RACK-MOUNTED

Splitter/Combiner Panel

ZT-394

50Ω 0.6 to 6 GHz 16-Way SMA Female

THE BIG DEAL

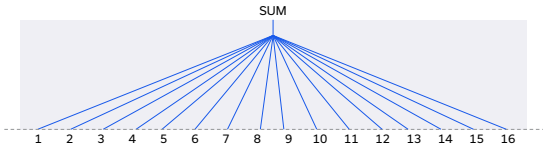
- Rack-mounted RF splitter/combiner panel
- 16-way splitter in 1U rack space
- In-line connector configuration
- Wide bandwidth

Generic photo used for illustration purposes only

APPLICATIONS

- Production test setups
- Satcom signal distribution
- Cellular test applications
- 5G FR1, Bluetooth & WiFi signal distribution

FUNCTIONAL BLOCK DIAGRAM



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-394 is a rack-mounted 16-way splitter/combiner requiring only 1U of rack space. The wide 600-6000 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 orientation of the SMA connectors supports straight-through connections within the rack, with ports 1-16 on the front panel and the sum port accessible from the rear.

ELECTRICAL SPECIFICATIONS AT +25°C (EACH SPLITTER)

Parameter	Conditions	Min.	Typ.	Max.	Units
Frequency		600		6000	MHz
Insertion Loss (Above Theoretical 12 dB)	600 – 700 MHz		0.8	1.4	dB
	700 – 3000 MHz		1.7	3.0	
	3000 – 6000 MHz		3.2	4.0	
Isolation	600 – 6000 MHz	16	22		dB
Return Loss (Port S)	600 – 700 MHz		15		dB
	700 – 3000 MHz		16		
	3000 – 6000 MHz		16		
Return Loss (Ports 1 – 8)	600 – 700 MHz		20		dB
	700 – 3000 MHz		22		
	3000 – 6000 MHz		20		
Input Power	CW (as splitter into 1.2:1 max load VSWR)			30	W

REV. B
ECO-021095
ZT-394
MCL NY
240306

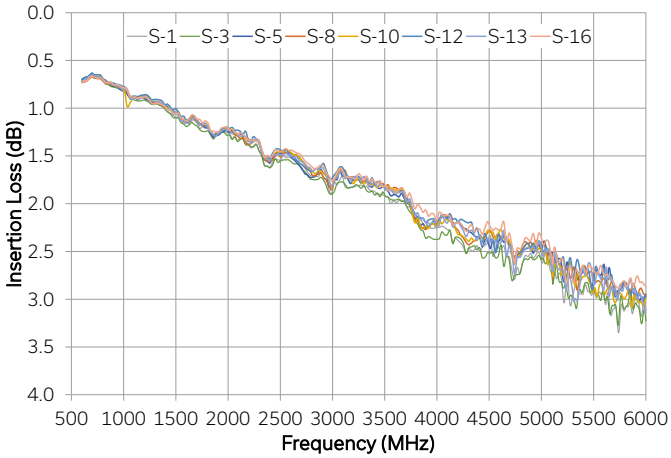
Splitter/Combiner Panel

ZT-394

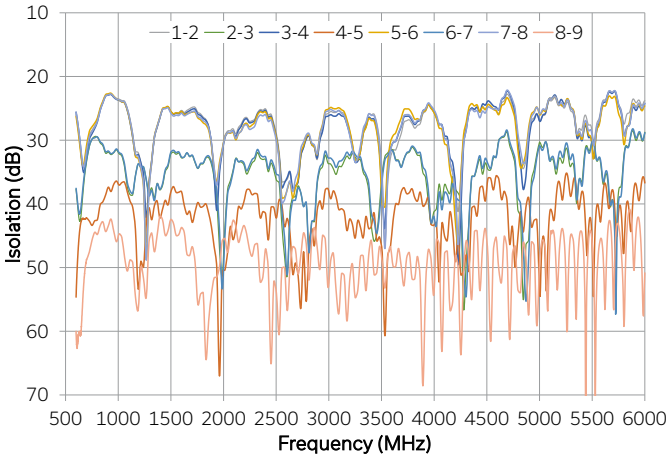
50Ω 0.6 to 6 GHz 16-Way SMA Female

TYPICAL PERFORMANCE GRAPHS

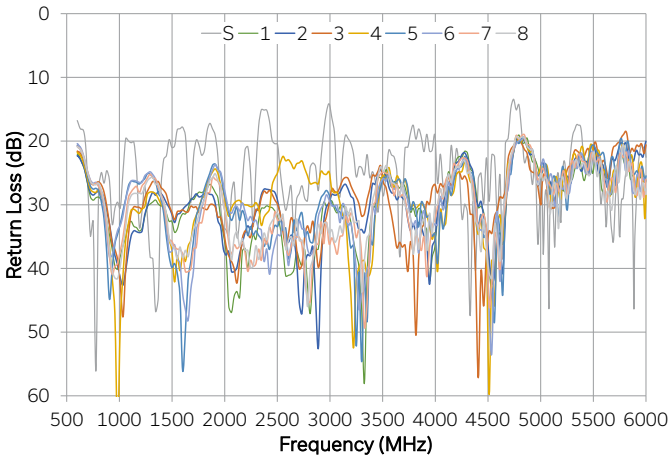
Insertion Loss



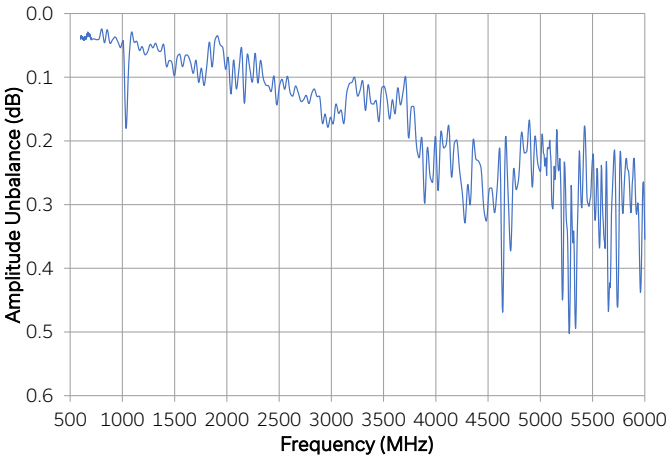
Isolation



Return Loss



Amplitude Unbalance



RACK-MOUNTED

Splitter/Combiner Panel

ZT-394

50Ω 0.6 to 6 GHz 16-Way SMA Female

ABSOLUTE MAXIMUM RATINGS

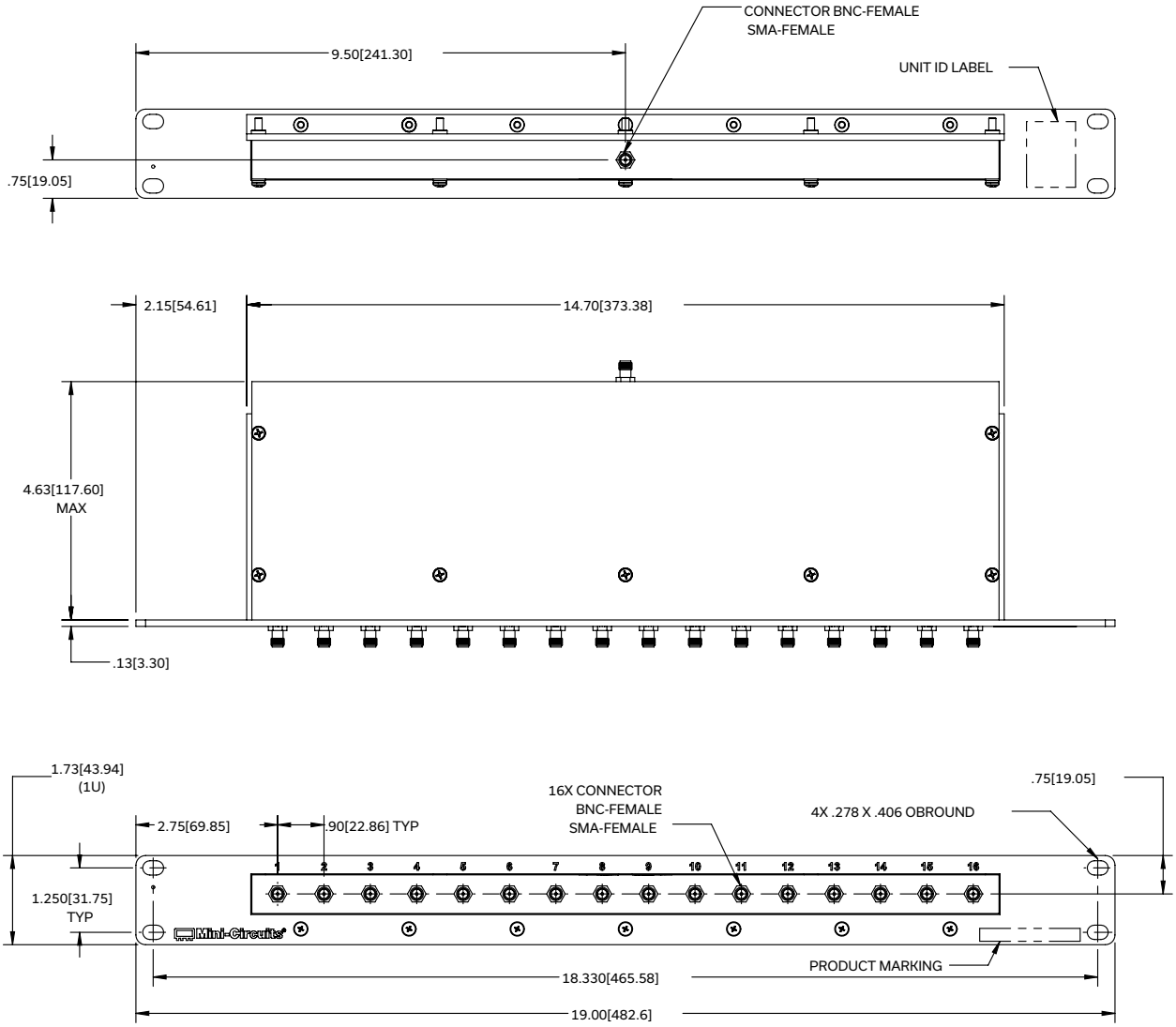
Parameter	Conditions	Limits	Units
Temperature	Operating	0 to +50	°C
	Storage	-20 to +60	

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
Sum & 1-16	SMA female

OUTLINE DRAWING



Weight: 1520 grams.

Dimensions are in inches [mm]. Tolerances: 2 Pl. ±.03 inch; 3 Pl. ±.015 inch.

PRODUCT MARKING*

Product Marking: ZT-394

Unit ID Label: Serial number and other identification marks

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

RACK-MOUNTED

Splitter/Combiner Panel

ZT-394

50Ω 0.6 to 6 GHz 16-Way SMA Female

DETAILED MODEL INFORMATION IS AVAILABLE ON OUR WEBSITE CLICK HERE

Case Style	YN3415
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

ORDERING INFORMATION

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.

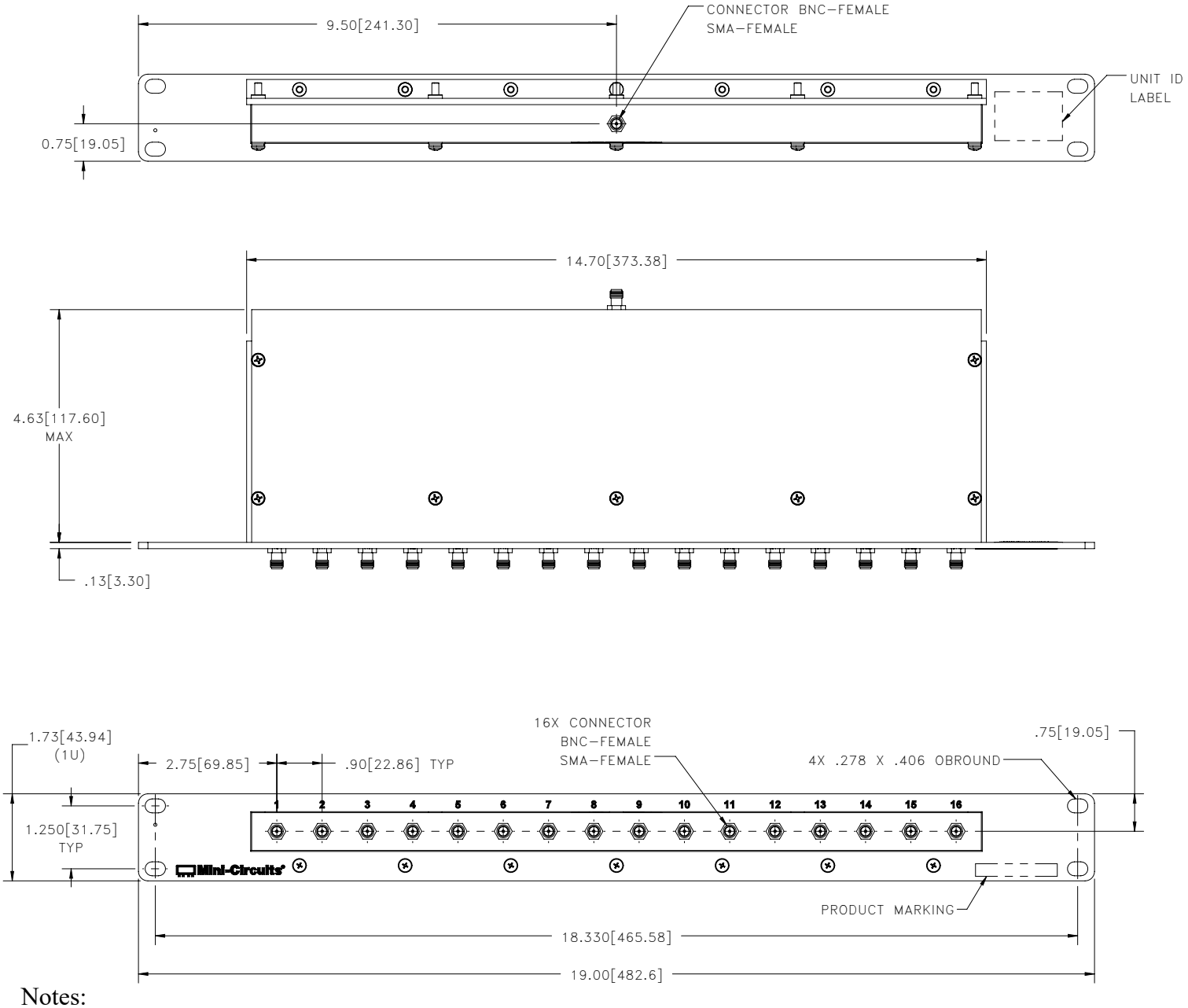
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

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 YN

Outline Dimensions

YN3415



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: 1520 grams.
4. Marking may contain other features or characters for internal lot control.

This document and its contents are the property of Mini-Circuits

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

This document and its contents are the property of Mini-Circuits