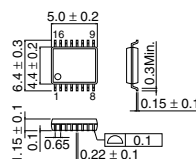


Clock generator for DVD BU2362FV

● Description

BU2362FV is a high-performance 2-channel PLL integrated Circuit. PLL circuit generates necessary clocks by inputting standard clocks of crystal oscillator from outside. Frequency can be changed by the internal dividing control.

● Dimension (Unit : mm)



● Features

- 1) Generate Sound clock (44.1k, 48k) from basic video clock
- 2) No external element required for PLL
- 3) 3.3V single power supply (2.7V~3.6V operation)
- 4) -25°C ~ 85°C operation
- 5) SSOP-B16 package

SSOP-B16

● Applications

DVD-P, DVD-R, DVD-R/W, DVC

DVD car navigation (Expanded operating temperature range for car navigation: -25°C ~ 85°C)

DVD camcoder (Low power operation (3.0V±0.3V) for portable appliances)

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Applied voltage	V _{DD}	-0.5 ~ +7.0	V
Input voltage	V _{IN}	-0.5 ~ V _{DD} +0.5	V
Storage temperature range	T _{stg}	-30 ~ +125	°C
Power dissipation	P _d	450	mW

*Derating : 4.5mW/°C for operation above Ta=25°C

● Recommended Operating Conditions (Ta=25°C)

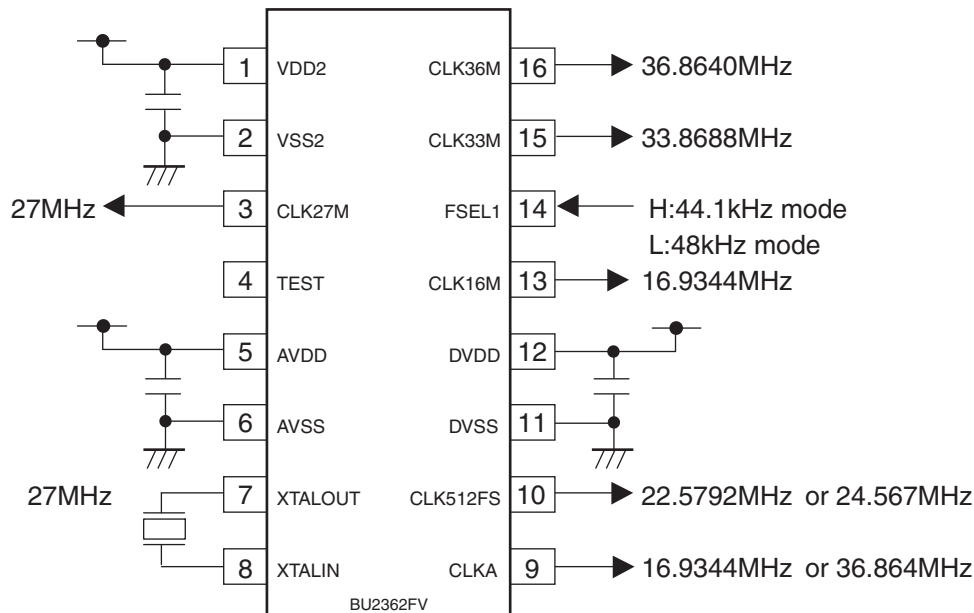
Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	V _{DD}	2.7	–	3.6	V
Input H voltage range	V _{IH}	0.8V _{DD}	–	V _{DD}	V
Input L voltage range	V _{IL}	0.0	–	0.2V _{DD}	V
Operating temperature range	T _{opr}	–25	–	85	°C
Output load	CL	–	–	15	pF

● Electrical characteristics (Unless otherwise noted; Ta=25°C, V_{DD}=3.3V, Crystal frequency=27MHz)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Output H voltage	V _{OH}	24	–	–	V	I _{OH} =–4.0mA
Output L voltage	V _{OL}	–	–	0.4	V	I _{OL} =–4.0mA
Operating circuit current	I _{DD}	–	35	45	mA	No load
CLK512FS	CLK512-A	–	22.5792	–	MHz	FSEL1=OPEN, Xtal *3136/625/6
	CLK512-B	–	24.5760	–	MHz	FSEL1=L, Xtal *2048/375/6
CLKA	CLKA-A	–	16.9344	–	MHz	FSEL1=OPEN, Xtal *3136/625/8
	CLKA-B	–	36.8640	–	MHz	FSEL1=L, Xtal *2048/375/8
CLK36M	CLK36M	–	36.8640	–	MHz	Xtal *2048/375/4
CLK33M	CLK33M	–	33.8688	–	MHz	Xtal *3136/625/4
CLK16M	CLK16M	–	16.9344	–	MHz	Xtal *3136/625/8
CLK27M	CLK27M	–	27.0000	–	MHz	Xtal

Note) Output frequency is determined by the operation expression of frequency inputted to Xtal IN.
Output (when input 27MHz) is shown above.

● Application Circuit



Note) The BU2362FV is basically placed on the board. Capacitance(0.1μF) need to be placed between pin1(V_{DD2}) and pin2(V_{SS2}), pin5(AV_{DD}) and pin6(AV_{SS}), pin11(DV_{SS}) and pin12(DV_{DD}). To obtain accurate frequency, some capacitance(μF) need to be placed nearby between pin7 and GND, pin8 and GND. In certain condition of the board, the electrolytic capacitor may need to be placed between power supply and GND. As a measure against EMI, it is effective to place ferrite beads on the starting point of power supplied from the board to BU2362FV, and to use selected bypass capacitor(1Ω or less) between power supply and GND that can reduce high frequency noise.