

# Catalog *Version 4.0*

## Products

- Temperature Compensation Attenuator (温度补偿衰减器)
- NTC/PTC热敏电阻器 射频电阻器 固定衰减片(0603封装 DC-8GHz)
- 3dB 90° 电桥
- 3dB 90° 大功率宽带电桥
- 3dB 90° 插针式宽带大功率电桥
- 宽带大功率双定向耦合器
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- 四相位耦合器/四相位移相器/四臂螺旋天线耦合器 (PTFE工艺)
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- 3dB 90° 电桥IC
- 定向耦合器IC
- BIAS T偏置电路-模块&MMIC系列 (替换Marki)
- 金刚石衰减片 (替换EMC)
- Fixed Attenuator IC 固定衰减片IC
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- 宽带耦合器-绕线贴片式封装(替换MINI)
- 宽带二路/四路功分器-绕线贴片式封装(替换MINI)
- 无容亦可变衰减器



*Key Patents Lead Microwave Tech*

### Advanced key patented technologies for

- RF & Microwave Passive Components
- High Precision RF Passive ICs



### Certificates of International Invention Patents



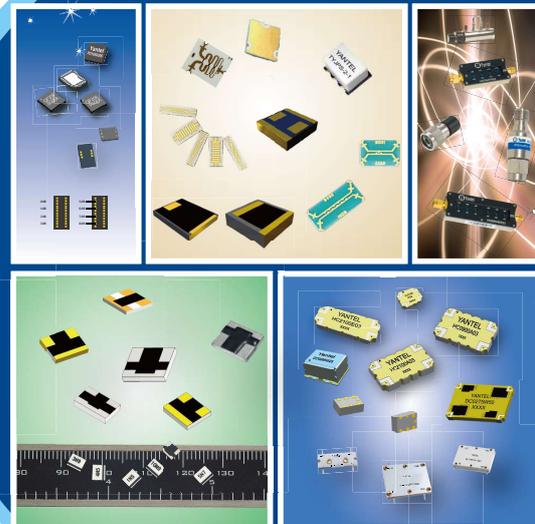
AEC-Q200  
Reliability Test Report



GJB9001

ISO9001

ISO14001



# Company Profile

## Certificate:

- GJB 9001C-2017
- OHSAS18001
- ISO 9001:2015
- IATF16949
- ISO 14001

Yantel Corporation is a national high-tech enterprise founded by several RF and microwave experts returning from overseas, owns the core patents of passive microwave components and microwave semiconductor chips at the forefront of the world.

At present, Yantel has more than 100 patent applications and 70 authorized patents (including 42 authorized invention patents and 11 authorized integrated circuit layout-design patents). All the patent achievements reach the international leading level.

Integrating R&D, design, production and sales, Yantel has advanced production equipment for RF components, including four-channel network analyzers, high- and low-temperature incubators, ten-temperature zone lead-free reflow soldering equipment, wideband RF power tester and other advanced RF testing equipment.

Yantel has established 10 RF full-inspection automation lines via the investment of tens of millions of RMB, including RF specification testing, visual inspection, withstand voltage testing, integrated equipment of testing & tape reel, MES intelligent process control software and hardware system etc., thus ensuring the high quality of products and sufficient capacity reserve.

A number of patented products of Yantel have not only been approved as national, provincial and municipal science and technology projects by the National Technical Innovation Fund, Guangdong Industry-University-Research Collaboration Association (GDIUR) and Shenzhen Innovation Funds, but also passed the project acceptance.

Meanwhile, Yantel was as Shenzhen Intellectual Property Advantageous Enterprises 2008 and the first batch of Chinese High-Tech Enterprise. In addition, Yantel has gained the ISO9001:2008 Quality Management System Certificate, the ISO14000 Environmental Management System Certificate and GJB9001B-2009 Military Standard of Quality Management System Certificate.

Yantel has established long-term and stable cooperation with Huawei, Ericsson, ZTE, Nokia, Datang, Samsung, Comba, Fingu, Mobi, RFHIC, ACE and other famous communication enterprises at home and abroad. At the same time, Yantel's high-precision passive IC series products have been designed and used in large quantities by vehicle-mounted cell phone signal booster products such as Audi and Volkswagen in Europe. Wideband power divider ICs are widely used in Beidou, GPS, GNSS and other high-precision satellite positioning and antenna application. The main clients include BDStar, ComNav, UniStrong, Huaxin etc.

深圳市研通高频技术有限公司是由数名海外归国的射频微波专家创办的国家级高新技术企业。本公司拥有居于国际前沿的微波无源器件及微波半导体芯片的核心专利技术。目前公司保有多项国内、国际专利，这些专利成果都处于国际领先水平，在竞争激烈的国际射频元器件及半导体芯片领域中占领了中国企业自主知识产权的一席之地。

本公司集研发、设计、生产、销售于一体，拥有先进的射频元器件、芯片、组件的生产设备以及多台四通道网络分析仪，阻抗分析仪，高低温恒温箱，十温区无铅回流焊设备，宽带射频功率测试仪等高级射频测试设备。

研通斥资数千万元，建立了10条射频全检自动化线，包括射频全检，外观全检，耐压全检软硬件系统，测封一体化设备，全自动编带机，全自动裂片机，MES智能工序管控软硬件系统等，保证产品的高品质和充足的产能储备。

研通的多项专利产品被国家中小型创新基金，广东省产学研，深圳市科技型中小企业技术创新项目立项为国家、省、市的科技技术项目并合格通过项目验收，为我司的专利技术产业化进程，提供了强大的支持和推动。

同时，本公司也被深圳市知识产权局评为2008年度知识产权优势企业，中国首批国家级高新技术企业，并通过了ISO9001:2015质量管理体系，ISO14000环境管理体系认证以及GJB9001B-2009国军标质量管理体系认证。各类产品均具有中国及国际权威机构提供的可靠性及环保检验报告。

研通与爱立信，华为，中兴，诺基亚，大唐，三星，京信，凡谷，摩比，RFHIC, ACE等国内外著名通信企业建立了长期稳定的合作。同时，本公司的高精度无源IC系列化产品被欧洲的奥迪，大众等高档汽车车载手机信号增强器项目大批量采用。宽带耦合器/功分器产品广泛应用于北斗，GPS，GNSS高精度卫星定位，天线系统，主要客户包括北斗星通，司南，合众思壮，华信天线等。

## Product Competitiveness

Yantel products are advanced on its innovative technologies, excellent RF characteristic with competitive cost. They are widely used in various wireless communication terminals and systems. Such as 4G,5G Repeater, Base Station, Small Cell, Pico, Bluetooth, WiFi, CATV, GPS, GNSS, Satellite, Beidou, Antenna, Power Amplifier, LNA, Automotive Electronics, RFID, Radar etc.



Research & Development



100% Visual Inspection and Withstand Voltage Test



RF & Temperature Cycle Test



Production Line



100% RF/Visual Inspection



Reflow Welding Test In 10 Temperature Zone

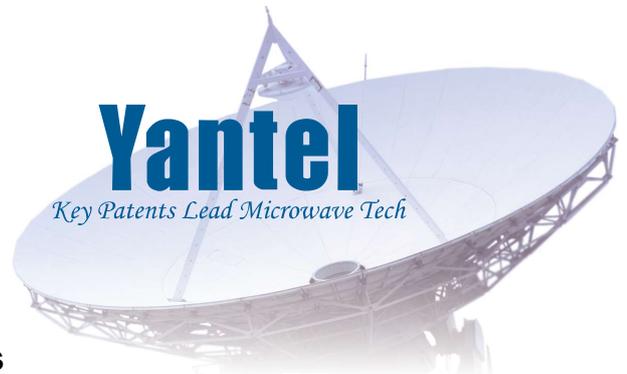


## Introduction of the key patented products & technologies

- Wideband temperature compensation attenuator, breaks the iceberg of international monopoly (Microstrip circuit configuration DC-6, 12.4, 18, 20, 16-36GHz)  
以微带电路取代传统π型电路，推出超宽带温度补偿衰减器，打破美国制作商全球垄断的局面（微带电路设计DC-6, 12.4, 18, 20, 16-36GHz）
- Ultra small size (5×3mm), high power density, SMD 3db coupler and directional coupler with patent. Footprint and size is compatible, applied to 4G and 5G.  
推出具有独立知识产权的5G超小型（5×3mm），高功率密度3db耦合器及定向耦合器贴片产品。管脚和尺寸国际兼容，独特专利技术设计为我国的5G直放站和基站通信项目保驾护航。
- Using the world's most advanced wafer technology of Silicon & GaAs, simulate and design the ultra wideband 2 way Power Divider, 4 way Power Divider, 3db coupler, Directional Coupler, Quadrifilar, Varilable Attenuator, Fixed Attenuator, Phase Shifters etc. used to 4G, 5G Telecommunication, Satellite Navigation and Vehicle mounted Cell Phone Signal Booster Active Module etc.  
采用国际前沿的晶圆技术和砷化镓晶圆技术，设计超宽带二路功分器，四路功分器，3db耦合器，定向耦合器，四相位移向器，可变衰减器，固定衰减器，移向器等系列化齐全的无源半导体芯片产品，为全球4G, 5G通信项目，卫星导航，车载通信应用带来的无源芯片解决方案。
- World-first manual varilable attenuator DC-6GHz with Non-abrupt change performance (no need to power off in attenuation adjusting)  
世界首创无突变DC-6GHz手动可调衰减器
- Yantel has launched the world's first SMD coupler by the size of 0603 with PTFE process, and the SMD

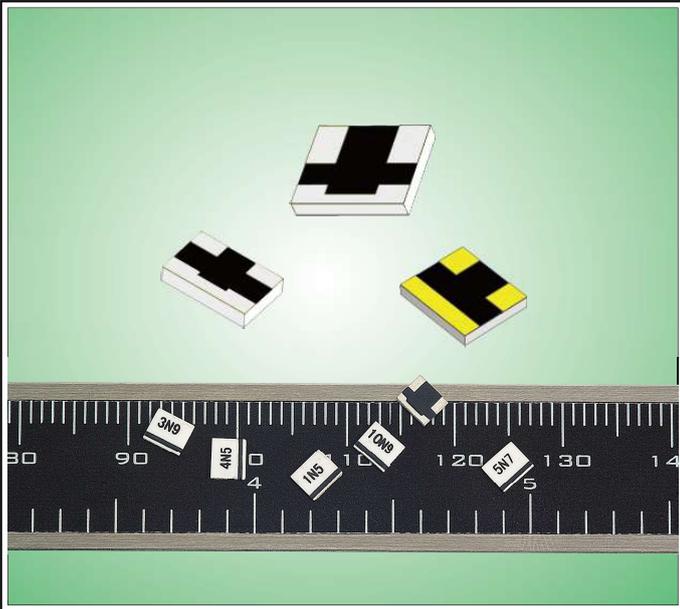
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# Temperature Compensation Attenuator 温度补偿衰减器

US Utility patents #US 7,990,230 B2 etc.  
EU,China,Taiwan,patented



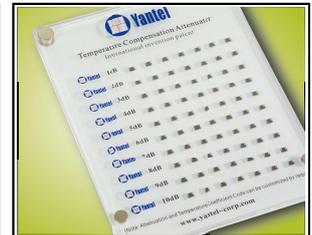
## Features

- Frequency range:DC to 3 GHz, DC to 6 GHz, DC to 12.4 GHz, DC to 18 GHz,DC to 20 GHz, 16 to 36 GHz.
- Power rating: 100mW, 200mW, 2W.
- Impedance:50Ω or 75Ω.
- Operating temperature:-55°C to +150°C.
- Adopting 100% laser trimming,high attenuation accuracy.
- High reliability.Adopting advanced thick film & thin film technology through firing at the high temperature of 850°C.
- Zero distortion, and no phase changes and time delay caused by temperature variation.
- Temperature compensation and RF isolation,which are more suitable for multi-stage power amplifiers.
- No extra IP3 exists and suitable for linear power amplifier.
- Low cost and small size.It can be easily designed in Rf power amplifier to replace AGC loop circuit, which is easy for the regeneration of RF circuit.
- Tape and reel package is available, which is convenient for SMT.



## Applications

- Power Amplifier
- Low Noise Amplifier
- Gain Blocks
- Optical Transceiver Module
- MMIC Amplifiers
- WLAN(2.4GHz or 5.8GHz)
- WiMAX
- UWB
- Mixers
- Power Dividers
- Satellite Communication
- Directional Couplers
- Broadcast(TV & Radio)
- Radar



## Part No. Description

TCA Series	Frequency	Attenuation	Temperature Coefficient Code	Metallization Options	Terminal Plating Options
TCA, STCA, MTCA WTCA, KTCA BTCA, PTCA	03, 06 12, 18, 20 or 36	01 to 10 1dB to 10 dB	(N3 to N10) or (P3 to P8)	no code, W1, W3, WB1, WB2 or G	(no code)=Lead free or (S)=Lead(Pb)

Example: P/N STCA0603N9W3 is STCA series, frequency range DC to 6GHz, 3dB attenuation @25°C, temperature coefficient of attenuation -0.009 dB/dB/°C, triple wrap lead free terminal.

## Material Specification

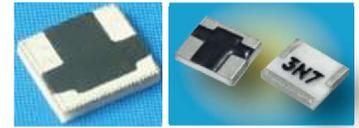
- Substrate: Alumina (Al<sub>2</sub>O<sub>3</sub>)
- Resistive material: Thick film
- Terminal material:  
Thick film, Nickel barrier with solder plate

## Metallization & Plating Options

- Planar(no code): planar terminal.
- Single wrap(W1): metallization wrap ground terminal.
- Triple wrap(W3): metallization wrap input, output and ground terminal.
- Wire bond(WB1): metallization wrap ground terminal, input and output terminal have gold metallization for wire bonding.
- Lead(Pb) (S): Lead terminals improve solderability (available on planar, W3 & W1 options).

## TCA Series Specifications

- Frequency range: DC to 6GHz
- Power rating: 2W
- Impedance: 50Ω
- Operating temperature: -55°C to 150°C
- Size: 3.1×3.7×0.53(mm), type I
- Thick film technology
- Planar
- Triple wrap, W3

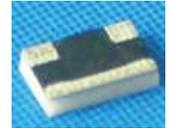


Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C) ①	Max. VS WR:(1)@1GHz	Attenuation Accuracy(dB)
TCA0601N*	1	N3~N9	-0.003~-0.009	1.20	±0.5
TCA0602N*	2	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0603N*	3	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0604N*	4	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0605N*	5	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0606N*	6	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0607N*	7	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0608N*	8	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0609N*	9	N3~N10	-0.003~-0.010	1.20	±0.5
TCA0610N*	10	N3~N10	-0.003~-0.010	1.20	±0.5

① Note: For example 4N9, when temperature changes by 1°C, the attenuation variation equals 4dB x 0.009(temperature coefficient code) x 1°C = 0.036dB. When temperature changes by 100°C, the attenuation variation equals 4dB x 0.009 x 100°C =3.6dB.

## STCA Series Specifications

- Frequency range: DC to 6GHz
- Power rating: 100mW
- Impedance: 50Ω
- Operating temperature: -55°C to 150°C
- Size: 1.25×2.0×0.45(mm), type III
- Thick film technology



Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR:(1)@1GHz	Attenuation Accuracy(dB)
STCA0601N*	1	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0602N*	2	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0603N*	3	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0604N*	4	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0605N*	5	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0606N*	6	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0607N*	7	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0608N*	8	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0609N*	9	N3~N9	-0.003~-0.009	1.20	±0.5
STCA0610N*	10	N3~N9	-0.003~-0.009	1.20	±0.5

## MTCA Series Specifications

- Frequency range:
  - 1)Planar series DC-18GHz(N3~N5); DC-12.4GHz(N6~N9)
  - 2)W series DC-12.4GHz(All W1/W3/WB1 Series)
    - Single wrap(W1): metallization wrap ground terminal.
    - Triple wrap(W3): metallization wrap input, output and ground terminal.
    - Wire bond(WB1): metallization wrap ground terminal, input and output terminal have gold metallization for wire bonding.
- Operating temperature: -55°C to 150°C
- Impedance: 50Ω
- Size1: 1.52×1.91×0.28(mm), 1.52×1.91×0.4(mm),type II
- Size2: 1.52×1.91×0.23(mm), 1.52×1.91×0.4(mm),type II



Planar Triple wrap, W3 Gold, WB1 Package

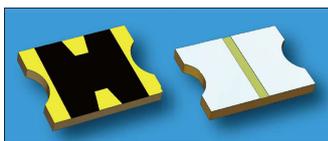
- Power rating: 200mW
- Thick film technology

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR:(1)@1GHz	Attenuation Accuracy(dB)
MTCA1801N*	1	N3~N7	-0.003~-0.007	1.20	±0.5
MTCA1802N*	2	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1803N*	3	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1804N*	4	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1805N*	5	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1806N*	6	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1807N*	7	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1808N*	8	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1809N*	9	N3~N9	-0.003~-0.009	1.20	±0.5
MTCA1810N*	10	N3~N9	-0.003~-0.009	1.20	±0.5

## WTCA-WB2 Series

### Specifications

- Wide frequency range: DC to 20GHz
- Operating temperature: -55°C to 150°C
- Size1: 1.52×1.81×0.38(mm)
- Size2: 1.52×1.81×0.28(mm)
- Power rating: 200mW
- Impedance: 50Ω
- Thick film technology



Gold, WB2 Package

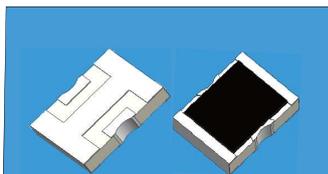
Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR(:1)@1GHz	Attenuation Accuracy(dB)
WTCA2002N*WB2	2	N3~N7	-0.003~-0.007	1.20	±0.5
WTCA2003N*WB2	3	N3~N9	-0.003~-0.007	1.20	±0.5
WTCA2004N*WB2	4	N3~N9	-0.003~-0.009	1.20	±0.5
WTCA2005N*WB2	5	N3~N10	-0.003~-0.009	1.20	±0.5
WTCA2006N*WB2	6	N3~N10	-0.003~-0.010	1.20	±0.5
WTCA2007N*WB2	7	N3~N10	-0.003~-0.010	1.20	±0.5

## WTCA-SMT Series

### Specifications

- Wide frequency range: DC to 20GHz
- Operating temperature: -55°C to 150°C
- Size: 1.52×1.91×0.38(mm)
- Power rating: 200mW
- Impedance: 50Ω
- Thick film technology



SMT Package

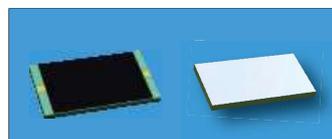
Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR(:1)@1GHz	Attenuation Accuracy(dB)
WTCA2002N*SMT	2	N3~N7	-0.003~-0.007	1.30 Max DC-10GHz @25°C 1.45 Max 10-20GHz @25°C	±0.5
WTCA2003N*SMT	3	N3~N7	-0.003~-0.007		±0.5
WTCA2004N*SMT	4	N3~N7	-0.003~-0.007		±0.5
WTCA2005N*SMT	5	N3~N7	-0.003~-0.007		±0.5
WTCA2006N*SMT	6	N3~N7	-0.003~-0.007		±0.5
WTCA2007N*SMT	7	N3~N7	-0.003~-0.007		±0.5
WTCA2008N*SMT	8	N3~N7	-0.003~-0.007		±0.5
WTCA2009N*SMT	9	N3~N7	-0.003~-0.007		±0.5
WTCA2010N*SMT	10	N3~N7	-0.003~-0.007		±0.5

## KTCA Series

### Specifications

- Wide frequency range: 16 to 36GHz
- Operating temperature: -55°C to 150°C
- Size2: 3.05×1.65×0.28(mm)
- for wire-bonding
- Power rating: 200mW
- Impedance: 50Ω
- Thin film technology



Gold, Package

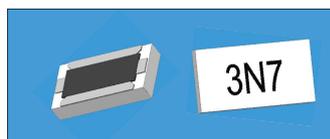
Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR(:1)@1GHz	Attenuation Accuracy(dB)
KTCA3602N*	2	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3603N*	3	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3604N*	4	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3605N*	5	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3606N*	6	N3~N13	-0.003~-0.013	1.35	±0.5

## KTCA-SMT Series

### Specifications

- Wide frequency range: 16 to 36GHz
- Operating temperature: -55°C to 150°C
- Size1: 3.05×1.65×0.56(mm)
- For lead free reflow
- Power rating: 200mW
- Impedance: 50Ω
- Thin film technology



SMT Package

Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR(:1)@1GHz	Attenuation Accuracy(dB)
KTCA3602N*SMT	2	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3603N*SMT	3	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3604N*SMT	4	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3605N*SMT	5	N3~N13	-0.003~-0.013	1.35	±0.5
KTCA3606N*SMT	6	N3~N13	-0.003~-0.013	1.35	±0.5

## New 超小型MTCAU系列 (金电极键合封装)

特点:

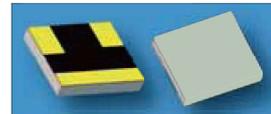
- DC-20GHz 超小型超宽带
- 尺寸0.8\*0.85\*0.30mm, 金电极, 尺寸&厚度与有源温度补偿衰减芯片一致, 方便使用。
- 金丝键合, 输入输出端焊盘尺寸0.2×0.3mm
- N3~N10多种斜率可选
- 可靠性高, 无需外加-5V电源
- 改善阻抗匹配, 降低相邻两级功放之间的回波损耗, 起到隔离保护作用, 有效防止自激。
- 相对于有源温度补偿衰减器, 无源温度补偿衰减器无失真, 无相移和时移。
- 系统应用简单灵活, 可靠性高, 可减少系统再设计的隐性成本。
- 功率升高时, 相对有源温度补偿衰减芯片, 无源温补有更好更稳定的温度&频率响应特性, 可靠性更高。
- 小型化设计, 支持小型多通道有源相控阵雷达的芯片级微小型收发模组应用

### Specifications

- Wide frequency range: DC to 20GHz
- Power rating: 200mW
- Operating temperature: -55°C to 150°C
- Impedance: 50Ω
- Size: 0.8×0.85×0.30(mm)
- Thick film technology



Gold, Planar Package



Gold, WB1 Package



Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR:(1)@1GHz	Attenuation Accuracy(dB)
MTCAU2001N*	1	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2002N*	2	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2003N*	3	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2004N*	4	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2005N*	5	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2006N*	6	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2007N*	7	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2008N*	8	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2009N*	9	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2010N*	10	N3~N10	-0.003~-0.01	1.20	±0.5

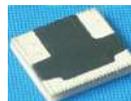
## New 超小型MTCAU-SMT系列 (SMD封装)

特点:

- DC-20GHz 超小型超宽带
- 尺寸0.8\*0.85\*0.3mm, 锡电极, 尺寸&厚度与有源温度补偿衰减芯片一致, 方便使用。
- 回流焊, 输入输出端焊盘尺寸0.2×0.3mm
- N3~N10多种斜率可选
- 可靠性高, 无需外加-5V电源
- 改善阻抗匹配, 降低相邻两级功放之间的回波损耗, 起到隔离保护作用, 有效防止自激。
- 相对于有源温度补偿衰减器, 无源温度补偿衰减器无失真, 无相移和时移。
- 系统应用简单灵活, 可靠性高, 可减少系统再设计的隐性成本。
- 功率升高时, 相对有源温度补偿衰减芯片, 无源温补有更好更稳定的温度&频率响应特性, 可靠性更高。
- 小型化设计, 支持小型多通道有源相控阵雷达的芯片级微小型收发模组应用

### Specifications

- Wide frequency range: DC to 20GHz
- Power rating: 200mW
- Operating temperature: -55°C to 150°C
- Impedance: 50Ω
- Size: 0.8×0.85×0.30(mm)
- Thick film technology



SMT Package



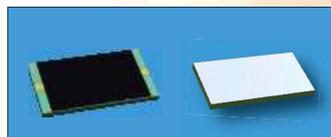
Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR:(1)@1GHz	Attenuation Accuracy(dB)
MTCAU2001N*SMT	1	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2002N*SMT	2	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2003N*SMT	3	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2004N*SMT	4	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2005N*SMT	5	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2006N*SMT	6	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2007N*SMT	7	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2008N*SMT	8	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2009N*SMT	9	N3~N10	-0.003~-0.01	1.20	±0.5
MTCAU2010N*SMT	10	N3~N10	-0.003~-0.01	1.20	±0.5

## New QTCA Series

### Specifications

- Power rating: 200mW
- Wide frequency range: 36 to 50GHz
- Operating temperature: -55°C to 150°C
- For wire-bonding
- Size: 3.05×1.65×0.25(mm)
- Impedance: 50Ω
- Thin film technology



Gold, Package

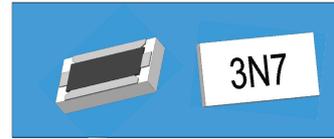


Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VS WR:(1)@1GHz	Attenuation Accuracy(dB)
QTCA5002*	2	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5003*	3	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5004*	4	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5005*	5	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5006*	6	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5

New **QTCA SMT Series**  
**Specifications**

- Power rating: 200mW
- Wide frequency range: 36 to 50GHz
- Operating temperature: -55°C to 150°C
- For lead free reflow
- Size: 3.05×1.65×0.51(mm)
- Impedance: 50Ω
- Thin film technology



SMT Package

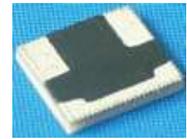


Test fixture

Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VSWR(:1)@1GHz	Attenuation Accuracy(dB)
QTCA5002*SMT	2	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5003*SMT	3	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5004*SMT	4	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5005*SMT	5	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5
QTCA5006*SMT	6	N3,N5,N7	-0.003, -0.005, -0.007	1.20	±0.5

**ETCA Series**  
**Specifications**

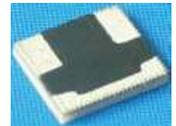
- Wide frequency range: DC to 3GHz
- Operating temperature: -55°C to 150°C
- Power rating: 2W
- Size: 4.06×3.68×0.51(mm), type I
- Impedance: 50Ω or 75Ω
- Thick film technology



Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VSWR(:1)@1GHz	Attenuation Accuracy(dB)
ETCA0303N*	3	N10~N16	-0.01~-0.016	1.30	±0.5
ETCA0304N*	4	N10~N16	-0.01~-0.016	1.30	±0.5
ETCA0305N*	5	N10~N16	-0.01~-0.016	1.30	±0.5
ETCA0306N*	6	N10~N16	-0.01~-0.016	1.30	±0.5

**BTCA Series**  
**Specifications**

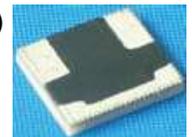
- Wide frequency range: DC to 6GHz
- Operating temperature: -55°C to 150°C
- Power rating: 2W
- Size: 3.1×3.70×0.53(mm), type I
- Impedance: 75Ω
- Thick film technology



Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VSWR(:1)@1GHz	Attenuation Accuracy(dB)
BTCA0601N*	1	N3~N9	-0.003~-0.009	1.20	±0.5
BTCA0602N*	2	N3~N9	-0.003~-0.009	1.20	±0.5
BTCA0603N*	3	N3~N9	-0.003~-0.009	1.20	±0.5
BTCA0604N*	4	N3~N9	-0.003~-0.009	1.20	±0.5
BTCA0605N*	5	N3~N9	-0.003~-0.009	1.20	±0.5
BTCA0606N*	6	N3~N9	-0.003~-0.009	1.20	±0.5

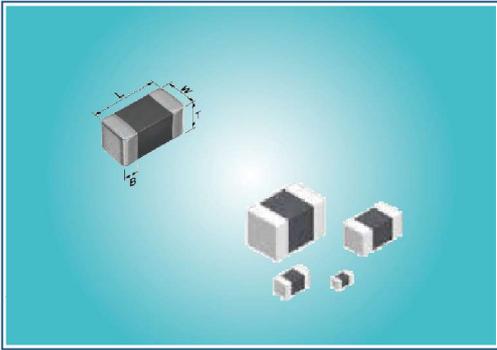
**PTCA Series** (Thermal compensation characteristics with positive coefficients 正温补偿系数)  
**Specifications**

- Wide frequency range: DC to 6GHz
- Operating temperature: -55°C to 150°C
- Power rating: 2W
- Size: 3.1×3.70×0.53(mm), type I
- Impedance: 50Ω or 75Ω
- Thick film technology



Part No.	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation(dB/dB/°C)	Max. VSWR(:1)@1GHz	Attenuation Accuracy(dB)
PTCA0601P*	1	P3~P9	+0.003~+0.009	1.20	±0.5
PTCA0602P*	2	P3~P9	+0.003~+0.009	1.20	±0.5
PTCA0603P*	3	P3~P9	+0.003~+0.009	1.20	±0.5
PTCA0604P*	4	P3~P9	+0.003~+0.009	1.20	±0.5

## New NTC/PTC热敏电阻器



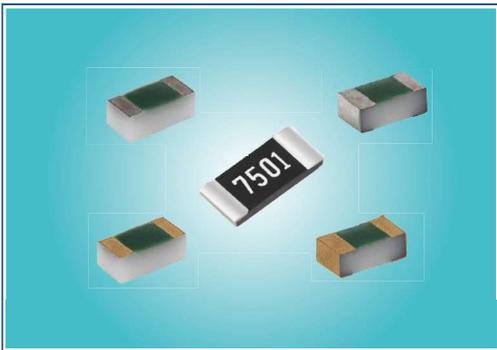
### 产品特点:

- 两类产品阻值范围宽
- 性能稳定
- 可靠性高、
- 使用温度范围
- 规格品种齐全

### 产品参数:

- 外形尺寸:  $\phi(3\sim35)$ 、0404、0603、0805、1206
- 阻值范围: 0.7~100 $\Omega$ 、101~2M $\Omega$
- 质量等级: GJB、企军标、普军

## 射频电阻器



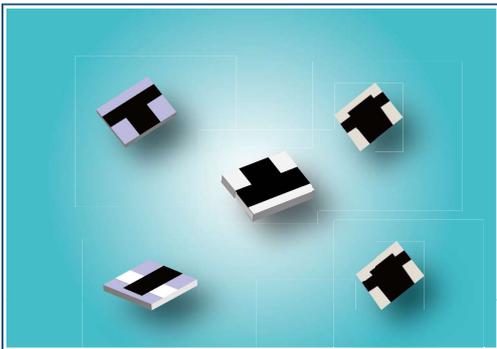
### Features

- High purity alumina substrate
- Small internal reactance(<10m $\Omega$ )
- Resistor tolerance to  $\pm 0.1\%$
- Low TCR (down to  $\pm 25\text{ppm}/^\circ\text{C}$ )
- Low voltage coefficient <0.1 ppm/V
- Thin film microwave resistors
- Operating frequency to 60 GHz
- Small standard case size (0402)
- High power (1 W)
- High thermal conductivity aluminum nitride substrate
- Edge sense trimmed block resistors
- Epoxy bondable, wire bondable, and solderable termination styles
- Modelithics® library available
- Edge trimmed block resistors
- Ohmic range (50  $\Omega$  ,75 $\Omega$ and 100  $\Omega$ )

### Applications

- Low noise amplifiers
- Attenuation
- Line Termination
- 5G base stations and small cells
- RF and microwave test systems
- Connected car
- Internet of things (IoT)

## 固定衰减片(0603封装 DC-8GHz)



### 特点:

- 频率范围: DC ~8GHz
- 衰减量: 0dB-10dB
- 输入功率: 100mW
- 衰减量精度高
- 低驻波比
- 工作温度: -55 $^\circ\text{C}$  ~+150 $^\circ\text{C}$
- 尺寸(mm):1.6 $\times$ 0.8 $\times$ 0.38

### 应用:

- 通信
- 点对点基站
- 数字传输
- 雷达
- 广播电视
- 光模块 (光信号转RF信号)

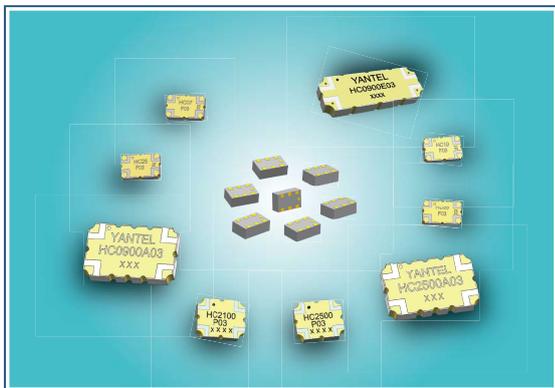
DC to 8GHz, 100mW, 50 $\Omega$ , thick film, size(mm): 1.6 $\times$ 0.8 $\times$ 0.38,for lead free reflow

型号	衰减量 (dB)	衰减精度(典型值)(dB)			VSWR:1(MAX.)		
		DC~4GHz	4~6GHz	6~8GHz	DC~4GHz	4~6GHz	6~8GHz
FAC0800	0	0.25	0.3	0.4	1.15	1.2	1.25
FAC0801	1	0.25	0.3	0.4	1.15	1.2	1.25
FAC0802	2	0.25	0.3	0.4	1.15	1.2	1.25
FAC0803	3	0.25	0.3	0.4	1.15	1.2	1.25
FAC0804	4	0.25	0.3	0.4	1.15	1.2	1.25
FAC0805	5	0.25	0.3	0.4	1.15	1.2	1.25
FAC0806	6	0.25	0.3	0.4	1.15	1.2	1.25
FAC0807	7	0.25	0.3	0.4	1.15	1.2	1.25



## 3dB 90° Hybrid Coupler 3dB 90° 电桥

SMD Package



### Features

- Very Low Loss
- Tight Amplitude Balance
- High Isolation
- Low VSWR
- Good Repeatability
- CTE compatible with FR4, G-10, RF-35, RO4350B and polyimide
- Immersion gold, prevent surface oxidation & scratch
- RoHS Compliant
- Tape & Reel Package available

### Applications

- Power Amplifiers
- LNAs
- Variable Attenuators
- Variable Phase Shifter

### Part No. Description

**	****	*	**
Hybrid Coupler	Center Frequency(MHz)	Size(mm)	Coupling Value
	0450=410-480	C=34.0X17.0	
	0900=800 to 1000	B=25.4 x 12.7	
	1400=1200 to 1600	L=16.51 x 12.19	
HC	1900=1700 to 2000	A=14.22 x 8.89	03=3 dB
	2100=2000 to 2300	E=14.22 x 5.08	
	2500=2300 to 2700	M=10.16 x 5.08	
	3500=3300 to 3800	P=6.35 x 5.08	
		S=6.0x3.0	
		F=5.08x3.18	
		T=2x1.25	

### Specifications

Standard Series for SMT

	Part No.	Freq.Range (GHz) fL-fU	Power (W)	Size LxW (mm)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)
New	HC09T03	0.7 ~ 1	4	2.0x1.25	18	0.3	±0.3	90±4.0	20
New	HC12T03	0.96 ~ 1.53	4	2.0x1.25	18	0.6	±0.5	90±6.0	18
AEC-Q200	HC13T03	1 ~ 1.5	4	2.0x1.25	20	0.55	±0.5	90±6.0	20
AEC-Q200	HC14T03	1.15 ~ 1.65	4	2.0x1.25	18	0.55	±0.5	90±5.0	20
AEC-Q200	HC16T03	1.5 ~ 1.7	4	2.0x1.25	20	0.3	±0.5	90±4.0	21
New	HC19T03	1.7 ~ 2.0	4	2.0x1.25	18	0.3	±0.3	90±4.0	20
New	HC20T03	1.7 ~ 2.3	4	2.0x1.25	18	0.4	±0.4	90±5.0	20
New	HC21T03	2.0 ~ 2.3	4	2.0x1.25	18	0.3	±0.3	90±4.0	20
New	HC25T03	2.3 ~ 2.7	4	2.0x1.25	18	0.3	±0.3	90±3.0	20
New	HC35T03	3.2 ~ 4.2	4	2.0x1.25	18	0.3	±0.3	90±5.0	20
New	HC55T03	4.5 ~ 6.0	4	2.0x1.25	18	0.35	±0.5	90±5.0	20
New	HC70T03	6.0 ~ 7.0	4	2.0x1.25	18	0.35	±1.0	90±7.0	15.5
AEC-Q200	HC14K03	1.15 ~ 1.65	4	2.0x2.5	18	0.55	±0.5	90±5.0	20
	HC16H03	1.1 ~ 1.925	15	3.1x1.6	21	0.65	±0.40	90±8.5	23

New  
AEC-Q200  
New  
New  
New  
New

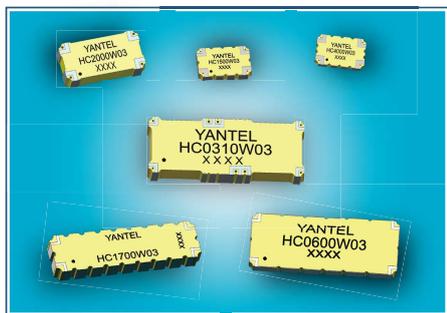
AEC-Q200

Part No.	Freq.Range (GHz) fL-fU	Power (W)	Size LxW (mm)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)
HC12F03	0.96 ~ 1.53	25	5.08x3.18	20	0.5	-0.4 ~ 0.8	90±4.0	20
HC14F03	1.2 ~ 1.7	25	5.08x3.18	21	0.3	±0.35	90±4.0	22
HC19F03	1.7 ~ 2.3	25	5.08x3.18	18	0.3	±0.25	90±3.0	19.5
HC25F03	2.1 ~ 2.7	20	5.08x3.18	20	0.3	±0.45	90±3.0	23
HC35F03	3.3 ~ 3.9	25	5.08x3.18	20	0.3	±0.35	90±4.0	20
HC55F03	4.9 ~ 6.3	25	5.08x3.18	13.1	0.49	±0.65	90±6.0	15
HC0510P03	0.48 ~ 0.55	60	6.35x5.08	20	0.2	±0.35	90±3.0	20
HC0700P03H	0.758 ~ 0.821	130	6.35x5.08	22	0.25	±0.30	90±4.0	23
HC0900P03	0.8 ~ 1.0	28	6.35x5.08	19.7	0.4	±0.25	90±4.0	20
HC0900P03S	0.8 ~ 1.0	60	6.35x5.08	24	0.2	±0.35	90±3.0	30
HC0900P03H	0.7 ~ 1.0	100	6.35x5.08	19	0.3	±0.4	90±5.0	20
HC1400P03	1.2 ~ 1.7	30	6.35x5.08	20.8	0.3	±0.35	90±4.0	20
HC1400P03-L	1.1 ~ 1.6	30	6.35x5.08	20.8	0.3	±0.50	90±2.0	20
HC1400P03S	1.15 ~ 1.63	30	6.35x5.08	20.8	0.3	±0.35	90±3.0	22
HC1600P03	1.558 ~ 1.616	30	6.35x5.08	23	0.19	±0.35	90±3.0	25
HC1900P03	1.7 ~ 2.0	60	6.35x5.08	20.8	0.2	±0.30	90±3.5	20
HC1900P03H2	1.7 ~ 2.3	176	6.35x5.08	19	0.25	±0.40	90±2.5	19
HC2100P03	1.8~ 2.3	60	6.35x5.08	20.8	0.3	±0.25	90±4.0	21
HC2100P03H	1.7~ 2.3	90	6.35x5.08	20	0.25	±0.15	90±2.0	27
HC2500P03	2.3 ~ 2.7	60	6.35x5.08	20.8	0.3	±0.25	90±3.0	20
HC2500P03H	2.3 ~ 2.7	60	6.35x5.08	20.8	0.3	±0.25	90±3.0	20
HC3500P03	3.3 ~ 3.8	25	6.35x5.08	18.2	0.3	±0.30	90±4.0	20
HC0350A03	0.30 ~ 0.40	150	14.22x8.89	19.1	0.3	±0.30	90±4.0	18
HC0450A03	0.35 ~ 0.52	125	14.22x8.89	23.1	0.3	±0.45	90±3.0	22
HC0480A03	0.435 ~ 0.524	125	14.22x8.89	20.1	0.25	±0.20	90±3.0	20
HC0650A03	0.47 ~ 0.86	200	14.22x8.89	17.2	0.3	±0.40	90±2.5	17
HC0700A03	0.7 ~ 0.8	225	14.22x8.89	20	0.25	±0.25	90±2.0	21
HC0900A03	0.8 ~ 1.0	175	14.22x8.89	20	0.2	±0.25	90±2.0	22
HC1400A03	1.2 ~ 1.7	150	14.22x8.89	20.8	0.2	±0.25	90±2.0	22
HC1500A03	1.0 ~ 2.0	60	14.22x8.89	17.69	0.45	±0.55	90±3.0	20
HC1700A03	0.69~ 2.7	50	14.22x8.89	13-29	0.62	±0.8	90±6.0	16
HC1900A03	1.7 ~ 2.0	150	14.22x8.89	20.8	0.15	±0.25	90±2.0	23
HC2035A03	1.575 ~ 2.575	80	14.22x8.89	21.7	0.25	±0.35	90±3.0	23
HC2100A03	2.0 ~ 2.3	105	14.22x8.89	20	0.15	±0.25	90±2.0	24
HC2500A03	2.3 ~ 2.7	200	14.22x8.89	20.8	0.17	±0.25	90±2.0	23
HC0570C03	0.47 ~ 0.65	500	34x17	20.8	0.25	±0.35	90±2.0	22
HC0650C03	0.47 ~ 0.86	500	34x17	17.7	0.25	±0.4	90±2.0	20
HC0750C03	0.65 ~ 0.86	500	34x17	20.8	0.25	±0.40	90±2.0	25
HC0150B03	0.13 ~ 0.174	125	25.4x12.7	24.3	0.4	±0.25	90±3.5	22
HC0230B03	0.22 ~ 0.24	90	25.4x12.7	19.1	0.35	±0.30	90±2.0	20
HC0650B03	0.47 ~ 0.86	300	25.4x12.7	19.1	0.25	±0.42	90±2.0	20
HC0900B03	0.8 ~ 1.0	300	25.4x12.7	20.8	0.15	±0.25	90±2.0	22
HC1900B03	1.7 ~ 2.0	300	25.4x12.7	19.1	0.2	±0.25	90±2.0	20
HC2100B03	2.0 ~ 2.3	300	25.4x12.7	19.1	0.12	±0.30	90±2.5	24
HC0450L03	0.38 ~ 0.52	200	16.51x12.19	20.8	0.3	±0.30	90±3.0	20
HC0465L03	0.40 ~ 0.53	200	16.51x12.19	20.8	0.25	±0.35	90±3.0	20
HC0900L03	0.8 ~ 1.0	225	16.51x12.19	20.8	0.25	±0.25	90±2.0	22
HC2100L03	1.8 ~ 2.5	300	16.51x12.19	20.8	0.2	±0.25	90±3.0	20
HC0900E03	0.8 ~ 1.0	70	14.22x5.08	20.8	0.25	±0.30	90±3.0	20
HC1500E03H	1.4~ 1.6	250	14.22x5.08	21	0.20	±0.25	90±2.0	21
HC1900E03	1.7 ~ 2.0	120	14.22x5.08	24.9	0.15	±0.25	90±2.0	24
HC2100E03	2.0 ~ 2.3	100	14.22x5.08	26.4	0.15	±0.25	90±2.0	26
HC2200E03	1.7~ 2.7	160	14.22x5.08	23.1	0.15	±0.25	90±4.0	23
HC2200E03H	1.8~ 2.7	250	14.22x5.08	20.8	0.25	±0.30	90±4.0	22
HC2500E03	2.3 ~ 2.7	100	14.22x5.08	24.9	0.2	±0.15	90±2.0	26

# 3dB 90° High Power & Wide band Hybrid Coupler

## 3dB 90° 大功率宽带电桥

### SMD Package



#### 特点:

- 高功率密度, 大功率输出
- 宽带特性
- 超低损耗
- 驻波小
- 隔离度高
- 优越幅度平衡度和相位平衡度
- 原位替代
- 高可靠性
- 产品一致性好

#### 应用:

- 雷达
- 微波收发模组
- 微波功放系统
- 4G,5G,6G基站与网络覆盖

#### Wide band & High Power Series for SMT

Part No.	Freq.Range (GHz) fL- fU	Power (W)	Size LxW (mm)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)	原位替代 IPP 型号
HC0310W03	0.088~0.52	200	50.8×19.05	14-25	0.75	±0.8	90±7.0	13	IPP-7057
HC0450W03	0.295~0.605	300	25.4×12.7	16-25	0.30	±0.5	90±3.5	16.5	IPP-7022
HC0600W03	0.2~1.0	150	50.8×19.05	20	0.35	±0.65	90±3.0	20	IPP-7012
New HC1100W03	0.225~2.0	200	37.34×28.7	18	0.80	±1.0	90±5.0	17	IPP-7116
New HC1200W03	0.8~1.6	200	21.59×6.35	19	0.25	±0.55	90±5.0	19	IPP-7048
HC1500W03	1.0~2.0	150	14.22×8.89	21	0.20	±0.55	90±2.0	21	IPP-7047
New HC1505W03	0.5~2.5	100	45.72×12.7	17.7	0.50	±0.65	90±5.0	18	IPP-7017
HC1700W03	0.5~3.0	200	45.72×12.7	17-28	0.55	±1.0	90±3.0	17	IPP-7121
New HC1750W03	1.0~2.5	150	14.22×8.89	19	0.25	±0.7	90±5.0	19	IPP-7055
HC2000W03	1.0~3.0	400	25.4×12.7	19	0.20	±1.0	90±4.0	20	IPP-7109
New HC2300W03	0.8~3.8	100	45.72×10.16	17.7	0.50	±0.65	90±5.0	18	IPP-7063
HC2600W03	1.0~4.2	90	22.86×12.7	13.5-23	0.65	±0.8	90±7.0	15	IPP-7120
New HC3000W03	2.0~4.0	100	14.22×8.89	17.6	0.35	±0.5	90±5.0	18	IPP-7018
New HC3100W03	2.7~3.5	200	14.22×8.89	19	0.25	±0.2	90±5.0	20	IPP-7075
New HC3105W03	2.7~3.5	300	25.4×12.7	17.6	0.20	±0.25	90±5.0	18	IPP-7074
New HC3345W03	0.69~6.0	50	25.4×12.7	15.6	0.80	±0.90	90±9.0	15	IPP-7118
New HC3500W03	1.0~6.0	50	41.91×5.08	15.5	0.75	±0.8	90±5.0	15	IPP-7026
New HC4005W03	2.0~6.0	100	14.22×5.08	20-35	0.30	±1.0	90±4.0	20	IPP-7006
HC4000W03	2.0~6.0	250	14.22×8.89	12-35	0.25	±1.4	90±5.0	17	IPP-7111
New HC4001W03	2.0~6.0	150	31.75×5.08	17.7	0.40	±0.4	90±6.0	17	IPP-7150
New HC4250W03	2.5~6.0	100	14.22×5.08	17.7	0.30	±0.75	90±5.0	18	IPP-7004
New HC4350W03	2.6~6.1	100	14.22×5.08	20-40	0.30	±0.70	90±3.0	20	IPP-7031
New HC4400W03	2.0~6.8	100	14.22×5.08	19	0.30	±1.25	90±5.0	17	
HC4450W03	2.7~6.2	300	14.22×8.89	17	0.30	±3.0	90±5.0	19	
New HC5000W03	4.0~5.0	100	14.22×5.08	17.7	0.25	±0.45	90±5.0	18	IPP-7133
New HC6000W03	4.0~8.0	75	10.16×5.08	12-35	0.45	±0.9	90±8.0	14	IPP-7039
New HC7250W03	6.0~8.5	100	10.16×5.08	17.7	0.40	±0.35	90±6.0	17	IPP-7044
New HC7500W03	7.0~8.0	125	10.16×5.08	17.7	0.30	±0.35	90±5.0	17	IPP-7020
HC9000W03	6.0~12.0	50	6.35×5.08	16	0.35	±0.45	90±5.0	17.5	IPP-7114
New HC100HW03	8.0~12.0	50	6.35×5.08	16.5	0.30	±0.55	90±6.0	17	IPP-7112

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Technical support:+86-755-8355-1211(International)

# 3dB 90° Drop-In Couplers

## 3dB 90° 插针式宽带大功率电桥 *New*



### 特点:

- 超低损耗
- 驻波小
- 隔离度高
- 优越幅度平衡度和相位平衡度
- 原位替代
- 高可靠性
- 产品一致性好

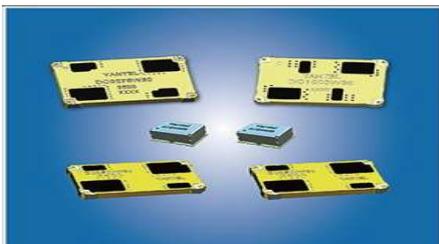
### 应用:

- 雷达
- 微波收发模组
- 微波功放系统

Part No.	Freq.Range (MHz) fL- Fu	Power (W)	Size LxW (mm)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)	原位替代 IPP 型号
<i>New</i> HC0053D03	30 ~ 76	100	53.34×50.8	20.8	0.60	±0.75	90±6.0	21	-
<i>New</i> HC0059D03	30 ~ 88	400	67.31×67.31	20	0.30	±0.55	90±4.0	20	IPP-2052
<i>New</i> HC0270D03	20 ~ 520	200	55.88×76.2	17.7	0.8	±0.30	90±10.0	16	IPP-2255
<i>New</i> HC0290D03	80 ~ 500	800	63.5×152.4	17.7	0.35	±0.95	90±5.0	16	IPP-2133
<i>New</i> HC0300D03	100 ~ 500	150	38.1×83.82	17.7	0.5	±0.75	90±6.0	16	IPP-2069
<i>New</i> HC0305D03	120 ~ 500	800	63.5×127	18	0.55	±0.70	90±3.0	19	IPP-2012
<i>New</i> HC0310D03	100 ~ 520	400	38.1×83.82	17.7	0.45	±0.75	90±5.0	17	IPP-2331
<i>New</i> HC0312D03	225 ~ 400	250	14.22×41.15	20.8	0.25	±0.50	90±5.0	20	Q4T022040
<i>New</i> HC0315D03	225 ~ 400	400	12.7×50.8	19	0.25	±0.50	90±5.0	20	IPP-2003
<i>New</i> HC0360D03	210 ~ 520	400	12.7×50.8	17.7	0.30	±0.75	90±3.0	18	IPP-2053
<i>New</i> HC0372D03	225 ~ 520	200	12.7×50.8	19	0.25	±0.70	90±5.0	20	IPP-2037
<i>New</i> HC0510D03	20 ~ 1000	150	55.88×76.2	17.7	0.9	±0.25	90±12.0	16	IPP-2247
<i>New</i> HC0700D03	400 ~ 1000	800	67.31×67.31	20	0.25	±0.65	90±2.0	20	IPP-2102
<i>New</i> HC0750D03	500 ~ 1000	200	12.7×34.29	20.82	0.25	±0.50	90±5.0	20	IPP-2006
<i>New</i> HC1225D03	800 ~ 1650	400	12.7×34.29	17.7	0.2	±0.60	90±5.0	18	IPP-2167
<i>New</i> HC1500D03	500 ~ 2500	200	20.32×55.88	17.2	0.5	±0.70	90±6.0	17	IPP-2335
<i>New</i> HC1505D03	1000 ~ 2000	200	12.7×34.29	20.8	0.25	±0.50	90±5.0	20	IPP-2007
<i>New</i> HC1510D03	1000 ~ 2000	400	12.7×34.29	18	0.30	±0.40	90±3.0	20	IPP-2041
<i>New</i> HC1600D03	1000 ~ 2000	1000	25.4×60.96	15	0.3	±0.55	90±3.0	16	IPP-2042
<i>New</i> HC1700D03	500 ~ 3000	200	20.32×55.88	17.2	0.5	±0.70	90±5.0	17	IPP-2072
<i>New</i> HC1750D03	800 ~ 2700	400	22.86×81.28	17.7	0.4	±0.60	90±5.0	18	IPP-2084
<i>New</i> HC2000D03	1000 ~ 3000	150	12.7×34.29	17.7	0.3	±1.10	90±5.0	18	IPP-2062
<i>New</i> HC2100D03	1750 ~ 2400	400	12.7×34.29	19	0.2	±0.30	90±5.0	20	IPP-2108
<i>New</i> HC2250D03	1500 ~ 3000	400	12.7×34.29	17.7	0.25		90±5.0	18	IPP-2295
<i>New</i> HC3000D03	2000 ~ 4000	400	12.7×34.29	17.7	0.3	±0.50	90±5.0	18	IPP-2073
<i>New</i> HC4000D03	2000 ~ 6000	100	6.35×33.02	17.7	0.3	±0.10	90±5.0	18	IPP-2277

## Wide band & High Power Series 宽带大功率双定向耦合器

Bi-directional coupler and DUAL directional coupler



### 特点:

- 超低损耗
- 驻波小
- 高方向性
- 较小带内波
- 原位替代
- 高可靠性
- 符合RoHS标准

### 应用:

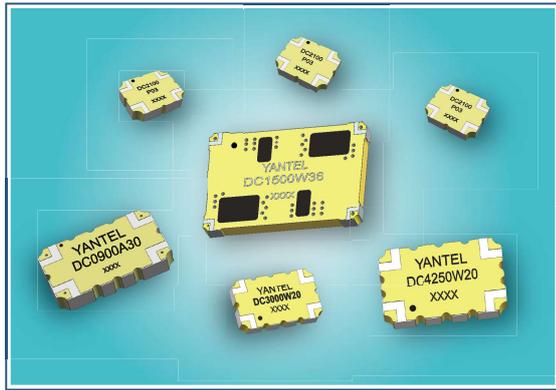
- 雷达
- 第1代&第2代电台
- 测试系统

Part No.	Freq.Range (MHz) fL- fU	Power (W)	Size LxW (mm)	Insertion Loss (dB)	Mean Coupling (dB)	Directivity (dB)	Return (dB)	原位替代 IPP 型号
DC0270W50	20~520	300	38.1×25.4	0.25	50±1.0	20	19	IPP-8044
DC0275W50	30~520	300	38.1×25.4	0.20	50±1.0	21	20	IPP-8045
DC0285W25	30~540	100	12.7×9.65	0.45	25±2.0	17	12	SYBDC-26-52VHP+
<i>New</i> DC0385W28	70~700	150	17.7×9.65	0.35	28±2.0	14	12	-
<i>New</i> DC0300W40	100~500	300	38.1×25.4	0.25	40±1.0	20	19	IPP-8046
DC0500W50	20~1000	150	31.75×19.05	0.35	50±1.0	20	13.5	IPP-8070
DC0510W50	20~1000	300	38.1×25.4	0.30	50±1.0	14	20	IPP-8036
<i>New</i> DC0600W40	200~1000	300	38.1×25.4	0.35	40±1.0	20	19	IPP-8025
<i>New</i> DC1500W20	1000~2000	200	14.22×8.89	0.20	20±1.0	20	19	IPP-8004
DC1500W36	500~2700	200	38.1×25.4	0.40	36±1.5	18	18	IPP-8041
<i>New</i> DC1650W20	800~2500	150	25.4×12.7	0.25	20±1.5	20	19	IPP-8029

# Directional Coupler

## 定向耦合器

### SMD Package



### Features

- Very Low Loss
- High Directivity
- Low VSWR
- Good Repeatability
- CTE compatible with FR4, G-10, RF-35, RO4350B and polyimide
- Immersion gold, prevent surface oxidation & scratch
- RoHS Compliant
- Tape & Reel Package available

### Applications

- Feed-forward Amplifiers
- Signal Sampling
- 应用于4G,5G,6G基站与网络覆盖

### Part No. Description

**	****	*	**
Directional Coupler	Center Frequency(MHz)	Size(mm)	Coupling Value
	0450=410-480	B=25.40 x 12.70	05=5 dB
	0900=800 to 1000	A=14.22 x 8.89	10=10 dB
	1400=1200 to 1600	E=14.22 x 5.08	20=20 dB
DC	1900=1700 to 2000	M=10.16 x 5.08	30=30 dB
	2100=2000 to 2300	P=6.35 x 5.08	
	2500=2300 to 2700	F=5.08x3.18	
	3500=3300 to 3800	T=2x1.25	

### Specifications

Standard Series

	Part No.	Freq.Range (GHz) fL- fU	Power (W)	Size LxW (mm)	Insertion Loss (dB)	Mean Coupling (dB)	Directivity (dB)	Return (dB)
New	DC09T10	0.8 ~ 1	2	2.0x1.25	0.3	10±0.5	18	18
New	DC09T20	0.7 ~ 1	2	2.0x1.25	0.3	20±0.5	18	18
New	DC19T10	1.7 ~ 2.2	2	2.0x1.25	0.3	11±1.0	18.5	20.5
New	DC19T20	1.7 ~ 2.2	2	2.0x1.25	0.2	20±0.5	15.5	25
New	DC25T10	2.3~ 2.7	2	2.0x1.25	0.2	10±0.6	20	20
New	DC25T20	2.3~ 2.7	2	2.0x1.25	0.2	19±0.5	19.5	30
New	DC35T10	3.2 ~ 3.7	2	2.0x1.25	0.3	10±0.5	18	20
New	DC35T20	3.2 ~ 3.7	2	2.0x1.25	0.3	20±0.5	18	20
New	DC55T20	4.4 ~ 6.3	2	2.0x1.25	0.5	20±0.8	16	16
New	DC07F02	0.69 ~ 1.0	25	5.08x3.18	0.3	2.1±0.2	17	19
New	DC09F05	0.7 ~ 1.0	25	5.08x3.18	0.25	5±0.3	16.5	19
New	DC09F20	0.7 ~ 1.0	25	5.08x3.18	0.14	20±1.0	14.5	10
New	DC19F05	1.7 ~ 2.3	25	5.08x3.18	0.15	5±0.3	20	20
New	DC19F20	1.4 ~ 2.7	25	5.08x3.18	0.3	20±1.5	16	16.5
New	DC20F02	1.8 ~ 2.2	24	5.08x3.18	0.25	1.85±0.2	16.7	18
New	DC20F30	1.4 ~ 2.7	100	5.08x3.18	0.3	30.5±1.5	16	15.6
New	DC25F02	2.3 ~ 2.7	20	5.08x3.18	0.35	2±0.20	16	16
New	DC25F04	2.3 ~ 2.7	25	5.08x3.18	0.25	4±0.30	18	20
New	DC25F05	2.3 ~ 2.7	25	5.08x3.18	0.25	5.0±0.5	15	19
New	DC30F30	2.3 ~ 3.8	100	5.08x3.18	0.12	30±1.5	20	20
New	DC55F30	4.9 ~ 6.3	100	5.08x3.18	0.15	30±1.5	19	19
	DC0900P05	0.8 ~ 1.0	25	6.35x5.08	0.35	5.0±0.5	14	17

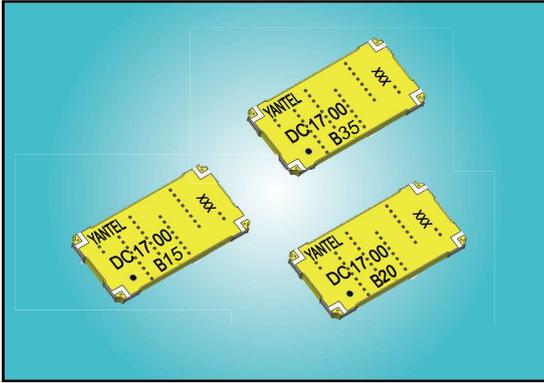
New

Part No.	Freq.Range (GHz) fL- fU	Power (W)	Size LxW (mm)	Insertion Loss (dB)	Mean Coupling (dB)	Directivity (dB)	Return (dB)
DC0900P30	0.7 ~ 1.0	225	6,35x5,08	0,1	30±1,5	17,5	20,8
DC0900P10	0,8 ~ 1,0	25	6,35x5,08	0,4	10,0±0,80	11	14,1
DC1900P05	1,7 ~ 2,0	35	6,35x5,08	0,25	5±0,30	20	20
DC1900P05H	1,7 ~ 2,0	70	6,35x5,08	0,18	5±0,40	20	20,8
DC1400P10	1,2 ~ 1,7	80	6,35x5,08	0,25	10±1,0	20	20,8
DC1900P10	1,7 ~ 2,0	20	6,35x5,08	0,25	10±0,50	20	20,8
DC1900P20	1,7 ~ 2,0	25	6,35x5,08	0,2	20±2,5	16	15,5
DC1900P30	1,7 ~ 2,0	225	6,35x5,08	0,2	29±1,5	20	19,5
DC2100P05	2,0 ~ 2,3	30	6,35x5,08	0,25	5±0,30	20	20
DC2100P05H	2,0 ~ 2,3	70	6,35x5,08	0,18	5±0,30	21	23,1
DC2100P10	2,0 ~ 2,3	20	6,35x5,08	0,25	10±0,55	19	19,1
DC2100P18	1,85 ~ 2,22	25	6,35x5,08	0,15	18±0,5	30	23,1
DC2100P20	2,0 ~ 2,3	25	6,35x5,08	0,31	20±1,5	18	19,7
DC2300P18	2,25 ~ 2,5	25	6,35x5,08	0,15	18±0,50	30	23,1
DC2500P02	2,3 ~ 2,7	60	6,35x5,08	0,35	2±0,50	20	17,7
DC2500P05	2,3 ~ 2,7	60	6,35x5,08	0,35	5±0,40	19	20
DC2500P10	2,3 ~ 2,7	20	6,35x5,08	0,25	10±0,75	18	20,1
DC2500P20	2,3 ~ 2,7	25	6,35x5,08	0,16	20±1,5	16	22,1
DC3500P20	3,3 ~ 3,8	45	6,35x5,08	0,2	20±1,00	20	20,8
DC0900A05	0,8 ~ 1,0	250	14,22x8,89	0,19	5,0±0,35	21	21,2
DC0900A10	0,8 ~ 1,0	225	14,22x8,89	0,18	10,0±0,50	20	20,8
DC0900A20	0,8 ~ 1,0	150	14,22x8,89	0,18	20,0±0,70	20	20
DC0900A30	0,8 ~ 1,0	150	14,22x8,89	0,18	30,0±1,50	20	20,8
DC1500A10	1,0 ~ 2,0	60	14,22x8,89	0,15	10±1,0	20	20,8
DC1500A20	1,0 ~ 2,0	160	14,22x8,89	0,15	20±1,50	20	20,8
DC1500A30	1,0 ~ 2,0	120	14,22x8,89	0,16	30±2,4	12	20,8
DC1900A05	1,7 ~ 2,0	200	14,22x8,89	0,19	5,0±0,25	22	23,1
DC1900A10	1,7 ~ 2,0	175	14,22x8,89	0,15	10±0,40	20	20,8
DC1900A20	1,7 ~ 2,0	150	14,22x8,89	0,15	20,0±0,80	20	23,1
DC1900A30	1,7 ~ 2,0	120	14,22x8,89	0,21	30,0±1,50	18	20,8
DC2100A05	2,0 ~ 2,3	125	14,22x8,89	0,18	5,0±0,25	20	19,7
DC2100A10	2,0 ~ 2,3	175	14,22x8,89	0,2	10±0,20	25	23
DC2100A20	2,0 ~ 2,3	120	14,22x8,89	0,15	20,0±0,60	22	20,8
DC2100A30	2,0 ~ 2,3	120	14,22x8,89	0,13	30±1,0	17	20,8
DC0300L20	0,19 ~ 0,4	100	16,51x12,19	0,14	20,1±1,50	15,7	23
DC0350M20	0,35 ~ 0,47	20	10,16x5,08	0,1	19,8±2,0	19	24
DC0850M20	0,7 ~ 1,0	20	10,16x5,08	0,1	19,8±2,0	19	24
DC0900M30	0,8 ~ 1,0	20	10,16x5,08	0,1	26,5±0,4	15	16,5
DC3500M10	3,3 ~ 3,7	22	10,16x5,08	0,25	10,5±0,80	20	20,8
DC3500M20	3,3 ~ 3,8	80	10,16x5,08	0,2	20±1,00	21	20,8
DC0450E20	0,35~ 0,52	100	14,22x5,08	0,2	20,0±1,0	18	17,7
DC0900E20	0,8 ~ 1,0	200	14,22x5,08	0,1	20±1,0	22	21
DC2500E10	2,3 ~ 2,7	145	14,22x5,08	0,14	10±0,50	20	21,2
DC0900B30	0,8 ~ 1,0	355	25,4x12,7	0,12	29,8±1,0	25	23,1

# Directional Coupler

## 宽带大功率定向耦合器（替代MINI）

### SMD Package



#### 特点:

- 超低损耗
- 驻波小
- 高方向性
- 较小带内波
- 原位替代
- 高可靠性
- 符合RoHS标准

#### 应用:

- 雷达系统
- 通信系统
- 测试系统

Part No.	Freq.Range (GHz) fL-fU	Power (W)	Size LxW (mm)	Insertion Loss (dB)	Mean Coupling (dB)	Directivity (dB)	Return (dB)	原位替代 MINI 型号
New DC4000B10	2.0 ~ 6.0	100	25.4x12.7	0.1	10±1.0	22	24.9	BDCH-10-63+
New DC1750B15	0.5 ~ 3.0	100	25.4x12.7	0.25	15±1.0	25	29..4	BDCH-15-33+
New DC4000B20	2.0 ~ 6.0	180	25.4x12.7	0.15	20±1.0	19	20.8	BDCH-20-63+
New DC4000B18	2.0 ~ 6.0	140	25.4x12.7	0.15	18±1.0	29	26.4	BDCH-20-63A+
New DC1900B25	0.8 ~ 3.0	150	25.4x12.7	0.2	25±1.0	28	20.8	BDCH-25-33+
New DC1700B15	0.7 ~ 2.7	150	25.4x12.7	0.35	15±1.2	20	20.8	BDCH-15-272
New DC1700B20	0.7 ~ 2.7	150	25.4x12.7	0.35	20±1.2	20	20.8	BDCH-20-272
New DC1700B35	0.7 ~ 2.7	150	25.4x12.7	0.3	35.5±1.5	18	19.0	BDCH-35-272

# 四相位耦合器/四相位移相器/四臂螺旋天线耦合器（PTFE工艺）



#### 特点

- 小尺寸: 5.08×3.18(mm)
- 低插入损耗
- 优异的相位、幅度平衡度
- 一致性非常好
- 内置50欧姆负载（无需外接负载）
- 四角度耦合器具有一个输入端口和四个不同相位的输出端口 -6dB - (0° /90° /180° /270° )
- 四相位耦合器
- 工作温度: -40℃~+85℃
- 可提供编带包装

#### 应用

- 车载天线
- 天线耦合器
- 移相器网络
- 无人机
- 卫星天线等

Part No.	Freq.Range (GHz)	Power (W)	Size LxW (mm)	Return Loss (dB)	Insertion loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)
New QF0900F06A	800~1000	5	5.08×4.0	15	1.1	±1.6	90±7.0	15
New QF0900F06B	800~1000	5	5.08×4.0	15	1.1	±1.6	90±7.0	15
New QF1200F06A	1165~1300	5	5.08×3.18	16.9	0.5	±0.6	90±8.0	15
New QF1200F06B	1165~1300	5	5.08×3.18	16.9	0.5	±0.6	90±8.0	15
New QF1600F06A	1520~1660	5	5.08×3.18	17.7	0.5	±0.5	90±8.0	18
New QF1600F06B	1520~1660	5	5.08×3.18	17.7	0.5	±0.5	90±8.0	18
New QF2100F06A	1980~2200	5	5.08×3.18	18	0.5	±0.6	90±8.0	22
New QF2100F06B	1980~2200	5	5.08×3.18	18	0.5	±0.6	90±8.0	22
New QF2500F06A	2400~2600	5	5.08×3.18	17.7	0.5	±0.5	90±10.0	22

# High Performance Passive RF IC 高性能无源射频IC

## • 2-way 0° Power Divider IC

2路功分器IC 集成电路布图设计知识产权



### Features

- Built with leading edge RF IC design technology
- Passive RF IC, no need external DC power supply
- No need external 100 ohm resistor
- Low Loss & Low VSWR
- High isolation
- Excellent amplitude & phase balance
- Ultra small size: 2.0 x 2.0 mm
- Excellent repeatability
- Average Power: 2 Watts @ divider, 1 Watts @ combiner
- Tape & Reel

### Applications

- Onboard information system (Blue link, E-call Box)
- Vehicle Cell Phone Signal Booster
- Real Time Location System
- RFID reader, active tag, antenna
- Small & mini repeater, LTE home repeater
- Wireless communications
- Satellite Communications
- GNSS receiver, GNSS boards

### 2-way 0° Power Divider

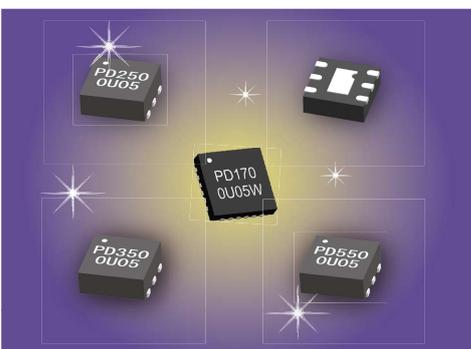
Part No.	Freq. Range (MHz)	Power (W) as a divider	Power (W) as a combiner	Package LxW (mm)	Insertion loss (dB)	Amplitude Balance (dB)	Phase Balance (deg)	Isolation (dB)	Input VSWR (:1)	Output VSWR (:1)
PD0900U03-070	800-1000	2	1	DFN2X2	0,5	±0,1	2.0	17	1,35	1,25
PD1500U03-140	1350-1650	2	1	DFN2X2	0,35	±0,1	1.5	20	1,35	1,2
PD1500U03W	1000-2000	2	1	DFN2X2	0,7	±0,1	±0,5	10~20	1,5	1,45
PD1850U03-080	1650-2050	2	1	DFN2X2	0,45	±0,15	2.0	16	1,4	1,25
PD2150U03-090	1900-2350	2	1	DFN2X2	0,5	±0,15	2.0	10	1,5	1,25
PD2450U03-100	2200-2650	2	1	DFN2X2	0,5	±0,15	3.0	15	1,5	1,35
PD3550U03-110	3300-3800	2	1	DFN2X2	0,5	±0,2	2.0	17	1,55	1,2
PD1700U03W	600-2900	2	1	QFN3X3	0,7	±0,1	±0,5	11~27	1,2~1,6	1,1~1,6

### Wide band 2-way 0° Power Divider (QFN & Die) *New*

Part No.	Freq. Range (MHz)	Power (W) as a divider	Power (W) as a combiner	Package LxW (mm)	Insertion loss (dB)	Amplitude Balance (dB)	Phase Balance (deg)	Isolation (dB)	Input VSWR (:1)	Output VSWR (:1)
PD0715U03W	1800~12500	2.5	1.25	Die or QFN4X4	2.0	±0.4	5.0	10	1.45	1.45
PD1425U03W	2000~26500	2.5	1.25	Die or QFN4X4	1.5	±0.4	5.0	10	1.65	1.55
PD2275U03W	3000~42500	2.5	1.25	Die or QFN4X4	2.2	±0.5	5.0	10	1.90	1.50
PD3350U03W	700~6000	2.5	1.25	Die or QFN5X5	1.5	±0.3	5.0	10	1.65	1.30

## • 3-way 0° Power Divider IC

*New* 三路功分器IC



### Features

- Built with leading edge RF IC design technology
- Passive RF IC, no need external DC power supply
- No need external 100 ohm resistor
- Small size (4x4 mm or 2x2 mm )
- Very low loss
- Tight amplitude balance
- High isolation
- Low VSWR
- Good repeatability
- Tape & Reel
- Power handling: 2 Watts as a divider, 0.5 Watts as a combiner

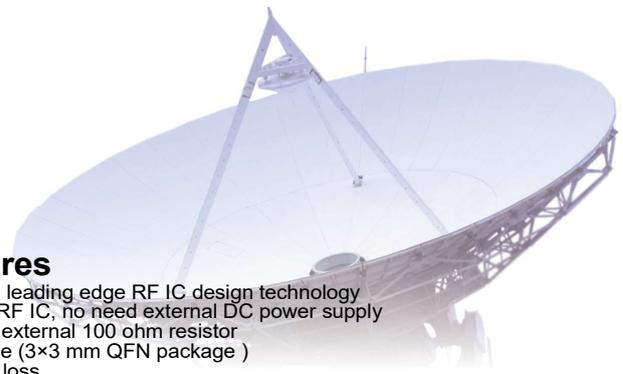
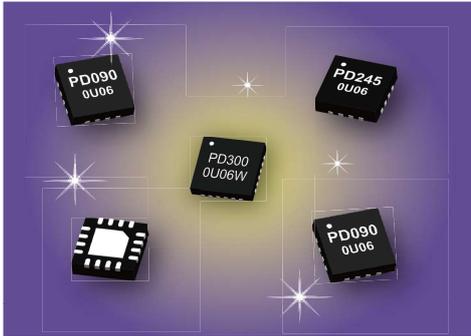
### 3-way 0° Power Divider

Part No.	Freq. Range (MHz)	Power (W) as a divider	Power (W) as a combiner	Package LxW (mm)	Insertion loss (dB)	Amplitude Balance (dB)	Phase Balance (deg)	Isolation (dB)	Input VSWR (:1)	Output VSWR (:1)
PD2500U05	2300~2700	2.8	0.8	Die or QFN2X2	0.80	±0.2	±5	16	1.40	1.40
PD3500U05	3200~3700	2.8	0.8	Die or	0.7	±0.2	±5	15.5	1.50	1.50

# 4-way 0° Power Divider IC

## 4路功分器IC

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### Features

- Built with leading edge RF IC design technology
- Passive RF IC, no need external DC power supply
- No need external 100 ohm resistor
- Small size (3×3 mm QFN package )
- Very low loss
- Tight amplitude balance
- High isolation
- Low VSWR
- Good repeatability
- Tape & Reel
- Power handling: 2 Watts as a divider, 0.5 Watts as a combiner

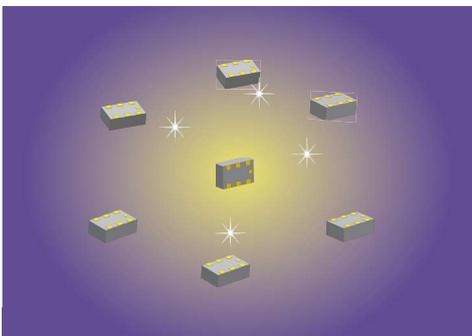
### Applications

- Vehicle Cell Phone Signal Booster
- Satellite Communications
- GNSS receiver,GNSS boards

### 4-way 0° Power Divider

Part No.	Freq. Range (MHz)	Power (W) as a divider	Power (W) as a combiner	Package LxW (mm)	Insertion loss (dB)	Amplitude Balance (dB)	Phase Balance (deg)	Isolation (dB)	Input VSWR (:1)	Output VSWR (:1)
PD090U06-150	820~960	2	0.5	QFN3X3	0.8	±0.20	±1.5	22	1.3	1.2
PD1400U06-524	1200~1650	2	0.5	QFN3X3	0.45~0.7	±0.20	±1.5	13~47	1.6	1.4
PD1850U06-160	1700~2000	2	0.5	QFN3X3	0.60	±0.35	±2.0	16	1.40	1.50
PD2200U06-170	1700~2700	2	0.5	QFN3X3	0.6~1.1	±0.35	±2.0	12~35	1.8	1.6
PD2450U06-180	2300~2700	2	0.5	QFN3X3	0.7	±0.40	±2.0	18	1.35	1.25

## 二路功分器 (PTFE工艺)



### 特点

- 无源射频,无需外接电源
- 插入损耗非常小和低驻波比
- 高隔离度
- 优异的幅度、相位平衡性能
- 小尺寸:2.0 x 1.25 mm
- 一致性非常好
- 可提供编带包装
- 功率: 2 Watts 作为功分  
1 Watts 作为合路

### 应用

- 车载天线
- GNSS 导航定位天线
- GNSS 接收机板卡
- 无人机
- 天线模组

Part No.	Freq.Range (MHz)	Power (W)	Size L×W (mm)	VSWR	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)
PD05T03	400~900	2	2.0×1.25	1.8	0.7	±0.5	90±4.0	9
PD07T03	600~ 800	2	2.0×1.25	2.0	0.9	±0.5	90±3.0	12
PD09T03	800~1000	2	2.0×1.25	1.5	0.6	±0.6	90±4.0	17
PD15T03	950 ~ 2150	2	2.0×1.25	1.78	0.8	±0.3	90±3.0	9
PD19T03	1700~2200	2	2.0×1.25	1.9	0.8	±0.3	90±4.0	15
PD25T03	2300~2800	2	2.0×1.25	1.45	0.5	±0.3	90±3.0	17
PD24T03	2400~2500	2	2.0×1.25	1.3	0.4	±0.2	90±3.0	22
PD30T03	2922~3222	1	2.0×1.25	1.2	0.4	±0.5	90±4.0	24
PD40T03	3100~5000	2	2.0×1.25	2.8	1.3	±0.4	90±4.0	13
PD53T03	4800~5900	2	2.0×1.25	2.3	1.0	±0.3	90±4.0	14
PD51T03	4905~5455	1	2.0×1.25	1.2	0.3	±0.2	90±3.0	21

## • 3dB 90° Coupler IC 3dB 90° 电桥 IC

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### Features

- Built with leading edge RF IC design technology
- Passive RF IC, no need external DC power supply
- Low Loss & Low VSWR
- High isolation
- Excellent amplitude & phase balance
- Ultra small size: 2.0 x 2.0 mm
- Excellent repeatability
- Tape & Reel

### Applications

- GPS antenna, Beidou antenna, Satellite antenna, Aviation antenna, Measuring antenna
- RFID reader, active tag, antenna
- Small & mini repeater, LTE home repeater
- Phase shifter / Attenuator
- Balanced amplifier / LNA configurations
- Modulators
- Mixers
- Power combining /dividing

Part No.	Freq. Range (MHz) fL- fU	Power (W)	Plastic LxW (mm)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (deg)	Isolation (dB)	Return Loss (dB)
HC0850U03-010	820-900	4	DFN2X2	0.3	±0.45	±1.0	25	25
HC0925U03-020	880-960	4	DFN2X2	0.3	±0.3	±1.5	27	29
HC1150U03-190	1120-1260	4	DFN2X2	0.35	±0.7	±1.0	30	30
HC1650U03-200	1550-1750	4	DFN2X2	0.35	±0.6	±1.0	35	28
HC1850U03-030	1750-1950	4	DFN2X2	0.25	±0.5	±1.0	25	32
HC2150U03-040	2050-2250	4	DFN2X2	0.25	±0.5	±1.0	30	28
HC2500U03-050	2300-2650	4	DFN2X2	0.35	±0.5	±1.0	24	22
HC2500U03-055	2300-2650	4	DFN2X2	0.35	±0.5	±1.0	30	25
HC3550U03-060	3300-3800	4	DFN2X2	0.4	±0.4	±6.0	20	18

## • Directional Coupler IC 定向耦合器 IC

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### Features

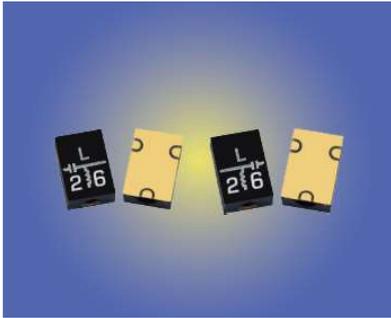
- Built with leading edge RF IC design technology
- Passive RF IC, no need external DC power supply
- Wide Freq range 350-4000MHz
- Very Low Loss & Low VSWR
- Excellent directivity
- Broad frequency coverage
- High isolation
- Good repeatability
- Power handling : 4 or 5 watts
- Small size (2x2mm)
- Tape & Reel

### Applications

- RFID reader, active tag, antenna
- Small & mini repeater, LTE home repeater
- Feed-forward amplifier
- Signal Sampling

Part No.	Freq. Range (MHz)	Power (W)	Plastic LxW (mm)	Coupling (dB)	Insertion loss (dB)	VSWR (:1)	Directivity (dB)
DC0410U20-060	350~410	5	DFN2x2	18.3-19.5	0.11	1.06	20.2
	410~470	5	DFN2x2	17-18.3	0.11	1.06	19.7
DC0850U20-122	750~800	5	DFN2x2	20.7-20.9	0.06	1.06	10.9
	800~850	5	DFN2x2	20.2-20.6	0.09	1.06	10.9
	850~900	5	DFN2x2	19.8-20.1	0.11	1.06	10.8
DC0900U05	900~950	5	DFN2x2	19.1-19.6	0.09	1.06	10.7
	830~880	5	DFN2x2	4.7-4.8	0.25	1.03	25.2
	880~930	5	DFN2x2	4.5-4.6	0.25	1.03	24.8
DC0900U10-053	750~850	5	DFN2x2	10-10.9	0.17	1.05	18.7
	850~950	5	DFN2x2	9.2-10	0.16	1.05	19
	950~1050	5	DFN2x2	8.4-9.2	0.18	1.05	19.3
DC1800U05-050	1700~1850	5	DFN2x2	4.6-5.1	0.22	1.12	18.5
	1850~2050	5	DFN2x2	4.2-4.6	0.18~0.21	1.14	19.4
	2050~2200	5	DFN2x2	3.8-4.2	0.18	1.15	20.1
DC1800U10-123	1700~1850	4	DFN2x2	10.7	0.25	1.04	20
	1850~2050	4	DFN2x2	10-10.4	0.26	1.04	22
	2050~2200	4	DFN2x2	9.5	0.29	1.03	24

## New BIAS T 偏置电路-模块&MMIC系列 (替换Marki)



### Features

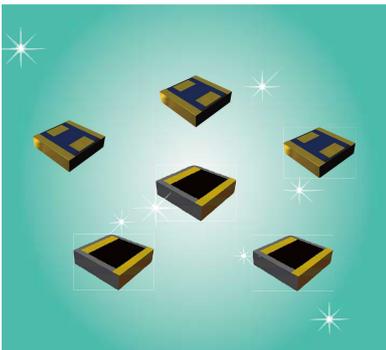
- Up to 35GHz
- 功率1W、DC 500mA
- 低插入损耗
- SMD封装

### Applications

- 偏置放大器
- 偏置激光二极管
- 偏置有源天线

Part No.	Freq.Range (GHz)	Insertion Loss (dB)	DC Current(A)	DC Port Isolation (dB)	DC Voltage (V)
YT-BT-0010	0.02~10	0.5	0.5	40	30
YT-BTL-0012	0.0005~12	0.5	0.5	35	30
YT-BTL-0026	0.0005~26	1	0.5	35	30
YT-BT-0026	0.02~26	1	0.5	40	35
YT-BT-0035	0.02~35	1	0.5	35	30
YT-BTL-0035	0.0005~35	1	0.5	35	30

## New 金刚石衰减片 (替换EMC)



### 特点

- 小尺寸 - 重量轻
- 极高的热导率
- 高功率值
- 纯金输入板
- 高功率20W

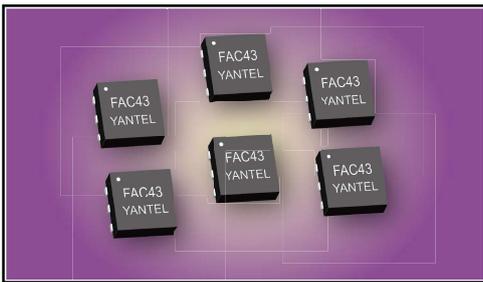
### 应用

- 相控阵雷达
- 限幅器
- 微波收发模块

Model	Attenuation (dB)	Attenuation Accuracy	VSWR:1 (typical)
		DC~26.5GHz	DC~26.5GHz
AD0505-00	0	±0.20	1.5
AD0505-01	1	±0.20	1.5
AD0505-02	2	±0.20	1.5
AD0505-03	3	±0.20	1.5
AD0505-05	5	±0.30	1.5
AD0505-06	6	±0.30	1.5
AD0505-08	8	±0.30	1.5
AD0505-09	9	±0.30	1.5
AD0505-10	10	±0.35	1.5
AD0505-12	12	±0.35	1.5
AD0505-15	15	±0.40	1.5
AD0505-20	20	±0.50	1.5

## • Fixed Attenuator IC

New 固定衰减片 IC 集成电路版图设计知识产权



### Features

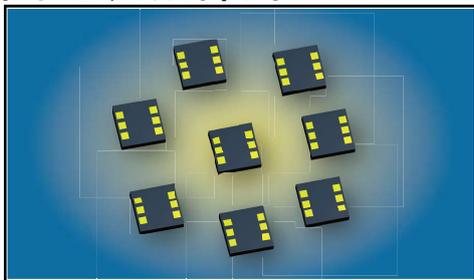
- Small Size (2×2mm DFN package)
- Super Wide bandwidth, DC~26GHz
- Excellent VSWR, 1.3:1 typ.
- High Power Handling, 2W

DC to 26 GHz, Up to 2W, 50Ω, DFN 2\*2-6L 封装, 高衰减精度, GaAs

Part Number	Attenuation (dB)	Attenuation Accuracy (typical) (dB)		VSWR:1 (typical)	
		DC~18GHz	18~26GHz	DC~18GHz	18~26GHz
FAC4300	0	±0.10	±0.13	1.2	1.2
FAC4301	1	±0.10	±0.15	1.2	1.2
FAC4302	2	±0.10	±0.2	1.2	1.2
FAC4303	3	±0.10	±0.2	1.2	1.2
FAC4304	4	±0.10	±0.2	1.2	1.2
FAC4305	5	±0.10	±0.15	1.2	1.2
FAC4306	6	±0.10	±0.15	1.25	1.3
FAC4307	7	±0.15	±0.2	1.25	1.35
FAC4308	8	±0.10	±0.15	1.25	1.35
FAC4309	9	±0.10	±0.15	1.3	1.35
FAC4310	10	±0.25	±0.25	1.3	1.35
FAC4312	12	±0.15	±0.15	1.2	1.3
FAC4315	15	±0.20	±0.2	1.25	1.3
FAC4320	20	±0.20	±0.3	1.1	1.2
FAC4325	25	±0.45	±0.2	1.1	1.2
FAC4330	30	±0.15	±0.15	1.15	1.2

## • Fixed Attenuator Die

New 固定衰减裸片 集成电路版图设计知识产权



### Features

- Adopting advance GaAs technology
- Excellent attenuation accuracy & phase balance
- High ESD level
- Low VSWR
- Die Package
- DC to 43.5GHz

DC to 43.5GHz, 0.8~2W, 50Ω, size(mm) : 0.6×0.6×0.1

Part Number	Attenuation (dB)	Attenuation Accuracy (typical) (dB)			VSWR:1 (typical)		
		DC~18GHz	18~26.5GHz	26.5~43.5GHz	DC~18GHz	18~26.5GHz	26.5~43.5 GHz
FAC4300D	0	±0.25	0.35	0.50	1.2	1.2	1.2
FAC4301D	1	±0.20	0.35	0.45	1.2	1.2	1.3
FAC4302D	2	±0.15	0.3	0.4	1.2	1.2	1.2
FAC4303D	3	±0.15	0.3	0.4	1.2	1.2	1.25
FAC4304D	4	±0.20	0.35	0.3	1.2	1.2	1.2
FAC4305D	5	±0.20	0.35	0.25	1.2	1.2	1.3
FAC4306D	6	±0.15	0.25	0.25	1.25	1.3	1.3
FAC4307D	7	±0.15	0.25	0.25	1.25	1.35	1.35
FAC4308D	8	±0.15	0.25	0.25	1.25	1.35	1.35
FAC4309D	9	±0.15	0.2	0.15	1.3	1.35	1.4
FAC4310D	10	±0.35	0.45	0.65	1.3	1.35	1.4
FAC4312D	12	±0.25	0.35	0.55	1.2	1.3	1.3
FAC4315D	15	±0.40	0.5	0.7	1.25	1.3	1.3
FAC4320D	20	±0.25	0.45	0.4	1.1	1.2	1.45

# 同轴固定衰减器 DC~40GHz



## Features

- 工作频率: DC-40GHz
- 衰减量: 0~20dB
- 功率: 2W
- 接头: 2.92mm
- 衰减量精度高
- 驻波比小
- 不锈钢外壳
- 陶瓷芯片
- 高RF性能,价格极具竞争力

## Applications

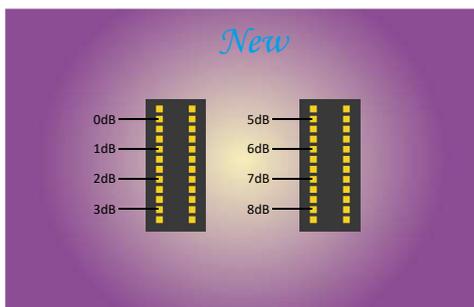
- 通信
- 雷达
- 微波测试
- 实验室

型号	衰减量 (dB)	衰减精度(典型值)(dB)		VSWR:1 (典型值)
		DC~40GHz		DC~40GHz
FAT4001	1	±0.20		1.35
FAT4002	2	±0.20		1.35
FAT4003	3	±0.20		1.35
FAT4005	5	±0.30		1.35
FAT4006	6	±0.30		1.35
FAT4008	8	±0.30		1.35
FAT4009	9	±0.30		1.35
FAT4010	10	±0.35		1.35
FAT4012	12	±0.35		1.35
FAT4015	15	±0.40		1.35
FAT4020	20	±0.50		1.35

size for SMA 0-40(dB)

## ● Variable Attenuator Die

*New* 可变衰减器组合 集成电路版图设计知识产权



## Features

- Adopting advance GaAs technology
- Excellent attenuation accuracy & phase balance
- High ESD level
- Low VSWR
- Die Package

Part No.	Attenuation	Freq. Range (MHz) fL-fU	Attenuation Accuracy (dB)			Input Return Loss(dB)			Output Return Loss(dB)		
			(Min.)	(typical)	(Max.)	(Min.)	(typical)	(Max.)	(Min.)	(typical)	(Max.)
FAC1368C-150	0/1/2/3	DC-26.5GHz	0	0.2	0.3		-30	-25		-30	-25
		26.5GHz-43.5GHz	0.3	0.35	0.4		-25	-20		-25	-20
FAC1368C-150	5/6/7/8	DC-26.5GHz	0	0.2	0.3		-25	-20		-25	-20
		26.5GHz-43.5GHz	0	0.2	0.3		-20	-17		-20	-17

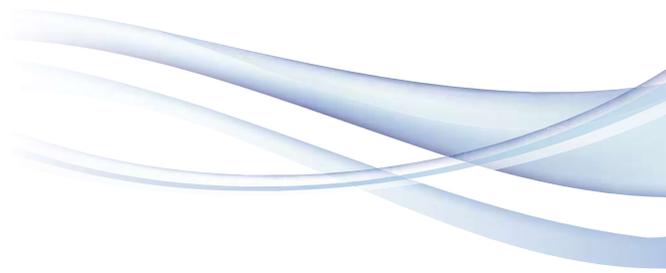
Tel:+86-755-8355-1886 Fax:+86-755-8355-2533

Technical support:+86-755-8355-1211(International)

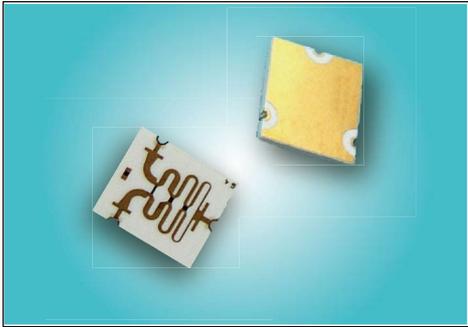
WhatsApp: +86 19983190231 E-mail: sales-baiatech@rfcomphub.com

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<https://BaiAotech.RFCompHub.com>



*New* 微波宽带二路/四路功分器



**Features**

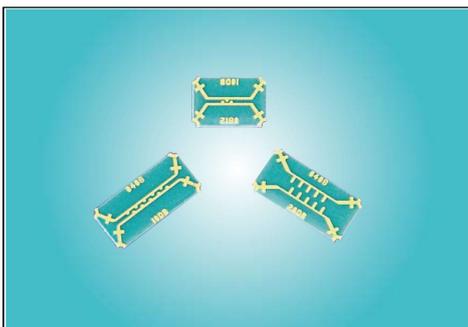
- Broad Band 6 to 32 GHz Performance
- 0.7 dB Typical Insertion Loss
- 20dB Typical Isolation and Return Loss
- Excellent Phase and Amplitude Balance
- Compact Solder Surface Mount Package
- Excellent directivity
- Broad frequency coverage

**Applications**

- Balanced amplifiers
- Modulators
- Point to Point

Part No.	Freq.Range (GHz)	Power as a Splitter (W)	Package Size(mm)	Insertion loss (dB)	Amplitude Balance (dB)	Phase Balance(deg)	Isolation (dB)	Return Loss (dB)	Nominal Power Splitting (dB)
YT-PDW05758	6~18	5	4.7X4.06	0.7	±0.25	±3	20	20	3
YT-PDW06089	6~18	5	6.35X7.62	1.0	±0.5	±3	14	14	6
YT-PDW06984	25~32	5	2.16X2.41	0.7	±0.25	±5	14	14	3
YT-PDW07069	24~32	5	3.56X4.32	1.0	±0.5	±6	10	10	6

*New* 微波宽带定向耦合器



**Features :**

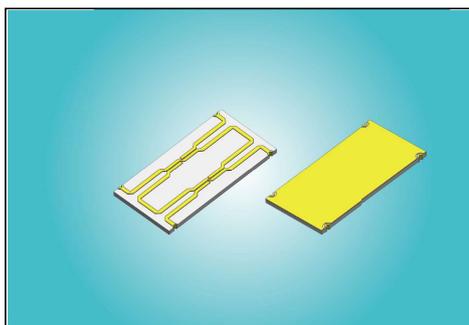
- Small Size
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55 C to +125 C
- Characteristic Impedance: 50Ω

**Applications**

- Balanced amplifiers
- Modulators
- Point to Point

Part No.	Freq.Range (GHz) fL- fU	Power (W)	Size LxW (mm)	Return (dB)	Insertion Loss (dB)	Directivity (dB)	Mean Coupling (dB)
YT-FPC06719	6 ~ 18	5	6.477x2.54	18	1.0	10	10 ~11.5
YT-FPC06913	6 ~ 18	5	4.572x2.794	15	1.0	10	20 ~21.5
YT-FPC07181	20 ~ 40	5	1.651x1.27	14	0.4	14	18.5 ~21.5
YT-FPC07802	DC ~ 40	5	1.52x2.24	12	2.5	/	30±3

## 微波宽带3dB90°电桥



### Features

- Small Size
- 90°PhaseDelta between Output Ports
- >50W Power Handling
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω
- Solder Surface Mount and Wire Bond Package

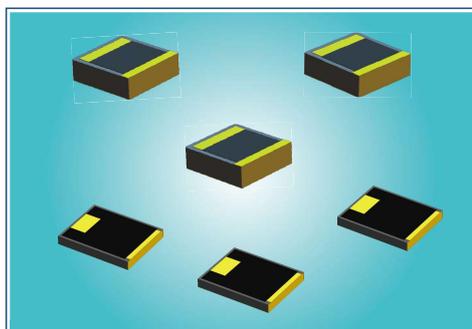
### Applications

- Handheld satellite communication equipment
- Helical Antenna receiving unit
- Phase shifter



Part No.	Freq. Range (GHz) fL- fU	Power (W)	Size L×W (mm)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Balance (dB)	Isolation (dB)	Package
YT-FHC09096	4~8	>50	7.62×3.81	20	0.35	0.4	22	SMD&WB
YT-FHC09097	4~8	>50	17.78×6.604	16.5	1.0	0.2	17	SMD&WB
YT-FHC10288	6~12	>50	12.7×6.35	16.5	1.0	0.3	17	SMD&WB
YT-FHC10290	10~20	>50	7.62×6.35	16.5	0.8	0.2	20	SMD&WB
YT-FHC10292	6~18	>50	8.89×6.35	16.5	0.8	0.4	20	SMD&WB

## New 金刚石负载 (替换EMC)



CVD Diamond Chip Terminations offer a unique combination of extreme high power ratings in very small packages. These terminations may be used in applications up to 30 GHz and are ideal for applications with requirements for high power capability, broad frequency response, small footprint and light weight. The terminations are manufactured using all thin film construction and have a gold finish that it both wire bondable and solderable. This total thin film construction also makes them ideal for peak power applications. Select from tape and eel, bulk, or waffle packaging. These products are also lead free, RoHS compliant and S-level approved.

### Features

- Small Size - Light Weight
- Highest Thermal Performance Possible
- Excellent Peak Power Capability
- Rugged Passivated TaN Film
- Moisture Resistant
- Pure Gold input Pads
- Wire Bondable or Solderable
- High Power

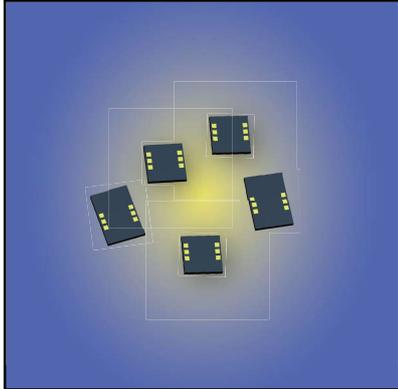
### Applications

- Broadcast
- Higher Power Filters
- High Power Amplifiers
- Instrumentation
- Isolators
- Military
- Satellite Communications
- Phased Array Radar

Part No.	Nominal Impedance	Frequency Range	Input Power CW	VSWR (Max.)	SIZE(mm)
TD0402	50Ω	DC~26.5GHz	10 Watts	1.95	1.14*0.64
TD0505	50Ω	DC~20GHz	50 Watts	1.6	1.4*1.4
TD0603	50Ω	DC~28GHz	50Watts	1.6	1.68*0.89
TD1310	50Ω	DC~14GHz	125 Watts	1.4	3.33*2.67

# 均衡器芯片 ( 替换MINI )

集成电路布图设计知识产权



## 产品特点

- 采用国际先进的GaAs工艺制作
- 低驻波比
- 均衡范围大
- 裸片无封装

## 产品应用

- 宽带微波模块
- 雷达
- 电子对抗EW, ECM, ECCM
- T/R 组件
- 均衡器被用作电路补偿, 已修正电路中其他元件
- 如放大器阶段造成的损失

型号	频率范围 (GHz) fL- fU	均衡量 (dB)	输入功率 (W)	插入损耗 (dB)	输入驻波比 (:1)	输出驻波比 (:1)	阻抗 (ohm)
E6003C-1323	1.3~2.3	3.3	1	0.2 @2.3GHz	1.2	1.2	50
E6008C-1418A	14~18	2	1	0.65 @18GHz	1.2	1.2	50
E6014C-218	2~18	4	1	0.7 @18GHz	1.3	1.3	50
E6018C-212	2~12	4	1	0.5 @12GHz	1.35	1.35	50
EQYT-10-24-D	DC~20	10	2	1.1	1.28	1.28	50
EQYT-10-453-D	DC~45	10.2	0.63	1.8	1.22	1.22	50
EQYT-10-63-D	DC~6	10.2	1.26	1	1.12	1.12	50
EQYT-12-24-D	DC~20	11.9	1	1.5	1.17	1.17	50
EQYT-15-24-D	6~20	15.7	1.26	1.3	1.2	1.2	50
EQYT-1-63-D	DC~6	1.2	1.26	0.4	1.24	1.24	50
EQYT-18-24-D	6~18	18	2	2.2	1.22	1.22	50
EQYT-2-24-D	DC~20	2.1	1.26	0.9	1.26	1.26	50
EQYT-2-63-D	DC~6	2.1	1.26	0.4	1.29	1.29	50
EQYT-3-24-D	DC~20	3	2.55	0.8	1.24	1.24	50
EQYT-3-283-D	DC~28	3.4	1.26	0.6	1.15	1.15	50
EQYT-3-453-D	DC~45	3.5	1	1.1	1.22	1.22	50
EQYT-3-63-D	DC~6	3.2	1.26	0.6	1.29	1.29	50
EQYT-4-283-D	DC~28	4.3	1	0.6	1.14	1.14	50
EQYT-4-453-D	DC~45	4.5	0.79	1.1	1.23	1.23	50
EQYT-4-63-D	DC~6	4.2	1.26	0.6	1.25	1.25	50
EQYT-5-24-D	DC~20	4.9	2.55	0.8	1.34	1.34	50
EQYT-5-283-D	DC~28	5.9	1	0.6	1.12	1.12	50
EQYT-5-453-D	DC~45	5.5	0.63	1.1	1.26	1.26	50
EQYT-5-63-D	DC~6	5	1.26	1	1.24	1.24	50
EQYT-6-24-D	DC~20	6.1	1.26	0.7	1.3	1.3	50
EQYT-6-283-D	DC~28	6.6	1	0.6	1.15	1.15	50
EQYT-6-453-D	DC~45	6.5	0.63	1.1	1.25	1.25	50
EQYT-6-63-D	DC~6	6.5	1.59	0.5	1.2	1.2	50
EQYT-7-453-D	DC~45	7.4	0.5	1.3	1.26	1.26	50
EQYT-8-24-D	DC~20	8	2.55	1.1	1.31	1.31	50
EQYT-8-453-D	DC~45	8.2	0.5	1.2	1.14	1.14	50
EQYT-8-63-D	DC~6	8.2	1.26	0.5	1.21	1.21	50
EQYT-9-453-D	DC~45	9	0.63	1.6	1.21	1.21	50

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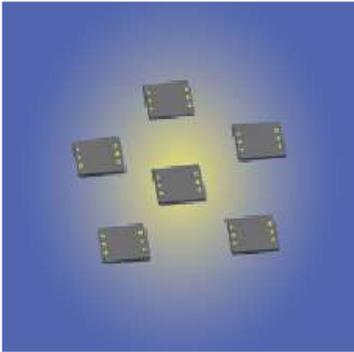
WhatsApp: +86 19983190231 E-mail: sales-baiatech@rfcomphub.com

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## 定向耦合器芯片（砷化镓工艺）



### 特点：

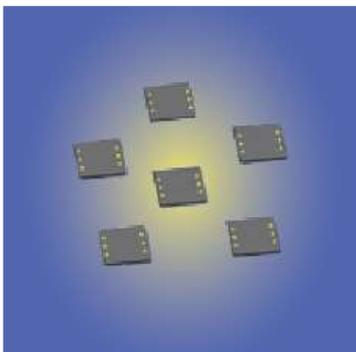
- 采用国际先进的GaAs工艺制作
- 低驻波比
- 低损耗
- 定向度好

### 应用：

- 宽带微波模块
- 雷达
- T/R 组件
- 卫星通信

Model Number	Freq. (GHz)		VSWR(:1), Typ.	Isolation(dB)	Insertion Loss (dB)	Mean Coupling(dB)	Size(mm)
DC26IC10	2	6	<1.4	12	<1	10±1	4.0X1.3 X0.1
DC618IC10	6	18	<1.4	12	<1	10±1	2.0X1.3 X0.1
DC1840IC10	18	40	<1.4	10	<1	10±1	2.0X1.3 X0.1
DC26IC15	2	6	<1.4	12	<0.6	15±1.5	4.0X1.3 X0.1
DC618IC15	6	18	<1.4	12	<0.6	15±1.5	2.0X1.3 X0.1
DC1840IC15	18	40	<1.4	10	<0.6	15±1.5	2.0X1.3 X0.1
DC26IC20	2	6	<1.4	12	<0.6	20±2	4.0X1.3 X0.1
DC618IC20	6	18	<1.4	12	<0.6	20±2	2.0X1.3 X0.1
DC1840IC20	18	40	<1.4	10	<0.6	20±2	2.0X1.3 X0.1

## 3dB 90°电桥芯片（砷化镓工艺）



### 特点：

- 采用国际先进的GaAs工艺制作
- 低驻波比
- 低损耗
- 幅度不平衡度小

### 应用：

- 宽带微波模块
- 雷达
- T/R 组件
- 移相器网络

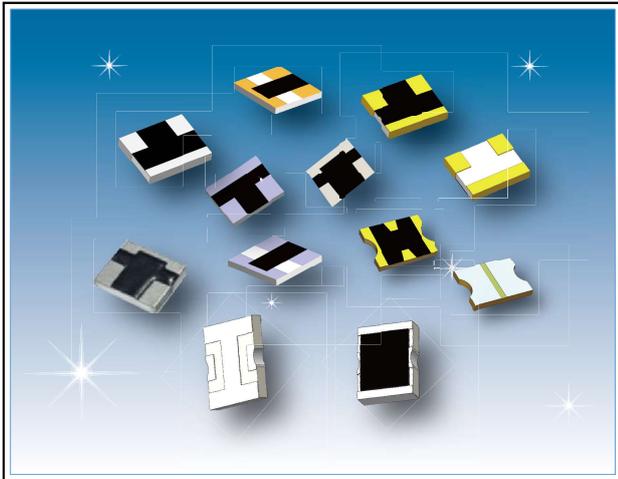
Model Number	Freq. (GHz)		VSWR(:1) Typ.	Isolation(dB)	Insertion Loss(dB) above 3 dB, Typ.	Amplitude Unbalance (dB), Typ.	Size(mm)
HC26IC03	2	6	<1.4	20	<0.35	<0.5	4.0X1.5X0.1
HC618IC03	6	18	<1.4	15	<0.35	<0.5	2.6X1.3 X0.1
HC1840IC03	18	40	<1.4	15	<0.35	<0.5	2.2X1.3 X0.1

### 裸片使用注意事项：

- 在净化环境装配使用。
- GaAs材料很脆，芯片表面很容易受损伤（不要碰触表面），使用时必须小心。
- 输入输出用2根键合线（直径25um金丝），键合线尽量短，不要长于300um。
- 用80/20金锡烧结，烧结温度不要超过300°C，烧结时间尽可能短，不要超过30秒。
- 本品属于静电敏感器件，储存和使用时注意防静电。
- 干燥、氮气环境储存。

# Fixed Attenuator Chip

## 固定衰减片



### Features

- Frequency range: DC to 3GHz, DC to 6GHz, DC to 10GHz, DC to 12.4GHz, DC to 18GHz, DC to 26.5GHz
- Laser trimmed
- Material in Al<sub>2</sub>O<sub>3</sub>, BeO or AlN
- Attenuation: 1dB to 30dB
- Input power: 100mW~400W
- High attenuation accuracy
- Low VSWR
- Temperature stable -55°C to +150°C
- Power: 100mW、200mW、2W、5W

### Applications

- Communications
- Point to Point base station
- Digital transmission
- Radar
- Broadcast television

### Specifications

DC to 6GHz, 2W, 5W, 50Ω, thick film, size(mm): 3.10×3.70×0.53 Al <sub>2</sub> O <sub>3</sub> (2w), BeO(5w) or AlN(5w) *:A,Planar *:B,Triple wrap									
Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)			VSWR:1 (typical)				
		DC~2GHz	2~4GHz	4~6GHz	DC~2GHz	2~4GHz	4~6GHz		
FAC0601*	1	±0.2	+0.3	+0.5	1.10	1.20	1.30		
FAC0602*	2	±0.2	+0.5	+0.8	1.10	1.20	1.30		
FAC0603*	3	±0.2	+0.5	+0.8	1.10	1.20	1.30		
FAC0606*	6	±0.2	+0.5	+0.8	1.10	1.20	1.30		
FAC0610*	10	±0.2	+0.3	+0.5	1.10	1.20	1.30		

DC to 8GHz, 0.75W~5W, 50Ω, thin film, size(mm): 1.52×1.90×0.41					
Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)		VSWR:1 (typical)	
		DC~4GHz	4~8GHz	DC~4GHz	4~8GHz
FAC0801*	1	±0.5	+0.5	1.25	1.35
FAC0802*	2	±0.5	+0.5	1.25	1.35
FAC0803*	3	±0.5	+0.5	1.25	1.35
FAC0806*	6	±0.5	+0.5	1.25	1.35
FAC0810*	10	±0.5	+0.5	1.25	1.35

DC to 10GHz, 100mW, 50Ω, thick film, size(mm): 1.25×2.00×0.45									
Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)				VSWR:1 (typical)			
		DC~4GHz	4~6GHz	6~8GHz	8~10GHz	DC~4GHz	4~6GHz	6~8GHz	8~10GHz
FAC1001	1	±0.3	+0.5	+0.6	+1.0	1.15	1.20	1.25	1.40
FAC1002	2	±0.3	+0.5	+0.6	+1.0	1.15	1.20	1.25	1.40
FAC1003	3	±0.3	+0.5	+0.6	+1.0	1.15	1.20	1.25	1.40
FAC1006	6	±0.3	+0.5	+0.6	+1.0	1.15	1.20	1.25	1.40
FAC1010	10	±0.3	+0.6	+0.7	+1.0	1.15	1.20	1.25	1.40

DC to 12.4GHz, 300mW, 50Ω, thick film, size(mm): 1.52×1.90×0.28 * : A,Planar * : B,Triple wrap									
Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)				VSWR:1 (typical)			
		DC~3GHz	3~6GHz	6~8.5GHz	8.5~12.4GHz	DC~3GHz	3~6GHz	6~8.5GHz	8.5~12.4GHz
FAC1201*	1	±0.3	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1202*	2	±0.3	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1203*	3	±0.3	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1206*	6	±0.3	+0.5	+0.75	+1.0	1.05	1.15	1.25	1.40

# Fixed Attenuator Chip

## 固定衰减片

**DC to 12.4GHz, 2W, 50Ω, thin film, gold terminal, wrap ground terminal, size(mm): 3.10×3.68×0.41**  
 \* : A, for wire-bonding \* : B, for lead free reflow \* : C, for triple wrap

Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)				VSWR:1 (typical)			
		DC~3GHz	3~6GHz	6~8.5GHz	8.5~12.4GHz	DC~3GHz	3~6GHz	6~8.5GHz	8.5~12.4GHz
FAC1201P*	1	±0.3	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1202P*	2	±0.3	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1203P*	3	±0.3	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1206P*	6	±0.3	+0.5	+0.75	+1.0	1.05	1.15	1.25	1.40
FAC1210P*	10	±0.3	+0.5	+0.75	+1.0	1.05	1.20	1.25	1.40

**DC to 18GHz, 200mW, 50Ω, thin film, gold terminal, wrap ground terminal, size(mm): 1.52×1.90×0.41**  
 \* : A, for wire-bonding \* : B, for lead free reflow \* : C, for triple wrap

Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)				VSWR:1 (typical)			
		DC ~ 4GHz	4~8GHz	8~12.4GHz	12.4~18GHz	DC~4GHz	4~8GHz	8~12.4GHz	12.4~18GHz
FAC1801*	1	±0.5	+0.5	+0.5	+0.8	1.05	1.10	1.15	1.40
FAC1802*	2	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1803*	3	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1806*	6	±0.5	+0.5	+0.75	+1.0	1.05	1.15	1.25	1.40
FAC1810*	10	±0.5	+0.5	+0.75	+1.0	1.05	1.20	1.25	1.40

**DC to 18GHz, 2W, 50Ω, thin film, gold terminal, wrap ground terminal, size(mm): 3.10×3.68×0.41**  
 \* : A, for wire-bonding \* : B, for lead free reflow

Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)				VSWR:1 (typical)			
		DC ~ 4GHz	4~8GHz	8~12.4GHz	12.4~18GHz	DC~4GHz	4~8GHz	8~12.4GHz	12.4~18GHz
FAC1801P*	1	±0.5	+0.5	+0.5	+0.8	1.05	1.10	1.15	1.40
FAC1802P*	2	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1803P*	3	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC1806P*	6	±0.5	+0.5	+0.75	+1.0	1.05	1.15	1.25	1.40
FAC1810P*	10	±0.5	+0.5	+0.75	+1.0	1.05	1.20	1.25	1.40

**DC to 26.5GHz, 200mW, 50Ω, thin film, gold terminal, wrap ground terminal, size(mm): 1.52×1.90×0.28**  
 \* : A, for wire-bonding \* : B, for lead free reflow

Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)				VSWR:1 (typical)			
		DC~8.5GHz	8.5~12.4GHz	12.4~18GHz	18~26.5GHz	DC~8.5GHz	8.5~12.4GHz	12.4~18GHz	18~26.5GHz
FAC2601*	1	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC2602*	2	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC2603*	3	±0.5	+0.5	+0.5	+1.0	1.05	1.10	1.15	1.40
FAC2606*	6	±0.5	+0.5	+0.75	+1.0	1.05	1.15	1.25	1.40
FAC2610*	10	±0.5	+0.5	+0.75	+1.0	1.05	1.20	1.25	1.40

**16 to 36GHz, 100mW,50Ω,for wire-bonding,Size(mm) : 3.05×1.65×0.28(mm) ;**

Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)		VSWR:1 (typical)	
		16~36GHz		16~36GHz	
FAC3601*	1	±1.0		1.30	
FAC3602*	2	±1.0		1.30	
FAC3603*	3	±1.0		1.30	
FAC3606*	6	±1.0		1.35	
FAC3610*	10	±1.0		1.35	

**36 to 50GHz, 200mW,50Ω,for lead free reflow,Size(mm) : 3.05×1.65×0.28(mm) ;**

Part No.	Attenuation (dB)	Typical Attenuation Accuracy(dB)	VSWR:1 (typical)
		36~50GHz	36~50GHz
FAC5001*	1	±1.0	1.30

# Fixed Attenuator

## 固定衰减器

Patent Product

China Patent No.: CN 2009 1 0006333

USA Patent No.: US 8,100,721 B2



### Features

- Frequency range from DC to 18GHz
- Attenuation from 1dB to 40dB
- Input power: 2W, 5W, 25W, 50W, 80W, 100W, 150W
- High attenuation accuracy
- Low VSWR
- Stainless steel or brass
- Ceramic chip
- Low cost-high performance

### Applications

- Communications
- Digital transmission
- Radar
- Broadcast television
- Test

### Model Description

FATXXXXXXXX

- X – Material: (no code)=Brass, (S)=Stainless steel
- X – power handling: 2W, 5W, 25W, 50W, 100W
- X – connector type: B-SMB, S-SMA, Q-QMA, M-MCX, C-MMCX, B-BNC or N- N type connector
- XX – attenuation: \*\*dB
- XX – frequency range: 06 represents DC to 6GHz  
18 represents DC to 18GHz

suffix “M” refers to the miniature size type

Example: Model No. FAT0603S2 is fixed attenuator DC-6GHz, 3dB, SMA type, 2W, Brass.

### Specifications

- DC to 6GHz, 2 Watts or 5 Watts, SMA(S), N type(N), QMA(Q), MCX(M), MMCX(C), BNC(B), Coaxial Fixed Attenuator

Model	Freq. Range (GHz) $f_L-f_U$	Attenuation (dB)	Attenuation Accuracy (dB)		VSWR (:1)				Power (Watt)
			DC - 3GHz	3 - 6GHz	DC - 2GHz	2 - 4GHz	4 - 6GHz	DC - 6GHz	
					Typical	Typical	Typical	Max.	
FAT0601***	DC-6	1	±0.45	±0.45	1.10	1.15	1.20	1.30	2
FAT0602***		2	±0.35	±0.35	1.10	1.15	1.20	1.30	
FAT0603***		3	±0.35	±0.35	1.10	1.15	1.20	1.30	
FAT0604***		4	±0.35	±0.35	1.10	1.15	1.20	1.30	
FAT0605***		5	±0.35	±0.35	1.10	1.15	1.20	1.30	
FAT0606***		6	±0.35	±0.35	1.10	1.15	1.20	1.30	
FAT0609***		9	±0.60	±0.60	1.10	1.15	1.20	1.30	
FAT0610***		10	±0.60	±0.60	1.10	1.15	1.20	1.30	
FAT0615***		15	±0.70	±0.70	1.10	1.15	1.20	1.30	
FAT0620***		20	±0.60	±0.60	1.10	1.15	1.20	1.35	
FAT0630***		30	±2.00	±2.00	1.10	1.15	1.20	1.35	

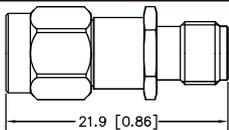
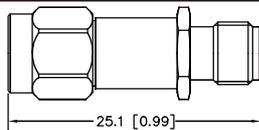
DC-6GHz Outline Dimensions (unit: mm&inch)

size for SMA 1-12(dB)	size for SMA 15-40(dB)	size for N 1-12(dB)	size for N 15-40(dB)

● DC to 18GHz, 2 Watts, SMA(S) type Miniature Size Coaxial Fixed Attenuator

Model	Freq. Range (GHz) $f_L$ - $f_U$	Attenuation (dB)	Attenuation Accuracy (dB) DC to 18GHz	VSWR (:1)				Power (Watt)
				DC - 6GHz	6 - 12GHz	12- 18GHz	DC - 18GHz	
				Typical	Typical	Typical	Max.	
FAT1801S2SM	DC-18	1	±0.40	1.15	1.25	1.30	1.35	2
FAT1802S2SM		2	±0.40	1.15	1.25	1.30	1.35	
FAT1803S2SM		3	±0.40	1.15	1.25	1.30	1.35	
FAT1804S2SM		4	±0.40	1.15	1.25	1.30	1.35	
FAT1805S2SM		5	±0.40	1.15	1.25	1.30	1.35	
FAT1806S2SM		6	±0.40	1.15	1.25	1.30	1.35	
FAT1808S2SM		8	±0.60	1.15	1.20	1.30	1.35	
FAT1809S2SM		9	±0.60	1.15	1.20	1.30	1.35	
FAT1810S2SM		10	±0.60	1.15	1.20	1.30	1.35	
FAT1815S2SM		15	±0.60	1.15	1.20	1.30	1.35	
FAT1820S2SM		20	±0.80	1.15	1.25	1.30	1.35	
FAT1830S2SM		30	±0.85	1.15	1.25	1.30	1.35	
FAT1840S2SM		40	±1.50	1.15	1.25	1.30	1.35	

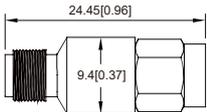
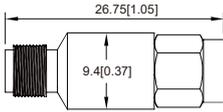
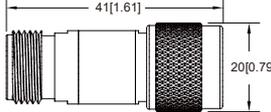
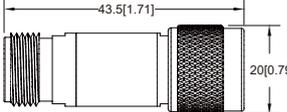
DC-18GHz Outline Dimensions (unit: mm&inch)

size for SMA 1-12(dB)	size for SMA 15-40(dB)
	

● DC to 18GHz, 2 Watts or 5 Watts, SMA(S),N type(N), Coaxial Fixed Attenuator

Model	Freq. Range (GHz) $f_L$ - $f_U$	Attenuation (dB)	Attenuation Accuracy (dB) DC to 18GHz	VSWR (:1)				Power (Watt)
				DC - 8GHz	8 - 12GHz	12- 18GHz	DC - 18GHz	
				Typical	Typical	Typical	Max.	
FAT1803***	DC-18	3	±0.3	1.15	1.20	1.30	1.50	2
FAT1806***		6	±0.5	1.15	1.20	1.30	1.50	
FAT1810***		10	±1.0	1.15	1.20	1.30	1.50	
FAT1820***		20	±1.2	1.15	1.20	1.30	1.50	
FAT1830***		30	±1.5	1.15	1.30	1.55	1.65	
FAT1840***		40	±1.5	1.15	1.30	1.55	1.65	

DC-18GHz Outline Dimensions (unit: mm&inch)

size for SMA 1-12(dB)	size for SMA 15-40(dB)	size for N 1-12(dB)	size for N 15-40(dB)
			

● DC to 26GHz, 2 Watts, SMA(S) type Miniature Size Coaxial Fixed Attenuator

Model	Freq. Range (GHz) $f_L$ - $f_U$	Attenuation (dB)	Attenuation Accuracy (dB)	VSWR (:1)	Power (Watt)
			DC - 26.5GHz	2 - 4GHz	
				Typical	
FAT2601	DC-26	1	±0.20	1.35	2
FAT2602		2	±0.20	1.35	
FAT2603		3	±0.20	1.35	
FAT2605		5	±0.30	1.35	
FAT2606		6	±0.30	1.35	
FAT2608		8	±0.30	1.35	
FAT2609		9	±0.30	1.35	
FAT2610		10	±0.35	1.35	
FAT2612		12	±0.35	1.35	
FAT2615		15	±0.35	1.35	
FAT2620		20	±0.40	1.35	

DC-26GHz Outline Dimensions (unit: mm&inch)

size for SMA 1-12(dB)	size for SMA 15-40(dB)
	

● DC to 3GHz, 5 Watts or 25 Watts, N(N) type Coaxial Fixed Attenuator

Model	Freq. Range (GHz) $f_L$ - $f_U$	Attenuation (dB)	Attenuation Accuracy (dB)	VSWR (:1)				Power (Watt)	
				DC to 3GHz	DC - 1GHz	DC - 2GHz	DC - 3GHz		
					Typical	Typical	Typical		Max.
FAT0340N5	DC-3	40	±0.75	1.10	1.15	1.20	1.25	5	
FAT0350N5		50	±0.75	1.10	1.15	1.20	1.25		
FAT0360N5		60	±0.75	1.10	1.15	1.20	1.25		
FAT0370N5		70	±1.0	1.10	1.15	1.20	1.25		
FAT0380N5		80	±1.0	1.10	1.15	1.20	1.25		
FAT0390N5		90	±1.2	1.10	1.15	1.20	1.25		
FAT0303N25	DC-3	3	±0.70	1.15	1.25	1.30	1.35	25	
FAT0306N25		6	±0.70	1.15	1.25	1.30	1.35		
FAT0310N25		10	±0.70	1.15	1.25	1.30	1.35		
FAT0320N25		20	±1.0	1.15	1.25	1.30	1.35		
FAT0330N25		30	±1.0	1.15	1.25	1.30	1.35		
FAT0340N25		40	±1.2	1.15	1.25	1.30	1.35		

DC-3GHz 5W Outline Dimensions (unit: mm&inch)

DC-3GHz 25W Outline Dimensions (unit: mm&inch)

● DC to 3GHz, 50, 80, 100 or 150Watts, N(N) type Low PIM Coaxial Fixed Attenuator

Model	Freq. Range (GHz) $f_L$ - $f_U$	Attenuation (dB)	Attenuation Accuracy (dB)	VSWR (:1)				Power (Watt)	
				DC to 3GHz	DC - 1GHz	DC - 2GHz	DC - 3GHz		
					Typical	Typical	Typical		Max.
FAT0303N50	DC-3	3	±0.50	1.10	1.20	1.25	1.30	50	
FAT0306N50		6	±0.50	1.10	1.20	1.25	1.30		
FAT0310N50		10	±0.50	1.10	1.20	1.25	1.30		
FAT0320N50		20	±0.50	1.10	1.20	1.25	1.30		
FAT0330N50		30	±0.60	1.10	1.20	1.25	1.30		
FAT0340N50		40	±0.60	1.10	1.20	1.25	1.30		
FAT0303N80	DC-3	3	±0.60	1.10	1.20	1.25	1.30	80	
FAT0306N80		6	±0.60	1.10	1.20	1.25	1.30		
FAT0310N80		10	±0.60	1.10	1.20	1.25	1.30		
FAT0320N80		20	±1.0	1.15	1.25	1.30	1.35		
FAT0330N80		30	±1.0	1.15	1.25	1.30	1.35		
FAT0340N80		40	±1.0	1.15	1.25	1.30	1.35		
FAT0303N100	DC-3	3	±0.65	1.10	1.20	1.25	1.30	100	
FAT0306N100		6	±0.65	1.10	1.20	1.25	1.30		
FAT0310N100		10	±0.75	1.15	1.20	1.30	1.35		
FAT0320N100		20	±0.75	1.15	1.20	1.30	1.35		
FAT0330N100		30	±0.8	1.15	1.20	1.30	1.35		
FAT0340N100		40	±1.0	1.15	1.20	1.30	1.35		
FAT0303N150	DC-3	3	±0.65	1.10	1.20	1.25	1.30	150	
FAT0306N150		6	±0.65	1.10	1.20	1.25	1.30		
FAT0310N150		10	±0.75	1.15	1.25	1.30	1.35		
FAT0320N150		20	±0.75	1.15	1.25	1.30	1.35		
FAT0330N150		30	±1.0	1.15	1.20	1.30	1.35		
FAT0340N150		40	±1.0	1.15	1.25	1.30	1.35		

DC-3GHz 50W Outline Dimensions (unit: mm&inch)

DC-3GHz 80W Outline Dimensions (unit: mm&inch)

DC-3GHz 100W Outline Dimensions (unit: mm&inch)

DC-3GHz 150W Outline Dimensions (unit: mm&inch)

# Drum/Rotary Variable Attenuator

## 旋鼓/旋钮式可变衰减器

### VAX Series (Step步进式) *New*



#### Features

- Input power: 2W,5W,10W
- Available in step adjusting
- Wide frequency range: DC ~6.0GHz
- Low VSWR, Low insertion loss
- Sealed structure moisture-proof & damp-proof, can be work outdoors in harsh condition
- Easy to operate, adjustment results visually readable
- Step series has locking devices within each attenuation, shock-proof capability
- Can reach over 5000 times adjustment.
- Easy to adjust, widely used in production line, or to be installed in the system & device for signal control

#### Applications

- DAS POI
- Indoor Repeater
- Wireless Signal Coverage
- RF Labs

Single-circle Drum-type step attenuator

Model	Attenuation Range (dB)	Frequency Range	Step Value	VSWR (Max)	Nominal Impedance	Input Power CW
VAX0601P1	0-1	DC to 6GHz	0.1	1.5	50Ω	5W,10W
VAX061001	0-10	DC to 6GHz	1	1.5	50Ω	5W,10W
VAX069010	0-90	DC to 6GHz	10	1.5	50Ω	5W,10W



Dual-circle Drum-type step attenuator

Model	Attenuation Range (dB)	Frequency Range	Step Value	VSWR (Max)	Nominal Impedance	Input Power CW
VAX061101	0-11	DC to 6GHz	1	1.3	50Ω	5W,10W
VAX067001	0-70	DC to 6GHz	1	1.3	50Ω	5W,10W
VAX069001	0-90	DC to 6GHz	1	1.3	50Ω	5W,10W



Dual-circle Rotary step attenuator

Model	Attenuation Range (dB)	Frequency Range	Step Value	VSWR (Max)	Nominal Impedance	Input Power CW
VAB061101	0-11	DC to 6GHz	1	1.3	50Ω	5W,10W
VAB067001	0-70	DC to 6GHz	1	1.3	50Ω	5W,10W
VAB069001	0-90	DC to 6GHz	1	1.3	50Ω	5W,10W



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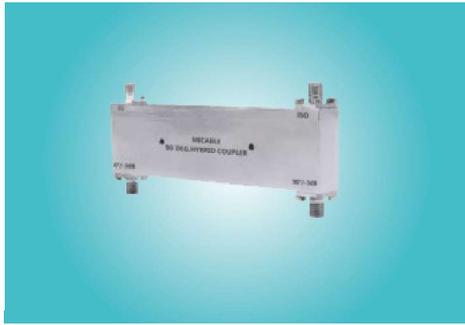
Technical support:+86-755-8355-1211(International)

WhatsApp: +86 19983190231 E-mail: sales-baiotech@rfcomphub.com

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## 宽带大功率腔体3dB电桥



### 特点:

- 超低损耗
- 驻波小
- 隔离度高
- 优越幅度平衡度和相位平衡度
- 原位替代
- 高可靠性
- 产品一致性好

### 应用:

- 雷达
- 微波收发模组
- 微波功放系统

Part No.	Freq.Range (GHz) fL- fU	Power (W)	Size L×W×H (mm)	Return Loss (dB)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (degrees)	Isolation (dB)
HC9300C03	0.6~18	30	35.6×173.7×12.7	16	3	±1	90±8	16
HC3150C03	0.3~6	30	35×280×14	14	2.2	±1.1	90±7	16
HC2300C03	6~40	20	21.9×43.7×12.7	12	2	±1.2	90±10	15
HC3825C03	26.5~50	20	21.9×43.7×12.7	11	2.7	±1	90±11	14
HC3400C03	18~50	20	21.9×43.7×12.7	11	2.6	±0.9	90±12	13
HC7200C03	2~12.4	30	33×72.4×12.7	16	1.1	±0.6	90±5	18
HC1625C03	6~26.5	30	21.9×43.7×12.7	13	1.8	±0.7	90±8	15

## 宽带大功率腔体定向耦合器

Part No.	Freq.Range (GHz)	Power (W)	Size L×W×H (mm)	Insertion Loss (dB)	Mean Coupling (dB)	Directivity (dB)	Return (dB)
DC1500W20	1~40	20	88.9×12.7×17.8	1.9	20±0.7	10	11.7
DC1650W20	6~40	20	31.8×12.7×15.9	1.6	10±0.7	10	12.7
DC3000W20	6~67	12	31.8×12.7×15.9	2.5	10±1.1	7	10.2
DC4000W10	0.5~50	20	111.8×12.7×17.8	3.6	10±1.2	8	10.9
DC4000W20	18~65	12	31.8×12.7×15.9	1.9	20±1.0	7	10.2

## 产品线原位替代



BIAST偏置电路



温度补偿衰减器、固定衰减片、金刚石负载



功分器、巴伦、耦合器、电桥、衰减器



宽带大功率电桥、双定相耦合器

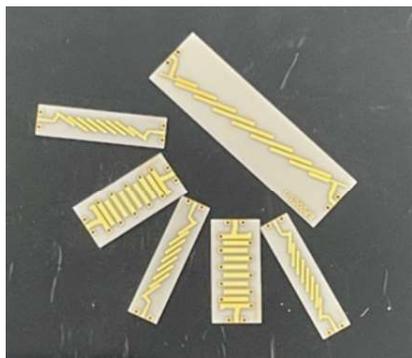


薄膜微带滤波器、薄膜微带耦合器、功分器、兰格桥



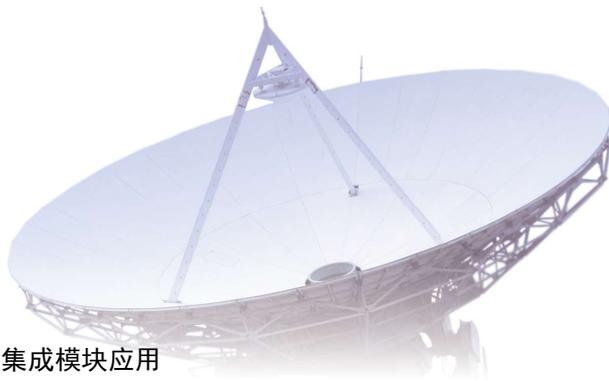
电桥、定向耦合器、功分器

## 薄膜微带低通滤波器



### 产品特点

- 小型化
- 高可靠性
- 温度范围宽
- 50 Ω 共面波导输出
- 金丝键合, 适用多芯片集成模块应用

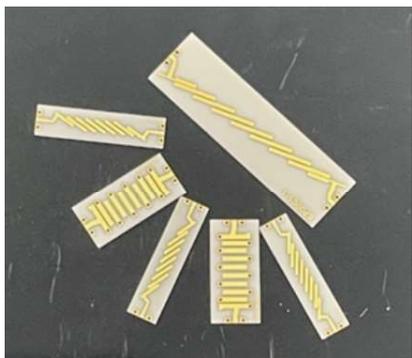


### 产品应用

- 微波通信
- 雷达
- 电子对抗

Model	IL0@ f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)	VSWR	Size(mm)
YTFLP4-9	≤2.0	DC-4.0	≥40dBc@5.15GHz	≤1.6	7.36*5.3*0.26
YTFLP4R4-9	≤2.0	DC-4.4	≥40dBc@5.8GHz	≤1.6	7.5*5.0*0.26
YTFLP8-9	≤1.5	DC-8	≥40dBc@12.0GHz	≤1.5	9.0*3.0*0.26
YTFLP11-9	≤1.5	DC-11	≥40dBc@15.1GHz	≤1.5	7.7*3.0*0.26
YTFLP14-9	≤1.5	DC-14	≥40dBc@19.0GHz	≤1.5	7.6*3.0*0.26
YTFLP15-9	≤1.5	DC-15	≥40dBc@20.0GHz	≤1.5	7.1*3.0*0.26
YTFLP16-9	≤2.0	DC-16	≥40dBc@19.0GHz	≤1.5	5.0*2.0*0.26
YTFLP17-9	≤2.0	DC-17	≥40dBc@22.0GHz	≤1.5	5.5*1.6*0.26
YTFLP21-9	≤2.0	DC-21	≥40dBc@26.0GHz	≤1.5	5.0*1.6*0.26
YTFLP23-9	≤1.5	DC-23	≥40dBc@28.8GHz	≤1.8	4.3*2.0*0.26

## 薄膜微带带通滤波器



### 产品特点

- 小型化
- 高可靠性
- 温度范围宽
- 50 Ω 共面波导输出
- 金丝键合, 适用多芯片集成模块应用

### 产品应用

- 微波通信
- 雷达
- 电子对抗

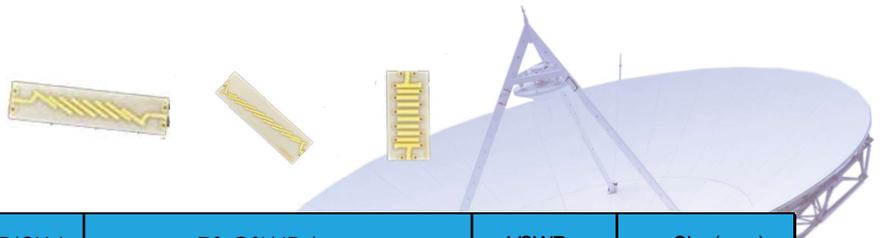
Model	IL0@ f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)		VSWR	Size(mm)
YTFBP5R5/1R2-10JA	≤3.0	4.9-6.1	≥40dBc@4.0GHz	≥40dBc@7.6GHz	≤1.8	8.0*6.0*0.26
YTFBP6R2/1R2-10JA	≤3.0	5.6-6.8	≥40dBc@4.9GHz	≥40dBc@7.5GHz	≤1.8	8.5*5.5*0.26
YTFBP6R25/3-8ID	≤2.5	4.75-7.75	≥40dBc@2.5GHz	≥40dBc@9.55GHz	≤1.5	6.0*6.0*0.39
YTFBP6R5/1R2-11ID	≤1.5	5.9-7.1	≥40dBc@4.7GHz	≥40dBc@8.1GHz	≤1.6	8.5*6.0*0.26
YTFBP7R15/1R9-8JA	≤2.5	6.2-8.1	≥40dBc@5.2GHz	≥40dBc@9.5GHz	≤1.8	5.5*5.0*0.26

# 薄膜微带带通滤波器



Model	IL0@f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)		VSWR	Size(mm)
YTFBP7R25/3R5-11ID	≤2.5	5.5-9.0	≥40dBc@4.0GHz	≥40dBc@11.0GHz	≤1.6	7.0*5.0*0.26
YTFBP7R45/R6-9ID	≤3.0	7.15-7.75	≥40dBc@6.5GHz	≥40dBc@8.52GHz	≤1.5	10.4*4.9*0.26
YTFBP7R45/2R9-8JA	≤2.0	6.0-8.9	≥40dBc@4.75GHz	≥40dBc@11GHz	≤1.8	5.5*5.0*0.26
YTFBP7R7/3-10ID	≤2.0	6.2-9.2	≥40dBc@4.0GHz	≥40dBc@11.5GHz	≤1.6	6.0*5.5*0.26
YTFBP7R8/1-6ID	≤2.0	7.3-8.3	≥30dBc@6.3GHz	≥40dBc@9.25GHz	≤1.5	6.0*4.9*0.26
YTFBP7R8/R6-7ID	≤2.5	7.5-8.1	≥40dBc@6.7GHz	≥40dBc@9.3GHz	≤1.5	9.6*4.9*0.26
YTFBP8R2/1R6-10JA	≤3.5	7.4-9.0	≥40dBc@6.4GHz	≥40dBc@10.35GHz	≤1.8	7.5*5.0*0.26
YTFBP8R5/1R2-10JA	≤2.5	7.9-9.1	≥40dBc@6.7GHz	≥40dBc@10.3GHz	≤1.8	8.0*4.0*0.26
YTFBP9/2R3-9ID	≤2.0	7.85-10.15	≥40dBc@6.0GHz	≥40dBc@11.5GHz	≤1.5	7.0* 4.5 *0.26
YTFBP9R1/2R4-10JA	≤2.5	7.9-10.3	≥40dBc@6.7GHz	≥40dBc@12.3GHz	≤1.8	7.0*4.0*0.26
YTFBP9R4/2R4-10JA	≤2.5	8.2-10.6	≥40dBc@6.8GHz	≥40dBc@12.7GHz	≤1.8	7.0*4.0*0.26
YTFBP9R6/R8-7SA	≤4.0	9.2-10.0	≥40dBc@8.3GHz	≥40dBc@10.8GHz	≤1.8	6.4*3.5*0.26
YTFBP9R7/3-8JA	≤2.0	8.2-11.2	≥40dBc@6.7GHz	≥40dBc@13.2GHz	≤1.8	5.5*3.5*0.26
YTFBP9R7/3R2-10JA	≤2.5	8.1-11.3	≥40dBc@6.6GHz	≥40dBc@14.3GHz	≤1.8	6.5*3.5*0.26
YTFBP9R7/4R2-9ID	≤2.5	7.6-11.8	≥40dBc@5.2GHz	≥40dBc@13.9GHz	≤1.6	7.0*4.0*0.26
YTFBP9R75/1R3-7ID	≤2.0	9.1-10.4	≥40dBc@7.5GHz	≥40dBc@11.4GHz	≤1.5	7.0*4.0*0.26
YTFBP9R8/2R2-10JA	≤2.5	8.7-10.9	≥40dBc@7.75GHz	≥40dBc@13GHz	≤1.8	7.5*3.8*0.26
YTFBP10/4-9ID	≤2.5	8.0-12.0	≥40dBc@5.6GHz	≥40dBc@14GHz	≤1.6	7.0*4.0*0.26
YTFBP10R2/4-8JA	≤2.0	8.2-12.2	≥40dBc@6.8GHz	≥40dBc@14.7GHz	≤1.8	5.5*3.5*0.26
YTFBP10R2/5-9ID	≤2.0	7.7-12.7	≥40dBc@5.4GHz	≥40dBc@14.8GHz	≤1.5	7.0*4.0*0.26
YTFBP10R45/4R5-8JA	≤2.0	8.2-12.7	≥40dBc@6.6GHz	≥40dBc@15.6GHz	≤1.8	5.5*3.5*0.26
YTFBP10R75/1R3-9ID	≤3.0	10.1-11.4	≥30dBc@9.3GHz	≥40dBc@12.5GHz	≤1.6	9.4*3.1*0.26
YTFBP10R8/2R4-10JA	≤2.2	9.6-12.0	≥40dBc@8.45GHz	≥40dBc@14.2GHz	≤1.6	7*3.5*0.26
YTFBP11/1R2-5ID	≤1.5	10.4-11.6	≥40dBc@8.5GHz	≥40dBc@13.0GHz	≤1.5	6.8*3.1*0.26
YTFBP11R3/3R8-8JA	≤2.0	9.4-13.2	≥40dBc@7.9GHz	≥40dBc@15.6GHz	≤1.8	5.5*3.5*0.26
YTFBP11R35/3R9-10JA	≤2.5	9.4-13.25	≥40dBc@8.2GHz	≥40dBc@15.6GHz	≤1.6	7.0*3.5*0.26
YTFBP11R4/2R4-7ID	≤2.0	10.2-12.6	≥40dBc@8.0GHz	≥40dBc@14.5GHz	≤1.6	7*3.6*0.26
YTFBP11R5/1R2-5SA	≤2.5	10.9-12.1	≥40dBc@9.0GHz	≥40dBc@13.6GHz	≤1.8	4*3.2*0.26
YTFBP 11R8/2R6-10JA	≤2.5	10.5-13.1	≥40dBc@9.35GHz	≥40dBc@15.1GHz	≤1.8	7.0*3.5*0.26

# 薄膜微带带通滤波器



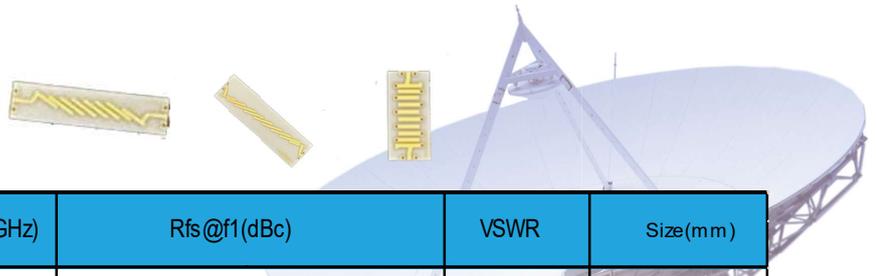
Model	IL@ f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)	VSWR	Size(mm)
YTFBP12R4/R8-7ID	≤ 2.5	12.0- 12.8	≥40dBc@10.0GHz ≥40dBc@14.0GHz	≤1.5	7.0*3.5*0.26
YTFBP 12R5/3-10JA	≤ 2.5	11.0-14	≥40dBc@9.7GHz ≥40dBc@15.7GHz	≤1.6	7.0*3.5*0.26
YTFBP12R6/4-9ID	≤2.0	10.6-14.6	≥40dBc@8.2GHz ≥40dBc@16.5GHz	≤1.6	7.4*3.1*0.26
YTFBP12R65/4R5-10JA	≤ 2.5	10.4-14.9	≥40dBc@8.8GHz ≥40dBc@17.1GHz	≤1.6	7.0*3.5*0.26
YTFBP12R8/R8-6CP	≤3.0	12.4-13.20	≥40dBc@11.6GHz ≥40dBc@13.9GHz	≤1.5	14.8*5.6*0.26
YTFBP12R85/2R3-10JA	≤2.5	11.7-14.0	≥40dBc@10.5GHz ≥40dBc@16GHz	≤1.8	7.0*3.0*0.26
YTFBP12R85/3R3-8JA	≤2.0	11.2-14.5	≥40dBc@9.7GHz ≥40dBc@16.6GHz	≤1.8	5.5*3.0*0.26
YTFBP12R9/3R4-10JA	≤2.5	11.2-14.6	≥40dBc@10.1GHz ≥40dBc@15.9GHz	≤1.8	6.5*3.0*0.26
YTFBP12R9/3-10JA	≤2.5	11.4-14.4	≥40dBc@10.1GHz ≥40dBc@16.5GHz	≤1.8	6.5*3.0*0.26
YTFBP12R9/1R2-7ID	≤2.5	12.3-13.5	≥40dBc@11.0GHz ≥40dBc@14.8GHz	≤1.5	8.9*2.9*0.26
YTFBP12R9/1R6-7ID	≤2.5	12.1-13.7	≥40dBc@10.5GHz ≥40dBc@15.0GHz	≤1.5	8.3*2.9*0.26
YTFBP13/4-9ID	≤2.5	11.0-15.0	≥40dBc@8.5GHz ≥40dBc@17GHz	≤1.8	6.0*3.2*0.26
YTFBP13R45/2R7-10JA	≤2.8	12.1-14.8	≥40dBc@10.7GHz ≥40dBc@17.6GHz	≤1.8	7*3*0.26
YTFBP13R9/1R4-9HP	≤3.5	13.2-14.6	≥40dBc@12.3GHz ≥40dBc@16.0GHz	≤1.5	11.5*3.5*0.26
YTFBP13R9/7-8ID	≤1.5	10.4-17.4	≥40dBc@7.1GHz ≥40dBc@19.9GHz	≤1.6	6.0*4.0*0.39
YTFBP14/1-9ID	≤3.0	13.5-14.5	≥45dBc@12GHz ≥40dBc@16GHz	≤1.8	9.0*3.0*0.26
YTFBP14R35/2R3-7ID	≤2.0	13.2-15.5	≥40dBc@10.5GHz ≥40dBc@17.2GHz	≤1.6	7.0*3.5*0.26
YTFBP14R75/2R9-8JA	≤2.5	13.3-16.2	≥40dBc@11.9GHz ≥40dBc@18.3GHz	≤1.8	6.0 *3.0*0.26
YTFBP14R75/5R5-10ID	≤3.0	12.0-17.5	≥55dBc@8GHz ≥55dBc@21GHz	≤1.8	7.0*2.5*0.26
YTFBP14R9/5R4-10JA	≤2.5	12.2-17.6	≥40dBc@10.6GHz; ≥40dBc@20.4GHz;	≤1.6	7.0*2.5*0.26
YTFBP14R95/1R9-10JA	≤3.0	14-15.9	≥40dBc@12.7GHz ≥40dBc@17.5GHz	≤1.8	8 *2.5*0.26
YTFBP15/2-6CP	≤1.5	14.0-16.0	≥40dBc@11.0GHz; ≥40dBc@18.5GHz;	≤1.5	12.0*4.0*0.26
YTFBP15/6R4-10JA	≤2.5	11.8-18.2	≥40dBc@8GHz; ≥40dBc@21GHz;	≤1.6	7.0*3.0*0.26
YTFBP15R25/R5-6HP	≤4.5	15.0-15.5	≥40dBc@13.8GHz ≥40dBc @17.0GHz	≤1.8	7.0*2.8*0.26
YTFBP15R4/4R2-10ID	≤2.5	13.3-17.5	≥40dBc@11.0GHz ≥40dBc@20.0GHz	≤1.8	6.5*3.0*0.26
YTFBP15R7/3-6ID	≤2.0	14.2-17.2	≥40dBc@10.0GHz ≥40dBc@19.0GHz	≤1.5	5.0*3.0*0.26
YTFBP15R8/R8-10JA	≤3.0	15.4-16.2	≥45dBc@14.0GHz ≥40dBc@18.0GHz	≤1.8	9.0*3.0*0.26
YTFBP15R8/2R4-8JA	≤2.5	14.6-17	≥40dBc@13.3Hz ≥40dBc@18.75GHz	≤1.8	6.5*2.5*0.26
YTFBP15R8/2-8ID	≤2.0	14.8-16.8	≥40dBc@13.0GHz ≥40dBc@18.0GHz	≤1.5	7.0*3.0*0.26
YTFBP15R9/5-8JA	≤2.0	13.4-18.4	≥40dBc@11.7Hz ≥40dBc@21.0GHz	≤1.8	5.5*2.5*0.26

# 薄膜微带带通滤波器



Model	IL0@f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)	VSWR	Size(mm)
YTFBP16/4-7ID	≤2.0	14.0-18.0	≥40dBc@10.0GHz ≥40dBc@20.2GHz	≤1.5	6.0*3.0*0.26
YTFBP16/6-12ID	≤2.0	13.0-19.0	≥40dBc@11.0GHz ≥40dBc@22.0GHz	≤1.5	6.5*3.0*0.26
YTFBP16R25/4R5-9ID	≤2.5	14.0-18.5	≥40dBc@11.5GHz ≥40dBc@20.0GHz	≤1.8	7.0*2.9*0.26
YTFBP16R25/3R9-10JA	≤2.7	14.3-18.2	≥40dBc@12.9GHz ≥40dBc@20.0GHz	≤1.8	7.0*2.5*0.26
YTFBP16R5/1R4-7HP	≤3.5	15.8-17.2	≥40dBc@14.6GHz ≥40dBc@18.9GHz	≤1.5	9.0*3.0*0.26
YTFBP16R65/3R1-10JA	≤2.7	15.1-18.2	≥40dBc@13.5GHz ≥40dBc@20.2GHz	≤1.8	7.5*2.5*0.26
YTFBP17/1R8-7ID	≤2.0	16.1-17.9	≥40dBc@13.5GHz ≥40dBc@19.7GHz	≤1.6	7.0*3.0*0.26
YTFBP17/2R8-10JA	≤3.0	15.6-18.4	≥40dBc@14.3GHz ≥40dBc@20.3GHz	≤1.8	7.5*2.5*0.26
YTFBP17R4/1R6-9HP	≤3.5	16.6-18.2	≥40dBc@15.3GHz ≥40dBc@19.5GHz	≤1.6	12.0*3.0*0.26
YTFBP17R65/1R9-10JA	≤2.5	16.7-18.6	≥40dBc@15.2GHz ≥40dBc@20.9GHz	≤1.8	7.5*2.5*0.26
YTFBP18/1-9ID	≤2.5	17.5-18.5	≥45dBc@16.0GHz ≥40dBc@20.0GHz	≤1.6	9.0*3.0*0.26
YTFBP18/1-6CP	≤3.0	17.5-18.5	≥40dBc@16.2GHz ≥40dBc@19.5GHz	≤1.5	10.2*4.0*0.26
YTFBP18/2R1-8ID	≤2.5	16.95-19.05	≥40dBc@14.5GHz ≥40dBc@20.35GHz	≤1.5	7.0*3.0*0.26
YTFBP18/8-8ID	≤1.5	14.0-22.0	≥40dBc@9.0GHz ≥40dBc@24.0GHz	≤1.8	4.3*2.5*0.26
YTFBP19R15/1R7-7SA	≤2.8	18.3-20	≥40dBc@16.6GHz ≥40dBc@20.7GHz	≤1.8	5.5*2.5*0.26
YTFBP19R5/5R4-10ID	≤2.5	16.8-22.2	≥60dBc@12.0GHz ≥30dBc@25.0GHz	≤1.6	7.5*2.5*0.26
YTFBP19R8/8-10JA	≤4.0	19.4-20.2	≥40dBc@18.0GHz ≥40dBc@22.0GHz	≤1.8	9.0*2.5*0.26
YTFBP19R9/2R2-9ID	≤3.0	18.8-21.0	≥40dBc@17.1GHz ≥40dBc@22.4GHz	≤1.6	8.0*2.5*0.26
YTFBP20R15/3R7-6ID	≤2.0	18.3-22.0	≥40dBc@12.6GHz ≥40dBc@24.5GHz	≤1.5	5.5*2.5*0.26
YTFBP21/4-8ID	≤2.0	19.0-23.0	≥40dBc@15.2GHz ≥40dBc@25.5GHz	≤1.6	5.0*2.5*0.26
YTFBP21R34/4-6ID	≤2.0	19.24-23.44	≥50dBc@12GHz ≥45dBc@29GHz	≤1.6	7.5*2.6*0.26
YTFBP21R2/8-6CP	≤4.0	20.85-21.55	≥40dBc@19.8GHz ≥40dBc@22.5GHz	≤1.5	11.0*3.0*0.26
YTFBP21R9/1R6-6CP	≤2.5	21.1-22.7	≥40dBc@20GHz ≥40dBc@24.5GHz	≤1.5	10.0*3.5*0.26
YTFBP22R1/8-9ID	≤4.5	21.8-22.4	≥40dBc@20GHz ≥40dBc@24GHz	≤1.5	9.0*2.0*0.26
YTFBP22R2/2R6-6CP	≤2.0	20.9-23.3	≥40dBc@19.0GHz ≥40dBc@25.7GHz	≤1.5	10.0*3.5*0.26
YTFBP22R5/8-6RA	≤3.5	22.1-22.9	≥40dBc@20.4GHz ≥40dBc@24.2GHz	≤1.8	5.0*2.5*0.26
YTFBP22R85/8-6CP	≤3.0	22.5-23.2	≥40dBc@20.3GHz ≥40dBc@24.4GHz	≤1.5	11.0*3.5*0.26
YTFBP23/2-6CP	≤2.0	22.0-24.0	≥40dBc@15.5GHz ≥40dBc@27GHz	≤1.6	8.4*2.5*0.26
YTFBP23/4-7CP	≤2.5	21-25	≥40dBc@19GHz ≥40dBc@27GHz	≤1.6	10.3*3.6*0.26
YTFBP23R5/9-10ID	≤2.0	19.0-28.0	≥40dBc@16.4GHz ≥40dBc@33.0GHz	≤1.6	8.0*2.5*0.39

# 薄膜微带带通滤波器



Model	IL0@f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)	VSWR	Size(mm)
YTFBP23R9/R6-6CP	≤4.0	23.6-24.2	≥40dBc@22.5GHz ≥40dBc@25.7GHz	≤1.5	9.2*2.9*0.26
YTFBP24/6-10ID	≤2.5	21-27	≥40dBc@18.5GHz ≥40dBc@33GHz	≤1.8	7.0*2.2*0.26
YTFBP24R3/1-9ID	≤4.5	23.8-24.8	≥40dBc@22GHz ≥40dBc@26GHz	≤1.6	9.0*2.0*0.26
YTFBP24R6/8R4-10ID	≤2.5	20.4.-28.8	≥40dBc@17.5GHz ≥40dBc@31.5GHz	≤1.8	9.0*2.5*0.39
YTFBP25R5/R9-6CP	≤3.5	25.1-26.0	≥40dBc@24.0GHz ≥40dBc@27.3GHz	≤1.8	9.5*3.0*0.26
YTFBP25R5/7-8ID	≤2.0	22.0 -29.0	≥40dBc@17.0GHz ≥40dBc@33.0GHz	≤1.6	6.0*2.0*0.26
YTFBP25R7/7-7ID	≤2.0	22.2-29.2	≥40dBc@ 17.0GHz ≥40dBc@33.0GHz	≤1.5	6.6*2.5*0.26
YTFBP25R7/2R6-8CP	≤2.5	24.4-27.0	≥40dBc@22.5GHz ≥40dBc@28.5GHz	≤1.5	9.0*2.5*0.26
YTFBP26/2-7ID	≤2.5	25.0-27.0	≥40dBc@22.2GHz; ≥20dBc@29.5GHz;	≤1.5	8.0*2.5*0.26
YTFBP26R5/8-8CP	≤2.0	22.5-30.5	≥40dBc@20.0GHz ≥40dBc@33.6GHz	≤1.5	10.5*2.5*0.26
YTFBP27/7R5-8ID	≤2.0	22.5-30.0	≥40dBc@18.0GHz ≥40dBc@34.0GHz	≤1.6	6.0*1.9*0.26
YTFBP27R65/1R5-6CP	≤2.5	26.9-28.1	≥40dBc@24.5GHz ≥40dBc@30GHz	≤1.6	8.0*3.0*0.26
YTFBP27R9/8R6-8ID	≤2.0	23.6-32.2	≥40dBc@18.0GHz ≥40dBc@35.0GHz	≤1.5	5.0*2.5*0.26
YTFBP28R5/5-6CP	≤1.5	26.0-31.0	≥40dBc@23.0GHz ≥20dBc@37.0GHz	≤1.5	7.5*2.6*0.26
YTFBP28R6/6R8-12ID	≤2.5	25.2-32.0	≥40dBc@21.5GHz ≥40dBc@34.0GHz	≤1.8	8.5*2.5*0.26
YTFBP29/6-8CP	≤2.0	26-32.0	≥40dBc@22.6GHz ≥40dBc@36.0GHz	≤1.8	9.5*2.5*0.26
YTFBP29/8-6CP	≤1.5	25.0-33.0	≥40dBc@20.0GHz ≥40dBc@40.0GHz	≤1.5	7.0*2.5*0.26
YTFBP29R2/4-6CP	≤1.5	27.2-31.2	≥40dBc@24.5GHz ≥40dBc@34.9GHz	≤1.5	8.0*3.0*0.26
YTFBP29R25/6R5-10ID	≤2.0	26-32.5	≥40dBc@22.0GHz ≥40dBc@35.0GHz	≤1.8	8.5*2.5*0.26
YTFBP29R35/5R1-6CP	≤2.0	27.0-31.2	≥40dBc@24GHz ≥40dBc@34.5GHz	≤1.5	8.0*2.0*0.26
YTFBP29R5/7-8CP	≤2.5	26.0-33.0	≥40dBc@24.5GHz ≥40dBc@38.0GHz	≤1.8	11*2.5*0.26
YTFBP30R3/8-8CP	≤1.5	26.7-34.3	≥40dBc@23.4GHz ≥30dBc@37.3GHz	≤1.5	9.5*2.5*0.26
YTFBP30R55/1R3-6CP	≤2.5	29.9-31.1	≥40dBc@27.8GHz ≥40dBc@33.1GHz	≤1.5	8.5*3.0*0.26
YTFBP30R8/3R6-9CP	≤2.5	29.3-32.3	≥40dBc@27.0GHz ≥40dBc@34.6GHz	≤1.6	10.5*2.5*0.26
YTFBP31/3-8CP	≤2.0	29.5-32.5	≥40dBc@27.0GHz ≥40dBc@35GHz	≤1.5	10.0*2.6*0.26
YTFBP32/2-6CP	≤2.0	31-33	≥40dBc@28.3GHz ≥40dBc@35.5GHz	≤1.5	8.0*3.0*0.26
YTFBP32/9-8CP	≤2.0	27.5-36.5	≥40dBc@18GHz ≥40dBc@42GHz	≤1.8	9.0*2.5*0.26
YTFBP33/4-6CP	≤2.0	31~35	≥40dBc@27.0GHz ≥40dBc@39.0GHz	≤1.6	7.5*3.0*0.26
YTFBP33R75/4R5-10CP	≤3.0	31.5-36	≥50dBc@29.0GHz ≥40dBc@38.5GHz	≤1.8	11.0*2.5*0.26
YTFBP34/4-6CP	≤1.5	32-36	≥40dBc@28.0GHz ≥40dBc@41.66GHz	≤1.6	7.5*2.3*0.26

# 薄膜微带带通滤波器



Model	IL0@f0(dB)	BW1dB(GHz)	Rfs@f1(dBc)		VSWR	Size(mm)
YTFBP34/4-8CP	≤1.5	32-36	≥40dBc@29.0GHz	≥60dBc@41.66GHz	≤1.6	9.5*2.3*0.26
YTFBP34/4-10CP	≤3.0	32-36	≥50dBc@29.5GHz	≥40dBc@38.5GHz	≤1.8	11.0*2.5*0.26
YTFBP34R3/4R8-6CP	≤2.0	31.9-36.7	≥40dBc@28.2GHz	≥40dBc@40.0GHz	≤1.5	7.0*2.5*0.26
YTFBP34R3/11R4-12CP	≤2.0	28.6-40	≥40dBc@20GHz	≥40dBc@42.9GHz	≤1.8	12.0*2.5*0.26
YTFBP34R5/3R4-6CP	≤2.5	32.8-35.8	≥40dBc@29.6GHz	≥40dBc@38GHz	≤1.6	8.0*3.0*0.26
YTFBP34R6/1R4-6CP	≤2.5	34.15-35.3	≥40dBc@31.5GHz	≥40dBc@37.7GHz	≤1.6	8.5*3.0*0.26
YTFBP34R6/10R2-8CP	≤2.0	29.5-39.7	≥40dBc@26.2GHz	≥40dBc@44.5GHz	≤1.6	8.5*2.0*0.26
YTFBP35/10-8CP	≤2.0	30-40	≥50dBc@20GHz	≥40dBc@45GHz	≤1.6	8.0*1.9*0.26
YTFBP35R6/R4-6CP	≤4.0	35.4-35.8	≥40dBc@34.0GHz	≥40dBc@37.0GHz	≤1.8	9.5*2.6*0.26
YTFBP35R6/R8-6CP	≤3.5	35.2-36	≥40dBc@33.0GHz	≥40dBc@37.3GHz	≤1.8	9.5*2.6*0.26
YTFBP35R7/4-8CP	≤2.0	33.7-37.7	≥40dBc@30.5GHz	≥40dBc@40.0GHz	≤1.6	9.0*2.6*0.26
YTFBP36/2-6CP	≤2.5	35.0-37.0	≥40dBc@32.0GHz	≥40dBc@40.0GHz	≤1.5	8.5*3.0*0.26
YTFBP37R75/5R5-8CP	≤3.0	35-40.5	≥40dBc@32.0GHz	≥40dBc@44.0GHz	≤1.8	10*2.5*0.26
YTFBP38/R8-4CP	≤3.0	37.6-38.4	≥50dBc@34.0GHz	≥50dBc@41.0GHz	≤1.5	7.0*1.9*0.26
YTFBP42/5-8ID	≤3.0	39.5-44.5	≥40dBc@24.0GHz	≥40dBc@60.0GHz	≤1.8	4.0*2.0*0.127

## 宽带巴伦-绕线贴片式封装(替换MINI)



### 特性:

- 宽频带特性
- 优越的射频特性
- 小尺寸
- 尺寸&管脚国际兼容
- 绕线式贴片封装

### 应用:

- 微波通信
- 第一代/第二代电台
- 雷达
- 微波收发模块

研通型号	频率范围(MHz)	阻抗	阻抗比
YT-ADT1-6T+	0.03-125	50	1
YT-ADT1.5-1+	0.5-650	50	1.5
YT-ADT2-1T+	0.4-450	50	2
YT-ADT2-1T-1P+	8-600	50	2
YT-ADT3-1T+	1-500	50	3
YT-ADT3-6T+	0.06-400	50	3
YT-ADT4-1T+	9-625	50	4
YT-ADT4-1WT+	2-775	50	4
YT-ADT4-5WT+	0.3-500	50	4
YT-ADT4-6T+	0.06-300	50	4
YT-ADT4-6WT+	0.5-600	50	4
YT-ADT8-1T+	0.1-130	50	8
YT-ADT9-1T+	1-250	50	9
YT-ADT16-1T+	1.5-160	50	16

研通型号	频率范围(MHz)	阻抗	阻抗比
YT-ADT16-6T+	0.1-70	50	16
YT-JT-1975+	0.04-80	50	2.5
YT-JTX-4-10T+	50-1000	50	4
YT-T1-1T+	0.08-200	50	1
YT-T1-6T+	0.015-300	50	1
YT-T2-1T-X65+	0.07-200	50	2
YT-T2.5-6T+	0.01-100	50	2.5
YT-T3-1T+	0.05-250	50	3
YT-T3-1T-X65+	0.05-250	50	3
YT-T4-1+	0.2-350	50	4
YT-T4-1-KK81+	0.2-350	50	4
YT-T4-1H+	10-350	50	4
YT-T4-6T+	0.02-250	50	4
YT-T5-1T+	0.3-300	50	5

## 宽带巴伦-绕线贴片式封装(替换MINI)



研通型号	频率范围(MHz)	阻抗	阻抗比
YT-T5-1T-KK81+	0.3-300	50	5
YT-T8-1T-X65+	0.3-140	50	8
YT-T13-1T+	0.3-120	50	13
YT-T13-1T-X65+	0.3-120	50	13
YT-T16-6T+	0.03-75	50	16
YT-T16-6T-X65+	0.03-75	50	16
YT-TC1-1T+	0.4-500	50	1
YT-TC1.5-52T+	0.5-550	50	1.5
YT-TC1.5-52TX+	0.5-550	50	1.5
YT-TC2-1T+	3-300	50	2
YT-ADTL1-12+	20-1200	50	1
YT-ADTL2-18+	30-1800	50	2
YT-SBTX2-113-2W+	2600-11000	50	2
YT-SCTX1-83-2W+	10-8000	50	1
YT-SCTX2-93-2W+	10-9000	50	2
YT-SYTX1-52HP-15W+	20-520	50	1
YT-TC1-1-13M+	4.5-3000	50	1

研通型号	频率范围(MHz)	阻抗	阻抗比
YT-TC1-1-43X+	650-4000	50	1
YT-TC1-15X+	350-1500	50	1
YT-TCL1-11+	600-1100	50	1
YT-TCL1-19+	800-1900	50	1
YT-TCM2-672X+	1700-6700	50	2
YT-TCM4-25+	500-2500	50	4
YT-TCM4-452X+	20-4500	50	4
YT-TX4-62HP+	20-600	50	4
YT-TXA4-512HP+	30-512	50	4
YT-TCM1-43X+	10-4000	50	1
YT-TCM1-63AX+	10-6000	50	1
YT-TCM1-83X+	10-8000	50	1
YT-TCM2-43X+	10-4000	50	2
YT-TCM2-63WX+	30-6000	50	2
YT-TC1-1T-152X+	5-1500	50	1
YT-TCM2-33WX+	10-3000	50	2
YT-TCM2-33X+	30-3000	50	2
YT-ADT2-162T+	20-1600	50	2

## 宽带耦合器-绕线贴片式封装(替换MINI)



特性:

- 宽频带特性
- 低插入损耗
- 好的相位平衡度
- 好的幅度平衡度
- 优越的射频特性
- 坚固的屏蔽外壳
- 小尺寸
- 尺寸&管脚国际兼容
- 绕线式贴片封装

应用:

- 微波通信
- 第一代/第二代电台
- 雷达
- 微波收发模块

研通型号	指标描述	频率范围 (MHz)	耦合度 (dB)	损耗 (dB)	方向性 (dB)	驻波	最大功率 (W)
YT-ADCB-20-82+	20.2dB SMT Bi-Directional Coupler, 1-800MHz	1-800	20.2	≤0.3	24	≤1.2	1
YT-SYDC-20-31HP+	20.5dB SMT Bi-Directional Coupler, 1.5-30mhz	1.5-30	20.5	≤0.06	33	≤1.13	50
YT-SYDC-20-61HP+	20db SMT Bi-Directional Coupler, 1.5-60mhz	1.5-60	20	≤0.1	35	≤1.05	15
YT-ADC-26-52+	26db SMT Directional Coupler, 10 - 500 MHz	10-500	26	≤0.2	25	≤1.1	5
YT-DBTC-7-152+	7 dB SMT Directional Coupler, 10 - 1500 MHz	10-1500	7	≤2.2	32	≤1.4	0.5
YT-SYBDC-15-52VHP+	15dB SMT Bi-Directional Coupler, 10-520MHz	10-520	15	≤0.5	18	≤1.06	30
YT-SYDC-10-62HP+	9.8dB SMT Bi-Directional Coupler, 10-600MHz	10-600	9.8	≤0.9	23	≤1.2	20

# 宽带耦合器-绕线贴片式封装(替换MINI)



研通型号	指标描述	频率范围 (MHz)	耦合度 (dB)	损耗 (dB)	方向性 (dB)	驻波	最大功率 (W)
YT-SYDC-18-23+	18db SMT Bi-Directional Coupler, 10 - 2000 MHz	10-2000	18	≤0.7	20	≤1.25	2
YT-SYDC-20-62HP+	19.8 dB SMT Bi-Directional Coupler, 10 - 540 MHz	10-540	19.8	≤0.2	28	≤1.1	25
YT-TCD-10-1W+	10.3 dB SMT Directional Coupler, 10 - 750 MHz	10-750	10.3	≤1.2	18	≤1.3	1
YT-ADC-20-12+	20 dB SMT Directional Coupler, 100- 1200 MHz	100-1200	20	≤0.5	26	≤1.17	1
YT-ADC-20-132+	20 dB SMT Directional Coupler, 100- 1300 MHz	100-1300	20	≤0.4	22	≤1.43	4
YT-SYBDC-15-13HP+	15.8dB SMT Bi-Directional Coupler, 100 - 1000MHz	100-1000	15.8	≤0.75	20	≤1.15	10
YT-SYDC-7-651HP+	7.3dbSMTDirectionalCoupler10-1500mhz,10-650MHz	10-650	7.3	≤0.6	21	≤1.15	10
YT-SYDC-10-42HP+	10dbSMTDirectionalCoupler10-1500mhz,10-400MHz	10-400	10	≤0.4	18	≤1.1	16
YT-SYD-20-33+	20.8 dB SMT Directional Coupler, 30 - 3000 MHz	30-3000	20.8	≤1.6	15	≤1.2	1
YT-SYDC-10-52VHP+	10 dB SMT Bi-Directional Coupler, 30 - 512 MHz	30-512	10	≤1	19	≤1.18	35
YT-SYDC20-171VHP+	20 dB SMT Directional Coupler, 30 - 174 MHz	30-174	20	≤0.19	18	≤1.1	100
YT-LRDC-20-2	20.5 dB SMT Directional Coupler, 300 - 1100 MHz	300-1100	20.5	≤0.25	17	≤1.2	2
YT-ADC-20-4+	20 dB SMT Directional Coupler, 5 - 1000 MHz	5-1000	20	≤0.5	21	≤1.1	1
YT-JDC-10-2	10 dB SMT Directional Coupler, 5 - 750 MHz	5-750	10	≤1	20	≤1.13	1
YT-JDC-10-4	10.5 dB SMT Directional Coupler, 5 - 1000 MHz	5-1000	10.5	≤1.3	23	≤1.15	1
YT-LRDC-10-1+	10.7 dB SMT Directional Coupler, 5 - 500 MHz	5-500	10.7	≤0.9	31	≤1.2	1
YT-TCD-9-1W+	8.9 dB SMT Directional Coupler, 5 - 2000 MHz	5-2000	8.9	≤1.5	17	≤1.5	1
YT-TCD-12-222X+	12.6 dB SMT Directional Coupler, 5 - 2250 MHz	5-2250	12.6	≤2	10	≤1.43	1
YT-TCD-13-4+	13 dB SMT Directional Coupler, 5 - 1000 MHz	5-1000	13	≤0.7	18	≤1.2	1
YT-TCD-17-282X+	17 dB SMT Directional Coupler, 5 - 2850 MHz	5-2850	17	≤1.9	10	≤1.4	1
YT-TCD-18-4X+	17.9 dB SMT Directional Coupler, 5 - 1000 MHz	5-1000	17.9	≤0.7	20	≤1.2	1
YT-TCD-20-4+	20 dB SMT Directional Coupler, 5 - 1000 MHz	5-1000	20	≤0.4	21	≤1.2	1
YT-DBTC-17-5+	17.2 dB SMT Directional Coupler, 50 - 2000 MHz	50-2000	17.2	≤1	20	≤1.2	2
YT-JDC-20-1W	19.5 dB SMT Directional Coupler, 50 - 750 MHz	50-750	19.5	≤0.5	22	≤1.2	0.5
YT-JDC-20-5	20.5 dB SMT Directional Coupler, 50 - 1500 MHz	50-1500	20.5	≤1	22	≤1.2	0.5
YT-SEDC-10-63+	10 dB SMT Directional Coupler, 50 - 6000 MHz	50-6000	10	≤4	27	≤1.5	1
YT-SYDC-6-13HP+	5.6 dB SMT Directional Coupler, 50 - 1000 MHz	50-1000	5.6	≤0.8	17	≤1.33	10

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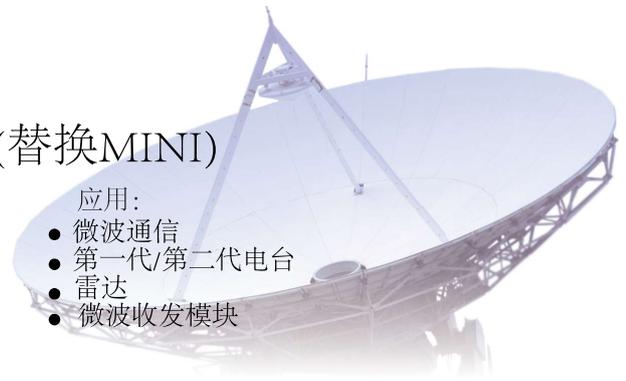
<https://BaiAotech.RFCompHub.com>

# 宽带二路/四路功分器-绕线贴片式封装(替换MINI)



- 特性:
- 宽频带特性
  - 好的相位平衡度
  - 好的幅度平衡度
  - 坚固的屏蔽外壳
  - 小尺寸
  - 尺寸&管脚国际兼容
  - 绕线式贴片封装

- 应用:
- 微波通信
  - 第一代/第二代电台
  - 雷达
  - 微波收发模块



研通型号	通带频率 (MHz)	隔离度 (dB)	插入损耗 (dB)	相位不平衡度(°)	幅度不平衡度(°)	功率输入(W) 最大分配器	输出口数
YT-ADP-2-1+	0.5-400	≥25	≤4	≤2	≤0.2	0.5	2
YT-ADP-2-1W	1-650	≥30	≤4	≤2	≤0.2	2	2
YT-ADP-2-4	10-1000	≥23	≤4	≤3	≤0.2	1	2
YT-ADP-2-9+	200-900	≥27	≤4	≤2	≤0.3	0.5	2
YT-ADP-2-10	5-1000	≥23	≤4	≤2	≤0.2	0.5	2
YT-ADP-2-20	20-2000	≥18	≤4	≤3	≤0.3	1	2
YT-JPS-2-1	1-100	≥30	≤4	≤2	≤0.2	1	2
YT-JPS-2-1+	1-500	≥30	≤4	≤2	≤0.2	1	2
YT-JPS-2-1N	350-550	≥30	≤4	≤3	≤0.3	1	2
YT-JPS-2-1W+	3-750	≥28	≤4	≤2	≤0.3	1	2
YT-JPS-2-4+	100-1000	≥22	≤4	≤5	≤0.4	1	2
YT-JPS-2-900+	400-900	≥24	≤4	≤3	≤0.4	1	2
YT-LRPS-2-1+	5-500	≥33	≤4	≤2	≤0.2	1	2
YT-LRPS-2-4J+	10-1000	≥23	≤4	≤3	≤0.2	1	2
YT-LRPS-2-11+	20-2000	≥21	≤4	≤3	≤0.3	1	2
YT-LRPS-2-25	1700-2500	≥20	≤4	≤10	≤0.9	1	2
YT-LRPS-2-25+	1700-2500	≥20	≤4	≤10	≤0.9	1	2
YT-LRPS-2-980+	800-980	≥30	≤4	≤3	≤0.5	1	2
YT-RPS-2-30+	10-3000	≥22	≤4	≤4	≤0.6	0.5	2
YT-SBTC-2-10+	5-1000	≥18	≤4	≤3	≤0.5	0.5	2
YT-SBTC-2-20+	200-2000	≥20	≤4	≤10	≤0.8	0.5	2
YT-SBTC-2-22-75+	500-2150	≥28	≤4	≤2	≤0.7	0.5	2
YT-SBTC-2-25+	1000-2500	≥20	≤4	≤14	≤1.2	1	2
YT-SBTC-2-25LX+	1000-2500	≥20	≤4	≤14	≤1.2	1	2
YT-SCP-2-1+	0.1-400	≥30	≤4	≤2	≤0.2	1	2
YT-SCP-2-1A+	1-550	≥25	≤4	≤2	≤0.2	1	2
YT-SCR-2-682W+	DC-6800	≥19	≤4	≤3	≤0.3	0.5	2
YT-SYPS-2-1+	2-500	≥32	≤4	≤3	≤0.3	1	2
YT-SYPS-2-22HP+	2-200	≥22	≤4	≤1.5	≤0.1	5	2

## 宽带二路/四路功分器-绕线贴片式封装(替换MINI)

研通型号	通带频率 (MHz)	隔离度 (dB)	插入损耗 (dB)	相位不平衡度(°)	幅度不平衡度(°)	功率输入(W) 最大分配器	输出口数
YT-SYPS-2-33+	400-3000	≥21	≤4	≤1	≤0.1	0.5	2
YT-SYPS-2-52HP+	10-540	≥25	≤4	≤1.5	≤0.1	15	2
YT-SYPS-2-252+	5-2500	≥18	≤4	≤3	≤0.3	0.5	2
YT-TCP-2-10+	5-1000	≥25	≤4	≤4	≤0.6	0.5	2
YT-TCP-2-25+	200-2500	≥18	≤4	≤6	≤0.6	0.5	2
YT-TCP-2-33+	1000-3000	≥18	≤4	≤5	≤0.9	0.5	2
YT-TCP-2-33W+	50-3000	≥21	≤4	≤1.6	≤0.4	0.5	2
YT-TCP-2-33X+	1000-3000	≥18	≤4	≤5	≤0.9	0.5	2
YT-TCP-2-272+	5-2700	≥20	≤4	≤2	≤0.3	0.5	2
YT-AD3PS-1+	1-300	≥35	≤6	≤4	≤0.3	0.5	3
YT-JPS-3-1+	5-300	≥33	≤6	≤4	≤0.4	1	3
YT-JPS-3-1W+	50-750	≥26	≤6	≤7	≤0.6	1	3
YT-LRPS-3-1	10-300	≥25	≤6	≤3	≤0.3	1	3
YT-LRPS-3-1J+	10-300	≥25	≤6	≤3	≤0.3	1	3
YT-LRPS-3-850+	500-850	≥23	≤6	≤8	≤0.9	1	3
YT-SCA-3-11+	100-940	≥20	≤6	≤7	≤0.7	0.5	3
YT-SCP-3-1+	1-300	≥25	≤6	≤2	≤0.15	1	3
YT-SYPS-3-12W+	20-1200	≥22	≤6	≤4	≤0.7	1	3
YT-SYPS-3-142W+	5-1450	≥19	≤6	≤5	≤0.5	1	3
YT-AD4PS-1+	1-500	≥30	≤7	≤5	≤0.5	0.5	4
YT-JS4PS-1	80-520	≥36	≤7	≤5	≤0.5	0.75	4
YT-JS4PS-1W+	5-1000	≥26	≤7	≤5	≤0.7	0.5	4
YT-SC4PS-33+	300-3000	≥17	≤7	≤7	≤0.4	1	4
YT-SCA-4-132+	5-1300	≥21	≤7	≤8	≤0.9	0.5	4
YT-SCP-4-1+	1-400	≥26	≤7	≤4	≤0.3	1	4
YT-SCP-4-1W+	10-650	≥23	≤7	≤7	≤0.4	1	4
YT-SCP-4-4+	800-1000	≥24	≤7	≤12	≤1	1	4
YT-SCPS-4-62+	1-650	≥26	≤7	2	≤0.3	1	4
YT-SRSC-4-63+	DC-6000	≥7	≤7	≤14	≤1.2	0.2	4
YT-AD5PS-1+	1-400	≥25	≤8	≤6	≤0.4	0.5	5
YT-SCP-5-1+	2-200	≥29	≤8	≤3	≤0.3	1	5
YT-AD6PS-1+	2-250	≥30	≤9.5	≤6	≤0.4	0.5	6
YT-JCPS-6-3	75-425	≥23	≤9.5	≤9	≤0.7	0.25	6
YT-JCPS-8-850	10-850	≥25	≤11.5	≤10	≤0.7	1	8
YT-JCPS-8-850+	10-850	≥25	≤11.5	≤10	≤0.7	1	8
YT-SEPS-8-272+	700-2700	≥20	≤1.8	≤7	≤1	5	8

# Non-abrupt Change Variable Attenuator 无突变可变衰减器

VAS Series, Step 步进式 (DC ~ 6GHz)

International patent product

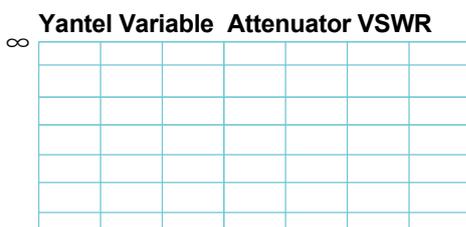
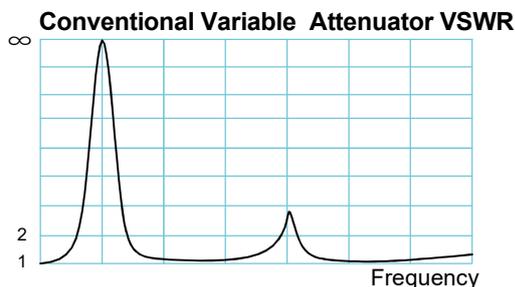
China Patent No.: CN 2008 8 0001111

USA Patent No.: US 8,212,648 B2

EU Patent No.: EP2190116A4



■ Abrupt change of reflection occurs in conventional variable attenuator when adjusting attenuation, resulted in RF Power Amplifier being burnt.



## Features

- Using advanced microstrip technology, ultra-small size
- High RF performance, ultra-competitive price
- Wide frequency range: DC to 6 GHz
- Low VSWR :1.1 ~ 1.5
- Low attenuation tolerance, low insertion loss.
- Adjusting the transmitting (receiving) distance of RF signal precisely. Adjusting accuracy is limited to 5cm.
- Wide attenuation values available are 1, 2, 3, 4, 5, 6, 8, 9, 10 and 12 dB.
- High adjustment accuracy
- Power rating: 2W, 5W
- Impedance: 50Ω or 75Ω
- Switch repeatability avg.>10000 operations(5000 cycles) per switch.
- PC(Polycarbonate) switch, operating temperature up to 120 °C
- It adopts an innovative technology, and thus it eliminates sudden big reflection in attenuators when attenuation is being adjusted, preventing the preliminary RF circuit(such as power amplifier) from being burnt, and keeping the system stable.
- Attenuation values are adjustable in power-on state, test data can be read continuously, no interruption.
- Connector Type: SMA, N, F, BNC etc. available
- Connector Position: Back Connectors or Left & right Connectors

## Applications

- DAS POI
- Indoor Repeater
- Wireless Signal Coverage
- Mobile communication repeater station system
- Signal emitter inside buildings
- WLAN repeater station system
- Radar
- Lab test

## Model Description

VAS	**	**	**	*
Type	Attenuation Range	Step Values	Connector Type	
	*	*	*	*
	Max. Power	Connector Option	Connector Position	Impedance

Notes:

Type: 06 represents type number.

Attenuation Range: Maximum attenuation

Connector Type: SMA, N, F, BNC etc.

Max. Power: 2 and 5 are available, currently 2W and 5W are available.

Connector Option: "1" represents Female/Female, "2" represents Male/Female,

# Specifications:

- N Type, DC~3GHz, 2W or 5W
- SMA Type, DC~4GHz or DC~5.8GHz, 2W or 5W



Model	Attenuation Range (dB)	Step Values (dB)	Attenuation Accuracy Full Scale (dB)		Typical VSWR(:1)		Max. VSWR (:1)		Insertion Loss at 0 dB	Connector Type SMA/N/F/BNC Size (mm) for SMA/N	Package Type				
			DC ~ 3GHz	3-6GHz	DC~3GHz	3-6GHz	DC~3GHz	3-6GHz			3GHz	L*W*H	Left & right Connectors	Back Connectors	
<b>2 switches, DC~6GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup>, N type available</b>															
VAS060903S2**	0 to 9	3	0~+1.2	1.3	1.5	1.35	1.6	0.65	51.1*23*10.5/ 81.4*32*16.0						
VAS061806S2**	0 to 18	6	0~+0.8	1.15	1.3	1.2	1.5	0.4							
VAS062010S2**	0 to 20	10	0~+1.0	1.1	1.3	1.1	1.5	0.4							
<b>3 switches, DC~6GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup>, N type available</b>															
VAS062103S2**	0 to 21	3	0~+1.2	1.15	1.35	1.2	1.5	0.5	57.3*23*10.5/ 87.6*32*16.0						
VAS062505S2**	0 to 25	5	0~+1.1	1.15	1.35	1.2	1.5	0.5							
VAS063010S2**	0 to 30	10	0~+1.0	1.1	1.3	1.2	1.5	0.5							
<b>4 switches, DC~6GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup>, N type available</b>															
VAS061501S2**	0 to 15	1	0~+1.55	1.15	-	1.35	-	1.0	54.4*23*20.9/ 65.5*23*10.5/ 95.8*32*16.0						
VAS061501S5**	0 to 15	1	0~+1.75	1.25	-	1.45	-	1.1							
VAS061501S5A*	0 to 15	1	0~+1.75	1.25	-	1.45	-	1.1							
VAS062402S2**	0 to 24	2	0~+1.4	1.1	1.3	1.2	1.5	0.7							
VAS063003S2**	0 to 30	3	0~+1.0	1.15	1.35	1.2	1.5	0.7							
VAS063505S2**	0 to 35	5	0~+0.9	1.15	1.35	1.3	1.5	0.7							
VAS064010S2**	0 to 40	10	0~+1.0	1.1	1.15	1.2	1.3	0.7							
<b>6 switches, DC~6GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup>, N type available</b>															
VAS0404H5S21**	0 to 4.5	0.1	0~+1.0	1.25	-	1.3	-	0.7	87.9*25*10.5/ 70.2*27*22.4/ 118.2*32*16.0						
VAS068P4P2S2**	0 to 8.4	0.2	0~+2.0	1.2	1.8	1.3	1.5	1.2							
VAS0625HS2**	0 to 25.5	0.5	0~+2.0	1.3	1.5	1.35	1.6	1.2							
VAS063501S2**	0 to 35	1	0~+2.0	1.25	-	1.45	-	1.3							
VAS063501S5**	0 to 35	1	0~+2.0	1.25	-	1.45	-	1.3							
VAS064001S5**	0 to 40	1	0~+2.0	1.25	-	1.45	-	1.3							
VAS064501S2**	0 to 45	1	0~+2.0	1.25	-	1.45	-	1.3							
VAS064402S2**	0 to 44	2	0~+1.8	1.2	1.4	1.3	1.5	1.2							
VAS064503S2**	0 to 45	3	0~+1.5	1.2	1.4	1.3	1.5	1.2							
VAS065505S2**	0 to 55	5	0~+2.0	1.15	-	1.3	1.5	1.3							
VAS066010S2**	0 to 60	10	-1.5~+2.0	1.2	-	1.4	-	1.4							
<b>9 switches, DC~6GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup>, N type available</b>															
VAS0636P2**	0 to 36.4	0.2	0~+3.5	1.2	1.4	1.3	1.5	1.8	116.5*25*10.5/ 146.8*32*16.0						
VAS0655HS2**	0 to 55.5	0.5	0~+2.0	1.2	1.4	1.3	1.6	1.8							
VAS036501F**	0 to 65	1	0~+2.0	1.5	-	1.8	-	1.2							
VAS066501S2**	0 to 65	1	0~+3.5	1.3	-	1.5	-	2.0							
VAS067402S2**	0 to 74	2	0~+2.0	1.15	1.35	1.2	1.5	1.8							
VAS067203S2**	0 to 72	3	0~+3.5	1.2	1.4	1.3	1.6	2.3							
VAS068505S2**	0 to 85	5	0~+2.0	1.2	1.4	1.3	1.6	1.8							
VAS069010S2**	0 to 90	10	0~+3.0	1.2	1.3	1.3	1.5	2.0							
<b>12 switches, DC~6GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup>, N type available</b>															
VAS069501S2**	0 to 95	1	0~+3.0	1.15	-	1.35	-	2.5				117.6*27*22.4/ 128.8*27*11.7			
VAS069501S5**	0 to 95	1	±2.5	1.2	-	1.4	-	1.5							
VAS0610001S2**	0 to 100	1	0~+3.0	1.15	-	1.35	-	2.5							
VAS0610001S2A*	0 to 100	1	0~+3.0	1.15	-	1.35	-	2.5							
VAS0611001S2**	0 to 110	1	±3.0	1.15	-	1.35	-	2.2							

\* Plastic screw driver for adjusting attenuation

- N Type, DC~5.8GHz, High attenuation accuracy, 2W or 5W
- SMA Type, DC~5.8GHz, High attenuation accuracy, 2W or 5W



Model	Attenuation Range (dB)	Step Values (dB)	Attenuation Accuracy Full Scale (dB)		Typical VSWR(:1)		Max. VSWR (:1)		Insertion Loss at 0 dB	Connector Type SMA/N/F/BNC Size (mm) for SMA/N	Package Type
			DC~4GHz	4~5.8GHz	DC~4GHz	4~5.8GHz	DC~4GHz	4~5.8GHz			
<b>4 switches, DC~5.8GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup></b>											
VAS071501*5**	0 to 15	1	-1.0~+2.0	0~+4.5	1.20	1.30	1.30	1.65	1.2	2.0	46.4*23*11.15(SMA) 47*28*19.5(N)
VAS072402*5**	0 to 24	2	-1.1~+2.1	0~+6.5	1.20	1.30	1.40	1.65	0.8	1.25	
VAS073505*5**	0 to 35	5	-1.1~+2.1	0~+6.5	1.20	1.30	1.40	1.65	0.8	1.25	
VAS074010*5**	0 to 40	10	-1.2~+3.0	0~+6.5	1.30	1.30	1.65	1.65	0.8	1.25	
<b>6 switches, DC~5.8GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup></b>											
VAS073501*2**	0 to 35	1	0~+3.0	0~+6.0	1.20	1.35	1.45	1.65	1.7	3.2	62.2*25*11.65(SMA) 63*28*19.5(N)
VAS073501*5**	0 to 35	1	-1.0~+3.5	0~+7.0	1.20	1.30	1.40	1.65	1.4	1.5	
VAS074402*2**	0 to 44	2	-1.6~+3.5	-4.0~+10	1.25	1.30	1.50	1.65	1.2	2.0	
VAS074503*5**	0 to 45	3	-1.5~+4.5	0~+10	1.30	1.40	1.60	1.75	1.0	1.5	
VAS0725H*2**	0 to 25.5	0.5	0~+3.5	0~+6.0	1.20	1.35	1.45	1.65	1.7	3.2	
<b>7 switches, DC~5.8GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup></b>											
VAS074501*2**	0 to 45	1	-0.3~+3.5	-6.0~+6.0	1.20	1.30	1.50	1.55	2.2	3.5	70.9*28*19.5(N)
VAS074501*5**	0 to 45	1	-1.0~+3.0	0~+6.0	1.25	1.35	1.50	1.65	1.8	3.2	
<b>9 switches, DC~5.8GHz, Average Power 2W or 5W, Impedance 50Ω or 75Ω<sup>②</sup></b>											
VAS076501*2**	0 to 65	1	0~+3.5	-2.0~+7.0	1.10	1.25	1.35	1.55	2.6	4.2	85.5*25*11.65(SMA) 86.6*28*19.5(N)
VAS076501*5**	0 to 65	1	-1~+3.0	-1.0~+6.0	1.25	1.35	1.50	1.70	1.5	2.5	
VAS077402*2**	0 to 74	2	0~+3.5	-2.0~+7.0	1.10	1.25	1.35	1.60	2.6	4.2	
VAS077402*5**	0 to 74	2	-2~+3.5	-2.0~+7.0	1.10	1.25	1.50	1.70	1.5	2.5	
VAS079010*2**	0 to 90	10	0~+3.0	-5.0~+5.0	1.10	1.25	1.35	1.55	3.0	5.5	
VAS079010*5**	0 to 90	10	-2~+3.0	-5.0~+5.0	1.10	1.25	1.50	1.70	1.5	2.5	

Note: ① For detailed specifications of 75 ohm attenuator, please check with our sales representatives. ② Custom attenuation value is available.

# Rotary Variable Attenuator

## 旋钮式可变衰减器

### VAB Series (Step步进式)

Patent product

China Patent No.: ZL 2008 1 0144258.3  
 USA Patent No.: US 8,476,544 B2  
 Japan Patent No.: 2011-524168  
 Taiwan Patent No.: I 393347



### Features

- Input power: 2W, 5W
- Available in step adjusting
- Wide frequency range: DC ~2.7GHz
- Low VSWR, Low insertion loss
- Sealed structure moisture-proof & damp-proof, can be work outdoors in harsh condition
- Easy to operate, adjustment results visually readable
- Step series has locking devices within each attenuation, shock-proof capability
- Can reach over 10000 times adjustment.
- Easy to adjust, widely used in production line, or to be installed in the system & device for signal control

### Applications

- DAS POI
- Indoor Repeater
- Wireless Signal Coverage
- RF Labs

### Model Description (Step Variable Attenuator)

VAB      \*\*      \*\*      \*      \*      \*      \*  
 Attenuation      Step value      Connector Type      Connector Position      Power      Impedance

Attenuation Range: 31 represents 0 ~ 31dB

Step value: 01 represents step value 1dB

Connector Type: SMA,N or BNC etc

Connector Position: "F" represents connectors is upsides, "R" represents connectors is rightsides

"L" represents connectors is leftsides, "D" represents connectors is undersides

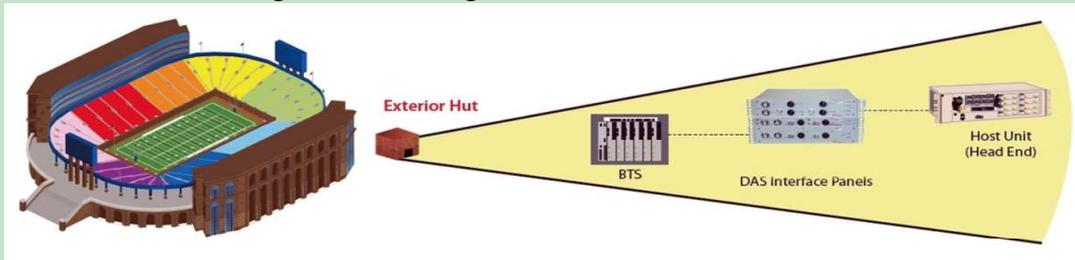
"A" or "S" or "B" represents back connectors, "no code" represents left and right connectors.

Power: 2 represents 2W, 5 represents 5W

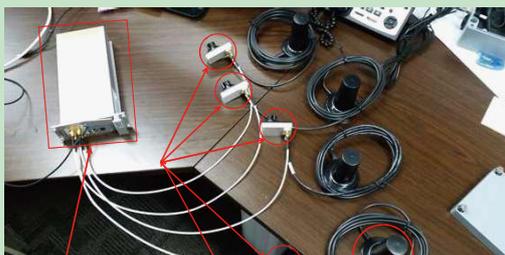
Impedance: Impedance: "B" represents 75 Ω impedance, "no code" represents 50 Ω impedance.

e.g.: VAB1101SA

### Wireless Signal Coverage in Offices/Hotels/Stadiums etc.



### Latest LTE Smartphone MIMO 4\*4 Antenna test system



### Innovative rear connector versions making the smallest and most compact P.O.I. systems



## SMA & N Type Single and Dual Concentric Series(back connectors)

- Frequency range: DC ~ 2.7GHz • Attenuation Range: 0-11(dB), 0-31(dB), 0-51(dB)
- Power rating: 2W or 5W • Impedance: 50Ω • Operating temperature: -40°C ~ +85°C

Model	Attenuation Range (dB)	Power (W)	Step Value (dB)	Attenuation Accuracy (dB) DC - 2.7GHz	Typ. VSWR:1			Insertion Loss at 0dB		Dimensions SMA type (unit:mm) W*H*L
					DC - 1GHz	1- 2GHz	2 - 2.7GHz	DC - 2GHz	2 - 2.7GHz	
VAB1101SA*	0~11	2 or 5	1	-0.5~+0.7	1.1	1.1	1.15	0.2	0.4	32*34.8*39
VAB3101SB*	0~31	2 or 5	1	±1	1.1	1.25	1.35	0.5	0.9	32*73.53*40
VAB3101SA*	0~31	2 or 5	1	±0.65	1.1	1.1	1.15	0.3	0.65	32*34.35*53.6
VAB3101SS*	0~31	2 or 5	1	-0.5~+0.8	1.1	1.15	1.2	0.5	0.65	34*34.1*57.2
VAB5101SA*	0~51	2 or 5	1	-0.65~+1	1.15	1.2	1.25	0.55	0.85	47.8*34.35*53
VAB1101NA*	0~11	2 or 5	1	+1.5	1.1	1.1	1.35	0.5	1.0	44*34.5*48.5
VAB3101NA*	0~31	2 or 5	1	+1.5	1.1	1.15	1.45	0.7	1.2	48*34.1*64

## SMA & N Type Single Dial Series(left and right connectors)

- Frequency range: DC ~ 2.7GHz • Attenuation Range: 0-11(dB), 0-31(dB), 0-51(dB)
- Power rating: 2W or 5W • Impedance: 50Ω • Operating temperature: -40°C ~ +85°C

Model	Attenuation Range (dB)	Power (W)	Step Value (dB)	Attenuation Accuracy (dB) DC - 2.7GHz	Typ. VSWR:1			Insertion Loss at 0dB		Dimensions SMA type (unit:mm) W*H*L
					DC - 1GHz	1- 2GHz	2 - 2.7GHz	DC - 2GHz	2 - 2.7GHz	
VAB1101S**	0~11	2 or 5	1	+1.5	1.1	1.1	1.35	0.5	1.0	41*35.15*42.5
VAB3101S**	0~31	2 or 5	1	-0.5~+0.8	1.1	1.15	1.2	0.5	0.65	34.8*34.35*53
VAB5101S**	0~51	2 or 5	1	-0.65~+1.0	1.15	1.2	1.25	0.55	0.85	49.4*34.35*52
VAB1101N**	0~11	2 or 5	1	+1.5	1.1	1.1	1.35	0.5	1.0	44*39.2*48.5
VAB3101N**	0~31	2 or 5	1	-0.5~+1	1.1	1.1	1.15	0.3	0.65	38.2*39*54
VAB5101N**	0~51	2 or 5	1	-0.65~+1.5	1.15	1.2	1.25	1.25	1.4	51.8*39*53

## SMA Type Single and Dual Concentric Series

- Frequency range: DC ~ 2.7GHz • Attenuation Range: 0-11(dB) or 0-31(dB)
- Power rating: 2W or 5W • Impedance: 50Ω • Operating temperature: -40°C ~ +85°C

Model	Attenuation Range (dB)	Power (W)	Step Value (dB)	Attenuation Accuracy (dB)		Typ. VSWR:1			Insertion Loss at 0dB		Dimensions SMA type (unit:mm) W*H*L
				DC~2.5GHz	DC~2.7GHz	DC~1GHz	1~2GHz	2~2.7GHz	DC~2GHz	2~2.7GHz	
VAB1101SF**	0~11	2 or 5	1	±0.5	-0.5~+0.7	1.1	1.1	1.15	0.2	0.4	32*37.35*39
VAB3101SF**	0~31	2 or 5	1	±0.7	-0.7~+0.9	1.15	1.2	1.25	0.3	0.6	32*80*39

