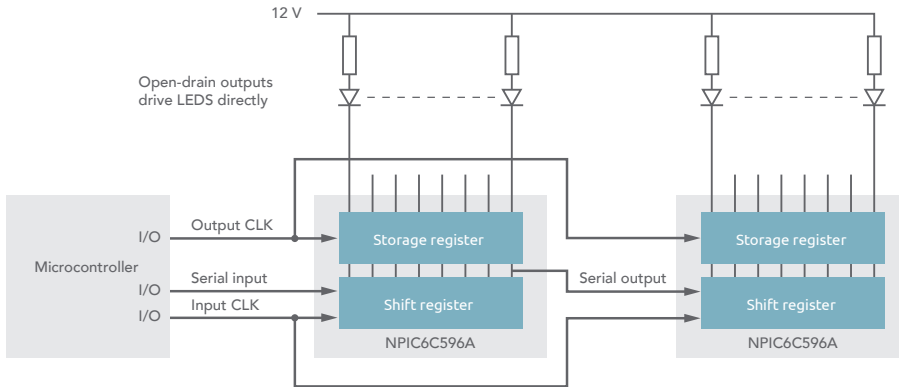


Drive multiple LEDs with Nexperia NPIC shift registers

NPIC cascadable shift registers from Nexperia help reduce controllers' pin-count to save space & reduce BOM efficiently



Example: drive up to 24 LEDs using just 3 controller I/Os with NPIC6C596A, substantially reducing footprint compared to using 74HC595 in combination with external MOSFETs.

Key benefits:

- › GPIO expansion with simple control interface
- › Reduced component count and footprint
- › Self-protecting outputs via integrated clamping
- › Suitable for driving inductive loads
- › Automotive-qualified options (-Q100 portfolio)

Key features:





- › 8-bit & 12-bit types in industry-standard packages
- › 5.0V or 3.3V supply, overvoltage-tolerant inputs
- › Cascadable solutions for controlling more LEDs
- › Inherent current limiting and thermal protection
- › Integrated voltage clamping against inductive transients




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EFFICIENCY WINS.

NPIC power logic shift registers with open-drain outputs are suitable for medium voltage loads

Nexperia's NPIC portfolio of serial-in/serial or parallel-out shift registers with storage register and open-drain outputs is available in TSSOP & DQFN packages, for Industrial as well as Automotive (-Q100) applications.

Type number	Description	Features						Packages		
		Automotive option (-Q100)	5 V supply	3.3 V supply	Overvoltage-tolerant I/Os	Open drain output	Master reset	SOT403-1 (PW)	SOT763-1 (BQ)	SOT360-1 (PW)
NPIC6C595	Power logic 8-bit shift register		•		•	•	•	•	•	
NPIC6C596	Power logic 8-bit shift register		•		•	•	•	•	•	
NPIC6C596A	Power logic 8-bit shift register		•	•	•	•	•	•	•	
NPIC6C4894	Power logic 12-bit shift register		•		•	•				•

Package name	TSSOP16	DQFN16	TSSOP20
			
Pin count	16	16	20
Version	SOT403-1	SOT763-1	SOT360-1
Suffix	PW	BQ	PW
Pitch (mm)	0.65	0.50	0.65
W x L x H (mm)	5.0 x 6.4 x 1.1	3.5 x 2.5 x 1.0	6.5 x 6.4 x 1.1

Applications:

- › Moderate-load LED signs
- › Relays and solenoids
- › Graphic & fault status indicators
- › Other medium-voltage applications

Visit our website for more information:

[nexperia.com/products/logic/family/NPIC/](https://www.nexperia.com/products/logic/family/NPIC/)

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