

“Prototype design of a dual-band dual-polarization Ku/Ka-band feed”, pp.318-325

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Abstract – A design approach for a Ku/Ka-band satellite antenna feed prototype is presented. Band separation is achieved by employing a dielectrically loaded circular waveguide. To allow cost-effective integration with other components, etched probes formed from the same substrate board as surrounding circuitry are introduced as Ku-band coupling structures in the dual-band waveguide cavity. Design and fabrication of the prototype feed are discussed. Predicted and measured results are presented to support proof of concept.