Compact X-Wing® BiLog® Antenna 30MHz - 2GHz

CBL 6141A

- **Broadband immunity and emission antenna**
- **Less than 100W required above 80MHz**
- **Can also be used for emission testing**
- **Low chamber coupling**

CBL 6141A mounted on optional tripod CTP 6097A

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 80MHz without significantly affecting the high frequency elements.

Optimised for Use in Compact Anechoic Chambers
The CBL 6141A X-Wing® has been tuned to 80MHz 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 6141A can handle powers up to 300W at 80MHz, far in excess of the power required to generate 10V/m.

Emission Testing 30MHz - 2GHz
The CBL 6141A has been designed to give sufficient 30MHz performance at a test distance of 3 metres, without the need of a pre-amplifier.

The CBL 6141A is small and lightweight making it easily transportable by UPS. It is individually calibrated at 3m for emissions testing.

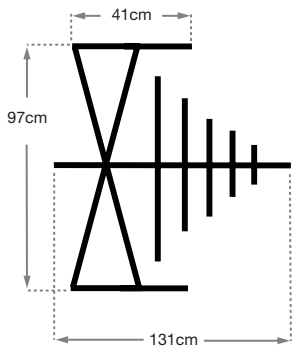
Options

UKAS Calibration

Schaffner EMC Systems is UKAS accredited for antenna calibration and can offer a UKAS calibration as an additional costed option.

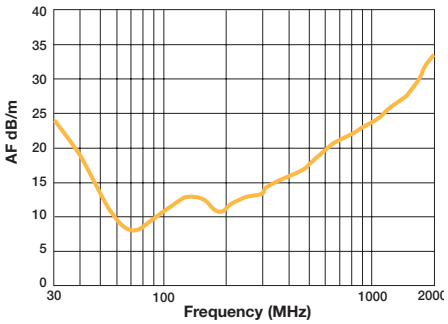
UKAS calibration provides reduced measurement uncertainties and additional data includes the voltage reflection coefficient for calculation of measurement uncertainties. Data is provided on disk as well as in graphic and tabulated format as hard copy.

Calibration at other defined distances and polarisations
CHA 9453 - single set of replacement X-Wings® (U+V)

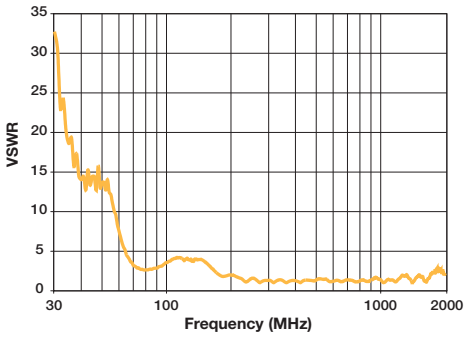


- Up to 30% saving in test time
- Optimised for power transfer at 80MHz
- Handles power up to 300 watts
- Excellent symmetry

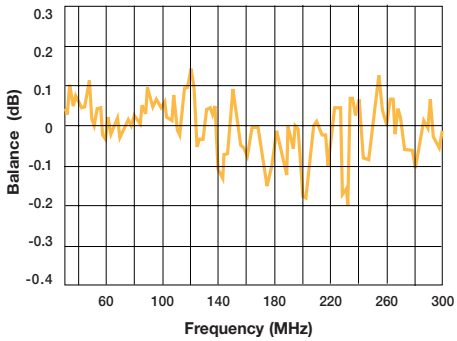
Typical Antenna Factor



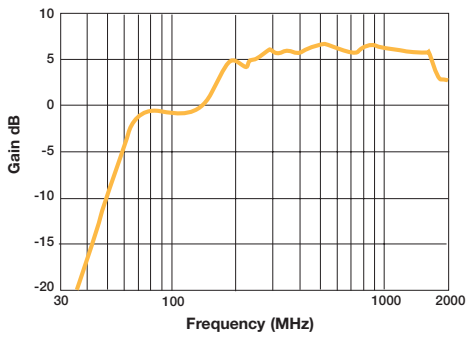
Typical VSWR



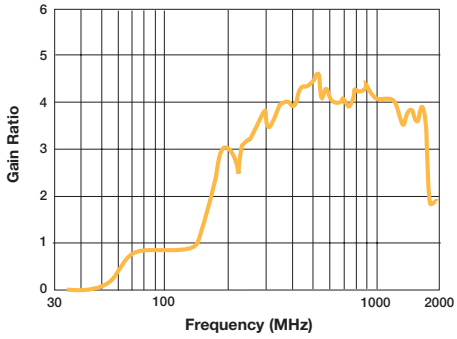
Typical Balance



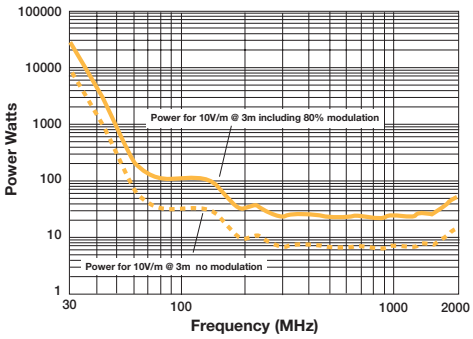
Gain [dB]



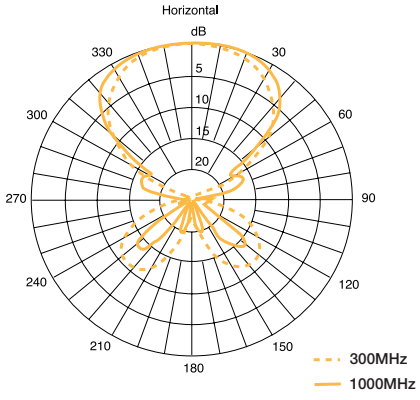
Gain Ratio



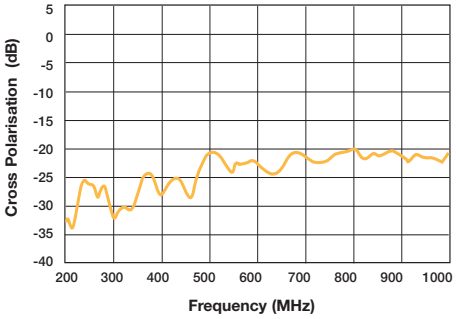
10V/m Power Requirement



Polar Pattern



Cross Polarisation



Technical Specifications			CBL 6141A
Frequency range	30MHz - 2GHz	VSWR	Average 2:1
Impedance (nominal)	50Ω	Max transmit power	300W
Numeric gain	(see graph)	Size L x H x W cm	135 x 97 x 41
Connector	N type female	Weight	3.5kg