NOT MEASUREMENT SENSITIVE

MIL-HDBK-103BG 16 OCTOBER 2020 SUPERSEDING MIL-HDBK-103BF 11 MARCH 2020

DEPARTMENT OF DEFENSE HANDBOOK

LIST OF STANDARD MICROCIRCUIT DRAWINGS



This handbook is for guidance only. Do not cite this document as a requirement.

AMSC N/A FSC 5962

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FOREWORD

- 1. This handbook is approved for use by all Departments and Agencies of the Department of Defense.
- 2. This handbook is for guidance only. This handbook cannot be cited as a requirement. If it is, the contractor does not have to comply.
- 3. The proliferation of industry prepared drawings for the same part used in a variety of military applications has become an ever increasing item of expense to the DoD. Numerous situations have arisen where one military acquisition document would be more appropriate and cost effective than the multiplicity of contractor prepared drawings. Standard Microcircuit Drawings (SMDs) are being prepared to eliminate the need for the multitude of contractor prepared drawings for the same device when the minimum requirements of SMD's are sufficient to meet the requirements of the application on an interim or permanent basis.
- 4. Comments, suggestions, or questions on this document should be addressed to: Commander, DLA Land and Maritime, ATTN: VAS, 3990 East Broad St., Columbus, OH 43218-3990, or emailed to linear@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST online database at https://assist.dla.mil.

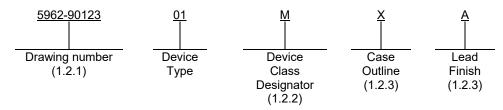
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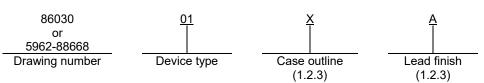
1. SCOPE

- 1.1 <u>Purpose</u>. The Standard Microcircuit Drawing Program (SMDP) is directly under the auspices of the DoD Parts Management Program (PMP). The PMP is implemented by MIL-HDBK-512, "Parts Management." The PMP will be the avenue for screening candidate parts for the SMDP by the DLA Land and Maritime Military Parts Control Advisory Group (MPCAG).
- 1.2 <u>Part or Identifying number (PIN)</u>. The PIN's listed in section 1, part I, are composed of the elements shown in the following example (see 1.2.2 for one part one part number differentiation):

One part - one part number PIN



Non - one part - one part number PIN



- 1.2.1 <u>Drawing number</u>. One part one part number SMD's for device classes Q, V, H, and K may cover custom device products which are generally used to specify application specific integrated circuits (both monolithic and hybrid). To differentiate between one part one part number SMD's that cover standard product from custom product a single alpha character will be placed in the unique 3 digit portion of the SMD drawing number as in the following example: 5962-90A23. This will be the only change to the SMD PIN for custom products.
- 1.2.2 <u>Device class designator</u>. One part one part number SMD's (fully implemented after SMD 5962-90659) contain device requirements for all three of the major military microcircuit requirements documents. By establishing a one part number system covering all three documents, the OEM can acquire to the highest level available for a given generic device to meet system needs without modifying the original contract parts selection criteria.

Military documentation format	Example PIN	Manufacturing source listing	Document listing
New MIL-PRF-38535 Standard Microcircuit Drawings	5962-XXXXXZZ(Q,V,T or N)YY	QML-38535	MIL-HDBK-103
New MIL-PRF-38534 Standard Microcircuit Drawings	5962-XXXXXZZ(H,K,D,G or E)YY	QML-38534	MIL-HDBK-103
New 1.2.1 of MIL-STD-883 Standard Microcircuit Drawings, based on Appendix A of MIL-PRF-38535	5962-XXXXXZZ(M)YY	MIL-HDBK-103	MIL-HDBK-103

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- 1.2.3 <u>Case outline/lead finish</u>. Case outline and lead finish are as described in each SMD. The lead finish indicated in the section 1 Part I listing is the most readily available from the manufacturer listed for the part. The manufacturer is authorized to supply other lead finishes than what is listed provided that further testing/qualification is performed by the manufacturer on the other lead finish(es). The user needs to contact the manufacturer to determine the availability of other lead finishes not listed herein.
- 1.2.4 Substitutability. Device-class-Q devices will replace device-class-M devices.
- 2. APPLICABLE DOCUMENTS This section is not applicable to the handbook.
- 3. DEFINITIONS This section is not applicable to the handbook.
- 4. REQUIREMENTS
- 4.1 Drawing requirements. SMD's will be prepared in accordance with ASME Y14.100 and DOD directives.
- 4.2 Preparation procedures. The procedures for the generation of an SMD are provided in MIL-HDBK-780.
- 4.3 <u>Drawing effectivity and duration</u>. SMD's and device class M one part one part number SMDs which have become inactive for new design are reflected in section 1, part 1 of the appendix of this document with an "I" in the status column.
- 4.4 <u>Approved sources of supply</u>. The approved sources of supply list in this handbook supersedes the approved sources formerly listed in each individual SMD/DLA Land and Maritime Drawing. This handbook is the official list of approved sources of supply for non-one part one part number SMD PIN's and for device class M one part one part number SMD PIN's. Device classes B, S, Q, V, T, N (monolithic) and H, K, D, G, E (hybrid) one part one part number SMD PIN's are listed for the convenience of the users. Official listing for B, S, Q, V, T, N, H, K, D, G, and E levels are available in the applicable QML. Manufacturers should notify DLA Land and Maritime-VA in writing if they no longer wish to be listed as an approved source of supply for any device listed herein. This letter will be used by DSCC to remove the manufacturer from MIL-HDBK-103 for those devices that the manufacturer specifies that he will no longer supply.
- 4.5 <u>Radiation hardness assurance (RHA) levels</u>. SMD devices which meet the RHA requirements of MIL-PRF-38535 or MIL-PRF-38534 will be marked with the appropriate RHA designator M, D, P, L, R, F, G, or H replacing the dash (-) in the PIN as indicated in the following example:

5962(M, D, P, L, R, F, G, or H)8999901EA

Only the highest RHA level for which the device is qualified will be listed in Section 1, Part I of the appendix of this document; however, at the request of the customer, the manufacturer is authorized to supply any lower RHA level device. At the request of the customer, the non-RHA PIN designated with a dash (-) may be supplied at the option of the manufacturer. The manufacturer may also opt to submit a certificate of compliance to have the non-RHA PIN listed in addition to the RHA PIN in Section 1, Part I of the appendix of this document.

4.6 <u>Electrostatic discharge sensitivity (ESD) listing</u>. ESD classification levels, as required by MIL-PRF-38534 or MIL-PRF-38535, will be listed in the status column of section 1, part 1, of the appendix. Manufacturers are required to send these classification levels to DLA Land and Maritime-VA for all Standard Microcircuit Drawings for which they are an approved source. The ESD listing in section 1, part 1 of the appendix will be in accordance with the following:

STATUS	INTERPRETATION
Blank	Data not submitted
0	Class 0; < 250 V
1	Class 1; 0 – 1999 V
1A	Class 1A; 250 V – 499 V
1B	Class 1B; 500 V – 999 V
1C	Class 1C; 1,000 V – 1999 V
2	Class 2; 2000 V - 3999 V
3	Class 3; ≥ 4000 V
3A	Class 3A; 4000 V – 7999 V
3B	Class 3B; ≥ 8000 V

5. CONFIGURATION MANAGEMENT

- 5.1 <u>Configuration management of SMDs</u>. All proposed changes to existing SMDs will be coordinated with the military activities and industry users of record for the individual documents. This coordination will be accomplished using DD Form 1693, Engineering Change Proposal (Short Form).
- 5.2 Record of users. Industrial users should inform DLA Land and Maritime when a system application requires use of the SMD. When notified, DLA Land and Maritime will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronic devices (FSC 5962) should contact DLA Land and Maritime-VAC, telephone (614) 692-8108.

6. DISTRIBUTION AND REQUESTS

6.1 Distribution. Requests for individual drawings and revisions to existing drawings may be addressed to:

DLA Land and Maritime ATTN: VAC 3990 E. Broad Street Columbus, OH 43218-3990 Autovon 850-0547 Commercial (614) 692-0547

6.1.1 <u>Automatic distribution</u>. To be added to a mailing list for automatic distribution of new drawings and revisions to existing drawings requests may be addressed to:

DLA Land and Maritime ATTN: VAS 3990 E. Broad Street Columbus, OH 43218-3990 Autovon 850-8478 Commercial (614) 692-8478

- 6.1.2 <u>Electronic distribution</u>. Electronic copies of Standard Microcircuit Drawings are available on the World Wide Web at https://landandmaritimeapps.dla.mil/Programs/MilSpec.
- 6.2 Requests. Requests for copies may be available online at https://quicksearch.dla.mil.

7. NOTES

7.1 Intended use. This list has been prepared for use by or for the Government in the acquisition of products covered by SMDs. Listing of a product is not intended to and does not connote endorsement of the product by the Department of Defense. This list is subject to change without notice; revision or amendment of this list will be issued as necessary. This listing supersedes the approved source of supply listing in the individual Standard Microcircuit Drawings, however the listing of a product does not release the supplier from compliance with the SMD requirements.

7.2 Subject item (key word) listing.

Part or identifying number (PIN)
Drawing number
Device class designator
Drawing requirements
Preparation procedures
Drawing effectivity and duration
Approved sources of supply
Radiation hardness assurance (RHA) levels
Electrostatic discharge sensitivity (ESD) listing
Configuration management of SMDs
Noun code descriptions

7.3 <u>Changes from previous issue</u>. Marginal notations are not used in this revision to identify Changes with respect to the previous issue due to the extent of the changes.

MIL-HDBK-103BG TABLE I. Noun Code Descriptions.

<u>Noun</u>	<u>Description</u>
100	MICROCIRCUIT, POSITIVE-NAND GATES, QUAD 2-INPUT
101	MICROCIRCUIT, POSITIVE-NAND GATES, QUAD 2-INPUT, OPEN COLLECTOR OUTPUTS
102	MICROCIRCUIT, POSITIVE-NAND GATES, TRIPLE 3-INPUT
103 104	MICROCIRCUIT, POSITIVE-NAND GATES, TRIPLE 3-INPUT, OPEN COLLECTOR OUTPUTS MICROCIRCUIT, POSITIVE-NAND GATES, DUAL 4-INPUT
104	MICROCIRCUIT, POSITIVE-NAND GATES, DUAL 4-INPUT, OPEN COLLECTOR OUTPUTS
106	MICROCIRCUIT, POSITIVE-NAND GATES, SINGLE 8-INPUT
107	MICROCIRCUIT, POSITIVE-NAND GATES, SINGLE 8-INPUT, EXPANDABLE
108	MICROCIRCUIT, POSITIVE-NAND GATES (GREATER THAN 8-INPUT)
109	MICROCIRCUIT, POSITIVE AND GATES, NOT OTHERWISE CLASSIFIED
110 111	MICROCIRCUIT, POSITIVE-AND GATES, QUAD 2-INPUT MICROCIRCUIT, POSITIVE-AND GATES, QUAD 2-INPUT, OPEN COLLECTOR OUTPUTS
112	MICROCIRCUIT, POSITIVE-AND GATES, TRIPLE 3-INPUT
113	MICROCIRCUIT, POSITIVE-AND GATES, TRIPLE 3-INPUT, OPEN COLLECTOR OUTPUTS
114	MICROCIRCUIT, POSITIVE-AND GATES, DUAL 4-INPUT
115	MICROCIRCUIT, POSITIVE-AND GATES, DUAL 4-INPUT, OPEN COLLECTOR OUTPUTS
119 120	MICROCIRCUIT, POSITIVE-AND GATES, N.O.C. MICROCIRCUIT, POSITIVE-NOR GATES, QUAD 2-INPUT
120	MICROCIRCUIT, POSITIVE-NOR GATES, QUAD 2-INPUT, OPEN COLLECTOR OUTPUTS
122	MICROCIRCUIT, POSITIVE-NOR GATES, TRIPLE 3-INPUT
123	MICROCIRCUIT, POSITIVE-NOR GATES, DUAL 4-INPUT
124	MICROCIRCUIT, POSITIVE-NOR GATES, N.O.C.
125	MICROCIRCUIT, POSITIVE-OR GATES
130 131	MICROCIRCUIT, AND-OR-INVERT GATES, DUAL 2-WIDE MICROCIRCUIT, AND-OR-INVERT GATES, 4-WIDE
132	MICROCIRCUIT, AND-OR-INVERT GATES, 2-WIDE
133	MICROCIRCUIT, AND-OR-INVERT GATES, DUAL 2-WIDE, EXPANDABLE
134	MICROCIRCUIT, AND-OR-INVERT GATES, 4-WIDE, EXPANDABLE
135	MICROCIRCUIT, AND-OR-INVERT GATES, 2-WIDE, EXPANDABLE
139 140	MICROCIRCUIT, AND-OR-INVERT GATES, N.O.C.
141	MICROCIRCUIT, EXCLUSIVE-OR GATES MICROCIRCUIT, EXCLUSIVE-NOR GATES
142	MICROCIRCUIT, OR-AND GATES
143	MICROCIRCUIT, HEX INVERTERS
144	MICROCIRCUIT, HEX INVERTERS, OPEN COLLECTOR
145	MICROCIRCUIT, EXPANDERS
149 150	MICROCIRCUIT, LOGIC GATES, N.O.C. MICROCIRCUIT, FLIP FLOPS, AND-GATED, SINGLE J-K FLIP FLOP
151	MICROCIRCUIT, FLIP FLOPS, AND-OR-GATED, SINGLE J-K FLIP FLOP
152	MICROCIRCUIT, FLIP FLOPS, DUAL J-K (2-COMPLETELY INDEPENDENT CIRCUITS)
153	MICROCIRCUIT, FLIP FLOPS, DUAL J-K (ONE OR MORE COMMON INPUTS)
154	MICROCIRCUIT, FLIP FLOPS, AND-GATED, SINGLE J-K, NEGATIVE EDGE TRIGGERED FLIP FLOP
155 156	MICROCIRCUIT, FLIP FLOPS, AND-OR-GATED, SINGLE AND NEGATIVE EDGE TRIGGERED FLIP FLOP MICROCIRCUIT, FLIP FLOPS, DUAL J-K, NEGATIVE EDGE TRIGGERED FLIP FLOP (INDEPENDENT CIRCUIT)
157	MICROCIRCUIT, FEIF FLOPS, DUAL J-K, NEGATIVE EDGE TRIGGERED FLIF FLOP (INDEFENDENT CIRCUIT) MICROCIRCUIT, FLIP FLOPS, DUAL J-K, NEGATIVE EDGE TRIGGERED FLIP FLOP (ONE OR MORE COMMON INPUTS)
158	MICROCIRCUIT, FLIP FLOPS, SINGLE OR DUAL D-TYPE
159	MICROCIRCUIT, FLIP FLOPS, QUAD OR HEX D-TYPE
160	MICROCIRCUIT, FLIP FLOPS, R-S
161	MICROCIRCUIT, FLIP FLOPS, AC COUPLED
164 165	MICROCIRCUIT, FLIP FLOPS, N.O.C. MICROCIRCUIT, MULTIVIBRATORS, SINGLE
166	MICROCIRCUIT, MULTIVIBRATORS, DUAL
167	MICROCIRCUIT, MULTIVIBRATORS, VOLTAGE CONTROLLED
169	MICROCIRCUIT, MULTIVIBRATORS, N.O.C.
180	MICROCIRCUIT, ANALOG GATES/SWITCHES, SPST, 1 CHANNEL
181	MICROCIRCUIT, ANALOG GATES/SWITCHES, SPST, 2 CHANNEL
182 183	MICROCIRCUIT, ANALOG GATES/SWITCHES, SPST, 3 CHANNEL MICROCIRCUIT, ANALOG GATES/SWITCHES, SPST, 4 CHANNEL
184	MICROCIRCUIT, ANALOG GATES/SWITCHES, SPST, 5 CHANNEL
185	MICROCIRCUIT, ANALOG GATES/SWITCHES, SPDT, 1 CHANNEL

$\begin{array}{c} \text{MIL-HDBK-103BG} \\ \text{TABLE I.} \ \ \underline{\text{Noun Code Descriptions}}. \end{array}$

<u>Noun</u>	<u>Description</u>
186	MICROCIRCUIT, ANALOG GATES/SWITCHES, SPDT, 2 CHANNEL
187	MICROCIRCUIT, ANALOG GATES/SWITCHES, DPST, 1 CHANNEL
188	MICROCIRCUIT, ANALOG GATES/SWITCHES, DPST, 2 CHANNEL
189	MICROCIRCUIT, ANALOG GATES/SWITCHES, DPST, 3 CHANNEL
190	MICROCIRCUIT, ANALOG GATES/SWITCHES, DPDT
191 192	MICROCIRCUIT, ANALOG GATES/SWITCHES, 4 PST MICROCIRCUIT, ANALOG GATES/SWITCHES, 4-CHANNEL DIFF MULTIPLEXER
193	MICROCIRCUIT, ANALOG GATES/SWITCHES, 4-CHANNEL MULTIPLEXER
194	MICROCIRCUIT, ANALOG GATES/SWITCHES, 8-CHANNEL DIFF MULTIPLEXER
195	MICROCIRCUIT, ANALOG GATES/SWITCHES, 16-CHANNEL MULTIPLEXER
199	MICROCIRCUIT, ANALOG GATES/SWITCHES, N.O.C.
200	MICROCIRCUIT, ARITHMETIC CIRCUITS, ADDERS, SINGLE 1 BIT
201	MICROCIRCUIT, ARITHMETIC CIRCUITS, ADDERS, SINGLE 2 BIT
202 203	MICROCIRCUIT, ARITHMETIC CIRCUITS, ADDERS, SINGLE 4 BIT MICROCIRCUIT, ARITHMETIC CIRCUITS, ADDERS, DUAL 1 BIT
204	MICROCIRCUIT, ARITHMETIC CIRCUITS, ADDERS, N.O.C.
205	MICROCIRCUIT, ARITHMETIC CIRCUITS, ALU FUNCTIONS GENERATORS
206	MICROCIRCUIT, ARITHMETIC CIRCUITS, LOOK-AHEAD CARRY GENERATORS
207	MICROCIRCUIT, ARITHMETIC CIRCUITS, TRUE/COMPLEMENT, ZERO/ONE ELEMENTS
208	MICROCIRCUIT, ARITHMETIC CIRCUITS, MULTIPLIERS, BINARY/RATE
209 210	MICROCIRCUIT, ARITHMETIC CIRCUITS, COMPARATORS MICROCIRCUIT, ARITHMETIC CIRCUITS, PARITY GENERATORS/CHECKERS/PARITY TREES
210	MICROCIRCUIT, ARITHMETIC CIRCUITS, PARITY GENERATORS/CHECKERS/PARITY TREES
217	MICROCIRCUIT, ARITHMETIC CIRCUITS, CALCULATOR CIRCUITS
218	MICROCIRCUIT, ARITHMETIC CIRCUITS, CENTRAL PROCESSOR UNITS
219	MICROCIRCUIT, ARITHMETIC CIRCUITS, N.O.C.
220	MICROCIRCUIT, REGISTERS, 4 BIT, PARALLEL IN, PARALLEL OUT
221	MICROCIRCUIT, REGISTERS, 4 BIT, PARALLEL IN SERIAL OUT
222 223	MICROCIRCUIT, REGISTERS, 4 BIT, N.O.C. MICROCIRCUIT, REGISTERS, 5 BIT
224	MICROCIRCUIT, REGISTERS, 8 BIT, PARALLEL IN PARALLEL OUT
225	MICROCIRCUIT, REGISTERS, 8 BIT, PARALLEL IN SERIAL OUT
226	MICROCIRCUIT, REGISTERS, 8 BIT, SERIAL IN PARALLEL OUT
227	MICROCIRCUIT, REGISTERS, 8 BIT, SERIAL IN SERIAL OUT
228	MICROCIRCUIT, REGISTERS, 8 BIT, N.O.C.
229 230	MICROCIRCUIT, REGISTERS, 9-15 BIT MICROCIRCUIT, REGISTERS, 16 BIT
231	MICROCIRCUIT, REGISTERS, 17-31 BIT
232	MICROCIRCUIT, REGISTERS, 32 BIT
233	MICROCIRCUIT, REGISTERS, 33-63 BIT
234	MICROCIRCUIT, REGISTERS, 64 BIT
235	MICROCIRCUIT, REGISTERS, 65-127 BIT
236 237	MICROCIRCUIT, REGISTERS, 128 BIT MICROCIRCUIT, REGISTERS, 129-255 BIT
238	MICROCIRCUIT, REGISTERS, 256 BIT
239	MICROCIRCUIT, REGISTERS, 257-511 BIT
240	MICROCIRCUIT, REGISTERS, 512 BIT
241	MICROCIRCUIT, REGISTERS, 513-1023 BIT
242	MICROCIRCUIT, REGISTERS, 1024 BIT
243 244	MICROCIRCUIT, REGISTERS, 1025-2047 BIT
244 245	MICROCIRCUIT, REGISTERS, 2048 BIT MICROCIRCUIT, REGISTERS, 2049-4095 BIT
246	MICROCIRCUIT, REGISTERS, 4096 BIT
247	MICROCIRCUIT, REGISTERS, GREATER THAN 4096 BIT
249	MICROCIRCUIT, REGISTERS, N.O.C.
260	MICROCIRCUIT, CODE CONVERTERS, USACII TO EBCDIC (OR VICE VERSA)
261 262	MICROCIRCUIT, CODE CONVERTERS, USACII TO SELECTRIC MICROCIRCUIT, CODE CONVERTERS, BINARY TO BCD (OR VICE VERSA)
262	MICROCIRCUIT, CODE CONVERTERS, BINARY TO BCD (OR VICE VERSA) MICROCIRCUIT, CODE CONVERTERS, HOLLERITH TO USACII
269	MICROCIRCUIT, CODE CONVERTERS, N.O.C.

MIL-HDBK-103BG TABLE I. Noun Code Descriptions.

<u>Noun</u>	<u>Description</u>
270	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, 16-LINE-TO-1-LINE
271	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, 8-LINE-TO-1-LINE
272	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, 8-LINE-TO-1-LINE TRI-STATE OUTPUT
273	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, DUAL 4-LINE-TO-1-LINE
274	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, DUAL 4-LINE-TO-1-LINE TRI-STATE OUTPUT
275	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, QUAD 2-LINE-TO-1-LINE
276	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, QUAD 2-LINE-TO-1-LINE TRI-STATE OUTPUT
279	MICROCIRCUIT, DATA SELECTORS, MULTIPLEXERS, N.O.C.
280	MICROCIRCUIT, DECODERS/DEMULTIPLEXERS, 4-LINE-TO-16-LINE
281	MICROCIRCUIT, DECODERS/DEMULTIPLEXERS, 4-LINE-TO-10-LINE
282	MICROCIRCUIT, DECODERS/DEMULTIPLEXERS, 3-LINE-TO-8-LINE
283 284	MICROCIRCUIT, DECODERS/DEMULTIPLEXERS, DUAL 2-LINE-TO-4-LINE MICROCIRCUIT, DECODERS/DEMULTIPLEXERS, 1-LINE-TO-8-LINE
289	MICROCIRCUIT, DECODERS/DEMOLTIPLEXERS, 1-LINE-10-0-LINE MICROCIRCUIT, DECODERS/DEMULTIPLEXERS, N.O.C.
290	MICROCIRCUIT, DISPLAY DECODERS/DRIVERS, BCD-TO-DECIMAL
291	MICROCIRCUIT, DISPLAY DECODERS/DRIVERS, BCD-TO-SEVEN SEGMENT
292	MICROCIRCUIT, DISPLAY DECODERS/DRIVERS, BCD-TO-DECIMAL WITH COUNTER/LATCH
293	MICROCIRCUIT, DISPLAY DECODERS/DRIVERS, BCD-TO-SEVEN SEGMENT WITH COUNTER LATCH
299	MICROCIRCUIT, DISPLAY DECODERS/DRIVERS, N.O.C.
300	MICROCIRCUIT, COUNTERS, BCD, ASYNCHRONOUS
301	MICROCIRCUIT, COUNTERS, BCD, SYNCHRONOUS
302	MICROCIRCUIT, COUNTERS, BCD, N.O.C.
303	MICROCIRCUIT, COUNTERS, BINARY, ASYNCHRONOUS
304	MICROCIRCUIT, COUNTERS, BINARY, SYNCHRONOUS
305	MICROCIRCUIT, COUNTERS, BINARY, N.O.C.
306	MICROCIRCUIT, COUNTERS, DECIMAL
307	MICROCIRCUIT, COUNTERS, RING
308	MICROCIRCUIT, COUNTERS, HEXADECIMAL
309	MICROCIRCUIT, COUNTERS, VARIABLE MODULO
319 320	MICROCIRCUIT, COUNTERS, N.O.C. MICROCIRCUIT, CHARACTER GENERATORS, STATIC, ASCII FONT, RASTER-COLUMN SCAN
321	MICROCIRCUIT, CHARACTER GENERATORS, STATIC, ASCII FONT, RASTER-COLUMN SCAN
322	MICROCIRCUIT, CHARACTER GENERATORS, STATIC, CUSTOM, RASTER-COLUMN SCAN
323	MICROCIRCUIT, CHARACTER GENERATORS, STATIC, CUSTOM, RASTER-ROW SCAN
324	MICROCIRCUIT, CHARACTER GENERATORS, STATIC, NUMERIC
329	MICROCIRCUIT, CHARACTER GENERATORS, STATIC, N.O.C.
330	MICROCIRCUIT, CHARACTER GENERATORS, DYNAMIC, ASCII FONT
331	MICROCIRCUIT, CHARACTER GENERATORS, DYNAMIC, CUSTOM
339	MICROCIRCUIT, CHARACTER GENERATORS, DYNAMIC, N.O.C.
340	MICROCIRCUIT, LATCHES, 4-BIT
341	MICROCIRCUIT, LATCHES, 8-BIT
342	MICROCIRCUIT, LATCHES, N.O.C.
345	MICROCIRCUIT, PRIORITY ENCODERS
350	MICROCIRCUIT, PRESCALERS
355 360	MICROCIRCUIT, MSI/LSI MULTIPLE-FUNCTION CIRCUITS MICROCIRCUIT, DIGITAL DELAY LINES
365	MICROCIRCUIT, BIGITAL BELAT LINES MICROCIRCUIT, GATE ARRAY, SEMICUSTOM
366	MICROCIRCUIT, LOGIC ARRAY, SEMICUSTOM
367	MICROCIRCUIT, STANDARD CELL ARRAY
368	MICROCIRCUIT, CELL ARRAY
380	MICROCIRCUIT, PROGRAMMABLE LOGIC DEVICE
381	MICROCIRCUIT, FIELD-PROGRAMMABLE GATE ARRAY
399	MICROCIRCUIT, DIGITAL CIRCUITS, N.O.C.
400	MICROCIRCUIT, MICROPROCESSORS, BIT/SLICE
401	MICROCIRCUIT, MICROPROCESSORS, 4-BIT
402	MICROCIRCUIT, MICROPROCESSORS, 8-BIT
403	MICROCIRCUIT, MICROPROCESSORS, 16-BIT
404	MICROCIRCUIT, MICROPROCESSORS, 32-BIT
409	MICROCIRCUIT, MICROPROCESSORS, NOC
410	MICROCIRCUIT, MICROCOMPUTERS, 8-BIT

$\begin{array}{c} \text{MIL-HDBK-103BG} \\ \text{TABLE I.} \ \ \underline{\text{Noun Code Descriptions}}. \end{array}$

<u>Noun</u>	<u>Description</u>
411	MICROCIRCUIT, MICROCOMPUTERS, 16-BIT
412	MICROCIRCUIT, MICROCOMPUTERS, 32-BIT
419	MICROCIRCUIT, MICROCOMPUTERS, NOC
420	MICROCIRCUIT, MICROPROCESSOR SUPPORT CIRCUITS, CONTROLLERS
421 422	MICROCIRCUIT, MICROPROCESSOR SUPPORT CIRCUITS, INPUT/OUTPUT/INTERFACE MICROCIRCUIT, MICROPROCESSOR OR SUPPORT CIRCUITS, CLOCK GENERATORS
423	MICROCIRCUIT, DMA CONTROLLERS
424	MICROCIRCUIT, PROGRAMMABLE INTERVAL TIMER
429	MICROCIRCUIT, MICROPROCESSOR SUPPORT CIRCUITS, NOC
430	MICROCIRCUIT, MICROPROCESSOR MULTIPLIERS
431	MICROCIRCUIT, FIELD PROGRAMMABLE LOGIC ARRAYS (FPLA)
432 433	MICROCIRCUIT, DIGITAL SIGNAL PROCESSOR MICROCIRCUIT, DATA ACQUISITION SYSTEM
439	MICROCIRCUIT, VLSI MICROPROCESSOR SPECIAL CIRCUIT, NOC
440	MICROCIRCUIT, MICROPROCESSOR CONVERTERS
441	MICROCIRCUIT, MANCHESTER ENCODERS
449	MICROCIRCUIT, LINEAR MICROPROCESSOR SUPPORT CIRCUITS, NOC
450 460	MICROCIRCUIT, ANALOG MICROPROCESSORS OPTIC ISOLATORS/COUPLERS
461	SENSOR ARRAYS
462	MICROCIRCUIT, PHOTO DETECTOR
500	MICROCIRCUIT, BUFFERS/DRIVERS (TOTEM POLE, STD. VOLTAGE OUTPUT) NAND QUAD 2-INPUT
501	MICROCIRCUIT, BUFFERS/DRIVERS (TOTEM POLE, STD. VOLTAGE OUTPUT) NAND DUAL 4-INPUT
502 503	MICROCIRCUIT, BUFFERS/DRIVERS (TOTEM POLE, STD. VOLTAGE OUTPUT) AND MICROCIRCUIT, BUFFERS/DRIVERS (TOTEM POLE, STD. VOLTAGE OUTPUT) NOR
509	MICROCIRCUIT, BUFFERS/DRIVERS (TOTEM POLE, STD. VOLTAGE OUTPUT) N.O.C.
510	MICROCIRCUIT, BUFFERS/DRIVERS (OPEN-COLLECTOR, HIGH VOLTAGE OUTPUT) NAND
511	MICROCIRCUIT, BUFFERS/DRIVERS (OPEN-COLLECTOR, HIGH VOLTAGE OUTPUT) AND
512	MICROCIRCUIT, BUFFERS DRIVERS (OPEN-COLLECTOR, HIGH VOLTAGE OUTPUT) NOR
513	MICROCIRCUIT, BUFFERS DRIVERS (OPEN-COLLECTOR, HIGH VOLTAGE OUTPUT) HEX
514 519	MICROCIRCUIT, BUFFERS DRIVERS (OPEN-COLLECTOR, HIGH VOLTAGE OUTPUT) HEX INVERTER MICROCIRCUIT, BUFFERS DRIVERS (OPEN-COLLECTOR, HIGH VOLTAGE OUTPUT) N.O.C.
520	MICROCIRCUIT, BUFFERS DRIVERS (TRI-STATE OUTPUT) QUAD
521	MICROCIRCUIT, BUFFERS DRIVERS (TRI-STATE OUTPUT) QUAD INVERTER
522	MICROCIRCUIT, BUFFERS DRIVERS (TRI-STATE OUTPUT) HEX
523	MICROCIRCUIT, BUFFERS DRIVERS (TRI-STATE OUTPUT) HEX INVERTER
529 530	MICROCIRCUIT, BUFFERS/DRIVERS (TRI-STATE OUTPUT) N.O.C. MICROCIRCUIT, POWER DRIVERS (HIGH CURRENT IN "ON" STATE, HIGH VOLTAGE IN "OFF" STATE) NAND
531	MICROCIRCUIT, POWER DRIVERS (HIGH CURRENT IN "ON" STATE, HIGH VOLTAGE IN "OFF" STATE) OR
532	MICROCIRCUIT, POWER DRIVERS (HIGH CURRENT IN "ON" STATE, HIGH VOLTAGE IN "OFF" STATE) NOR
533	MICROCIRCUIT, POWER DRIVERS (HIGH CURRENT IN "ON" STATE, HIGH VOLTAGE IN "OFF" STATE) AND
539	MICROCIRCUIT, POWER DRIVERS, N.O.C.
540	MICROCIRCUIT, CMOS BUFFERS/CONVERTERS, HEX
541 542	MICROCIRCUIT, CMOS BUFFERS/CONVERTERS, HEX INVERTERS MICROCIRCUIT, CMOS BUFFERS/CONVERTERS, QUAD
542 544	MICROCIRCUIT, CMOS BUFFERS/CONVERTERS, QUAD MICROCIRCUIT, CMOS BUFFERS/CONVERTERS, N.O.C.
545	MICROCIRCUIT, LOGIC-LEVEL CONVERTERS/TRANSLATORS, HIGH-TO-LOW OR VICE VERSA
546	MICROCIRCUIT, LOGIC-LEVEL CONVERTERS/TRANSLATORS, SATURATED-TO-ECL OR VICE VERSA
547	MICROCIRCUIT, LOGIC-LEVEL CONVERTERS/TRANSLATORS, TTL-TO-ECL OR VICE VERSA
548	MICROCIRCUIT, LOGIC-LEVEL CONVERTERS/TRANSLATORS, TTL-TO-MOS OR VICE VERSA
549 550	MICROCIRCUIT, LOGIC-LEVEL CONVERTERS/TRANSLATORS, N.O.C. MICROCIRCUIT, MOS CLOCK DRIVERS
555	MICROCIRCUIT, MOS CLOCK DRIVERS MICROCIRCUIT, FET SWITCH DRIVERS
560	MICROCIRCUIT, LINE/BUSS DRIVERS, NAND
561	MICROCIRCUIT, LINE/BUSS DRIVERS, NOR
562	MICROCIRCUIT, LINE/BUSS DRIVERS, DUAL, SINGLE OUTPUT
563	MICROCIRCUIT, LINE/BUSS DRIVERS, TRIPLE
564	MICROCIRCUIT, LINE/BUSS DRIVERS, DUAL, DIFFERENTIAL OUTPUT MICROCIRCUIT, LINE/BUSS DRIVERS, TRI-STATE OUTPUT
565 566	MICROCIRCUIT, LINE/BUSS DRIVERS, TRI-STATE OUTPUT MICROCIRCUIT, LINE/BUSS DRIVERS, TERMINATED
550	

$\begin{array}{c} \text{MIL-HDBK-103BG} \\ \text{TABLE I.} \ \ \underline{\text{Noun Code Descriptions}}. \end{array}$

<u>Noun</u>	Description
569	MICROCIRCUIT, LINE/BUSS DRIVERS, N.O.C.
570	MICROCIRCUIT, LINE RECEIVERS, DUAL
571	MICROCIRCUIT, LINE RECEIVERS, TRIPLE
572 573	MICROCIRCUIT, LINE RECEIVERS, QUAD MICROCIRCUIT, LINE RECEIVERS, DUAL DIFFERENTIAL INPUT
573 574	MICROCIRCUIT, LINE RECEIVERS, DOAL DIFFERENTIAL INPUT
575	MICROCIRCUIT, LINE RECEIVERS, QUAD DIFFERENTIAL INPUT
579	MICROCIRCUIT, LINE RECEIVERS, N.O.C.
580	MICROCIRCUIT, PERIPHERAL DRIVERS, DUAL POS-AND
581	MICROCIRCUIT, PERIPHERAL DRIVERS, DUAL POS-NAND
582	MICROCIRCUIT, PERIPHERAL DRIVERS, DUAL POS-OR
583 584	MICROCIRCUIT, PERIPHERAL DRIVERS, DUAL POS-NOR MICROCIRCUIT, PERIPHERAL DRIVERS, MEMORY DRIVERS
589	MICROCIRCUIT, PERIPHERAL DRIVERS, N.O.C.
590	MICROCIRCUIT, LINE TRANSCEIVERS
591	MICROCIRCUIT, D/A CONVERTERS
592	MICROCIRCUIT, A/D CONVERTERS
593	MICROCIRCUIT, V/F, F/V CONVERTERS-
594	MICROCIRCUIT, CONVERTERS, N.O.C.
599 600	MICROCIRCUIT, INTERFACE CIRCUITS, N.O.C. MICROCIRCUIT, READ-WRITE MEMORIES, 16-BIT (4X4), STATIC
601	MICROCIRCUIT, READ-WRITE MEMORIES, 16-BIT (16X1), STATIC
602	MICROCIRCUIT, READ-WRITE MEMORIES, 64-BIT (16X4), STATIC
603	MICROCIRCUIT, READ-WRITE MEMORIES, 64-BIT (64X1), STATIC
604	MICROCIRCUIT, READ-WRITE MEMORIES, 256-BIT (64X4), STATIC
605	MICROCIRCUIT, READ-WRITE MEMORIES, 256-BIT (64X4), DYNAMIC
606 607	MICROCIRCUIT, READ-WRITE MEMORIES, 256-BIT (256X1), STATIC MICROCIRCUIT, READ-WRITE MEMORIES, 512-WORD, STATIC
608	MICROCIRCUIT, READ-WRITE MEMORIES, 312-WORD, 314TIC MICROCIRCUIT, READ-WRITE MEMORIES, 1024-BIT, STATIC
609	MICROCIRCUIT, READ-WRITE MEMORIES, 1024-BIT, DYNAMIC
610	MICROCIRCUIT, READ-WRITE MEMORIES, 2048-BIT, STATIC
611	MICROCIRCUIT, READ-WRITE MEMORIES, 2048-BIT, DYNAMIC
612	MICROCIRCUIT, READ-WRITE MEMORIES, 4096-BIT, STATIC
613	MICROCIRCUIT, READ-WRITE MEMORIES, 4096-BIT, DYNAMIC
614 615	MICROCIRCUIT, READ-WRITE MEMORIES, 8192-BIT, STATIC MICROCIRCUIT, READ-WRITE MEMORIES, 8192-BIT, DYNAMIC
616	MICROCIRCUIT, READ-WRITE MEMORIES, 16384-BIT, STATIC
617	MICROCIRCUIT, READ-WRITE MEMORIES, 16384-BIT, DYNAMIC
618	MICROCIRCUIT, READ-WRITE MEMORIES, 32768-BIT, STATIC
619	MICROCIRCUIT, READ-WRITE MEMORIES, 32768-BIT, DYNAMIC
620	MICROCIRCUIT, READ-WRITE MEMORIES, 65536-BIT, STATIC
621 622	MICROCIRCUIT, READ-WRITE MEMORIES, 65536-BIT, DYNAMIC MICROCIRCUIT, READ-WRITE MEMORIES, 128K
623	MICROCIRCUIT, READ-WRITE MEMORIES, 256K
624	MICROCIRCUIT, READ-WRITE MEMORIES, 512K
625	MICROCIRCUIT, READ-WRITE MEMORIES, 1024K
627	MICROCIRCUIT, READ-WRITE MEMORIES, MULTIPLE PORT REGISTERS
628	MICROCIRCUIT, READ-WRITE MEMORIES, CONTENT ADDRESSABLE
629 630	MICROCIRCUIT, READ-WRITE MEMORIES, N.O.C. MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 32X8
631	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 64X8
632	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 128X8
633	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 256X4
634	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 256X8
635 636	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 256X10/256X12 MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 512 WORD
637	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 312 WORD
638	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 1024 WORD
639	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 4096 WORD
640	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 8192 WORD

MIL-HDBK-103BG TABLE I. Noun Code Descriptions.

<u>Noun</u>	<u>Description</u>
641	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 16384 WORD
642	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, 32768 WORD
649	MICROCIRCUIT, READ-ONLY MEMORIES, MASK PROGRAMMABLE, N.O.C.
650	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 32X8
651	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 64X8
652	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 256X1
653	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 256X4
654 655	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 256X8 MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 512X4
656	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 312X4 MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 4096
657	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, \$192 BIT
658	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 16384 BIT
659	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 32768 BIT
660	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 65536 BIT
661	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, 128K BIT
662	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE AND ALTERABLE, UV ERASABLE, 256K
663	MICROCIRCUIT, PROMS, 512K
664	MICROCIRCUIT, PROMS, 1024K
669	MICROCIRCUIT, READ-ONLY MEMORIES, ELECTRICALLY PROGRAMMABLE, NOC
670	MICROCIRCUIT, FIRST-IN-FIRST-OUT (FIFO) MEMORIES
671 699	MICROCIRCUIT, BUBBLE MEMORIES, MAGNETIC MICROCIRCUIT, MEMORY DEVICES, N.O.C.
700	MICROCIRCUIT, MEMORY DEVICES, N.O.O. MICROCIRCUIT, OPERATIONAL AMPLIFIER, INTERNALLY COMPENSATED, GENERAL PURPOSE
701	MICROCIRCUIT, OPERATIONAL AMPLIFIER, INTERNALLY COMPENSATED, LOW CURRENT
702	MICROCIRCUIT, OPERATIONAL AMPLIFIER, INTERNALLY COMPENSATED, HIGH SPEED
703	MICROCIRCUIT, OP AMP, INTERNALLY COMPENSATED, FET INPUT
710	MICROCIRCUIT, OPERATIONAL AMPLIFIER, DUAL AMPLIFIER
711	MICROCIRCUIT, VOLTAGE FOLLOWERS
712	MICROCIRCUIT, DIFFERENTIAL AMPS (DIFFERENTIAL OUTPUT)
713	MICROCIRCUIT, QUAD AMPS
719	MICROCIRCUIT, OP AMPS, INTERNALLY COMPENSATED, N.O.C.
720	MICROCIRCUIT, EXT COMP SINGLE AMP DIFF INPUT SINGLE OUTPUT GENERAL PURPOSE MICROCIRCUIT, EXT COMP SINGLE AMP DIFF INPUT SINGLE OUTPUT LOW CURRENT MAX INPUT OFFSETCURRENT
721	AT 25 DEG C < 30
722	MICROCIRCUIT, EXT COMP SINGLE AMP DIFF INPUT SINGLE OUTPUT HIGH SPEED
122	(TYP SLEW RATE AT 25 DEG C GREATER 5 V/MICRO S)
723	MICROCIRCUIT, EXT COMP SINGLE AMP DIFF INPUT SINGLE OUTPUT FET INPUT
724	MICROCIRCUIT, EXT COMP SINGLE AMP DIFF INPUT SINGLE OUTPUT POWER
730	MICROCIRCUIT, OP AMPS, EXTERNALLY COMPENSATED, DUAL
738	MICROCIRCUIT, OP AMPS, EXTERNALLY COMPENSATED, N.O.C.
739	MICROCIRCUIT, OP AMPS, N.O.C.
740	MICROCIRCUIT, SENSE AMPS, SINGLE CHANNEL
741	MICROCIRCUIT, SENSE AMPS, DUAL CHANNEL, COMMON OUTPUT
742	MICROCIRCUIT, SENSE AMPS, DUAL CHANNEL, INDEPENDENT OUTPUT
743 749	MICROCIRCUIT, SENSE AMPS, 4-CHANNEL W/CHANNEL SELECT
749	MICROCIRCUIT, SENSE AMPS, N.O.C.

MIL-HDBK-103BG TABLE I. Noun Code Descriptions.

<u>Noun</u>	<u>Description</u>
750	MICROCIRCUIT, RF/IF AMPS
751	MICROCIRCUIT, PROGRAMMABLE AMPLIFIERS
752	MICROCIRCUIT, CURRENT AMPLIFIERS
753	MICROCIRCUIT, POWER AMPLIFIERS
754	MICROCIRCUIT, INSTRUMENTATION AMPLIFIERS
755	MICROCIRCUIT, WIDEBAND DC AMPLIFIERS
760	MICROCIRCUIT, VIDEO AMPLIFIERS
765	MICROCIRCUIT, AUDIO AMPLIFIERS
770 771	MICROCIRCUIT, DIFFERENTIAL VOLTAGE COMPARATORS, SINGLE AMPLIFIER, SINGLE OUTPUT
771 772	MICROCIRCUIT, DIFFERENTIAL VOLTAGE COMPARATORS, SINGLE AMPLIFIER, SINGLE OUTPUT, WITH STROBE MICROCIRCUIT. DIFFERENTIAL VOLTAGE COMPARATORS. DIFFERENTIAL OUTPUT
773	MICROCIRCOTT, DIFFERENTIAL VOLTAGE COMPARATORS, DUAL, COMMON OUTPUT
774	MICROCIRCUIT, DIFFERENTIAL VOLTAGE COMPARATORS, DUAL SEPARATE OUTPUT
775	MICROCIRCUIT. DIFFERENTIAL VOLTAGE COMPARATORS, DUAL, SEPARATE OUTPUTS, WITH STROBE
776	MICROCIRCUIT, DIFFERENTIAL VOLTAGE COMPARATORS, QUAD (4 SEPARATE AMPS)
779	MICROCIRCUIT, DIFFERENTIAL VOLTAGE COMPARATORS, N.O.C.
780	MICROCIRCUIT, VOLTAGE REGULATORS, POSITIVE, VARIABLE
781	MICROCIRCUIT, VOLTAGE REGULATORS, NEGATIVE, VARIABLE
782	MICROCIRCUIT, VOLTAGE REGULATORS, POSITIVE, FIXED
783	MICROCIRCUIT, VOLTAGE REGULATORS, NEGATIVE, FIXED
784 705	MICROCIRCUIT, VOLTAGE REGULATORS, TRACKING
785 786	MICROCIRCUIT, REGULATOR/REFERENCE DIODE MICROCIRCUIT, SWITCHING REGULATORS
787	MICROCIRCUIT, REGULATOR CONTROL CIRCUITS
789	MICROCIRCUIT, VOLTAGE REGULATORS, N.O.C.
790	MICROCIRCUIT, ARRAYS, TRANSISTOR
791	MICROCIRCUIT, ARRAYS, DIODE
792	MICROCIRCUIT, ARRAYS, NOC
800	MICROCIRCUIT, COMMUNICATION CIRCUITS, LOGARITHMIC AMPLIFIERS/ANTILOG AMPLIFIERS
801	MICROCIRCUIT, BALANCED MIXERS
802	MICROCIRCUIT, COMMUNICATION CIRCUITS, PHASE-FREQUENCY DETECTORS
803	MICROCIRCUIT, COMMUNICATION CIRCUITS, PHASE-LOCKED LOOPS
804 805	MICROCIRCUIT, COMMUNICATION CIRCUITS, MODULATORS-DEMODULATORS MICROCIRCUIT, ACTIVE FILTERS
806	MICROCIRCUIT, SIGNALING CIRCUITS
807	MICROCIRCUIT, CODEC CIRCUITS
808	MICROCIRCUIT, MODEM CIRCUITS
809	MICROCIRCUIT, COMMUNICATION CIRCUITS, N.O.C.
810	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, QUADRANT MULTIPLIERS/DIVIDERS
812	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, ZERO-VOLTAGE SWITCHES
813	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, WAVEFORM-FUNCTION GENERATORS
814	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, TIMERS
815 816	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, OSCILLATORS, VOLTAGE CONTROLLED MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, OSCILLATORS, RF/IF
817	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, OSCILLATORS, AP/IIP MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, OSCILLATORS, AUDIO
818	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, SAMPLE AND HOLD CIRCUITS
819	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, MULTIPLE FUNCTION CIRCUITS
820	MICROCIRCUIT, AM/FM RECEIVER CIRCUITS
821	MICROCIRCUIT, LINEAR CIRCUITS, MISCELLANEOUS, CURRENT SOURCE/DRIVER
822	MICROCIRCUIT, IMAGE SENSOR
830	MICROCIRCUIT, GRAPHIC AND TV CIRCUITS
831	MICROCIRCUIT, SOUND GENERATION CIRCUITS
839	MICROCIRCUIT, SPECIAL FUNCTION CIRCUITS, NOC
899	MICROCIRCUIT, LINEAR CIRCUITS, N.O.C. MICROCIRCUIT, TEMPORARILY UNCLASSIFIED
998 999	GENERAL SPECS MIL PART NUMBERS
999	GENERAL OF LOG WILL FACT NOWIDE NO