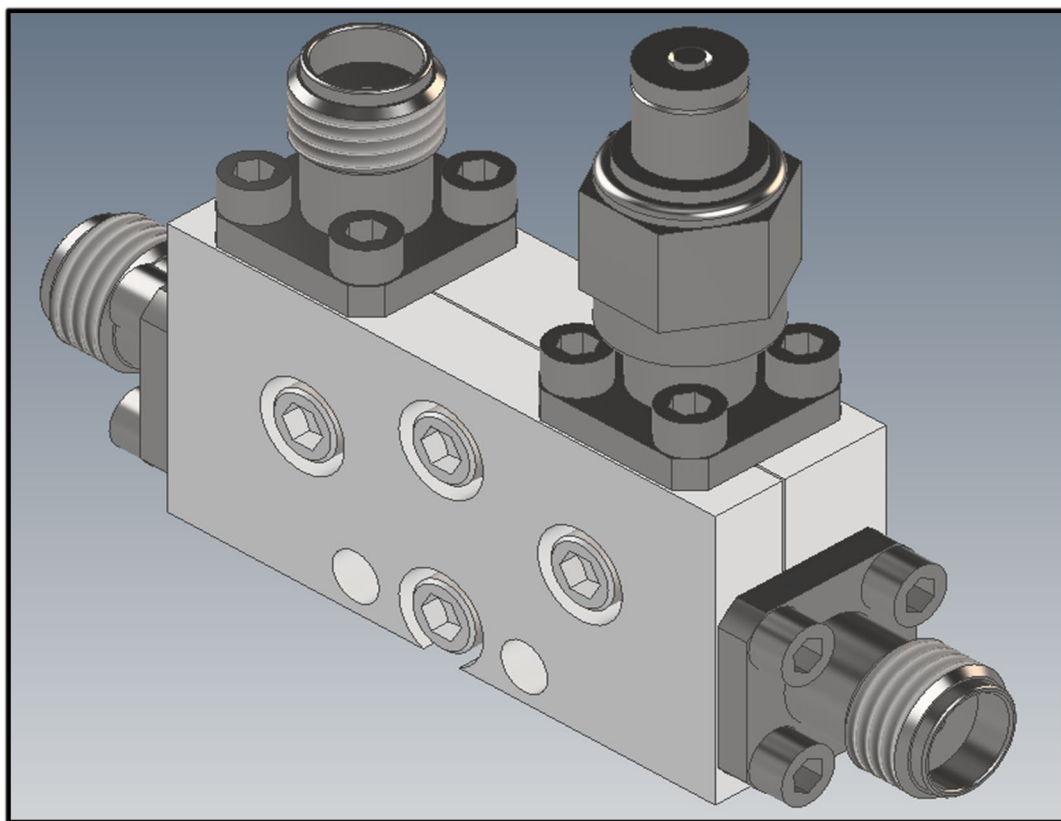


Space Qualified Directional Coupler, 8.0 - 12.0 GHz SCD-8000-12000-20

Revision 1.0



FEATURES

- Space Heritage Design
- Excellent Frequency Flatness
- RF Ports Matched to 50 Ohms
- Compact Design for Space & Weight Savings

TYPICAL APPLICATIONS

- RF Power Monitoring
- Built-In Test and Telemetry
- Redundant Signal Path Verification

ELECTRICAL SPECIFICATIONS (@ 23°C)

| Parameter | Min | Max | Typ | Units |
|-----------------------|--|--------|-----|-------|
| Frequency Range | 8.00 | 12.00 | - | GHz |
| Coupling | 19 | 21 | | dB |
| Frequency Sensitivity | -0.4 | 0.4 | - | ±dB |
| Directivity | 20 | - | - | dB |
| Insertion Loss | - | 0.5 | | dB |
| VSWR Main Line | - | 1.30:1 | - | - |
| VSWR Coupled Line | - | 1.30:1 | - | - |
| CW Input Power | - | 50 | - | W |
| Peak Power | - | 3 | - | kW |
| Operating Temperature | -55 | +85 | | °C |
| Connector Options | SMA Female (MIL-PRF-39012) | | | |
| *Screening Options | -EM = Engineering Model (No Screening) -FM = Standard Screening | | | |

*Screening options do not include Element Evaluation, Group B nor Group C Testing. Consult factory to add these requirements. Engineering Models are built using same materials and processes but are not screened. Not recommended for flight.

Included Standard Screening (100% of Units)

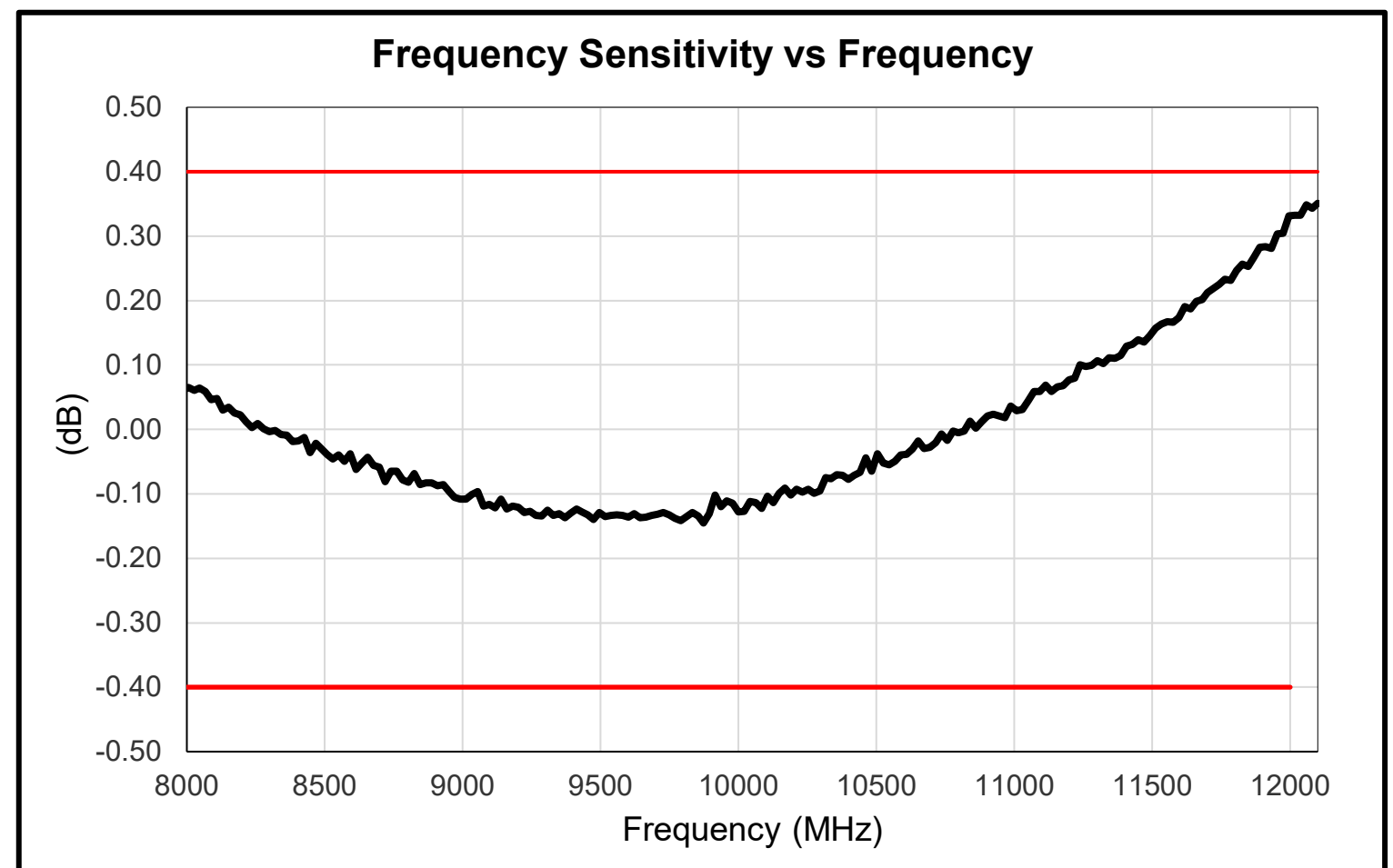
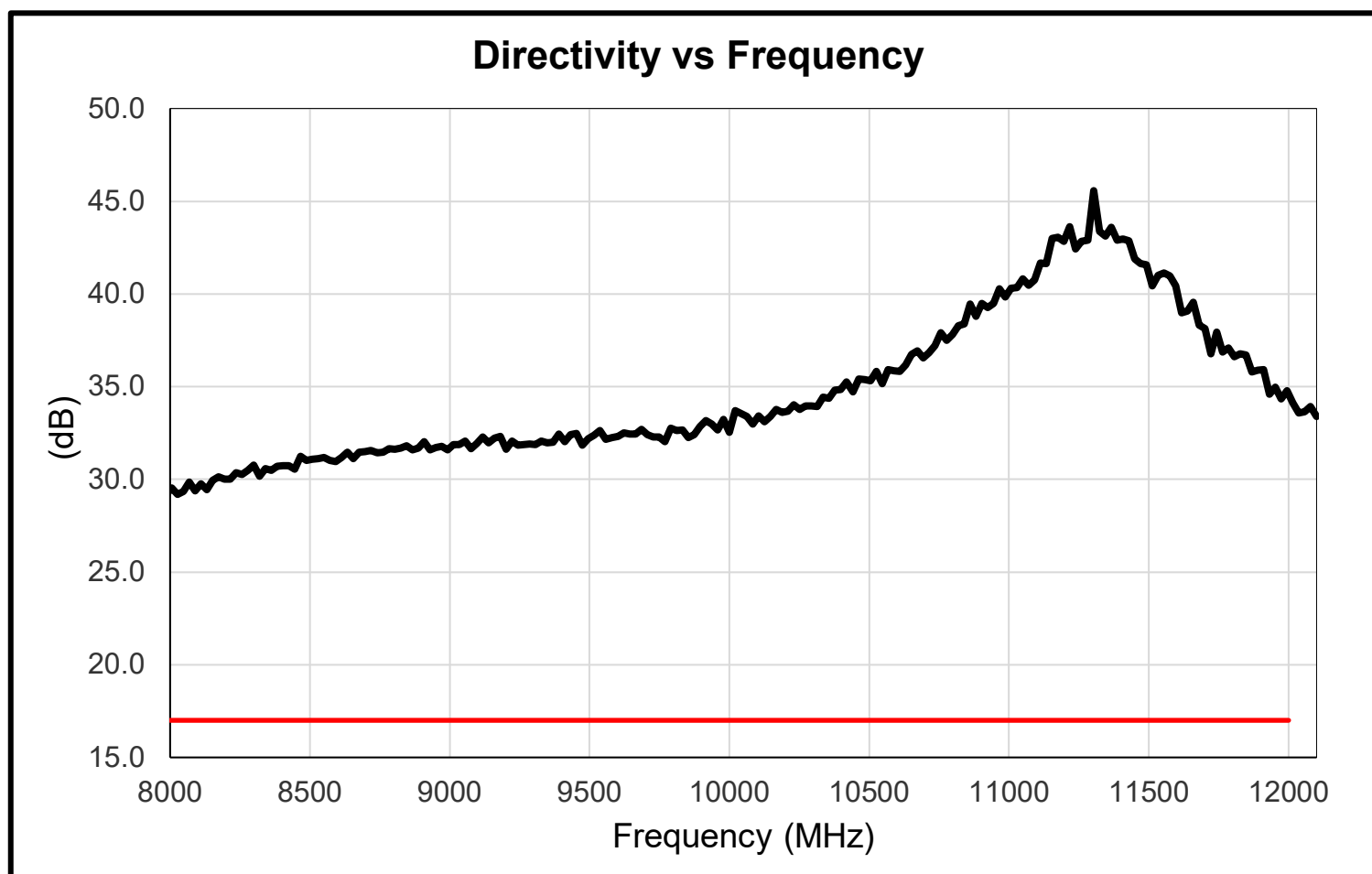
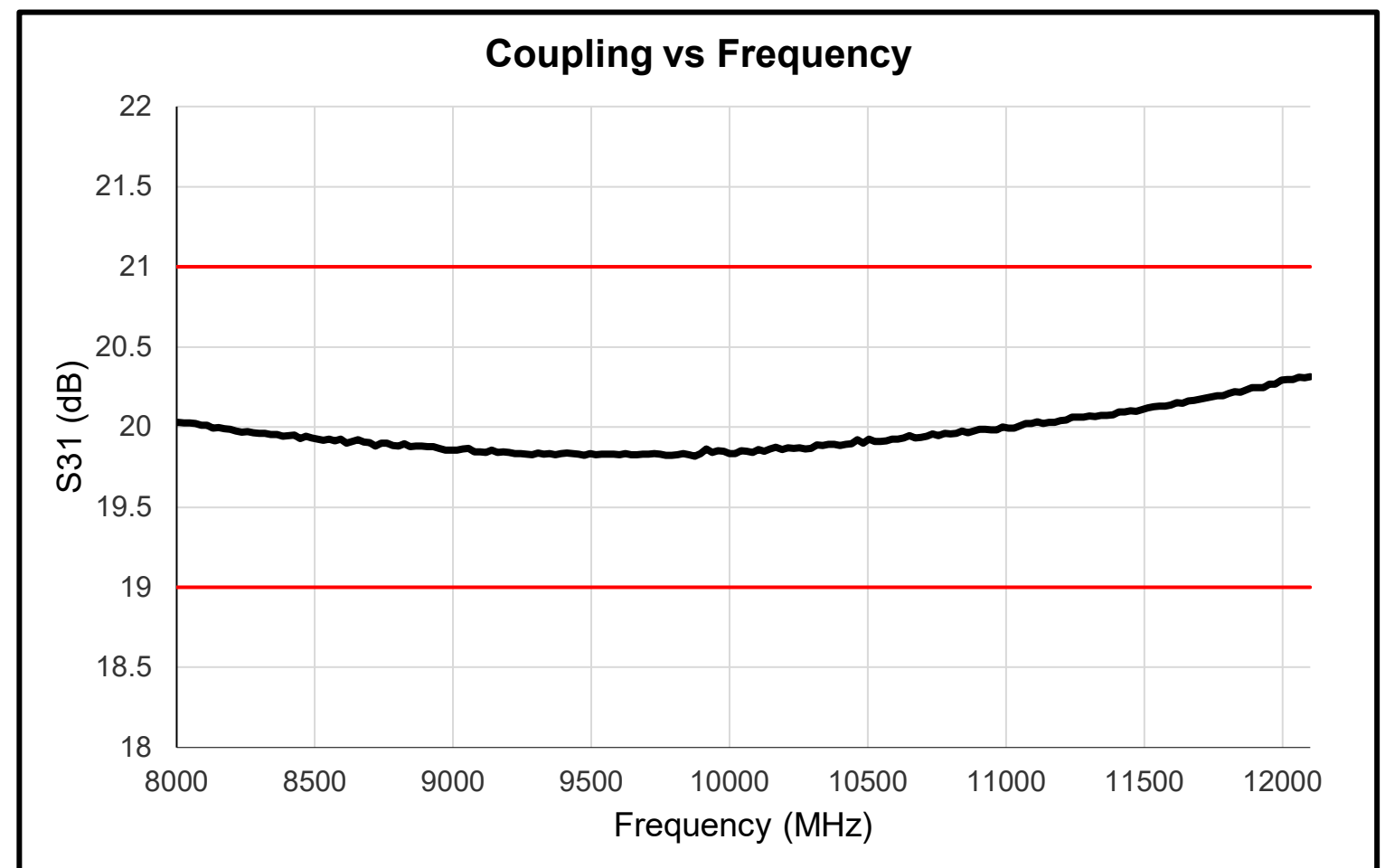
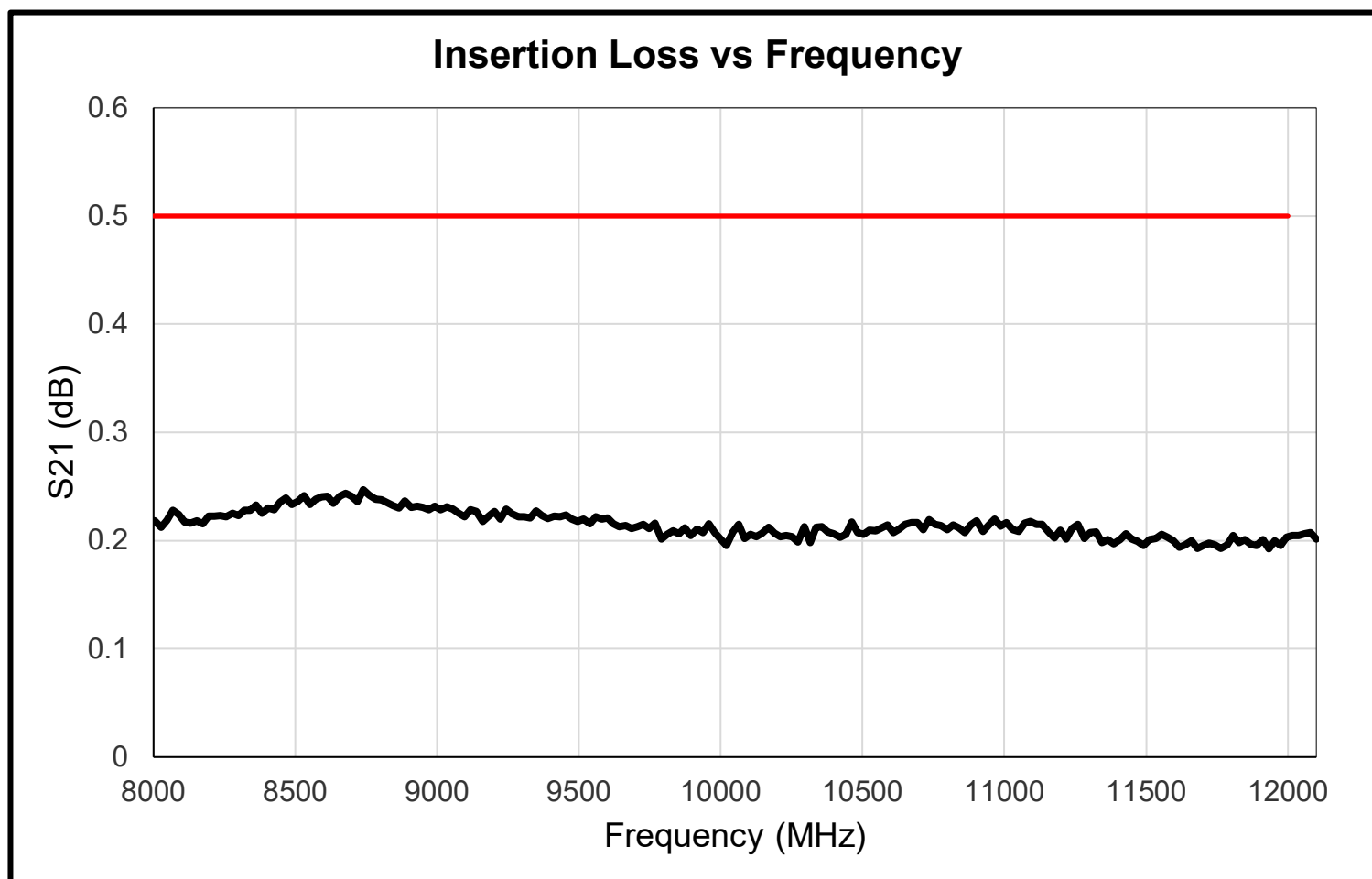
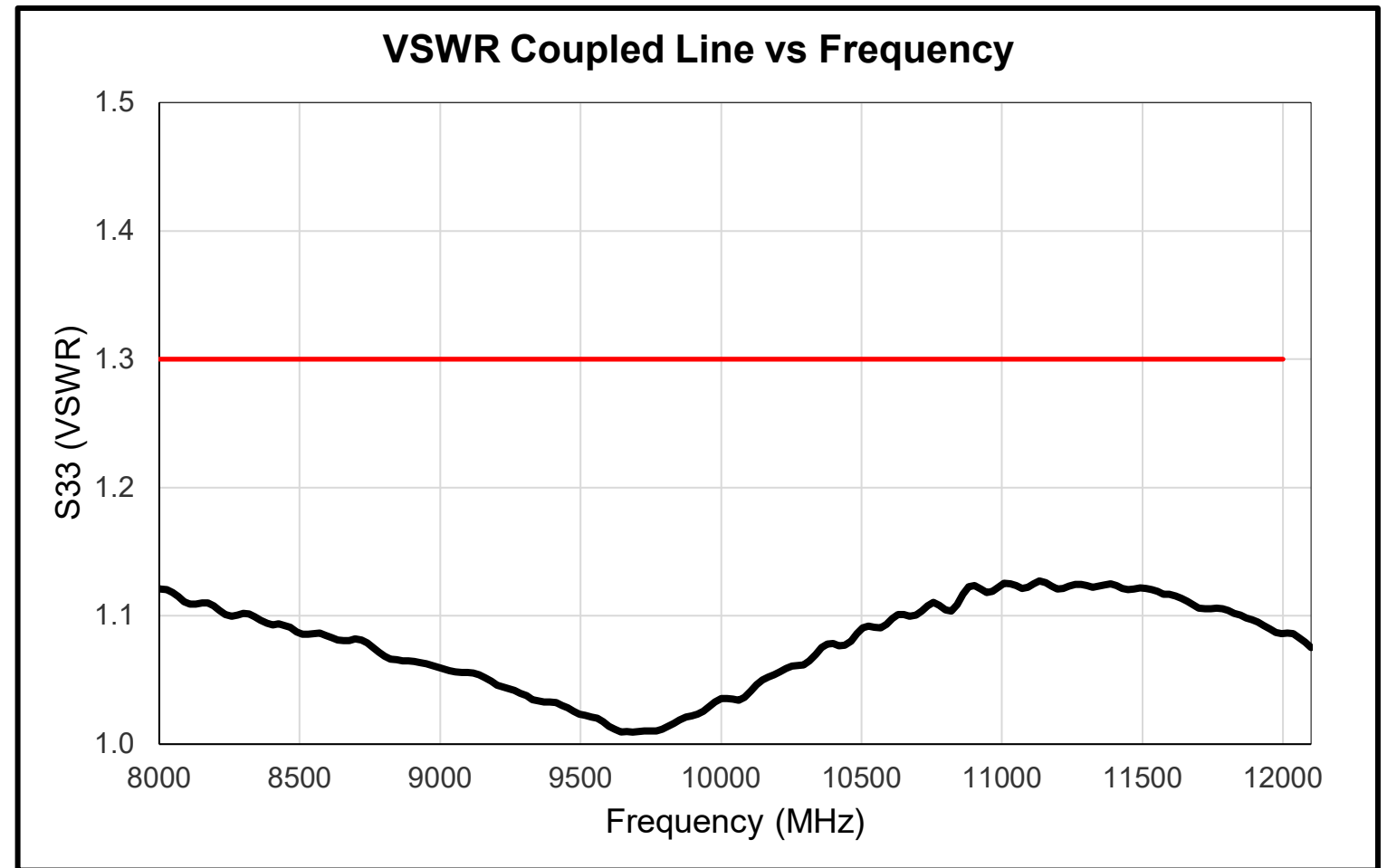
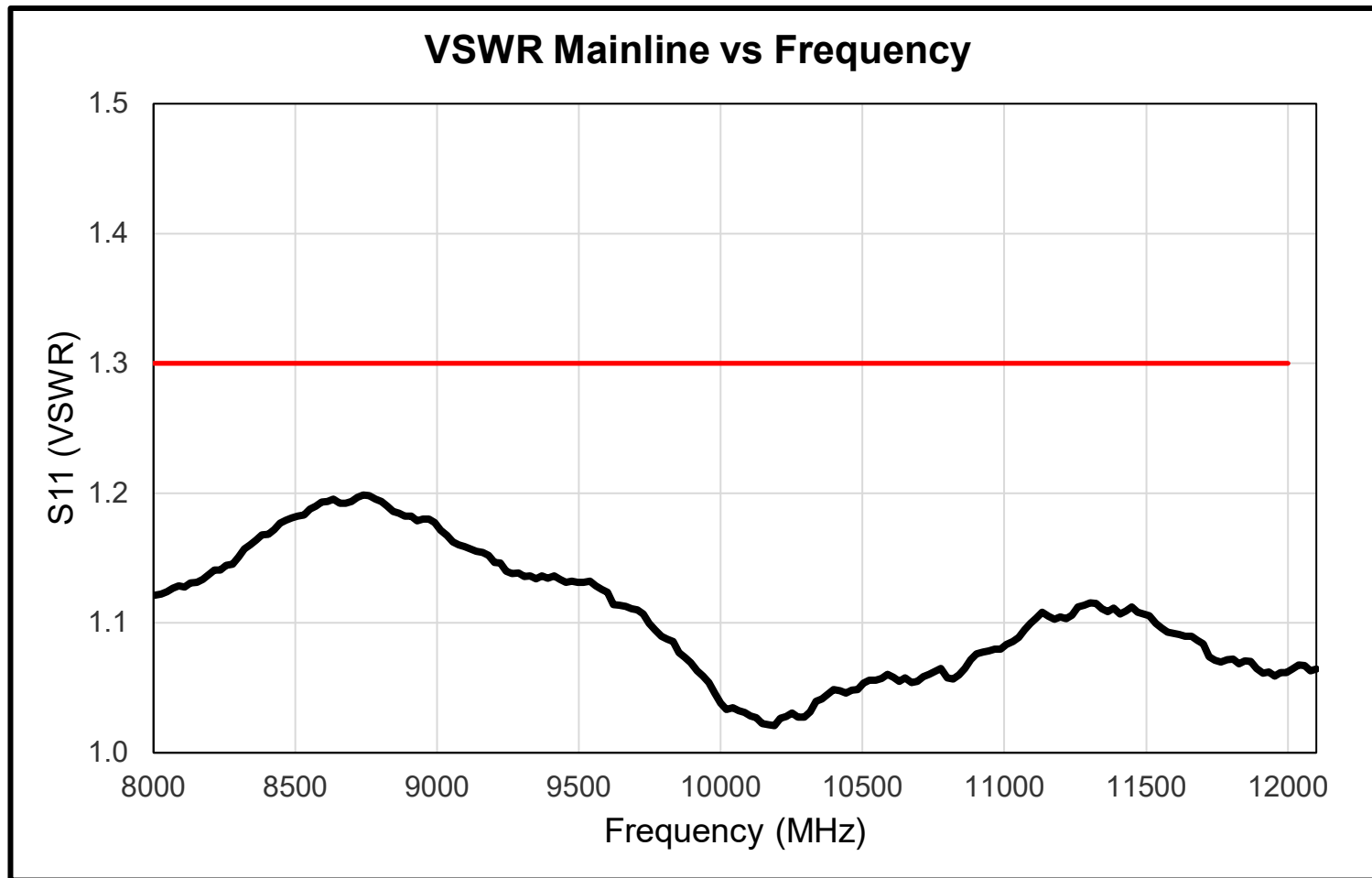
| Parameter | Test Method |
|---------------------------------|--|
| Internal Visual | MIL-STD-883, Method 2017 |
| Vibration (Random) | MIL-STD-202, Method 214, Condition A, 1 min/axis |
| Temperature Cycling | MIL-STD-883, Method 1010, Condition B, -55°C to +125°C |
| Stabilization Bake | MIL-STD-883, Method 1008, Condition B, +125°C |
| Burn-in | 240 Hours @ 125°C |
| Electrical Test @ Temp Extremes | Verify Specifications @ -55°C, +23°C, +85°C |
| External Visual | MIL-STD-883, Method 2009 |

The information above is relative to the sale of a COTS product as depicted. For information regarding other coupler features not listed for this specific coupler model, please review our product overview brochure at the following link or contact your local representative. The material presented in this datasheet was current at the time of publication. Narda-MITEQ's continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current. This material consists of Narda-MITEQ general capabilities information and does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11. D-405/05.01.18.



DS-08 - Rev 1
June 3 2026

Typical Performance @ 23°C



S2P file may be available upon request

DS-08 - Rev 1

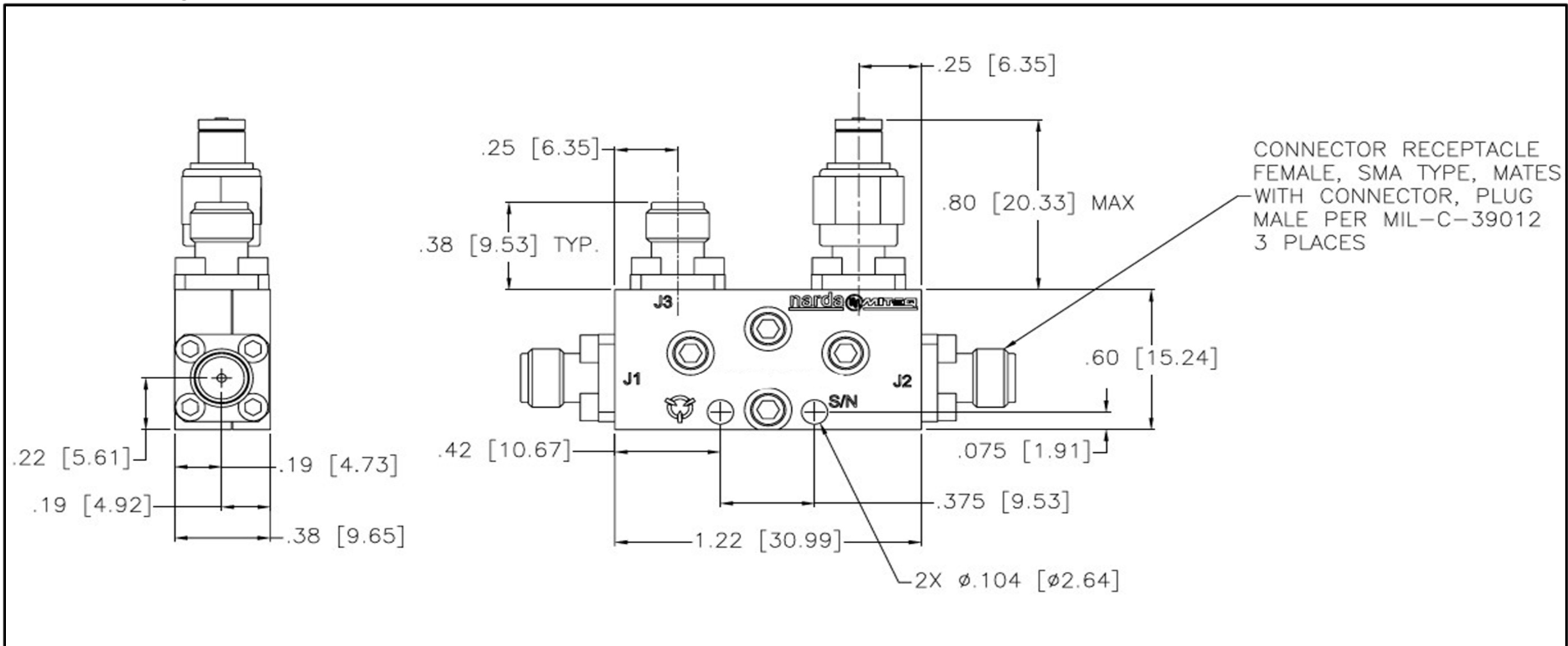
June 3 2026

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www.nardamiteq.com

Outline Drawing



STEP file may be available upon request

Mechanical Specifications

| Parameter | Value |
|----------------|--------------------|
| Length | 1.22 in [30.99 mm] |
| Width | 0.60 in [15.24 mm] |
| Height | 0.38 in [9.65 mm] |
| Connectors | SMA(F) |
| Approx. Weight | 1 oz [28 g] |

Ordering Information

