RF Instrument Amplifier TVA-63-183

50Ω 6 to 18 GHz

CASE STYLE: AP1601

The Big Deal

- Wide Bandwidth, 6 to 18 GHz
  Instrument Amplifier Gain 24dB
- Output Power, 18dBm
- Isolation, 62 dB
- Self Contained Power Supply with selectable 110 or 220 volts AC supply
- Thermally Self Protected

Product Overview

The TVA-63-183 is a wideband instrument amplifier covering the 6,000 to 18,000 MHz frequency range while providing convenience, portability and ease of use.

Key Features

Feature	Advantages
Wideband Microwave	Covers microwave bands used for satellite broadcasting and radar.
Self Powered	An internal power supply means that only one unit need be transported and makes test set-ups quick and simple.
Warning System	Over temperature warning and automatic shut down are safety features to aid in providing a long operating life.
Carrying Handle	A single strap carrying handle provides a means for conveniently transporting the unit.

Coaxial

RF Instrument Amplifier

TVA-63-183

50Ω 6 to 18 GHz

Features

- Instrument model with built-in power supply 110/220 VAC
- Gain, 24 dB typ.
- Unconditionally stable
- Output Power, up to 18 dBm typ.
- Excellent Isolation, 62 dB typ.
- Thermally self-protected, LED indicator
- Good matching at input and output

Applications

- Lab use
- Wideband test instrumentation

CASE STYLE: AP1601

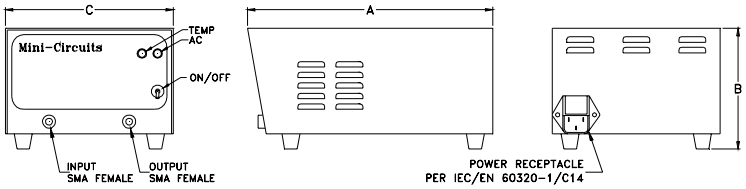
Connectors	Model	Price	Qty.
SMA	TVA-63-183	$1995.00 ea.	(1-9)

Electrical Specifications at 25°C, unless otherwise noted

Parameter	Condition (GHz)	Min	Typ.	Max.	Units
Frequency Range		6	—	18	GHz
Gain	6 - 18	20	23.6	—	dB
Gain Flatness	6 - 18	—	±1.0	—	dB
Output Power at 1dB compression	6 - 18	16	18	—	dBm
Noise Figure	6 - 18	—	6.9	—	dB
Output third order intercept point	6 - 18	—	26	—	dBm
Input VSWR	6 - 18	—	1.5	—	:1
Output VSWR	6 - 18	—	1.25	—	:1
AC Supply Voltage	6 - 18	—	110/220	—	V

Note: Keep area adjacent to the louvers clear to allow free air flow.

Outline Drawing



Maximum Ratings

Parameter	Ratings
Operating Temperature	0°C to 55°C
Storage Temperature	-40°C to 70°C
Input RF Power (no damage)	+20 dBm

Permanent damage may occur if any of these limits are exceeded.

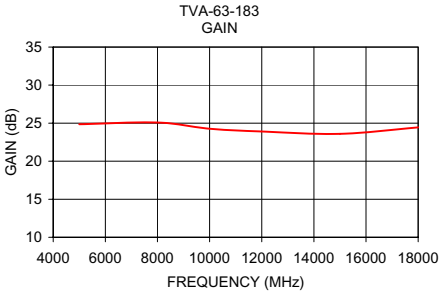
Outline Dimensions (inch / mm)

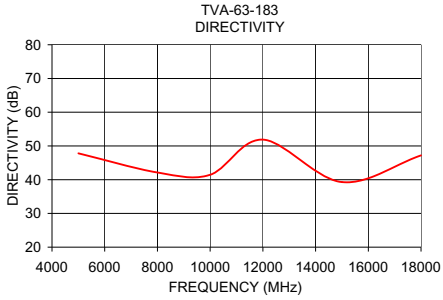
A	B	C	D	wt
9.8	4.8	6.7	--	grams
248.9	121.9	170.2	--	1200

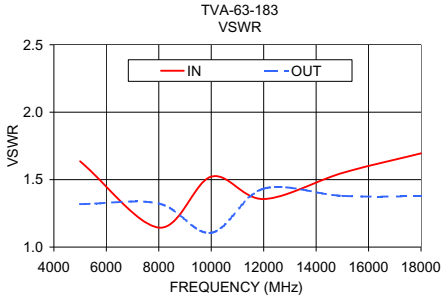
Notes

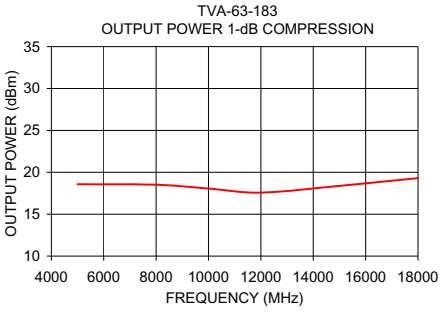
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document 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

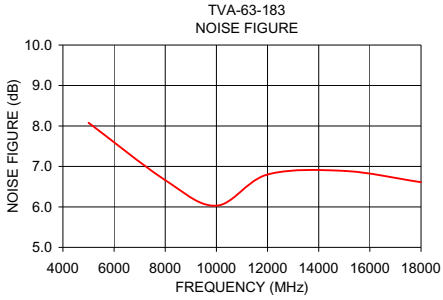
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
			IN	OUT			
5000.00	24.86	47.82	1.64	1.32	8.08	18.58	26.49
8000.00	25.08	42.13	1.14	1.32	6.66	18.52	25.93
10000.00	24.26	41.45	1.52	1.11	6.03	18.06	25.91
12000.00	23.90	51.88	1.36	1.43	6.80	17.58	25.17
15000.00	23.60	39.30	1.55	1.38	6.89	18.38	25.61
18000.00	24.44	47.20	1.70	1.38	6.61	19.30	24.63

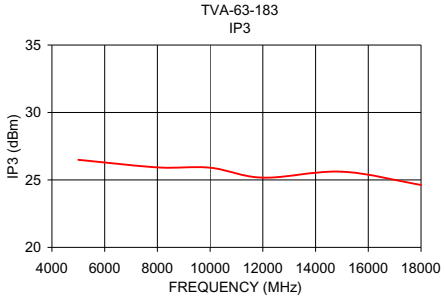












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