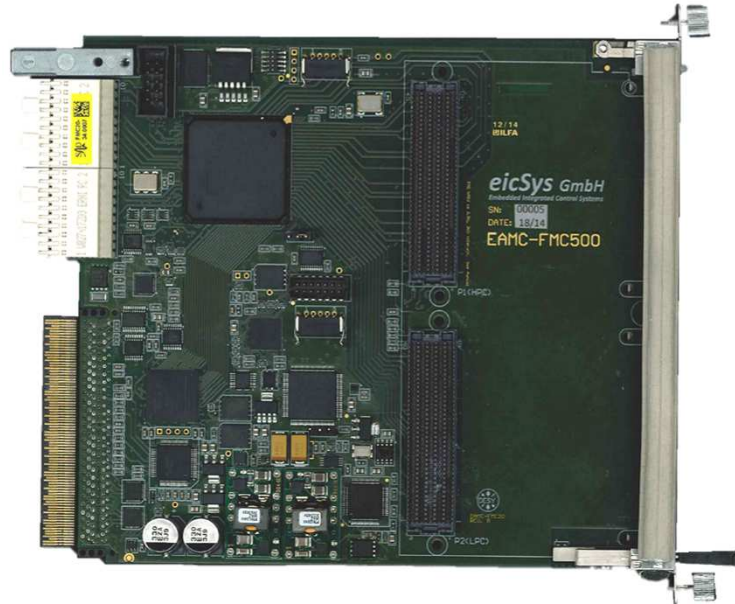


# MicroTCA Dual FMC Carrier Board.

Technology Portfolio

DAMC-FMC20



Electronics

**$\mu$ TCA<sup>®</sup>**

## Technology

The DAMC-FMC20 is a cost-efficient FPGA mezzanine card (FMC) carrier designed according to MicroTCA.4. It is equipped with two Spartan-6 FPGAs.

The carrier management is compliant to the latest recommendation MMC V1.0. The carrier Zone 3 is compliant to the Class D1.0.

## Applications

- Industrial process control
- Manufacturing automation
- Research & development
- Accelerators

Deutsches Elektronen-  
Synchrotron DESY

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Accelerators | Photon Science | Particle Physics

Deutsches Elektronen-Synchrotron  
A Research Centre of the Helmholtz Association



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## Benefits

The carrier simultaneously supports one low pin count and one high pin count FMC module. One FPGA allows serial high-speed communication (PCIe, RTM, Backplane, FMCs). The other FPGA allows implementing large signal processing algorithms. The carrier supports one serial link (GTP) for each FMC module and in addition an

extra 12V power connector for high current FMC applications. It provides one PCIe link that is AMC.1 type 1 compliant. The carrier is software-reconfigurable over PCIe and MMC. The AMC ports 12-15 are connected via cross-point switch to the FPGA.

## Data Processing

- Dual-FPGA processing
- XC6SLX45T for serial communication including PCIe
- XC6SLX150 for signal processing and connectivity to RTM and FMCs

## Compatibility

- Rear IO connected to FPGA, Class D1.0
- Supports 2 FMCs: One HPC module and one LPC module
- Full AMC-backplane support
- Compatible RTM products: DRTM-PTZ4
- Compatible FMC products: DFMC-MD22

## Mechanical

- Double width, mid-size MicroTCA.4 form factor
- Dimensions: 148.5 mm (W) x 180.6 mm (D) (5.486 in x 7.11 in)

## Compliance

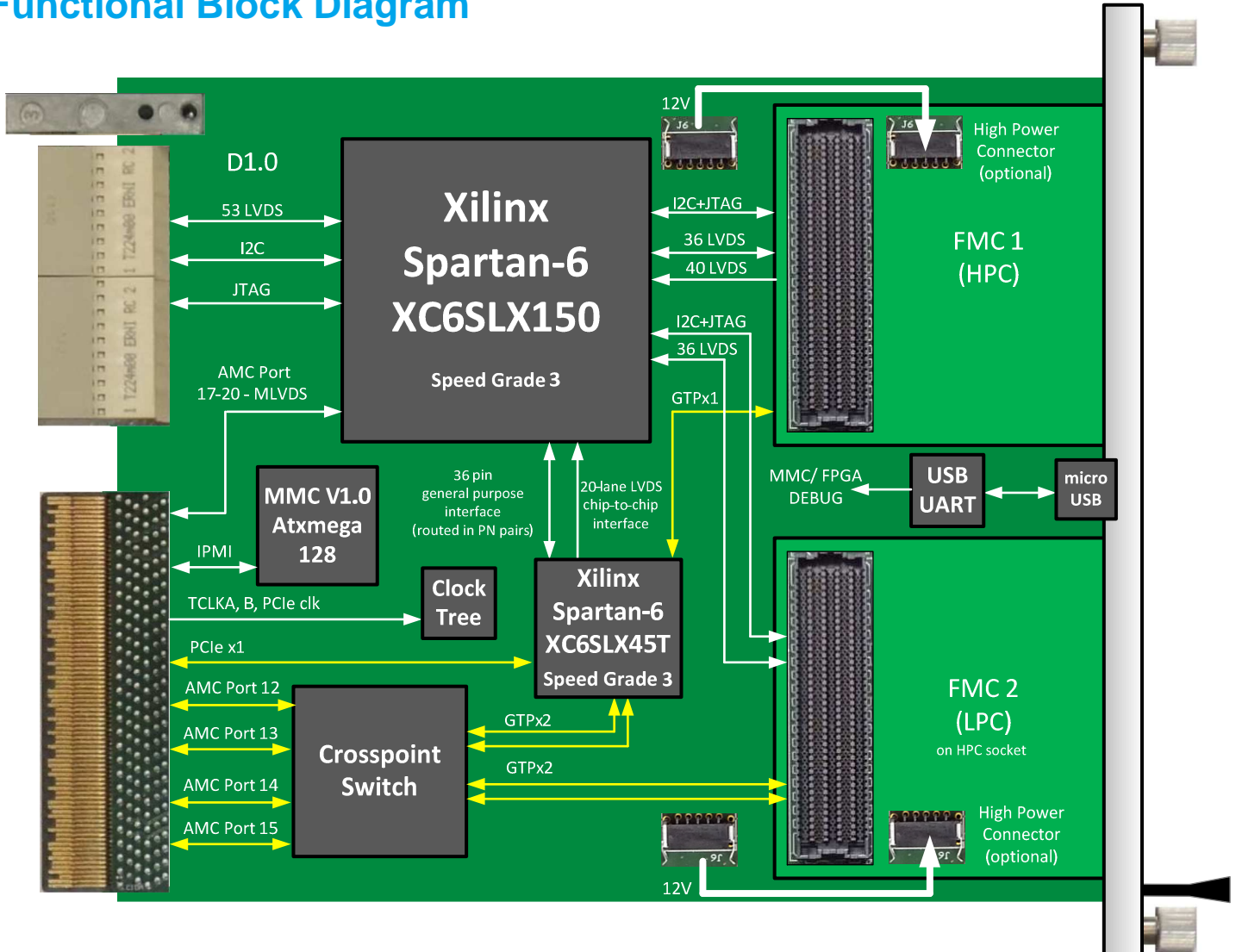
- ANSI/VITA 57.1
- IPMI 1.5 MMC
- RoHS

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## Functional Block Diagram



## Service + IP status

DESY offers the DAMC-FMC20 for licensing to industry. DESY can modify this product to meet special customer requirements.

Requests of potential licensees regarding regional or international property rights can be considered.

For further information please visit:  
<https://mtca.desy.de>