MECADTRON

The NEXTRA® 3D Layout system extends 2D PCB layout systems with features for integrated electromechanical layout and interfaces that allows efficient communication with 3D MCAD systems.

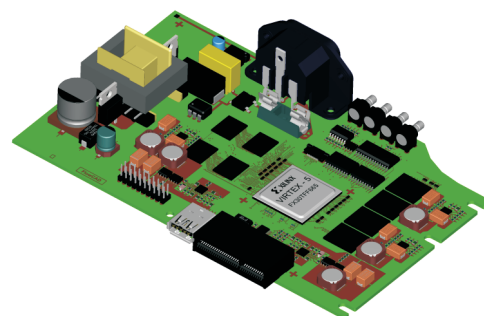## NEXTRA - 3D PCB Layout

INTEGRATION

2D PCB Interfaces

Cadence Allegro (OrCAD)	☑
Mentor Graphics Expedition (BoardStation)	☑
Mentor Graphics PADS	☑
Zuken CR-5000	☑
Zuken Visula/CADSTAR (CADIF)	☑

3D MCAD Interfaces

Dassault Systèmes Catia V5	☑
Dassault Systèmes Catia V4	☑
Dassault Systèmes SolidWorks	☑
Autodesk Inventor	☑
Parametric Technology Pro/Engineer	☑
Siemens PLM NX	☑
ACIS	☑
STEP (AP203 & AP214)	☑
IGES	☑
VDAFS	☑
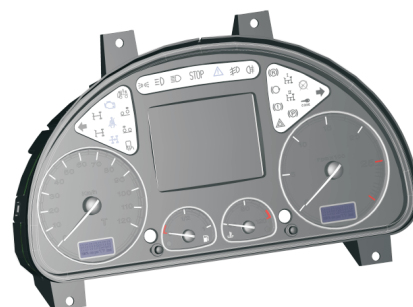
OPTIMIZATION

3D Component shapes	☑
3D Collision detection	☑
Components clearance offset	☑
Component placement	☑
Routing & copper editing	☑
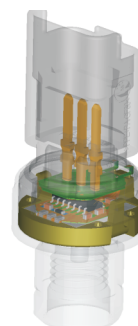
FUNCTION

|	
Flex / Rigid Flex / Advanced Flex	☑
MID	☑
Creepage	☑
Air Gap	☑
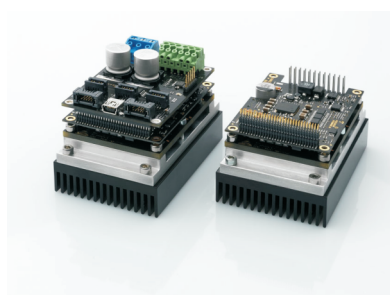
NEXTRA - 3D Layout - Modules

Flex

Flex allows to create and edit non-planar, multi-layer boards that reflext flexible foil carriers. Layout and routing functions are supported. Interfaces exchange flattened representation of the flex board.

Rigid Flex

Rigid flex allows to create and edit non-planar, multlayer boards with varying board stack-ups per area. that reflect rigid-flex systems. Layout and routing functions are supported. Interfaces export length corrected flattened representation of the rigid-flex board.
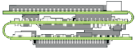
Advanced Flex

Advanced flex allows to create and edit the shape of a flexible carrier within an electro-mechanical assembly. NEXTRA® enables to efficiently design the shape taking into account 3D paths and 2D contours.
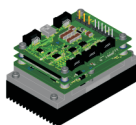
MID (Molded Interconect Device)

MID allows to layout a design on an arbitraryly 3D shaped geometry. Such carriers are molded thermoplastics with circuitry applied in various technologies.

Multi Board

Multi board allows to layout a logical pcb design on an arbitrary number of boards. The boards may be of any technology supported by NEXTRA®.

Multi Design

Multi design allows to create and edit an assembly of an arbitrary number of NEXTRA® designs and mechanical parts and assemblies. It allows to check for layout problems and fix those in the electro-mechanical assembly. This module will be available end of 2012.
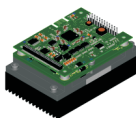
Creepage

Creepage checks a given layout according to creepage violations. It takes into account net classes defined in constraint management systems and allows to define constraints on-line.
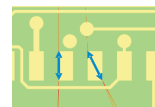
Air Gap

Air gap analyzes a given electromechanical assembly according to air gap violations. It takes into account net classes defined in constraint management systems and allows to define constraints on-line.
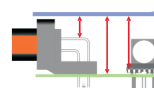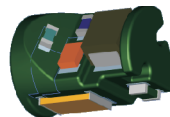
Placement

The placement functionality is a standard module for all NEXTRA® products. It allows to place design objects on any supported board technology and many associated functionality.

Routing

The routing functionality allows to route connectivity and edit conductor geometry on any supported board technology. It is a standard module for the MID product and an optional module on other NEXTRA® products.

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FlowCAD

Minimum:
Intel Pentium IV/AMD Athlon
MS Windows XP SP3
1 GB MB RAM
500 MB free hard disk storage
network interface card

Recommended:
Intel i7/AMP Opteron
MS Windows 7 64 bit or higher
8 GB MB RAM
RAID 0
1 GB free hard disk storage

Please ask us for advice when you plan a new computer for NEXTRA®. The configuration is heavily depending on your application, products and environment.

On request there may be versions for AIX, Linux and OSX.

ME CADTRON