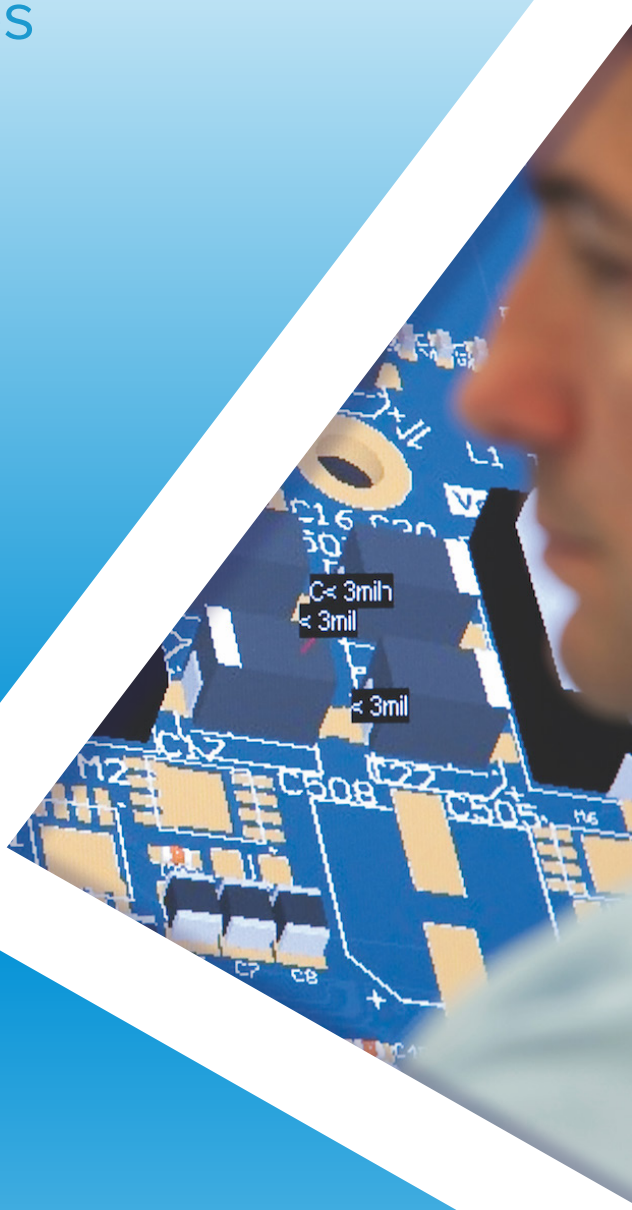
Advanced Engineering Services

- Value Engineering Services (DFX)



VEXOS

Local Service. Global Capabilities.

Product Optimization

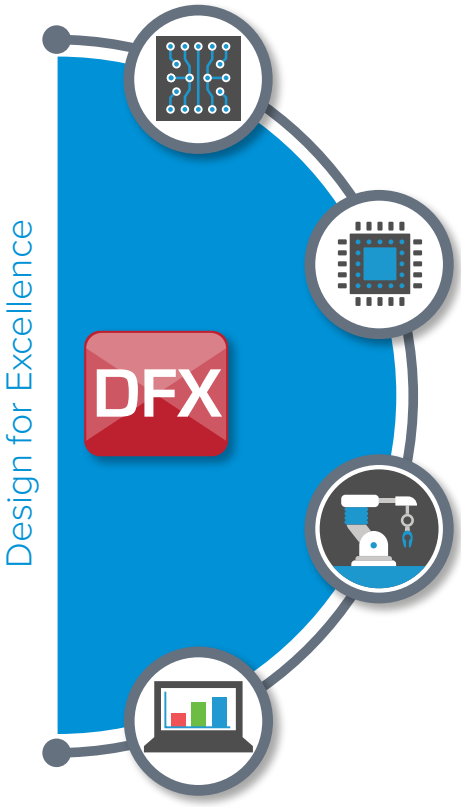
Through Early Stage Customer Engagement

VEXOS' early involvement in the design cycle can provide customers with a product that is more cost effective and has increased manufacturability, quality, reliability through its entire lifecycle. During our involvement in design reviews, we'll focus on key areas throughout the cycle and provide critical feedback to address potential issues and ensure a successful new product introduction. Design reviews can also be categorized by material (Design for Supply Chain), test (Design for Testability), PCB fabrication (Design for Fabrication), assembly (Design for Assembly) and manufacturing (Design for Manufacturing).

Value Engineering Services

Providing Technology, Flexibility, Velocity, and Experience for Your New Product Introduction

VEXOS value engineering services enable customers to optimize product manufacturability and quality performance. We focus on every aspect of design and manufacturing processes, assessing all impacts on cost, function, schedule and overall requirements. We work with our customers to find appropriate opportunities for cost reduction. We examine every element that contributes to the value and performance of a product:



- Design for Fabrication (DFF):
  Focuses on PCB fabrication design and related cost drivers
- Design for Assembly (DFA):
  Focuses on PCB fabrication design and related cost drivers
- Other engineering services as appropriate:
  ECO upgrade, reliability testing, FAI, failure analysis, DOE

- Design for Supply Chain (DFSC):
  Focuses on material sourcing, AML, compliancy, supply and lifecycle
- Component Engineering and AVL optimization
- BOM Analysis and component life cycle management

- Design for Manufacturing (DFM):
  Focuses on manufacturing process and test and related cost drivers
- Pre- and Post-DFM Reviews, Post-Build Reports

- Design for Test (DFT) and ROI:
  Focuses on test access, coverage, and related test plan and development.
- ICT Development and Finite Element Analysis (FEA):
  Services test plan and development for PCBA testing
- Functional Test Development and Design

Design for Manufacturing (DFM) and Design for Test (DFT) target the labor portion of the total cost. Design for Supply Chain (DFSC) focuses on the materials portion of the manufacturing cost.

BENEFITS OF PERFORMING DFX

- Reduced lead time and material costs (DFSC)
- Improved PCB yield and cost (DFF)
- Improved assembly yield and reduced labor content (DFA)
- Improved coverage and final yield, reduced RMA, and field failures (DFT)
- Reduced engineering development and resources, improved time to market (development)
- Improved production stability and predictability (DFM)
- Continuous improvement (post-DFM, ROI).

HOW OUR CUSTOMERS BENEFIT FROM VALUE ENGINEERING.

Vexos` full suite of Value Analysis and Value Engineering services is aimed at design optimization and cost reduction. Vexos works collaboratively with customers to identify, prioritize, and implement opportunities for cost reduction and product quality enhancements every step of the way. Design reviews can uncover valuable opportunities in manufacturing efficiencies whether it's related to new component and layout applications, new technologies, or functional enhancements.

HOW WE GET YOUR PRODUCT TO MARKET FAST!

We work shoulder-to-shoulder with our customers to develop future product plans and effective manufacturing strategies. Where it makes sense, Vexos global footprint can provide a proven migration path to low-cost manufacturing solutions in Asia.

Dependable Quality

Vexos achieves the highest quality levels by utilizing the latest equipment, processes, quality standards and certifications across the organization; to enable a flawless launch of each individual program.

- Rigorous selection of sub-contractors or partner factories
- Performance evaluation and monitoring through regular audits of the factories
- Continuous training for personnel at all levels
- Document control to safeguard your data and release of technical documents
- Sample approval process including production part approval process (PPAP)

Certifications & Awards

- ISO 9001:2015
- ISO 13485:2016
- ISO 14001:2015
- FDA registered
- UL Certified ZPVI2
- AS9100D:2016
- OHSAS 18001:2007
- RoHS and Non-RoHS
- IATF 16949:2016
- CGP certification
- ITAR Compliant

Markets We Serve

COMMUNICATIONS

INDUSTRIAL

MEDICAL

SMART GRID

SECURITY

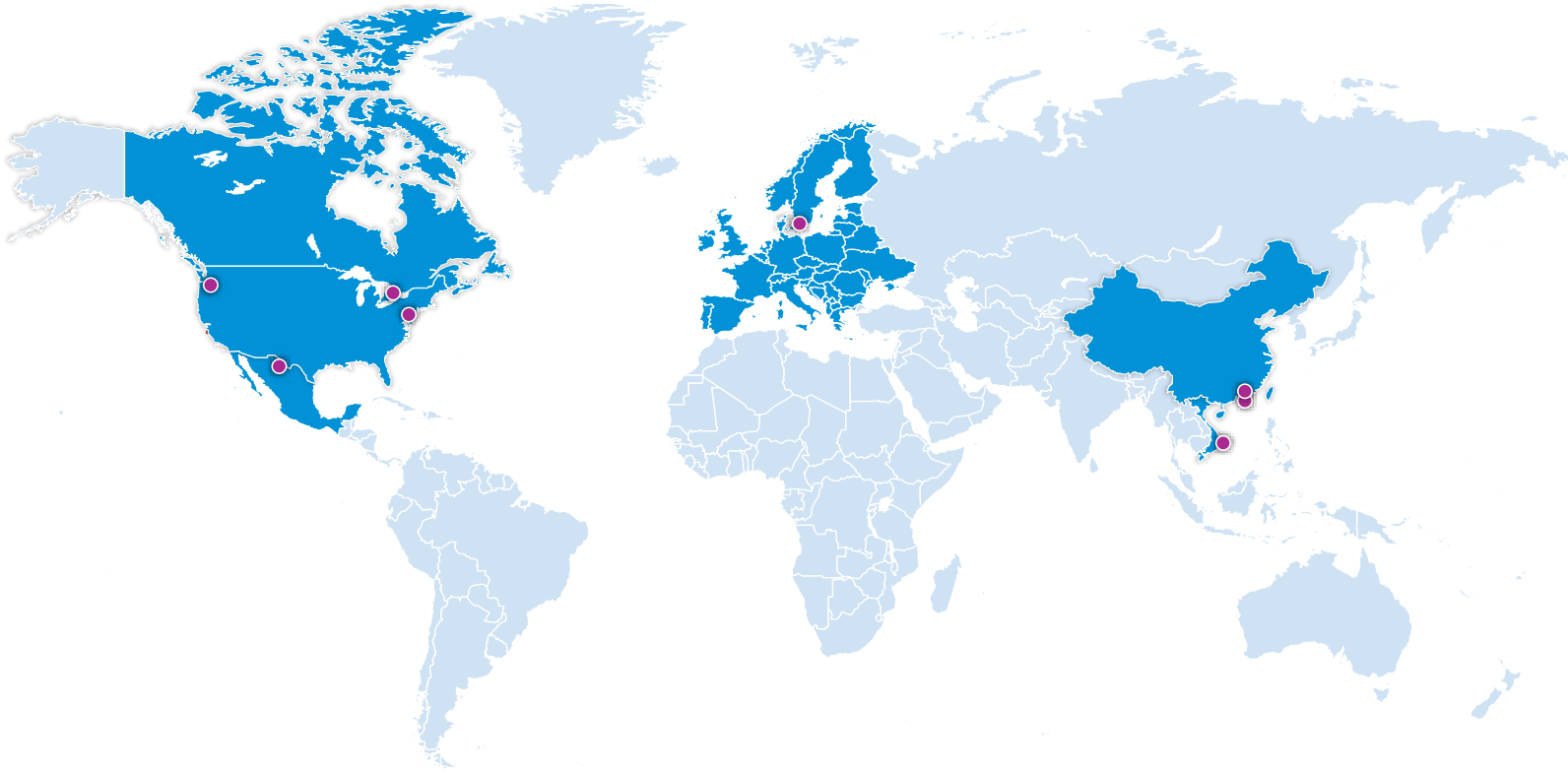
AUTOMOTIVE

COMPUTING

AVIATION
DEFENSE SPACE

HVAC

Locations



USA

VANCOUVER, WASHINGTON, USA
MANUFACTURING FACILITY
VEXOS | CONTROLTEK
3905 NE 112 Avenue, Vancouver,
WA 98682
+1 360.896.9375

MEXICO

JUAREZ, CHIHUAHUA, MEXICO
P 41 – VEXOS
Boulevard Manuel Talamas Camandari #6867,
Colonia Puente Alto.
CD. JUAREZ, CHIHUAHUA
MÉXICO C.P. 32695
+1 905-479-6203

CANADA

MARKHAM, ONTARIO, CANADA
MANUFACTURING FACILITY
195 Royal Crest Court
Markham, Ontario, Canada L3R 9X6
+1 905-479-6203

EUROPE

MALMÖ, SWEDEN
EUROPEAN SALES OFFICE
WTC Building, Skeppsgatan 19
SE-211 11 Malmö, Sweden
+46 705 48 26 59

ASIA

DONGGUAN, CHINA
MANUFACTURING FACILITY
Block A, Plainvim Industrial Park, Dongkeng
Avenue, Dongkeng Town Dongguan City,
Guangdong, PRC, 523455
+86 769 8101 5368

HO CHI MINH CITY, VIETNAM
MANUFACTURING FACILITY
Floor 4th, Standard factory B, Tan Thuan
street, Tan Thuan EPZ, Tan Thuan Dong
ward, District 7, Ho Chi Minh City,
72909, Vietnam
+84 28 3636 2939

HONG KONG
ASIA LOGISTICS
Flat A, 11/F Wing Tai Centre
12 Hing Yip Street
Kwun Tong
Kowloon, Hong Kong
+852 2304 7900

WINNER OF CIRCUITS ASSEMBLY AWARDS

2019 CIRCUITS ASSEMBLY'S SERVICE EXCELLENCE AWARD WINNER

2021 CIRCUITS ASSEMBLY'S SERVICE EXCELLENCE AWARD WINNER

2022 CIRCUITS ASSEMBLY'S SERVICE EXCELLENCE AWARD WINNER

2023 CIRCUITS ASSEMBLY'S SERVICE EXCELLENCE AWARD WINNER

vexos.com | 855-711-3227