



Multi-talented mobiles

Modern mobiles do more than make calls. Here's how to choose the right one for your needs

When they first appeared in the UK more than 20 years ago, portable telephones seemed revolutionary. Yet we've come to expect far more from our modern handsets.

Our latest test of 23 new mobile phones includes models that can also play music, take

photos and access the internet. To help you decide which to choose, we've grouped the best models according to how you're likely to use them. And if we think that an older model is a better bet, then we've included its details.

We haven't forgotten the basics – all the

phones are tested for sound quality and reception levels, as well as how easy they are to use. If you're not interested in the latest gadgets and just want a simple phone for calling and texting, we've also found a good range of those.

Jargon buster All the tech talk you need to know

■ **MEGAPIXELS** Pixels are tiny dots of colour that make up a digital image – 5Mp is five million pixels, for example. More pixels mean more detail in the picture taken, which will allow you to create larger prints.

■ **OPTICAL ZOOM** Optical zoom uses the lens to enlarge as you zoom, in the same way a traditional camera does. This means that the quality is just as good as if the object were near.



Optical zoom isn't yet widely available on phones. Most use digital zoom, which enlarges the area in the centre of the image and crops the edges, stretching each pixel as it does so. The more you zoom in, the more the quality of the image deteriorates.

■ **XENON FLASH** The type of very bright flash unit found in most standalone digital cameras, and some higher-end camera phones. Xenon flashes are brighter than the LED type found in many camera phones.

■ **TOUCHSCREEN** Devices such as the iPhone have made touchscreens popular. Touchscreens allow for a larger display by doing away with the conventional keypad. Instead, you use a stylus or finger to type directly on to the screen.



However, touchscreens can be imprecise, and can be rather slow if you're sending long emails or entering lots of data.

■ **MUSIC FORMAT** Digital music is available in different formats – MP3 is the best known and most flexible. Other formats include Apple's AAC and Microsoft's WMA.

■ **BLUETOOTH** A method of using radio frequencies to transmit information. It works if the compatible devices are within 10 metres of each other, though

they don't have to be in line of sight. One popular use is linking a Bluetooth-enabled phone with a wireless headset (see our Bluetooth headsets report, p70). Stereo Bluetooth, also known as A2DP, can transfer stereo music files between two compatible devices.

■ **FREQUENCY BANDS** A mobile can either be dual, tri or quad-band – this indicates which frequencies it works on. All phones sold in the UK will be at least dual-band and so can be used throughout Europe and many other countries (though you usually need to arrange this with your provider). A tri-band phone will work in most of North and South America, though some areas may need a quad-band device.

Camera phones

Never again miss that crucial photo

Most phones these days come with built-in cameras, but the quality varies hugely. Cheap handsets often only include cameras with a restricted resolution. The images taken with these cameras are much lower quality. Resolution is improving rapidly, however, and Samsung recently unveiled an 8Mp model, though it's not yet available.

Yet megapixels aren't the be-all and end-all. Lens quality, sensor quality and sensor size

play a big role in how good your pictures are. A 3.2Mp camera phone with a great lens and a large sensor could provide better image quality than a 5Mp one with a poor lens.

The importance of the lens and sensors explains why current camera phones are rarely capable of competing with dedicated cameras. There simply isn't enough room in a phone to fit components that are of comparable quality.

However, they are improving.



And as new features such as autofocus, proper optical zooms, true Xenon flashes and image stabilisation systems are introduced, the gap is narrowing even further.



72% Sony Ericsson K810i Cyber-shot

Although tested last year, this is still the best camera phone that we've reviewed. Its excellent 3.2Mp camera proves that megapixels aren't everything. Image quality is outstanding, and the Xenon flash means that it can even take high-quality shots in poor light. The camera also comes with 'photo fix', which adjusts the light balance, brightness and contrast of the image.

WORTH KNOWING It doesn't have an optical zoom; but the only available models we've tested that do are the Nokia N93i and the Samsung G800.

Sound quality ★★★★★ Battery ★★★★★
Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★
★★★★★ Camera ★★★★★★ Music player
★★★★★ Weight 103g 3G Yes Frequency bands
Three Camera 3.2Mp Memory card slot MS
Micro (M2)

PRICING Contract £45 on T-Mobile
PAYG No Sim-free £150



70% LG KF750 Secret

The LG Secret is a high-end device with a price tag to match. It incorporates a 5Mp autofocus camera and can capture low-resolution video at 30 frames per second (fps). There's a secondary camera for video calling, too. Although picture quality can't compare to that produced by Best Buy dedicated cameras, the images look great on the impressive display. Shots can be saved to the memory card and it's also easy to transfer them to a PC.

WORTH KNOWING A light sensor adjusts the screen's brightness to save power, yet it still has less battery life than most comparable models.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★
★★★★★ Camera ★★★★★★ Music player
★★★★★ Weight 119g 3G Yes Frequency bands Three Camera
5Mp Memory card slot Micro-SD

PRICING Contract Free on Vodafone, O2, Orange and T-Mobile PAYG No Sim-free £275



69% Samsung F490

The F490 is the latest luxury handset to take on the iPhone with a large touchscreen. Though not quite as big as the one found on the iPhone, at 3.2 inches it's still a good size and shows off your photos well. The 5Mp autofocus camera performs almost as well as to the one found on the LG KF750 Secret, and also records low-resolution video at 30fps. However, like the Secret, it doesn't have a proper flash, so photos taken in dim light suffer.

WORTH KNOWING The touchscreen uses Samsung's Croix operating system, so writing long text messages is a slow process.

Sound quality ★★★★★ Battery ★★★★★
Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★
★★★★★ Camera ★★★★★★ Music player ★★★★★
★★★★★ Weight 101g 3G Yes Frequency bands Three
Camera 5Mp Memory card slot Micro-SD

PRICING Contract No PAYG No Sim-free £249

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Picture-perfect phones

Camera phones make it easy for you to share your photos. The simplest way to do this is by picture messaging, which lets you zap the photo straight to someone else's mobile phone.

Bear in mind, though, that most mobile service providers charge you for sending picture messages. Also, you need to make sure that the person you're sending to has a phone that is able to receive photo messages.

You can also send your photos to people via email, either using your phone's Bluetooth or built-in email service, or by transferring your images to a computer.



Uploading photos

To get your photos off your phone and on to your computer, you need to create a connection between the two devices. The standard way to do this is using a USB cable. These usually come with the phone.

Most phones are Bluetooth compatible, so if your computer also supports Bluetooth, you could pair the two devices and transfer pictures between them wirelessly.

Alternatively, if you save your photos to a removable memory card in your phone, you can pop this out and slot it into a memory-card reader whenever you want to transfer photos.

Once the pictures are on your computer, you can share them in several ways, such as posting them on a photo-sharing website like Flickr (www.flickr.com), or creating a slideshow DVD using Windows Photo Gallery (for Windows Vista users) or iPhoto (for Mac users).

Music phones

Listen to your favourite tracks on the go

A built-in music player cuts down the amount of devices that you have to haul around. And if you don't have to buy a separate player, you'll also save money.

Make sure your chosen handset will play any music already saved on your computer. On a PC, you can find out what format a track is in by right-clicking on it and then selecting 'properties'. Typically it will be an MP3, AAC or WMA file. To see if it's supported on the phone you want to buy, check our mobile phone reviews at www.which.co.uk/phones.

Don't forget memory

Basic models usually have only a small internal memory, but if you plan to store music you'll need more memory. Some internal memories are more than 1GB (approximately 220 songs), but removable memory cards are a more common solution. These also offer a convenient way to move files quickly between your handset and computer.

Pick a card

If a phone has a memory card slot, make sure you ask the retailer



if it comes with a memory card and, if it does, how big it is. If it doesn't come with a card, you'll need to buy one.

Also check whether you can use your own headphones to listen to music on your mobile phone. While all music phones come with their own headphones,

our tests show the sound quality will almost always be improved by using a good set of your own.

Finally, don't forget that listening to music on your phone will drain the battery faster than usual, so the longer the battery lasts to start with, the better.



72% Apple iPhone 3G

The new iPhone 3G is an updated version of Apple's bestselling device. As well as being cheaper than the previous incarnation, the new model features GPS navigation, faster internet and a longer-lasting battery. However, the heart of the device is the great music player, essentially a built-in iPod with 8GB or 16GB of memory. This produces fantastic sound through the supplied headphones, and is easy to operate. It can also be used on planes, thanks to the flight mode, but there's no radio. **WE LIKE** The massive memory is more than you'll find on many dedicated MP3 players.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 137g 3G Yes Frequency bands Four Camera 2Mp Memory card slot No

PRICING Contract Free on O2 **PAYG** £320 on O2 **Sim-free** No



71% Sony Ericsson W890i

This slim handset is yet another Best Buy from Sony's Walkman range. Although it's only 1cm thick, it still manages to squeeze in some useful features. You can compile playlists, while clever software can identify songs from small snippets – great when you hear a song on the radio but don't know who sings it. You can listen to the music player or FM radio via the provided headphones or connect your own.

WORTH KNOWING The A2DP Bluetooth connection lets you listen to your music wirelessly in stereo if you have a compatible cordless headset.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 78g 3G Yes Frequency bands Four Camera 3.2Mp Memory card slot MS Micro (M2)

PRICING Contract Free on Vodafone, Orange, 3 and Virgin **PAYG** £190 on Orange, £220 on Virgin, £230 on O2, £240 on 3 **Sim-free** £300



67% Sony Ericsson W380i

This is a cheaper Sony Ericsson model from the lower end of its Walkman range. It's a good all-round handset, though not quite in the Best Buy class. There are trade-offs for the lower price, such as the basic 1.3Mp camera and lack of 3G connectivity. However, the music player is fantastic, and the included headphones are even better than those that come with the more expensive W890i. As it isn't 3G, downloading music will be a slow affair.

WE LIKE It has a motion sensor that lets you to wave your hand over the phone to snooze an alarm or silence an incoming call.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 94g 3G No Frequency bands 3 Camera 1.3Mp Memory card slot MS Micro (M2)

PRICING Contract No **PAYG** £70 on Orange, £72 on Vodafone **Sim-free** £115

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Music on your mobile

If you're regularly downloading songs to your mobile, you'll need a fast internet connection.

With a 3G connection, it should take around 90 seconds to download a song, or 10 seconds via HSDPA (High-Speed Downlink Packet Access, or 3.5G). If you have a basic GPRS connection (see 'Internet phones', opposite), it will take about 13 minutes.

Download sites

Vodafone customers can download unlimited tracks direct to their handsets from the MusicStation store for £1.99 a week. The Nokia Music Store can be accessed via a compatible handset or a PC. Individual tracks cost 80p and albums start from £8. The store also offers a monthly £8 subscription for PC streaming.

T-Mobile offers more than one million tracks at £1 a song on its Mobile Jukebox. It offers a dual-download service to both compatible handsets and PCs. Rival network 3 has a similar service: 3MusicStore, which offers 1.5 million tracks at £1.29 each.

Internet phones

Don't be tied to your computer. New mobile phones make accessing the internet easy

The current generation of phones are able to download information quickly. GPRS (General Packet Radio Service) is now the lowest level of web connection – usually around 25 to 40Kbps (kilobits per second). Edge (Enhanced Data rates for Global Evolution) is the next step up, and at 236Kbps it's much better at streaming video and downloading files. 3G is even faster – the equivalent of a broadband connection in your home.

The maximum download speed on 3G is 384Kbps, which effectively lets you download a 4.5MB file (about the size of a song in MP3 format) in about a 90 seconds. 3G also enables you to make video calls.

Even speedier downloads

Some new phones even feature an upgrade to 3G called HSDPA, which gives you more bandwidth, making it even faster. HSUPA (High-Speed Uplink Packet Access)



is a further enhancement that increases how fast you can upload information.

Another option is to connect to the internet using Wi-Fi. Only a few phones offer this feature, but it's worth looking out for as it usually provides faster and cheaper access.

You've got mail

Having access to the internet allows you access to email on your phone. Most email systems will only check for messages periodically, but the 'push' email system, made popular by the BlackBerry series, delivers messages to the phone as soon as they are sent. Some handsets and tariffs will even let you synchronise your phone with your computer.



70% Samsung i780

This smartphone has a full Qwerty keyboard for writing long messages, and uses the Windows Mobile 6 Professional operating system. This means it can work with Microsoft Office documents as well as send and receive emails. It's fully HSDPA (3.5G) compatible, and can achieve speeds of up to 3.6Mb per second. It comes with a Wi-Fi adaptor, so you can hop on to hotspots, plus there's stereo Bluetooth and an inbuilt GPS. Impressively, the powerful battery keeps them all running smoothly.

WORTH KNOWING If you struggle with technology, you may want to avoid this phone, as the instruction manual is limited.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 124g 3G Yes Frequency bands Three Camera 2Mp Memory card slot Micro-SD

PRICING Contract No PAYG No Sim-free £304



69% Nokia E51

This is an attractive phone that packs many features into its slim frame. There's speedy internet access via HSDPA, and you can also access the net at Wi-Fi hotspots. Nokia Maps comes preinstalled but, as there's no GPS receiver, it isn't a true satnav phone. Using the Symbian S60 operating system, it can view common email attachment types such as PDF and Microsoft Office files and can be used to send and receive emails. However, the numeric keypad means that you won't want to type long messages.

WORTH KNOWING The internal memory is small, but can be expanded to a more respectable 4GB using a micro-SD card.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 100g 3G Yes Frequency bands Three Camera 2Mp Memory card slot Micro-SD

PRICING Contract Free on T-Mobile PAYG No Sim-free £180



69% Sony Ericsson K660i

It may not be as eye-catching as Sony's Walkman range of music phones or the Cyber-shot camera phones, but the K660i is still an impressive handset. It's a mid-price device that Sony is promoting for its online-friendliness. It features a set of illuminated browser shortcut keys that become active when surfing, HSDPA for fast mobile connectivity, and a browser with landscape mode as the default setting to get the most out of web pages.

WORTH KNOWING The provided 256MB memory card is rather stingy – you won't be able to fit more than about 60 songs on it.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 95g 3G Yes Frequency bands Four Camera 2Mp Memory card slot MS Micro (M2)

PRICING Contract Free on 3 PAYG £110 on T-Mobile, £120 on 3 Sim-free No

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Web browsing on the go

The networks usually charge extra for internet usage. Most charge per megabyte (MB) of data, though some also charge by the day.

All the networks have different costs, but as a useful guide, O2 charges £3 a MB up to a maximum of £1 a day. For heavier users it offers an unlimited bolt-on tariff for £7.50 a month.

O2 estimates that 1MB of data is equivalent to eight normal web pages, 40 web pages accessed through its O2 Active web portal, or 200 emails without attachments.

However, data costs are much higher if you use your phone outside the UK and you're unlikely to be able to use any data bundle that you may have purchased.

If you really need to access the internet from your phone while overseas, you should consider buying a special international data package.

Everyday phones

Good all-round handsets that get the basics right

Picking the right handset is hard enough, but your options don't end there. Equally important is deciding the right tariff and choosing whether you should sign up for a monthly contract or just pay as you go.

A good starting point is to check your latest bill and work out how much you use your phone on average. If you're spending £20 or more, you'll

probably be better off with a pay-monthly contract, so look for a deal that includes free minutes and texts close to your average use. The handset will usually be provided at a heavily subsidised price, possibly even free of charge, but you will be tied in for 12 to 24 months.

If you want a phone just for emergencies, or for fewer than 10 minutes of calls a day, pay as

you go is probably your best choice. However, you'll have to pay for your handset upfront, and you're likely to have a limited choice of models.

Whatever you decide, shop around for the best deal both directly with mobile operators and with third-party suppliers. Check online, too, as you may get slightly different offers or more minutes or texts for your money.



68% Nokia 2610

This is a cheap and basic model: a colour screen and polyphonic ringtones are about as advanced as it gets. While it may not have the extras adored by gadget fans, it's still a fantastic phone that does all the simple things well. There's a great battery, and it's excellent for making calls in weak reception areas. It's also very light, though we've seen better phones in terms of durability. As it's only a dual-band model, it can't be used in North America.

WE LIKE This is one of the best value phones you can buy.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera n/a Music player n/a Weight 82g 3G No Frequency bands Two Camera n/a Memory card slot n/a

PRICING Contract Free on Orange, T-Mobile
PAYG £15 on Orange, £20 on T-Mobile
Sim-free £30



67% Nokia 1650

This is a pretty basic handset. There's no music player or camera, but if you just want a simple phone for making calls and sending texts then it's a great choice. Sound quality and reception levels are good, and there's a fantastic battery that provides around eight hours of talk time. Its 1.8-inch colour screen is perfectly fine for basic operations, though we didn't like the rubbery numberpad.

WE LIKE The impressive battery provides around eight hours of talk time and will last almost two weeks on standby.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera n/a Music player n/a Weight 78g 3G No Frequency bands Two Memory card slot n/a

PRICING Contract No PAYG £15 on Virgin, £20 on Orange and T-Mobile Sim-free £44



67% Samsung J700

The sleek, sliding J700 closely resembles many of Samsung's more expensive phones. It's better equipped than the Nokia 1650, with a 1.3Mp camera, web access and music player, but these features can't compare to those found on high-end handsets. Call quality, reception and battery life are impressive, and it's easy to use. However, the buttons are a bit close together.

WORTH KNOWING Although there's a built-in camera, there's no quick camera button, so accessing it is a bit of a pain.

Sound quality ★★★★★ Battery ★★★★★ Ease of use (calls) ★★★★★ Ease of use (texts) ★★★★★ Camera ★★★★★ Music player ★★★★★ Weight 92g 3G No Frequency bands Three Camera 1.3Mp Memory card slot Micro-SD

PRICING Contract Free on Virgin PAYG £45 on Vodafone, £50 on Orange, T-Mobile and Virgin, £60 on O2 Sim-free £80

RECYCLE YOUR PHONE



Donate unwanted mobiles

To recycle your phone you can simply return your unwanted handset (minus the Sim card and any security or Pin codes) to your network or phone retailer. It'll then pass on the phone to mobile handset recycling company Fonebak for processing, and the network will make a donation to charity.

Alternatively, many charities will let you give the phone to them directly. Oxfam and children's charity NCH do this and receive money for each handset they're sent. However, you may generate the charities more money by selling it yourself and then donating your earnings.

Selling your old phone

Groups such as Envirofone, Mazuma, Mopay and Mobile2Cash all buy old phones.

All you do is enter your phone's make and model on their website and they'll make you an offer for it. If you're happy with the price then the company will usually send you a prepaid addressed envelope for you to post the phone back to them.

Prices vary, and newer phones generate more money, but, as an example, a Nokia N95 8GB would fetch £140 from Envirofone.

Another option is to sell your handset privately, using online sites such as eBay or Gumtree.

Some retailers will allow you to trade in your old handset when you buy a new one, or another option is to simply reuse the phone yourself. If your contract has ended but the phone is in good condition then you can legally, and often freely, unlock it. This will let you use it on any network, allowing you to add a good-value Sim card of your choice.

Contacts

Apple 0800 048 0408
www.apple.com/uk
Carphone Warehouse 0870 087 0870; www.carphonewarehouse.com
LG 0870 873 5454; http://uk.lge.com
Motorola 0871 641 2130

www.motorola.com/uk
Nokia 0870 055 5777; www.nokia.co.uk
O2 0870 225 7879; www.o2.co.uk
Samsung 0845 726 2864
www.samsung.com/uk
Sony Ericsson 0870 523 7237

www.sonyericsson.com
3 0800 358 6946; www.three.co.uk
T-Mobile 0845 412 5000
www.t-mobile.co.uk
Vodafone 0808 040 8408
www.vodafone.co.uk