

# Coaxial Matching Pad

## UNMP-5075-33R+

50/75Ω

DC to 3000 MHz



Generic photo used for illustration purposes only

CASE STYLE: FF779

### The Big Deal

- Wideband coverage, DC to 3000 MHz
- Good return loss
- Loss < 2 dB

### Product Overview

Mini-Circuits' UNMP-5075-33R+ is a coaxial 50/75Ω matching pad covering the DC to 3000 MHz frequency range, supporting impedance matching in a wide range of systems. The matching pad housed in a rugged unibody construction with N-Male (50Ω) to N-Female (75Ω) connectors.

### Key Features

Feature	Advantages
Wideband, DC to 3000 MHz	Supports a wide variety of applications including CATV systems and equipment.
Compact size, 0.71" x 2.11" x 0.71"	Accommodates tight space requirements for crowded system layouts.
Connectorized package N-Male (50Ω) to N-Female (75Ω) connectors	Supports connections between components with different connector types.

#### 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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Connectors	Model
75Ω F-N	UNMP-5075-33R+
50Ω M-N	

**+RoHS Compliant**

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

## Maximum Ratings

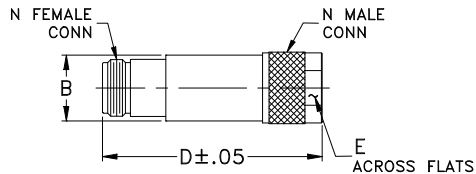
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Input Power	1W

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

## Coaxial Connections

75 Ω	N-Female
50 Ω	N-Male

## Outline Drawing

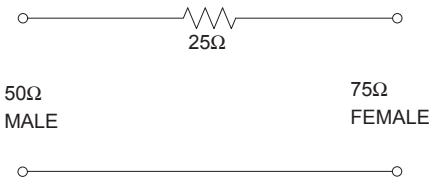


## Outline Dimensions (inch/mm)

A	B	C	D	E	Wt.
--	.71	--	2.11	.718	grams
--	18.03	--	53.59	18.24	72.5

Note: Please refer to case style drawing for details

## Functional Schematic



## Features

- Wideband coverage, DC to 3000 MHz
- Good return loss
- Rugged unibody construction
- Unidirectional only, 50-75Ω
- Equivalent to Rhode & Schwarz matching pad 50/75Ω, P/N: 385.5714.02

## Applications

- Impedance matching
- CATV Systems

## Electrical Specifications at 25°C

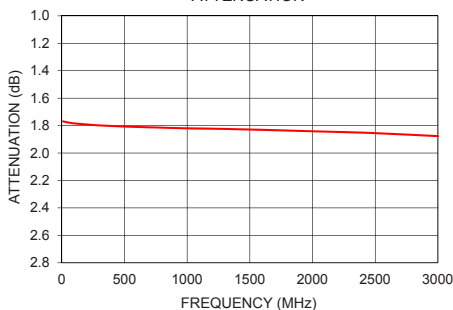
Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	--	3000	MHz
Attenuation	Nominal	DC-3000	--	1.7	--
	Flatness <sup>1</sup>	DC-3000	--	--	±0.2
75 Ω Return Loss	DC-1500	26.5	40	--	dB
	1500-3000	17.7	23	--	dB
50 Ω Return Loss	DC-3000	--	9	--	dB
Input Power	DC-3000	--	--	1	W

1. Flatness= variation over band divided by 2

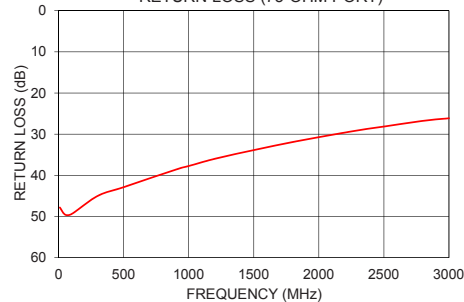
## Typical Performance Data at 25°C

Frequency (MHz)	Attenuation (dB)	Return Loss (dB)	
		75 Ω	50 Ω
10	1.77	47.82	9.53
50	1.78	49.54	9.53
100	1.78	49.40	9.50
300	1.80	45.00	9.48
500	1.81	42.87	9.48
800	1.82	39.66	9.50
950	1.82	38.12	9.51
1000	1.82	37.73	9.51
1200	1.82	35.98	9.54
1500	1.83	33.85	9.59
1800	1.84	31.90	9.68
2000	1.84	30.73	9.76
2300	1.85	29.07	9.93
2500	1.85	28.15	10.05
2800	1.87	26.76	10.22
3000	1.88	26.13	10.30

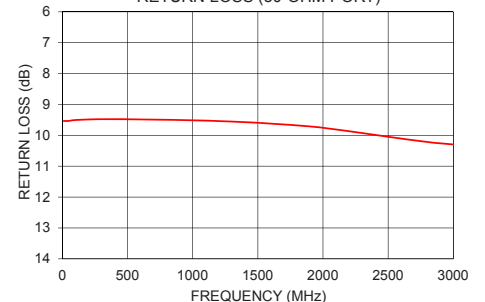
UNMP-5075-33R+ ATTENUATION



UNMP-5075-33R+ RETURN LOSS (75-OHM PORT)



UNMP-5075-33R+ RETURN LOSS (50-OHM PORT)



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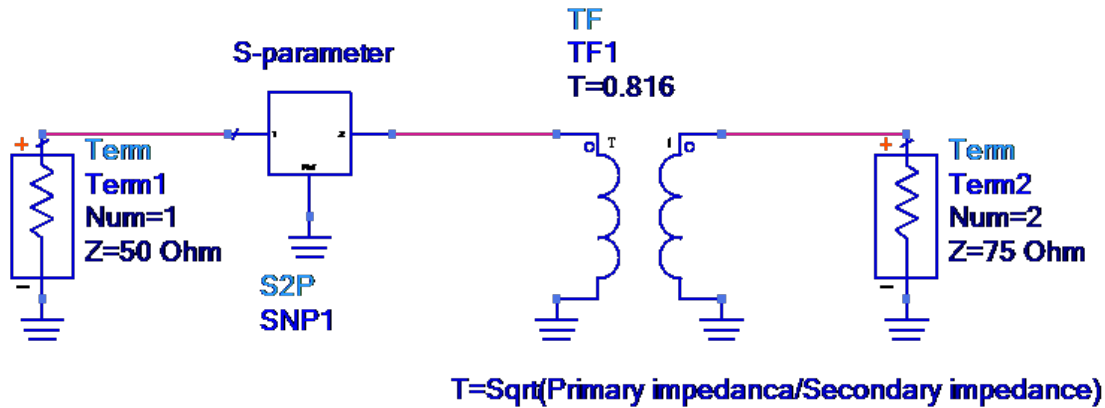
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ECO-006652  
UNMP-5075-33R+  
EDU2608  
URJ  
210301  
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## S2P usage notes:

The S-Parameter file is normalized to 50 Ω

However as the DUT is a matching pad between 50 and 75 Ω, the actual schematic of the DUT would as shown below.



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