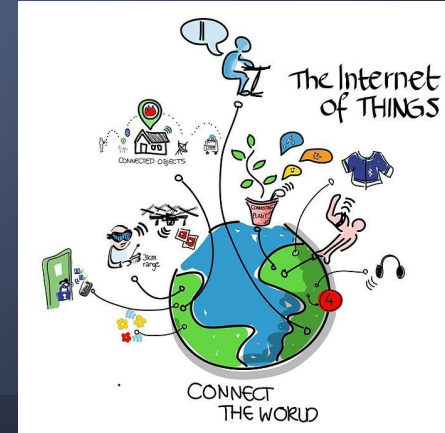


# Ingenic's Newton2

An SOC for the Internet of Things

# Internet of Things

- Wearables and embedded computing devices.
- Ultra-low power technology



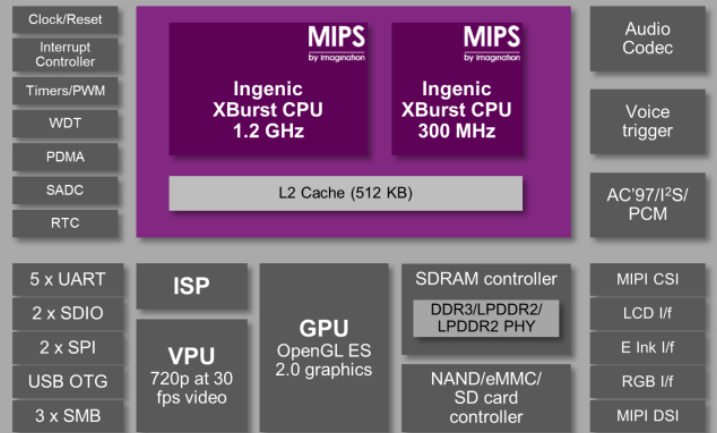
# Ingenic M200

- 9-stage in order
- Big-Little
- 2.0 DMIPS/MHz
- 84mW @ 1.2GHz

Estimated Core Performance

|           | ARM<br>Cortex<br>M0/M0+ | ARM<br>Cortex<br>M3/M4 | ARM11 | ARM<br>Cortex<br>A7 | ARM<br>Cortex<br>A9 | Qualcomm<br>Krait 200 |
|-----------|-------------------------|------------------------|-------|---------------------|---------------------|-----------------------|
| DMIPS/MHz | 0.84/0.94               | 1.25                   | 1.25  | 1.9                 | 2.5                 | 3.3                   |

Ingenic M200



# A long way to go

Battery Life does not scale well for wearables!

| Device | Battery Size           | Battery Life |
|--------|------------------------|--------------|
| Laptop | 95000mAH (Macbook Pro) | 8 hr         |
| Tablet | 32400mAH (iPad)        | 10 hr        |
| Phone  | 1800mAH (iPhone)       | 10 hr        |
| Watch  | 130mAH (Pebble)        | 5 days       |

# Questions?

- [1] <http://anandtech.com/show/8702/ingenic-launches-newton2-mips-based-iot-and-wearables-solution>
- [2] <http://anandtech.com/show/8400/arms-cortex-m-even-smaller-and-lower-power-cpu-cores>
- [3] [http://en.wikipedia.org/wiki/Internet\\_of\\_Things](http://en.wikipedia.org/wiki/Internet_of_Things)