



COAXIAL

RF Instrument Amplifier

TVA-82-213A+

Mini-Circuits

50Ω 0.8 to 21 GHz SMA Female

FEATURES

- Instrument model with built-in power supply 110/220 VAC
- High output IP3, 30 dBm typ.
- Unconditional stable
- Thermally self protected, LED indicator
- Good matching at input and output
- Withstands open short load at 1 dB comp. point output power
- Excellent Isolation, 70 dB typ.
- CE marked



Generic photo used for illustration purposes only

Model No.	TVA-82-213A+
Case Style	PJ2059
Connectors	SMA Female

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

APPLICATIONS

- Lab use
- Wideband test instrumentation

ELECTRICAL SPECIFICATIONS AT 25°C, UNLESS OTHERWISE NOTED

Parameter	Condition (GHz)	Min	Typ.	Max.	Units
Frequency Range		0.8	—	21	GHz
Gain	0.8 - 21	18	25	—	dB
Gain Flatness	0.8 - 21	—	±3.0	—	dB
Output Power at 1dB compression	0.8 - 21	—	24	—	dBm
Noise Figure	0.8 - 21	—	3.0	5.5	dB
Output third order intercept point	0.8 - 21	—	+30	—	dBm
Input VSWR	0.8 - 21	—	1.35	—	:1
Output VSWR	0.8 - 21	—	1.40	—	:1
AC Supply Voltage	47 - 63 Hz	85	110/220	265	V

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

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	0°C to +55°C
Storage Temperature	-40°C to +70°C
Input RF Power (no damage)	+4 dBm

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

REV. B
ECO-016928
ED15032401
TVA-82-213A+
230222





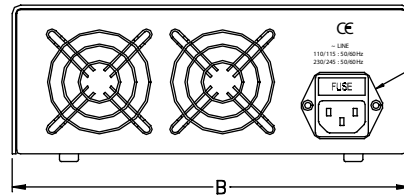
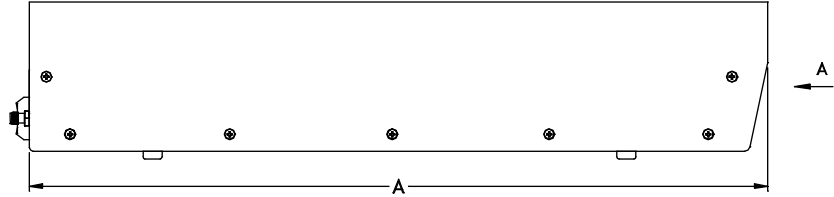
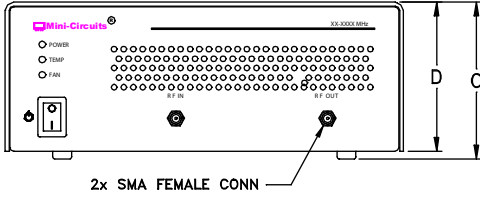
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OUTLINE DRAWING



VIEW A
(REAR SIDE)

OUTLINE DIMENSIONS (Inch mm)

A	B	C	D	WT.
15.35	8.27	3.25	3.09	GRAM
389.89	210.06	82.55	78.49	2490



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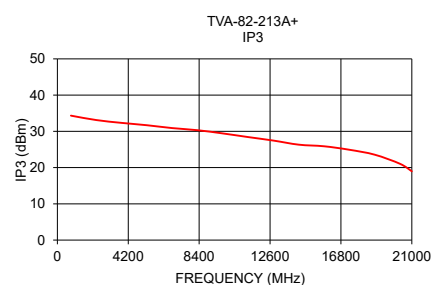
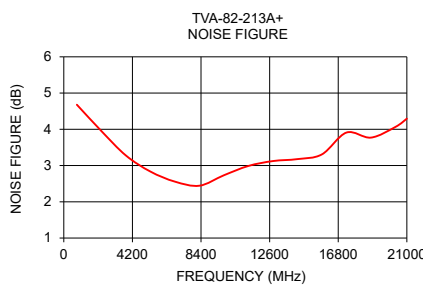
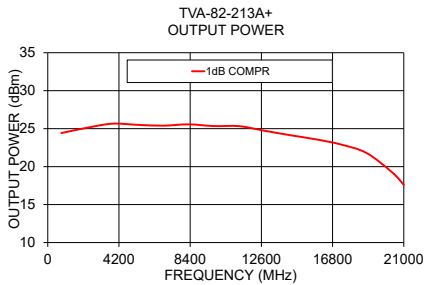
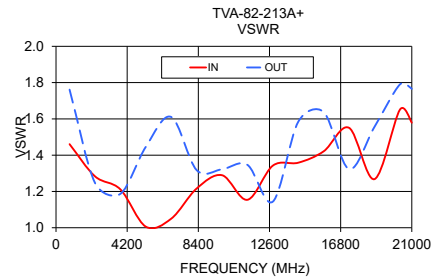
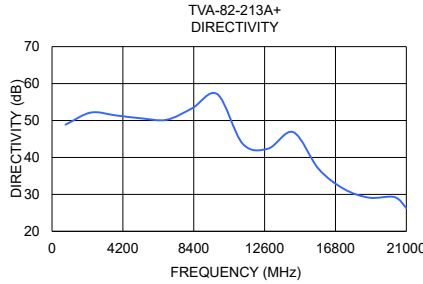
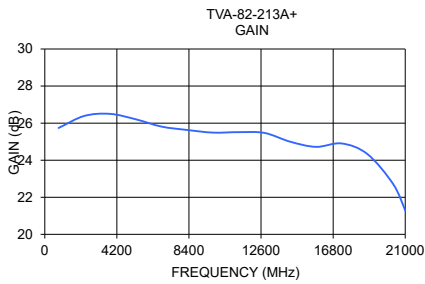
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TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Gain (dB)	Directivity (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	Noise Figure (dB)	IP3 (dBm)
			IN	OUT			
800	25.74	48.88	1.46	1.76	24.42	4.68	34.34
2300	26.39	52.15	1.28	1.25	25.11	3.95	33.12
3800	26.50	51.37	1.21	1.19	25.65	3.28	32.34
5300	26.21	50.58	1.01	1.45	25.50	2.83	31.69
6800	25.81	50.20	1.05	1.61	25.39	2.56	30.90
8300	25.63	53.29	1.22	1.32	25.56	2.44	30.32
9800	25.49	57.12	1.29	1.32	25.34	2.73	29.43
11300	25.51	43.71	1.15	1.35	25.32	2.99	28.42
12800	25.47	42.37	1.34	1.14	24.72	3.12	27.46
14300	25.00	46.85	1.36	1.58	24.14	3.18	26.33
15800	24.72	36.90	1.42	1.64	23.60	3.31	25.88
17300	24.90	31.47	1.55	1.32	22.91	3.91	24.92
18800	24.33	29.10	1.27	1.56	21.80	3.77	23.56
20300	22.71	29.27	1.65	1.79	19.27	4.07	21.05
21000	21.29	26.25	1.58	1.77	17.60	4.29	18.98



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/terms/viewterm.html

