

**2-CHANNEL**

Dual Wideband Amplifier

ZT-2ZVA-2135**50 Ω 0.8-21 GHz Rack-Mount 3.5 mm Female**

KEY FEATURES

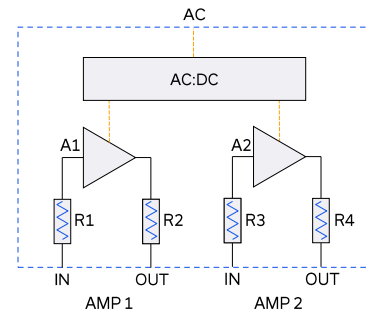
- Dual amplifier with integrated power supply & cooling
- Convenient rack-mountable chassis
- Ultra-wide bandwidth
- Excellent input and output match
- Withstands open / short load at P1dB

*Generic photo used for illustration purposes only*

APPLICATIONS

- Benchtop and rack-mounted automated test systems
- 5G FR1 & FR3, WiFi 6E MIMO, UWB, Bluetooth
- Military radio, radar & electronic warfare
- Quantum computing

FUNCTIONAL BLOCK DIAGRAM



PRODUCT OVERVIEW

Mini-Circuits' rack-mounted test solutions enable convenient integration of any combination of passive or active RF and microwave components within complex production test environments. A wide range of standard configurations are supplied from stock, with custom configurations available upon request.

ZT-2ZVA-2135 integrates 2 independent, ultra-wideband amplifiers covering 800 MHz to 21 GHz, with integrated power supply and cooling. The amplifiers have flat gain across the band with excellent input and output match. The rugged design tolerates short term operation into an open load at the output 1 dB compression level in the event of a fault condition / inadvertent disconnection of the output load.

The system is housed in a compact, 2U height, 19-inch rack chassis, with all RF connections on the front panel and the power connection out of the way on the rear panel. Rugged 3.5 mm female connectors are used for precision and reliability, directly compatible with SMA and 2.92 mm.

ELECTRICAL SPECIFICATIONS AT +25°C (EACH AMPLIFIER)

Parameter	Conditions	Min.	Typ.	Max.	Units
Frequency		0.8		21	GHz
Gain	0.8-12 GHz		20		dB
	12-21 GHz		18		
Reverse Isolation	0.8-12 GHz		75		dB
	12-21 GHz		65		
Return Loss	Inputs (0.8-12 GHz)		20		dB
	Inputs (12-21 GHz)		15		
	Outputs (0.8-12 GHz)		18		
	Outputs (12-21 GHz)		18		
Input Power	No damage			+7	dBm
Output Power ¹	@ 1 dB compression		+21		dBm

1. By design, based on performance of internal ZVA-213-S+ amplifier module; not tested in ZT-2ZVA-2135 production





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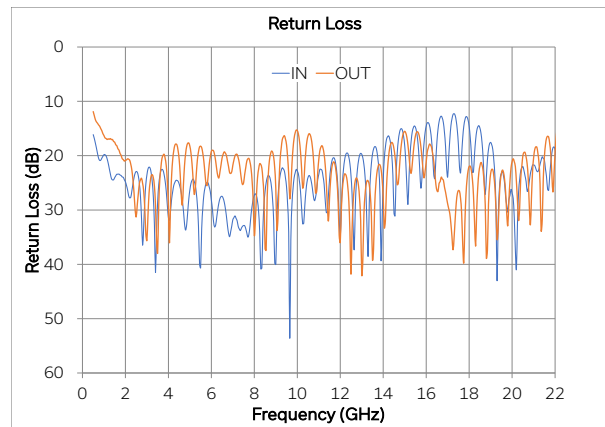
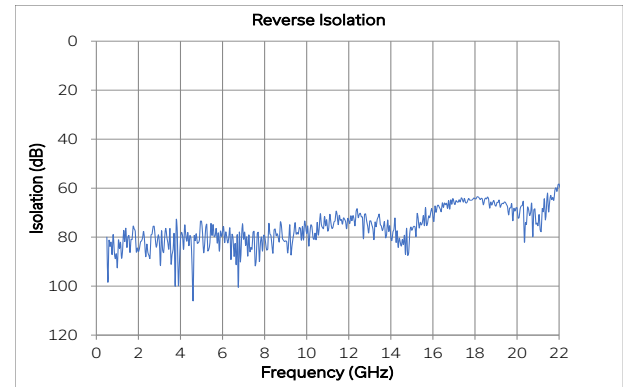
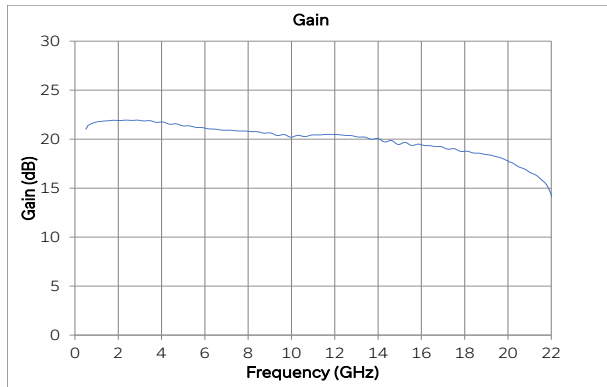
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Mini-Circuits®

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TYPICAL PERFORMANCE CURVES





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ABSOLUTE MAXIMUM RATINGS

Parameter	Conditions	Limits	Units
Temperature	Operating	0 to +50	°C
	Storage	-20 to +60	
Input Power (No Damage)		+7	dBm

Permanent damage may occur if any of these limits are exceeded. Operating in the range between operating power limits and absolute maximum ratings for extended periods of time may result in reduced life and reliability.

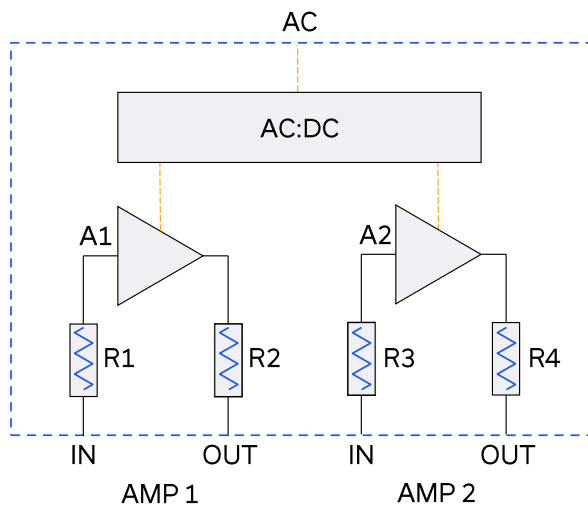
POWER SUPPLY

Power Supply	AC mains input: 100-240 V, 50 / 60 Hz
Fuse	2A, 250V rating
Power Consumption	150W maximum

CONNECTIONS

Port	Connector
AMP1-2 IN & OUT	3.5 mm female
AC Input	IEC C14 inlet

FUNCTIONAL BLOCK DIAGRAM





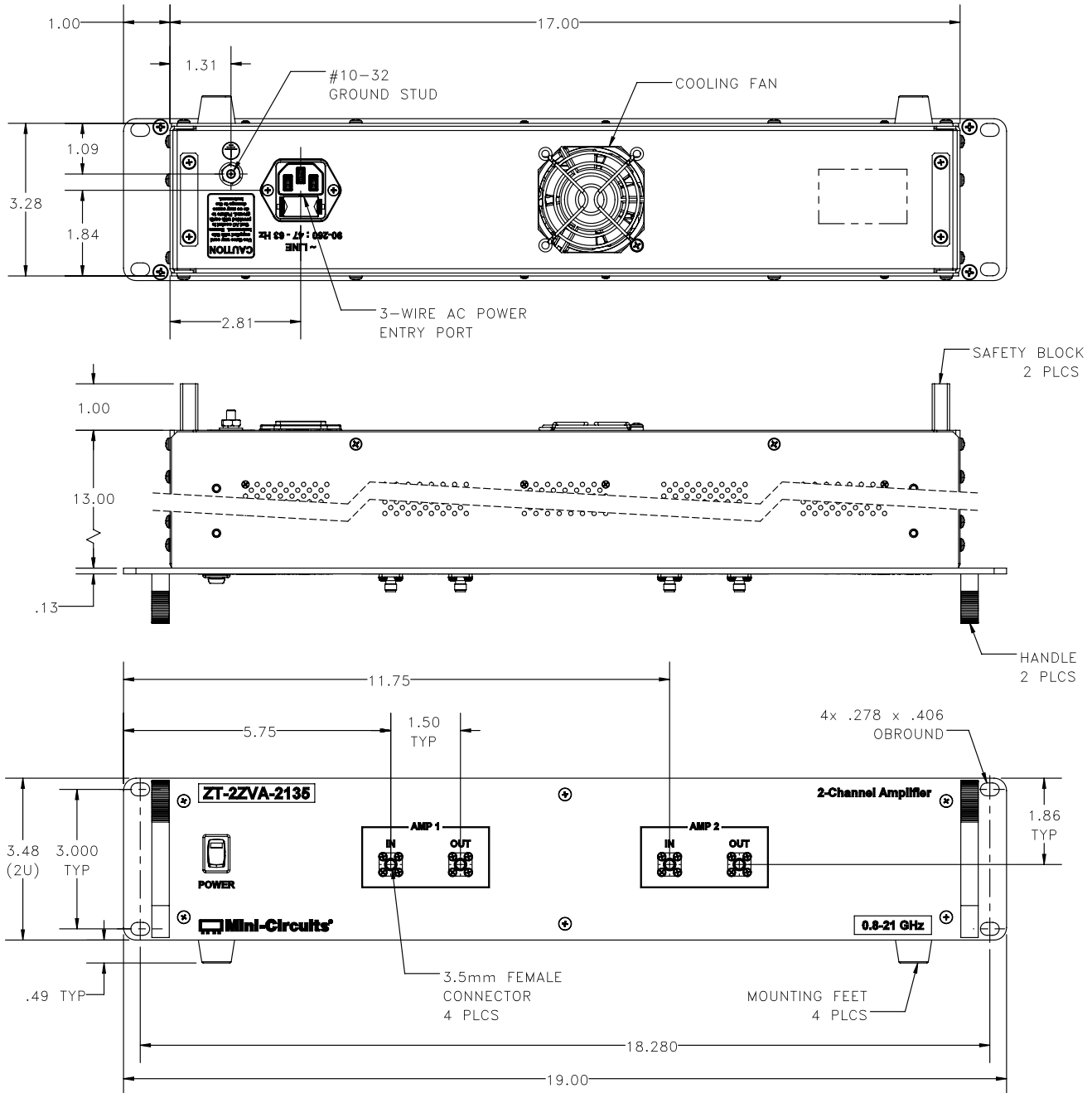
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CASE STYLE DRAWING



PRODUCT MARKING*

Product Marking: ZT-2ZVA-2135

Product Description: 2-Channel Amplifier

Product Frequency: 0.8-21 GHz

Unit ID Label: Serial number and other identification marks

*Marking may contain other features or characters for internal lot control



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Case Style	99-01-3660
Environmental Rating	ENV55
Regulatory Compliance	Refer to our website for compliance methodologies and qualifications   www.minicircuits.com/quality/environmental_introduction.html

Contact Us: testsolutions@minicircuits.com

Included Accessories	Part Number	Description
	CBL-3W-xx	AC power cord (IEC C13 connector to local plug) Select one option from the list below. Please contact testsolutions@minicircuits.com if your region is not listed.
	HT-4-SMA	SMA connector wrench (4" length)

AC Power Cord Options	Part Number	Description
	CBL-3W-US	USA NEMA 5-15 plug (type B) to IEC C13 connector
	CBL-3W-EU	Europe CEE 7/7 plug (type E/F) to IEC C13 connector
	CBL-3W-UK	UK BS-1363 plug (type G) to IEC C13 connector
	CBL-3W-AU	Australia & China AS/NZS 3112 plug (type I) to IEC C13 connector
	CBL-3W-IL	Israel SI-32 plug (type H) to IEC C13 connector

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





Environmental Specifications ENV55

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-0° to 50° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-20° to 60° C Ambient Environment	Individual Model Data Sheet
Operating and Storage Humidity	5% to 85% RH (non-condensing)	Ambient
Bench Handling Test	Bench Top Tip 45° & Drop	MIL-PRF-28800F
Transit Drop Test	Free Fall Drop, 20 cm (7.9 inches)	MIL-PRF-28800F Class 3