

PI6C3611/14 Comparison between Pericom PI6C3611/14 and Cypress CY25811/14

1. Introduction

The PI6C3611/14 are Low Power Spread Spectrum Frequency Multiplier and part of the Pericom SSCG-GP family. The parts generate one 1x/4x modulated output from a single clock source or a crystal, and they are designed to reduce electromagnetic interference (EMI) by spreading the clock. This reduction in EMI can result in significant system cost saving and less design complexity by reducing the number of circuit board layers ferrite beads and shielding. In the absence of a spread spectrum clock, other EMI-reducing components are required in order to comply with regulatory agency requirements.

2. Comparison with Cypress CY25811/14

The optimized designs of the PI6C3611/14 provide the benefits of cost-saving and EMI reduction. The PI6C3611/14 parts have identical pin-outs as the Cypress CY25811/14, and the PI6C3611/14 can replace CY25811/14 easily and conveniently. However, there exist some differences between the PI6C3611/14 and CY25811/14, and the user may need to look into the description of the selections pins: S1, S2 and FSEL.

2.1 Pin name cross-reference

Pin #	3	4	5	6
Pericom	S1	S2	CLKOUT	FSEL
Cypress	S1	S0	SSCLK	FRSEL

2.2 Tri-stage Logic cross-reference

Logic	0	1	M
Pericom	Connected to GND	Connected to VDD	Resistor divider (10KΩ/ 10KΩ)
Cypress	Connected to GND	Connected to VDD	No connection

2.3 Spread Selection Pin cross-reference

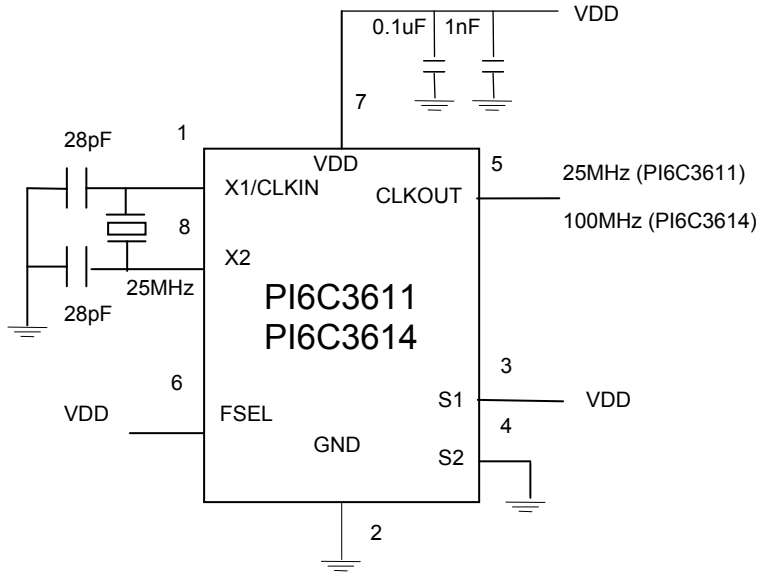
Spread Selection	Down	Down	Center	Center	No Spread	Center	Center	Down
Pericom	S1,S2 =(0,0)	S1,S2 =(0,1)	S1,S2 =(1,0)	S1,S2 =(1,1)	S1,S2 =(1,M)	n/a	n/a	n/a
Cypress	S1,S0 =(M,1)	S1,S0 =(1,0)	S1,S0 =(0,M)	S1,S0 =(0,0)	S1,S0 =(M,M)	S1,S0 =(0,1)	S1,S0 =(M,0)	S1,S0 =(1,1)

2.4 Frequency Range Pin cross-reference

FSEL	0	1	M
Pericom(3611)	10-20MHz	20-40MHz	n/a
Pericom(3614)	10-20MHz	20-30MHz	n/a
Cypress	4-8MHz	8-16MHz	16-32MHz

3. Application Circuitry

3.1 PI6C3611/14



3.2 Cy25811/14

