Fong

DC Specs

	Memory	IOL	IOH	IIL	IIH	Logic Zero	Logic One
NOR FLASH	S29AL008J	4.0 mA	-2.0 mA	1.0 uA	1.0 uA	**40 loads**	20 loads
SRAM	CY7C1049G	8.0 mA	-4.0 mA	1.0 uA	1.0 uA	**80 loads**	40 loads

AC Specs

		Load Capacitance (pF)			Output Current (mA)			Voltage (V)			Delay (nS)
	ions between Memory and	Spec Value	Actual Value	Delta C	Spec Value	Actual Value	Delta I	VIH	VIL	Delta V	Delta T
NOR FLASH	S29AL008J & Artix-7	30	0	30 - 0 = 30	12	0.001	12 - 0.001 = 12	2	0.8	2- 0.8 = 1.2	**3**
SRAM	CY7C1049G & Artix-7	30	0	30 - 0 = 30	12	0.001	12 - 0.001 = 12	2	0.8	2 - 0.8 = 1.2	**3**

Equations:

Delta T = (delta V * delta C) / (delta I)

Delta V = VIH - VIL

Delta I = IOspec - IO actual

Delta C = CLspec - CLactual

Loading Analysis Worksheet

Source					Load						Extended Totals		
		mA	mA	pF				uA	uA	pF	uA	uA	pF
Signal	Source	IOL	IOH	CL	Load	Signal	Qty	IIL	IIH	Cin	IIL	IIH	Cin
CEL, R\WL, OEL	Artix-7 Basys 3 ME	12	12	0	FLASH NOR	CE, WE\, OE\	1	1	1	9	1	1	9
					SRAM	CE, WE\, OE\	1	1	1	10	1	1	10
					Wiring Cap		4			2	0	0	8
										Total	**2**	**2**	**-27**
A0-18	Artix-7 Basys 3 ME	12	12	0	SRAM	A0-18	1	1	1	10	1	1	10
					FLASH NOR	A0-18	1	1	1	9	1	1	9
					Wiring Cap		4			2	0	0	8
										Total	**2**	**2**	**-27**
DQ15/A-1	FLASH NOR	20	20	30	Artix-7	DQ15/A-1	1	15	15	8	15	15	8
					Wiring Cap		2			2	0	0	2
										Total	**15**	**15**	**10**
DQ8-DQ14	FLASH NOR	20	20	30	Artix-7	D8-14	1	15	15	8	15	15	8
					Wiring Cap		2			2	0	0	2
										Total	**15**	**15**	**10**
DQ0-DQ7	FLASH NOR	20	20	30	Artix-7	D0-7	1	15	15	8	15	15	8
					SRAM	I/O0 - I/O7	1	1	1	10	1	1	10
					Wiring Cap		4			2	0	0	8
										Total	**16**	**16**	**26**
I/O0 - I/O7	SRAM	40	40	30	Artix-7	D0-7	1	15	15	8	15	15	8
					FLASH NOR	D0-7	1	1	1	9	1	1	9
					Wiring Cap		4			2	0	0	8
										Total	**16**	**16**	**25**