



# apricot **MS540**

The ultimate in multimedia  
computing for the home user



## Features

- ▶ Choice of 75, 100, 133, 166 or 200MHz Pentium CPUs
- ▶ Up to 128MB of enhanced performance EDO SIMM memory
- ▶ Choice of 850MB, 1.2GB or 1.7GB high performance hard disk
- ▶ Sony CD-ROM drives
- ▶ Power-saving standby mode with two-second recovery
- ▶ High quality, powerful external speakers
- ▶ SoundBlaster Vibra-16 audio
- ▶ Options package including modem
- ▶ Comprehensive bundled software pack for education, personal productivity and entertainment
- ▶ UK manufactured

Designed for



Microsoft®  
Windows®95



Certificate No's:  
FM1716 FS21715 FS30305

# System Overview

If you need a computer for entertainment, reference, communications or serious business use, you won't find a better package than the Apricot MS540. Whether you're using it to plan your week's activities, explore the remote corners of the world, send a letter or test your reactions and dexterity with a chart-topping game, the MS540 gives you the power of a full specification business PC, together with the finest multimedia specification. With super-fast Pentium processors and massive hard disk capacity, it makes light work of everything – from exploring the Internet to serious number-crunching.

## **The incredible machine**

The MS540 looks good and sounds good. A choice of high resolution monitors up to 21" guarantees that, whatever the application, you won't miss the smallest detail. For the ultimate in screen clarity and detail, there are 15" and 17" models too. Fully integrated Creative Labs 16-bit SoundBlaster audio provides stunning audio coupled with a Sony quad and six-speed CD-ROM drives. A pair of powerful, high quality external speakers give rich, room-filling stereo sound.

## **Easy to use**

Right from the moment when you open the box, the thoughtful design of the Apricot MS540 becomes

apparent. The box top Welcome Mat provides simple instructions on how to install your system correctly.

## **Business becomes pleasure**

Even though it makes an ideal leisure companion for the whole family, the MS540 is a top-of-the-range business machine too. Processor choice ranges from the 75MHz Pentium right up to the 200MHz version – the fastest available. A choice of 850MB, 1.2GB or massive 1.7GB disk drives means that, however hard you work or play, there will always be ample storage capacity for your programs and data. There is a standby low power mode too, which allows you to leave the machine switched on, ready to start work within seconds, but also, in the case of Online models, able to respond to incoming faxes and 'phone calls.

## **Information is power**

There's no shortage of information with the MS540. To get you started, there's a pack of the latest CDs, including Hutchinson's Multimedia Encyclopedia, Bodyworks 5, Microsoft Works and Money containing all you need for home productivity and a selection of Electronic Arts' chart-topping games. Choose a model with the Online fax modem and you'll soon have access to the Internet, with its vast resource of data from every corner of the world.

## **STANDARD FEATURES**

### **Mass Storage**

1.44MB floppy drive  
Choice of 850MB, 1.2GB or 1.7GB high speed IDE hard drives

### **Graphics**

PCI Local bus enhanced VGA graphics  
1MB RAM standard, upgradable to 2MB

### **Expansion**

Five expansion slots for add-in cards  
High speed serial ports  
Parallel port

### **Pre-installed Software**

Windows® 95

### **Free Software Titles**

Microsoft Works, Microsoft Money, Hutchinson Multimedia Encyclopedia, Bodyworks 5, Fifa 96, Magic Carpet, USNF Gold, Sesame Street Words, Madeline, Modem software (where fitted): Cyberworks (for V.32) or Cheyenne Bitwise (for V.34), CompuServe WinCIM 2.0.1

### **Peripherals**

14", 15", 17" or 21" high resolution monitors  
Enhanced 102 key keyboard  
Two button mouse

# Features and Benefits

## **Pentium processing power**

Pentium processors have rapidly become the industry standard. With the MS540, however, you can choose exactly the model you need for a specific situation. The budget-priced Pentium 75 can cope with everything the software can throw at it - at the lowest possible cost. At the other end of the scale, the latest 200MHz Pentium processors offer the ultimate in performance, and for the best combination of price and performance there's the 133MHz Pentium. The state-of-the-art Intel 430FX PCI set is designed to achieve maximum performance of the system's PCI bus.



## **Memory options**

By providing a choice of memory options, the MS540 allows you the opportunity to match performance to your budget. EDO SIMM memory has enhanced performance which reduces the need for a cache: This feature is fully exploited in the Pentium 75 models, where the cache is eliminated to enhance their price competitiveness. In the Pentium 100, 133, 166 and 200MHz models, a 256K pipeline burst cache gives enhanced performance.

## **High capacity, high speed hard drives**

Fast, powerful computers require large, high performance disk drives. The MS540 comes with a choice of either a large 850MB drive, noted for its rapid, quiet operation, a 1.2GB or a massive 1.7GB with exceptionally high performance. The PCI bus-master enhanced IDE interface increases the available bandwidth to the disk drives to 16.6Mbytes/sec ensuring that data transfer is carried out at the drives' maximum capacity.

## **Future-proof chassis design**

The MS540 uses an entirely new chassis, designed with the future in mind. It combines the traditional elegance and style of the Apricot marque with an attractive front panel layout. The chassis is designed to support the cooling requirements of the new Intel Pentium Pro processor and the system's Intel OverDrive Type 7 CPU socket, incorporates support for as yet unannounced Pentium processors, giving you a wide range of options for choice in the future.

## **Video acceleration**

Every multimedia machine needs enhanced video performance and in the MS540 this is made possible by the use of accelerated local bus video processors. The Cirrus Logic GD5436 video controller with 1MB of video memory uses the PCI local bus to link with the main system processor, ensuring that even the most graphically intensive applications move like lightning. Socketed video memory means that this can be quickly and easily upgraded to 2MB when higher resolutions are required.

## **Welcome mat**

As the first thing you see when the packaging is opened, the Welcome Mat provides precise, simple instructions on how to install and set up your Apricot MS540.

## **Recovery CD**

The Recovery CD can restore the Windows 95 operating system and pre-installed software to its original state.

## **14", 15", 17" and 21" Hi Vision monitors**

Every MS540 is provided with a choice of high resolution monitors, from the industry standard 14" SVGA model to the stunning 21" Diamondtron model. All monitors have energy-saving automatic power-down modes and meet all EU and International Health and safety regulations for screen emissions.

## **Industry standard**

By adhering to the latest computer industry standards, Apricot engineers have ensured that the MS540 can be easily upgraded with widely available components and peripherals.

## **Built in the UK by Apricot**

Apricot is one of Britain's longest established and most experienced computer manufacturers, now a major part of the worldwide Mitsubishi Electric Corporation. All Apricot systems are designed and built in the UK under the control of ISO 9001 (1994) quality management systems and backed by the world class manufacturing expertise and resources of one of the world's largest industrial groups.

# Technical Specifications

	<b>MS540</b>	<b>575 / 5100</b>	<b>5133 / 5166</b>	<b>5200</b>
<b>Processor</b>				
Type	Pentium	Pentium	Pentium	Pentium
Clock speed (Internal)	75MHz / 100MHz	133MHz / 166MHz	133MHz / 166MHz	200MHz
Clock speed (External)	50MHz / 66MHz	66MHz	66MHz	66MHz
Internal cache	2x8KB	2x8KB	2x8KB	2x8KB
Coprocessor	Integral	Integral	Integral	Integral
Data/address bus	64/32-bits	64/32-bits	64/32-bits	64/32-bits
CPU socket type	321-pin ZIF (Type 7)	321-pin ZIF (Type 7)	321-pin ZIF (Type 7)	321-pin ZIF (Type 7)
iCOMP benchmark	610 / 815	1110 / 1308	1110 / 1308	1540
Core Logic chipset	Intel 430FX PCI set	Intel 430FX PCI set	Intel 430FX PCI set	Intel 430FX PCI set
<b>External cache</b>				
Supplied	None / 256KB pipeline burst	256KB pipeline burst	256KB pipeline burst	256KB pipeline burst
Maximum	256KB Pipeline burst	256KB Pipeline burst	256KB Pipeline burst	256KB Pipeline burst
Mapping	Direct	Direct	Direct	Direct
Writing scheme	Write back	Write back	Write back	Write back
Cache speed	66MHz	66MHz	66MHz	66MHz
<b>RAM</b>				
Supplied	8 / 8 or 16MB	16MB	16MB	16MB
Maximum	128MB	128MB	128MB	128MB
Type	32-bit EDO SIMM	32-bit EDO SIMM	32-bit EDO SIMM	32-bit EDO SIMM
Speed	70ns	70ns	70ns	70ns
Fitted RAM location	Motherboard	Motherboard	Motherboard	Motherboard
Parity	None	None	None	None
Sockets: total	4	4	4	4
free	2	2	2	2
Sizes supported	4, 8, 16 & 32MB	4, 8, 16 & 32MB	4, 8, 16 & 32MB	4, 8, 16 & 32MB
<b>ROM</b>				
Size	1MBit	1MBit	1MBit	1MBit
Type	Flash ROM	Flash ROM	Flash ROM	Flash ROM
Shadowable	Yes	Yes	Yes	Yes
<b>Graphics</b>				
Controller	Cirrus Logic GD5436	Cirrus Logic GD5436	Cirrus Logic GD5436	Cirrus Logic GD5436
Interface	PCI Local Bus	PCI Local Bus	PCI Local Bus	PCI Local Bus
Location	Motherboard	Motherboard	Motherboard	Motherboard
Video memory: supplied	1MB	1MB	1MB	1MB
max	2MB	2MB	2MB	2MB
type	DRAM	DRAM	DRAM	DRAM
Max N.I. resolution @ 1MB	1024x768 (256 colours)	1024x768 (256 colours)	1024x768 (256 colours)	1024x768 (256 colours)
Max N.I. resolution @ 2MB	1280 x1024 (256 colours)	1280 x1024 (256 colours)	1280 x1024 (256 colours)	1280 x1024 (256 colours)
Max N.I. colours @ 1MB	16.8 million (640x480)	16.8 million (640x480)	16.8 million (640x480)	16.8 million (640x480)
Max N.I. colours @ 2MB	16.8 million (800x600)	16.8 million (800x600)	16.8 million (800x600)	16.8 million (800x600)
<b>Modem (Online models only)</b>				
Specifications	V.32bis 14,400bps Data Mode. (Plus: V.21, V.22, V.23, V.22bis, V.32)	V.34bis 28,800bps Data Mode. (Plus: V.21, V.22, V.22bis, V.32 & V.32bis)	V.34bis 28,800bps Data Mode. (Plus: V.21, V.22, V.22bis, V.32 & V.32bis)	V.34bis 28,800bps Data Mode. (Plus: V.21, V.22, V.22bis, V.32 & V.32bis)
	V.17 14,400bps Group 3. EIA Compatible Fax Mode (Class II)	V.17 14,400bps Group 3. EIA Compatible Fax Mode (Class II)	V.17 14,400bps Group 3. EIA Compatible Fax Mode (Class II)	V.17 14,400bps Group 3. EIA Compatible Fax Mode (Class II)
	Error Correction & Compression (V.42 & V.42bis)	Error Correction & Compression (V.42 & V.42bis)	Error Correction & Compression (V.42 & V.42bis)	Error Correction & Compression (V.42 & V.42bis)
	12bit 11KHz sampled Business Audio Voice Quality	12bit 11KHz sampled Business Audio Voice Quality	12bit 11KHz sampled Business Audio Voice Quality	12bit 11KHz sampled Business Audio Voice Quality
<b>Security</b>				
Technology	BIOS Level Security	BIOS Level Security	BIOS Level Security	BIOS Level Security
Access control	Power On/ CMOS Setup Password Virus Detection	Power On/ CMOS Setup Password Virus Detection	Power On/ CMOS Setup Password Virus Detection	Power On/ CMOS Setup Password Virus Detection
Hardware	FD Disable Case lock & security loop	FD Disable Case lock & security loop	FD Disable Case lock & security loop	FD Disable Case lock & security loop



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	<b>MS540</b>	<b>575 / 5100</b>	<b>5133 / 5166</b>	<b>5200</b>
<b>Expansion (free)</b>				
Total slots		5 (one shared PCI/ISA)	5 (one shared PCI/ISA)	5 (one shared PCI/ISA)
PCI		1 full & 1 half length	1 full & 1 half length	1 full & 1 half length
ISA		2 full & 2 half length*	2 full & 2 half length*	2 full & 2 half length*
<i>*Online systems - modem uses 1 ISA slot</i>				
<b>I/O ports</b>				
Serial:	quantity	2 (16550 compliant)	2 (16550 compliant)	2 (16550 compliant)
	connectors	2 x 9-pin D-SUB	2 x 9-pin D-SUB	2 x 9-pin D-SUB
Parallel:	quantity	1	1	1
	type	ECP/EPP compliant	ECP/EPP compliant	ECP/EPP compliant
Dual channel PCI bus EIDE controller				
	ATA IDE standard	Mode 4	Mode 4	Mode 4
	Connector type	40-pin	40-pin	40-pin
	Max data transfer	16.6MB/s	16.6MB/s	16.6MB/s
Keyboard type		PS/2	PS/2	PS/2
Mouse type		PS/2	PS/2	PS/2
<b>Power supply</b>				
Rating (constant)		145W	145W	145W
Rating (peak)		179W	179W	179W
Type		Switched mode	Switched mode	Switched mode
Voltage setting		External switch	External switch	External switch
Voltage input range (AC)		90-132V & 180-264V	90-132V & 180-264V	90-132V & 180-264V
Frequency input range		47-63Hz	47-63Hz	47-63Hz
Max loads: +5V		18A	18A	18A
+12V		4.2A	4.2A	4.2A
-12V		0.3A	0.3A	0.3A
External connectors		IEC in / IEC out	IEC in / IEC out	IEC in / IEC out
<b>Floppy drive</b>				
Type/capacity		3.5"/1.44MB	3.5"/1.44MB	3.5"/1.44MB
Controller		Embedded	Embedded	Embedded
<b>Audio</b>				
Type		SoundBlaster Vibra-16	SoundBlaster Vibra-16	SoundBlaster Vibra-16
Ports		Microphone-in, line-in, speaker-out, line-out, game port / MIDI port	Microphone-in, line-in, speaker-out, line-out, game port / MIDI port	Microphone-in, line-in, speaker-out, line-out, game port / MIDI port
Speakers		External	External	External
<b>CD-ROM</b>				
Type		Sony CDU77E	Sony CDU111	Sony CDU111
Transfer rate		600KB/sec	900KB/sec	900KB/sec
Average access		190ms	180ms	180ms
Interface		IDE	IDE	IDE
Protocol		ATAPI	ATAPI	ATAPI
Rotational speed		x 4	x 6	x 6
<b>External speakers</b>				
Power		20W	20W	20W
Impedance		4Ohms	4Ohms	4Ohms
Frequency		50-20KHz	50-20KHz	50-20KHz
Dimensions: hwxwd		257 x 131 x 118mm	257 x 131 x 118mm	257 x 131 x 118mm
Controls		Power, treble, volume Bass	Power, treble, volume Bass	Power, treble, volume Bass

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<b>MS540</b>	<b>ALL MODELS</b>		
<b>Hard Drives</b>	<b>850MB</b>	<b>1.2GB</b>	<b>1.7GB</b>
Type	IDE	IDE	IDE
Average access	14ms	12ms	11ms
Track to track seek	5ms	3.1ms	2.5ms
Burst data rate	6.5MB/sec	10.5MB/sec	9.02MB/sec
Cache	128KB	128KB	128KB
MTBF	300 000 poh	500 000 poh	400 000 poh

#### System Dimensions

Width x depth x height	440 x 440 x 120mm
Weight	10Kg

#### Warranty

Standard cover (UK mainland only)	1 Year limited warranty
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#### Preloaded Software

Operating System	Windows® 95 and multimedia software bundle (UK mainland only)
Environmental	
Temperature (operating)	5 to +35°C
Temperature (non-op.)	5 to +65°C
R. humidity (operating)	10 to 80%
R. humidity (non-op.)	10 to 90%
EMI/RFI approvals	<b>CE</b> Compliant with European CE mark regulations for Emissions Susceptibility. VCCI Level 2
Safety approvals	EN60-950, UL1950

<b>Monitors</b>	<b>14" SVGAe</b>	<b>15" FST EVGAe</b>	<b>17" FST EVGAe</b>	<b>21" Diamondtron</b>
Standard	SVGAe	EVGAe	EVGAe	EVGAe
CRT size (diag.)	14"	15"	17"	21"
CRT type	Anti-glare	FST anti-glare	FST dynamic focus, anti-glare/static	Diamondtron dark tint, anti-glare/static
Display area	260 x 190 (+/-3mm)	270 x 203 (+/-3mm)	290 x 218 (+/-3.5mm)	380 x 285 (+/-4mm)
Dot pitch	0.28mm	0.28mm	0.28mm	0.30mm
Phosphor	P22	P22	P22	P22
Video input	Analogue RGB	Analogue RGB	Analogue RGB	Analogue RGB
Max. video bandwidth	65MHz	110MHz	130MHz	180MHz
Max. res. x vert freq (non-interlaced)	1024 x 768 x 60Hz	1280 x 1024 x 60Hz 1024 x 768 x 75Hz	1600 x 1200 x 60Hz 1280 x 1024 x 75Hz	1600 x 1200 x 75Hz
Power: full operation	80W	100W	130W	165W
standby	<30W	<30W	<5W	<30W
active off	>5W	>5W	>5W	>11W
Power management	VESA DPMS support for EPA compliance	VESA DPMS support for EPA compliance	VESA DPMS support for EPA compliance	VESA DPMS support for EPA compliance
EMI/RFI approvals	CE mark compliant	CE mark compliant	CE mark compliant	CE mark compliant
Safety approvals	MPRII	MPRII	MPRII	MPRII
Dimensions: w x d x h (mm)	EN60-950	EN60-950	EN60-950	EN60-950
weight	351 x 384x327	361 x 382 x 345	411 x 480 x 380	500 x 488 x 490
	12Kg	14Kg	23Kg	35Kg

<b>Input Devices</b>	<b>KEYBOARD</b>	<b>MOUSE</b>
Keys/buttons	102	2
Interface	PS/2	PS/2
Resolution	N/A	400dpi
Cable length	3m	1.83m
Dimensions: w x d x h	465 x 170 x 45mm	63 x 114 x 40mm
weight	1.4Kg	127g

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