

Product brief

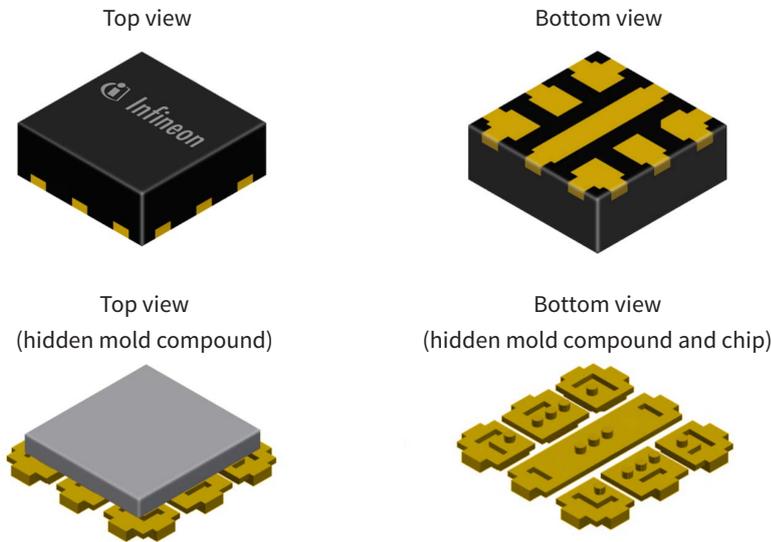
TLS715B0NA V50

OPTIREG™ linear voltage regulator

TLS715B0NA V50 – OPTIREG™ linear voltage regulator is a low dropout linear voltage regulator for load current up to 150 mA. An input voltage of up to 40 V is regulated to $V_{Q,nom} = 5\text{ V}$ with $\pm 2\%$ precision. The TLS715B0, with a typical quiescent current of 36 μA , is the ideal solution for systems requiring very low operating current, such as those permanently connected to the battery.

TSNP7-8 package has a tiny footprint with excellent thermal performance using flip chip technology. It is a leadless package capable for automated optical inspection. Additionally TSNP7-8 package has less voltage drop as the corresponding linear voltage regulator with DSO-8 exposed pad package.

3D package drawing



Size & thermal performance comparison

	TSNP7-8	SCT595	TSN10	DSO8-EP	TQ252	TO263
Outline						
Size [mm]	2.0 x 2.0	2.9 x 2.5	3.3 x 3.3	4.9 x 7.0	6.5 x 10.0	10.0 x 15.0
$R_{th}@2P2S}$	~61° C/W	~81° C/W	~60° C/W	~46° C/W	~25° C/W	~20° C/W

Key features

- > Wide input voltage range from 4.0 V to 40 V
- > Output voltage 5 V ± 2 percent
- > Output current up to 150 mA
- > Low current consumption of 36 mA
- > Low dropout voltage of 180 mV@100 mA
- > Stable with small output capacitor of 1 μF
- > PSSR typ 60 dB (100 Hz)
- > Enable

Key benefits

- > PCB space saving
- > Easier to assemble
- > AOI capable
- > Excellent thermal performance
- > MSL1

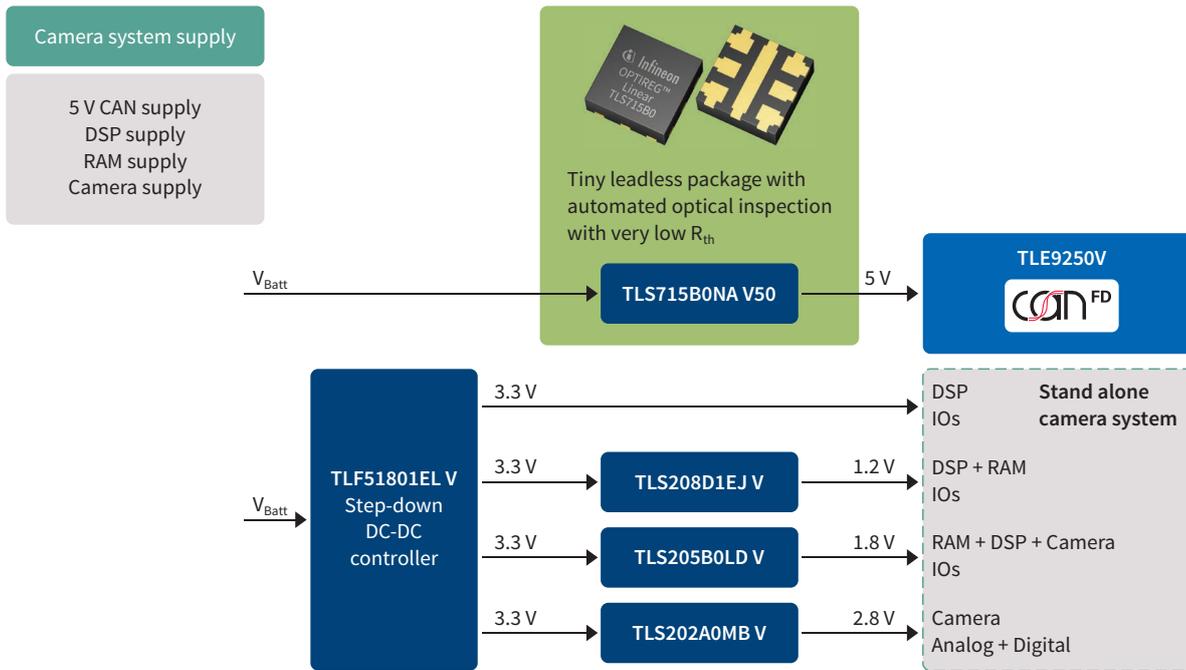
Key applications

- > Perfect fit as CAN supply
 - Radar
 - Camera
- > Usable as μC supply

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Application diagram



Product table

Product	OPN	Output current I_{out} [mA]	Quiescent current [μ A]	Enable	Output voltage [V]	Package
TLS715B0NA V50	TLS715B0NAV50XTSA1	150mA	36	Yes	5.0	TSNP7-8

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