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		
					Output (1 dB Compr.)		Input (no damage)	NF (dB)	IP3 (dBm)					
	f_L	f_U	Min.	Flatness Max.	Typ.	Min.		Typ.	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

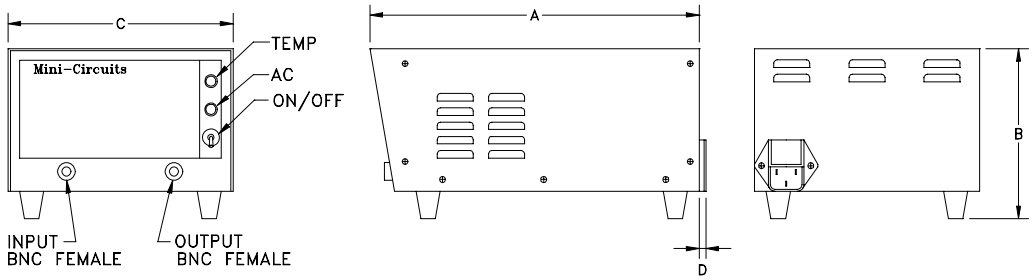
1. Gain and maximum output power specified at 25°C±5°C, over temperature, specifications degrade approximately 1dB gain flatness ±2.5 dB max.
2. VSWR specified at 350-1000 MHz
3. Open load is not recommended, potentially can cause damage. With no load derate max input power by 20 dB

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 accur.

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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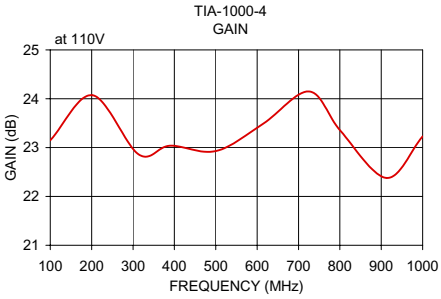
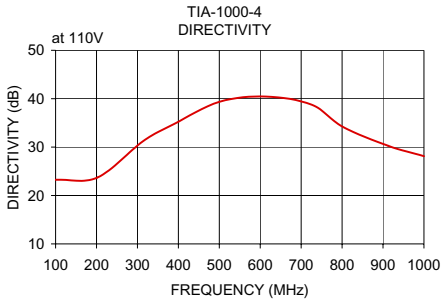
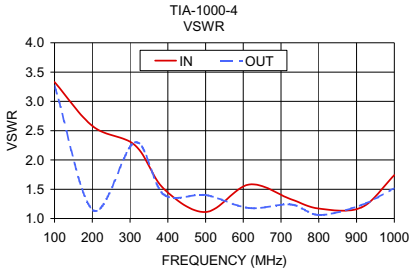
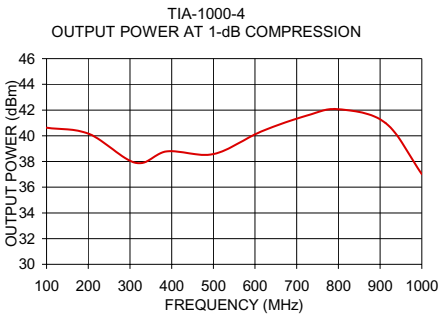
Typical Performance Data/Curves **TIA-1000-4**

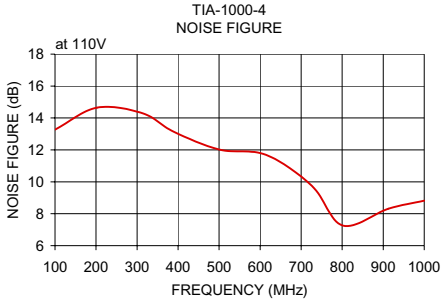
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	110V	110V	IN	OUT	110V	110V
100.00	23.15	23.27	3.33	3.27	13.27	40.63
202.20	24.07	23.74	2.57	1.14	14.65	40.14
313.40	22.86	31.20	2.25	2.30	14.30	37.90
389.30	23.04	34.78	1.51	1.41	13.14	38.79
500.50	22.93	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











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