Examples of pure copper applications

Bullhorn antenna

Using binder jetting to manufacture horn waveguide antennas brings the following benefits:

- **Cost savings** – These parts can be surprisingly difficult, and thus expensive, to manufacture using traditional manufacturing.
- **Flexibility** — Choose the profile that suits your need (for example ellipse, circle, rectangle or square).
- **Frequency selection** – Ability to choose the amplified frequency.
- **Weight reduction** – Thin wall construction with ribs to add stiffness and keep material only where necessary.

Heat sink

Gyroid and other TPMS (Triply Periodic Minimal Surface) heat sinks boast increased heat transfer and rigidity compared to plate and pin fin designs.

In this heat sink, the baseline TPMS structure is modified in three dimensions to get thicker walls and wider air passages near the base and thin, closely spaced walls at the top, which distributes heat optimally and allows strong natural convective flow.

Heat sinks are easily customized using Digital Metal’s binder jetting system, whereas they are impossible or more challenging to manufacture using other methods.