2:1 MIPI D-PHY (4.5 Gbp) 4-Da a-Lane & C-PHY



(ie)





Figure 1. Typical D–PHY Application

PIN DESCRIPTIONS



Figure 2. Analog Symbol

PIN DEFINITIONS



Figure 3. Top Through View

Table 1. BALL-TO-PIN MAPPINGS

Ball



Figure 4. Recommended Configuration for C-PHY

TRUTH TABLE

SEL	/OE	Function
LOW	LOW	$CLK_P = CLKA_P, CLK_N = CLKA_N, Dn(P/N) = DAn(P/N)$
HIGH	LOW	$CLK_P = CLKB_P$, $CLK_N = CLKB_N$, $Dn(P/N) = DBn(P/N)$
Х	HIGH	Clock and Data Ports High Impedance

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter			Max.	Unit
V _{CC}	Supply Voltage			6.0	V
V _{CNTRL}	DC Input Voltage (/OE, SEL) (Note 1)			V _{CC}	V
V _{SW}	DC Switch I/O Voltage (Note 1,2)			2.1	V
Ι _{ΙΚ}	DC Input Diode Current				mA
I _{OUT}	DC Output Current			25	mA
T _{STG}	Storage Temperature			+150	°C
ESD	Human Body Model, JEDEC: JESD22-A114	All Pins	2.0		kV
	Charged Device Model, JEDEC: JESD22-C101				

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.
The input and output negative ratings may be exceeded if the input and output diode current ratings are observed.
V_{SW} refers to analog data switch paths.

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter			Max.	Unit
V _{CC}	Supply Voltage		1.5	5.0	V
V _{CNTRL}	Control Input Voltage (SEL, /OE) (Note 3)		0	V _{CC}	V
V _{SW}	Switch I/O Voltage	HS Mode	0	0.425	V
	(CEKN, DN, CEKAN, CEKBN, Dan, DBN)	LP Mode	-0.05	1.3	V
T _A	Operating Temperature		-40	+85	°C

Functional operation above the stresses listed61 15.369.509 645.449 289.247 .9071 re8Recommend .988 0 0 8f9

DC AND TRANSIENT CHARACTERISTICS ($T_A = 25^{\circ}C$ unless otherwise specified) (continued)

Γ

				T _A = −40 to +85°C	
Symbol	Parameter	Conditions	V _{CC} (V)	Max.	Unit

HIGH-SPEED-RELATED AC ELECTRICAL CHARACTERISTICS



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DATE 12 FEB 2019

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