F40

1/2 Short ATR

- MIL-STD810 Thermal, shock, vibration, Humidity / EMI / EMC conditions
- Intel® 14th Meteor Lake Core™ Ultra processor
- Intel® 11th / 9th Gen Xeon® processor
- IP65 Chassis with D38999 connectors
- 14th Gen Memory support DDR5 up to 96GB
- 11th / 9th Gen Memory support DDR4 up to 128GB
- 1x 2.5" Easy swap HDD/SSD Tray
- MIL-STD-704 / MIL-STD-461/ MIL-STD-1275 10V~40V DC-Input for optional
- Extreme Temperature: -40°C to +60°C degree

Specifications

System

F40-MH	Intel® Core™ Ultra 7 165H 20-65W, Meteor Lake-H 14Gen, 16C(6P+8E+2LPE), Freq. 0.9/1.4 Max 3.8/5.0 GHz, 24MB cache
F40-MP	Intel® Core™ Ultra 7 155U 12-28W, Meteor Lake-U 14Gen, 12C(2P+8E+2LPE), Freq. 1.2/1.7 Max 3.8/4.8 GHz, 12MB cache
F40-TH	Intel® Xeon® W-11865MRE Processor (up to 4.70 GHz), 45W, 8C/16T
F40-CH	Intel® Xeon® E-2276ME Processor (up to 4.50 GHz), 45W, 6C/12T
14th Memory type	2 x DDR5 SO-DIMM up to 96GB 5600MHz
11th / 9th Memory type	Support up to DDR4-128GB, ECC for Xeon SKU
Graphic	Intel® Iris® Xe Graphics eligible
GPU (optional)	NVIDIA RTX™ A2000 GA107-980 GPU 8GB GDDR6 memory, 2560 CUDA cores
BIOS	AMI UEFI BIOS
ARINC 429 (optional)	6 Channels of ARINC-429 Channels: 4 RX/TX and 2 RX Only Channels. w/ mini-PCIe card (Alta-dt MPCIE-A429)
MIL -1553 (optional)	1-2 INDEPENDENT, DUAL REDUNDANT (A/B) MIL-STD-1553 CHANNELS w/ mini-PCIe card (Alta-dt MPCIE2-1553)
TPM	TPM 2.0
M.2	1 x M.2 2280 support PCIe x4
Mini PCIe	2 x Full size
Ethernet	2 x Intel® I226-LM 2.5 GbE
Power Type	10V ~ 40V DC-IN
Storage	1 x 2.5" Easy swap HDD/SSD Tray
DIO	4 x DI / 4 x DO
Dimensions	123.95(W) x 177(L) x 286.25(H) mm

Front I/O

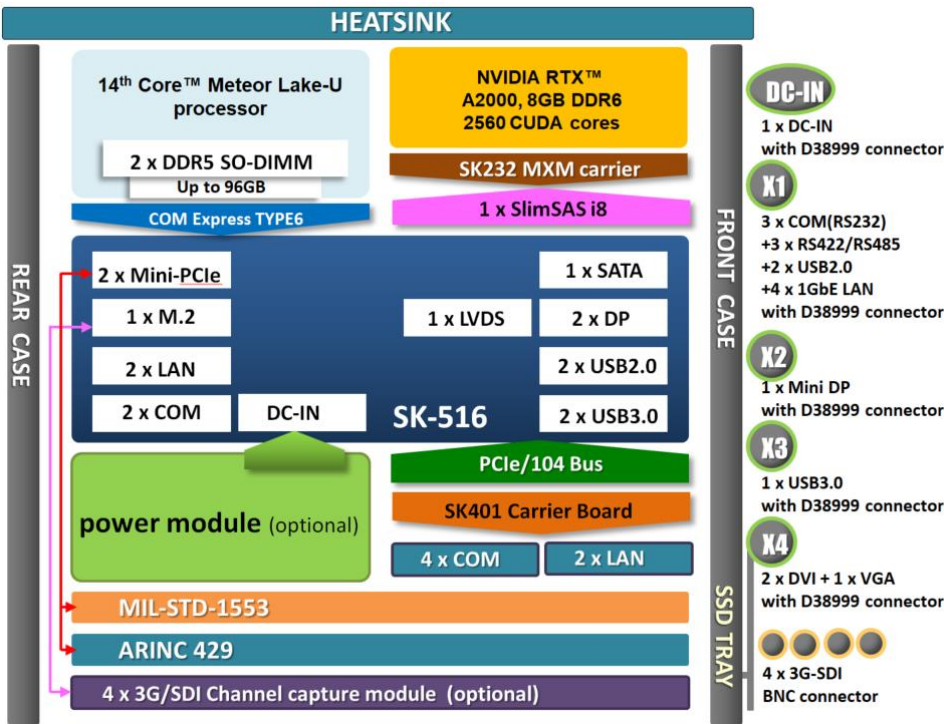|	
X1 (configurable)	3 x RS232 + 3 x RS422/RS485 + 2 x USB 2.0 + 4 x 1GbE LAN with 100 PIN D38999 connector
X2	1 x Mini DP with D38999 connector
X3	1 x USB3.0 with USB3.0 D38999 connector

7STARLAKE

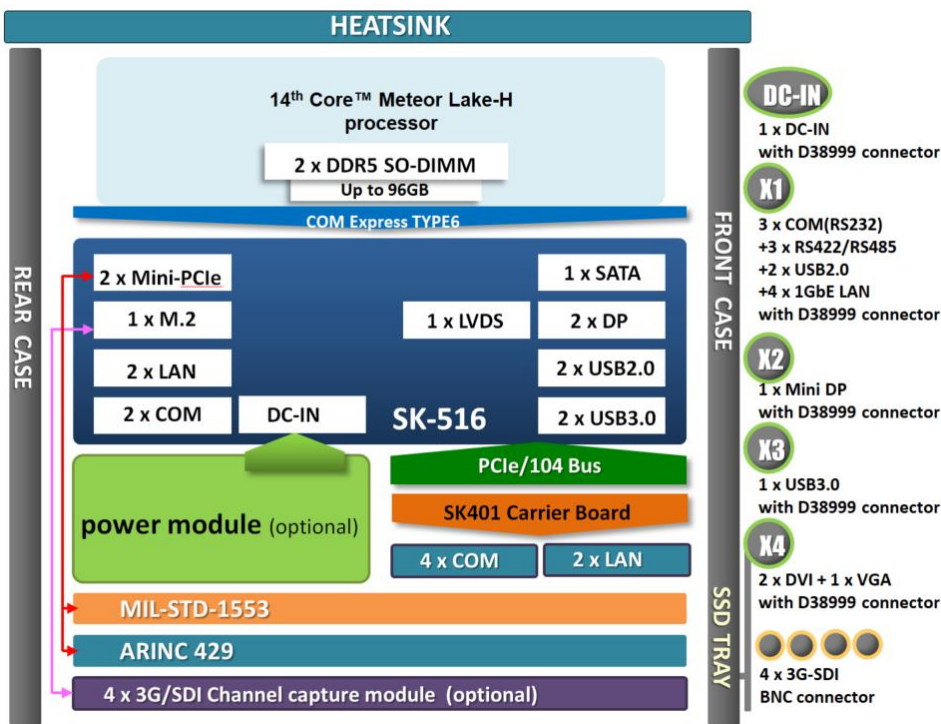|	
X4 (configurable)	2 x DVI +1x VGA with 50PIN D38999 connector
X5	1 x DC in with D38999 connector
others	1 x 2.5" Easy swap HDD/SSD Tray 4 x 3G-SDI BNC connectors

ENVIRONMENTAL

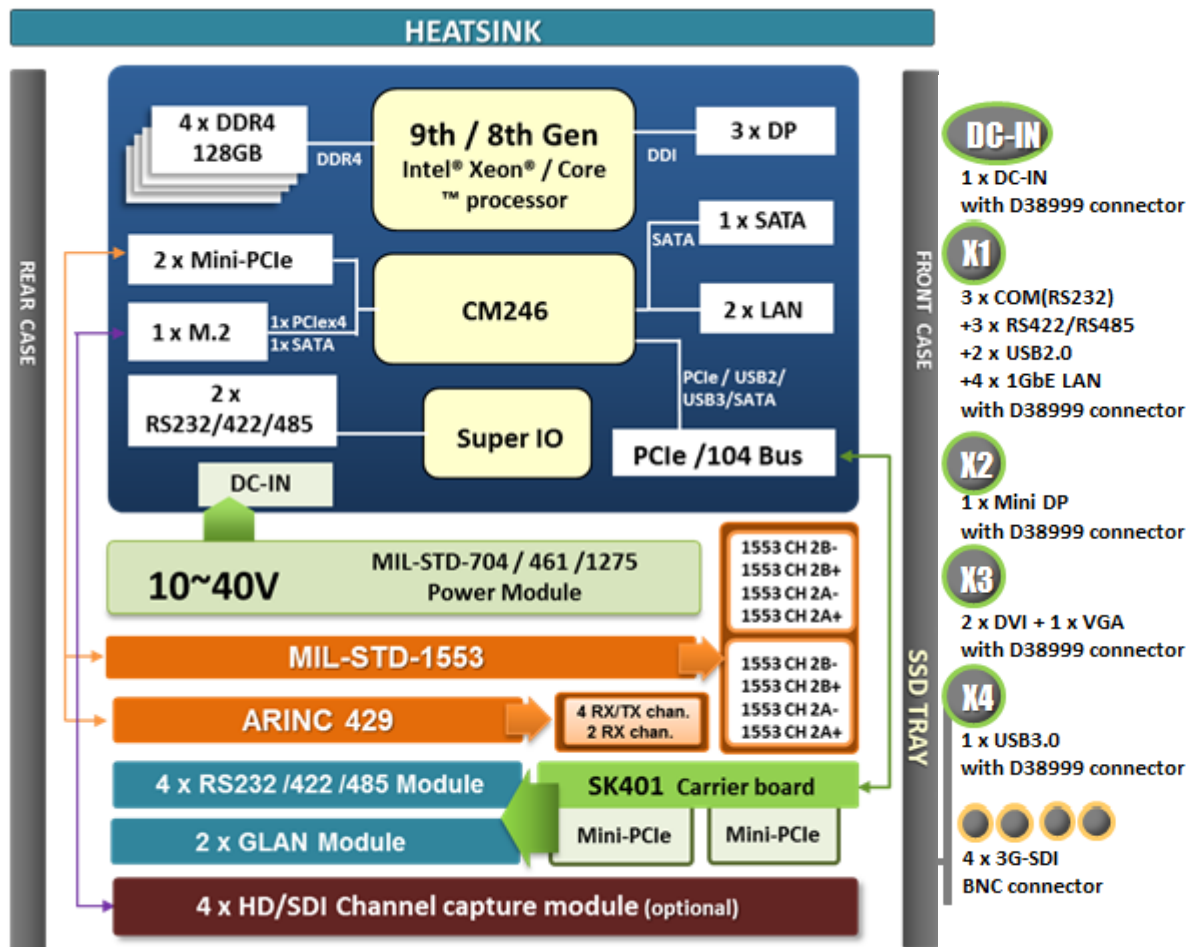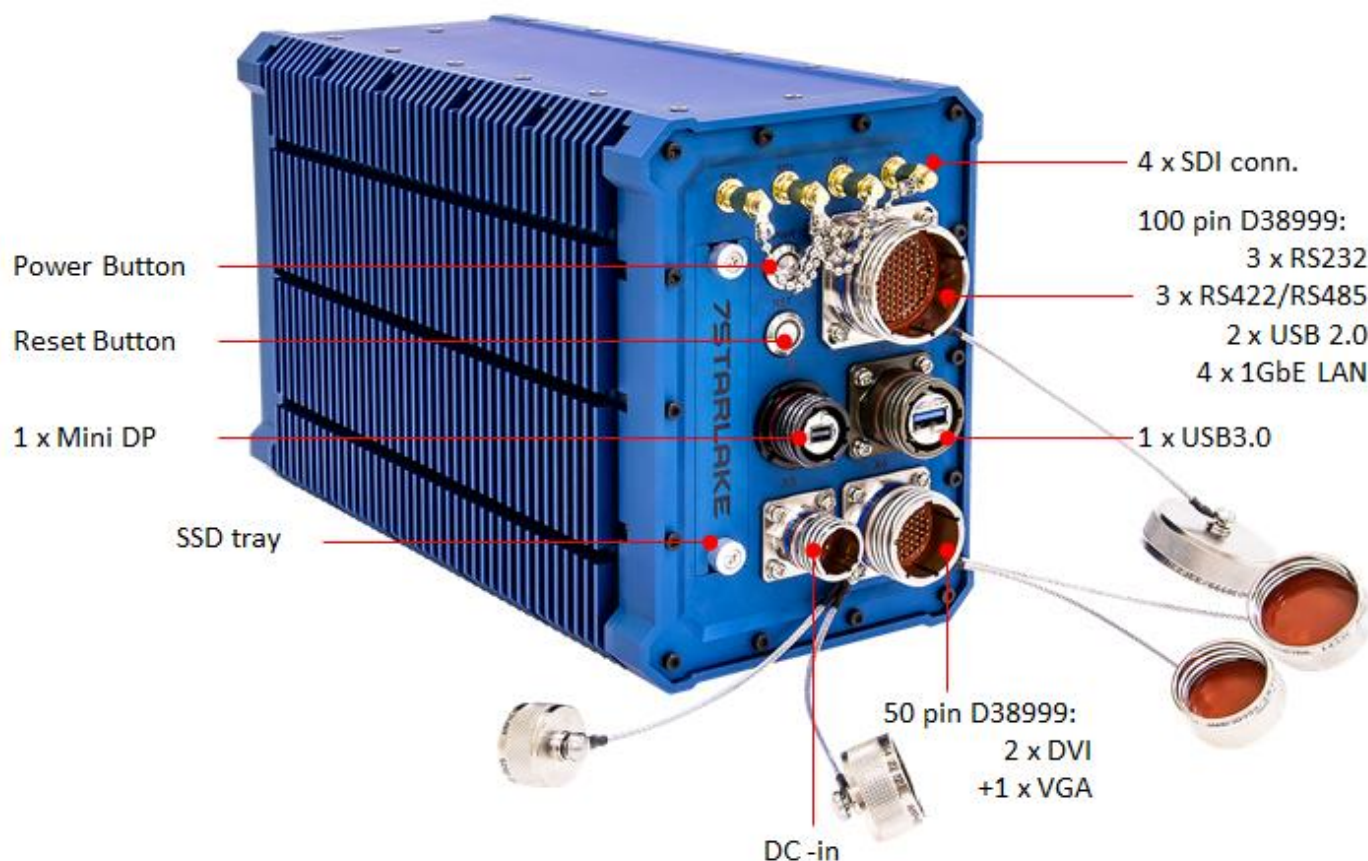|	
Green Product	RoHS, WEEE compliance
Operating Temp.	-40°C to +60°C
Storage Temp.	-40°C to +85°C
Relative Humidity	5% to 95%, non-condensing
MIL-STD-810	Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 502.5, Procedure I (Storage/Low Temperature) Method 502.5, Procedure II (Operation/Low Temperature) Method 503.5, Procedure I (Temperature shock) Method 507.5, Procedure II (Temperature & Humidity) Method 514.6, Vibration Category 24/Non-Operating (Category 20 & 24, Vibration) Method 514.6, Vibration Category 20/Operating (Category 20 & 24, Vibration) Method 516.6, Shock-Procedure V Non-Operating (Mechanical Shock) Method 516.6, Shock-Procedure I Operating (Mechanical Shock)
Reliability	No Moving Parts; Passive Cooling. Designed & Manufactured using ISO 9001 / 2000 Certified Quality Program.
MIL-STD-1275 (optional)	Steady State: 20V - 33V Surge Low: 18V/500ms Surge High: 100V/500ms
MIL-STD-461 (optional)	CE102: 10 KHz - 10 MHz RE102-4: 1.5 MHz - 30 MHz - 5 GHz RS103: 200 MHz - 3.0 GHz - 5.0 GHz, 50 V/m equal for all frequencies

Block Diagram

F40-MP

F40-MH

F40-CH

Appearance

286.25 mm

123.95 mm

177 mm

Power Button
Reset Button
1 x Mini DP
SSD tray
DC -in

4 x SDI conn.

100 pin D38999:
3 x RS232
3 x RS422/RS485
2 x USB 2.0
4 x 1GbE LAN

1 x USB3.0

50 pin D38999:
2 x DVI
+1 x VGA

Order Information

F40-MP

Intel® Core™ Ultra 7 155U, DDR5 Up to 96GB, NVIDIA MXM RTX A2000 8GB, 1 x 2.5" SATA III SSD, 10V ~ 40V DC-IN

F40-MH

Intel® Core™ Ultra 7 165H, DDR5 Up to 96GB, 1 x 2.5" SATA III SSD, 10V ~ 40V DC-IN

F40-TH

Intel® Xeon® W-11865MRE (8C / 16T, 4.7 GHz), DDR4 Up to 128GB, 1 x 2.5" SATA III SSD, 10V ~ 40V DC-IN

F40-CH

Intel® Xeon® E-2276ME (6C / 12T, 4.5 GHz), DDR4 Up to 128GB, 1 x 2.5" SATA III SSD, 10V ~ 40V DC-IN