

OPEN • SHORT • LOAD

Calibration Standard

Type N Male

HAOSL-NP-18G

DC to 18 GHz • 50 Ω

The HASCO RF Type N Male Open-Short-Load Calibration Standard provides accurate and repeatable calibration for Vector Network Analyzers (VNA) up to 18 GHz. The integrated OSL design combines Open, Short, and Precision Load standards in a rugged, compact assembly ideal for laboratory, production, and field applications.

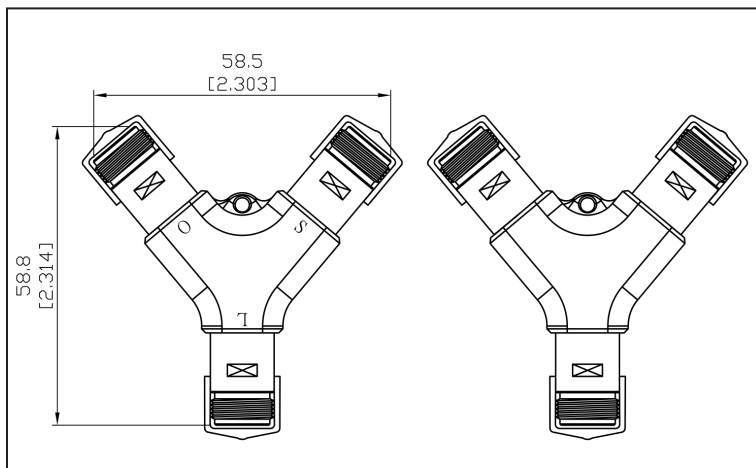
Features

- 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 | 1 Watt |
| • Frequency Range | DC - 18 GHz |
| • Phase Error (Open/Short) | $\leq$ 1.5° (DC - 6 GHz)
$\leq$ 3° (6 - 18 GHz) |
| • Return Loss (Open/Short) | $\leq$ 0.1 dB (DC - 6 GHz)
$\leq$ 0.2 dB (6 - 18 GHz) |
| • Return Loss (Load) | $\geq$ 42 dB (DC - 6 GHz)
$\geq$ 30 dB (6 - 18 GHz) |
| • Capacitance (Open) | 4.0 (1E-15) F
200 (1E-27) F/Hz |

Mechanical

- | | |
|----------------------------|----------|
| • Open/Short Offset Length | 59.44 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 |