# NFC Power Management Unit (0.6/1.2/1.5 V output voltage, 10/20/50 uA output current, 2 MHz output clock frequency)

OVERVIEW

130GF_PMU_02 is a Power Management Unit (PMU) block designed to supply embedded integrated circuits with stable and precise voltage and current. IP should derive it's operating power from rectifier or external DC voltage source (Battery assisted operation).

PMU block consists of:

– 2 identical low drop out voltage regulators (LDO);
– Voltage and current reference source;
– Power-On-Reset module (POR) for each voltage regulator;
– Power-OK input voltage monitoring with 4 threshold (POK);
– 2 MHz oscillator.
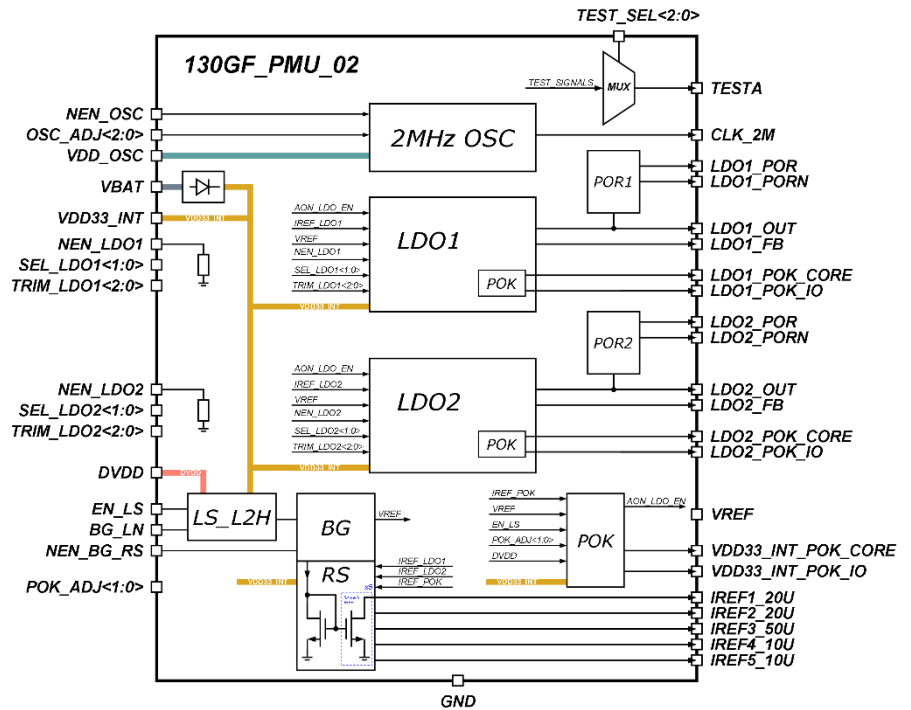
IP technology: GF 130 nm Embedded EEPROM
IP status: pre-silicon verification
Area: 0.33mm^2

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Condition	Value			Unit
			min	typ.	max	
Operating temperature range	T	-	-40	+27	+85	°C
Battery assisted supply voltage	V_{BAT}	-	2.4	3.3	3.6	V
Rectified supply voltage	V_{DD33_INT}	I_{VDD33_INT} <10mA	1.8	-	3.6	V
POR threshold	V_{POR_th}	-	600	747	960	mV
POK threshold voltage	V_{POK_th}	POK_ADJ<1:0>=00	1.61	1.68	1.73	V
		POK_ADJ<1:0>=01	1.94	2	2.08	V
		POK_ADJ<1:0>=10	2.43	2.51	2.6	V
		POK_ADJ<1:0>=11	2.92	3.02	3.15	V
Bandgap voltage	VBG	VDD33_INT =1.8V - 3.63V; low-noise mode	-	600	-	mV
Reference current	IREF_10U	-	-	10	-	uA
	IREF_20U	-	-	20	-	
	IREF_50U	-	-	50	-	
Voltage regulator output level	V_{out_ldo}	SEL_LDO=00; I_{load} = 1uA-5mA	-	1.2	-	V
		SEL_LDO=11; I_{load} = 1uA-5mA	-	1.5	-	V
Current consumption	I_{CC_TOTAL}	-	-	210	-	uA
Output clock frequency	F_{OUT}	adj_osc = "010" (by default)	-	2	-	MHz