

32.768kHz crystal oscillator

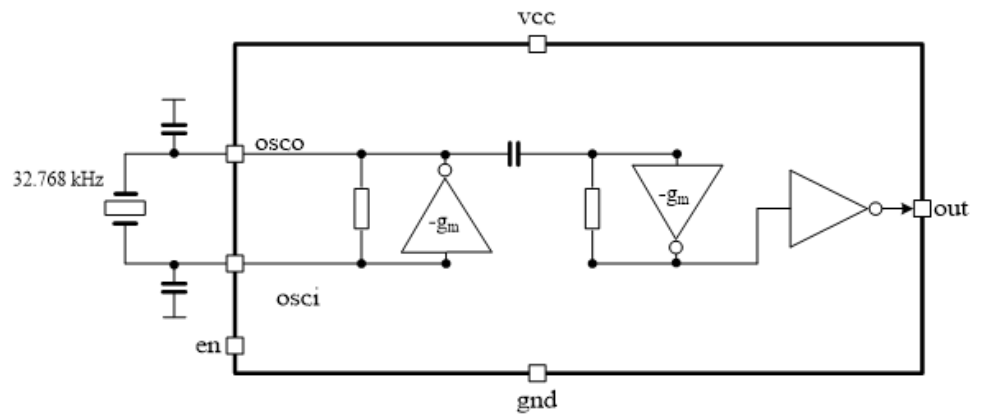
OVERVIEW

065TSMC_OSC_02 is a CMOS inverter of a pierce-type variation with an integrated Crystal (XTAL) oscillator that is optimized in parallel mode for very high accuracy and very low power consumption.

IP technology: TSMC CMOS 65nm.

IP status: silicon proven.

Area: 0.0028mm².



ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Value			Units
			min	typ.	max	
Input supply voltage	V _{CC}	-	1.0	1.2	1.3	V
Operating temperature range	T _j	-	-45	27	+85	°C
Output frequency	F _{out}	-	-	32.768	-	kHz
Start time	t _{start}	-	0.3	0.4	1	s
Oscillation frequency tolerance*	dF/F	-	-	20	-	ppm
Current consumption	I _{cc}	-	0.3	0.4	1	uA
Current consumption in a standby mode	I _{stb}	-	-	0.05	0.2	nA
Input logic-high level	V _{IH}	For digital inputs	0.7V _{CC}	-	1.3	V
Input logic-low level	V _{IL}		-0.15	-	0.2	V