



LAND



SEA



AIR

F20-THT

3/4 Short ATR



- MIL-STD810 Thermal, shock, vibration, Humidity / EMI / EMC conditions
- 9th / 8th Gen Intel® Xeon® / Core™ processor
- IP65 Chassis with D38999 connectors
- Memory support up to DDR4-128GB
- Embedded NVIDIA® RTX™ A4500, 8GB/16GB GDDR6 memory, 5888 CUDA cores, 80W / 115W TGP
- MIL-STD-704 / MIL-STD-461/ MIL-STD-1275 10V~40V DC-Input for optional
- High performance with lower power efficiency (total power consumption under 150W)

Specifications

System

High Power Processor	Xeon E-2276ML (6 Cores/12 Threads, 12M Cache, up to 4.20 GHz), 25W
Memory type	Support up to DDR4-128GB ECC for Xeon SKU
Chipset	CM246
Graphic	Intel® UHD Graphics 630
GPU	Embedded NVIDIA® RTX™ A4500, GA104-955 GPU 8GB/16GB GDDR6 memory, 5888 CUDA cores, 80W / 115W TGP
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 (SLB9665)
BIOS	AMI UEFI BIOS
COM	3 x RS-422
USB	1 x USB2.0
Ethernet	1 x Intel I210-IT 1 x I219-LM GbE
Power Type	10V ~ 40V DC IN
Storage	1 x2.5" SATA SSD
GPIO	4x GPIO
Operating Temperature	-40 to +60 C
Dimension	190.50(W) x 320.50(L2) x 269.88(H) mm

FRONT I/O

X1	2 x LAN + 1 x USB2.0 with 22 PIN D38999 connector
X2	3 x RS422, 1x DVI with 37pin D38999 connector
X3	1 x ARINC429+1 x MIL-1553 + 4-CH GPIO with 37pin D38999 connector
X4	DC IN with D38999 connector

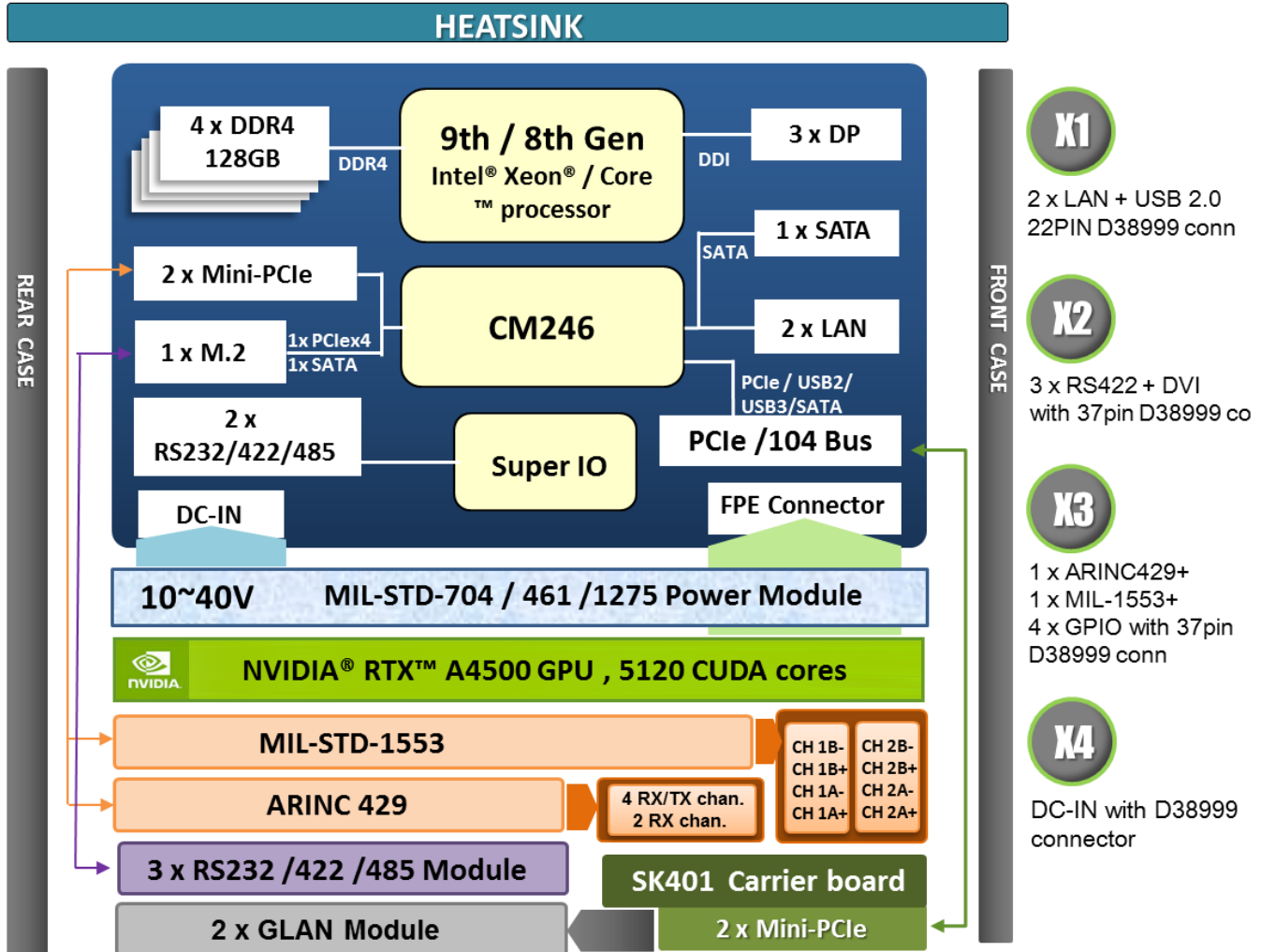
Environmental

Standard

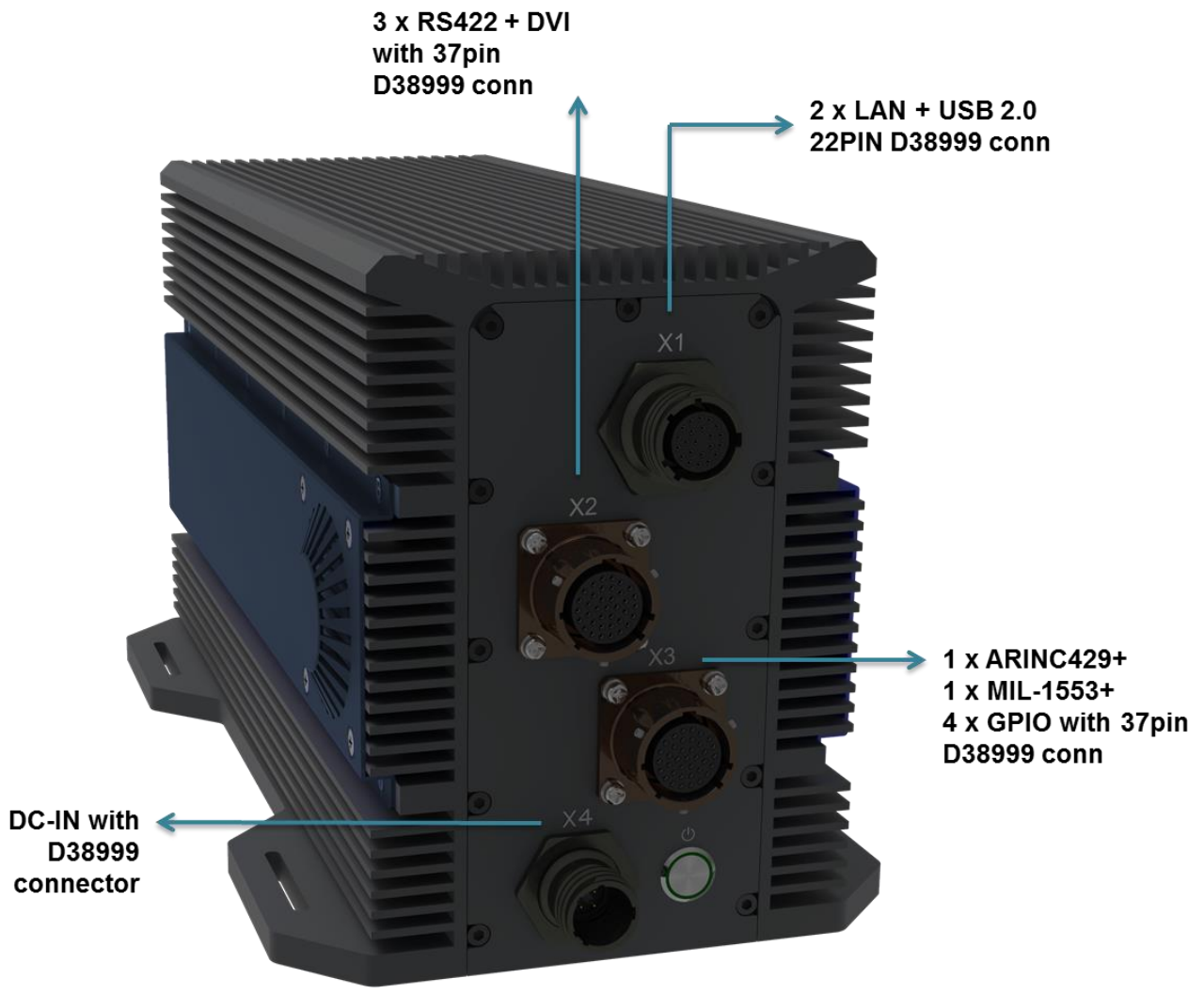
MIL-STD-810

MIL-STD-704 / MIL-STD-461/ MIL-STD-1275 10V~40V DC-Input
(optional)

Block Diagram



Appearance



Ordering information

	F20-THT-A45CP	F20-THT-A45CT	F20-THT-A45T
CPU	11th Tiger-Lake (H)	11th Tiger-Lake (H)	11th Tiger-Lake (H)
	Xeon W-11865MRE	Xeon W-11865MRE	Xeon W-11865MRE
	(8C ,4.7Ghz)	(8C ,4.7Ghz)	(8C ,4.7Ghz)
GPU	MXM A4500 GPU	MXM A4500 GPU	MXM A4500 GPU
	(16GB RAM, 5888CUDA)	(16GB RAM, 5888CUDA)	(16GB RAM, 5888CUDA)
RAM	DDR4-96GB	DDR4-96GB	DDR4-96GB
Conformal Coating	YES	YES	N/A
NIC-10G (SFP+)	2	2	N/A
NIC-10G	N/A	N/A	2
NIC-2.5G	1	1	1
USB, DVI, COM	USB 2.0x2, DVIx1	USB 2.0x2, DVIx1	USB 2.0x2, DVIx1
	COM x2(RS232/422/485)	COM x2(RS232/422/485)	COM x2(RS232/422/485)
HD-SDI	2 CH (S/W)	2 CH (S/W)	2 CH (S/W)
Frame Grabber Type	HD-SDI or 3G-SDI	HD-SDI or 3G-SDI	HD-SDI or 3G-SDI
Storage-NVMe	64GB	64GB	N/A
Boot-Up	Soldered On Board	Soldered On Board	
Storage- SATA	pSLC 1TBx1	TLC 4TBx1	TLC 4TBx1
Power	18V~36V	18V~36V	18V~36V
	MIL-461/1275/704	MIL-461/1275/704	MIL-461/1275/704
Dimension	190.5x269.88x320.5 mm	190.5x269.88x320.5 mm	190.5x269.88x320.5 mm
	(WxHxL)	(WxHxL)	(WxHxL)
Form Factor	3/4 ATR Short	3/4 ATR Short	3/4 ATR Short
I/O	X1: 10GLAN (Amphenol LCFTV6MDGN)	X1: 10GLAN (Amphenol LCFTV6MDGN)	X1: 10GLAN (Amphenol TV07RW-13-35S)
	X2: 10GLAN (Amphenol LCFTV6MDGN)	X2: 10GLAN (Amphenol LCFTV6MDGN)	X1: 10GLAN (Amphenol TV07RW-13-35S)
	X3: 1xGLAN (Amphenol TV07RW-13-35S)	X3: 1xGLAN (Amphenol TV07RW-13-35S)	X3: 1xGLAN (Amphenol TV07RW-13-35S)
	X4: 2xUSB,1xDVI,2xCOM	X4: 2xUSB,1xDVI,2xCOM	X4: 2xUSB,1xDVI,2xCOM
	X5: DC-IN (Amphenol TV07RW-13-04P)	X5: DC-IN (Amphenol TV07RW-13-04P)	X5: DC-IN (Amphenol TV07RW-13-04P)
	X6-X7 : BNC	X6-X7 : BNC	X6-X7 : BNC
	1x waterproof valve	1x waterproof valve	1x waterproof valve