



## Optokoupler:

### DEVICE FAMILIES

#### OLX100/200 SERIES

PHOTO TRANSISTOR OPTOCOUPERS

#### OLX300 SERIES

PHOTODIODE-TRANSISTOR OPTOCOUPERS

#### OLX400 SERIES

PHOTODIODE-DARLINGTON OPTOCOUPERS

#### OLX500 SERIES

HIGH SPEED LOGIC OPTOCOUPERS

#### OLX600 SERIES

HIGH SPEED SCHMITT TRIGGER OPTOCOUPERS

#### OLX700 SERIES

LINEAR OPTOCOUPERS

#### OLX900 SERIES

PHOTOVOLTAIC OPTOCOUPERS

#### OLQXXX SERIES

CUSTOM PRODUCTS

### PACKAGE FAMILIES:

OLI - FOR HYBRID ASSEMBLY

OLF - 8 PIN HERMETIC FLAT PACK

OLH - HERMETIC TO-5 OR 8-PIN DIP

OLS - 4 & 6 PIN LEADLESS CHIP CARRIER

OLQ - CUSTOM PACKGES OR DEVICES

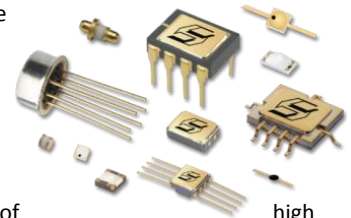
## Protec GmbH

Rosenheimer Landstraße 117  
83229 Ottobrunn- Riemerling

eMail: sales@protec-semi.de  
Web: http://www.protec-semi.de

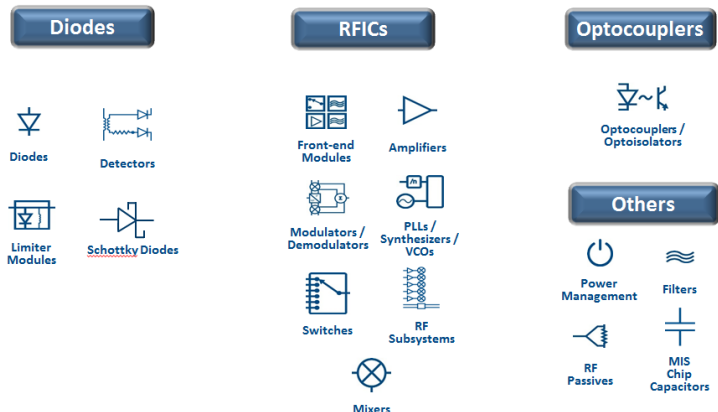
## Isolink is now Skyworks Defense & Space

30 yrs of Heritage as a Leader in Hi-Rel and Hi-Performance Components – Business started as Isolink CA in 1987 - Acquired by Skyworks in 2011, Hi-Rel Center of Excellence Within Skyworks - ISO-9001 Certified - DLA, Defense Logistics Agency QML-38534 Certification in Process.



Skyworks Defense and Space is the leading global supplier of high performance, high quality and radiation tolerant optoelectronic components for aerospace, defense, medical, extreme industrial and high-reliability markets and applications. We pioneered the miniaturization of some of the most advanced optoelectronic components that operate in full military and space temperature ranges (-55°C to +125°C) and beyond. For the last 30 years, we have specialized in the manufacture of miniature hybrids and hermetically sealed optocouplers that offer high isolation voltage, high common mode rejection, high efficiency as well as fast response time to meet customers' most demanding design and application challenges. Over 50 standard and 500 custom optocouplers in a variety of hermetic, hybrid and custom packages are available with high-reliability screening per MIL-PRF-19500 or MIL-PRF-38534 specification.

## High-Rel Product Portfolio & Capabilities



### 100% Screening

- Temperature Cycling
- Constant Acceleration
- Non-destruct Bond Pull
- Die Shear Test
- Particle Impact Noise Detection (PIND)
- Electrical Test @ -55°C, 25°C, 125°C & Beyond
- Burn-in & Operating Life Test
- Fine & Gross Leak Tests
- Radiography
- External Visual

- Re-characterization
  - Package, Product Specs & Temperature
- Up-screening
- Customer Source Control Drawing Support
- Customer Source Inspection and Customer Witnessing Support

### MIL-PRF-19500 or MIL-PRF-19500/548 Equivalent

- JANTX, JANTXV (Military)
- JANS (Space)

### MIL-PRF-38534

- Class H (Military)
- Class K (Space)

### MIL-PRF-38535

- Class B (Military)
- Class S (Space)

- Element Evaluation
- Grp-A, B, C, D, E Testing
- Provision for Radiation Samples/Testing
- Comprehensive Data Package with Component Serialization and Read/record Data

Skyworks Solutions, through its wholly-owned subsidiary Isolink, provides upscreened and hermetically sealed high-reliability optocouplers, RF diodes and RFICs including multi-chip modules (MCM) for aerospace, defense, medical, extreme industrial and high-reliability markets and applications.



**SKYWORKS®**

**| Optocoupler Product Selector Guide**

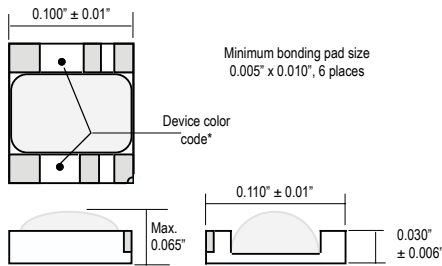
Function	Description	Part Number	Condition	Min.	Max.	$BV_{CE0}$ (V)	$V_{CC}$ Max. (V)	Switching Time (ns)	Isolation @ $V_{DC}$ 1 Sec.	Package Outline (Fig. Number)						
	Phototransistor Optocouplers	OLI110 <sup>2</sup>	CTR @ $I_f = 10$ mA	100	-	60	-	25	1500	8						
		OLI249 <sup>1</sup>		200	1200	40			1500	1						
		OLS049 <sup>12</sup>		200	1200	60			1000	9						
		OLS249 <sup>1</sup>		200	1200	40			1500	2						
		OLS449 <sup>1</sup>		1500	4000	65			1000							
		OLF249 <sup>1</sup>		200	1200	40			1000	5						
		OLH249 <sup>1</sup>		200	1200	40			1000	3						
		Dual Channel		OLS2249 <sup>12</sup>	200	1200			65	1500	6					
				OLS2449 <sup>12</sup>	1500	4000			65	1500						
				High-speed Optocouplers	OLI300 <sup>1</sup>	CTR @ $I_f = 10$ mA			15	-	-	18	-	1500	1	
OLS300 <sup>1</sup>	20		1500		2											
OLH300 <sup>1</sup>	20		1000		3											
Wideband Analog Optocouplers	OLF300 <sup>1</sup>		CTR @ $I_f = 16$ mA		9		-	-	-				6	1000	5	
	OLF300ET				5								6	1000		
Dual Channel	OLI303		CTR @ $I_f = 5$ mA		20		80	-	-				-	BW > 150 kHz	1500	1
	Low Input Current Photodarlington Optocouplers				OLI400 <sup>1</sup>		CTR @ $I_f = 0.5 / 5$ mA							300 / 200	-	-
OLS400 <sup>1</sup>			1000		2											
OLF400 <sup>1</sup>			1000		5											
OLH400 <sup>1</sup>			1000		3											
Dual Channel	OLH5700 <sup>1</sup> / 1 <sup>1</sup>	-	-	-	-	-	18	-	3000	4						
	High-speed Switching, High CMR, Logic Gate Optocouplers								OLI500	$V_{OL}$ @ $I_f = 5$ mA	-	0.6 V	-	7	140	1500
OLS500		1000	2													
OLF500		1000	5													
OLH500		1000	3													
Dual Channel		OLH5630 / 1	$V_{OL}$ @ $I_f = 10$ mA	3000	4											
	Schmitt Trigger Optocouplers	OLI600	Threshold Current $I_f$ @ $V_{CC} = 15$ V	-	10	-	18	300	1500	1						
		OLS600							1500	2						
		OLH6000 / 1							1500	4						
	Linear Optocouplers	OLS700	Transfer Gain, K1/K2	0.75	1.25	-	-	-	1000	2						
		OLH7000							1000	4						
	Photovoltaic Optocouplers	OLI910	$I_{SC}$ @ $I_f = 10$ mA	-7 $\mu$ A	-	-	-	-	1500	7						
		OLS910							1500	2						
		OLH910							1500	4						
		OLI920							2500	8						

1. Radiation tolerant. 2. No base connection.

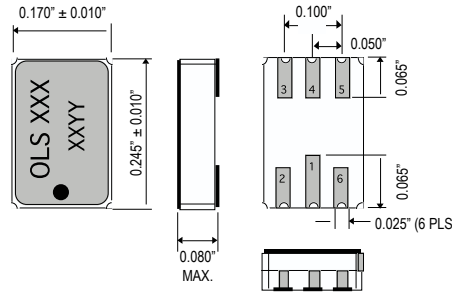
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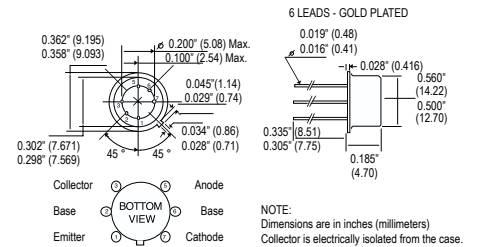
## Package Outline Drawings



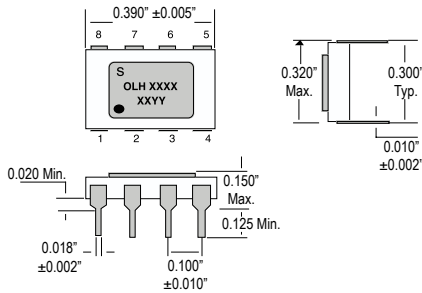
**Fig. 16-Lead Ceramic Chip Carrier for Hybrid Assembly**



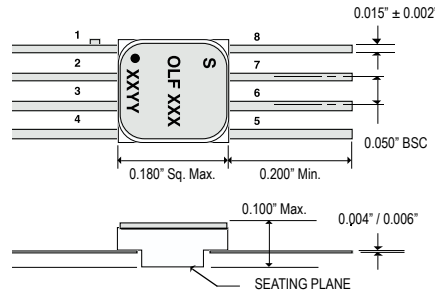
**Fig. 2 Hermetic 6-pin Ceramic LCC Package**



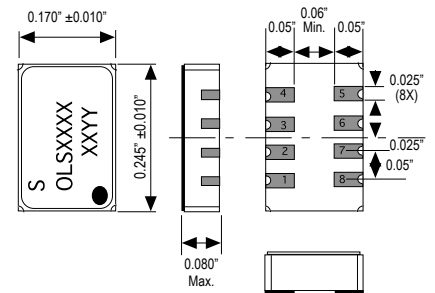
**Fig. 3 Hermetic 6-pin to -5 Package**



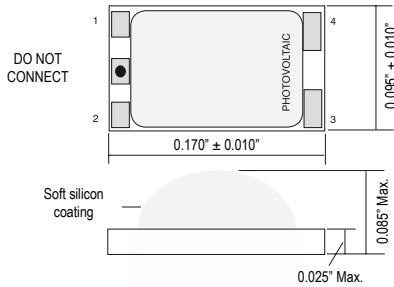
**Fig. 4 Hermetic 8-pin DIP**



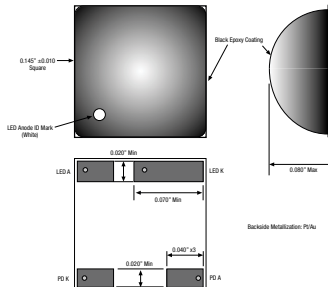
**Fig. 5 Hermetic 8-pin Ceramic Flat Package**



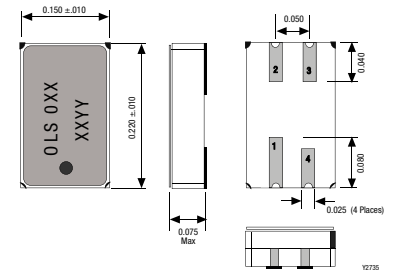
**Fig. 6 Hermetic 4-pin Ceramic LCC Package**



**Fig. 7 4-Lead Ceramic Chip Carrier for Hybrid Assembly**



**Fig. 8 4-Lead Surface Mounted Ceramic Chip Carrier**



**Fig. 9 Hermetic 4-pin Ceramic LCC Package**

## Custom Products and Special Requirements

- High-reliability screenings and multi-channel products are available upon request
- For solder dip, add " -1 " to the part number. (i.e. OLH249 -> OLH249-1)
- For tape & reel, add " -2 " to the part number. (i.e. OLH249 -> OLH249-2)
- For solder dip and tape & reel, add " -3 " to the part number. (i.e. OLH249 -> OLH249-3)

**For more information, please visit our webs**

hired.sales@skyworksinc.com | Phone: 408-946-1968 | Fax: 408-  
Isolink Proprietary Information • Products and Product Information ar

**Protec GmbH**  
Vertrieb elektronischer Bauteile  
Rosenheimer Landstraße 117  
D-85521 Ottobrunn-Riemerling  
Phone 089/6602923  
sales@protec-semi.de