

<b>QUALIFICATIONS VALIDATED</b> <b>ANNUALLY</b>
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CUSTOM HYBRID MICROCIRCUITS  
 QML-38534-9  
 16 July 1990  
 SUPERSEDING  
 QML-38534-8  
 12 January 1990

QUALIFIED MANUFACTURERS LIST

OF

**FSC 5962**

CUSTOM HYBRID MICROCIRCUITS

QUALIFIED UNDER MILITARY SPECIFICATION

MIL-H-38534

CUSTOM HYBRID MICROCIRCUITS

GENERAL REQUIREMENTS FOR

This list has been prepared for use by or for the Government in the acquisition of products covered by Specification MIL-H-38534. 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. The listing of a product does not in any way release the supplier from compliance with the individual item specification requirements.

THE ACTIVITY RESPONSIBLE FOR THIS QML IS THE UNITED STATES AIR FORCE, CODE 17. The activity designated as agent for all contacts relative to this QML is the Defense Electronics Supply Center (DESC-EQ), Dayton, OH 45444-5285.

If a manufacturer desires to have test data considered for qualification, he must perform all required qualification tests; the qualification sample must be produced under a valid authorization to test with DESC certified materials and manufacturing construction techniques; and he must comply with the requirements specified in MIL-H-38534 prior to the start of any testing.

The listing of custom hybrid microcircuit materials and manufacturing construction techniques in QML-38534 applies only to products produced on the MIL-STD-1772 certified line(s) at the plant(s) specified on the QML.

Only those products that have been manufactured, assembled, and tested within the United States and its territories, except as provided by international agreement establishing reciprocal and equivalent quality systems and procedures, can be supplied as qualified custom hybrid QML devices.

Custom hybrid microcircuits manufactured, assembled, and tested in accordance with MIL-H-38534 shall bear the "QML" certification mark for SMD controlled hybrid microcircuits and the "CH" (compliant hybrid) certification mark for non-SMD controlled hybrid microcircuits. The certification mark shall be located preceding the date code. The certification mark abbreviation "Q" or "C" may be used for small devices. Products manufactured, assembled, and tested for Class S or Class B, with all the provisions of MIL-H-38534; MIL-STD-883, Test Method 5008; MIL-STD-1772; and with DESC certified materials and manufacturing construction techniques, can be represented as being compliant to the appropriate product assurance levels as listed herein. The information contained in this QML reflects the material and manufacturing construction techniques of the particular test sample(s). Any product represented as being compliant shall be comprised combinatorially of a manufacturer's listing from the materials and manufacturing construction techniques listed herein, as is necessary to meet the requirements of the user. The user shall be responsible for determining if the QML listing is adequate to demonstrate capability for the intended application. Supplemental testing and listing can be accomplished by application and approval of DESC-EQ. Testing is not limited to those materials and manufacturing construction techniques currently listed herein. However, testing must be completed and approved before the product can be shipped or used in the intended application.

To obtain MIL-H-38534 qualified custom Hybrid microcircuits, the procurement document must specify that the product be manufactured to MIL-H-38534, and be comprised of materials and manufacturing construction techniques listed herein. Ordering data is contained in paragraph 6.1 of MIL-H-38534. All procurement documents shall meet the requirements of MIL-H-38534, Appendix C (see cautionary note herein).

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 CUSTOM HYBRID MICROCIRCUITS  
 QML-38534-9

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

**Caution:**

Hybrid microcircuit devices that are built tested, and shipped under the QML provision (using certified/qualified manufacturing materials and construction techniques) and in full compliance with MIL-H-38534 and MIL-STD-1772 can be determined by this QML.

Contractor acquiring activities, military program offices, and other government representatives can determine if hybrid microcircuits meet the requirements of MIL-H-38534 and MIL-STD-1772 by:

- a. Product listed in the product eligibility section herein, and
- b. Product marked with "QML" certification for SMD controlled hybrid microcircuits and the "CH" (compliant hybrid) certification mark for non-SMD controlled hybrid microcircuits. the certification mark shall proceed the date code. the certification mark abbreviation "Q" or "C" may be used for small devices.

Products that do not meet the above conditions are not manufactured on a MIL-STD-1772 certified/qualified line and are not in full compliance with MIL-H-38534 and MIL-STD-1772 requirements. Hybrids microcircuits that require MIL-H-38534 and MIL-STD-1772 and are not listed herein should be carefully reviewed and verified for contract compliance by the acquisition activity. To determine whether new products are in accordance with MIL-H-38534 and MIL-STD-1772 you may call the agent for the qualifying activity (DESC-EQ).

**NOTES:**

- 1/ The QML listing can be expanded provided appropriate qualification testing is performed and passed. Therefore the manufacture may accept an order for compliant product not covered by his QML listing, but shall not ship the compliant product until the testing has been successfully completed.
- 2/ Package seal perimeter is listed by largest perimeter successfully tested in inches
- 3/ Package lead counts are listed by maximum number of leads covered by qualification.
- 4/ Caution. Do not use this number for item acquisition. Item acquired to this number may not satisfy the performance requirements of the listed SMD.

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HYBRID MICROCIRCUITS  
QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Advanced Analog A Division of Intech 2270 Martin Avenue Santa Clara, California 95050-2781		52467	CEXA
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-89-065)	Class B	AD/DA Converters Sample and Hold Amplifier	
<b>RADIATION HARDNESS LEVEL</b>		<b>SUBSTRATE FABRICATION OPERATION (S)</b> <u>1/</u>	
N/A		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
LOCATION: Santa Clara, CA FLOW: 8002-0044 CAPABILITY: Thick film on alumina, 2 conductor levels, resistors		<b>ASSEMBLY OPERATION(S)</b> <u>1/</u>	
LOCATION: Santa Clara, CA FLOW: 8002-0044 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors SUBSTRATE ATTACH: polymer conductive epoxy			
<b>PACKAGE INFORMATION</b> <u>1/ 2/ 3/</u>			
PACKAGE TYPE:	Ceramic dual-in-line		
SEAL METHOD:	Seam weld		
LEAD COUNT:	24		
SEAL PERIMETER:	3.69		
LEAD FINISH:	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Advanced Analog A Division of Intech 2270 Martin Avenue Santa Clara, California 95050-2781	52467	CEXA

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A
NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0				

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Analog Devices Incorporated Micro Electronics Division 829 Woburn Street Wilmington, Massachusetts 01887		51640	CEUJ
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-87-2531) EQ(EQC-89-253)	Class B	AD/DA Converters Voltage Reference Signal Processor	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Wilmington, MA FLOW: EE-QA-8419 CAPABILITY: Thick film on alumina, 2 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Wilmington, MA FLOW: EE-QA-8122 CAPABILITY: polymer conductive/non-conductive epoxy, gold & aluminum wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors, chip resistor			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	Ceramic dual-in-line	TO can	
<b>SEAL METHOD:</b>	Seam weld	Projection weld	
<b>LEAD COUNT:</b>	32	12	
<b>SEAL PERIMETER:</b>	4.35	0.942	
<b>LEAD FINISH:</b>	Gold	Gold	

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Analog Devices Incorporated Micro Electronics Division 829 Woburn Street Wilmington, Massachusetts 01887	51640	CEUJ

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
8300201XX	1	DA087	D/A Conv., 12-bit, programmable	Yes
8503001XX	1	2700SD	Reference, Precision Voltage, +10V	Yes
8503002XX	1	2700UD	Reference, Precision Voltage, +10V	Yes
8503003XX	1	2701SD	Reference, Precision Voltage, -10V	Yes
8503004XX	1	2702SD	Reference, Precision Voltage, +/-10V	Yes
8503005XX	1	2702UD	Reference, Precision Voltage, +/-10V	Yes
8503006XX	1	2701UD	Reference, Precision Voltage, -10V	Yes
5962-8850901XX	1	AD390S	D/A conv, 12-bit, bipolar, linear, quad	Yes
5962-8850902XX	1	AD390T	D/A conv, 12-bit, bipolar, linear, quad	Yes
5962-8851001XX	1	AD394S	D/A conv, 12-bit, bipolar	Yes
5962-8851002XX	1	AD394T	D/A conv, 12-bit, quad, bipolar	Yes
5962-8851003XX	1	AD395S	D/A conv, 12-bit, quad, unipolar	Yes
5962-8851004XX	1	AD395T	D/A conv, 12-bit, quad, unipolar	Yes
5962-8865801XX	1	AD578X	A/D conv, 12-bit, high speed	Yes
5962-8865802XX	1	AD578T	A/D conv, 12-bit, high speed	Yes
5962-8865803XX	1	AD578ZSD	A/D conv, 12-bit, high speed	NO
5962-8865804XX	1	AD578ZTD	A/D conv, 12-bit, high speed	NO

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 22

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HYBRID MICROCIRCUITS  
QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Analog Devices Incorporated Computer Labs Division (CLD) 7910 Triad Center Drive Greensboro, North Carolina 27409		34031	CETW
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-87-1030) EQ(EQM-89-506) EQ(EQC-89-038)	Class B	Buffer Data Converters Op-Amp Track and Hold	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Greensboro, NC FLOW: QAP 3060 CAPABILITY: Thick film on alumina, 1 conductor level, resistors		LOCATION: Greensboro, NC FLOW: QAP 3060 CAPABILITY: Thin Film on alumina, 1 conductor level, resistors	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Greensboro, NC FLOW: QAP 3060 CAPABILITY: polymer conductive epoxy, gold & aluminum wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	TO can	Metal, with axial leads	
<b>SEAL METHOD:</b>	Projection Weld	Seam Weld	
<b>LEAD COUNT:</b>	12	24	
<b>SEAL PERIMETER:</b>	1.91	4.08	
<b>LEAD FINISH:</b>	Gold	Gold	

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Analog Devices Incorporated Computer Labs Division (CLD) 7910 Triad Center Drive Greensboro, North Carolina 27409	34031	CETW

SPECIFIC PRODUCT TYPES				PRODUCT TYPE/DESCRIPTION	SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/			
8001301ZX	1	0032		Op amp, thick film	Yes
8001401ZX	1	0033		Hi Speed Buffer Amp, Volt. Foll., FET in	Yes
5962-8857901XC	1	HOS-050A		Op Amp, Video, Fast Settling, +/- 15mV	Yes
5962-8857902XC	1	HOS-060SH		Op Amp, Video, Fast Settling, +/- 1.5mV	Yes

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 17

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HYBRID MICROCIRCUITS  
QML-38534-9



<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Apex Microtechnology Corporation 5980 North Shannon Road Tucson, AZ 85741		60024	CFAB
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQC-89-071)	Class B	Data Converters VOLTAGE REGULATOR ANALOG	
<b>RADIATION HARDNESS LEVEL</b>	<b>SUBSTRATE FABRICATION OPERATION(S)</b> <u>1/</u>		
N/A	LOCATION: Tucson, AZ FLOW: 800-403-1 CAPABILITY: Thick film on beryllia oxide, 1 conductor level, resistors		
<b>ASSEMBLY OPERATION(S)</b> <u>1/</u>		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
LOCATION: Tucson, AZ FLOW: 800-403-1 CAPABILITY: polymer conductive epoxy, eutectic, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors, chip resistors, molytaps <b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION</b> <u>1/ 2/ 3/</u>			
<b>PACKAGE TYPE:</b>	TO Can		
<b>SEAL METHOD:</b>	Projection Weld		
<b>LEAD COUNT:</b>	38		
<b>SEAL PERIMETER:</b>	3.58		
<b>LEAD FINISH:</b>	Solder		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Apex Microtechnology Corporation 5980 North Shannon Road Tucson, AZ 85741	60024	CFAB

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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HYBRID MICROCIRCUITS  
QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Beckman Industrial Corporation Electronic Technologies Division 4141 Palm Street Fullerton, California 92635		73138	CEXB
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-89-071)	Class B	Data Converters VOLTAGE REGULATOR ANALOG	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Fullerton, CA FLOW: 800-403-1 CAPABILITY: Thick film on alumina, 1 conductor level, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Fullerton, CA FLOW: 800-403-1 CAPABILITY: polymer conductive epoxy, eutectic, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors, chip resistors, molytaps SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE:	metal, with peripheral leads		
SEAL METHOD:	Seam weld		
LEAD COUNT:	38		
SEAL PERIMETER:	3.58		
LEAD FINISH:	Solder		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Beckman Industrial Corporation Electronic Technologies Division 4141 Palm Street Fullerton, California 92635	73138	CEXB

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Boeing Electronics Company 20403 Sixty-Eighth Avenue South Kent, Washington 98124		81205	CEUW
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQM-87-2947)	Class B	Custom	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Kent, WA FLOW: D900-10476-1-2 CAPABILITY: Thick film on alumina, 2 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Kent, WA FLOW: D900-10476-1-2 CAPABILITY: polymer conductive/nonconductive epoxy, eutectic, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with axial leads		
<b>SEAL METHOD:</b>	Seam weld		
<b>LEAD COUNT:</b>	24		
<b>SEAL PERIMETER:</b>	5.04		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Boeing Electronics Company 20403 Sixty-Eighth Avenue South Kent, Washington 98124	81205	CEUW

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 3

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Comlinear Corporation 4800 Wheaton Drive Fort Collins, Colorado 80525		62839	CEYA
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-89-0244) EQ (EQC-90-0392) EQ (EQC-90-0393)	Class B	Data Converters Op-Amp	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Fort Collins, CO FLOW: TFS-01-001 CAPABILITY: Thin film on alumina, 1 conductor level, resistors		LOCATION: LEE'S SUMMIT, MO FLOW: QAS-02-300 CAPABILITY: Thin film on alumina, 1 conductor level, resistors	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Fort Collins, CO FLOW: PDS-01-001 CAPABILITY: polymer conductive/nonconductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE: SEAL METHOD: LEAD COUNT: SEAL PERIMETER: LEAD FINISH:	T0 can Projection Weld 12 1.81 Gold	Ceramic dual-in-line Seam weld 40 6.22 Gold	

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Comlinear Corporation 4800 Wheaton Drive Fort Collins, Colorado 80525	62839	CEYA

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 2

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 HYBRID MICROCIRCUITS  
 QML-38534-9



<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
CTS Microelectronics 1201 Cumberland Avenue West Lafayette, Indiana 47906		23223	CEUR
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQM-88-1587) EQ (EQM-87-2173)	Class B	Analog Converter Power Converter	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: West Lafayette, IN FLOW: STD-RC-HIREL, STD-TF-MLT-LYR CAPABILITY: Thick film on alumina, 3 conductor levels; Thick film on alumina, 1 conductor level, resistors		LOCATION: West Lafayette, IN FLOW: STD-THINFLM-BD1 CAPABILITY: Thin film on alumina, 1 conductor level, resistors	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: West Lafayette, IN FLOW: STD-C&W-1772 CAPABILITY: polymer conductive/nonconductive epoxy, eutectic, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors, chip resistors SUBSTRATE ATTACH: polymer conductive/nonconductive epoxy, solder, eutectic			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	ceramic dual-in-line	TO can	
<b>SEAL METHOD:</b>	Solder	Projection weld	
<b>LEAD COUNT:</b>	14	12	
<b>SEAL PERIMETER:</b>	1.39	2.75	
<b>LEAD FINISH:</b>	Gold	Gold/Solder	
		Metal, with peripheral leads	
		Seam weld	
		30	
		4.40	
		Gold	

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HYBRID MICROCIRCUITS  
QML-38534-9

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 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
CTS Microelectronics 1201 Cumberland Avenue West Lafayette, Indiana 47906	23223	CEUR

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
7801301XX	1	0002	Amplifier, current, thick/thin film	Yes
8001301ZX	1	0032	Op Amp, thick film	No
8001401ZX	1	0033	Hi Speed Buffer Amp, Volt. Foll., FET in	No
8508701ZX	1	0041	Hi Pwr. Op Amp, Ext. Comp., 2.0A out	No
8508801YX	1	0021	Hi Pwr. Op Amp, Ext. Comp., 1.0A out	No
5962-8761701XX	1	CTS000061B	Driver, High Voltage, 1.5A	No
5962-8761702XX	1	CTS000081B	Driver, High Voltage, 3.0A	No

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 7

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Elantec Incorporated 1996 Tarob Court Milpitas, California 95035		64762	CEWO
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-88-1646)	Class B	Analog Converter Power Converter	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Milpitas, CA FLOW: FCA-0002 CAPABILITY: Thick film on alumina, 1 conductor level, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Milpitas, CA FLOW: FCA-0004, FCA-0008, FCA-0015 CAPABILITY: eutectic, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors SUBSTRATE ATTACH: Solder			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE:	TO can		
SEAL METHOD:	Projection Weld		
LEAD COUNT:	12		
SEAL PERIMETER:	1.88		
LEAD FINISH:	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Elantec Incorporated 1996 Tarob Court Milpitas, California 95035	64762	CEWO

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
7801301XX	1	0002	Amplifier, current, thick film	Yes
8001301ZX	1	0032	Op amp, thick film	Yes
8001401ZX	1	0033	Hi Speed Buffer Amp, Volt. Foll., FET in	Yes
8508701ZX	1	0041	Hi Power Op Amp, Ext. Comp., 0.2A Out.	Yes

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Film Microelectronics Incorporated 10-B Centennial Drive Peabody, Massachusetts 01960		28751	CEYB
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-89-233)	Class B	Power (Buffer) Bi-polar	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Burlington, MA FLOW: 52-0069 CAPABILITY: Thin film on Beryllia, 1 conductor level		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Peabody, MA FLOW: 52-0015 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors, chip resistors <b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with peripheral leads		
<b>SEAL METHOD:</b>	Seam weld		
<b>LEAD COUNT:</b>	19		
<b>SEAL PERIMETER:</b>	4.78		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Film Microelectronics Incorporated 10-B Centennial Drive Peabody, Massachusetts 01960	28751	CEYB

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
General Microcircuits Corporation 780 Boston Road BillERICA, Massachusetts 08121		67294	CEYC
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-89-0235)	Class B	Custom	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: BillERICA, MA FLOW: 10000 CAPABILITY: Thin film on alumina, 1 conductor level, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: BillERICA, MA FLOW: 10000 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: diodes, transistors, integrated circuits, chip capacitors SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE: SEAL METHOD: LEAD COUNT: SEAL PERIMETER: LEAD FINISH:	metal, with peripheral leads Seam weld 22 2.05 Gold		

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
General Microcircuits Corporation 780 Boston Road Billerica, Massachusetts 08121	67294	CEYC

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9



<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hewlett-Packard Company Optical Communications Division 370 West Trimble Road San Jose, California 95131		50434	CEUS
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQM-87-2594) EQ(EQM-88-1265)	Class B	N/A	Optocoupler
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: San Jose, CA FLOW: 5956-9439-20,5956-8000-20,5956-9523-30,5956-9526-30 CAPABILITY: Light emitting diode fabrication, Integrated circuit fabrication		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: San Jose, CA FLOW: ICPI-0016-3 CAPABILITY: eutectic, gold & aluminum wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> diodes, transistors, integrated circuits <b>SUBSTRATE ATTACH:</b> eutectic			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	ceramic dual-in-line		
<b>SEAL METHOD:</b>	Solder		
<b>LEAD COUNT:</b>	16		
<b>SEAL PERIMETER:</b>	1.28		
<b>LEAD FINISH:</b>	Gold, Solder		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hewlett-Packard Company Optical Communications Division 370 West Trimble Road San Jose, California 95131	50434	CEUS

SPECIFIC PRODUCT TYPES				PRODUCT TYPE/DESCRIPTION	SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/			
8102801EX	1	6N134		Optocoupler, Dual Channel	Yes
8302401EX	1	6N140A		Optocoupler, Quad	Yes
5962-8767901EX	1	4N55		Optocoupler, Dual Channel	Yes
5962-8876801PX	1	HCPL-5201		Optocoupler, Single Channel	Yes
5962-8876901PX	1	HCPL-5231		Optocoupler, Dual Channel	Yes
5962-8957001PX	1	HCPL-5401		Optocoupler, High Speed, Single Channel	Yes
5962-8957101PX	1	HCPL-5431		Optocoupler, High Speed, Dual Channel	Yes
5962-89571022X	1	HCPL-6431		Optocoupler, Dual Channel, High Speed	Yes
5962-8957201EX	1	HCPL-1931		Optocoupler-line receiver, dual channel	Yes
5962-8978501PX	1	HCPL-5731		Optocoupler, dual channel	Yes
5962-89785022X	1	HCPL-6731		Optocoupler, Dual Channel, LCC package	No
5962-8981001PX	1	HCPL-5701		Optocoupler, Single Channel, High Gain	No

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 21

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Honeywell Incorporated Sperry Central Manufacturing 21111 North Nineteenth Avenue Phoenix, Arizona 85036		58960	CEUT
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQM-87-1933)	Class B	N/A	Analog Digital Drive controller
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Phoenix, AZ FLOW: 51549 CAPABILITY: Thick film on alumina, 2 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Phoenix, AZ FLOW: 51550 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die <b>SUBSTRATE ATTACH:</b> eutectic			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with peripheral leads		
<b>SEAL METHOD:</b>	Seam weld		
<b>LEAD COUNT:</b>	36		
<b>SEAL PERIMETER:</b>	3.5		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Honeywell Incorporated Sperry Central Manufacturing 21111 North Nineteenth Avenue Phoenix, Arizona 85036	58960	CEUT

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Honeywell Incorporated Military Avionics Division 13350 U. S. Highway 19 South Clearwater, Florida 34624		09128	CEWN
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQM-88-1324)	Class B	Data converters Signal processors	
<b>RADIATION HARDNESS LEVEL</b>	<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>		
N/A	LOCATION: Clearwater, FL FLOW: DR16393 CAPABILITY: Thin film on alumina, 1 conductor level, resistors		
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Clearwater, FL FLOW: DR16393 CAPABILITY: polymer conductive/nonconductive epoxy, gold wire bonding			
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with peripheral leads	metal, with axial leads	
<b>SEAL METHOD:</b>	Seam weld	Seam weld	
<b>LEAD COUNT:</b>	16	16	
<b>SEAL PERIMETER:</b>	2.77	2.0	
<b>LEAD FINISH:</b>	Gold	Gold	

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Honeywell Incorporated Military Avionics Division 13350 U. S. Highway 19 South Clearwater, Florida 34624	09128	CEWN

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hughes Aircraft Company Microelectronics Circuit Division Space Business Unit 500 Superior Avenue Building 700 P. O. Box H Newport Beach, California 92658-8903		55267	CEYN
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQC-89-341)	Class B	N/A	Analog Digital
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Newport Beach, CA FLOW: 1051091 CAPABILITY: Thick film on alumina, 1 conductor level, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Space Business Unit, Newport Beach, CA FLOW: 1120379 CAPABILITY: polymer conductive epoxy, eutectic, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors, molytab SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE:	metal, with axial leads		
SEAL METHOD:	Seam weld		
LEAD COUNT:	22		
SEAL PERIMETER:	2.03		
LEAD FINISH:	Gold		

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hughes Aircraft Company Microelectronics Circuit Division Space Business Unit 500 Superior Avenue Building 700 P. O. Box H Newport Beach, California 92658	55267	CEYN 1

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9



<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hughes Aircraft Company Tucson Manufacturing Division P. O. Box 11337 Building 809, M/S 2 Nogales Highway 1 Tucson, Arizona 85706		82557	CEVS
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQM-88-0783)	Class B	Analog	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Tucson, AZ FLOW: MJOI-009 CAPABILITY: Thick film on alumina, 3 conductor levels		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Tucson, AZ FLOW: MJOI-009 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors, chip resistors SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE:	metal, with axial leads		
SEAL METHOD:	Seam weld		
LEAD COUNT:	86		
SEAL PERIMETER:	7.92		
LEAD FINISH:	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hughes Aircraft Company Tucson Manufacturing Division P. O. Box 11337 Building 809, M/S 2 Nogales Highway 1 Tucson, Arizona 85706	82557	CEVS

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hycomp Incorporated 165 Cedar Hill Street Marlborough, Massachusetts 01752		34707	CEYP
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-89-421)	Class B	Voltage Reference Analog	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Marlborough, MA FLOW: EMA-75 CAPABILITY: Thin film on alumina, 1 conductor level, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Marlborough, MA FLOW: EMA-75 CAPABILITY: polymer conductive/nonconductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors, chip resistors SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE:	ceramic dual-in-line		
SEAL METHOD:	Seam weld		
LEAD COUNT:	10		
SEAL PERIMETER:	2.9		
LEAD FINISH:	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Hycorp Incorporated 165 Cedar Hill Street Marlborough, Massachusetts 01752	34707	CEYP

SPECIFIC PRODUCT TYPES					SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION		
8503001XX	1	2700SD	Reference, Precision Voltage, +10V	No	
8503002XX	1	2700UD	Reference, Precision Voltage, +10V	No	
8503003XX	1	2701SD	Reference, Precision Voltage, -10V	No	
8503004XX	1	2702SD	Reference, Precision Voltage, +/-10V	No	
8503005XX	1	2702UD	Reference, Precision Voltage, +/-10V	No	
8503006XX	1	2701UD	Reference, Precision Voltage, -10V	No	

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 22

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Hytek Microsystems Incorporated 400 Hot Springs Road Carson City, Nevada 89706		OANM4	CEYO
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQC-89-382)	Class B	N/A	Active Delay Line
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Carson City, NV FLOW: RN1005-002 CAPABILITY: Thick film on alumina, 2 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Carson City, NV FLOW: RN1005-002 CAPABILITY: polymer conductive/nonconductive epoxy, solder, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors, inductors <b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	platform		
<b>SEAL METHOD:</b>	projection weld		
<b>LEAD COUNT:</b>	14		
<b>SEAL PERIMETER:</b>	2.75		
<b>LEAD FINISH:</b>	Solder		

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
HYTEK Microsystems Incorporated 400 Hot Springs Road Carson City, Nevada 89706	OANM4	CEYO

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

**NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 74**

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 HYBRID MICRO CIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
ILC Data Device Corporation 105 Wilbur Place Bohemia, New York 11716		19645	CEPB
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ (EQC-90-220)	Class B	1553 Bus Data Converters	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
<b>LOCATION:</b> Bohemia, NY <b>FLOW:</b> 41637 <b>CAPABILITY:</b> Thick film on alumina, 5 conductor levels; Thick film on alumina, 3 conductor levels, resistors		<b>LOCATION:</b> Bohemia, NY <b>FLOW:</b> 41638 <b>CAPABILITY:</b> Thin film on alumina, 1 conductor level, resistors	
<b>ASSEMBLY OPERATION(S) 1/</b>			
<b>LOCATION:</b> Bohemia, NY <b>FLOW:</b> 36070, 36071 <b>CAPABILITY:</b> polymer conductive/nonconductive epoxy, solder, gold wire bonding		<b>LOCATION:</b> N/A <b>FLOW:</b> N/A <b>CAPABILITY:</b> N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors <b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy, solder			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with axial leads	platform projection weld	
<b>SEAL METHOD:</b>	Seam weld	32	
<b>LEAD COUNT:</b>	24	5.38	
<b>SEAL PERIMETER:</b>	7.94	Gold	
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
ILC Data Device Corporation 105 Wilbur Place Bohemia, New York 11716	19645	CEPB

SPECIFIC PRODUCT TYPES				PRODUCT TYPE/DESCRIPTION	SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/			
5962-8604902ZX	1	BUS6310511		1553 Single Ch., Drvr./Rec., Low Power	No
5962-8604902TX	1	BUS6310611		1553 Single Ch., Drvr./Rec., Low Power	No
5962-8753501XX	1	BUS65112		1553 Remote Terminal Unit, Dual Redun.	YES
5962-8753501YX	1	BUS65117		1553 Remote Terminal Unit, Dual Redun.	YES
5962-8757902XX	1	BUS6312511		1553 Dual Ch., Drvr./Rec., Low Pwr., -15V	YES
5962-8757902YX	1	BUS6312611		1553 Dual Ch., Drvr./Rec., Low Pwr., -15V	YES
5962-8763201XX	1	BUS65111		1553 Remote Term., Dual Redun., Low Pwr.	No
5962-8768701XX	1	8920		R/S-to-digi. conv., 400Hz, +/-4.0 ARCMIN	No
5962-8768702XX	1	8920A		R/S-to-digi. conv., 400Hz, +/-2.6 ARCMIN	No
5962-8851702XX	1	DAC02310113		D/A Conv., 14-bit, deglitched	No
5962-8851702YX	1	DAC02311113		D/A Conv., 14-bit, deglitched	No
5962-8851701XX	1	DAC02310112		D/A Conv., 14-bit, deglitched	YES
5962-8851701YX	1	DAC02311112		D/A Conv., 14-bit, deglitched	No
5962-8858501XX	1	BUS65600		1553 Bus Cntrl/RTU/MT, Dual Redundant	No
5962-8858501YX	1	BUS65601		1553 Bus Cntrl/RTU/MT, Dual Redundant	No
5962-8858601XX	1	BUS6630011		1553 Bus to Microprocessor Interface	No
5962-8858601YX	1	BUS6630011		1553 Bus to Microprocessor Interface	No
5962-8869201XX	1	BUS61553		1553 Advcd. Intgrtd. MUX, 8K x 16 RAM	No
5962-8869202XX	1	BUS61554		1553 Advcd. Intgrtd. MUX, 8K x 16 RAM	YES
5962-8869201YX	1	BUS61563		1553 Advcd. Intgrtd. MUX, 8K x 16 RAM	YES
5962-8869202YX	1	BUS61564		1553 Advcd. Intgrtd. MUX, 8K x 16 RAM	YES

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1

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 HYBRID MICROCIRCUITS  
 QML-38534-9



**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
ILC Data Device Corporation 105 Wilbur Place Bohemia, New York 11716	19645	CEPB

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
5962-8949801XX	1	SDC14561114	S/D Conv, 400Hz, Prog. Res., 2 Min Arc	No
5962-8949802XX	1	SDC14561115	S/D Conv, 400Hz, Prog. Res., 1 Min Arc	No
5962-8949901XX	1	SDC14560114	S/D Conv, 11.8V, 400Hz, Prog. Res., 2 Mn. Arc	No
5962-8949902XX	1	SDC14560115	S/D Conv, 11.8V, 400Hz, Prog. Res., 1 Mn. Arc	No
5962-8949903XX	1	SDC14560605	S/D Conv, 11.8V, 400Hz, Prog. Res., 2 Mn. Arc	YES
5962-8952201XX	1	BUS63147	1553 Transceiver, Dual Channel, 5V	YES
5962-8990801XX	1	SDC14565-114	11.8 V, 400 Hz, R/D Converter	NO
5962-8990802XX	1	SDC14565-115	11.8V, 400 Hz, R/D Converter	NO
5962-8990803XX	1	SDC14565-616	11.8V, 400 Hz, 80 Hz BW, R/D Converter	NO
5962-8990804XX	1	SDC14566-115	11.8V, 400 Hz, Trimmed velocity, R/D Conv.	NO

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Interpoint Corporation 10301 Willows Road Redmond, Washington 98052		50821	CEUU
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQM-89-0439) EQ(EQC-87-2838)	Class B	N/A	Linear amplifier Signal processor Data converters Analog, Digital
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Redmond, WA FLOW: QA-039 CAPABILITY: Thick film on alumina, 2 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Redmond, WA FLOW: QA-039 CAPABILITY: polymer conductive/nonconductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors <b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with axial leads		
<b>SEAL METHOD:</b>	Seam weld		
<b>LEAD COUNT:</b>	38		
<b>SEAL PERIMETER:</b>	6.0		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/ QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Interpoint Corporation 10301 Willows Road Redmond, Washington 98052	50821	CEUU

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
ITT Avionics Division 100 Kingsland Road Clifton, New Jersey 07014		28527	CEWQ
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-88-1955)	Class B	Memory Custom	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Clifton, NJ FLOW: TFH-102 CAPABILITY: Thick film on alumina, 4 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Clifton, NJ FLOW: TFH-103 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors <b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	metal, with axial leads		
<b>SEAL METHOD:</b>	Seam weld		
<b>LEAD COUNT:</b>	36		
<b>SEAL PERIMETER:</b>	4.38		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

MANUFACTURER	CAGE CODE	SYMBOL CODE
ITT Avionics Division 100 Kingsland Road Clifton, New Jersey 07014	28527	CEWQ

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
The listing does not in anyway represent or imply interchangeability, equivalency.

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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HYBRID MICROCIRCUITS  
QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Micro Networks Company 324 Clarke Street Worcester, Massachusetts 01606		50507	CEVQ
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-88-0709)	Class B	Data converters Track and Hold Amplifier	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
<b>LOCATION:</b> Worcester, MA		<b>LOCATION:</b> N/A	
<b>FLOW:</b> FC-23		<b>FLOW:</b> N/A	
<b>CAPABILITY:</b> Thin film on alumina, 1 conductor level, resistors		<b>CAPABILITY:</b> N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
<b>LOCATION:</b> Worcester, MA		<b>LOCATION:</b> N/A	
<b>FLOW:</b> FC-25		<b>FLOW:</b> N/A	
<b>CAPABILITY:</b> polymer conductive/nonconductive epoxy, eutectic, gold wire bonding		<b>CAPABILITY:</b> N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors, chip resistors			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	ceramic dual-in-line		
<b>SEAL METHOD:</b>	Seam weld		
<b>LEAD COUNT:</b>	24		
<b>SEAL PERIMETER:</b>	4.7		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-SID-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Micro Networks Company 324 Clarke Street Worcester, Massachusetts 01606	50507	CEVQ

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
5962-8768801XX	1	MN3008	D/A Conv., 8-bit, 0 to 4V output	Yes
5962-8768802XX	1	MN3009	D/A Conv., 8-bit, -2V to +2V Output	No
5962-8956901XX	1	MN5295	A/D Conv., 16-bit	No
5962-8958301XX	1	MN5200H/B	A/D Conv., 12-bit, 0 to -10V, Int. Comp.	No
5962-8958302XX	1	MN5203H/B	A/D Conv., 12-bit, -5 to +5V, Int. Comp.	No
5962-8958303XX	1	MN5201H/B	A/D Conv., 12-bit, -10 to +10V, Int. Comp.	No
5962-8958304XX	1	MN5204H/B	A/D Conv., 12-bit, 0 to -10V, Ext. Comp.	No
5962-8958305XX	1	MN5202H/B	A/D Conv., 12-bit, -5 to +5V, Ext. Comp.	No
5962-8958306XX	1	MN5205H/B	A/D Conv., 12-bit, -10 to +10V, Ext. Comp.	No
5962-8958307XX	1	MN5206H/B	A/D Conv., 12-bit, 0 to +10V, Int. Comp.	No
5962-8958401XX	1	MN5210H/B	A/D Conv., 12-bit, 0 to -10V, Int. Comp., HS	No
5962-8958402XX	1	MN5213H/B	A/D Conv., 12-bit, -5 to +5V, Int. Comp., HS	No
5962-8958403XX	1	MN5211H/B	A/D Conv., 12-bit, -10 to +10V, Int. Comp., HS	No
5962-8958404XX	1	MN5214H/B	A/D Conv., 12-bit, 0 to -10V, Ext. Comp., HS	No
5962-8958405XX	1	MN5212H/B	A/D Conv., 12-bit, -5 to +5V, Ext. Comp., HS	No
5962-8958406XX	1	MN5215H/B	A/D Conv., 12-bit, -10 to +10V, Ext. Comp., HS	No
5962-8958407XX	1	MN5216H/B	A/D Conv., 12-bit, 0 to +10V, Int. Comp., HS	No

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 200

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 HYBRID MICROCIRCUITS  
 QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Micro Networks Company 324 Clarke Street Worcester, Massachusetts 01606	50507	CEVQ

SPECIFIC PRODUCT TYPES					SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION		
5962-8959501XX	1	MN5245H/B	D/A Conv., 12-bit, 0 to+5V		No
5962-8959502XX	1	MN5245AH/B	A/D Conv., 12-bit, 0to+5 V, 3-State output		No
5962-8959503XX	1	MN5246H/B	A/D Conv., 12-bit, + 2.5 V		No
5962-8959504XX	1	MN5246AH/B	A/D Conv., 12-bit, +2.5V, 3-State output		No
5962-8971801XX	1	MN3020H/B	A/D Conv., 8-bit, with input register		No

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 HYBRID MICROCIRCUITS  
 QML-38534-9



<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Micro-Rel Division Medtronic Incorporated 2343 West Tenth Place Tempe, Arizona 85281		8K957	CEUZ
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQM-88-221)	Class B	N/A	Linear
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
<b>LOCATION:</b> Tempe, AZ <b>FLOW:</b> 1403818 <b>CAPABILITY:</b> Co-fire on alumina, 4 conductor levels		<b>LOCATION:</b> Bohemia, NY <b>FLOW:</b> N/A <b>CAPABILITY:</b> N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
<b>LOCATION:</b> Tempe, AZ <b>FLOW:</b> 1403818 <b>CAPABILITY:</b> polymer conductive epoxy, gold wire bonding		<b>LOCATION:</b> N/A <b>FLOW:</b> N/A <b>CAPABILITY:</b> N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors			
<b>SUBSTRATE ATTACH:</b> N/A			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	leadless chip carrier		
<b>SEAL METHOD:</b>	Solder		
<b>LEAD COUNT:</b>	76		
<b>SEAL PERIMETER:</b>	3.5		
<b>LEAD FINISH:</b>	Solder		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Micro-Rel Division Medtronic Incorporated 2343 West Tenth Place Tempe, Arizona 85281	8K957	CEUZ

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

**NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0**

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
National Semiconductor 5900 South Calle Santa Cruz Tucson, Arizona 85706		27014	CCXP
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-87-1840)	Class B	Analog Converter Power Converter	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
<b>LOCATION:</b> Santa Clara, CA		<b>LOCATION:</b> N/A	
<b>FLOW:</b> 902471		<b>FLOW:</b> N/A	
<b>CAPABILITY:</b> Thick film on alumina, 1 conductor level, resistors		<b>CAPABILITY:</b> N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
<b>LOCATION:</b> Tucson, AZ		<b>LOCATION:</b> N/A	
<b>FLOW:</b> (TU) AS-4000H		<b>FLOW:</b> N/A	
<b>CAPABILITY:</b> eutectic, gold wire bonding		<b>CAPABILITY:</b> N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die			
<b>SUBSTRATE ATTACH:</b> Solder			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	TO can		
<b>SEAL METHOD:</b>	Projection weld		
<b>LEAD COUNT:</b>	8		
<b>SEAL PERIMETER:</b>	0.942		
<b>LEAD FINISH:</b>	Solder		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
National Semiconductor 5900 South Calle Santa Cruz Tucson, Arizona 85706	27014	CCXP

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
7801301XX	1	0002	Amplifier, current, thick film	Yes

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1

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HYBRID MICROCIRCUITS  
QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Raytheon Company Microwave and Power Tube Division Industrial Components Operation P. O. Box 5300 465 Centre Street Quincy, Massachusetts 02269		94144	CETX
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-87-1031)	Class B	Amplifier	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Quincy, MA FLOW: 38756 CAPABILITY: Thick film on alumina, 1 conductor level, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Quincy, MA FLOW: 38230, 42771 CAPABILITY: polymer conductive/nonconductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip capacitors, chip resistors			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b> metal, with axial leads			
<b>SEAL METHOD:</b> Seam weld			
<b>LEAD COUNT:</b> 13			
<b>SEAL PERIMETER:</b> 2.76			
<b>LEAD FINISH:</b> Gold			

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Raytheon Company Microwave and Power Tube Division Industrial Components Operation P. O. Box 5300 465 Centre Street Quincy, Massachusetts 02269	94144	CETX

SPECIFIC PRODUCT TYPES				SHIPPED
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	
None	N/A	N/A	N/A	N/A

**NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1**

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HYBRID MICROCIRCUITS  
QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Teledyne Components 40 Allied Drive Dedham, Massachusetts 02026		29832	CETY
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-87-1114)	Class B	linear buffer amplifier	
<b>RADIATION HARDNESS LEVEL</b>			
N/A			
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
<b>LOCATION:</b> Dedham, MA <b>FLOW:</b> 80710825 <b>CAPABILITY:</b> Thick film on alumina, 1 conductor levels, resistors		<b>LOCATION:</b> N/A <b>FLOW:</b> N/A <b>CAPABILITY:</b> N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
<b>LOCATION:</b> Dedham, MA <b>FLOW:</b> 80320260 <b>CAPABILITY:</b> polymer conductive/nonconductive epoxy, gold wire bonding		<b>LOCATION:</b> N/A <b>FLOW:</b> N/A <b>CAPABILITY:</b> N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip resistors			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	TO can		
<b>SEAL METHOD:</b>	Projection weld		
<b>LEAD COUNT:</b>	12		
<b>SEAL PERIMETER:</b>	2.00		
<b>LEAD FINISH:</b>	Gold		

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Teledyne Components 40 Allied Drive Dedham, Massachusetts 02026	29832	CETY

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
8001401ZX	1	0033	Hi Speed Buffer Amp, Volt. Foll., FET in	No

**NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1**

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 HYBRID MICROCIRCUITS  
 QML-38534-9



<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Teledyne Microelectronics 12964 Panama Street Los Angeles, California 90066		16170	CEOL
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQM-87-1898)	Class B	Data converters linear	
<b>RADIATION HARDNESS LEVEL</b>	<b>ASSEMBLY OPERATION(S)</b>		
N/A	SUBSTRATE FABRICATION OPERATION (S) 1/		
LOCATION: Los Angeles, CA FLOW: 7700530 Exhibit 2.5 CAPABILITY: Thick film on alumina, 7 conductor levels		LOCATION: Los Angeles, CA FLOW: 7700530 Exhibit 2.4 CAPABILITY: Thin film on alumina, 2 conductor levels, resistors	
LOCATION: Los Angeles, CA FLOW: 700530 Exhibit 2.6 CAPABILITY: polymer conductive epoxy, solder, gold/ aluminum wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die, chip capacitors SUBSTRATE ATTACH: solder			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE: metal, with peripheral leads SEAL METHOD: Seam weld LEAD COUNT: 46 SEAL PERIMETER: 5.00 LEAD FINISH: Gold			

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Teledyne Microelectronics 12964 Panama Street Los Angeles, California 90066	16170	CEOL

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 17

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
Vitarel Microelectronics 6828 Nancy Ridge Drive San Diego, California 92121		66632	CEXE
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>RADIATION HARDNESS LEVEL</b>	<b>TECHNOLOGY TYPES</b>
EQ(EQC-89-0107)	Class B	N/A	op-amp analog digital
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: San Diego, CA FLOW: PF9001010 CAPABILITY: Thick film on alumina, 1 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: San Diego, CA FLOW: PF9001004, PF9001007, PF900103 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
ADD-ON ELEMENTS: unpackaged die SUBSTRATE ATTACH: polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
PACKAGE TYPE: TO can SEAL METHOD: Projection weld LEAD COUNT: 8 SEAL PERIMETER: 1.26 LEAD FINISH: Gold			

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:** The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

MANUFACTURER	CAGE CODE	SYMBOL CODE
Vitarel Microelectronics 6828 Nancy Ridge Drive San Diego, California 92121	66632	CEXE

SPECIFIC PRODUCT TYPES				
STANDARDIZED MILITARY DRAWING (SMD)	ESDS CLASS	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SHIPPED
None	N/A	N/A	N/A	N/A

NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 0

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 HYBRID MICROCIRCUITS  
 QML-38534-9

<b>MANUFACTURER</b>		<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
White Technology 4246 East Wood Street Phoenix, Arizona 85040		54230	CEMR
<b>QUALIFICATION LETTER(S)</b>	<b>PRODUCT CLASS DESIGNATOR</b>	<b>TECHNOLOGY TYPES</b>	
EQ(EQC-90-019)	Class B	linear (oscillator)	
	<b>RADIATION HARDNESS LEVEL</b>		
	N/A		
<b>SUBSTRATE FABRICATION OPERATION (S) 1/</b>			
LOCATION: Phoenix, AZ FLOW: 106B00006 CAPABILITY: Thick film on alumina, 1 conductor levels, resistors		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ASSEMBLY OPERATION(S) 1/</b>			
LOCATION: Phoenix, AZ FLOW: 106B00006 CAPABILITY: polymer conductive epoxy, gold wire bonding		LOCATION: N/A FLOW: N/A CAPABILITY: N/A	
<b>ADD-ON ELEMENTS:</b> unpackaged die, chip resistors			
<b>SUBSTRATE ATTACH:</b> polymer nonconductive epoxy			
<b>PACKAGE INFORMATION 1/ 2/ 3/</b>			
<b>PACKAGE TYPE:</b>	platform		
<b>SEAL METHOD:</b>	Projection weld		
<b>LEAD COUNT:</b>	16		
<b>SEAL PERIMETER:</b>	3.53		
<b>LEAD FINISH:</b>	Gold		

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HYBRID MICROCIRCUITS  
QML-38534-9

**PRODUCT ELIGIBILITY:**The above manufacturer has certified that the following listing of hybrid microcircuits are built, tested, and shipped using the above certified FLOW/QUALIFIED MATERIALS AND MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.  
 The listing does not in anyway represent or imply interchangeability, equivalency.

<b>MANUFACTURER</b>	<b>CAGE CODE</b>	<b>SYMBOL CODE</b>
White Technology 4246 East Wood Street Phoenix, Arizona 85040	54230	CEWR

<b>SPECIFIC PRODUCT TYPES</b>				
<b>STANDARDIZED MILITARY DRAWING (SMD)</b>	<b>ESDS CLASS</b>	<b>MANUFACTURER SIMILAR PART NUMBER 4/</b>	<b>PRODUCT TYPE/DESCRIPTION</b>	<b>SHIPPED</b>
None	N/A	N/A	N/A	N/A

**NUMBER OF SCD/SID DEVICES COVERED BY QUALIFICATION TESTING MIL-H-38534 COMPLIANT: 1**

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 HYBRID MICROCIRCUITS  
 QML-38534-9

APPROVED SOURCE  
MASTER PRODUCT LISTING

TABLE I

**PRODUCT ELIGIBILITY:** The manufacturers listed below have certified that the following Hybrid Microcircuits are built, tested, and shipped using MIL-STD-1772 CERTIFIED FLOW/QUALIFIED MATERIALS and MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.

STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SOURCE(S)
7801301XX	0002	Amplifier, current, thick/thin film	CTS Corp.
7801301XX	0002	Amplifier, current, thick film	Elantec
7801301XX	0002	Amplifier, current, thick film	Nat. Semi.
8001301ZX	0032	Op amp, thick film	Anlg. Dev. CLD
8001301ZX	0032	Op amp, thick film	CTS Corp.
8001301ZX	0032	Op amp, thick film	Elantec
8001401ZX	0033	Hi Spd. Buffr. Amp., Vol. Fol., FET in	CTS Corp.
8001401ZX	0033	Hi Spd. Buffr. Amp., Vol. Fol., FET in	Elantec
8001401ZX	0033	Hi Spd. Buffr. Amp., Vol. Fol., FET in	Teledyne COMP.
8001401ZX	0033	Hi Spd. Buffr. Amp., Vol. Fol., FET in	Anlg. Dev. CLD
8102801EX	6N134	Optocoupler, Dual Channel	Hewlett-Pack.
8300201JX	DAC87	D/A Conv., 12-bit, Programmable	Analog MED.
8302401EX	6N140A	Optocoupler, Quad	Hewlett-Pack.
8503001XX	2700SD	Reference, Precision Voltage, +10V	Analog MED.
8503001XX	HC2700SD	Reference, Precision Voltage, +10V	Hycomp
85030013X	HC2700SLCC	Reference, Precision Voltage, +10V	Hycomp.
8503002XX	2700UD	Reference, Precision Voltage, +10V	Analog MED.
8503002XX	HC2700UD	Reference, Precision Voltage, +10V	Hycomp

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HYBRID MICROCIRCUITS  
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TABLE I

STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SOURCE(S)
8503003XX	2701SD	Reference, Precision Voltage, -10V	Analog MED.
8503003XX	HC2701SD	Reference, Precision Voltage, -10V	Hycomp
8503004XX	2702SD	Reference, Precision Voltage, +/-10V	Analog MED.
8503004XX	HC2702SD	Reference, Precision Voltage, +/-10V	Hycomp
8503005XX	2702UD	Reference, Precision Voltage, +/-10V	Analog MED.
8503005XX	HC2702UD	Reference, Precision Voltage, +/-10V	Hycomp
8503006XX	2701UD	Reference, Precision Voltage, -10V	Analog MED.
8503006XX	HC2701UD	Reference, Precision Voltage, -10V	Hycomp
8508701ZX	0041	Hi Pwr. Op Amp, Ext. Comp., 0.2A Out.	Elantec
8508701ZX	0021	Hi Pwr. Op Amp, Ext. Comp., 0.2A Out.	CTS Corp.
8508801YX	0021	Hi Pwr. Op Amp, Ext. Comp., 1.0A Out.	CTS Corp.
5962-8604902ZX	BUS63105II	1553 Single Ch., Driver/Rec. Low Power	ILC Dat.Dev.C.
5962-8604902TX	BUS63106II	1553 Single Ch., Driver/Rec. Low Power	ILC Dat.Dev.C.
5962-8753501XX	BUS65112	1553 Remote Terminal Unit, Dual Red.	ILC Dat.Dev.C.
5962-8753501YX	BUS65117	1553 Remote Terminal Unit, Dual Red.	ILC Dat.Dev.C.
5962-8757902XX	BUS63125II	1553 Dual Ch., Drv./Rec., Low Pwr -15V	ILC Dat.Dev.C.
5962-8757902YX	BUS63126II	1553 Dual Ch., Drv./Rec., Low Pwr -15V	ILC Dat.Dev.C.
5962-8761701XX	CTS00061B	Driver, High Voltage, 1.5 Amp	ILC Dat.Dev.C.
5962-8761702XX	CTS00081B	Driver, High Voltage, 3.0 Amp	CTS Corp.
5962-8763201XX	BUS65111	1553 Remote Term., Dual Red., Low Pwr.	CTS Corp.
5962-8767901EX	4N55	Optocoupler, Dual Channel	ILC Dat.Dev.C.
5962-8768701XX	HSDC8920A	R/S-to-digi. Conv., 400Hz, +/-2.6 ARCMIN	Hewlett-Pack.
5962-8768702XX	HSDC8920	R/S-to-digi. Conv., 400Hz, +/-4.0 ARCMIN	ILC Dat.Dev.C.
5962-8768801XX	MN3008	D/A Conv., 8-bit, 0 to 4V Output	ILC Dat.Dev.C.
5962-8768802XX	MN3009	D/A Conv., 8-bit, -2V to +2V Output	Micronetworks
5962-8850901XX	AD390S	D/A Conv., 12-bit, Bipolar, Linear, Quad	Micronetworks
5962-8850902XX	AD390T	D/A Conv., 12-bit, Bipolar, Linear, Quad	Analog MED.
5962-8851001XX	AD394S	D/A Conv., 12-bit, Bipolar	Analog MED.
5962-8851002XX	AD394T	D/A Conv., 12-bit, Quad, Bipolar	Analog MED.
5962-8851003XX	AD395S	D/A Conv., 12-bit, Quad, Unipolar	Analog MED.
5962-8851004XX	AD395T	D/A Conv., 12-bit, Quad, Unipolar	Analog MED.

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HYBRID MICROCIRCUITS  
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TABLE I

STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SOURCE(S)
5962-8851701XX	DAC02310-112	D/A Conv., 14-bit, deglitched	ILC Dat.Dev.C.
5962-8851701YX	DAC02311-112	D/A Conv., 14-bit, deglitched	ILC Dat.Dev.C.
5962-8851702XX	DAC02310-113	D/A Conv., 14-bit, deglitched	ILC Dat.Dev.C.
5962-8851702YX	DAC02311-113	D/A Conv., 14-bit, deglitched	ILC Dat.Dev.C.
5962-8857901XX	HOS-050A	Op Amp, Video, Fast Settling, +/-15mV	Anlg. Dev. CLD
5962-8857902XX	HOS-060SH	Op Amp, Video, Fast Settling, +/-1.5mV	Anlg. Dev. CLD
5962-8858501XX	BUS65660	1553 Bus Cntrl/RTU/MT, Dual Redundant	ILC Dat.Dev.C.
5962-8858501YX	BUS65601	1553 Bus Cntrl/RTU/MT, Dual Redundant	ILC Dat.Dev.C.
5962-8858601XX	BUS66300II	1553 Bus to Microprocessor Interface	ILC Dat.Dev.C.
5962-8858601YX	BUS66300II	1553 Bus to Microprocessor Interface	ILC Dat.Dev.C.
5962-8865801XX	AD578S	A/D Conv., 12-bit, Hi Speed	Analog MED.
5962-8865802XX	AD578T	A/D Conv., 12-bit, Hi Speed	Analog MED.
5962-8865803XX	AD578ZSD	A/D Conv., 12-bit, Hi Speed	Analog MED.
5962-8865804XX	AD578ZTD	A/D Conv., 12-bit, Hi Speed	Analog MED.
5962-8869201XX	BUS61553	1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	ILC Dat.Dev.C.
5962-8869202XX	BUS61554	1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	ILC Dat.Dev.C.
5962-8869201YX	BUS61563	1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	ILC Dat.Dev.C.
5962-8869202YX	BUS61564	1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	ILC Dat.Dev.C.
5962-8876801PX	HCPL-5201	Optocoupler, Single Channel	Hewlett-Pack.
5962-8876901PX	HCPL-5231	Optocoupler, Dual Channel	Hewlett-Pack.
5962-8947701PX	HCPL-5761	Optocoupler, AC/DC To Logic interface	Hewlett-Pack.
5962-8949801XX	SDC14561114	S/D Conv., 400 Hz, Prog. Res., 2 Min Arc	ILC Dat.Dev.C.
5962-8949802XX	SDC14561114	S/D Conv., 400 Hz, Prog. Res., 1 Min Arc	ILC Dat.Dev.C.
5962-8949901XX	SDC14560114	S/D Conv., 11.8V, 400Hz, Prog. Res., 2 M.Ac	ILC Dat.Dev.C.
5962-8949902XX	SDC14560115	S/D Conv., 11.8V, 400Hz, Prog. Res., 1 M.Ac	ILC Dat.Dev.C.
5962-8949903XX	SDC14560605	S/D Conv., 11.8V, 400Hz, Prog. Res., 2 M.Ac	ILC Dat.Dev.C.
5962-8952201XX	BUS63147	1553 Transceiver, Dual Channel, 5V	ILC Dat.Dev.C.
5962-8956901XX	MN5295	16-Bit A/D Converter	Micronetworks
5962-8957001PX	HCPL-5401	Optocoupler, Hi Speed, Single Channel	Hewlett-Pack.
5962-8957101PX	HCPL-5431	Optocoupler, Hi Speed, Dual Channel	Hewlett-Pack.
5962-89571022X	HCPL-6431	Optocoupler, Dual Channel, Hi Speed	Hewlett-Pack.
5962-8957201EX	HCPL-1931	Optocoupler-line rec., Dual Channel	Hewlett-Pack.
5962-8958301YX	MN5200H/B	A/D Conv., 12-bit, 0 to -10V, Inter-comp	Micronetworks
5962-8958302YX	MN5203H/B	A/D Conv., 12-bit, -5 to +5V, Inter-comp	Micronetworks
5962-8958303YX	MN5201H/B	A/D Conv., 12-bit, -10V to +10V, Int-com	Micronetworks
5962-8958304YX	MN5204H/B	A/D Conv., 12-bit, 0 to -10V, Ext.Comp.	Micronetworks
5962-8958305YX	MN5205H/B	A/D Conv., 12-bit, -5 to +5V, Ext.Comp.	Micronetworks
5962-8958306YX	MN5206H/B	A/D Conv., 12-bit, -10 to +10V, Ext.Comp.	Micronetworks
5962-8958307YX	MN5206H/B	A/D Conv., 12-bit, 0 to +10V, Int. Comp.	Micronetworks
5962-8958401YX	MN5210H/B	A/D Conv., 12-bit, 0 to -10V, Int.Cmp.HS	Micronetworks

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HYBRID MICROCIRCUITS  
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TABLE I

STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	PRODUCT TYPE/DESCRIPTION	SOURCE(S)
5962-8958402YX	MN5213H/B	A/D Conv., 12-bit, -5 to +5V, Int. Comp. HS.	Micronetworks
5962-8958403YX	MN5211H/B	A/D Conv., 12-bit, -10 to +10V, Int. Cm. HS	Micronetworks
5962-8958404YX	MN5214H/B	A/D Conv., 12-bit, 0 to -10V, Ext. Comp. HS	Micronetworks
5962-8958405YX	MN5212H/B	A/D Conv., 12-bit, -5 to +5V, Ext. Comp. HS	Micronetworks
5962-8958406YX	MN5215H/B	A/D Conv., 12-bit, -10 to +10V, Ex. Comp. HS	Micronetworks
5962-8958407YX	MN5216H/B	A/D Conv., 12-bit, 0 to +10V, Int. Comp. HS	Micronetworks
5962-8959501XX	MN5245H/B	A/D Conv., 12-bit, 0 to + 5V	Micronetworks
5962-8959502XX	MN5245AH/B	A/D Conv., 12-bit, 0 to +5V, 3-State output	Micronetworks
5962-8959503XX	MN5246H/B	A/D Conv., 12-bit, + 2.5 V	Micronetworks
5962-8959504XX	MN5246AH/B	A/D Conv., 12-bit, +2.5V, 3-State output	Micronetworks
5962-8971801XX	MN3020H/B	D/A Conv., 8-bit, with input register	Micronetworks
5962-8978501PX	HCPL-5731	Optocoupler, Dual Channel	Hewlett-Pack.
5962-89785022X	HCPL-6731	Optocoupler, Dual Channel, LCC package	Hewlett-Pack.
5962-8981001FX	HCPL-5701	Optocoupler, Single Channel, Hi Gain	Hewlett-Pack.
5962-8990801XX	SDC14565-114	11.8V, 400Hz, R/D Converter	ILC Dat. Dev. C.
5962-8990802XX	SDC14565-115	11.8 V, 400 Hz, R/D Converter	ILC Dat. Dev. C.
5962-8990803XX	SDC14565-616	11.8V, 400 Hz, 80 Hz BW, R/D Converter	ILC Dat. Dev. C.
5962-8990804XX	SDC14566-115	11.8V, 400 Hz, Trimmed velocity, R/D Conv	ILC Dat. Dev. C.

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HYBRID MICROCIRCUITS  
QML-38534-9

## CROSS REFERENCE

TABLE II

**PRODUCT ELIGIBILITY:** The manufacturers listed below have certified that the following Hybrid Microcircuits are built, tested, and shipped using MIL-STD-1772 CERTIFIED FLOW/QUALIFIED MATERIALS and MANUFACTURING TECHNIQUES and are in FULL COMPLIANCE with MIL-H-38534 and MIL-STD-1772 requirements.

PRODUCT TYPE/DESCRIPTION	STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	SOURCE(S)
<b>1553 BUS CONTROL</b>			
1553 Bus Cntrl/RTU/MT, Dual Redundant	5962-8858501XX	BUS65600	ILC Dat.Dev.C.
1553 Bus Cntrl/RTU/MT, Dual Redundant	5962-8858501YX	BUS65601	ILC Dat.Dev.C.
<b>1553 BUS/MICROPROCESSOR INTERFACE</b>			
1553 Bus to Microprocessor Interface	5962-8858601XX	BUS66300II	ILC Dat.Dev.C.
1553 Bus to Microprocessor Interface	5962-8858601YX	BUS66300II	ILC Dat.Dev.C.
<b>1553 SINGLE CHANNEL DRIVER/RECEIVER</b>			
1553 Single Ch. Driver/Rec., Low Power	5962-8604902ZX	BUS63105II	ILC Dat.Dev.C.
1553 Single Ch. Driver/Rec., Low Power	5962-8604902TX	BUS63106II	ILC Dat.Dev.C.
<b>1553 DUAL CHANNEL DRIVER/RECEIVER</b>			
1553 Dual Ch. Dvr./Rec., Low Pwr., -15V	5962-8757902XX	BUS63125II	ILC Dat.Dev.C.
1553 Dual Ch. Dvr./Rec., Low Pwr., -15V	5962-8757902YX	BUS63126II	ILC Dat.Dev.C.
<b>1553 MULTIPLEXER</b>			
1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	5962-8869201XX	BUS61553	ILC Dat.Dev.C.
1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	5962-8869202XX	BUS61554	ILC Dat.Dev.C.
1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	5962-8869201YX	BUS61563	ILC Dat.Dev.C.
1553 Advncd. Intgrtd. MUX, 8K x 16 RAM	5962-8869202YX	BUS61564	ILC Dat.Dev.C.

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HYBRID MICROCIRCUITS  
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TABLE II

PRODUCT TYPE/DESCRIPTION	STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	SOURCE(S)
<b>1553 REMOTE TERMINAL UNIT</b>			
1553 Remote Terminal Unit, Dual Red.	5962-8753501XX	BUS65112	ILC Dat.Dev.C.
1553 Remote Terminal, Dual Red., Lo Pwr	5962-8763201XX	BUS65111	ILC Dat.Dev.C.
<b>1553 TRANSCEIVER</b>			
1553 Transceiver, Dual Channel, 5V	5962-8952201XX	BUS63147	ILC Dat.Dev.C.
<b>ANALOG/DIGITAL CONVERTERS</b>			
A/D Converter, 12-bit, High Speed	5962-8865801XX	AD578S	Analog MED.
A/D Converter, 12-bit, High Speed	5962-8865802XX	AD578T	Analog MED.
A/D Converter, 12-bit, High Speed	5962-8865803XX	AD578ZSD	Analog MED.
A/D Converter, 12-bit, High Speed	5962-8865804XX	AD578ZTD	Analog MED.
A/D Conv., 16-bit	5962-8956901XX	MN5295H/B	Micronetworks
A/D Conv., 12-bit, 0 to -10V, Int.Comp.	5962-8958301XX	MN5200H/B	Micronetworks
A/D Conv., 12-bit, -5 to +5V, Int.Comp.	5962-8958302XX	MN5203H/B	Micronetworks
A/D Conv., 12-bit, -10 to +10V, Int.Comp.	5962-8958303XX	MN5201H/B	Micronetworks
A/D Conv., 12-bit, 0 to -10V, Ext.Comp.	5962-8958304XX	MN5204H/B	Micronetworks
A/D Conv., 12-bit, -5 to +5V, Ext. Comp.	5962-8958305XX	MN5202H/B	Micronetworks
A/D Conv., 12-bit, -10 to +10V, Ext.Comp.	5962-8958306XX	MN5205H/B	Micronetworks
A/D Conv., 12-bit, 0 to +10V, Int.Comp.	5962-8958307XX	MN5206H/B	Micronetworks
A/D Conv., 12-bit, 0 to -10V, Int.Comp, HS	5962-8958401XX	MN5210H/B	Micronetworks
A/D Conv., 12-bit, -5 to +5V, Int.Comp., HS	5962-8958402XX	MN5211H/B	Micronetworks
A/D Conv., 12-bit, -10 to +10V, Int.Cm, HS	5962-8958403XX	MN5212H/B	Micronetworks
A/D Conv., 12-bit, 0 to -10V, Int.Comp., HS	5962-8958404XX	MN5213H/B	Micronetworks
A/D Conv., 12-bit, -5 to +5V, Ext.Comp., HS	5962-8958405XX	MN5214H/B	Micronetworks
A/D Conv., 12-bit, -10 to +10V, Ex. Comp, HS	5962-8958406XX	MN5215H/B	Micronetworks
A/D Conv., 12-bit, 0 to +10V, Int.Comp, HS	5962-8959501XX	MN5216H/B	Micronetworks
A/D Conv., 12-bit, 0 to +5 V	5962-8959502XX	MN5245H/B	Micronetworks
A/D Conv., 12-bit, 0 to +5V, 3-State output	5962-8959503XX	MN5245AH/B	Micronetworks
A/D Conv., 12-bit, + 2.5 V	5962-8959504XX	MN5246H/B	Micronetworks
A/D Conv., 12-bit, +2.5V, 3-State output	5962-8959504XX	MN5246AH/B	Micronetworks

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TABLE II

PRODUCT TYPE/DESCRIPTION	STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER <sup>4/</sup>	SOURCE(S)
<b>AMPLIFIER, CURRENT</b>			
Amplifier, current, thick/thin film	7801301XX	0002	CTS Corp.
Amplifier, current, thick film	7801301XX	0002	Elantec
Amplifier, current, thick film	7801301XX	0002	Mat. Semi.
<b>DIGITAL/ANALOG CONVERTERS</b>			
D/A Converter, 12-bit, programmable	8300201JX	DAC87	Analog MED.
D/A Conv., 12-bit, bipolar, linear, quad	5962-8850901XX	AD390S	Analog MED.
D/A Conv., 12-bit, bipolar, linear, quad	5962-8850902XX	AD390T	Analog MED.
D/A Conv., 12-bit, bipolar	5962-8851001XX	AD394S	Analog MED.
D/A Conv., 12-bit, quad, bipolar	5962-8851002XX	AD394T	Analog MED.
D/A Conv., 12-bit, quad, unipolar	5962-8851001XX	AD395S	Analog MED.
D/A Conv., 12-bit, quad, unipolar	5962-8851002XX	AD395T	Analog MED.
D/A Conv., 14-bit, deglitched	5962-8851702XX	DAC02310-113	ILC Dat.Dev.C.
D/A Conv., 14-bit, deglitched	5962-8851702XX	DAC02311-113	ILC Dat.Dev.C.
D/A Conv., 14-bit, deglitched	5962-8851701XX	DAC02310-112	ILC Dat.Dev.C.
D/A Conv., 14-bit, deglitched	5962-8851701XX	DAC02311-112	ILC Dat.Dev.C.
D/A Conv., 8-bit, 0 to 4V Output	5962-8768801XX	MN3008	Micronetworks
D/A Conv., 8-bit, -2 to +2V Output	5962-8768802XX	MN3009	Micronetworks
D/A Conv., 8-bit, with input register	5962-8971801XX	MN3020H/B	Micronetworks
<b>DRIVER, HIGH VOLTAGE</b>			
Driver, High Voltage, 1.5A	5962-8761701XX	CTS0006IB	CTS Corp.
Driver, High Voltage, 3.0A	5962-8761702XX	CTS0008IB	CTS Corp.
<b>OPERATIONAL AMPLIFIERS</b>			
Op amp, thick film	8001301ZX	0032	Anlg. Dev. CLD
Op amp, thick film	8001301ZX	0032	CTS Corp.
Op amp, thick film	8001301ZX	0032	Elantec
<b>POWER OPERATIONAL AMPLIFIERS</b>			
Hi Power Op Amp, Ext. Comp., 0.2A Out.	8508701ZX	0041	Elantec
Hi Power Op Amp, Ext. Comp., 0.2A Out.	8508701ZX	0041	CTS Corp.
Hi Power Op Amp, Ext. Comp., 1.0A Out.	8508801YX	0021	CTS Corp.

TABLE II

PRODUCT TYPE/DESCRIPTION	STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	SOURCE(S)
<b>VIDEO OPERATIONAL AMPLIFIERS</b>			
Video Op Amp, Fast Settling, +/-15mV	5962-8857901XX	HOS-050A	Anlg. Dev. CLD
Video Op Amp, Fast Settling, +/-1.5mV	5962-8857902XX	HOS-060SH	Anlg. Dev. CLD
<b>OPTOCOUPLERS</b>			
Optocoupler, Dual Channel	8102801EX	6N134	Hewlett-Pack.
Optocoupler, Quad	8302401EX	6N140A	Hewlett-Pack.
Optocoupler, Dual Channel	5962-8767901EX	4N55	Hewlett-Pack.
Optocoupler, Single Channel	5962-8876801PX	HCPL-5201	Hewlett-Pack.
Optocoupler, Dual Channel	5962-8876901PX	HCPL-5231	Hewlett-Pack.
Optocoupler, Hi Speed, Single Channel	5962-8957001PX	HCPL-5401	Hewlett-Pack.
Optocoupler, Hi Speed, Dual Channel	5962-8957101PX	HCPL-5431	Hewlett-Pack.
Optocoupler, Hi Speed, Dual Channel	5962-89571022X	HCPL-6431	Hewlett-Pack.
Optocoupler-line rec., Dual channel	5962-8957201EX	HCPL-1931	Hewlett-Pack.
Optocoupler, Dual Channel	5962-8978501PX	HCPL-5731	Hewlett-Pack.
Optocoupler, Dual Channel, LCC package	5962-89785022X	HCPL-6731	Hewlett-Pack.
Optocoupler, Single Channel, Hi Gain	5962-8981001PX	HCPL-5701	Hewlett-Pack.
<b>REFERENCE, PRECISION VOLTAGE</b>			
Reference, Precision Voltage, +10V	8503001XX	2700SD	Analog MED.
Reference, Precision Voltage, +10V	8503001XX	HC2700SD	Hycomp
Reference, Precision Voltage, +10V	8503002XX	HC2700UD	Hycomp
Reference, Precision Voltage, +10V	8503002XX	2700UD	Analog MED.
Reference, Precision Voltage, -10V	8503003XX	2701SD	Analog MED.
Reference, Precision Voltage, -10V	8503003XX	HC2701SD	Hycomp
Reference, Precision Voltage, +/-10V	8503004XX	2702SD	Analog MED.
Reference, Precision Voltage, +/-10V	8503004XX	HC2702SD	Hycomp
Reference, Precision Voltage, +/-10V	8503005XX	2702UD	Analog MED.
Reference, Precision Voltage, +/-10V	8503005XX	HC2702UD	Hycomp
Reference, Precision Voltage, -10V	8503006XX	2701UD	Analog MED.

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TABLE II

PRODUCT TYPE/DESCRIPTION	STANDARDIZED MILITARY DRAWING (SMD)	MANUFACTURER SIMILAR PART NUMBER 4/	SOURCE(S)
<b>REFERENCE, PRECISION VOLTAGE</b>			
<b>REFERENCE, PRECISION VOLTAGE</b>			
Reference. Precision Voltage, -10V	8503006XX	HC2701UD	HyComp
<b>R/D CONVERTERS</b>			
R/D Converter, 11.8V, 400 Hz	5962-8990801XX	SDC14565-114	ILC Dat.Dev.C.
R/D Converter, 11.8V, 400 Hz	5962-8990802XX	SDC14565-115	ILC Dat.Dev.C.
R/D Converter, 400 Hz, 80 Hz Bandwidth	5962-8990803XX	SDC14565-616	ILC Dat.Dev.C.
R/D Converter, 400 Hz, Trimmed velocity	5962-8990804XX	SDC14566-115	ILC Dat.Dev.C.
<b>R/S TO DIGITAL CONVERTERS</b>			
R/S to digi. conv., 400Hz, +/-4.0ARCMIN	5962-87687XX	8920	ILC Dat.Dev.C.
R/S to digi. conv., 400Hz, +/-2.6ARCMIN	5962-87687XX	8920A	ILC Dat.Dev.C.
<b>S/D CONVERTERS</b>			
S/D Conv., 400Hz, Prog. Res., 2 Min Arc	5962-89498XX	SDC14561114	ILC Dat.Dev.C.
S/D Conv., 400Hz, Prog. Res., 1 Min Arc	5962-89498XX	SDC14561115	ILC Dat.Dev.C.
S/D Conv., 11.8V, 400Hz, Prog. Res., 2 M.Ar	5962-89499XX	SDC14560114	ILC Dat.Dev.C.
S/D Conv., 11.8V, 400Hz, Prog. Res., 1 M.Ar	5962-89499XX	SDC14560115	ILC Dat.Dev.C.
S/D Conv., 11.8V, 400Hz, Prog. Res., 2 M.Ar	5962-89499XX	SDC14560605	ILC Dat.Dev.C.
<b>VOLTAGE FOLLOWERS</b>			
Hi Speed Buffer Amp, Volt. Foll., FET in	8001401ZX	0033	CTS Corp.
Hi Speed Buffer Amp, Volt. Foll., FET in	8001401ZX	0033	Elantec
Hi Speed Buffer Amp, Volt. Foll., FET in	8001401ZX	0033	Teledyne COMP.
Hi Speed Buffer Amp, Volt. Foll., FET in	8001401ZX	0033	Anlg. Dev. CLD