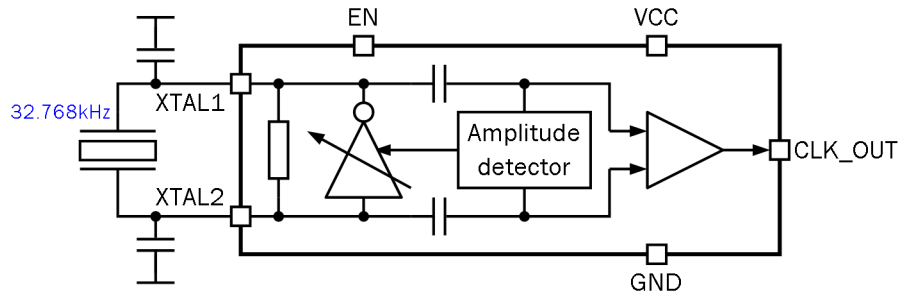


32.768 kHz crystal oscillator

OVERVIEW

040TSMC_OSC_01 is a CMOS inverter of a Pierce-type variation with an integrated Crystal (XTAL) Oscillator optimized in parallel mode for very high accuracy and very low power consumption.
 IP technology: TSMC CMOS 40LP.
 IP status: pre-silicon verification.



ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Value			Units
			min	typ.	max	
Supply voltage	V _{CC}	-	1.0	1.1	1.26	V
Operating temperature range	T	-	-40	27	90	°C
Output frequency	F _{CLK_OUT}	-	-	32.768	-	kHz
Start time	t _{start}	-	-	-	3	s
Oscillation frequency tolerance*	dF/F	-	-	20	-	ppm
Current consumption	I _{CC}	-	-	-	1	uA
	I _{STB}	Standby mode	-	-	0.01	uA
Duty cycle	S _{CLK_OUT}	-	40	50	60	%

*dependent on characteristics external oscillator