



**NEO**Tech

NATEL EPIC OnCore

# NEO Tech Company Overview

2020

# Introducing NEO Tech



**N**ATEL Engineering Co.  
**E**PIC Technologies  
**O**nCore Manufacturing



**NEOTech**  
NATEL EPIC OnCore

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# NEO Tech Fast Facts

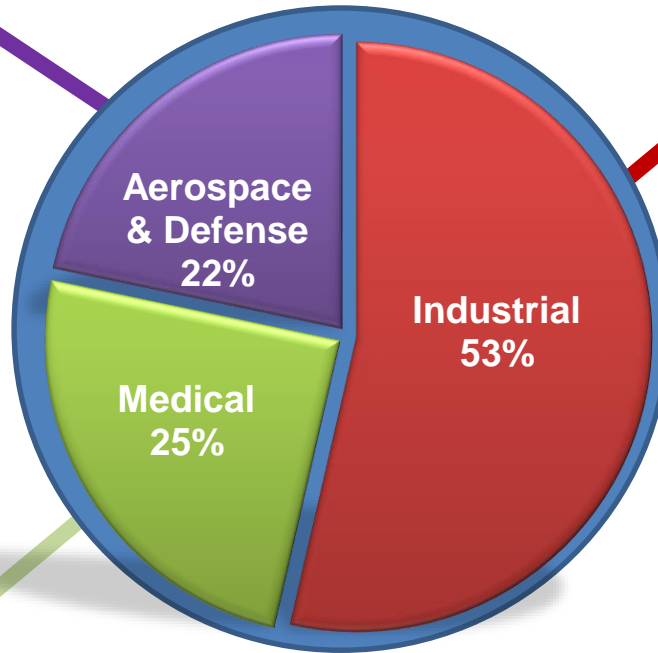


- Tailored solutions in focused market sectors
  - Aerospace & Defense
  - Medical
  - Industrial
- Recognized for manufacturing high-reliability and high-quality solutions in mission-critical industries
- Global footprint
  - Corridors of Innovation
  - Low cost regions
- World-class supply chain, operations and IT and engineering infrastructure
- Expertise in Continuous Improvement of processes and quality

<b>FY 2019 Revenue</b>	<b>\$ 800 Million</b>
<b>Employees</b>	<b>3,900</b>
<b>Manufacturing Sites</b>	<b>14</b>
<b>Manufacturing Space</b>	<b>1,500 Kft<sup>2</sup></b>

**The “NEO Tech Business System” is integrated into every facet of the organization**

# NEO Tech Business is Balanced with Industry Leading Brands

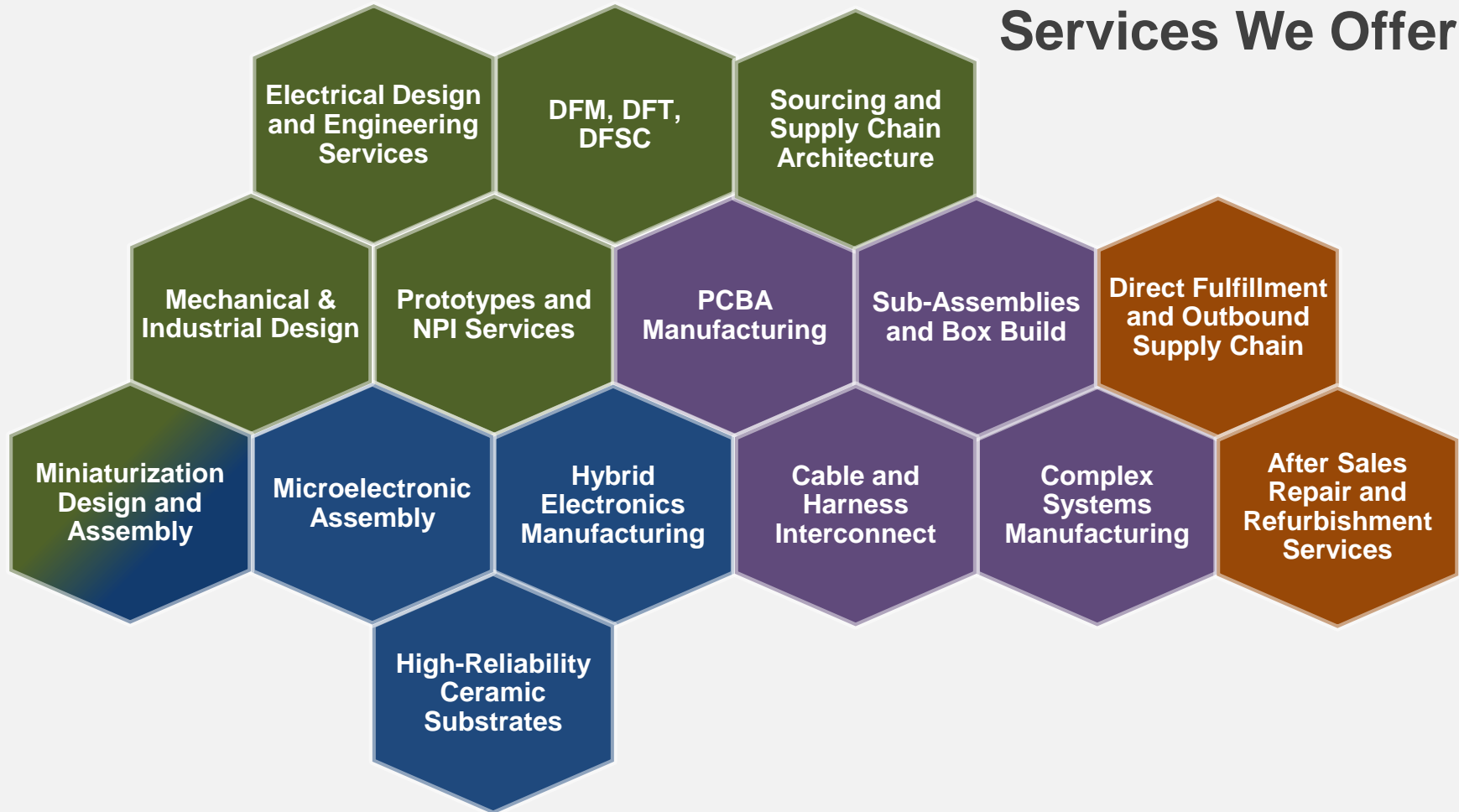


**Business and customer diversity reduces risk**

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# NEO Tech End-to-End Offering

## Services We Offer

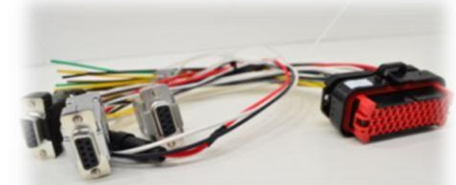
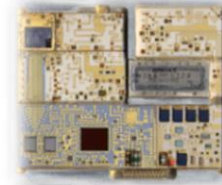
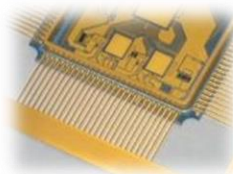
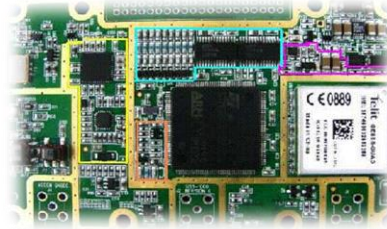


***We architect a solution tailored to your individual needs***

# ABOUT NEO Tech

## We Make Things...

- Printed Circuit Board Assembly
- System **Assembly** and **Integration**
- Hybrid / Microwave Microelectronics
- Ceramic Substrates
- Cable and Harness Interconnect





# ABOUT NEO Tech

... that Go into High Reliability Programs



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... and Specialize in the manufacture of High-mix and High-Complexity products



## Focused High-Mix solutions

- PCBA / CCA and box build
- Extensive distribution partnerships and replenishment models for flexibility and risk management

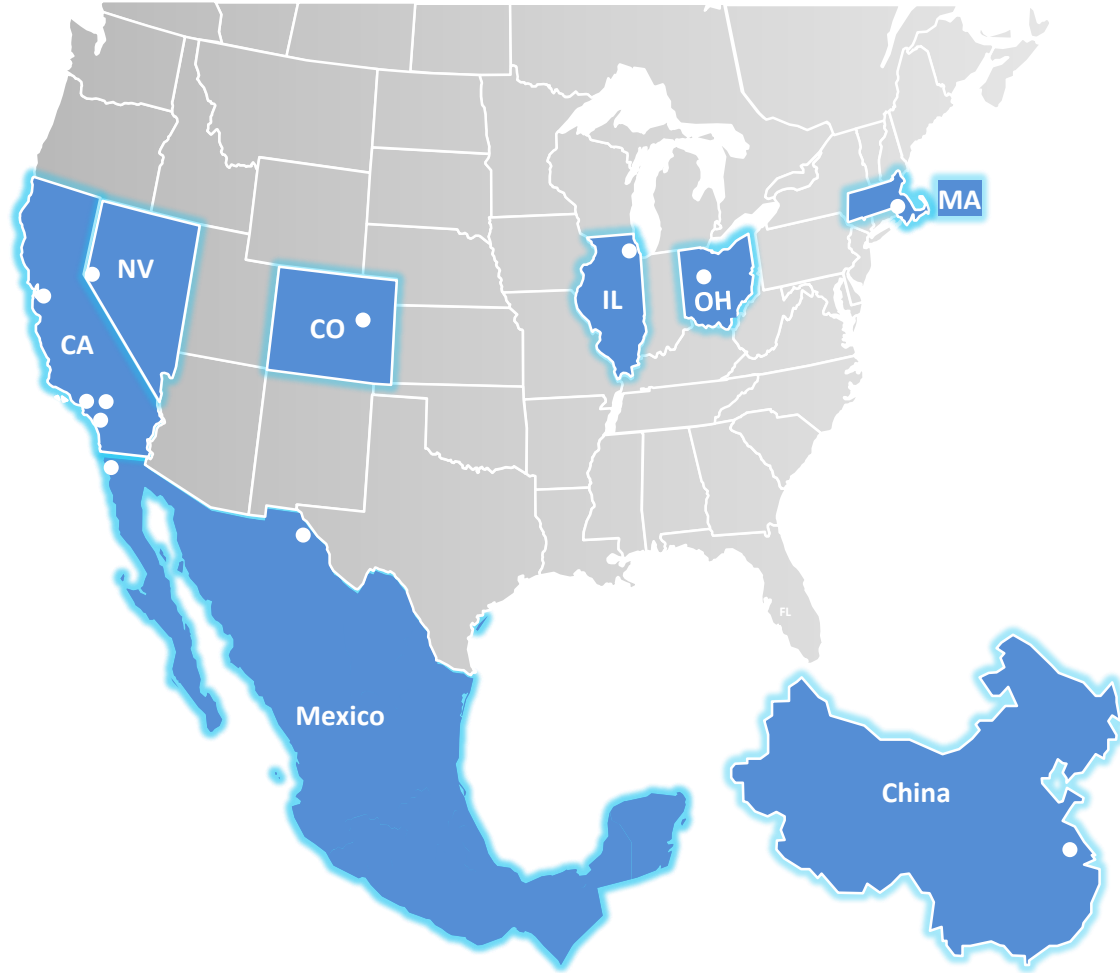
## Building High-Complexity systems

- Many subs and BOM layers
- Robust process transfer experience
- Integration of multiple technologies



# Strategically Positioned Manufacturing Footprint

<b>Chatsworth, CA</b>
<b>Carson City, NV</b>
<b>Carlsbad, CA</b>
<b>Fremont, CA</b>
<b>San Marcos, CA</b>
<b>Longmont, CO</b>
<b>Mason, OH</b>
<b>Westborough, MA</b>
<b>Juarez, Mexico</b>
<b>Tijuana, Mexico (2)</b>
<b>Suzhou, China</b>
<b>Naperville, IL</b>



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# Quality Certifications in Strategic Market Segments

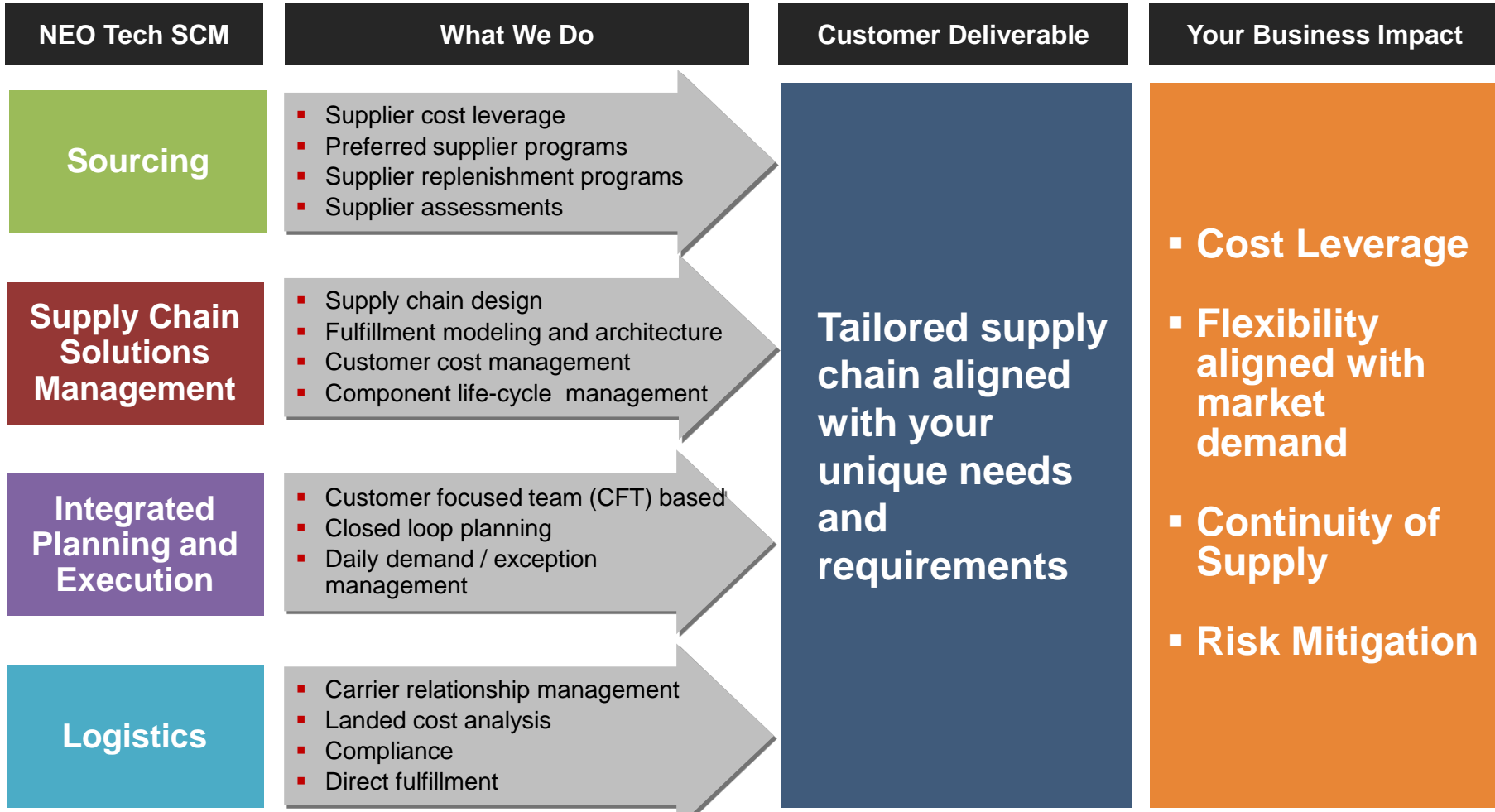
	Manufacturing Space (X1000 Ft <sup>2</sup> )	PCBA & System Integration	Hi-Reliability Substrates	Micro-electronics Assembly	Engineering & Other Services	Cable & Harness		Industrial ISO9000C	Medical ISO13485 & FDA Registered	Defense & Aerospace AS9100 & ITAR	Space Qualified MIL-PRF-38534 Class H & K / J-STD-001FS
Chatsworth, CA	200	✓		✓				X	X	X	X
Carson City, NV	24			✓				X		X	X
Valencia, CA	140	✓		✓				X	X	X	X
Carlsbad, CA	45		✓					X		X	
Fremont, CA	130	✓						X	X		
San Marcos, CA	80	✓						X	X	X	
Longmont, CO	58	✓			✓			X	X	X	
Mason, OH	74	✓						X	X		
Westborough, MA	190	✓						X	X	X	
Juarez, Mexico (2)	397	✓			✓			X	X		
Tijuana, Mexico (2)	140	✓			✓	✓		X	X		
Suzhou, China	128	✓						X	X		
Naperville, IL	n/a				✓						

X = Certified

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# Delivering Personalized Material Supply Solutions

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**VA / VE Value Add – Value Engineering**

# NEO Tech Helps OEMs Engineer Their Products

## Engineering Service Solutions



### Product Design

Digital

Analog/RF

DFX

SW + FW

Capture & Layout

### Re-Design / EOL

Component Engineering

Feature Add

Life Extension

### Test Dev.

ICT

Boundary Scan

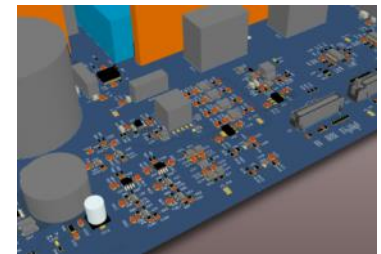
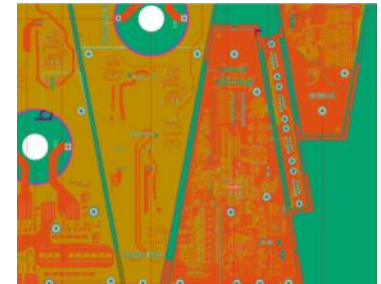
Functional Test

### Prototype

Quick Turn

SMT + PTH + manual

Test



# Test Engineering

Buffet Style: Choose whichever capability you need

## Advanced Test Engineering

- Customer Seminars
- Customer Training
- Early Product Involvement
- DFM & DFT Reviews
- Test Strategy Development

## Test Development

- Process Design
- Prototype and Preproduction Builds
- Manufacturing Test Development
- Through-Put Analysis
- Gap/Coverage Analysis

## Full Test Suite

- ATE (AOI, 3D X-Ray, Flying Probe, ICT)
- Boundary Scan (Industry Leader)
- ICT- In-Circuit Test
- Functional, Digital/Analog/RF(PCBA through System)
- ESS/HASS/HALT
- Burn-in and/or Run-in
- Regulatory
- (Isolation, Hi-pot)



# Functional Test Development

**Test strategy** - ensure the appropriate level of testing is performed at the earliest stage in the Process to reduce cost through early defect detection

- Functional test development
- PCBA functional testing within ICT
- Boundary Scan
- Simple to fully automated testing of PCBA and finished products



**BScan and Functional testing at ICT**



**Functional Test Platform**



# NEO Tech Interconnect



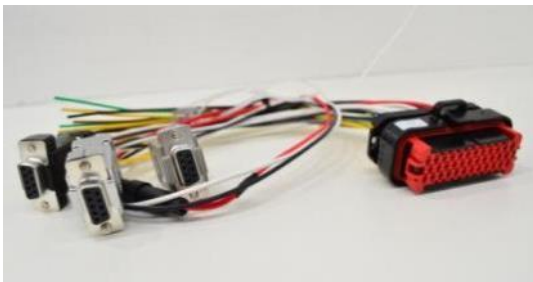
**Simple Wiring Kits**



**Multi-conductor I/O Cables**



**Flat Cables**



**Simple Harness Assemblies**



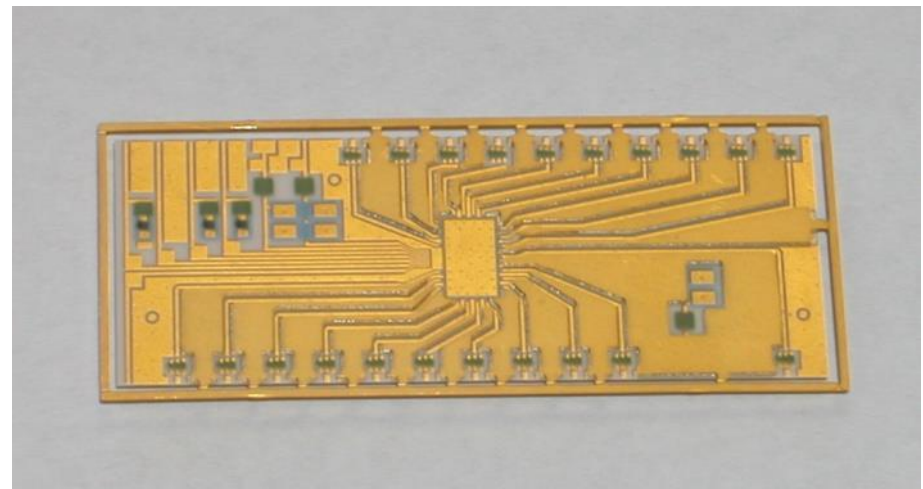
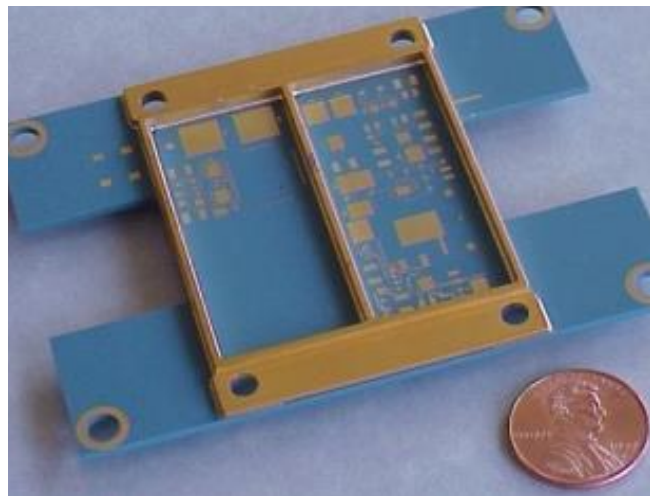
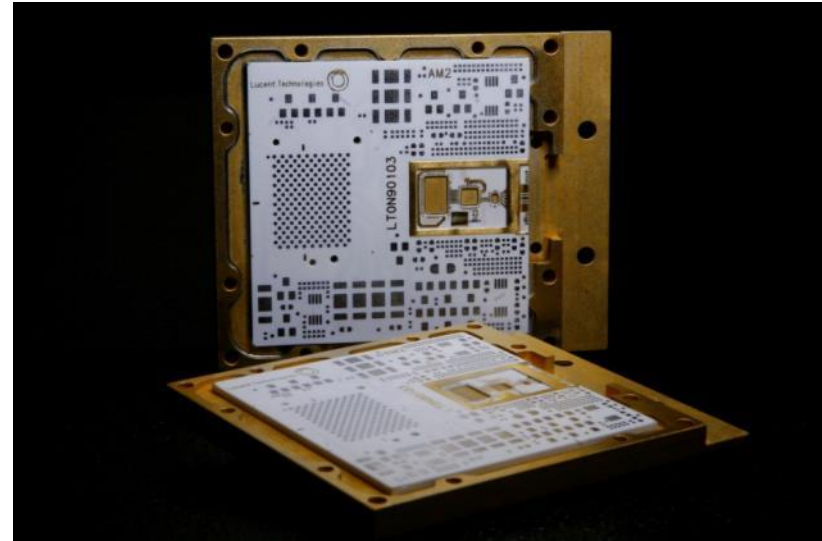
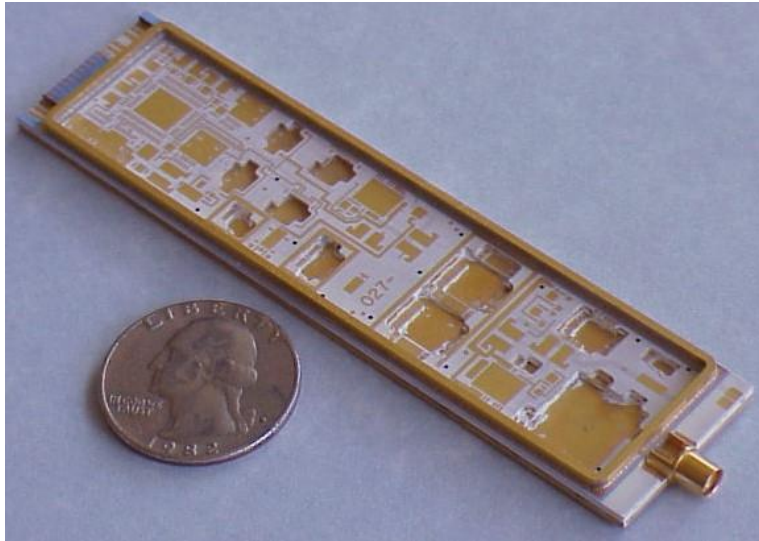
**Complex Harness Assemblies**



**Coaxial / RF Cable Assemblies**

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# High-Reliability Ceramic Substrates

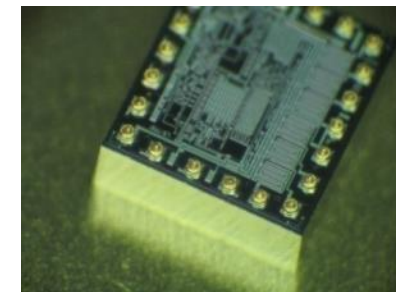
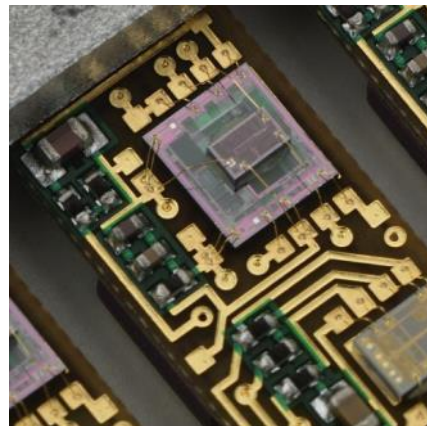
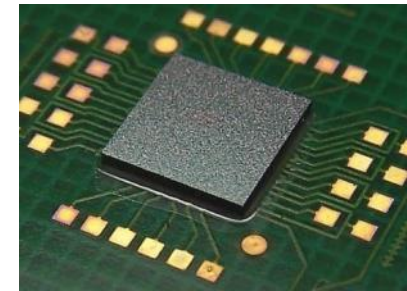
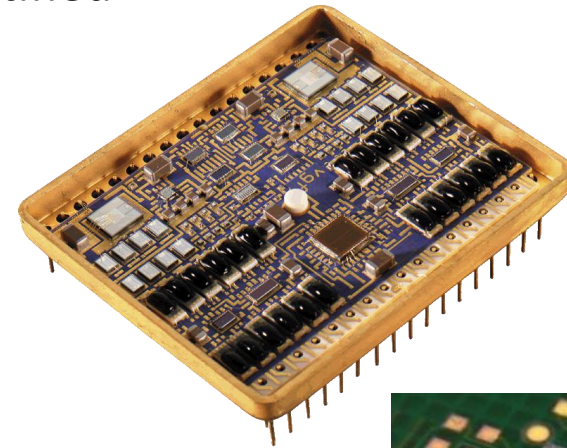


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# Microelectronic Assembly

- MIL-PRF-38534 Class H and K Certified
- Chip and Wire Hybrids
- Multi-Chip-Modules (MCMs)
- Eutectic & Epoxy Die Attach
- Chip on Board
- Gold Stud Bump Die
- Flip Chip, CSP and BGA Attach



# NEO Tech Offers Best of Both Worlds Solutions

**The Small**

**EMS Market Space**

**The Large**

**Prototype & NPI Shops**

**Low Tier EMS**

- ✓ Highly flexible
- ✓ Relationships directly with principals
- ...BUT...
- Single site or region
- Homegrown and manual processes
- Limited supply chain leverage

**NEO Tech Sweet Spot**

- ✓ Complex product experience, challenging supply chains and regulated environments
- ✓ High-Reliability expertise
- ✓ Global Footprint
- ✓ Tier 1 toolsets and processes
- ✓ Flat and highly responsive organization--top to bottom
- ✓ Flexible solutions

**Large Tier EMS**

**ODM's**

- ✓ Wide capability range
- ✓ Integrated global infrastructure and tools
- ...BUT...
- >\$50 mil to +Billion dollar engagements
- Rigid processes and business terms for smaller customers

*NEO Tech is big enough to manage complexity and deliver a customized solution  
...and small enough to care about you and your business as much as you do*



# Paxcell Group

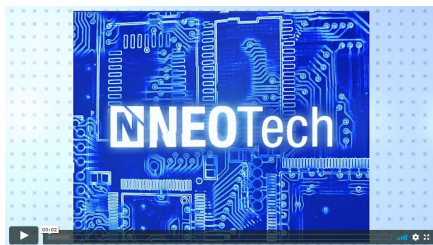
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