How do I pick the right spectrum analyzer for my application?
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Introduction

The SIGLENT SSA3000X, SSA3000X Plus and SVA1000X products are based on a similar swept superheterodyne spectrum analyzer platform and have very similar starting prices. There are quite a few similarities, but also a few differences that could affect the end results for particular applications.

The table below compares the major specifications and the comparable options as they pertain to specific applications like VSWR.

<table>
<thead>
<tr>
<th>SSA3000X Series</th>
<th>SSA3000X Plus Series</th>
<th>SVA1000X Series</th>
</tr>
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<tbody>
<tr>
<td>SSA3021X</td>
<td>SSA3032X</td>
<td>SSA3021X Plus</td>
</tr>
<tr>
<td>SSA3032X Plus</td>
<td>SSA3032X</td>
<td>SVA1015X</td>
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<tr>
<td>SSA1032X</td>
<td>SSA3032X Plus</td>
<td>SVA1032X</td>
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</tbody>
</table>

- **TG**: Standard
- **SA Bandwidth**: 9 kHz – 2.1 GHz, 9 kHz – 3.2 GHz
- **VNA Bandwidth**: –
- **VNA Calibration Kit**: –
- **DANL**: -151 dBm (RBW 10Hz), -161 dBm/Hz
- **RBW**: 1 Hz – 1 MHz (1Hz settable)
- **Phase Noise**: < -98 dBc/Hz@1 GHz, 10 kHz offset
- **Options**: AMK/EMI/Ref*
- **AMK details**: CHP/ACPR/TOI/OBW/Monitor
- **AMA details**: CHP/ACPR/TOI/OBW/Monitor/Amplitude
- **DMA details**: ASK/FSK/PSK/QAM
- **EMI filter details**: 200 Hz, 9 kHz, 120 kHz
- **Touch Screen**: –

*Compatible with many commercially available return loss bridges/directional couplers

**Additional SVA Features and Options**

Still having trouble choosing?

Here are some additional features and options that are exclusive to the SSA PLUS and SVA platforms that may help:

**Free Features:**

- Touch screen control with shortcut widget
- Mouse/Keyboard support
- Easy web browser web control
- Power-On-Line – Instrument will automatically restart when power is restored to the mains power connection (power cord) when this feature is enabled.

**Additional Options:**

- AM/FM modulation analysis (SVA1000X-AMA. SSA3000XP-AMA) enables visualization of data encoded using AM/FM
Digital modulation analysis (SVA1000X-DMA, SSA3000XP-DMA) enables visualization of data encoded using FSK/ASK.

Advanced measurement kit (SVA1000X-AMK, SSA3000XP-AMK) feature Harmonic and CNR measurements in addition to CHP/ACPR/TOI/OBW/Monitor.

Mechanical calibration kit for VNA (F503ME)

If you have additional questions, you can always contact our applications team (info@siglent.com) and we would be happy to answer any additional questions you may have.
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