More flexible and advanced x86 compute power for MicroTCA systems

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History

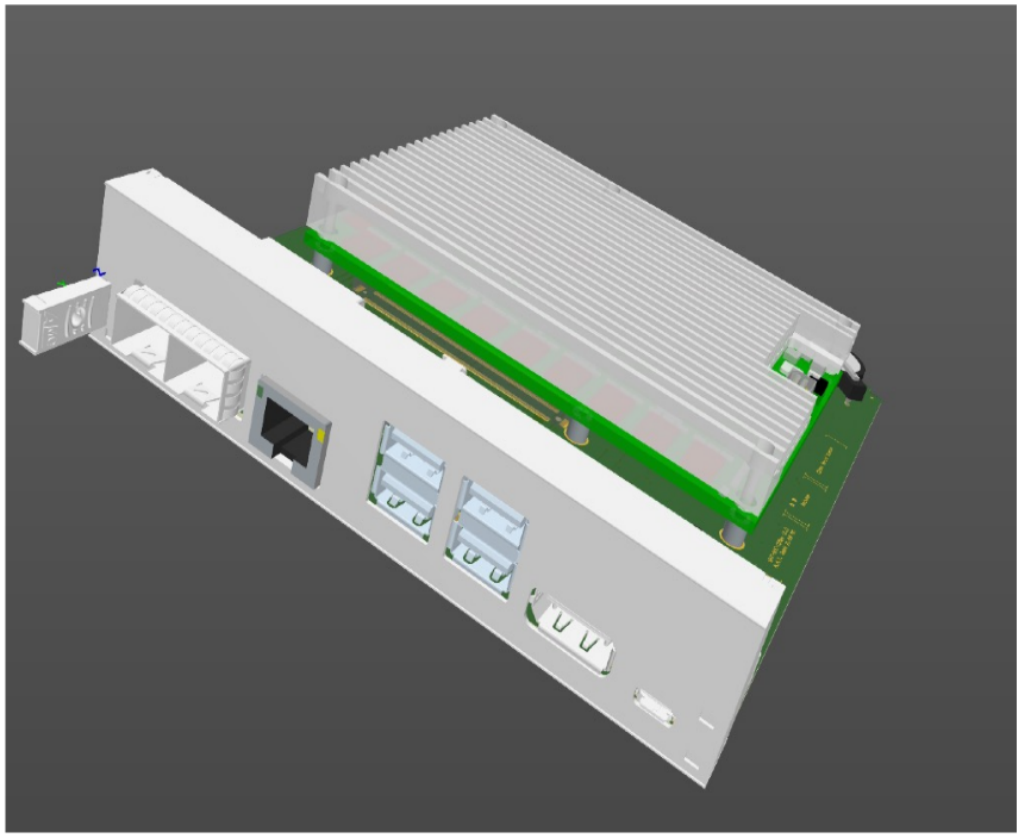
- **First introduction June 2012**
  - 16 Lane PCIe Gen 3 (PEG)
  - CPU on MCH-RTM Module
  - based on new double-width MCH (M4)
    - MicroTCA.4 target market
    - 1 AMC slot for CPU board saved
    - Based on Intel® CoreTM i7 processor,

- **Summary**
  - Market adoption in 2016
  - 40 W power budget limit on RTM
    - Up to XEON available with 25 W TDP
  - Requests for different x86 CPU version, depending on use-case
    - Data plane (Xeon)
    - Control plane (Celeron, Core i3)
    - Why Intel® only ????
    - **Available since Q1 2021**

NAT-MCH-RTM-COMex NAT-MCH-M4

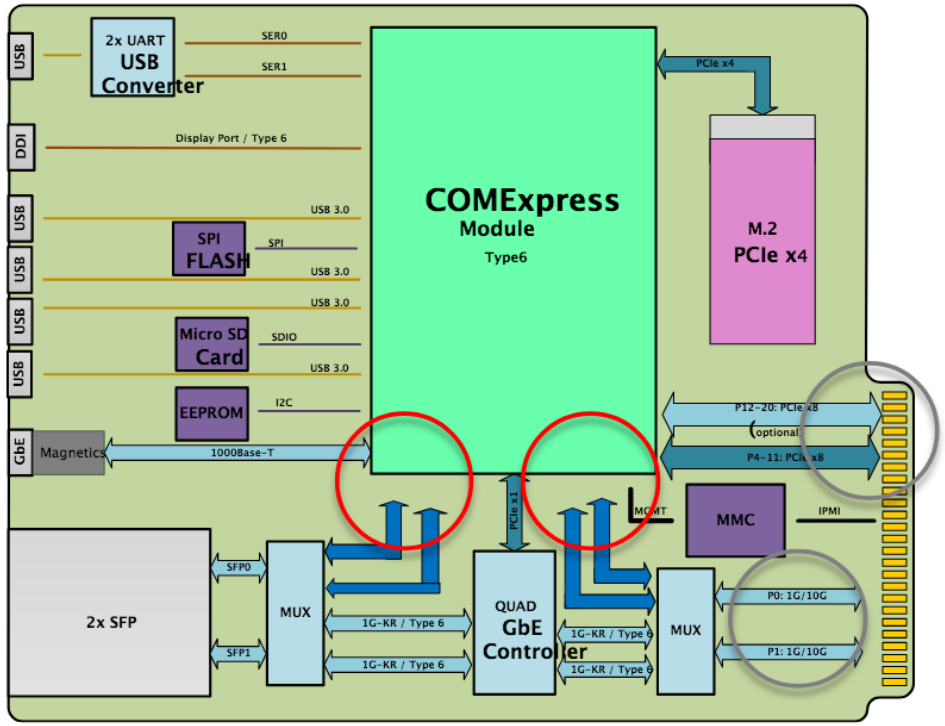
How to get the same flexibility for AMCs

- New double full size AMC Carrier
- Same set of CPUs as with RTM plus:
  - higher TDP Power
    - Up to 60 W (spec conform)
    - Up to 100 W/120W (custom specific)
  - Different COMex Types
    - Type 6 (incl Graphic excl 10GbE)
    - Type 7 (excl Graphic incl. 2*10 GbE)
  - Storage M2. PCIe
    - x4 *16 GT/s
  - x8 and (optional) x16 PCIe backplane support

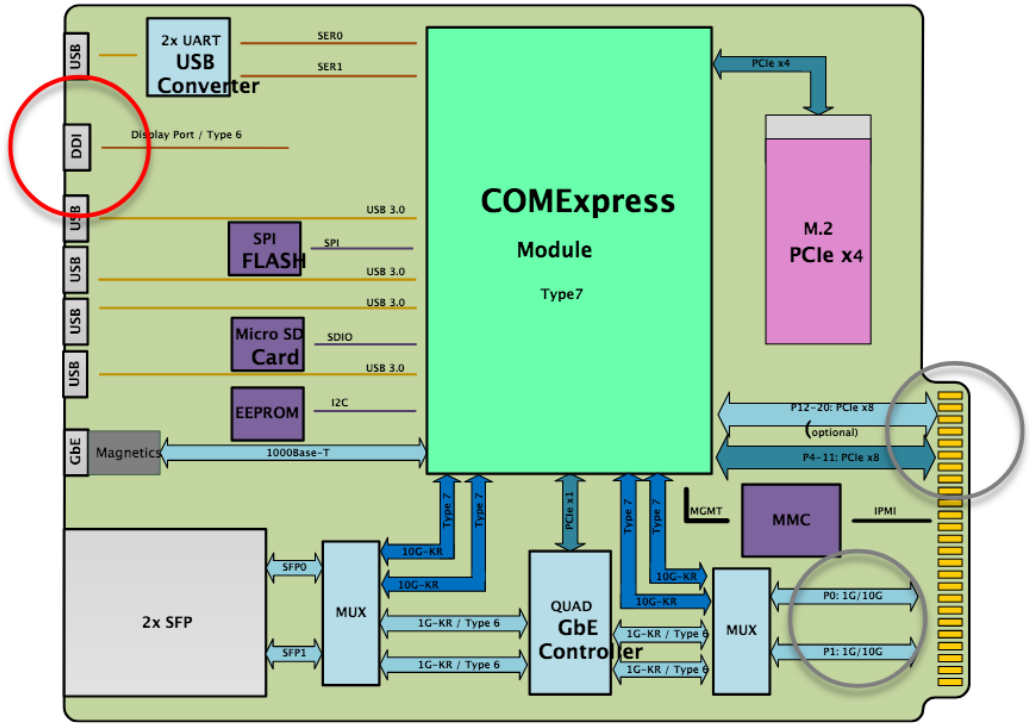


Carrier concept to support different functions

- For COMex-Type 6



- For COMex-Type 7



NAT-AMC-COMex

- Advantage:
  - Latest CPU version available
    - 3 month eval cycle at N.A.T.
    - Intel and AMD
  - High speed storage available
  - Support 1G/10GbE at ports #0-1
    - In line with NG-µTCA
  - Support for x8 and x16 lanes
    - In line with NG-MTCA
  - 2* SFP cages to front
    - 1 GbE(Type 6) or 10GbE (Type 7)

- Timeline
  - Q3/Q4 2021
    - Bords in final bring-up
  - Q4 2021
    - Tests with several high end CPU‘s
      - Intel® 11th Generation CoreTM / Xeon® family
      - AMD EPYC™ embedded SoC Processor
  - Q1 2022
    - First field validation customer
  - GA Q2 2022

Thank you very much!

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