intel®

SIM-101/SIM-102/SIM-104 ROM SIMULATORS

Extends the powerful Intellec® MDS diagnostic capabilities into user-configured systems, allowing simulation of the user system's bipolar ROM/PROM memory

Direct Intellec MDS connection to the user-configured system via external cables and Intel's ROM/PROM compatible dual-in-line connectors

Simulates Intel's standard bipolar ROMs and PROMs

Modular design allows the user to configure simulation modules to particular memory space requirements

Directly load the ROM Simulator modules from the output of the Intel® Cross Microassembler, CROMIS

Access the configured memory space from the console keyboard using simulated ROM addresses

Examine an entire word regardless of length; i.e., 8 bits, 10 bits, 32 bits etc.

Modify an entire word in a single operation regardless of length

Read access time is 130 ns, maximum

Each ROM-SIM module consists of a high-speed, 130-nanosecond 8K bit RAM board, buffer assembly, external cables, and an interactive software program. The ROM-SIM software is a PL/M$^{T.M.}$-80 program that operates in the Intellec MDS to provide the user interface for the ROM-SIM hardware. The software loads BNPF or hexadecimal files such as those generated by the Cross Microassembler System, CROMIS. The ROM-SIM software has the capability to compare and verify microcode, load, display and modify simulated control store contents, and output new BNPF or hexadecimal files from the simulated ROM memory for ROM/PROM programming.
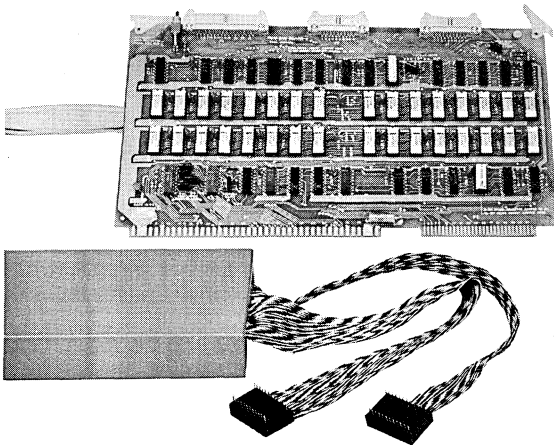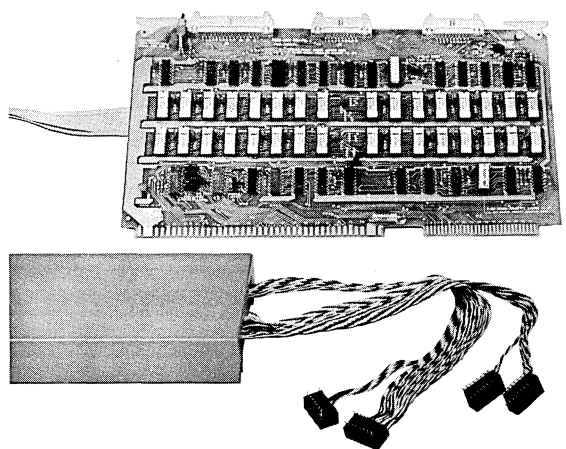
SIM-101, 102   SIM-104

SPECIFICATIONS

DC CHARACTERISTICS

$T_A = 0°C$ to $55°C$, $V_{CC} = 5.0V \pm 5\%$

SYMBOL	PARAMETER	LIMITS			TEST CONDITION
		MIN	MAX	UNIT	

I_I	Input Load Current
	  Low Order Addr A0-A8
	  High Order Addr A9-AB
	  Chip Selects
			−1.6
			−2.1
			−0.75
				mA	$V_{CC} = 5.25V$
					$V_{IN} = 0.45V$

V_{OL}	Output Low Voltage		0.45	V	$V_{CC} = 4.75V$, $I_{OL} = 16$ mA
I_{CC}	User Power Supply Sensing		6	mA	User $V_{CC} = 5.25V$
V_{IL}	Input Low Voltage		0.8	V	$V_{CC} = 5.0V$
V_{IH}	Input High Voltage	2.0		V	$V_{CC} = 5.0V$
V_{OH}	Output High Voltage		2.4	V	$V_{CC} = 4.75V$
I_{SC}	Output Short Circuit Current at Single Output	−40	−100	mA	$V_O = 0V$, $V_{CC} = 5V$
I_{CEX}	Output Leakage Current		±50 250	µA µA	For High Impedance State $V_{CC} = 5.25V$ For Open Collector

ABSOLUTE MAXIMUM RATINGS

Temperature Under Bias .... 0°C to 55°C
Storage Temperature .... −20°C to 75°C
All Outputs or Supply .... −0.5V to 7.0V
All Inputs .... −1.0V to 5.5V

CAPACITANCE LOAD

C_{IN}	Low Order Address, Chip Selects High Order Address (Coaxial)	45 pF max. 50 pF max.
C_{OUT}	Data Outputs	50 pF max.