



Mini-Circuits

COAXIAL

## Directional Coupler

ZCDC20-263+

50Ω 20 dB Up to 20 W 0.5 to 26.5 GHz SMA Female

## KEY FEATURES

- Wide frequency range, 0.5 to 26.5 GHz
- Useable 9 kHz to 26.5 GHz
- Excellent coupling flatness,  $\pm 1.7$  dB typ.
- Excellent directivity, 30 dB typ. up to 26.5 GHz
- Excellent return loss, 33 dB typ. up to 26.5 GHz
- Power handling up to 20 W
- DC current pass-through input to output

## APPLICATIONS

- 5G
- Fixed Satellite
- Radar
- Instrumentation
- Lab use

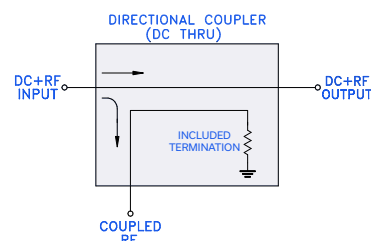
## PRODUCT OVERVIEW

The Mini-Circuits' ZCDC20-263+ wideband directional coupler offers exceptional performance operating over 0.5 to 26.5 GHz. This coupler has excellent coupling flatness, good directivity, and power handling. It is ideal for lab testing applications as well as for power monitoring over wide bandwidths for many different applications.



Generic photo used for illustration purposes only

## FUNCTIONAL DIAGRAM



## ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	0.5	-	26.5	GHz
Mainline Loss <sup>1</sup>	0.5 - 18	-	0.4	1.2	dB
	18 - 26.5	-	0.9	1.5	
Coupling Nominal <sup>2</sup>	0.5 - 26.5	-	20	-	dB
Coupling Flatness ( $\pm$ ) <sup>2</sup>	0.5 - 26.5	-	1.7	-	dB
Directivity	0.5 - 18	13	31	-	dB
	18 - 26.5	12	25	-	
Return Loss (Input & Output)	0.5 - 18	16	34	-	dB
	18 - 26.5	14	26	-	
Return Loss (Coupled)	0.5 - 18	16	32	-	dB
	18 - 26.5	14	27	-	

1. Mainline loss includes coupling loss.

2. Coupling below rated frequency will vary.

ABSOLUTE MAXIMUM RATINGS<sup>3</sup>

Operating Case Temperature	-55° C to +100° C
Storage Temperature	-55° C to +100° C
Input Power	20 W
DC Current	0.8 A

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

REV. OR  
ECO-024734  
ZCDC20-263+  
MCL NY  
250314





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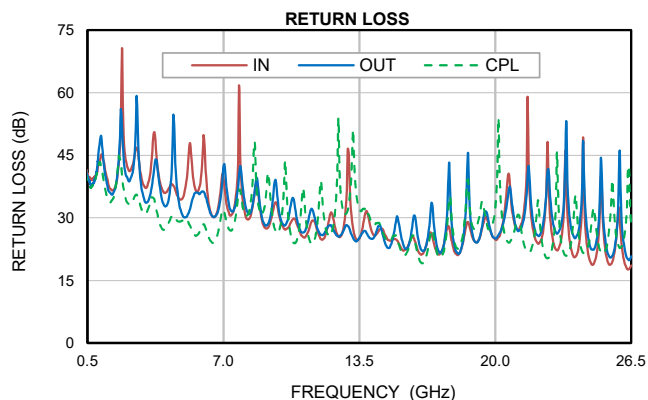
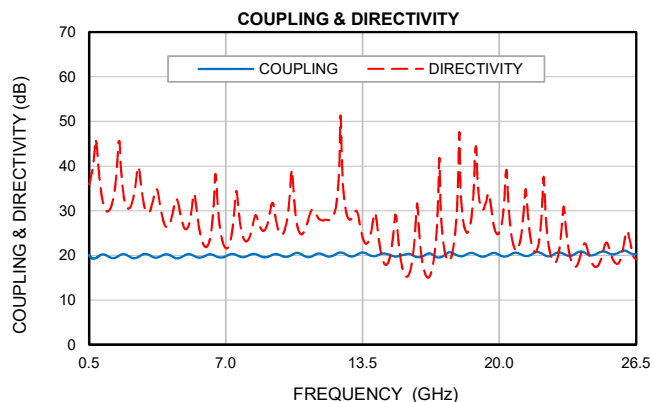
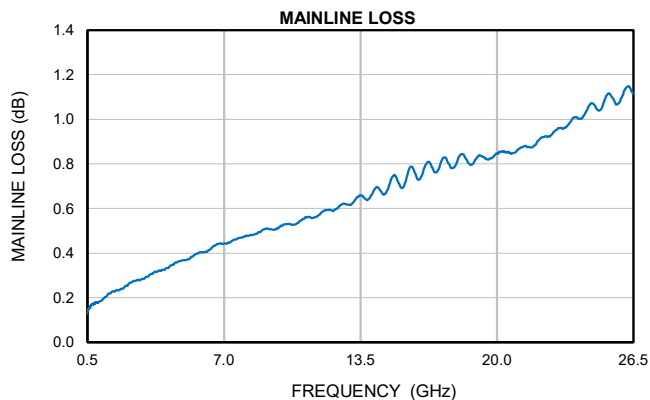
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## TYPICAL PERFORMANCE GRAPHS





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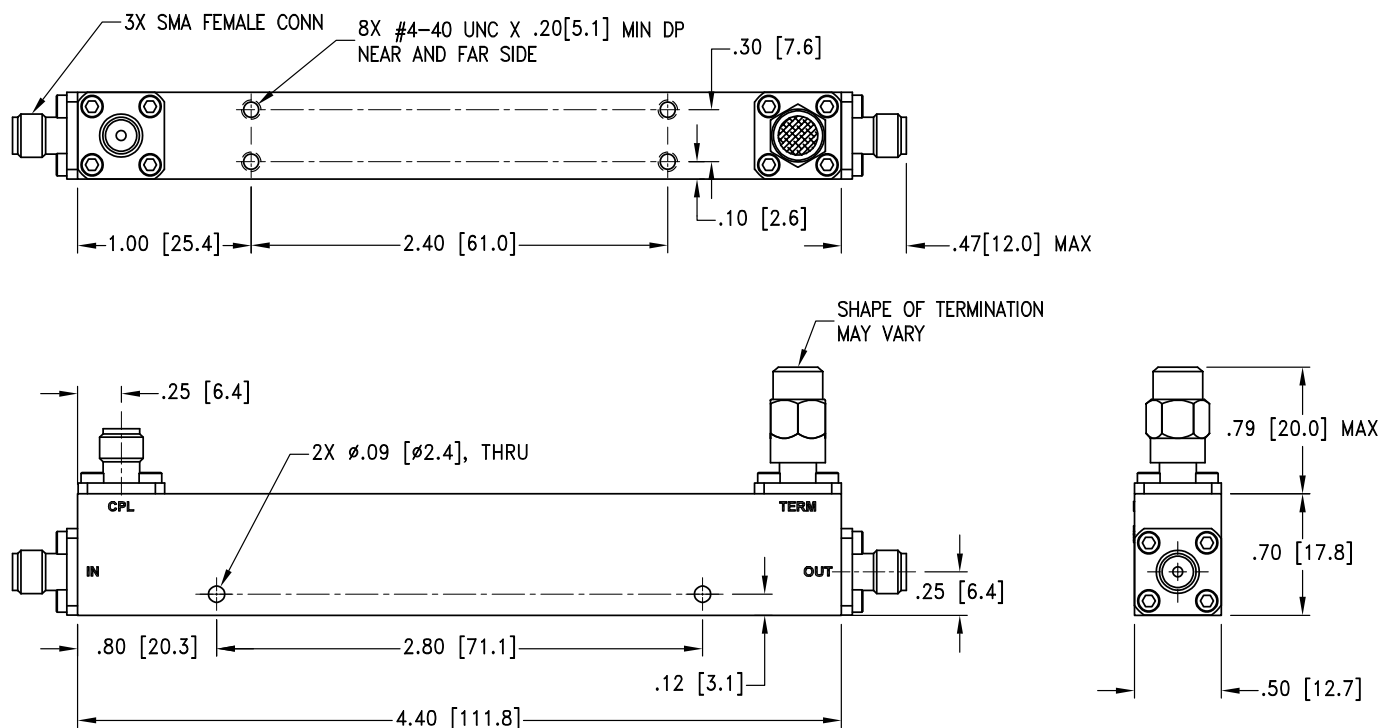
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## COAXIAL CONNECTIONS

Ports	Marking
Input	IN
Output	OUT
Coupled	CPL
Termination (50Ω) Included	TERM

## CASE STYLE DRAWING



Weight: 90 grams

Dimensions are in inches [mm]. Tolerances: 2Pl.  $\pm .03$ ; 3Pl.  $\pm .015$  inches

## PRODUCT MARKING\*: ZCDC20-263+

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





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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD [CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S3P Files) Data Set (.zip file)
Case Style	HT2626-2
Connectors	SMA Female
RoHS Status	Compliant
Environmental Ratings	ENV148

## 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)

