

## Re: USB on stereo question

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tombates@xxxxxxxxxxxxx wrote:

I hope this is the correct place to ask this question. I notice that some new stereos come with a USB connection. I am trying to figure out the purpose of it.

A relative of mine has a Philips MCM530 – a "Micro Hi-Fi System" with a USB connector on the front panel.

Here's a picture of it:

<[http://www.p4c.philips.com/files/m/mcm530\\_22/mcm530\\_22\\_rtp.jpg](http://www.p4c.philips.com/files/m/mcm530_22/mcm530_22_rtp.jpg)>

See here for a brochure:

<[http://www.p4c.philips.com/files/m/mcm530\\_22/mcm530\\_22\\_pss\\_eng.pdf](http://www.p4c.philips.com/files/m/mcm530_22/mcm530_22_pss_eng.pdf)>

And here's the complete user manual:

<[http://www.p4c.philips.com/files/m/mcm530\\_22/mcm530\\_22\\_dfu\\_eng.pdf](http://www.p4c.philips.com/files/m/mcm530_22/mcm530_22_dfu_eng.pdf)>

I have visited a number of electronic stores and asked, but I keep getting different answers.

Whatever functionality the USB connector might have on a given device is highly dependent on the manufacturer, so you could get different answers merely because of that.

Is the USB to connect a MP3 player, so you can play the songs from your MP3 player on your stereo?

I've seen something like that on some other "Micro Hi-Fi System", but the MCM530 does not support this kind of operation. (The MCM530 has a USB "B" connector, not the USB "A" connector, so you couldn't connect MP3 players or USB sticks/keys, anyway.)

Is the USB to connect your computer to your stereo, so you can

## Re: USB on stereo question

use the speakers on your stereo for music being played on your computer?

That's the primary use for the USB connector on MCM530. You can think of it as an external sound card – and that's how the MCM530 appears in Windows. The whole USB functionality – and apparently much of the other functionality, too – appears to be based on the Micronas UAC 355xB chip:

<<http://www.esic.cn/icmanual/icmanual.asp?ic=UAC355xB&id=141312>>

The "USB PC Link" is one of the program sources – the other ones being the 5-disc CD changer, the analog "line in" connectors (2xRCA), and the FM tuner. As you can see from the above picture, there's a button for selecting the "USB PC Link" mode on the front panel. There's also a similar button on the remote.

But there's more to it: the MCM530 also comes with some software – a custom version of MusicMatch Jukebox, which is a commercial subscription-based net radio/MP3 jukebox service, disguised as an MP3 player/librarian of sorts:

<<http://www.musicmatch.com/>>

The fancy thing here is that while the stereo is set into "USB PC Link" mode, its remote sends commands to the PC. You can control the MusicMatch application with the MCM530 remote: change tracks, start and stop playing, pause, etc. The front panel buttons also work in a similar way.

In addition to the remote control functionality, the MusicMatch application also sends the name of the artist and the name of the currently playing song to the VFD display on the front panel of your stereo – scrolling it there.

The MCM530 also comes with some drivers and software that enable various "Environment" effects. These are all created by the UAC355xB chip inside – they're some sort of DSP settings that are uploaded from the computer to the chip – but for some reason, Philips didn't make them accessible by any other way than via a computer. (There are a couple of such presets built-in that work even without a computer, but by connecting a PC to your MCM530, you'll get lots of more.) These new effects can be selected both from the PC and from the front panel buttons.

All in all, being able to control your MP3 archive (and a net radio service) with the remote, and being able to view the names of the tunes on the VFD display are pretty neat features, but the downsides are:

– The remote control functionality and the song-name-on-the-VFD-display functionality will only work with the MusicMatch Jukebox application. If you prefer some other player, you won't get those features. There's no programming information available, so other media players can't implement any support for the same features (unless someone reverse-engineeres the drivers and their API.)

– I havent been able to get the USB connector to work in Linux at all. The MCM530 is recognized as a USB audio device, but it remains silent even if you try to play back music on it. (Maybe that's just me; I haven't been doing any extensive testing.)

Re: USB on stereo question

– In the end, it's only a USB connector, with the 5 meter limitation. :( An Ethernet connector would have been much more useful since then you could stream music to your stereo over the home network, without needing a computer nearby.

– Placing the USB connector on the front panel does not make any sense since the connector (in this case) isn't intended for removable devices. It should be relocated on the back panel.

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Other manufacturers and devices might have a completely different idea about what a USB–connector–on–a–stereo should do, so don't take this as any kind of general guideline.

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