

**90deg Hybrid Coupler SMA Connectors From 4GHz to 18GHz Rated at 30 Watts**

**Hybrid Coupler**

- ◆ 90° Hybrid Coupler
- ◆ Low Insertion Loss
- ◆ Low Phase Balance
- ◆ Wide Frequency Range
- ◆ Excellent Reliability

The HRT-HC(4000/18000)-90S is a 90 degree hybrid coupler that operates from 4 to 18 GHz and can handle up to 30 Watts . This SMA hybrid coupler offers 16 dB Isolation and 1.5:1 max VSWR. The package interface uses SMA on all of the ports.


**Electrical Specifications**

Parameters	Units		Specifications
Pass Band Frequency	MHz		4000-18000
Nominal Coupling	dB		3.0
Nominal Degree	deg		90
Insertion Loss ( Excluding Nominal Coupling Loss)	dB	Max	1.0
VSWR	/	Max	1.5:1
Isolation	/	Min	16
Amp. Unbalance	dB	Max	±0.7
Phase Unbalance	Deg	Max	±8
Power Handling	30 Watts(Average Power)		
Electrical Specification Notes	Values at +25°C.		

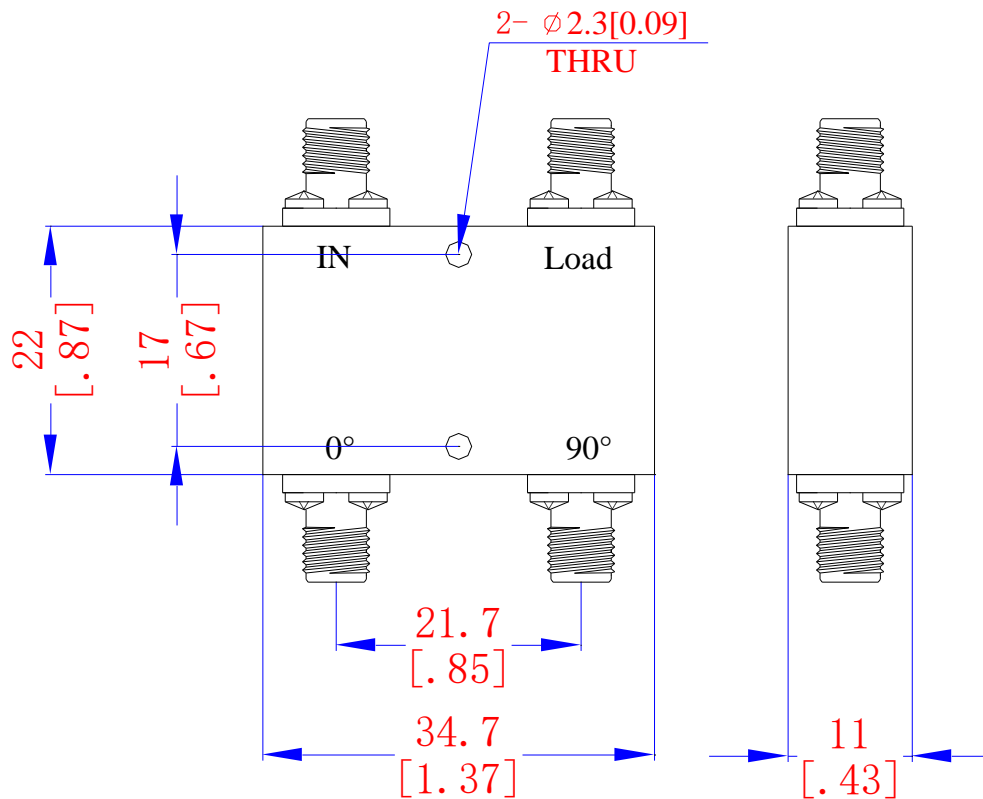
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Mechanical Specifications		Environmental Specification	
Parameter	Specification	Parameter	Specification
Input Connectors	SMA-Female (50Ω)	Operating Temp.	-40°C to +70°C
Output Connectors	SMA-Female (50Ω)	Storage Temp.	-55°C to +85°C
ROHS	Yes	Environment Class	TBD
Material	Aluminum (6061)	Altitude	30,000 ft.
Weight(Kg)	TBD		(Epoxy Sealed Controlled environment)
Surface Finish	Black Painted	Humidity	95%RH at 40°C
Shock	20G for 11msec half sine wave,3 axis both directions		
Note			

**Outline Drawing:**

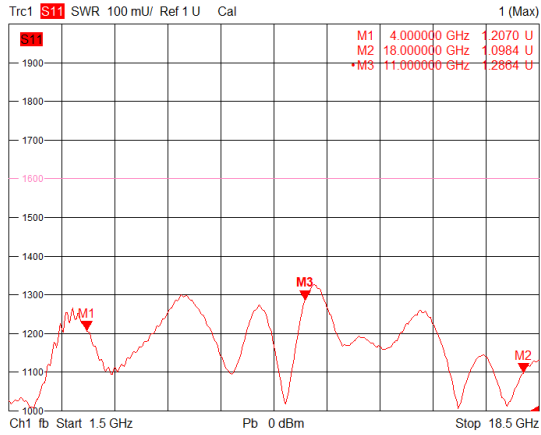
All Dimensions in mm (inches)

Outline Tolerances  $\pm 0.3(0.012)$

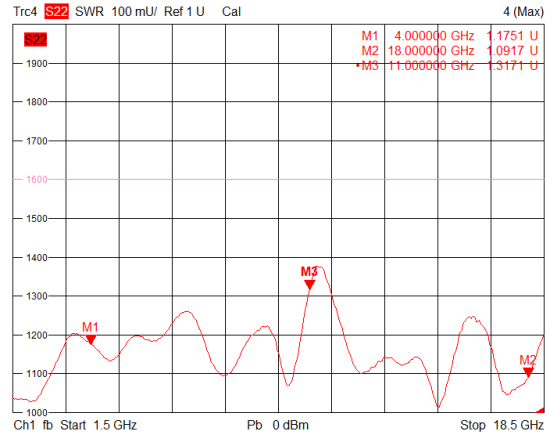


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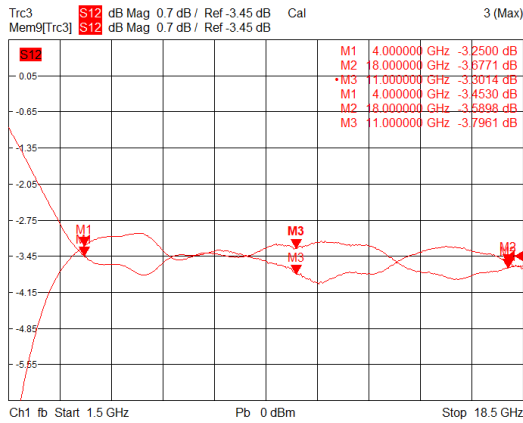
### Input VSWR



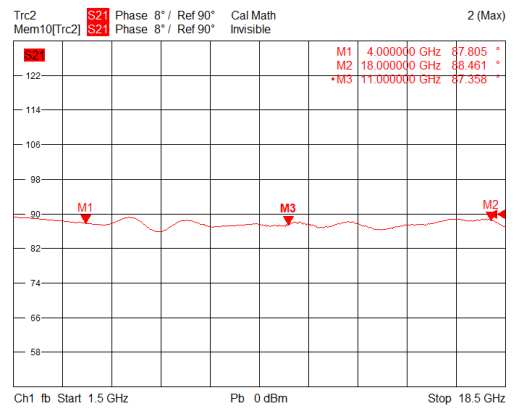
### Output VSWR



### Loss & Amplitude Unbalance



### Phase Unbalance



### Isolation

