



To USB or not to USB?  
That is the question.



### Good Question Hamlet!

In the fast & ever-changing world of technology we live in, we spend much of our daily life looking for Power. Power for the kettle; power for the phone; power for the tablet; power for the laptop, and now, even power for the car!

Because of the historic power (and overheating) limitations of the old USB we have used for the last 20 years or so - known as "Type A" - the world has been moving to its new output format - known as "USB-C".

But what else would be useful to know when choosing **which S-Box™**? - to help you decide the above question.

### Well, here are some useful facts that 'Big Tech' hasn't told you.

- Since 2022 all mobile phones, tablets and Laptops contain an internal micro-chip which controls the delivery, efficiency, and speed of power during the charging process. It is programmed to seek and draw the power it wants to charge. Charging power is no longer *pushed* to the device, it is *sucked* by the device itself!
- This means that if a device wants 25 Watts to charge fast but can only get 15 Watts from the USB outlet, it will charge SLOW. It may even trip! Have you ever wondered why your phone charges much faster when you use the mains plug adapter and charger cable, compared with just the cable into a USB on its own? Well, that is because there are 3000 Watts of available power from a socket, compared with 10, 20 or 25 Watts from a USB. When you plug the adapter into the socket, ALL of that 3000 Watts is available.
- **How is Electrical Power calculated?** It's actually quite simple. If you multiply the **Volts** by the **Amp** flow, it equals the **Watts** of power. Example?  $230v \times 13A = 2,990 \text{ Watts}$  (or 2.99Kw)
- So, you can now see that a USB is operating at a miniscule level of power compared with a Mains Socket. Historically most USB's use only 5 Volts of electricity and a 3 Amp flow ( $5v \times 3A = 15\text{Watts}$ ) That is not enough for modern devices and will only "trickle-charge" at best.

S-Box™ Chameleon has *much more* USB power and offers both 25W and 72W USB modules in its Range.

All our USB modules include "USB C" as standard. *(Idea? Check what power your device needs?)* 🤔

It is still worth remembering that a plug socket will always charge any device. You just need the adapter!

**TECHNOLOGY IS GREAT, AND HUNTING FOR THAT MISSING ADAPTER CAN BE A PAIN, BUT IF YOU WANT TO FUTURE PROOF ANY S-BOX™ CHOICE WE REALLY DON'T MIND IF YOU STICK TO PLUG SOCKETS!**



# BUT THAT IS ONLY HALF OF THE STORY!

Remember the internal micro-chip we mentioned at the beginning of this newsletter?

It's called **IDR** or, to give it its full title, **Intelligent Device Recognition**.

This is the "digital handshake" technology that links all Mobile Devices with the USB Port they are connected to for charging. The USB port must now include its own microchip to talk to the Device!!

The Device then decides how the power it wants is delivered. At what Volts, at what Amp flow, and at what Wattage!

All Devices now control the complete charging process to gain the fastest and most efficient power delivery.

## PLEASE USE THE GUIDE BELOW TO DECIDE WHICH USB IS RIGHT FOR YOU

