## Data Sheet FAC4301 50Ω Up to 2W DC to 24

## Features

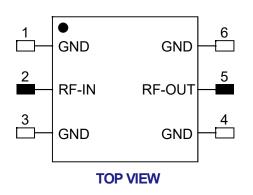
- Small Size (2×2mm DFN package)
- Super Wide bandwidth, DC-24GHz
- Excellent VSWR,1.3:1 typ.
- High Power Handling,2W
- Operating Temperature:-40°C to 85°C

# **Typical Applications**

- 5G
- Test and Measurement
- Radar
- Communication
- Defense

# **General Description**

FAC4301 is absorptive fixed attenuator fabricated using highly reliable GaAs MMIC process. The model operates from DC to 24GHz.It achieves outstanding attenuation accuracy and flatness while maintains excellent VSWR throughout the entire band. The model can also handle input power up to 2W,which makes this model an ideal choice for a wide range of applications.



Notes: 1.This part has passed through 100% RF test.

#### **Yantel Corporation**

Add: No.308-322, 3F, Building 1, Juchuang Jingu Innovation Park, Wenyuan Road 35, Xili Street, Nanshan, Shenzhen, China Tel: 86-755-8355-1886 Fax: 86-755-8355-2533 For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com



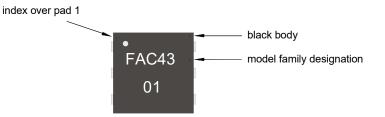


#### **Key Features**

| Feature   | Advantages  |
|---|---|
| WIdeband operation,From DC to 24 GHz  | Supports a wide array of applications including 5G, wireless infrastructure, microwave communications, satellite, defense and aerospace, medical broadband and optic applications             |
| Small Size and simple to use<br>(2 mm x 2 mm)                                   | As a single chip solution, the FAC43 series occupies less board space than a lumped element approach, minimizes component count and ensures repeatable performance over wide frequency range. |
| Wide range of nominal attenuation values (0,1,2,3,4,5,6,7,8,9,10,12,15,20 & 30) | Small increment offering enables circuit designer to change attenuation values without motherboard redesign making the FAC43 series ideal for select at test application.                     |
| MCLP <sup>™</sup> Package   | Low Inductance, repeatable transitions, excellent thermal path make the FAC43 series an ideal solution as an alternative to "do it yourself" lumped element-based approach.                   |

\* IPD - Integraded Passive Device.

#### **Product Marking**

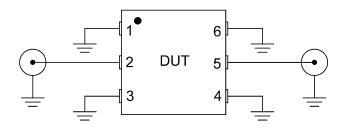


Marking may contain other features or characters for internal lot control

#### **ESD** Rating

Human Body Model (HBM): Class 2(Pass 2000V) per ANSI/ESD STM 5.1-2001

#### **Characterization Test Circuit**



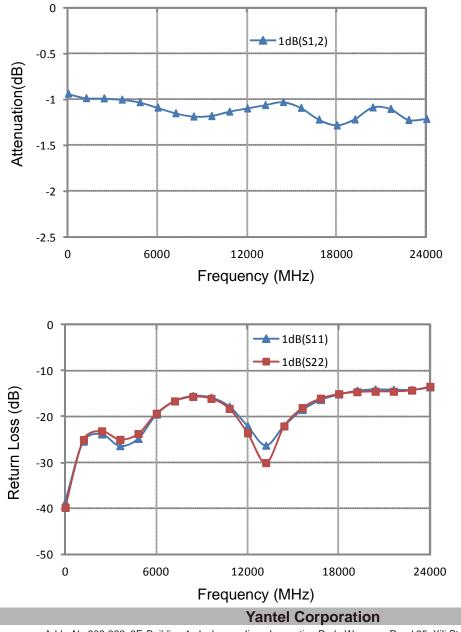
Block diagram fo Test Circuit used for characterization.



#### Electrical Specifications at 25° C

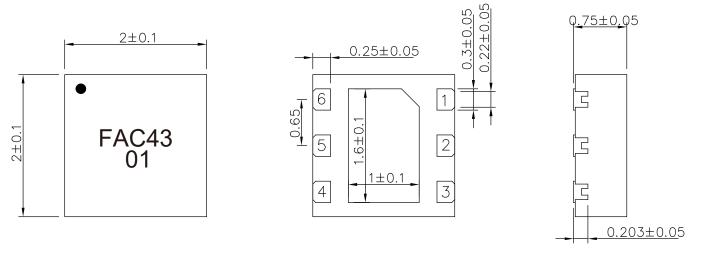
| Paramter         | Freq.Range<br>(GHz) | Min. | Тур. | Max. |
|------------------|---------------------|------|------|------|
| Frequency Range  |                     | DC   | -    | 24   |
| Attenuation (dB) | DC-24               | 0.9  | 1.2  | 1.3  |
| Return Loss (dB) | DC-24               | 12   | 18   | -    |

### **Test Curve**





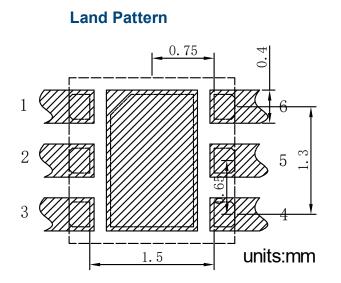
### **Outline Drawing**



**TOP VIEW** 

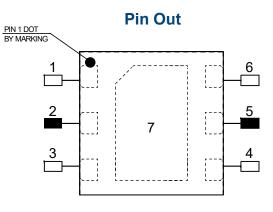
**BOTTOM VIEW** 

**SIDE VIEW** 



### Recommended Land Pattern Top View

Notes: All dimensions show in millimeters



#### TOP VIEW

Notes: 1.Require to add Capacitors of DC Blocker between Pins(with black color) and external circuit to prevent DC signal entry to guranteeparts normal work. 2.This part has passed through 100% RF test.

| Pin # | Connection |  |
|-------|------------|--|
| 1     | GND        |  |
| 2     | IN         |  |
| 3     | GND        |  |
| 4     | GND        |  |
| 5     | OUT        |  |
| 6     | GND        |  |
| 7     | GND        |  |

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