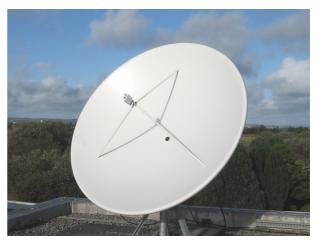


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Ka Band Prime Focus Satcom Antennas





Until now, our Teleport customers who have been looking for Ka-band Circular polarised receive feeds have either had to use a high performance narrow band feed which makes repointing the antenna at different transponders with different frequencies problematic or use a poorly performing broadband feed. Not any more !

Now there is the new high performance broadband Ka receive feed from Elite Antennas. The feed has excellent characteristics across the whole 17 - 22 GHz receive band thanks to Elite's innovative OMT and polariser design.

Elite Antennas' Ka Band prime focus antennas available in diameters from 0.9m to 4.5m can be used with dual or single polarised feeds with either Circular or Linear polarisation over the full Rx band of 17 - 22 GHz. A feed design for high performance narrow band use to customer requirements is also available.



Ka Rx band scalar dual polar feed

Full band Tx/Rx feeds are currently being developed. Elite's Tx/Rx antennas will cover the 19.0 - 21.0 & 18.2 - 20.2 GHz bands for receive, with transmit over 27 - 31 GHz.

Full specifications of these antennas can be found in the main catalogue, and on the website.

The Ka scalar feed, OMT and polariser has been designed entirely in-house using the latest techniques to provide an optimal, modular design where the OMT and polariser can be swapped in and out depending on the particular customer requirements.

Please contact the company for a quote or a technical proposal at sales@elite-antennas.com



Phone: +44 (0) 1568 612050 sales@elite-antennas.com - www.elite-antennas.com Designed and made in Great Britain



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Ka Receive Antennas

Part Number		Diameter (m)	Gain @ 17 GHz	Gain @ 19.5 GHz	Gain @ 22 GHz
Circular	Linear				
EPR09KCE	EPR09KLE	0.9	42.0	43.2	44.3
EPR12KCE	EPR12KLE	1.2	44.5	45.7	46.7
EPR15KCE	EPR15KLE	1.5	46.3	47.6	48.6
EPR18KCE	EPR18KLE	1.8	48.1	49.4	50.4
EPR21KCE	EPR21KLE	2.1	49.4	50.6	51.7
EPR24KCE	EPR24KLE	2.4	50.3	51.9	52.6
EPR30KCE	EPR30KLE	3.0	52.5	53.8	54.8
EPR37KCE	EPR37KLE	3.7	54.1	55.3	56.3
EPR45KCE	EPR45KLE	4.5	55.8	57.0	58.1

Please note: all Ka band Rx antennas are supplied with a wide band OMT to provide Dual Polarised operation as standard. Other manufacturers often charge extra for DP operation.

Antennas come with a hard wearing fixed El/Az head and stand (mount) as standard. Other mounts are available such as non penetrating, A frame, polar (both manual or motorised) or fully motorised with a suitable controller. Please contact the company for further information.

Measured Test Results

Ka Band Receive OMT (WG20/WR42) With Scalar Feed

17 0 -17.5 18 18.5 19 19.5 20 20.5 21 21.5 22 -10 Return Loss (dB) -20 -30 -40 -50 -60 Frequency (GHz)

Radiating into freespace directed at RF absorbing material

----- Through Port Return Loss (dB) ··· – ··· – Side Port Return Loss (dB) Isolation Between Ports (dB)



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WR42 (WG20) Feed Transition for Single Polar Rx Band Reception

Other options include single polar transitions for Ka Receive & Transmit bands.



Elite also provides polarisers for circular polarisation for specific portions of the band where high performance is required. If improved performance is required over a specific portion of the band, additional tuning may be added.

If variations on these items are required for your project, Elite is more than happy to offer its design and engineering services. The company offers a fast, flexible range of solutions to meet the vast majority of prime focus and offset applications.

Elite design & manufacture a wide variety of L, C, X, Ku, & Ka band satcom antennas for high-end customers including defence agencies, commercial broadcast networks, systems integrators and research agencies.

Please contact us for a quote or a technical proposal at sales@elite-antennas.com



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