

## Dual Directional Coupler, 20 dB, 1–6 GHz, 30 W, SMA Female

Broadband dual directional coupler for forward and reverse power sampling. Designed for 50 Ω RF systems with stable coupling over 1–6 GHz.

FREQUENCY

**1–6 GHz**

COUPLING

**20 dB**

DIRECTIVITY

**≥ 12 dB**

POWER

**30 W**

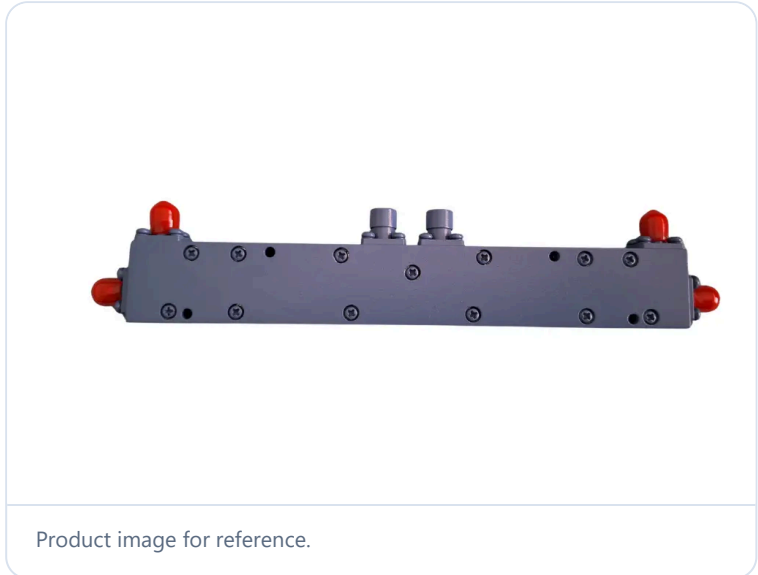
### HIGHLIGHTS

- Dual directional coupler for forward and reverse sampling
- Frequency range: 1–6 GHz
- Nominal coupling: 20 dB
- Rated power: 30 W
- 50 Ω system impedance

### APPLICATIONS

- Forward/reverse power monitoring
- VSWR / return loss measurements
- Lab test setups and RF instrumentation
- System integration and calibration fixtures

Performance values represent worst-case limits across the specified frequency range. Typical values may be lower under nominal operating conditions.



Handle RF connectors with care. Keep mating surfaces clean and protected.

## Electrical Specifications

Reference Specs

Parameter	Value	Unit	Notes
Frequency range	1 to 6	GHz	Operational band
Impedance	50	Ω	System impedance
Insertion loss	≤ 1.20	dB	Excluding coupling loss (0.08 dB)
Coupling factor	≤ 20 ± 1	dB	Across band
Coupling sensitivity	≤ ±1	dB	Across band
Directivity	≥ 12	dB	Minimum
VSWR (primary)	≤ 1.30	:1	Max
VSWR (secondary)	≤ 1.30	:1	Max
Power handling (incident)	≤ 30	W	CW average
Power handling (reflected)	≤ 30	W	CW average
Connector type	SMA Female	—	All ports

## Environmental & Mechanical

Operating limits

Operating temperature	0 to +45	°C	Ambient
Operating humidity	Up to 95	%	Non-condensing
Weight	90	g	Typical

## Material & Construction

Mechanical build and interface materials

Item	Material	Finish	Notes
External finish	—	Painted Blue	RAL #5007
Housing	Aluminum 6061-T6	Clear chem conversion	Precision machined enclosure
Connector body	Stainless steel	Passivated	SMA Female ports
Center contacts	Beryllium copper	Gold plated	RF grade plating

## Compliance

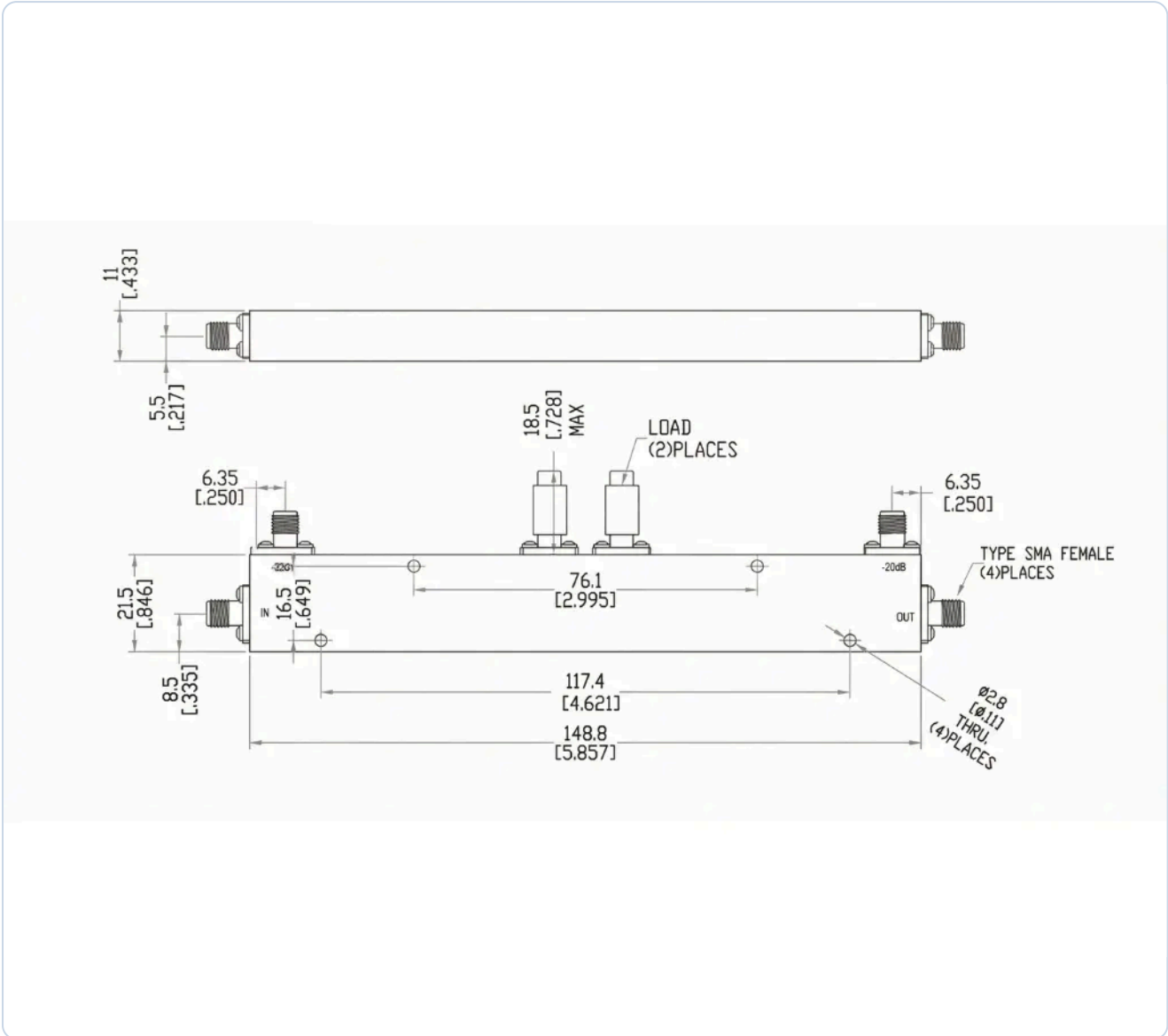
Regulatory & environmental conformity

RoHS compliance	Yes	—	Lead-free
Solder	Lead free	—	RoHS compliant

Power handling is guaranteed when the load VSWR is within 1.50:1.

**Mechanical**

Outline drawing



Dimensions and layout per the mechanical drawing. All dimensions are in mm [inch] where applicable.