

Original Perspectives Limited

is an independent research, design and development group with specific skills in electromagnetics research, development, modelling and consultancy; and the design and development of antennas.

Original Perspectives can supply a range of antennas to suit requirements, including higher gain antennas, lower profile antennas and antennas with a range of polarisations. Please contact us to discuss your requirements.

Data Sheet

Type BBG 0424-T1 The OPL broadband antennas can be customised for user requirements and further enquiries about variants are welcomed, the BBG 0424-T1 is typical of the achievable bandwidths.

Characteristic Performance

Original Perspectives' Broadband antennas cover a very wide bandwidth. BBG 0424-T1 is a groundplane antenna which has a pass band of 400MHz to 24GHz. (It also compares very well as a mast version on a c 50cm ground plane). Characteristics measured in conjunction with key Customers give an extremely impressive VSWR measurement, typically better than 2:1 over the full range. The measured lateral omnidirectional gain pattern is generally around 3 to 5dbi on a good groundplane (please contact Original Perspectives for more details) comparing favourably with narrower band antennas and exceeding their performance by continuing to operate well beyond the comparison products' limited bandwidth. The BBG series is capable of design extension beyond its current band, and can be customised for applications below 400MHz and above 24GHz allowing variants of this antenna to be produced to suit individual requirements.

Pass Band:	420MHz - 24GHz
VSWR:	Typically better than 2:1
Polarisation:	Linear Vertical
Approx. Height:	165mm
Approx. Width	See picture
Approx. Weight	Circa 1kg

Operational Uses

Today's communication requirements are increasingly stringent, frequently demanding maximum bandwidth and optimum use of the frequency spectrum. The BBG 0424-T1 is typical of Original Perspectives' multi-octave antenna coverage and is thus ideal for extremely wide broadband applications. In addition it can be used to replace a number of different antennas reducing multi-operational site requirements where the site of the antenna can have a drastic effect on antenna performance. Thus the fewer antennas needed to cover the required band the less the mutual interference and site location problems. The BG0424-T1 starts in at approx 420MHz (and below this depending on acceptable VSWR). It covers the very wide range through the region encompassing activity such as GSM, 3G, WiFi, satellite TV 10.7 to 12GHz, distress (e.g. marine at 9Ghz), and microwave radio to 24GHz.

Major data transmission benefits from such an ultra wide bandwidth channel are:
 Very fast pulse rise times
 Very low intersymbol interference
 Very high data signalling rates
 Very high information carrying capacity

Typical VSWR

OPL BBG 0424-T1 VSWR Vs Frequency

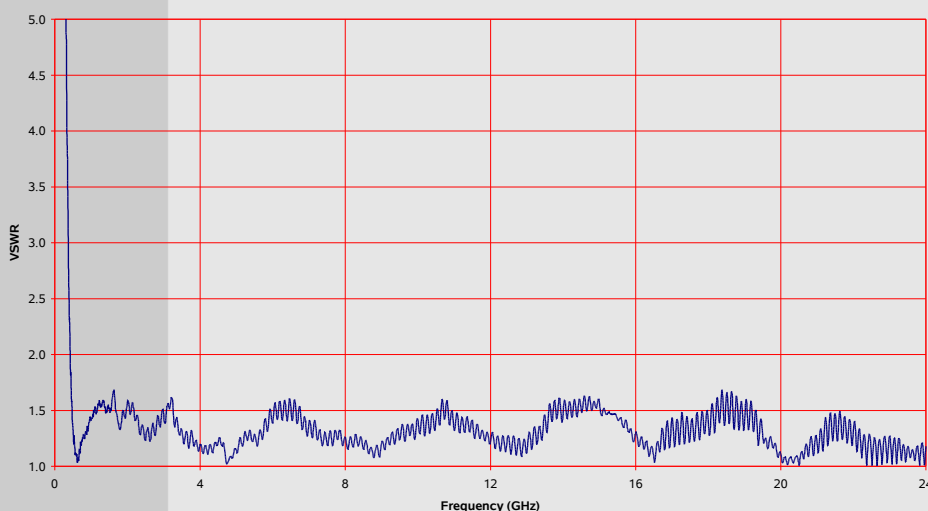


Figure 1 shows a typical VSWR of the BBG 0424-T1

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