

CCG1401 Programmable Transimpedance Amplifier

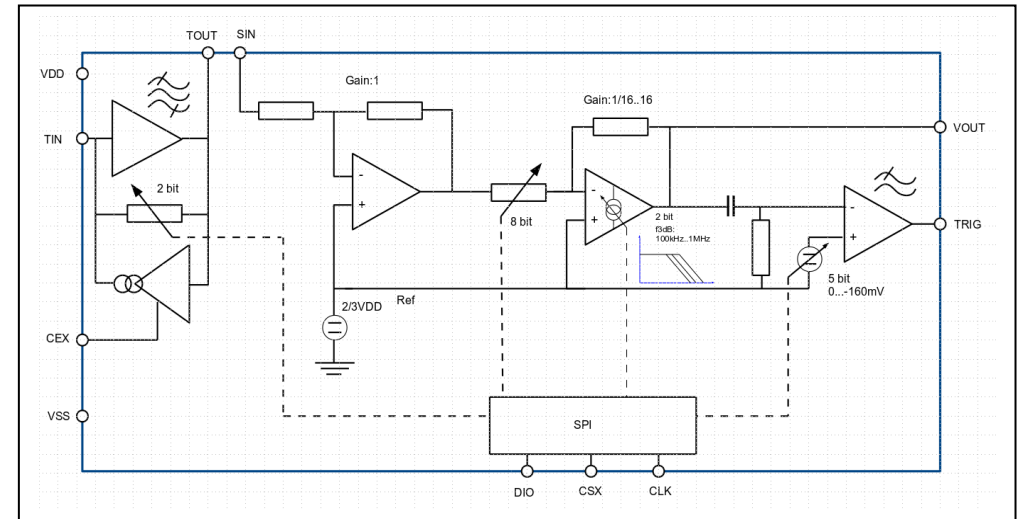
CCG1401 Programmable Transimpedance Amplifier

DESCRIPTION

The CCG1401 is a universal programmable amplifier for optical sensor applications. The chip can be delivered in a QFN16 package or as a CSP for very small PCB footprints.

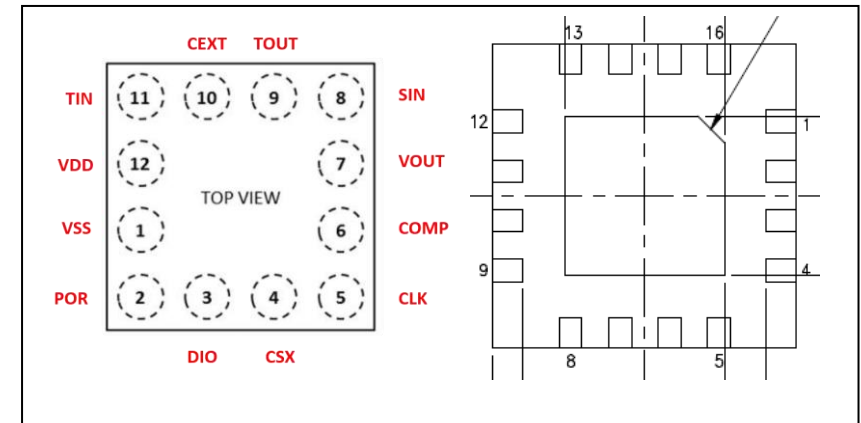
FEATURES

- Programmable transimpedance and frequency range
- 5-bit programmable threshold voltage
- Single supply voltage and Power-On Reset functionality.
- Standby mode, low current consumption
- Serial Parallel Interface (SPI)
- ESD-HBM Protection > 4 kV (QFN16 package)



ELECTRICAL CHARACTERISTICS (Ta=-40 – 105°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply voltage	V _{DD}		3		5.5	V
Current consumption	I _{DD}	V _{DD} = 5,5V, no external load currents		2.5	3	mA
Standby current	I _{DDstandby}	CSX=high, CLK=high, no external load currents,			15	µA
Total transimpedance range	R _{TT}	program., f _{meas} =100kHz	0.15		3500	kΩ
Gain control range	Gain	8bit res.,	1/16	1	16	
3dB cut-off frequency control	f _{AMP,3dB}	Programmable	100		1000	kHz
LF suppression	a ₁₀₀	@100Hz	-50	-70		dB
Comparator output slew rate	SR _{comp}		5			V/µs
Power On threshold	V _{POR,on}	POR high @ V _{DD} = V _{POR,on}	2.4	2.6	2.8	V
SPI clk	f _{CLK}				4	MHz



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