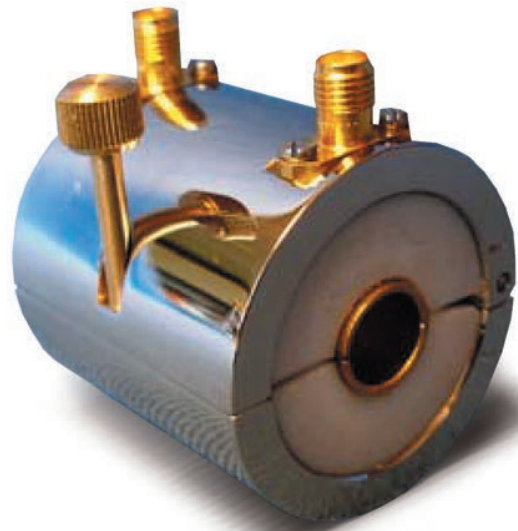


## Conducted Immunity and Emissions Tubular Wave Couplers

Our series of compact, versatile, affordable Tubular Wave Couplers is suitable for immunity testing and emissions measurement of power leads or other connection lines. The BI30000 Series features a bandwidth from 400 MHz to 3 GHz for immunity testing and 150 kHz to 3 GHz for emissions testing.

Immunity testing, using the BI30000 Series, is similar to a BCI probe as used in ISO 11451-2, ISO 11452-4, or IEC 61000-4-6, and emission measurements can be taken as a current probe according to EN 55025 (CISPR 25). With the proposed standards coming up in the automotive industry, the BI30000 Series will provide a low cost alternative to perform conductive testing up to 3 GHz.



	BI30410	BI30413	BI30416	BI30520	BI30526
ISL Value < 10 dB	0.50–2.80 GHz	0.60–2.80 GHz	0.80–2.50 GHz	0.60–1.40 GHz	
ISL Value < 20 dB	0.15–3.00 GHz	0.15–3.00 GHz	0.20–3.00 GHz	0.15–2.50 GHz	0.20–2.50 GHz
Size (LxW)	40 x 40 mm (1.575 x 1.575 in.)	40 x 40 mm (1.575 x 1.575 in.)	40 x 40 mm (1.575 x 1.575 in.)	50 x 50 mm (1.97 x 1.97 in.)	50 x 50 mm (1.97 x 1.97 in.)
Internal Diameter	10 mm (0.394 in.)	13 mm (0.512 in.)	16 mm (0.630 in.)	20 mm (0.787 in.)	26 mm (1.02 in.)

M1 versions of the above models are available with 17025-compliant calibration.

## Tubular Wave Coupler Calibration Kit

AR offers the CF30000 calibration fixture. This fixture is designed to work with the BI30000 Series Tubular Wave Couplers for the purpose of level setting prior to conducted immunity testing.



	Model CF30000
Frequency Range	150 MHz–3 GHz
Calibration Power (max. watts)	4 CW
Input Impedance	50Ω
Connectors	SMA(F)
Max. Diameter of TWC	50 mm (1.97 in.)
Length of coupling line	120 mm (4.72 in.)
Weight	1.1 kg 2.42 lb
Size (approx.) L x W x H	230 x 95 x 90 mm (9.05 x 3.74 x 3.54 in.)

# RF Conducted Probes and Clamps

The following accessories are for use with our RF Conducted Immunity CI systems, models CI00250A, CI00400A and CI00401A.

## Coupling/Decoupling Networks

AR offers a full line of coupling/decoupling networks to couple mode signals onto power supply lines. Designed to meet IEC 61000-4-6 specification requirements. All models are available in 16, 25, 32, 50, 100, 200 or 300 amps and available in 1 to 5 conductor cables.

CD10000 Series - 1 conductor

CD20000 Series - 2 conductors

CD30000 Series - 3 conductors (L-N-PE)

CD40000 Series - 4 conductors (3 phase with neutral)

CD50000 Series - 5 conductors (3 phase with neutral and PE)

Also available are coupling/decoupling networks (CDN's) for:

- Non-balanced lines - available for 2, 3, 4 or 8 lines
- Screened cables - available for 2, 3, 4, 9, 15 or 25 cables
- Unscreened balanced pair - available in 1, 2 or 4 pair

Matching calibration adapters for our CD and CDN's and 1 or 50 watt, 50 ohm termination resistors are available.

## Bulk Current Injection Probes

AR offers several models of bulk current injection probes for coupling disturbances onto unshielded cables in their specified frequency range.

- BI00250: 10 kHz - 250 MHz, 40mm ID, used for testing IEC 61000-4-6 RF Conducted Immunity
- BI00251: 10 kHz - 250 MHz, 66mm ID, used for testing IEC 61000-4-6 RF Conducted Immunity
- BI00400: 10 kHz - 400 MHz, 40mm ID, used for testing MIL-STD 461, CS114 and DO160 RF Conducted Immunity
- BI00401: 1 - 400 MHz, 40mm ID, used for testing to ISO 11452-4 and SAE J1113-4 Automotive RF Conducted Immunity
- BI01000: 100 kHz - 1000 MHz, 40mm ID, used for testing Automotive RF Conducted Immunity

## Current Monitor Probes

AR offers a line of clamp-on monitoring probes that are used to measure RF currents flowing through the conductor onto which the probe is placed. The following models are available:

- BP00100: 100Hz - 100MHz
- BP00100A: 10 Hz - 100MHz
- BP00400: 10 kHz - 400 MHz
- BP00251: 10 kHz - 500 MHz
- BP00250: 1kHz - 250MHz
- BP01000: 100 kHz - 1000 MHz

## Electromagnetic Clamps

AR's highly efficient electromagnetic clamps are for testing to IEC 61000-4-6 RF Conducted Immunity specifications. They operate in the 10 kHz - 1000 MHz range and due to their aperture size, are ideal for testing multiple conductors at once. 2 models are available, along with calibration fixtures for all current injection clamps we carry.

- EM10123A (23 mm aperture)
- EM10132A (32 mm aperture)

## Coaxial Cables

Available in 50  $\Omega$



Model CI00400A

For more information about selecting accessories for our Conducted Immunity Systems, please see Application Note #46.