

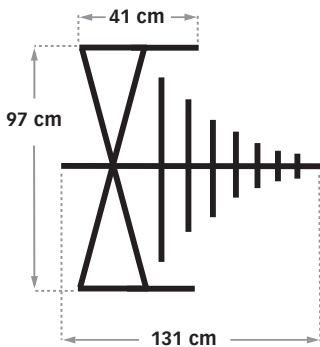


# CBL 6141B COMPACT X-WING® BILOG® ANTENNA 30 MHz to 2 GHz



CBL 6141B vertical onto tripod  
BTP 6020A

- Broadband immunity and emission antenna
- Less than 100 W required above 80 MHz
- Can also be used for emission testing
- Low chamber coupling
- Up to 30% saving in test time
- Excellent symmetry



### The Compact X-Wing® BiLog®

For RF EMC emission and immunity testing in compact anechoic chambers. The combination of BiLog® technology with novel low frequency, folded elements (X-Wing®) allows low frequency power to be efficiently projected forward at 80 MHz without significantly affecting the high frequency elements.

### Optimised for Use in Compact Anechoic Chambers

The CBL 6141B X-Wing® has been tuned to 80 MHz to give an immunity performance better than most conventional log periodic antennas. The unique X-Wing® is 30% smaller than the standard BiLog® element, making it ideal for compact chamber testing, especially in the vertical mode where chamber coupling effects occur with large conventional antennas. The CBL 6141B can handle powers up to 300 W at 80 MHz, far in excess of the power required to generate 10 V/m.

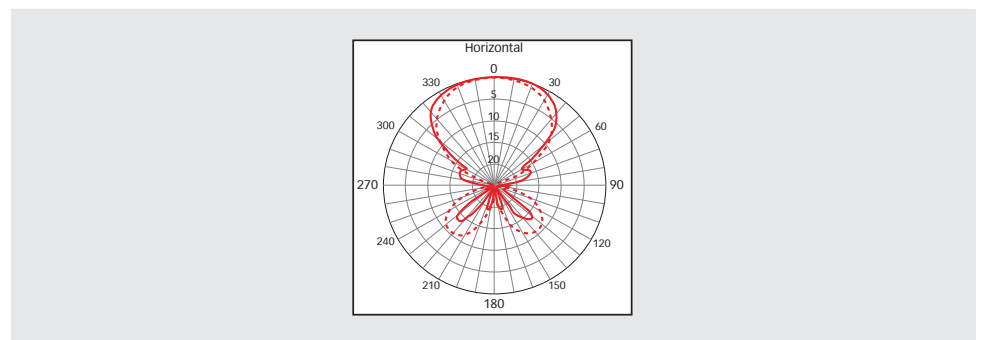
### Emission Testing 30 MHz - 2 GHz

The CBL 6141B has been designed to give sufficient 30 MHz performance at a test distance of 3 metres, without the need of a pre-amplifier.

### Technical specifications

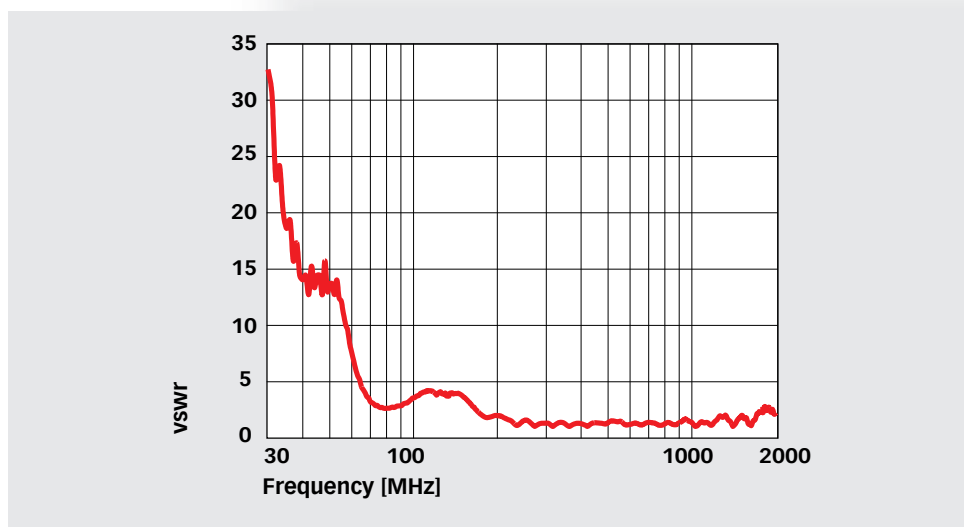
Frequency range:	30 MHz to 2 GHz
Typical gain:	4 dB (200 MHz to 1.5 GHz)
Impedance (nominal):	50 Ω
Maximum continuous power:	300 W (80 - 2000 MHz)
Connector:	N type female
VSWR:	Average 2:1
Size antenna (L x H x W in mm):	approx. 1310 X 970 X 410 (see drawing)
Weight:	approx. 3.5 kg
Recommended tripod:	BTP 6020A

### Typical E field polar patterns for - - 300 MHz and — 1000 MHz

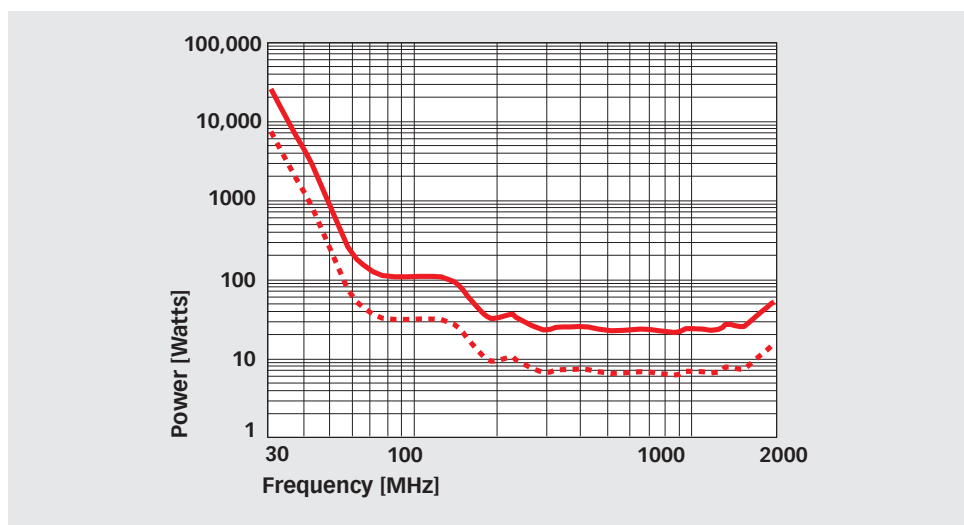


**CBL 6141B**  
**COMPACT X-WING® BILOG® ANTENNA**  
**30 MHz to 2 GHz**

Typical VSWR



Typical drive power for 10 V/m at 3 m, - - - CW power, — power with 80% modulation

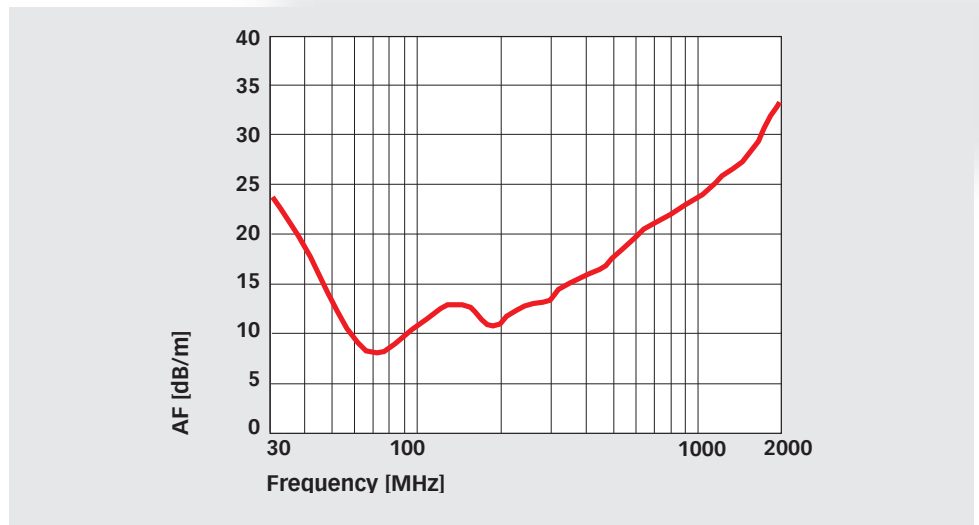




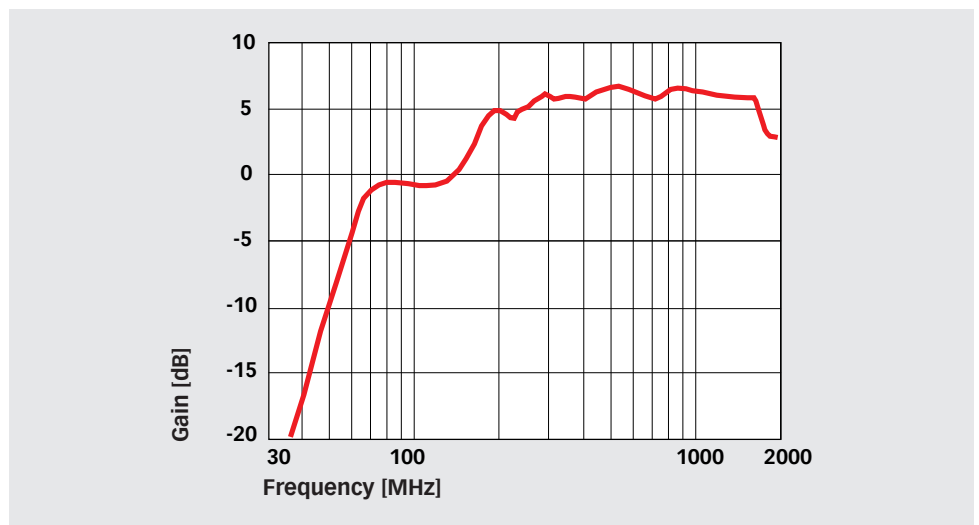
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Typical antenna factor

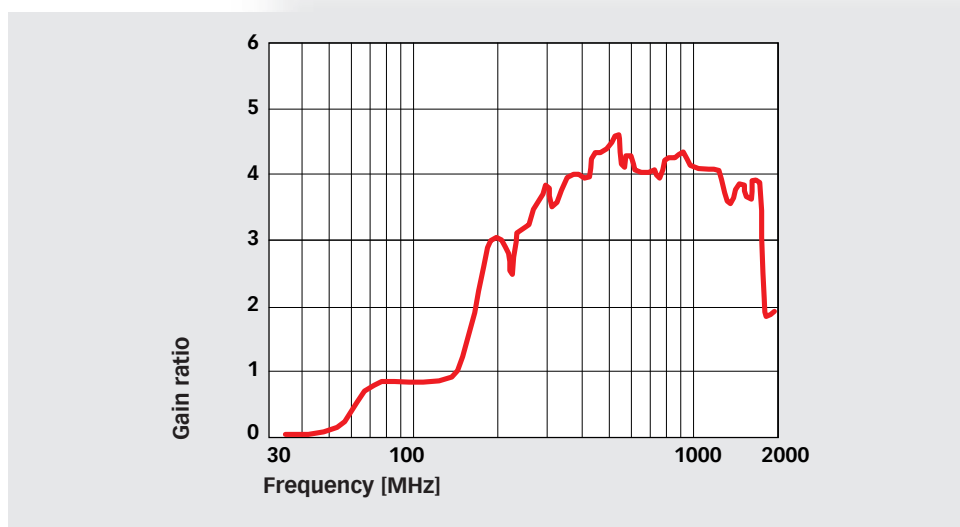


Typical gain

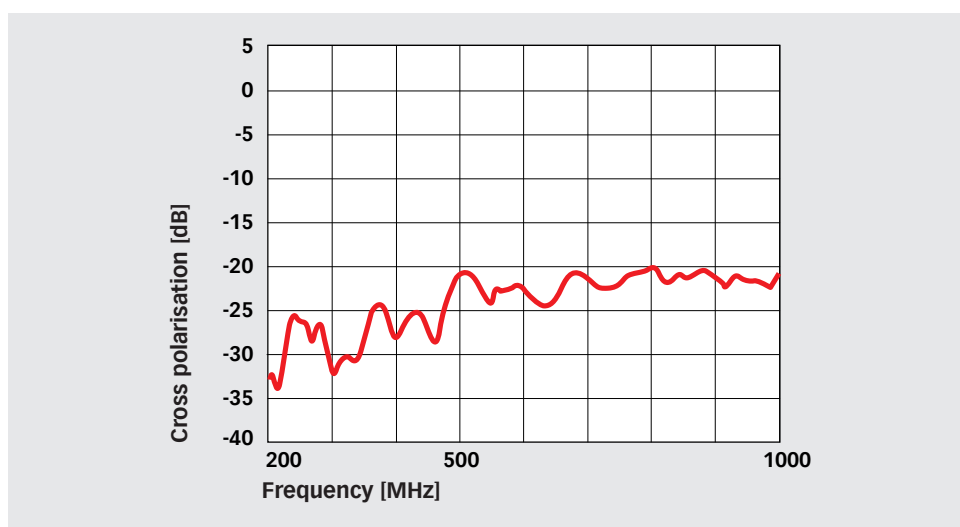


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Typical gain ratio



Typical cross polarisation



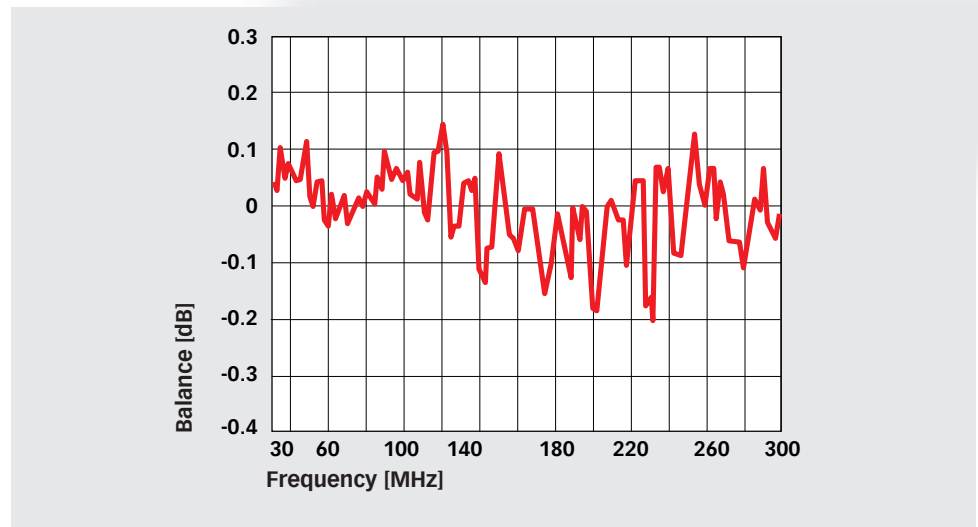


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**30 MHz to 2 GHz**



CBL 6141B horizontal onto tripod  
 BTP 6020A

**Typical balance**



**Delivery information**

Part number	Description
342-110	CBL 6141B Compact X-Wing BiLog antenna 30 MHz - 2 GHz
97-244570	Ant Cert-TC Traceable calibration (ISO17025), order only with the antenna, free space calibration (horizontal), other calibrations on request
248504	BTP 6020A-0880 EMC Tripod with tube 880 mm and mounting head for antennas with 22 mm tube
248505	BTP 6020A-0680 EMC Tripod with tube 680 mm and mounting head for antennas with 22 mm tube
248523	BTP 6020A-1370 EMC Tripod with tube 1370 mm and mounting head for antennas with 22 mm tube
346-199	MTC 9011 Metal transit case for CBL 6111, 6112, 6141 or 6143