# **High Power Signal Tap**

**ZARC-26-12+** 

100W  $50\Omega$ 

20 to 100 MHz

## **The Big Deal**

- High Power Handling, 100 W
- Excellent Mainline Loss, 0.1 dB typ.
- Excellent VSWR, 1.1:1 typ.



CASE STYLE: AW1564

### **Product Overview**

The ZARC-26-12+ high power signal tap is ideal for monitoring up to 100 W RF signals in SW and VHF applications. Overall dimensions are 3.00" x 2.81" x 2.03" high. The rugged aluminum alloy case features stainless steel SMA connectors and an anodized aluminum heat sink, enclosing a welded module for reliable, long-term performance.

| Feature                   | Advantages   |
|---------------------------|--|
| 0.1 dB typ. mainline loss | Extremely low internal power dissipation, reducing mainline loss and internal temperature for high reliability   |
| ±0.2 dB coupling flatness | Provides highly accurate sampling of signal power  |
| VSWR 1.1:1 typ            | Excellent $50\Omega$ impedance matching minimizes interference with signal integrity   |
| DC Pass up to 3A          | Suitable for applications using remote antenna control or other remote motorized requirements  |
| 100 W input maximum       | High power capacity, combined with excellent insertion loss and VSWR, supports operation in transmitters and base stations for amateur radio, PMR, FM, broadcast TV, aviation, and military applications |

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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 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

# **High Power Signal Tap**

20 to 100 MHz 100W  $50\Omega$ 

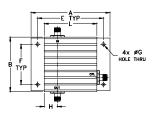
### **Maximum Ratings**

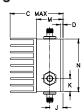
| Operating Temperature             | -40°C to 85°C                |
|-----------------------------------|------------------------------|
| Storage Temperature               | -55°C to 100°C               |
| Power Input                       | 100W max.                    |
| DC Current (IN-OUT)               | 3A                           |
| Permanent damage may occur if any | of these limits are exceeded |

#### **Coaxial Connections**

| INPUT   | 1 |
|---------|---|
| OUTPUT  | 2 |
| COUPLED | 3 |

#### **Outline Drawing**

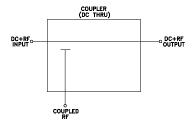


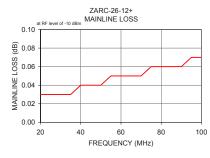


#### Outline Dimensions (inch )

| G  |
|----|
| 25 |
| 18 |
|    |
| wt |
| ms |
| 30 |
|    |

#### **Electrical Schematic**





#### **Features**

- excellent mainline loss, 0.1 dB typ.
- very flat coupling ±0.2 dB typ.
- excellent VSWR, 1.1 typ.

### **Applications**

- instrumentation
- amateur radio

## **ZARC-26-12+**



CASE STYLE: AW1564

| Connectors | Connectors Model |         | Qty.  |
|------------|------------------|---------|-------|
| SMA        | ZARC-26-12-S+    | \$89.95 | (1-9) |

#### +RoHS Compliant

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

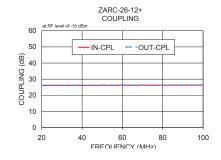
Flectrical Specifications at 25°C

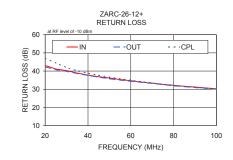
| Liectrical Specifications at 25 C          |                 |      |      |      |      |  |
|--|-----------------|------|------|------|------|--|
| Parameter                                  | Condition (MHz) | Min. | Тур. | Max. | Unit |  |
| Frequency Range                            |                 | 20   |      | 100  | MHz  |  |
|  | 20              | _    | 0.03 | 0.10 |      |  |
| Mainline Loss (above theoretical 0.011 dB) | 60              | _    | 0.06 | 0.15 | dB   |  |
|  | 100             | _    | 0.10 | 0.20 |      |  |
|  | 20 - 100        |      | 26.3 |      | dB   |  |
| Coupling* (IN-CPL, OUT-CPL)                | 20              | 25.9 | 26.2 | 26.6 |      |  |
| Coupling (IN-CFL, OOI-CFL)                 | 60              | 25.8 | 26.3 | 26.8 | ив   |  |
|  | 100             | 25.6 | 26.4 | 27.2 |      |  |
| Coupling Flatness(±)                       | 20 - 60         | _    | 0.05 | 0.20 | dB   |  |
| Coupling Flattiess(±)                      | 60 - 100        | _    | 0.10 | 0.25 |      |  |
|  | 20              | 25   | 36   | _    |      |  |
| Return Loss (Input)                        | 60              | 20   | 27   | _    | dB   |  |
|  | 100             | 18   | 23   | _    |      |  |
|  | 20              | 25   | 36   | _    |      |  |
| Return Loss (Output)                       | 60              | 20   | 27   | _    | dB   |  |
|  | 100             | 18   | 23   | _    |      |  |
|  | 20              | 25   | 45   | _    |      |  |
| Return Loss (Coupling)                     | 60              | 25   | 34   | _    | dB   |  |
|  | 100             | 20   | 30   | _    |      |  |
| Input Power                                | 20 - 100        | _    | _    | 100  | W    |  |

<sup>\*</sup> Coupling can be used for both forward and reversed direction.

#### **Typical Performance Data**

| Frequency<br>(MHz) | (dB) (dB) |        |         | Return Loss<br>(dB) |       |       |
|--------------------|-----------|--------|---------|---------------------|-------|-------|
|                    | In-Out    | In-CpI | Out-Cpl | In Out              | Out   | СрІ   |
| 20.00              | 0.03      | 26.23  | 26.23   | 43.05               | 42.30 | 47.14 |
| 30.00              | 0.03      | 26.21  | 26.22   | 40.25               | 39.82 | 41.93 |
| 40.00              | 0.04      | 26.23  | 26.24   | 37.78               | 37.57 | 38.81 |
| 50.00              | 0.04      | 26.24  | 26.27   | 36.20               | 35.75 | 36.68 |
| 60.00              | 0.05      | 26.26  | 26.28   | 34.69               | 34.33 | 34.95 |
| 70.00              | 0.05      | 26.27  | 26.31   | 33.39               | 33.15 | 33.47 |
| 80.00              | 0.06      | 26.28  | 26.33   | 32.20               | 31.90 | 32.19 |
| 90.00              | 0.06      | 26.28  | 26.35   | 31.24               | 30.91 | 31.06 |
| 95.00              | 0.07      | 26.28  | 26.36   | 30.73               | 30.51 | 30.54 |
| 100.00             | 0.07      | 26.28  | 26.37   | 30.29               | 30.05 | 30.04 |





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