

Design study

# Smart watch



## Next generation smart watch

Highly improved chipsets offer much more functions inside the smartwatch while at the same time power consumption is reduced. Usage time of 2 weeks without recharge allow high user acceptance and satisfaction. New display technology reduces power consumption even further and allow thinner design and lower weight.

## Battery challenge

Highest energy density, robustness and thin housing design of the battery cell is decisive to user acceptance design shape and therefore gets highest design attention.

## Technical solution

The round flat form factor, the robust stainless steel housing and high energy density of the CoinPower A4 generation fits perfectly in to the dedicated shape of the whole device. With its patented cells design, VARTA CoinPower offers the perfect energy density across miniature Li-Ion cells on the market. Low weight and a broad range of cell sizes allow flexible design shaping and keeps the glasses thin perfect for comfortable user experience. For example look at our CP1240 A4 cell:



CHARACTERISTICS	COINPOWER CP1240 A4
Typical Capacity	55 mAh @ 3.7 V
Dimensions	12.1 mm diameter 4.0 mm height
Discharge current	106 mA continuous 156 mA for 2 sec pulsed
Cycle Performance	>500 Cycles (>80 % of initial capacity)
Safety Features	Robust Stainless-Steel Housing with build-in PRV

## Lithium Coin Cell – CoinPower

The CoinPower series with cells from 16 to 155 mAh offer the highest energy density with an outstanding cycle life performance for wearable medical and healthcare solutions. Outstanding safety features will make this battery the perfect rechargeable battery solution. The CoinPower is exclusively produced on fully automated production lines in Germany to ensure a maximum production accuracy on every single cell.

- Highest safety feature on the market
- Discharge current up to 3C
- Best-in-class Cycle Life Performance

- Design flexibility by using tags, wires or just the bare cell with cell holder
- UL, IEC and UN IATA recognized cell
- Reliability – Made in Germany

