

Agilent Hybrid Power Dividers

| | |
|--------|-----------------|
| 87302C | 0.5 to 26.5 GHz |
| 87303C | 1 to 26.5 GHz |
| 87304C | 2 to 26.5 GHz |

Data Sheet



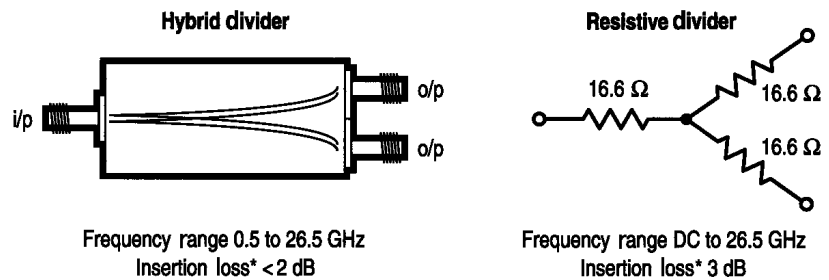
- High isolation
- Broadband to 26.5 GHz
- Low insertion loss
- Accurate amplitude and phase tracking

Features and Description

The Agilent 87302C, 87303C, and 87304C power dividers are compact, hybrid microwave power dividers designed for power-splitting applications that require a minimal insertion loss and high isolation. The 87302C covers the entire 0.5 to 26.5 GHz frequency range with a maximum insertion loss of 1.9 dB. The 87303C and 87304C restrict the lower frequency limit for further improvement in the insertion loss. The 87303C covers 1 to 26.5 GHz with a maximum insertion loss of 1.6 dB and the 87304C operates from 2 to 26.5 GHz with a worst-case insertion loss of 1.4 dB. Maximum insertion loss of the 87302C, 87303C, and 87304C is in addition to 3 dB coupling loss. All units use industry standard 3.5 mm (SMA compatible) connectors for rugged trouble-free operation.

Applications

These hybrid power dividers are excellent for any application where two-way power division with high isolation and low insertion loss is required. They typically exhibit an insertion loss that is 1 to 2 dB lower than an equivalent resistive power divider (see Figure 1).



* Plus 3 dB Power division loss

Figure 1. Hybrid power divider.

Product Specifications

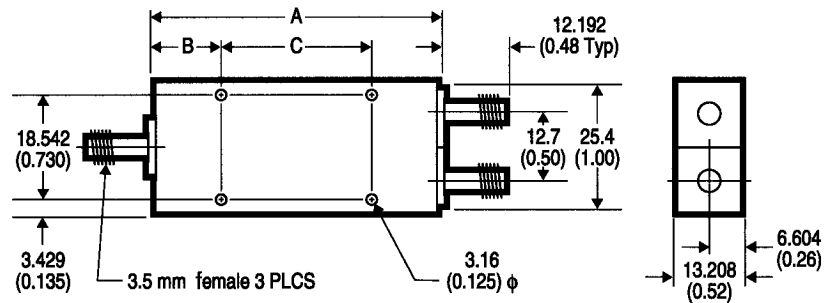
| Frequency range | Model | Band segment | VSWR | Insertion ¹ loss (dB) | Isolation (dB) | Amplitude tracking (dB) | Phase tracking (deg.) |
|-----------------|--------|--------------|------|----------------------------------|----------------|-------------------------|-----------------------|
| 0.5 to 26.5 GHz | 87302C | 0.5 to 18 | 1.45 | 1.5 | 19 | 0.3 | 6 |
| | | 18 to 26.5 | 1.60 | 1.9 | 19 | 0.5 | 10 |
| 1.0 to 26.5 GHz | 87303C | 1.0 to 18 | 1.45 | 1.2 | 19 | 0.3 | 6 |
| | | 18 to 26.5 | 1.60 | 1.6 | 21 | 0.5 | 10 |
| 2.0 to 26.5 GHz | 87304C | 2.0 to 18 | 1.45 | 1.1 | 19 | 0.3 | 6 |
| | | 18 to 26.5 | 1.60 | 1.4 | 18 | 0.5 | 10 |

1. Insertion loss is in addition to 3 dB coupling loss

Power rating 10 W, CW (2:1 maximum load SWR)
Connectors 3.5 mm F, (SMA compatible)
Weight 170 g (6 oz) net, 340 g (12 oz) shipping

Note: Amplitude and phase tracking are the ratio of one output in dB or degrees, respectively.

Dimensions



Dimensions are in millimeters and (inches).

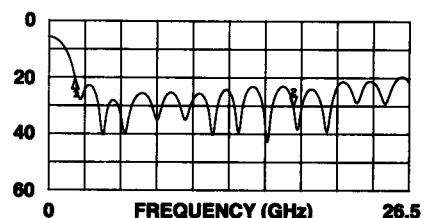
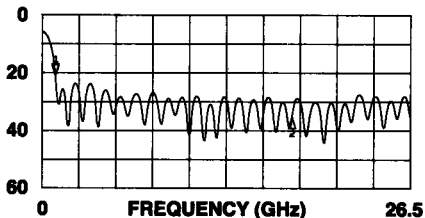
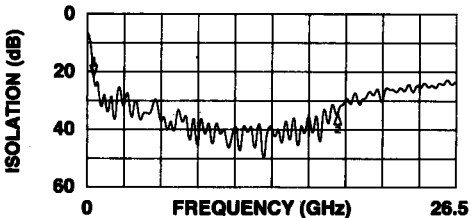
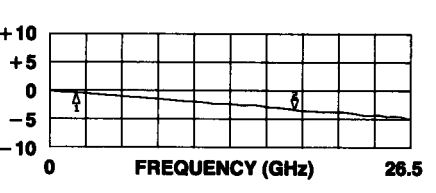
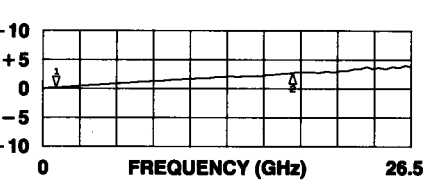
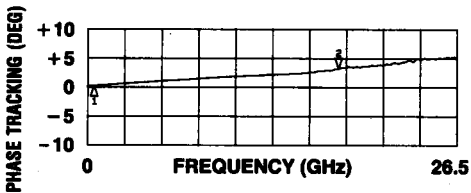
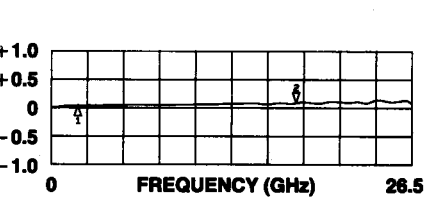
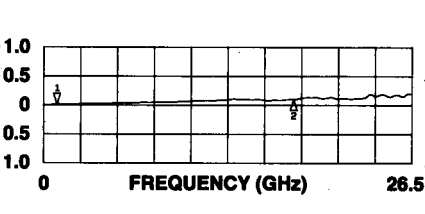
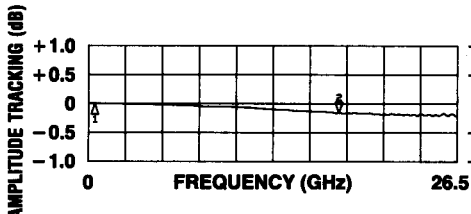
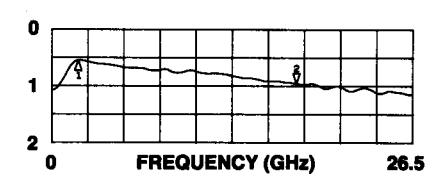
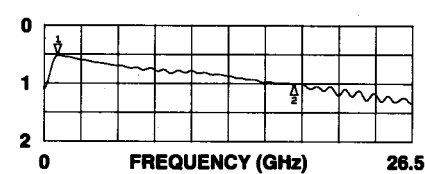
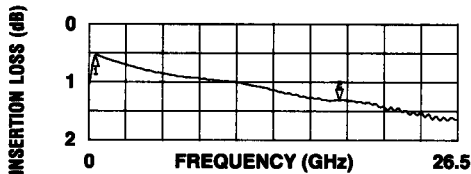
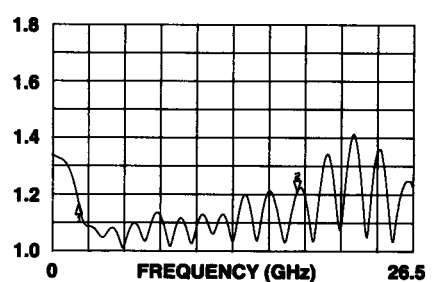
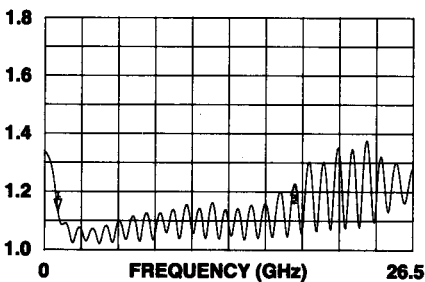
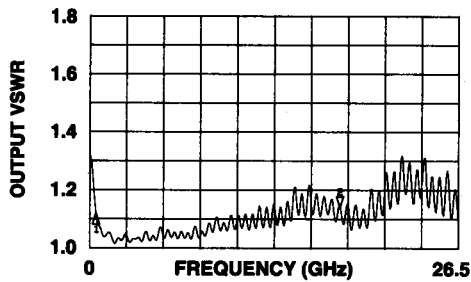
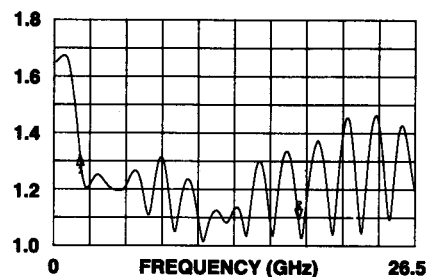
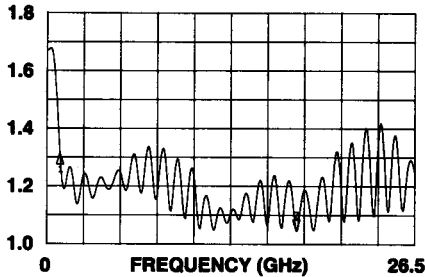
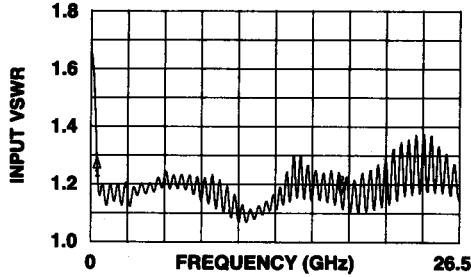
| Model | Dimensions | | |
|--------|------------|--------|---------|
| | A | B | C |
| 87302C | 196.85 | 28.702 | 139.7 |
| | (7.75) | (1.13) | (5.50) |
| 87303C | 105.41 | 26.162 | 2.10 |
| | (4.15) | (1.03) | (53.34) |
| 87304C | 57.15 | 28.702 | 0.00 |
| | (2.25) | (1.13) | (0.00) |

Technical Performance Curves

87302C
Markers at 0.5 and 18 GHz

87303C
Markers at 1 and 18 GHz

87304C
Markers at 2 and 18 GHz





Agilent Email Updates

www.agilent.com/find/emailupdates
Get the latest information on the products and applications you select.



Agilent Open

www.agilent.com/find/open

Agilent Open simplifies the process of connecting and programming test systems to help engineers design, validate and manufacture electronic products. Agilent offers open connectivity for a broad range of system-ready instruments, open industry software, PC-standard I/O and global support, which are combined to more easily integrate test system development.



Agilent Direct

www.agilent.com/find/agilentdirect

Quickly choose and use your test equipment solutions with confidence.

www.agilent.com

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus

Phone or Fax

North America

| | |
|---------------|----------------|
| Canada | (877) 894-4414 |
| Latin America | 305 269 7500 |
| United States | (800) 829-4444 |

Asia Pacific

| | |
|-----------|----------------|
| Australia | 1 800 629 485 |
| China | 800 810 0189 |
| Hong Kong | 800 938 693 |
| India | 1 800 112 929 |
| Japan | 0120 (421) 345 |
| Korea | 080 769 0800 |
| Malaysia | 1 800 888 848 |
| Singapore | 1 800 375 8100 |
| Taiwan | 0800 047 866 |
| Thailand | 1 800 226 008 |

Europe & Middle East

| | |
|----------------------|------------------------------|
| Austria | 0820 87 44 11 |
| Belgium | 32 (0) 2 404 93 40 |
| Denmark | 45 70 13 15 15 |
| Finland | 358 (0) 10 855 2100 |
| France | 0825 010 700* |
| | **0.125€ fixed network rates |
| Germany | 01805 24 6333* |
| | **0.14€/minute |
| Ireland | 1890 924 204 |
| Israel | 972 3 9288 504/544 |
| Italy | 39 02 92 60 8484 |
| Netherlands | 31 (0) 20 547 2111 |
| Spain | 34 (91) 631 3300 |
| Sweden | 0200-88 22 55 |
| Switzerland (French) | 44 (21) 8113811(Opt 2) |
| Switzerland (German) | 0800 80 53 53 (Opt 1) |
| United Kingdom | 44 (0) 7004 666666 |

Other European Countries:

www.agilent.com/find/contactus

Revised: October 24, 2007

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 1993, 2004, 2005, 2007

Printed in USA, October 29, 2007

5091-6190E



Agilent Technologies