

Three-Way Isolated Power Dividers Tapered, Ultra-Broadband

Rev. V3

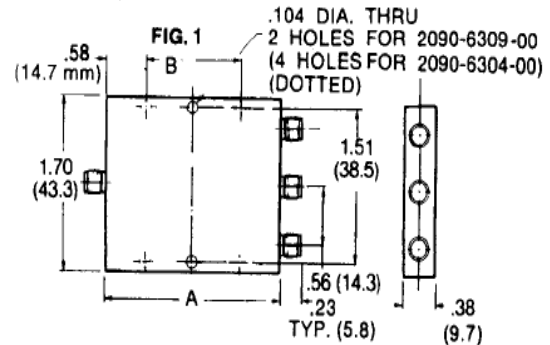
Features

- Good Amplitude and Phase Balance
- High Isolation Between Output Ports
- Low VSWR, Small Size and Light Weight
- Octave, Multi-Octave and Decade Frequency Coverage
- Low Insertion Loss
- Power: 80 Watts Maximum
- Meets MIL-E-5400 Environments

Description

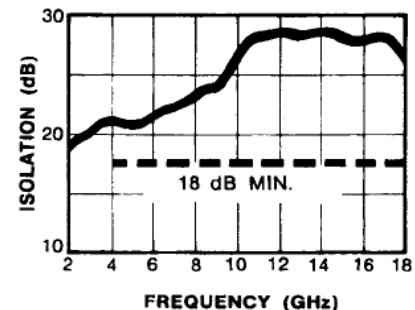
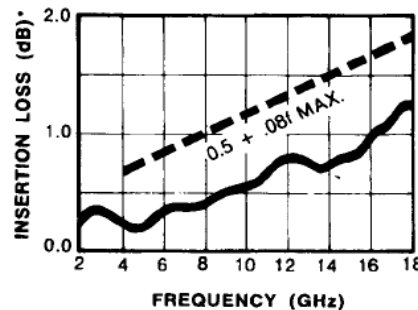
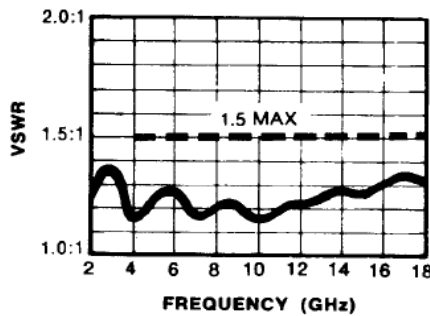
Power Dividers are compact stripline units with wide bandwidth and multiple outputs. Tapered line transformers and internal terminations provide low VSWR at all ports and high isolation between all output ports. Phase and amplitude tracking of all outputs is excellent due to the symmetrical designs. Combinations of three-way and two-way power dividers in one package are available for custom applications.

Outline Drawing



Note: All dimensions are ± 0.020 , except mounting hole diameters (± 0.005) and mounting hole location (± 0.010). Height dimension excludes rivet protrusion.

Typical Performance Part No. 2090-6309-00



Specifications

| Part Number | Freq. Range (GHz) | Insertion Loss Max (dB) | Isolation dB (min) | VSWR (max) | Output Unbalanced Amp. (dB) | Output Unbalance Phase (deg.) | Max Input Power* (watts) | Fig | Size, Inch (mm) A | Size, Inch (mm) B | Weight Oz. | Weight g |
|--------------|-------------------|-------------------------|--------------------|------------|-----------------------------|-------------------------------|--------------------------|-----|-------------------|-------------------|------------|----------|
| 2090-6304-00 | 0.5-18.0 | 0.4 + .24f | 18 | 1.6 | 0.5† | ** | 80 | 1 | 11.0 (280) | 9.84 (250.0) | 11.4 | 322 |
| 2090-6309-00 | 4.0-18.0 | 0.5 + 0.08f | 18 | 1.5 | 0.5 | ** | 40 | 1 | 2.02 (51.3) | — | 2.1 | 60 |

* Maximum input power with output loads of VSWR $\leq 2.0:1$. Derate to 10% of listed value when arbitrarily terminated.

** Not phase matched.

† 0.5 dB (0.5 to 10 GHz), 1.0 dB (10 to 18 GHz)

Note: f is frequency in GHz.

Three-Way Isolated Power Dividers Tapered, Ultra-Broadband

Rev. V3

Features

- Octave, Multi-Octave and Decade Frequency Coverage
- Low Insertion Loss
- Excellent Amplitude and Phase Balance
- High Isolation Between Output Ports
- Low VSWR
- Power: 80 Watts Maximum
- Meets MIL-E-5400 Environments

Description

New designs include operation through 26 GHz and retain the performance of lower frequency units. These units are ideal for multioctave ECM systems, and function as either dividers or combiners to facilitate system performance.

Outline Drawing

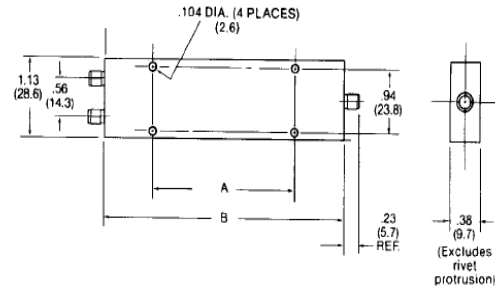


Figure 1

Note: All dimensions are ± 0.020 except mounting hole diameters (± 0.005) and mounting hole location (± 0.10).

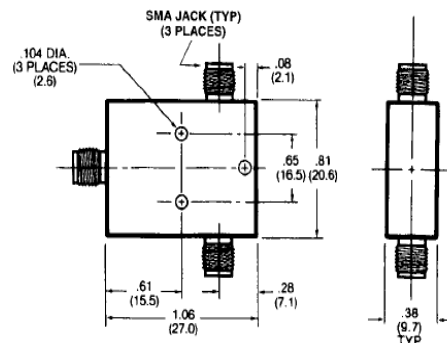


Figure 2

Specifications

| Part Number | Freq. Range (GHz) | Insertion Loss Max (dB) | Isolation dB (min) | VSWR (max) | Output Un-balanced Amp. (dB) | Output Un-balance Phase (deg.) | Max Input Power** (watts) | Size, Inch (mm) A | Size, Inch (mm) B | Weight Fig. | Weight oz. g |
|---------------|-------------------|-------------------------|---------------------------------------|---|------------------------------|--------------------------------|---------------------------|-------------------|-------------------|-------------|--------------|
| 2090-6204-00 | 0.5 - 18.0 | 0.2 + 0.17f | 20 (0.5 to 3) GHz 23 (3 to 18) GHz | 1.35 (0.5 to 11) GHz 1.50 (11 to 18) GHz | 0.3 | 5 | 80 | 9.40 (239) | 11.02 (291) | 1 | 8.0 226 |
| 2090-6205-00 | 2.0 - 18.0 | 0.2 + 0.07f | 18 (2 to 3) GHz 23 (3 to 18) GHz | 1.35 (2 to 11) GHz 1.50 (11 to 18) GHz | 0.3 | 5 | 40 | 2.40 (61.1) | 4.02 (102) | 1 | 2.9 83 |
| 2090-6210-00* | 8.0 - 18.0 | 0.2 + 0.03f | 18 | 1.50 | 0.3 | 5 | 20 | — | — | 2 | 1.1 30 |

* To 18GHz

** Maximum input power with output loads of VSWR ≤ 2.01 derate to 10% of listed value when arbitrarily terminated.

Note: f is frequency in GHz

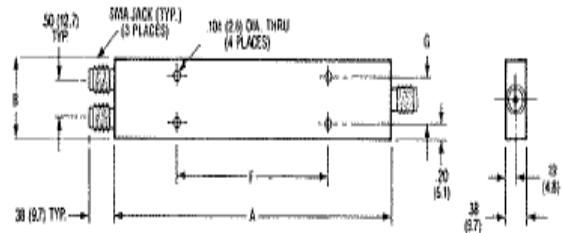
Features

- Broadband Performance 1.0 -18.0 GHz
- Low Insertion Loss
- Excellent Amplitude and Phase Balance
- Power: 50 Watts Maximum
- Meets MIL-E-5400 Environments

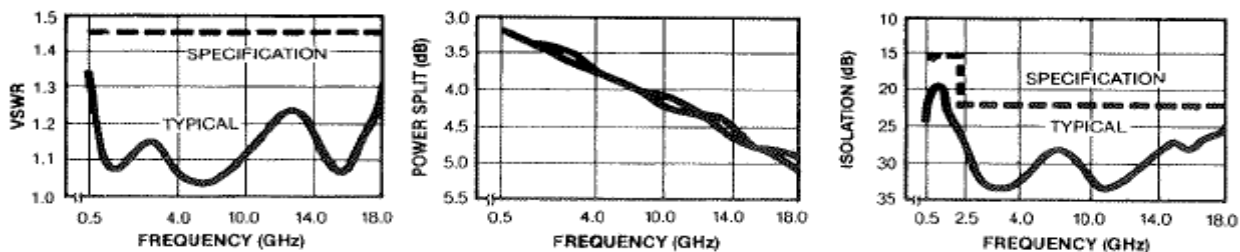
Description

These are the smallest in-phase isolation 1.0 -18.0 GHz power dividers available. Rugged stripline construction, housed in sealed lightweight packages insure reliable operation in the roughest environments. SMA stainless steel connectors are standard. Contact the factory for other connector designs.

Outline Drawing



Typical Performance Part No. 2090-6214-00



Specifications

| Part Number | NO. of Outputs | Frequency Range (GHz) | VSWR (max.) Input/Output | Isolation (dB min.) Frequency (GHz) 1.0-2.5/2.5-18.0 | Insertion Loss dB (max.) | Output Unbalance Phase (deg.) 1.0-2.5/2.5-18.0 GHz | Output Unbalance Amp (dB.) 1.0-2.5/2.5-18.0 GHz | Max. Input Power * (watts) |
|--------------|----------------|-----------------------|--------------------------|--|--------------------------|--|---|----------------------------|
| 2090-6214-00 | 2 | 1.0 - 18.0 | 1.40/1.35 | 15/22 | 0.25 + 0.11f | 5/5 | 0.4/0.4 | 50 |
| 2090-6414-00 | 4 | 1.0 - 18.0 | 1.6/1.4 | 14/18 | 0.6 + 0.20f | 8/12 | 0.6/1.0 | 50 |
| 2090-6814-00 | 8 | 1.0 - 18.0 | 1.7/1.5 | 14/17 | 1.0 + 0.25f | 10/16 | 0.8/1.4 | 50 |

* 50 Watts with 1.2:1 max. load VSWR.
25 Watts with 2:1 max. load VSWR.

Mechanical Specifications

| Part Number | Size, Inch(mm) A | Size, Inch(mm) B | Size, Inch(mm) F | Size, Inch(mm) G | Weight Oz. | Weight g |
|--------------|------------------|------------------|------------------|------------------|------------|----------|
| 2090-6214-00 | 5.0 (139.7) | 1.00 (25.4) | 4.00 (101.5) | 0.60 (15.2) | 3.4 | 96.6 |
| 2090-6414-00 | 5.20 (132.1) | 2.00 (50.8) | 3.20 (81.3) | 1.60 (45.7) | 16 | 448 |
| 2090-6814-00 | 5.20 (132.1) | 4.00 (101.5) | 3.20 (81.3) | 3.60 (91.4) | 30 | 840 |

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.4155721 • **China** Tel: +86.21.2407.1588
Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.