

## Intel Core i7-4700MQ processor 2.4 GHz 6 MB Smart Cache

**Brand :** Intel

**Product family:** Core

**Product code:**  
CW8064701470702

**Product name :** i7-4700MQ



Intel® Core™ i7-4700MQ Processor  
(6M Cache, up to 3.40 GHz)

Intel Core i7-4700MQ. Processor family: Intel® Core™ i7, Processor socket: PGA946, Processor lithography: 22 nm. Memory channels: Dual-channel, Maximum internal memory supported by processor: 32 GB, Memory types supported by processor: DDR3L-SDRAM. On-board graphics card model: Intel® HD Graphics 4600, Maximum on-board graphics card memory: 2 GB, On-board graphics card outputs supported: Embedded DisplayPort (eDP), DisplayPort, HDMI, VGA (D-Sub). Market segment: Mobile, PCI Express configurations: 1x16, 2x8, 1x8, 2x4, Supported instruction sets: SSE4.1, SSE4.2, AVX 2.0. Intel® Turbo Boost Technology 2.0 frequency: 3.4 GHz



| Processor                                      |                                  | Processor special features                               |         |
|--|----------------------------------|--|---------|
| Processor manufacturer *                       | Intel                            | Intel® Hyper Threading Technology (Intel® HT Technology) | ✓       |
| Processor generation                           | 4th gen Intel® Core™ i7          | Intel® Identity Protection Technology (Intel® IPT)       | ✓       |
| Processor model *                              | i7-4700MQ                        | Intel® My WiFi Technology (Intel® MWT)                   | ✓       |
| Processor base frequency *                     | 2.4 GHz                          | Intel® Turbo Boost Technology                            | 2.0     |
| Processor family *                             | Intel® Core™ i7                  | Intel® Quick Sync Video Technology                       | ✓       |
| Processor cores *                              | 4                                | Intel® InTru™ 3D Technology                              | ✓       |
| Processor socket *                             | PGA946                           | Intel® Wireless Display (Intel® WiDi)                    | ✓       |
| Component for                                  | Laptop                           | Intel FDI Technology                                     | ✓       |
| Processor lithography *                        | 22 nm                            | Intel® Clear Video HD Technology (Intel® CVT HD)         | ✓       |
| Processor series                               | Intel Core i7-4700 Mobile series | Intel® Insider™  | ✓       |
| Processor threads                              | 8                                | Intel® Smart Cache                                       | ✓       |
| System bus rate                                | 5 GT/s                           | Intel® AES New Instructions (Intel® AES-NI)              | ✓       |
| Processor operating modes *                    | 64-bit                           | Enhanced Intel SpeedStep Technology                      | ✓       |
| Processor boost frequency                      | 3.4 GHz                          | Intel Trusted Execution Technology                       | ✗       |
| Processor cache                                | 6 MB                             | Intel® Turbo Boost Technology 2.0 frequency              | 3.4 GHz |
| Processor cache type                           | Smart Cache                      | Intel® Transactional Synchronization Extensions          | ✗       |
| Thermal Design Power (TDP)                     | 47 W                             | Intel Enhanced Halt State                                | ✓       |
| Box *  | ✗                                | Intel VT-x with Extended Page Tables (EPT)               | ✓       |
| Cooler included *                              | ✗                                | Intel® Secure Key  | ✓       |
| Generation                                     | 4th Generation                   | Intel TSX-NI   | ✗       |
| Stepping                                       | C0                               | Intel 64   | ✓       |
| Bus type                                       | DMI2                             | Intel Identity Protection Technology version             | 1.00    |
| Memory bandwidth supported by processor (max)  | 25.6 GB/s                        | Intel Secure Key Technology version                      | 1.00    |
| Processor codename                             | Haswell                          | Intel Virtualization Technology (VT-x)                   | ✓       |
| Processor code                                 | SR15H                            | Intel Virtualization Technology for Directed I/O (VT-d)  | ✗       |
| Processor ARK ID                               | 75117                            | Intel TSX-NI version                                     | 0.00    |
| <b>Memory</b>                                  |                                  | Conflict-Free processor                                  | ✓       |
| Maximum internal memory supported by processor | 32 GB                            | Intel® vPro™ Platform Eligibility                        | ✗       |
| Memory types supported by processor            | DDR3L-SDRAM                      | <b>Operational conditions</b>                            |         |
| Memory clock speeds supported by processor     | 1333,1600 MHz                    | Tjunction  | 100 °C  |
| Memory channels *                              | Dual-channel                     |  |         |
| ECC  | ✗                                |  |         |
| <b>Graphics</b>                                |                                  |  |         |
| On-board graphics card *                       | ✓                                |  |         |
| On-board graphics card model *                 | Intel® HD Graphics 4600          |  |         |
| Maximum on-board graphics card memory          | 2 GB                             |  |         |

| Graphics  |  | Technical details                               |   |
|---|--|---|---|
| On-board graphics card outputs supported                                | Embedded DisplayPort (eDP), DisplayPort, HDMI, VGA (D-Sub) | Born on date                                    | Q2'13   |
| On-board graphics card base frequency                                   | 400 MHz  | Bus bandwidth                                   | 5   |
| On-board graphics card dynamic frequency (max)                          | 1150 MHz   | Bus type units                                  | GT/s  |
| Number of displays supported (on-board graphics)                        | 3  | Graphics max dynamic frequency                  | 1.15 GHz  |
| On-board graphics card DirectX version                                  | 11.1   | Launch date                                     | Q2'13   |
| On-board graphics card OpenGL version                                   | 4.3  | Maximum resolution & refresh rate (DisplayPort) | 3840x2160@60Hz                                  |
| On-board graphics card maximum resolution (DisplayPort)                 | 3840 x 2160 pixels   | Maximum resolution & refresh rate (HDMI)        | 3840x2160@60Hz                                  |
| On-board graphics card maximum resolution (HDMI)                        | 3840 x 2160 pixels   | Maximum resolution & refresh rate (VGA)         | 2880x1800@60Hz                                  |
| On-board graphics card maximum resolution (VGA)                         | 2880 x 1800 pixels   | OpenGL support                                  | ✓   |
| On-board graphics card refresh rate at maximum resolution (DisplayPort) | 60 Hz  | Processor cache                                 | 6144 KB   |
| On-board graphics card refresh rate at maximum resolution (HDMI)        | 30 Hz  | Product name                                    | Intel Core i7-4700MQ (6M Cache, up to 3.40 GHz) |
| On-board graphics card refresh rate at maximum resolution (VGA)         | 60 Hz  | Product type                                    | Processor                                       |
| On-board graphics card ID   | 0x416  | Status  | Discontinued                                    |
| <b>Features</b>   |  | Video compression formats                       | ✓   |
| Execute Disable Bit   | ✓  | Maximum graphics card memory                    | 1740 MB   |
| Idle States   | ✓  | Maximum memory                                  | 32 GB   |
| Thermal Monitoring Technologies   | ✓  | Processor brand name                            | Intel Core i7 Intel Core i7 Processor           |
| Market segment  | Mobile   | Supported memory types                          | DDR3L-SDRAM                                     |
| Maximum number of PCI Express lanes                                     | 16   | Last change                                     | 63903513  |
| PCI Express slots version   | 3.0  | Product family                                  | 4th Generation Intel Core i7 Processors         |
| PCI Express configurations  | 1x16, 2x8, 1x8, 2x4  | Bus speed                                       | 5 GT/s  |
| Supported instruction sets  | SSE4.1, SSE4.2, AVX 2.0                                    | Maximum graphics card memory                    | 2 GB  |
| CPU configuration (max)   | 1  | Processor ID                                    | 0x416   |
| Embedded options available  | ✗  | <b>Logistics data</b>                           |   |
| PCI Express CEM revision  | 3  | Harmonized System (HS) code                     | 8542310001                                      |
| Export Control Classification Number (ECCN)                             | 5A992C   | <b>Weight &amp; dimensions</b>                  |   |
| Commodity Classification Automated Tracking System (CCATS)              | G077159  | Processor package size                          | 37.5mm x 32mm x 1.6mm                           |
| <b>Processor special features</b>                                       |  | <b>Other features</b>                           |   |
| Intel® Anti-Theft Technology (Intel® AT)                                | ✓  | Intel® Virtualization Technology (Intel® VT)    | VT-d, VT-x                                      |
|   |  | Maximum internal memory                         | 32 GB   |
|   |  | Maximum internal memory                         | 32768 MB  |
|   |  | Graphics output                                 | eDP/DP/HDMI/VGA                                 |
|   |  | Cache memory                                    | 6 MB  |
|   |  | Video decoding                                  | ✓   |

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Publication date: 22-DEC-2023. Prints or copies of Information are only valid on the printed Publication date