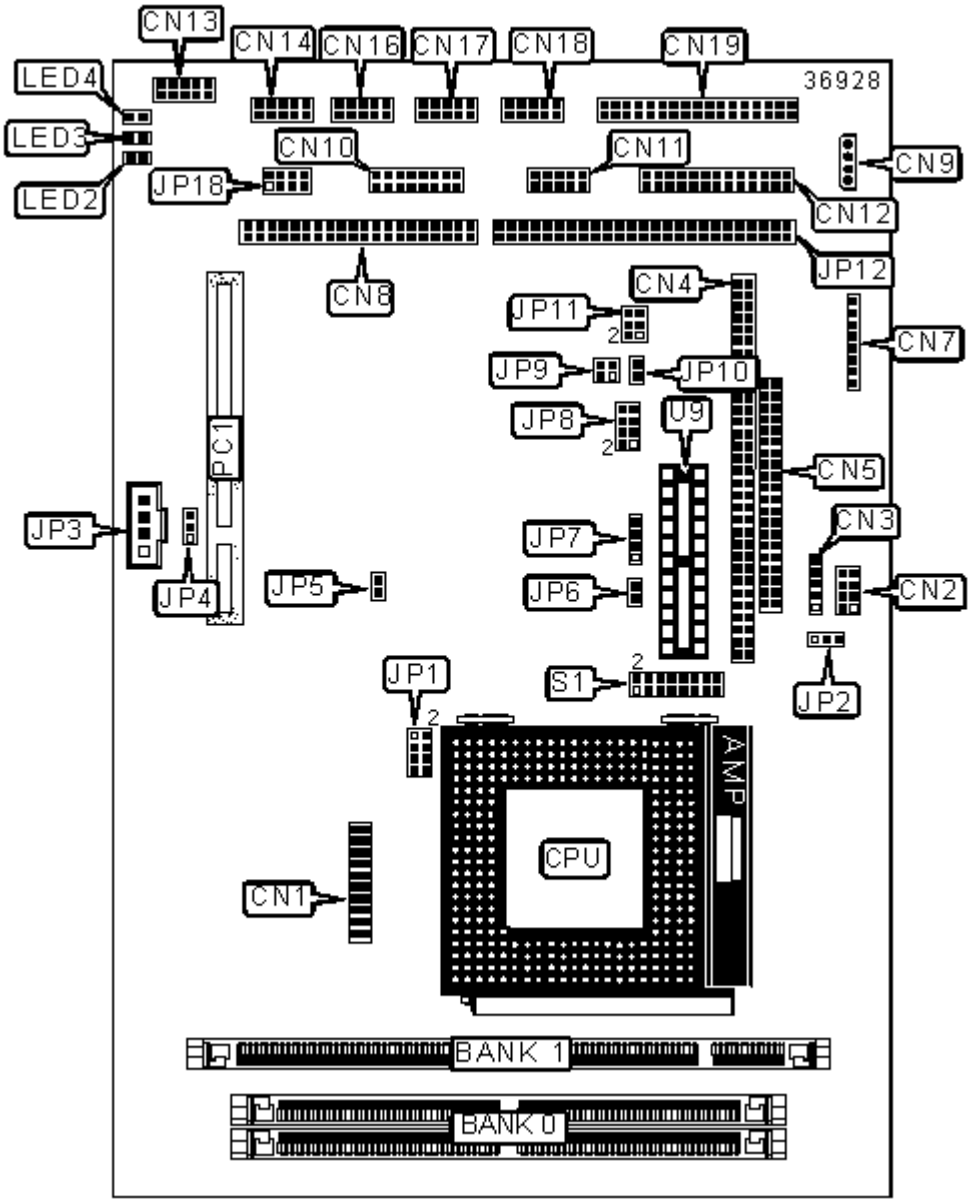
BOSER TECHNOLOGY CO., LTD.

HS-4500

Device Type	Single board computer
Processor	CX 6X86/CX 6X86MX/AM K5/AM K6/Pentium/Pentium MMX
Processor Speed	75/90/100/120/133/150/166/180/200/233MHz
Chip Set	ALI
Video Chip Set	Chips and Technology
Audio Chip Set	ESS
Maximum Onboard Memory	384MB (EDO & SDRAM supported)
Maximum Video Memory	Unidentified
Maximum Audio Memory	Unidentified
Cache	512KB
BIOS	Award
Dimensions	203mm x 146mm
I/O Options	32-bit PCI slot, Ethernet 10/100BaseT interface, floppy drive interface, IDE interface, parallel interface, keyboard & mouse header, serial interfaces (4), VGA feature connector, audio header, GPS connector, Watch-dog time connector, DiskOnChip socket, audio in - AUX (2), flat panel connector
Data Bus	PC/104 (16-bit)



CONNECTIONS			
Purpose	**Location**	**Purpose**	**Location**
GPS connector	CN1	Serial interface 1	CN14
IDE interface LED	CN2/Pins 1 & 2	Serial interface 2	CN16
Speaker	CN2/Pins 3 & 4	Serial interface 3	CN17
Watch-dog timer connector	CN2/Pins 5 & 6	Serial interface 4	CN18
Reset switch	CN2/Pins 7 & 8	Floppy drive interface	CN19
Power LED & keylock	CN3	Audio in - AUXA	JP3
PC/104 connector (8-bit)	CN4	Audio in - AUXB	JP4
PC/104 connector (16-bit)	CN5	Flat panel connector	JP12

Keyboard & mouse header	CN7	Audio header	JP18
IDE interface 1	CN8	10BaseT activity LED	LED2
DC power connector	CN9	100BaseT activity LED	LED3
VGA feature connector	CN10	Network activity LED	LED4
Alternate serial interface 4	CN11	DiskOnCip socket	U9
Parallel interface	CN12	32-bit PCI slot	PC1
Ethernet 10/100BaseT interface	CN13		

USER CONFIGURABLE SETTINGS			
Function		**Label**	**Position**
»	Serial interface 2 enabled	JP5	Open
	Serial interface 2 disabled	JP5	Closed
»	Enable RS232 on CN18/Disable RS422/485 on CN11	JP6	Open
	Disable RS232 on CN18/Enable RS422/485 on CN11	JP6	Closed
»	DiskOnChip address selection D000	JP7	Pins 1 & 2 closed
	DiskOnChip address selection D800	JP7	Pins 3 & 4 closed
»	CMOS memory normal operation	JP10	Open
	CMOS memory clear	JP10	Closed

SIMM CONFIGURATION	
Size	**Bank 0**
2MB	(2) 256K x 36
4MB	(2) 512K x 36
8MB	(2) 1M x 36
16MB	(2) 2M x 36
32MB	(2) 4M x 36
64MB	(2) 8M x 36
128MB	(2) 16M x 36
Note: Board accepts EDO & SDRAM memory.	

DIMM CONFIGURATION	
Size	**Bank 1**
8MB	(1) 1M x 64
16MB	(1) 2M x 64
32MB	(1) 4M x 64
64MB	(1) 8M x 64
128MB	(1) 16M x 64
256MB	(1) 32M x 64
Note: Board supports EDO & SDRAM memory.	

CLOCK SPEED SELECTION					
Speed		JP1/Pins 1 & 2	JP1/Pins 3 & 4	JP1/Pins 5 & 6	JP1/Pins 7 & 8
	60MHz	Closed	Closed	Closed	Closed
»	66MHz	Open	Closed	Closed	Closed
	75MHz	Closed	Closed	Open	Closed
	83MHz	Open	Closed	Open	Closed
	100MHz	Open	Open	Open	Closed

CPU MULTIPLIER SELECTION				
Multiplier		S1/Pins 1 & 2	S1/Pins 3 & 4	S1/Pins 5 & 6
	1.5x	Open	Open	Open
	2x	Closed	Open	Open
	2.5x	Closed	Closed	Open
»	3x	Open	Closed	Open
	3.5x	Open	Open	Open
	4x	Closed	Open	Closed
	4.5x	Closed	Closed	Closed

	5x	Open	Closed	Closed
	5.5x	Open	Open	Closed

CPU VOLTAGE SELECTION						
Voltage		S1/Pins 7 & 8	S1/Pins 9 & 10	S1/Pins11 & 12	S1/Pins 13 & 14	S1/Pins 15 & 16
	1.8V	Open	Closed	Open	Closed	Closed
	1.9V	Open	Open	Closed	Closed	Closed
	2.0V	Open	Closed	Closed	Closed	Closed
	2.1V	Closed	Open	Open	Open	Open
	2.2V	Open	Closed	Open	Open	Open
	2.3V	Closed	Closed	Open	Open	Open
	2.4V	Open	Open	Closed	Open	Open
	2.5V	Closed	Open	Closed	Open	Open
	2.6V	Open	Closed	Closed	Open	Open
	2.7V	Closed	Closed	Closed	Open	Open
	2.8V	Open	Open	Open	Closed	Open
»	2.9V	Closed	Open	Open	Closed	Open
	3.0V	Open	Closed	Open	Closed	Open
	3.1V	Closed	Closed	Open	Closed	Open
	3.2V	Open	Open	Closed	Closed	Open
	3.3V	Closed	Open	Closed	Closed	Open
	3.4V	Open	Closed	Closed	Closed	Open
	3.5V	Closed	Closed	Closed	Closed	Open

WATCH-DOG TIMER SIGNAL SELECTION		
Setting		JP2
»	System reset	Pins 1 & 2 closed

	Non-maskable interrupt	Pins 2 & 3 closed
	Watch-dog timer disabled	Open

WATCH-DOG TIMER TIME-OUT SELECTION					
Setting		**JP8/Pins 1 & 2**	JP8/Pins 3 & 4	JP8/Pins 5 & 6	JP8/Pins 7 & 8
»	1 Second	Open	Open	Closed	Open
	2 Seconds	Open	Open	Closed	Closed
	10 Seconds	Open	Closed	Open	Open
	20 Seconds	Open	Closed	Open	Closed
	110 Seconds	Closed	Open	Open	Open
	220 Seconds	Closed	Open	Open	Closed

RS422/485 RECEIVER CONTROL SELECTION		
Setting		**JP9**
	Enabled	Pins 1 & 2 closed
	Enabled by writing REG:2 EFH BIT1=1	Pins 3 & 4 closed
»	Disabled	Pins 1 & 2 open
Note: If the RS422/485 receiver control is enabled, JP6 must be set to closed.		

RS422/485 TRANSCEIVER CONTROL SELECTION		
Setting		**JP11**
	Enabled	Pins 1 & 2 closed
	Enabled by "-RTS" signal	Pins 3 & 4 closed
	Enabled by writing REG:2 EFH BIT1=1	Pins 5 & 6 closed
»	Disabled	Pins 1 & 2 open
Note: If the RS422/485 transceiver control is enabled, JP6 must be set to closed.		

MISCELLANEOUS TECHNICAL NOTE

Note: If the GPS connector is used, JP5 must be set to closed.