



rf/microwave instrumentation

Operating and Service Manual

DC7230A

Model

10046900

Part Number

Serial Number

OPERATING INSTRUCTIONS

MODEL DC7230A



WARNING:

Do not exceed maximum power ratings. Do not drop. Internal components are fragile.

Refer to drawing 10046908 at the end of this section for dimensions and connector locations.

Operation of the Model DC7230A is quite simple. The input signal is fed into the Type N male connector (J1) marked **INPUT** and the output is taken from the Type N female connector (J2) marked **OUTPUT**.

Forward coupled output is taken from the jack (J3) marked **FWD**, and Reverse coupled output is taken from the jack (J4) marked **REV**. Both coupled output jacks on the unit are Type N female.

See Specification Sheet for detailed specification.



DC7230, DC7230A Dual Directional Coupler

- 500 Watts CW
- 0.7GHz–6GHz

Features

The Model DC7230 and DC7230A series are dual directional couplers with excellent frequency range and power handling capability. The wide range assures flexibility in coupling high power amplifiers to oscilloscopes, voltmeters, power meters, spectrum analyzers and other measuring instruments. The dual directional design allows the user to monitor both forward and reflected power, a much needed characteristic in RF susceptibility testing for amplifier overdrive protection, field control and load protection. Low insertion loss allows efficient coupling to the load.

The Model DC7230 and DC7230A series is uniquely suited for use with our line of 0.7–6 GHz S-Series power amplifiers, other amplifiers operating within this frequency and power range, and our PM2003 power meter.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

Specifications

FREQUENCY RANGE: 0.7 GHz–6 GHz

POWER (Maximum Watts): 500 CW

COUPLING FACTOR: 48 dB \pm 1.5 dB (includes flatness)

COUPLING FLATNESS: \pm 0.5 dB

DIRECTIVITY: Typical, 20 dB; Minimum, 15 dB

INSERTION LOSS: 0.2 dB maximum

VSWR (Main Line): 50 ohms, 1.35:1 maximum

CONNECTORS: See Model Configurations

WEIGHT: 0.27 kg (0.6 lbs)

SIZE (W x H x D): 5.1 x 5.1 x 2.7 cm (2.0 x 2.0 x 1.06 in)

EXPORT CLASSIFICATION: EAR99

Model Configurations

Model Number	Main Line J1/J2	Coupler Connectors J3/J4
DC7230A	N(M)/N(F)	N(F)/N(F)
DC7230	N(F)/N(F)	N(F)/N(F)

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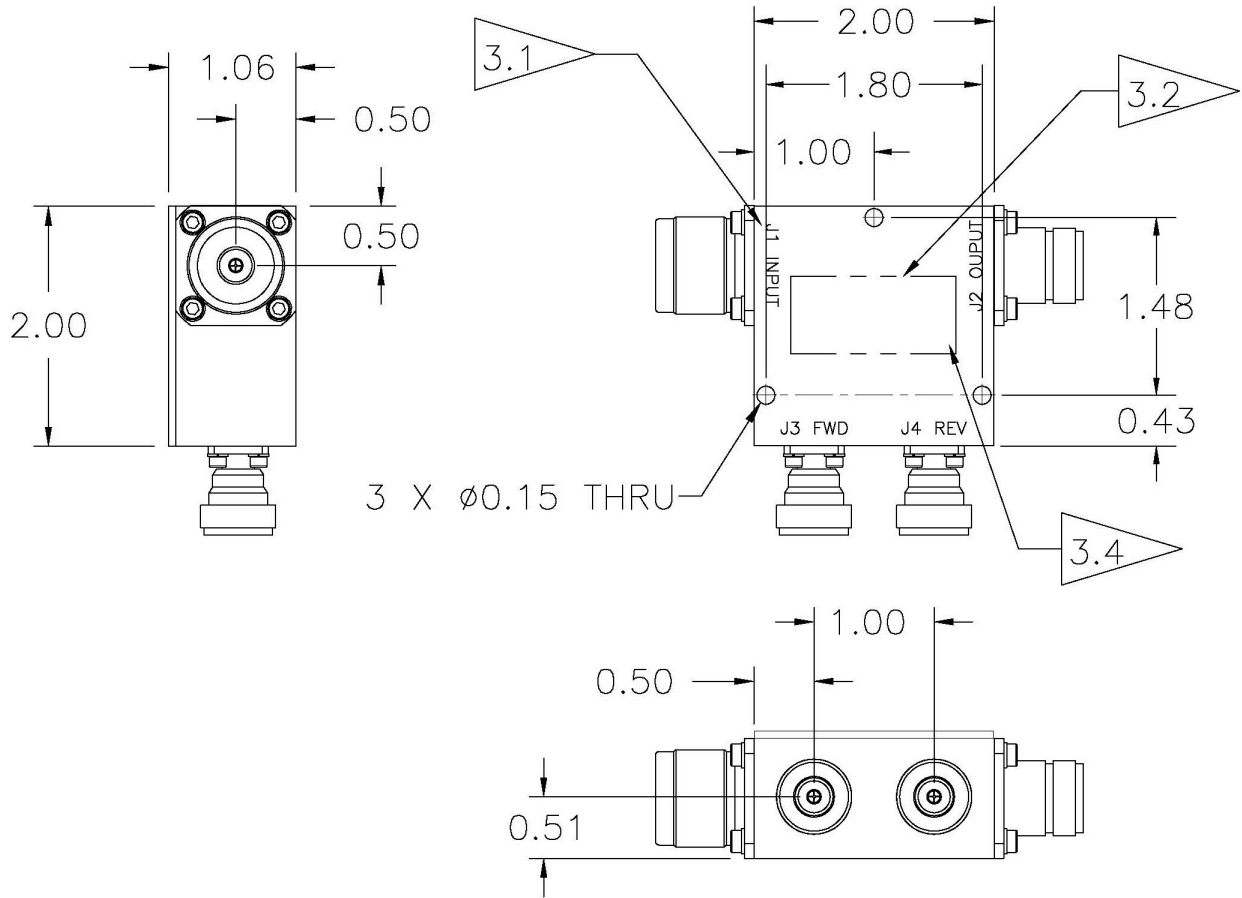
For an applications engineer call: 800.933.8181

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Approved for public release by AR RF/Microwave Instrumentation

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Drawing 10046908, Rev A

WARRANTIES: LIMITATION OF LIABILITY

Seller warrants (i) that seller has title to the goods sold and (ii) that Amplifiers (all parts excluding traveling wave and vacuum tubes), Antennas, field monitors, field probes, field analyzers, field analyzer processor units, system controllers, system interlock, power meters, leak detectors, RF conducted probes, RF conducted clamps, Multi-tone, EMI receiver systems, RF down converters, RF conducted immunity systems, conducted immunity accessories, radiated immunity test systems, safety meters, safety sensor heads, tripods, directional couplers, waveguide adapters, termination loads, load attenuators, impedance stabilization networks, and coaxial cables will be free from defects in material and workmanship for a period of three (3) years from date of shipment shown on AR RF/Microwave Instrumentation invoice.

All modules, used in the amplifiers for the 1-6 GHz, 4-18 GHz, 6-18 GHz, all HPM products, and other applications, are hermetically-sealed. This sealing process protects the internal hybrid circuitry from humidity that could compromise the long term reliability of the product. These modules are not field-repairable and should *never* be opened outside of AR's Microelectronics Lab. The modules in these product lines have a security label on two sides of the modules between the housing and lid/cover. If the security label is removed and or cut, the warranty of the module will be voided.

Vacuum tubes in the 'L' series amplifiers, traveling-wave tubes in TWT amplifiers, and power heads will be free from defects in material and workmanship for a period of one (1) year.

Contact AR RF/Microwave Instrumentation for warranty information regarding items not listed.

Seller's sole responsibility in fulfilling these warranties shall be to repair or replace any goods which do not conform to the foregoing warranties or, at seller's option, to give buyer credit for defective goods. The warranty is valid only when used in the country specified at time of order. Warranty service must be obtained from the repair facility designated at that time. If warranty service is not available in the country where the equipment is to be used, it must be returned to AR RF/Microwave Instrumentation. Warranty service will be provided only for defective goods which are returned within the warranty period, freight costs prepaid to AR RF/Microwave Instrumentation or its designated repair facility.

There are no other warranties, express or implied, including any warranty of merchantability or fitness. Seller shall not be responsible for any incidental or consequential damages arising from any breach of warranty.

No person other than an officer of Amplifier Research Corporation, has any authority to bind seller to any affirmation, representation or warranty except as specifically included in the preceding terms and conditions.

