

# SOM-7567

## Intel® Atom™/Celeron® Processor COM Express® Mini Module



### Features

- COM R.2.1 Type 10 Mini Module
- Intel® Atom™/Celeron® processor for Intelligent systems (Based on 22nm Silvermont microarchitecture)
- Onboard DDR3L and SSD
- 4.75 ~ 20 V wide-voltage input support
- Embedded Software APIs and Utilities supported

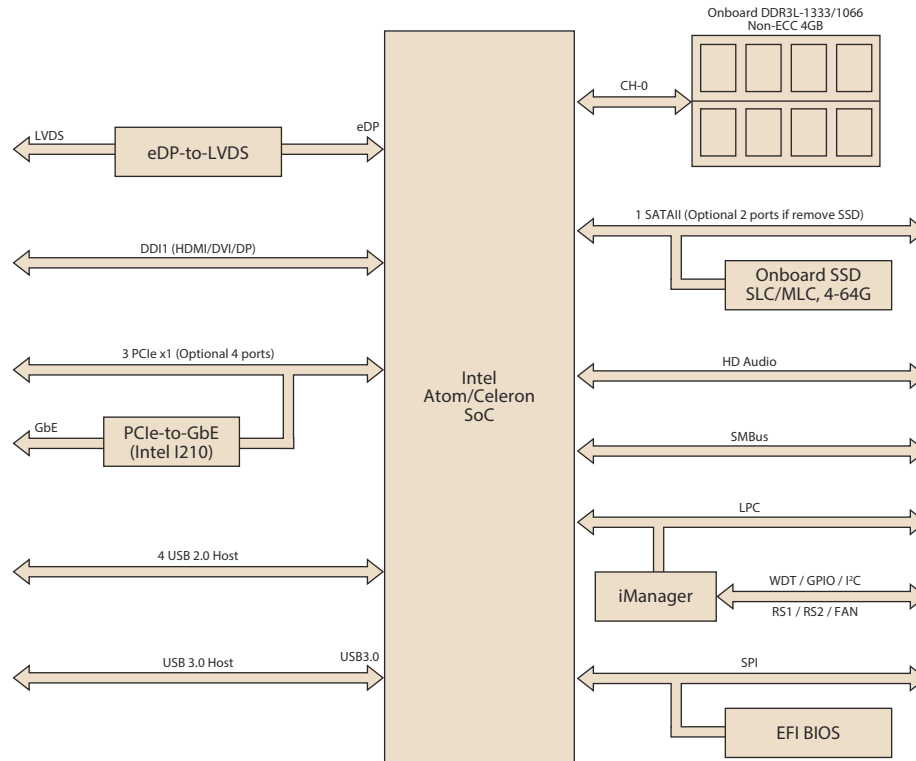
#### Software APIs:



### Specifications

|                          |                             |  |
|--------------------------|-----------------------------|--|
| Form Factor              | Form Factor<br>Pin-out Type | COM Express Mini Module<br>COM Express R2.1 Type 10  |
| Processor System         | CPU                         | Intel Atom E3845    Intel Atom E3825    Intel Atom E3815    Intel Celeron J1900    Intel Celeron N2930                         |
|                          | Core                        | 4    2    1    4    4  |
|                          | Base Frequency (Normal)     | 1.91GHz    1.33GHz    1.46 GHz    2.00 GHz    1.83 GHz   |
|                          | Base Frequency (Burst)      | -    -    -    2.42 GHz    2.16 GHz  |
|                          | LLC                         | 2MB    1MB    512KB    2MB    2MB  |
|                          | CPU TDP                     | 10W    6W    5W    10W    7.5W   |
| Memory                   | BIOS                        | AMI UEFI 64Mbit  |
|                          | Technology                  | DDR3L-1333    DDR3L-1066    DDR3L-1066    DDR3L-1333    DDR3L-1333   |
|                          | ECC Support                 | N/A  |
| SSD                      | Max. Capacity               | Up to 4G   |
|                          | Technology & Capacity       | MLC up to 64GB, SLC up to 32GB   |
| Graphics                 | Controller                  | Intel® HD graphics (Gen 7 gfx)   |
|                          | Frequency (Normal)          | 542 MHz    533 MHz    400 MHz    688 MHz    313 MHz  |
|                          | Frequency (Turbo)           | 792 MHz    -    -    854 MHz    854 MHz  |
|                          | 3D/HW Acceleration          | DX11, OGL3.2, OCL1.1, and H.264/AVC, VC-1, MPEG2 HW Decode/Encode  |
| Display                  | LCD                         | LVDS 1-ch 18/24-bit, up to 1366 x 768 resolution   |
|                          | DDI (HDMI/DVI/DisplayPort)  | Up to 2560 x 1600 resolution   |
| Expansion                | Dual Display                | LCD + DDI  |
|                          | PCI Express x1              | 3 Ports (optional 4 PCIe x1 or 1 PCIe x4 while removing Ethernet), compliant to PCIe Gen2 5.0 GT/s                             |
|                          | Audio Interface             | Intel HD Audio   |
| Serial Bus               | LPC                         | Yes  |
|                          | SMBus                       | Yes  |
| Ethernet                 | I²C Bus                     | Yes  |
|                          | Controller                  | Intel i210E  |
| I/O                      | Speed                       | 10/100/1000MHz   |
|                          | SATA                        | 1 Ports (optional 2 ports while remove onboard storage), compliant to SATA2.0 3.0 Gb/s   |
|                          | USB3.0                      | 1 port   |
|                          | USB2.0                      | 4 ports  |
|                          | SPI Bus                     | 1 channel, for SPI BIOS EEPROM   |
|                          | GPIO                        | 8-bit  |
|                          | Watchdog                    | 0-65535 sec, multi-level, multi-option watchdog timer support by Advantech iManager  |
|                          | COM Port                    | 2 ports 2-wire COM port (TX/RX)  |
|                          | Express Card                | 2 ports  |
|                          | Smart Fan                   | 1 port   |
| Power                    | Type                        | ATX/AT, 12Vin, VSB: 5VSB   |
|                          | Supply Voltage              | Vin: 4.75V - 20V<br>VSB: 4.75V - 5.25V   |
|                          | Power Consumption (Max.)    | +12V @ 1.38A (E3845)   |
|                          |                             | +12V @ 1.59A (J1900)   |
|                          |                             | +12V @ 0.74A (E3815)   |
|                          |                             | +12V @ 0.84A (E3825)   |
| +12V @ 1.44A (N2930)     |                             |  |
| Power Consumption (Idle) | +12V @ 0.67A (E3845)        |  |
|                          | +12V @ 0.25A (J1900)        |  |
|                          | +12V @ 0.59A(E3815)         |  |
|                          | +12V @ 0.64A (E3825)        |  |
| +12V @ 0.68A (N2930)     |                             |  |
| Environment              | Temperature                 | Operating Standard: 0 ~ 60 °C (32 ~ 140 °F)<br>Extend Temp.: -40 ~ 85 °C (-40 ~ 185 °F)<br>Storage: -40 ~ 85 °C (-40 ~ 185 °F) |
|                          | Humidity                    | Operating: 40 °C @ 95% relative humidity, non-condensing<br>Storage: 60 °C @ 95%relative humidity, non-condensing              |
| Mechanical               | Dimensions                  | 84 x 55 mm (3.3" x 2.17")  |

## Block Diagram



## Ordering Information

| Part No.           | CPU           | Onboard Memory | Onboard Flash | LVDS       | HDMI/ DVI/DP | PCIe x1 | HD Audio | GbE | SATAII | USB 3.0 | USB 2.0 | Thermal Solution | Operating Temperature |
|--------------------|---------------|----------------|---------------|------------|--------------|---------|----------|-----|--------|---------|---------|------------------|-----------------------|
| SOM-7567CS0C-S9A1E | Atom E3845    | 4GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | 0 ~ 60 °C             |
| SOM-7567BS0C-S3A1E | Atom E3825    | 2GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | 0 ~ 60 °C             |
| SOM-7567BS0C-S5A1E | Atom E3815    | 2GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | 0 ~ 60 °C             |
| SOM-7567CM8C-U0A1E | Celeron J1900 | 4GB            | MLC 8GB       | 18/24 bits | 1            | 3       | Yes      | 1   | 1      | 1       | 4       | Passive          | 0 ~ 60 °C             |
| SOM-7567BS0C-S8A1E | Celeron N2930 | 2GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | 0 ~ 60 °C             |
| SOM-7567CS0X-S9A1E | Atom E3845    | 4GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | -40 ~ 85 °C           |
| SOM-7567BS0X-S8A1E | Celeron N2930 | 2GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | -40 ~ 85 °C           |
| SOM-7567BS0X-S3A1E | Atom E3825    | 2GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | -40 ~ 85 °C           |
| SOM-7567BS0X-S5A1E | Atom E3815    | 2GB            | NA            | 18/24 bits | 1            | 3       | Yes      | 1   | 2      | 1       | 4       | Passive          | -40 ~ 85 °C           |

## Packing List

| Part No.       | Description                      | Quantity |
|----------------|----------------------------------|----------|
| -              | SOM-7567 COM Express Mini Module | 1        |
| 1960064246N001 | Heatspreader                     | 1        |

## Optional Accessories

| Part No.       | Description                                    |
|----------------|--|
| 1960056280N001 | Semi-Heatsink 84L x 55W x 13.2H mm (0 ~ 60° C) |
| 1960050950N001 | Semi-Heatsink 84L x 55W x 34H mm (-40 ~ 85° C) |

## Development Board

| Part No.         | Description   |
|------------------|---|
| SOM-DB5800-U0A2E | Development Board for COM Express Mini Module Type 10 Pin-out |

## Embedded OS

| OS   | Part No.   | Description                   |
|------|------------|-------------------------------|
| WES7 | 2070013084 | WES7E SOM-7567 x64 V5.6.8 ENG |