

## RQT K/Ka band Feed unit

**Includes: 2 ports, RRF, TRF, OMT, Polarizer**

RQT-KKa-2port-unit operates at both K and Ka band for satellite communication transmit and receive operation.

This feed unit includes all waveguide components required for full 2 port Rx&Tx operation in one full robust unit:

- Receive Reject Filtering
- Transmit Reject Filtering
- Orthomode Transducer
- Polarizer

This compact and robust construction has been a popular design within the satellite communication industry.

The feed system comes in two different versions for different operational bands. The system includes high-pass (HP) filter in TX port as well as a band stop (BS) filter in the RX port. The system is comprised of Orthomode Transducer (OMT), HP filter, BS filter, Polarizer.

<b>Application</b>	Ka-band reflector systems
<b>TX Frequency</b>	Version 1: 29-30 GHz Version 2: 29.5-31 GHz
<b>RX Frequency</b>	Version 1: 19.2-20.2 GHz Version 2: 19.7-21.2 GHz
<b>Polarity</b>	Circular, RHCP/LHCP Mechanical pol. change

### Technical specifications

<b>Axial ratio</b>	Rx: 1.5, Tx: 1.2
<b>Return loss</b>	20 dB
<b>Isolation TX-RX:</b>	
<b>S21</b>	< -80 dB at Tx frequencies
<b>S13 (transmission TX side port 3 to common circular port 1)</b>	< -80 dB at Rx frequencies
<b>S23 (transmission TX port 3 H01-mode to RX port 2 H10-mode)</b>	< -80 dB at Rx frequencies
<b>Insertion loss:</b>	0.3-0.5 dB
<b>Port flanges:</b>	TX: WR28 RX: WR42 Circular common port
<b>Mechanical</b>	Fully flexible interface



Figure 1: Ka band OMT-Filter section.



**Contact information**