QUALIFICATION VALIDATED
ANNUALLY

QPL-55110-49
21 December 1998
SUPERSEDING
QPL-55110-48
28 January 1998

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 - Aramid Fabric, Woven, Majority Polyfunctional Epoxy Resin
BF - Aramid Fabric, Nonwoven, Epoxy Resin
BI - Aramid Fabric, Nonwoven, Polyimide Resin
GB - Glass Base, Woven, Majority Polyfunctional Epoxy Resin, Hot Strength Retention
GC - Glass Base, Woven E, Reinforcement, Majority Cyanate Ester, Flame Resistant
GF - Glass Base, Woven, Majority Difunctional Epoxy Resin, Flame Resistant
GH - Glass Base, Woven, Majority Polyfunctional Epoxy Resin, Hot Strength Retention, Flame Resistant
GI - Glass Base, Woven, Polyimide Resin, Heat Resistant
GM - Glass Base, Woven, Triazine and/or Bismaleimide Modified Epoxy Resin, Flame Resistant
GP - Glass Base, Nonwoven, Polytetrafluoroethylene Resin, Flame Resistant
GR - Glass Base, Nonwoven, Polytetrafluoroethylene Resin, Flame Resistant
GT - Glass Base, Woven, Polytetrafluoroethylene Resin, Flame Resistant
GX - Glass Base, Woven, Polytetrafluoroethylene Resin, Flame Resistant
GY - Glass Base, Woven, Polytetrafluoroethylene Resin, Flame Resistant, for Microwave Application
QI - Quartz Base, Woven, Polyimide Resin, Heat Resistant
SC - Glass Base, Woven S-2, Fiber, Majority Cyanate Ester, Flame Resistant

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

MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE-EXPIRATION DATE (MM/DD/YY)
AF, Type 3	
Advanced Quick Circuits LP (1)	55110-085-090201*
Lockheed Martin Federal Systems	55110-028-022600*
Tyco Printed Circuit Group (Manchester)	55110-154-101501*
Tyco Printed Circuit Group (Stafford)	55110-365-021499*
BF, Type 3	
Advanced Quick Circuits LP (1)	55110-203-102701*
Conejo Circuits, Inc.	55110-035-050500*
Cosmotronic Corp.	55110-024-033100*
Graphic Research	55110-277-120401*
North Texas Circuit Board	55110-215-021101*
Precision Diversified Industries	55110-161-101699*
Scotts Valley Circuits, Inc.	55110-266-032700*
Sovereign Circuits, Inc.	55110-141-092401*
Speedy Circuits, Inc.	55110-127-011199*
Tyco Printed Circuit Group (Manchester)	55110-029-052100*
Tyco Printed Circuit Group (Stafford)	55110-104-050601*
BI, Type 3	
Advanced Quick Circuits LP (1)	55110-218-121401*
Allied Signal Substrate Technology Interconnect	55110-217-111301*
Conejo Circuits, Inc.	55110-036-050500*
Cosmotronic Corp.	55110-144-120200*
Graphic Research	55110-278-120401*
Lockheed Martin Federal Systems	55110-102-041701*
Methode Electronics, Inc. East	55110-119-081301*
North Texas Circuit Board	55110-216-010701*
Precision Diversified Ind.	55110-162-072499*
Raytheon Systems Co.	31032-137-97
SAS Circuits, Inc.	55110-125-052101*
Scotts Valley Circuits, Inc.	55110-267-032700*
Sovereign Circuits, Inc.	55110-111-081301*
Tyco Printed Circuit Group (Manchester)	55110-030-061000*
Tyco Printed Circuit Group (Stafford)	55110-037-121701*
Young Electronics	55110-176-102901*

MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE-EXPIRATION DATE (MM/DD/YY)
GC, Type 3	
Multi-Plate Circuits, Inc.	55110-072-040301*
GF, Type 1 & 2	
Beaver Brook Circuits, Inc.	55110-051-010200
CGI Circuits, Inc.	55110-100-060200
CPC, Inc.	55110-256-110200
Circuit Services, Inc.	55110-271-100401
Circuit Technology, Inc.	55110-205-053099
Circuitek	55110-288-090499
Delru/Rigid Flex, Inc.	55110-192-080500
EPEC, Inc.	55110-182-122101
Elreha Photogene Corp.	55110-042-080299
GAC Printed Circuits	55110-043-021300
Grande Industries	55110-289-103099
Lazer-Tech, Ltd.	55110-98122-050101
Tri-Star Engineered Products	55110-134-061799
Universal Circuits, Inc. (2)	55110-256-120801
Xcel Corp.	55110-010-020899
GF, Type 1 & 2 & 3	
A & C Electronics	55110-155-042699*
AAI Corp.	31032-252-97
Accurate Engineering Corp.	55110-156-090801*
Action Computer Products, Inc.	55110-192-080599*
Advance Circuits, Inc.	55110-085-110901*
Advanced Flex, Inc.	55110-139-061499*
Advanced Quick Circuits LP (1)	55110-219-102701*
Advanced Quick Circuits LP (2)	55110-007-012901*
Allied Signal Substrate Technology Interconnect	55110-135-050699*
Ambitech, Inc.	55110-241-111301*
American Board Companies	55110-228-011700
Aselsan Military Electronic Ind.	55110-275-012901
Automata	55110-115-092699*
Aydin Electro Fab	55110-148-091801*
B-C Electronics, Inc.	55110-392-040299*
Boeing Defense & Space Group	55110-187-091100
Carlton Comelim Circuits, Ltd.	55110-U039-031999

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)
Cidav Printed Circuits, Ltd.	55110-IL004-113001	Holaday Circuits, Inc.	55110-059-022001*
Circast Electronics, Ltd.	55110-U047-010100	Hunter Technology	55110-168-061000
Circuit Concepts, Inc.	55110-048-032999*	IMI, Inc.	55110-248-121800
Circuit DMA, Inc.	55110-201-042101*	ITL Circuits, Ltd.	55110-98246-102801*
Circuit Express, Inc.	55110-220-071700	Intergraph Corp.	55110-042-072800
Circuits CMR Ltee	55110-95503-061799*	Irlandus Circuits, Ltd.	55110-U041-061999
Cirtech, Inc.	55110-125-072299*	Lazer-Tech, Ltd.	55110-98022-121201*
Colonial Circuits, Inc.	55110-095-062301*	Lockheed Martin	31032-224-97
Collins Printed Circuits	55110-265-111999*	Lockheed Martin Federal Sys.	55110-027-020600*
Compunetics, Inc.	55110-157-073199*	Marlo Electronics	55110-221-062500*
Conejo Circuits, Inc.	55110-213-111201*	Melta, Ltd.	55110-IL002-090300
Coretec, Inc. (1)	55110-96501-112199*	McDonald Technologies Int'l.	55110-200-062499*
Coretec, Inc. (2)	55110-96504-100499*	Merix Corp.	55110-330-032899
Cosmotronic Corp.	55110-120-091501*	Metaplast Circuits, Ltd.	55110-98285-112501*
Delta Circuit Technology, Inc.	55110-027-121200*	Methode Electronics, East	55110-030-011299*
Diversified Systems, Inc.	55110-166-041100	Micom Corp.	55110-248-100101*
Dyconex AG	55110-091-022100	Midwest Printed Circuit	55110-062-050299*
Dynaco Acquisition Corp.	55110-111-040999*	Mitsubishi Electric corp.	55110-239-091799
Dynamic Circuits, Inc.	55110-245-110201*	Mommers Print Services B.V.	55110-221-110901*
Eastern Manufacturing Corp.	55110-029-111601*	Multi-Plate Circuits	55110-035-031399*
Eldec Corp.	55110-144-070101	Mupac Corp.	55110-233-073099*
Electro Mechanical Design	55110-009-021701	North Texas Circuit Board	55110-263-101501*
Electro Plate Circuitry, Inc.	55110-377-020899*	Northrop Gruman Corp.	55110-165-082399*
Electropac Canada, Inc.	55110-97504-011601	O.K. Print Corp.	55110-186-090901
Eltek, Ltd	55110-IL001-101401	Omega Circuits & Engineering	55110-222-072299
Fine Line Circuits & Technology	55110-308-111999*	P.C. World	55110-97506-111300*
Futura Circuits Corp.	55110-080-060300*	PCB, Ltd.	55110-IL002-021900*
GEC Marconi	55110-U056-091601	Pentadyne/Pentaflex, Inc.	55110-260-080599*
General Dynamics	55110-064-040299*	Pentex-Schweizer Electronics	55110-297-111700
Graphic Products, Inc.	55110-062-021100	Philway Products, Inc.	55110-023-040899*
Graphic Research, Inc.	55110-013-011299*	Pho-Tronics, Inc.	55110-147-082799*
Graphico Electronics Group	55110-95516-011099*	Pioneer Circuits, Inc.	55110-133-080601*
Hadco Tech Center Three	55110-047-040199*	Praegitzer Industries Huntsville	55110-042-072800
Hans Brockstedt GmbH & Co.	55110-ZL-5/96-062599*	Precision Circuits, Inc.	55110-260-121501*

MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE-EXPIRATION DATE (MM/DD/YY)
Precision Prototypes, Inc.	55110-257-112101*
Printca A/S	55110-119-022899
Printech Circuits Lab, Ltd.	55110-U048-052800*
Printed Circuits, Inc.	55110-128-102301*
Pro Circuits Co.	55110-169-121600*
Proto Circuit, Inc.	55110-098-040299*
Proto Systems	55110-400-040299*
Pycon, Inc.	55110-012-100201*
QMS Circuits, Inc.	55110-184-053099*
Quality Printed Circuits	55110-245-073099*
RJR Circuits, Inc.	55110-243-073000*
Ramaer Connection Technology	55110-018-033001
Raytheon E-Systems (1)	55110-194-062301*
Raytheon Systems Company	31032-137-97
Rexcan Circuits, Inc.	55110-97501-030700*
Rigiflex Technology, Inc.	55110-179-070199*
Ruwel-Werke/Werk Schoeller	55110-Z028-040801
SAS Circuits, Inc.	55110-207-091701*
Sanmar Electronics Corp.	55110-108-040999*
Scotts Valley Circuits, Inc.	55110-143-053099*
Sierra Circuits, Inc.	55110-203-061000*
Southwest Circuits, Inc.	55110-190-060500*
Sovereign Circuits, Inc.	55110-076-032700*
Spectra, Inc.	55110-005-120200*
Speedy Circuits, Inc.	55110-151-100299*
Sun Circuts, Inc.	55110-242-030401
Syncom Engineering	55110-254-032099*
Teledyne Electronic Tech.	55110-355-010999*
The Bureau Electronics Group	55110-085-081399*
Thomas Walter, Ltd.	55110-U32-050299*
Trans/Circuits, Inc.	55110-337-062499
Tri-Star Technologies	55110-043-022699*
Tyco Printed Circuit Group (Manchester)	55110-246-071299*
Tyco Printed Circuits Group (Santa Clara)	55110-268-082799*
Tyco Printed Circuit Group (Stafford)	55110-069-012801*
United Circuits, Inc.	55110-043-032701
Universal Circuits, Inc. (1)	55110-164-081301*
Universal Circuits, Inc. (3)	55110-301-031901*
Valley Circuits, Inc.	55110-158-103001*
Vermont Circuits, Inc.	55110-093-031599*
Viasystems Manchester, Ltd.	55110-U051-073100
Viasystems Selkirk, Ltd.	55110-U040-012400
Viasystems Tyneside, Ltd.	55110-V052-061900
WR-ALC/LYP	55110-383-100199
Xcel Etch-Tek, Inc.	55110-053-051400*
Young Electronics	55110-175-102801*
GI, Type 1 & 2	
Lazer-Tech, Ltd.	55110-98503-061201
GI, Type 1 & 2 & 3	
A & C Electronics	55110-085-051101*
Accurate Engineering Corp.	55110-257-101599*
Action Computer Products	55110-192-082699*
Advance Circuits, Inc.	55110-399-020599*
Advanced Flex, Inc.	55110-056-040201*
Advanced Quick Circuits LP (1)	55110-073-020999*
Allied Signal Substrate Technology Interconnect	55110-136-051099*
Ambitech, Inc.	55110-237-111301*
Aselsan Military Electronic Ind.	55110-123-082501
Automata, Inc.	55110-061-061300*
Aydin Electro Fab Corp.	55110-235-111599*
B.F. Goodrich, Inc.	55110-005-120901*
Boeing Defense & Space Group	55110-172-080701*
CIMULEC	55110-253-092500
Cidav Printed Circuits, Ltd.	55110-252-082799
Circast Electronics, Ltd.	55110-U043-010500
Circuit Express, Inc.	55110-244-100301*
Circuits CMR Ltee'	55110-97502-013100*
Cirtech, Inc.	55110-148-050299*

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)
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*
Compunetics, Inc.	55110-038-040201	North Texas Circuit Board	55110-264-102301*
Conejo Circuits, Inc.	55110-214-111201*	Northrop Gruman Corp.	55110-166-082399*
Cosmotronic Corp.	55110-121-082001*	P.C. World	55110-97508-121700*
Delta Circuit Technology	55110-083-061401*	Pentadyne/Pentaflex, Inc.	55110-261-090499*
Dyconex AG	55110-250-012999	Philway Products, Inc.	55110-022-041299*
Dynaco Acquisition Corp.	55110-112-041799*	Pho-Tronics	55110-146-102499*
Dynamic Circuits, Inc.	55110-259-102399*	Pioneer Circuits, Inc.	55110-021-012999*
Eastern Manufacturing Corp.	55110-040-122699*	Precision Circuits, Inc.	55110-261-122101*
Electro Plate Circuitry	55110-131-050401*	Precision Diversified Ind.	55110-263-090499*
Eltek, Ltd.	55110-IL003-111599	Printca A/S	55110-064-120399
Fine Line Circuits & Tech.	55110-080-121999*	Printech Circuit Labs	55110-U028-022899
Forward Circuits, Ltd.	55110-U029-121699*	Proto Circuits, Inc.	55110-140-061201*
Futura Circuits	55110-081-071500*	Proto Systems	55110-401-040299*
GEC-Marconi, Ltd.	55110-U063-101501*	Pycon, Inc.	55110-040-100201*
General Dynamics	55110-065-050199*	R & D Circuits	55110-012-121100*
General Technology Corp.	55110-292-102899*	RJR Circuits, Inc.	55110-244-073000*
Graphic Electronics, Ltd.	55110-U035-022299	Raytheon Systems Company	31032-137-97
Graphic Products, Inc.	55110-167-082501	Rigiflex Technology, Inc.	55110-180-070199*
Graphic Research, Inc.	55110-012-011299*	Ruwel Werke/Werk Schoeller	55110-Z029-040801
Graphico, Plc.	55110-95517-031999*	SAS Circuits, Inc.	55110-054-123099*
Hadco Tech Center Three	55110-175-051500*	Scotts Valley Circuits	55110-142-053099*
Hamby Corp.	55110-214-121500*	Sierra Circuits, Inc.	55110-163-060500*
Holaday Circuits, Inc.	55110-060-030601*	Southwest Circuits, Inc.	55110-108-090201
IMI, Inc.	55110-249-030401	Sovereign Circuits	55110-075-040300*
I.T.L. Circuits	55110-97502-051500**	Spectra, Inc.	55110-094-040599*
Johns Hopkins University	55110-114-052401	Speedy Circuits, Inc.	55110-086-061501*
Lazer-Tech, Ltd.	55110-98503-061201	Sun Circuits, Inc.	55110-089-042299*
Lockheed Martin	31032-224-97	Syncom Engineering	55110-340-060599*
Lockheed Martin Federal Systems	55110-281-102199*	Teledyne Electronic Tech.	55110-145-082399*
Marlo Electronics	55110-222-091000*	Thomas Walter, Ltd.	55110-U38-120599*
Methode Electronics, Inc.	55110-168-073099*	Tyco Printed Circuit Group (Manchester)	55110-155-101501*
Metaplast Circuits, Ltd.	55110-98286-111301*		
Midwest Printed Circuit Service	55110-150-110400*	Tyco Printed Circuit Group (Stafford)	55110-082-051701*

MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE EXPIRATION DATE (MM/DD/YY)
Universal Circuits, Inc. (1)	55110-165-081201*
Valley Circuits, Inc.	55110-159-081201*
Viasystems Manchester Ltd.	55110-U046-032800
Westak of Oregon, Inc.	55110-072-030500*
WR-ALC/LYP	55110-384-100199
Xcel Etch-Tek Corp.	55110-026-121799*
Young Electronics	55110-150-010600*
GM, Type 1, 2 & 3	
Collins Printed Circuits	55110-002-032799*
General Dynamics	55110-202-110700
Methode Electronics, Inc.	55110-223-030800*
North Texas Circuit Board	55110-161-062601*
PCB, Ltd.	55110-IL003-072700
Philway Products, Inc.	55110-215-101899*
Precision Circuits, Inc.	55110-098-071001*
Precision Diversified Ind.	55110-160-080299*
RJR Circuits, Inc.	55110-251-073000*
SAS Circuits, Inc.	55110-078-042399*
Tyco Printed Circuit Group (Manchester)	55110-155-101501*
Tyco Printed Circuit Group (Stafford)	55110-105-050601*
Universal Circuits, Inc. (2)	55110-132-072401*
GR, Type 1 & 2	
Advance Circuits, Inc.	55110-197-101599
Allied Signal Substrate Technology Interconnect	55110-076-061001
Circuit Center, Inc.	55110-017-010301
Cirtech, Inc.	55110-059-013199
Conejo Circuits, Inc.	55110-049-051399
Delta Circuit Technology	55110-110-041799
Electropath, Inc.	55110-106-031599
Fine Line Circuits & Tech.	55110-081-011700
Futura Circuits Corp.	55110-082-071500
Graphic Research, Inc.	55110-195-101699
Methode Electronics, Inc.	55110-087-060101
Micro-Chem	55110-152-060200

MANUFACTURER'S NAME (ADDRESS ON LAST PAGE)	TEST REFERENCE- EXPIRATION DATE (MM/DD/YY)
North Texas Circuit Board	55110-070-062601
P.C. Dynamic Corp.	55110-226-112401
Pioneer Circuits, Inc.	55110-057-030699
Precision Circuits, Inc.	55110-290-031201
Raytheon Systems Co.	55110-282-010601
Soladyne	55110-153-070199
Spectra, Inc.	55110-026-032001
GX, Type 1 & 2	
Advance Circuits, Inc.	55110-196-101599
Graphico Electronics Group	55110-98501-061201
Precision Circuits, Inc.	55110-391-012699
Soladyne	55110-152-070199
GY, Type 1 & 2	
Circuit Center, Inc.	55110-016-010301
Collins Printed Circuits	55110-100-060501
Colonial Circuits, Inc.	55110-039-031000
Compunetics, Inc.	55110-097-062401
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.	55110-088-042701
Micro-Chem	55110-153-060200
Multiflex, Inc.	55110-189-052398
North Texas Circuit Board	55110-071-062601
PCB, Ltd.	55110-IL002-102201
Pioneer Circuits, Inc.	55110-058-030699
Raytheon Systems Co.	55110-283-010601
Speedy Circuits, Inc.	55110-130-011199
Xcel Corp.	55110-011-051798
RO 4003 Type 2	
Circuit Center, Inc.	55110-045-040301

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)
SC, Type 3			
GEC-Marconi, Ltd.	55110-U064-101501*		
Lockheed Martin	31032-392-97*		
Spectra, Inc.	55110-024-022701*		
Tyco Printed Circuit Group (Stafford)	55110-320-122998*		

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
A & C Electronics 18153 Napa Street Northridge, CA 91325 Plant: Same Address	65812
AAI Corporation P.O. Box 126 Hunt Valley, MD 21031 Plant: York Rd. & Industrial Lane, Bldg. 110 Cockeysville, MD 21030	02128
Accurate Engineering Corporation 8710 TelFair Avenue Sun Valley, CA 91352 Plant: Same Address	1W538
Action Computer Products, Inc. 16300 Lindbergh Street Van Nuys, CA 91406-1708 Plant: Same Address	55265
Advance Circuits, Inc. 15102 Minnetonka Industrial Road Minnetonka, MN 55345-2112 Plant: Same Address	32665
Advanced Flex, Inc. 15115 Industrial Road Minnetonka, MN 55345-2191 Plant: Same Address	61185
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
Allied Signal Substrate Technology Interconnect 2950 Redhill Avenue Costa Mesa, CA 92626-7900 Plant: Same Address	4F972
Ambitech, Inc. 8944 Fullbright Avenue Chatsworth, CA 91311 Plant: Same Address	51484
American Board Companies 200 Stage Road Vestal, NY 13850-9998 Plant: Same Address	15602
Aselsan Military Electronic Industries, Inc. P. O. Box 101 06172 Yenimahalle Ankara Turkey Plant: Same Address	
Automata, Inc. 1200 Severn Sterling, VA 22170 Plant: Same Address	0K703
Aydin Electro Fab Corporation 960 River Road Croydon, PA 19020-7597 Plant: Same Address	62939
B-C Electronics, Inc. 2500 E. Shady Road Irving, TX 75060-4689 Plant: Same Address	0PGN6
B.F. Goodrich, Inc. 6600 Gulton Court, NE P.O. Box 3027 Albuquerque, NM 87109-3027 Plant: Same Address	12574
Beaver Brook Circuits, Inc. P.O. Box 288 Bethel, CT 06801 Plant: 10 Grassy Plain Street	0B3M0
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
CGI Circuits, Inc. 300 Myles Standish Boulevard Tauton, MA 02780-7823 Plant: Same Address	0KEC2
CPC, Inc. One Circuit Drive Randolph, MA 02368-9998 Plant: Same Address	79969
Carlton Comelim Circuits, Ltd. Montgomery Way Biggles Wade, Bedfordshire SG18 8QB England Plant: Same Address	0UE12
Cidav Printed Circuits, Ltd. P.O. Box 10022 Haifa 26110, Israel Plant: 6 Baaley Hamelaha Street Haifa Bay 26110, Israel	
CIMULEC Z.I. Les Jonquires 57365 Ennery, France Plant: Same Address	

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Circast Electronics, Ltd. Ramsey Road Sydenham, Leamington Spa CV31 1PG England Plant: Same Address	U4375
Circuit Center, Inc. 4738 Gateway Circle Dayton, OH 45440-9998 Plant: Same Address	8T428
Circuit Concepts, Inc. 14201 58th Street North Clearwater, FL 34620 Plant: Same Address	73025
Circuit Express, Inc. 229 S. Clark Drive Tempe, AZ 85281-3073 Plant: Same Address	0SX42
Circuit Services, Inc. #27 24th Street Kenner, LA 70062-9998 Plant: Same Address	0KG54
Circuit Technology, Inc. 3443 Haddonfield Pennsauken, NJ 08109 Plant: Same Address	63575
Circuitek Division of Transistor Devices, Inc. Box H, Broad Street Delaware Water Gap, PA 18327-0169 Plant: Same Address	09004
Circuits CMR Ltee 850 Selkirk Pointe Claire, QC H9R 3S2 Canada Plant: Same Address	
Circuits DMA, Inc. 32990 Capitol Livonia, MI 48150-1773 Plant: Same Address	65706
Cirtech, Inc. 250 E. Emerson Avenue Orange, CA 92665 Plant: Same Address	8K616
Collins Printed Circuits Division of Rockwell International 460 Collins Road, N.E. Cedar Rapids, IA 52498-0001 Plant: Same Address	0EFD0
Colonial Circuits, Inc. 1026 Warrentown Road Falmouth, VA 22406-9998 Plant: Same Address	6T499
Compunetics, Inc. 700 Seco Road Monroeville, PA 15146-5176 Plant: Same Address	30598
Conejo Circuits, Inc. 2651 Lavery Court Newbury Park, CA 91320-1597 Plant: Same Address	66505
Coretec, Inc. 2020 Ellesmere Road Scarborough, Ontario, Canada M1H 2Z8 Plants: 1. Same Address 2. 6530 Lawrence Avenue Scarborough, Ontario Canada M1C 4A7	3AF82 38750
Cosmotronic Corp. 16721 Noyes Avenue Irvine, CA 92714 Plant: Same Address	63695
Delru/Rigid Flex, Inc. 875 South East Street Anaheim, CA 92805 Plant: Same Address	0ADX5
Delta Circuit Technology, Inc. 16028 Arminta Street Van Nuys, CA 91406-1808 Plant: Same Address	8U401
Diversified Systems, Inc. 3939 West 56th Street Indianapolis, IN 46254 Plant: Same Address	5S706
Dyconex AG Schaffhauserstrasse 580 CH-8052 Zurich, Switzerland Plant: Same Address	0S3N4
Dynaco Acquisition Corp. 1000 South Priest Tempe, AZ 85281-5238 Plant: Same Address	61642
Dynamic Circuits, Inc. 1831 Tarob Court Milpitas, CA 95035-6825 Plant: Same Address	05FV5

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Dynamic & Proto Circuits, Inc. 869 Barton Street Stoney Creek, Ontario L8E 5G6 Canada Plant: Same Address	38898
EPEC, Inc. Industrial Park New Bedford, MA 02745 Plant: Same Address	08817
Eastern Manufacturing Corp. 2 Industrial Way Amesbury, MA 01913-3287 Plant: Same Address	0BX48
Eldec Corp. North Creek Campus P.O. Box 97027 Lynwood, WA 98046-9727 Plant: 1522 217th Place SE Bothell, WA 98021	08748
Electro Mechanical Design Services, Inc. 16618 Oakmont Avenue Gaithersburg, MD 20877 Plant: Same Address	6R136
Electro Plate Circuitry, Inc. 1430 Century Drive Carrollton, TX 75006 Plant: Same Address	79616
Electropac Canada, Inc. 3500 Trans-Canada Highway Pointe Claire, Quebec H9R-181 Canada Plant: Same Address	38722
Electropath, Inc. 10137 Canoga Avenue Chatsworth, CA 91311-3006 Plant: Same Address	66140
Elreha Photogene Corp. 2510 Terminal Drive, S. St. Petersburg, FL 33712-1669 Plant: Same Address	59020
Eltek, Ltd. P.O. Box 159, Sgoola Industrial Park 49101 Petach-Tikva, Israel Plant: Same Address	S4451
Fine Line Circuits & Technology 594 Apollo Brea, CA 92621-3101 Plant: Same Address	
Forward Circuits, Ltd. Hedgin Lane, Dosthill Tamworth, Staffordshire B77 5HH England Plant: Same Address	
Futura Circuits 11950 28th Street, N. St. Petersburg, FL 33716-1816 Plant: Same Address	0CA49
GAC Printed Circuits 21 Nottingham Street Lowell, MA 01851-3819 Plant: Same Address	0CEV5
GEC-Marconi, Ltd. GEC-Marconi Research Centre West Hanningfield Road GT Baddow Chelmsford CM2 8HN United Kingdom Plant: Same Address	U0380
General Components, Inc. 7425 124th Street North Largo, FL 33543 Plant: Same Address	61542
General Dynamics Information Systems 3101 East 80th Street Bloomington, MN 55425-1523 Plant: Same Address	27963
General Technology Corp. 6816 Washington, N.E. Albuquerque, NM 87109-4421 Plant: Same Address	61666
Grande Industries, Ltd. P.O. Box 1165 204 Highland Drive Taylor, TX 76574-1165 Plant: Same Address	65897
Graphic, Plc. Marsh Road, Lords Meadow Ind. Estate Crediton, Devon EX17 IEU England Plant: Same Address	0UH63
Graphic Products, Inc. 1140 N.W. 55th Street Fort Lauderdale, FL 33309-2822 Plant: Same Address	66321
Graphic Research, Inc. 9334 Mason Avenue Chatsworth, CA 91311-5201 Plant: Same Address	5K529

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Graphico Electronics Group 1100 Bellamy Road North Scarborough, Ontario M1H 1H2 Canada Plant: Same Address	37442
Hadco Tech Center Three P.O. Box 8240 Ward Hill, MA 01835-8240 Plant: 46 Rogers Road	65316
Hamby Corp. 27704 Avenue Scott Valencia, CA 91355-1218 Plant: Same Address	07284
Hans Brockstedt GmbH and Co. Kieler Str. 120 2300 Kiel-Kronshagen Germany Plant: Same Address	
Holaday Circuits, Inc. 11126 Bren Road, W. Minnetonka, MN 55343 Plant: Same Address	59554
Hunter Technology 3305 Kifer Road Santa Clara, CA 95051 Plant: Same Address	55536
IMI, Inc. 140 Hilldale Avenue Haverhill, MA 01830-3830 Plant: Same Address	78259
Integrated Technology, Ltd. (ITL) Circuits 90 Don Park Road Markham, Ontario, Canada L3R 1C4 Plant: Same Address	38747
Irlandus Circuits, Ltd. Annesborough 3 Craigavon BT67 9JJ Northern Ireland Plant: Same Address	U4544
Johns Hopkins University Applied Physics Laboratory Johns Hopkins Road Laurel, MD 20723-6099 Plant: Same Address	88898
Lazer-Tech, Ltd. 33 Melford Drive, Unit No. 1 Scarborough, Ontario M1B 2G6 Canada Plant: Same Address	37848
Lockheed Martin 498 Oak Road, Ocala Operations Ocala, FL 34472 Plant: Same Address	34675
Lockheed Martin Federal Systems 1801 State Route 17-C Owego, NY 13827-3998 Plant: Same Address	03640
Marlo Electronics, Inc. 4007 E. 6th Avenue Ft. Lauderdale, FL 33334-9998 Plant: Same Address	0BW72
McDonald Technologies International, Inc. 2220 West Petersmith Fort Worth, TX 76102-4396 Plant: 2012 15th Avenue Fort Worth, TX 76102	56874
Melta, Ltd. P.O. Box 609 Nazareth Elite 17000 Israel Plant: 3 Haval Street Nazareth Elite 17000 Israel	58986
Metaplast Circuits, Ltd. 180 Hymus Road Scarborough, Ontario M1L 2E1 Canada Plant: Same Address	
Methode Electronics, Inc. East Ten Industrial Park P.O. Box 2200 Willingboro, NJ 08046-6311 Plant: Same Address	8P688
Micom Corporation 475 NW Eighth Avenue New Brighton, MN 55112 Plant: Same Address	34076
Micro-Chem, Inc. 2986 Oakmead Village Court Santa Clara, CA 95051-9998 Plant: Same Address	0BBU9
Midwest Printed Circuits Services 1741 Circuit Drive Round Lake Beach, IL 60073-9998 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	

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Mommers Print Services, B.V. Peutenweg 2 6101 VZ Echt, Netherlands Plant: Same Address	
Multi-Plate Circuits, Inc. 2362 Lu Field Road Dallas, TX 75229-2022 Plant: Same Address	65340
Multiflex, Inc. A Division of P.D.I. 5400 Opportunity Court Minnetonka, MN 55345-9025 Plant: Same Address	6U461
Mupac Corp. 10 Mupac Drive Brockton, MA 02401 Plant: Mupac PCB Shop 646 Summer Street Brockton, MA 02401	51398
North Texas Circuit Board 1501 W. Shady Grove road Grand Prairie, TX 75050 Plant: Same Address	5S424
Northrop Gruman Corp. 600 Hicks Road Rolling Meadows, IL 60008-1098 Plant: Same Address	26916
OK Print Corp. 3-21-18 Higashi-Koigakubo Kokubunji-Shi, Tokyo 185, Japan Plant: Same Address	
Omega Circuits & Engineering Corp. 8 Terminal Road New Brunswick, NJ 08901 Plant: Same Address	0XDT1
P.C. Dynamics Corp. 10501 FM 720 East Frisco, TX 75035 Plant: Same Address	67364
P.C. World 250 Finchdene Square Scarborough, Ontario, M1X 1A5 Canada Plant: Same Address	
PCB, Ltd. P.O. Box 631 Migdal Haemek 10556 Israel Plant: Industrial Zone Migdal Haemek, Israel	S5725
Pentadyne/Pentaflex, Inc. 711 Fee Ana Street Placentia, CA 92670-2108 Plant: Same Address	65708
Pentex-Schweizer Electronics Pte, Ltd. 3 Jalan Kilang Timor Off Jalan Bukit Merah Singapore 159304 Plant: Same Address	0WH48
Philway Products, Inc. 701 Virginia Avenue Ashland, OH 44805 Plant: Same Address	21971
Pho-Tronics, Inc. 8701 West Bradley Road Milwaukee, WI 53224-2817 Plant: Same Address	79243
Pioneer Circuits, Inc. 3010 South Shannon Street Santa Ana, CA 92704 Plant: Same Address	65723
Praegitzer Industries Huntsville 16 Intergraph Way Madison, AL 35824 Plant: Same Address	07EX8
Precision Circuits, Inc. 468 Industrial Way West Eatontown, NJ 07724-2210 Plant: Same Address	18054
Precision Diversified Industries 14755 27th Avenue, N. Plymouth, MN 55447-4809 Plant: Same Address	65722
Precision Prototypes, Inc. 255 Midland Avenue Garfield, NJ 07026-1710 Plant: Same Address	3T319
Printca A/S Srendborgvej 3, DK-9220 Aalborg Denmark Plant: Same Address	R2180
Printech Circuit Laboratories, Ltd. 31-35 Halt Whistle Road South Woodham Ferrers Chelmsford, Essex CM52A England Plant: Same Address	U9426

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Printed Circuits, Inc. 1200 West 96th Street Minneapolis, MN 55341-2606 Plant: Same Address	65114
Pro Circuits Company 11585 Sheldon Street Sun Valley, CA 91352 Plant: Same Address	5Z656
Proto Circuit, Inc. 2035 Midway Drive Twinsburg, OH 44087-1933 Plant: Same Address	7Z463
Proto Systems of Atlanta 625 Sims Industrial Road Alpharetta, GA 30201 Plant: Same Address	7U718
Quality Printed Circuits Corp. 5815 South 25th Street Phoenix, AZ 85040-3630 Plant: Same Address	9S429
R & D Circuits, Inc. 9 Olsen Avenue Edison, NJ 08820 Plant: Same Address	
RJR Circuits, Inc. 1830 South Bannock Street Denver, CO 80223 Plant: Same Address	66525
Ramaer Connection Technology P.O. Box 32 5700 AA Helmond The Netherlands Plant: Vossenbeemd 101 5705 CL Helmond The Netherlands	H6344
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
Raytheon Systems Company P.O. Box 201155, MS 2110 Austin, TX 78720-1155 Plant: 12501 Research Austin, TX 78759	96214
Rexcan Circuits, Inc. 161 Bridge Street, W., Box 949 Belleville, Ontario K8N 5B6 Canada Plant: Same Address	
Rigiflex Technology, Inc. 161 Bridge Street W., Box 949 Anaheim, CA 92806 Plant: Same Address	0XBX9
Ruwel-Werke/Werk Schoeller Marburger Strasse D-3552 Wetter/Hessen, Germany Plant: Same Address	
SAS Circuits, Inc. 10570 Bradford Road Littleton, CO 80127-4211 Plant: Same Address	75815
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	
Scotts Valley Circuits, Inc. 66 El Pueblo Road Scotts Valley, CA 95066-3573 Plant: Same Address	6M902
Sierra Circuits, Inc. 1108 West Evelyn Avenue Sunnyvale, CA 94086-5795 Plant: Same Address	0ZH54
Soladyne 7447 Convoy Court San Diego, CA 92111-1167 Plant: Same Address	SS655
Southwest Circuits, Inc. 3760 East 43rd Place Tucson, AZ 85713-9998 Plant: Same Address	66108
Sovereign Circuits, Inc. P.O. Box 216 N. Jackson, OH 44451 Plant: 12080 DeBartolo Drive N. Jackson, OH 44451	0GN71
Spectra, Inc. P.O. Box 420 Clarksburg, MD 20871 Plant: 22250 Comsat Driove Clarksburg, MD 20871	65109

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Speedy Circuits, Inc. 5332 Commercial Drive Huntington Beach, CA 92649-1252 Plant: Same Address	66982
Sun Circuits, Inc. 5191 LaFayette Street Santa Clara, CA 95054-9998 Plant: Same Address	41798
Syncom Engineering 15749 Stagg Street Van Nuys, CA 91406 Plant: Same Address	59969
Teledyne Electronic Technologies 110 Lowell Road Hudson, NH 03051-0068 Plant: Same Address	22958
The Bureau Electronics Group 3311 Broadway Street, N.E. Minneapolis, MN 55413-1791 Plant: Same Address	06050
Thomas Walter, Ltd. 1 First Avenue Glove Business Park Marlow, Buckinghamshire Sl7 1YA England Plant: Same Address	
Trans/Circuits, Inc. 661 40th Street South St. Petersburg, FL 33784 Plant: Same Address	0BPH7
Tri-Star Engineered Products, Inc. 351 Thor Place Brea, CA 92621 Plant: Same Address	5Y828
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
Tyco Printed Circuits Group Santa Clara Division 393 Matthew Street Santa Clara, CA 95050 Plant: Same Address	65916
Tyco Printed Circuit Group, Inc. Stafford Division Old Monson Road, P.O.Box 145 Stafford, CT 06075 Plant: Same Address	5L706
United Circuits, inc. 100 Pleasant Street Dracut, MA 01826 Plant: Same Address	65119
Universal Circuits, Inc. (1) 8860 Zackery Lane Maple Grove, MN 55369-4596 Plant: Same Address	45032
Universal Circuits, Inc. (2) 202 North 9th Avenue East Lake Mills, IA 50450-1902 Plant: Same Address	0AE24
Universal Circuits, Inc. (3) 2249 S. Yale Street Santa Ana, CA 92704 Plant: Same Address	66527
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 65200 Plant: Same Address	
Viasystems Manchester, Ltd. Victoria Lane, Whitefield Manchester M25 6BU England Plant: Same Address	0U4R7
Viasystems Selkirk, Ltd. Selkirk, TD7 5EJ Scotland Plant: Same Address	0EGK0
Viasystems Tyneside, Ltd. Elden Street South Shields, Tyne & Wear NE33 5BU, England Plant: Same Address	
WR-ALC/LYP Avionics Management Directorate Production Division 380 2nd Street, Suite 104 Robins AFB, GA 31098-1638 Plant: Same Address	0RCH2

MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE	MANUFACTURER'S NAME, ADDRESS AND PLANT	CAGE CODE
Westak of Oregon 3941 24th Avenue Forest Grove, OR 97116-2297 Plant: Same Address	65745		
Xcel Etch-Tek, Inc. 2455 Bates Avenue Concord, CA 94520-1206 Plant: Same Address	0N2E4		
Xcell Corp. 4290 E. Brickell Street Ontario, CA 91761 Plant: 720 Huntington Drive Monrovia, CA 91016			
Young Electronics 20750 Marilla Street Chatsworth, CA 91311 Plant: Same Address	30803		