

# True Wireless Smart Earphones

Application Note



### Truly Wireless smart earphones

The next big leap in Bluetooth headset technology will be “Truly wireless”-earbuds: Two individual earbuds without any cable connection neither to each other nor to the smartphone. This will enhance the users freedom during fitness, workout and other activities.

### Battery challenge

These kind of applications need much more power than ordinary earbuds with cables. All the communication must be done wireless. The integrated smart functions (heart rate monitor, step counter) require additional energy. Since these devices are determined for fitness use as well, the robustness of the cell itself must be given.

### Technical solution

With a round, flat form factor the CoinPower CP1654 can offer the best solution for this application. 120mAh in every earbud provide enough power to reach an outstanding runtime. The excellent cycle life performance will meet the customers requirement of high endurance performance in every single day usage.



Characteristics	CoinPower CP1654 A3
Voltage level	3.7 V
Discharge current	2 C continuous 3 C for 2 sec
Cell Capacity	120 mAh
Cycle Performance	>500 Cycles (>85% of Cini)
Safety	Robust stainless steel case build-in CID

### Lithium Button Cell – CoinPower

The CoinPower series can offer the highest energy density with the perfect form factor for earphone applications. Lightweight and extreme robustness will make this battery the perfect energy storage solution. User-friendly fast charge capability with the highest safety standard in Button cells. The CoinPower is exclusively produced on fully automated production lines in Germany to ensure a maximum production accuracy for every single cell.

- Highest energy density in rechargeable coin cells
- Fast-charge capability
- Discharge current up to 3C
- Highest safety feature on the market
- Perfect form factor for earphones designs
- UL, IEC and UN IATA recognized cell
- Reliability – Made in Germany