

# TF50-27

## DC to 27 GHz 50Ω Female Termination

### DEVICE OVERVIEW

#### General Description

The TF50-27 is a well-matched, 50Ω female termination enabling operation from DC to 27 GHz. This termination features a 2W power rating and 32 dB typical return loss. The termination is suitable for use with our connectorized components. The T50-27 is available with both Male and Female connector options available as a SMA connectorized module.



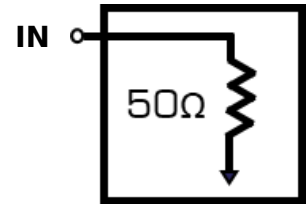
#### Features

- Female termination
- Broadband 50Ω termination from DC to 27GHz
- 0.7W Power Rating
- 32 dB typical Return Loss

#### Applications

- Test Equipment
- Broadband Loading
- Precision Characterization

#### Functional Block Diagram



#### Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
<u>TM50-27</u>	DC to 27 GHz 50Ω Male Termination	<u>Standard</u>	REACH RoHS	Released	EAR99
TF50-27	DC to 27 GHz 50Ω Female Termination	<u>Standard</u>	REACH RoHS	Released	EAR99

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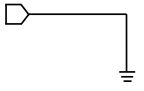
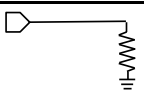
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## Revision History

Revision Code	Revision Date	Comment
-	2025-06-13	Initial Release
A	2025-11-24	Power Handling removed from Outline Drawing
B	2026-02-12	Power Handling Updated in the Features Section

**Port Configuration and Functions**

**Port Functions**

Port	Function	Connector Type	Description	DC Equivalent Circuit
GND	Ground	-	Ground provided through metal housing and outer coax conductor.	
Port 1	Input	SMAF	Port 1 is DC connected to ground through a broadband 50Ω resistor.	

## Specifications

### Absolute Maximum Ratings

The Absolute Maximum Ratings indicate limits beyond which damage may occur to the device. If these limits are exceeded, the device may be inoperable or have a reduced lifetime.

Parameter	Maximum Rating	Unit
Average Power Handling <sup>1</sup>	0.7	W
Maximum Operating Temperature	105	°C
Maximum Storage Temperature	105	°C
Minimum Operating Temperature	-40	°C
Minimum Storage Temperature	-40	°C

1 W Average power from -40°C to +70°C Linearly derated to 0.7W at 105°C

[1] 1 W Average power from -40°C to +70°C Linearly derated to 0.7W at 105°C

### Package Information

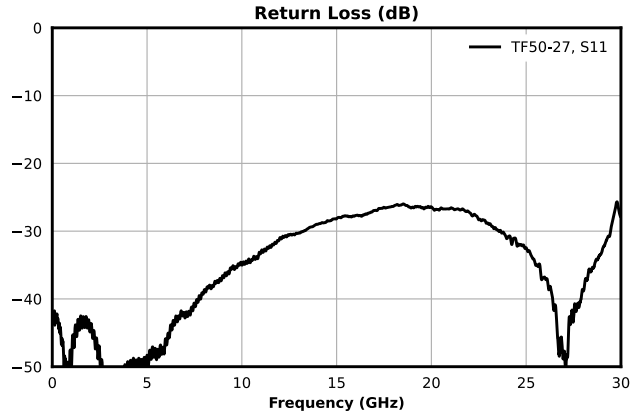
Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A

**Electrical Specifications**

The electrical specifications apply at TA=+25°C in a 50Ω system.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Impedance	Configuration A, 25°C	0	27	-	50	-	Ω
Return Loss	Configuration A, 25°C	0	27	23	32	-	dB
VSWR	Configuration A, 25°C	0	27	-	1.05	1.15	

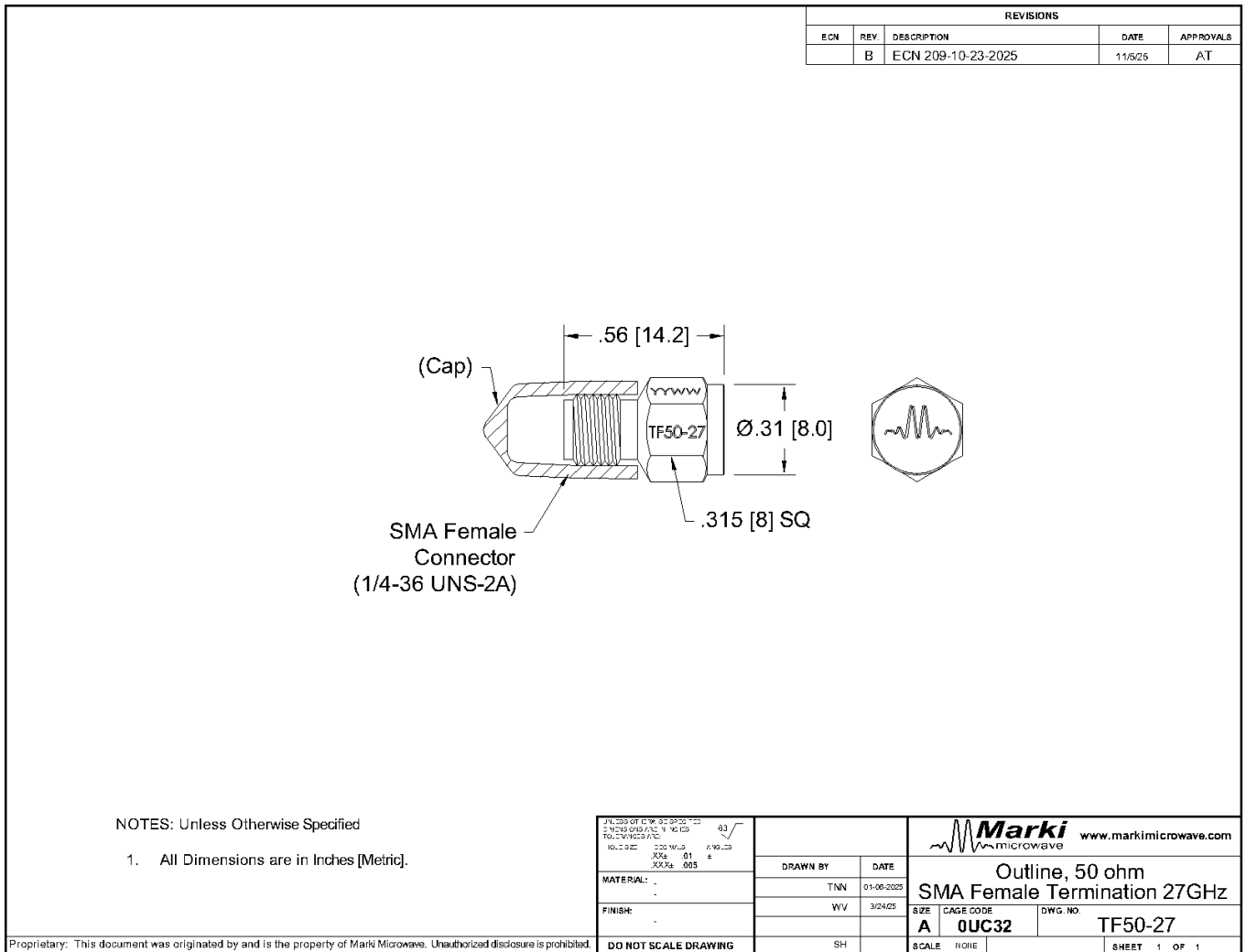
**Typical Performance Plots**



**Mechanical Data**

**Outline Drawing**

Download : [Outline 2D Drawing](#)



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