

Ortho-modal transducers/Polarizers/Filters

Ka – Band feed system, two port solutions

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 Ortho-mode Transducer (OMT), HP filter, BS filter, Polarizer.

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



Axial ratio	Rx: 1.5, Tx: 1.2
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Return loss	20 dB
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Isolation TX-RX:	
S21	< -80 dB at Tx frequencies
S13 (transmission TX side port 3 to common circular port 1)	< -80 dB at Rx frequencies
S23 (transmission TX port 3 H01-mode to RX port 2 H10-mode)	< -80 dB at Rx frequencies

Insertion loss:	0.3-0.5 dB
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Port flanges:	TX: WR28 RX: WR42 Circular common port
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Mechanical	Fully flexible interface
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