

OPEN • SHORT • LOAD

Calibration Standard

TNC Male

HAOSL-TNCP-12G

DC to 12 GHz • 50 Ω

The HASCO RF TNC Male Open-Short-Load Calibration Standard provides accurate and repeatable calibration for Vector Network Analyzers (VNA) up to 12 GHz. The integrated OSL design combines Open, Short, and Precision Load standards in a rugged, compact assembly ideal for laboratory, production, and field applications.



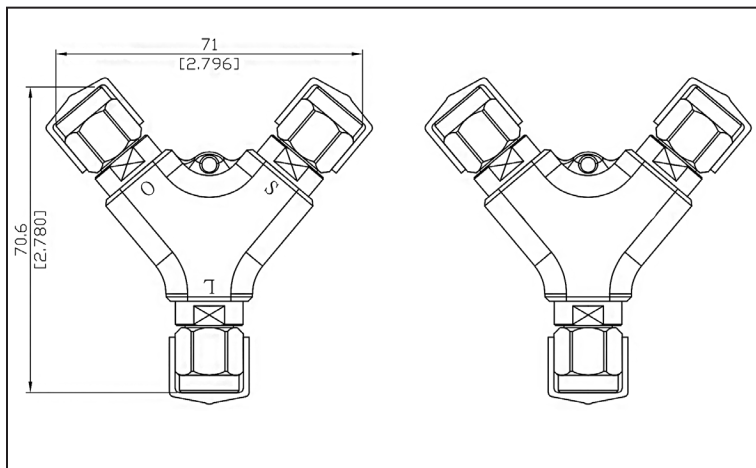
Features

- Integrated Open, Short, Load
- Compact one-piece design
- High return loss performance
- Low phase error
- Rugged Aluminum construction
- Laser engraved port identification
- Includes calibration data

Applications

- VNA Calibration
- RF & Microwave Test Systems
- Production Test / ATE
- Aerospace & Defense
- SATCOM
- Research & Development

Outline Drawing



Calibration & Care

Each calibration standard or calibration kit is supplied with its own fully characterized calibration coefficient datasheet.

- Recommended calibration temperature: 20°C to 25°C
- Keep connector interfaces clean and protected
- Install protective caps when not in use
- Use calibrated torque wrench during mating
- Calibration data provided with each unit

Electrical

- | | |
|----------------------------|---|
| • Impedance | 50 Ω |
| • DC Resistance | 50 $\pm$ 0.50 Ω |
| • Max Power | 0.5 Watts |
| • Frequency Range | DC - 12 GHz |
| • Phase Error (Open/Short) | $\leq$ 3° (DC - 4 GHz)
$\leq$ 6° (4 - 8 GHz)
$\leq$ 9° (8 - 12 GHz) |
| • Return Loss (Open/Short) | $\leq$ 0.1 dB (DC - 4 GHz)
$\leq$ 0.2 dB (4 - 8 GHz)
$\leq$ 0.3 dB (8 - 12 GHz) |
| • Return Loss (Load) | $\geq$ 30 dB (DC - 4 GHz)
$\geq$ 26 dB (4 - 8 GHz)
$\geq$ 23 dB (8 - 12 GHz) |
| • Capacitance (Open) | 79.0 (1E-15) F
40.0 (1E-36) F/Hz ² |

Mechanical

- | | |
|-----------------------|-----------|
| • Open Offset Length | 80.169 ps |
| • Short Offset Length | 84.292 ps |

Environmental

- | | |
|---------------------|---|
| • Temperature Range | -20°C to 75°C (storage) |
| • Temperature Range | 20°C to 25°C (optimal) |
| • RoHS | Compliant  |

Material

- | | |
|--------------|------------------------------------|
| • Housing | Anodized Aluminum |
| • Body & Nut | Tin-Zinc-Copper alloy plated Brass |
| • Dielectric | PPO |
| • Contact | Gold Plated BeCu |
| • Cap | PVC |