



YT-FHC10290

10 to 20GHz

Quadrature Hybrid Coupler

DESCRIPTION

Yantel's Quadrature Hybrid Couplers offer unmatched size and wideband performance in a surface mount configuration. These 3 dB couplers offers excellent phase and amplitude balance with low loss and good isolation. As catalog components, they are available in a variety of frequency bands which offers a drop in solution with highly repeatable performance.

FEATURES

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

Electrical Specifications

Parameter	Specification
Frequency Range	10~20GHz
Typical Insertion Loss	0.8dB
Typical Return Loss	16.5dB
Isolation	20dB
Amplitude Balance	0.2dB
Characteristic Impedance	50 Ω
Package Size	0.3 x 0.25 x 0.01 in 7.62 x 6.35 x 0.25 mm

*Electrical specifications based on typical mounted performance at room temperature. Insertion loss may vary ±0.5dB over temperature.

Quadrature Hybrid Coupler Port Configuration Options				
	Port 1	Port 2	Port 3	Port 4
Configuration 1	Input	Isolated	Coupled	Output
Configuration 2	Isolated	Input	Output	Coupled
Configuration 3	Coupled	Output	Input	Isolated
Configuration 4	Output	Coupled	Isolated	Input

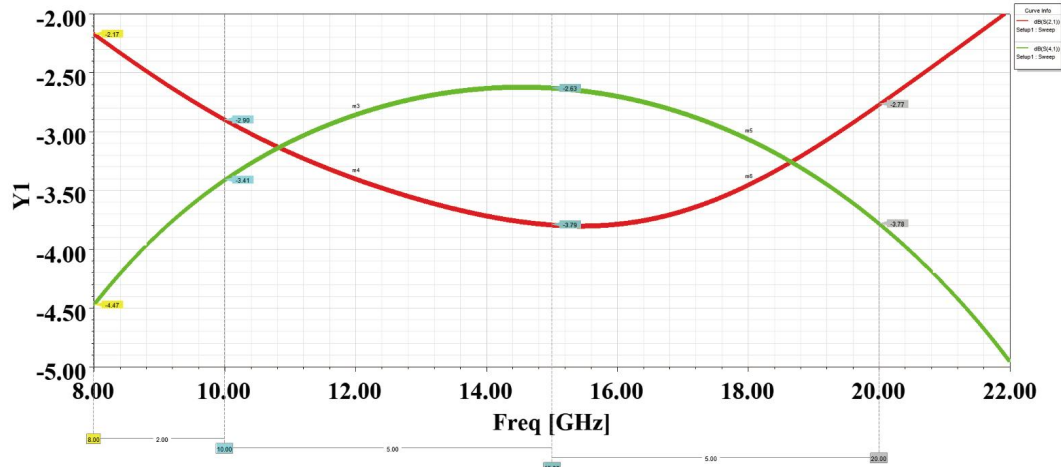
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Add: No.308-322,3F,Building 1,Juchuang Jingu Innovation Park,Wenyuan Road 35,Xili Street,Nanshan,Shenzhen,China

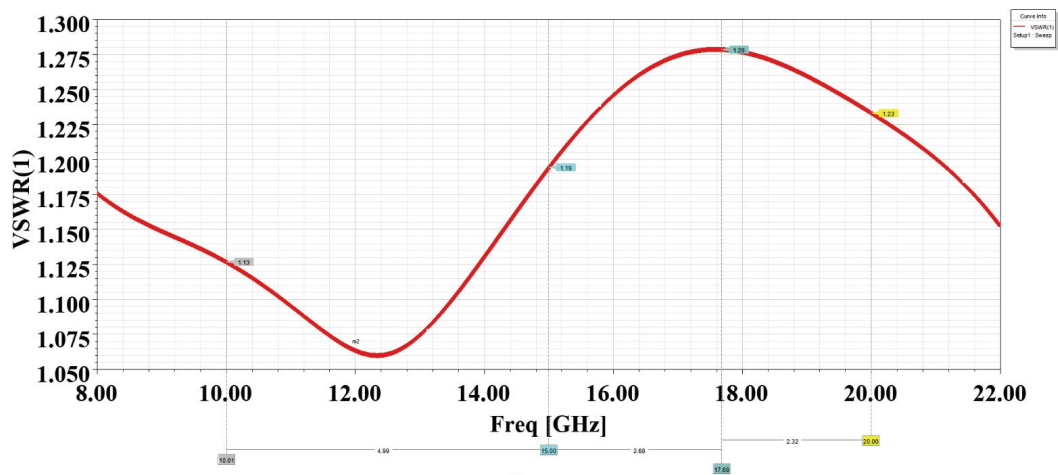
Tel: 86-755-8355-1886 Fax: 86-755-8355-2533

For detailed performance specs & shopping online see Yantel web site : www.yantel-corp.com

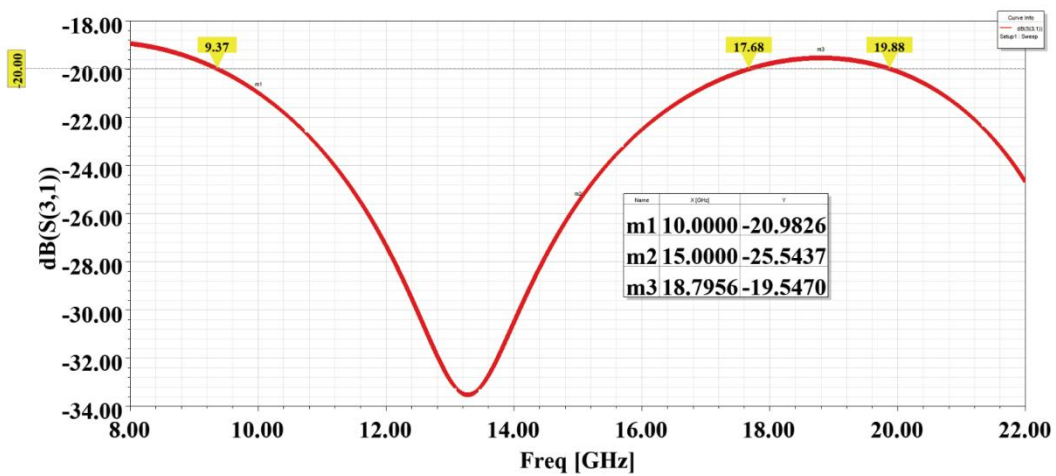
Typical Measured Performance



Couple&Insertion



VSWR



Isolation

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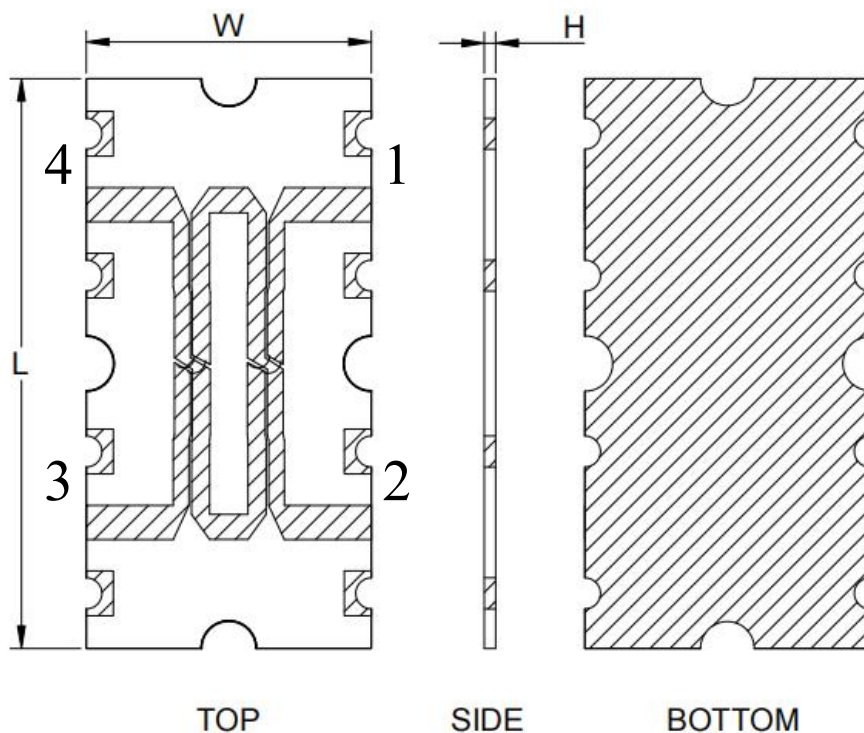
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Physical Dimensions

The product requires customers to make their own gold wire bonding.



Product Number	Length(in)	Width(in)	Height(in)	Length(mm)	Width(mm)	Height(mm)
YT-FHC10290	0.30	0.25	0.01	7.62	6.35	0.25

Recommended PCB Parameters:

- 0.010 inch Rogers Board RO4350B
- 3.66 dK, Board Material design
- Dimensions of 50.0 Ohm CPWG :
 - 0.016 in. RF trace width
 - 0.007 in. spacing

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