RACK-MOUNTED

Splitter / Combiner Panel

ZT-299

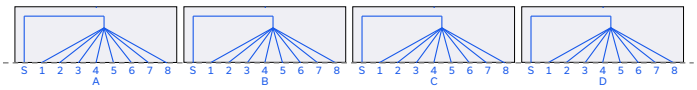
50 Ω 0.5-6 GHz 4 x 8-Way SMA Female

THE BIG DEAL

- Rack-mounted RF splitter / combiner panel
- 4 x 8-way splitters in 1U rack space
- All connectors on the front panel
- Wide band

Front View
Generic photo used for illustration purposes only

FUNCTIONAL BLOCK DIAGRAM



APPLICATIONS

- Production test setups
- Satcom signal distribution
- GNSS (GPS, Galileo, GLONASS) signal distribution
- 5G FR1, Bluetooth & WiFi signal distribution

PRODUCT OVERVIEW

Mini-Circuits panel-mounted structures provide clean, organized management of cable runs and connections in complex, high volume test setups. Multiple connector adapters, power splitters, directional couplers and other essential RF components and test accessories can be integrated efficiently within the test system. Custom configurations are available upon request.

ZT-299 integrates 4 x 8-way splitter / combiners on to a compact panel requiring only 1U of rack space. The wide 500-6000 MHz bandwidth of operation covers a key portion of the cellular and satcom signal frequencies with low insertion loss and high isolation between ports.

The panel is configured with all SMA RF connectors on the front for easy access within a rack-mounted test environment.

ELECTRICAL SPECIFICATIONS AT +25°C (EACH SPLITTER)

Parameter	Conditions	Min	Typ	Max	Units
Frequency		500		6000	MHz
Insertion Loss	Above theoretical 9 dB loss		2.8	3.5	dB
Isolation	500 – 700 MHz 700 – 6000 MHz	18 20	23 28		dB
Return Loss	500 – 700 MHz 700 – 6000 MHz		12 17		dB
Input Power	As a splitter into load with 2:1 max VSWR			30	W

REV. A
ECO-022135
ZTM-2599
MCL NY
240618

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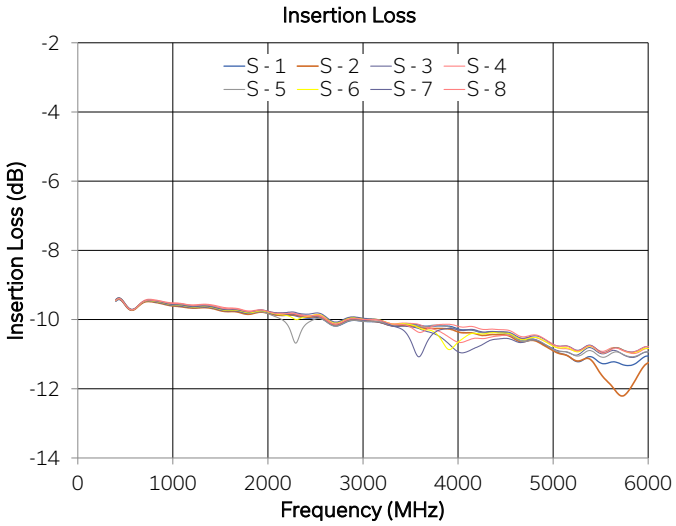
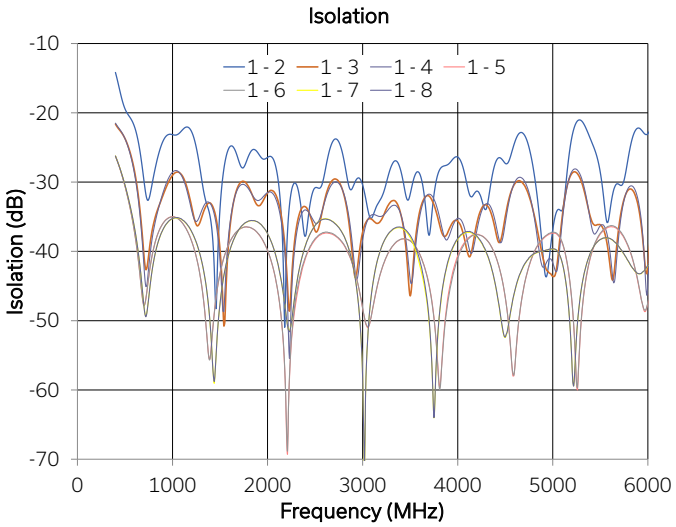
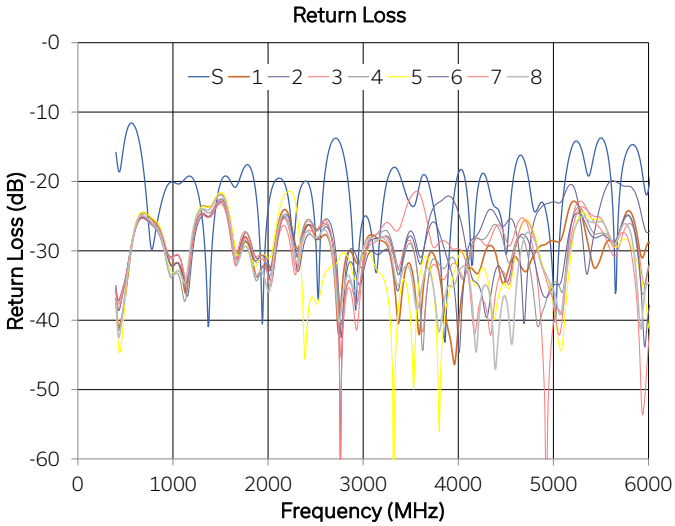
TYPICAL PERFORMANCE GRAPHS







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ABSOLUTE MAXIMUM RATINGS

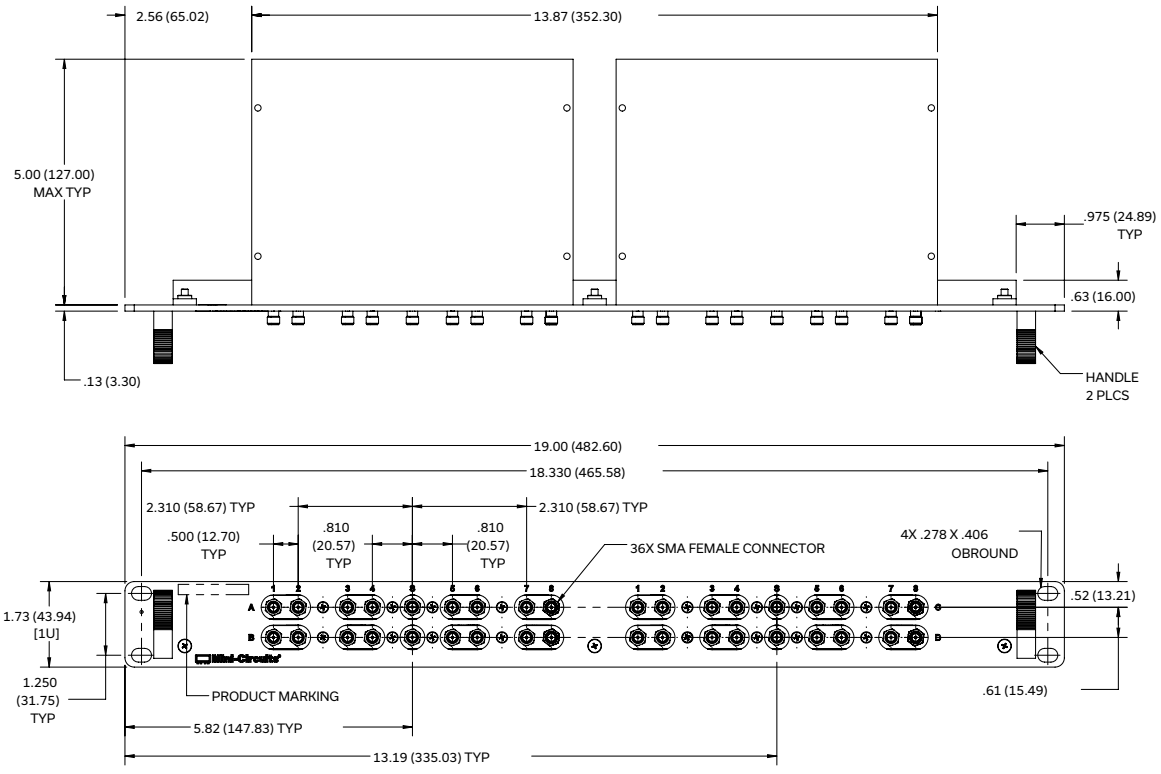
Parameter	Conditions	Limits	Units
Temperature	Operating	0 to +50	°C
	Storage	-20 to +60	

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.

CONNECTIONS

Port	Connector
Splitter A-D, ports S & 1-8	SMA female

CASE STYLE DRAWING



Weight: 2200 grams.
Dimensions are in inches (mm). Tolerances: 2 Pl.±.03 inch; 3 Pl.±.015 inch.

PRODUCT MARKING*

Product Marking: ZT-299
Unit ID Label: Serial number and other identification marks
*Marking may contain other features or characters for internal lot control

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DETAILED MODEL INFORMATION IS AVAILABLE ON OUR WEBSITE CLICK HERE

Case Style	AAN2873
Environmental Rating	ENV55
Regulatory Compliance	Refer to our website for compliance methodologies and qualifications CE UKCA www.minicircuits.com/quality/environmental_introduction.html

Contact Us: testsolutions@minicircuits.com

Included Accessories	Part Number	Description
	HT-4-SMA	SMA connector wrench (4" length)

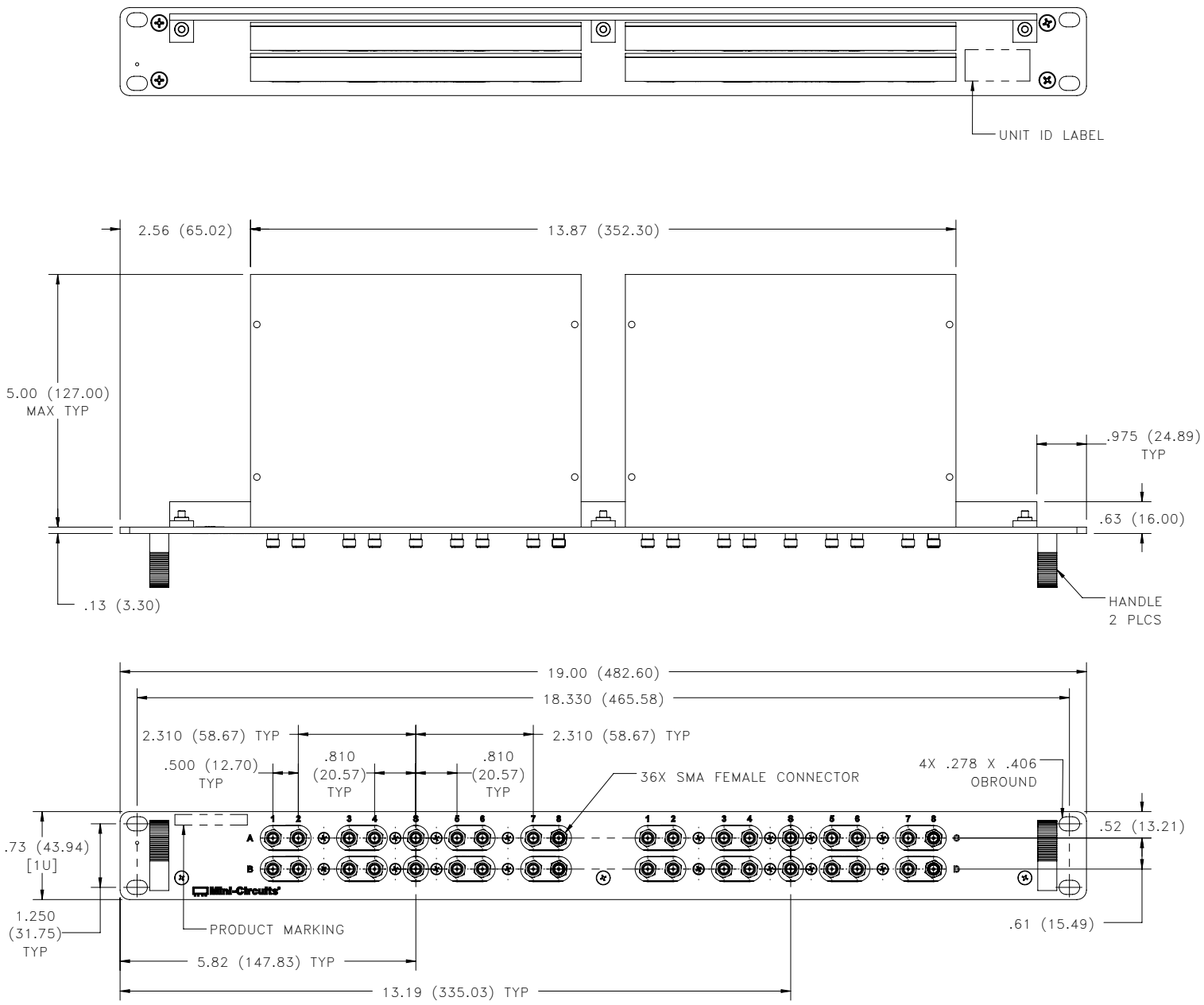
NOTES

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

Case Style AAN

Outline Dimensions

AAN2873



Notes:

1. Case material: Aluminum (with protective coating to prevent corrosion).
2. Dimensions are in inches (mm). Tolerances: 2 Pl. ±.03 inch; 3 Pl. ±.015 inch.
3. Weight: 2200 grams.
4. Marking may contain other features or characters for internal lot control.

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Mini-Circuits

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

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