

**For over 40+ years, Microcross has been the leading global one-source solution provider serving the hi-reliability application needs of our Aerospace & Defense, Space, Medical and Industrial customers. Today, we continue our commitment to deliver high-quality microelectronic components & services including: full turnkey assembly, test and qualification as well as device analysis and reliability testing.**

Our core engineering and manufacturing strengths provide advanced solutions in areas such as electrical test and specialty packaging, as well as component, board and reliability qualification testing, services and solutions.

### Lifecycle Test Solutions

- Three expansive test floors
- More than 30 ATE platforms
- Peripheral engineering and production equipment
- Equipment is available to rent for developing test programs and next-generation products
- In-house test engineers develop prototype, characterization and production test programs for external customers
- ATE-ATE program conversions support cost reduction or end-of-life needs
- Production solutions including drop ship and inventory management



### High-Speed, High-Density Solutions

Our in-house test engineering and hardware design teams are very experienced in developing production-ready solutions for high-speed digital and RF devices such as network processors, transmitters, receivers and line drivers.

For wafer sort, we design vertical probe cards and develop programs for RF devices running as fast as 6 GHz. Final test solutions include multi-site loadboard design and assembly, socket selection and program development for high-speed digital ICs running up to 10 GB/s.

### Fully-Configured ATE Platforms

- Advantest 93K: Single Density, Pin Scale, Port Scale, Smart Scale
- Credence: D10, Fusion CX, Octet, Quartet, Valstar

### Peripheral Equipment

- Seiko-Epson: 8040
- Synax: SX1211, SX1701N, SX3100
- TSK: UF200, UF3000EX, UF3000EX-cold
- High-speed oscilloscopes
  - 26.5GHz PNA-X
  - 67GHz PNA-X
- Temperature forcing units

### Industry-Certified Quality

ITAR-registered, DLA Certified, ISO9001 & AS9100 Certified:  
DMEA Trusted Source  
MIL-PRF-38535, Class Q (Full) & V (Test) Certified  
MIL-PRF-38534, Class H Certified (Microcross Orlando)  
MIL-STD-883/750, Laboratory Suitability – Certified  
ANS/ISO/IEC Standard 17025:2005

## Engineering Expertise

- Vector Generation
- ATPG
- Wafer probe hardware design
- Final test hardware design
- ATE-ATE conversion
- Device characterization
- Final test
- Hardware design & build
- Product engineering
- Prototype analysis
- RMA evaluation
- Test engineering
- Test program development
- Wafer sort
- Yield analysis

## Specialty Assembly

- BGA
- Ceramic
- Flip Chip
- Hermetic
- MCM
- Micro BGA
- SIP
- SoC
- Stacked die



## Conventional Reliability

- Autoclave
- Ball/die shear
- Constant acceleration
- EFR Analysis
- ESD
- HAST
- HTOL
- HTS
- Latch-up
- Mechanical shock
- Moisture level
- Preconditioning
- Solderability
- Temp cycle
- Thermal shock
- Torque
- Vibration
- Wire/die pull

## Next-Generation Reliability

- Chamberless burn-in
- Liquid burn-in
- System-level reference design
- Thermal-electric cooling

## Digital & Mixed Signal Devices

- Microprocessors, DSP, Microcontroller, Graphic Engines
- Communications (Ethernet, DSL, Base Band, Networking)
- Consumer (Games, Digital Audio, Digital TV, Set Top Box)
- System-On-a-Chip (SoC), High Performance ASIC
- FPGAs, MEMs

## Memory

- SDRAM, DDR2/3, SRAM, SRAM
- EEPROM, EPROM, Serial Flash

## RF Test Support

- LTX-CXV
- Verigy Portscale
- 6/8GHz
- Receiver
- Transmitter
- Power Amplifier
- Frequency Generator
- Transceiver
- In Socket De-embedding (open, short, load and thru)
- 6GHz Wafer Sort
- Low Jitter Clock Source
- ACPR, EVM, Noise Figure, Power, IIP2, IIP3, P1db, Downconvert, Upconvert, PLL, Noise, In Band Spurious, PAE, Turning Curves, RF Frequency, QPSK
- Modulation/Demodulation, I/Q mod/demodulation
- Custom Frequency Calibration

## RF 10+ GHz Capability

(Expandable to 80 GHz)

- PA, LNA, Filter, Mixer, Digital TV
- Wireless LAN, Bluetooth Product Test Program

