

POWERING INFRASTRUCTURE

Telecom/Datacom, Wired Networks and Data Storage



intersil™

POWERING INFRASTRUCTURE



A HERITAGE OF POWERING INNOVATION

Learn how Intersil's power management technologies have transformed the semiconductor industry and are ideal for today's evolving infrastructure, industrial and mobile consumer markets at [intersil.com/power](https://www.intersil.com/power)

The increased amount of data and video being transmitted via the cloud has placed huge bandwidth and power demands on the entire infrastructure market. More than ever, designers need a power partner with the expertise to improve their system's efficiency and simplify the design process.

Intersil's comprehensive portfolio of digital power management DC/DC controllers and power modules are designed to provide best-in-class efficiency and help streamline the design process.

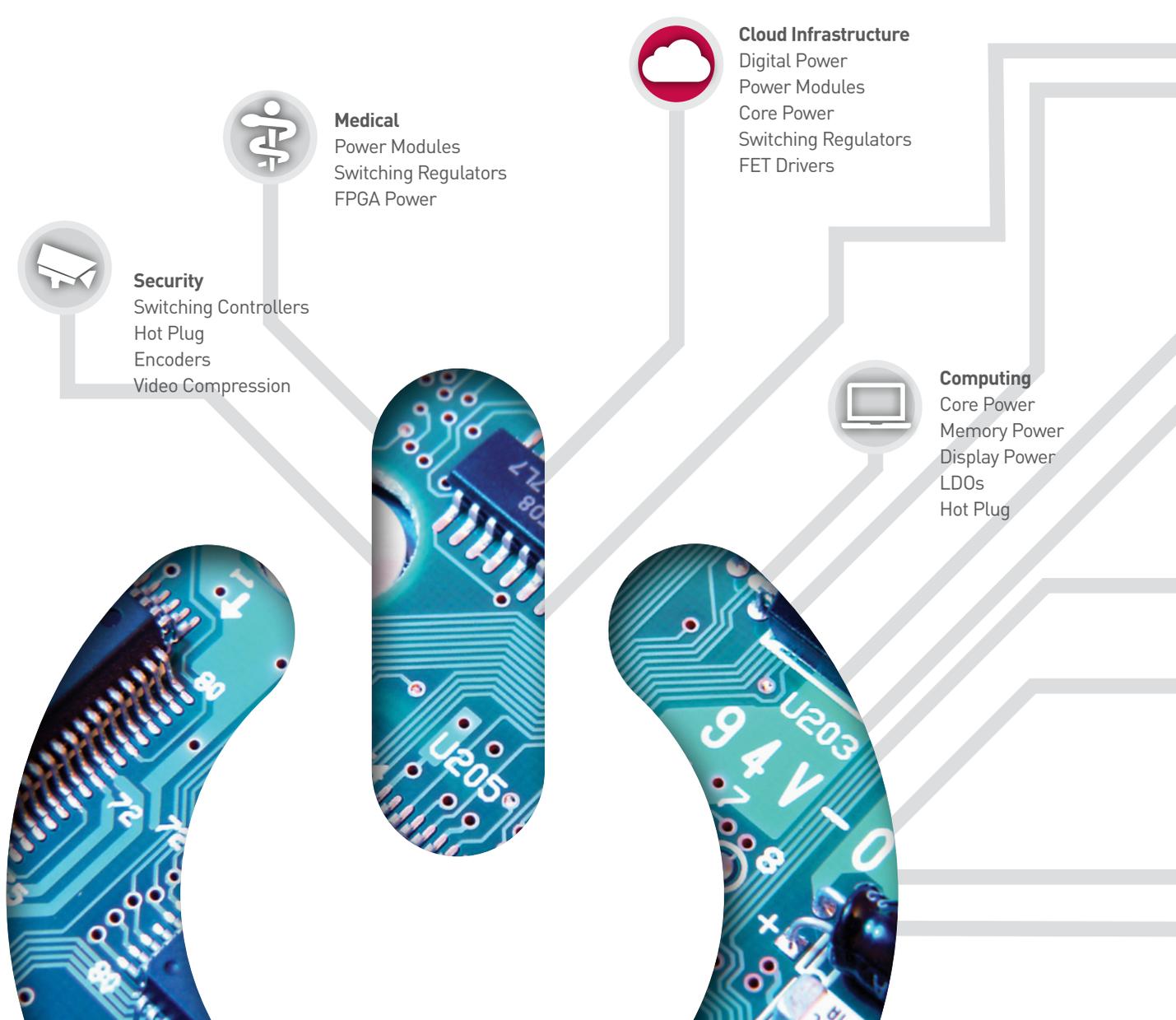
Intersil's leading-edge family of digital power products include both full digital control loop and hybrid digital solutions,

all of which can be configured using Intersil's PowerNavigator™ — the industry's most intuitive code-free configuration tool.

Intersil's power modules are complete, fully encapsulated power solutions built on copper frames using the latest packaging technology to deliver superior thermal performance.

With Intersil modules, power circuit design can now be completed with just a few external components.

Intersil's customers are recognized as innovators in their chosen markets, and our IC solutions are forming the building blocks of the latest devices adding intelligence, mobility and true energy efficiency.





Rad Hard (Space)
 FPGA Power
 Switching Regulators
 FET Drivers



Telecom/Datacom
 Digital Power
 Switching Controllers
 Power Modules
 FET Drivers
 FPGA Power
 Point-of-Load



Wired Network
 Digital Power
 Core Power
 Power Modules
 Switching Regulators
 FET Drivers



Consumer/Mobile
 Buck-Boost Regulators
 Battery Management
 LDOs
 Display/Backlight Drivers
 Optical Sensors



**Instrumentation/
 Measurement**
 Power Modules
 Switching Regulators
 FPGA Power



Military/Hi-Reliability
 FPGA Power
 Linear Regulators
 FET Drivers
 SMD



Industrial Control
 Power Modules
 Digital Power (full, hybrid)
 Core Power
 Switching Regulators
 FET Drivers



Automotive
 HEV/EV Cell Balancing
 PWM Controllers
 Video Decoders

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UNDERSTANDING INFRASTRUCTURE POWER



A typical power supply consists of many conversion and housekeeping stages before it is usable by the actual load. The required stages and their design complexity varies drastically depending on the input power source and the specific needs of the end applications and the load being powered up.

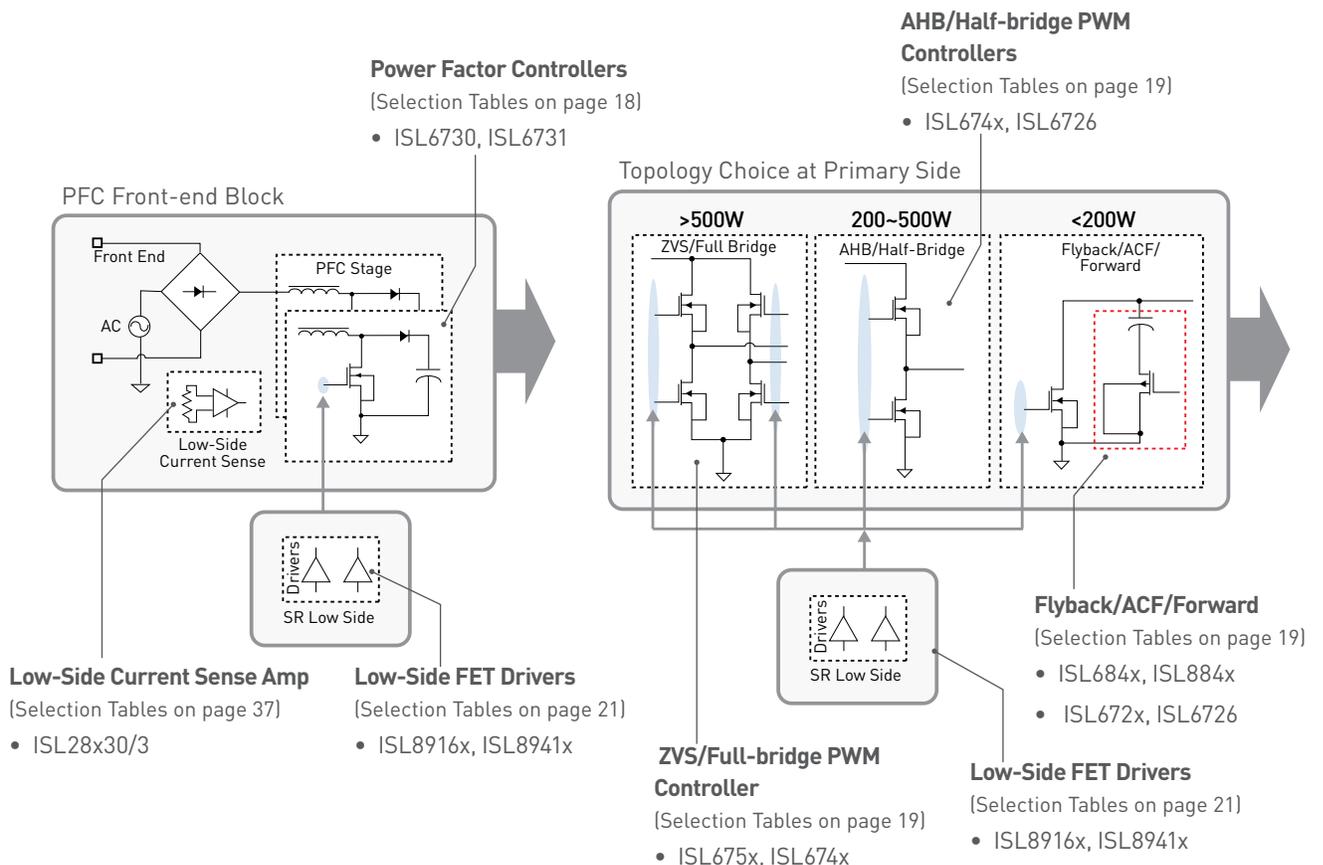
Intersil has highly-integrated isolated and non-isolated solutions that address every stage of the power chain for infrastructure, from high-voltage AC input, AC/DC converters, and DC/DC converters and regulators.

In addition to power conversion, Intersil also provides a wide range of housekeeping functions such as sequencing, monitoring, failure detection and fault protection to improve system reliability and reduce down time.



LEADERSHIP POWER TECHNOLOGY

Learn how Intersil's digital power solutions are changing the infrastructure market at intersil.com/power



DESIGN TOOLS AND SUPPORT

 Go to intersil.com/tools for design tools and resources.

 Browse our library of reference designs, evaluation boards, and demo boards.

 Intersil's iSim interactive web-based design tool helps you select and simulate power and precision analog devices.

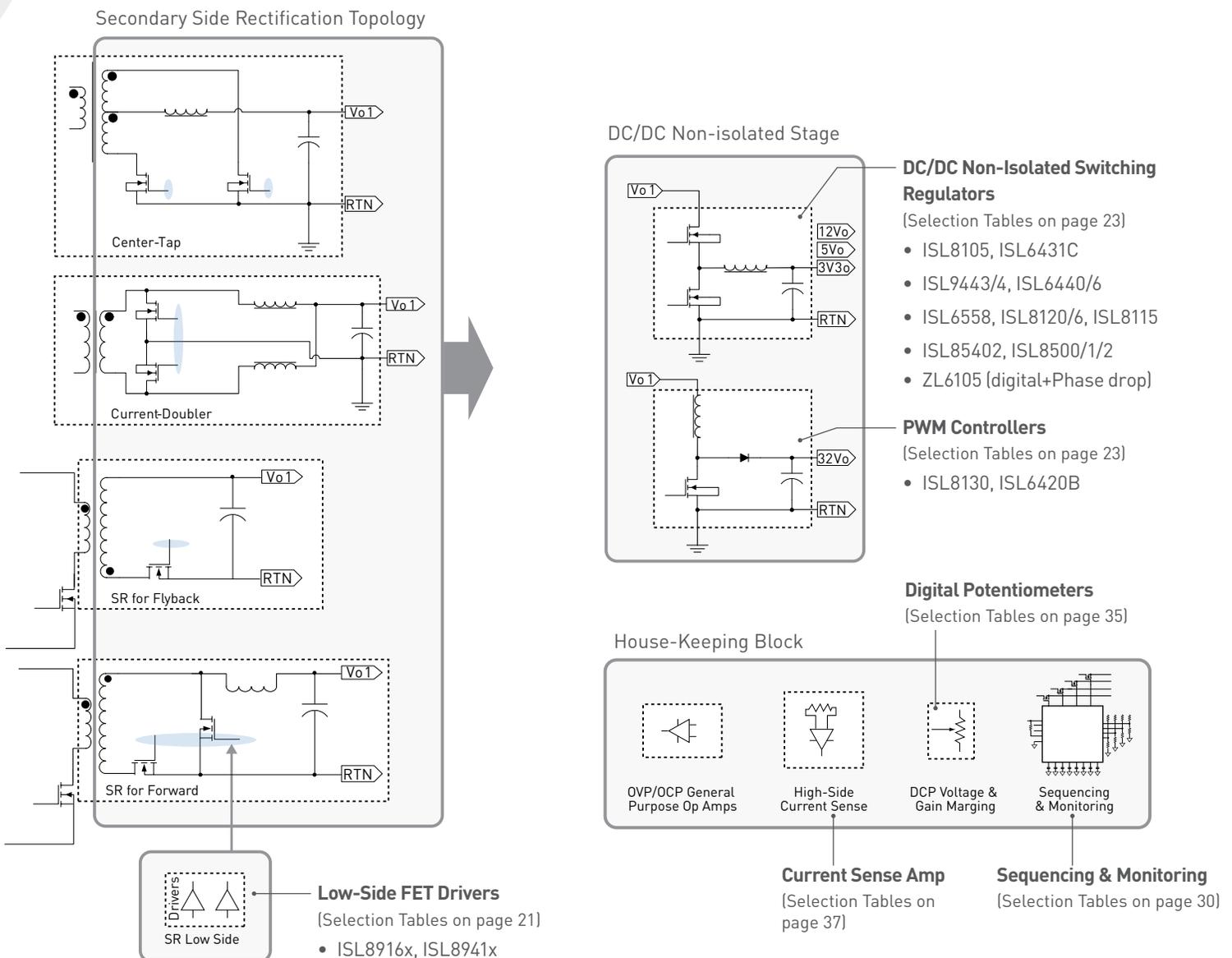
 Download IBIS, SPICE, macro, Saber and text file design models.

 Watch the latest videos and tutorials at Intersil's Video Center.

 Browse the latest application block diagrams and selection tables.

 Subscribe to receive product change notifications for the devices you are using in your design.

 Ask an Expert and get answers from an Intersil application support professional within one business day.



1



ISL6374: EAPP 4-phase PWM controller for VR12.5 and VR12.0 applications with SVID Bus

Compliant to Intel VR12.5/VR12 specifications and controls the microprocessor core or memory voltage regulator.

- EAPP multi-phase modulator
- Auto phase dropping
- Low operation current
- Catastrophic failure protections

See Selection Table on page 26.

2



ISL8541X: Intersil's new family of pin-compatible, 3V to 36V synchronous buck regulators simplifies design, improves efficiency and reduces BOM cost.

Now with three output current options to choose from, reuse of proven circuit or board designs has never been easier.

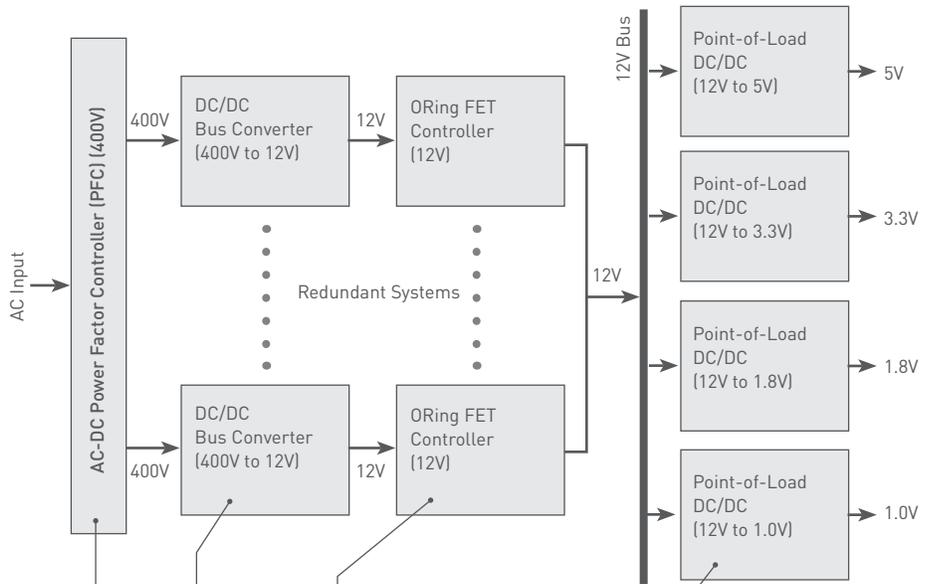
- 3 pin-compatible output current options: 500mA, 800mA or 1A
- Adjustable output voltage range from 0.6V to 95% of V_{IN}
- Selectable PFM or forced PWM for superior light load efficiency

See Selection Table on page 27.

APPLICATION BLOCK DIAGRAMS



CLOUD INFRASTRUCTURE (400V TO 12V BUS)



Power Factor Controllers
[Selection Tables on page 18]

- ISL673X

ORing FET Controllers
[Selection Tables on page 29]

- ISL6146

Isolated PWM Controllers
[Selection Tables on page 19]

- ISL6551(ZVS)
- ISL6752/53/54/55 (ZVS)
- ISL6744/45 (Bus Converter)
- ISL6726 (ACF)

Digital Power
[Selection Tables on page 22]

- ZL8800

Power Modules
[Selection Tables on page 22]

- ISL8225M

Core Power Controllers
[Selection Tables on page 26]

- 1** • ISL6374

Non-Isolated PWM Controllers
[Selection Tables on page 23]

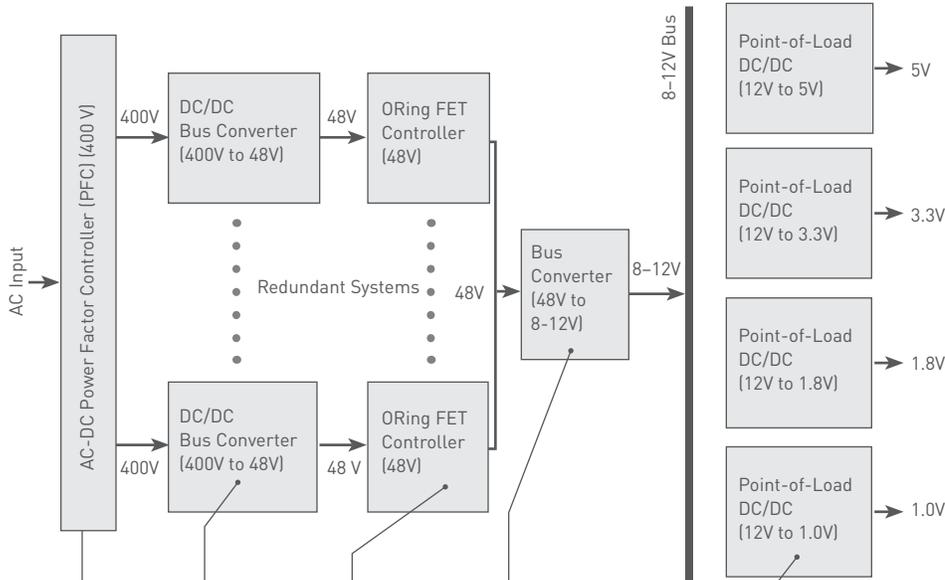
- ISL944X, ISL644X
- ISL6420B, ISL8118, ISL8104/5/6
- ISL8120/26

Integrated FET Regulators
[Selection Tables on page 26]

- 2** • ISL80XX
• ISL8500X
• ISL8541X



TELECOM/DATACOM (400V TO 48V TO 12V BUS)



Power Factor Controllers
(Selection Tables on page 18)

- ISL673X

3 ISL6146

ORing FET Controllers
(Selection Tables on page 29)

Isolated PWM Controllers
(Selection Tables on page 19)

- ISL6551(ZVS)
- ISL6752/53/54/55 (ZVS)
- ISL6744/45 (Bus Converter)
- ISL6726 (ACF)

Bus Converter
(Selection Tables on page 21)

4 ISL89163

Digital Power
(Selection Tables on page 22)

- ZL8800

Power Modules
(Selection Tables on page 22)

- ISL8225M

Core Power Controllers
(Selection Tables on page 26)

Non-Isolated PWM Controllers
(Selection Tables on page 23)

- ISL944X, ISL644X
- ISL6420B, ISL8118, ISL8104/5/6
- ISL8120/26

Integrated FET Regulators
(Selection Tables on page 27)

- ISL80XX
- ISL8500X
- ISL8541X



ISL6146: Low voltage ORing MOSFET controller is the ideal solution for cloud computing, telecom power distribution systems.

- ORing down to < 1V and up to 20V
- Programmable voltage window compliant operation
- V_{IN} transient protection rating to +24V



Family Selection Table on page 29.



ISL89163, ISL89164, ISL89165: Industry's fastest dual 6A MOSFET drivers.

- Dual output, 6A peak currents, can be paralleled
- Dual AND-ed input logic, (INput and ENable)
- Typical ON-resistance < 1Ω
- Specified Miller plateau drive currents
- Very low thermal impedance ($\theta_{JC} = 3^{\circ}\text{C/W}$)
- Hysteretic input logic levels for 3.3V CMOS, 5V CMOS, TTL and logic levels Proportional to V_{DD}
- 20ns rise and fall time driving a 10nF load



Family Selection Table on page 21.



1
ISL6446A: Dual PWM/linear controller provides industry's most efficient, flexible single-chip solution.

- Wide 4.5V to 24V input and 0.6V to 20V output operating ranges serve variety of applications
- Programmable switching from 100kHz to 2.5MHz enables wide range of component choices to optimize designs

Family Selection Table on page 25.



2
ZL8800: Compensation-free ChargeMode™ digital control loop simplifies design and extends Intersil's leading edge digital power platform.

- 2-channel/2-phase digital DC/DC controller
- Integrated LDOs enables single supply 12V operation
- DDC bus enables sequencing and fault management across multiple devices
- Non-volatile memory allows for storage of all configuration and setup parameters

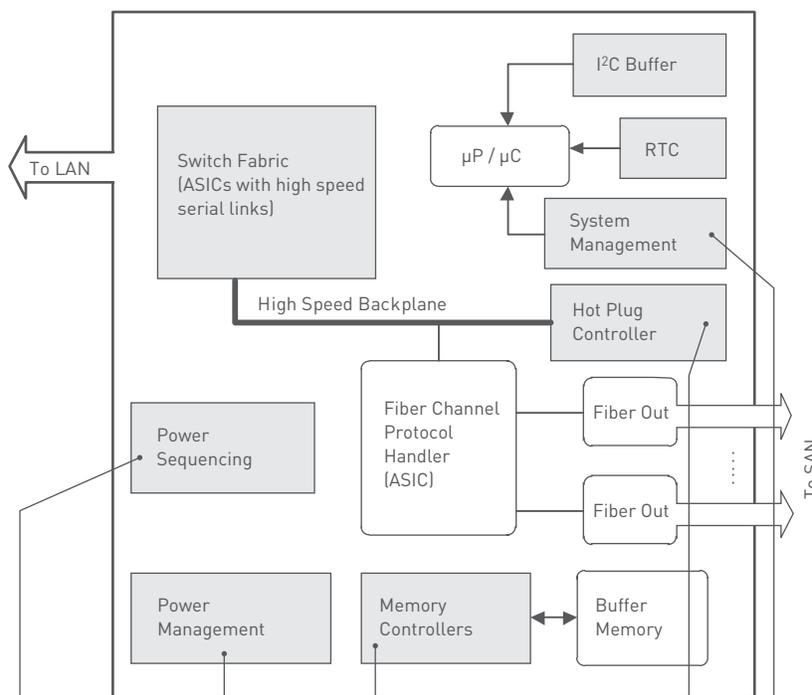
See Digital Power Products on page 10.

Family Selection Table on page 22.

APPLICATION BLOCK DIAGRAMS



STORAGE AREA NETWORK



Power Sequencers
 [Selection Tables on page 30]

- ISL6130
- ISL8705A

PMICS
 [Selection Tables on page 28]

- ISL80083

PWM and Linear Controllers
 [Selection Tables on page 25]

- **1** ISL6446(A)

Voltage Monitors
 [Selection Tables on page 29]

- ISL88042
- ISL88001/2/3
- ISL88016/17

Synchronous Buck Regulators
 [Selection Tables on page 27]

PWM Regulators
 [Selection Tables on page 26]

Digital Power
 [Selection Tables on page 22]

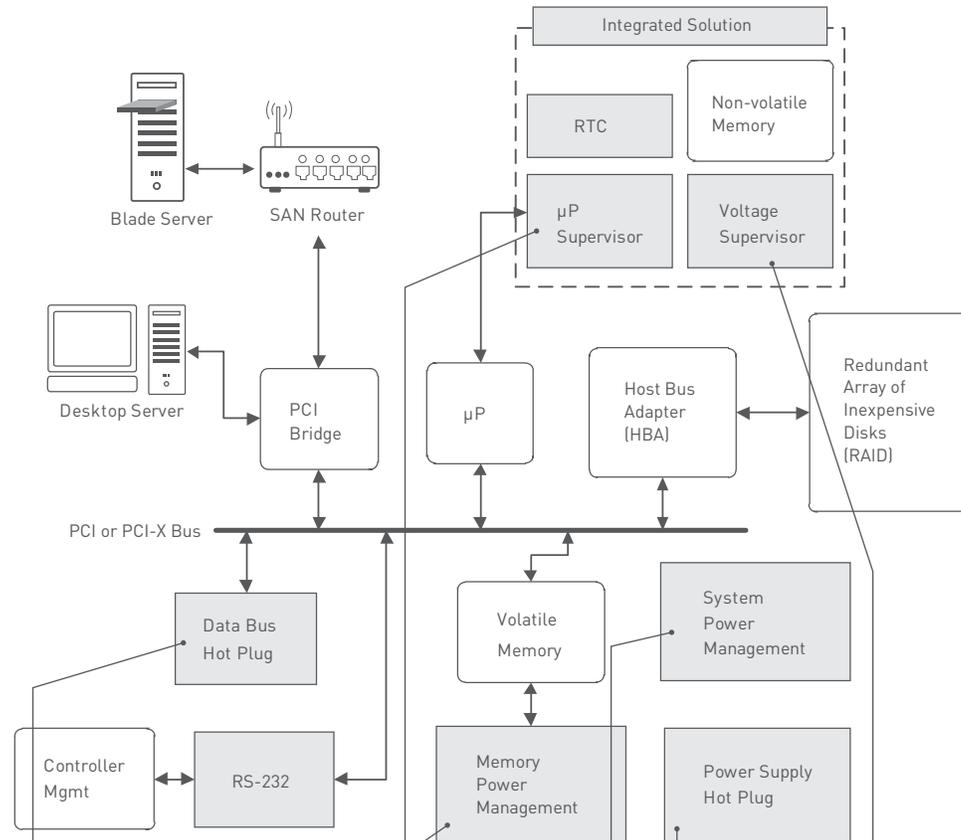
2 • ZL8800

Hot Plug Controllers
 [Selection Tables on page 29]

- ISL6115A
- ISL6120
- ISL6117/16/15



RAID CONTROLLER CARD



Hot Plug Controllers

(Selection Tables on page 29)

Power Supply Controllers

(Selection Tables on page 25)

- ISL6237/36A
- ISL6236
- ISL8112

PWM Controllers

(Selection Tables on page 25)

- ISL6444(A)

μP Supervisors

(Selection Tables on page 29)

- ISL88015/13
- ISL88813/716/706

Synchronous Boost Converters

(Selection Tables on page 27)

- 3** • ISL9113A

Synchronous Buck Regulators

(Selection Tables on page 27)

- ISL8025A

Digital Power

(Selection Tables on page 22)

- 4** • ZL8800

Voltage Supervisors

(Selection Tables on page 29)

- ISL88015/13
- ISL88705/706/716

Hot Plug Controllers

(Selection Tables on page 29)

- ISL6115A
- ISL6120
- ISL6117/16/15



ISL9113A: Low input voltage and high efficiency synchronous boost converter with 1.3A Switch.

- Low $R_{DS(on)}$ FET (0.2Ω N-FET and 0.35Ω P-FET) provide up to 95% efficiency
- High input current limit (1.3A)
- High switching frequency, 1.8MHz
- Available in fixed 5V and adjustable options



Family Selection Table on page 27.



ISL8225M: Dual 15A/single 30A step-down power module delivers industry's best 100W in a tiny 17mm square footprint.

The ISL8225M's two 15A outputs may be used independently or combined to deliver a single 30A output.

- Up to 95% conversion efficiency
- 4.5V to 20V input voltage range
- 0.6V to 6V output voltage range



See Power Module Products on page 14.



Family Selection Table on page 22.

DIGITAL POWER

Intersil digital power products combine a world-class digital power conversion architecture with power management logic in a single IC. They require minimal external circuitry, reducing board space requirements and simplifying the design process. The patented Zilker Labs™ technology from Intersil builds intelligence into the silicon, allowing the devices to be easily configured by using PMBus™ commands — which is greatly simplified with our proprietary PowerNavigator™ graphical interface software — or through pin-strap options. Intersil's digital power portfolio features full digital, hybrid and the industry's first fully encapsulated power modules. These modules address a wide range of operating conditions, allowing system designers to complete designs using parts from a single supplier.

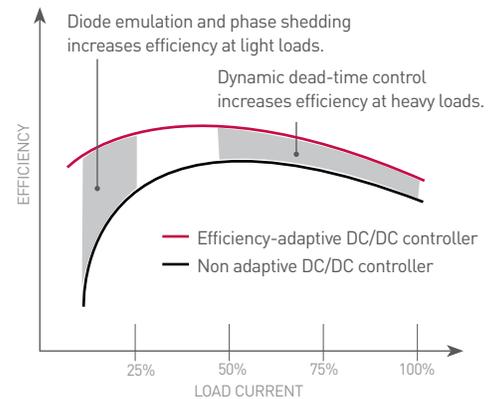
WHERE USED IN INFRASTRUCTURE

- Telecom/datacom equipment
- Servers/storage equipment
- Industrial computer/control equipment
- Test and measurement equipment
- FPGA/DSP/ASIC power supplies
- Power supply modules
- 5V and 12V distributed power systems

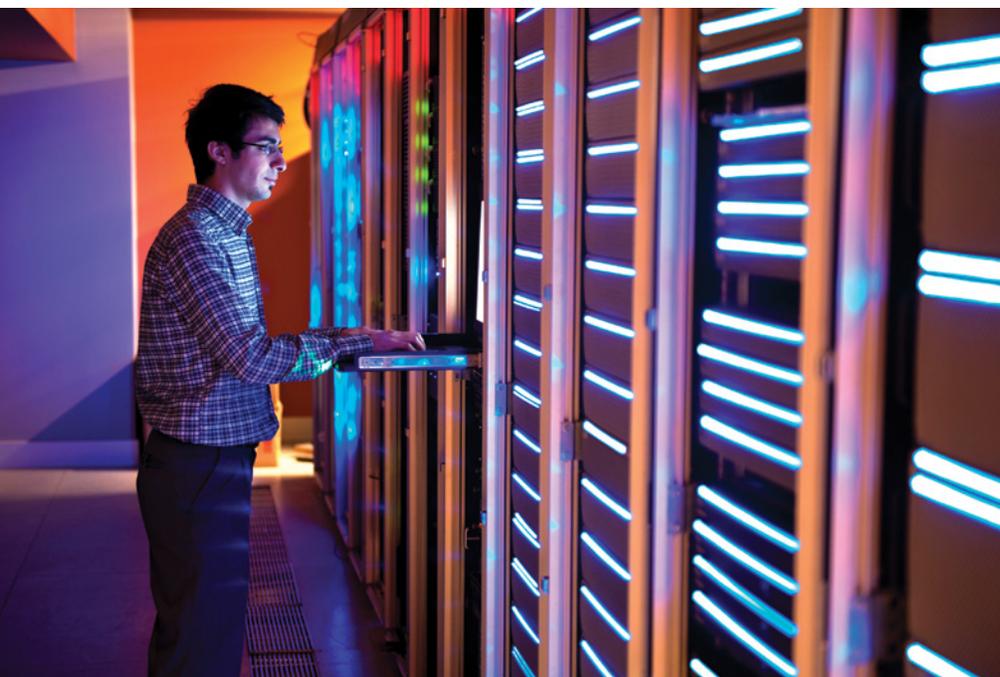
KEY FEATURES AND BENEFITS

- Easy-to-design, flexible digital solution
- Can be used in a wide variety of applications
- Seamlessly combine devices to address a full range of system requirements
- High efficiency and fast transient response
- Adaptive performance optimization to increase efficiency
- Integrated power and fault management without additional components
- Easily configured by simple pin-straps, resistor connections or via I²C/SMBus interface
- Smaller footprint, fewer components

POWER MANAGEMENT BENEFITS



- High V_{OUT} accuracy across line, load and temperature
- High current >40A per phase
- Active current sharing with phase add/drop
- Adaptive efficiency optimization
- Startup pre-bias protection
- External clock synchronization with phase interleaving





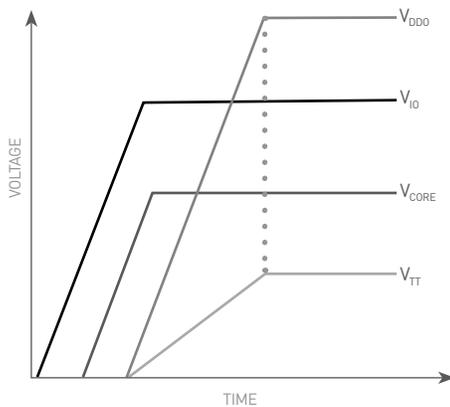
DIGITAL POWER KNOWLEDGE CENTER



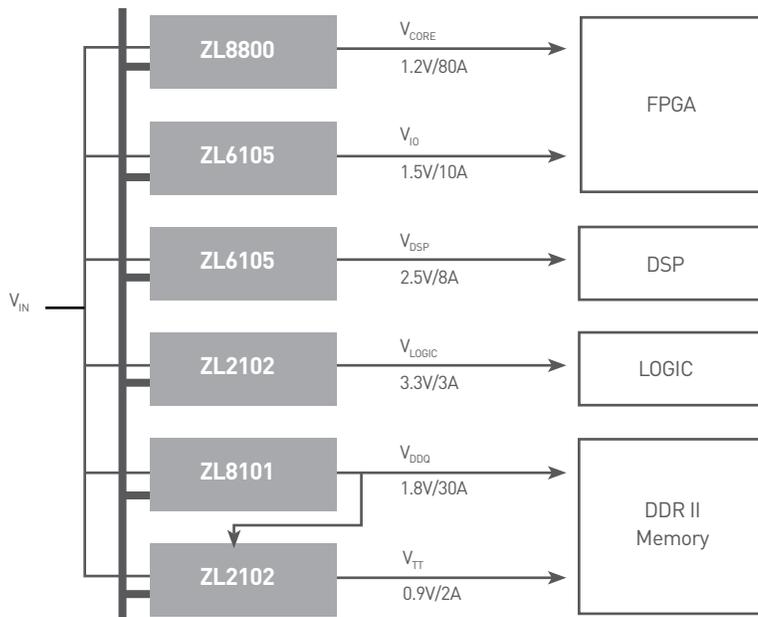
Get everything you need to get started using digital power at [intersil.com/DigiPowerTraining](https://www.intersil.com/DigiPowerTraining)

- Video tutorial series on how to use Intersil's PowerNavigator digital power configuration software
- PowerNavigator user's guide
- Free software download.
- Order your own USB to PMBus adapter
- Video series about new ZL8800 compensation-free full digital control loop technology
- Order your own dual-channel or dual-phase ZL8800 evaluation boards

POWER CONVERSION BENEFITS



- Voltage tracking (50% / 100%)
- Autonomous output sequencing
- Adjustable voltage margining (5% / 10%)
- Voltage, current, temperature monitoring
- Configurable fault management
- Snapshot parametric data capture
- Interoperability with DDC bus
- I²C/SMBus interface, PMBus compatible



GET ZL8800 DESIGN RESOURCES

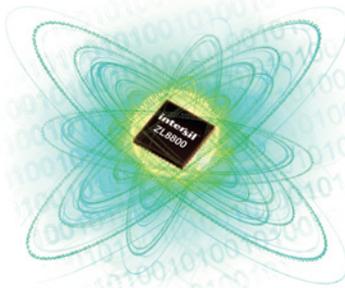


Watch video tutorials, get app notes, white papers and evaluation boards at go.intersil.com/DigitalPower

-  Download Datasheet
-  Read App Notes
-  Order Demo Boards
-  Watch Videos

HIGHLIGHTED VIDEO TOPICS

- Introduction to ZL8800
- Click-and-drag sequencing
- ZL8800's compensation-free Control loop stability
- Understanding the ASCR gain and residual compensation
- Overvoltage and undervoltage protection schemes



ZL8800: Compensation-free ChargeMode™ digital control loop simplifies design and extends Intersil's leading edge digital power platform.

Proprietary ChargeMode control loop technology delivers best-in-class transient response for digital Point of Loads (POLs), saving on output capacitance and board space, important benefits for the advanced power systems found in the latest generation of base-stations, routers, and similar infrastructure designs.

- 2-channel/2-phase digital DC/DC controller
- Integrated LDOs enable single supply 12V operation
- DDC bus enables sequencing and fault management across multiple devices
- Non-volatile memory allows for storage of all configuration and setup parameters

ZL6105: Digital DC/DC with adaptive optimization algorithms delivers up to 96% power conversion efficiency and eliminates the need for manual compensation design work.

- Auto compensating PID filter
- Adaptive light load efficiency Optimization
- 3V to 14V input range
- 0.54V to 5.5V output range (with margin)
- $\pm 1\%$ output voltage accuracy
- Internal 3A MOSFET drivers
- Fast load transient response
- Current sharing and phase interleaving

ZL2102: Easy-to-use digital power regulator can be configured for most applications using only hardware pin straps to adjust switching frequency, output voltage, UVLO, soft start ramp/delay settings, sequencing options, and SMBus address.

For more advanced configurations, the ZL2102 supports over 70 PMBus commands. Output voltage/current is factory calibrated.

This synchronous buck converter operates from a 4.5V to 14V input supply and provides from 0.54V to 5.5V output voltage at up to 6A.

- Integrated MOSFET Switches
- 6A continuous output current
- Adjustable 0.54V to 5.5V output range
- 4.5V to 14V input range
- Up to 90% efficiency
- Auto compensation for fast transient response
- SMBus compliant serial interface

ZL6105: Digital PWM eliminates the need for complicated power supply managers and external discrete components.

The ZL8101 is designed to be a flexible building block for DC power, used with either the ZL1505 MOSFET driver IC, the ISL6611 phase doubler IC, or DrMOS type devices. It can be easily adapted to designs ranging from a single-phase 4.5V input to a multi-phase supply operating from a 12V input.

- Efficient synchronous buck controller
- Adaptive performance optimization algorithms
- $\pm 1\%$ output voltage accuracy
- Auto compensation
- I²C/SMBus interface, PMBus compatible
- Internal non-volatile memory (NVM)

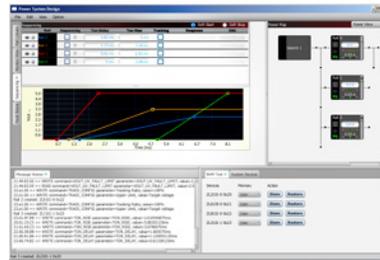


See complete Digital Power selection tables on page 22.

PowerNavigator™

Stop coding and start designing with Intersil's PowerNavigator software. Our intuitive graphical interface enables simple configuration and monitoring of multiple Digital-DC™ devices using your PC.

- Drag and drop system design
- Click and drag sequencing
- Command tool library
- Pre-loaded common configurations for FPGAs



Visual Sequencing

Adjust power sequencing of multiple rails using graphical interface.



Graphical Monitoring

Easy to read displays to monitor entire system on a single page.



START USING POWERNAVIGATOR

Get your free software today at
intersil.com/powernavigator

- Download User's Guide
- Read App Notes
- Watch Videos

VIDEO TUTORIAL TOPICS

- Introduction
- Software overview
- Set-up
- Monitoring and configuring
- Using PowerNavigator GUI
- Click-and-drag sequencing
- PMBus command library



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POWER MODULES

Intersil power modules are complete DC/DC power solutions which reduce design time, lower cost and save board space. With industry leading power technology, these modules offer small form factor, high efficiency and robust features such as digital control, current sharing and cascading up to six modules for high output power.

WHERE USED IN INFRASTRUCTURE

- Telecom/datacom equipment
- Servers/storage equipment
- Industrial computer/control equipment
- Test and measurement equipment
- FPGA/DSP/ASIC power supplies
- Power supply modules
- 5V and 12V distributed power systems

ANALOG POWER MODULES

Simple

Full integration means less complexity and more ease of design

Dense

Power output up to 100W in a single package

Functional

Versatile features such as soft start, fault protection and parallel module multi-phasing

Rugged

- Thermal molding compound allows for even heat distribution
- Large copper pads transfer heat efficiently
- Operates at full load across wide temperature range
- Leaded package allows pin access
- Optimized thermal packaging

LEARN MORE ABOUT INTERSIL POWER MODULES



See videos about how Intersil's unique module architecture delivers unmatched thermal performance and simplifies design at go.intersil.com/PowerModules

INTERASIL'S GROWING PORTFOLIO OF FULLY ENCAPSULATED POWER MODULES

Analog

1V to 20V

- 4A out: **ISL8204M**
- 6A out: **ISL8206M**
- 10A out: **ISL8201M**

3V to 20V

- 10A out: **ISL8200M**

10V to 80V

- 4A out: **ISL8216M**

Digital

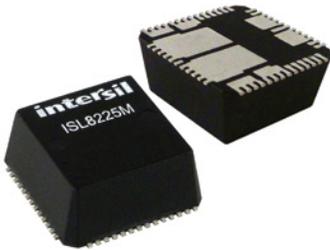
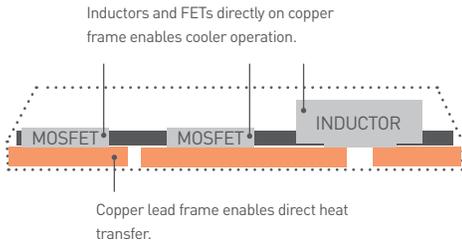
4.5V to 13.2V

- 6A out: **ZL9006M**
- 12A out: **ZL9101M**
- 10A out: **ZL9010M**
- 17A out: **ZL9117M**

4.5V to 14V

- 25A out: **ISL8270M**
- 33A out: **ISL8271M**

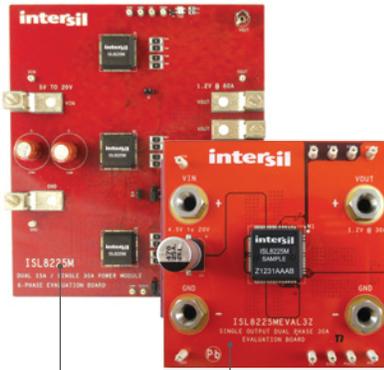
OPTIMIZED THERMAL PACKAGING



ISL8225M: Dual 15A/Single 30A Step-Down Power Module delivers industry's best 100W in a tiny 17mm square footprint.

The ISL8225M's two 15A outputs may be used independently or combined to deliver a single 30A output. Designing a high-performance board-mounted power supply has never been simpler as only a few external components are needed to create a very dense and reliable power solution.

- Up to 95% conversion efficiency
- 4.5V to 20V input voltage range
- 0.6V to 6V output voltage range
- 1.5% output voltage accuracy with differential remote sensing
- Up to six modules may be paralleled to support 180A output current
- Output over-voltage, over-current and over-temperature protection
- Full power operation without heat sinks or fans
- QFN package with exposed leads permits easy probing and visual solder inspection



Three paralleled modules for 90A solution

High integration provides simple, board-saving design

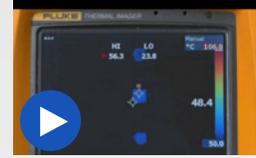
ULTIMATE DESIGN FLEXIBILITY AND POWER DENSITY

The ISL8225M can be interleaved with up to six modules for 12-phase, 180A solution.



See complete Analog Power Module selection table on page 22.

GET ISL8225M DESIGN RESOURCES



Watch video tutorials, get app notes, white papers and evaluation boards at go.intersil.com/PowerModules

- Download Datasheet
- Read App Notes
- Order Demo Boards
- Watch Videos

HIGHLIGHTED VIDEO TOPICS

- The benefits of using a leaded package
- ISL8225M thermal performance





ISL8216M: Intersil's first high voltage power module simplifies designs for applications up to 80V.

All you need is the ISL8216M device, input and output capacitors and one resistor to program the output voltage for a complete high voltage design. This "off-the-shelf" unassisted implementation eliminates the design and manufacturing risks while dramatically improving time to market.

- Complete switch mode power supply in one package
- Wide input voltage range: 10V to 80V
- Output current 4A
- Programmable soft-start
- YNC and adjustable frequency 200kHz-600kHz
- Single resistor sets V_{OUT} +2.5V up to +30V
- Setpoint accuracy $\pm 1.5\%$
- Programmable overcurrent protection

DIGITAL POWER MODULES

Intersil offers an expanding portfolio of highly integrated POL DC/DC power modules in a innovative QFN style package. Intersil's DC/DC modules integrate most of the components required to build a DC/DC power supply into a single chip that offers reduced design cycle time, lower cost and PCB space savings.

Quick

Easy-to-use, PowerNavigator software

- Drag and drop system design
- Click and drag sequencing
- Command tool library
- Pre-loaded common configuration for power FPGAs

Flexible

PMBus monitoring and configurability

- Works with other PMBus devices with common protocol



Simple

- Built-in auto-compensation provides optimal dynamic performance to minimize the output voltage variation during transient events
- Adjustable output voltage via PMBus command simplifies the design and saves cost by reducing the number of module types
- Simplified voltage tracking via PMBus
- Thermally enhanced HDA package (ZL9006M, ZL9010M) allows low cost automated assembly using standard surface mount equipment

ZL9117M: Fully encapsulated 17A digital module delivers 4X battery power density and improves system reliability.

- ~5% efficiency improvement vs. previous modules
- Optimized for $<2.5V_{OUT}$ operation
- Input voltage range: 4.5V to 13.2V
- Adjustable 0.6V to 3.6V output range
- Minimal external components
- Excellent output regulation
- $\pm 1\%$ over industrial temperature range
- Programmable switching frequency from 600kHz to 1.2MHz (preset to ~600kHz)
- Frequency sync and power good, internal soft-start



ISL8270M/71M: New 24A and 33A digital power modules using Intersil's ChargeMode™ digital control loop architecture simplifies design.

Design can be completed using only bulk input and output capacitors. Patented thermally enhanced HDA package enables continuous 25A (ISL8270M) and 33A (ISL8271M) continuous output current can be delivered without the need for air flow or heatsink.

- Complete digital switch mode power supply
- 4.5V to 14V wide input voltage range
- Programmable output voltage from 0.6V to 3.6V
- PMBus compliant I²C interface
- Programmable V_{OUT} , margining, UV/OV, I_{OUT} limit, soft-start/stop, sequencing, and external synchronization
- Monitor: V_{IN} , V_{OUT} , I_{OUT} , temperature, duty cycle, switching frequency and faults
- $\pm 1.0\% V_{OUT}$ accuracy over line, load and temperature



See complete Digital Power Module selection table on page 22.

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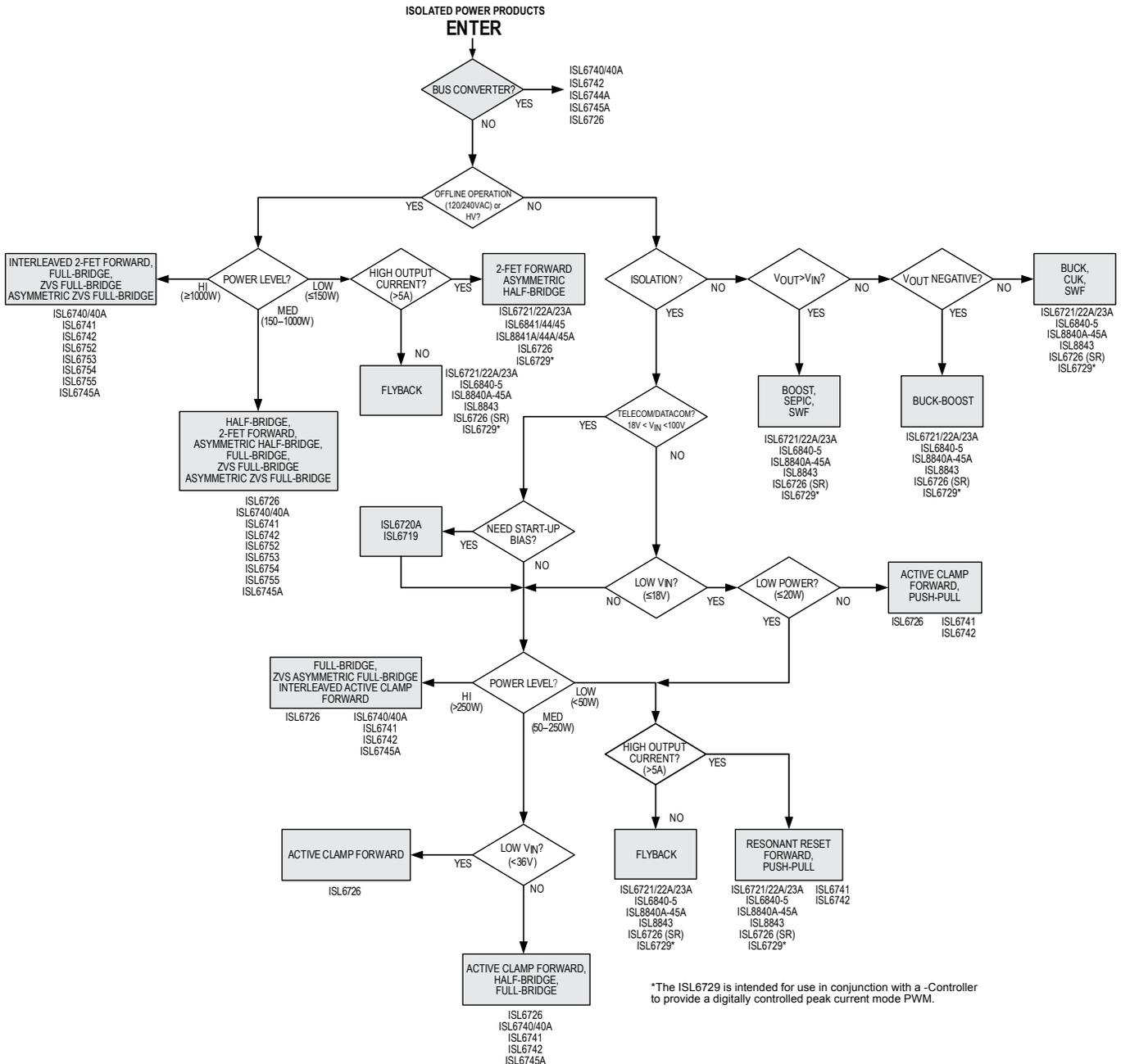
POWER MANAGEMENT SELECTION TABLES

ISOLATED POWER

POWER FACTOR CONTROLLERS

Device	Device Description	Switching Frequency	Skip Mode	Control Mode	UVLO Rising	UVLO Falling	V _{BIAS} (max)	No-Load Operating Current	# of PWM Outputs	FET Driver I _{OUT} (max)	Max Duty Cycle (%)	Package
ISL6730A	Power Factor Correction Controller with skip mode	124kHz	Yes-Fixed	Peak Current Mode	9.65 V	7.25 V	20 V	3.3 mA	1	2.8 A	98.5	10 Ld MSOP
ISL6731A	Power Factor Correction Controller	124kHz	Yes-Fixed	Peak Current Mode	9.65 V	7.25 V	20 V	3.3 mA	1	2.8 A	98.5	14 Ld SOIC
ISL6730B	Power Factor Correction Controller	62kHz	Yes-Fixed	Peak Current Mode	9.65 V	7.25 V	20 V	3.3 mA	1	2.8 A	98.5	10 Ld MSOP
ISL6731B												14 Ld SOIC
ISL6730C	Power Factor Correction Controller	124kHz	No	Peak Current Mode	9.65 V	7.25 V	20 V	3.3 mA	1	2.8 A	98.5	10 Ld MSOP
ISL6730D	Power Factor Correction Controller	62kHz	No	Peak Current Mode	9.65 V	7.25 V	20 V	3.3 mA	1	2.8 A	98.5	10 Ld MSOP

ISOLATED PWM CONTROLLERS



ISOLATED PWM CONTROLLERS (CONTINUED)

Device	Device Description	Control Mode	UVLO Rising	UVLO Falling	V _{BIAS} (max)	No-Load Operating Current	# of PWM Outputs	FET Driver I _{OUT} (max)	Max Duty Cycle (%)	Package
Full-Bridge ZVS (Zero-Voltage-Switching)										
ISL6551	ZVS Full Bridge PWM Controller	Peak Current Mode	9.6 V	8.6 V	16 V	13 mA	6	2 A	100	28 Ld QFN, 28 Ld SOIC
ISL6726	Active Clamp Forward PWM Controller	Active clamp forward, Asymmetric half-bridge, Interleaved active clamp forward	7.65 V	6.23 V	20 V	10 mA	1	1 A	100	20 Ld QSOP
ISL6752	ZVS Full-Bridge Current-Mode PWM with Adjustable Synchronous Rectifier Control	Peak Current Mode	8.75 V	7 V	20 V	6 mA	6	0.1 A	100	16 Ld QSOP
ISL6753	ZVS Full-Bridge PWM Controller	Peak Current Mode or Voltage Mode	8.75 V	7 V	20 V	5 mA	4	0.1 A	100	16 Ld QSOP
ISL6754	ZVS Full-Bridge PWM Controller with Adjustable Synchronous Rectifier Control	Peak Current Mode or Voltage Mode	8.75 V	7 V	20 V	11 mA	6	0.1 A	100	20 Ld QSOP
ISL6755	ZVS Full-Bridge PWM Controller with Average Current Limit	Peak Current Mode or Voltage Mode	8.75 V	7 V	20 V	11 mA	4	0.1 A	100	20 Ld QSOP
ISL78223	ZVS Full-Bridge PWM Controller with Adjustable Synchronous Rectifier Control	Peak Current Mode	8.75 V	7.0 V	20 V	12 mA	1	0.01 A	99	20 Ld QSOP
Double Ended (Half-Bridge, Full-Bridge, Push-Pull)										
ISL6740A	Flexible Double Ended Voltage and Current Mode PWM Controllers	Voltage Mode	7.25 V	6.75 V	20 V	5 mA	2	0.5 A	100	16 Ld SOIC, 16 Ld TSSOP
ISL6741	Flexible Double Ended Voltage and Current Mode PWM Controllers	Peak Current Mode	7.25 V	6.75 V	20 V	5 mA	2	0.5 A	100	16 Ld SOIC, 16 Ld TSSOP
ISL6742B	Advanced Double-Ended PWM Controller	Voltage, Peak Current, or Average Current Mode	8.75 V	7 V	20 V	5 mA	4	0.1 A	100	16 Ld QSOP
ISL6744A	Intermediate Bus PWM Controller	Voltage Mode	6.2 V	5.7 V	20 V	3 mA	2	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL6745A	Voltage-Mode Double-Ended PWM Controller with Precision Dead-Time Adjustment	Voltage Mode	6.3 V	5.7 V	20 V	3 mA	2	1 A	100	10 Ld MSOP
Single-Ended (Flyback, Forward, ACF)										
ISL1903	Dimmable Buck LED Driver - AC Mains or DC Input LED Driver	Critical Conduction Mode (CrCM)	8.55	7.1	26 V	6 mA	1	1 A	100	16 Ld QSOP
ISL1904	Dimmable AC Mains LED Driver with PFC and Primary Side Regulation	Critical Conduction Mode (CrCM)	8.55	7.1	26 V	6 mA	1	1 A	100	16 Ld QSOP
ISL6401	Synchronizing Current Mode PWM for Subscriber Line Interface Circuits (SLICs)	Peak Current Mode	4.1 V	3.6 V	7 V	3.7 mA	1	1 A	50	14 Ld SOIC, 16 Ld QFN
ISL6721	Flexible Single Ended Current Mode PWM Controller	Peak Current Mode	8.25 V	7.7 V	20 V	4.5 mA	1	1 A	100	16 Ld SOIC, 16 Ld TSSOP
ISL6721A	Flexible Single-Ended Current Mode PWM Controller	Peak Current Mode	6.8 V	6.2 V	20 V	4.5 mA	1	1 A	100	16 Ld SOIC, 16 Ld TSSOP
ISL6722A	Flexible Single Ended Current Mode PWM Controllers	Peak Current Mode	8.25 V	7.7 V	20 V	4.5 mA	1	1 A	100	16 Ld QFN, 16 Ld SOIC, 16 Ld TSSOP
ISL6723A	Flexible Single Ended Current Mode PWM Controllers	Peak Current Mode	13 V	7.7 V	20 V	4.5 mA	1	1 A	100	16 Ld SOIC
ISL6726	Active Clamp Forward PWM Controller	Active clamp forward, Asymmetric half-bridge, Interleaved active clamp forward	7.65 V	6.23 V	20 V	10 mA	1	1 A	100	20 Ld QSOP
ISL6729	Low-Cost Single-Ended Current-Mode PWM for Microcontroller-Based Power Converters	Peak Current Mode	4.5 V	4.3 V	7 V	3.3 mA	1	1 A	100	8 Ld SOIC, 8 Ld MSOP
ISL6730	Power Factor Correction Controller	Peak Current Mode	9.65 V	7.25 V	20 V	3.3 mA		2.8 A	98.5	10 Ld MSOP
ISL6840	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	7 V	6.6 V	20 V	2.3 mA	1	1 A	100	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6841	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	7 V	6.6 V	20 V	2.3 mA	1	1 A	50	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6842	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	14.4 V	8.8 V	20 V	2.3 mA	1	1 A	100	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6843	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	8.4 V	7.6 V	20 V	2.3 mA	1	1 A	100	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6844	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	14.4 V	8.8 V	20 V	2.3 mA	1	1 A	50	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6845	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	8.4 V	7.6 V	20 V	2.3 mA	1	1 A	50	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL78215	Improved Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	7 V	6.6 V	20 V	3.3 mA	1	1 A	48	8 Ld MSOP
ISL8840A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	7 V	6.6 V	30 V	2.9 mA	1	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8841A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	7 V	6.6 V	30 V	2.9 mA	1	1 A	50	8 Ld MSOP, 8 Ld SOIC
ISL8842A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	14.4 V	8.8 V	30 V	2.9 mA	1	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8843	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	8.4 V	7.6 V	30 V	2.9 mA	1	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8843A	Single-Ended Current Mode PWM Controller with 3% Current Limit and Military Temp Grade Option	Peak Current Mode	8.4 V	7.6 V	30 V	2.9 mA	1	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8844A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	14.4 V	8.8 V	30 V	2.9 mA	1	1 A	50	8 Ld MSOP, 8 Ld SOIC
ISL8845A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	8.4 V	7.6 V	30 V	2.9 mA	1	1 A	50	8 Ld MSOP, 8 Ld SOIC

FET DRIVERS

HALF-BRIDGE

Device	Device Description	Max Bootstrap Supply Voltage (V)	Max Bias Voltage (V)	Peak Pull-up Current (A)	Peak Pull-down Current (A)	Turn-On Prop Delay (ns)	Turn-Off Prop Delay (ns)	Rise Time (ns)	Fall Time (ns)	Package
HIP2100	100V/2A Peak Low Cost High-Frequency Half bridge Driver with CMOS Logic Inputs	114	14	2	2	20	20	10	10	8 Ld EPSON, 8 Ld SOIC, 12 Ld DFN, 16 Ld QFN
HIP2101	100V/2A Peak Low Cost High-Frequency Half bridge Driver with TTL/CMOS Logic Inputs	114	14	2	2	25	25	10	10	8 Ld EPSON, 8 Ld SOIC, 12 Ld DFN, 16 Ld QFN
ISL2100A	100V, 2A Peak, High Frequency Half bridge Drivers	114	14	2	2	39	31	10	10	9 Ld DFN
ISL2101A	100V, 2A Peak, High Frequency Half bridge Drivers	114	14	2	2	39	34	10	10	9 Ld DFN
ISL2110	100V, 3A/4A Peak, High Frequency Half bridge Drivers (CMOS compatible inputs thresholds)	114	14	3	4	38	32	9	7.5	12 Ld DFN, 8 Ld SOIC
ISL2111	100V, 3A/4A Peak, High Frequency Half bridge Drivers (TTL compatible inputs thresholds)	114	14	3	4	38	32	9	7.5	10 Ld TDFN, 12 Ld DFN, 8 Ld SOIC
ISL6700	80V/1.25A Peak, Medium Frequency, Low Cost, Half bridge Driver	96	15	1.4	1.3	70	60	5	5	12 Ld QFN, 8 Ld SOIC
ISL89400, ISL89401	100V, 1.25A Peak, High Frequency Half bridge Driver	114	14	1.25	1.25	39	31	16	16	8 Ld SOIC, 9 Ld DFN
HIP2103	60V, 1A/2A Peak, Half Bridge Driver with 4V UVLO	60	14	1	2	28	30	21	17	8 Ld DFN
HIP2104	60V, 1A/2A Peak, Half Bridge Driver with 4V UVLO and Two Internal LDO's 12V and 3.3V	60	14	1	2	23	27	21	17	12 Ld DFN
HIP2120	100V, 1.25A Peak, High Frequency Half bridge Driver with PWM and Enable Inputs (CMOS inputs)	114	14	2	2	50	32	10	10	9 Ld DFN, 10 Ld DFN
HIP2121, HIP2123	100V, 2A Peak, High Frequency Half bridge Driver with PWM and Enable Inputs (Logic/TTL inputs)	114	14	2	2	50	32	10	10	9 Ld DFN, 10 Ld DFN
HIP2122, HIP2124	100V, 2A Peak, High Frequency Half bridge Driver with Independent High and Low Inputs (CMOS inputs)	114	14	2	2	50	32	10	10	9 Ld DFN, 10 Ld DFN

FULL-BRIDGE

Device	Device Description	Max Bootstrap Supply Voltage (V)	Max Bias Voltage (V)	Peak Pull-up Current (A)	Peak Pull-down Current (A)	Turn-On Prop Delay (ns)	Turn-Off Prop Delay (ns)	Rise Time (ns)	Fall Time (ns)	Package
HIP4080A	80V/2.5A Peak, High Frequency Full Bridge FET Driver with Charge Pump and Input Comparators	95	15	2.6	2.4	70	50	10	10	20 Ld PDIP, 20 Ld SOIC
HIP4081A	80V/2.5A Peak, High Frequency Full Bridge FET Driver with Charge Pump and Independent Control Inputs	95	15	2.6	2.4	60	35	10	10	20 Ld PDIP, 20 Ld SOIC
HIP4082	80V/1.25A Peak Current Full Bridge FET Driver	95	15	1.4	1.3	75	55	9	9	16 Ld PDIP, 16 Ld SOIC
ISL83202	55V, 1A Peak Current H-Bridge FET Driver	70	15	1	1	75	55	9	9	16 Ld PDIP, 16 Ld SOIC
ISL83204A	60V/2.5A Peak, High Frequency Full Bridge FET Driver	75	15	2.6	2.4	70	50	10	10	20 Ld PDIP, 20 Ld SOIC

3-PHASE

Device	Device Description	Max Bootstrap Supply Voltage (V)	Max Bias Voltage (V)	Peak Pull-up Current (A)	Peak Pull-down Current (A)	Turn-On Prop Delay (ns)	Turn-Off Prop Delay (ns)	Rise Time (ns)	Fall Time (ns)	Package
HIP4083	80V/0.3A Peak Three Phase High Side Driver	95	15	0.24 (avg)	0.3 (avg)	65	60	35	30	16 Ld PDIP, 16 Ld SOIC
HIP4086	80V/0.5A Peak Three Phase Driver with Integrated Charge Pump	95	15	0.5	1.1	65	75	20	10	24 Ld PDIP, 24 Ld SOIC
HIP4086A	80V/0.5A Peak Three Phase Driver	95	15	0.5	1.1	65	75	20	10	24 Ld SOIC

INTEGRATED FET BRIDGE AND HIGH SIDE DRIVERS

Device	Device Description	Max Bootstrap Supply Voltage (V)	Max Bias Voltage (V)	Sourcing Current Capability (A)	Sinking Current Capability (A)	Turn-On Prop Delay (µs)	Turn-Off Prop Delay (µs)	Rise Time (µs)	Fall Time (µs)	Package
HIP4020	Full Bridge Driver with Integrated 0.5A Power FETs for Small 3V, 5V and 12V DC Motors	N/A	15	0.5	0.5	2.5	0.1	4	0.1	20 Ld SOIC
ISL6801	High Voltage Bootstrap High Side Driver	120	6.5	0.2	0.2	1	1	0.1	0.1	8 Ld SOIC

FET DRIVERS (CONTINUED)

LOW-SIDE FET DRIVERS

Device	Device Description	# of Drivers	Input Supply Range (V)	Input Signal Range (V)	Output Signal Range (V)	I_S (mA)	Max Operating Frequency (MHz)	Peak Output I_{PK} (A)	Rise Time (ns)	Fall Time (ns)	V_{BIAS} (min) (V)	R_{ON} (Ω)	Package
ISL89160, ISL89161, ISL89162, ISL89163, ISL89164, ISL89165, ISL89166, ISL89167, ISL89168	High Speed, Dual Channel, 6A, 4.5 to 16V _{OUT} Power MOSFET Driver	2	+4.5 to +16	0 to V _P	0 to +16	5	10	6	20	20	4.5	2	8 Ld EPSON, 8 Ld TDFN
ISL89367	High Speed, Dual Channel, 6A, MOSFET Driver With Programmable Rising and Falling Edge Delay Timers	2	+4.5 to +16	0 to V _P	0 to +16	5	10	6	20	20	4.5	2	16 Ld TDFN
ISL89410	High Speed, Dual Channel Power MOSFET Drivers	2	+4.5 to +18	0 to V _P	0 to +18	4.5	10	2	10	13	4.5	4	8 Ld PDIP, 8 Ld SOIC
ISL89411	High Speed, Dual Channel Power MOSFET Drivers	2	+4.5 to +18	0 to V _P	0 to +18	1	10	2	10	13	4.5	*	8 Ld PDIP, 8 Ld SOIC
ISL89412	High Speed, Dual Channel Power MOSFET Drivers	2	+4.5 to +18	0 to V _P	0 to +18	2.5	10	2	10	13	4.5	*	8 Ld PDIP, 8 Ld SOIC

SYNCHRONOUS DRIVERS FOR MULTIPHASE PWM

Device	Device Description	V_{IN}/V_{PWM} (max) (V)	I_S	V_{DRIVE} (V)	Output Per Driver I_{GATE} Source/Sink (A)	Output Per Driver I_{GATE} Source/Sink (A)	Phase V_{PHASE} (min) (V)	Phase V_{PHASE} (max) (V)	No Load I_S (max) (mA)	Package
ISL6208/B	High Voltage Synchronous Rectified Buck MOSFET Driver with Programmable Deadtime	-0.3V to VCC + 0.3V	80 μ A	5	2/2	2/4	VBOOT-7	30	Almost negligible	8 Ld QFN, 8 Ld SOIC
ISL6209	High Voltage Synchronous Rectified Buck MOSFET Driver with Programmable Deadtime	-0.3V to VCC + 0.3V	85 μ A	5	2/2	2/4	VBOOT-7	30	Almost negligible	8 Ld QFN, 8 Ld SOIC
ISL6210	Dual Synchronous Rectified MOSFET Drivers	25	170 μ A	5	2	2/4	VBOOT-7	25	Almost negligible	16 Ld QFN
ISL6608	Synchronous Rectified MOSFET Driver	-0.3V to 7V	80 μ A	5	2/2	2/4	VBOOT-7	22	Almost negligible	8 Ld QFN, 8 Ld SOIC
ISL6609/A	Synchronous Rectified MOSFET Driver	-0.3V to VCC + 0.3V	132 μ A	5	2/2	2/4	-8V (<20ns)	15VDC, 30V (<100ns)	Almost negligible	8 Ld QFN, 8 Ld SOIC
ISL6610/A	Dual Synchronous Rectified MOSFET Drivers	22	240 μ A (typ)	5	2/2	2/4	-8	30	1.6 (typ)	14 Ld SOIC, 16 Ld QFN
ISL6611A	Phase Doubler with Integrated Drivers and Phase Shedding Function	-0.3V to VCC + 0.3V	2.5mA	5	2/2	2/4	-8V (<20ns)	27VDC, 30V (<100ns)	1.25	16 Ld QFN
ISL6620/A	VR11.1 Compatible Synchronous Rectified Buck MOSFET Drivers	15	1.85mA (typ)	5	2/2	2/4	GND - 0.3VDC GND - 8V (<100ns)	15VDC, 30V (<100ns)	1.27 (typ)	8 Ld SOIC, 10 Ld DFN
ISL6625A	Synchronous Rectified Buck MOSFET Drivers	15	7.56mA	5 to 12	1.25/2	1.75/3	GND - 0.3VDC GND - 8V (400ns)	25VDC, 30V (200ns)	N/A	8 Ld DFN

VARIABLE DRIVE MOSFET DRIVERS

Device	Device Description	V_{IN}/V_{PWM} (max) (V)	I_S (mA)	V_{DRIVE} (V)	Output Per Driver I_{GATE} Source/Sink (A)	Output Per Driver I_{GATE} Source/Sink (A)	Phase V_{PHASE} (min) (V)	Phase V_{PHASE} (max) (V)	No Load I_S (max) (mA)	Package
ISL6612A/B	Advanced Synchronous Rectified Buck MOSFET Drivers with Pre-POR OVP	GND - 0.3V to 7V	7.2	5 to 12	1.25/2	2/3	GND - 0.3VDC GND - 8V (<400ns)	15VDC, 30V (<200ns)	4.5	8 Ld EPSON, 8 Ld SOIC, 10 Ld DFN
ISL6614A/B	Dual Advanced Synchronous Rectified Buck MOSFET Drivers with Protection Features	GND - 0.3V to 7V	7.1	5 to 12	1.25/2	2/3	GND - 0.3VDC GND - 8V (<400ns)	15VDC, 30V (<200ns)	4.5	14 Ld SOIC, 16 Ld QFN
ISL6622, ISL6622A	VR11.1 Compatible Synchronous Rectified Buck MOSFET Drivers	15	5.7	5 to 12	1.25/2	2/3	GND - 0.3VDC GND - 8V (<200ns)	15VDC, 30V (<200ns)	N/A	8 Ld SOIC, 10 Ld DFN
ISL6615, ISL6615A	High-Frequency 6A Sink Synchronous MOSFET Drivers with Protection Features	15	8	4.5 to 13.2	2.5/4	4/6	GND - 0.3VDC GND - 8V (<400ns)	15VDC, 30V (<200ns)	4.5	8 Ld SOIC, 10 Ld DFN

NON-ISOLATED POWER

DIGITAL POWER

DIGITAL PWM CONTROLLERS

Device	Device Description	V _{IN} (min) (V)	V _{IN} (max) (V)	V _{OUT} (min) (V)	V _{OUT} (max) (V)	I _{OUT} (max) (A)	I _O (mA)	Switching Frequency (MHz)	Peak Efficiency (%)	Integrated FET Drivers	Integrated Power Management	Package
ZL6105	Adaptive Digital DC/DC Controller with Drivers and Auto Compensation and Current Sharing	3	14	0.54	5.5	>40	16	0.2 to 1.4	96	Y	Y	36 Ld QFN
ZL8101	Adaptive Digital DC/DC Controller with Auto Compensation and Current Sharing	4.5	14	0.54	4	>40	16	0.2 to 1.4	96	N	Y	32 Ld QFN
ZL8800	Dual Channel/Dual Phase PMBus™ ChargeMode Control DC/DC Digital Controller	4.5	14	0.54	5.5	>40	16	0.2 to 1.33	96	N	Y	44 Ld QFN

POWER MOSFET DRIVERS

Device	Device Description	V _{IN} /V _{PWM} (max) (V)	V _{DRIVE} (V)	Output Per Driver I _{UGATE} Source/Sink (A)	Output Per Driver I _{LGATE} Source/Sink (A)	No Load I _S (max) (mA)	Package
ZL1505	Synchronous Step-Down MOSFET Drivers	5	7.5	4/5	3/3	0.8	10 Ld DFN

DIGITAL INTEGRATED FET REGULATOR

Device	Device Description	V _{IN} (min) (V)	V _{IN} (max) (V)	V _{OUT} (min) (V)	V _{OUT} (max) (V)	I _{OUT} (max) (A)	I _O (mA)	Switching Frequency (MHz)	Peak Efficiency (%)	Integrated MOSFET	Integrated Power Management	Package
ZL2102	6A Digital Synchronous Step-Down DC/DC Converter with Auto Compensation	4.5	14	0.54	5.5	6	15	0.2 to 1.0	90	Y	Y	36 Ld QFN
ZL2106	6A Digital-DC Synchronous Step-Down DC/DC Converter	4.5	14	0.54	5.5	6	11	0.2 to 1.0	87	Y	Y	36 Ld QFN

POWER MODULES

ANALOG POWER MODULES

Device	Device Description	V _{IN} Range (V)	V _{OUT} Range (V)	I _{OUT} (A)	Current Share	Multi-phase	P _{GOOD}	Enable	Ambient Temp Range (°C)	Load Fault Protection	Peak Efficiency (%)	Package (mm)
Up to 20V												
ISL8204M*	High Efficiency DC/DC Power Module	1 - 20**	0.6 - 6	4	No	No	No	Yes	-40 to +85	Yes	95	15 Ld QFN (15 x 15 x 3.5)
ISL8206M*	Complete High Efficiency DC/DC Power Module	1 - 20**	0.6 - 6	6	No	No	No	Yes	-40 to +85	Yes	95	15 Ld QFN (15 x 15 x 3.5)
ISL8201M	10A, High Efficiency DC/DC Module	1 - 20**	0.6 - 5	10	No	No	No	Yes	-40 to +85	Yes	95	15 Ld QFN (15 x 15 x 3.5)
ISL8200AM	Complete Current Share 10A DC/DC Power Module	4.5 - 20	0.6 - 6	10	Yes	Yes	Yes	Yes	-40 to +85	Yes	93	23 Ld QFN (15 x 15 x 2.2)
					Up to 6 phase single output with current balancing and sharing							
ISL8225M	Dual 15A/15A High Efficiency Power Module	4.5 - 20	0.6 - 6	Dual 15A or single 30A	Yes	Yes	Yes	Yes	-40 to +85	Yes	94	26 Ld QFN (17 x 17 x 7.5)
					Up to 12 phase single output with current balancing and sharing							
Up to 80V												
ISL8216M	Complete High Voltage 80V, 4A DC/DC Power Module	10 - 80	2.5 - 30	4	No	No	Yes	Yes	-40 to +85	Yes	96	22 Ld HDA (15 x 15 x 3.6)

*Pin to pin compatible to the ISL8201M

**P_{VCC}: 4.5V to 14.4V

DIGITAL POWER MODULES

Device	Device Description	V _{IN} Range (V)	V _{OUT} Range (V)	I _{OUT} (A)	Current Share	Multi-phase	P _{GOOD}	Enable	Ambient Temp Range (°C)	Load Fault Protection	Peak Efficiency (%)	Package (mm)
ZL9006M	Digital DC/DC PMBus 6A Power Module	4.5 - 13.2	0.6 - 3.6	6	Yes	Yes	Yes	Yes	-40 to +85	Yes	95	32 Ld HDA MODULE (17.2 x 11.45 x 2.5)
ZL9010M	Digital DC/DC PMBus 10A Power Module	4.5 - 13.2	0.6 - 3.6	10	Yes	Yes	Yes	Yes	-40 to +85	Yes	95	32 Ld HDA MODULE (17.2 x 11.45 x 2.5)
ZL9101M	Digital DC/DC PMBus 12A Module	4.5 - 13.2	0.54 - 3.6	12	Yes	Yes	Yes	Yes	-40 to +85	Yes	95	21 Ld QFN (15 x 15 x 3.5)
ZL9117M**	Digital DC/DC PMBus 17A Module	4.5 - 13.2	0.54 - 3.6	17	Yes	Yes	Yes	Yes	-40 to +85	Yes	95	21 Ld QFN (15 x 15 x 3.5)
ISL8270M	Digital DC/DC PMBus 25A Module	4.5 - 14	0.54 - 5.5	25	Yes	Yes	Yes	Yes	-40 to +85	Yes	96	40 Ld HDA MODULE (17 x 19 x 3.55)
ISL8271M	Digital DC/DC PMBus 33A Module	4.5 - 14	0.54 - 5.5	33	Yes	Yes	Yes	Yes	-40 to +85	Yes	96	40 Ld HDA MODULE (17 x 19 x 3.55)

**Pin to pin compatible to the ZL9101M

NON-ISOLATED PWM CONTROLLERS

SINGLE OUTPUT BUCK CONTROLLERS

Device	Device Descriptions	V _{IN} (min) (V)	V _{IN} (max) (V)	V _{OUT} (min) (V)	V _{OUT} (max) (V)	I _{OUT} (max) (A)	V _{BIAS} (min)	V _{BIAS} (max)	I _S (min)	I _S (typ)	Package
3.3V or 5V Input											
ISL6406	Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	3.3	5	0.8	5	20	3.3 V	5 V	7 mA	9.8 mA	16 Ld QFN, 16 Ld SOIC, 16 Ld TSSOP
ISL6439/A	Single Sync Buck PWM Controller for Broadband Gateway Applications	3.3	5	0.8	3.3	20	3.3 V	3.3 V	6.1 mA	6.9 mA	16 Ld QFN, 14 Ld SOIC
ISL6520/A/B	Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	2.5	5	0.8	5	20	5 V	5 V		3.2 mA	16 Ld QFN, 8 Ld SOIC
ISL6526/A	Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	2.5	5	0.8	V _{IN}	20	3.3 V	5 V	6.1 mA	6.9 mA	16 Ld QFN, 14 Ld SOIC
ISL6527/A	Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	2.5	5	0.8	V _{IN}	20	3.3 V	5 V	2.6 mA	3.3 mA	16 Ld QFN, 14 Ld SOIC
12V Input											
ISL6341/A/B/C	5V or 12V Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	1.5	12	0.8	12	30	4.5 V	14.4 V	6.4 mA	7 mA	10 Ld TDFN
ISL6522B	Buck and Synchronous Rectifier Pulse-Width Modulator (PWM) Controller	2.5	12	0.8	V _{IN}	25	12 V	12 V		5 mA	16 Ld QFN, 14 Ld SOIC, 14 Ld TSSOP
ISL6525	Buck and Synchronous-Rectifier Pulse-Width Modulator (PWM) Controller	2.5	12	1.2	V _{IN}	25	12 V	12 V		5 mA	14 Ld SOIC
ISL6535	Synchronous Buck Pulse-Width Modulator (PWM) Controller	1.2	12	0.6	5	30	8 V	12 V		51 mA	16 Ld QFN, 16 Ld SOIC
ISL6545/A	5V or 12V Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	1	12	0.6	5	25	4.5 V	14.4 V		3.2 mA	10 Ld DFN, 8 Ld SOIC
ISL8104	Synchronous Buck Pulse-Width Modulator (PWM) Controller	1.2	12	0.6	5	30	7.6 V	15.4 V		51 mA	14 Ld SOIC, 16 Ld QFN
ISL8105/A/B	+5V or +12V Single-Phase Synchronous Buck Converter PWM Controller with Integrated MOSFET Gate Drivers	1	12	0.6	5	25	4.9 V	14.4 V		3.2 mA	8 Ld SOIC, 10 Ld DFN
ISL6420	Advanced Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	4.5	16	0.6	15.5	20	5 V	5 V	1.4 mA	2 mA	20 Ld QFN, 20 Ld QSOP
ISL6540/A	Single-Phase Buck PWM Controller with Integrated High Speed MOSFET Driver and Pre-Biased Load Capability	3.3	20	0.6	V _{IN}	30	2.9 V	5.5 V			28 Ld QFN
ISL8118	3.3V to 20V Single-Phase PWM Controller with Integrated 2A/4A MOSFET Drivers	3.3	20	0.6	20	30	2.9 V	5.6 V			28 Ld QFN
24V Input											
ISL6263C/D	5-Bit VID Single-Phase Voltage Regulator with Current Monitor for GPU Core Power	5	25	0.412	1.2875	25	4.75 V	5.25 V	1 μA	2.7 mA	32 Ld QFN
ISL6268	High-Performance Notebook PWM Controller	7	25	0.6	3.3	25	5 V	5 V		1.7 mA	16 Ld QSOP
ISL6269/A/B	High-Performance Notebook PWM Controller with Bias Regulator and Audio-Frequency Clamp	7	25	0.6	3.3	25			2 mA		16 Ld QFN
ISL62870	PWM DC/DC Voltage Regulator Controller	3.3	25	0.5	3.3	30	4.75 V	5.25 V	1 μA	1.1 mA	16 Ld μTQFN
ISL62871, ISL62872, ISL62873, ISL62875	PWM DC/DC Controller With VID Inputs For Portable GPU Core-Voltage Regulator	3.3	25	0.5	3.3	30	4.75 V	5.25 V	1 μA	1.1 mA	16 Ld μTQFN, 20 Ld μTQFN
ISL78210	Automotive PWM DC/DC Voltage Controller	3.3	25	0.5	3.3	30	4.75 V	5.25 V		1.1 mA	16 Ld μTQFN
ISL8106	Wide V _{IN} , 7V to 25V, Single-Phase PWM Controller with Integrated MOSFET Drivers	7	25	0.6	3.3	12	5 V	5 V	2 mA	2.2 mA	16 Ld QFN
ISL95870/A/B	PWM DC/DC Controller with VID Inputs for Portable GPU Core-Voltage Regulator	3.3	25	0.5	5	30	4.75 V	5.25 V	1 μA	1.2 mA	16 Ld μTQFN
ISL95872, ISL95873	Buck PWM Controller with Internal Compensation and External Reference Tracking	3.3	25	0.5	3.3	30	4.75 V	5.25 V	1 μA	1.2 mA	16 Ld μTQFN
ISL95874, ISL95875	PWM DC/DC Controller with VID Inputs for Portable GPU Core-Voltage Regulator	3.3	25	0.5	5	30	4.75 V	5.25 V	1 μA	1.2 mA	16 Ld μTQFN
ISL6420B	Advanced Single Synchronous Buck Pulse-Width Modulation (PWM) Controller	4.5	28	0.6	27.5	20	5 V	5 V	1.4 mA	2 mA	20 Ld QFN, 20 Ld QSOP
ISL8130	Advanced Single Universal Pulse-Width Modulation (PWM) Controller	4.5	28	0.6	25.2	30	4.5 V	28 V		2 mA	20 Ld QFN, 20 Ld QSOP
36V Input											
ISL8115	High Voltage Synchronous Buck PWM Controller with Integrated Gate Driver and Current Sharing Capability	2.97	36	0.6	5.5	30	2.97 V	5.5 V	-	10 mA	24 Ld 4x4 QFN
ISL8107	Single-Phase Pulse-Width Modulation (PWM) Controller with Wide (9V-75V) V _{IN} Range	9	75	1.2	75	10	9 V	75 V		2 mA	16 Ld QFN

NON-ISOLATED PWM CONTROLLERS (CONTINUED)

SINGLE OUTPUT UNIVERSAL CONTROLLERS

Device	Device Description	Control Mode	UVLO Rising	UVLO Falling	V _{BIAS} (max)	No-Load Operating Current	FET Driver I _{OUT} (max)	Max Duty Cycle (%)	Package
ISL6401	Synchronizing Current Mode PWM for Subscriber Line Interface Circuits (SLICs)	Peak Current Mode	4.1 V	3.6 V	7 V	3.7 mA	1 A	50	16 Ld QFN, 14 Ld SOIC
ISL6721	Flexible Single Ended Current Mode PWM Controller	Peak Current Mode	8.25 V	7.7 V	20 V	4.5 mA	1 A	100	14 Ld SOIC, 16 Ld QFN
ISL6721A	Flexible Single-ended Current Mode PWM Controller	Peak Current Mode	6.8 V	6.2 V	20 V	4.5 mA	1 A	100	16 Ld SOIC, 16 Ld TSSOP
ISL6722A	Flexible Single Ended Current Mode PWM Controllers	Peak Current Mode	8.25 V	7.7 V	20 V	4.5 mA	1 A	100	16 Ld SOIC, 16 Ld TSSOP
ISL6723A	Flexible Single Ended Current Mode PWM Controllers	Peak Current Mode	13 V	7.7 V	20 V	4.5 mA	1 A	100	16 Ld QFN, 16 Ld SOIC, 16 Ld TSSOP
ISL6726	Active Clamp Forward PWM Controller	Active clamp forward, Asymmetric half-bridge, Interleaved active clamp forward	7.65 V	6.23 V	20 V	10 mA	1 A	100	16 Ld SOIC
ISL6729	Low-Cost Single-Ended Current-Mode PWM for Microcontroller-Based Power Converters	Peak Current Mode	4.5 V	4.3 V	7 V	3.3 mA	1 A	100	20 Ld QSOP
ISL6730	Power Factor Correction Controller	Peak Current Mode	9.65 V	7.25 V	20 V	3.3mA	2.8A	98.5	8 Ld SOIC, 8 Ld MSOP
ISL6840	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	7 V	6.6 V	20 V	2.3 mA	1 A	100	10 Ld MSOP
ISL6841	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	7 V	6.6 V	20 V	2.3 mA	1 A	50	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6842	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	14.4 V	8.8 V	20 V	2.3 mA	1 A	100	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6843	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	8.4 V	7.6 V	20 V	2.3 mA	1 A	100	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6844	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	14.4 V	8.8 V	20 V	2.3 mA	1 A	50	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL6845	Improved Industry-Standard Single-Ended PWM Controller	Peak Current Mode	8.4 V	7.6 V	20 V	2.3 mA	1 A	50	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL78215	Improved Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	7 V	6.6 V	20 V	3.3 mA	1 A	48	8 Ld DFN, 8 Ld MSOP, 8 Ld SOIC
ISL8130	Advanced Single Universal Pulse-Width Modulation (PWM) Controller	Voltage Mode	4.4V	4.1V	28 V	2 mA	1 A	100	20 Ld QFN, 20 Ld QSOP
ISL8840A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	7 V	6.6 V	30 V	2.9 mA	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8841A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	7 V	6.6 V	30 V	2.9 mA	1 A	50	8 Ld MSOP, 8 Ld SOIC
ISL8842A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	14.4 V	8.8 V	30 V	2.9 mA	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8843	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	8.4 V	7.6 V	30 V	2.9 mA	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8843A	Single-Ended Current Mode PWM Controller with 3% Current Limit and Military Temp Grade Option	Peak Current Mode	8.4 V	7.6 V	30 V	2.9 mA	1 A	100	8 Ld MSOP, 8 Ld SOIC
ISL8844A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	14.4 V	8.8 V	30 V	2.9 mA	1 A	50	8 Ld MSOP, 8 Ld SOIC
ISL8845A	High Performance Industry Standard Single-Ended Current Mode PWM Controller	Peak Current Mode	8.4 V	7.6 V	30 V	2.9 mA	1 A	50	8 Ld MSOP, 8 Ld SOIC

ACPI REGULATORS/CONTROLLERS

Device	Device Description	Chip Set Supported	3.3V Dual Regulator	5V Dual Regulator	Memory Regulator (V)	Integrated Clock Regulator	Southbridge Resume Well Regulator (V)	VID Regulator (V)	3.3V SBY Regulator	Package
HIP6501A	Triple Linear Power Controller with ACPI Control Interface	i810/i810e/i815/i820, SiS620/5595, SiS630, VIA Apollo ProMedia133	Yes	Yes	2.5 or 3.3 (Selectable)				No	16 Ld SOIC
HIP6503	Multiple Linear Power Controller with ACPI Control Interface	i810/i820 with ICH2	Yes	Yes	2.5 or 3.3 (Selectable)	Yes	1.8		No	20 Ld SOIC
ISL6504	Multiple Linear Power Controller with ACPI Control Interface	i845G with ICH4	Yes	Yes		No	1.8	1.2	No	20 Ld QFN, 16 Ld SOIC
ISL6504A	Multiple Linear Power Controller with ACPI Control Interface	i845G with ICH4	Yes	Yes		No	1.5	1.2	No	20 Ld QFN, 16 Ld SOIC
ISL6505	Multiple Linear Power Controller with ACPI Control Interface	Springdale with ICH5	Yes	Yes		No		1.2	No	20 Ld QFN, 16 Ld SOIC
ISL6506	Multiple Linear Power Controller with ACPI Control Interface	i810, i815, i820, i845, i865, i875, i915, i925, i945, i955 for ICH4, ICH5, ICH6	Yes	Yes	No	No	No	No	Yes	8 Ld SOIC
ISL6506A	Multiple Linear Power Controller with ACPI Control Interface	i810, i815, i820, i845, i865, i875, i915, i925, i945, i955 for ICH4, ICH5, ICH6, ICH7	Yes	Yes	No	No	No	No	Yes	8 Ld SOIC
ISL6506B	Multiple Linear Power Controller with ACPI Control Interface	i810, i815, i820, i845, i865, i875, i915, i925, i945, i955 for ICH4, ICH5, ICH6, ICH8	Yes	Yes	No	No	No	No	Yes	8 Ld SOIC
ISL6506BI	Multiple Linear Power Controller with ACPI Control Interface	i810, i815, i820, i845, i865, i875, i915, i925, i945, i955 for ICH4, ICH5, ICH6, ICH8	Yes	Yes	No	No	No	No	Yes	8 Ld SOIC

NON-ISOLATED POWER

NON-ISOLATED PWM CONTROLLERS (CONTINUED)

MULTIPLE OUTPUT CONTROLLERS

# of Outputs	Device	Device Description	V _{IN} (min) (V)	V _{IN} (max) (V)	V _{OUT} (min) (V)	V _{OUT1} (max) (V)	I _{OUT1} (max) (A)	Switching Frequency (kHz)	Bias Voltage (V _{CC})	Package	
3.3V or 5V Input											
2	ISL6532	ACPI Regulator/Controller for Dual Channel DDR Memory Systems	2.5	5	0.8	5	20	250	5 V	20 Ld QFN	
	ISL6528	Dual Regulator-Standard Buck PWM and Linear Power Controller	3.3	5	0.8	3.3	15	600	5 V	8 Ld SOIC	
	ISL6529	Dual Regulator-Synchronous Rectified Buck PWM and Linear Power Controller	3.3	5	0.8	3.3	15	600	12 V	14 Ld SOIC, 16 Ld QFN	
	ISL6530	Dual 5V Synchronous Buck Pulse-Width Modulator (PWM) Controller for DDRAM Memory VDDQ and VTT Termination	5	5	0.8	5	1	300	5 V	32 Ld QFN, 24 Ld SOIC	
	12V Input										
	ISL6549	Single 12V Input Supply Dual Regulator - Synchronous Rectified Buck PWM and Linear Power Controller	10.8	13.2	0.8	13.2	20	150 to 1000	12 V	14 Ld SOIC, 16 Ld QFN, 16 Ld QSOP	
	ISL6539	Wide Input Range Dual PWM Controller with DDR Option	3.3	18	0.9	5.5	8	300	6.5 V	28 Ld QFN, 28 Ld QSOP	
	24V Input										
	ISL6227	Dual Mobile-Friendly PWM Controller with DDR Option	3.3	24	0.9	5.5	16	300	5 V	28 Ld QFN, 28 Ld QSOP	
	ISL6440	300kHz Dual, 180 Out-of-Phase, Step-Down PWM Controller	4.5	24	0.8	24	10	300	5 V	24 Ld QSOP	
ISL6444	PWM Controller with DDR Memory Option for Gateway Applications	3.3	24	0.9	5.5	8	300	5 V	28 Ld QSOP		
ISL6445	1.4MHz Dual, 180 Out-of-Phase, Step-Down PWM Controller	4.5	24	0.8	24	6	1400	5 V	24 Ld QSOP		
ISL6228	High-Performance Dual-Output Buck Controller for Notebook Applications	3.3	25	0.6	5	20	200 to 600	5 V	28 Ld TQFN		
ISL8112	High Light-Load Efficiency, Dual-Output, Main Power Supply Controllers	5.5	25	0.7	5.5	30	400/500, 300/400, 200/300		32 Ld QFN		
3.3V or 5V Input											
3	HIP6018B	Advanced PWM and Dual Linear Power Control	5	5	1.3	3.5	25	50 to 1000	12 V	24 Ld SOIC	
	ISL6532A	3-in-1 ACPI Regulator/Controller for Dual Channel DDR and DDR2 Memory Systems	2.5	5	0.8	5	20	250	5 V	28 Ld QFN	
	ISL6271A	Integrated XScale Regulator	2.76	5.5	0.85	1.6	0.8	1200	3.7 V	20 Ld QFN	
	12V Input										
	ISL6534	Dual PWM with Linear	3.3	12	0.6	9	20	300 to 1000	5 V	32 Ld QFN, 24 Ld TSSOP	
	24V Input										
	ISL6441	1.4MHz Dual, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	6	1400	5 V	28 Ld QFN	
	ISL6442	2.5MHz Dual, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	20	300 to 2500	5 V	24 Ld QSOP	
	ISL6443	300kHz Dual, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	10	300	5 V	28 Ld QFN	
	ISL6443A	300kHz Dual, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	10	300	5 V	28 Ld QFN, 28 Ld TSSOP	
ISL6446/A	Dual (180 Out-of-Phase) PWM and Linear Controller	4.5	24	0.6	24	25	100kHz to 2.5MHz	5 V	24 Ld QSOP		
ISL9440	Triple, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	20	300	5 V	32 Ld QFN		
ISL9440A	Triple, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	20	600	5 V	32 Ld QFN		
ISL9440B	Triple Step-Down PWM and Single Linear Controller with Programmable Soft-Start	4.5	24	0.8	24	0.8	300	5 V	32 Ld QFN		
ISL9440C	Triple Step-Down PWM and Single Linear Controller with Programmable Soft-Start	4.5	24	0.8	24	20	600	5 V	32 Ld QFN		
ISL9441	Triple, 180 Out-of-Phase, Step-Down PWM and Single Linear Controller	4.5	24	0.8	24	20	300	5 V	32 Ld QFN		
ISL88550A	Synchronous Step Down Controller with Sourcing and Sinking LDO Regulator	2	25	0.7	3.5	15	200, 300, 450, 600	5 V	28 Ld TQFN		
ISL62391/C	High-Efficiency, Triple-Output System Power Supply Controller for Notebook Computers	5.5	25	0.6	5.5	20	200 to 600		28 Ld TQFN		
ISL62392/C	High-Efficiency, Triple-Output System Power Supply Controller for Notebook Computers	5.5	25	0.6	5.5	20	200 to 600		28 Ld TQFN		
ISL9443	Triple, 180 Out-of-Phase, Synchronous Step-Down PWM Controller	4.5	26	0.7	26	20	200 to 1200	5 V	32 Ld QFN		
ISL9444	Triple, 180 Out-of-Phase, Synchronous Step-Down PWM Controller	4.5	26	0.7	26	20	200 to 1200	5 V	40Ld QFN		
3.3V or 5V Input											
4	HIP6019B	Advanced Dual PWM and Dual Linear Power Control	5	5	1.3	3.5	25	50 to 1000	12 V	28 Ld SOIC	
	HIP6021	Advanced PWM and Triple Linear Power Controller	5	5	1.3	3.5	25	50 to 1000	12 V	28 Ld SOIC	
	HIP6521	PWM and Triple Linear Power Controller	5	5	0.8	4.5	20	300	5 V	16 Ld SOIC	
	ISL6521	PWM Buck DC/DC and Triple Linear Power Controller	5	5	0.8	4.5	20	300	5 V	16 Ld SOIC	
	ISL6537	ACPI Regulator/Controller for Dual Channel DDR Memory Systems	4.5	5.5	0.8	5.5	25	250	5 V	28 Ld QFN	
	ISL6548	ACPI Regulator/Controller for Dual Channel DDR Memory Systems	4.5	5.5	0.8	5.5	25	250	5 V	28 Ld QFN	
	24V Input										
	ISL6232	High Efficiency System Power Supply Controller for Notebook Computers	5.5	25	0.8	5.5	12	300		28 Ld QSOP	
	ISL6236, ISL6237	High-Efficiency, Quad-Output, Main Power Supply Controllers for Notebook Computers	5.5	25	0.7	5.5	20	400/500, 400/300, 200/300		32 Ld QFN	
	ISL6236A	High-Efficiency, Quad-Output, Main Power Supply Controllers for Notebook Computers	4.5	25	0.7	5.5	20	400/500, 400/300, 200/300		32 Ld QFN	
ISL62381/C, ISL62382/C, ISL62383/C, ISL62386	High-Efficiency, Quad or Triple-Output System Power Supply Controller for Notebook Computers	5.5	25	0.6	5.5	20	Programmable		32 Ld TQFN		
3.3V or 5V Input											
5	ISL6537A	ACPI Regulator/Controller for Dual Channel DDR Memory Systems	4.5	5.5	0.8	5.5	25	250	5 V	28 Ld QFN	
	ISL6548A	ACPI Regulator/Controller for Dual Channel DDR Memory Systems	4.5	5.5	0.8	5.5	25	250	5 V	28 Ld QFN	

NON-ISOLATED POWER

NON-ISOLATED PWM CONTROLLERS (CONTINUED)

MULTIPHASE CONTROLLERS (VR12 AND VR12.5)

Gen	Device	Configuration	Modulator	Drivers	APD	PMBus	Package
VR12	ISL6364A	4+1	EAPP	Ext	Yes	No	48 Ld 6x6 QFN
	ISL6367	6+1	EAPP	Ext	Yes	Yes	60 Ld 7x7 QFN
VR12 & VR12.5	ISL6367H	6+1	EAPP	Ext	Yes	Yes	60 Ld 7x7 QFN
VR12.5	ISL6376	6-ph	EAPP	Ext	Yes	Yes	48 Ld 6x6 QFN
	ISL6375	5-ph	EAPP	Ext	Yes	Yes	40 Ld 5x5 QFN
	ISL6374	4-ph	EAPP	Ext	Yes	No	40 Ld 5x5 QFN
	ISL6373	4-ph	EAPP	Ext	Yes	Yes	40 Ld 5x5 QFN
	ISL6388	6-ph	EAPP	Ext	Yes	Yes	40 Ld 5x5 QFN
Memory	ISL6353	3-ph	R3	2x Int	No	No	40 Ld 5x5 QFN
	ISL6373	4-ph	EAPP	Ext	Yes	Yes	40 Ld 5x5 QFN
	ISL6374	4-ph	EAPP	Ext	Yes	No	40 Ld 5x5 QFN
	ISL6388	6-ph	EAPP	Ext	Yes	Yes	40 Ld 5x5 QFN

MULTIPHASE CONTROLLERS (GENERAL PURPOSE)

Device	Device Description	V _{IN} (min) (V)	V _{IN} (max) (V)	V _{OUT} (min) (V)	V _{OUT} (max) (V)	I _{OUT} (max) (A)	V _{BIAS} (V)	Applications	Max # of Outputs	Max # of Phases	VID	Package
General Purpose												
ISL6310	Two-Phase Buck PWM Controller with High Current Integrated MOSFET Drivers	5	12	0.6	2.3	60	4.75 to 5.25	General Purpose	1	2	No VID	32 Ld QFN
ISL6315	Two-Phase Multiphase Buck PWM Controller with MOSFET Drivers Integrated (No Droop)	5	12	0.84	1.6	60	4.75 to 5.25	General Purpose	1	2	No VID	24 Ld QFN
ISL6567	Multipurpose Two-Phase Buck PWM Controller with Integrated MOSFET Drivers	3	20	0.6	5	60	4.9 to 5.5	General Purpose	1	2	No VID	24 Ld QFN
ISL8120	Dual/n-Phase Buck PWM Controller with Integrated Drivers	2.97	22	0.6	19.8	60	3 to 5.6	General Purpose	2	2	No VID	32 Ld QFN
ISL8121	3V to 20V, Two-Phase Buck PWM Controller with Integrated 4A MOSFET Drivers	3	20	0.6	13.2	60	4.9 to 5.5	General Purpose	1	2	No VID	24 Ld QFN
ISL8126	Dual/n-Phase Buck PWM Controller with Integrated Drivers	3	26.5	0.6	23.85	60	2.97 to 5.60	General Purpose	2	2	No VID	32 Ld QFN
ISL9506	Multiphase PWM Controller with Programmable Output Voltage	4.75	5.25	0.3	1.5	90	4.75 to 5.25	General Purpose	1	3	Yes	40 Ld QFN
ISL6308A	Three-Phase Buck PWM Controller with High Current Integrated MOSFET Drivers	5	12	0.6	2.3	100	4.75 to 5.25	General Purpose	1	3	No VID	40 Ld QFN
ISL6558	Multi-Purpose Precision Multiphase PWM Controller With Optional Active Voltage Positioning	4.75	12	0.8	5	120	4.75 to 5.25	General Purpose	1	4	No VID	16 Ld SOIC, 20 Ld QFN
ISL6564A	Multiphase PWM Controller with Linear 6-Bit DAC Capable of Precision I _{DS(ON)} or DCR Differential Current Sensing	3	12	0.525	1.3	120	5, 12	General Purpose	1	4	Yes	40 Ld QFN

 To see the complete device listing, visit www.intersil.com

INTEGRATED FET SWITCHING REGULATORS

BUCK REGULATORS

Device	Device Description	V _{IN} Range (V)	I _{OUT} (max) (A)	V _{OUT} Range (V)	I _O (typ)	Switching Freq (MHz)	Package	Eval Kit
Single Output 2.7V - 5.5V								
ISL80019/A	Sync Buck Regulator	2.7 - 5.5	1.5	0.6 - V _{IN}	35µA	2.3	8 Ld 2x2 TDFN	✓
ISL8002/A	Sync Buck Regulator	2.7 - 5.5	2	0.6 - V _{IN}	35µA	2.3	8 Ld 2x2 TDFN	✓
ISL8023/A	Sync Buck Regulator	2.7 - 5.5	3	0.6 - 5.5	50µA	4	16 Ld 3x3 TQFN	✓
ISL8024/A	Sync Buck Regulator	2.7 - 5.5	4	0.6 - 5.5	50µA	4	16 Ld 3x3 TQFN	✓
ISL8025/A	Sync Buck Regulator	2.7 - 5.5	5	0.6 - V _{IN}	50µA	2.4	16 Ld 3x3 TQFN	✓
ISL8016	Sync Buck Regulator	2.7 - 5.5	6	0.6 - 5.5	70µA	4	20 Ld 3x4 QFN	✓
Single Output 3V - 18V								
ISL85003	Sync Buck Regulator	3 - 18	3	0.8 - 12	2mA	0.6	12 Ld 4x3 DFN	✓
Single Output 3V - 38V								
ISL85415	Sync Buck Regulator	3 - 36	0.5	0.6 - 95% of V _{IN}	80µA	2	12 Ld 4x3 DFN	✓
ISL85418	Sync Buck Regulator, Wide V _{IN}	3 - 36	0.8	0.6 - 95% of V _{IN}	80µA	2	12 Ld 4x3 DFN	✓
ISL85410	Sync Buck Regulator, Wide V _{IN}	3 - 36	1	0.6 - 95% of V _{IN}	80µA	2	12 Ld 4x3 DFN	✓
Single Output 40V								
ISL8540	Standard Buck Regulator	9 - 40	2	1.21 - 35	60µA	0.6	20 Ld 6.5x6.4 HTSSOP	✓
Single Output 60V								
ISL8560	Standard Buck Regulator	9 - 60	2	1.21 - 55	60µA	0.6	20 Ld 6x6 QFN	✓
Dual Output 2.7V - 5.5V								
ISL8088	Dual Sync Buck Regulator, Pin Compatible with LTC3407-2	2.75 - 5.5	0.8	0.6 - 5.5	30µA	2.25	10 Ld 3x3 DFN	✓
ISL8022	Dual Sync Buck Regulator	2.8 - 5.5	2.0 / 1.7	0.6 - 5.5	40µA	2.25	12 Ld 4x3 DFN	✓
ISL8033/A	Dual Sync Buck Regulator	2.85 - 6	3 / 3	0.8 - 6	15mA	1/2.5 (A ver)	24 Ld 4x4 QFN	✓
ISL8036/A	Dual Sync Buck Regulator	2.85 - 6	3 / 3	0.8 - 6	15mA	1	24 Ld 4x4 QFN	✓
Dual Output 3V - 28V								
ISL85033	Dual Standard Buck Regulator, Wide V _{IN}	4.5 - 28	3	0.8 - 28	1.2mA	2	28 Ld 4x4 TQFN	✓
Quad Output 2.5V - 5.5V								
ISL9305	Dual Buck Regulator and Dual LDO with I ² C	2.3 - 5.5	0.8	0.8 - 5.5	50µA	2.6	16 Ld 4x4 TQFN	✓
ISL9305H	Dual Buck Regulator and Dual LDO with I ² C	2.5 - 5.5	1.5	0.8 - 5.5	50µA	2.6	16 Ld 4x4 TQFN	✓
ISL9307	Dual Buck Regulator and Dual LDO	2.5 - 5.5	1.5	0.9 - 3.3	50µA	2.6	16 Ld 4x4 TQFN	✓

BUCK-BOOST REGULATORS

Device	Device Description	V _{IN} Range (V)	I _{SW} (max) (A)	V _{OUT} Range (V)	I _O (typ)	Switching Freq (MHz)	Package	Eval Kit
Single Output 1.8V - 5.5V								
ISL9110/A	Sync Buck-Boost Regulator	1.8 - 5.5	2	1 - 5.2	35µA	2.5	12 Ld 3x3 DFN, 20 Bump WLCSP (A ver)	✓
ISL9112	Sync Buck-Boost Regulator with I ² C	1.8 - 5.5	2	1.9 - 5	35µA	2.5	12 Ld 3x3 DFN	✓
ISL91108	Sync Buck-Boost Regulator	1.8 - 5.5	3.7	1 - 5.2	27.5µA	2.6	20 Bump WLCSP	✓
ISL91110	Sync Buck-Boost Regulator	1.8 - 5.5	4	1 - 5.2	35µA	2.5	20 Bump WLCSP	✓

BOOST REGULATORS

Device	Device Description	V _{IN} Range (V)	I _{SW} (max) (A)	V _{OUT} Range (V)	I _O (typ)	Switching Freq (MHz)	Package	Eval Kit
Single Output 1.8V - 5.5V								
ISL97701	Standard Boost Regulator with Integrated Schottky and Input Disconnect Switch	2.3 - 5.5	0.5	4.3 - 28	900µA	1	10 Ld 3x3 DFN	✓
ISL9111/A	Sync Boost Regulator, Low Input Voltage	0.5 - 5.25	0.8	2.5 - 5.25	20µA	1.2	6 Ld 2.9x2.8 SOT	✓
ISL9113	Sync Boost Regulator, Low Input Voltage	0.8 - 4.7	1.1	1 - 5.2	20µA	1.8	8 Ld 2x2 DFN, 6 Bump WLCSP	✓
ISL97519/A	Standard Boost Regulator	2.3 - 5.5	1.5	1.1 - 25		1.2	8 Ld 3x4.9 MSOP	✓
ISL97516	Standard Boost Regulator	2.3 - 5.5	1.7	1.1 - 25	700µA	1.2	8 Ld 3x4.9 MSOP	✓
ISL91117	Sync Boost Converter with Output Disconnect	1.8 - 4.8	3.5	Up to 5.2	35µA	2.5	20 Bump WLCSP	✓
ISL97656	Standard Boost Regulator	2.3 - 6	3.8	1.1 - 24	700µA	1.2	10 Ld 3x3 DFN	✓
Single Output 12V								
ISL98012	Standard Boost Regulator	1.8 - 13.2	1	4.5 - 17	1.4mA	670kHz	10 Ld 3x4.9 MSOP	✓

PMIC

PMIC

Device	Device Description	# of Outputs	Switching Frequency (kHz)	DCD1 & DCD2 V _{IN} (V)	LDO1 & LDO2 V _{IN} (V)	DCDC1 & DCD2 V _{OUT} (V)	LDO1 & LDO2 V _{OUT} (V)	DCDC Max I _{OUT} (mA)	LDO Max I _{OUT} (mA)	I ² C	Package
ISL9305	3MHz Dual Step-Down Converters and Dual Low-Input LDOs with I ² C Compatible Interface	4	3000	2.3 to 5.5	1.5 to 5.5	0.8 to V _{IN}	0.9 to 3.3	800	300	Yes	16 Ld TQFN
ISL9305H	3MHz Dual 1.5A Step-Down Converters and Dual Low-Input LDOs with I ² C Compatible Interface	4	3000	2.5 to 5.5	1.5 to 5.5	0.8 to V _{IN}	0.9 to 3.3	1500	300	Yes	16 Ld TQFN
ISL9307	3MHz Dual 1500mA Step-Down Converters and Dual Low-Input LDOs	4	3000	2.5 to 5.5	1.5 to 5.5	0.8 to V _{IN}	0.9 to 3.3	1500	300	No	16 Ld TQFN

APPLICATION SPECIFIC PMIC

Device	Device Description	# of Outputs	V _{IN} (min) (V)	V _{IN} (max) (V)	Switching Frequency (typ) (kHz)	Linear Output	Applications	Package
ISL78419	Integrated Automotive TFT-LCD Power Supply Regulator	4	2.5	5.5	600/1200	Yes	Automotive TFT-LCD	28 Ld QFN
ISL1801	sPMIC for Micro-Converter Bias and Drivers	4	6	14	-	Yes	Solar array micro-converters and other systems operating from a high voltage DC supply.	48 Ld TSSOP
ISL80083	2.5MHz Integrated Power Management IC with I ² C Compatible Interface	2	2.7	20	2500	Yes	Power cable	25 Ld WLCSP

LDO / LINEAR REGULATORS

Device	Device Description	V _{IN} Range (V)	V _{OUT} Range (V)	O/P Volt Accuracy (%)	I _{OUT1} (max)	I _{OUT2} (max)	PSRR @ 1kHz (dB)	I _Q (typ)	Typical Drop-Out Voltage (mV)	Enable/ Shut-down	Package	Eval Kit
Up to 6.5V												
ISL9003A	Low Noise LDO with Low I _Q , High PSRR	2.3 - 6.5	1.5 - 3.3	±1.8	150mA		90	29µA	200 @ 150mA	Yes	5 Ld SC-70, 6 Ld µTDFN	✓
ISL9012	Dual LDO with Low Noise, Low I _Q , and High PSRR	2.3 - 6.5	1.5 - 3.3	±1.8	150mA	300mA	70	45µA	250 @ 300mA	Yes	10 Ld DFN	
ISL9016	150mA Dual LDO with Low Noise, High PSRR, and Low I _Q	1.8 - 6.5	1.2 - 3.3	±1.8	150mA	150mA	80	49µA	250 @ 150mA	Yes	6 Ld µTDFN	✓
ISL9021A	250mA Single LDO with Low I _Q , Low Noise and High PSRR LDO	1.5 - 5.5	0.9 - 3.3	±1.8	250mA		60	35µA	150 @ 250mA	Yes	4 Ball WLCSP, 6 Ld µTDFN	✓
ISL9000A	Dual LDO with Low Noise, Very High PSRR, and Low I _Q	2.3 - 6.5	1.5 - 3.3	±1.8	300mA	300mA	90	40µA	250 @ 300mA	Yes	10 Ld DFN	✓
ISL9001A	LDO with Low I _{SUPPLY} , High PSRR	2.3 - 6.5	1.5 - 3.3	±1.8	300mA		90	25µA	250 @ 300mA	Yes	8 Ld DFN	✓
ISL9014A	Dual LDO with Low Noise, Low I _Q , and High PSRR	2.3 - 6.5	1.5 - 3.3	±1.8	300mA	300mA	70	45µA	250 @ 300mA	Yes	10 Ld DFN	✓
ISL9007	High Current LDO with Low I _Q and High PSRR	2.3 - 6.5	1.5 - 3.3	±1.8	400mA		75	50µA	250 @ 400mA	Yes	8 Ld MSOP	✓
ISL80101	High Performance 1A LDO	2.2 - 6.0	0.8 - 5.0	±1.8	1A		58	3mA	130 @ 1A	Yes	10 Ld DFN	✓
ISL80101-ADJ	High Performance Adjustable V _{OUT} 1A LDO	2.2 - 6.0	0.8 - 5.0	±1.8	1A		58	3mA	130 @ 1A	Yes	10 Ld DFN	✓
ISL80101A	High Performance Adjustable V _{OUT} 1A LDO with Programmable Current Limiting	2.2 - 6.0	0.8 - 5.0	±2.0	1A		48	3mA	212 @ 1A	Yes	10 Ld DFN	✓
ISL80111	Ultra Low Dropout 1A Low Input Voltage NMOS LDO	1 - 3.6	0.8 - 3.6	±1.6	1A		80	3.5mA	27	Yes	10 Ld DFN	✓
ISL80121-5	Fixed 5V Output 1A LDO with Programmable Current Limiting	2.2 - 6.0	0.8 - 5.0	±1.8	1A		40	3mA	130 @ 1A	Yes	10 Ld DFN	✓
ISL80102	High Performance 2A LDO	2.2 - 6.0	0.8 - 5.0	±1.8	2A		55	7.5mA	81 @ 2A	Yes	10 Ld DFN	✓
ISL80112	Ultra Low Dropout 2A Low Input Voltage NMOS LDOs	1 - 3.6	0.8 - 3.6	±1.6	2A		80	3.5mA	53	Yes	10 Ld DFN	✓
ISL80103	High Performance 3A LDO	2.2 - 6.0	0.8 - 5.0	±1.8	3A		55	7.5mA	120 @ 3A	Yes	10 Ld DFN	✓
ISL80113	Ultra Low Dropout 3A Low Input Voltage NMOS LDO	1 - 3.6	0.8 - 3.6	±1.6	3A		80	3.5mA	75	Yes	10 Ld DFN	✓
Up to 40V												
ISL80136	40V, Low Quiescent Current, 50mA Linear Regulator	6 - 40	2.5 - 12	±1	50mA		58	18µA	120	Yes	8 Ld EPSON	✓
ISL80138	40V, Low Quiescent Current, 150mA Linear Regulator	6 - 40	2.5 - 12	±1	150mA		66 @ 100Hz	18µA	295 @ 150mA	Yes	14 Ld HTSSOP	✓

POWER SUPPLY CONTROL

HOT PLUG/ORING

HIGH VOLTAGE HOT SWAP

ACTIVE LOW #PGOOD	ACTIVE HIGH PGOOD
ISL6140 -10V to -80V Bias -48V Hot Swap Controller	ISL6150 -10V to -80V Bias -48V Hot Swap Controller
ISL6141 -20V to -80V Bias -48V Hot Swap Controller w/Current Regulation	ISL6151 -20V to -80V Bias -48V Hot Swap Controller w/Current Regulation
ISL6142 -20V to -80V Bias -48V Hot Swap Controller w/Load Current Monitor	ISL6152 -20V to -80V Bias -48V Hot Swap Controller w/Load Current Monitor

USB PROTECTION

ISL6185/86
2.3V – 6V, Iout preset
Dual / Single Integrated FETs

ORING CONTROLLERS

ISL6144 9V to 75V High Voltage Controller	ISL6146 3V to 20V Fast Protection Controller
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LOW / MEDIUM VOLTAGE HOT SWAP

ISL6115, ISL6115A +12V Bias 12V Hot Swap Controller Enhanced GATE drive
ISL6117 +12V Bias 3.3V Hot Swap Controller
ISL6173 +2.5 – 3.3V Bias < 3.3V Hot Swap Controller
ISL6116 +12V Bias 5V Hot Swap Controller
ISL6120 +12V Bias 2.5V Hot Swap Controller

LOW / MEDIUM VOLTAGE DUAL HOT SWAP

HIP1012A +12V Bias 12V & 5V or 5V & 3.3V Current limiting
HIP1013 +12V Bias 12V & 5V or 5V & 3.3V Circuit Breaker
ISL6160 +12V Bias 12V Main Ext FET 5V AUX Int FET
ISL6161 +12V Bias 12V & 3.3V Current limiting

VOLTAGE MONITORS

SINGLE

ISL88011 • Fixed V_{TRIP} + Adj POR • Adjustable voltage threshold inputs down to 600mV
ISL88014 • Adjustable V_{TRIP} + Adj POR • Adjustable voltage threshold inputs down to 600mV
ISL88013 • Fixed V_{TRIP} • Enhanced WDT with 1.6sec normal and 51sec start-up time out
ISL88015 • Adjustable V_{TRIP}
ISL88016/17 • Pin-select, 26 fixed V_{TRIP}
ISL88001/2/3 • 160nA 3Ld SC70/SOT23

DUAL

ISL88012 • Adj V_{TRIP} + Adj POR
ISL88707/708 • PFI/PFO + Adj POR
ISL6132 • Dual VMON, UV & OV • Improved Pin-to-Pin Replacements

TRIPLE

ISL88021 • Triple VMON, UV Monitor
ISL88022 • Triple VMON, UV & OV

QUAD

ISL88041 • Quad Detector, Adj V_{TRIP}
ISL88042 • Quad VMON, Fixed +Adj VTH
ISL6131 • Individual RST Outputs

QUINTUPLE

ISL88031 • Quintuple VMON • Monitor up to five separate voltages with one chip
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To see the complete device listing, visit www.intersil.com

POWER SEQUENCERS

LOW VOLTAGE SEQUENCERS

Device	Device Description	V _{BIAS} Range (V)	Sequenced Voltages or Range (V)	Enable	Logic Level	Sequenced Output Control	Initial Startup Requirements	Monitored Inputs	Channel That Turn-off When 1 UVLO Faults	Preset or Adjustable Sequence	Features	Package
ISL6123	Power Sequencing Controllers	+1.5 to +5.5	+0.7 to +5.5	Active High	TTL	Charge Pumped 1 μ A FET Drive	4 UVLO 1EN	4	4 Gates	Adjustable ON & OFF Delay	Auto Restart, Low bias current sleep	24 Ld QFN
ISL6124	Power Sequencing Controllers	+1.5 to +5.5	+0.7 to +5.5	Active Low	CMOS	Charge Pumped 1 μ A FET Drive	4 UVLO 1EN	4	4 Gates	Adjustable ON & OFF Delay	Auto Restart	24 Ld QFN
ISL6125	Power Sequencing Controllers	+1.5 to +5.5	N/A	Active Low	CMOS	Open Drain Logic	4 UVLO 1EN	4	4 Open Drain	Adjustable ON & OFF Delay	Auto Restart, Open Drain Sequenced Outputs	24 Ld QFN
ISL6126	Power Sequencing Controllers	+1.5 to +5.5	+0.7 to +5.5	Active Low	CMOS	Charge Pumped 1 μ A FET Drive	1 UVLO 1EN	4	1 Gate	Voltage Determined ON, Adjustable OFF Delay	Gates Independent On as UVLO Valid	24 Ld QFN
ISL6127	Power Sequencing Controllers	+1.5 to +5.5	+0.7 to +5.5	Active Low	CMOS	Charge Pumped 1 μ A FET Drive	4 UVLO 1EN	4	4 Gates	Preset Order	Auto Restart	24 Ld QFN
ISL6128	Power Sequencing Controllers	+1.5 to +5.5	+0.7 to +5.5	Active Low	CMOS	Charge Pumped 1 μ A FET Drive	4 UVLO 2EN	4 (2 Pairs)	2 Gates	Preset Order	Dual Redundant Operation	24 Ld QFN
ISL6130	Power Sequencing Controllers	+1.5 to +5.5	+0.7 to +5.5	Active High	TTL	Charge Pumped 1 μ A FET Drive	1 UVLO 1EN	4	1 Gate	Voltage Determined ON, Adjustable OFF Delay	Gates Independent On as UVLO Valid, Low Bias Current Sleep	24 Ld QFN
ISL8723	Power Sequencing Controllers	+2.5 to +5.5	+0.7 to +5.5	Active High	TTL	Charge Pumped 10 μ A FET Drive	4 UVLO 1EN	4	4 Gates	Adjustable ON & OFF Delay	Auto Restart, Low Bias Current Sleep	24 Ld QFN
ISL8724	Power Sequencing Controllers	+2.5 to +5.5	+0.7 to +5.5	Active Low	CMOS	Charge Pumped 10 μ A FET Drive	4 UVLO 1 EN	4	4 Gates	Adjustable ON & OFF Delay	Auto Restart	24 Ld QFN

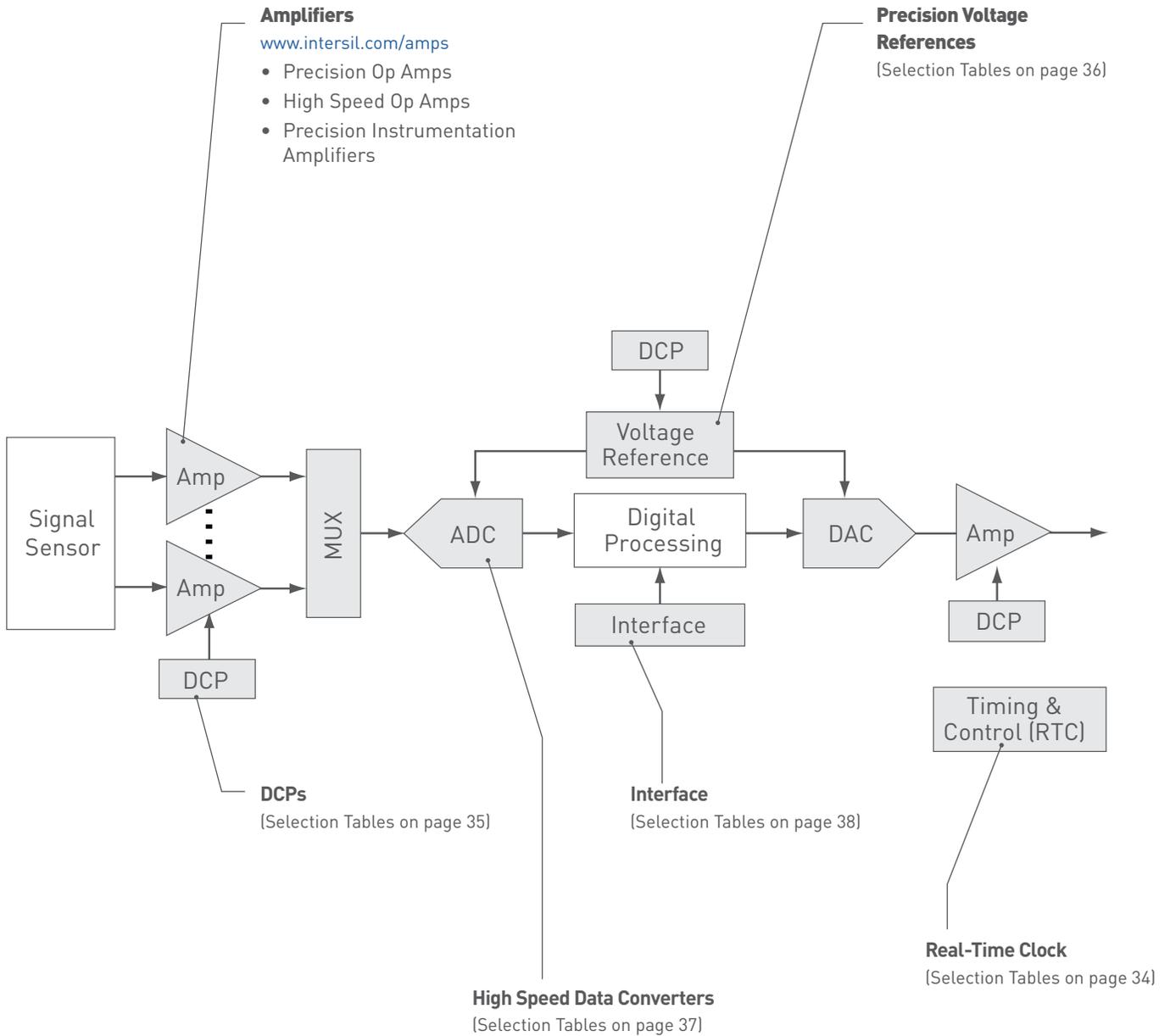
HIGH VOLTAGE SEQUENCERS

Device	Device Description	V _{BIAS} (V)	Enable	Logic Level	Sequenced Output Control	Initial Startup Requirements	Monitored Inputs	Channels That Turn-On When V _{in} is Non-Compliant	Preset or Adjustable Sequence	Features	Package
ISL8700	Adjustable Quad Sequencer	2.5 to 24	N/A	N/A	Active High, Open Drain	UV/OV	1	4 Simultaneous	Preset Order, Adjustable Delay		14 Ld SOIC
ISL8700A	Adjustable Quad Sequencer	3.3 to 24	N/A	N/A	Active High, Open Drain	UV/OV	1	4 Simultaneous	Preset Order, Adjustable Delay		14 Ld SOIC
ISL8701	Adjustable Quad Sequencer	2.5 to 24	N/A	N/A	Active Low, Open Drain	UV/OV	1	4 Simultaneous	Preset Order, Adjustable Delay		14 Ld SOIC
ISL8701A	Adjustable Quad Sequencer	3.3 to 24	N/A	N/A	Active Low, Open Drain	UV/OV	1	4 Simultaneous	Preset Order, Adjustable Delay		14 Ld SOIC
ISL8702	Adjustable Quad Sequencer	2.5 to 12	Active High	TTL	Active High, Open Drain	UV/OV & EN	1	4 Simultaneous	Preset Order, Adjustable Delay	Fault Reporting	14 Ld SOIC
ISL8702A	Adjustable Quad Sequencer	3.3 to 24	Active High	TTL	Active High, Open Drain	UV/OV & EN	1	4 Simultaneous	Preset Order, Adjustable Delay	Fault Reporting	14 Ld SOIC
ISL8703A	Adjustable Quad Sequencer	3.3 to 24	Active Low	TTL	Active Low, Open Drain	UV/OV & EN	1	4 Simultaneous	Preset Order, Adjustable Delay	Fault Reporting	14 Ld SOIC
ISL8704A	Adjustable Quad Sequencer	3.3 to 24	Active Low	TTL	Active High, Open Drain	UV/OV & EN	1	4 Simultaneous	Preset Order, Adjustable Delay	Fault Reporting	14 Ld SOIC
ISL8705A	Adjustable Quad Sequencer	3.3 to 24	Active Low	TTL	Active Low, Open Drain	UV/OV & EN	1	4 Simultaneous	Preset Order, Adjustable Delay	Fault Reporting	14 Ld SOIC



To see the complete device listing, visit www.intersil.com

SIGNAL PATH PRODUCTS





1
ISL3178AE: 3.3 V-powered, single transceiver provides ±15kV IEC61000 ESD protection.

- Full fail-safe (open, short, terminated/floating) receivers
- True 1/8 unit load allows up to 256 devices on the bus
- High data rates: up to 10Mbps
- Low quiescent supply current: 800µA (max)

Family Selection Table on page 38.



2
ISL28006: Micropower, uni-directional high-side and low-side current sense amplifier featuring a proprietary rail-to-rail input current sensing amplifier.

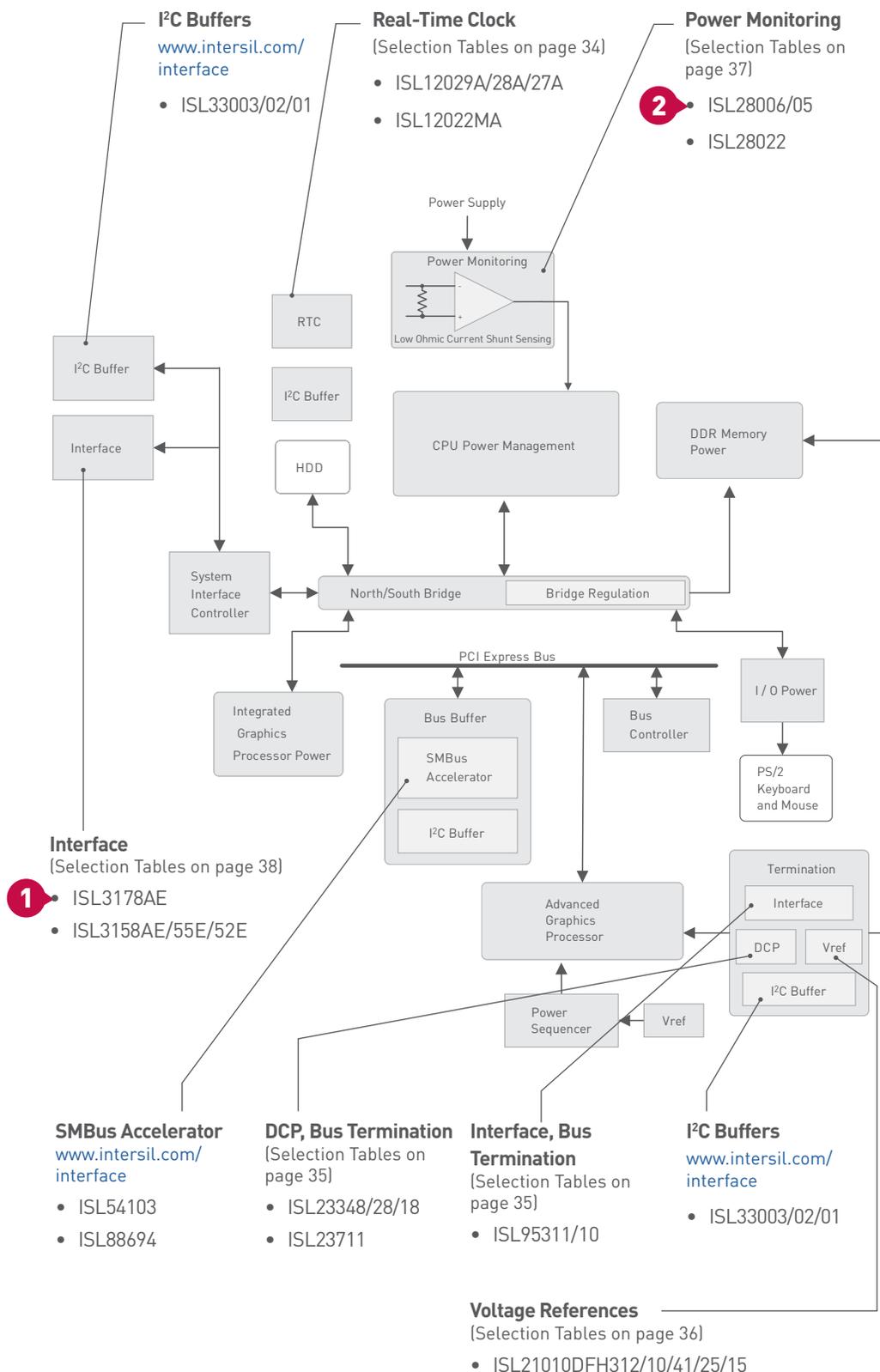
- Low power consumption: 50µA, typ
- Supply range: 2.7V to 28V
- Wide common mode input: 0V to 28V

Family Selection Table on page 37.

APPLICATION BLOCK DIAGRAMS

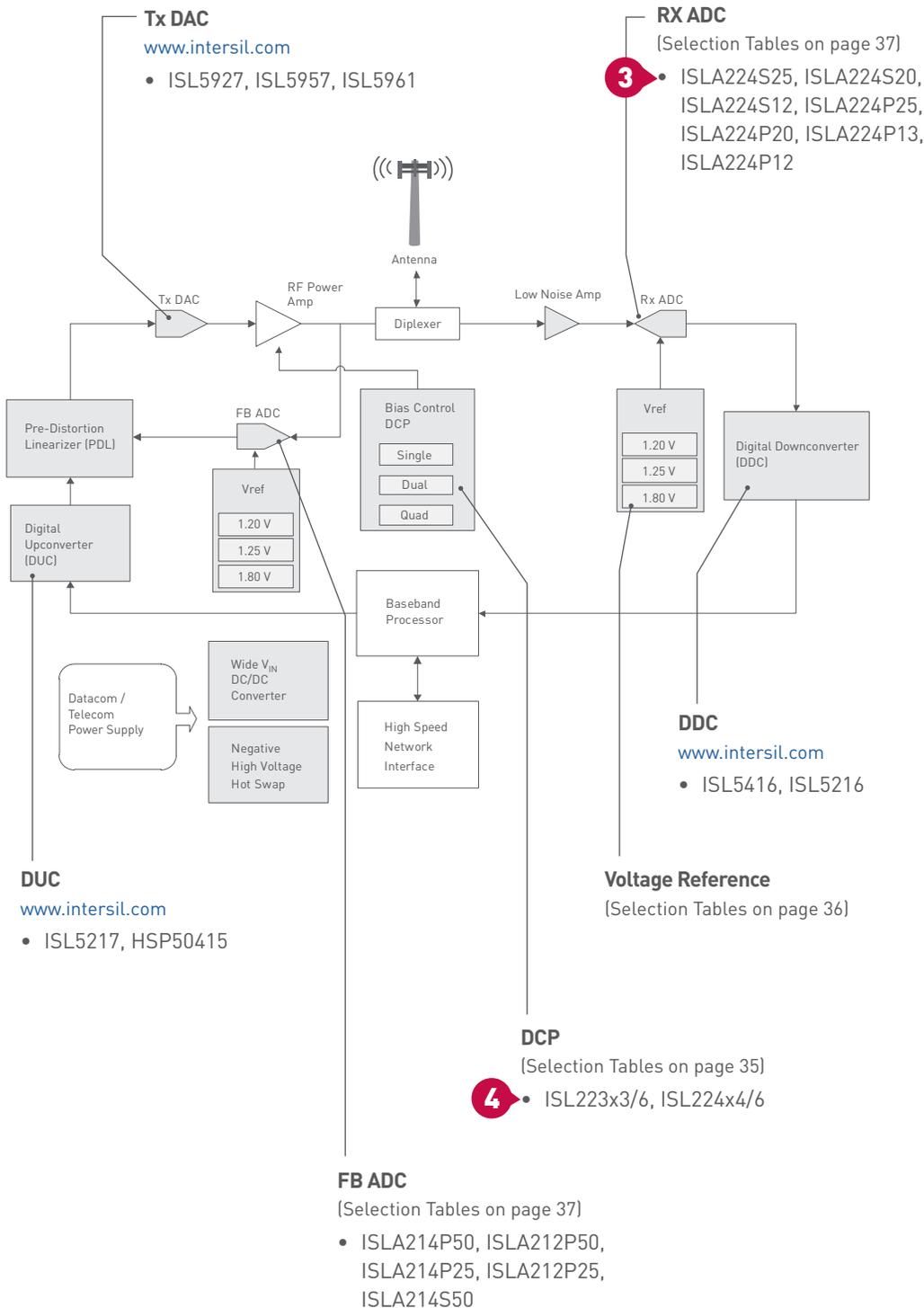


BLADE SERVER





CELL BASESTATION



ISL224SX: Series of low-power, high-performance, dual-channel 14-bit, analog-to-digital converters supports sampling rates up to 250MSPS.

- JESD204A/B high speed data interface
- Compliant with JESD204A, JESD204B device subclass 0, and JESD204B device subclass 2
- Up to 3 JESD204 output lanes running up to 4.375Gbps
- Highly configurable JESD204 transmitter



Family Selection Table on page 37.



ISL22313: Integrates a single digitally controlled potentiometer (DCP), control logic and non-volatile memory on a monolithic CMOS integrated circuit.

- 256 resistor taps
- I²C serial interface
- Two address pins, up to four devices per bus
- Non-volatile EEPROM storage of wiper position
- 14 General Purpose non-volatile registers



Family Selection Table on page 35.

SIGNAL PATH SELECTION TABLES

REAL-TIME CLOCK

Device	Alarms (with the number of alarms)	Time and calendar functions	Frequency out (with the number of frequencies)	Compatible with a 6pF crystal	Very small part	Battery backup feature	Memory (with type and amount)	Event detection	Time stamp	Temperature compensated	Battery monitor and switchover	Unique ID	CPU supervisory functions	Uses AC powerline for timing	Integrated crystal	
ISL12057	2	✓	4	✓												Basic
ISL12058	2	✓	4		✓											
ISL12059		✓	1													
ISL12082	1	✓	4			✓										
ISL12008	1	✓	1			✓										
ISL1208	1	✓	15			✓	2									
ISL1218	1	✓	15			✓	8									
ISL1220	1	✓	15			✓	8									
ISL1209	1	✓	15			✓	2	✓								
ISL1219	1	✓	15			✓	2	✓	✓							
ISL1221	1	✓	15			✓	2	✓	✓							
ISL12022	1	✓	15			✓	128			✓	✓					Feature Rich
ISL12023	1	✓	15			✓	128			✓	✓					
ISL12024/IRTCZ	2	✓	15			✓	512					✓				
ISL12025	2	✓				✓	512					✓	✓			
ISL12026	2	✓	3			✓	512									
ISL12027A	2	✓				✓	512						✓			
ISL12028A	2	✓	3			✓	512						✓			
ISL12029A	2	✓	3			✓	512						✓			
ISL12030	2	✓					128							✓		
ISL12032	2	✓	7			✓	128							✓		
ISL12022M/MA	1	✓	15			✓	128			✓	✓				✓	3-in-1 (Module)
ISL12020M	1	✓	15			✓	128			✓	✓				✓	

To see the complete device listing, visit www.intersil.com

DIGITAL POTENTIOMETERS

What is a DCP?

Digitally Controlled Potentiometers are integrated circuits incorporating a resistor ladder with its associated registers, non-volatile or volatile memory, and a digital interface providing direct communication between a host and both the resistor ladder and memory.

NON-VOLATILE (EEPROM MEMORY)

<ul style="list-style-type: none"> → Single 16-Tap (4-Bits) X9116 - 10kΩ, Up-Down ISL22512 - 10kΩ, Push Button → Single 32-Tap (5-Bits) ☐ X9313 - 1kΩ / 10kΩ / 50kΩ, Up-Down ☐ X9314 - 10kΩ, Log Taper, Up-Down ☐ X9315 - 10kΩ / 50kΩ / 100kΩ, Up-Down X93154 - 50kΩ, Up-Down, 2-Pin X93155 - 50kΩ, Up-Down, 2-Pin X93156 - 12.5kΩ / 50kΩ, Up-Down ☐ X9511 - 10kΩ, Push Button ISL22511 - 10kΩ / 50kΩ, Push Button → Single 64-Tap (6-Bits) X9429 - 2.5kΩ / 10kΩ, 2-Wire → Single 100-Tap (~6.65-Bits) X9317 - 10kΩ / 50kΩ / 100kΩ, Up-Down ☐ X9C102 - 1kΩ, Up-Down ☐ X9C103 - 10kΩ, Up-Down ☐ X9C104 - 100kΩ, Up-Down ☐ X9C503 - 50kΩ, Up-Down ☐ X9C303 - 32kΩ, Log Taper, Up-Down → Single 128-Tap (7-Bits) ISL22316 - 10kΩ / 50kΩ, I²C ISL22317 - 10kΩ / 50kΩ / 100kΩ, 1% Tolerance, I²C ☒ ISL95311 - 10kΩ / 50kΩ, I²C ☐ ISL95711 - 10kΩ / 50kΩ, I²C ISL96017 - 10kΩ / 50kΩ, I²C (16kbits extra EEPROM) ISL22416 - 10kΩ / 50kΩ, SPI ☒ ISL95310 - 10kΩ / 50kΩ, Up-Down ☐ ISL95710 - 10kΩ / 50kΩ, Up-Down → Single 256-Tap (8-Bits) ISL95810 - 10kΩ / 50kΩ, I²C ISL95811 - 10kΩ / 50kΩ, I²C ☐ ISL22313 - 10kΩ / 50kΩ / 100kΩ, I²C ☐ ISL22414 - 10kΩ / 50kΩ / 100kΩ, SPI → Single 1024-Tap (10-Bits) ☐ X9110 - 100kΩ, SPI X9111 - 100kΩ, SPI ☐ X9118 - 100kΩ, 2-Wire X9119 - 100kΩ, 2-Wire 	<ul style="list-style-type: none"> → Dual 32-Tap (5-Bits) X93256 - 12.5kΩ / 50kΩ, Up-Down → Dual 64-Tap (6-Bits) ☐ X9221A - 10kΩ, 2-Wire → Dual 128-Tap (7-Bits) ISL22326 - 10kΩ / 50kΩ, I²C ISL22426 - 10kΩ / 50kΩ, SPI → Dual 256-Tap (8-Bits) X95820 - 10kΩ / 50kΩ, I²C ☐ X9268 - 50kΩ / 100kΩ, 2-Wire ☐ ISL22323 - 10kΩ / 50kΩ / 100kΩ, I²C ☐ ISL22424 - 10kΩ / 50kΩ / 100kΩ, SPI 	<ul style="list-style-type: none"> → Quad 64-Tap (6-Bits) ☐ X9400 - 10kΩ, SPI X9401 - 10kΩ, SPI ☐ X9241A - 2kΩ / 10kΩ / 50kΩ, 2-Wire ☐ X9408 - 2.5kΩ / 10kΩ, 2-Wire X9409 - 2.5kΩ / 10kΩ, 2-Wire → Quad 128-Tap (7-Bits) ISL22346 - 10kΩ / 50kΩ, I²C ISL22446 - 10kΩ / 50kΩ, SPI → Quad 256-Tap (8-Bits) X95840 - 10kΩ / 50kΩ, I²C ☐ X9250 - 50kΩ / 100kΩ, SPI X9251 - 50kΩ, SPI X9252 - 2kΩ / 10kΩ, 2-Wire ☐ X9258 - 50kΩ / 100kΩ, 2-Wire X9259 - 50kΩ, 2-Wire ☐ ISL22343 - 10kΩ / 50kΩ / 100kΩ, I²C ☐ ISL22444 - 10kΩ / 50kΩ / 100kΩ, SPI
<h3>SPECIAL FUNCTION DCPS</h3> <ul style="list-style-type: none"> → Dual Audio DCP - Integrated Output Buffer Amps and Audio Detect ISL22102 - 32kΩ, Log Taper, Push Button, 0 to -72dB Dynamic Range → Low Voltage 1% Tolerant Precision DCP & Low Temperature Coefficient ISL22317 - 10kΩ / 50kΩ / 100kΩ, I²C → Single 128-Tap DCP with 16kbits General Purpose E2PROM ISL96017 - 10kΩ / 50kΩ, I²C → TFT/LCD Programmable VCOM Calibrator (128 Step) ISL45041 - I²C ISL45042 - Up-Down → Military Temperature (-55°C to 125°C) Non-Volatile DCP ISL22316WM (Single) - 10kΩ, I²C ISL22326WM (Dual) - 10kΩ, I²C ISL22346WM (Quad) - 10kΩ, I²C 		

VOLATILE (NO EEPROM MEMORY)

<ul style="list-style-type: none"> → Single 16-Tap (4-Bits) ISL23512 - 10kΩ, Push Button → Single 32-Tap (5-Bits) X9015 - 10kΩ / 50kΩ, Up-Down ISL23511 - 10kΩ / 50kΩ, Push Button ISL90460 - 100kΩ, Up-Down, Rheostat ISL90461 - 10kΩ / 50kΩ / 100kΩ, Up-Down, 2-Pin, Rheostat ISL90462 - 10kΩ / 50kΩ / 100kΩ, Up-Down, 2-Pin, Voltage Divider Only → Single 128-Tap (7-Bits) ISL90726 - 10kΩ / 50kΩ, I²C, Rheostat ISL90727/28 - 10kΩ / 50kΩ, I²C, Voltage Divide Only ISL23318 - 10kΩ / 50kΩ / 100kΩ, I²C, Low Voltage ISL23418 - 10kΩ / 50kΩ / 100kΩ, SPI, Low Voltage ☐ ISL23711 - 10kΩ / 50kΩ, I²C ☐ ISL23710 - 10kΩ / 50kΩ, Up-Down → Single 256-Tap (8-Bits) ISL90810 - 10kΩ / 50kΩ, I²C ISL23315 - 10kΩ / 50kΩ / 100kΩ, I²C, Low Voltage ISL23415 - 10kΩ / 50kΩ / 100kΩ, SPI, Low Voltage 	<ul style="list-style-type: none"> → Dual 32-Tap (5-Bits) ISL22102 - 32kΩ, Log Taper, Audio Detect, Push Button → Dual 128-Tap (7-Bits) ISL23328 - 10kΩ / 50kΩ / 100kΩ, I²C, Low Voltage ISL23428 - 10kΩ / 50kΩ / 100kΩ, SPI, Low Voltage → Dual 256-Tap (8-Bits) ISL23325 - 10kΩ / 50kΩ / 100kΩ, I²C, Low Voltage ISL23425 - 10kΩ / 50kΩ / 100kΩ, SPI, Low Voltage 	<ul style="list-style-type: none"> → Quad 128-Tap (7-Bits) ISL23348 - 10kΩ / 50kΩ / 100kΩ, I²C, Low Voltage ISL23448 - 10kΩ / 50kΩ / 100kΩ, SPI, Low Voltage → Quad 256-Tap (8-Bits) ISL23345 - 10kΩ / 50kΩ / 100kΩ, I²C, Low Voltage ISL23445 - 10kΩ / 50kΩ / 100kΩ, SPI, Low Voltage ISL90841 - 10kΩ / 50kΩ, I²C ISL90842 - 10kΩ / 50kΩ, I²C
<p>☒ Extended positive terminal voltage ☐ Positive and negative terminal voltage</p>		

VOLTAGE REFERENCES

ULTRA PRECISION

- ISL21009
 - 3ppm/°C
 - 4.5μVpp noise
 - 5V - 16V input
 - 180μA max
- ISL21090
 - 7ppm/°C
 - 1μVpp noise
 - 3.7V to 36V Input
- ISL21060
 - 10ppm/°C
 - 40μA max
 - 10μVpp noise

ULTRA LOW POWER

- ISL60002
 - 700nA max
- X60003
 - 900nA max
 - 4.5V to 9V input
- ISL21080
 - 1.5μA max
- ISL21070
 - 25μA max
- ISL21060
 - 40μA max
 - 10μVpp noise

PRECISION V_{REF} WITH KELVIN SENSE

- ISL21060
 - Stable for cap load drive
 - 40μA max
 - 10μVpp noise

LOW COST

- ISL60002 D-grade
 - 900nA max
- ISL21080
 - 1.5μA max
- ISL21070
 - 25μA max
- ISL21010
 - 46μA typ
- ISL21007 D-grade
 - 150μA max
- ISL21009 D-grade
 - 180μA max

V_{REF} WITH COMPARATOR

- ISL21440
 - 0.7μA max
 - 1.182V voltage reference

VOLTAGE REFERENCES

Device Number	Vout														Temp Co ppm/°C	Initial Acc % Vout @2.5V	Temp Range °C	I _{sy} Max μA	V _{sy} Range Volts	Noise Low Freq μVp-p	Noise High Freq μVrms	Line Reg μV/V @ 2.5V	Load Reg μV/mA @2.5V	I _{out} Source/Sink mA	Hyst ppm	LTD ppm/1khr	Pkg
	0.6V	0.9V	1.024V	1.2V	1.25V	1.5V	1.8V	2.048V	2.5V	2.6V	3V	3.3V	4.096V	5V													
ISL21009B				X				X				X	X		3	0.02	-40 to 125	180	3.5 to 16.5	4.5	2.2	150	100	7/7	50	50	SOIC-8
ISL21007C				X			X	X		X					5	0.08	-40 to 125	150	2.7 to 5.5	4.5	2.2	200	100	7/7	50	100	SOIC-8
ISL21009C				X				X				X	X		5	0.08	-40 to 125	180	3.5 to 16.5	4.5	2.2	150	100	7/7	50	50	SOIC-8
ISL21090B				X				X					X	X	7	0.02	-40 to 125	1280	3.7 to 36	1	1.6	45	42.5	20/10	TBD	20	SOIC-8
ISL21007D				X			X	X		X					10	0.08	-40 to 125	150	2.7 to 5.5	4.5	2.2	200	100	7/7	50	100	SOIC-8
ISL21009D				X				X				X	X		10	0.08	-40 to 125	180	3.5 to 16.5	4.5	2.2	150	100	7/7	50	50	SOIC-8
ISL21060B (EN)								X	X		X				10	0.04	-40 to 125	40	2.7 to 5.5	10	2.5	150	400	10/5	100	100	SOT23-6
X60003B												X	X		10	0.02*	-40 to 85	0.9	4.5 to 9	30	NA	150	100	10/10	100	45	SOT23-3
X60003C												X	X		20	0.05*	-40 to 85	0.9	4.5 to 9	30	NA	150	100	10/10	100	45	SOT23-3
ISL60002B			X	X	X		X	X	X	X	X				20	0.04	-40 to 85	0.9	2.7 to 5.5	30	NA	350	250	7/7	100	50	SOT23-3
ISL60002C			X	X	X		X	X	X	X	X				20	0.10	-40 to 85	0.9	2.7 to 5.5	30	NA	350	250	7/7	100	50	SOT23-3
ISL60002D			X	X	X		X	X	X	X	X				20	0.49	-40 to 85	0.9	2.7 to 5.5	30	NA	350	250	7/7	100	50	SOT23-3
X60003D												X	X		20	0.10*	-40 to 85	0.9	4.5 to 9	30	NA	150	100	10/10	100	45	SOT23-3
ISL21060C (EN)								X	X		X				25	0.10	-40 to 125	40	2.7 to 5.5	10	2.5	150	400	10/5	100	100	SOT23-6
ISL21070	X							X	X						30	0.20	-40 to 85	25	2.7 to 5.5	30	10	250	100	7/10	20	50	SOT23-3
ISL21010			X	X	X		X	X		X	X	X			50	0.20	-40 to 125	80	2.7 to 5.5	58*	26*	130	110	25/1	100	50	SOT23-3
ISL21080		X	X		X	X		X	X		X	X	X		50	0.30	-40 to 85	1.5	2.7 to 8	30	52	350	350	7/7	100	50	SOT23-3
ISL21440															*	0.50	-40 to 125	0.7	2 to 11	N/A	N/A	N/A	N/A	2/0.01	N/A	N/A	MSOP-8, TDFN-8

To see the complete device listing, visit www.intersil.com

CURRENT SENSE AMPLIFIERS

CURRENT SENSE OP AMPS

Device			Supply Voltage (V)		Rail-To-Rail		Vos Max @ 25°C	TCVos Typ	Ib Max @ 25°C	CMRR Min @ 25°C	Is Max @ 25°C	GBW	Slew Rate	Voltage Noise @ 1kHz	Temp Range	Package					
Single	Dual	Quad	Min	Max	In	Out	mV	µV/°C	nA	dB	mA	MHz	V/µs	nV/√Hz	°C	SC70	SOT23	MSOP	SOC	TSSOP	DFN/DFN
Standard High Side/Low Side																					
ISL28130C	ISL28230C	ISL28430C	1.8	5.5	Yes	Yes	0.04	0.02	0.25	110	0.025	0.4	0.2	65	0 to 70	S	S	D	D/Q	Q	
ISL28130F	ISL28230F	ISL28430F	1.8	5.5	Yes	Yes	0.04	0.02	0.25	110	0.025	0.4	0.2	65	-40 to 125	S	S	D	S/D	Q	
Zero-Drift, High Side/Low Side																					
ISL28134I			2.25	6	Yes	Yes	0.0025	0.0005	0.3	120	0.900	3.5	1.5	10	-40 to 85				S		
ISL28133	ISL28233	ISL28433	1.8	5.5	Yes	Yes	0.006	0.05	0.18	118	0.025	0.4	0.2	65	-40 to 125	S	S	D	D/Q	Q	S/D
40V Low Side Only																					
ISL28118	ISL28218		3	40	Ground	Yes	0.15	0.2	575	103	1.1	4	1.2	5.6	-40 to 125			S/D	S/D		
ISL28108	ISL28208	ISL28408	3	40	Ground	Yes	0.23	0.1	43	105	0.25	1.2	0.45	15.8	-40 to 125			S/D	S/D/Q		S/D

VOLTAGE OUTPUT CURRENT SENSE AMPLIFIERS

Part Number	Supply Voltage Range	Input Common Mode Range	Vos Max @ 25°C	Vos Max Temp	CMRR min Temp	PSRR min Temp	Gain Range	Gain Accuracy @ 25°C	Gain Accuracy Temp	Is Max @ 25°C	Is Max Temp	GBW	Temp Range	Package
	V	V	µV	µV	dB	dB	V/V	%	%	µA	µA	kHz	°C	
ISL28005	2.7 to 28	0 to 28	500	500	105	90	20, 50, 100	2	3	59	59	180	-40 to 125	SOT23
ISL28006	2.7 to 28	0 to 28	250	300	105	90	20, 50, 100, Adj (20-100)	0.7	1	62	62	180	-40 to 125	SOT23

PRECISION DIGITAL POWER MONITOR

Part Number	Supply Voltage Range	Input Common Mode Range	Vos Max @ 25°C	CMRR min Temp	PSRR min Temp	Current/Voltage Error Max @ 25°C	ΣΔADC	Is Max @ 25°C	Temp Range	Package
	V	V	µV	dB	dB	%	Bit	mA	°C	
ISL28022	3 to 5.5	0 to 60	±75	110	105	0.3	16	1	-40 to 125	10 Ld MSOP, 16 Ld QFN

HIGH SPEED ADC

MSPS	Bit	8-bit	10-bit	12-bit	14-bit	16-bit
	500+				212P50	214P50
		118P50	110P50	112P50		
			5510P-50	5512P-50		
250-350				212P25	214P25	216P25
	2708L-35			222P25	224P25	
	2708L-27		5510P-25	5512P-25	5514P-25	
	2708C-27		5610P-25	5612P-25		
				212P20	214P20	216P20
170-210				222P20	224P20	
	2708L-21		5510P-21	5512P-21	5514P-21	
	2708C-21		5510P-17	5512HP-21	5514P-17	
	2708L-17		5610P-21	5612P-21		
	2708C-17		5610P-17	5612P-17		
				212P13	214P13	216P13
<130				222P13	224P13	
	2708L-10		5510P-12	5512P-12	5514P-12	
	2708C-10			5512HP-12		
			5610P-12	5612P-12		

Legend
ISLA21x High Performance Single
ISLA22x High Performance Dual
ISLA11x Low Power Single
KAD55xx Low Power Single
KAD56xx Low Power Dual
KAD27xx 1st Generation Single

INTERFACE

RS-232

Device	I _s Disabled	No. of Tx.	No. of Rx.	Data Rate (kbps)	Rx. Enable Function?	Manual Power-down?	Automatic Power-down?	V _I
±15kV ESD Protected, +3V to +5.5V, RS-232 Transmitters/Receivers In QFN Package								
ISL4238E	10nA	5	3	250	No	Yes	Yes	No
ISL4243E	10nA	3	5	250	No	Yes	Yes	No
ISL4221E	150nA	1	1	250	Yes	Yes	Yes	No
ISL3232E	150nA	2	2	250	No	No	No	No
ISL4223E	150nA	2	2	250	Yes	Yes	Yes	No
ISL4260E	150nA	3	2	250	No	Yes	Yes	No
ISL3241E	1µA	3	5	250	Yes	Yes	No	Yes
ISL3243E	1µA	3	5	250	No	Yes	No	Yes
ISL4270E	300µA	3	3	250	No	Yes	Yes	No

RS-485/422

+3V TO +5V, RS-485/422 TRANSCEIVERS, TRANSMITTERS, RECEIVERS

Device	5V	3V	Dr	Rec	Half Dup	Full Dup	SRL kbps	Hi Speed Mbps	125C temp	FailSafe Open	Fract UL	High ESD	Hot Plug
Basic Features													
ISL848x	Y		1	1	Y	Y	250	5		Y	32		
ISL848xE	Y		1	1	Y	Y	250	5	8485E	Y	32	15kV HBM	
ISL4485E	Y		1	1	Y			20		Y	32	15kV HBM	
ISL4489/91E	Y		1	1		Y	250	15		Y	256	15kV HBM	
ISL8x487	Y		1	1	Y		250	5		Y	256		
ISL8348x		Y	1	1	Y	Y	250	10		Y	32		
ISL43485		Y	1	1	Y			30		Y	32		
ISL81485/86	Y		1	1	Y			30		Y	32		
ISL4486	Y		1	1	Y			40		Y	32		

Device	5V	3V	Dr	Rec	Half Dup	Full Dup	SRL kbps	Hi Speed Mbps	125C temp	Full Fail Safe	Fract UL	High ESD	Hot Plug
Enhanced Features													
ISL8308xE	Y		1	1	Y	Y	115/ 500	10		Y	256	15kV HBM	Y
ISL8307xE		Y	1	1	Y	Y	250/500	20		Y	256	15kV HBM	Y
ISL315xE	Y		1	1	Y	Y	115/1M	20/40	3159	Y	256	IEC61000	Y
ISL317xE		Y	1	1	Y	Y	250/500	20/40	3179	Y	256	IEC61000	Y
ISL328xE	Y	Y		1				20	Y	Y	256	IEC61000	
ISL329xE	Y	Y	1				250/500	20	Y		256	IEC61000	Y
ISL32x73/5/7E	Y	Y		4				80	Y		128	IEC61000	
ISL32x72/4E	Y	Y	4				460	10/32	Y		256	IEC61000	Y
ISL3259E	Y		1	1	Y			100	Y	Y	160	IEC61000	Y

Device	5V	3V	Dr	Rec	Half Dup	Full Dup	SRL kbps	Hi Speed Mbps	Wide Vcm	Full Fail Safe	Fract UL	High ESD	Hot Plug
Over Voltage Protected to 60V													
ISL3149xE	Y		1	1	Y	Y	250/1000	15	±25	Y	128		Y
ISL3148xE	Y		1	1	Y	Y	1000		±25/ Polarity reversal	Y	128		Y
ISL3147xE	Y		1	1	Y	Y	250/1000	15	±15	Y	128		Y
ISL3245xE		Y	1	1	Y	Y	250/1000		±20	Y	128	15kV HBM	
ISL3249x	Y		1	1	Y	Y	250/1000	15	±25	Y	128	15kV HBM	Y
ISL3248x	Y		1	1	Y	Y	1000		±25/ Polarity reversal	Y	128	15kV HBM	Y
ISL3247x	Y		1	1	Y	Y	250/1000	15	±15	Y	128	15kV HBM	Y

 To see the complete device listing, visit www.intersil.com

PROFILE

Intersil formed in August 1999 when we acquired the semiconductor business of Harris Corporation which held product portfolios and intellectual property from RCA and GE Solid State.

QUICK FACTS

Founded1967
Headquarters..... Milpitas, CA
President, CEO..... Necip Sayiner
Employees.....1,100
NASDAQ Listing..... ISIL
FY 2012 Sales.....\$608 million
Unexpired U.S. Patents.....1,000+
Number of Products3,000+

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PRODUCT GROUPS

Mobile Power

Computing PC
Consumer Handheld
Consumer Display

Industrial and Infrastructure

Wired and Wireless Infrastructure
Servers and Storage
Industrial

Precision Products

Automotive
RadHard and Aerospace
High Precision Analog

Specialty Products

Security and Surveillance
Motion and Light Sensing
Specialty Analog

RELIABLE AND PROVEN SUPPLY CHAIN

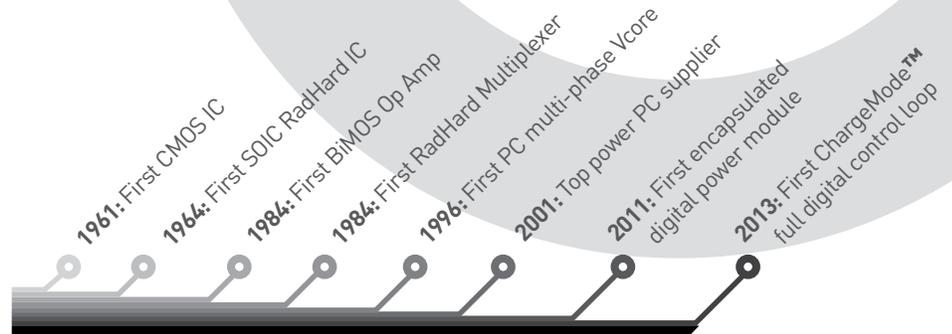
Proven proprietary processes and package technologies, shipping over 1 billion ICs per year

Multi-sourcing strategy using multiple, leading-edge semiconductor foundries and assembly/test partners assures dependable supply

Decades of experience handling military/space products with wafer-by-wafer assurance testing for both high-dose and low-dose radiation

ISO/TS16949 and AEC-Q100, MIL-PRF-38535 compliant and 100% burned in

A HERITAGE OF INNOVATION



WORLD-CLASS QUALITY AND FAILURE ANALYSIS SUPPORT

Quality

Company-wide zero defect mindset
Quality performance at less than 1.4 DPPM (defective parts per million) and improving
Built-in reliability philosophy with supplier partnerships with industry leaders
Top ratings from customers on quality
Worldwide dedicated quality support

Failure Analysis

Worldwide failure analysis support with over a combined 150 years of experience
Extensive in-house capability utilizing state-of-the-art imaging equipment and highly integrated electrical and physical fault isolation techniques and equipment
Design edit capability for quick design verification

intersil™