



GE Additive

# A successful additive journey for SATCOM antennas- Optisys



Optisys forms as a business

**May 2016**

**Dec 2016**

Optisys signs 1st commercial contract

Optisys is granted 2 patents

**2017**



Optisys makes 1st metal machine acquisition

Optisys justifies machine acquisition in just 12 months

**2018**

10 provisional patents submitted

**30+** signed commercial contracts

**2019**

## 2019 Projections

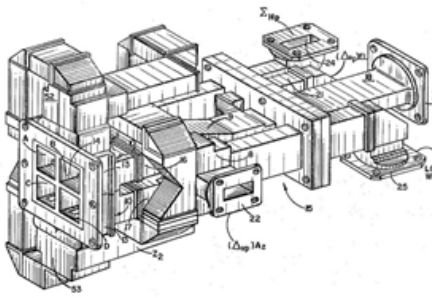
**20**

Additional patents in preparation

**4**

Potential metal machine acquisitions in 2019

# CASE STUDY | Satellite Antenna



**Left:** Waveguide structure that is a multi-part assembly fabricated through subtractive manufacturing.  
**Right:** Palm-sized integrated waveguide assembly designed for AM.



Customizable metal antenna feeds with integrated sub-reflector horn and polarizer with weight reduction up to 90%, compared to subtractive manufacturing.

*Our goal is to achieve optimum RF output. Using metal AM, we can avoid internal geometry issues and deliver the smallest and lightest antenna, and the highest RF possible for each design"*

Clinton Cathey | CEO, Optisys

## BUSINESS OBJECTIVE

Capture new revenue streams by creating a superior antenna that would operate up to a 90 GHz frequency band.

## MARKET OBSTACLE

Traditional antenna manufacturing consists of complex systems that are large and heavy, which can lead to higher launch costs and inconsistent RF performance at higher frequency bands.

## STRATEGIC OUTCOMES

**Competitive advantage:** 2 patents awarded, with 10 provisional patents submitted and many more in progress.

**Increase in sales:** 30+ signed commercial contracts, with \$34M in submitted proposals.

**New market expansion:** 5 product lines designed for AM.

**Unique value proposition:** Control of the entire design, fabrication, and inspection processes for satellite antenna production.



imaginarius

ge@imaginarius.io

+91 9930903006

www.imaginarium.io