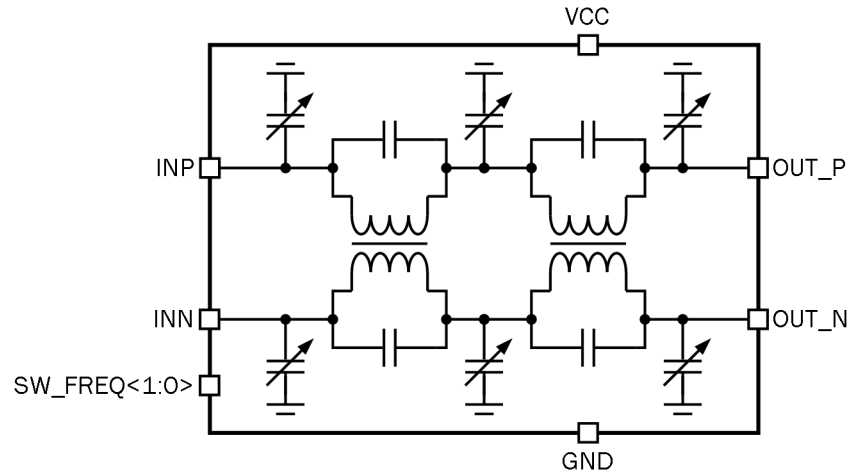


25 MHz, 50 MHz, 100 MHz 5th passive LPF
OVERVIEW

065TSMC_LPF_05 is a 5th order passive differential low-pass filter (LPF) with fixed cut-off frequency presets. LPF is implemented using integrated inductors. Cut-off frequency switching is performed by switched-capacitor circuit.

IP technology: TSMC CMOS 65nm.
 IP status: silicon proven.
 Area: 2.358mm².


ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Value			Units
			min	typ.	max	
Supply voltage	V _{CC}	-	2.375	2.5	2.625	V
Temperature range	T _j	-	-40	+85	+125	°C
Filter order	k	-	-	5	-	-
Insertion loss	G	-	-	-3.7	-	dB
Input signal bandwidth	F _C	Preset 1	-	25	-	MHz
		Preset 2	-	50	-	
		Preset 3	-	100	-	
Attenuation>400MHz	G _A	F _C = 100MHz	48	50	51	dB
		F _C = 50MHz	61	64	68	
		F _C = 25MHz	69	73	78	
Amplitude ripple	ΔA	F _C = 100MHz	0.7	1.1	1.7	dB
		F _C = 50MHz	1.5	2.4	3	
		F _C = 25MHz	2	3	3.9	
Noise figure	NF	-	-	8	8.1	dB
1 dB compression point	P _{1dB}	-	14	14	-	dBm
Input/output impedance	R	Differential	-	50	-	Ohm
Current consumption	I _{CC}	-	-	-	1	uA
Input logic high level	V _{IH}	For digital input	0.85V _{CC}	-	1.15V _{CC}	V
Input logic low level	V _{IL}		-0.2	-	+0.2	V