

Newsletter

A favorably priced Ku-band 4-port feed combiner for your antenna, made in Switzerland? To respond to our client's increasing cost awareness, we are now in a position to offer this new type of standard feed combiner at very competitive conditions due to a completely new, lean design.

MIRAD's cost optimization initiative for linear feed combiner

The latest development, our brand new

Standard Ku-Band 4-Port Feed Combiner

(10.70 to 12.75/13.75 to 14.80, dual linear polarized)

is a type of feed combiner that is mountable on any type and size of antenna. As the Ku-band is currently one of the most common frequency ranges used for satellite communication, the first design is now available covering RX from 10.70 to 12.75 GHz and TX from 13.75 to 14.80 GHz. Other frequency bands will follow in the very near future.

MIRAD has accomplished following design goals:

- Substantial cost reduction
- Integrated system design
- Frequency expansion up to 14.80 GHz
- Optimized interface and dimension

Reduction of Manufacturing Cost and Integrated System Design

To support our customers cost awareness, MIRAD is now in a position to provide standard feed systems complying with the technical benchmarks for the respective frequency ranges, at highly competitive prices: This complete re-design generates a decrease in manufacturing cost by more than 50%. Nevertheless, we maintain our high Swiss quality standards.

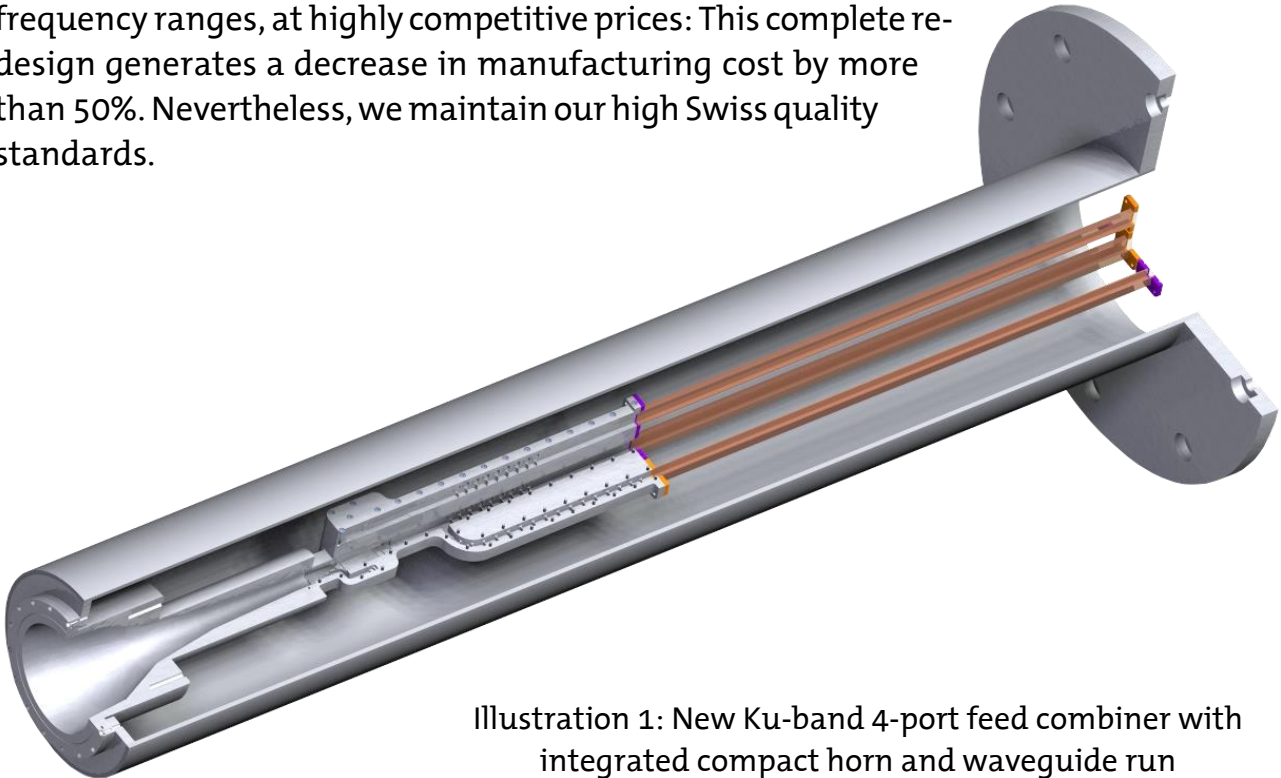


Illustration 1: New Ku-band 4-port feed combiner with integrated compact horn and waveguide run

Our engineering department was challenged to decrease the number of single elements, which until now, required a considerable amount of man hours for assembly and tuning activities. By means of combining OMT and diplexer, this innovative new Ku-band feed combiner is milled out of only **3 (three)** shells compared to more than 12 parts of the forerunner product.

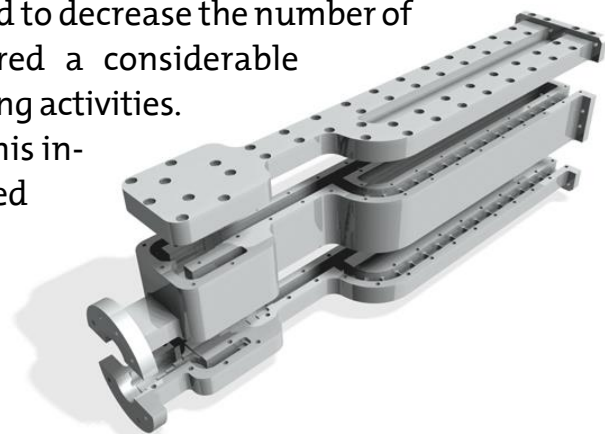


Illustration 2: Combination of OMT and diplexer resulting in 3 shells

Enhanced Interface

A further cost reduction potential was identified at the interface; it has been redesigned, providing a more suitable mounting position for the horizontally and vertically polarized RX/TX-ports (standardized WR75 waveguides with common UBR 120 flanges), resulting in a more straightforward, simplified linking of the waveguide runs to the feed system.



Illustration 3: Single plane interface

The dimensions of this new type of feed combiner where reduced to the absolute minimum to increase our customer's implementation flexibility; this innovative feed combiner concept is highly suitable for the retrofit of existing feeds.

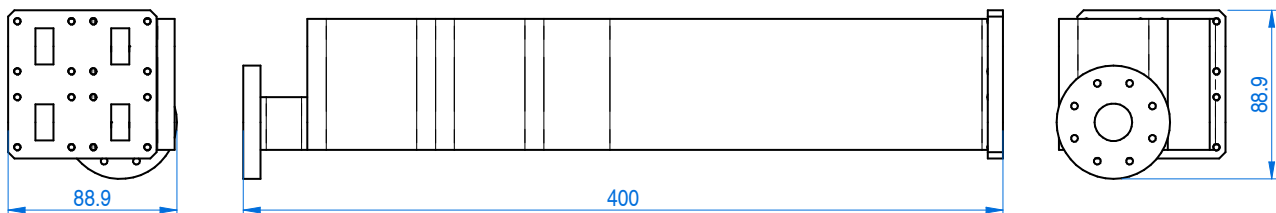


Illustration 4: Compact dimensions

High Flexibility/Other Applications

This Ku-band feed combiner represents one of a variety of possible cost optimized linear polarized feed combiner that MIRAD is able to provide; it is up to you to define the exact specifications and quantities required. We will create your required feed combiner applying the same cost efficient design principle as outlined above.

The minimum order size for this new feed combiner series is 5 units.

Outlook

Our engineering department currently is in the final stages of the development of the corresponding feed horn and the feed can, again focusing on the cost reduction aspect, enabling us also to provide complete feed systems in the very near future at very attractive prices, always maintaining the high quality level we are known for since more than 25 years.

Our sales department is expecting your call or e-mail to discuss your requirements.