HITACHI MICROCOMPUTER TECHNICAL UPDATE

DATE	4 September 2000	No.	TN	-SH7-249A/E				
THEME	SH7751 AC characteristics of CKIO							
CLASSIFICATION	☐ Spec change ☐ Supplement of Documents	Limitation on Use						
PRODUCTNAME	HD6417751			Lot No.etc.	All			
REFERENCE DOCUMENTS	SH7751 Hardware Manual	Re	v.	EffectiveDate	Eternity			
		1		From				

1. Contents

Two new AC parameters are added to SH7751 AC characteristics.

One is CKIO clock output high-level pulse width 2 (tCKOH2) and the other is CKIO clock output low-level pulse width 2 (tCKOL2) .

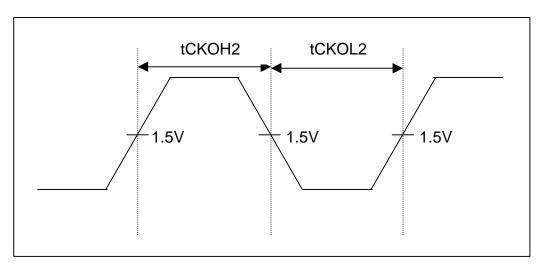


Figure 1. CKIO output Timing

Table 1. Clock Signal Timing

Product Name	Package	tCKOL2		tCKOH	Unit	
		Min.	Max.	Min.	Max.	
HD6417751	QFP	3	-	3	-	ns

[Note]. HD6417751F167 : Vddq = 3.0 to 3.6V, Vdd=1.8V typ, Ta=-20 to 75°C, CL=30pF

 $\label{eq:hdbdd} \begin{array}{ll} \mbox{HD6417751F167I} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V}, \mbox{Vdd=1.8V typ, Ta=-40 to } 85^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V}, \mbox{Vdd=1.5V typ, Ta=-20 to } 75^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V}, \mbox{Vdd=1.5V typ, Ta=-20 to } 75^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V}, \mbox{Vdd=1.5V typ, Ta=-20 to } 75^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V}, \mbox{Vdd=1.5V typ, Ta=-20 to } 75^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V}, \mbox{Vdd=1.5V typ, Ta=-20 to } 75^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{ to } 3.6\mbox{V} \mbox{, Vdd=1.5V typ, Ta=-20 to } 75^{\circ}\mbox{C} \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{Vddq} = 3.0 \mbox{, CL=30pF} \\ \mbox{HD6417751VF133} & : \mbox{HD6417751VF133} & : \mbox{HD6417751VF133} \\ \mbox{HD6417751VF133} \\ \mbox{HD6417751VF133} & : \mbox{HD6417751VF133} \\$