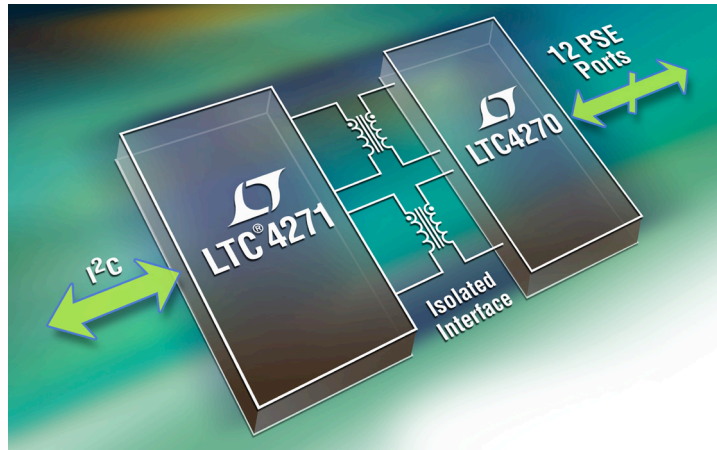


# LTPoE++ PSE Controllers



## Highly Integrated Solution Dramatically Reduces BOM Cost

Linear's new 12-port PSE controller chipset for PoE, PoE+ and LTPoE++™ systems significantly reduces Power over Ethernet system costs. The LTC®4270/LTC4271 chipset's transformer-isolated communication protocol simplifies designs by replacing the expensive opto-couplers and complex isolated 3.3V supply used in traditional designs.

### Features



**LTPoE++:** LTPoE++ PSEs and PDs (powered devices) use Linear's proprietary signaling scheme to mutually identify and provide PD power up to 90W, while ensuring backward compatibility and interoperability with equipment based on IEEE PoE standards.



**Low BOM Cost:** PoE subsystems are required to be electrically isolated, which traditionally calls for up to six expensive opto-couplers and an isolated 3.3V supply. The LTC4270/LTC4271 chipset eliminates these components to realize significant BOM (bill of materials) savings.



**Ultralow Heat Dissipation:** External MOSFETs and sense resistors increase reliability and also enable users to choose low resistance components. Linear's PSE (power source equipment) ICs implement highly accurate switching controllers, allowing low  $R_{DS(ON)}$  MOSFETs and  $0.25\Omega$  sense resistors to be used so that power and heat dissipation is minimized.



**Advanced Power Management Hardware:** Advanced 4th generation PSE features include per-port current monitoring, global temperature and  $V_{EE}$  monitoring, one second port current policing, one second current averaging and four GPIO pins. Firmware is field-upgradable.



**Advanced Power Management Software:** Linear provides "C" libraries for customer systems at multiple levels from control of basic PSE operation to fully managed, overallocated and prioritized PoE switch systems.

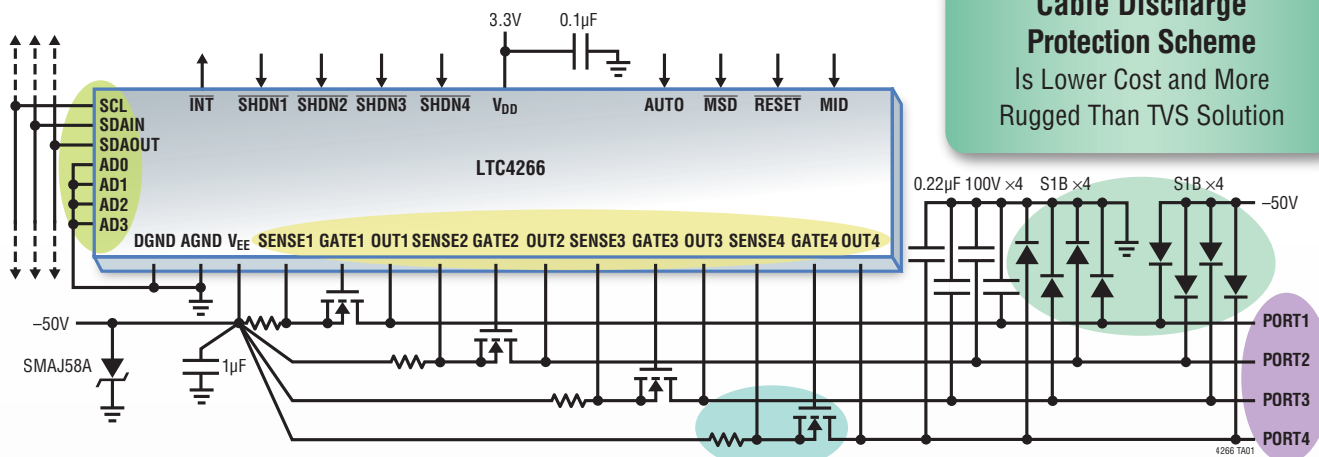


**Robust Cable Discharge Protection:** IEC61000 cable discharge requirements far exceed ESD and cable ESD testing levels. Linear has a low cost, comprehensive, circuit protection scheme that is scalable to match your IEC61000 cable discharge voltage requirements.



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# Industry-Leading PSE Supplier—Here's Why!



**Cable Discharge Protection Scheme**  
Is Lower Cost and More Rugged Than TVS Solution

**Advanced Power Management**  
via I<sup>2</sup>C

**80V Abs Max Port Pins**  
Increases Robustness Against External Faults

**External 0.25Ω Sense Resistor and 0.09Ω MOSFET**  
Lowers Channel Resistance and Heat/Power Dissipation. One MOSFET Failure Will Not Bring Down Adjacent PoE Channels.

**LTPoE++ Ports**  
Are Fully Backward-Compatible with IEEE 802.3af and 802.3at Standards

Linear Technology PSE Controllers						
Solution	Ports	Isolation	LTPoE++	PoE+	PoE	PD Power
LTC4271/LTC4270A	12	•	•	•	•	90W
LTC4271/LTC4270B	12	•		•	•	25.5W
LTC4271/LTC4270C	12	•			•	13W
LTC4271/LTC4290A	8	•	•	•	•	90W
LTC4271/LTC4290B	8	•		•	•	25.5W
LTC4271/LTC4290C	8	•			•	13W
LTC4266A-4	4		•	•	•	90W
LTC4266A-3	4		•	•	•	70W
LTC4266A-2	4		•	•	•	52.7W
LTC4266A-1	4		•	•	•	38.7W
LTC4266	4			•	•	25.5W
LTC4266C	4				•	13W
LTC4274A-4	1		•	•	•	90W
LTC4274A-3	1		•	•	•	70W
LTC4274A-2	1		•	•	•	52.7W
LTC4274A-1	1		•	•	•	38.7W
LTC4274	1			•	•	25.5W
LTC4274C	1				•	13W