



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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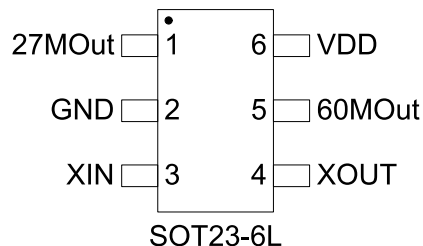


Application Specific Quick Turn Clock™ For use with Sigma Designs SMP8644/42 and SMP8654/52

FEATURES

- Advanced Low Jitter PLL design
- Accepts a 27MHz Fundamental Crystal input
- Two LVC MOS Clock Outputs
 - 27MHz
 - 60MHz
- Single 3.3V ± 10% power supply
- Available in 6-pin SOT Green/RoHS compliant packages

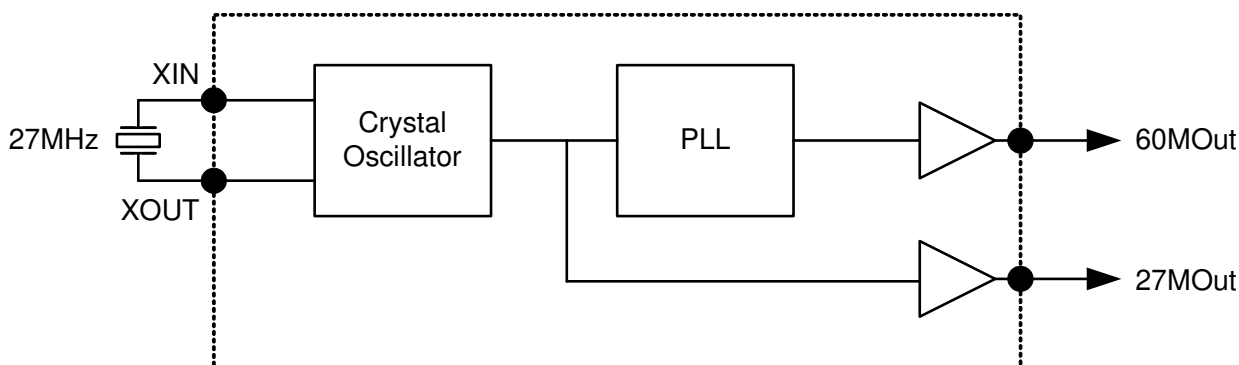
PIN CONFIGURATION



DESCRIPTION

The PL611-01-F93 is a member of PhaseLink’s Quick Turn Clock™ Family. This device has been pre-configured to supply the clocking needs of products using the Sigma Designs SMP8644 and SMP8654 Secure Media Processors. The PL611-01-F93 provides two LVC MOS clock outputs from a single 27MHz fundamental crystal input saving both board space and cost when compared to competing solutions.

BLOCK DIAGRAM



PIN DESCRIPTION

Name	SOT-23	Type	Description
27MOut	1	O	27MHz LVC MOS clock output
GND	2	P	GND connection
XIN	3	I	27MHz fundamental crystal input
XOUT	4	O	27MHz fundamental crystal output
60MOut	5	O	60MHz LVC MOS clock output
VDD	6	P	3.3V power supply

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ELECTRICAL SPECIFICATIONS
ABSOLUTE MAXIMUM RATINGS

PARAMETERS	SYMBOL	MIN.	MAX.	UNITS
Supply Voltage Range	V_{DD}	-0.5	4.6	V
Input Voltage Range	V_I	-0.5	$V_{DD}+0.5$	V
Output Voltage Range	V_O	-0.5	$V_{DD}+0.5$	V
Soldering Temperature (Green package)			260	°C
Storage Temperature	T_S	-65	150	°C
Ambient Operating Temperature*		-40	85	°C

Exposure of the device under conditions beyond the limits specified by Maximum Ratings for extended periods may cause permanent damage to the device and affect product reliability. These conditions represent a stress rating only, and functional operations of the device at these or any other conditions above the operational limits noted in this specification is not implied. *Operating temperature is guaranteed by design. Parts are tested to commercial grade only.

GENERAL ELECTRICAL SPECIFICATIONS

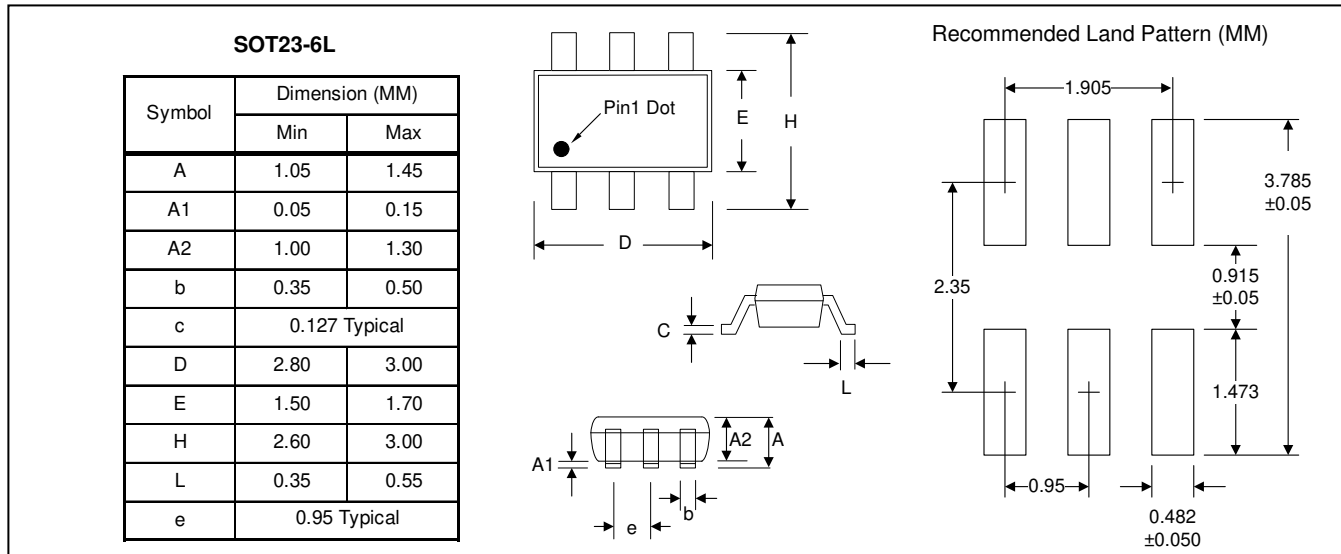
PARAMETERS	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Supply Current, Dynamic	I_{DD}	Load=15pF			20	mA
Operating Voltage	V_{DD}		2.97		3.63	V
Output Low Voltage	V_{OL}	$I_{OL} = +4mA$			0.4	V
Output High Voltage	V_{OH}	$I_{OH} = -4mA$	$V_{DD} - 0.4$			V
Output Current	I_{OSD}	$V_{OL} = 0.4V, V_{OH} = 2.4V$	10			mA
Settling Time		At power-up ($V_{DD} > 2.97V$)			2	ms
Output Rise Time	t_r	15pF Load, 10/90% V_{DD}		2.5	3.5	ns
Output Fall Time	t_f	15pF Load, 90/10% V_{DD}		2.5	3.5	ns
Duty Cycle		At $V_{DD}/2$	45	50	55	%

CRYSTAL SPECIFICATIONS

PARAMETERS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Fundamental Crystal Resonator Frequency	F_{XIN}		27		MHz
Crystal Loading Rating	$C_L (xtal)$		18		pF
Maximum Sustainable Drive Level				500	μW
Operating Drive Level			100		μW
Crystal Shunt Capacitance	C_0			6	pF
Effective Series Resistance, Fundamental	ESR			30	Ω

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PACKAGE DRAWING (GREEN PACKAGE COMPLIANT)

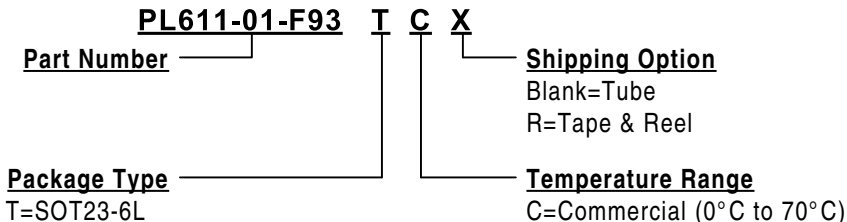


ORDERING INFORMATION (GREEN PACKAGE COMPLIANT)

For part ordering, please contact our Sales Department:
 47745 Fremont Blvd., Fremont, CA 94538, USA
 Tel: (510) 492-0990 Fax: (510) 492-0991

PART NUMBER

The order number for this device is a combination of the following:
 Part number, Package type and Operating temperature range



Part / Order Number	Marking*	Package Option
PL611-01-F93TC-R	C1F93 LLL	6-Pin SOT-23 (Tape and Reel)

*Note: LLL represents the production lot number

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