



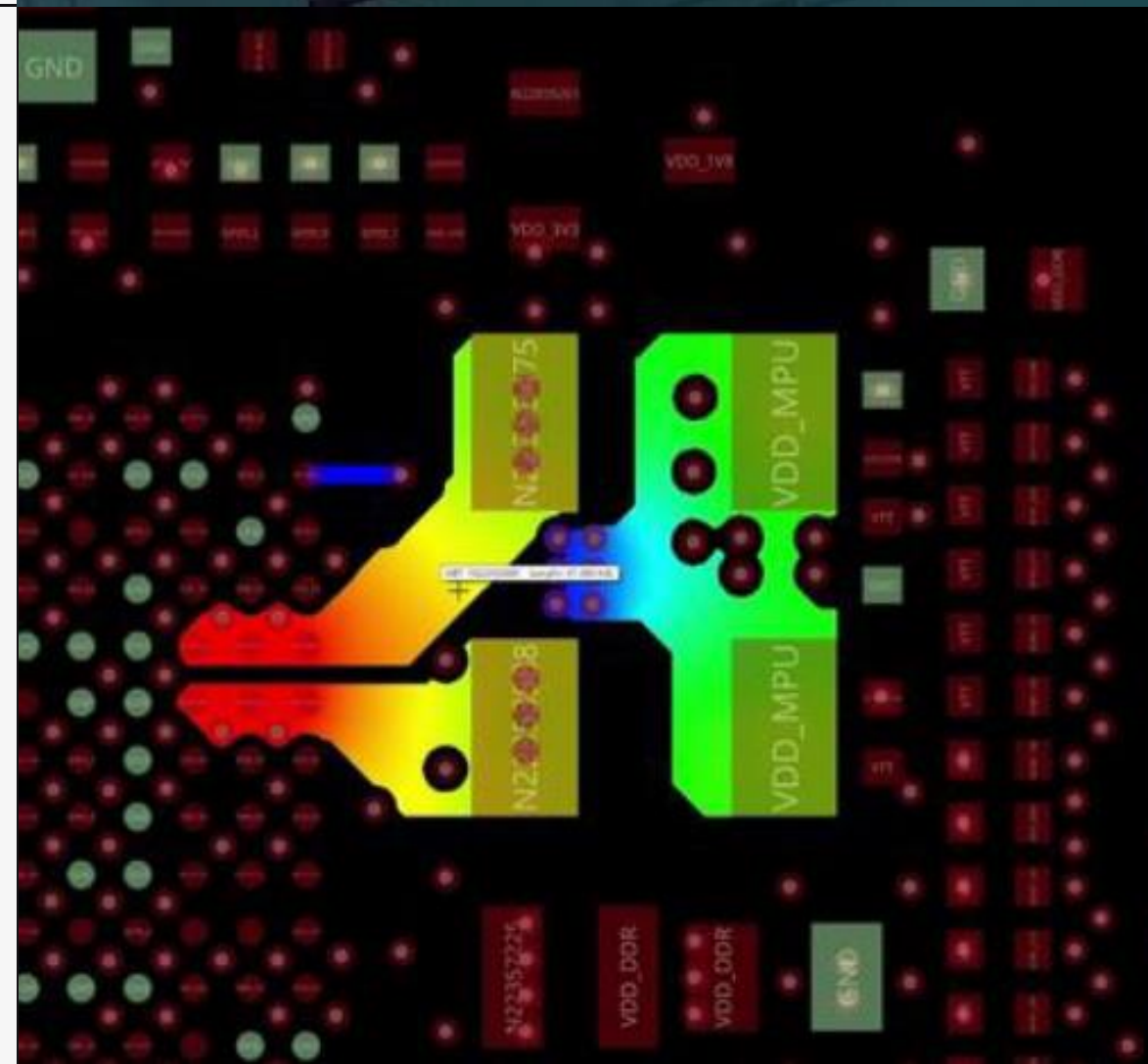
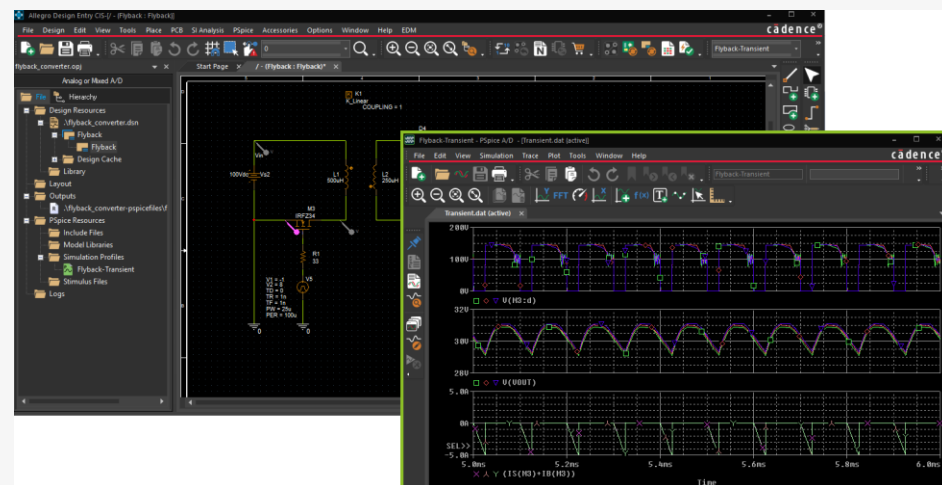
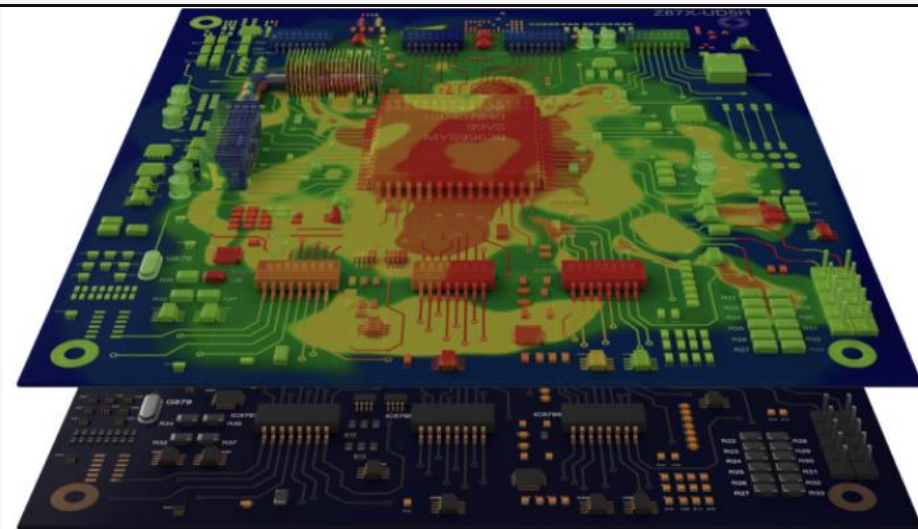
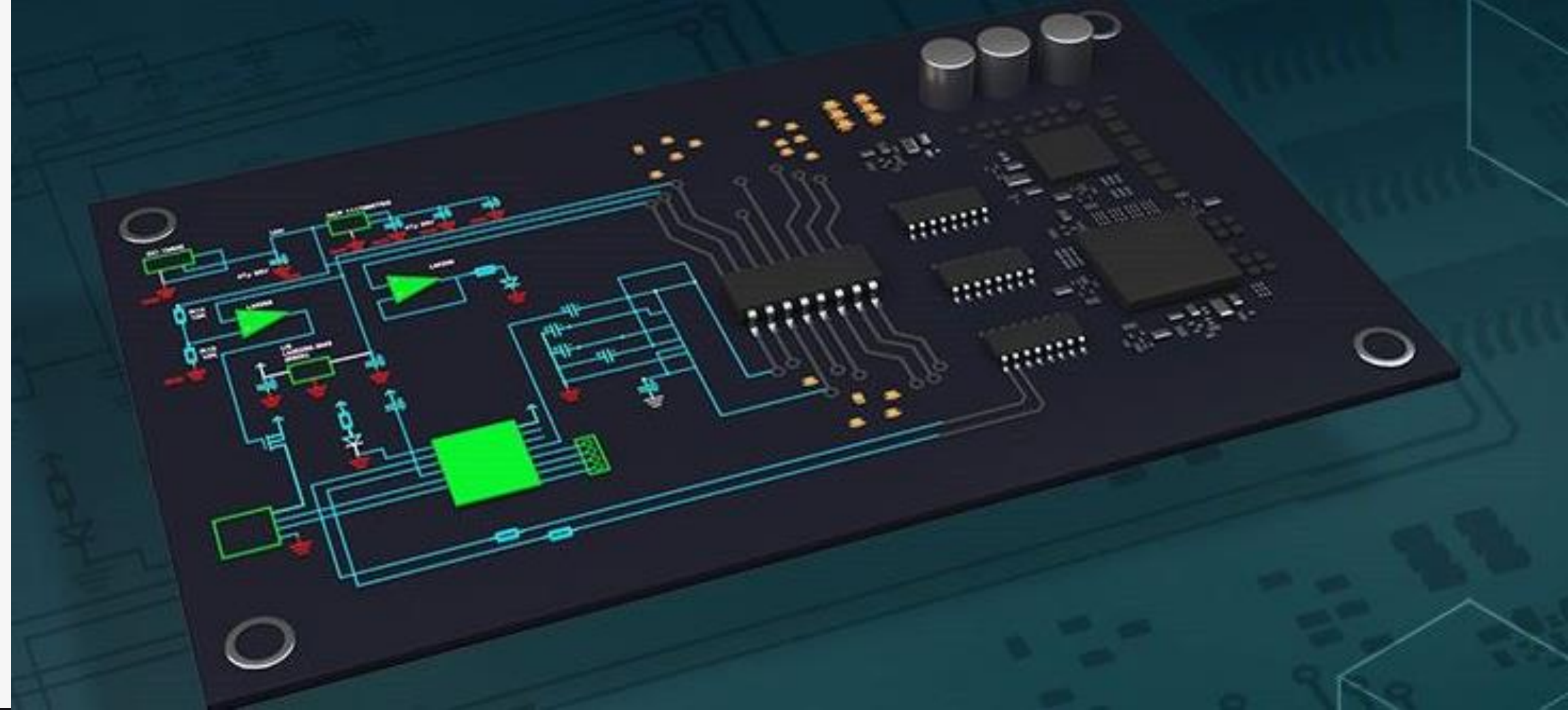
# Andak Consulting

ONE STOP  
ENGINEERING SERVICES  
PROVIDER





# FLOWCAD & CADENCE CHANNEL PARTNER



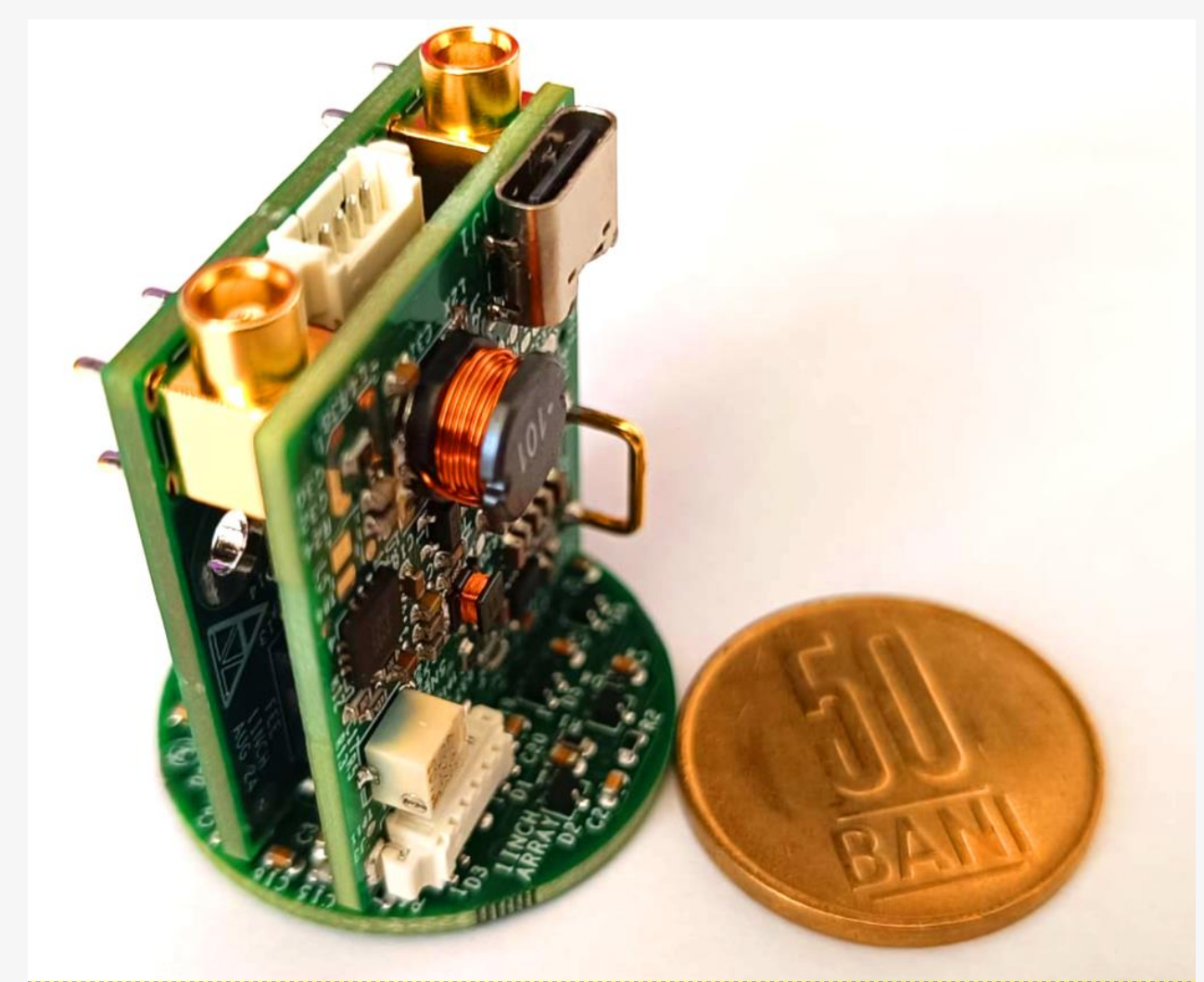
Local distributor for OrCAD-X,  
Allegro, Sigrity X, PSpice,  
OMNIA, OEM products

Technical Expertise and  
Local Support





# Engineering Services



HW Engineering  
(Digital, Analog,  
High Power)

Mechanical  
design

PCB Design

High energy  
physics, nuclear  
electronics

Library services

Manufacturing  
management

SKILL  
Customization  
and tool  
integration  
(OrCAD and  
Allegro)

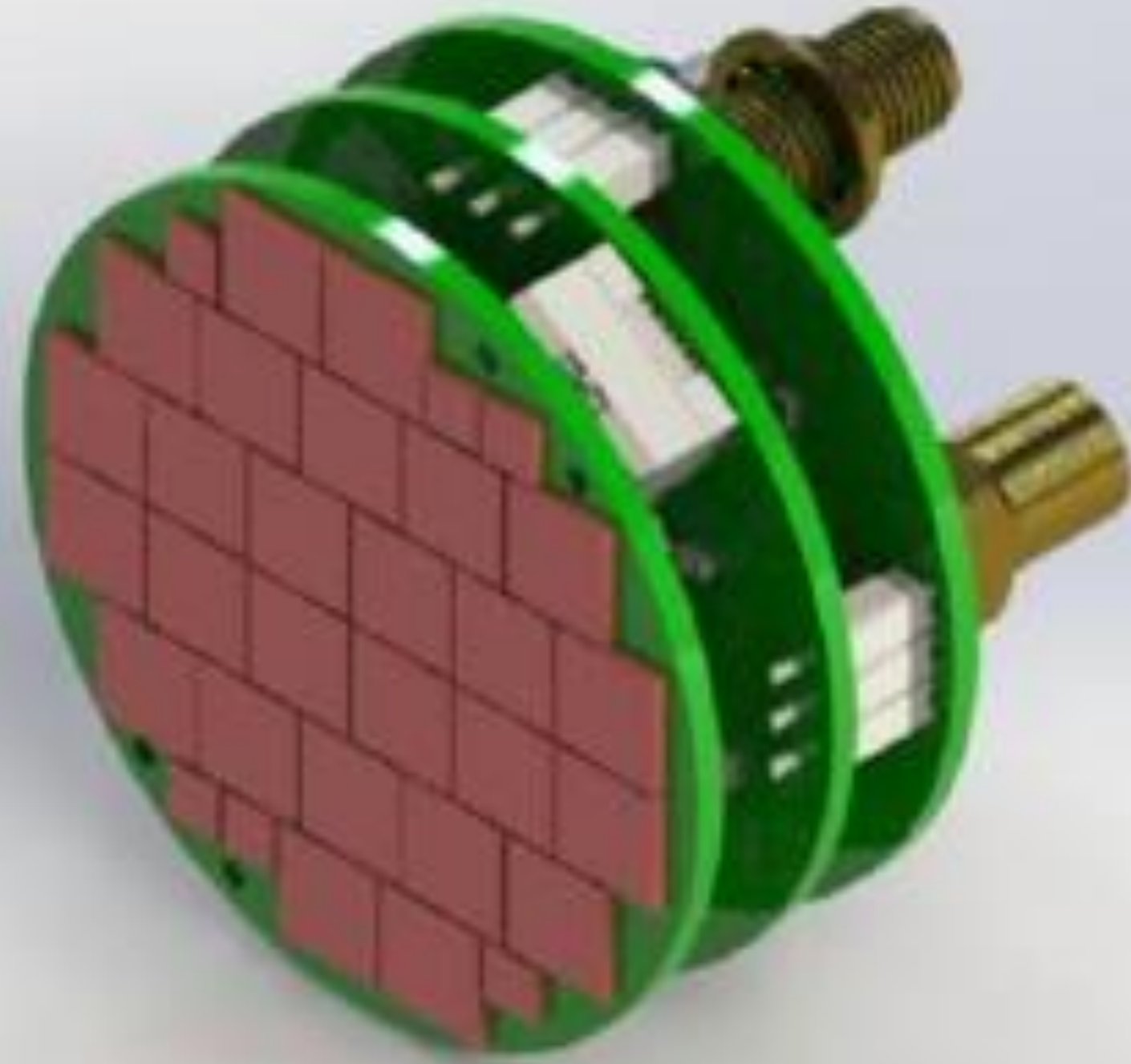
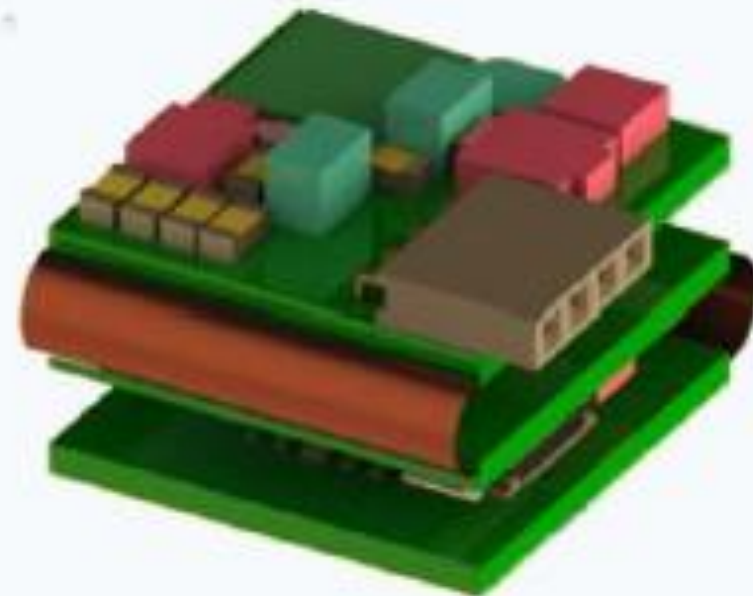
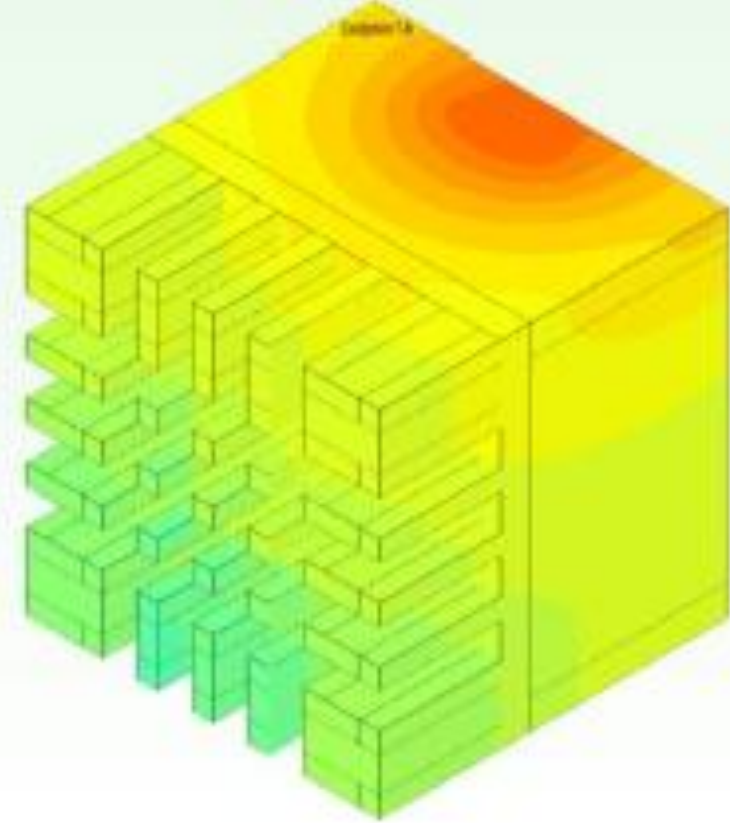
Reverse  
engineering



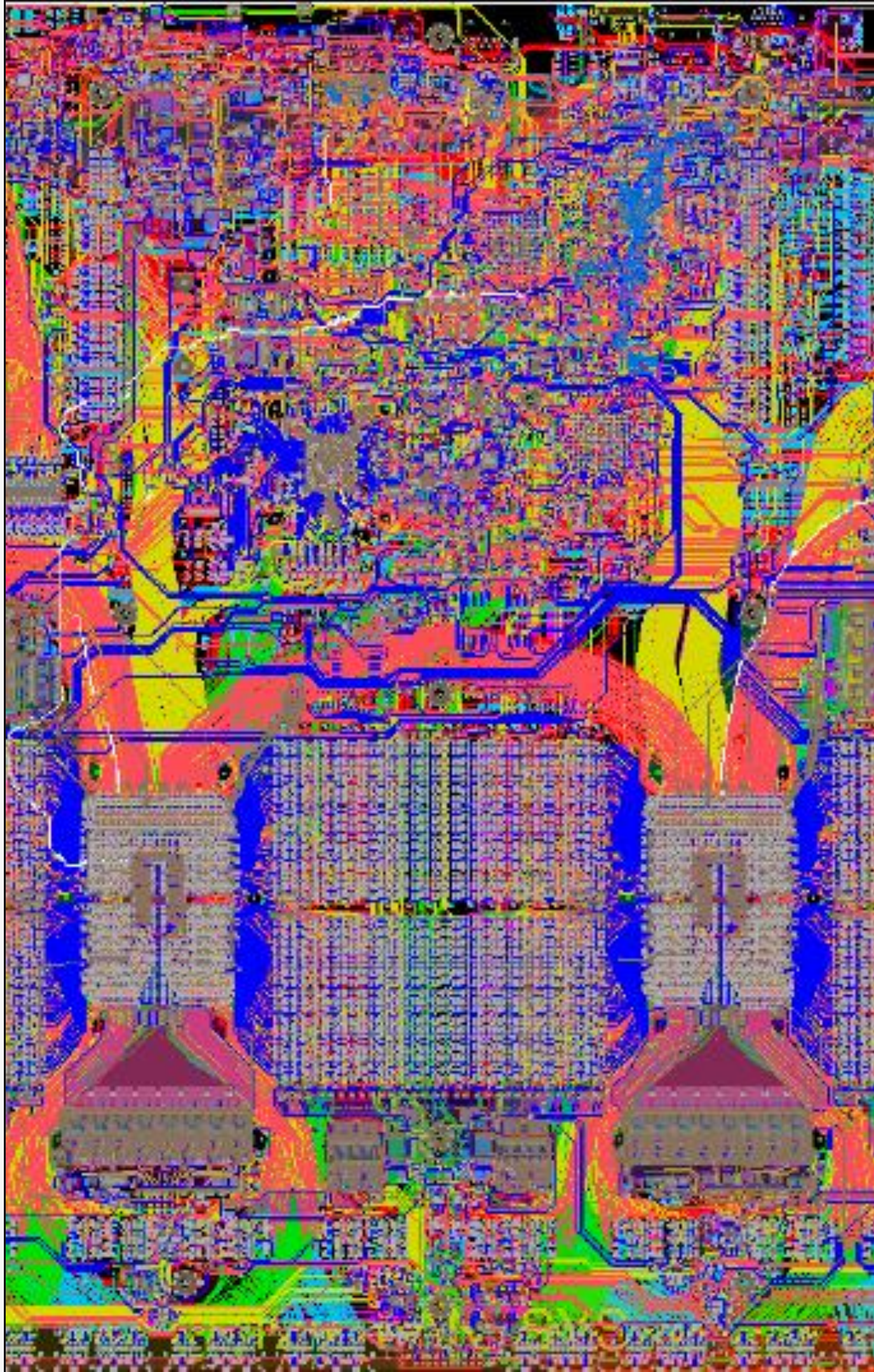
# HW ENGINEERING

## Key points

- System architecture
- Complete system design
- HW Engineering
- PCB Design
- Mechanical modelling
- Thermal management
- PCB and PCBA manufacturing management
- Very High-Density systems



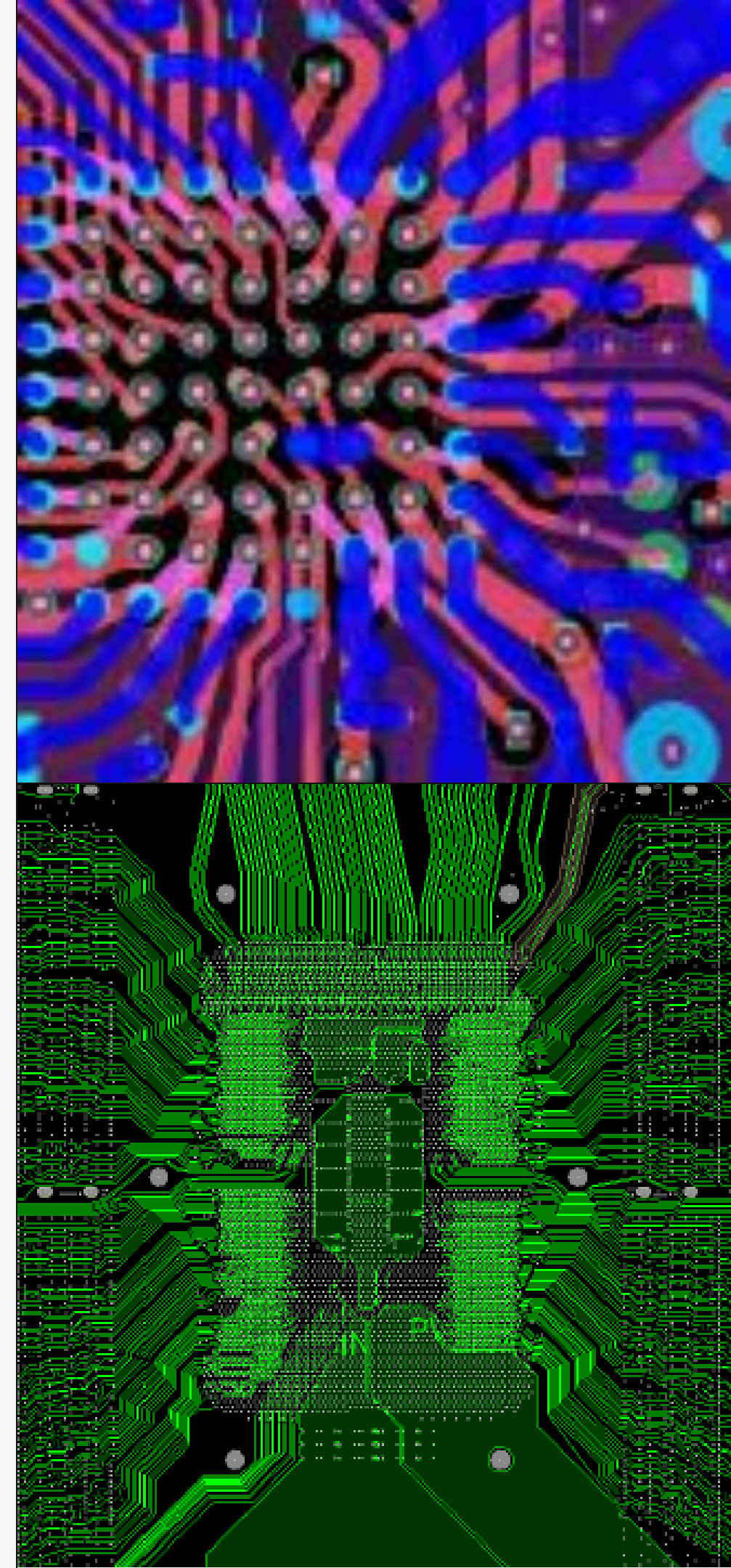




## PCB Design

Key points:

- High complexity (e.g. 8400 components, 35000 connections)
- High speed, analog, RF, DDR5, HDI (0.35mm BGA)
- High density boards



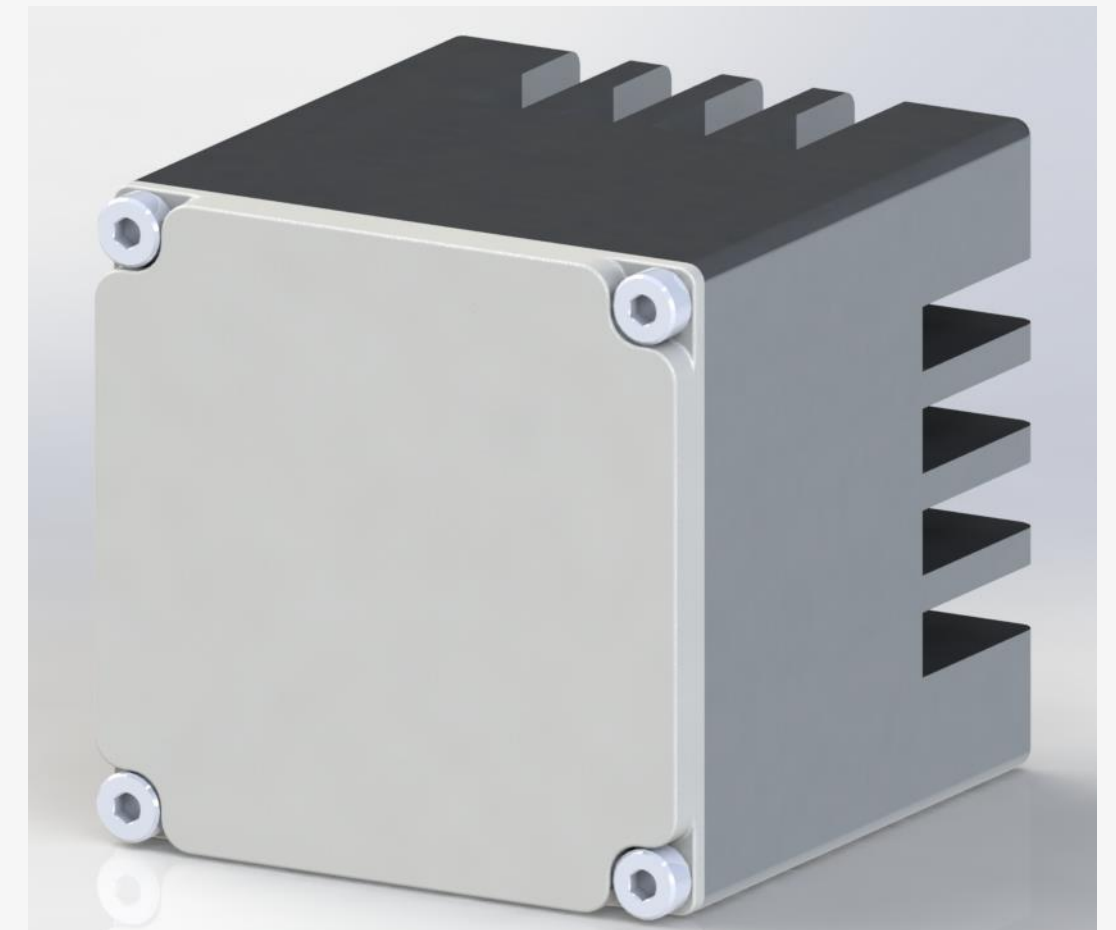
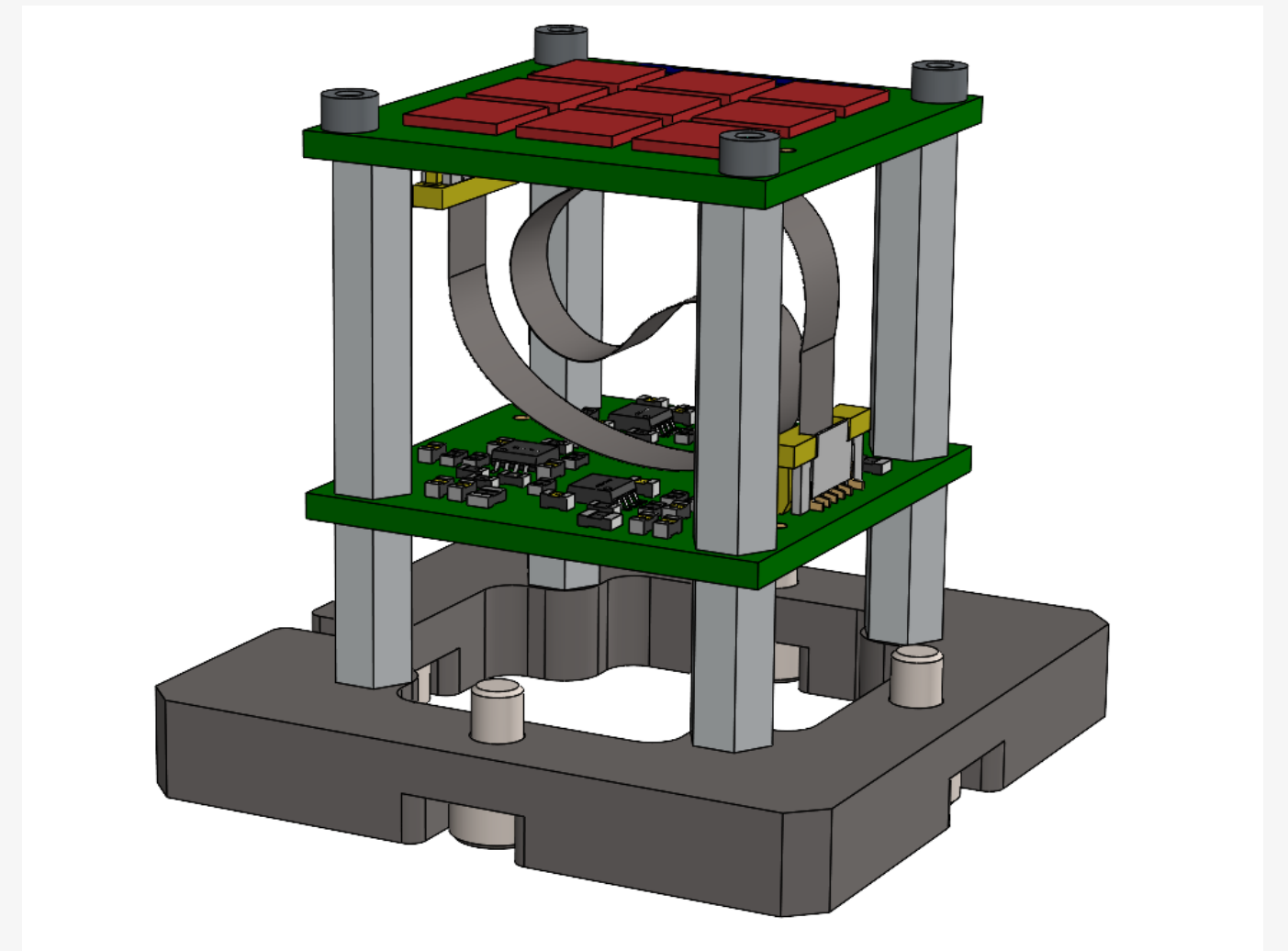


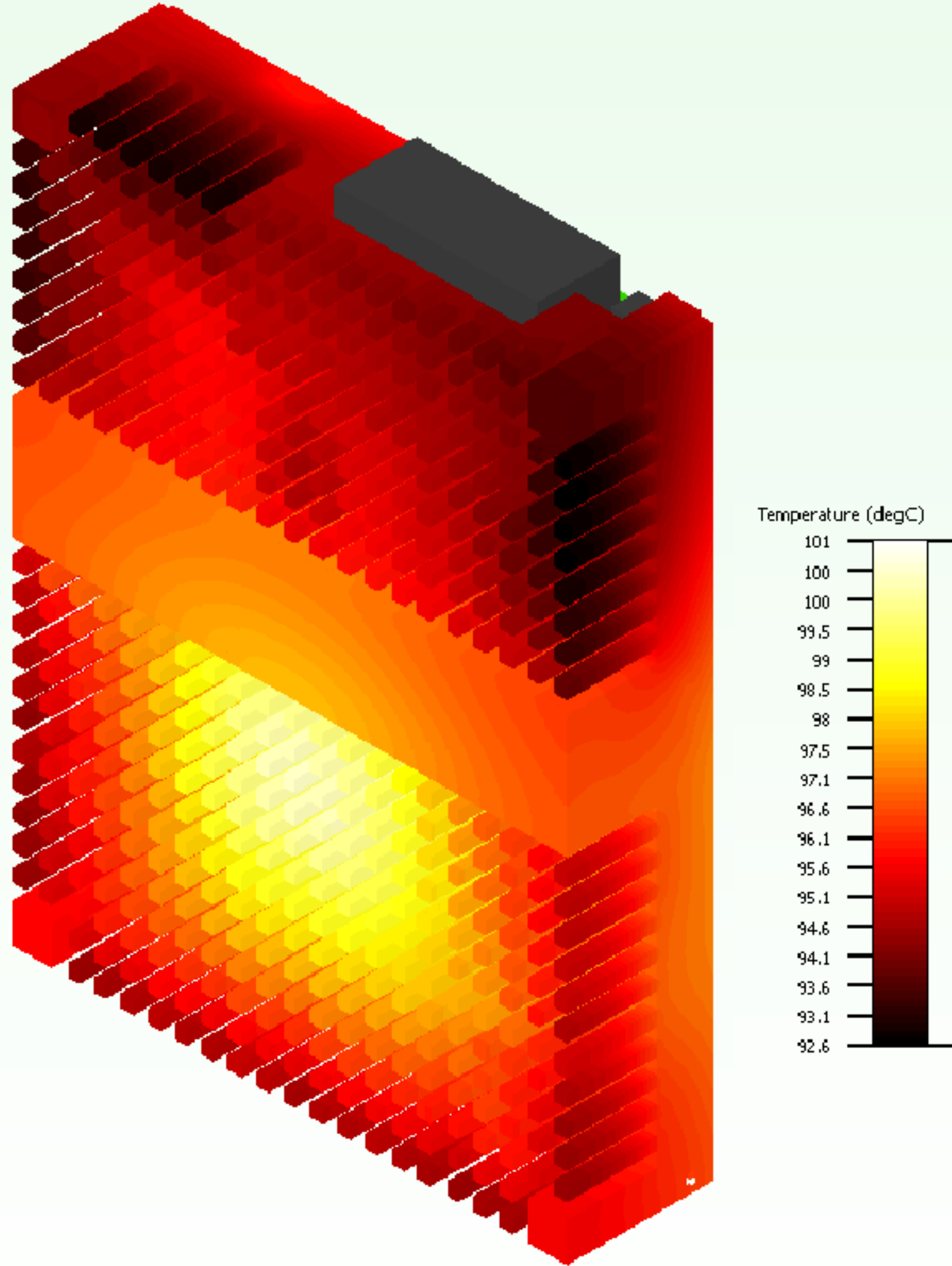


# MECHANICAL DESIGN

## Key points

- System design
- Enclosure design
- Fast prototyping
- Miniaturization
- 3D Modelling

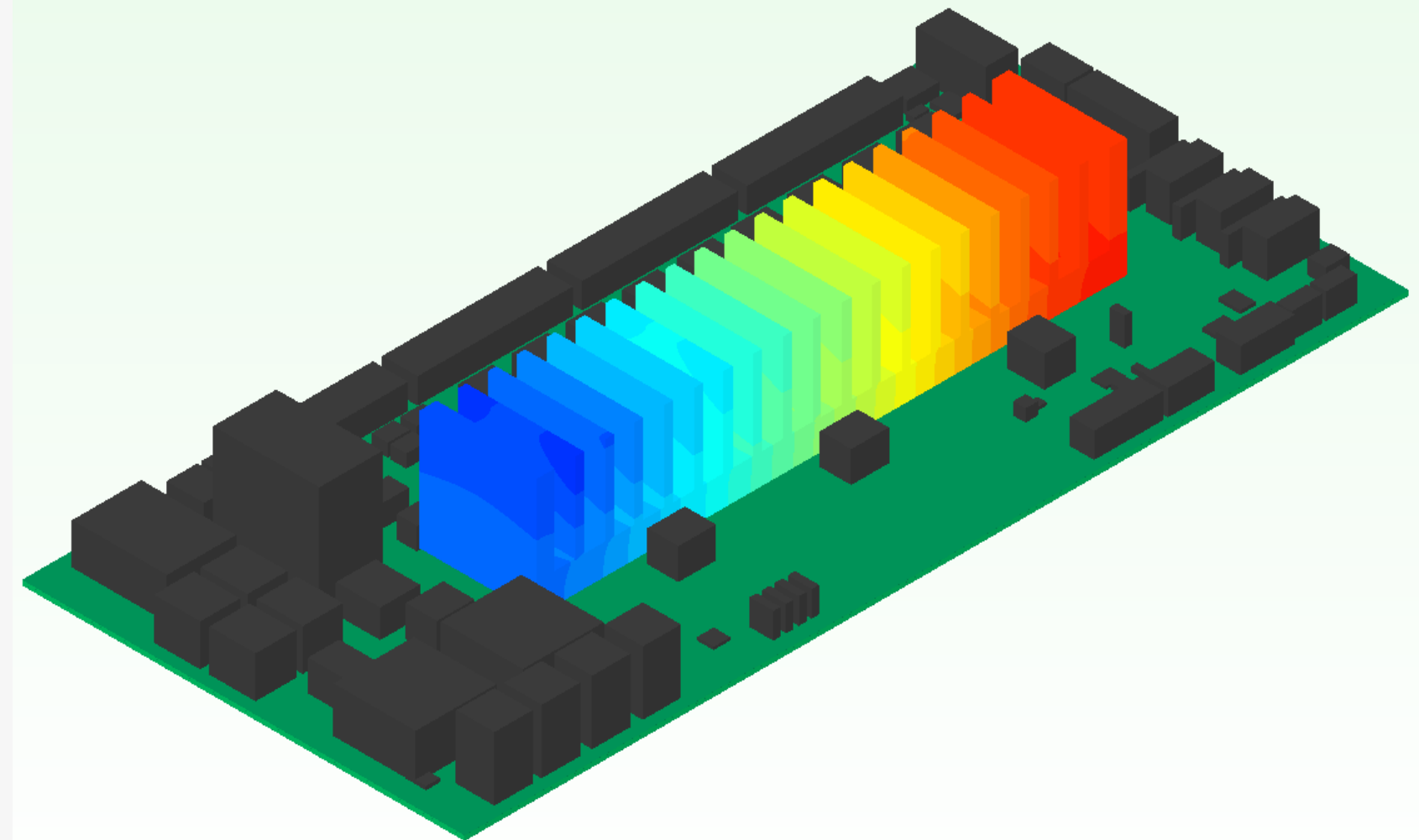




## THERMAL ANALYSIS & SIMULATION

### Key points

- System behavior analysis
- Thermal and flow simulation - CFD
- Optimization - Parameter sweep analysis
- Design Of eXperiment – case studies







```
reVal = LPI2C_MasterRepeatedStart(EXAMPLE_I2C_MASTER);
if (reVal != kStatus_Success)
{
    return -1;
}

reVal = LPI2C_MasterReceive(EXAMPLE_I2C_MASTER, &data, 1);
if (reVal != kStatus_Success)
{
    if (reVal == kStatus_LPI2C_Nak)
    {
        LPI2C_MasterStop(EXAMPLE_I2C_MASTER);
    }
    return -1;
}

reVal = LPI2C_MasterStop(EXAMPLE_I2C_MASTER);
if (reVal != kStatus_Success)
{
    return -1;
}
```

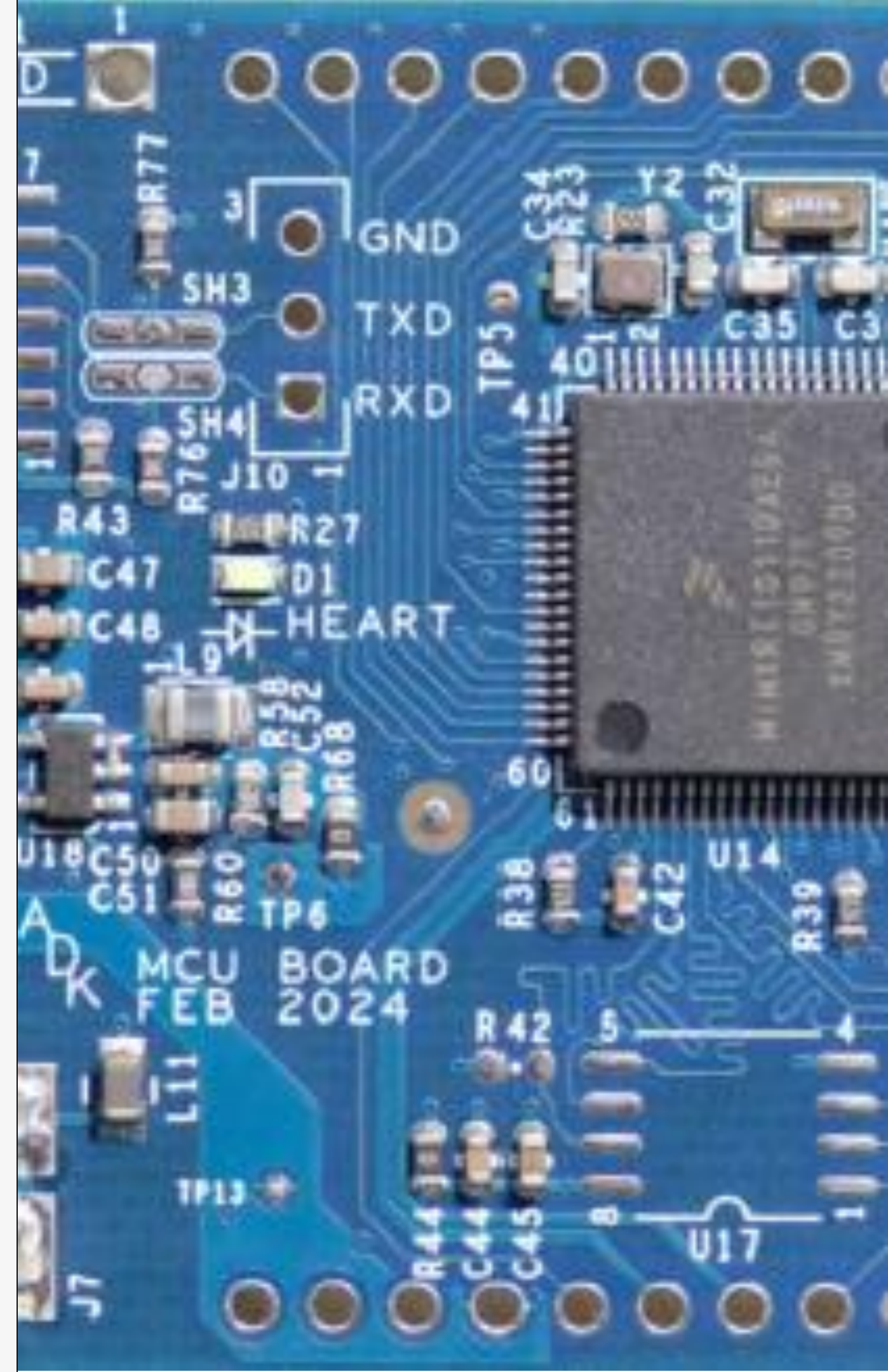
```
dfaRepFile = outfile("dfaClassR");
axlSetFindFilter(?enabled ^ ("NC"));
axlAddSelectAll();
listSymbols = nil;
listSymbols = axlGetSelSet();
axlClearSelSet();
foreach( symbolID listSymbols
    symClass = symbolID->definition;
    symPath = symbolID->definition;

    if( symClass then
        fprintf(dfaRepFile "%s\n", symPath);
    else
        fprintf(dfaRepFile "%s\n", symClass);
    )
}
close(dfaRepFile);
```

## SOFTWARE ENGINEERING

### Key points

- SKILL – OrCAD X PCB and Allegro
- TCL/Tk – OrCAD X Capture
- Embedded software



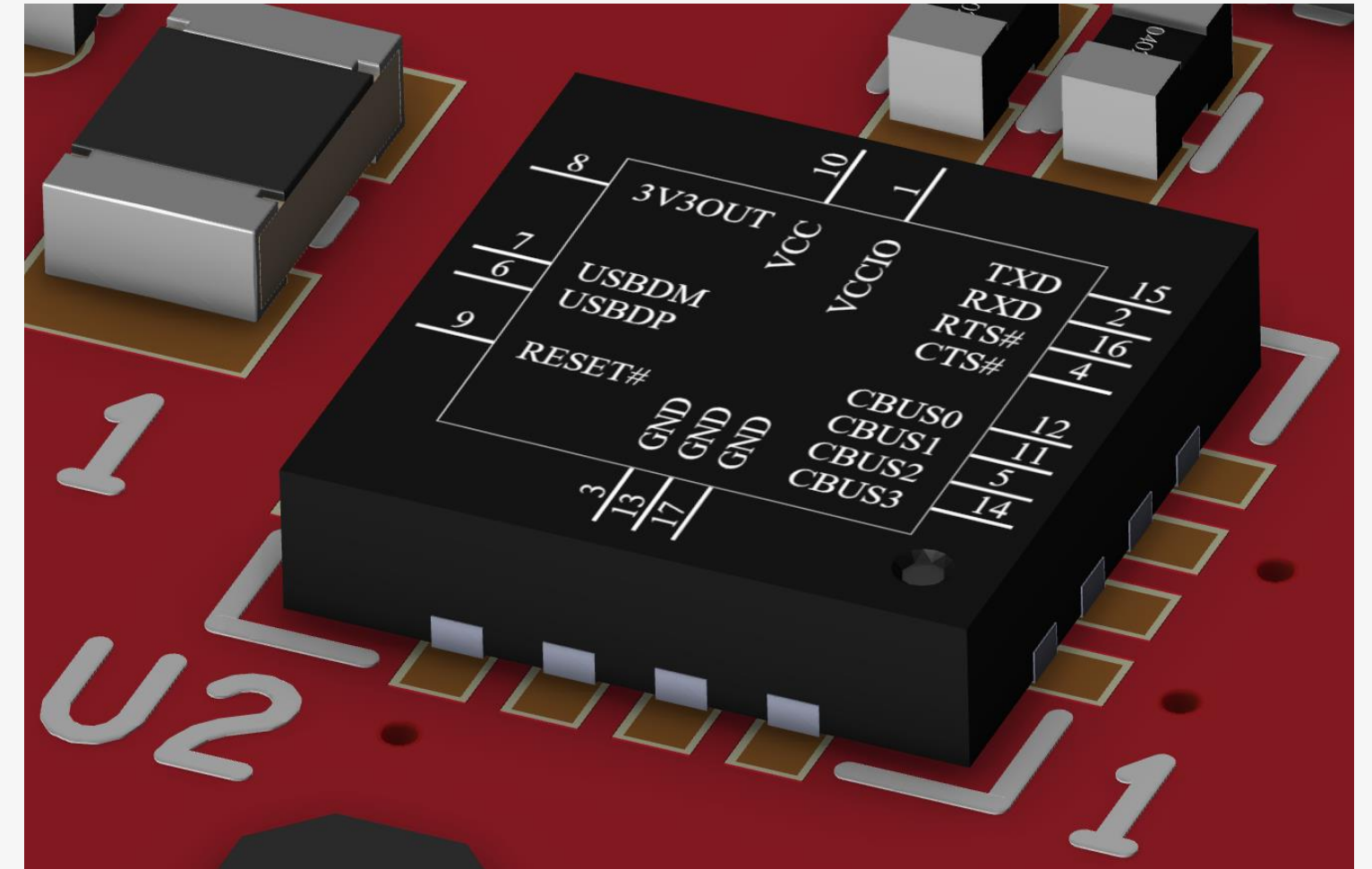




# LIBRARY SERVICES

## Key points

- Schematic Symbols, Footprints and 3D
- Fast response
- IPC Standards
- CIS library management



Start Page x / - (SCHEMATIC1 - PAGE1) x CIS Explorer - Place Database Part x

Explorer  
Select a Query: Save Query Delete Query Relational Query

Part  
Graphic: Normal  
Packaging: Parts Per Pkg: 1  
Part: C? <Value>

Visibility

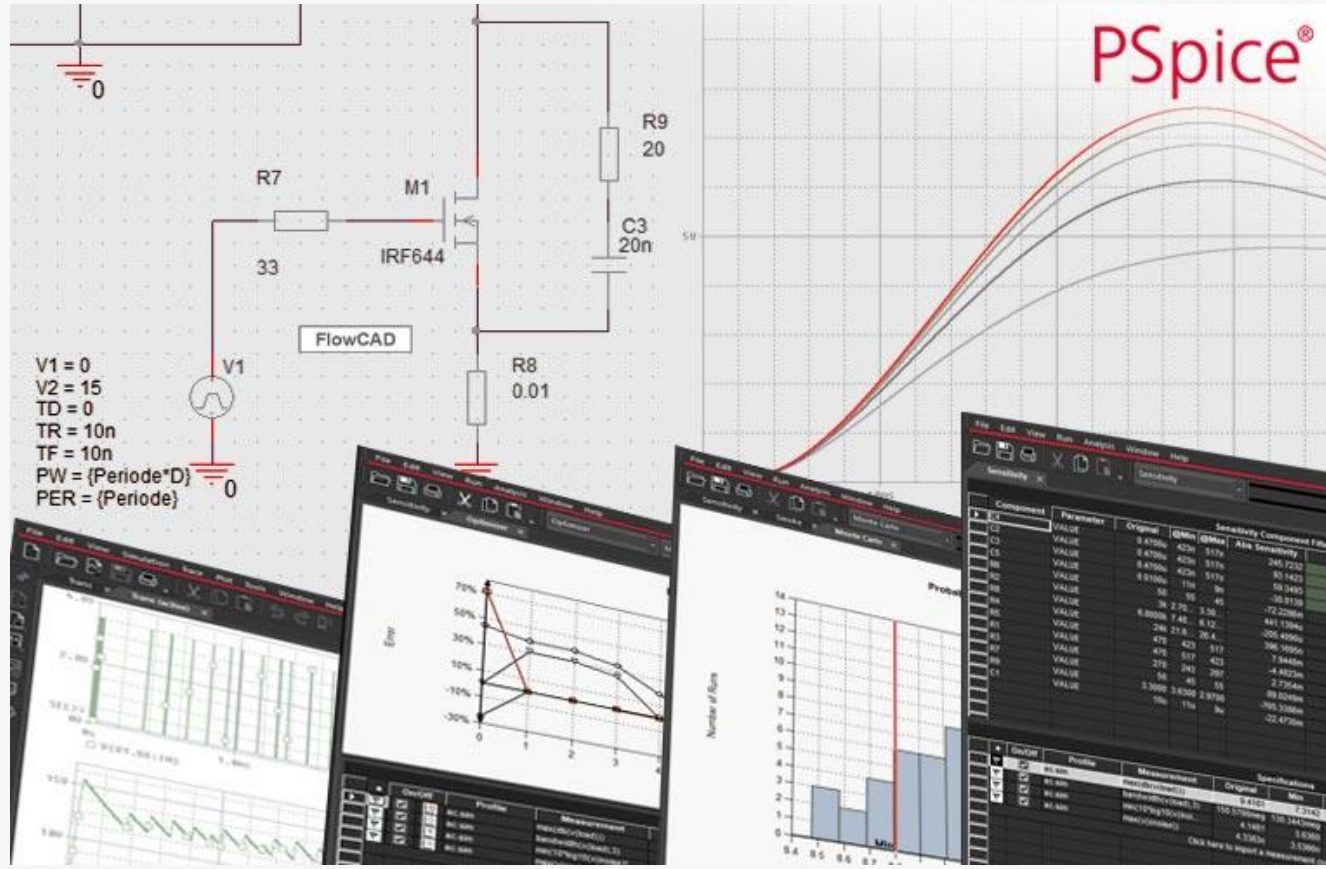
Property	Database Contents	Visible
Mechanical partno	http://www.digikey.com	<input checked="" type="checkbox"/>
Implementation	C	<input checked="" type="checkbox"/>
PCB Footprint	smdcap	<input checked="" type="checkbox"/>
Tolerance		<input checked="" type="checkbox"/>
Voltage	50V	<input checked="" type="checkbox"/>

Table	Part Number	Part Type	Value	Description	Voltage	Tolerance	Schematic Part	PCB Footprint	Implementation	Manufacturer Part Number	Manufacturer	Distributor Part Number	Distributor	Price	Availability	Mechanical partno
1	Capacitor	ECE-A1HKS1	Electrolytic	3	CAP ELECT 0.50V		CAP	cap300	C	ECE-A1HKS1	Panasonic - S P997-ND	Digi-Key	0.18	In Stock		
2	Capacitor	ECE-V1HA0R	Electrolytic	0.1UF	CAP .1UF 50 50V		CAP	smdcap	C	ECE-V1HA0R	Panasonic - S PCE3076TR-N	Digi-Key	0.1	In Stock	http://www.d	
3	Capacitor	ECE-V1HA0R	Electrolytic	0.1UF	0.1UF50V S 50V		CAP	smdcap	C	ECE-V1HA0R	Panasonic - S PCE2018TR-N	Digi-Key	0.12	In Stock	http://www.d	
4	Capacitor	ECE-B1HGE0	Electrolytic	0.1UF	CAP .50V .1UF 50V		CAP	smdcap	C	ECE-B1HGE0	Panasonic - S P5461-ND	Digi-Key	0.5	In Stock	http://www.d	
5	Capacitor	ECE-A50ZR1	Electrolytic	0.1UF	.1UFD @ 50V 50V		CAP	smdcap	C	ECE-A50ZR1	Panasonic - S P6638-ND	Digi-Key	0.18	In Stock	http://www.d	
6	Capacitor	ECE-A1HKS0	Electrolytic	0.1UF	CAP ELECT .1 50V		CAP	smdcap	C	ECE-A1HKS0	Panasonic - S P984-ND	Digi-Key	0.16	In Stock	http://www.d	
7	Capacitor	ECE-A1HKK0	Electrolytic	0.1UF	CAP ELECT .1 50V		CAP	smdcap	C	ECE-A1HKK0	Panasonic - S P985-ND	Digi-Key	0.21	In Stock	http://www.d	
8	Capacitor	ECE-A1HKG0	Electrolytic	0.1MF	KG RAD ALU 50V		CAP	smdcap	C	ECE-A1HKG0	Panasonic - S P925-ND	Digi-Key	0.21	In Stock		
9	Capacitor	ECE-A1HKA0	Electrolytic	0.1UF	0.1UF 50V MI 50V		CAP	smdcap	C	ECE-A1HKA0	Panasonic - S P820-ND	Digi-Key	0.12	In Stock	http://www.d	
10	Capacitor	ECE-A1HGE0	Electrolytic	0.1UF	NHE RADIAL 50V		CAP	smdcap	C	ECE-A1HGE0	Panasonic - S P5264-ND	Digi-Key	0.22	In Stock	http://www.d	

skill load use  
rev 1.0, catal  
Original relea  
rev 2.0, catal

```
axlCmdRegister(
SDC_form_file =
(defun SetDFACLA
NewClass = r
;FSKA_EventF
make_SDC_for
)
(defun SDC_Form
axlDRefresh
(case form-
("close"
axl1
axl0
delo
nil
)
("run"
axl1
axl
t
)
("AXIAL
New
t
```

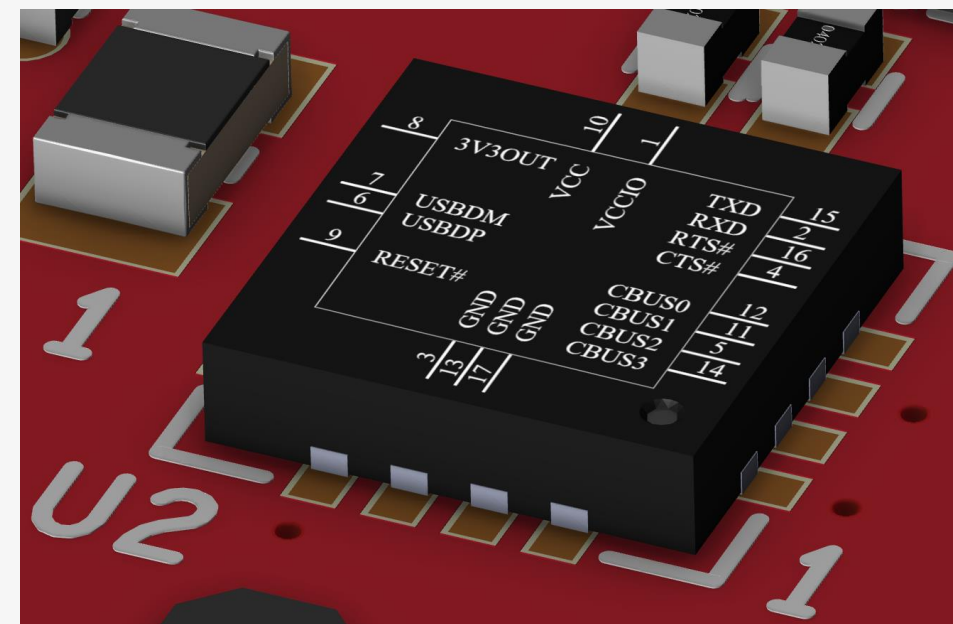
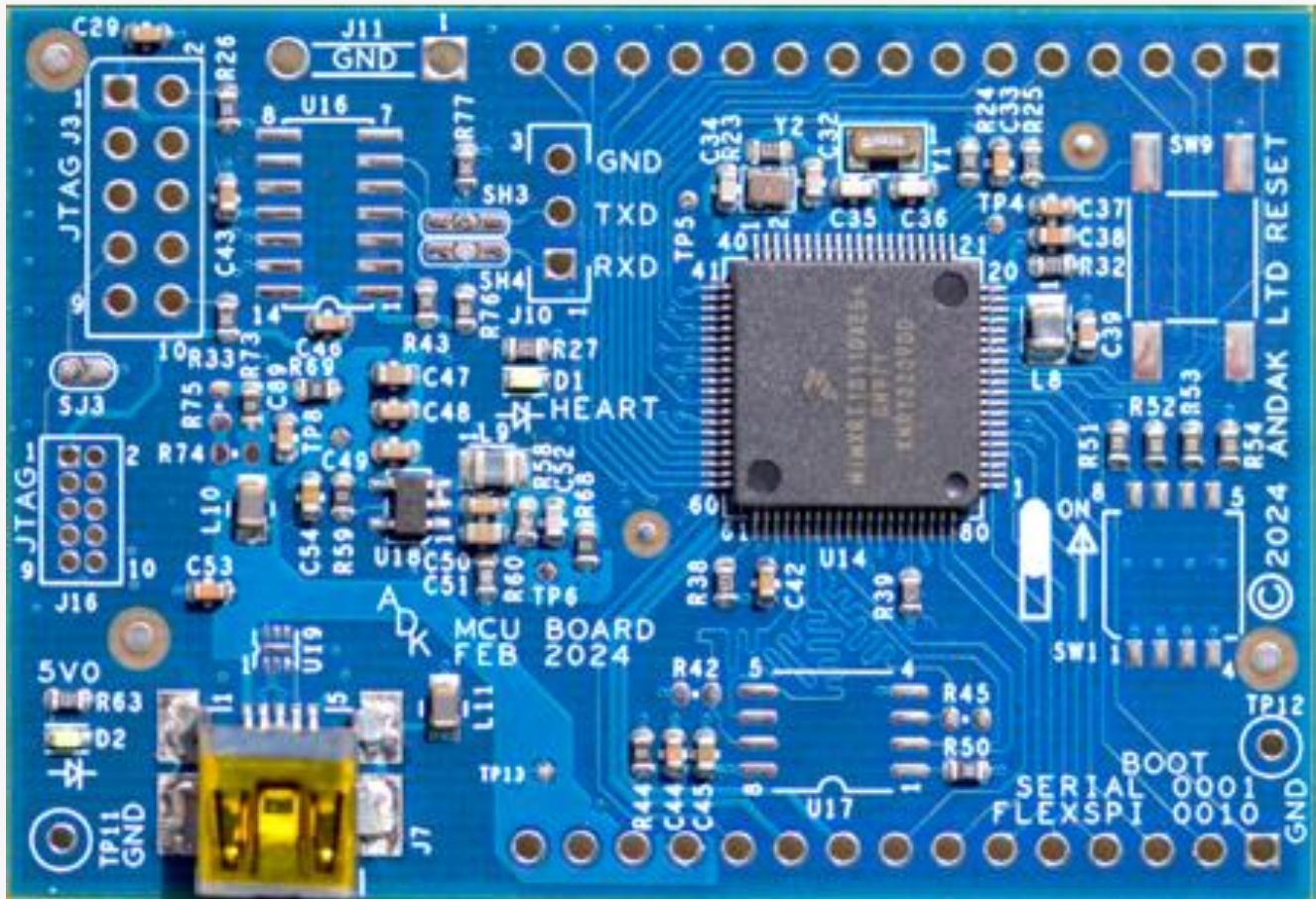
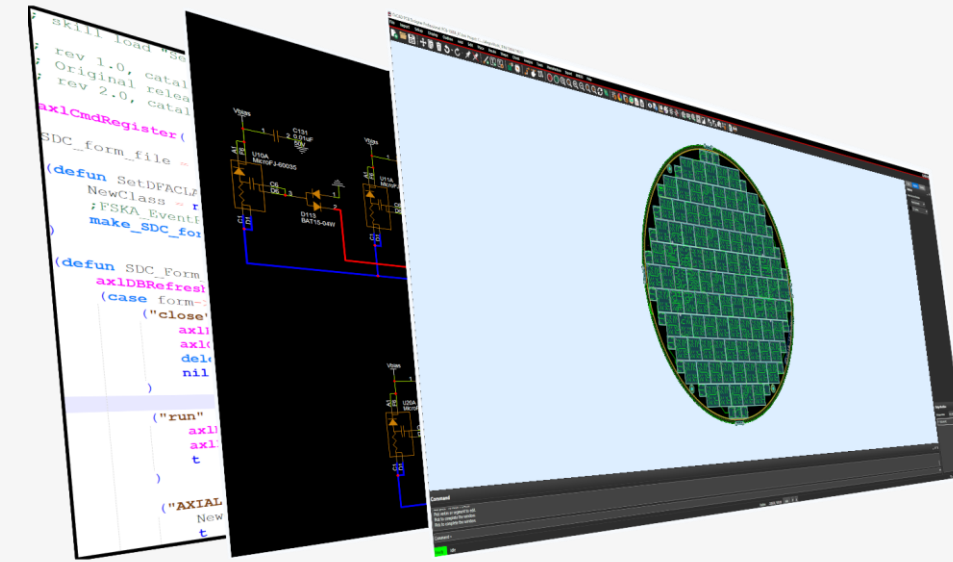




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For more details, visit us:  
<https://andak.ro/>



Contact