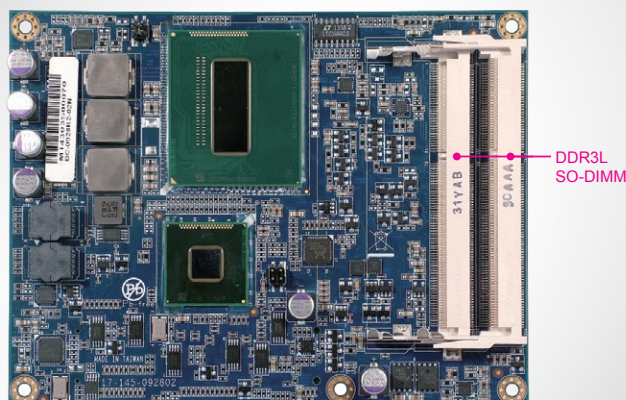


# BC-0928

COM Express Intel® 4th Gen. Core™ i7 / i5 / i3 CPU Module



## Features



- COM express type 6 pin out
- Intel® 4th Gen. Core™ i7 / i5 / i3 CPU on board
- Equipped with Intel® mobile QM87 chipset
- Supports DDR3L 1333 / 1600 MHz SO-DIMM up to 16GB
- Supports Giga LAN, SATA 6Gb/s, USB 3.0, USB 2.0
- 1 x PCIe (x16), 7 x PCIe (x1)
- Graphics: 1 x VGA, 1 x LVDS, 3 x DP

## Specifications

### System

CPU Support	Intel® 4th Gen. Core™ i7 / i5 / i3 processor
CPU Frequency	i7-4700EQ-47W (4C), 2.4GHz (turbo 3.4GHz) i5-4400E-37W (2C), 2.7GHz (turbo 3.3GHz) i3-4102E-25W (2C), 1.6GHz (no turbo)
Chipset	Intel® QM87
Memory Support	2 x 204 pin SO-DIMMs Supports dual-channel memory DDR3/3L 1333/1600MHz up to 16GB
BIOS	AMI BIOS
Watchdog	1~255 seconds watchdog timer selectable
Power Supply	Supports ATX power
Power Consumption	+5V: 0.72A +12V: 1.63A +3.3V: 0.32A +5VSB: 0.18A
Dimensions	95 x 125 mm (3.74" x 4.92")
Certifications	FCC / CE
O.S. Support	Windows 8 (32/64 bit) / Windows 7 (32/64 bit)

### I/O Ports

Pin Out	PICMG COM.0 Type 6
SATA Interface	2 x SATA III (6Gb/s) 2 x SATA II (3Gb/s)
Serial Ports	2 x COM (TX/RX)
Expansion Bus	1 x PCIe (x16) 7 x PCIe (x1) LPC bus, SMBus, I <sup>2</sup> C
LAN	Single port Intel i217LM 10/100/1000 GbE
USB	4 x USB 3.0 8 x USB 2.0
GPIO	4 in / 4 out
Super I/O	Supported on carrier board (NCT6102D)
Audio	Supported on carrier board (ACL888S)
TPM	Supported on carrier board with external Protech TPM module (BR-4010)

### Graphics

VGA	1 x VGA
LVDS	1 x LVDS (single/dual channel 18/24 bit)
DisplayPort	3 x DP

### Environment

Operating Temp.	0°C~60°C (32°F~140°F)
Storage Temp.	-40°C~85°C (-40°F~185°F)
Humidity	Operation humidity 20%~90%, storage humidity 20%~95%

\* All information contained in this document is subject to change without prior notice. Please log on [www.protech.com.tw](http://www.protech.com.tw) to acquire latest information. For detail mechanics drawing, please contact our sales.