



# POWER BANKS YOU CAN TRUST



*Zoom*

From cubicles to coffee shops to the boardroom, our range of power banks provide your devices with the battery back-up needed to keep you connected to your world whether checking emails, watching movies or streaming music.

With the wide variety of options available in the market, this guide is designed to point you in the right direction when it comes to choosing your power bank, indicating the most important aspects to be aware of and explaining the basic terms associated with mobile power.

# POWER BANK SAFETY

The number one criteria  
when selecting your power bank!

Choosing a power bank can be tricky business.

Due to their rising popularity, unscrupulous suppliers are reducing costs by providing low grade batteries that not only have lower capacity and lifespan than stated, but could also be potentially unstable and dangerous if poorly assembled and not fully safety-tested.

Whilst two products might appear to have the same external appearance, their performance and functionality can differ dramatically. It's for this reason that safety is paramount and should always trump price alone when selecting your power bank.

Imagine the damage your brand and reputation would suffer if someone were to be injured in a power bank explosion, simply because you underestimated the importance of purchasing your power banks from the right source.

As the industry leader in power bank quality control, we've taken an aggressive approach to ensuring that our power banks are manufactured to the highest quality-and-safety-standards.

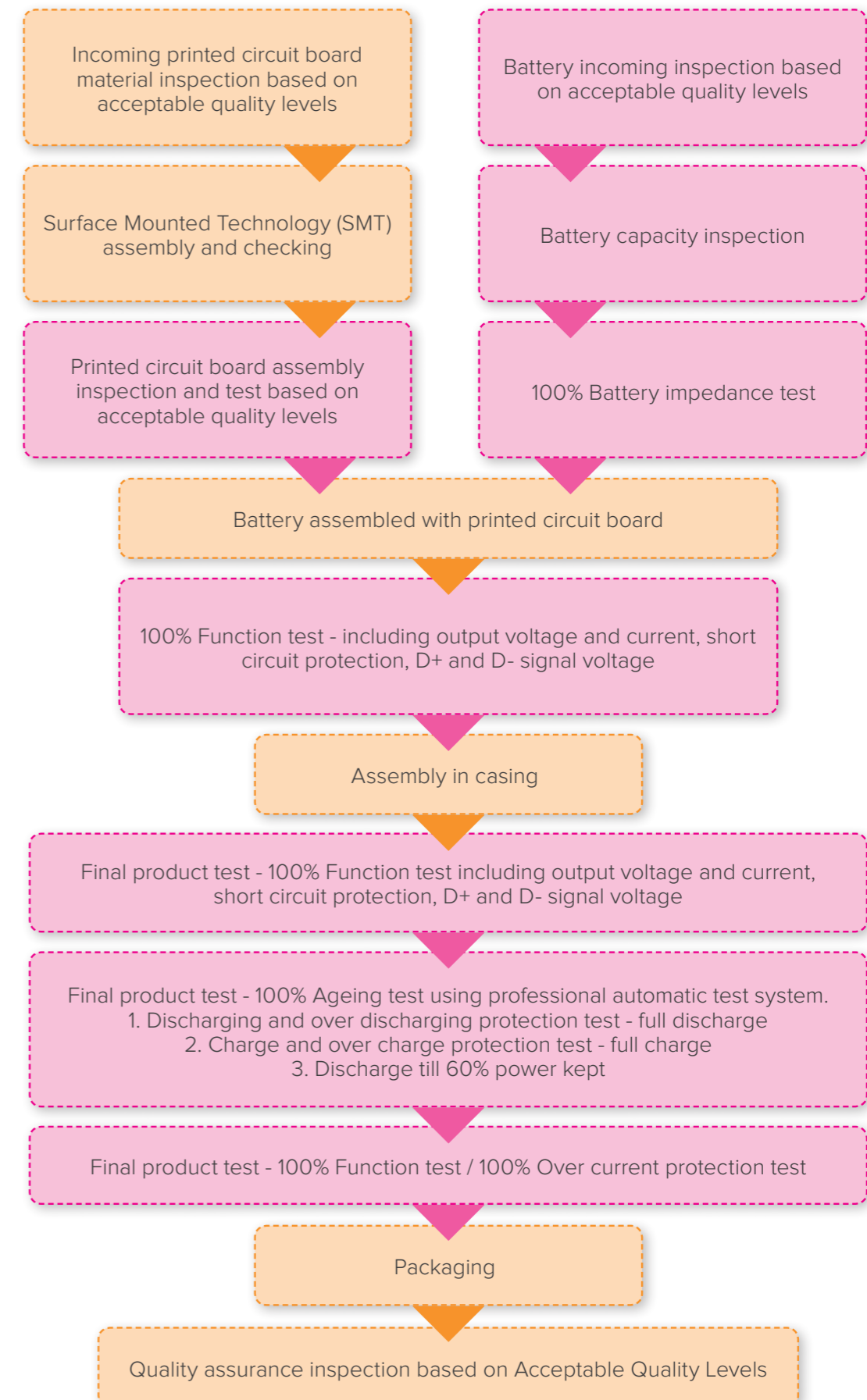
Look out for  or **Zoom** - our stamps of approval.



**MAKE THE SMART CHOICE:**  
select an option that you can trust and are confident to place your brand on.

Our uncompromising commitment to safety includes:

- + Samsung or LG Grade A Lithium-ion batteries in our Zoom line of power banks
- + Grade A Lithium-ion or Lithium-polymer batteries in our unbranded power banks
- + Comprehensive multi-phase testing at factory, illustrated by the chart below:



# COMPREHENSIVE MULTI-PHASE TESTING AT FACTORY



1

Initial Incoming Battery Inspection



2

100% battery output voltage test



3

Battery positive pole soldering



4

100% charging test



5

100% manual short circuit test



6

100% over charging and discharging test



7

100% load voltage test



8

100% ageing charging test



9

100% ageing discharging test



10

100% temperature test



11

100% manual short circuit test for finished product



12

100% over discharging test for finished product



13

100% load voltage test for finished product

# KNOWLEDGE IS POWER

Getting to grips with the technological information surrounding power banks can seem like a daunting task.

To make it simple, we provide you with an explanation of terms and key features that enable you to select the power bank that best suits your requirements.



## CAPACITY

**UNIT OF MEASURE = mAh ( MILLIAMP HOUR )**

The unit of measure for internal battery capacity, it indicates the amount of energy a battery can store.

The higher the number, the larger the battery capacity.

Since batteries within various smartphones, tablets and mobile devices vary, the extent to which a certain power bank will charge a given device will vary too. A 2600mAh power bank may fully charge an iPhone yet the same power bank will only charge an iPad battery to 40% because the internal battery within the iPad is far larger than the iPhone battery.



## CYCLE LIFE

One of the most important factors to consider when selecting a power bank is how many times a battery can be fully recharged and discharged before the capacity is greatly diminished to an unusable or worthless size.

Always choose batteries that have true cycle ratings of 300 cycles or more to ensure that your promotional item lasts way past your desired promotional period. Nobody wants a power bank that only lasts a week, right!

So, the higher the cycle life, the longer the life span of the product and the more bang you get for your marketing buck.



## EFFICIENCY

Power banks also vary dramatically in energy transfer efficiency, which can range from 50% to around 82% of the rated capacity.

A poor quality power bank rated at 2600mAh with a 50% efficiency will only be able to give back 1300mAh to your mobile device, whereas a 2000mAh power bank with a 80% efficiency can give back 1600mAh to your mobile device.



## INPUT CURRENT

Indicates the speed at which a charger recharges itself from a USB power source (such as a PC USB port or USB wall plug adaptor).

The lower the number, the slower the charger will recharge itself. Generally, this is not a critical factor when selecting a power bank since most people recharge their power banks overnight, when fast recharge time is not a major requirement.



## OUTPUT CURRENT

Indicates the speed at which the power bank charges a connected device.

The higher the number, the faster the power bank will charge a connected device. Unlike Input Current, this is an important factor when deciding which power bank best fits your requirements or the requirements of your promotion.

Most smaller smartphones (like iPhone 4 or Blackberry) will only allow charging up to 800-900mA per hour. Even if you plug them into to a faster power adaptor of 2A or 3.1A, the smartphones have circuitry inside them to restrict how much power they will receive. However, devices like Galaxy Note 3 or iPad will accept from 1400-1800mA per hour. On average, a power bank with an output speed of 800-1000mA will be a popular choice for most common handsets, but if your promotion is aimed at a customer base with a more power hungry range of smart devices (like an iPad) it's recommended to choose a faster unit with an output speed rating of around 2000mA.



## DISCHARGE TIME

Indicates the average time in which a charger can drain all of its energy to charge up an average mobile device.

NOTE: speed varies depending on which mobile device you are charging, hence the greater than or equal to symbols are used to represent a variable figure.



## RECHARGE TIME

Indicates the time required for the power bank to fully recharge itself from a USB power source (such as a PC USB port or USB wall plug adaptor).

NOTE: speed varies depending on the USB power source that you attach the charger to. Power output can range widely from 350mA to 1000mA on most USB power outputs, hence the greater than or equal to symbols are used to represent a variable figure.

## EXTRA INFORMATION



### LED INDICATORS

Some power banks come with LED indicators which can help the customer to check on the battery level of the power bank. Our Zoom items come with a special "shake" technology which means that when you shake the power bank, the LED lights will turn on to show how much power is still inside the power bank.



### EXTRA FUNCTIONS

Some power banks are splash resistant, shock proof and / or have additional features like a built-in flashlight.



### LITHIUM ION VS LITHIUM POLYMER

There are two types of batteries commonly used in portable devices: Lithium Ion and Lithium Polymer.

The difference in the battery is that a Lithium Polymer battery holds its lithium-salt electrolyte in a solid polymer composite, whilst a Lithium Ion battery keeps the electrolyte in an organic solvent. A Lithium Polymer battery tends to be more stable, thinner and lighter than a Lithium Ion battery. It can also be formed into almost any shape.



### TRAVEL RESTRICTIONS / ADVISORY









The US Department of Homeland Security (DHS) announced plans to step up security checks on airports with direct flights to the US from Europe, the Middle East and Africa.
















Further to this, the UK Department for Transport (DfT) announced it had also implemented the additional measures in line with advice from US transportation security authorities. The increased screening could potentially apply to all flights, including transatlantic flights and those connecting the UK to mainland Europe with other countries likely to follow suit.

The measures require passengers to demonstrate that electronic devices in carry-on luggage can be activated. If a device is inoperable, the passenger will be barred from taking it aboard the aircraft. The devices in question include all electronic and electrical appliances, including laptop computers, tablets, and mobile phones. Passengers are also advised that devices in checked baggage could be screened as well.

# POWER BANKS COMPARISON TABLE

From the 20 models below, choose the perfect power bank for you, knowing that each has been manufactured with a safety-first approach.

						
 <b>TECH-4250</b> Nab Solar Charger see page 75	550mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4491</b> Powertech Power Bank & Torch see page 31	1400mAh	5V/0.5A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4400</b> Electra Power Bank see page 29	2000mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4221</b> Capacity Power Bank see page 23	2200mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4220</b> Energizer Power Bank see page 24	2200mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4446</b> Phaser Power Bank see page 25	2200mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4467</b> Volt Power Bank & Phone Stand see page 25	2200mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4447</b> Vitality Power Bank see page 28	2200mAh	5V/1A	X	✓	Micro USB Cable	Smartphone
 <b>TECH-4452</b> Photon Power Bank & Torch see page 30	2200mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4465</b> Nano Power Bank see page 22	2600mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4499</b> Energyblast Power Bank see page 27	2600mAh	5V/1A	X	X	Integrated USB Cable & lightning connector	Smartphone

						
 <b>TECH-4242</b> Zoom Energy Bar see page 32	2800mAh	5V/2.1A	X	✓	Micro USB Cable	Smartphone/Tablet/ Navigation/Speaker/ Other USB Devices
 <b>TECH-4434</b> Zoom Pulse Power Bank & Speaker see page 36	3500mAh	5V/1A	X	✓	Splitter cable with Micro USB & integrated 3.5mm audio input jack	Smartphone
 <b>TECH-4429</b> Optimus Power Bank see page 27	4000mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4458</b> Zoom Energy Vault see page 32	4400mAh	5V/2A	X	✓	Micro USB Cable	Smartphone/Tablet
 <b>TECH-4484</b> Polaris Power Bank & Speaker see page 36	4400mAh	5V/1A	X	X	Micro USB Cable	Smartphone
 <b>TECH-4241</b> Zoom Energy Extreme see page 33	5600mAh	5V/2.1A	✓	✓	Micro USB Cable	Smartphone/Tablet/ Navigation/Speaker/ Other USB Devices
 <b>TECH-4497</b> Power Bank see page 37	8000mAh	5V/2.1A	✓	✓	Multi-head USB Connector Cable	Smartphone/Tablet/ Navigation/Speaker/ Other USB Devices
 <b>TECH-4478</b> Zoom Energy Snap see page 35	8800mAh	5V/3.1A	✓	✓	Micro USB Cable	Smartphone/Tablet/ Navigation/Speaker/ Other USB Devices
 <b>TECH-4243</b> Zoom Energy Bar Pro see page 34	8400mAh	5V/2.1A	✓	✓	Micro USB Cable	Smartphone/Tablet/ Navigation/Speaker/ Other USB Devices

## Battery Capacity Smartphone/ Tablets For Reference

SMARTPHONE	BATTERY CAPACITY	TABLET	BATTERY CAPACITY
iPhone 4	1420 mAh	iPad 4	11560 mAh
iPhone 5	1440 mAh	iPad Air	8600 mAh
iPhone 5S	1560 mAh	iPad 2 Mini	6470 mAh
iPhone 5C	1510 mAh	Samsung Tab 3 10.1	6800 mAh
iPhone 6	1810 mAh	Samsung Tab S 8.4	4900 mAh
iPhone 6 Plus	2915 mAh		
Samsung Galaxy S5	2800 mAh		
Samsung Galaxy S4	2800 mAh		
Sony Xperia Z	2330 mAh		
HTC One	2600 mAh		