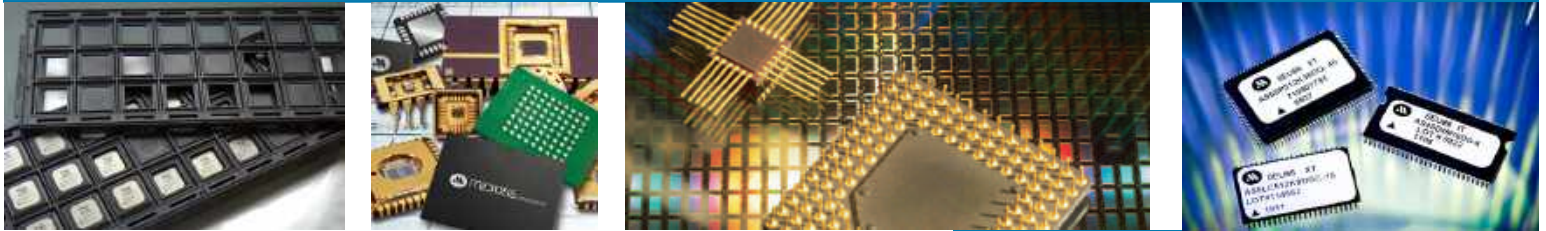




microcross

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Product Selector Guide

- Memory
- Retail+
- Linear Products
- Product Nomenclature



One Source. One Solution.™

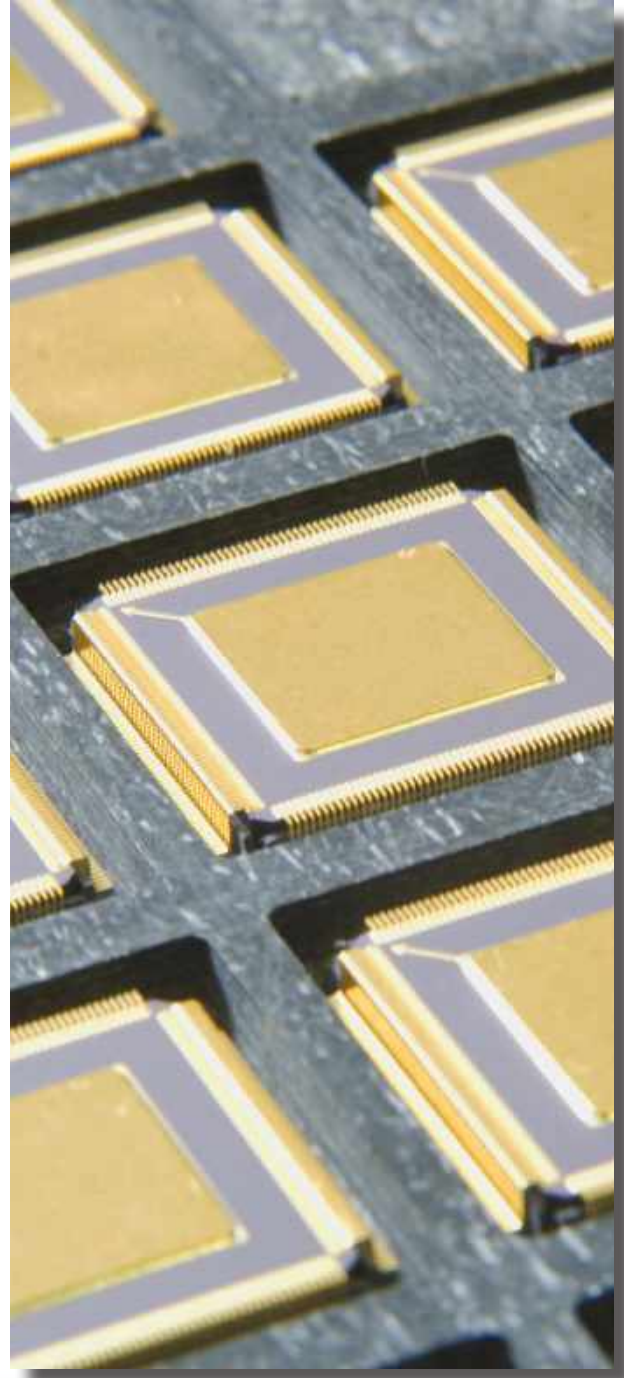
Microcross delivers a broad range of accreditations across multiple sites to support core Aerospace & Defense, Space, Industrial and Medical customers. All U.S. sites are ITAR-registered.

- AS9100
- ISO:9001
- ISO:13485
- DLA Lab Suitability (MIL-STD-883)
- MIL-PRF-38535 Q and V (Assembly & Test)
 - Crewe UK (QML Q, V, Y for Column Attach)
- MIL-PRF-38534 Class H
- ITAR-Registered
- Trusted Source (DMEA)
- Certified Class 100 Clean Room
- SMD, Levels Q & M

FLAWS:

- Customer-specific, Source Control Drawing (SCD)
- COTS/PEMS Plastic Flow
- JEDEC Standard for Plastics

For a complete list of Quality Accreditations, visit <https://www.microcross.com/about-us/quality/>



Product Line Overview

Memory

DRAM, SDRAM, VRAM, SRAM, UVEPROM, EEPROM & Flash

Products

Decoder, Voltage Comparator, OP AMP, MOSFET Drivers, Line Receiver, Logic, Multiplexer

Micross has been supplying hi-reliability memory products for over thirty-five years. As a QML Supplier fully certified to AS9100 and ISO 9001, Micross adheres to the stringent quality & reliability standards to meet the demands of our aerospace, defense, space, industrial and medical diagnostic customers.

Micross has over 1100 part numbers listed with DSCC, on various SMDs. Our standard package offerings include:

- Ceramic 400/600 mil DIP
- SOJ
- 2 and 4-sided LCC
- ZIP
- Gull-Wing
- CQFP
- CPGA
- Flat Pack
- Formed Lead Flat Pack
- Metal Can
- TO257, TO258



Benefits:

- Off-the-shelf standard products in full hermetic ceramic packages
- SMD 5962 listed
- Off-the-shelf plastics with extended temperature range
 - Improved cost and performance
 - 100% tested/processed to*:
 - Industrial [IT] -40°C to 85°C
 - Enhanced [ET] -40°C to 105°C
 - Extended [XT] -55°C to 125°C
 - 100% DC / AC Tested
 - At voltage corners
 - At temperature extremes
- Industry-standard packages
- RoHS compliant options
- Various screening available
- Quality Levels & Programs
 - DSCC QML
 - MIL-PRF-38534, Class H (Class K in process)
 - MIL-PRF-38535 Q and V (Assembly & Test)
 - Crewe UK (QML Q, V, Y for Column Attach)
 - DLA Laboratory Suitability (MIL-STD-883)
 - SMD, Levels Q & M
 - NSTS 5300.4
 - Capabilities for Class S manufacturing
 - AS9100, ISO 9001 Certified
 - Customer-specific, Source Control Drawing (SCD)

**Does not apply to Retail+™ Product Line.
See Retail+™ Product Line flyer for details.*

Product Line Overview

Micross Retail+™ Product Line enables customers to use industry-leading components that were not previously available for their hi-rel, long-life applications. Micross purchases COTS components and enhances them for use in aerospace, defense, space, industrial and medical applications.

Retail+ Products are converted from RoHS Pb-free solder metallurgies to Tin-Lead (SnPb 63/37) based metallurgies. Pb-free BGA packages are reballed and Pb-free leaded and non-leaded packages go through a Solder Dip Exchange using our established processes that brings them up to standards for use in hi-rel applications.

Product Validation

Micross performs the following product validation on every device:

- Visual Inspection - per MIL-STD-883, Test Method 2009
- Automatic Optical Inspection (AOI)
 - Ball Diameter & Ball Height - The ball width (WI) gives the diameter of the ball. It is calculated as the average of the horizontal and vertical ball diameters. See Figure 1.
 - True Position (Ball Offset) - The X offset (XO) and the Y offset (YO) are measured. See Figure 2.
 - Array (Ball) Pitch - The array pitch is the distance between the centers of neighboring balls. For each ball, the system reports the distance to the nearest ball in horizontal or vertical direction (or in diagonal direction for staggered grids). See Figure 3.
 - Ball Coplanarity - Validate that all the balls lie in one plane. See Figure 4.

Micross performs the following additional product validation tests on each product family:

- XRF - Alloy verification
- Ball Shear - Per JESD22-B117; evaluates quality of ball attachment
- SonoScan - Package voiding
- X-Ray - Solder voiding
- Ionograph - Bulk ICE
- MSL - J-STD-020

Benefits:

- Micross warranted product
- Off-the-shelf standard components in original OEM's packages

Additional Options:

- Product banking (wafer/package)
- Extended Temperature
- Lead Attach
- Trim & Form
- Environmental Screening
- Marking
 - L = Label (default)
 - D = Orange Dot
- Custom flows

Part Number Nomenclature

- Replace OEM prefix with MYX

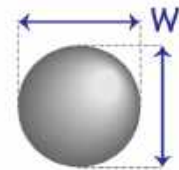


Figure 1
Ball Diameter & Ball Height

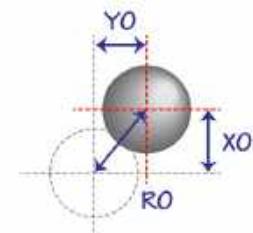


Figure 2
True Position (Ball Offset)

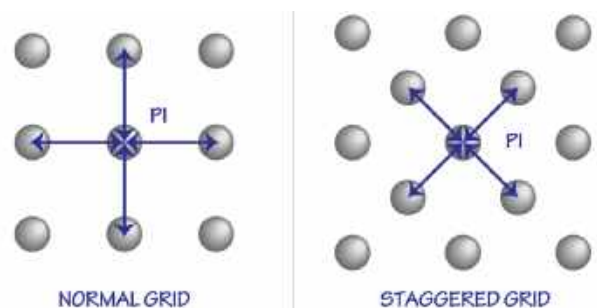


Figure 3
Array (Ball) Pitch

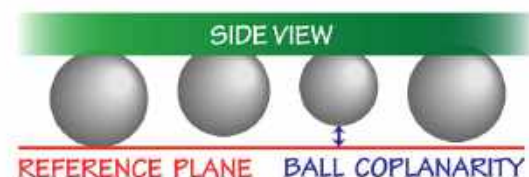


Figure 4
Ball Coplanarity

Density (KB)	Config.	Features	Part #	SMD 5962-	Speed (ns)	Package Types/Pin Counts								Product Life Cycle	
						PGA	CQFP	FP	LCC	DIP	CSOJ	ZIP	Gull Wing		
SRAM															
1,024	128K x 8	5V, /CE1, /CE2, /OE, Fast ASYNC Access, Low Power	MT5C1008	89598	12-70				F/32	EC & ECA/32	C & CW/32	DCJ & SOJ/32		Active	
		5V, Single /CE, Fast ASYNC Access, Low Power	MT5C1009	89598 & 96691	15-70									Active	
	256K x 4	5V, /CE, /OE, Fast ASYNC Access, Low Power	MT5C1005	91612	15-20					C/28				Active	
	1M x 1		MT5C1001	92316	20-70			F/32			DCJ/32			End of Life	
4,096	128K x 32	5V, MCM, Byte Selectable Fast SRAM	AS8S128K32	93187 & 95595	15-45	P & PN/66	Q & Q1/68							Active	
		3.3V, MCM, Byte Selectable, ASYNC Fast SRAM	AS8SLC128K32		10-25	P/66	Q/68							Active	
	512K x 8	5V, Revolutionary Pin-out	AS5C512K8	95600 & 95613	12-55				F/36	EC/36		ECJ/36		Active	
		3.3V, Low Power, High Speed	AS5LC512K8		12-20									Active	
		5V/CE/OE, Evolutionary Pin-out	AS5C4008	95600 & 95613	12-45				F/32	EC/32				Active	
		5V/CE/OE, Slow, Ultra Low Power	AS5C4009LL	95613	55-120						CW/32	ECJ/32		Active	
16,384	512K x 32	5V, MCM, High Speed, Low Power	AS8S512K32	94611 & 95624	17-55	P/66	Q, Q1, Q2 & BQFP/68						Active		
		3.3V, MCM, /CE, /OE, High Speed, Low Power	AS8SLC512K32		10-20	P/66	Q & Q1/68						Active		
Flash															
1,024	128K x 8	5V,CE/OE, Even Sectored	AS29F010	96690	60-150				F/32		CW/32	SOJ/32		DCG/32	End of Life
		5V, Even Sectored, Legacy Product	SMJ28F010B	90899	120-200						FE/32	JDD/32			NRFND
4,096	512K x 8	5V, CE/OE, Erase Suspend/Resume	AS29F040	96692	55-150				F/32	ECA/32	CW/32			DCG/32	NRFND
	128K x 32	5V, MCM, Even Sectored, Byte Selectable	AS8F128K32	94716	60-150		Q & Q1/68							End of Life	
16,384	512K x 32	5V MCM, Even Sectored, Byte Selectable	AS8F512K32	94612	70-150	P/66	Q & Q1/68							Active	
32,768	1M x 32	5V, MCM, Even Sectored, Byte Selectable	AS8F1M32		90-150		QT/68							Active	
		3.3V, Boot Sector, Bottom = B	AS8FLC1M32B	09205	70-120	P/66	Q/68							Active	
65,528	2M x 32	5V, Uniform Sector	AS8F2M32		90-150		QT/68							End of Life	
		3.3V, Boot Sector, Bottom=B, Top=C	AS8FLC2M32B	08245	70-120	P/66	Q/68							Active	
DRAM															
256	256K x 1	5V, /CE1, /CE2, /OE, Fast ASYNC Access, Low Power	AS4C1259		100-150					EC/18				End of Life	
1,048	256K x 4	5V, Enhanced Page Mode	SMJ44C256	90617	80-150						JD/20			NRFND	
	1M x 1		SMJ4C1024					HK/20	FQ/20		JD/18	HJ/20		NRFND	

Density (KB)	Config.	Features	Part #	SMD 5962-	Speed (ns)	Package Types/Pin Counts								Product Life Cycle
						PGA	CQFP	FP	LCC	DIP	CSOJ	ZIP	Gull Wing	
4,194	1M x 4	5V, Fast Page Mode	MT4C4001J	90847	70-120				ECN/20	C & CN/20				NRFND
		5V, Enhanced Page Mode	SMJ44400		80-120			HR/20		JD/20				NRFND
	4M x 1	5V, Fast Page Mode	MT4C1004J	90622	70-120					CN/18				NRFND
16,777	1M x 16	5V, Enhanced Page Mode	SMJ416160	96743	70-80									NRFND
			SMJ418160					HKD/50					NRFND	
	4M x 4		SMJ416400	92312	70-100			HKB/28	FNC/28			SV/24		NRFND
SDRAM														
16,384	1M x 16	3.3V, Bank Interleaving, Pipelined	SMJ626162	97545	12-20									NRFND
VRAM														
1,024	256K x 4	5V, FPM, Dual Port, Block Write	MT42C4256	89497	100-120				EC/28	C/28	DC/J/28			NRFND
			SMJ44C251B					HMM/28	JDM/28	HJM/28	SVM/28		NRFND	
UVEPROM														
256	32K x 8	5V, UV Erasable ROM	AS27C256	86063	55-300				ECA/32	J/28				End of Life
512	64K x 8	5V UV Erasable ROM	SMJ27C512	87648	12-25				ECA/32	J/28				NRFND
1,024	128K x 8	5V, UV Erasable ROM	SMJ/AS27C010A	89614	120-200				ECA/32	J/32				End of Life
4,096	512K x 8	5V, UV Erasable ROM	SMJ27C040	91752	12-15					J/32				End of Life
EEPROM														
1,048	128K x 8	5V, Byte Alterable	AS28C010	38267	12-25					F/32		CW/32		NRFND
		5V, 128 Byte Page Mode, radiation tolerant	AS58C1001		150-250									End of Life
		3.3V, 128 Byte Page Mode, radiation tolerant	AS58LC1001		250-300			F & SF/32				DCJ/32		
4,096	128K x 32	5V, Byte Selectable, Page Mode	AS8E128K32	94585	150-300	P & PN/66								NRFND
		5V, radiation tolerant, w/shielded package, >100K RADS	AS8ER128K32		150-250									NRFND
		3.3V, radiation tolerant, w/shielded package, >100K RADS	AS8ERLC128K32		250-300				SQ, SQB, Q & QB/68					
SRAM & Flash														
10,240	640K x 16	5V, Mixed MCM, 128Kx16 SRAM & 512Kx16 FLASH	AS8SF384K32		35					QT/68				End of Life

Density	Config.	Part #	Technology	Performance	Volts	Temp. Range	Package(s)	Product Life Cycle	
Synchronous DRAM									
SDR									
8MB	2M x 32	AS4SD2M32DG-xx/tt	SDR	-6, -7, -7.5 (ns)	167, 143, 133 (MHz)	3.3	IT, ET, XT	TSOP2-86; TSOP2-54	Active
8MB	4M x 16	AS4SD4M16DG-xx/tt	SDR	-8, -10 (ns)	125, 100 (MHz)	3.3	IT, ET, XT	TSOP2-54	Active
16MB	8M x 16	AS4SD8M16DG-xx/tt	SDR	-7.5, -10 (ns)	100, 133 (MHz)	3.3	IT, ET, XT	TSOP2-54 (DGCR - RoHS Compliant)	Active
32MB	16M x 16	AS4SD16M16DGC-xx/tt	SDR	-7.5, -10 (ns)	100, 133 (MHz)	3.3	IT, ET, XT	TSOP2-54 (DGCR - RoHS Compliant)	Active
64MB	32M x 16	AS4SD32M16DGC-xx/tt	SDR	-7.5, -10 (ns)	100, 133 (MHz)	3.3	IT, ET, XT	TSOP2-54 (DGCR - RoHS Compliant)	Active
DDR									
128MB	16M x 72	AS4DDR16M72PBG-xx/tt	DDR	-6, -7.5, -8, -10 (ns)	333, 266, 250, 200 (Mb/s)	2.5 Core, 2.5 I/O	IT, ET, XT	iPEM* PBGA-219	End of Life
256MB	32M x 72	AS4DDR32M72PBG-xx/tt	DDR	-6, -7.5, -8, -10 (ns)	333, 266, 250, 200 (Mb/s)	2.5 Core, 2.5 I/O	IT, ET, XT	iPEM* (PBG - PBGA-219) (PBGR-RoHS Compliant)	NRFND
DDR2									
256MB	32M x 64	AS4DDR232M64PBG-xx/tt	DDR2	-3, -3.8, -5 (ns)	667, 533, 400 (Mb/s)	1.8 Core, 1.8 I/O	IT, ET, XT	iPEM (PBG - PBGA-255) (PBGR - RoHS Compliant)	NRFND
256MB	32M x 72	AS4DDR232M72PBG-xx/tt	DDR2	-3, -3.8, -5 (ns)	667, 533, 400 (Mb/s)	1.8 Core, 1.8 I/O	IT, ET, XT	iPEM (PBG - PBGA-255) (PBGR - RoHS Compliant)	NRFND
512MB	64M x 72	AS4DDR264M72PBG-xx/tt	DDR2	-3, -3.8, -5 (ns)	667, 533, 400 (Mb/s)	1.8 Core, 1.8 I/O	IT, ET, XT	iPEM (PBG - PBGA-255) (PBGR - RoHS Compliant) (PBG1 - PBGA-208*)	End of Life
1GB	128M x 72	MYX4DDR2128M72PBG-xx/tt	DDR2	-3, -3.8, -5 (ns)	667, 533, 400 (Mb/s)	1.8 Core, 1.8 I/O	IT, ET, XT	PBG1 - PBGA-208*	Active
1GB	64M x 16	MYX4DDR264M16HWBG-187EttRy	DDR2	2.5ns	800	1.8	C, IT	FPGA - 84 Sn63/Pb37	Active
2GB	128M x 16	MYX4DDR2128M16PKBG-187EttRy	DDR2	2.5ns	800	1.8	C, IT	FPGA - 84 Sn63/Pb37	Active
DDR3									
1GB	64M x 16	MYX4DDR364M16JTBG-15EttRy	DDR3	1.5ns	1333	1.35	C, IT	FPGA - 84 Sn63/Pb37	Active
2GB	128M x 16	MYX4DDR3128M16JTBG-125ttRy	DDR3	1.25ns	1600	1.35	C, IT	FPGA - 84 Sn63/Pb37	Active
Synchronous SRAM									
4MB	128K x 32	AS5SP128K32DQ-xx/tt	Sync Burst Pipeline	-5, -6, -7.5, -10 (ns)	200, 166, 133, 100 (MHz)	3.3 Core, 3.3/2.5 I/O	IT, ET, XT	TQFP-100	Active
4.5MB	128K x 36	AS5SP128K36DQ-xx/tt	Sync Burst Pipeline	-3, -3.5, -4 (ns)	200, 166, 133 (MHz)	3.3 Core, 3.3/2.5 I/O	IT, ET, XT	TQFP-100	Active
4.5MB	256K x 18	AS5SS256K18DQ-xx/tt	Sync Burst Flow-Thru	-8, -9, -10 (ns)	113, 100, 66 (MHz)	3.3	IT, ET, XT	TQFP-100	Active
9MB	256K x 36	AS5SP256K36DQ-xx/tt	Sync Burst Pipeline	-3, -3.5, -4 (ns)	200, 166, 133 (MHz)	3.3 Core, 3.3/2.5 I/O	IT, ET, XT	TQFP-100	Active
9MB	256K x 36	AS5SS256K36DQ-xx/tt	Sync Burst Flow-Thru	-7.5, -8.5, -10 (ns)	117, 100, 66 (MHz)	3.3	IT, XT	TQFP-100	Active
9MB	512K x 18	AS5SP512K18DQC-xx/tt	Sync Burst Pipeline	-3, -3.5, -4 (ns)	200, 166, 133 (MHz)	3.3 Core, 3.3/2.5 I/O	IT, ET, XT	TQFP-100	Active
18MB	512K x 36	AS5SP512K36DQC-xx/tt	Sync Burst Pipeline	-3, -3.5, -4 (ns)	200, 166, 133 (MHz)	3.3 Core, 3.3/2.5 I/O	IT, ET, XT	TQFP-100	Active
Asynchronous SRAM									
256KB	32K x 8	AS5C2568DJ-xx/tt	Asynchronous	-12, -15, -20, -25		5	IT, XT	PSOJ-28, 300mil	Active
1MB	128K x 8	AS5C1008DJ-xx/tt	Asynchronous	-15, -20, -25		5	IT, XT	PSOJ-32, 400mil	Active
1MB	128K x 8	AS5LC1008DJ-xx/tt	Asynchronous	-10, -12, -15, -20		3.3	IT, XT	PSOJ-32, 400mil	Active
4MB	512K x 8	AS5C512K8DJ-xx/tt	Asynchronous	-12, -15, -17, -20, -25, -35, -45		5	IT, XT	PSOJ-36, 400 mil	End of Life
4MB	512K x 8	AS5LC512K8DJ-xx/tt	Asynchronous	-12, -15, -20, -25		3.3	IT, XT	PSOJ-36, 400 mil	End of Life
4MB	512K x 8	AS5C4009LLDG-xx/tt	Asynchronous Ultra Low Power	-55, -70, -85, -100		5	IT, XT	TSOP2-32	NRFND
16MB	512K x 32	AS8S512K32PEC-xx/tt	Asynchronous	-12, -15, -20, -25		5	IT, ET, XT	iPEM, PLCC-68	NRFND
16MB	512K x 32	AS8SLC512K32PEC-xx/tt	Asynchronous	-12, -15, -20, -25		3.3	IT, ET, XT	iPEM, PLCC-68	Active
Non-Volatile									
16MB	2M x 8	AS29LV016JBRG-xx/tt	Flash, Bottom Boot Block	-70, -90, -100		3.3	IT, ET, XT	RG - TSOP1-48; RGR - RoHS Compliant	Active
16MB	1M x 16	AS29LV016JTRG-xx/tt	Flash, Top Boot Block	-70, -90, -100		3.3	IT, ET, XT	RG - TSOP1-48; RGR - RoHS Compliant	Active
256MB	256Mb x 1	MYXN25Q256A13ESFDG-tt	Serial NOR QSPI Flash	108MHz (STR)		2.7V-3.6V	XT	SOP2-16 RoHS	NRFND
512MB	2-256Mb x 1	MYXIN512M1PBG	Serial NOR Flash	108MHz (STR)		2.7V-3.6V	IT, AT, XT	TBGA-24 Sn63/Pb37	Active

Retail+

R+

R+ = Retail+ RoHS available on request. *Product in development. NRFND = Not Recommended For New Design

Part #	Description	Product Life Cycle
Decoder		
AS10H561EC20	DECODER, BINARY TO 1-OF-8	NRFND
AS10H561C16	DECODER, BINARY TO 1-OF-8	NRFND
AS10H561F16	DECODER, BINARY TO 1-OF-8	NRFND
Voltage Comparator		
MTLM111TLS	VOLT. COMPARATOR/BUFFER, PRECISION	Active
MTLM111TD	VOLT. COMPARATOR/BUFFER, PRECISION	Active
MTLM111TH	VOLT. COMPARATOR/BUFFER, PRECISION	Active
MTLM111TD8	VOLT. COMPARATOR/BUFFER, PRECISION	Active
MTLH2111TD	VOLT. COMPARATOR, DUAL	Active
MTLH2111TWB	VOLT. COMPARATOR, DUAL	Active
OP AMP		
MTLM101AMLS	OP AMP, GENERAL PURPOSE	Active
AS101AEC020	OP AMP, GENERAL PURPOSE	Active
MTLM101AMD	OP AMP, GENERAL PURPOSE	Active
AS101AC014	OP AMP, GENERAL PURPOSE	Active
MTLM101AMH	OP AMP, GENERAL PURPOSE	Active
AS101ATO08	OP AMP, GENERAL PURPOSE	Active
MTLM101ATD8	OP AMP, GENERAL PURPOSE	Active
AS101AC008	OP AMP, GENERAL PURPOSE	Active
MTLM118TD	OP AMP, HIGH-SPEED	Active
MTLM118TH	OP AMP, HIGH-SPEED	Active
MTLM118TD8	OP AMP, HIGH-SPEED	Active
MTLF156TH	OP AMP, JFET-INPUT	Active
MTLF156TD8	OP AMP, JFET-INPUT	Active
MTLF155ATH	OP AMP, JFET-INPUT	Active
MTLF155ATD8	OP AMP, JFET-INPUT	Active
MTLF156ATH	OP AMP, JFET-INPUT	Active
MTLF156ATD8	OP AMP, JFET-INPUT	Active
MOSFET Drivers		
MYX6M5801C22-XT/I/T	4/8-Bit Parallel-Input Latched Drivers	Active
MYX6M4424C8-XT/I/T	Dual 3A-Peak Low-Side MOSFET Driver Bipolar/CMOS/DMOS Process	Active
MYX6M4427C8-XT/I/T	Dual 1.5A-Peak Low-Side MOSFET Driver	Active
MYX6M4469C14-XT/I/T	Quad 1.2A-Peak Low-Side MOSFET Driver	Active
MYX6M4428C8-XT/I/T	Dual 1.5A-Peak Low-Side MOSFET Driver	Active
MYX6M4426C8-XT/I/T	Dual 1.5A-Peak Low-Side MOSFET Driver	Active
MYX6M4420C8-XT/I/T	6A-Peak Low-Side MOSFET Driver Bipolar/CMOS/DMOS Process	Active

Part #	Description	Product Life Cycle
Line Receiver		
AS10H515C16	LINE RECEIVER, QUAD DIFFERENTIAL	NRFND
AS10H515F16	LINE RECEIVER, QUAD DIFFERENTIAL	NRFND
AS10H516EC20	LINE RECEIVER, TRIPLE	NRFND
AS10H516C16	LINE RECEIVER, TRIPLE	NRFND
Logic		
AS10H501EC20	OR/NOR GATE, QUAD 2-INPUT	NRFND
AS10H501C16	OR/NOR GATE, QUAD 2-INPUT	NRFND
AS10H501F16	OR/NOR GATE, QUAD 2-INPUT	NRFND
AS10H504EC20	AND GATE, QUAD 2-INPUT	NRFND
AS10H504C16	AND GATE, QUAD 2-INPUT	NRFND
AS10H504F16	AND GATE, QUAD 2-INPUT	NRFND
AS10H525EC20	LOGIC-LEVEL CONVERTER, ECL-TO-TTL	NRFND
AS10H525C16	LOGIC-LEVEL CONVERTER, ECL-TO-TTL	NRFND
AS10H525F16	LOGIC-LEVEL CONVERTER, ECL-TO-TTL	NRFND
AS10H576EC20	FLIP-FLOP, D-TYPE, HEX, MASTER/SLAVE	NRFND
AS10H576C16	FLIP-FLOP, D-TYPE, HEX, MASTER/SLAVE	NRFND
AS10H576F16	FLIP-FLOP, D-TYPE, HEX, MASTER/SLAVE	NRFND
AS10H502EC20	NOR GATE, QUAD 2-INPUT	NRFND
AS10H502C16	NOR GATE, QUAD 2-INPUT	NRFND
AS10H502F16	NOR GATE, QUAD 2-INPUT	NRFND
AS10H531EC20	FLIP-FLOP, D-TYPE, DUAL, MASTER/SLAVE	NRFND
AS10H531C16	FLIP-FLOP, D-TYPE, DUAL, MASTER/SLAVE	NRFND
AS10H531F16	FLIP-FLOP, D-TYPE, DUAL, MASTER/SLAVE	NRFND
AS10H507EC20	EXCLUSIVE-OR/NOR GATE, TRIPLE 2-INPUT	NRFND
AS10H507C16	EXCLUSIVE-OR/NOR GATE, TRIPLE 2-INPUT	NRFND
Multiplexer		
AS10H564EC20	MULTIPLEXER, 8-INPUT	NRFND
AS10H564C16	MULTIPLEXER, 8-INPUT	NRFND
AS10H564F16	MULTIPLEXER, 8-INPUT	NRFND

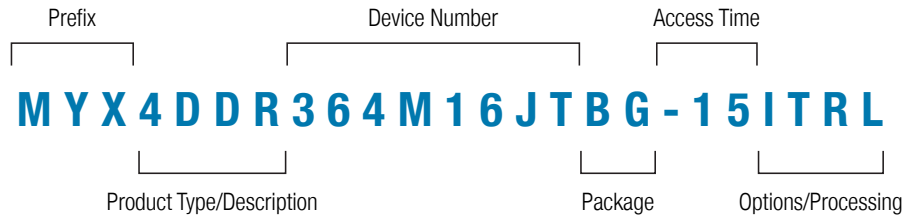
Micross is committed to supporting Linear Regulators and Amplifiers to serve our Aerospace & Defense customers. Products below are available in a variety of industry standard packages that are SMD Qualified.

Part#	Description	SMD	Product Life Cycle
ADC/DAC Devices			
LT1111	DC/DC CONVERTER, MICROPOWER	932120	Active
Filter			
LTC1060	FILTER, UNIVERSAL DUAL	886410	Active
LTC1060A	FILTER, UNIVERSAL DUAL	886410	Active
Line Drive/Receivers			
LT1039	DRIVER/RECEIVER, TRIPLE RS-232, WITH SHUTDOWN AND BIAS	887510	Active
OP AMP			
LOP227A	OP AMP, DUAL, LOW-OFFSET, LOW-NOISE	868870	Active
LT1006	OP AMP, PRECISION, SINGLE SUPPLY	899330	Active
LT1006A	OP AMP, PRECISION, SINGLE SUPPLY	899330	Active
LT1007	OP AMP, HIGH-SPEED, LOW-NOISE, PRECISION	875780	Active
LT1007A	OP AMP, HIGH-SPEED, LOW-NOISE, PRECISION	875780	Active
LT1012	OP AMP, LOW DRIFT, PRECISION	908420	Active
LT1012A	OP AMP, LOW DRIFT, PRECISION	908420	Active
LT1013A	OP AMP, DUAL MATCHED, HIGH PERFORMANCE	887600	Active
LT1022	OP AMP, HIGH-SPEED, PRECISION, JFET-INPUT	896220	Active
LT1022A	OP AMP, HIGH-SPEED, PRECISION, JFET-INPUT	896220	Active
LT1028	OP AMP, HIGH-SPEED, LOW-NOISE, PRECISION	886220	Active
LT1028A	OP AMP, HIGH-SPEED, LOW-NOISE, PRECISION	886220	Active
LT1057	OP AMP, DUAL, JFET HIGH-SPEED	908170	Active
LT1057A	OP AMP, DUAL, JFET HIGH-SPEED	908170	Active
LT1058	OP AMP, QUAD, PRECISION, HIGH-SPEED JFET	898970	Active
LT1058A	OP AMP, QUAD, PRECISION, HIGH-SPEED JFET	898970	Active
LT1078	OP AMP, QUAD, PRECISION	916320	Active
LT1078A	OP AMP, QUAD, PRECISION	916320	Active
LT1079	OP AMP, QUAD, PRECISION	916320	Active
LT1079A	OP AMP, QUAD, PRECISION	916320	Active
LT118	OP AMP, HIGH-SPEED	945160	Active
Power Discrete			
LT1010	POWER BUFFER, FAST, ±150 MA	885620	Active

Part#	Description	SMD	Product Life Cycle
Regulator			
LM117	VOLT. REGULATOR, ADJ., POSITIVE	77034	Active
LM117A	VOLT. REGULATOR, ADJ., POSITIVE	77034	Active
LM117AHV	VOLT. REGULATOR, ADJ., POSITIVE, HIGH VOLTAGE	77034	Active
LM117HV	VOLT. REGULATOR, ADJ., POSITIVE, HIGH VOLTAGE	77034	Active
LM137	VOLT. REGULATOR, ADJ., NEGATIVE	77034	Active
LM137AHV	VOLT. REGULATOR, ADJ., NEGATIVE, HIGH VOLTAGE	77034	Active
LM137HV	VOLT. REGULATOR, ADJ., NEGATIVE, HIGH VOLTAGE	77034	Active
LT1013	VOLT. REGULATOR, ADJ., NEGATIVE, 3.0A	877410	Active
LT1020	VOLT. REGULATOR/COMPARATOR, MICROPOWER	908410	Active
LT1033	VOLT. REGULATOR, ADJ., NEGATIVE, 3.0A	877410	Active
LT1054	VOLTAGE CONVERTER, SWITCHED CAPACITOR, WITH REGULATOR	895620	Active
LT1074	VOLT. REGULATOR, SWITCHING	945760	Active
LT1074HV	VOLT. REGULATOR, SWITCHING	945760	Active
LT1076	VOLT. REGULATOR, SWITCHING, STEP-DOWN	931190	Active
LT1076HV	VOLT. REGULATOR, SWITCHING, STEP-DOWN	931190	Active
LT1083	VOLT. REGULATOR, ADJ., POSITIVE	895200	Active
LT1084	VOLT. REGULATOR, ADJ., POSITIVE, 5.0A	895210	Active
LT1085	VOLTAGE REGULATOR, POSITIVE, 3.3 VOLT FIXED, 2.6 AMP	995310	Active
LT1086	VOLT. REGULATOR, ADJ., POSITIVE, 1.0A	899810	Active
LT1086	VOLTAGE REGULATOR, 3.3 VOLT, POSITIVE, 1.3 AMP	985900	Active
LT1244	PULSE WIDTH MODULATOR, CONTROLLED	931900	Active
LT1764A	VOLTAGE REGULATOR, POSITIVE, VARIABLE	32380	Active
Voltage Comparators			
LT119A	VOLT. COMPARATOR, DUAL, HIGH-SPEED	10307	Active
LT1011	VOLT. COMPARATOR	906270	Active
LT1011A	VOLT. COMPARATOR	906270	Active
LT1016	VOLT. COMPARATOR, HIGH-SPEED	868450	Active
LT1017	VOLT. COMPARATOR, DUAL	895040	Active
LT1018	VOLT. COMPARATOR, DUAL	895040	Active
LT111A	VOLT. COMPARATOR/BUFFER, PRECISION	868770	Active
Voltage Reference			
LT1004	VOLT. REFERENCE, 2.5V, PRECISION	841800	Active
LT1019	VOLT. REFERENCE, 4.5 or 10V, PRECISION	905950	Active
LT1019A	VOLT. REFERENCE, 4.5 or 10V, PRECISION	905950	Active
LT1029	VOLT. REFERENCE, 5V, PRECISION	905190	Active
LT1029A	VOLT. REFERENCE DIODE	885970	Active

Product Nomenclature

Sample Part Number



- The MT product line was acquired from Micron Technology. In most cases, these industry established part numbers have been retained, but in no way does this indicate or guarantee a die source.
- The SMJ/SM product line was acquired from Texas Instruments. In most cases, these industry established part numbers have been retained. This does not indicate or guarantee a die source. Nomenclature is provided in separate documentation.

See individual datasheets for exact part number and option combinations offered.

Product Type/Description		
Code	Type	Description
41 & 44	DRAM	5V, EPM
4C	DRAM	5V, FPM
28C	EEPROM	Byte Alterable
58C	EEPROM	Hitachi Die
58LC	EEPROM	3.3V
8E	EEPROM	Multi-chip Module
8ER	EEPROM	Multi-chip Module, Rad-Tol
8ERLC	EEPROM	3.3V, Multi-chip Module, Rad-Tol
28F	FLASH	
29F	FLASH	Spansion compatible
29GL	FLASH	MirrorBit® Eclipse™
29LV	FLASH	3.3V
8F	FLASH	Multi-chip Module
8FLC	FLASH	3.3V, Multi-chip Module
N25Q	FLASH	Serial NOR
PM	PMIC	Power Management IC
80	Processor	SoC
4DDR	SDRAM	2.5V/1.8V, Double Data Rate
4DDR2	SDRAM	2.5V/1.8V, Double Data Rate II
4DDR3	SDRAM	1.5V/1.35V, Double Data Rate III
4SD	SDRAM	3.3V, SDR
5C	SRAM	5V
5LC	SRAM	3.3V
8S	SRAM	5V, Multi-chip Module
8SLC	SRAM	3.3V, Multi-chip Module
5SP	SSRAM	Pipelined
5SS	SSRAM	Flow-thru
27C	UVEPROM	
42C	VRAM	
44C	VRAM	
6nvLC	VRAM	3.3V
8nvC	VRAM	5V
8nvLC	VRAM	3.3V

Package	
Code	Description
BG, BG1, BGM1	FBGA
C	DIP
CN	Narrow DIP
CW	Wide DIP
CZ, SV, SVM	ZIP
DCG	FP Gullwing (Formed)
DCJ	SOJ (Formed)
DG	TSOPII
DJ	PSOJ
EG, FE, HMM	LCC
ECA	450 x 550 LCC
ECG	Gullwing LCC
ECJ	SOJ (Attached)
ECN	Narrow LCC
ECW	Wide LCC
F, FN, HKD, HR, HK	Flat pack
FNC	LCC
J, JD, JDD, JDM	Side Brazed DIP
P	PGA
PBG, PBG1	PBGA
Q	CQFP (Gullwing)
Q1	CQFP (w/special lead)
Q2, Q3, SQ	CQFP
QB	CQFP (w/Tie Bar)
QN	QFN
QJ	CQFP (J-lead)
QT	CQFP (Thin)
QW	CQFP (1.56" sq.)
RG	TSOPI
SF	Flat pack (Rad-Tol)
SOJ, HJM	SOJ
SQB	CQFP (Rad-Tol)

Access Time	
Code	ns
10	10 or 100
3	3.0
11	110
12	12 or 120
15	15 or 150
15E	1.5
17	17
20	20 or 200
25	25 or 250
25E	2.5
30	30 or 300
35	35
45	45
55	55
60	60
70	70
75	7.5 or 75
85	85
90	90
100	100
107	1.07
120	120
125	1.25
150	150
187E	1.87

Options/Processing	
Code	Description
AT	-40°C to +125°C
CT	0°C to +70°C
D	Orange Dot
E	Epi Die
ET	-40°C to +105°C
IT	-40°C to +85°C
L	2V Data Retention or Label
LL	Ultra Low Power
M or XT	-55°C to +125°C
MIL	MIL-STD-883 equivalent processing compliant to paragraph 1.2.2 -55°C to +125°C
Q	QML
R	Retail+
SPACE	MIL-STD-883, Method 5004, Class Equivalent
ZZZ	Special Flow
883C	MIL-STD-883 (previously listed as "M")

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Global Locations

Eleven operating and sales locations across the U.S., Europe & Asia



40 Years

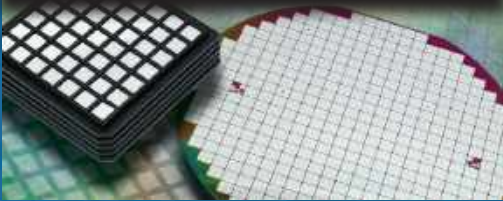




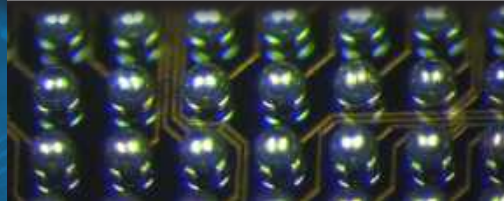
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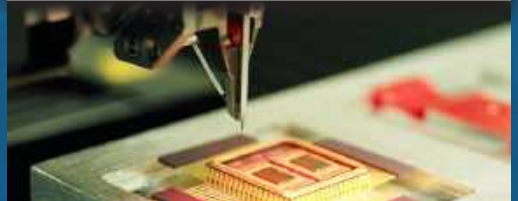
Die and Wafer Processing



Advanced Interconnect Technology



Packaging and Assembly



Component Modification



Electrical Test



Environmental Test



About Microcross

Microcross 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. Microcross possesses the sourcing, packaging, assembly, engineering, test and logistics expertise needed to support an application throughout its entire program cycle.

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