

Coaxial

# RF Instrument Amplifier

TIA-1000-4

50Ω High Power 100 to 1000 MHz

## Features

- instrument model with built-in power supply, 110V/220V operation
- high power output at 3.5dB compression, 42dBm typ.
- high reverse isolation, 55 dB typ.
- 100% burn-in at +25°C, 48 hrs
- thermally self-protected, LED indicator
- protected US Patent 5,101,171



## Applications

- testing
- laboratory use

CASE STYLE: AP176

Connectors	Model	Price	Qty.
BNC	TIA-1000-4	\$1,995.00 ea.	(1-9)
Add-2 to model for 220V operation			

## RF Instrument Amplifier Electrical Specifications

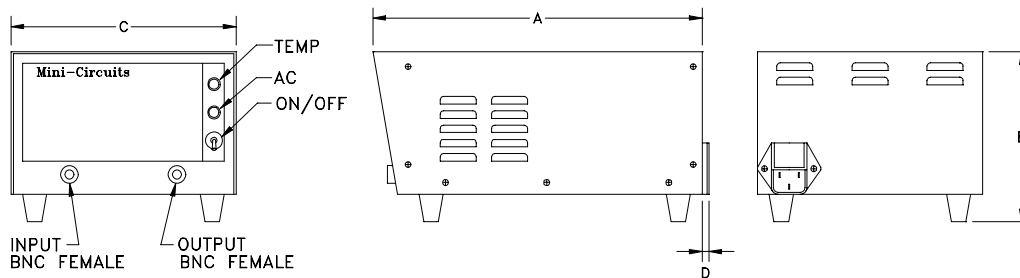
MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1)		AC POWER		
	$f_L$	$f_U$	Min.	Flatness Max.	Output (1 dB Compr.) Typ.	Min.	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V)	Freq. Hz	VA Max.
TIA-1000-4	100	1000	19	±1.5	+39	+36	+25	12	+48	2.5	2.5	110	50/60	400

1. Gain and maximum output power specified at 25°C±5°C, over temperature, specifications degrade approximately 1dB gain flatness ±2.5 dB max.
2. VSWR specified at 350-1000 MHz
3. Open load is not recommended, potentially can cause damage. With no load derate max input power by 20 dB

## Maximum Ratings

Operating Temperature 0°C to 55°C  
 Storage Temperature -40°C to 70°C  
 Permanent damage may occur if any of these limits are exceeded.

## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	wt
19.5	6.0	12.5	0.2	grams
495.30	152.40	317.50	5.08	9500

Keep area adjacent to fan and louvers clear to permit air flow to pass.  
 Caution: Do not insert anything especially conductors or fingers into case opening. Physical injury, shock or death may occur.

**Mini-Circuits**  
 ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	110V	110V	IN	OUT	110V	110V
100.00	23.15	23.27	3.33	3.27	13.27	40.63
202.20	24.07	23.74	2.57	1.14	14.65	40.14
313.40	22.86	31.20	2.25	2.30	14.30	37.90
389.30	23.04	34.78	1.51	1.41	13.14	38.79
500.50	22.93	39.37	1.11	1.40	12.02	38.58
614.50	23.49	40.43	1.58	1.18	11.69	40.33
725.70	24.15	38.75	1.33	1.24	9.76	41.58
801.60	23.34	34.20	1.17	1.06	7.26	42.06
912.80	22.38	30.28	1.19	1.23	8.32	41.00
1000.00	23.23	28.13	1.74	1.52	8.82	37.01

