



High Power Circulator 1.35~1.85GHz



Features

- High power handling up to 250W
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

Typical Applications

- Aerospace and Military
- Wireless Infrastructure
- Test and Measurement

Electrical Specifications, $T_A=25\text{ }^\circ\text{C}$

| Parameter | Min. | Typ. | Max. | Units |
|---------------------------|--|------|------|----------|
| Frequency Range | 1.35 – 1.85 | | | GHz |
| Bandwidth | 500 | | | MHz |
| Insertion Loss | | 0.30 | 0.40 | dB |
| Isolation (Note 1) | 20 | | | dB |
| VSWR | | | 1.2 | :1 |
| Forward Power (CW) | | | 100 | W |
| Reverse Power(CW) | | | 100 | W |
| Peak Power | | | 500 | W |
| Rotation | Clockwise (Standard) Counter Clockwise (Upon Request) | | | |
| Input / Output Connectors | SMA-Female | | | |
| Finish | Nickel Plated | | | |
| Case Material | Aluminum Alloy | | | |
| Impedance | 50 | | | Ω |

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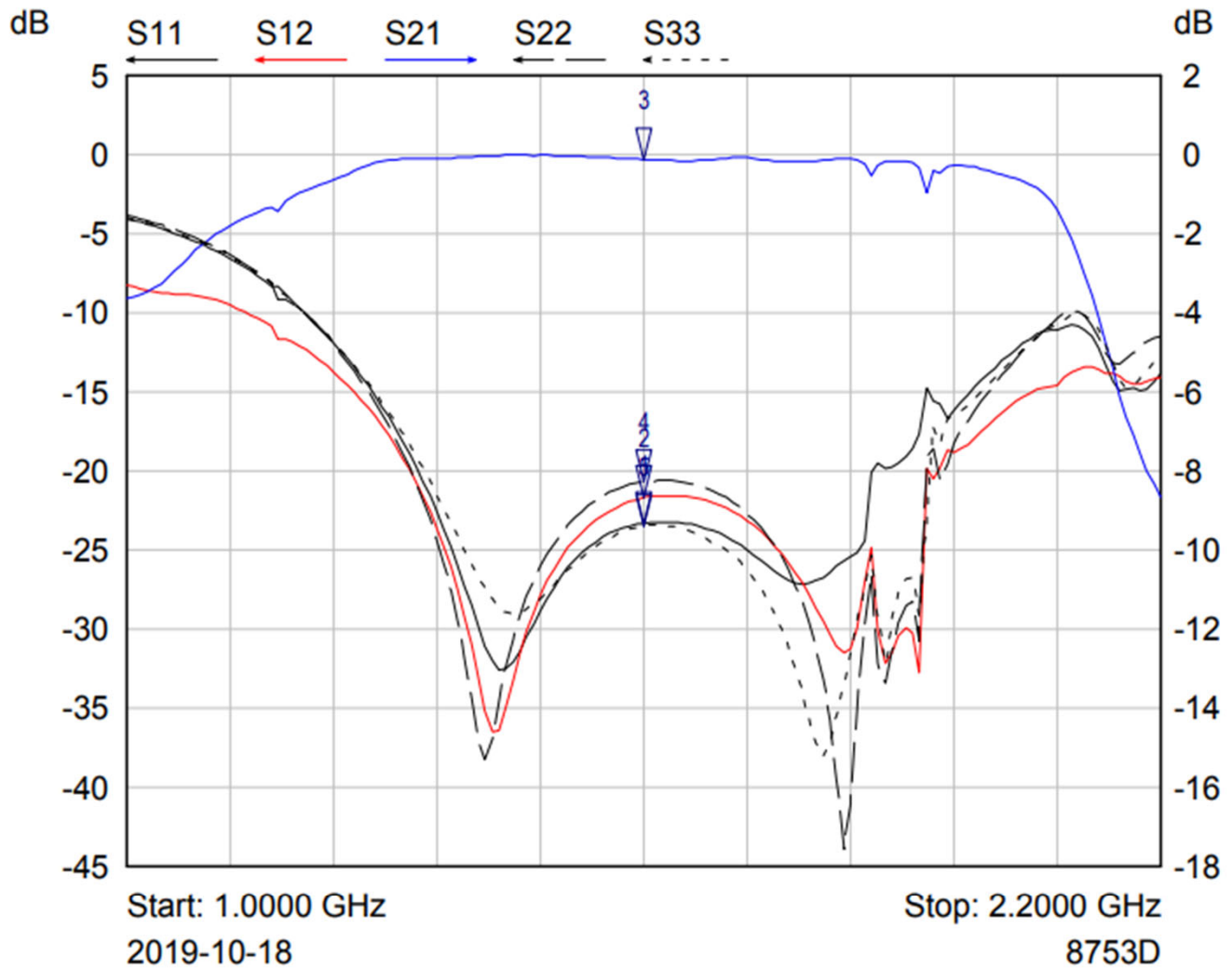
Environmental Specifications and Test Standards

| Parameter | Standard | Description |
|----------------------------------|---------------|---|
| Operational Temperature | MIL-STD-39016 | -40°C~+70°C |
| Storage Temperature | | -40°C~+85°C |
| Thermal Shock | | 1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles) |
| Random Vibration | | Acceleration Spectral Density 6 (m/s) Total 92.6 RMS |
| Electrical & Temperature Burn In | | Temperature +85°C for 72 Hours |
| Shock | | 1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction). |
| Altitude | | Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min) |
| Hermetically Sealed (Optional) | | MIL-STD-883 |

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Typical Performance Plots



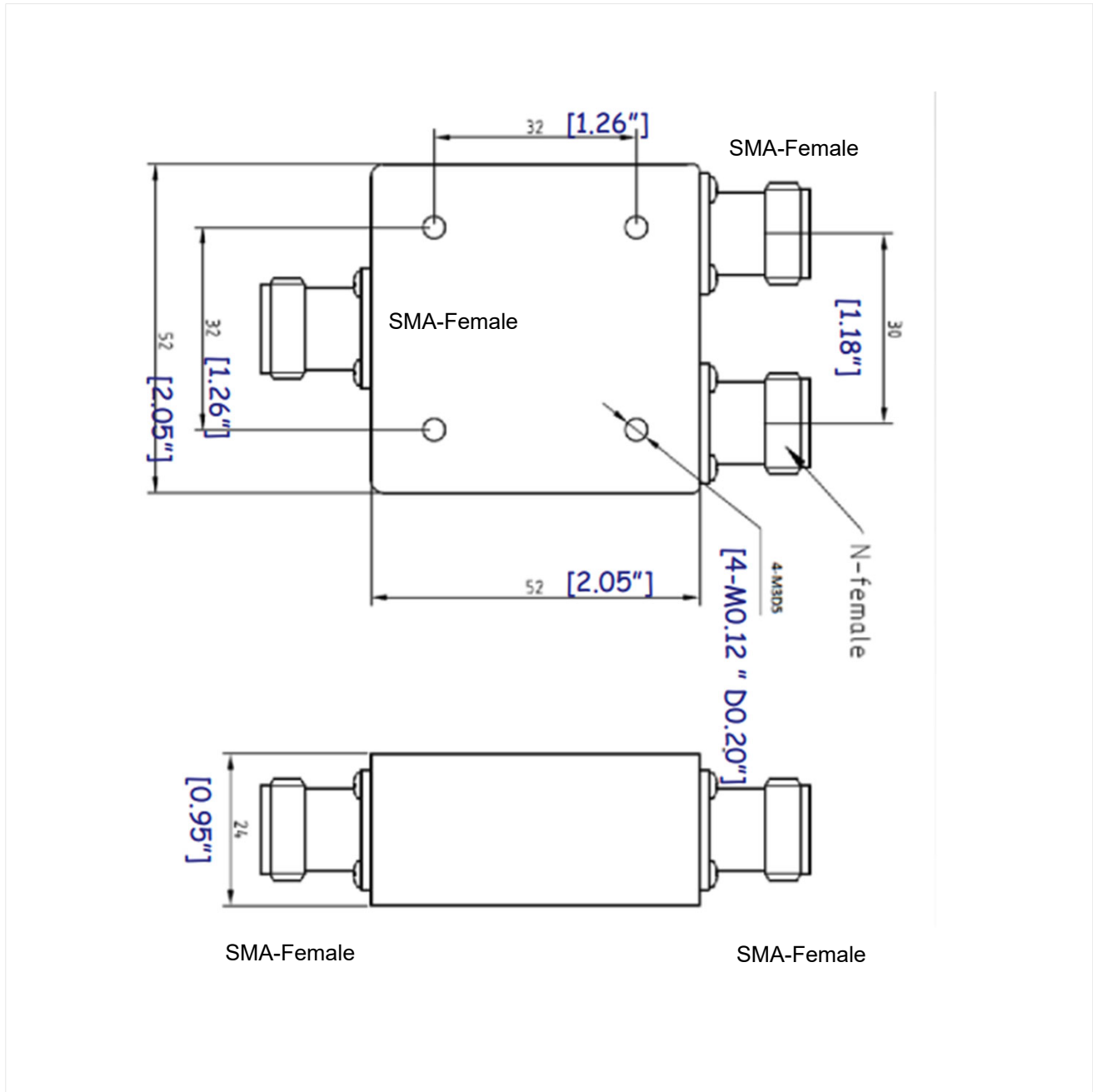
| Mkr | Trace | X-Axis | Value | Notes |
|-----|-------|------------|-----------|-------|
| 1 ▾ | S11 | 1.6000 GHz | -23.30 dB | |
| 2 ▾ | S12 | 1.6000 GHz | -21.69 dB | |
| 3 ▾ | S21 | 1.6000 GHz | -0.12 dB | |
| 4 ▾ | S22 | 1.6000 GHz | -20.67 dB | |
| 5 ▾ | S33 | 1.6000 GHz | -23.50 dB | |

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Outline Drawing:

All Dimensions in mm [inches]



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