

CBL 6144 vertical plus rotating mount CHA 9440A onto tripod BTP 6020A

- Ultra-broadband immunity antenna
- For compact chambers
- Reduced chamber coupling
- Up to 30% test time saved

The X-Wing® BiLog® for RF EMC immunity testing

The combination of BiLog® technology with novel low frequency, folded elements (X-Wings®) allows low frequency power to be efficiently projected forward without significantly affecting the high frequency elements. The CBL 6144 gives an incredible antenna factor of only 3 dB at 26 MHz together with a useable VSWR making the CBL 6144 able to deliver 10 V/m with 80% AM modulation using an amplifier power of less than 500 W (chamber dependent) at 26 MHz.

High Power Handling

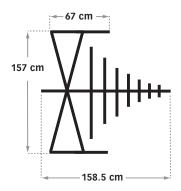
The CBL 6144 has been optimised for immunity testing to IEC 61000-4-3, and uses a high impedance balun, giving a considerably improved VSWR at low frequencies over the original immunity BiLog® CBL 6121A. Although it is larger in size than the classic emission BiLog®, it is still smaller than any conventional alternative. The CBL 6144 can handle powers up to 600 Watts and is suitable for testing in most shielded rooms and anechoic chambers.

Emission testing

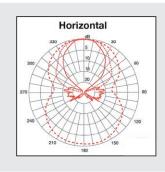
Although primarily designed as an immunity antenna, the CBL 6144 can be used for emission testing and can be supplied with individual calibration data.

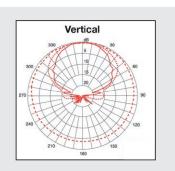
Technical specifications

Frequency range:	26 MHz to 3 GHz (useable to 20 MHz)
Typical gain:	6 dB (200 MHz to 3 GHz) / 8 dB (700 MHz to 2.5 GHz)
Impedance (nominal):	50 Ω
Maximum continuous power:	600 W
Connector:	N type female
VSWR:	Average 2:1 max
Field strength capability:	250 V/m at 1 m, 50 Ω source, free space conditions
Size antenna (L x H x W in mm):	approx. 1585 X 1570 X 670 (see drawing)
Weight:	approx. 6.5 kg
Recommended tripods:	BTP 6020A-1370 plus rotating mount CHA 9440A



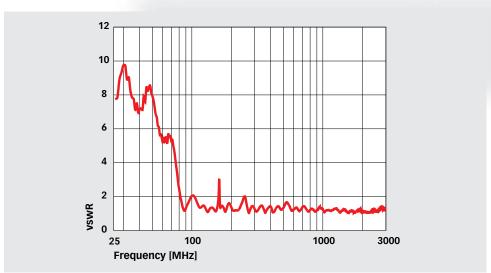
Typical E field polar patterns for - - 30 MHz, - 1000 MHz and - 3000 MHz



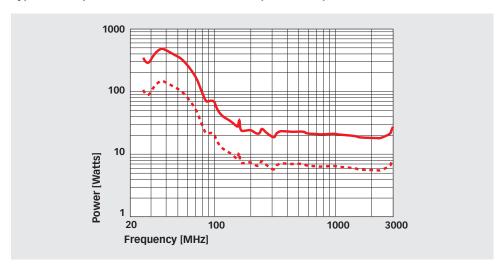




Typical VSWR



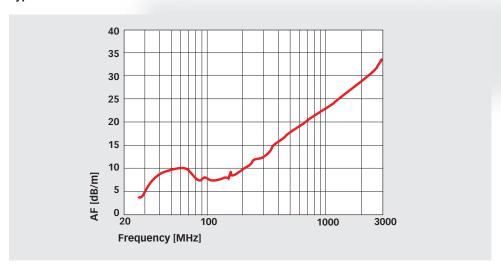
Typical drive power for 10 V/m at 3 m, ••• CW power, — power with 80% modulation



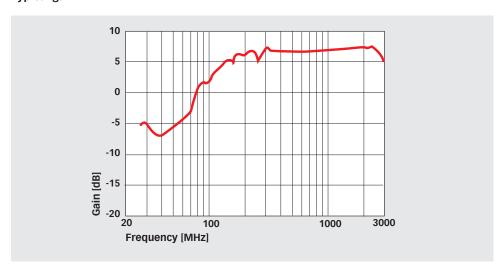




Typical antenna factor



Typical gain

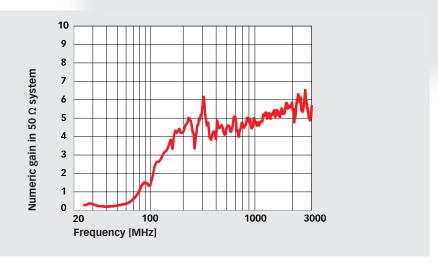






CBL 6144 horizontal plus rotating mount CHA 9440A onto tripod BTP 6020A

Typical gain ratio





Delivery information

Part number	Description
342-020	CBL 6144 X-Wing BiLog antenna 26 MHz - 3 GHz
97-244570	Ant Cert-TC Traceable calibration (ISO17025), order only with the antenna, free space calibration (horizontal), other calibrations on request
248523	BTP 6020A-1370 EMC Tripod with tube 1370 mm and mounting head for antennas with 22 mm tube
348-815	CHA 9440A Rotating mount to fit CBL 6140 onto BTP 6020

Rotating mount CHA 9440A

