

SELECTION
GUIDE

INTERSIL HIGH REL/DEFENSE PRODUCTS

2014 Rev 0



INTERSIL.COM

intersil™

SIMPLY SMARTER™

Defense and Hi-Reliability Solutions

Industry leader providing complete solutions for harsh environment

Intersil has a strong heritage of supplying memory, microprocessor peripherals and analog products to the Hi-Rel marketplace. Intersil continues to supply SMD products that are offered in hermetic packages and with guaranteed performance over a -55°C to +125°C temperature range. SMD products are MIL-PRF-38535 compliant and are 100% burned in.

Applications / Markets for High-Rel Products

Mission Critical Reliability / Quality

- Product replacement impossible/impractical
 - Military avionics
 - Radar Systems
 - Ballistic Missile Defense

Harsh Environments

- High temperature/humidity/vibration
 - Industrial controls
 - Down hole drilling
 - Field deployed products
 - Non-critical Military/Aerospace electronics

Critical Uptime Applications

- Network servers requiring 99.999% uptime
- Commercial avionics, rail, communication networks

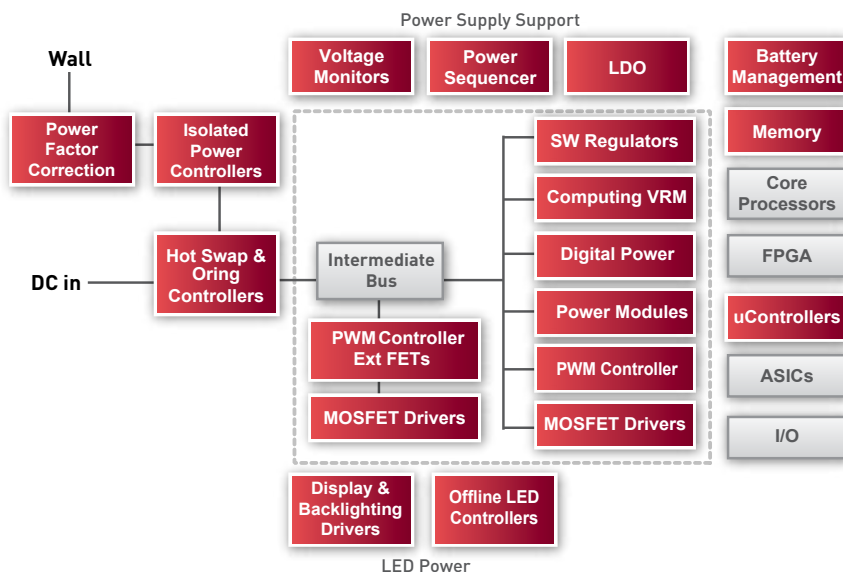
Intersil Defense IC Quick Selection Table3

Amplifier.....	3
Comparator	3
Converter.....	4
DCP (Digitally Controlled Potentiometer).....	4
Switch/MUX.....	4
Interface	5
Power	5
Digital	6
Memory	6

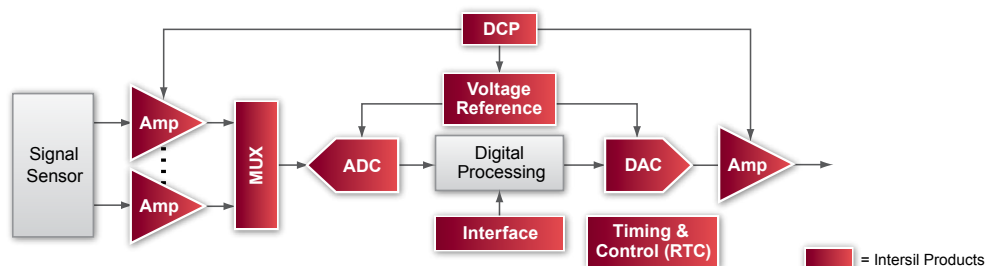
Other High-Rel Product Offering7

Complete Solutions for Both Power Management and Signal Chain Products.

POWER MANAGEMENT SOLUTIONS



SIGNAL CHAIN SOLUTIONS



Intersil Defense IC Quick Selection Table

Device #	Description	Mil Temp (-55°C to 125°C)	Mil Temp with Burn-in	Mil/883	SMD Part #
Amplifier					
EL5106	350MHz Fixed Gain Amplifiers with Enable				5962-0625501QXC
EL5132	670MHz Low Noise Amplifiers				5962-0623601QPC
EL5133	670MHz Low Noise Amplifiers				5962-0623602QPC
EL8101	500MHz Rail-to-Rail Amplifier				5962-0623501QPC
EL8103	500MHz Rail-to-Rail Amplifier				5962-0623502QPC
HA-2400	PRAM Four-Channel Programmable Operational Amplifier			HA1-2400/883	5962-8778301EA
HA-2420	Microsecond Sample and Hold Amplifiers	HA1-2420-2			8001601CA
HA-2510	High Slew Rate Operational Amplifier			HA2-2510/883 HA7-2510/883	
HA-2520	High Speed, Operational Amplifier	HA2-2520-2 HA7-2520-2			5962-8988002GC
HA-2522	20MHz, High Slew Rate, Uncompensated, High Input Impedance, Operational Amplifiers	HA2-2522-2			
HA-2539	600MHz, Very High Slew Rate Operational Amplifier				5962-8778701CA
HA-2544	50MHz, Video Operational Amplifier				5962-8950201GC
HA-2600	12MHz, High Input Impedance Operational Amplifiers	HA2-2600-2			
HA-2620	100MHz, High Input Impedance, Very Wideband, Uncompensated Operational Amplifiers	HA2-2620-2			
HA-2640	4MHz, High Supply Voltage Operational Amplifiers	HA2-2640-2 HA7-2640-2			7800302GC 7800302PA
HA-5002	Monolithic, Wideband, High Slew Rate, High Output Current Buffer	HA2-5002-2		HA2-5002/883 HA4-5002/883	5962-89636012A 5962-8963601GC 5962-8963601PA
HA-5020	100MHz Current Feedback Video Amplifier With Disable				5962-89620012A
HA-5033	250MHz Video Buffer	HA2-5033-2			
HA-5101	Low Noise, High Performance Operational Amplifier			HA7-5101/883	5962-89635012A 5962-8963501PA
HA-5102	Low Noise, High Performance Dual Operational Amplifier	HA7-5102-2			5962-8954801GC 5962-8954801PA
HA-5104	Low Noise, High Performance, Quad Operational Amplifier	HA1-5104-2		HA1-5104/883	5962-88502012A 5962-8850201CA
HA-5127	8.5MHz, Ultra-Low Noise Precision Operational Amplifier			HA2-5127/883	
HA-5147	120MHz, Ultra-Low Noise Precision Operational Amplifiers	HA7-5147-2			
HA-5320	1 Microsecond Precision Sample and Hold Amplifier	HA1-5320-2			
HA-5330	650ns Precision Sample and Hold Amplifier				5962-87677012A
HFA1130	850MHz, Output Limiting, Low Distortion Current Feedback Operational Amplifier				5962-9467701M2A
Comparator					
HA-4900	Precision Quad Comparator	HA1-4900-2			
HA-4902	Precision Quad Comparator	HA1-4902-2		HA1-4902/883	5962-8686001EA 5962-86860012A

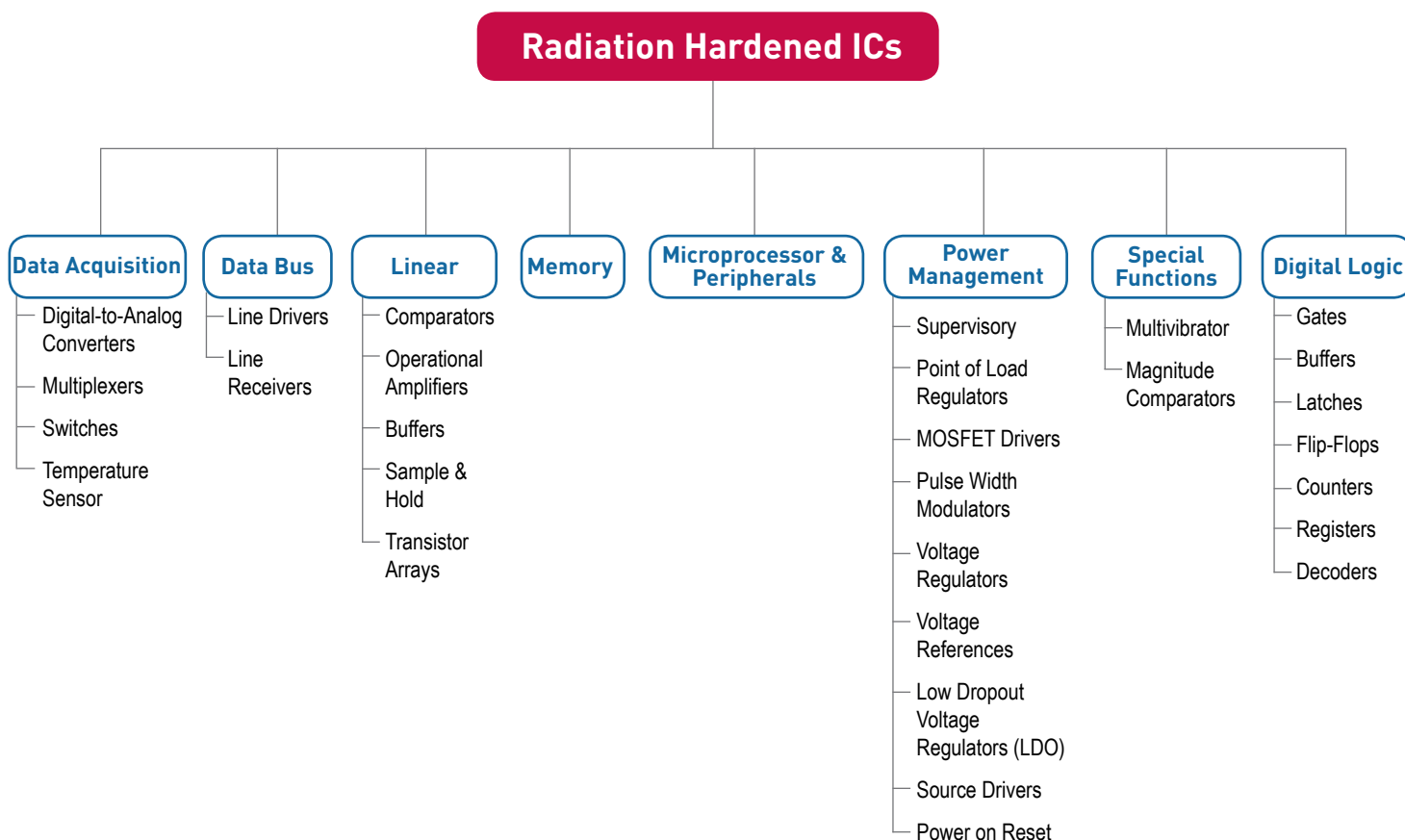
Device #	Description	Mil Temp (-55°C to 125°C)	Mil Temp with Burn-in	Mil/883	SMD Part #
Converter					
HI-565A	High Speed, Monolithic D/A Converter with Reference	HI1-565ATD-2		HI1-565ASD/883	
HI-574A	Complete, 12-Bit A/D Converters with Microprocessor Interface	HI1-574ASD-2 HI1-574ATD-2			5962-8512704XA 5962-85131013A
HI-674A	Complete, 12-Bit A/D Converters with Microprocessor Interface			HI1-674ATD/883	
ISLA112P25MREP	Low Power 12-Bit, 250MSPS ADC	ISLA112P25MREP			
DCP (Digitally Controlled Potentiometer)					
ISL22316	Single DCP, 128 tap, I ² C interface	ISL22316WMUEP			
ISL22326	Dual DCP, 128 tap, I ² C interface	ISL22326WMUEP			
ISL22346	Quad DCP, 128 tap, I ² C interface	ISL22346WMUEP			
Switch/MUX					
DG408	Single 8-Channel				5962-9204201MEA
DG411	Quad SPST, CMOS Analog Switches			DG411AK/883	5962-9073101MEA
HI-1818A	Low Resistance, Single 8-Channel, CMOS Analog MUX	HI1-1818A-2			
HI-200	Dual SPDT CMOS Analog Switch			HI2-0200/883	
HI-201	Quad SPST CMOS Analog Switch	HI1-201-2		HI1-0201/883	7705302EA
HI-201HS	High Speed, Quad SPST, CMOS Analog	HI1-0201HS-2		HI1-0201HS/883	5962-8671601EA 5962-86716012A
HI-303	Dual SPDT CMOS Analog Switch	HI1-0303-2		HI1-303/883	
HI-390	Dual SPDT CMOS Analog Switch	HI1-0390-2			
HI-5042	CMOS Analog Switch	HI1-5042-2			
HI-5043	CMOS Analog Switch	HI1-5043-2			81006122A
HI-5046A	DPDT CMOS Analog Switch			HI1-5046A/883	8100617EA/MLB
HI-5047	CMOS Analog Switch	HI1-5047-2			
HI-5051	Dual SPDT CMOS Analog Switch	HI1-5051-2		HI4-5051/883	81006222A
HI-506	Single 16 channel CMOS analog MUX	HI1-0506-2			5962-8513107XA 5962-85131073A
HI-506A	Single 16 channel CMOS analog MUX with Active OVP	HI1-0506A-2	HI1-0506A-8		
HI-507	8-Channel Differential CMOS Analog MUX with Active OVP	HI1-0507-2			
HI-508	Single 8-Channel CMOS Analog MUX	HI1-0508-2		HI1-0508/883	77052012A 7705201EC
HI-508A	Single 8-Channel CMOS Analog MUX with Active OVP		HI1-0508A-8		
HI-509	4-Channel Differential CMOS Analog MUX	HI1-0509-2			5962-85131092A
HI-509A	4-Channel Differential CMOS Analog MUX with Active OVP	HI1-0509A-2	HI1-0509A-8		
HI-546	Single 16 channel CMOS analog MUX with Active OVP	HI1-0546-2		HI1-0546/883 HI4-0546/883	5962-8513101XA 5962-85131013A
HI-547	8-Channel Differential CMOS Analog MUX with Active OVP			HI1-0547/883 HI4-0547/883	5962-8513102XA 5962-85131023A
HI-548	Single 8-Channel CMOS Analog MUX with Active OVP	HI1-0548-2		HI1-0548/883 HI4-0548/883	77052022A 7705202EC
HI-549	4-Channel Differential CMOS Analog Multiplexers with Active OVP	HI1-0549-2		HI1-0549/883	5962-8513103EA

Device #	Description	Mil Temp (-55°C to 125°C)	Mil Temp with Burn-in	Mil/883	SMD Part #
Interface					
HS-3182	ARINC 429 Bus Interface Line Driver Circuit		HS1-3182-8 HS4-3182-8		5962-8687901EA
HS-3282	ARINC 429 Bus Interface Line Driver Circuit		HS1-3282-8 HS4-3282-8		5962-8688001QA
ICL3221E	3D/5R 3.3V RS-232	ICL3221EMVZ			5962-0620704Q3A
ICL3221E	3D/5R 5V RS-232				5962-0620708Q3A
ICL3232E	3D/5R 3.3V RS-232				5962-0620703Q3A
ICL3232E	3D/5R 5V RS-232				5962-0620707Q3A
ICL3238E	3D/5R 3.3V RS-232				5962-0620702Q3A
ICL3238E	3D/5R 5V RS-232				5962-0620706Q3A
ICL3243E	3D/5R 3.3V RS-232				5962-0620701Q3A
ICL3243E	3D/5R 5V RS-232				5962-0620705Q3A
ISL3158E	±16.5kV ESD (IEC61000-4-2) Protected, Large Output Swing, 5V, Full Fail-Safe, 1/8 Unit Load, RS-485/RS-422 Transceiver	ISL3158AEMBZ			
ISL3178E	±15kV ESD Protected, 3.3V, Full Fail-Safe, Low Power, High Speed or Slew Rate Limited, RS-485/RS-422 Transceivers	ISL3178AEMBZ			
ISL3282E	±16.5kV ESD Protected, +125°C, 3.0V to 5.5V, TDFN Packaged, 16Mbps, Full Fail-safe, Low Power, RS-485/RS-422 Receiver	ISL3282EMRTEP			
ISL3292E	16kV ESD Protected, +125°C, 3.0V to 5.5V, TDFN Packaged, Low Power RS-485/RS-422 Transmitter	ISL3292EMRTEP			
Power					
ISL6406	Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	ISL6406MRPZ ISL6406MVEP			
ISL6420BM	Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	ISL6420BMAEP			
ISL65426M	6.0A Dual Synchronous Buck Regulator with Integrated MOSFETs	ISL65426MREPZ			
ISL8120	Dual/n-Phase Buck PWM Controller with Integrated Drivers				
ISL8560MREP	DC/DC Power Switching Regulator	ISL8560MREP			
ISL8840AMBEP	High Performance Industry Standard Single-Ended Current Mode PWM Controller	ISL8840AMBEP ISL8840AMBEPZ			
ISL8841AMBEP	High Performance Industry Standard Single-Ended Current Mode PWM Controller	ISL8841AMBEP ISL8841AMBEPZ			
ISL8842AMBEP	High Performance Industry Standard Single-Ended Current Mode PWM Controller	ISL8842AMBEP ISL8842AMBEPZ			
ISL8843AMBEP	High Performance Industry Standard Single-Ended Current Mode PWM Controller	ISL8843AMBEP ISL8843AMBEPZ			
ISL8844AMBEP	High Performance Industry Standard Single-Ended Current Mode PWM Controller	ISL8844AMBEP ISL8844AMBEPZ			
ISL8845AMBEP	High Performance Industry Standard Single-Ended Current Mode PWM Controller	ISL8845AMBEP ISL8845AMBEPZ			
ISL9000AMRNCEP	Dual LDO with Low Noise, Very High PSRR and Low Iq	ISL9000AMRNCEP			

Device #	Description	Mil Temp (-55°C to 125°C)	Mil Temp with Burn-in	Mil/883	SMD Part #
Digital					
CDP1802A	CMOS 8-Bit Microprocessors	CDP1802ACD3			
HD-15530	CMOS Manchester Encoder-Decoder		HD1-15530-8		78029013A 7802901JA
HD-15531	CMOS Manchester Encoder-Decoder				5962-9054901MQA
HD-4702	CMOS Programmable Bit Rate Generator			HD1-4702/883	5962-9051801MEA
HD-6402	CMOS Universal Asynchronous Receiver Transmitter (UART)			HD1-6402B/883 HD1-6402R/883	5962-9052502MQA 5962-9052501MQA
HD-6409	CMOS Manchester Encoder-Decoder			HD1-6409/883	5962-9088801MRA
MC82C82	CMOS Octal Latching Bus Driver				8406701RA
MD80C86	CMOS 16-Bit Microprocessor	MD80C86-2/B		MD80C86-2/883	8405202QA
MD80C88	CMOS 8-Bit/16-Bit Microprocessor	MD80C88/B		MD80C88-2/883	
MD82C37	CMOS High Performance Programmable DMA Controller	MD82C37A/B			5962-9054302MQA
MD82C52	CMOS Serial Controller Interface	MD82C52/B			85015013A 8501501XA
MD82C54	CMOS Programmable Interval Timer	MD82C54/B			84065013A 8406501JA 84065023A
MD82C55	CMOS Programmable Peripheral Interface	MD82C55A/B			8406602QA 8406602XA
MD82C59	CMOS Priority Interrupt Controller	MD83C59A/B			5962-8501601YA 5962-8501602YA 5962-85016023A
MD82C84A	CMOS Clock Generator Driver	MD82C84A/B			8406801VA
MD82C86	CMOS Octal Bus Transceiver				5962-8757701RA
MD82C87	CMOS Octal Inverting Bus Transceiver				5962-8757702RA
MD82C88	CMOS Bus Controller	MD82C88/B			8406901RA
MD82C89	CMOS Bus Arbiter	MD82C89/B			
Memory					
HM-6514	1024x4 CMOS RAM			HM1-6514/883 HM1-6514B/883	
HM-65162	2Kx8 Asynchronous CMOS Static RAM			HM1-65162/883 HM1-65162B/883	8403602JA 8403603JA 8403606JA
HM-6551	256x4 CMOS RAM			HM1-6551B/883	
HM-65642	8Kx8 Asynchronous CMOS Static RAM			HM1-65642/883 HM1-65642B/883	
HM-6617	2Kx8 CMOS PROM			HM1-6617/883	
HM-6642	512x8 CMOS PROM			HM1-6642B/883	5962-8869002JA

Other High-Rel Product Offering

Intersil offers a broad range of radiation hardened and Single-Event Effects (SEE) hardened IC products for RH and space applications. Below are various building block parts in the Rad-hard portfolio. If you are interested, please visit www.intersil.com. They are also featured in the Space Products selection guide (BR-558).





Intersil Main Offices

Visit www.intersil.com for a complete list of sales representatives and distributors.

NORTH AMERICA

WEST COAST

Intersil Headquarters
1001 Murphy Ranch Road
Milpitas, CA 95035
(TEL) 408-432-8888
(FAX) 408-434-5351
1-888-INTERSIL
1-888-468-3774

EAST COAST

1650 Robert J Conlan Blvd NE
Palm Bay, FL 32905
(TEL) 321-724-7000
(FAX) 321-729-7320
1-888-INTERSIL
1-888-468-3774

ASIA PACIFIC

India

(TEL) ++91-80-6569-1410

Taiwan

(TEL) +886-2-2515-8508

Korea

(TEL) +82 31 713 8480

Singapore

(TEL) +65 6748 4200

Shenzhen

(TEL) +86-755-8246-5118

Shanghai

(TEL) +86-21-6335-1198

Beijing

(TEL) +86-10-8225-5181

JAPAN

6F, Mita Nitto Daibiru
3-11-36, Mita, Minato-ku
Tokyo, 108-0073 Japan
(TEL) +81-3-5439-2311
(FAX) +81-3-5439-2300

EUROPE

Oskar-Messter-Str. 29
D-85737 Ismaning
Germany
(TEL) +49-89-46263-0
(FAX) +49-89-46263-148