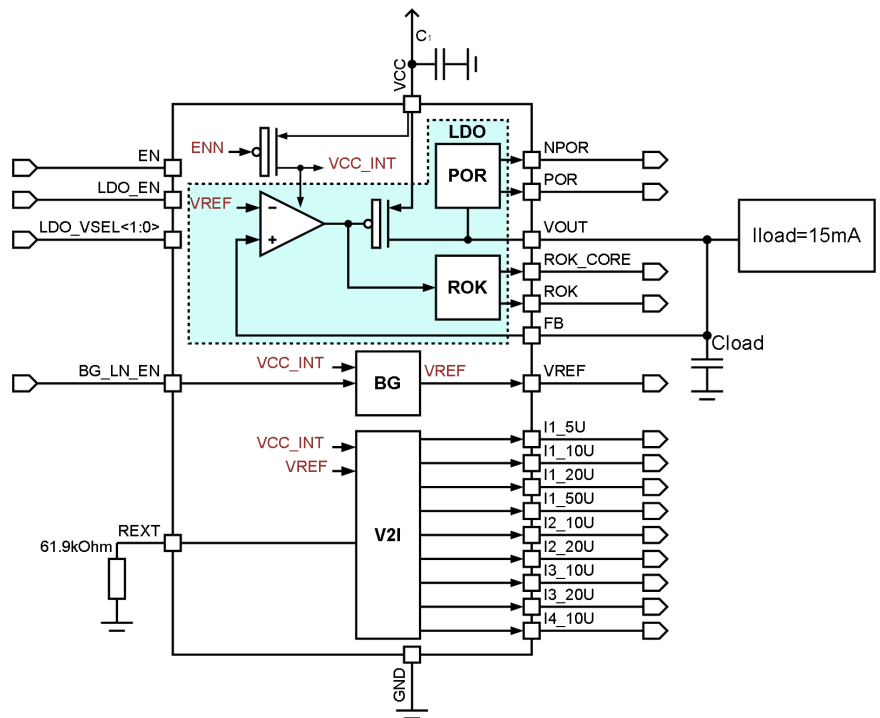


15mA LDO voltage regulator (output voltage value 1.15V/1.2 V/1.25V/1.3V) with BG (0.6V) and I2V (5uA, 10uA, 20uA, 50uA)
OVERVIEW

130GF_LDO_03 is a Power management unit, designed to supply integrated circuits with stable and precise voltage. IP includes Bandgap block (BG), Voltage to current convertor (V2I), LDO to convert 1.3V – 2.0V voltage to 1.2V and supply analog circuits with load up to 15mA. Bandgap is a voltage reference source, where voltage is formed independently from temperature and power supply variations, and where typical reference voltage is 0.6V. V2I is a Voltage-to-Current converter to generate required nominal values of reference current to analog blocks.



IP technology: GF 130nm CSOI.
 IP status: pre-silicon verification.
 Area: 0.092mm².

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Value			Units
			min	typ.	max	
Supply voltage	V_{VCC18}	-	1.3	-	2.0	V
Operating temperature range	T_j	-	0	+50	+105	°C
Current consumption	I_{CC}	-	-	0.15	-	mA
Standby current	I_{SBY}	-	-	5	-	nA
Internal load capacitor	C_{load}	-	0.3	-	1.5	nF
LDO output current	I_{load}	-	-	15	-	mA
Output voltage reference	V_{BG}	-	-	0.6	-	V
Output voltage reference deviation	dV_{BG}	-	-5.7	-	5.7	%
Output current reference	I5U	-	-	5	-	uA
	I10U	-	9.6	9.8	9.95	
	I20U	-	-	20	-	
	I50U	-	-	50	-	
LDO output voltage	VOUT	Adjustable	-	1.15	-	V
			1.16	1.19	1.21	
			-	1.25	-	
			-	1.30	-	
Start-up time	T_{start}	LDO+BG	-	60	90	us