



Space Products & Capabilities

- Full TurnKey Flight Model Solution
- Comprehensive Test Capability including Mixed Signal ASIC
- In-house Test Hardware And Software
- In-house Burn-In Platform Development
- High Pin Count CQFP And CGA Packaging
- Monolithic & Multi-Chip Modules
- Column Grid Array (CGA) QML Certified Line
- CTE enhancement of lead-less carriers (BTCE)
- Broad Component Expertise
- Highest Level of Quality & Customized Support
- Customized Customer SCD's
- Radiation Testing Support
- ESA ESCC 9000 Component Processing
- MIL-PRF-38535 V-Level Assembly
- MIL-PRF-38534 Class K

Support Chip Design
& Wafer Fabrication

Wafer Probe

Wafer Saw

Die Inspection

Hermetic Packaging
Design & Selection

Assembly
Including CGA

Environmental Screening

Electrical Test & Burn-In

Lot Validation Tests

Fully Qualified
Flight Model

Support Chip Design
& Wafer Fabrication



Assembly
Including CGA



Wafer Probe



Environmental Screening



Wafer Saw



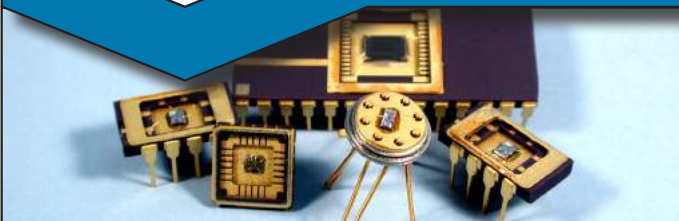
Electrical Test & Burn-In



Die Inspection



Hermetic Packaging
Design & Selection



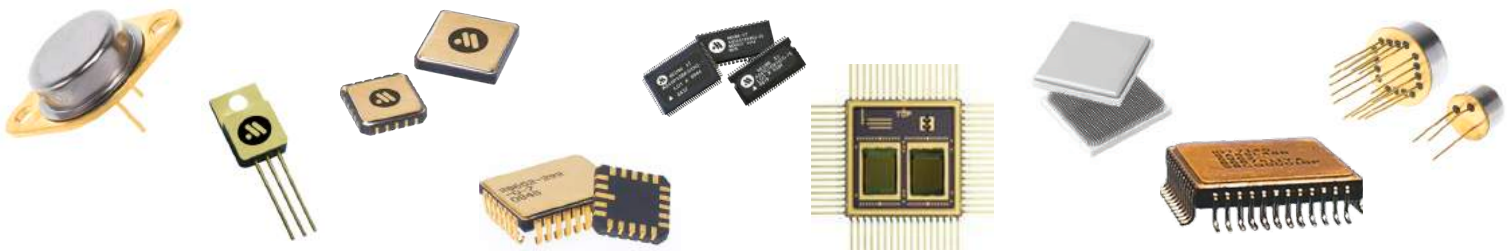
Lot Validation Tests



Micross is the global one-source provider of Bare Die & Wafers, Advanced Interconnect Technology, Custom Packaging & Assembly, Component Modification Services, Electrical & Environmental Testing and Hi-Rel Products to manufacturers and users of semiconductor devices. In business for more than 40 years, our extensive hi-reliability capabilities serve the Aerospace & Defense, Space, Medical and Industrial markets. Micross possesses the sourcing, packaging, assembly, engineering, test and logistics expertise needed to support an application throughout its entire program cycle.

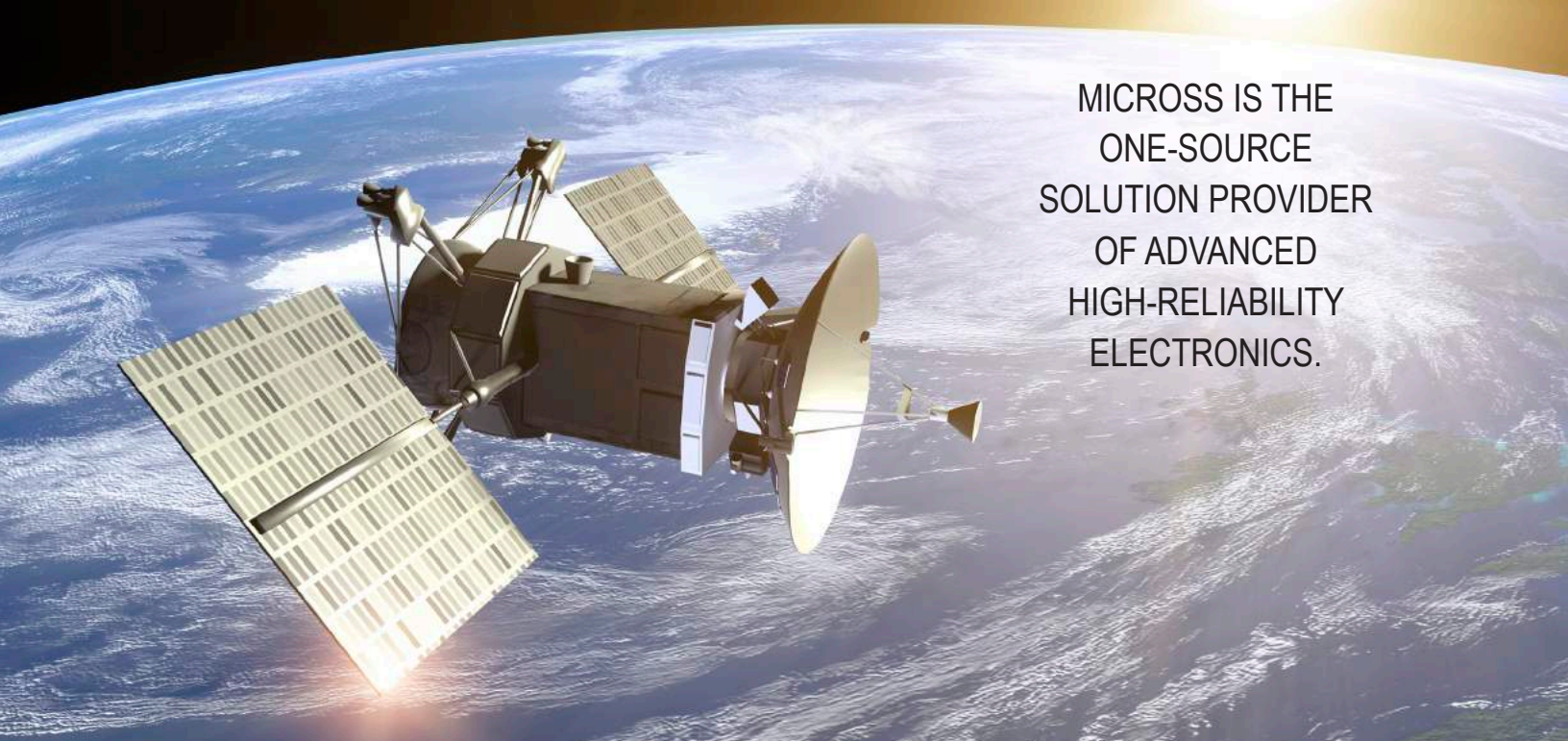
A SELECTION OF SPACE PROGRAMS THAT MICROSS HAS PARTICIPATED IN:

- Cassini
- Milstar
- Aerion
- Earthcare
- NPOESS
- Astrolink
- SWARM
- Metop 2nd Generation
- AEHF1-6
- Galileo
- Sentinel
- TerraSAR-X



The devices contained in the table below are representative of the variety, complexity and breath of space products for which Micross has proven manufacturing capability.

DISCRETE	INTERFACE	MIXED SIGNAL	LINEAR	MEMORY	VLSI	SPECIAL FUNCTION	LOGIC	
Diode	Analog MUX	A/D Converter	Analog Gate	DRAM	RF CAPABILITY Splitter VCO Power Amplifiers Synthesizers	Data Synchronizer	BI-Bus Transceiver	
Diode Array	Analog Switch	Controller	Analog Switch	Dual-Port RAM		4 bit Slice Microprocessor	Avionic Receiver-Transmitter	BICMOS
Diode Bridge	Clock Driver	D/A Converter	Current Amp	ECL PAM		DMA Address Generator	Cache Tag RAM	CMOS
FET Array	Decoder/Counter Driver	Custom IC	Current Buffer	EEPROM		Dual-Rate Demodulator	Check/Generator	STL
FET Transistor	LED Driver	PLLs	D/A Converter	EPLD		FFT Processor LAN Controller	Clock Generator	ECL
Hall Effect Switch	Line Driver	DSP based measurements	Four Quadrant Multiplier	FIFO Module		Peripherals	Comparator	PLD
IGBT Transistor	Line Driver/Receiver	LVDS drivers & health monitoring	Instrumentation AMP	Nonvolatile RAM		SCSI Controller	Data Synchronizer	Serial Adapter
JFET Transistor	Line Receiver	DC Characterization	Log-Amp	PROM		Vector Signal Processor	DC-DC Converter	Shift Register
MOSFET Transistor Array	Linear Driver		Modulator/Demodulator	SRAM, SSRAM		VLSI	Divider	TTL (L, LS, AS, S, H, etc.)
Optocoupler	Logic Level Driver		Op-Amp	SDRAM, DDR, DDR3		FPGA	Four Phase Clock Driver	
Optocoupler/Transistor	MOSFET Driver		Phase Decoder			Spacewire I/O	Freq. To Digital Converter	
Power MOSFET	Motor Controller		Phase Locked Loop				Function Generator	
Transistor	Multiplexer Peripheral		RF/IF Op-Amp				HD Path controller	
Transistor Array	Driver		RMS Sensor				Log Adder	
SiC diodes	Power Driver		Sample and Hold Amp				Manchester Encoder/Decoder	
SiC MOSFETs	Power Supply		VCO				Motor Driver	
	Supervisory		Voltage Comparator				Nuclear Event Detector	
	Pulse Width Modulator		Voltage Converter				Phase-Frq. Detector	
	Serial Adapter		Voltage Follower				Poser Seq.	
	TAXI Chip		Voltage Reference				Program Control Unit	
	Timer		Voltage Regulator			PAM I/O Timer		
	Special Function Interface					Supply Voltage Supervisor		
	Driver					System Timing Controller		
	Multiplexer					Temperature Sensor		
	Transceiver					Timer		
						Tri-Quint Counter		
						Voltage Supervisor		
						Voltage To Freq. Converter		



MICROSS IS THE
ONE-SOURCE
SOLUTION PROVIDER
OF ADVANCED
HIGH-RELIABILITY
ELECTRONICS.

QUALIFICATIONS

- Certified to V-Level Class S for MIL-PRF-38535. MIL-PRF-38535 Qualified Manufacturer Listing (QML) Certification for Column Attach
- Pursuing Class 'K' for MIL-PRF-38534 for programs requiring space level processing for hybrids and memory modules.
- ESA ESCC 9000 Component Processing
- NASA NSTS 5300.4 and EEE-INST-002 Plastic Up-qual.
- Certified to AS9100 and ISO9001.
- Radiation shielded packaging available. Boosts TID by >6X.
- Regularly audited by DSCC, hundreds of customers and various DOD agencies.
- Micross employee experience levels contribute tremendously to the final product quality and reliability levels. Average employee experience is 15+ years.
- Poised to meet the toughest customer specifications and standards.
- DSCC QML
 - MIL-PRF-38534, Class H and Class K
 - MIL-PRF-38535, Class Q
 - MIL-PRF-38535, Class V (assembly only)
 - Laboratory Suitability (MIL-STD-883)
- SMD, Q level and M level
- NSTS 5300.4
- EEE-INST-002
- ECSS-ST-60-13
- MIL-STD-883, Commercial Laboratory Suitability
- Capabilities for Class S Manufacturing
- Customer-specific, Source Control Drawing (SCD)

