

## RACK-MOUNTED

# SMA to N-Type Adapter Patch Panel

# ZT-312

50Ω DC to 18 GHz

### THE BIG DEAL

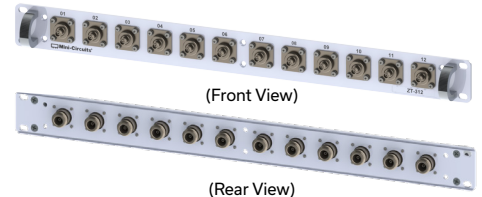
- Convenient panel-mounted design
- Excellent VSWR
- Flat frequency response

### APPLICATIONS

- Production test set-ups
- Simplification of cable runs
- Interconnection of RF cables & equipment

### 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-312 is a 1U height patch panel incorporating 12 high quality connector adapters, with SMA female connectors on the front of the panel and N-type female on the rear.



CASE STYLE: YF2950

**RoHS Compliant**  
See our website for RoHS Compliance methodologies and qualifications

### ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	-	18	GHz
Insertion Loss	DC - 18 GHz	-	0.1	-	dB
VSWR	DC - 8 GHz	-	-	1.15	:1
	8 - 12.4 GHz	-	-	1.20	
	12.4 - 18 GHz	-	-	1.30	

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

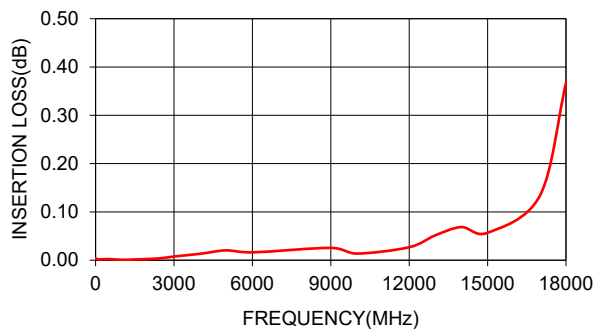
Dimensions	19" (W) x 1U (H)				
Case Style	YE2950				
Case Material	Aluminum (with protective coating to prevent corrosion)				
RF Connectors	Face	Connector	Quantity	Port Labels	
	Front	SMA female	12	01-12	
	Rear	N-type female	12	None	
Panel Marking	Front Panel	Rear Panel			
	• ZT-312	• CE / EAC / UKCA • Serial number / date code / model name			
Panel Items	• Carry handles				
Temperature	Operating: 0 to +50 °C				



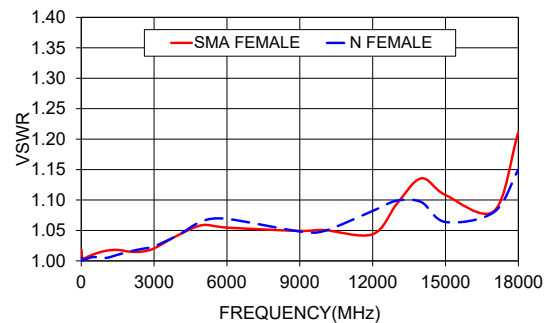
### TYPICAL PERFORMANCE CURVES

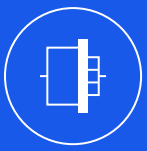
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
		N-FEM	SMA-FEM
10.00	0.003	1.01	1.02
50.00	0.003	1.00	1.00
100.00	0.002	1.00	1.00
500.00	0.002	1.01	1.01
1000.00	0.001	1.00	1.02
1500.00	0.002	1.01	1.02
2000.00	0.003	1.02	1.02
2500.00	0.004	1.02	1.02
3000.00	0.008	1.02	1.02
4000.00	0.013	1.04	1.04
5000.00	0.020	1.07	1.06
6000.00	0.016	1.07	1.05
9000.00	0.026	1.05	1.05
10000.00	0.014	1.05	1.05
12000.00	0.027	1.08	1.04
13000.00	0.052	1.10	1.09
14000.00	0.069	1.10	1.14
15000.00	0.057	1.06	1.11
17000.00	0.133	1.08	1.08
18000.00	0.367	1.15	1.21

ZT-312  
INSERTION LOSS



ZT-312  
VSWR





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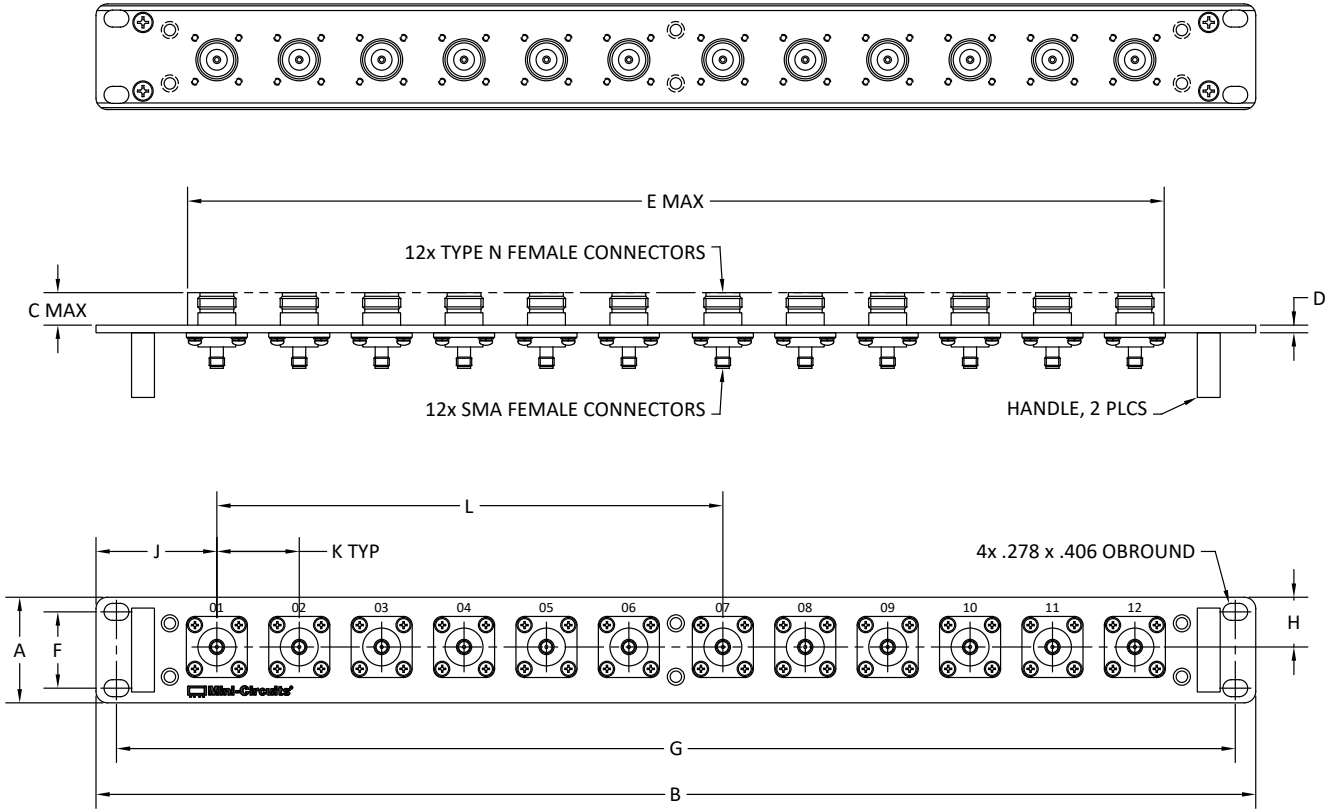
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ZT-312

Mini-Circuits

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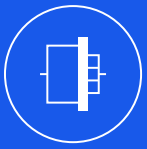
## OUTLINE DRAWING



## OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	F	G	H	J	K	L	wt
1.73	19.00	0.75	0.130	16.00	1.250	18.340	0.820	1.980	1.350	8.290	grams
43.9	482.6	19.1	3.30	406.40	31.8	465.8	20.83	50.3	34.3	210.6	635





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## ORDERING INFORMATION

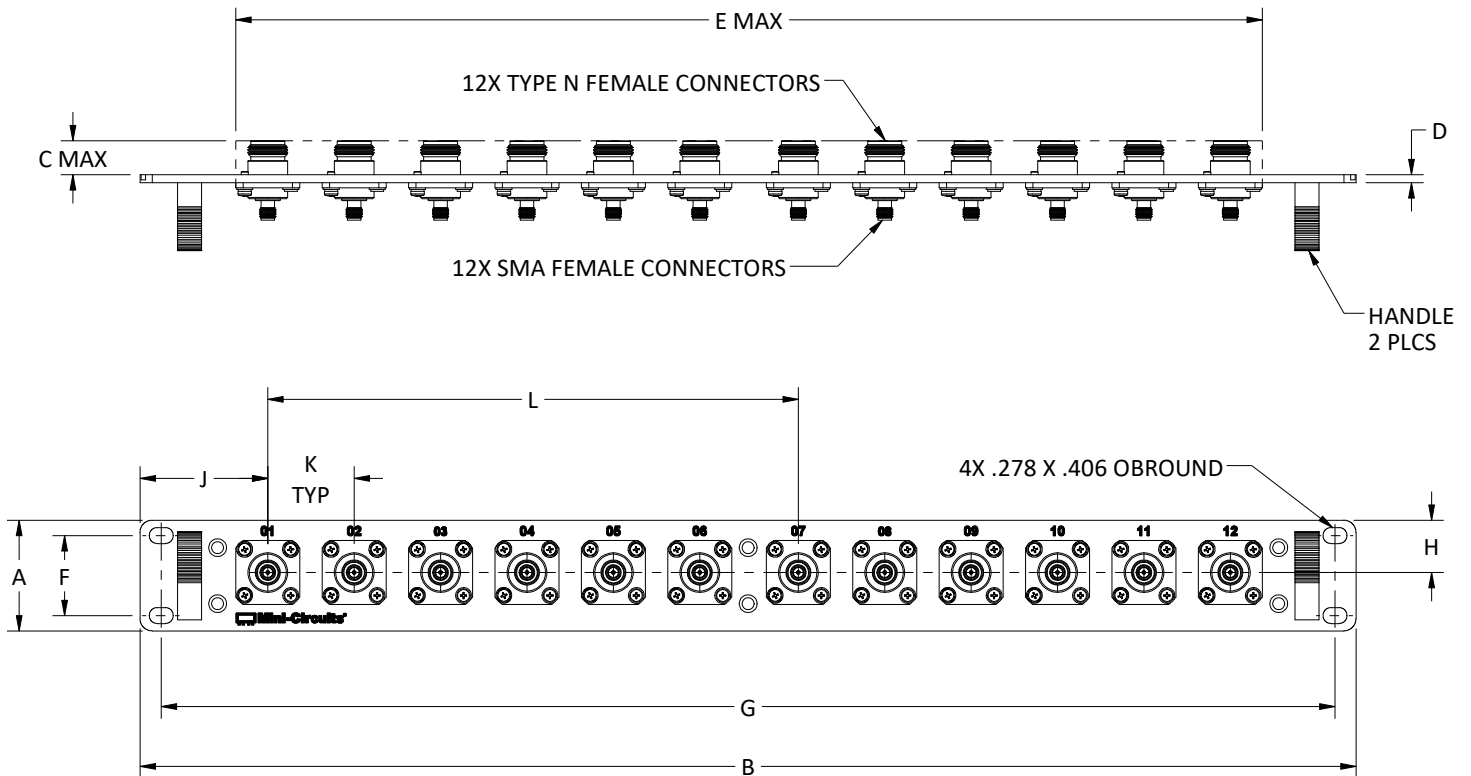
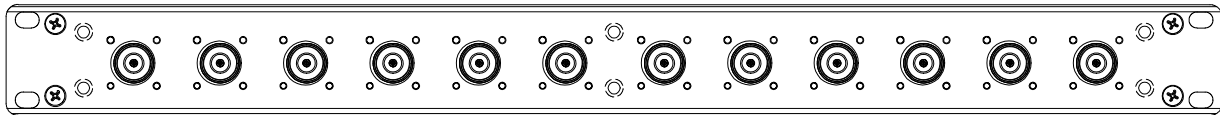
To learn more, click here: [ZT-312](#)

Model	Description
ZT-312	12 x SMA female to N-type female patch panel

Included Accessories	Part No.	Description
	HT-4-SMA	SMA Cable Wrench (4 in)

- 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](http://www.minicircuits.com/terms/viewterm.html)





CASE #	A	B	C	D	E	F	G	H	J	K	L	WT, GRAMS
YF2950	1.73 (43.9)	19.00 (482.6)	.75 (19.1)	.13 (3.3)	16.00 (406.4)	1.250 (31.75)	18.340 (465.84)	.82 (20.8)	1.98 (50.3)	1.35 (34.3)	8.29 (210.6)	635

Dimensions are in inches ( mm) . Tolerances: 2 Pl.  $\pm .1$ ; 3 Pl.  $\pm .015$

Notes:

1. Case material: Aluminum alloy.
2. Finish: Clear chemical conversion coating



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS



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