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### **PRODUCT CHANGE NOTICE** PCN Form (D4-E000-73)

### **PCN#17-088**

NOTIFICATION DATE: November 17, 2017

### **MODEL(S) AFFECTED:**

ZARC-25-63-S+

### EXTENT OF CHANGE:

Change of coupling frequency and specification resulting from performance shift of internal component. (See attached - revised Datasheet)

### EFFECT OF CHANGE:

Change FUNCTION (performance) No change to FORM (appearance) or FIT (dimensions)

### **REASON FOR CHANGE:**

Discontinuation of supplied internal component. Replacement with alternate qualified component with shift in frequency seen.

### EFFECTIVE DATE OF CHANGE:

Immediate

### **ATTACHMENTS:**

Datasheet

**QUESTIONS?** 

### PLEASE CONTACT US.

AS 9100 ISO 9001 ISO 14001 Certified

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Refer to Procedure: D3-E040

## 25 dB DC Pass **High Power Directional Tap**

## ZARC-25-63+

50Ω 100W 2500 to 6000 MHz

## **The Big Deal**

- High Power Handling, 100 W
- Excellent Mainline Loss, 0.27 dB typ.
- Very good VSWR, 1.2:1 typ.



CASE STYLE: AW1564

## **Product Overview**

The ZARC-25-63+ high power directional tap is ideal for signal monitoring up to 100 W RF signals in microwave S- and C-band applications. The heavy-duty stripline module is housed in a rugged aluminum alloy case, with anodized aluminum heat sink and gold-plated SMA connectors. Overall dimensions are 3.00" x 2.81" x 2.03" high.

Feature	Advantages
0.25 dB typ. Mainline Loss	Extremely low internal power dissipation, reducing mainline loss and internal temperature for high reliability
VSWR 1.2:1 typ	Very good 50 $\Omega$ impedance matching minimizes interference with signal integrity
DC Pass up to 1.5A	Suitable for applications using remote antenna control or other remote motorized requirements
100 W Input Power max.	High power capacity, combined with excellent insertion loss, supports operation in transmitters and base sta- tions for radar, satellite, ISM, maritime, PMR, and line-of-sight communications

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-Circuit's standard limited warranty and terms and conditions (collective), "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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp



# 25 dB DC Pass High Power Directional Tap

## ZARC-25-63+

50Ω 100W

### 2500 to 6000 MHz

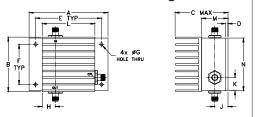
### **Maximum Ratings**

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	100W max.
DC Current (IN-OUT)	1.5A
Permanent damage may occur if any	of these limits are exceeded.

#### **Coaxial Connections**

INPUT	1
OUTPUT	2
COUPLED	3

### Outline Drawing



#### Outline Dimensions (inch) в С D A 3.00 F G 2.03 2.06 .10 2,500 1.525 .125 52.32 51.56 63.50 76.20 2.54 38.74 3.18 н Κ ı Μ Ν wt 2.00 .50 .50 .50 1.00 2.00 grams 12.70 12.70 12.70 50.80 25.40 50.80 230

**Electrical Schematic** 

INTERNAL

SHORT

TO GND

ZARC-25-63+

MAINLINE LOSS

3000 3500 4000 4500 5000

FREQUENCY (MHz)

5500 6000

ELECTRICAL SCHEDATIC IS FOR DEFECTION COURTER WITH INTERNAL TRANSPORDER(S) NOUTES OF FROM RF PORTS TO DEFOUND.

0.6

0.5

0.4

0.3

0.2

0.1

0.0

2500

Notes

MAINLINE LOSS (dB)

### Features

- excellent mainline loss, 0.34 dB typ.
- good VSWR, 1.2 typ.

#### Applications

- cellularPCS
  - PCS
- ISMinstrumentation
- Instrumentation



CASE STYLE: AW1564 Connectors Model SMA ZARC-25-63-S+

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

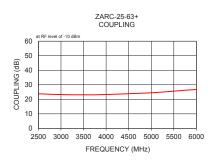
### **Electrical Specifications at 25°C**

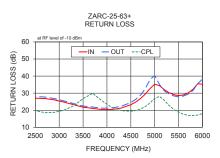
Parameter	Condition (MHz)	Min.	Тур.	Max.	Unit		
Frequency Range		2500		6000	MHz		
Mainline Loss (above theoretical 0.014 dB)	2500	— 0.28		0.4			
	5200	_	0.32	0.45	dB		
	6000	- 0.35 0.5		0.5			
	2500 - 6000		25.0				
Coupling* (IN-CPL)	2500	22.7	23.8	24.9	dB		
	5200	24.1	25.2	26.3			
	6000	25.9	27	28.1			
Coupling Flatness(±)	2500 - 5200	_	1.3 1.6 1.1 1.4		dB		
	5200 - 6000	—					
	2500	16	22	_			
Return Loss (Input)	5200	16	16 24		dB		
	6000	16	23				
	2500	16	21 –				
Return Loss (Output)	5200	16	20	_	dB		
	6000	16	23	_			
	2500	16	20	_	dB		
Return Loss (Coupling)	5200	16	20	_			
	6000	12	16	_			
Input Power	2500 - 6000	_	_	100	W		

\* Coupling can be used for forward direction only.

### **Typical Performance Data**

Frequency (MHz)	Mainline Loss (dB)	Coupling (dB)	Directivity (dB)		Return Loss (dB)	Cpl
( )	In-Out	In-Cpl	Out-Cpl	In	Out	
2500	0.28	23.80	19.18	27.05	28.03	19.70
3100	0.32	23.18	17.00	24.74	25.47	20.05
3500	0.36	23.08	14.98	21.77	22.44	26.82
4100	0.36	23.39	12.66	20.42	21.33	21.69
4500	0.35	23.84	11.87	23.26	24.54	19.41
5000	0.35	24.49	11.87	35.24	40.33	26.93
5200	0.34	24.87	12.23	32.06	31.39	25.82
5600	0.35	25.85	13.32	28.97	28.30	17.70
5800	0.34	26.33	14.00	32.26	31.52	16.88
6000	0.35	26.75	14.72	35.25	38.16	18.03





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