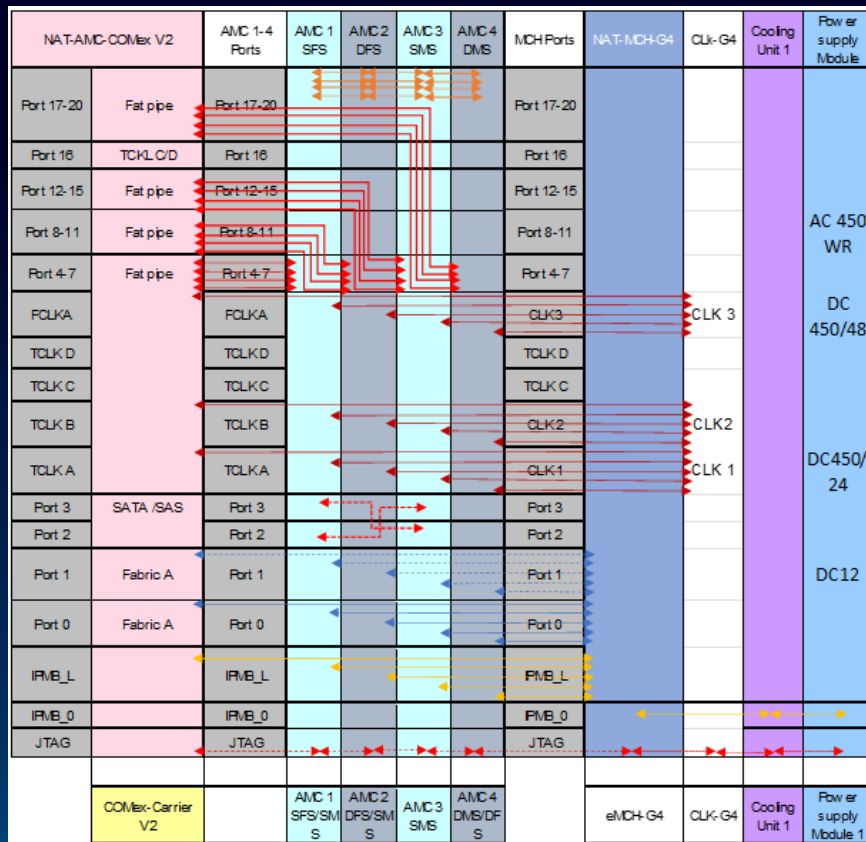




NATIVE-server-R1

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-CLK-P**. Moreover, it comprises of a **NAT-PM** and an integrated **NAT-AMC-COMex** 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	
	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-CLK-P	
Processing Resources	- Xilinx Zynq MPSoC with FPGA / 2x ARM A9 1 GB DDR3 RAM 256 MB QSPI FLASH
Interfaces	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 Reclock - Debug via Micro-USB B
System Management	- 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	6.6A @12 VDC 180mA @3.3V
NAT-AMC-COMex	
Onboard Carrier	- Atmel Microchip ATxmega128 - Intel Ether Controller i810 2x M.2 PCIe x4 interface (for memory and graphics) - MicroSD-Card
Backplane Interconnect	- 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	4x USB 3.0 2x 25GbE Uplink via SFP28 - GPIO via Micro-D connector - Debug via Micro-USB B
Cooling Units	
	- 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