




BRITISH
BROADCASTING
CORPORATION
MASTER SERIES
MICROCOMPUTER

THE MASTER SERIES



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In 1981 a good-looking newcomer arrived on the microcomputer scene. Its impressive pedigree and range of connections aroused interest; its performance caused a sensation.

That newcomer was the British Broadcasting Corporation Microcomputer, one of the great success stories of the computer industry. A key feature of the BBC's Computer Literacy Project, it was chosen for seven out of every ten micros

bought for UK schools and for five out of ten used for medical applications. In homes and factories, offices and laboratories the BBC Micro's ability to solve problems has won it countless friends and admirers.

Now the concepts that were the key to that success have been incorporated in a new range of advanced microcomputers – the BBC Microcomputer Master Series.

THE MASTER SERIES

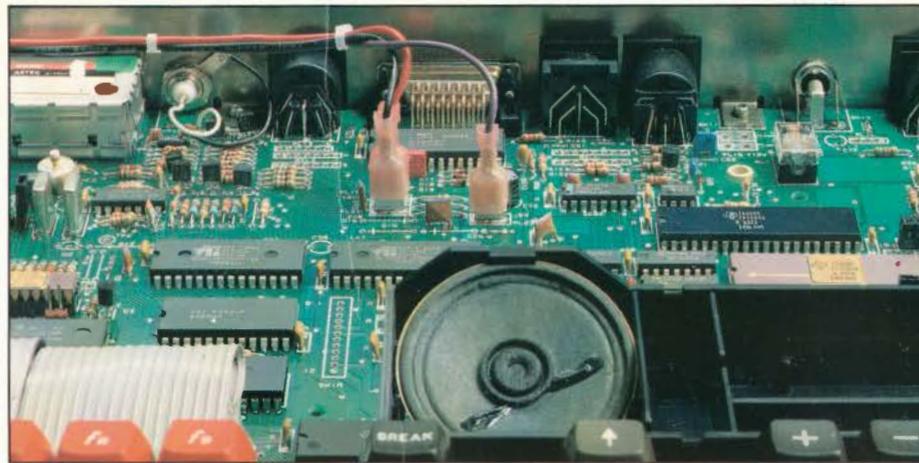
THE MASTER SERIES provides all the features for which BBC Micros have become renowned: the ability to link many computers together in a network enabling them to share data and resources; the highly regarded BBC BASIC programming language; the flexibility that has led to BBC Micros being chosen for applications as diverse as electronic funds transfer and satellite communications.

These proven capabilities are combined with the best of modern technological developments. The Master Scientific brings the power of 32-bit processing to a microcomputer. The Master 512 offers a 16-bit processor with 512 Kbyte of random access memory. And in the Turbo version, the Master Series achieves speeds of execution which are faster than virtually any other personal computer.

In addition to its computing power the Master Series comes complete with an impressive range of integral software. The Master Scientific offers three of the leading mainframe languages used by scientific programmers. The Master 512 makes available the simplicity of icon-based interaction with the computer. The Master 128 and Master Turbo provide highly-praised word-processing and spreadsheet packages. And of course, BBC BASIC is supplied with every Master Series Microcomputer.

COMPATIBILITY

The Master Series represents a continuous evolutionary development of the BBC Micro; unlike some other computer families where each 'new generation' leaves you looking for the



The utmost care and precision has gone into every stage of the Master Series.

missing link.

The Master Series is upwardly compatible with previous BBC Micros. In other words, new features have been added without losing existing ones.

This means that an enormous range of add-ons and peripheral devices, plus a vast software library with many thousands of titles, are available for use with the Master Series – now.

Moreover, the Master Scientific can run existing programs written in any of its mainframe languages, and the Master 512, through its DOS+ operating system, can be compatible with software written for MS-DOS, CP/M-86 or GEM.

In fact, probably no new range of computers has ever offered so many applications from the moment of its launch.

CHOICE

Like previous BBC Micros, a major attraction of the Master Series is the choice that is designed into it.

You're not, for example, restricted to one supplier's monitor. Unlike some

personal computers we provide both RGB and video outputs so that you can choose the monitor, either colour or monochrome, that suits both your purpose and your pocket. Or of course you can use your television.

Neither are you limited when it comes to printers. Two industry standard interfaces are provided enabling you to choose from a huge selection of manufacturers and types – the low cost dot-matrix printer, the high quality daisy-wheel or even the speed and versatility of a laser printer.

The same applies to data storage. Make your choice from 40 or 80 track 5 1/4" disc drives, the convenience of 3.5" discs, or the huge capacity of a Winchester disc; Master Series Microcomputers can also be used with a cassette recorder.

And when we talk about a series of microcomputers we don't just mean there's a bigger machine we can sell you if you'd care to throw your old one away. If you choose to buy a Master 128 today it can be converted tomorrow to provide the speed of the Turbo, the sophistication of the 512 or the even greater power of

the Scientific.

When you start to use a computer, who knows where your interests and requirements will take you? That's why the Master Series is open-ended, enabling you to put together the system that you need now and to add to it as your needs change.

THE RELIABILITY OF EXPERIENCE

The Master Series incorporates the experience gained by Acorn Computers on more than 700,000 microcomputers over five years of operation. Acorn's design skills and production expertise ensure that the Master Series maintains the BBC Micro's tradition of high engineering standards and its reputation for reliability. And if you want advice or assistance, it's readily available from an existing network of hundreds of dealers throughout the UK or from Acorn's central Customer Services Unit.

MASTERING THE FUTURE

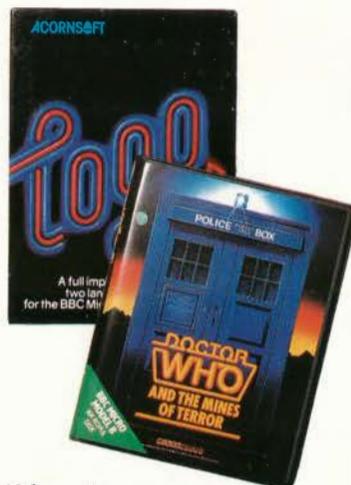
Above all, the Master Series has inherited and developed the BBC Micro's unique ability to bridge the gaps between home and scientific use, between education, business and industry. No other micro has demonstrated this versatility in the past; no other micro looks like doing so in the future.

The Master Series brings together hardware and software excellence, professionalism and experience. Its a combination that will make the Master Series the yardstick by which all microcomputers are judged throughout the second half of the 1980s.

SOFTWARE. Many thousands of software titles are currently available for use on the Master Series, with more being published each week. These are some of the applications that they cover.

General Interest

Adult Education
Adventure Games
Arcade Games
Books
Business Packages
Communications
Computer Languages
Computer Programming
Control Devices
Databases
Examination Revision
Graphics and design
Home Interest and Leisure
Home Organisation
Integrated Business Systems
Music and Sound
Robots
Sport
Spreadsheets
Strategy Games
Toys
Turtles and Buggies
Word Processors



Education

Art, Craft, Creative Studies
& Technical Drawing
Business Studies
COMPUTERS
Computer Languages
Computer Studies
Programming
Economics
English
FOREIGN LANGUAGES
Dutch, French, German,
Italian, Russian, Spanish,
Welsh
General Subjects
Geography
History
Home Economics
Information Retrieval
Maths
Music

Projects
School Administration
SCIENCE
Biology, Chemistry, General
and Primary, Physics
Social Studies and Careers

Science and Industry

ADMINISTRATION
Databases, Spreadsheets,
Word processing
Chemical analysis
Computer Aided Design
Computer Languages
ENERGY MANAGEMENT
Air conditioning control,
Heating control, Lighting
control, Ventilation control
INSTRUMENTATION CONTROL
Data capture, Laboratory
monitoring, Simulations
Security and access systems
Statistics

Business

Communications
Databases
Display software
Graphics
Indexing
Integrated accounting
packages
Invoices and delivery notes
Job Costings
Journal Indexing

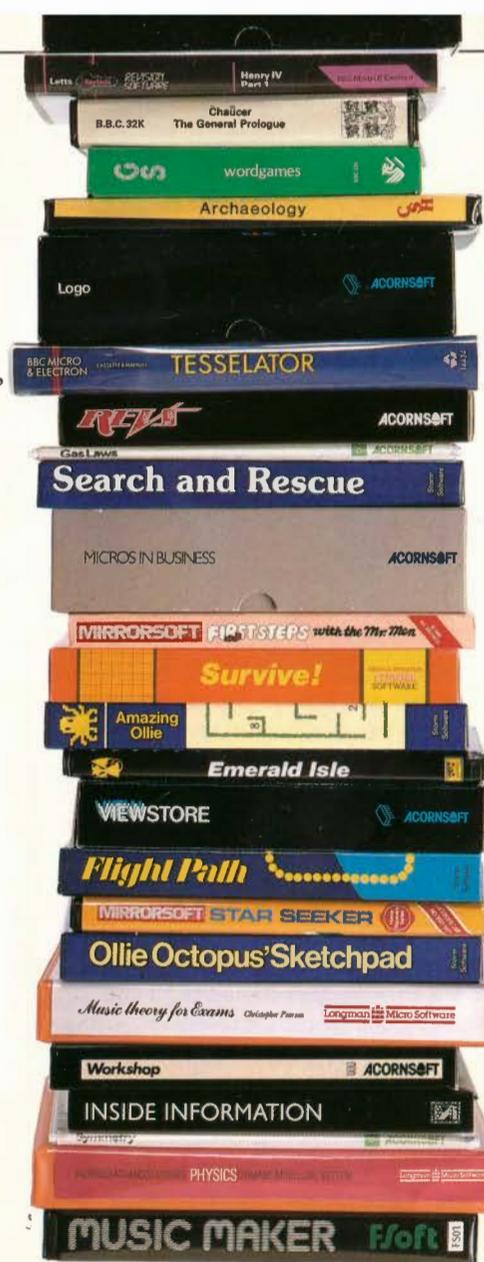
Networking
Maritime Training Aid
Market Garden and Nursery
Labels

SPECIFIC APPLICATIONS
for Bakers, Dentists, Doctors,
Farmers, Milkmen,
Newsagents, Video shops
Recipe Costing
Spelling checks
Spreadsheets
Stock control
Textile Production Planning
Word processing

Medicine and Health

Administration
Aids for disabled people
Dentists' packages
Doctors' packages
Medical records
Occupational therapy
Pathology
Pharmacists' package
Training
Word processing

Details of individual
programs for the Master
Series, including the names
and addresses of suppliers,
can be found in the BBC
Microcomputer System
Catalogues, published by
Acorn Computers.



SOFTWARE

THE MASTER 512. Today's professional computer user demands, rightly, that programs should be quick to learn, friendly to operate.

That's why the software provided with the BBC Microcomputer Master 512 includes both GEM and the GEM Collection, from Digital Research.

GEM, the Graphics Environment Manager, enables the Master 512 to run programs in which much of the user's control is by means of a desk-top 'mouse'. Movements of the mouse control an arrow on the screen, enabling the user to give commands by simply pointing to corresponding symbols or 'icons'. The need to remember complicated command names and structures is almost eliminated.

In addition, 'pull-down' menus appear temporarily on the screen enabling options to be selected, again by movements of the mouse, without having to type on the keyboard.

The GEM Collection provides three powerful programs which utilise GEM's capabilities to ensure that they are indeed quick to learn and easy to use. GEM Desk Top is a friendly icon-driven front end and includes a calculator and diary. GEM Write is an approachable word processor aimed specifically at business and professional use. GEM Paint enables you to add pictures, titles and diagrams to your word-processed documents using a variety of shapes, patterns, type styles and sizes.

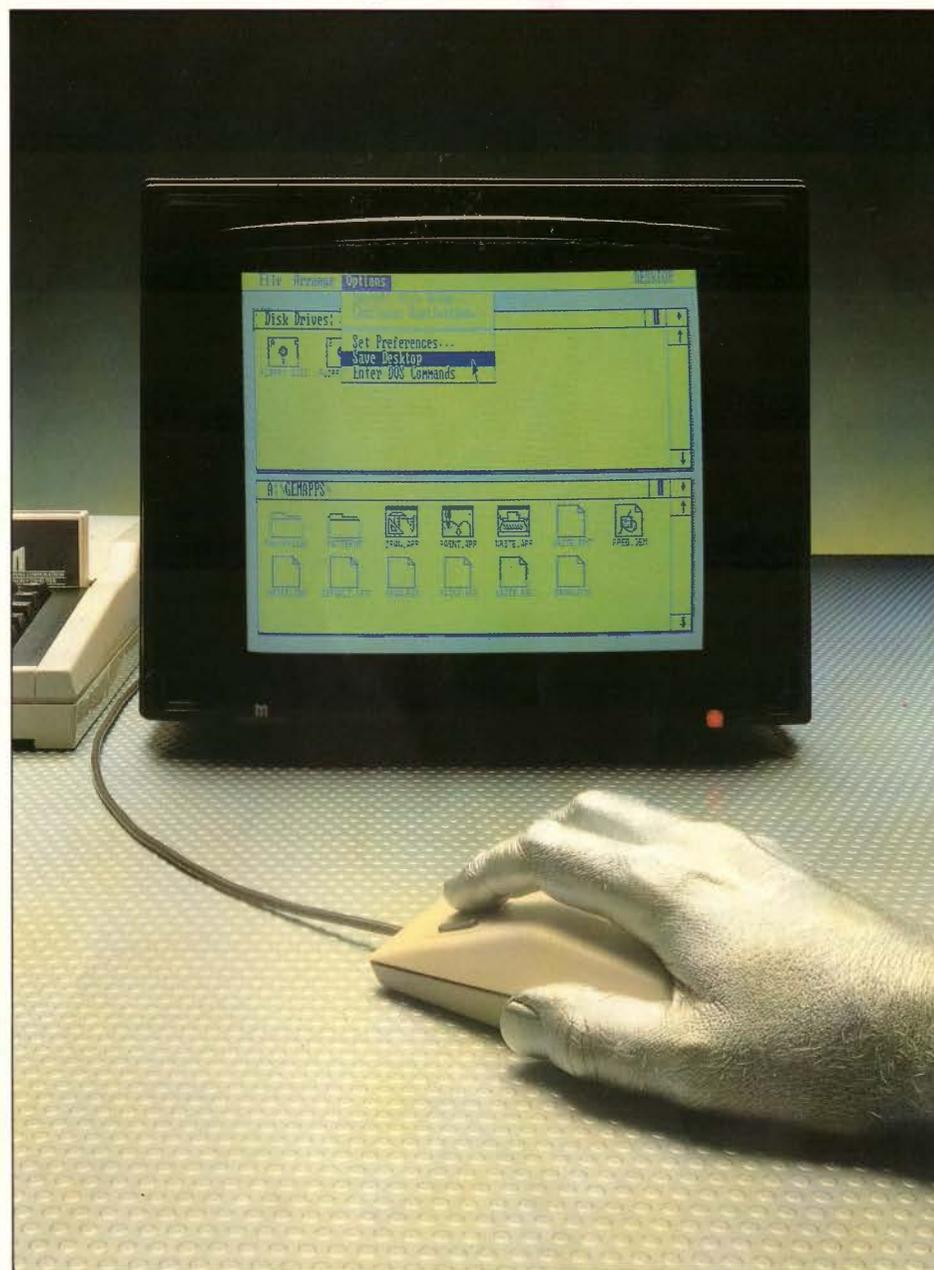
Moreover GEM runs under Digital Research's operating system DOS+ which is compatible with both MS-DOS and CP/M 86. This gives you the potential to run on your Master 512 most programs

which work under these operating systems, even though they may have been written with far more expensive machines in mind.

No other microcomputer can rival the Master Series' communication abilities or range of interfaces. Master Series Microcomputers can access Prestel or teletext services such as CEEFAX and ORACLE (they include a true viewdata display mode); or they can communicate with any other computer via the telephone service. They can be used for information retrieval, electronic banking and funds transfer, electronic shopping or two-way use of central databases. And by using an Eiconet network, many machines can be linked together to share data and resources.

In addition, the Master 512 shares all the other features of the series including sophisticated graphics and sound facilities, the BBC BASIC programming language and the convenient Control Panel configuration utility.

These impressive capabilities are matched by equally impressive computing power. The Master 512 features a 16-bit processor with 512 Kbyte of RAM, putting it in the leading ranks of professional personal computers.



GEM enables the user to give many commands by using the 'mouse' to point at icons and menus on the screen.

THE MASTER 128 is the foundation stone of the BBC Microcomputer Master Series and embodies the key concept linking the whole range: usefulness.

For a start it's a word processor. The Master 128's professional typewriter keyboard and powerful word processing software enable you to prepare reports, essays and letters which are word perfect.



The Master 128 comes complete with VIEW 3.0, the latest and most sophisticated version of one of the best selling word processing packages on the market.

It's also a spreadsheet calculator. The popular and easy to learn spreadsheet program is ideally suited to applications involving budgeting, planning, estimating or any repetitive calculations.

Both these programs are provided in the computer's read-only memory making them instantly accessible. In addition, thousands of other programs are available covering applications from backgammon to business. Existing ROM-based software can be added to your Master 128 in seconds using an optional EPROM



VIEWSHEET, the Master 128's spreadsheet program, was described by the magazine A&B Computing as 'a spreadsheet of very considerable power and an excellent business tool'.

cartridge inserted in one of the two plug-in cartridge sockets.

The sophisticated graphics facilities of the Master Series are ideally suited to computer-aided drawing and design or for the computer generation of graphs, charts and diagrams. Rectangles, circles and ellipses can be drawn with speed and ease, and a choice of 6 billion shadings, textures and patterns is available to stimulate your creativity. For aspiring musicians, the Master Series can be used for composition and performance.

If your interest is in creating your own programs, the Master Series provides you with the latest version of BBC BASIC, widely regarded as the best BASIC around. Many other programming languages are available and all graphics, sound and operating system commands can be used by these other languages. The Master Series gives you easy access to assembler programming through BBC



Using the unique Control Panel utility you can configure your Master Series Microcomputer so that it starts up ready to use in the way you choose. The Control Panel can also be used to set the Master's real-time clock.

BASIC. Program and text editing facilities simplify your program development whilst the open design of the Master Series operating system gives maximum scope to your ingenuity.

To complement its versatility, the Master Series provides a unique configuration utility. Using an icon-based Control Panel you select the functions you require from your micro at start-up: the application you want to run, the screen display mode and so on. This information is stored in battery-backed programmable memory. As soon as you switch on your computer the commands are carried out, making your Master Series Microcomputer ready to use immediately for programming, as a word processor or whatever you wish.

As you would expect with a computer that places such emphasis on usefulness, your Master Series Microcomputer comes with everything needed to get you using it quickly and effectively: a Welcome Guide introducing you to the machine and its facilities; reference cards to VIEW and VIEWSHEET; and a Welcome cassette and disc of programs to make your new micro run through its paces.



THE MASTER 128

THE MASTER SERIES

Master 128 / Master 512 / Master Turbo / Master Terminal / Econet / Master Scientific

EXPANSION POTENTIAL

Winchester discs
Very high capacity disc storage

IEEE adaptors
Instrumentation monitoring and control for science, industry and education

Lathe
Microcomputer numerically controlled machining

Video digitisers
Capturing video images on disc

Logic analysers
Real-time monitoring of digital circuitry

Music 500
Advanced music and 16-channel sound synthesis

Gas chromatographs
Chemical analysis

Speech recognition
Voice control

Teletext adaptors
Access to CEEFAX and ORACLE for information and free software

Interactive video controller
Control of video and compact disc players

Vision systems
Shape recognition

EPROM programmers
Your own programs on ROM

Magnetic field therapy unit
Medical and veterinary applications

Music keyboards
Sound synthesis controllers

Laboratory interface
Instrument control, data analysis and display

Non-volatile RAM
Add-on memory that remains when the power is off

Plotters
Hard copy of graphics, including colour

Viewdata systems
Provision of central databases

Satellite systems
Receiving and decoding data from weather satellites

Data recorders
Low cost data storage

Z80 second processors
Additional processing power with software for small businesses

Prestel adaptor
Access to British Telecom's viewdata information service and many other similar services

Modems
Communications via the telephone network

Midi interfaces
Electronic music keyboard control

Wrist terminal
Down-loaded diary information

Caption and graphics generators
Sub-broadcast and broadcast quality

Genlock systems
Synchronising the micro with video equipment

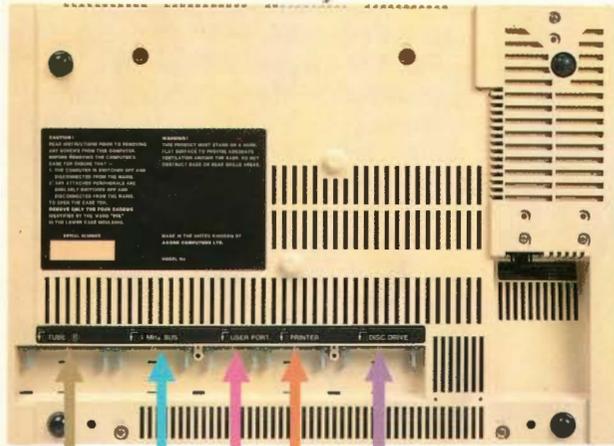
Audio output
Sound through your hi-fi

Econet
Networking for communications and sharing of facilities



An unrivalled range of add-on devices and components already exists for the BBC Microcomputer Master Series. This page lists many, but by no means all, of the devices that are available.

Further details of add-on devices for the Master Series, with the names and addresses of suppliers, can be found in the BBC Microcomputer System Catalogues published by Acorn Computers.



Disc drives
40 track/80 track/switchable
5¼", 3.5" and 3"

Robot arms and kits
Servants of the Master

Touchpads
Alternative to keyboard for children and handicapped people

Graphics tablets
Entering graphical information for computer-aided design

Printers
Many types including laser, daisywheel and dot-matrix and colour

Buggies/Turtles
Mobile devices controlled by the micro

Bar code readers
Data input eg for point of sale and stock control

Touch screen
Simple program interaction



Monitors
Colour and monochrome

Computer Aided Design systems
Computer-aided draughting and advanced graphics

Bitstik
Rapid production of drawings and graphics

Tracker ball
Pointing device for text and graphics

Joysticks
Games control

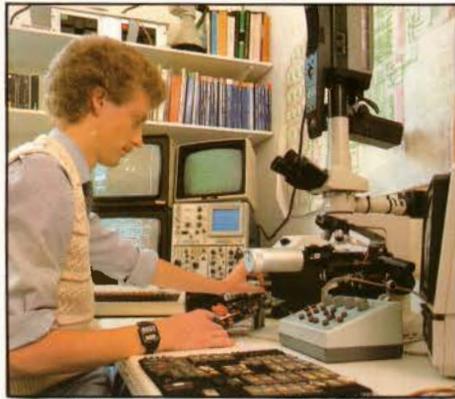
Light pens
Screen interaction for graphics applications

Mouse
Pointing device for icons and graphics

Microwriter
Easy-to-learn text input device

EXPANSION POTENTIAL

THE MASTER TURBO



THE MASTER TURBO. The BBC Microcomputer Master Turbo provides a level of excellence in hardware and software engineering that has never before been seen in a micro-computer. Its combination of co-processor, language and system architecture enables the Master Turbo to achieve execution speeds for interpreted BASIC programs which, as the table shows, are faster than virtually any other personal computer.

The ultra fast CMOS-based co-processor (65C102) operates at twice the speed of the standard processor. The two processors are linked by the BBC Micro's famous and very fast TUBE. The language is HI-BASIC, a version of the already fast BBC BASIC specially created to optimise the use of memory. The system architecture is that used in all Master Series Micro-computers – a remarkable tribute to the sophistication of their basic design.

Together they provide a machine which is the ideal tool for programmers looking for a new challenge and new possibilities.

Complex program development can be



carried out with greater speed and efficiency. Computer-aided design software can achieve the rapid redrawing of screen displays that is demanded by professional users. Wherever large-scale computation needs to be combined with rapid input and output, the Turbo offers faster operation than ever before.

In particular, the Master Turbo is ideally suited for use as a file server on an ECONET network.

The Turbo is provided with HI-EDIT, a version of the Master 128's program and text editor which is relocated to keep the memory map clear and which is especially useful for those writing programs in BASIC and other languages.

In addition, a printer buffer extender enables the Turbo to carry out parallel printing and processing.

HOW THEY COMPARE	
	secs
BBC Master 128 Turbo	4.67*
BBC Master 128	9.16*
BBC Model B	14.15*
RML Nimbus	6.45
IBM PC AT	7.11
IBM PC	17.61
Apple Macintosh	12.15
Apricot PC	16.69
Apricot F1	18.88

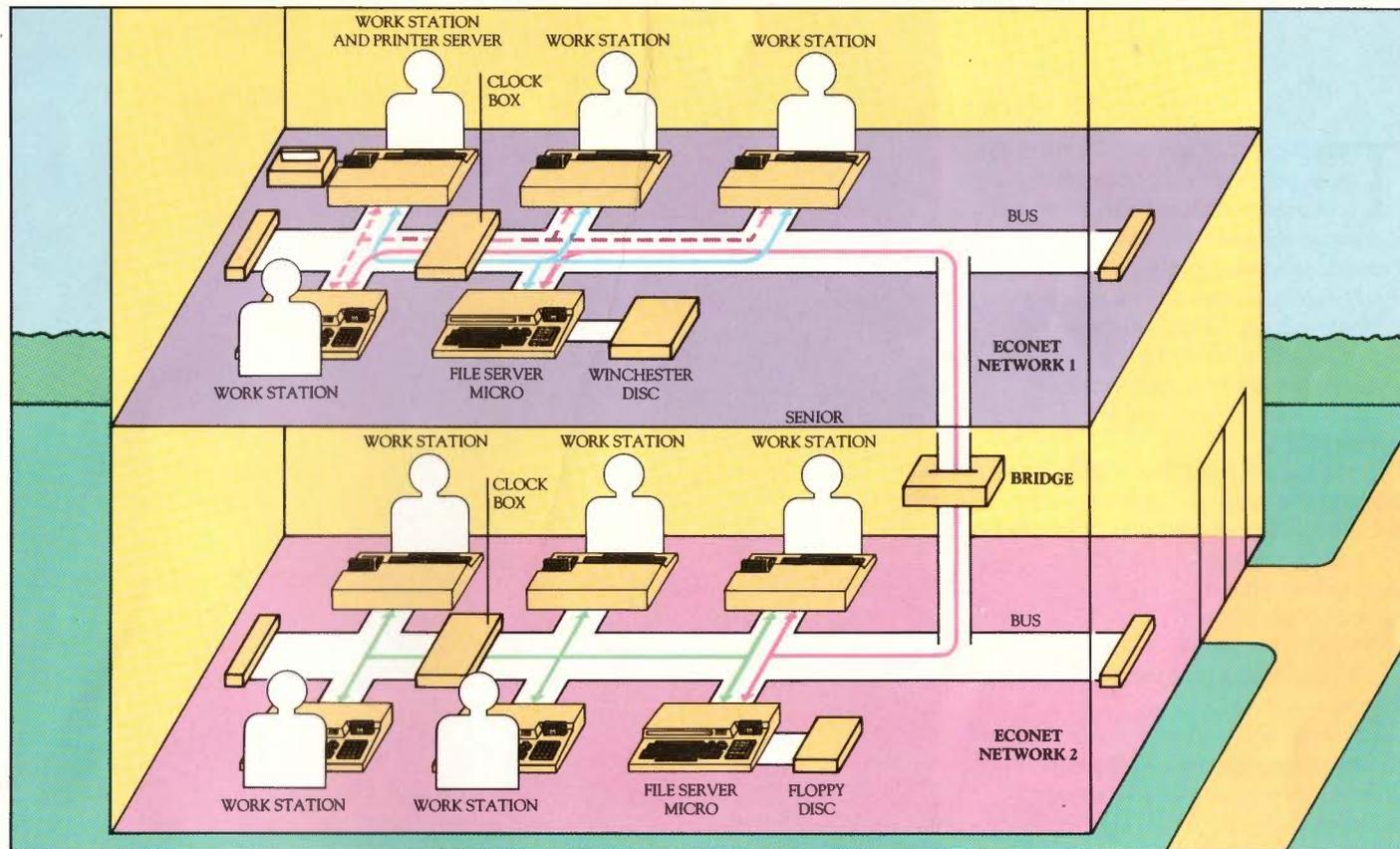
These timings are the averages of the times recorded for each machine running the eight BASIC programs making up the Personal Computer World benchmark suite.

*Tests conducted at Acorn Computers

THE MASTER ECONET TERMINAL. One of the major successes of the BBC Microcomputer System has been its capabilities in the area of networking. Experience has shown that, wherever a number of microcomputers are being used together for similar or related purposes, many applications can be better managed by linking them together in a local area network. And ECONET, with its capacity to handle up to 254 computers, provides the most sophisticated network design in its price range.

The Master Econet Terminal has been designed to make the power of the Master Series available in a networking environment, at a very reasonable cost. The standard Master ET provides the same processor as the Master 128 and can accept internal expansions to operate as a Turbo, Master 512 or Master Sc. It also includes the ECONET network interface card with the associated connector and the latest Advanced Network Filing System software.

This makes the Master ET ideally suited as a powerful but low-cost ECONET workstation. Licensed software required for use on the workstation can be loaded via the network to sideways RAM. Commercially available applications cartridges can be inserted directly via the cartridge sockets. Resources such as printers, file servers or databases can be shared by all the computers on the network. And since interfaces for these functions are only necessary for one or two machines on each network the Master ET can do without them, making it very economical indeed.



Two ECONET systems linked by an ECONET Bridge serve to illustrate the versatility of networking that can be provided. Network One is providing administration and computer services for the staff of a school or college, Network Two is one of the classroom networks.

ECONET NETWORK 1

A Master Series Turbo with 30 Mbyte Winchester disc provides a fast, high capacity file-server. A Master Series 128 functions as printer server and workstation, Master Series ETs are used as workstations by both administration and teaching staff.

ECONET NETWORK 2

All workstations have access to files on the local fileserver, a Master Series Turbo with high capacity floppy disc drives. Only the senior workstation, used by the teacher, has valid identity on Network 1 allowing access to files on the Winchester disc or the passing of pupils files to the printer server.

ECONET BRIDGE

A high speed totally automatic link between ECONET networks. Where network usage is intensive and the network geography diverse, ECONET Bridges allow the provision of high speed network services to many users in a way that is both flexible and economical.

At the same time the full processing power of the Master Series, and the sophistication of BBC BASIC, are made available to each workstation on the network. In education, the network can be used to monitor the operation of each workstation and to pass advice and assistance to the user. In business, the

network enables messages, reports and data to be passed between workstations forming an internal electronic mail system. In industry and laboratories, a number of workstations carrying out individual process monitoring operations can pass data instantly via the network to a central control computer.

To supplement the capabilities of the Master ET, support and training for network users is available from specially selected outlets throughout the country. Wherever networks are used, in hospitals, factories, warehouses or offices, the Econet Terminal is the low-cost gateway to modern computing power.

MASTER SCIENTIFIC

THE MASTER SCIENTIFIC. One of the main problems encountered in scientific computing can be access to computer power. Too many, highly complex programs chasing too little, highly expensive mainframe time can cause long delays. The frustration can be particularly intense during program development where a small error can produce a wasted run – and another tedious wait.

If this is a situation that sounds familiar, you ought to know about the BBC Microcomputer Master Scientific.

You'll be surprised to find that, beneath its unassuming exterior, it incorporates a National Semiconductor 32-bit processor. It's very fast and very sophisticated, and provides a useful ½ Mbyte of RAM.

You'll be delighted to discover that the Master Sc supports a collection of professional programming languages including FORTRAN 77, ISO PASCAL, and C.

These are full implementations, conforming to relevant standards and authoritative descriptions, and written by specialists in mainframe languages. A floating point processor conforming to IEEE Standard is fitted. In many cases programs developed on the Master Sc will run unchanged on your mainframe machine; although after the flexibility and control of your micro, you may find the mainframe rather slow.

The Master Sc comes with a version of BBC BASIC, a valuable language in its own right for many scientific applications, and all the other features that you would expect from a

BBC Micro. Software upgrades include the 32000 Assembler and the PANOS operating system; making it compatible with the powerful Acorn Cambridge

Workstation.

Whether your applications involve computer aided design or statistics, finite element analysis or circuit simulation,

the Master Sc will provide you with individual access to mainframe power at micro prices.



THE MASTER SERIES SPECIFICATIONS



THE MASTER 128

CPU

65C12

2 MHz clock frequency

RAM

64 Kbytes main

64 Kbytes sideways, four 16 Kbyte pages

50 bytes CMOS battery backed

20 bytes used by fitted firmware

10 bytes reserved for future Acorn use

10 bytes reserved for 3rd party applications

10 bytes available to user applications

User RAM is not affected by filing system workspace

Character set (ASCII 32-255) can be redefined with no loss of user RAM

ROM

128 Kbytes

CONTENTS:

35 Kbytes Operating System with extended graphics and Terminal software

16 Kbytes BBC BASIC v 4.0
16 Kbytes EDIT, program and text Editor
13 Kbytes VIEW v 3.0, wordprocessor
16 Kbytes VIEWSHEET, spreadsheet
16 Kbytes ADFS, Advanced disc filing system
16 Kbytes 1770 DFS, BBC model B+ compatible

Internal ROM sockets

2×128 or 256 Kbit capability

1×128 Kbit capability

Total sideways memory usable at any time (ROM or RAM) 256 Kbytes
inc 96 Kbyte fitted firmware

Cartridge Sockets

2 Enhanced Acorn cartridge sockets

Internal '1 MHz bus' uprated to 2 MHz bus speed

256 Kbyte ROM capacity, per socket

Video Genlock capability through cartridge hardware

Sound input and output

Disc Interface

Shugart standard

SUPPORTS:

MFM, double data density

FM, single data density

40 or 80 track drives

Formatted capacity, 320 Kbytes – MFM, 80 track, per surface – total 1.28 Mbyte on twin 80 track double sided drives
34 way IDC connector

Optional Network Interface

Acorn ECONET

16 Kbytes ANFS ROM

Parallel Printer Interface

8 bit Centronics compatible

26 way IDC connector

Serial Interface

RS423 75-9600 baud software selectable

Independant Rx/Tx baud rate selection

5 pin DIN socket

Display

Modes:

8 standard modes + 8 'Shadow' modes

Mode 0 2 colour

80×32 text 640×256 graphics

Mode 1 4 colour

40×32 text 320×256 graphics

Mode 2 8 colour + 8 flash options

20×32 text 160×256 graphics

Mode 3 2 colour

80×25 text only

Mode 4 2 colour

40×32 text 320×256 graphics

Mode 5 4 colour

20×32 text 160×256 graphics

Mode 6 2 colour

40×25 text only

Mode 7 8 colour

40×24 'Teletext' text and graphics

8 Shadow modes provide the same displays without affecting user memory

Graphics commands extend colour range by colour mixing

OUTPUTS:

Phono socket

UHF channel 36, full colour

BNC connector

Composite Video 1V peak to peak, monochrome

5 pin DIN socket

RGB TTL level 5V

separate +ve or -ve sync.

Sound

4 channels full software control

Internal speaker 4.5cm

Phono socket output for 16 Ohm speaker or pre-amp

User Port

10 bit memory mapped bi-directional TTL compatible

+5 volts available

20 way IDC connector

1 MHz Bus

General purpose Bus extender

Audio output and input

Internal or external, software selectable

34 way IDC connector (external)

External TUBE

Custom interface for the connection of second processors

40 way IDC connector (external)



Internal TUBE

Custom interface for the connection of co-processors

2 × 12 way connectors

Internal or External TUBE selectable by software

Analogue Input

4 channel Analogue to Digital conversion

8 bit accuracy

1.8 volt reference voltage

Light pen strobe connection to CRT

15 way D-type connector

Accepts external reference voltage for higher precision

Cassette Interface

300 – 1200 CUTS standard, speed is software selectable

Output 200 mV peak to peak

Input 50 mV to 5 V

Motor control relay, 1 Amp at 24 Volts DC

7 pin DIN connector

Real Time Clock

Battery back-up, Lithium cell, minimum 1 year life

Information can be called from MOS, BASIC and other languages

Time/Day/Date/Year

Keyboard

63 key QWERTY keyboard with 2 key rollover and auto repeat

10 function keys

20 key numeric pad

Screwdriver operated BREAK key lock

Auxiliary power socket

+ 12 Volts

+ 5 Volts

– 5 Volts

Power available is dependant on internal options

Power Input (UK)

216 to 264 V.AC (50 Hz) Rating

100 Watts 0.5 Amps

Dimensions

Width: 476 mm

Depth: 346 mm

Height: 85 mm

Software –

1 tape + 1 disc (40/80 format)

Welcome suite

Welcome utilities

ADFS utilities

BAS 128 – BBC BASIC for sideways

RAM use, 64 K free RAM

Documentation

Welcome Guide, this provides a full introduction to the Master 128's hardware and firmware

VIEW and ViewSheet reference cards

FUNCTION KEY STRIPS

VIEW/ViewSheet/EDIT/Terminal

OPTIONAL REFERENCE GUIDES:

Reference Guides 1 and 2

VIEW and ViewSheet Guides

Advanced Reference Guide

THE MASTER TURBO

I/O processor – uses the Master Series 128 CPU

All features of the Master 128 are provided as described above with the following additional features:

Language processor:

65C102 8 bit CMOS

Clock frequency 4 MHz

MEMORY:

RAM 64 Kbytes

ROM 4 Kbytes –

TUBE communications code

VIEW automatically relocated on transfer from I/O processor memory

Typical speed increase, 50% (HI-BASIC vs BASIC v4, PCW benchmarks)

Operating system support for parallel processing (eg '*GOIO')

HI-BASIC, HI-EDIT and Printer-Buffer extender supplied on disc

THE MASTER 512

I/O processor – uses the Master Series 128 CPU

All features of the Master 128 are provided as described above with the following additional features:

Language processor:

80186 16 bit

Clock frequency 8 MHz

MEMORY:

RAM 512 Kbytes

ROM upto 128 Kbytes

Acorn Mouse

Software: on disc

Digital Research DOS+

DOS+ provides compatibility with MSDOS 2.1 and CP/M 86

The GEM Collection from Digital Research:

GEM Desk Top

GEM Paint

GEM Write

Documentation:

1 manual

THE MASTER SCIENTIFIC

I/O processor – uses the Master Series 128 CPU

All features of the Master 128 are provided as described above with the following additional features:

Language processor:

National Semiconductor 32016 32 bit
Clock frequency 8 MHz
Floating point processor NS 32081

MEMORY:

RAM 512 Kbytes
ROM 16 Kbytes
PANDORA operating system core
TUBE communications code
BBC BASIC equivalent to v 4.0

Optional software: on disc

PANOS operating system including:
Editor, Linker and Utilities
FORTRAN 77 –
Conforms to ANSI X3.9–1978 and
ISO 1539–1980
ISO PASCAL –
Conforms to BS 6192–1982
C – Conforms closely to the description
in the book 'The C Programming
Language' by Kernighan & Ritchie
32000 series macro assembler
Library support, as appropriate, for
FORTRAN, PASCAL and C

Documentation:

Master Scientific User Guide
PANOS Guide to Operations*
PANOS Programmer's Reference Manual*
BBC BASIC Reference Manual
FORTRAN 77 Reference Manual*
ISO PASCAL Reference Manual*
C Reference Manual*
Acorn 32000 ASSEMBLER Reference
Manual*
Function key card booklet*
**available separately*

THE MASTER ECONET TERMINAL

Processor and RAM as Master Series 128

ROM

64 Kbytes

CONTENTS:

32 Kbytes Operating system
16 Kbytes BBC BASIC
16 Kbytes Advanced Network Filing
System

Display

Composite video as Master 128
RGB as Master 128

Network Interface Card

Fitted standard

Cartridge sockets

as Master 128

Internal Tube connector

as Master 128

*NB 6522 User VIA chip is not fitted but is
available as an option.*



THE SPECIFICATIONS



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