

Sine On

AN ANALOG AND MIXED-SIGNAL PRODUCT CATALOG

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Plug-In Power Solutions



FREE
'Power Management Selection Guide'

See back cover for ordering information.

4Q 2001 Issue 2

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Excalibur™ series:
Industry's first 60-A,
digital multi-phase
converter

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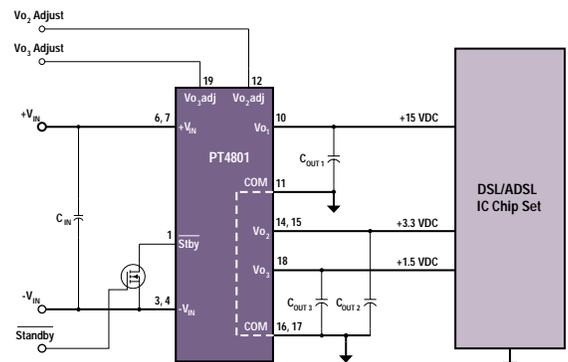
Low-profile, 5-W to 7-W
surface-mount converter

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**Smallest, triple-output
DSL power solution**

Page **14**



Selection Guide for Plug-In Power Solutions

Non-Isolated	Input voltage	1 A	1.5 A	2 A	3 - 5 A	6 - 12 A	13 - 20 A	21 to 40 A	40 A+
Single Positive Output	+3.3 V		PT5520		PT5500	PT6440 PT6520 PT6600	PT6700 PT7710	PT7770	PT7770+ PT7740 PT7741
	+5 V	PT5040	PT5520		PT5500 PT6670	PT6440 PT6520 PT6600	PT6700 PT7710	PT7770	PT7760 PT8000
	+12 V	PT5100 PT6100	PT5070 PT78ST100	PT6210 PT78HT200 PT78ST200	PT6300	PT6340 PT6620	PT6720 PT7720	PT7720 Boosters	
	+24 V	PT5100 PT6100	PT78ST100	PT6210 PT78HT200 PT78ST200	PT6300	PT6650 PT6880	PT7750	PT7750 + Boosters	
Single Negative Output	+3.3 V				PT6910				
	+5 V	PT5020			PT6910				
	+12 V	PT78NR100		PT78NR200	PT6640				
	+24 V	PT78NR100		PT78NR200					
	-24 V		PT79SR100						
Multiple Output	+3.3 V					PT6935 PT6940			
	+5 V	PT5060				PT6930 PT6935 PT6940			
	+12 V								
	+24 V								
Isolated	Input voltage	1-7 W	10-15 W	20 W	30 W	60 W	75 W	100 W	200 W+
Single Output	24 V	DCR01/02 DCP01/02 DCV01	PT4240	PT4140 PT4500	PT4580			PT4470	PT4470 + Boosters
	48 V	PT4210	PT4220 DCT10	PT4120 PT4520	PT4560			PT4480	PT4480 + Boosters
Multiple Output	24 V			PT4800			PT4680		
	48 V	PT4310				PT4840	PT4660		

Non-Isolated Single Positive

Space-saving, 3-A, low-voltage regulator

PT5500 and PT5520 series

Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT5500
www.ti.com/sc/device/PT5520

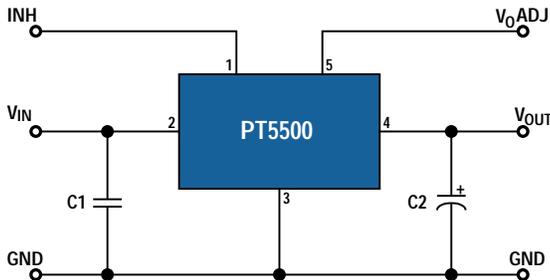


- 3-A, 5-pin Excalibur™ single in-line package (SIP) integrated switching regulator (ISR)
- Output voltage adjustable with one external resistor
- 90% efficiency (3.3 V)
- Small SIP footprint
- Allows easy integration of low-power 3.3-V logic ICs into existing 5-V systems
- Package styles
 - horizontal, surface-mount, vertical (surface-mount available on tape and reel)



Product	Description	V _{IN}	Available output voltages (V)
PT5500	5-pin, 3-A, low-voltage converter	3.1 V to 5.5 V	1, 1.2, 1.5, 1.8, 2.1, 2.5, 3.3
PT5520	5-pin, 1.5-A, low-voltage converter	3.1 V to 5.5 V	1, 1.2, 1.5, 1.8, 2, 2.5, 3.3

Typical application



- Applications include:
 - Powering microprocessors and DSPs

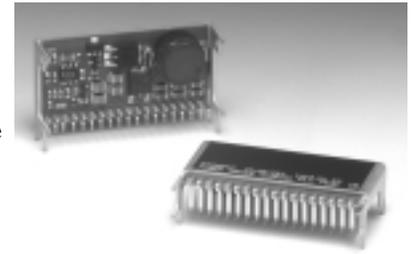
5-A regulator operates with 18-V to 36-V input

PT6880 series

Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT6880

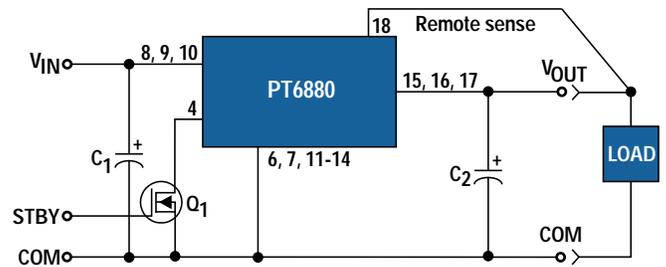


- 24-V bus integrated switching regulator (ISR)
- 14-pin Excalibur™ single in-line package (SIP)
- Input voltage range: 18 V to 36 V
- Adjustable output voltage
- 80% efficiency
- Remote sense capability
- Standby function
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT6880	5-A, 24-V input ISR	18 V to 36 V	2.5, 3.3, 5, 9, 12, 15

Typical application



- Applications include:
 - General-purpose industrial applications including process control, test and measurement and instrumentation requiring as much as 5-A output

Non-Isolated Single Positive

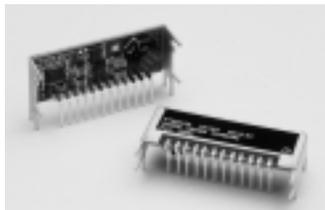
6-A regulator uses 50 percent smaller footprint

PT6340 and PT6440 series

Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT6340
www.ti.com/sc/device/PT6440

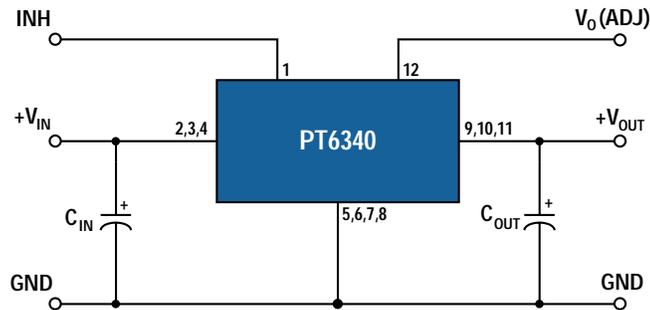


- Output current: 6 A
- Input voltage: 5 V or 12 V
- Small footprint: 0.61 in²
- 90% efficiency
- -40° C to +85° C operating temperature range
- Adjustable output voltage
- Inhibit/standby function
- Short-circuit protection
- Solderable Excalibur™ copper case
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT6340	6-A adjustable ISR	10.8 V to 13.2 V	1.5, 1.8, 2.5, 3.3, 5
PT6440	6-A adjustable ISR	3.1 V to 5.5 V	1, 1.2, 1.5, 1.8, 2, 2.5, 3.3

Typical application



➤ Applications include:

- High-end computing equipment
- Servers
- Workstations
- Networking equipment

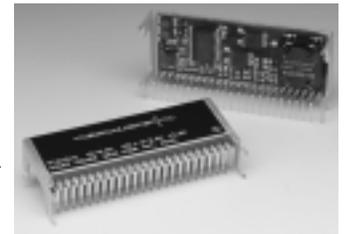
13-A, high-performance regulator offers 5-bit VID programming

PT6700 series

Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT6700

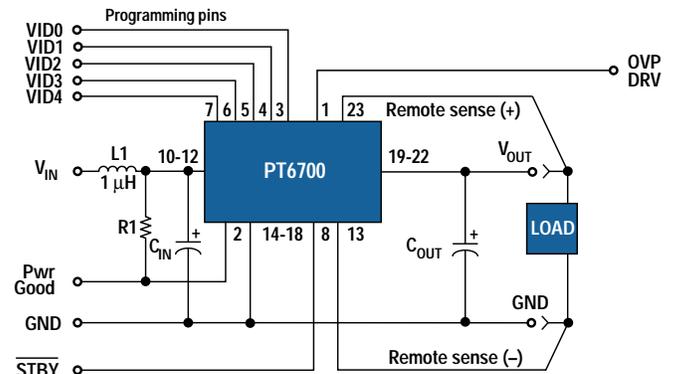


- High-performance, 13-A integrated switching regulators (ISR)
- Space-saving Excalibur™ 23-pin SIP
- Output voltage fixed or programmable from 1.3 V to 3.5 V with a 5-bit input compatible with Intel Pentium® processors
- Differential remote sense
- Internal short-circuit protection
- Over-voltage protection (OVP) drive
- Power Good output signal
- Package styles
 - horizontal, surface-mount, vertical



PT6700 product matrix										
Product series	Input voltage			VID adjust	Resistor adjust	Short circuit	Soft start	Inhibit	OVP driver	Power Good
	3.3 V	5 V	12 V							
PT6701		✓		✓		✓	✓	✓	✓	✓
PT6702	✓			✓		✓	✓	✓	✓	✓
PT6705		✓	✓		✓	✓	✓	✓		
PT6715		✓			✓	✓	✓	✓		
PT6721			✓	✓		✓	✓	✓	✓	✓
PT6725			✓		✓	✓	✓	✓		

Typical application



➤ Applications include:

- High-speed, low-voltage microprocessors, DSPs and bus drivers

Non-Isolated Single Positive

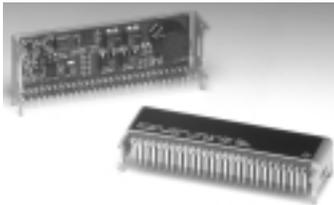
20-A, next-generation "Big Hammer" increases output

PT7710 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT7710

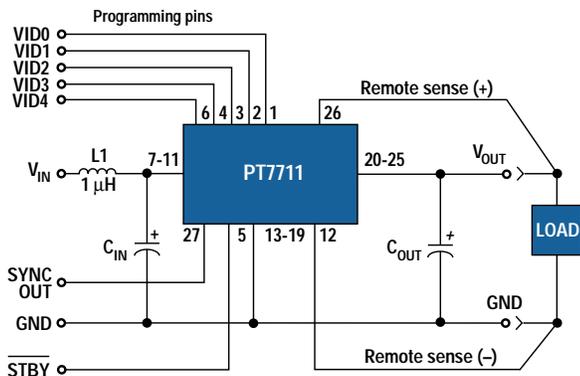


- High-performance, 20-A integrated switching regulator (ISR)
- Space-saving Excalibur™ 27-pin SIP
- Output voltage can be programmed with a 5-bit input compatible with Intel's Pentium® Pro processor
- Differential remote sense
- 20-A capability allows easy integration of the latest high-speed, low voltage microprocessors and bus drivers into existing 5-V or 3.3-V systems
- Designed to work in parallel with one or more of the PT7740 20-A current boosters for increased I_{OUT} in increments of 20-A
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT7711	20-A Big Hammer	4.5 V to 5.5 V	1.3 to 3.5 programmable
PT7712	20-A Big Hammer	3.1 V to 3.6 V	1.3 to 2.05 programmable
PT7744	Current booster for PT7711	Same as master	Same as master
PT7745	Current booster for PT7712	Same as master	Same as master

Typical application



- Applications include:
 - High-speed, low voltage microprocessors and bus drivers

32-A, programmable "Sledge Hammer" operates from 3.3 V

PT7770 series

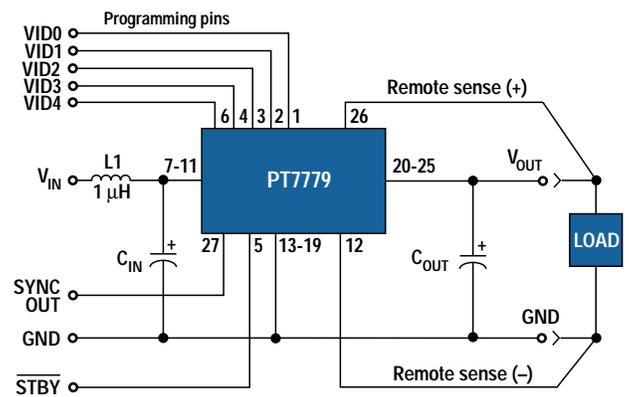
Get samples, datasheets and pricing at: www.ti.com/sc/device/PT7770



- High-performance, 32-A integrated switching regulator (ISR)
- 27-pin SIP
- Output voltage can be programmed from 1.3 V to 3.5 V with a 5-bit input compatible with Intel's Pentium® processors
- Differential remote sense automatically compensates for any voltage drop from the ISR to the load
- 32-A capability allows easy integration of the latest high-speed, low voltage microprocessors, ASICs, DSPs and bus drivers into existing 5-V systems
- Package styles
 - horizontal, surface-mount, vertical

Product	Description	V _{IN}	Available output voltages (V)
PT7778	32-A Sledge Hammer	3.1 V to 3.6 V	1.3 to 2.05 programmable
PT7779	32-A Sledge Hammer	4.5 V to 5.5 V	1.3 to 3.5 programmable
PT7740	Current booster for PT7778	Same as master	Same as master
PT7741	Current booster for PT7779	Same as master	Same as master

Typical application



- Applications include:
 - High-speed, low voltage microprocessors
 - ASICs
 - DSPs
 - Bus drivers

Non-Isolated Single Positive

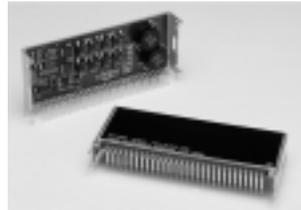
40-A, programmable regulator for high-end computing equipment

PT7760 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT7760

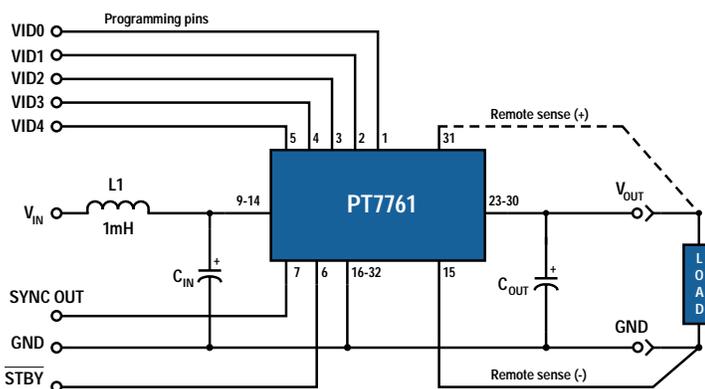


- Output current: 40 A
- Input voltage: 5 V
- 5-bit programmable: 1.3 V to 3.5 V
- 90% efficiency
- Differential remote sense
- Short-circuit protection
- Solderable Excalibur™ copper case
- Parallel with compatible 40-A “current booster”
- Inhibit/shutdown control
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT7760	40-A programmable ISR	5 V	1.3 to 3.5 programmable

Typical application



- Applications include:
- High-end computing equipment
 - Workstations
 - Servers

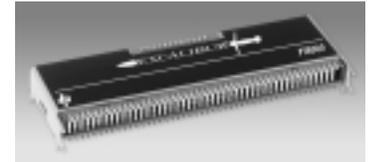
Industry's first 60-A, digital multi-phase converter

PT8000 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT8000

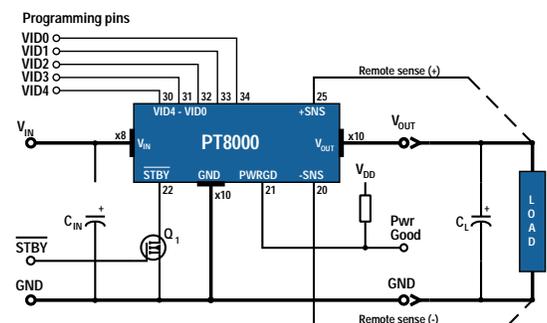


- Output current: 60 A
- Multi-phase topology: effective switching frequency of 1.4 MHz
- Input voltage: 5 V
- 5-bit programmable
 - 1.3 V to 3.5 V
 - 1.075 V to 1.850 V
- High efficiency
- Differential remote sense
- Short-circuit protection
- Output tracking feature
- Over-temperature shutdown
- Power Good and over-voltage flag
- Solderable Excalibur™ copper case
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT8000	60-A programmable ISR	5 V	1.075 to 1.850 1.3 to 3.5 programmable

Typical application



- Applications include:
- High-end computing equipment
 - Workstations
 - Servers

Non-Isolated Multiple Output

Dual-output regulator provides low-power ±12-V rails

PT5060 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT5060

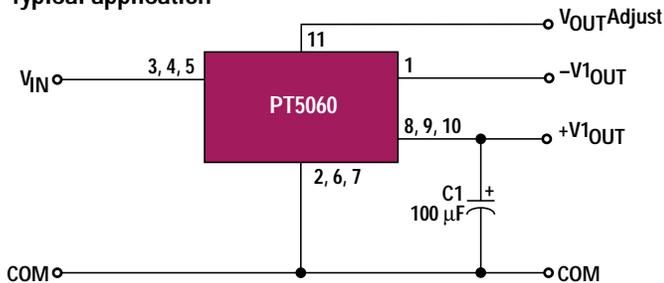


- Designed for use in +5-V systems that require low power ±12 or ±15-volt rails
- Both output voltages can be easily adjusted with one external resistor
- Low-profile, 12-pin SIP
- Dual outputs:
 - +12 V @ 0.5 A; -12 V @ 0.25 A
 - +15 V @ 0.4 A; -15 V @ 0.2 A
- 85% efficiency
- Wide input voltage range
- Adjustable output voltage
- Laser-trimmed output voltage
- Package styles
 - horizontal, surface-mount, vertical (surface-mount available on tape and reel)



Product	Description	V _{IN}	Available output voltages (V)
PT5060	9-W dual output	4.75 V to (V ₀ - 1 V)	±12, ±15

Typical application



➤ Applications include:

- D/A converters
- A/D converters
- Operational amplifiers
- Interface logic

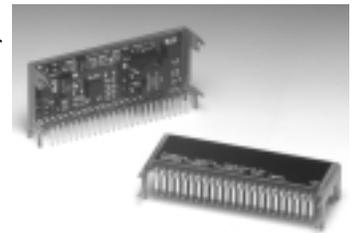
Dual-output regulator offers low voltage for DSPs

PT6930 and PT6935 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT6930
www.ti.com/sc/device/PT6935

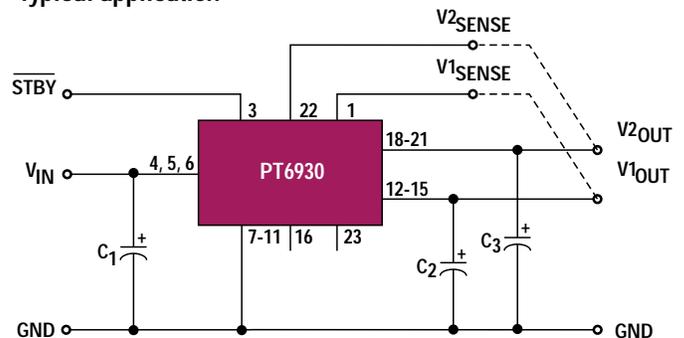


- 25-/35-W, dual-output integrated switching regulator (ISR)
- Dual outputs:
 - V₁ = 3.3 V/2.5 V
 - V₂ = 2.5 V/1.8 V/1.5 V
- Remote sense (both outputs)
- Standby function
- Over-temperature protection
- Soft start
- Internal sequencing
- 23-pin Excalibur™ package
- Both output voltages are independently adjustable with external resistors
- Internal power sequencing of both outputs meets the requirements of TI's TMS320C6000™ DSP platform
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT6930	25-W dual output	4.5 V to 5.5 V	3.3/2.5, 3.3/1.8, 3.3/1.5
PT6935	35-W dual output	4.5 V to 5.5 V	3.3/2.5, 3.3/1.8, 2.5/1.8

Typical application



➤ Applications include:

- Powering the latest generation of DSPs such as TI's TMS320C6000™

Non-Isolated Multiple Output

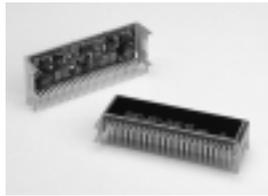
Dual-output, 6-A regulator offers high efficiency

PT6940 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT6940

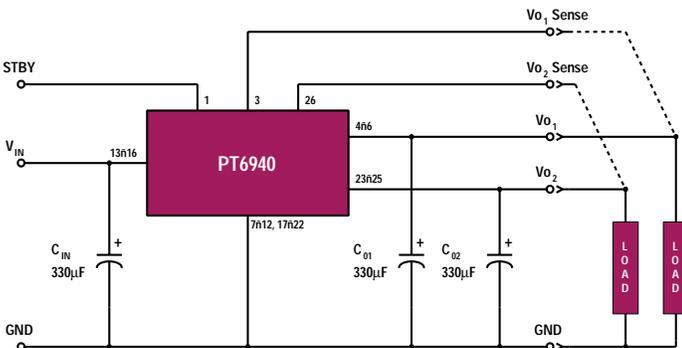


- Independently adjustable output voltages
- Internal power sequencing of both outputs meets the requirements of TI's TMS320C6000™ DSP platform
- Remote sense
- Short-circuit protection
- Standby function
- Soft start
- Solderable Excalibur™ copper case
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT6940	Dual 6-A output	5 V 3.3 V	1.2, 1.5, 1.8, 2.5, 3.3 1.2, 1.5, 1.8, 2.5

Typical application



- Applications include:
- Powering the latest generation of DSPs such as TI's TMS320C6000™

Non-Isolated Single Negative

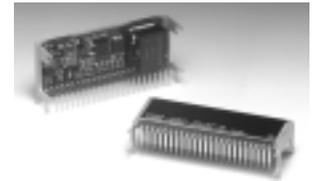
Adjustable, plus-to-minus converter powers high-speed communication ICs

PT6910 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT6910

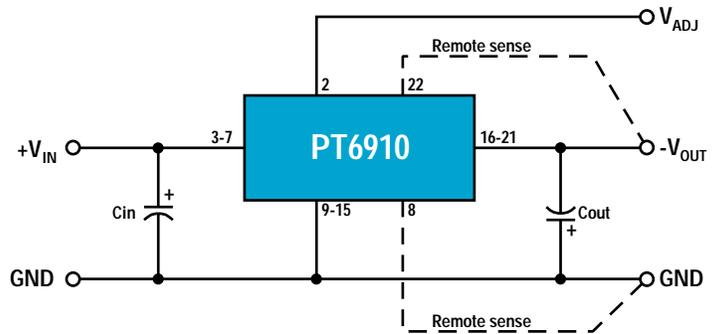


- Single device: 5-V to 3.3-V input
- Remote sense
- Input voltage: 5 V and 3.3 V
- Adjustable output voltage
- 23-pin, Excalibur™ space-saving package
- Solderable copper case
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT6910	12-W adjustable ISR	5 V to 3.3 V	-2, -5.2, -1.5

Typical application



- Applications include:
- High-speed fiber optic communications

Non-Isolated Single Negative

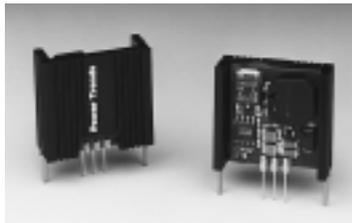
Plus-to-minus regulator creates negative output from positive input

PT78NR series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT78NR100

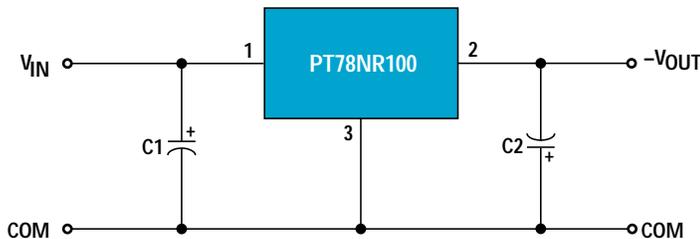


- Creates a negative output voltage from a positive input voltage greater than 7 V
- Laser-trimmed negative output voltage
- Wide input range
- Self-contained inductor
- Short-circuit protection
- Over-temperature protection
- Fast transient response
- Package styles
 - horizontal, surface-mount, vertical (surface-mount available on tape and reel)



Product	Description	V _{IN}	Available output voltages (V)
PT78NR100	3-pin, 1-A positive in, negative out ISR	7 V to (30 V - V _O)	-3, -5, -5.2, -6, -7, -8, -9, -10, -12, -13.9, -15
PT78NR200	3-pin, 2-A positive in, negative out ISR	7 V to (30 V - V _O)	-5.2, -6, -12, -15

Typical application



- Applications include:
- Powering slip-rail operational amplifiers
 - D/A converters
 - A/D converters
 - Other analog circuits

Isolated Single Output

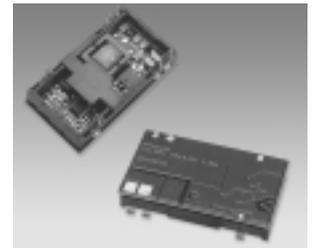
5-W to 7-W, low-profile, surface-mount converter

PT4210 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT4210

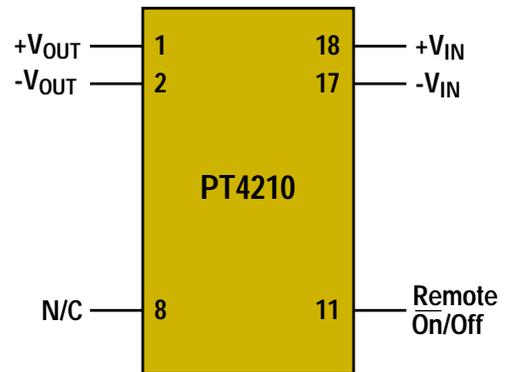


- Low-profile package: 8 mm
- 1,500-VDC isolation
- Pin-compatible with similar PKF-series modules
- No external components required
- 6-pin DIP
- Package styles
 - through-hole, surface-mount



Product	Description	V _{IN}	Available output voltages (V)
PT4210	5-W to 7-W isolated	38 V to 75 V	3.3, 5, 12

Typical application



- Applications include:
- Telecom and datacom systems where board space and height are a premium

Isolated Single Output

10-W, isolated DC/DC converter in low-profile Excalibur™ package

PT4220 and PT4240 series

Get samples, datasheets and pricing at:

www.ti.com/sc/device/PT4220

www.ti.com/sc/device/PT4240

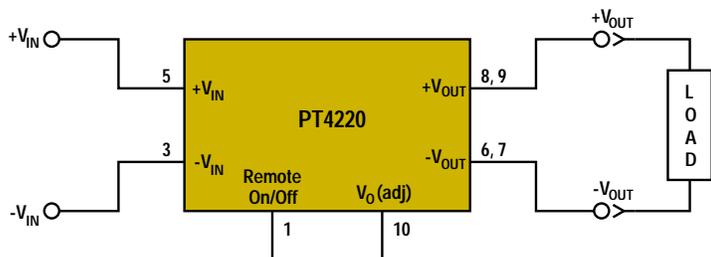


- Output power: 10 W
- Input voltage: 24 V or 48 V
- 1,500-VDC isolation
- -40° C to +85° C operating temperature range
- Remote on/off control
- Adjustable output voltage
- Under-voltage lockout
- Current limit
- Short-circuit protection
- Solderable Excalibur copper case
- Low-profile package: 8 mm
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT4220	10-W isolated	36 V to 75 V	1.5, 1.8, 2.5, 3.3, 5, 12
PT4240	10-W isolated	18 V to 36 V	1.5, 1.8, 2.5, 3.3, 5, 12

Typical application



- **Applications include:**
- Telecom and datacom applications
 - Industrial, computer and medical applications
 - Other distributed power applications requiring input-to-output isolation over an industrial temperature range

20-W, isolated DC/DC converter offers 1.5-V output

PT4500 and PT4520 series

Get samples, datasheets and pricing at:

www.ti.com/sc/device/PT4500

www.ti.com/sc/device/PT4520

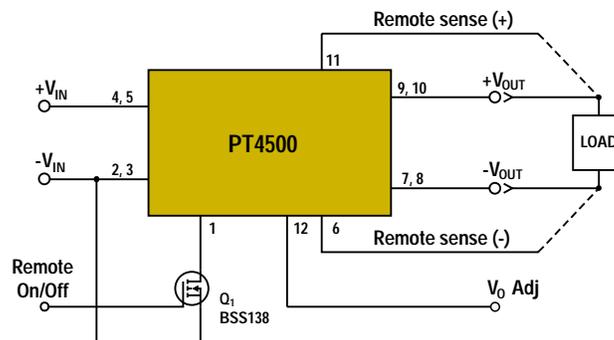


- Output power: 20 W
- Input voltage: 24 V or 48 V
- 1,500-VDC isolation
- Low-profile package: 8.5 mm
- Adjustable output voltage
- On/off control
- Differential remote sense
- Short-circuit protection
- Over-temperature Shutdown
- Solderable Excalibur™ copper case
- Small footprint: 1.0 in² (Suffix N)
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT4500	20-W isolated	18 V to 40 V	1.5, 1.8, 2.5, 3.3, 5, 12, 15
PT4520	20-W isolated	36 V to 75 V	1.5, 1.8, 2.5, 3.3, 5, 12, 15

Typical application



- **Applications include:**
- Telecom, industrial, computer and other distributed power applications that require input-to-output isolation

Isolated Single Output

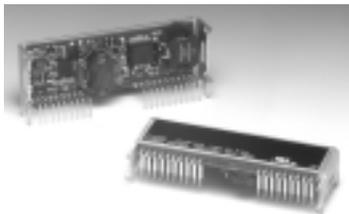
30-W, isolated DC/DC converter has wide-range input

PT4560 and PT4580 series

Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT4560
www.ti.com/sc/device/PT4580

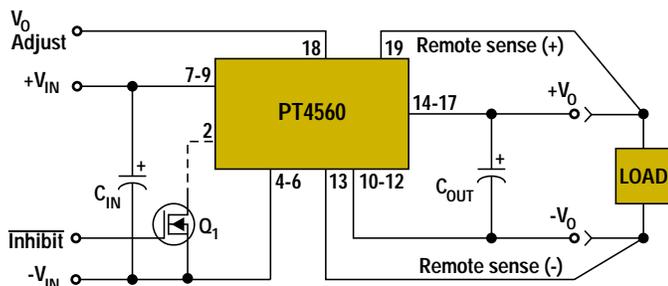


- Output power: 30 W
- -40° C to +85° C operating temperature range
- 1,500-VDC isolation
- 83% efficiency
- UL, CSA, VDE approved
- 19-pin Excalibur™ case
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT4560	30-W isolated	36 V to 75 V	1.8, 2.0, 2.5, 3.3, 5, 5.2, 12, 15
PT4580	30-W isolated	18 V to 60 V	1.8, 3.3, 5, 12, 15

Typical application



- **Applications include:**
- Telecom
 - Industrial equipment
 - Computers
 - Medical equipment
 - Distributed power applications requiring input-to-output isolation and an industrial temperature range

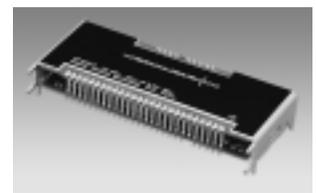
100-W, programmable converter offers N+1 current sharing

PT4480 and PT4470 series

Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT4480
www.ti.com/sc/device/PT4470



- Output power: 100 W
- Programmable output voltage
- Remote on/off
- Differential remote sense
- N + 1 current sharing
- Over-current protection
- Over-temperature protection
- Over-voltage protection
- 26-pin Excalibur™ case
- 89% efficiency
- 1,500-VDC isolation
- No external components required
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Parallel mode	Available output voltages (V)
PT4481	100-W/30-A isolated	36 V to 75 V	N+1	1.3 to 3.5 programmable
PT4482	100-W/30-A isolated	36 V to 75 V	Booster	1.3 to 3.5 programmable
PT4483	100-W/30-A isolated	36 V to 75 V	N+1	4.6 to 5.7 programmable
PT4484	100-W/30-A isolated	36 V to 75 V	Booster	4.6 to 5.7 programmable
PT4471	100-W/30-A isolated	18 V to 40 V	N+1	1.3 to 3.5 programmable
PT4472	100-W/30-A isolated	18 V to 40 V	Booster	1.3 to 3.5 programmable
PT4473	100-W/20-A isolated	18 V to 36 V	N+1	4.6 to 5.7 programmable
PT4474	100-W/20-A isolated	18 V to 36 V	Booster	4.6 to 5.7 programmable
PT4475	100-W/8.5 A isolated	18 V to 36 V	N+1	6.5 to 17.5 programmable
PT4476	100-W/8.5 A isolated	18 V to 36 V	Booster	6.5 to 17.5 programmable
PT4485	100-W/8.5 A isolated	36 V to 75 V	N+1	6.5 to 17.5 programmable
PT4486	100-W/8.5 A isolated	36 V to 75 V	Booster	6.5 to 17.5 programmable
PT4493	PT4476 Booster	Same as master	-	Same as master
PT4494	PT4476 Booster	Same as master	-	Same as master
PT4495	PT4472 booster	Same as master	-	Same as master
PT4497	PT4476 booster	Same as master	-	Same as master
PT4498	PT4484 booster	Same as master	-	Same as master
PT4499	PT4482 booster	Same as master	-	Same as master

- **Applications include:**
- Telecom and datacom applications requiring input-to-output isolation

Isolated Single Output

1-W and 2-W isolated DC/DC converter with regulated output

DCR01/DCR02

Get samples, datasheets and pricing at:

www.ti.com/sc/dcr01

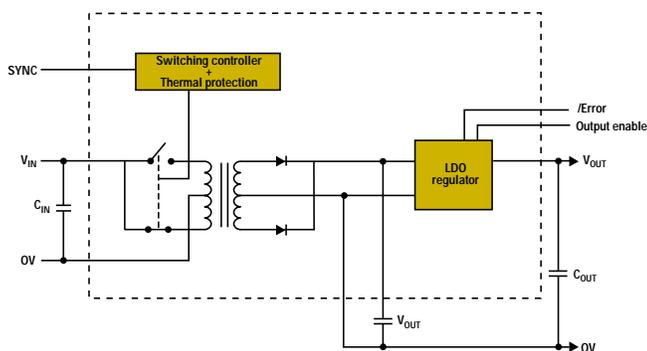
www.ti.com/sc/dcr02



- Input voltage: 5 V, 12 V or 24 V
- Regulated 3.3 V or 5 V outputs
- 1,000 V_{RMS} isolation to UL1950
- Synchronizable clock frequencies minimize noise
- Remote shutdown from both sides of barrier for complete control
- Thermal shutdown and output current limit provides safety outside of operating range
- High reliability through the use of solderless manufacturing process
- -40° C to +85° C operating temperature range with no de-rating
- Package styles
 - JEDEC standard DIP-18 and SO-28 packages allow standard assembly techniques to be used

Product	Description	V _{IN}	Available output voltages (V)
DCR01	1-W isolated DC/DC converter	5 V, 12 V, 24 V	3.3 V or 5 V
DCR02	2-W isolated DC/DC converter	12 V, 24 V	3.3 V or 5 V

Typical application



Applications include:

- Communications systems
- Industrial process control
- Medical

DC/DC converter provides highest reliability in class

DCP01/DCP02

Get samples, datasheets and pricing at:

www.ti.com/sc/dcp01

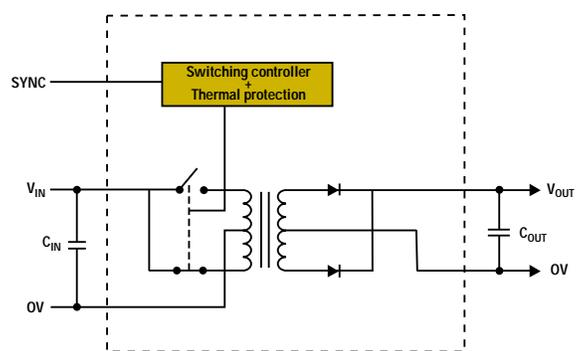
www.ti.com/sc/dcp02



- Input voltage: 5 V, 12 V, 15 V or 24 V
- Output voltages designed to power most analog circuitry: 3.3 V, 5 V, ±5 V, 7 V, 9 V, 12 V, ±12 V, 15 V or ±15 V
- Thermal shutdown
- Short-circuit protection
- Device-to-device synchronization minimizes noise and remote shutdown for low-power operation
- Efficiency up to 89% providing simple thermal management
- High reliability through the use of solderless manufacturing process
- UL1950 recognized component at 1,000 V_{RMS} isolation
- Package styles
 - DIP-14, gull-wing and SO-28 packaging, which meets JEDEC standards

Product	Description	V _{IN}	Available output voltages (V)
DCP01	1-W isolated DC/DC converter	5 V, 12 V, 24 V	5 V or +/-15 V
DCP02	2-W isolated DC/DC converter	5 V, 12 V, 15 V, 24 V	3 V or +/-15 V

Typical application



Applications include:

- Communications systems
- Industrial process control
- Medical

Isolated Single Output

2-A DC/DC converter simplifies Telecom design

DCT10

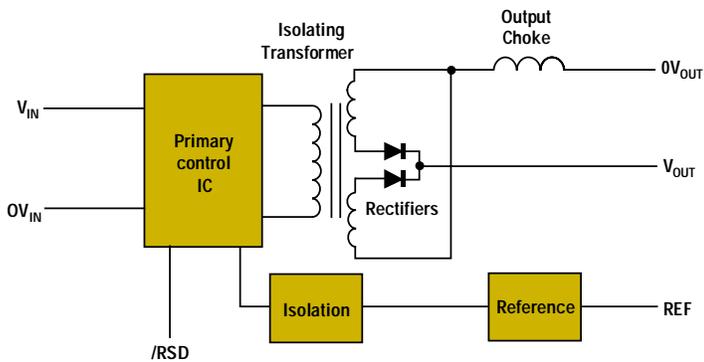
Get samples, datasheets and pricing at: www.ti.com/sc/dct10



- Input voltages: 48 V (32 V to 75 V) or 24 V (18 V to 36 V)
- Integrated magnetic components reduce size and make devices simple to use
- Output current: 2 A with 5 V or 3.3 V, 0.8 A with 12 V
- 1,500 V_{RMS} isolation with basic isolation to UL1950 and EN60950
- Remote sense and shutdown plus output voltage trim for flexibility in use
- High reliability
- -40° C to +85° C operating temperature range
- Package styles
 - JEDEC standard DIP-28 in through-hole and surface-mount format

Product	Description	V _{IN}	Available output voltages (V)
DCT10	2-A isolated DC/DC converter	48 V, 24 V	3.3 V, 5 V, 12 V

Typical application



- Applications include:
- Telecom
 - Communications systems

Isolated Multiple Output

Dual-isolated converter provides low-power ±5-V or ±12-V rails

PT4310 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT4310

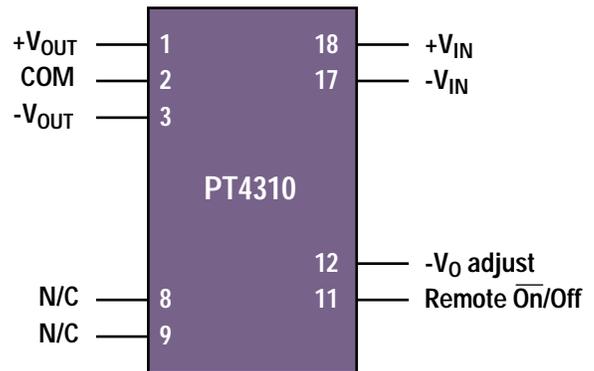


- Dual complementary outputs: ±5 V and ±12 V
- Input voltage: 48 V
- 1,500-VDC isolation
- Pin-compatible with similar PKF series modules
- Low-profile package: 8 mm
- 9-pin DIP
- Package styles
 - through-hole, surface-mount



Product	Description	V _{IN}	Available output voltages (V)
PT4310	6-W isolated	38 V to 75 V	±5, ±12

Typical application



- Applications include:
- Telecom and datacom systems where board space and height are a premium

Isolated Multiple Output

25-W, triple-output converter powers 8-channel DSL designs

PT4800 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT4800

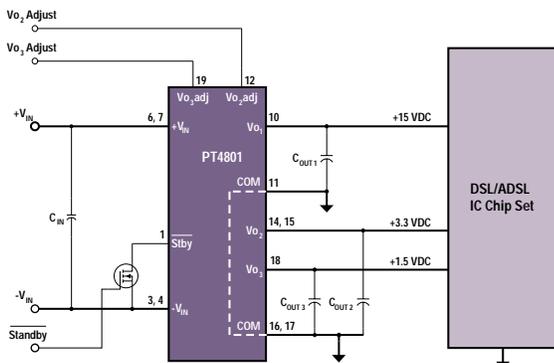


- Three independently regulated outputs: 15 V, 3.3 V, 1.5 V
- Small footprint: 1.6 in² (Suffix N)
- Compatible with TI's AC-5 ADSL chipset
- Input voltage: 48 V
- 1,500-VDC isolation
- On/off "standby" control
- Current limit
- Short-circuit protection (all outputs)
- Over-temperature shutdown
- Under-voltage lockout
- Solderable Excalibur™ copper case
- Safety approvals:
 - UL1950
 - CSA 22.2 950
 - VDE EN60950
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT4800	25-W isolated	36 V to 75 V	15/3.3/1.5

Typical application



- Applications include:
- 8- and 16-channel central office (CO) ADSL applications

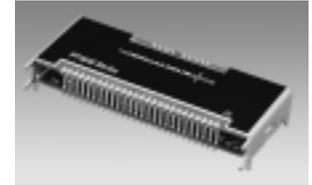
65-W, triple-output converter powers 32-channel DSL designs

PT4840 series

Get samples, datasheets and pricing at: www.ti.com/sc/device/PT4840

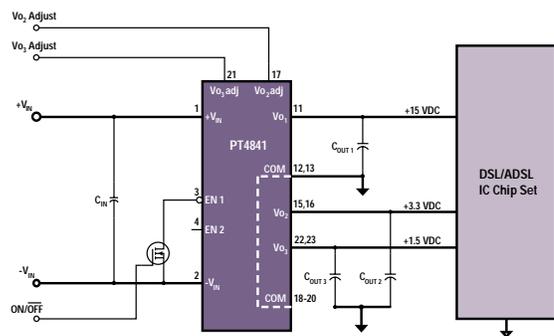


- Three independently regulated outputs: 15 V, 3.3 V, 1.5 V
- Small footprint: 1.9 in² (Suffix N)
- Compatible with TI's AC-5 ADSL chipset
- Input voltage: 48 V
- 1,500-VDC isolation
- On/off "standby" control
- Current limit
- Short-circuit protection (all outputs)
- Over-temperature shutdown
- Under-voltage lockout
- Solderable Excalibur™ copper case
- Safety approvals:
 - UL 1950
 - CSA 22.2 950
 - VDE EN60950
- Package styles
 - horizontal, surface-mount, vertical



Product	Description	V _{IN}	Available output voltages (V)
PT4840	65-W isolated	36 V to 75 V	15/3.3/1.5

Typical application



- Applications include:
- 16-, 24- and 32-channel CO ADSL applications

Isolated Multiple Output

Dual, low-voltage converter independently regulates two 15-A outputs

PT4660 and PT4680 series

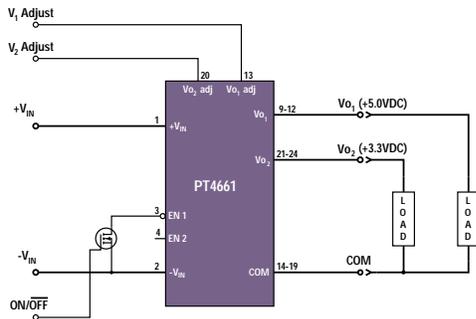
Get samples, datasheets and pricing at:
www.ti.com/sc/device/PT4660
www.ti.com/sc/device/PT4680



- Two independently regulated 15-A outputs
- Input voltage: 24 V or 48 V
- Power-up sequencing
- 1,500-VDC isolation
- -40° C to 85° C operating temperature range
- 88% efficiency
- Over-current protection (both outputs)
- Dual logic on/off control
- Over-temperature shutdown
- Over-voltage protection
- Under-voltage lockout
- Input differential EMI filter
- Solderable Excalibur™ copper case
- Safety approvals: UL1950 and CSA 22.2 950
- Package styles
 - horizontal, surface-mount, vertical

Product	Description	V _{IN}	Available output voltages (V)
PT4660	20-A isolated	36 V to 75 V	2.5/1.8, 3.3/1.5, 3.3/1.8, 3.3/2.5, 5/1.8, 5/3.3
PT4680	20-A isolated	18 V to 40 V	3.3/2.5, 5/3.3

Typical application



➤ Applications include:

- Telecom
- Datacom
- Industrial computers
- Other applications requiring two low-voltages for DSPs, microprocessors, FPGAs or other large-scale ICs

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Which analog and mixed-signal products are you currently designing with or considering?

- 18 Advanced Bus (1394, PCI, USB)
19 Amplifiers
20 Comparators
21 Data Transmission
22 Data Converters
23 Multimedia
24 Power Drivers
25 Low Dropout Regulators
26 Supervisory Circuits
27 Power Distribution Switches
28 Power Supply Control
29 Battery Management
30 DC-DC Converters/Charge Pumps
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- 29 Battery Management
- 30 DC-DC Converters/Charge Pumps
- 31 Hot Swap Power Managers
- 32 Plug-In Power Solutions
- 33 SCSI Terminators
- 34 Speech
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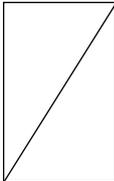
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