

QUALIFIED PRODUCTS LIST

OF

MILITARY SPECIFICATION

MIL-PRF-55110

PRINTED WIRING BOARDS, RIGID

GENERAL SPECIFICATION FOR

This list has been prepared for use by or for the Government in the acquisition of Printed Wiring Boards to the performance requirements of Specification MIL-PRF-55110. This listing is not intended to and does not connote indorsement by the Department of Defense. All manufacturers listed herein have been qualified under the requirements as specified in the latest effective issue of the applicable specification. This list is subject to change without notice; revision or amendment of this list will be issued as necessary. The listing does not release the manufacturer from compliance with the specification requirements.



THE ACTIVITY RESPONSIBLE FOR THIS QPL IS THE DEFENSE SUPPLY CENTER COLUMBUS (DSCC-VQE), COLUMBUS, OH 43216-5000, telephone (614) 692-0624.

Extent of qualification. Qualification of a particular board type shall be extended to cover all conductor patterns of that same board type produced. Qualification of type 3 boards shall be extended to cover type 1 and type 2 boards. Qualification of type 2 boards shall be extended to cover type 1 boards. Qualification with type GF base material shall be extended to cover types GB and GH base materials. Qualification with type GR base material shall be extended to cover type GP base material. Qualification with type GY base material shall be extended to cover types GT and GX base materials. Qualification with type SC base material shall be extended to cover type GC base material. Qualification with type GX base material shall be extended to cover type GT base material. Qualification with types AF, BF, GB, GC, GH, GI, GM, GP, GT, or QI base material shall cover that material only.

NOTES:

- a. The QPL format includes the qualification expiration date as the last six digits of the test reference number (e.g. mm/dd/yy).
- b. An asterisk (*) adjacent to the qualification reference number denotes that the product was tested for and meets the etchback requirements.
- c. Test references beginning with "31032" indicate that qualification has been extended from a QML-31032 listing. Manufacturers with QML-31032 listings may use their QML certified, TRB approved flow to meet the requirements of MIL-PRF-55110F through appendix B.

BASE MATERIAL

AF (13949/15) - Aramid Fabric, Woven, Majority Polyfunctional Epoxy Resin
BF (13949/22) - Aramid Fabric, Nonwoven, Epoxy Resin
BI (13949/31) - Aramid Fabric, Nonwoven, Polyimide Resin
GB (13949/2) - Glass Base, Woven, Majority Polyfunctional Epoxy Resin, Hot Strength Retention
GC (13949/29) - Glass Base, Woven E, Reinforcement, Majority Cyanate Ester, Flame Resistant
GF (13949/4) - Glass Base, Woven, Majority Difunctional Epoxy Resin, Flame Resistant
GH (13949/5) - Glass Base, Woven, Majority Polyfunctional Epoxy Resin, Hot Strength Retention, Flame Resistant
GI (13949/10) - Glass Base, Woven, Polyimide Resin, Heat Resistant
GM (13949/24) - Glass Base, Woven, Triazine and/or Bismaleimide Modified Epoxy Resin, Flame Resistant
GP (13949/6) - Glass Base, Nonwoven, Polytetrafluoroethylene Resin, Flame Resistant
GR (13949/7) - Glass Base, Nonwoven, Polytetrafluoroethylene Resin, Flame Resistant
GT (13949/8) - Glass Base, Woven, Polytetrafluoroethylene Resin, Flame Resistant
GX (13949/9) - Glass Base, Woven, Polytetrafluoroethylene Resin, Flame Resistant
GY (13949/14) - Glass Base, Woven, Polytetrafluoroethylene Resin, Flame Resistant, for Microwave Application
QI (13949/19) - Quartz Base, Woven, Polyimide Resin, Heat Resistant
SC (13949/27) - Glass Base, Woven S-2, Fiber, Majority Cyanate Ester, Flame Resistant

MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE- EXPIRATION DATE (MM/DD/YY)	MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE- EXPIRATION DATE (MM/DD/YY)
<u>AF, Type 3</u>			
Advanced Quick Circuits LP (1)	55110-372-092198*	Circuitek	55110-288-090499
Lockheed Martin Federal Systems	55110-028-022600*	Circuitronics, Inc.	55110-230-080898
Tyco Printed Circuit Group (Manchester)	55110-336-102398*	Delru Company	55110-192-080500
Tyco Printed Circuit Group (Stafford)	55110-365-021499*	EPEC, Inc.	55110-290-010899
<u>BF, Type 3</u>		Electropath, Inc.	55110-360-110998
Advanced Quick Circuits LP (1)	55110-183-070798*	Elreha Photogene Corp.	55110-042-080299
Conejo Circuits, Inc.	55110-035-050500*	GAC Printed Circuits	55110-043-021300
Cosmotronic Company, Inc.	55110-024-033100*	Lazer-Tech, Ltd.	55110-95501-041998
Lockheed Martin	55110-247-031598*	Micom Circuits-West	55110-382-111798
Precision Diversified Industries	55110-161-101699*	Productos Circuitos de Puerto Rico	55110-207-060298
Scotts Valley Circuits, Inc.	55110-266-032700*	Tri-Star Engineered Products	55110-134-061799
Speedy Circuits, Inc.	55110-127-011199*	Tritech Manufacturing, Inc.	55110-282-093098
Tyco Printed Circuit Group (Manchester)	55110-029-052100*	Universal Circuits, Inc. (3)	55110-010-022099
Tyco Printed Circuit Group (Stafford)	55110-005-051798*	Viktron Carol Stream	55110-287-032700
<u>BI, Type 3</u>		Windsor Mfg. Co., Inc.	55110-199-032898
Advanced Quick Circuits LP (1)	55110-184-121398*	Xcel Corp.	55110-010-020899
Conejo Circuits, Inc.	55110-036-050500*	<u>GF, Type 1 & 2 & 3</u>	
Cosmotronic Company, Inc.	55110-144-120200*	A & C Electronics	55110-155-042699*
Dynaco Acquisition Corp.	55110-209-091298*	AAI Corp.	55110-425-021598
Lockheed Martin	55110-412-031598*	Accurate Engineering Corp.	55110-284-090898*
Lockheed Martin Federal Sys.	55110-047-012798*	Action Computer Products, Inc.	55110-192-080599*
North Texas Circuit Board	55110-216-010701*	Advance Circuits, Inc.	55110-268-092998*
Precision Diversified Ind.	55110-162-072499*	Advanced Flex, Inc.	55110-139-061499*
Raytheon TI Systems	55110-344-102398*	Advanced Flex 2, Inc.	55110-140-051799*
Scotts Valley Circuits, Inc.	55110-267-032700*	Advanced Quick Circuits LP (1)	55110-387-102798*
Tyco Printed Circuit Group (Manchester)	55110-030-061000*	Advanced Quick Circuits LP (2)	55110-007-012901*
Tyco Printed Circuit Group (Stafford)	55110-005-051798*	Allied Signal Substrate Technology Interconnect	55110-135-050699*
Young Electronics	55110-231-091598*	Ambitech, Inc.	55110-287-092598*
<u>GF, Type 1 & 2</u>		American Board Companies	55110-228-011700
AEL Defense Corp.	55110-339-112398	Aselsan Military Electronic Ind.	55110-275-012901
Beaver Brook Circuits, Inc.	55110-051-010200	Automata	55110-115-092699*
CPC, Inc.	55110-256-110200	Aydin Electro Fab	55110-368-091898*
Circuit Services, Inc.	55110-271-100401	B-C Electronics, Inc.	55110-392-040299*
Circuit Technology, Inc.	55110-205-053099	Boeing Defense & Space Group	55110-187-091100
		Carlton Comelim Circuits, Ltd.	55110-U039-031999

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Chemitalic A/S	55110-179-043000	Holaday Circuits, Inc.	55110-007-030798*
Cidav Printed Circuits, Ltd.	55110-108-031798	Hughes Missile Systems Co.	55110-163-070199*
Circast Electronics, Ltd.	55110-U047-010100	Hunter Technology	55110-168-061000
Circuit Concepts, Inc.	55110-048-032999*	IMI, Inc.	55110-248-121800
Circuit Express, Inc.	55110-220-071700	ITL Circuits, Ltd.	55110-95506-060398*
Circuits CMR Ltee	55110-95503-061799*	Intergraph Corp.	55110-042-072800
Cirtech, Inc.	55110-125-072299*	Irlandus Circuits, Ltd.	55110-U041-061999
Colonial Circuits, Inc.	55110-253-103099	Janco P/C, Inc.	55110-312-100498
Compunetics, Inc.	55110-157-073199*	Litton Advanced Circuitry	55110-124-032998
Computing Devices Int'l.	55110-064-040299*	Lockheed Martin	31032-224-97
Conejo Circuits, Inc.	55110-004-102398*	Lockheed Martin Federal Sys.	55110-027-020600*
Cosmotronic Company Corp.	55110-278-091598*	Lockheed Martin Vought Sys.	55110-014-012499*
Delta Circuit Technology, Inc.	55110-027-121200*	Manchester Circuits, Ltd.	55110-U051-073100
Diversified Systems, Inc.	55110-166-041100	Marlo Electronics	55110-221-062500*
Dyconex AG	55110-091-022100	Melta, Ltd.	55110-IL002-090300
Dynaco Acquisition Corp.	55110-111-040999*	McDonald Technologies Int'l.	55110-200-062499*
Dynamic Circuits, Inc.	55110-308-080198*	Merix Corp.	55110-330-032899
Eastern Manufacturing Corp.	55110-292-110898*	Metaplast Circuits, Ltd.	55110-95520-121598*
Eldec Corp.	55110-081-030698	Methode Electronics, East	55110-030-011299*
Electro Plate Circuitry, Inc.	55110-377-020899*	Micom Corp.	55110-338-082898*
Electropac Canada, Inc.	55110-97504-011601	Midwest Printed Circuit	55110-062-050299*
Electronic Controls Design	55110-198-102498*	Mommers Print Services B.V.	55110-072-060198*
Eltek, Ltd	55110-303-080398	Motiv Technologies, Ltd.	55110-158-021798
Exacta Circuits, Ltd.	55110-U040-012400	Multi-Plate Circuits	55110-035-031399*
Fine Line Circuits & Technology	55110-308-111999*	Mupac Corp.	55110-233-073099*
Fineline Circuits, Ltd.	55110-96504-100499*	North Texas Circuit Board	55110-305-092798*
Futura Circuits Corp.	55110-080-060300*	Northrop Gruman Corp.	55110-165-082399*
GEC Marconi	55110-U033-093099	O.K. Print Corp.	55110-205-062798
General Technology Corp.	55110-296-080398*	Omega Circuits & Engineering	55110-222-072299
Graphic, Plc.	55110-U025-030198	P.C. World	55110-97506-111300*
Graphic Products, Inc.	55110-062-021100	PCB, Ltd.	55110-IL002-021900*
Graphic Research, Inc.	55110-013-011299*	Pentadyne/Pentaflex, Inc.	55110-260-080599*
Graphico Electronics Group	55110-95516-011099*	Pentex-Schweizer Electronics	55110-297-111700
Hadco Tech Center Three	55110-047-040199*	Philway Products, Inc.	55110-023-040899*
Hans Brockstedt GmbH & Co.	55110-ZL-5/96-062599*	Pho-Tronics, Inc.	55110-147-082799*

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Pioneer Circuits, Inc.	55110-219-062198*	The Bureau Electronics Group	55110-085-081399*
Precision Circuits, Inc.	55110-332-121598*	Thomas Walter, Ltd.	55110-U32-050299*
Precision Diversified Ind.	55110-038-122298*	Trans/Circuits, Inc.	55110-337-062499
Precision Prototypes, Inc.	55110-335-112198*	Tri-Star Technologies	55110-043-022699*
Printca A/S	55110-119-022899	Tyco Printed Circuit Group (Manchester)	55110-246-071299*
Printech Circuits Lab, Ltd.	55110-U048-052800*	Tyco Printed Circuit Group (Stafford)	55110-069-012801*
Printed Circuits, Inc.	55110-192-102398*		
Pro Circuits Co.	55110-169-121600*	United Circuits, Inc.	55110-146-031598
Proto Circuit, Inc.	55110-098-040299*	United Printed Circuits	55110-020-120498*
Proto Systems of Atlanta	55110-400-040299*	Universal Circuits, Inc. (1)	55110-016-021800*
Prototype Circuits, Inc.	55110-96501-112199*	Universal Circuits, Inc. (2)	55110-227-062798*
QMS Circuits, Inc.	55110-184-053099*	Valley Circuits, Inc.	55110-258-060198*
Quality Printed Circuits	55110-245-073099*	Vermont Circuits, Inc.	55110-093-031599*
RJR Circuits, Inc.	55110-243-073000*	Westak of Oregon	55110-342-113098*
Raytheon Co. (2)	55110-393-032999*	WR-ALC/LYP	55110-383-100199
Raytheon Co. (4)	55110-171-070299	Xcel Etch-Tek, Inc.	55110-053-051400*
Raytheon Co. (5)	55110-018-072498*	Young Electronics	55110-191-091598*
Raytheon E-Systems (1)	55110-418-041198*	<u>GI, Type 1 & 2 & 3</u>	
Raytheon TI Systems	31032-137-97	A & C Electronics	55110-185-020698*
Rexcan Circuits, Inc.	55110-97501-030700*	Accurate Engineering Corp.	55110-257-101599*
Rigiflex Technology, Inc.	55110-179-070199*	Action Computer Products	55110-192-082699*
Ruwel-Werke/Werk Schoeller	55110-387-072997	Advance Circuits, Inc.	55110-399-020599*
SAS Circuits, Inc.	55110-275-092598*	Advanced Flex 2, Inc.	55110-401-042098*
Sanmar Electronics Corp.	55110-108-040999*	Advanced Quick Circuits LP (1)	55110-073-020999*
Schoeller Elektronik GmbH	55110-Z09-012498	Allied Signal Substrate Technology Interconnect	55110-136-051099*
Scotts Valley Circuits, Inc.	55110-143-053099*	Ambitech, Inc.	55110-287-090198*
Sierra Circuits, Inc.	55110-203-061000*	Automata, Inc.	55110-061-061300*
Sigma Circuits, Inc.	55110-268-082799*	Aydin Electro Fab Corp.	55110-235-111599*
Southwest Circuits, Inc.	55110-190-060500*	B-C Electronics, Inc.	55110-441-011298*
Sovereign Circuits, Inc.	55110-076-032700*	B.F. Goodrich, Inc.	55110-381-113098*
Spectra, Inc.	55110-005-120200*	Boeing Defense & Space Group	55110-185-062798*
Speedy Circuits, Inc.	55110-151-100299*	CIMULEC	55110-253-092500
Syncom Engineering	55110-254-032099*	Cidav Printed Circuits, Ltd.	55110-252-082799
Teledyne Electronic Tech.	55110-355-010999*	Circast Electronics, Ltd.	55110-U043-010500
Teradyne Circuits Division	55110-195-060298*		

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Circuit Concepts, Inc.	55110-147-080398*	Methode Electronics, Inc.	55110-168-073099*
Circuit Express, Inc.	55110-271-083098*	Metaplast Circuits, Ltd.	55110-95508-111398*
Circuits CMR Ltee'	55110-97502-013100*	Micom Corp.	55110-382-111798*
Cirtech, Inc.	55110-148-050299*	Midwest Printed Circuit Service	55110-150-110400*
Collins Circuits	55110-264-111999*	Mommers Print Services B.V.	55110-069-030699*
Colonial Circuits, Inc.	55110-038-040900	Multi-Plate, Inc.	55110-035-022799*
Computing Devices Int'l.	55110-065-050199*	North Texas Circuit Board	55110-304-092798*
Conejo Circuits, Inc.	55110-005-111698*	Northrop Gruman Corp.	55110-166-082399*
Cosmotronic Co., Inc.	55110-279-082998*	P.C. World	55110-97508-121700*
Delta Circuit Technology	55110-031-061498*	PCB, Ltd.	55110-322-102198*
Dyconex AG	55110-250-012999	Pentadyne/Pentaflex, Inc.	55110-261-090499*
Dynaco Acquisition Corp.	55110-112-041799*	Philway Products, Inc.	55110-022-041299*
Dynamic Circuits, Inc.	55110-259-102399*	Pho-Tronics	55110-146-102499*
Electro Plate Circuitry	55110-003-030698*	Pioneer Circuits, Inc.	55110-021-012999*
Eltek, Ltd.	55110-IL003-111599	Precision Circuits, Inc.	55110-390-012699*
Fine Line Circuits & Tech.	55110-080-121999*	Precision Diversified Ind.	55110-263-090499*
Forward Circuits, Ltd.	55110-U029-121699*	Printca A/S	55110-064-120399
Futura Circuits	55110-081-071500*	Printech Circuit Labs	55110-U028-022899
Graphic Electronics, Ltd.	55110-U035-022299	Printed Circuits, Inc.	55110-193-102398*
Graphic Products, Inc.	55110-170-160898*	Proto Circuits, Inc.	55110-173-040298*
Graphic Research, Inc.	55110-012-011299*	Proto Systems of Atlanta	55110-401-040299*
Graphico, Plc.	55110-95517-031999*	QMS Circuits, Inc.	55110-311-090598*
Hadco Tech Center Three	55110-175-051500*	R & D Circuits	55110-012-121100*
Hamby Corp.	55110-214-121500*	RJR Circuits, Inc.	55110-244-073000*
Holaday Circuits, Inc.	55110-008-030798*	Raytheon Company (2)	55110-006-123000*
Hollandse Signaalapparaten BV	55110-037-041098*	Raytheon Company (4)	55110-031-021599*
Hughes Missile Systems Co.	55110-053-040899*	Raytheon Company (5)	55110-019-072498*
IMI, Inc.	55110-107-040598*	Raytheon E-Systems (1)	55110-419-022298*
I.T.L. Circuits	55110-97502-051500**	Raytheon TI Systems	31032-137-97
Janco P/C, Inc.	55110-313-110998	Rigiflex Technology, Inc.	55110-180-070199*
Johnson Matthey S.P.I.	55110-348-121598*	SAS Circuits, Inc.	55110-054-123099*
Lockheed Martin	31032-224-97	Scotts Valley Circuits	55110-142-053099*
Lockheed Martin Federal Systems	55110-281-102199*	Sierra Circuits, Inc.	55110-163-060500*
Lockheed Martin Vought Systems	55110-397-042999*	Sovereign Circuits	55110-075-040300*
Manchester Circuits, Ltd.	55110-U046-032800	Spectra, Inc.	55110-094-040599*
Marlo Electronics	55110-222-091000*		

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<u>GR, Type 1 & 2</u>			
Speedy Circuits, Inc.	55110-128-052298*	Advance Circuits, Inc.	55110-197-101599
Sun Circuits, Inc.	55110-089-042299*	Cirtech, Inc.	55110-059-013199
Syncom Engineering	55110-340-060599*	Conejo Circuits, Inc.	55110-049-051399
Teledyne Electronic Tech.	55110-354-010999* 55110-145-082399*	Delta Circuit Technology	55110-110-041799
Teradyne Circuits Division	55110-196-060298*	Electropath, Inc.	55110-106-031599
Thomas Walter, Ltd.	55110-U38-120599*	Fine Line Circuits & Tech.	55110-081-011700
Tri-Star Technologies	55110-295-092798*	Futura Circuits Corp.	55110-082-071500
Tyco Printed Circuit Group (Manchester)	55110-225-102398*	Graphic Research, Inc.	55110-195-101699
Tyco Printed Circuit Group (Stafford)	55110-138-051798*	Methode Electronics, Inc.	55110-020-031598
Universal Circuits, Inc.(2)	55110-228-061798*	Micro-Chem	55110-152-060200
Valley Circuits, Inc.	55110-232-062898*	North Texas Circuit Board	55110-426-020798
Westak of Oregon, Inc.	55110-072-030500*	P.C. Dynamic Corp.	55110-358-092798
WR-ALC/LYP	55110-384-100199	Pentadyne/Pentaflex, Inc.	55110-114-041198
Xcel Etch-Tek Corp.	55110-026-121799*	Pioneer Circuits, Inc.	55110-057-030699
Young Electronics	55110-150-010600*	Precision Circuits, Inc.	55110-391-032998
<u>GM, Type 1, 2 & 3</u>		Raytheon TI Systems	55110-282-010601
Advanced Flex, Inc.	55110-091-021598*	Soladyne	55110-153-070199
Advanced Flex 2, Inc.	55110-135-060598*	Speedy Circuits, Inc.	55110-129-111398
Collins Printed Circuits	55110-002-032799*	<u>GX, Type 1 & 2</u>	
Computing Devices Int'l.	55110-202-110700	Advance Circuits, Inc.	55110-196-101599
Graphico Electronics Group	55110-95507-121098*	Graphic Products, Inc.	55110-025-031798
Hughes Missile Systems Co.	55110-044-021800*	Graphico Electronics Group	55110-94505-041998
Methode Electronics, Inc.	55110-223-030800*	Precision Circuits, Inc.	55110-391-012699
PCB, Ltd.	55110-420-012398*	Soladyne	55110-152-070199
Philway Products, Inc.	55110-215-101899*		
Precision Circuits, Inc.	55110-050-071798*		
Precision Diversified Ind.	55110-160-080299*		
RJR Circuits, Inc.	55110-251-073000*		
SAS Circuits, Inc.	55110-078-042399*		
Tyco Printed Circuit Group (Manchester)	55110-045-052299*		
Tyco Printed Circuit Group (Stafford)	55110-154-051798*		

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GY, Type 1 & 2

Collins Printed Circuits	55110-257-061298
Colonial Circuits, Inc.	55110-039-031000
Compunetics, Inc.	55110-437-020198
Delta Circuit Technology	55110-111-032199
Electropath, Inc.	55110-107-032799
Fine Line Circuits & Tech.	55110-082-011700
Futura Circuits Corp.	55110-083-071500
Graphic Research, Inc.	55110-198-120999
Methode Electronics, Inc.	55110-036-031598
Micro-Chem	55110-153-060200
Multiflex, Inc.	55110-189-052398
North Texas Circuit Board	55110-427-021398
P.C. Dynamics	55110-359-102498
PCB, Ltd.	55110-097-102198
Pentadyne/Pentaflex, Inc.	55110-145-041198
Pioneer Circuits, Inc.	55110-058-030699
Raytheon TI Systems	55110-283-010601
Speedy Circuits, Inc.	55110-130-011199
Xcel Corp.	55110-011-051798

SC, Type 3

Hughes Missile Systems	55110-044-021800*
Lockheed Martin	31032-392-97*
Tyco Printed Circuit Group (Stafford)	55110-320-122998*

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
A & C Electronics 18153 Napa Street Northridge, CA 91325 Plant: Same Address	65812	Aselsan Military Electronic Industries, Inc. P. O. Box 101 06172 Yenimahalle Ankara Turkey Plant: Same Address	
AAI Corporation P.O. Box 126 Hunt Valley, MD 21031 Plant: York Rd. & Industrial Lane, Bldg. 110 Cockeysville, MD 21030	02128	Automata, Inc. 1200 Severn Sterling, VA 22170 Plant: Same Address	0K703
AEL Defense Corp. 305 Richardson Road Lansdale, PA 19446-1429 Plant: Same Address	93346	Aydin Electro Fab Corporation 960 River Road Croydon, PA 19020-7597 Plant: Same Address	62939
Accurate Engineering Corporation 8710 TelFair Avenue Sun Valley, CA 91352 Plant: Same Address	1W538	B-C Electronics, Inc. 2500 E. Shady Road Irving, TX 75060-4689 Plant: Same Address	0PGN6
Action Computer Products, Inc. 16300 Lindbergh Street Van Nuys, CA 91406-1708 Plant: Same Address	55265	B.F. Goodrich, Inc. 6600 Gulton Court, NE P.O. Box 3027 Albuquerque, NM 87109-3027 Plant: Same Address	12574
Advance Circuits, Inc. 15102 Minnetonka Industrial Road Minnetonka, MN 55345-2112 Plant: Same Address	32665	Beaver Brook Circuits, Inc. P.O. Box 288 Bethel, CT 06801 Plant: 10 Grassy Plain Street	0B3M0
Advanced Flex, Inc. 15115 Industrial Road Minnetonka, MN 55345-2191 Plant: Same Address	61185	Boeing Defense & Space Group Information & Electronic Systems Div. P.O. Box 3999, M/S 88-38 Seattle, WA 98124-2499 Plant: Kent Aerospace Center 20403 68th Avenue South Kent, WA 98032	81205
Advanced Flex 2, Inc. 4300 Peavy Road Chaska, MN 55318 Plant: Same Address	66695		
Advanced Quick Circuits LP 245 East Drive Melbourne, FL 32904-1078 Plant: 1. 600-C N. John Rhodes Blvd. and 200 East Drive Melbourne, FL 32935 2. 600-D N. John Rhodes Blvd. Melbourne, FL 32904	64324	CGI Circuits, Inc. 300 Myles Standish Boulevard Tauton, MA 02780-7823 Plant: Same Address	0KEC2
Allied Signal Substrate Technology Interconnect 2950 Redhill Avenue Costa Mesa, CA 92626-7900 Plant: Same Address	4F972	CPC, Inc. One Circuit Drive Randolph, MA 02368-9998 Plant: Same Address	79969
Ambitech, Inc. 8944 Fullbright Avenue Chatsworth, CA 91311 Plant: Same Address	51484	Carlton Comelim Circuits, Ltd. Montgomery Way Biggles Wade, Bedfordshire SG18 8QB England Plant: Same Address	0UE12
American Board Companies 200 Stage Road Vestal, NY 13850-9998 Plant: Same Address		Chemitalic A/S Egebjergvej 128 8700 Horsens, Denmark Plant: Same Address	R2774

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Cidav Printed Circuits, Ltd. P.O. Box 10022 Haifa 26110, Israel Plant: 6 Baaley Hamelaha Street Haifa Bay 26110, Israel		Colonial Circuits, Inc. 1026 Warrentown Road Falmouth, VA 22406-9998 Plant: Same Address	6T499
CIMULEC Z.I. Les Jonquires 57365 Ennery, France Plant: Same Address		Compunetics, Inc. 700 Seco Road Monroeville, PA 15146-5176 Plant: Same Address	30598
Circast Electronics, Ltd. Ramsey Road Sydenham, Leamington Spa CV31 1PG England Plant: Same Address	U4375	Computing Devices International 3101 East 80th Street Bloomington, MN 55425-1523 Plant: Same Address	27963
Circuit Concepts, Inc. 14201 58th Street North Clearwater, FL 34620 Plant: Same Address	73025	Conejo Circuits, Inc. 2651 Lavery Court Newbury Park, CA 91320-1597 Plant: Same Address	66505
Circuit Express, Inc. 229 S. Clark Drive Tempe, AZ 85281-3073 Plant: Same Address	0SX42	Cosmotronic Company, Inc. 16721 Noyes Avenue Irvine, CA 92714 Plant: Same Address	63695
Circuit Services, Inc. #27 24th Street Kenner, LA 70062-9998 Plant: Same Address	0KG54	Delru Company 875 South East Street Anaheim, CA 92805 Plant: Same Address	0ADX5
Circuit Technology, Inc. 3443 Haddonfield Pennsauken, NJ 08109 Plant: Same Address	63575	Delta Circuit Technology, Inc. 16028 Arminta Street Van Nuys, CA 91406-1808 Plant: Same Address	8U401
Circuitek Division of Transistor Devices, Inc. Box H, Broad Street Delaware Water Gap, PA 18327-0169 Plant: Same Address	09004	Diversified Systems, Inc. 3939 West 56th Street Indianapolis, IN 46254 Plant: Same Address	5S706
Circuitronics, Inc. P.O. Box 2839 Alliance, OH 44601 Plant: 255 E. Perry Street Alliance, OH 44601	0FMG1	Dyconex AG Schaffhauserstrasse 580 CH-8052 Zurich, Switzerland Plant: Same Address	0S3N4
Circuits CMR Ltee 850 Selkirk Pointe Claire, QC H9R 3S2 Canada Plant: Same Address		Dynaco Acquisition Corp. 1000 South Priest Tempe, AZ 85281-5238 Plant: Same Address	61642
Cirtech, Inc. 250 E. Emerson Avenue Orange, CA 92665 Plant: Same Address	8K616	Dynamic Circuits, Inc. 1831 Tarob Court Milpitas, CA 95035-6825 Plant: Same Address	05FV5
Collins Printed Circuits Division of Rockwell International 460 Collins Road, N.E. Cedar Rapids, IA 52498-0001 Plant: Same Address	0EFD0	Dynamic & Proto Circuits, Inc. 869 Barton Street Stoney Creek, Ontario L8E 5G6 Canada Plant: Same Address	38898

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
EPEC, Inc. Industrial Park New Bedford, MA 02745 Plant: Same Address	08817	Forward Circuits, Ltd. Hedgin Lane, Dosthill Tamworth, Staffordshire B77 5HH England Plant: Same Address	
Eastern Manufacturing Corp. 2 Industrial Way Amesbury, MA 01913-3287 Plant: Same Address	0BX48	Futura Circuits 11950 28th Street, N. St. Petersburg, FL 33716-1816 Plant: Same Address	0CA49
Eldec Corp. North Creek Campus P.O. Box 97027 Lynwood, WA 98046-9727 Plant: Same Address	08748	GAC Printed Circuits 21 Nottingham Street Lowell, MA 01851-3819 Plant: Same Address	0CEV5
Electro Plate Circuitry, Inc. 1430 Century Drive Carrollton, TX 75006 Plant: Same Address	79616	GEC-Marconi, Ltd. GEC-Marconi Research Centre West Hanningfield Road GT Baddow Chelmsford CM2 8HN United Kingdom Plant: Same Address	U0380
Electronic Controls Design, Inc. 13626 South Freeman Road Mulino, OR 97042 Plant: Same Address	60000	General Components, Inc. 7425 124th Street North Largo, FL 33543 Plant: Same Address	61542
Electropac Canada, Inc. 3500 Trans-Canada Highway Pointe Claire, Quebec H9R-181 Canada Plant: Same Address	38722	General Technology Corp. 6816 Washington, N.E. Albuquerque, NM 87109-4421 Plant: Same Address	61666
Electropath, Inc. 10137 Canoga Avenue Chatsworth, CA 91311-3006 Plant: Same Address	66140	Grande Industries, Inc. P.O. Box 1165 Taylor, TX 76574-1165 Plant: Same Address	65897
Elreha Photogene Corp. 2510 Terminal Drive, S. St. Petersburg, FL 33712-1669 Plant: Same Address	59020	Graphic, Plc. Marsh Road, Lords Meadow Ind. Estate Credition, Devon EX17 1EU England Plant: Same Address	0UH63
Eltek, Ltd. P.O. Box 159, Sgoola Industrial Park 49101 Petach-Tikva, Israel Plant: Same Address	S4451	Graphic Products, Inc. 1140 N.W. 55th Street Fort Lauderdale, FL 33309-2822 Plant: Same Address	66321
Exacta Circuits, Ltd. Selkirk, TD7 5EJ Scotland Plant: Same Address		Graphic Research, Inc. 9334 Mason Avenue Chatsworth, CA 91311-5201 Plant: Same Address	5K529
Fine Line Circuits, Ltd. 6530 Lawrence Avenue East Scarborough, Ontario M1C 4A7 Canada Plant: Same Address		Graphico Electronics Group 1100 Bellamy Road North Scarborough, Ontario M1H 1H2 Canada Plant: Same Address	37442
Fine Line Circuits & Technology 594 Apollo Brea, CA 92621-3101 Plant: Same Address		Hadco Tech Center Three P.O. Box 8240 Ward Hill, MA 01835-8240 Plant: 46 Rogers Road	65316

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Hamby Corp. 27704 Avenue Scott Valencia, CA 91355-1218 Plant: Same Address	07284	Johns Hopkins University Applied Physics Laboratory Johns Hopkins Road Laurel, MD 20723-6099 Plant: Same Address	88898
Hans Brockstedt GmbH and Co. Kieler Str. 120 2300 Kiel-Kronshagen Germany Plant: Same Address		Johnson Matthey Semiconductor Products, Inc. 3965 Meadowbrook Road St. Louis Park, MN 55426-4505 Plant: Same Address	22637
Holaday Circuits, Inc. 11126 Bren Road, W. Minnetonka, MN 55343 Plant: Same Address	59554	Lazer-Tech, Ltd. 33 Melford Drive, Unit No. 1 Scarborough, Ontario M1B 2G6 Canada Plant: Same Address	37848
Hollandse Signaalapparaten BV Zvidahike Havenweg 40 7554 RR Henglo P.O. Box 42, 7550 GD Henglo The Netherlands Plant: Same Address		Litton Advanced Circuitry 4811 W. Kearney Springfield, MO 65801-0847 Plant: Same Address	21390
Hughes Missile Systems Co. P.O. Box 11337, M/S B-4 Tucson, AZ 85734-1337 Plant: Building 810	15090	Lockheed Martin 498 Oak Road, Ocala Operations Ocala, FL 34472 Plant: Same Address	34675
Hunter Technology 3305 Kifer Road Santa Clara, CA 95051 Plant: Same Address	55536	Lockheed Martin Federal Systems 1801 State Route 17-C Owego, NY 13827-3998 Plant: Same Address	03640
IMI, Inc. 140 Hilldale Avenue Haverhill, MA 01830-3830 Plant: Same Address	78259	Lockheed Martin Vought Systems P.O. Box 650003 Dallas, TX 75265-0003 Plant: 1701 W. Marshall Drive Grand Prairie, TX 75051	64059
Integrated Technology, Ltd. (ITL) Circuits 90 Don Park Road Markham, Ontario, Canada L3R 1C4 Plant: Same Address	38747	Manchester Circuits, Ltd. Victoria Lane, Whitefield Manchester M25 6BU England Plant: Same Address	
Interconnection Systems, Ltd. Elden Street South Shields, Tyne & Wear NE33 5BU, England Plant: Same Address		Marlo Electronics, Inc. 4007 E. 6th Avenue Ft. Lauderdale, FL 33334-9998 Plant: Same Address	0BW72
Intergraph Corp. M/S 1W1602 Huntsville, AL 35894-0001 Plant: Building #16	07EX8	McDonald Technologies International, Inc. 2220 West Petersmith Fort Worth, TX 76102-4396 Plant: 2012 15th Avenue Fort Worth, TX 76102	56874
Irlandus Circuits, Ltd. Annesborough 3 Craigavon BT67 9JJ Northern Ireland Plant: Same Address	U4544	Melta, Ltd. P.O. Box 609 Nazareth Elite 17000 Israel Plant: 3 Haval Street Nazareth Elite 17000 Israel	58986
Janco P/C, Inc. P.O. Box 1309 Dover, NH 03821-1309 Plant: 1 Centre Road Somersworth, NH 03878-2928	55303		

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Metaplast Circuits, Ltd. 180 Hymus Road Scarborough, Ontario M1L 2E1 Canada Plant: Same Address		Mupac Corp. 10 Mupac Drive Brockton, MA 02401 Plant: Mupac PCB Shop 646 Summer Street Brockton, MA 02401	51398
Methode Electronics, Inc. East Ten Industrial Park P.O. Box 2200 Willingboro, NJ 08046-6311 Plant: Same Address	8P688	Northrop Gruman Corp. 600 Hicks Road Rolling Meadows, IL 60008-1098 Plant: Same Address	26916
Micom Corporation 475 NW Eighth Avenue New Brighton, MN 55112 Plant: Same Address	34076	OK Print Corp. 3-21-18 Higashi-Koigakubo Kokubunji-Shi, Tokyo 185, Japan Plant: Same Address	
Micom Circuits-West 1609 West 17th Street Tempe, AZ 85281-6227 Plant: Same Address	0KN48	Omega Circuits & Engineering Corp. 8 Terminal Road New Brunswick, NJ 08901 Plant: Same Address	0XDT1
Micro-Chem, Inc. 2986 Oakmead Village Court Santa Clara, CA 95051-9998 Plant: Same Address	0BBU9	P.C. Dynamics Corp. 10501 FM 720 East Frisco, TX 75035 Plant: Same Address	67364
Midwest Printed Circuits Services 1741 Circuit Drive Round Lake Beach, IL 60073-9998 Plant: Same Address		P.C. World 250 Finchdene Square Scarborough, Ontario, M1X 1A5 Canada Plant: Same Address	
Mitsubishi Electric Corp. Sagami Works Printed Circuit Board Manufacturing Department West 8-1-1 Tsukaguchi, Honmachi, Hyogo 661, Japan Plant: Same Address		PCB, Ltd. P.O. Box 631 Migdal Haemek 10556 Israel Plant: Industrial Zone Migdal Haemek, Israel	S5725
Mommers Print Services, B.V. Peutenweg 2 6101 VZ Echt, Netherlands Plant: Same Address		Pentadyne/Pentaflex, Inc. 711 Fee Ana Street Placentia, CA 92670-2108 Plant: Same Address	65708
Motiv Technologies, Ltd. 24 Hamlacha Street Yahud, Israel Plant: Same Address		Pentex-Schweizer Electronics Pte, Ltd. 3 Jalan Kilang Timor Off Jalan Bukit Merah Singapore 159304 Plant: Same Address	0WH48
Multi-Plate Circuits, Inc. 2362 Lu Field Road Dallas, TX 75229-2022 Plant: Same Address	65340	Philway Products, Inc. 701 Virginia Avenue Ashland, OH 44805 Plant: Same Address	21971
Multiflex, Inc. A Division of P.D.I. 5400 Opportunity Court Minnetonka, MN 55345-9025 Plant: Same Address	6U461	Pho-Tronics, Inc. 8701 West Bradley Road Milwaukee, WI 53224-2817 Plant: Same Address	79243

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Pioneer Circuits, Inc. 3010 South Shannon Street Santa Ana, CA 92704 Plant: Same Address	65723	QMS Circuits, Inc. 40 Hill Avenue Ft. Walton Beach, FL 32548-3858 Plant: Same Address	65977
Precision Circuits, Inc. 468 Industrial Way West Eatontown, NJ 07724-2210 Plant: Same Address	18054	Quality Printed Circuits Corp. 5815 South 25th Street Phoenix, AZ 85040-3630 Plant: Same Address	9S429
Precision Diversified Industries 14755 27th Avenue, N. Plymouth, MN 55447-4809 Plant: Same Address	65722	R & D Circuits, Inc. 9 Olsen Avenue Edison, NJ 08820 Plant: Same Address	
Precision Prototypes, Inc. 255 Midland Avenue Garfield, NJ 07026-1710 Plant: Same Address	3T319	RJR Circuits, Inc. 1830 South Bannock Street Denver, CO 80223 Plant: Same Address	66525
Printca A/S Srenborgvej 3, DK-9220 Aalborg Denmark Plant: Same Address	R2180	Ramaer Connection Technology P.O. Box 32 5700 AA Helmond The Netherlands Plant: Vossenbeemd 101 5705 CL Helmond The Netherlands	H6344
Printech Circuit Laboratories, Ltd. 31-35 Halt Whistle Road South Woodham Ferrers Chelmsford, Essex CM52A England Plant: Same Address	U9426	Raytheon Company (2) 23 Seyon Street Waltham, MA 02254-8382 Plant: Same Address	99687
Printed Circuits, Inc. 1200 West 96th Street Minneapolis, MN 55341-2606 Plant: Same Address	65114	Raytheon Company (4) 350 Lowell Street Andover, MA 01810-4499 Plant: Same Address	05716
Pro Circuits Company 11585 Sheldon Street Sun Valley, CA 91352 Plant: Same Address	5Z656	Raytheon Company (5) 20 Seyon Street Waltham, MA 02254-8382 Plant: Same Address	04934
Productos Circuitos de Puerto Rico Div. of Westinghouse de Puerto Rico P.O. Box 1415 Juana Diaz, PR 00665-1415 Plant: KM 66.7 Road No. 149 Juana Diaz, PR 00665-1415		Raytheon E-Systems (1) St. Petersburg Operations P.O. Box 12248 St. Petersburg, FL 33733-2248 Plant: 1501 72nd Street N. St. Petersburg, FL 33733-2248	00724
Proto Circuit, Inc. 2035 Midway Drive Twinsburg, OH 44087-1933 Plant: Same Address	7Z463	Raytheon E-Systems (2) Airborne Systems Division P.O. Box 6056 Greenville, TX 75041 Plant: Majors Field Greenville, TX	05395
Proto Systems of Atlanta 625 Sims Industrial Road Alpharetta, GA 30201 Plant: Same Address	7U718	Raytheon TI Systems P.O. Box 149149 Austin, TX 78769-9149 Plant: 12501 Research Austin, TX 78759	96214
Prototype Circuits, Inc. 2020 Ellesmere Road Scarborough, Ontario, M1H 2Z8 Canada Plant: Same Address			

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Rexcan Circuits, Inc. 161 Bridge Street, W., Box 949 Belleville, Ontario K8N 5B6 Canada Plant: Same Address		Spectra, Inc. P.O. Box 420 Clarksburg, MD 20871 Plant: 22250 Comsat Drive Clarksburg, MD 20871	65109
Rigiflex Technology, Inc. 3310 West Harvard Street Santa Ana, CA 92704-3920 Plant: Same Address	0XBX9	Speedy Circuits, Inc. 5332 Commercial Drive Huntington Beach, CA 92649-1252 Plant: Same Address	66982
Ruwel-Werke/Werk Schoeller Marburger Strasse D-3552 Wetter/Hessen, Germany Plant: Same Address		Sun Circuits, Inc. 5191 LaFayette Street Santa Clara, CA 95054-9998 Plant: Same Address	41798
SAS Circuits, Inc. 10570 Bradford Road Littleton, CO 80127-4211 Plant: Same Address	75815	Syncom Engineering 15749 Stagg Street Van Nuys, CA 91406 Plant: Same Address	59969
Sanmar Electronics Corp., Ltd. Micro Pack Division SRI Raghavendra Complex 2805 10th Main Road, 4th Block Jayanagar, Bangalore 560 011 India Plant: Micro Pack Plot No. 16, Jigani Industrial Area Anekal Taluk, Bangalore District 562 106, India		Teledyne Electronic Technologies 110 Lowell Road Hudson, NH 03051-0068 Plant: Same Address	22958
Scotts Valley Circuits, Inc. 66 El Pueblo Road Scotts Valley, CA 95066-3573 Plant: Same Address	6M902	Teradyne Circuits Division 4 Pittsburg Avenue Nashua, NH 03062 Plant: Same Address	3T000
Sierra Circuits, Inc. 1108 West Evelyn Avenue Sunnyvale, CA 94086-5795 Plant: Same Address	0ZH54	The Bureau Electronics Group 3311 Broadway Street, N.E. Minneapolis, MN 55413-1791 Plant: Same Address	06050
Sigma Circuits, Inc. 393 Matthew Street Santa Clara, CA 95050 Plant: Same Address	65916	Thomas Walter, Ltd. 1 First Avenue Glove Business Park Marlow, Buckinghamshire SL7 1YA England Plant: Same Address	
Soladyne 7447 Convoy Court San Diego, CA 92111-1167 Plant: Same Address	SS655	Trans/Circuits, Inc. 661 40th Street South St. Petersburg, FL 33784 Plant: Same Address	0BPH7
Southwest Circuits, Inc. 3760 East 43rd Place Tucson, AZ 85713-9998 Plant: Same Address	66108	Tri-Star Engineered Products, Inc. 351 Thor Place Brea, CA 92621 Plant: Same Address	5Y828
Sovereign Circuits, Inc. P.O. Box 216 N. Jackson, OH 44451 Plant: 12080 DeBartolo Drive N. Jackson, OH 44451	0GN71	Tri-Star Technologies Co., Inc. 126 Merrimack Street Methuen, MA 01844 Plant: Same Address	0PBW7
		Tyco Printed Circuit Group, Inc. Manchester Division 50 Harrison Street Manchester, CT 06040 Plant: Same Address	65416

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Tyco Printed Circuit Group, Inc. Stafford Division Old Monson Road, P.O.Box 145 Stafford, CT 06075 Plant: Same Address	5L706	Xcell Corp. 4290 E. Brickell Street Ontario, CA 91761 Plant: 720 Huntington Drive Monrovia, CA 91016	
United Printed Circuits, Inc. 1860 Sparkman Drive Huntsville, AL 35816-1122 Plant: Same Address	0FWU2	Young Electronics 7341 Greenbush Avenue North Hollywood, CA 91605-4091 Plant: Same Address	30803
Universal Circuits, Inc. (1) 200 Centennial Drive Buffalo, MN 55313 Plant: Same Address	25850		
Universal Circuits, Inc. (2) 8860 Zackery Lane Maple Grove, MN 55369-4596 Plant: Same Address	45032		
Universal Circuits, Inc. (3) 202 North 9th Avenue East Lake Mills, IA 50450-1902 Plant: Same Address	0AE24		
Valley Circuits, Inc. 11031 Glenoaks Boulevard Pacoima, CA 91331 Plant: Same Address	8W955		
Vermont Circuits, Inc. Technology Drive, P.O. Box 1890 Battleboro, VT 05301 Plant: Same Address	65200		
Viktron Carol Stream 341 St. Paul Blvd. Carol Stream, IL 60187 Plant: Same Address	61301		
WR-ALC/LYP Avionics Management Directorate Production Division 380 2nd Street, Suite 104 Robins AFB, GA 31098-1638 Plant: Same Address	0RCH2		
Westak of Oregon 3941 24th Avenue Forest Grove, OR 97116-2297 Plant: Same Address	65745		
Windsor Manufacturing Co., Inc. 300 Science Parkway Rochester, NY 14620 Plant: Same Address	0BD01		
Xcel Etch-Tek, Inc. 2455 Bates Avenue Concord, CA 94520-1206 Plant: Same Address	0N2E4		