Copper Mountain Technologies’ USB VNAs

- S-parameter measurement solutions from 9 kHz to 110 GHz
- Measured parameters from $S_{11}$ to $S_{44}$
- Dynamic range as high as 162 dB typ. (1 Hz IF bandwidth)
- Measurement speeds as fast as 10 μs per point
1-Port VNA Series

Lab grade performance in a handheld cable and antenna analyzer

**R54**
- Frequency range: **85 MHz to 5.4 GHz**
- Measurement Points: 2-100,001
- Time domain with gating standard

**R60**
- Frequency range: **1 MHz to 6 GHz**
- Measurement Points: 2-100,001
- Time domain with gating standard

**R140**
- Frequency range: **85 MHz to 14 GHz**
- Measurement Points: 2-100,001
- Time domain with gating standard

**R180**
- Frequency range: **1 MHz to 18 GHz**
- Measurement Points: 2-100,001
- Time domain with gating standard
Compact Series

Full feature performance in a compact package

**TR1300/1**
- Frequency range: **300 kHz to 1.3 GHz**
- Dynamic Range: **135 dB typ.** (10 Hz IFBW)
- Measured parameters: $S_{11}$, $S_{21}$

**7530**
- Frequency range: **20 kHz to 3.0 GHz**
- Dynamic Range: **133 dB typ.** (1 Hz IFBW) 75 $\Omega$ impedance
- Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$ (S7530) $S_{11}$, $S_{21}$ (TR7530)

**5048**
- Frequency range: **20 kHz to 4.8 GHz**
- Dynamic Range: **133 dB typ.** (1 Hz IFBW)
- Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$ (S5048) $S_{11}$, $S_{21}$ (TR5048)

**S5065**
- Frequency range: **9 kHz to 6.5 GHz**
- Dynamic Range: **138 dB typ.** (1 Hz IFBW)
- Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$

**S5085**
- Frequency range: **9 kHz to 8.5 GHz**
- Dynamic Range: **138 dB typ.** (1 Hz IFBW)
- Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency Range</th>
<th>Dynamic Range</th>
<th>Measured Parameters</th>
<th>Measurement Time per Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1209</td>
<td>100 kHz to 9 GHz</td>
<td>162 dB typ. (1 Hz IFBW)</td>
<td>$S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$</td>
<td>10 μs min. typ</td>
</tr>
<tr>
<td>C2209</td>
<td>100 kHz to 9 GHz</td>
<td>162 dB typ. (1 Hz IFBW)</td>
<td>$S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$</td>
<td>10 μs min. typ</td>
</tr>
<tr>
<td>C4209</td>
<td>100 kHz to 9 GHz</td>
<td>162 dB typ. (1 Hz IFBW)</td>
<td>$S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$</td>
<td>10 μs min. typ</td>
</tr>
<tr>
<td>C1409</td>
<td>100 kHz to 9 GHz</td>
<td>162 dB typ. (1 Hz IFBW)</td>
<td>$S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$</td>
<td>10 μs min. typ</td>
</tr>
<tr>
<td>C2409</td>
<td>100 kHz to 9 GHz</td>
<td>162 dB typ. (1 Hz IFBW)</td>
<td>$S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$</td>
<td>10 μs min. typ</td>
</tr>
<tr>
<td>C4409</td>
<td>100 kHz to 9 GHz</td>
<td>162 dB typ. (1 Hz IFBW)</td>
<td>$S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$</td>
<td>10 μs min. typ</td>
</tr>
</tbody>
</table>
Cobalt Series - 20 GHz

Industry-leading dynamic range and sweep speed

C1220
- Frequency Range: 100 kHz to 20 GHz
- Dynamic Range: 145 dB typ. (1 Hz IFBW)
- Measured Parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
- Measurement Time per Point: 12 μs min. typ

Direct Receiver Access

C2220
- Frequency Range: 100 kHz to 20 GHz
- Dynamic Range: 145 dB typ. (1 Hz IFBW)
- Measured Parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
- Measurement Time per Point: 12 μs min. typ

CobaltFx Compatible

C4220
- Frequency Range: 100 kHz to 20 GHz
- Dynamic Range: 145 dB typ. (1 Hz IFBW)
- Measured Parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
- Measurement Time per Point: 12 μs min. typ

C1420
- Frequency Range: 100 kHz to 20 GHz
- Dynamic Range: 143 dB typ. (1 Hz IFBW)
- Measured Parameters: $S_{11}$, ..., $S_{44}$
- Measurement Time per Point: 12 μs min. typ

Direct Receiver Access

C2420
- Frequency Range: 100 kHz to 20 GHz
- Dynamic Range: 145 dB typ. (1 Hz IFBW)
- Measured Parameters: $S_{11}$, ..., $S_{44}$
- Measurement Time per Point: 12 μs min. typ

CobaltFx Compatible

C4420
- Frequency Range: 100 kHz to 20 GHz
- Dynamic Range: 145 dB typ. (1 Hz IFBW)
- Measured Parameters: $S_{11}$, ..., $S_{44}$
- Measurement Time per Point: 12 μs min. typ
CobaltFx Series

Cost-effective millimeter wave frequency extension system

FEV - 15
Frequency range: 50 GHz to 75 GHz
Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
System Dynamic Range: 120 dB typ. (10 Hz IFBW)

FEV - 12
Frequency range: 60 GHz to 90 GHz
Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
System Dynamic Range: 110 dB typ. (10 Hz IFBW)

FEV - 10
Frequency range: 75 GHz to 110 GHz
Measured parameters: $S_{11}$, $S_{21}$, $S_{12}$, $S_{22}$
System Dynamic Range: 110 dB typ. (10 Hz IFBW)
Automatic Calibration Modules

Copper Mountain Technologies’ Automatic Calibration Modules deliver fast and accurate electronic VNA calibration. ACMs are available in 2-port configurations from 20 kHz to 20 GHz, 4-port configurations to 8 GHz, and a 75 Ω 2-port model to 4 GHz. Our ACMs and Calibration kits ensure accurate testing measurements with our VNAs.

Accessories

Copper Mountain Technologies also offers an extensive range of different cables, matching pads, adapters, mechanical calibration kits, and other accessories to complete your test setup.

Customization

We have designed our analyzers for ease of customization, so we can deliver a high performing custom VNA solution at a lower cost than any other provider.
Copper Mountain Technologies develops innovative and robust RF test and measurement solutions for engineers all over the world. The company was created in 2011 and based in Indianapolis, IN with a sales office in Singapore. Copper Mountain Technologies’ world-class metrology and engineering resources work as an extension of your team.

Copper Mountain Technologies’ VNAs include an RF measurement module and a software application that runs on an external PC laptop or tablet, connecting to the measurement hardware via USB interface. The result is a faster, more effective test process that fits into the modern workspace.

The engineers at Copper Mountain Technologies extend their reach by using the latest available technologies and components, and continuously improving product selection and service. The goal is to help engineers and developers extend their reach by equipping them with cutting-edge test instruments that are small but accurate, lightweight, and affordable.