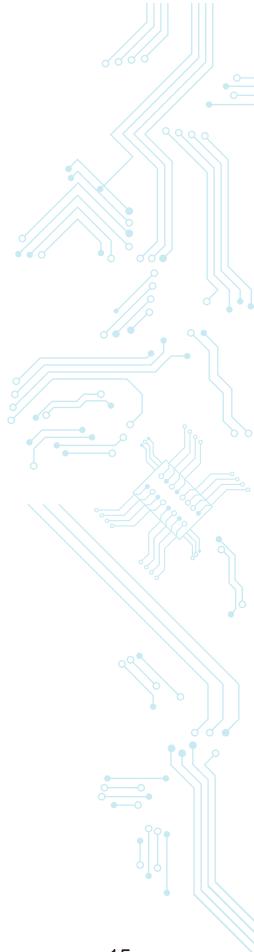
| PN      | Input Voltage(V) | Interface | EEPROM | Counter   | Identification ID | ESD(KV)                 | Description  | Package       |
|---------|------------------|-----------|--------|---|-------------------|-------------------------|--|---------------|
| CSA2431 | 2.8 to 5.25      | 1-Wire    | 1kbits | 17bits One-Time Settable Decrement-Only Counter | 64bits            | ±8kV Contact, ±15kV Air | Accessory/PCB Identification ; Medical Sensor Calibration Data Storage ; Ink and Toner Print Cartridge Identification ; After-Market Management of Consumables | SFN TDFN TSOC |



|   |
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| Digital Temperature Sensor (Local Only)           |
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| Analog Temperature Sensor                         |
| Temperature Switch                                |
| Thermocouple Conditioning ICs                     |
| System Temperature/ Voltage / FanSpeed Monitor    |
| Temperature/ Fan Control ICs                      |
| System Level Fan Speed Monitor and Controller ICs |
| Voltage/Current/Power Monitor                     |
| Current Sense Amplifier                           |
| Temperature & Humidity Sensor                     |
| Digital Ambient Light Sensor                      |
| Hall-Effect Switch                                |
| General ADC                                       |
| Voltage Reference                                 |
| I2C/SMBus GPIO Expander                           |
| I2C/SMBus Switch/Mux/Master Selector              |
| I2C/SMBus Buffer / Repeater                       |
| Bus Voltage Level Translator                      |
| SLIC  |
| DDR4 Module SPD Hub Chip                          |
| Security Authenticators                           |
| Single-Wire EEPROM                                |
| Automotive-Grade Temperature Sensor               |

## Automotive-Grade Temperature Sensor

| PN        | Channel No. | Accuracy   | Interface | Verification        | Package         |
|-----------|-------------|--|-----------|---------------------|-----------------|
| CT75-Q    | Local       | ±0.5°C over 0°C to 50°C<br>±1°C over -20°C to 85°C<br>±1.5°C over -40°C to 125°C | I2C/SMBus | Automotive AEC-Q100 | DFN3x3x8 MSOP-8 |
| CT7112C-Q | Local       | ±0.5°C over 0°C to 85°C<br>±1°C over -40°C to 125°C                              | I2C/SMBus | Automotive AEC-Q100 | SOT-563         |
| CT7112F-Q | Local       | ±0.5°C over 0°C to 85°C<br>±1°C over -40°C to 125°C                              | I2C/SMBus | Automotive AEC-Q100 | DFN 1.6x1.6-6   |
| CT7035-Q  | Local       | ±1.5°C over 10°C to 50°C<br>±3.5°C over -40°C to 125°C                           | Analog    | Automotive AEC-Q100 | SOT23 SC70-5    |
| CT7451-Q  | 1L + 1R     | ±1°C over 0°C to 85°C<br>±2°C over -40°C to 125°C                                | I2C/SMBus | Automotive AEC-Q100 | DFN2x2-81       |





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