

# CADENCE ORCAD X

## PRODUCT MATRIX

### CAPABILITIES

### OrCAD X

STANDARD

PROFESSIONAL

PROFESSIONAL PLUS

PLATFORM	STANDARD	PROFESSIONAL	PROFESSIONAL PLUS
Backwards compatible with previous versions (17.2 & above)	✓	✓	✓
Design importers (Altium, PADS, Eagle)	✓	✓	✓
LICENSING			
Perpetual license	✓	✓	✓
Time based license (TBL)	✓	✓	✓
Cloud license (SUL)	✓	✓	✓
USER EXPERIENCE			
Presto PCB Editor (Modern UI)	✓	✓	✓
Classic PCB Editor (Legacy UI)	✓	✓	✓
PART AUTHORIZING & LIBRARY MANAGEMENT			
Unified manufacturer part search	✓	✓	✓
Integrated access to Ultra Librarian, SnapMagic, Samacsys	✓	✓	✓
Unified cloud library authoring	✓	✓	✓
Component lifecycle management	✓	✓	✓
Unified Component Information System	✓	✓	✓
Part version control and history	✓	✓	✓
IPC compliant footprint wizard (over 100 included footprint templates)		✓	✓

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#### CLOUD DATA MANAGEMENT & COLLABORATION

User management - individual, role, and group		✓	✓
Design sharing		✓	✓
Data storage, version control & history	Up to 10GB	Up to 50GB	Up to 50GB
Data IP Protection (Secure cloud)	✓	✓	✓
Individual/private workspace	✓	✓	✓
Shared workspace(s)	Can participate but not create	✓	✓
Schematic & PCB web viewers	✓	✓	✓
Design review, commenting, and markup	✓	✓	✓

#### SCHEMATIC

Hierarchical & flat design	✓	✓	✓
Constrain Management	✓	✓	✓
Design variants	✓	✓	✓
Dynamic online design rule check	✓	✓	✓
Component information system (CIS)		✓	✓
BOM optimization & supply chain insight - LiveBOM	Basic BOM exports	✓ (LiveBOM)	✓ (LiveBOM)
BOM component supply forecasting		✓	✓
Database Diary (design history tracking)	✓	✓	✓

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#### CIRCUIT SIMULATION

ISO 26262 compliant

✓

✓

✓

PSpice - Integrated mixed signal simulation

✓

✓

✓

PSpice Advanced Analysis (Smoke, Monte Carlo)

✓

Included 35K parameterized models

✓

✓

✓

Modeling Wizards

✓

✓

✓

Electrical stress analysis (EOS)

✓

Sensitivity analysis

✓

Analog circuit optimization

✓

Integration with MATLAB Simulink

✓

#### PCB LAYOUT

Interactive routing - including multinet &amp; bus routing

✓

✓

✓

AI-Powered placement &amp; Fanout assistance

✓

✓

✓

Constrain driven design - Constraint Management

✓

✓

✓

Constraint adherence feedback (green, red, yellow)

✓

✓

✓

Custom pad stacks

✓

✓

✓

Differential pair phase and uncoupling

✓

✓

✓

DesignTrue DFM Rule Count

~100

3,000+

3,000+

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#### PCB LAYOUT (CONT.)

Extended XNet rules	✓	✓	✓
Package pin delay rules (for die to die delay)	✓	✓	✓
Z axis delay feedback & DRC	✓	✓	✓
3DX Canvas (Native 3D Engine)	✓	✓	✓
Concurrent PCB Team Design	Can participate but not initiate	✓	✓
Trace timing & length tuning		✓	✓
Automated BGA fanout		✓	✓
Automated circuit replication		✓	✓
Automated teardrops and tapers		✓	✓
Automated via arrays and via shielding		✓	✓
Via structures		✓	✓
Automated constraint driven back drilling		✓	✓
Dynamic unused pad suppression		✓	✓
Split HDI Via stack		✓	✓
Slice through routed traces		✓	✓
PCB Footprint new pin/pad wizard		✓	✓
IPC compliant footprint wizard (over 100 included templates)		✓	✓

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#### PCB LAYOUT (CONT.)

Electrical rules (reflection, timing, cross talk)

✓

✓

Route Vision

✓

✓

In design coupling and impedance analysis

✓

✓

Sigriety X Aurora (In-Design SI/PI)

Basic  
(Impedance/  
Coupling)Advanced  
(IR/Crosstalk)

Topology exploration &amp; extraction

✓

✓

Specctra auto router

✓

✓

RF Coil Design

✓

✓

Rigid-Flex Design

✓ (Basic stackup  
& bending)

✓ (Advanced)

✓ (Advanced)

#### MANUFACTURING

IPC-2581 &amp; ODB++

✓

✓

✓

In Design DfX core checks (100+ DFA, DFF, DFT checks)

✓

✓

✓

In Design DfX flexible circuit checks

✓

✓

Automated fab &amp; assembly drawing creation - Live DOC

✓

✓

✓

Customizable Live DOC documentation templates

✓

✓

Single button manufacturing export - Parameterized artwork generator

✓

✓

✓

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#### MECHANICAL DESIGN INTEGRATION

Native real-time 3D design

✓

✓

✓

MCAD/ECAD codesign - Dassault Systemes SOLIDWORKS &amp; CATIA, Siemens NX, Autodesk Fusion, PTC Creo

✓

✓

✓

Included internal &amp; external copper

✓

✓

✓

MCAD driven component placement

✓

✓

✓

Keep out &amp; room synchronization

✓

✓

✓

3D clearance &amp; collision detection

✓

✓

✓

Rigid-Flex synchronization (supported by Siemens NX &amp; Dassault Systemes SOLIDWORKS)

✓

✓

#### TRAINING & SUPPORT

Cadence community forums

✓

✓

✓

Online training

✓

✓

✓

Cadence online support documentation resources

✓

✓

✓

Premium phone support

Option

Option

Option