Today's 4G wireless communication systems with carrier aggregation are predominantly using LTE signals modulated over several bandwidths, typically 5 MHz, 10 MHz, 15 MHz, 20 MHz and 40 MHz. Signals generally span from 700 MHz to 6000 MHz. Filtering is often required to reduce harmonics and improve dynamic range when testing LTE products. To replace the large number of fixed filters usually required, K&L has developed and is now shipping a filtering system that can tune a bandpass filter anywhere in the 700 MHz to 6000 MHz range with continuously adjustable bandwidth. The system has software interfaces for automated testing corresponding to the two hardware interfaces (Ethernet and GPIB), as well as a convenient web-based user interface for devices such as smartphone, tablet and traditional computer.

**Features:**

• Tunable center frequency
• Continuously variable 1 dB bandwidth
• Harmonic Rejection: 60 dBC from DC to 13 GHz
• Suitable for LTE, WiFi and other test applications
• Digital control options include USB, Ethernet, IEEE-488, and RS-232. Custom interfaces available upon request.

**Typical Bandwidth to Frequency Ranges**

<table>
<thead>
<tr>
<th>Center Frequency</th>
<th>1 dB Bandwidth Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>700 - 2000 MHz</td>
<td>5 MHz to 40 MHz</td>
</tr>
<tr>
<td>2000 - 5000 MHz</td>
<td>10 MHz to 40 MHz</td>
</tr>
<tr>
<td>5000 - 6000 MHz</td>
<td>12 MHz to 40 MHz</td>
</tr>
</tbody>
</table>

• Height = 27"
• Depth = 31"
• Width = 22"
• Assembled unit approximately 200 lbs
◆ Sample Performance Data:

Fo=700 MHz 1 dB (BW) = 5 MHz

Fo=700 MHz 1 dB (BW) = 40 MHz

Fo=1000 MHz 1 dB (BW) = 5 MHz

Fo=1000 MHz 1 dB (BW) = 40 MHz
Sample Performance Data:

- **Fo=2000 MHz 1 dB (BW) = 5 MHz**

- **Fo=2000 MHz 1 dB (BW) = 40 MHz**

- **Fo=4000 MHz 1 dB (BW) = 40 MHz**

- **Fo=6000 MHz 1 dB (BW) = 40 MHz**