

**Section II**  
**Hybrid Microcircuits**

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## Hybrid Microcircuits Introduction

Two (Hewlett-Packard Company and Micropac Industries, Incorporated) of the three manufacturers listed herein meet the certification and qualification requirements of MIL-H-38534 for quality assurance level (class) K. Currently these manufacturers are not offering any off-the-shelf K level hybrids. They are manufacturing custom/semi-custom hybrids for high reliability and space applications.

The remaining manufacturer (Interpoint) listed herein meets all of the certification and qualification requirements of MIL-H-38534 : quality assurance level (class) H. This manufacturer is included in the Core Suppliers Listing because several of their products have passed Goddard Space Flight Center (GSFC) qualification testing, including radiation (total dose and SEE) and life tests.

The accompanying information, provided for each manufacturer, is explained below.

Address,

Cage Code: Self-explanatory.

QML Class: A single letter which identifies the quality assurance level of the QML hybrid microcircuit.  
“K”--- Designates the highest reliability level provided for in MIL-H-38534. It is intended for space applications.  
“H”---Designates the standard minimum military quality level.

Product Type Generic functional description of products which have been certified/qualified.

Certified/  
Qualified

Facility: Location of certified/qualified facility(ies) which is (are) currently listed in QML348

Package

Information Characteristics of qualified hybrid packages.

**Note: Information contained herein is subject to change by the manufacturer at any time.**

## Active Supplier Assessment Program (ASAP)

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### Manufacturing

Audits/Surveys: Lists dates of audits and/or surveys performed at the suppliers' facilities and the name of the agency/company which was responsible; also indicates whether or not the suppliers were approved.

**Note: Information contained herein is subject to change by the manufacturer at any time.**

### Hewlett - Packard Company

Address	Cage Code	Mfr. Audits/Surveys	Class	Contact
Optical Communications Div 370 West Trimble Rd. San Jose, CA 95131	50434	DESC QML-9/94 (Approved)	K	Dick Fellows 408-435-6519

Product Type
Optocoupler

Certified/Qualified Facilities:

Substrate Fabrication	Assembly
San Jose, CA	San Jose, CA

Package Information:

Package Type:	Ceramic DIP	LCC
Seal Method:	Solder	Solder
Lead Count:	16	20
Seal Perimeter:	1.28 inch	0.92 inch
Lead Finish:	Gold; solder	Solder

**Note: Information contained herein is subject to change by the manufacturer at any time.**

**Micropac Industries, Incorporated**

Address	Cage Code	Mfr. Surveys/Audits	Class	Contact
905 East Walnut St. Garland, TX 75040	31757	DESC QML-12/93 (Approved)	K	Shirley Large 214-272-3571

Product Type
Optopower

**Certified/Qualified Facilities:**

Substrate Fabrication	Assembly
Garland, TX	Garland, TX

**Package Information:**

Opto:

Package Type:	Ceramic DIP	LCC	TO can
Seal Method:	Solder	Solder	Projection weld
Lead Count:	16	24	8
Seal Perimeter:	1.89 inch	1.60 inch	2.27 inch
Lead Finish:	Gold; solder	Solder	Gold; solder

**Note: Information contained herein is subject to change by the manufacturer at any time.**

### Interpoint Corporation

Address	Cage Code	Mfr. Audits/Surveys	Class	Contact
Interpoint Corporation 10301 Willows Road Redmond, WA 98073	50821	DESC QML-4/87 (Approved)	H	Mike Friends 206-882-3100

Product Type
DC/DC Converters

#### Certified/Qualified Facilities:

Substrate Fabrication	Assembly
Redmond, WA	Redmond, WA

#### Package Information:

Package Type:	Metal with peripheral leads
Seal Method:	Seam weld
Lead Count:	12
Seal Perimeter:	8.0 inch
Lead Finish:	Gold & Silver

**Note: Information contained herein is subject to change by the manufacturer at any time.**