North Hills Ultra High Frequency 50 ohm to 100 ohm balun provides an easy and straightforward means of measuring circuit characteristics to 1.2 GHz.

The Ultra High Frequency Balun matches impedance in either direction and is precision-engineered for low insertion and return loss.

Bandwidth extends from a low-frequency 3 dB cut-off (LCO) of 5 MHz to a 3 dB high frequency cut-off.

*North Hills Application Note 151 - “Wideband Transformers” provides further information on the subject of balun transformers.

Features:
- Superior electrical performance from 5 MHz to 1.2 GHz
- Insertion loss less than 3 dB
- Return loss better than 18 dB

Benefits:
- Easy interface with most Network Analyzers
- Eliminates need for expensive interface hardware
### Technical Drawings

**Case Styles**

![Diagram of model NH16447 case styles.]

<table>
<thead>
<tr>
<th>0.83 MAX</th>
<th>2.08 MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.18 MAX</td>
<td></td>
</tr>
</tbody>
</table>

**Schematics**

![Diagram of schematic for model NH16447.]

1. 50 OHM UNB
2. 100 OHM BAL
3. J1

### Specifications

**Materials (unless otherwise specified)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case &amp; Cover</td>
<td>Cold Rolled Steel</td>
</tr>
<tr>
<td>Finish</td>
<td>Hot Tin Dip</td>
</tr>
<tr>
<td>Terminals (Output)</td>
<td>Sockets for ø.040 (18 GA.) pins</td>
</tr>
<tr>
<td>50 ohm Side (J1) Connector</td>
<td>Type N Plug</td>
</tr>
</tbody>
</table>

### Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Impedance</th>
<th>Frequency Range</th>
<th>Return Loss</th>
<th>Insertion Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH16447</td>
<td>50Ω Unbalanced/100Ω Balanced</td>
<td>5 MHz - 1.2 GHz</td>
<td>18 dB Minimum</td>
<td>&lt;3 dB</td>
</tr>
</tbody>
</table>

50 and 75 ohm models for a wide range of balanced impedances are available upon request. Please contact us at 516-682-7740.

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For ordering assistance and technical support,

E-Mail: service@BTTC-Beta.com
Visit: BTTC-Beta.com
Call: HQ, N.Y., U.S.A (631) 224-7393
UK +44-(0)1635-811140
France +33-(0)1-41-16-3424
Germany +49-(0)89-1500-12-11
Japan +81-(0)3-3814-7688
Asia +65-6489-4801
India +91 80 46797 0368

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