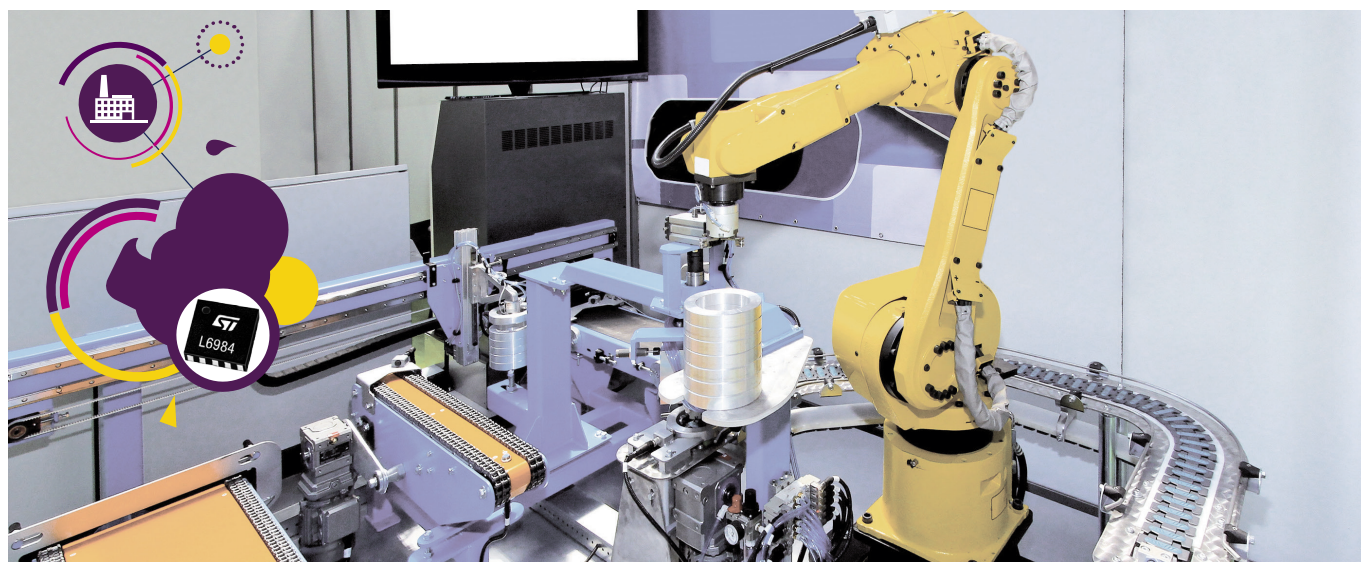


L6984, L6986

Energy saving synchronous DC-DC converters for industrial



Up to 2 A and up to 38 V input voltage range synchronous step down with extremely low quiescent current

ST's L6984 and L6986, are perfect solutions for industrial applications. These devices are able to provide up to 2 A of continuous output current and with a wide input voltage range from 4 V up to 38 V, accordingly to the part number chosen. High flexibility is given by several adjustable parameters, like output voltage, switching frequency and synchronization capability. Moreover the extreme low operating quiescent current makes these devices suitable for energy saving and low power consumption stand-by applications.

KEY FEATURES

- High switching frequency up to 2 MHz
- Wide input voltage range up to 38 V
- Very low operating quiescent current 30 uA
- Synchronous rectification
- Full embedded protection

KEY BENEFITS

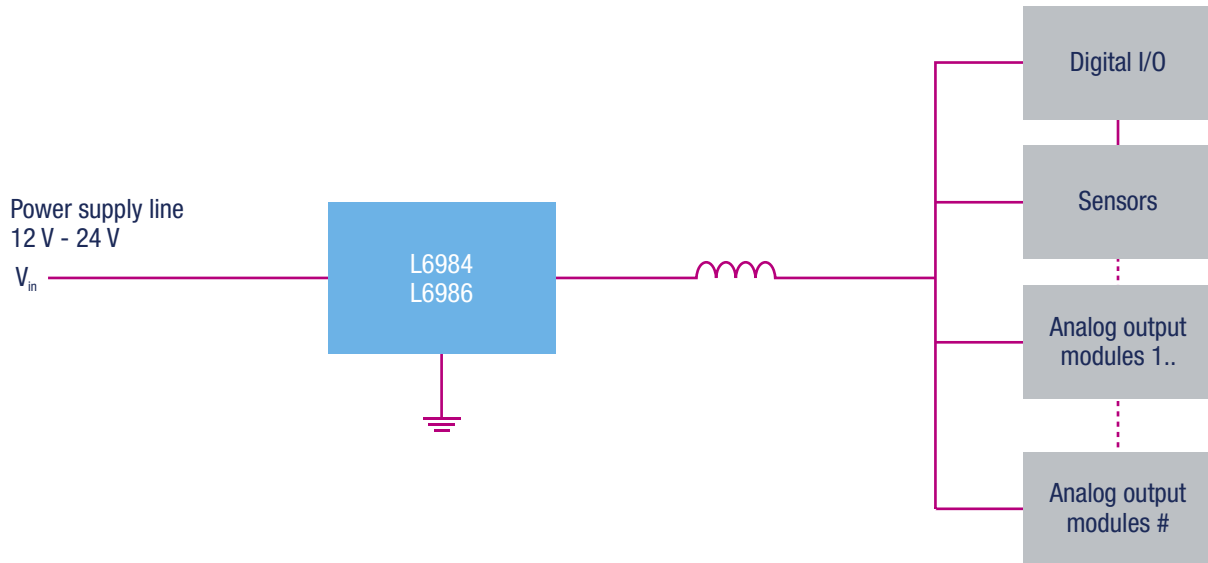
- High efficiency at full and light load
- High robustness and reliability
- High design flexibility
- Low BOM cost
- Power saving

KEY APPLICATIONS

- Industrial application
- Factory automation
- Building automation
- PLCs
- 12 V bus applications



BLOCK DIAGRAM



DEVICE SUMMARY

Part Number	L6984	L6984A ^(*)	L6986
Package	DFN4x4 10L	DFN3x3 10L	HTSSOP 16
Input voltage range (V)	4.5 to 36	4.5 to 36	4 to 38
Output current max (A)	0.35	0.35	2
Operating quiescent current max (μ A)	100	100	30
High side R _{DS(on)} (Ω)	1.26	1.26	0.18
Low side R _{DS(on)} (Ω)	0.77	0.77	0.11
Output voltage range (V)	3.3 fixed 0.9 to 95% V_{in} adjustable	3.3 fixed 0.9 to 95% V_{in} adjustable	0.85 to V_{in}
Switching frequency (kHz)	200 to 600	200 to 600	250 to 2000
External synchronization frequency (kHz)	N.A.	N.A.	Up to 2000
Low noise/low consumption selection mode	Yes	Yes	Yes
Additional features	Enable pin, PGood	Enable pin, PGood	Enable pin, Adjustable soft start and reset
Operating junction temperature (T _j °C)	-40, 150	-40, 150	-40, 150

(*) Coming soon



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