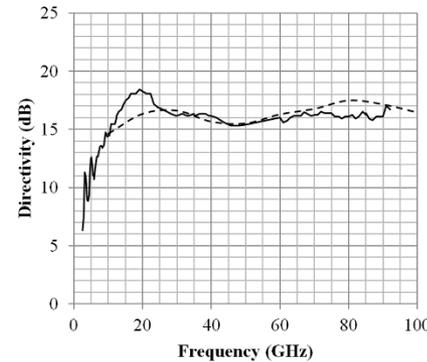


# 10-100GHz Double-Ridged Horn Antenna with Coax Launcher

## Why it matters?

- Integrated transverse electromagnetic coax launcher
- Useful for antenna characterization, multiband communications, scientific test & measurement
- Broadband with constant-directivity
- Works well over a 10:1 bandwidth
- Constant impedance - achieves 15 dB return loss
- Horn design prevents appearance of trapped mode resonances (“suck outs”)
- Nearly constant beamwidth of both E- and H-planes for overall directivity of 16.5 dB (10-100GHz)



Graph of modeled (dashes) and measured (line) constant directivity of 10-100GHz horn antenna

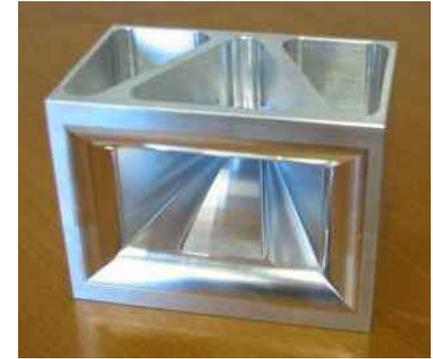
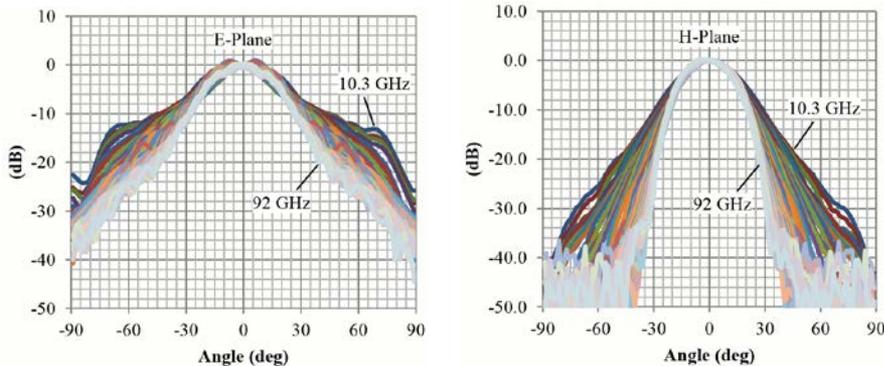


Image of Double-Ridged Horn Antenna for the 10-100GHz frequency range



- Measured E-Plane and H-Plane beam patterns for the 10-100GHz Double-ridged Horn Antenna
- Beam size can be adjusted and/or made more circular

## Key Milestones

- Technology Readiness Level (TRL) 6 - Aug 2018
- Working model built and tested 2014
- USPTO patent pending 15/518656 – Apr 2017



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