

# 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



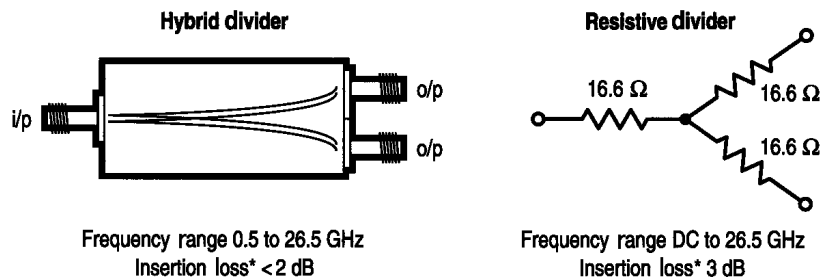
- High isolation
- Broadband to 26.5 GHz
- Low insertion loss
- Accurate amplitude and phase tracking

## 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

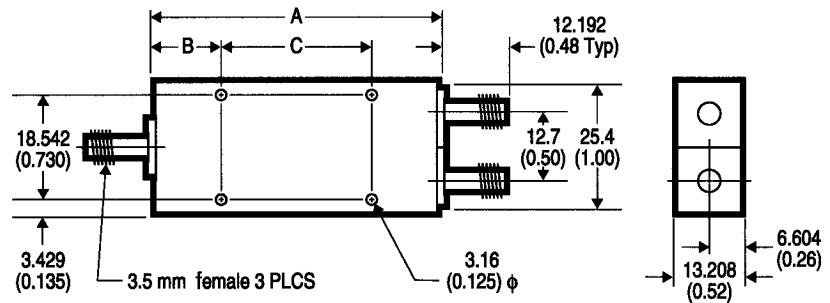
Frequency range	Model	Band segment	VSWR	Insertion <sup>1</sup> loss (dB)	Isolation (dB)	Amplitude tracking (dB)	Phase tracking (deg.)
0.5 to 26.5 GHz	87302C	0.5 to 18	1.45	1.5	19	0.3	6
		18 to 26.5	1.60	1.9	19	0.5	10
1.0 to 26.5 GHz	87303C	1.0 to 18	1.45	1.2	19	0.3	6
		18 to 26.5	1.60	1.6	21	0.5	10
2.0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

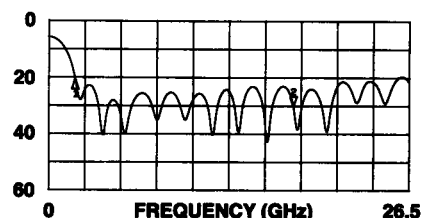
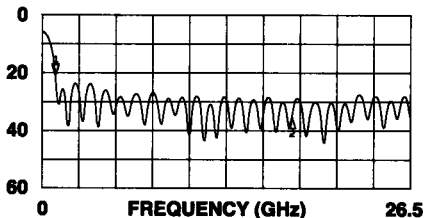
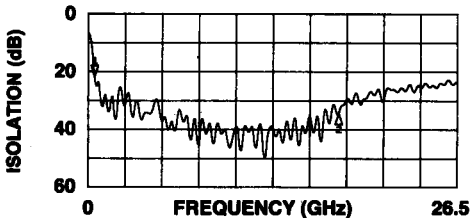
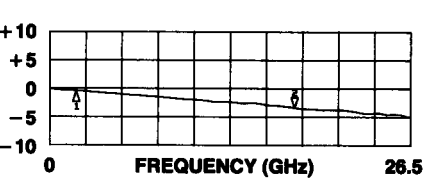
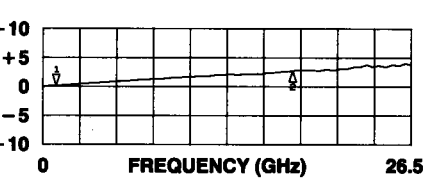
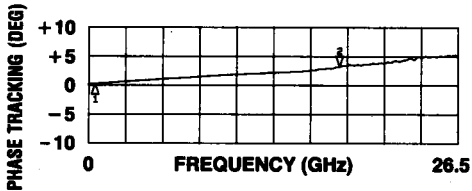
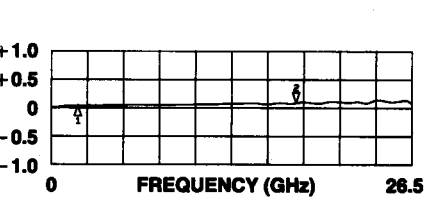
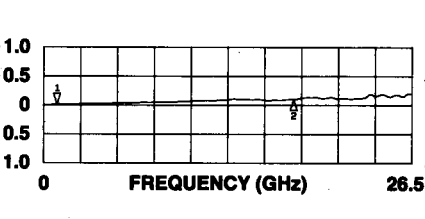
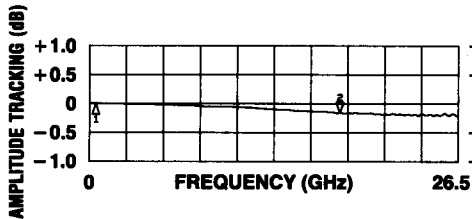
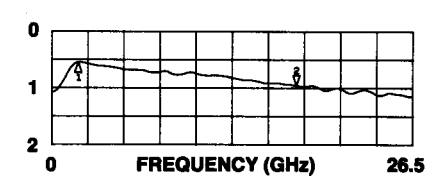
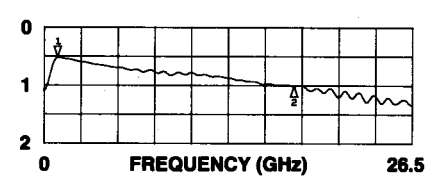
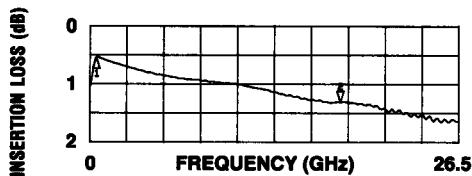
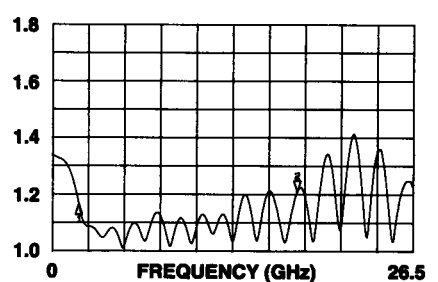
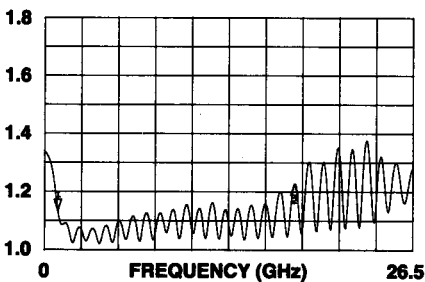
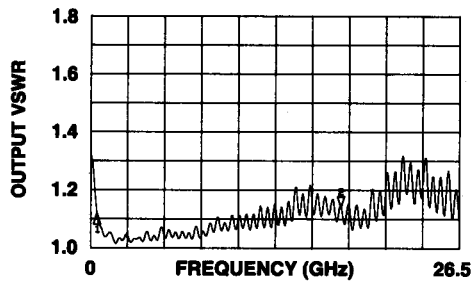
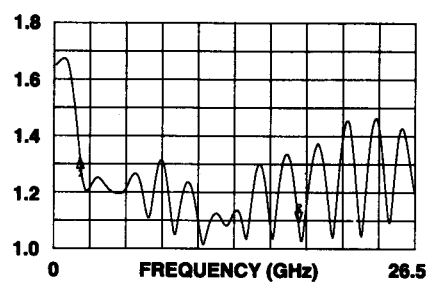
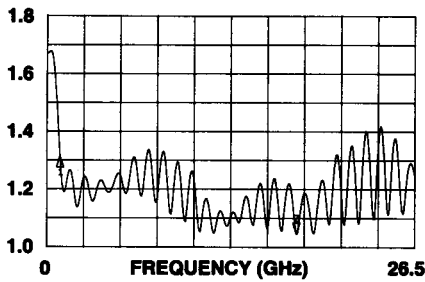
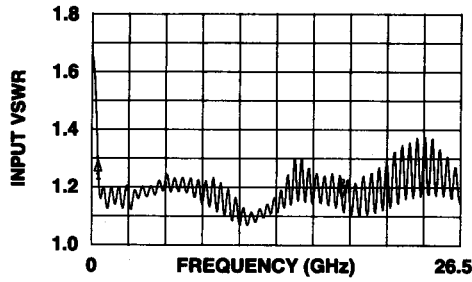
Model	Dimensions		
	A	B	C
87302C	196.85 (7.75)	28.702 (1.13)	139.7 (5.50)
87303C	105.41 (4.15)	26.162 (1.03)	2.10 (53.34)
87304C	57.15 (2.25)	28.702 (1.13)	0.00 (0.00)

# 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





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