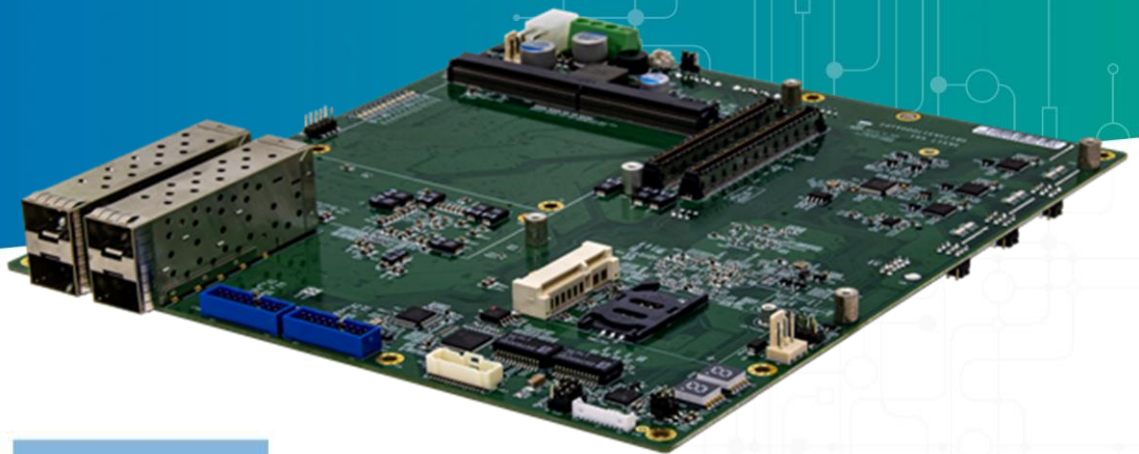


COM Express Type 7 Carrier Board



Extended
Temperature
+85°C
-40°C

CPU Full Speed



Key Features

- COM Express Type7 R3.1 support Ice Lake-D LCC family processor
- MXM Type 3.1 Type B(PCIe Gen4 x16)
- PCIe/104 Type 2 Expansion slot (2x PCIe Gen3 x4 + 4x PCIe Gen3 x1)
- 1x M.2 2280 M-Key slot (PCIe Gen3 x4, NVMe)
- 4x 10GbE SFP+ + 2x GbE RJ45
- 4x USB3.0, 1x VGA, 6x RS232
- 2x DP
- 2x SATA3.0
- 8 Bits DIO, I2C
- 2x Full-size mini PCIe (PCIe)
- 9V~36V DC-IN (AT/ATX mode support) Support

Instructions

COM Express, a computer-on-module (COM) form factor, is a highly integrated and compact PC that can be used in a design application much like an integrated circuit component. The COM Express Module integrates core CPU and memory functionality, the common I/O of a PC/AT, USB, Audio, Graphics (PEG), and Ethernet.

SK517 feature a range of Intel processors, up to the latest Intel Xeon-D 1700 series, Atom® C3000-series. SK517 are built to operate in harsh environmental conditions, the operating temperatures as low as -40°C to as hot as 85°C. From low power consumption to high performance processing power, SK517 are built to suit a wide range of computing applications from signal processing to unmanned vehicles and more.

Specifications

System

COM Express CPU (Type 7)	Intel® Xeon® D-1700 processor (Ice Lake-D LCC) Intel® Xeon® D (Broadwell-DE) Intel Atom® Processor C3000 SoC(Denverton-NS)
COM Express CPU Options (Type 7)	Intel® Xeon® D-1700 processor (Ice Lake-D LCC) <ul style="list-style-type: none"> • Xeon® D-1746TER 2.0/3.1GHz 15MB, 67W, 10C • Xeon® D-1735TR 2.2/3.4GHz 15MB, 59W, 8C • Xeon® D-1732TE 1.9/3.0GHz 15MB, 52W, 8C Intel Atom® Processor C3000 SoC(Denverton-NS) <ul style="list-style-type: none"> • Atom® C3808 2.0GHz 12MB, 25W, 12C/2133MHz • Atom® C3708 1.7GHz 16MB, 17W, 8C/2133MHz • Atom® C3958 2.0GHz 16MB, 31W, 16C/2400MHz • Atom® C3858 2.0GHz 12MB, 25W, 12C/2400MHz
GPU Module Options	NVIDIA® GeForce™ GTX 1050Ti, 60W, 4GB GDDR5, 768 CUDA Cores NVIDIA® GeForce™ RTX 2060S, 175W, 8GB GDDR6, 2176 CUDA Cores NVIDIA® Quadro™ MXM A2000, 60W, 8GB GDDR6, 2560 CUDA Cores NVIDIA® Quadro™ MXM A4500, 80/115W, 16GB GDDR6, 5888 CUDA Cores
COM Express Compatibility	COM Express® Type 7
Expansion	
MiniPCIe Expansion	2x Full-size mini PCIe
M.2 Expansion	1x 2280 M-key (PCIe Gen.3 x4, NVMe)

PCIe/104 Expansion	1x Type2 : 2x PCIe Gen3 x4 + 4x PCIe Gen3 x1
--------------------	--

MXM	1x (MXM3.1 Type B), PCIe 4.0 support
-----	--------------------------------------

SIM slot	2x
----------	----

Display

Display Port	2x Display Port outputs from MXM GPU
--------------	--------------------------------------

VGA	1x VGA(Through BMC to convert VGA signal)/VGA: resolution up to 1920 x 1200 x 32bpp (share with SOC 16MB memory)
-----	---

Ethernet

Gigabit Ethernet	2x GbE (one from module; another from BMC for remote management)
------------------	--

10GbE SFP+	4x (Intel C827 10G Retimer)
------------	-----------------------------

Rear I/O

10GbE SFP+	4x
------------	----

Terminal block DIP 1x4P	1x (Vin: 2pin; GND: 2pin)
----------------------------	---------------------------

Internal I/O

COM	6x RS232/422/485 (1x 10Pin), (2 TX/RX from COMe module)
-----	---

Display Port Header	2x (1x 20Pin)
---------------------	---------------

SATA port	2x (standard 7Pin), up to 6Gb/s
-----------	---------------------------------

SATA power	2x
------------	----

USB3.0	4x (2x 10Pin)
--------	---------------

Front Panel	1x (2x 5Pin)
-------------	--------------

Smart Fan	2x (1x CPU Fan, 1x System Fan)
-----------	--------------------------------

I2C	1x (1x 4Pin)
-----	--------------

DIO	4x DI, 4x DO (1x 10Pin)
-----	-------------------------

Battery Header	1x
----------------	----

eSPI/LPC Header	1x (1x 10Pin)
-----------------	---------------

Power Management

Power type	9V~36V DC-IN, AT/ATX mode support (4P Terminal Block)
------------	---

ACPI	ACPI3.0
------	---------

Sleep State	S0, S1, S4, S5
-------------	----------------

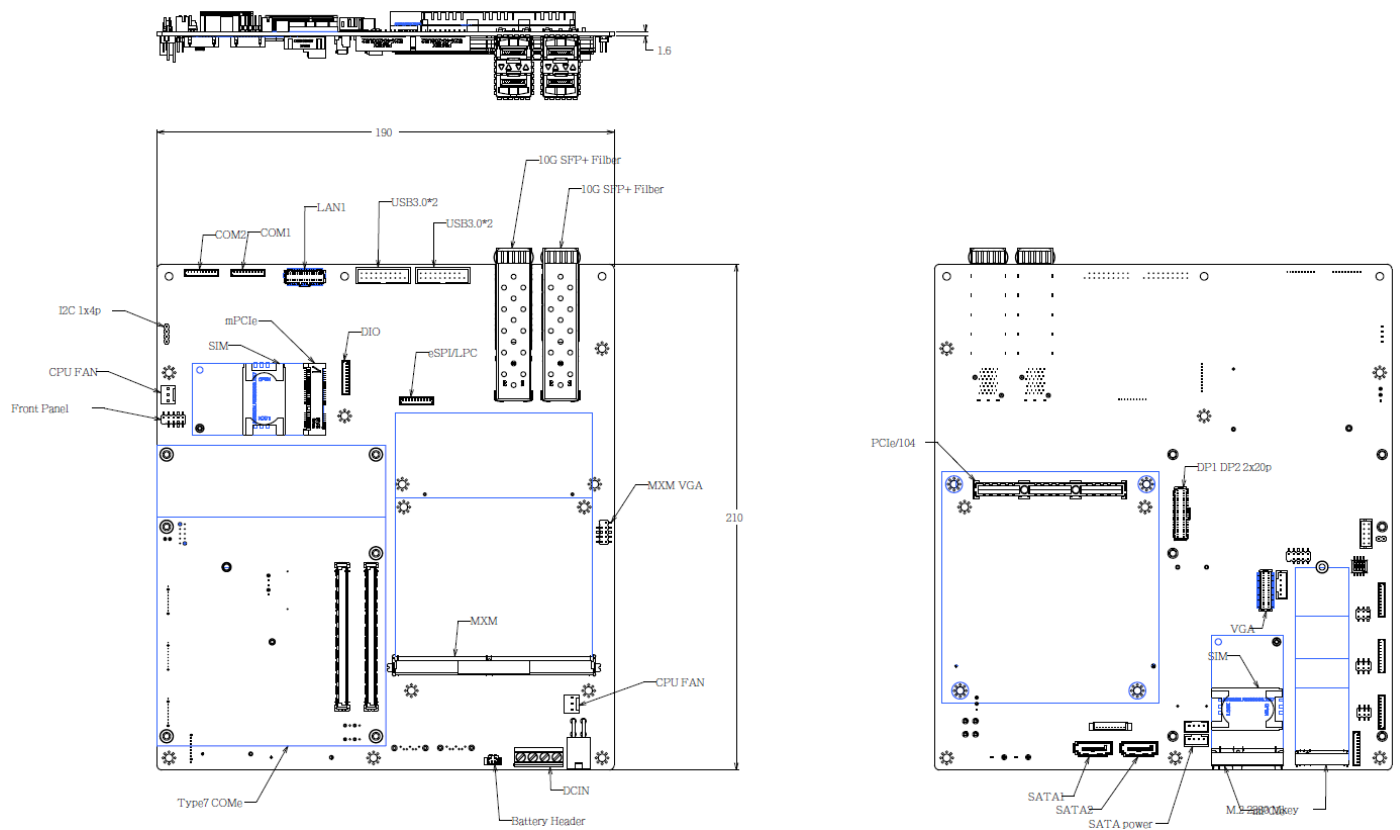
Mechanical and Environmental

Dimension	190mm x 210 mm
Operating Temp.	-40°C to 85°C
Storage Temp.	-40°C to 85°C
Relative humidity	5% to 95%, non-condensing

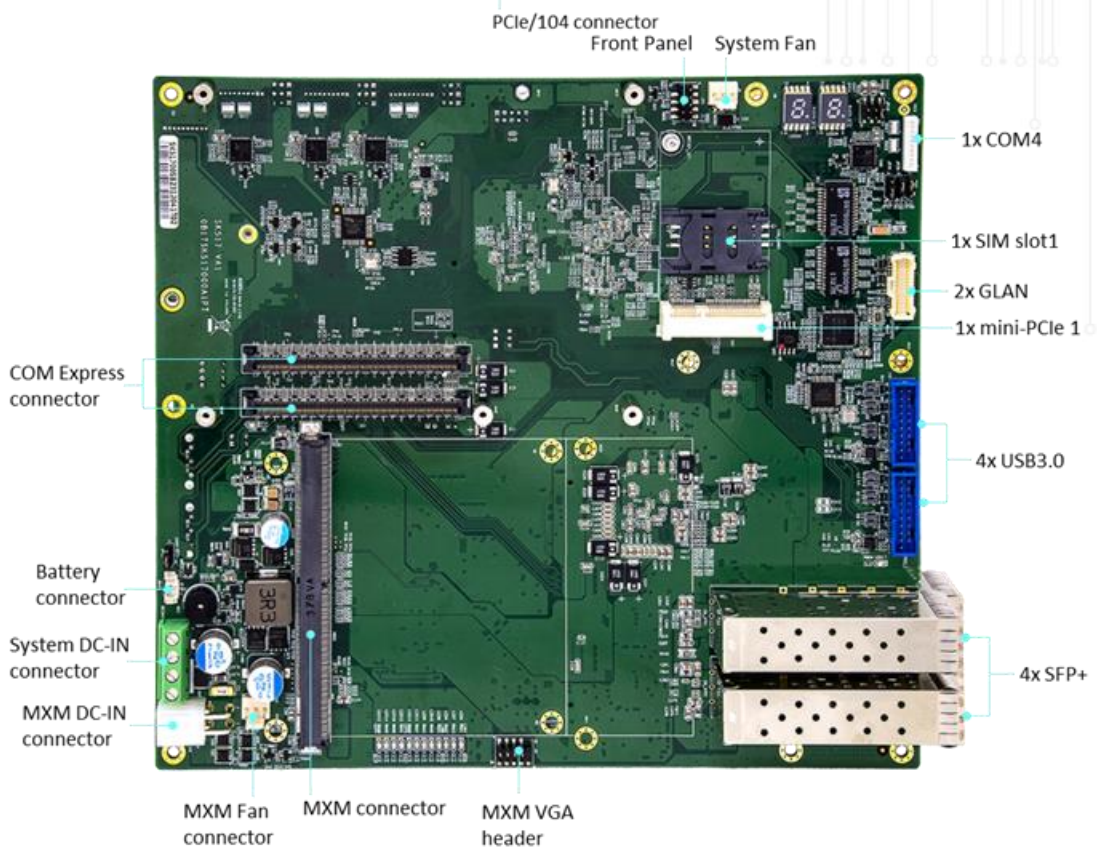
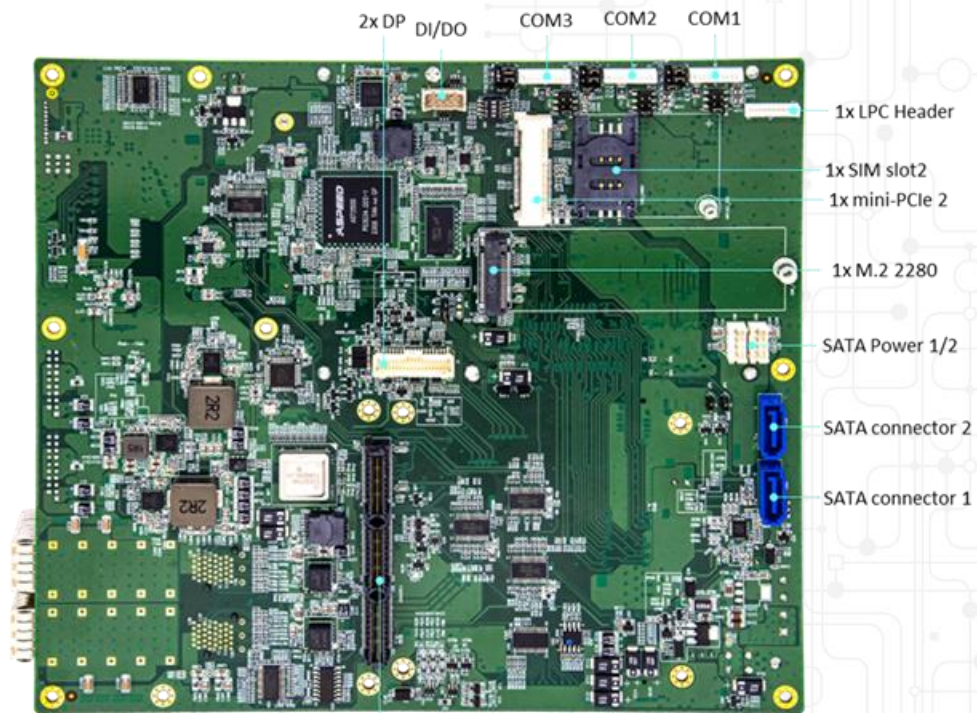
OS

OS support Windows®10 64bit, Linux(Support by request)

Carrier Board Dimension

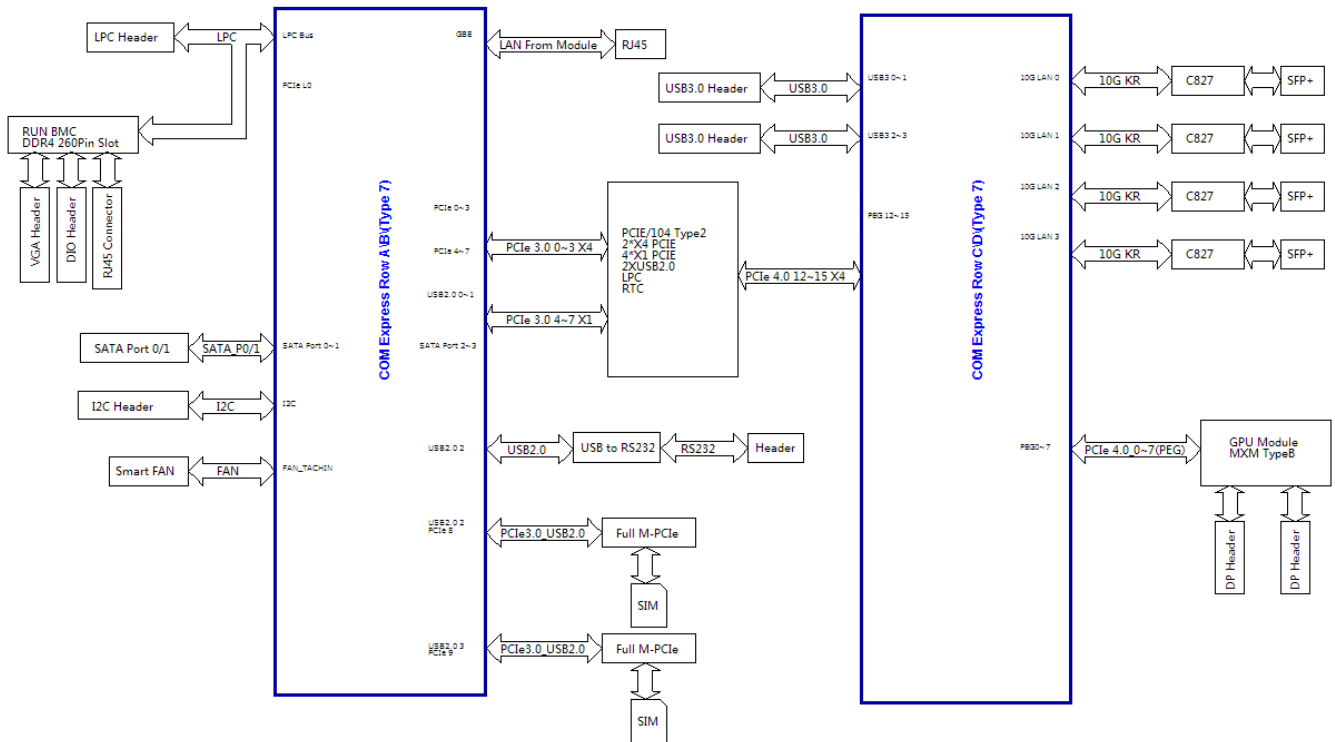


Carrier Board Placement



Block Diagram

SK517 BLOCK DIAGRAM



Ordering Information

COMe Type	Model Name	Configuration
Type7	SK517-T717Q03	CPU Board : D-1746TER / MXM GPU : Quadro A4500
	SK517-T718Q02	CPU Board : D-1735TR / MXM GPU : Quadro A2000
	SK517-T719Q02	CPU Board : D-1732TE / MXM GPU : Quadro A2000
	SK517-T714G03	CPU Board : D-1559 / MXM GPU : Geforce RTX3080Tim
	SK517-T715G02	CPU Board : D-1539 / MXM GPU : Geforce RTX3060
	SK517-T715G01	CPU Board : D-1539 / MXM GPU : Geforce RTX1050Ti
	SK517-T713Q03	CPU Board : D-1577 / MXM GPU : Quadro A4500
	SK517-T716Q02	CPU Board : D-1548 / MXM GPU : Quadro A2000
	SK517-T722A01	CPU Board : C3808 / MXM GPU : Intel Arc A730M
	SK517-T723A02	CPU Board : C3708 / MXM GPU : Intel Arc A370M
	SK517-T724A01	CPU Board : C3958 / MXM GPU : Intel Arc A730M
	SK517-T725A02	CPU Board : C3858 / MXM GPU : Intel Arc A370M