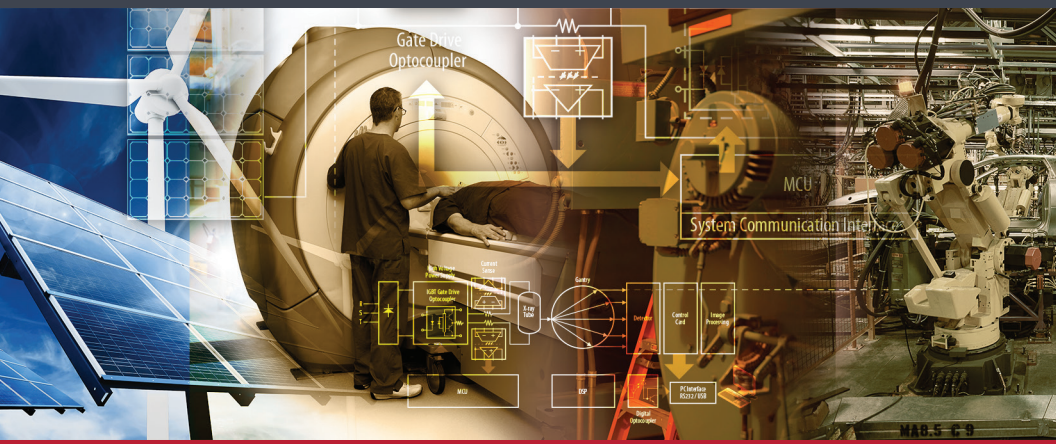
Optoisolation Products
Application Block Diagrams

Reference Guide



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Avago Technologies Optoisolation Products

Application Block Diagrams

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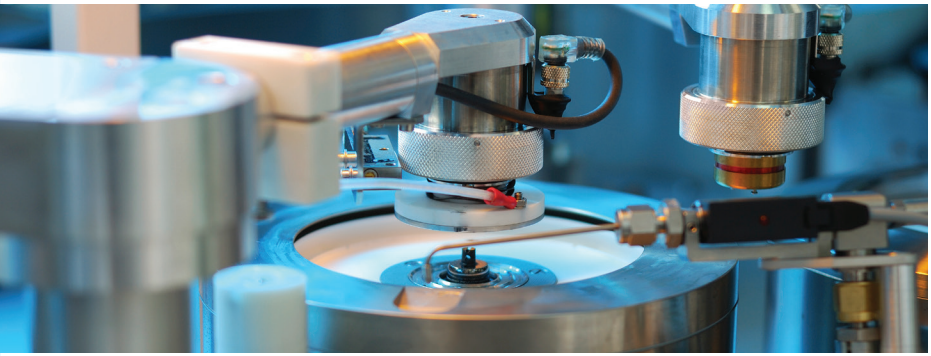
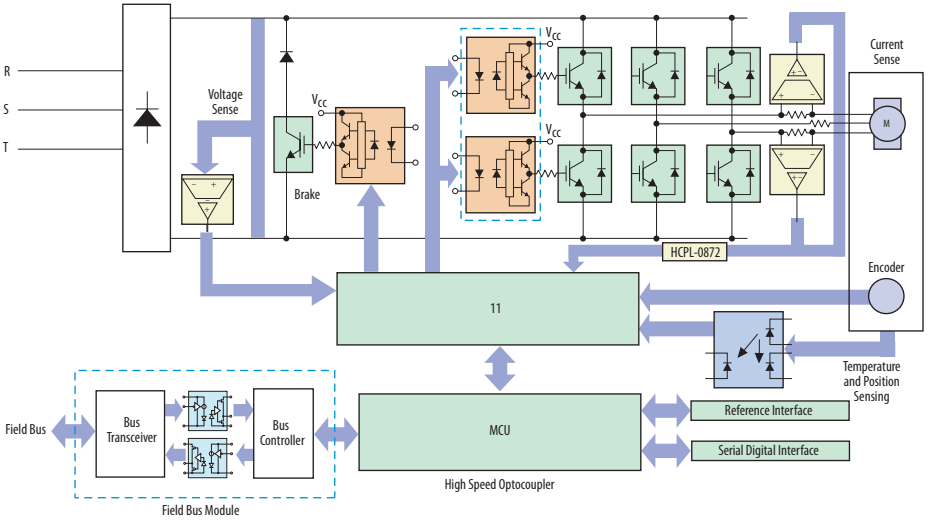
Isolation Products Application Block Diagrams in

Motor Control



AC Servo Motor Drive

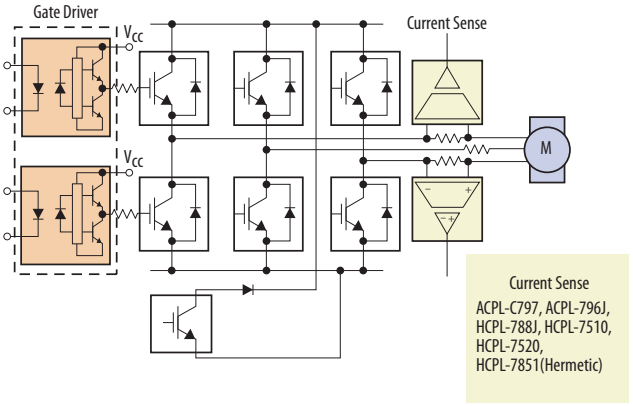


Isolated Current/Voltage Sensing				
Part No.	**Output**	**Description**	**Gain Tolerance**	**Package**
ACPL-C797	Digital	Optically Isolated Internally Clocked Sigma-Delta Modulator	±1%	SSO-8
ACPL-796J	Digital	Optically Isolated Externally Clocked Sigma-Delta Modulator	±1%	SO-16
HCPL-0872	–	Digital Interface IC for Sigma-Delta Modulator	–	SO-16
ACPL-C79B/ C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±0.5%, ±1%, ±3%	SSO-8
ACPL-C87B/ C87A/C870	Differential	Optically Isolated Voltage Sensor, 0-2V Input Range	±0.5%, ±1%, ±3%	SSO-8
HCPL-7510/7520	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6
HCPL-788J/ ACPL-785J	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range, with Fault Detection	±3%, ±5%	SO-16
Hermetic				
HCPL-7851	Differential	Isolated Amplifier		CDIP

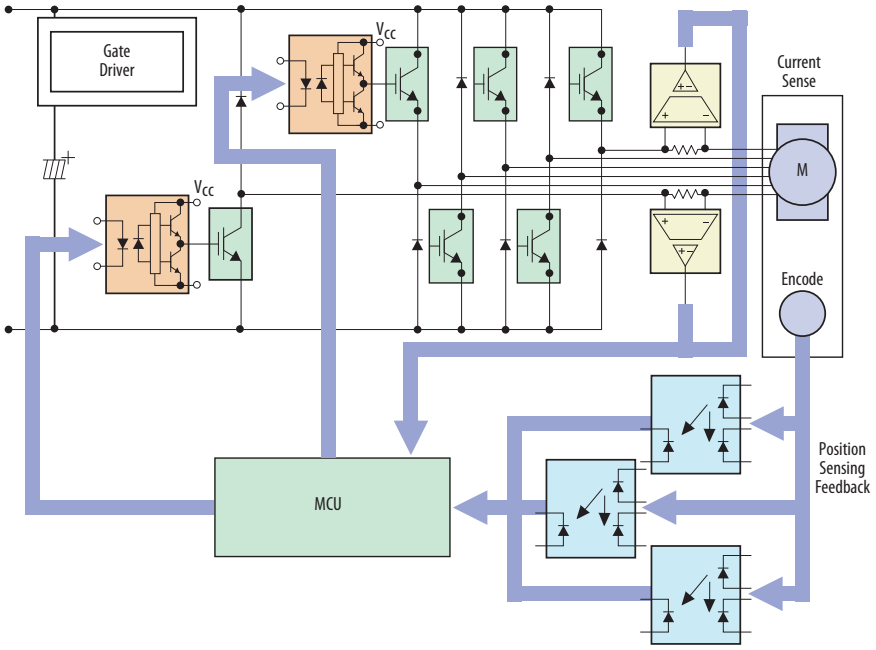
AC Servo Motor Drive

Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Inverter - IGBT/MOSFET Based



Switched Reluctance Motor Inverter



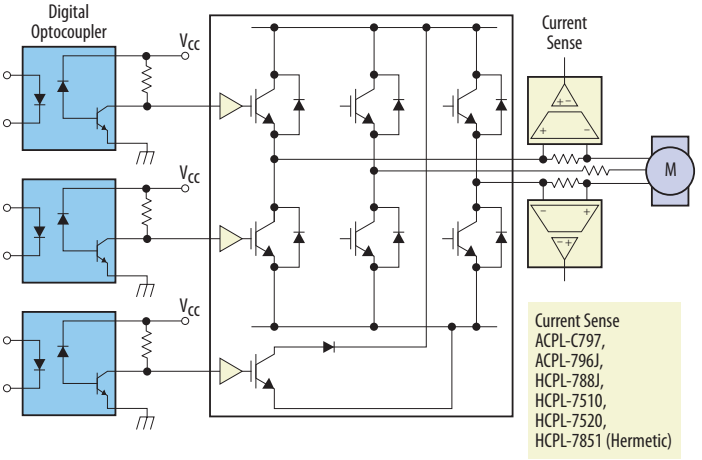
Inverter - IGBT/MOSFET Based and Switched Reluctance Motor Inverter

Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Isolated Current/Voltage Sensing				
Part No.	Output	Description	Gain Tolerance	Package
ACPL-C797	Digital	Optically Isolated Internally Clocked Sigma-Delta Modulator	±1%	SSO-8
ACPL-796J	Digital	Optically Isolated Externally Clocked Sigma-Delta Modulator	±1%	SO-16
HCPL-0872	–	Digital Interface IC for Sigma-Delta Modulator	–	SO-16
ACPL-C79B/ C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±0.5%, ±1%, ±3%	SSO-8
ACPL-C87B/ C87A/C870	Differential	Optically Isolated Voltage Sensor, 0-2V Input Range	±0.5%, ±1%, ±3%	SSO-8
HCPL-7510/7520	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6
HCPL-788J/ ACPL-785J	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range, with Fault Detection	±3%, ±5%	SO-16

Isolated Voltage Feedback			
Part No.	Package	Gain	Non-Linearity
HCNR200	DIP-8	+/-15%	0.25%
HCNR201	DIP-8	+/-5%	0.05%

Inverter - Intelligent Power Module(IPM) Based



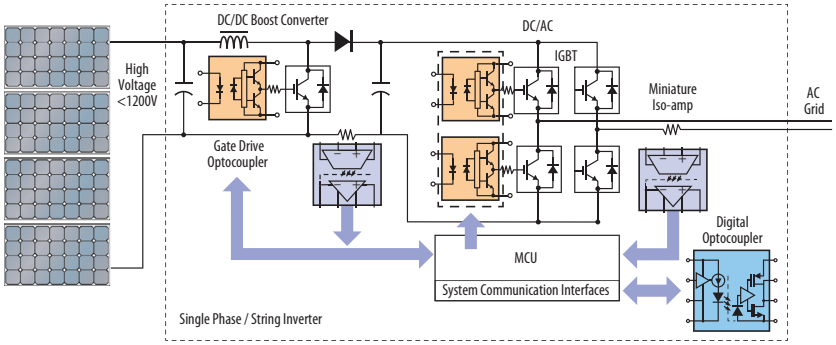
Intelligent Power Module Interface Optocoupler									
Part No.	Package	$I_{F(ON)}$ mA Min	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min	V_{IORM} V_{PEAK}
						CMR V/µs (Min)	V_{CM} V		
ACPL-M484	SO5	4.0	0.12	0.15	0.13	30000	1000	3750	567
ACPL-P484/W484	Stretched SO6	4.0	0.12	0.15	0.13	30000	1000	3750/5000	891/1140
ACPL-M483	SO5	4.0	0.12	0.12	0.10	30000	1000	3750	567
ACPL-P483/W483	Stretched SO6	4.0	0.12	0.12	0.10	30000	1000	3750/5000	891/1140
ACNV4506	500 mil DIP10	5.0	0.55	0.40	0.50	30000	1500	7500	2262

Isolated Current/Voltage Sensing				
Part No.	Output	Description	Gain Tolerance	Package
ACPL-C797	Digital	Optically Isolated Internally Clocked Sigma-Delta Modulator	±1%	SSO-8
ACPL-796J	Digital	Optically Isolated Externally Clocked Sigma-Delta Modulator	±1%	SO-16
HCPL-0872	–	Digital Interface IC for Sigma-Delta Modulator	–	SO-16
ACPL-C79B/ C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±0.5%, ±1%, ±3%	SSO-8
ACPL-C87B/ C87A/C870	Differential	Optically Isolated Voltage Sensor, 0-2V Input Range	±0.5%, ±1%, ±3%	SSO-8
HCPL-7510/7520	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6
HCPL-788J/ ACPL-785J	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range, with Fault Detection	±3%, ±5%	SO-16
Hermetic				
HCPL-7851	Differential	Isolation Amplifier	5%	CDIP

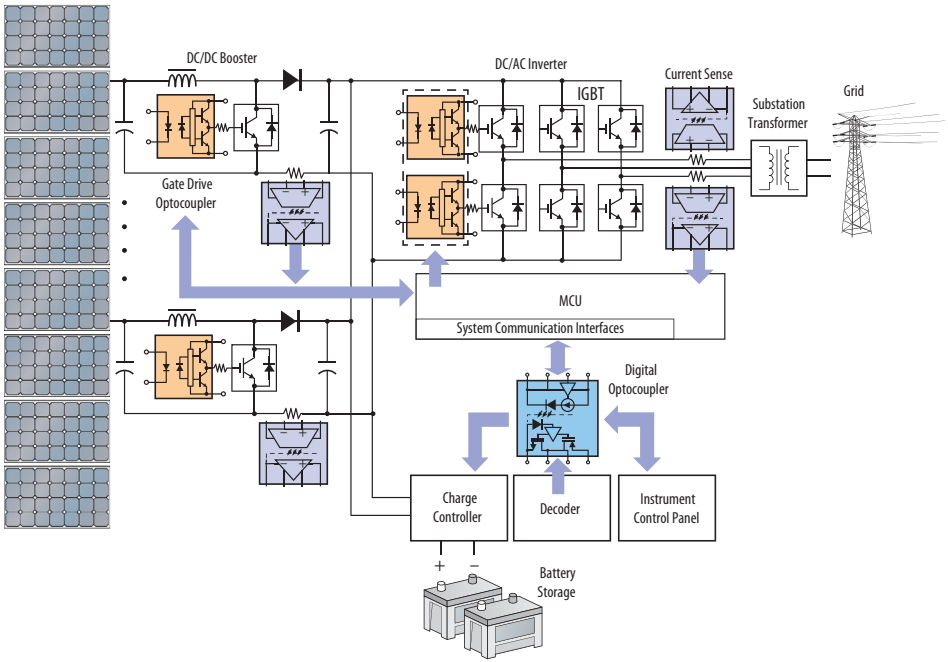
Isolation Products Application Block Diagrams in

Renewable Energy Power Generation

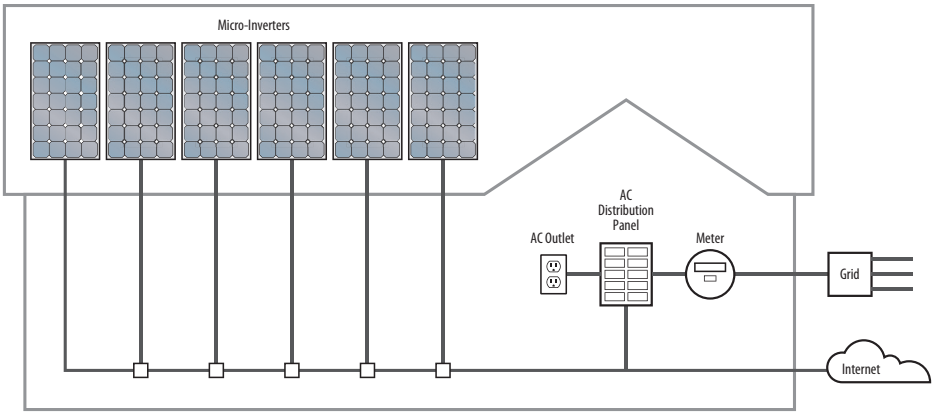
String Inverter (Single Phase)

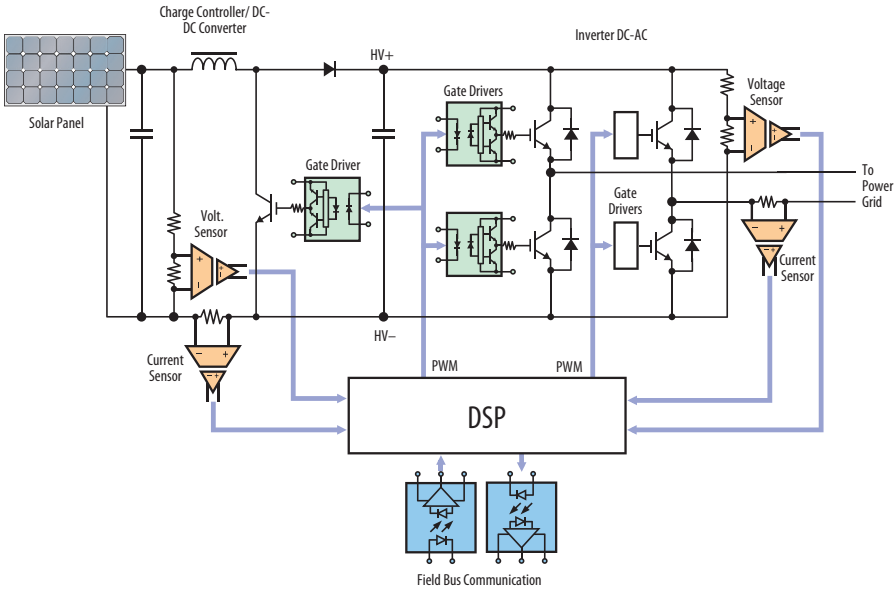


Central Inverter (Three Phase)



Micro-Inverter (Single Phase)





Renewable Energy Inverter

Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/5000	891/1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/5000	891/1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/5000	891/1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/5000	891/1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Low Power Digital Optocouplers									
Part No.	Channel	Package	Data Rate MBd	t_{PLH} ns Max	t_{PHL} ns Max	PWD ns Max	t_{PSK} ns Max	V_{ISO} V_{RMS} Min	V_{IORM} V_{PEAK}
ACNV2601	1	500mil DIP10	10	100	100	40	40	7500	2262
ACNW261L	1	400mil DIP8	10	95	95	40	30	5000	1414
ACPL-C61L	1	Stretched SO8	10	90	90	40	30	5000	1230
ACPL-W61L	1	Stretched SO6	10	80	80	30	30	5000	1140
ACPL-K64L	2	Stretched SO8	10	80	80	30	30	5000	1140
ACPL-M61L	1	SO5	10	80	80	30	30	3750	567
ACPL-064L	2	SO8	10	80	80	30	30	3750	567
ACPL-W50L	1	Stretched SO6	1	1000	1000	–	–	5000	1140
ACPL-K54L	2	Stretched SO8	1	1000	1000	–	–	5000	1140
ACPL-M49U*	1	SO5	0.02	20000	20000	–	–	3750	567
ACPL-K49U*	1	Stretched SO8	0.02	20000	20000	–	–	5000	1140
ACPL-M71U*	1	SO5	25	35	35	12	15	3750	567
ACPL-M72U*	1	SO5	10	100	100	50	60	3750	567

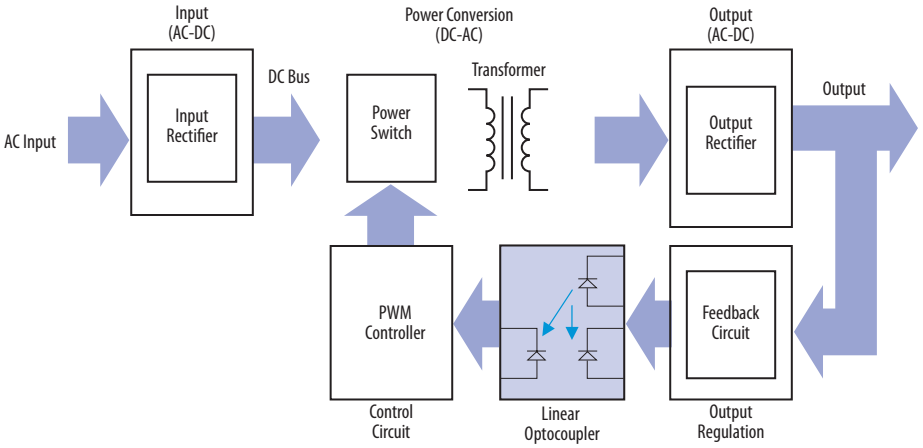
* R2Coupler extended temperature up to 125C.

Isolated Current/Voltage Sensing				
Part No.	Output	Description	Gain Tolerance	Package
ACPL-C797	Digital	Optically Isolated Internally Clocked Sigma-Delta Modulator	±1%	SSO-8
ACPL-796J	Digital	Optically Isolated Externally Clocked Sigma-Delta Modulator	±1%	SO-16
ACPL-C79B/C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±0.5%, ±1%, ±3%	SSO-8
ACPL-C87B/C87A/C870	Differential	Optically Isolated Voltage Sensor, 0-2V Input Range	±0.5%, ±1%, ±3%	SSO-8
HCPL-7510/7520	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6
HCPL-788J/ACPL-785J	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range, with Fault Detection	±3%, ±5%	SO-16

Isolation Products Application Block Diagrams in

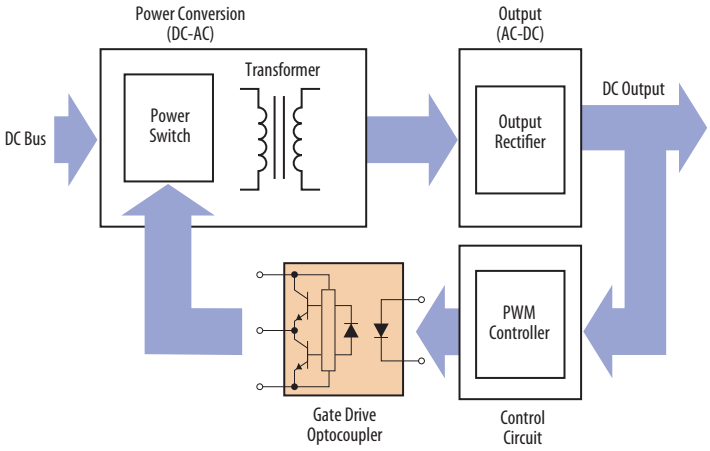
Power Supply

Isolated Voltage Feedback



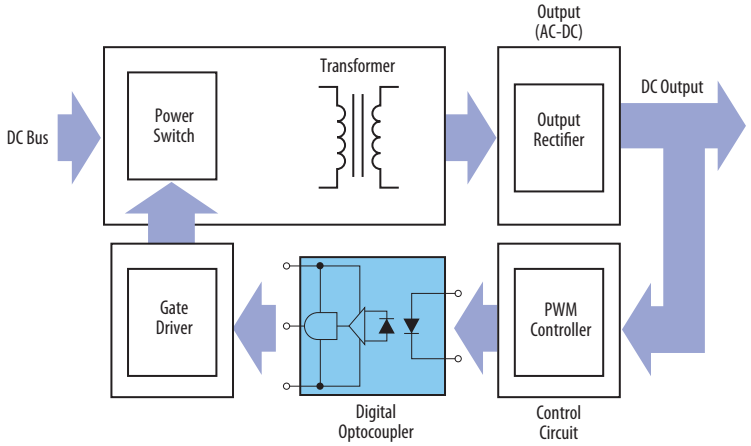
Isolated Voltage Feedback				
Part No.	**Description**	**Gain Tolerance**	**Non-Linearity**	**Package**
HCNR201/200	High Linearity Optocoupler	±5%, ±15%	0.05%, 0.25%	DIP-8
ACPL-C87B/C87A/C870	Optically Isolated Voltage Sensor	±0.5%, ±1%, ±3%	0.05%	SSO-8

Isolated High-Low Gate Drive by Integrated Gate Drive Optocoupler



Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Isolated High-Low Gate Drive Interface by Digital Optocoupler



High Speed Digital Isolators										
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	t_{PLH} & t_{PHL} (V_{CC}=3.3V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
								CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7410	Quad, 3/1 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7420	Quad, 2/2 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
HCPL-090J	Quad	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-900J	Quad	SO16 Wide Body	100	15	18	3	6	15000	1000	2500

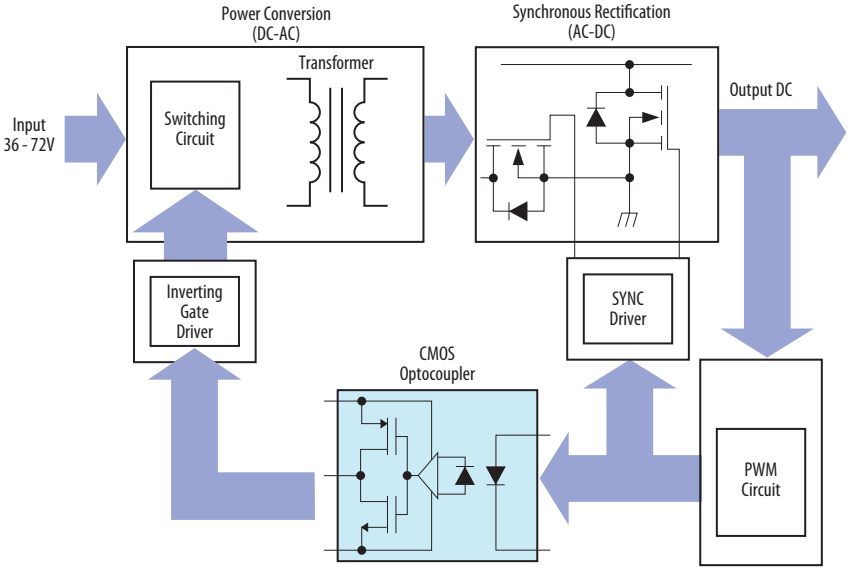
Isolated High-Low Gate Drive Interface by Digital Optocoupler

10 MBd (3.3V/5V) CMOS Optocouplers											
Part No.	Channel	Package	$I_{F(on)}$ mA Min	t_{PLH} ns Max	t_{PHL} ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-M61L	1	SO5	1.6	80	80	30	30	20000	1000	3750	567
ACPL-061L	1	SO8	1.6	80	80	30	30	20000	1000	3750	567
ACPL-C61L	1	Stretched SO8	3	90	90	40	30	20000	1000	5000	1230
ACPL-W61L	1	Stretched SO6	1.6	80	80	30	30	20000	1000	5000	1140
ACNW261L	1	400mil DIP8	4	95	95	40	30	20000	1000	5000	1414
ACPL-064L	2	SO8	1.6	80	80	30	30	20000	1000	3750	567
ACPL-K64L	2	Stretched SO8	1.6	80	80	30	30	20000	1000	5000	1140

5 MBd Logic Gate Optocouplers				
Part No	Package	CMR V/µs	V_{CM}	Insulation V_{rms}/1 minute
ACPL-M21L	SO-5	25000	1000	3750
ACPL-021L	SO-8	25000	1000	3750
ACPL-024L^	SO-8	25000	1000	3750
ACPL-W21L^	SSO-6	25000	1000	5000
ACPL-K24L^	SSO-8	25000	1000	5000
HCNW2211	DIP8 Wide Body	10000	1000	5000
Hermetic				
HCPL-5201	CDIP	1000	50	1500 V_{DC}/5sec

^ Advanced information. May subject to change.

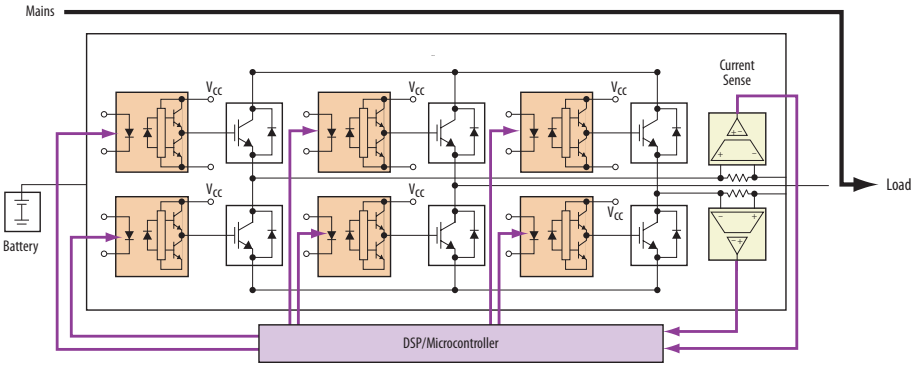
Secondary Controlled DC/DC with Sync Rectification



PWM Signal Isolation									
Part No.	**Channel**	**Package**	**Data Rate MBd**	**$I_{F(on)}$ mA Min**	**t_{PLH} ns Max**	**t_{PHL} ns Max**	**PWD ns Max**	**V_{ISO} V_{RMS} Min**	**V_{IORM} V_{PEAK}**
ACPL-M71U	1	SO5	25	4	35	35	12	3750	567
ACPL-M72U	1	SO5	10	4	100	100	50	3750	567
ACPL-M61L	1	SO5	10	1.6	80	80	30	3750	567
ACPL-061L	1	SO8	10	1.6	80	80	30	3750	567
ACPL-C61L	1	Stretched SO8	10	3	90	90	40	5000	1230
ACPL-W61L	1	Stretched SO6	10	1.6	80	80	30	5000	1140
ACNW261L	1	400mil DIP8	10	4	95	95	40	5000	1414

Hermetic				
Part No.	**Package**	**Data Rate (Mb/s)**	**PWD (ns) Max**	**Prop Delay (ns)**
HCPL-5601	Herm. SO-8	10	n/a	100

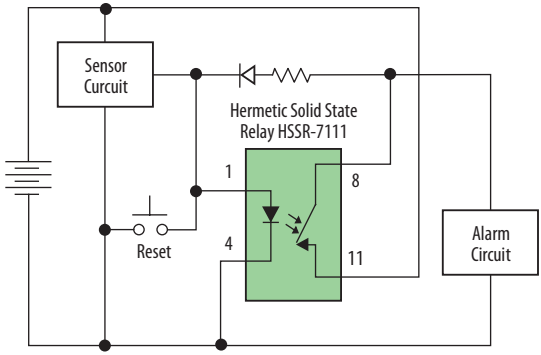
Off-Line UPS



Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@ V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/5000	891/1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/5000	891/1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/5000	891/1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/5000	891/1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Isolated Current/Voltage Sensing				
Part No.	Output	Description	Gain Tolerance	Package
ACPL-C797	Digital	Optically Isolated Internally Clocked Sigma-Delta Modulator	±1%	SSO-8
ACPL-796J	Digital	Optically Isolated Externally Clocked Sigma-Delta Modulator	±1%	SO-16
HCPL-0872	–	Digital Interface IC for Sigma-Delta Modulator	–	SO-16
ACPL-C79B/C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±0.5%, ±1%, ±3%	SSO-8
ACPL-C87B/C87A/C870	Differential	Optically Isolated Voltage Sensor, 0-2V Input Range	±0.5%, ±1%, ±3%	SSO-8
HCPL-7510/7520	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6
HCPL-788J/ACPL-785J	Single-Ended	Optical Isolation Amplifier, ±200mV Input Range, with Fault Detection	±3%, ±5%	SO-16

Low Power Alarm Control Circuit

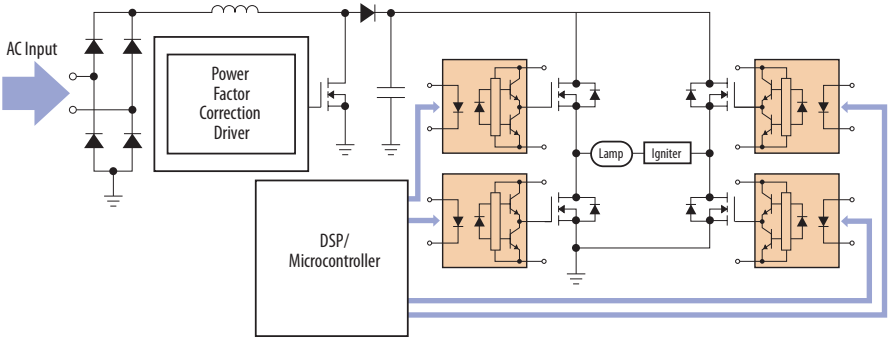


Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Isolation Products Application Block Diagrams in

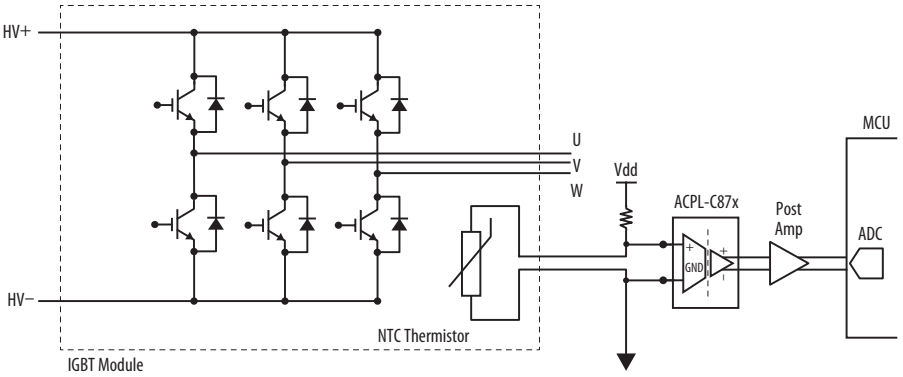
Lighting

Electronic Ballast for High Intensity Discharge (HID) Lamp



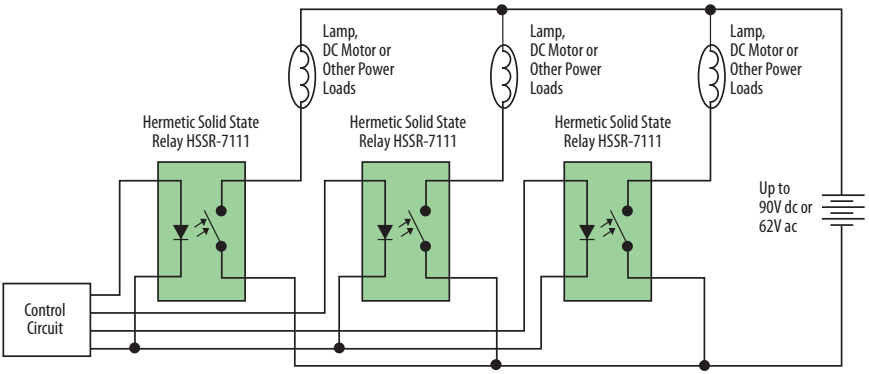
Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Isolated Thermistor Sensing



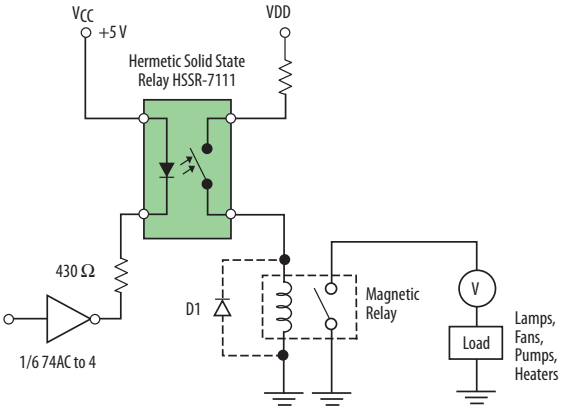
Isolated Current/Voltage Sensing				
Part No.	**Description**	**Gain Tolerance**	**Non-Linearity**	**Package**
ACPL-C87B/C87A/C870	Optically Isolated Voltage Sensor	±0.5%, ±1%, ±3%	0.05%	SSO-8
Hermetic				
Part No.	**Output**	**Description**	**Package**	**Gain Tol.**
HCPL-7851	Differential	Isolation Amplifier	CDIP	5%

Low Power AC/DC Switching



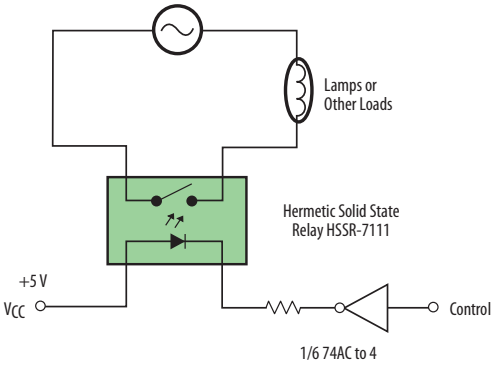
Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Isolated Relay Coil Driver



Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

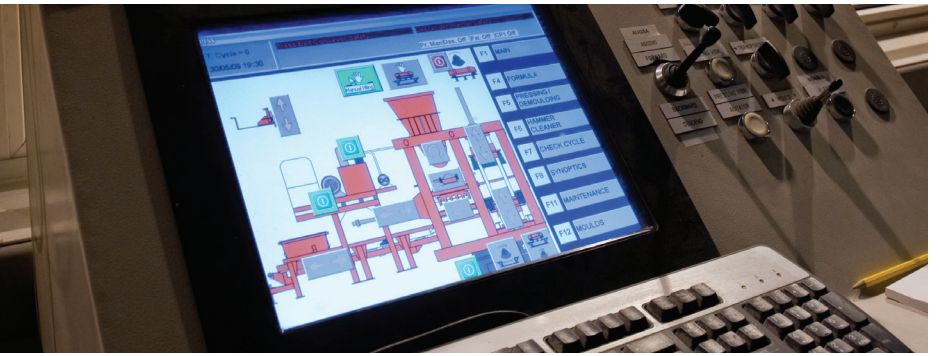
Lamp, Light or Indicator Control



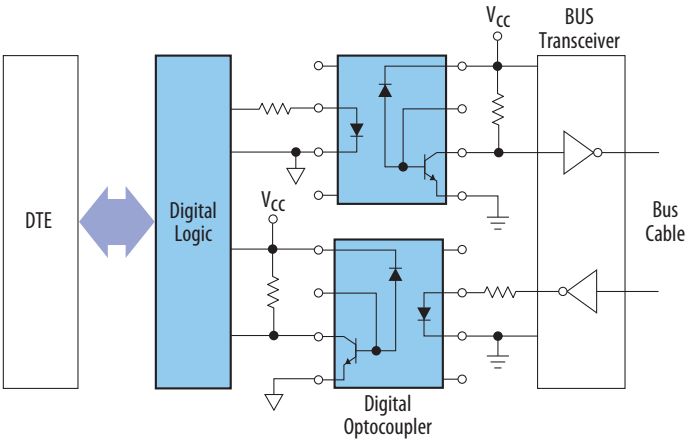
Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Isolation Products Application Block Diagrams in

Data Communication Interface

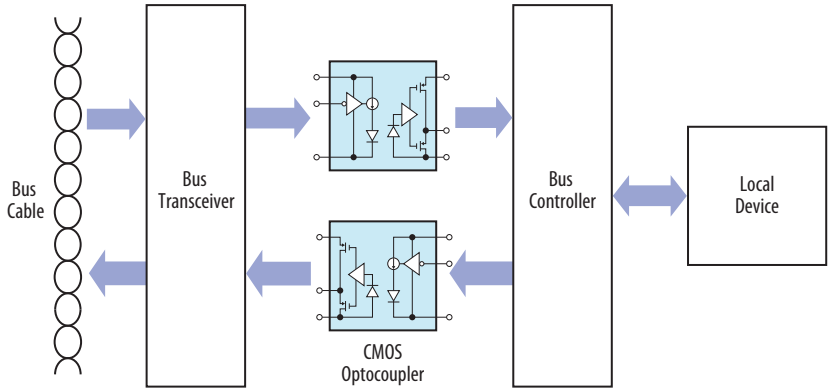


Serial Bus Interface Isolation
RS-232, RS-422, RS-485 . . .



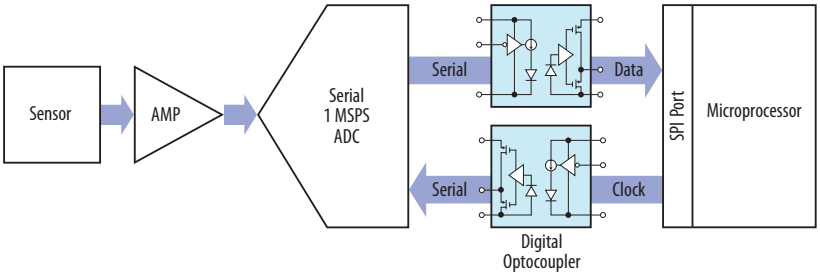
Digital Optocouplers					
Part No.	**Speed**	**Part No.**	**Speed**	**Part No.**	**Speed**
ACPL-077L	25 MBd	ACPL-x2xL	5 MBd	HCPL-07XX	100 kBd
ACPL-M71U	25 MBd	ACPL-x5xL	1 MBd	HCPL-27XX	100 kBd
ACPL-M72U	10 MBd	ACPL-M49U	20 kBd	HCPL-47XX	100 kBd
ACPL-x6xL	10 MBd	ACPL-K49U	20 kBd		
ACNW261L	10 MBd	HCPL-x723	50 MBd		
Hermetic					
HCPL-5401	20 MBd	HCPL-5601	10 MBd	HCPL-5201	5 MBd
HCPL-5501	1 MBd	HCPL-5701	100 kBd		

Fieldbus Networks
Profibus/RS-485, DeviceNet/CAN, . . .



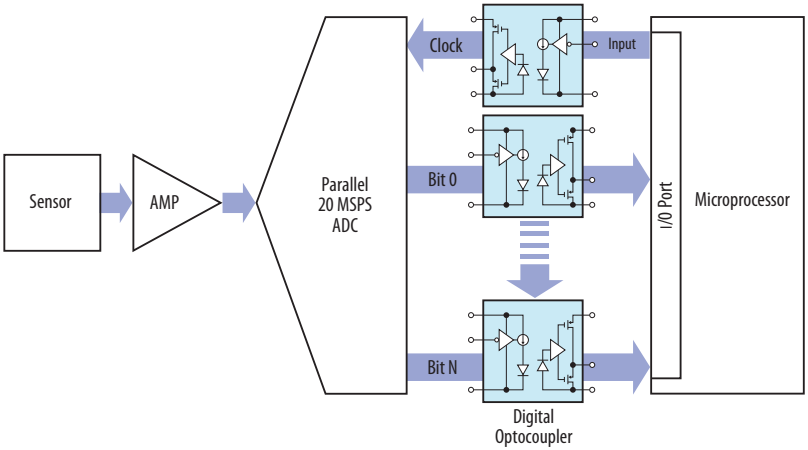
Digital CMOS Optocouplers									
Part No.	**Channel**	**Package**	**Data Rate MBd**	**t_{PLH} ns Max**	**t_{PHL} ns Max**	**PWD ns Max**	**t_{PSK} ns Max**	**V_{ISO} V_{RMS} Min**	**V_{IORM} V_{PEAK}**
ACPL-077L	1	SO8	25	40	40	6	15	3750	567
ACPL-M71U	1	SO5	25	35	35	12	15	3750	567
ACPL-M72U	1	SO5	10	100	100	50	60	3750	567
ACPL-M61L	1	SO5	10	80	80	30	30	3750	567
ACPL-061L	1	SO8	10	80	80	30	30	3750	567
ACPL-C61L	1	Stretched SO8	10	90	90	40	30	5000	1230
ACPL-W61L	1	Stretched SO6	10	80	80	30	30	5000	1140
ACNW261L	1	400mil DIP8	10	95	95	40	30	5000	1414
HCPL-0723	1	SO8	50	22	22	2	16	3750	567
HCPL-7723	1	300mil DIP8	50	22	22	2	16	3750/5000	630

A/D Conversion with SPI



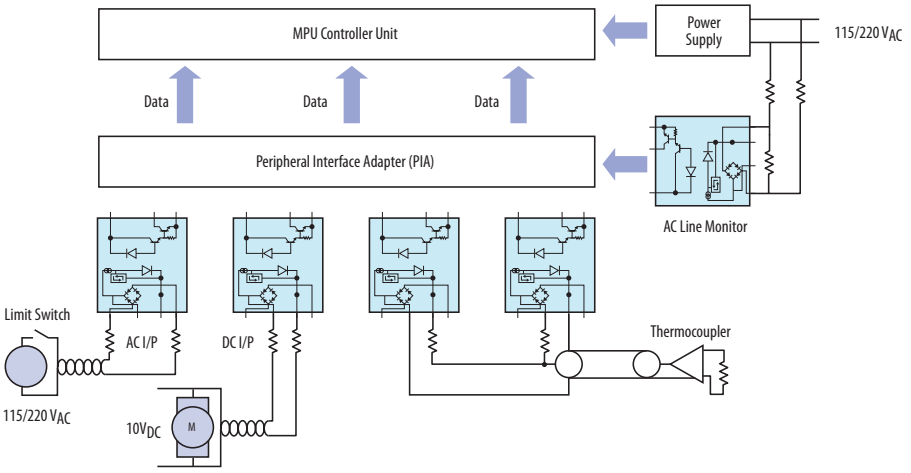
Digital CMOS Optocouplers									
Part No.	**Channel**	**Package**	**Data Rate MBd**	**t_{PLH} ns Max**	**t_{PHL} ns Max**	**PWD ns Max**	**t_{PSK} ns Max**	**V_{ISO} V_{RMS} Min**	**V_{IORM} V_{PEAK}**
ACPL-077L	1	SO8	25	40	40	6	15	3750	567
ACPL-M71U	1	SO5	25	35	35	12	15	3750	567
ACPL-772L	1	300mil DIP8	25	40	40	6	20	3750/ 5000	630
ACPL-M75L	1	SO5	15	55	55	25	40	3750	567
ACPL-071L	1	SO8	15	40	40	25	30	3750	560
ACPL-074L	2	SO8	15	40	40	25	30	3750	560
HCPL-2400	1	300mil DIP8	20	60	60	25	35	3750	630
HCPL-2430	2	300mil DIP8	20	60	60	25	35	3750	630
HCPL-0723	1	SO8	50	22	22	2	16	3750	567
HCPL-7723	1	300mil DIP8	50	22	22	2	16	3750/ 5000	630

Parallel A/D Conversion Isolation



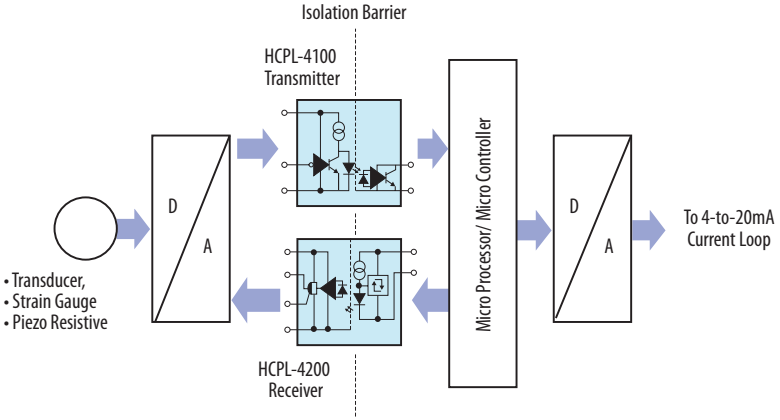
Digital Optocoupler						
Part No.	**Speed**	**Max. PD**	**Min. Pulse Width**	**Max. PWD**	**Max. T_{psk}**	**Package Type**
HCPL-2400	20 MBd	60 ns	–	25 ns	35 ns	DIP-8
HCPL-2430	20 MBd	60 ns	–	25 ns	35 ns	DIP-8
HCPL-7720	25 MBd	40 ns	40 ns	8 ns	20 ns	DIP-8
ACPL-077L	25 MBd	40 ns	40 ns	6 ns	15 ns	SO-8
HCPL-7721	25 MBd	40 ns	40 ns	6 ns	20 ns	DIP-8
HCPL-0721	25 MBd	40 ns	40 ns	6 ns	20 ns	SO-8
HCPL-7723	50 MBd	22 ns	20 ns	2 ns	16 ns	DIP-8
HCPL-0723	50 MBd	22 ns	20 ns	2 ns	16 ns	SO-8
Hermetic						
HCPL-5401	20 MBd	60 ns	–	35 ns	–	CDIP
HCPL-5431	20 MBd	60 ns	–	35 ns	–	CDIP

AC/DC Logic Isolation Interface in Industrial Control Systems



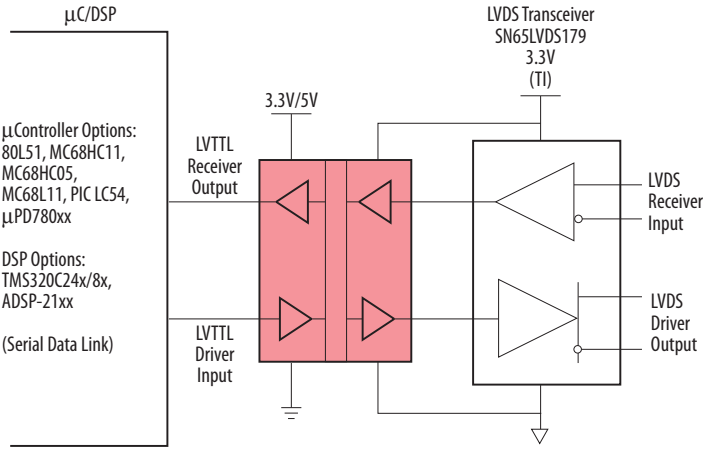
AC/DC Logic Interface							
Part No.	Package	CMR @V_{CM}		V_{ISO} Min	Min I_{th}	Max I_{th}	Hysteresis
		CMR (Min)	V_{CM}				
ACPL-K370	SSO-8	1000 V/µs	500 V	5000 V	1.96 mA	3.11 mA	1.2 mA
ACPL-K376	SSO-8	1000 V/µs	500 V	5000 V	0.87 mA	1.56 mA	0.6 mA
HCPL-0370	SO-8	600 V/µs	140 V	3750 V	1.96 mA	3.11 mA	1.2 mA
HCPL-3700	DIP-8	600 V/µs	140 V	3750 V	1.96 mA	3.11 mA	1.2 mA
HCPL-3760	DIP-8	600 V/µs	140 V	3750 V	0.87 mA	1.56 mA	0.6 mA

4-20mA Current Loop Communications



Optically Coupled 20mA Current loop Transmitter/Reveiver					
Part No.	**Package**	**Data Rate kBd @ (Meters)**	**t_{PLH} µs (Max)**	**t_{PHL} µs (Max)**	**CMR V/µs (Min)**
Transmitter					
HCPL-4100	DIP-8	20 (400)	1.6	1.0	1000
Receiver					
HCPL-4200	DIP-8	20 (1400)	1.6	1.0	1000

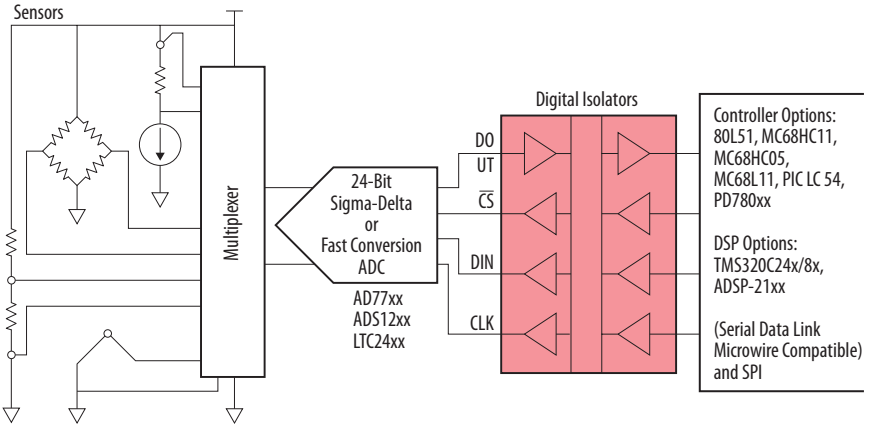
High Speed Data Transmission LVDS Interface



Note: The illustration is one of the many configurations that use digital isolators with LVDS transceivers.

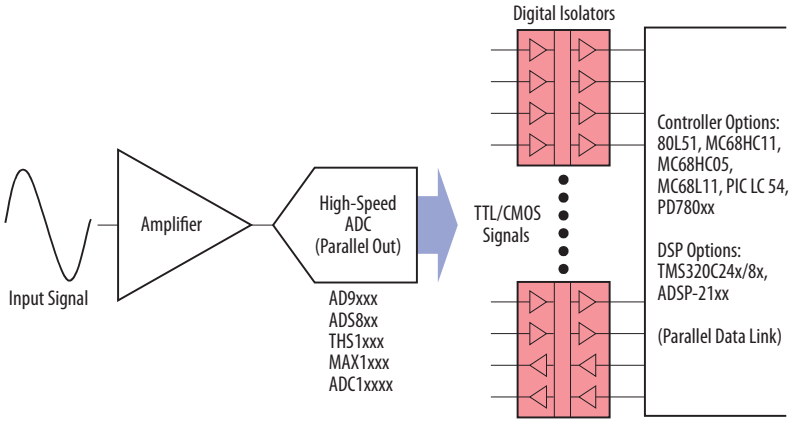
High Speed Digital Isolators					
Part No.	**Channel Configuration**	**Package**	**Data Rate (Mbps)**	**Max. PWD (ns)**	**Max. Prop. Delay (ns)**
HCPL-9000	Single	300mil DIP	100	3	15
HCPL-0900	Single	SO8			
HCPL-9030	Dual	300mil DIP			
HCPL-0930	Dual	SO8			
HCPL-9031	"Dual, Bi-Dir"	300mil DIP			
HCPL-0931	"Dual, Bi-Dir"	SO8			

Data Acquisition



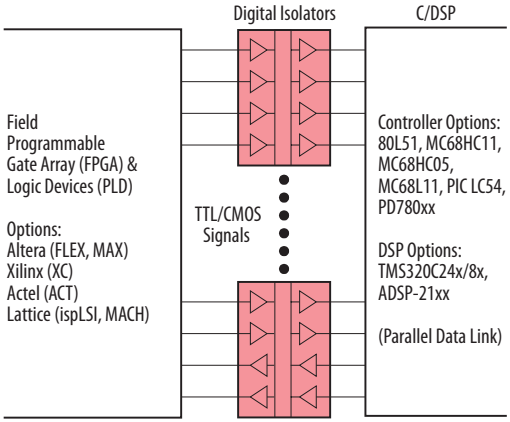
High Speed Digital Isolators										
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	t_{PLH} & t_{PHL} (V_{CC}=3.3V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
								CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7410	Quad, 3/1 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7420	Quad, 2/2 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
HCPL-090J	Quad	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-900J	Quad	SO16 Wide Body	100	15	18	3	6	15000	1000	2500
HCPL-091J	Quad, 2/2 Bi-dir	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-901J	Quad, 2/2 Bi-dir	SO16 Wide Body	100	15	18	3	6	15000	1000	2500
HCPL-092J	Quad, 3/1 Bi-dir	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-902J	Quad, 3/1 Bi-dir	SO16 Wide Body	100	15	18	3	6	15000	1000	2500

High End Data Acquisition



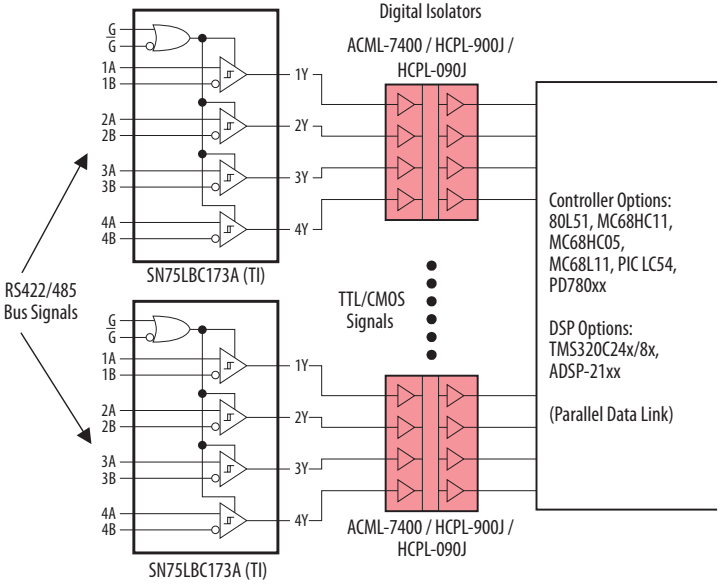
High Speed Digital Isolators										
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	t_{PLH} & t_{PHL} (V_{CC}=3.3V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
								CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7410	Quad, 3/1 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7420	Quad, 2/2 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
HCPL-9031	Dual, 1/1 Bi-dir	300mil DIP8	100	15	18	3	6	15000	1000	2500
HCPL-0931	Dual, 1/1 Bi-dir	SO8	100	15	18	3	6	15000	1000	2500
HCPL-9030	Dual	300mil DIP8	100	15	18	3	6	15000	1000	2500
HCPL-0930	Dual	SO8	100	15	18	3	6	15000	1000	2500
HCPL-9000	Single	300mil DIP8	100	15	18	3	6	15000	1000	2500
HCPL-0900	Single	SO8	100	15	18	3	6	15000	1000	2500

Test & Measurement Market Digital Interface



High Speed Digital Isolators										
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	t_{PLH} & t_{PHL} (V_{CC}=3.3V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
								CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7410	Quad, 3/1 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
ACML-7420	Quad, 2/2 Bi-dir	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
HCPL-090J	Quad	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-900J	Quad	SO16 Wide Body	100	15	18	3	6	15000	1000	2500
HCPL-091J	Quad, 2/2 Bi-dir	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-901J	Quad, 2/2 Bi-dir	SO16 Wide Body	100	15	18	3	6	15000	1000	2500
HCPL-092J	Quad, 3/1 Bi-dir	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-902J	Quad, 3/1 Bi-dir	SO16 Wide Body	100	15	18	3	6	15000	1000	2500
HCPL-9031	Dual, 1/1 Bi-dir	300mil DIP8	100	15	18	3	6	15000	1000	2500
HCPL-0931	Dual, 1/1 Bi-dir	SO8	100	15	18	3	6	15000	1000	2500
HCPL-9030	Dual	300mil DIP8	100	15	18	3	6	15000	1000	2500
HCPL-0930	Dual	SO8	100	15	18	3	6	15000	1000	2500
HCPL-9000	Single	300mil DIP8	100	15	18	3	6	15000	1000	2500
HCPL-0900	Single	SO8	100	15	18	3	6	15000	1000	2500

Communications Network RS422/485 Interface



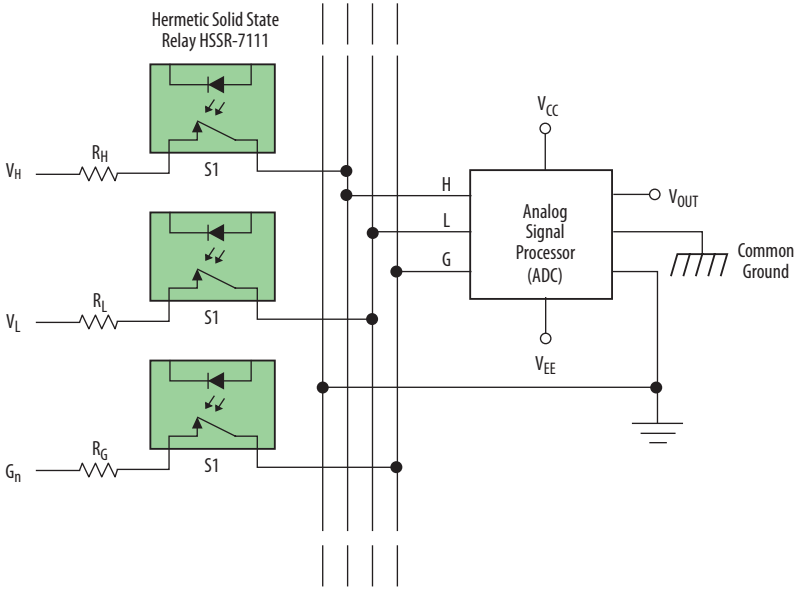
Note: Two or more RS422/452 Receivers may be connected to Quad-channel Digital Isolators.

High Speed Digital Isolators										
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	t_{PLH} & t_{PHL} (V_{CC}=3.3V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
								CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
HCPL-090J	Quad	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-900J	Quad	SO16 Wide Body	100	15	18	3	6	15000	1000	2500

Isolation Products Application Block Diagrams in

Analog Signal Conditioning & Interface

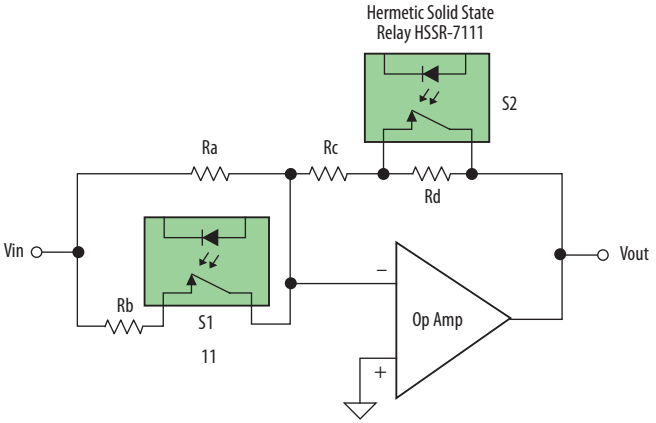
Analog Signal Multiplexing



Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

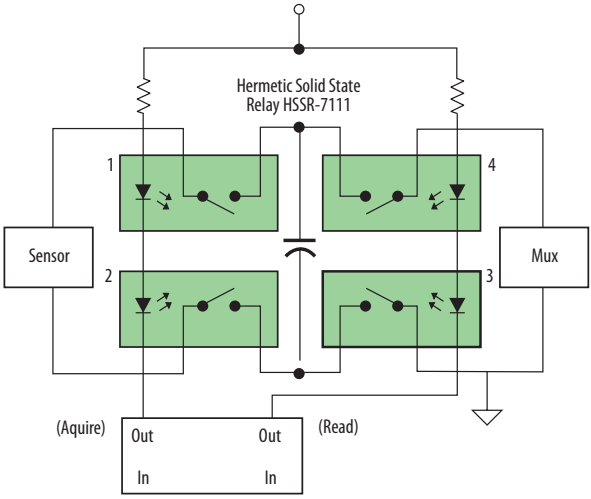
Isolated Gain Selection

Gain Selection for Op-Amps using Solid State relay switching matrix



Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Analog Signal Sensing
Analog Signal Sensing - Flying Capacitor Technique



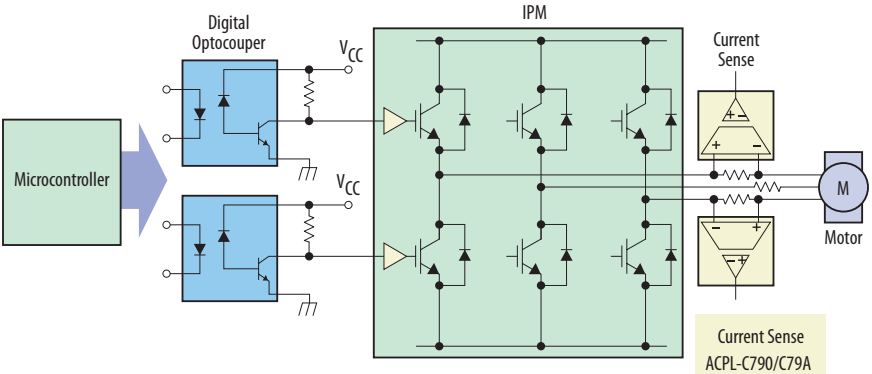
Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Isolation Products Application Block Diagrams in

Consumer Appliances

Consumer Inverter – IPM Based

Air Conditioner, Refrigerator, Washing Machine, Vacuum Cleaner, Treadmill, Massage Chair

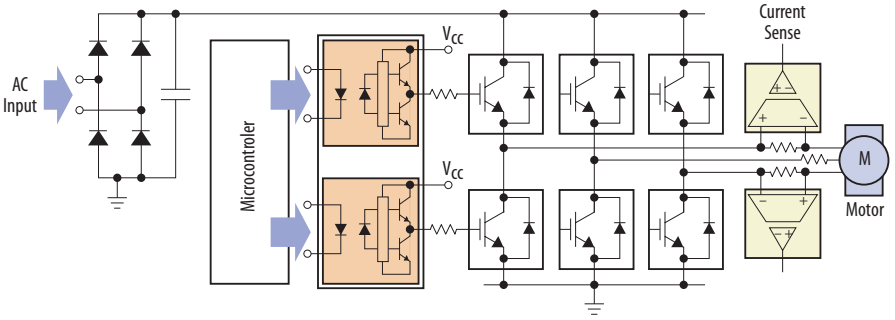


Intelligent Power Module Interface Optocoupler									
Part No.	Package	$I_{F(ON)}$ mA Min	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS} Min	V_{IORM} V_{PEAK}
						CMR V/µs (Min)	V_{CM} V		
ACPL-M484	SO5	4.0	0.12	0.15	0.13	30000	1000	3750	567
ACPL-P484/W484	Stretched SO6	4.0	0.12	0.15	0.13	30000	1000	3750/5000	891/1140
ACPL-M483	SO5	4.0	0.12	0.12	0.10	30000	1000	3750	567
ACPL-P483/W483	Stretched SO6	4.0	0.12	0.12	0.10	30000	1000	3750/5000	891/1140
ACNV4506	500 mil DIP10	5.0	0.55	0.40	0.50	30000	1500	7500	2262

Isolated Current/Voltage Sensing				
Part No.	Output	Description	Gain Tolerance	Package
ACPL-C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±1%, ±3%	SSO-8
HCPL-7510/7520	Single-ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6

Consumer Inverter – IGBT/MOSFET Based

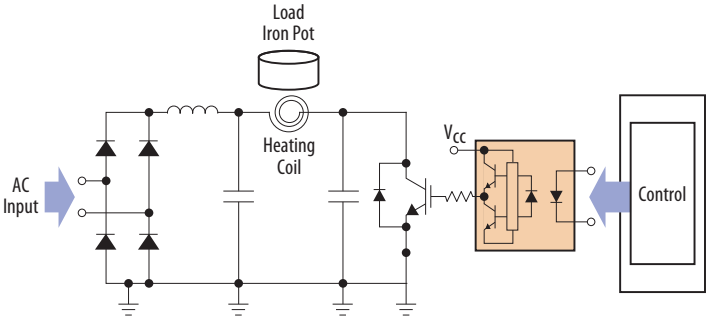
Air Conditioner, Refrigerator, Washing Machine, Vacuum Cleaner, Treadmill, Massage Chair



Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

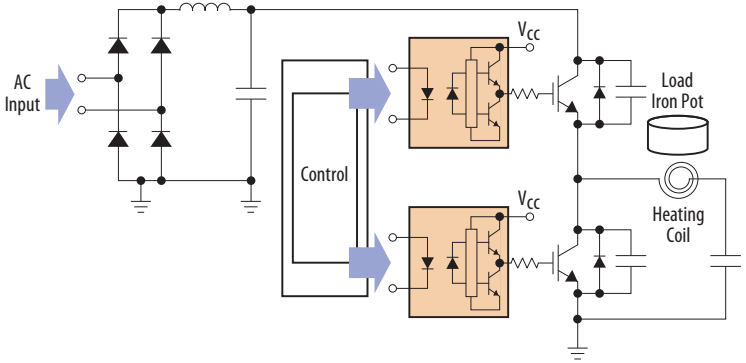
Isolated Current/Voltage Sensing				
Part No.	Output	Description	Gain Tolerance	Package
ACPL-C79A/C790	Differential	Optical Isolation Amplifier, ±200mV Input Range	±1%, ±3%	SSO-8
HCPL-7510/7520	Single-ended	Optical Isolation Amplifier, ±200mV Input Range	±3%, ±5%	DIP-6

Electric Cooker Quasi-Resonant Induction Heating Cooking (Single IGBT Design)



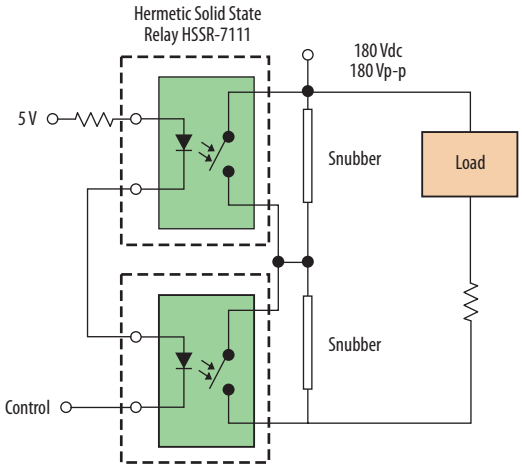
Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Electric Cooker Half-Bridge Series Resonant Induction Heating Cooking



Integrated Gate Drive Optocoupler											
Part No.	Package	I_{OUT} A Min	I_{OUT} A Max	t_{PLH} µs Max	t_{PHL} µs Max	P_{DD} µs Max	V_{CC} V Max	CMR - V/µs@V_{CM}		V_{ISO} V_{RMS}	V_{IORM} V_{PEAK}
								CMR V/µs (Min)	V_{CM} V		
ACPL-333J/332J	SO16	2.0	2.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-333J)										
ACPL-330J/331J	SO16	1.0	1.5	0.25	0.25	0.15	30	50000	1500	5000	1230
	– Active Miller Clamp, Over-Current Detection, Fault Feedback, UVLO Protection, Automatic Fault Reset (ACPL-330J)										
ACPL-P343/W343	Stretched SO6	3.0	4.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P341/W341	Stretched SO6	2.5	3.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-P340/W340	Stretched SO6	0.8	1.0	0.20	0.20	0.10	30	35000	1500	3750/ 5000	891/ 1140
ACPL-H342/K342	Stretched SO8	2.0	2.5	0.35	0.25	-0.20	30	40000	1500	3750/ 5000	891/ 1140
	– Rail-to-Rail Output, Active Miller Clamp, Anti-Cross Conduction Timing, UVLO Protection										
ACNV3130	500 mil DIP10	2.0	2.5	0.50	0.50	0.35	30	40000	1500	7500	2262
ACNW3190	400 mil DIP8	4.0	5.0	0.50	0.50	0.30	30	15000	1500	5000	1414

Stacking Relays for Higher Switching Loads

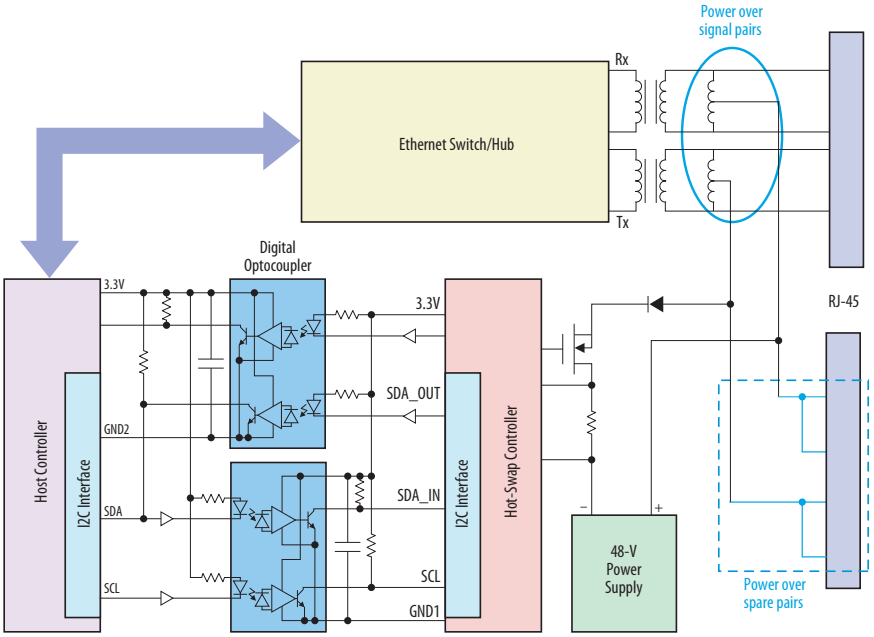


Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Isolation Products Application Block Diagrams in

Telecommunication

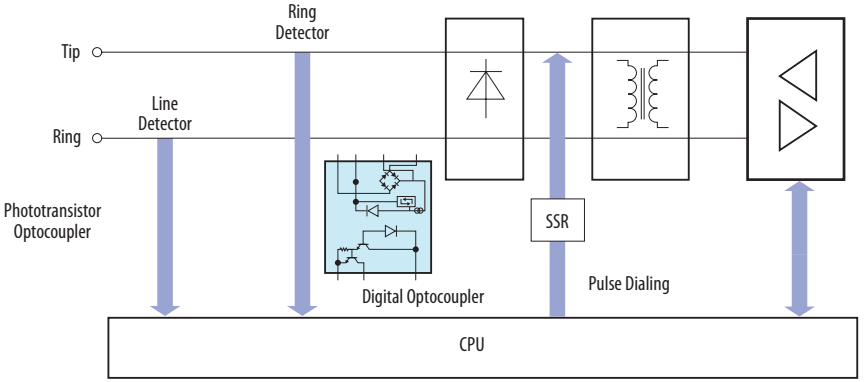
Isolated I²C Bus in Power Over Ethernet Module



High Speed Digital Isolators										
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	t_{PLH} & t_{PHL} (V_{CC}=3.3V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
								CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	36	2	5	25000	1000	5600
HCPL-090J	Quad	SO16 Narrow Body	100	15	18	3	6	15000	1000	2500
HCPL-900J	Quad	SO16 Wide Body	100	15	18	3	6	15000	1000	2500

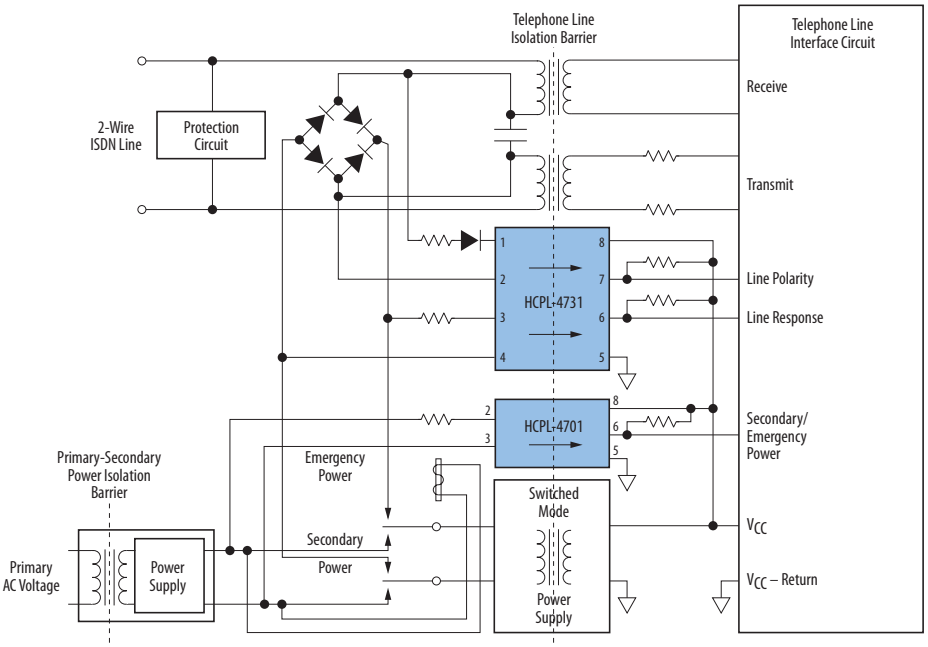
Digital Optocouplers							
Part No.	Package	t_{PLH} ns Max	t_{PHL} ns Max	$I_{F(ON)}$ mA Min	CMR V/µs	V_{CM}	V_{ISO}
ACPL-064L	SO-8	80	80	1.6	20000	1000	3750
ACPL-K64L	SSO-8	80	80	1.6	20000	1000	5000
ACPL-054L	SO-8	1000	1000	3	15000	1500	3750
ACPL-K54L	SSO-8	1000	1000	3	15000	1500	5000

Telephone Line Detection



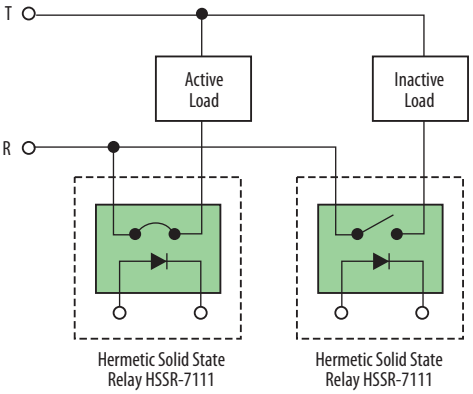
AC/DC Logic Interface							
Part No.	Package	CMR @V_{CM}		V_{ISO} Min	Min I_{th}	Max I_{th}	Hysteresis
		CMR (Min)	V_{CM}				
ACPL-K370	SSO-8	1000 V/µs	500 V	5000 V	1.96 mA	3.11 mA	1.2 mA
ACPL-K376	SSO-8	1000 V/µs	500 V	5000 V	0.87 mA	1.56 mA	0.6 mA
HCPL-0370	SO-8	600 V/µs	140 V	3750 V	1.96 mA	3.11 mA	1.2 mA
HCPL-3700	DIP-8	600 V/µs	140 V	3750 V	1.96 mA	3.11 mA	1.2 mA
HCPL-3760	DIP-8	600 V/µs	140 V	3750 V	0.87 mA	1.56 mA	0.6 mA
Hermetic							
HCPL-5761	CDIP				1.75 mA	3.2 mA	1.2 mA

ISDN Interface



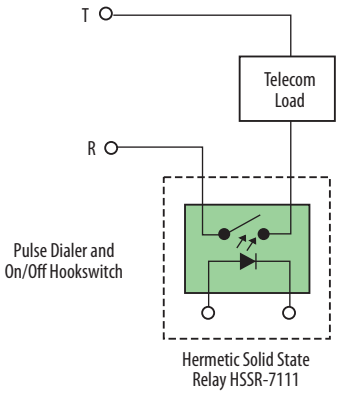
100kBd Digital Optocoupler				
Part No.	**Package**	**Channel**	**CTR**	**I_F**
HCPL-4701	DIP-8	Single	800%	40 µA
HCPL-4731	DIP-8	Dual	800%	40 µA
Hermetic				
HCPL-5701	CDIP	Single	300%	0.5 mA
HCPL-5731	CDIP	Single	300%	0.5 mA

Telecommunication Line Switching Selection



Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Telephone Pulse Dialing and On/Off Hookswitch

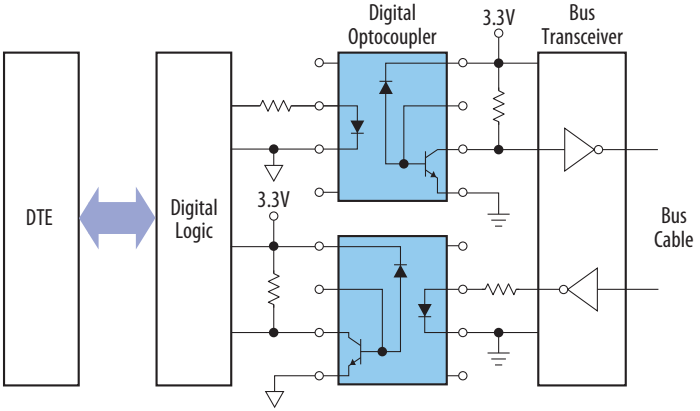


Hermetic								
Part No.	**Usage**	**Switching Type**	**Current Capacity**	**On Resistance**	**Package**	**Withstand Voltage**	**Switching Speed**	**CMR**
HSSR-7111	AC/DC Power	SPST	0.8A or 1.6A	0.6 ohms	CDIP	90 V	1.25 ms	1000V/µs

Isolation Products Application Block Diagrams in

Computing

3.3 V RS232 / UART Interface Isolation

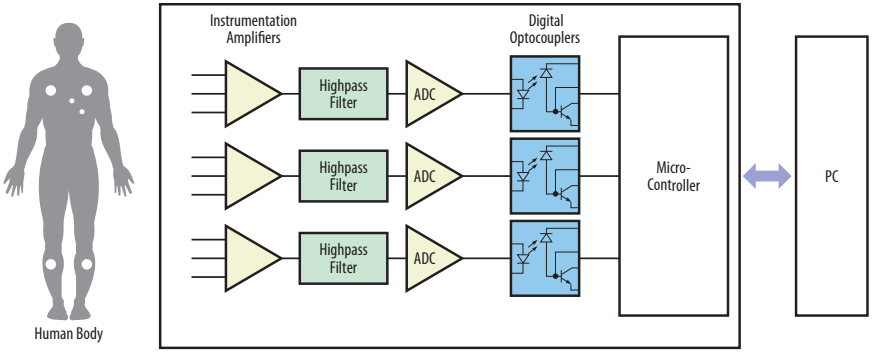


Part No.	Channel	Package	Max Data Rate Min
HCPL-070L	1	SO8	100 KBd
HCPL-270L	1	300mil DIP8	100 KBd
HCPL-073L	2	SO8	100 KBd
HCPL-273L	2	300mil DIP8	100 KBd
ACPL-M50L	1	SO5	1 MBd
ACPL-W50L	1	Stretched SO6	1 MBd
ACPL-054L	2	SO8	1 MBd
ACPL-K54L	2	Stretched SO8	1 MBd
ACPL-M61L	1	SO5	10 MBd
ACPL-061L	1	SO8	10 MBd
ACPL-W61L	1	Stretched SO6	10 MBd
ACPL-064L	2	SO8	10 MBd
ACPL-K64L	2	Stretched SO8	10 MBd

Isolation Products Application Block Diagrams in

Medical

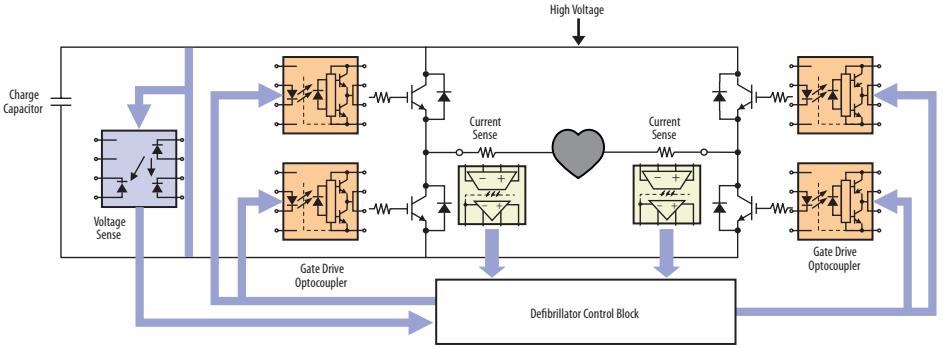
Patient Monitoring System/Electrocardiogram – Front-End Module



Digital Optocouplers			
Part No.	**Input/Output Type**	**Data Rate MBd**	**Benefits**
ACPL-M50L/054L/W50L/K54L	LED/Open Collector	1	High CTR
ACPL-M21L/021L/024L/ W21L^/K24L^	LED/CMOS	5	Low Power Consumption
ACPL-C61L	LED/CMOS	10	0.5mm DTI for compliant IEC 61010-1 Type2, Low Power
ACPL-M62L^	LED/Open Drain	10	High CMR, Low Power, Direct Drive
ACPL-061L/M61L/W61L/ 064L/K64L, ACNW261L	LED/CMOS	10	High CMR, Low Power, Direct Drive
ACSL-6210, ACSL-6300/10, ACSL-6400/10/20	LED/Open Collector	15	Multi-channels, Bi-Directional Channels
ACPL-071L/M75L/ W70L/074L/K73L	LED/CMOS	15	CMOS Output Eliminate Need for Pull-up Resistor
ACPI-077L/772L	CMOS/CMOS	25	Low t_{PLH}, t_{PHL}, PWD

^ To be released

Defibrillators - High Voltage Storage and Discharge Circuit

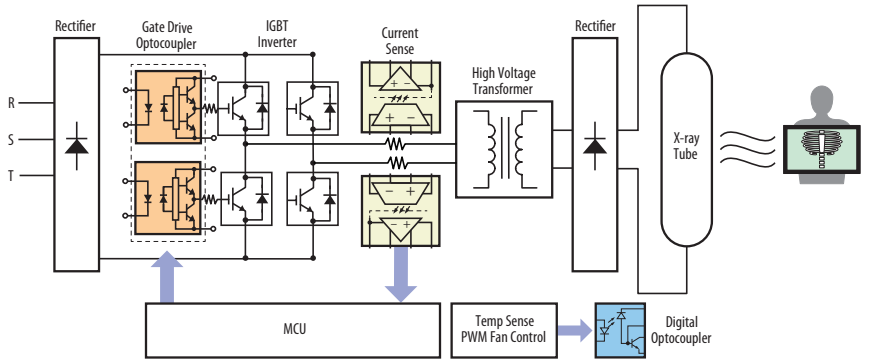


Voltage Sense		
Part No.	**Package Type**	**Output Type**
HCNR200	400 mil DIP8	Analog
HCNR201	400 mil DIP8	Analog
ACPL-C87B/C87A/C870	SSO-8	Differential

Integrated Gate Drive Optocouplers		
Part No.	**Package Type**	**Output Current Max (A)**
ACPL-333J/332J	SO-16	2.5
ACPL-330J/331J	SO-16	1.5
ACPL-P343/W343	SSO-6	4.0
ACPL-P341/W341	SSO-6	3.0
ACPL-P340/W340	SSO-6	1.0
ACPL-H342/K342	SSO-8	2.5
ACNV3130	500mil DIP-10	2.5
ACNW3190	400mil DIP-8	5.0

Current Sense		
Part No.	**Package Type**	**Output Type**
ACPL-C79B/C79A/C790	SSO-8	Analog
ACPL-C78A/C780/C784	SSO-8	Analog
HCPL-7860/786J	DIP-8/ SO-16	Digital
HCPL-788J	SO-16	Analog
ACPL-796J	SO-16	Digital
HCPL-7800A/7800	DIP-8	Differential
HCPL-7510/7520	DIP-8	Differential

X-Ray Systems – High Voltage Switching Power

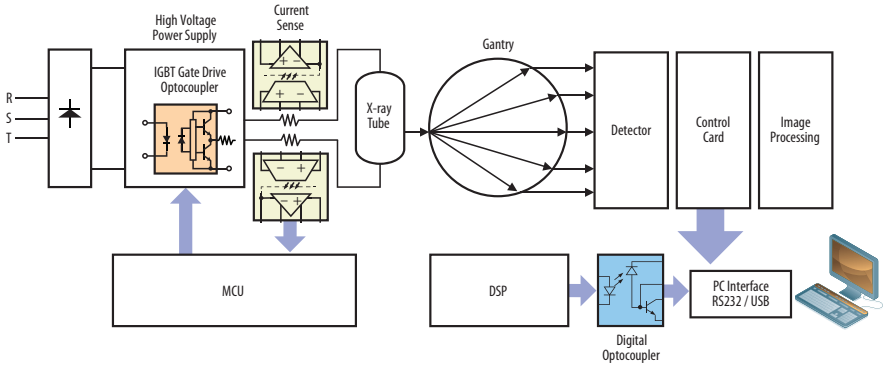


Integrated Gate Drive Optocouplers		
Part No.	**Package Type**	**Output Current Max (A)**
ACPL-333J/332J	SO-16	2.5
ACPL-330J/331J	SO-16	1.5
ACPL-P343/W343	SSO-6	4.0
ACPL-P341/W341	SSO-6	3.0
ACPL-P340/W340	SSO-6	1.0
ACPL-H342/K342	SSO-8	2.5
ACNV3130	500mil DIP-10	2.5
ACNW3190	400mil DIP-8	5.0

Current Sense		
Part No.	**Package Type**	**Output Type**
ACPL-C79B/C79A/C790	SSO-8	Analog
ACPL-C78A/C780/C784	SSO-8	Analog
HCPL-7860/786J	DIP-8/SO-16	Digital
HCPL-788J	SO-16	Analog
ACPL-796J	SO-16	Digital
HCPL-7800A/7800	DIP-8	Differential
HCPL-7510/7520	DIP-8	Differential

Digital Optocouplers		
Part No.	**Input/Output Type**	**Data Rate**
4N45/46, 6N138/139, HCNW138/139, HCPL-07xx, HCPL-27xx, HCPL-4701/31, HCPL-M700/1	LED/Darlington Transistor	100kBd
ACPL-M50L/054L/W50L/K54L	LED/Open Collector	1MBd
ACPL-M21L/021L/024L/W21L/K24L	LED/CMOS	5MBd
ACPL-C61L, ACPL-W61L/K64L	LED/CMOS	10MBd

CT Scanner – High Voltage Switching Power Supply



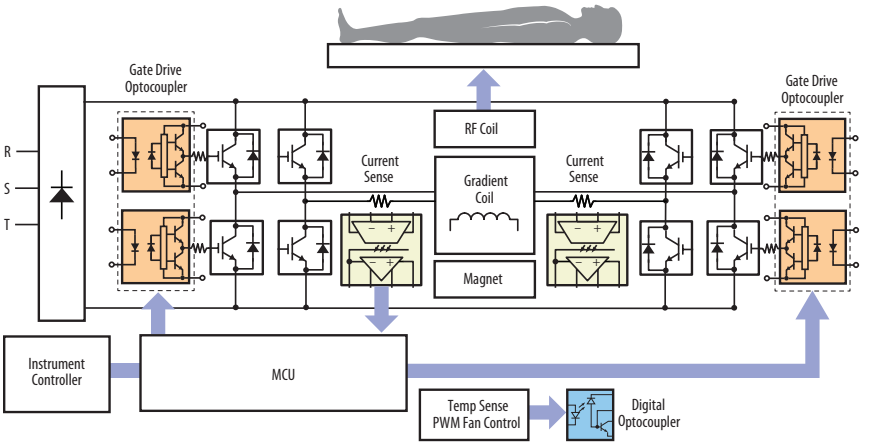
Integrated Gate Drive Optocouplers		
Part No.	**Package Type**	**Output Current Max (A)**
ACPL-333J/332J	SO-16	2.5
ACPL-330J/331J	SO-16	1.5
ACPL-P343/W343	SSO-6	4.0
ACPL-P341/W341	SSO-6	3.0
ACPL-P340/W340	SSO-6	1.0
ACPL-H342/K342	SSO-8	2.5
ACNV3130	500mil DIP-10	2.5
ACNW3190	400mil DIP-8	5.0

Current Sense		
Part No.	**Package Type**	**Output Type**
ACPL-C79B/C79A/C790	SSO-8	Analog
ACPL-C78A/C780/C784	SSO-8	Analog
HCPL-7860/786J	DIP-8/SO-16	Digital
HCPL-788J	SO-16	Analog
ACPL-796J	SO-16	Digital
HCPL-7800A/7800	DIP-8	Differential
HCPL-7510/7520	DIP-8	Differential

Digital Optocouplers		
Part No.	**Input/Output Type**	**Data Rate**
ACPL-C61L	LED/CMOS	10MBd
ACPL-M62L^	LED/Open Drain	10MBd
ACPL-061L/M61L/W61L/ 064L/K64L, ACNW261L	LED/CMOS	10MBd
ACSL-6210, ACSL-6300/10, ACSL-6400/10/20	LED/Open Collector	15MBd
ACPL-071L/M75L/ W70L/074L/K73L	LED/CMOS	15MBd
ACPI-077L/772L	CMOS/CMOS	25MBd

^ To be released

Magnetic Resonance Imaging (MRI) Gradient Amplifier

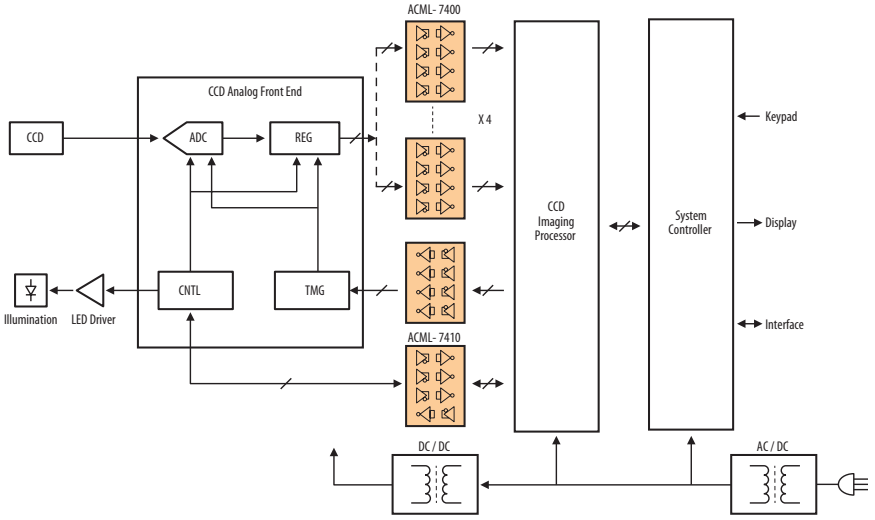


Integrated Gate Drive Optocouplers		
Part No.:	**Package Type**	**Output Current Max (A)**
ACPL-333J/332J	SO-16	2.5
ACPL-330J/331J	SO-16	1.5
ACPL-P343/W343	SSO-6	4.0
ACPL-P341/W341	SSO-6	3.0
ACPL-P340/W340	SSO-6	1.0
ACPL-H342/K342	SSO-8	2.5
ACNV3130	500mil DIP-10	2.5
ACNW3190	400mil DIP-8	5. 0

Current Sense		
Part No.	**Package Type**	**Output Type**
ACPL-C79B/C79A/C790	SSO-8	Analog
ACPL-C78A/C780/C784	SSO-8	Analog
HCPL-7860/786J	DIP-8/SO-16	Digital
HCPL-788J	SO-16	Analog
ACPL-796J	SO-16	Digital
HCPL-7800A/7800	DIP-8	Differential
HCPL-7510/7520	DIP-8	Differential

Digital Optocouplers		
Part No.	**Input/Output Type**	**Data Rate**
4N45/46, 6N138/139, HCNW138/139, HCPL-07xx, HCPL-27xx, HCPL-4701/31, HCPL-M700/1	LED/Darlington Transistor	100kBd
ACPL-M50L/054L/W50L/K54L	LED/Open Collector	1MBd
ACPL-M21L/021L/024L/W21L/K24L	LED/CMOS	5MBd
ACPL-C61L	LED/CMOS	10MBd

Imaging Data Interface Isolation in Endoscope



High Speed Digital Isolators									
Part No.	Channel	Package	Max Data Rate MBd Min	t_{PLH} & t_{PHL} (V_{CC}=5.0V) ns Max	PWD ns Max	t_{PSK} ns Max	CMR – V/µs@V_{CM}		V_{ISO} V_{RMS} Min
							CMR V/µs (Min)	V_{CM} V	
ACML-7400	Quad	SO16 Wide Body	100	32	2	5	25000	1000	5600
ACML-7410	Quad, 3/1 Bi-dir	SO16 Wide Body	100	32	2	5	25000	1000	5600
ACML-7420	Quad, 2/2 Bi-dir	SO16 Wide Body	100	32	2	5	25000	1000	5600

Your Imagination. Our Innovation

From the smartphone that keeps you in touch, to the fiber optic network that keeps a $10-billion corporation connected, we get our information these days through an ever-increasing array of sophisticated device technologies. And behind it all, are semiconductors that sense, illuminate, and connect the signals in order to process that digital data.

Avago Technologies is a leading supplier in III-V compound and silicon semiconductors providing an extensive range of analog, mixed signal and optoelectronics components that are backed by over 5,000 patents to approximately 40,000 end customers.

Our heritage of technical innovation dates back 45 years, and includes over 1,000 talented design and product engineers. We believe in strong customer service support and intense collaboration to create leading-edge proprietary technologies to solve customers' technical bottlenecks. In that way - Our innovation helps bring your imagination to market.

Avago products serve three diverse end markets

Wireless Communications serving the smartphone/handset and Base Station infrastructure markets with over 250 patents and leading-edge products that include:

- Power Amplifiers
- Front End Modules
- Film Bulk Acoustic Resonator (FBAR) Filters
- GPS/GLONASS LNAs
- Optical Finger Navigation
- LED Backlighting, Screen Illumination
- Ambient Light and Proximity Sensors

Wired Infrastructure for switches/routers, data centers, supercomputers and storage/servers with over 200 patents in parallel optics alone and products that include:

- 120Gb Parallel Optic Arrays
- 20Gb SerDes ASICs in 40nm
- Storage Fibre Channel Transceivers
- QSFP/SFP Sonet Transceivers

Industrial and Automotive Electronics for alternative energy power generation, electronic sign and signals, automated manufacturing, automotive lighting, GPS/GLONASS navigation, motor inverter system, battery charging and management, infotainment systems and vehicle safety systems with products that include:

- Inverters
- Isolation and Digital Optocouplers
- Motion Control Optical & Magnetic Encoders
- Polymer Optical Fiber
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