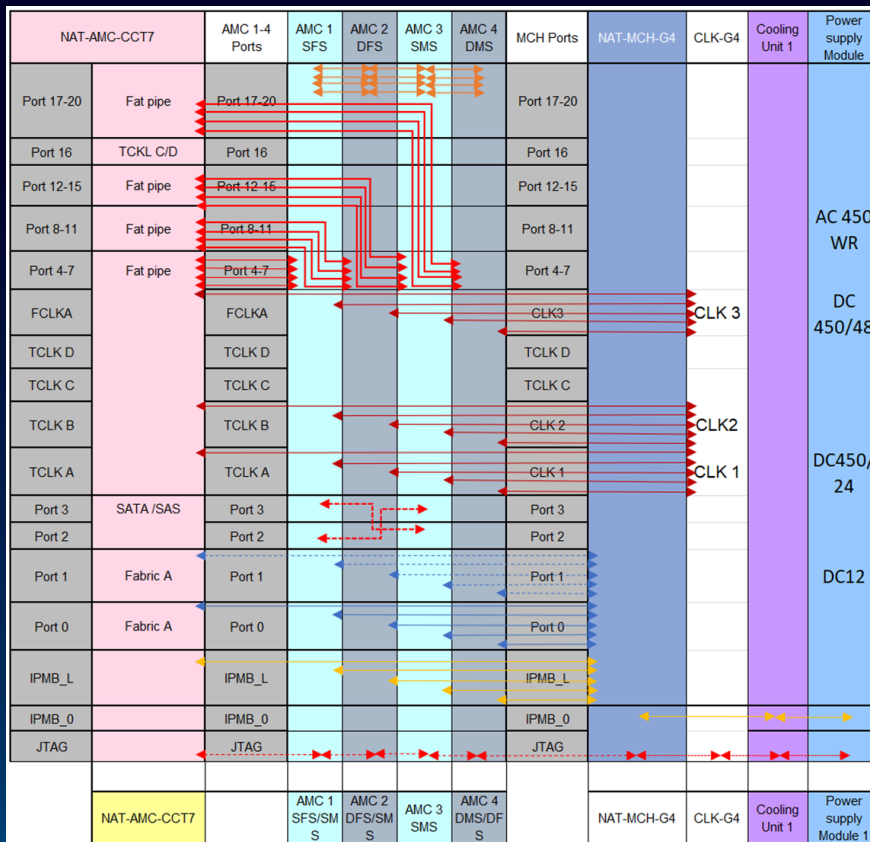


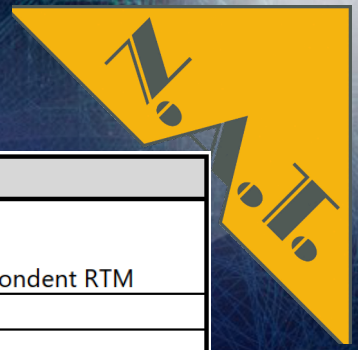


NATIVE-server-R1

The **NATIVE-server-R1** is a compact MTCA chassis designed for server applications which comes with a **NAT-MCH-G4** including an optional **NAT-MCH-G4-CLKP**. Moreover, it comprises of a **NAT-PM** and an integrated **NAT-AMC-CCT7** PrAMC (Processing AMC).

The chassis features four payload slots in total: two slots for double-wide, mid-size AMCs which can be expanded by two RTMs, and two slots for single-width, mid-size AMCs without RTMs.





Form Factor	
	<ul style="list-style-type: none"> • 4-slot 1U chassis, mountable in 19" racks • up to two single-wide, mid-size AMCs and • up to two double-wide, mid-size AMCs and their correspondent RTM
Height	• 1U
Width	• 445mm
Depth	• approx. 373mm
Weight	• approx. 5.8kg
NAT-MCH-G4 with NAT-MCH-G4-CLKP	
Processing Resources	<ul style="list-style-type: none"> • Xilinx Zynq MPSoC with FPGA / 2x ARM A9 • 1 GB DDR3 RAM • 256 MB QSPI FLASH
Interfaces	<ul style="list-style-type: none"> • 10GbE switch for Fabric A • 2x 25GbE Uplink at front panel via SFP28-DD • 10G Ethernet to backplane • CLK I/O via SMA at front panel • GPS IN via SMC at front panel as option • CLK1/CLK2 to each AMC • CLK3 PCIe RefClock • Debug via Micro-USB B • GPS + OCXO as Precision Timing <i>assembly option</i>
System Management	<ul style="list-style-type: none"> • Central management and data switching • Power and system management.
Software / Firmware	• FreeRTOS
NAT-PM-AC600 (other PM on request)	
Input Voltage	• 100 – 265VAC
Mains Frequency	• 50/60 Hz
Output (max.)	• 400W
Output Power	<ul style="list-style-type: none"> • 6.6A @12 VDC • 180mA @3.3V
NAT-AMC-CCT7	
Onboard Carrier	<ul style="list-style-type: none"> • Atmel Microchip ATxmega128 • Intel Ether Controller i810 • 2x M.2 PCIe x4 interface (for memory and graphics) • MicroSD-Card
Backplane Interconnect	<ul style="list-style-type: none"> • IPMI • AMC PORT 0/1: 1G-KX/10G-KR • AMC PORT 4-7/8-11/12-15/17-20: PCIe Gen4 x4 to all AMCs
Front Panel Interfaces	<ul style="list-style-type: none"> • 4x USB 3.0 • 2x 25GbE Uplink via SFP28 • GPIO via Micro-D connector • Debug via Micro-USB B
COMex	• double width full size COMex carrier for Type7 modules. With 4+1 USB ports, 2 SFP+ ports to front, option for M2 memory, min 2* 1 GbE to Port 0&1, x8/x16 lanes PCIe to backplane equipped with Type7 XEON CPU and 2*16GB RAM ECC based on MTCA.0 AMC
Cooling Units	
	<ul style="list-style-type: none"> • Integrated Cooling Units including air filter • Cooling concept from right to left • 4 fans for front area, 3 fans for rear area • Cooling power of 400W @ +55°C operating temperature