

Innovate. Design. Build. Deliver.

# Realizing the Limits of Possibility: RF Power and High Frequency Magnetics

## Engineering Solutions



### Process Capabilities

IPC610 certification for soldering and crimping and connector install. PCB assembly, mechanical assembly, electrical test (component and system level), burn in and thermal cycling, potting and impregnation, coating.



### Test and Evaluation

WCM's quality team is certified in PCA inspection to IPC 610 standards. Our engineers are trained in circuit test and evaluation and functional test. All test and evaluation apply a standard of zero defect, 100% yield.



### Engineering Capabilities

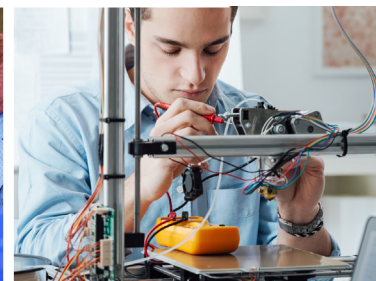
Root cause analysis, PFMEA, process validation, UL/CSA/VDE/TUV certification, transformer and inductor design and manufacture, 2D and 3D modeling, board level test and evaluation.

WCM's electronic manufacturing services include advanced assemblies with traceable documentation and trained staff capable of performing root cause analysis of failures.



### Qualified Vendors

- PCA assemblies
- Chassis
- Injection molding
- Machining
- Wire and cable harnessing
- Dielectric materials
- Coating and impregnation materials
- Magnetic materials



# Custom Solutions

## Switch Mode Transformers



Our new series was designed for applications where board space is at a minimum and puts out 500 watts to 5,000 watts of power. [View More](#)

## Designer Kits



For designers that like to wind their own transformers and inductors, West Coast Magnetics can provide you kits containing ferrite e-cores and bobbins. [View More](#)

## RF Filters



Offering very high narrow band impedance at RF frequency, separate channels, and varying amp levels. [View More](#)

## Common Mode Chokes



Offering excellent noise attenuation over a wide frequency range, low capacitive coupling, and ability to handle your full load RMS current without overheating. [View More](#)

# Capabilities

## Manufacturing

- Mechanical and electrical assembly
- Automated and manual toroidal winding
- Automated and manual bobbin and coil form winding
- Soldering and termination (J-STD•001, IPC - 610)
- Assembly
- Potting/impregnation
- Coating
- Baking
- Solid wire, litz wire, copper foil
- Coils made from bondable wire
- Tuned RF inductors to tolerance +/-0.5%
- PCA repair and test

## Electronic Manufacturing Services

- Process validation, risk assessment and PFMEA
- Rapid prototype services
- Turnkey assembly, validation, and test
- Qualified vendors: cable and harnessing, PCB/PCA, chassis, machined parts, injection molding
- Kanban and inventory management

## Design

- Linear, switching power and RF transformers and inductors
- Frequency: 60Hz to 100 MHz
- Power (to 10 kW): isolation transformers, SMPS transformers, buck/boost inductors, resonant inductors, RF transformers, gate drive transformers, current sense transformers, common mode chokes
- UL/CSA/VDE/TUV compliance
- Filters - high power, multichannel, frequency 100 kHz to 50 MHz
- High voltage transformers
- Wireless signal and power transfer magnetics

## Technology - Intellectual Property

- Multichannel highly parallel notch filter
- Isolated RF power transformer
- Low loss winding - gapped SMPS inductors

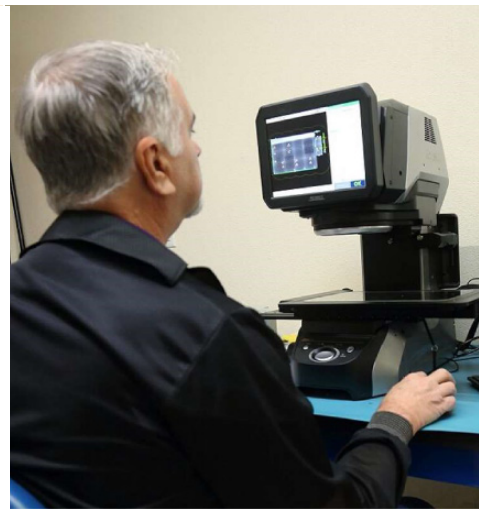
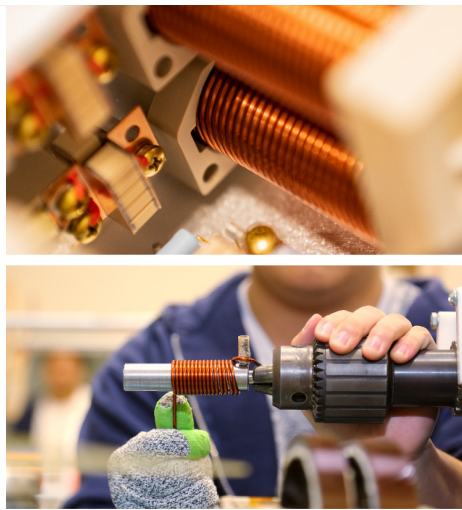
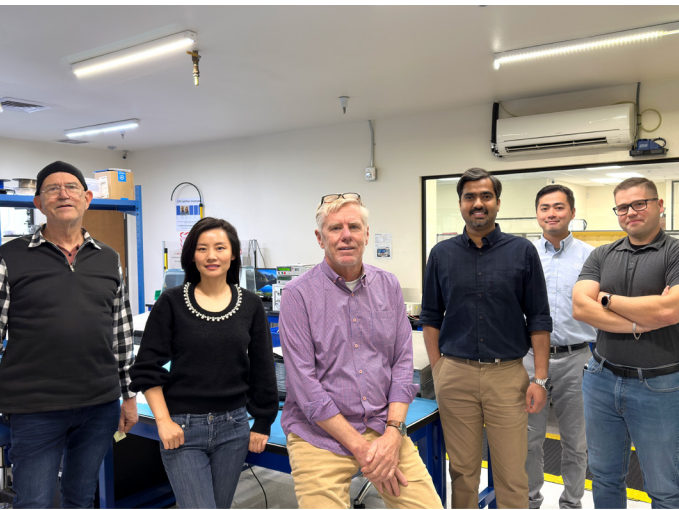
# Capabilities Continued

## Test

- Inductance, capacitance, Q, impedance, phase angle (60 Hz to 100 MHz)
- UL/CSA/VDE/TUV compliance
- Hypot: 100 Volts to 50 kV
- DCR: 0.5 microohms
- Surge testing to 4kV
- Turns ratio/phasing
- Fully automated transformer testing
- All test equipment is calibrated to NIST standards
- Automatic transformer test
- PCA

## Engineering

- 3D modeling — Solidworks
- 2D modeling — Autocad
- Process validation, risk assessment, PEMEA
- Turnkey solution for recognized designs, UL/CSA/VDE/TUV
- Power magnetic device simulation
- Ansys finite element modeling
- Thermal simulation
- Python



**WCM** WEST COAST  
MAGNETICS

## Contact Us Today for a Custom Solution

wcmagnetics.com  
(800) 628-1123  
sales@wcmagnetics.com