GENERAL DESCRIPTION

The NCM 3010Z is a metal-gate CMOS/LSI decoder/controller which is used in conjunction with the NCM 3009Z NTSC Sync Generator and the NCM 4001Z RGB Pattern Generator to form a NTSC Pattern Generating System. The NCM 3010Z provides all the necessary clock and pattern selection signals to the appropriate ICs. With very few external components the user is able to manually or automatically step through the 16 available patterns produced by the NCM 4001Z.

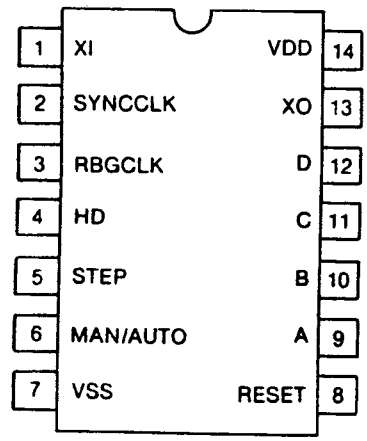
ABSOLUTE MAXIMUM RATINGS

Parameter	Maximum Value
Supply Voltage = V_{DD}	15 Volts
Input Voltage	V_{DD} + 0.7 Volts
IDD	10 mA
Operating Temperature Range	– 25 to + 85°C
Storage Temperature Range	– 40 to + 125°C

OPERATING CHARACTERISTICS (at 25°C and nominal supply voltage)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Volts
Supply Voltage	V_{DD}		4.5	5	12	Volts
Supply Current	I_S			1.5		mA
High-level Input Voltage	V_{IH}	V_{DD} = 5 V	3.5			Volts
Low-level Input Voltage	V_{IL}	V_{DD} = 5 V			1.5	Volts
High-level Output Voltage	V_{OH}	V_{DD} = 5 V I_{OH} = 0.4 mA	4.5	4.9		Volts
Low-level Output Voltage	V_{OL}	V_{DD} = 5 V I_{OL} = 1.6 mA		0.22	0.4	Volts
Input Leakage Current	I_{IN}				1.0	µA

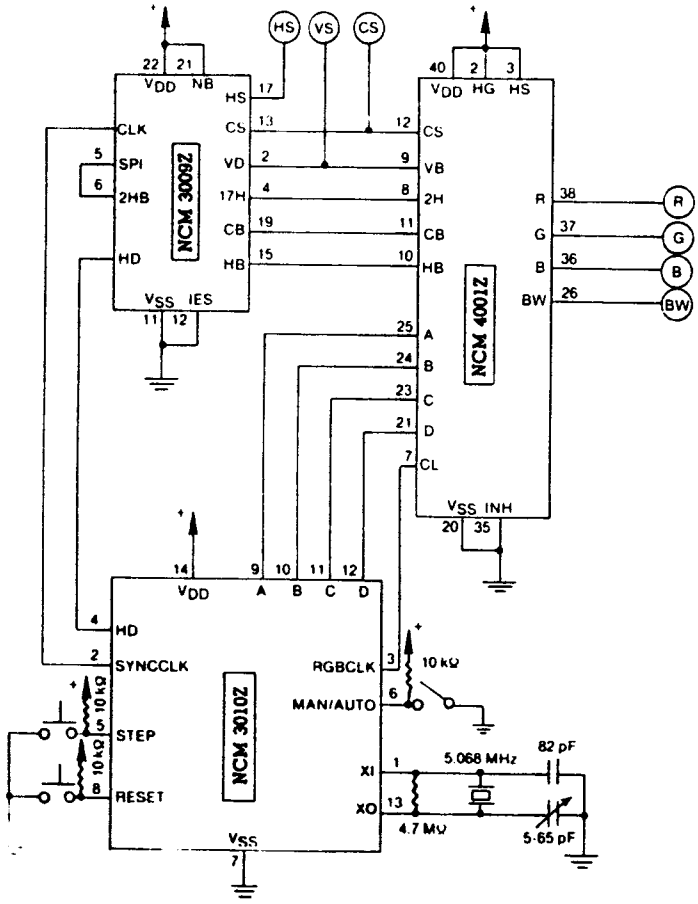
NCM 3010Z



Device Pin Configuration

PIN DESCRIPTION

Pin	Symbol	Function
1	XI	Crystal oscillator feedback input
2	SYNCCLK	Sync generator clock output
3	RGBCLK	Pattern generator clock output
4	HD	Horizontal Driving input
5	STEP	Incremental pattern selection input
6	MAN/AUTO	Manual or automatic pattern selection input
7	VSS	Ground
8	RESET	Reset of pattern selection, input
9	A	Pattern selection output
10	B	Pattern selection output
11	C	Pattern selection output
12	D	Pattern selection output
13	XO	Crystal oscillator output
14	VDD	Positive Power Supply



RGB Pattern Generating System

ncm corporation

[illegible] Wyatt Drive, Santa Clara, CA 95054 • (408) 496-0290 • Telex 172932 • Fax (408) 496-0388

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