**Description:** In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**PART NUMBER:** PSIBVU78 / PSIBVU78IP

---

### Features:

- Wide Bandwidth VHF, UHF, 7/800
  - 132-174 MHz
  - 380-570 MHz
  - 700-960 MHz

- Aesthetically pleasing:
  - 1.5mm (0.060 inch) thickness to ceiling.

- VSWR < 2:1

- Optimized to low frequency in-building environments.

- Weatherproof IP65 model available

### Applications:

- In Building Repeater Systems
  - Bi-Directional Amplifiers

- Police, Fire, Government critical communication enhancement

- Low-profile ceiling mounting

- Enhanced for In-building:
  - Modest Gain
  - Multi-Floor coverage
  - Avoid nulls of traditional dipoles.

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All dimensions are in mm / inches

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**Issue:** 1907

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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For more information:

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  - 12220 World Trade Drive
  - San Diego, CA 92128
  - USA
  - Tel: 1-858-674-8100

- Pulse/Larsen Antennas
  - 18110 SE 34th St Bldg 2 Suite 250
  - Vancouver, WA 98683
  - USA
  - Tel: 1-360-944-7551

- Europe Headquarters
  - Pulse GmbH & Do, KG
  - Zeppelinstrasse 15
  - Herrenberg, Germany
  - Tel: 49 7032 7806 0

- Pulse (Suzhou) Wireless Products Co, Inc.
  - 99 Huo Ju Road/#29 Bldg,4th Phase
  - Suzhou New District
  - Jiangsu Province, Suzhou 215009 PR China
  - Tel: 86 512 6807 9988

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RoHS COMPLIANT
Description: In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

PART NUMBER: PSIBVU78 / PSIBVU78IP

This document covers all product variants of the following product family

<table>
<thead>
<tr>
<th>Product</th>
<th>Ingress Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSIBVU78</td>
<td>N.A</td>
</tr>
<tr>
<td>PSIBVU78IP</td>
<td>IP65</td>
</tr>
</tbody>
</table>

Note:

PSIBVU78IP is same as PSIBVU78 except applying additional epoxy to seal the antenna (PSIBVU78IP) cover to meet the IP65 rated ingress protection requirement.

Both of these 2 antennas have the same antenna performance and form factor.
**Description:** In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**PART NUMBER:** PSIBVU78 / PSIBVU78IP

---

**ELECTRICAL SPECIFICATIONS.**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>132-174 / 380-570 / 700-960 MHz</td>
</tr>
<tr>
<td>Nominal Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>VSWR</td>
<td>2:1*</td>
</tr>
<tr>
<td>Power Withstand</td>
<td>25 watts</td>
</tr>
<tr>
<td>Connector Type</td>
<td>N Female</td>
</tr>
<tr>
<td>Cable Type</td>
<td>Ø 4mm / 0.16”</td>
</tr>
<tr>
<td>Cable length</td>
<td>500mm / 19.7”</td>
</tr>
</tbody>
</table>

*antenna mounted against ceiling tile with 2ft x 2ft metal suspension frame*

This antenna cannot be mounted directly on metal surface. Contact *PulseLarsen* at antennas.us@pulseelectronics.com for any needed technical installation support.
Description: In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

Series: V-Thinity V/H/7/8

PART NUMBER: PSIBVU78 / PSIBVU78IP

MECHANICAL SPECIFICATIONS.

<table>
<thead>
<tr>
<th>Color</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight:</td>
<td>675 grams</td>
</tr>
<tr>
<td>Cable retention: Pull off</td>
<td>30 N</td>
</tr>
<tr>
<td>Fixing system</td>
<td>4pcs M6 hex slot bolt &amp; nut</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Operating temperature</th>
<th>-40 - 85° C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage temperature</td>
<td>MIL STD 801G: 24h at 85C and 24h at -40C</td>
</tr>
<tr>
<td>Temperature shock</td>
<td>MIL STD 810G: Method 503.5, -40 for 1 hr to +85 C for 1 hr @ 15 deg.C/min rate of change; 3 cycles</td>
</tr>
<tr>
<td>Humidity</td>
<td>MIL STD 810G: 24h at 60C and 95%RH</td>
</tr>
<tr>
<td>Vibration</td>
<td>MIL STD 810G: 514.6 C-II</td>
</tr>
<tr>
<td>Chemical resistance</td>
<td>MIL STD 810G</td>
</tr>
<tr>
<td>Drop test</td>
<td>Top, bottom, side. 3 times/orientation, 40”</td>
</tr>
<tr>
<td>Package drop</td>
<td>All faces &amp; corners, 40”</td>
</tr>
</tbody>
</table>
Description: In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

Series: V-Thinity V/H/7/8

PART NUMBER: PSIBVU78 / PSIBVU78IP

MECHANICAL DRAWING

Issue: 1907

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Description: In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

PART NUMBER: PSIBVU78 / PSIBVU78IP

CHARTS – antenna mounted against ceiling tile with 2ft x 2ft metal suspension frame
**Description:** In Building Public Safety
Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**PART NUMBER:** PSIBVU78 / PSIBVU78IP

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### CHARTS – antenna mounted against ceiling tile with 2ft x 2ft metal suspension frame

**Total efficiency, % - 380-570MHz**

- 70%
- 65%
- 60%
- 55%
- 50%
- 45%
- 40%
- 35%
- 30%
- 25%
- 20%
- 15%
- 10%

**Total efficiency, % - 700-960MHz**

- 90%
- 85%
- 80%
- 75%
- 70%
- 65%
- 60%
- 55%
- 50%
- 45%
- 40%
- 35%
- 30%
- 25%
- 20%
- 15%
- 10%

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**Issue:** 1907

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**Description:** In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**PART NUMBER:** PSIBVU78 / PSIBVU78IP

**CHARTS** – antenna mounted against ceiling tile with 2ft x 2ft metal suspension frame

**Vertical plane 132-174MHz**

**Horizontal plane 132-174MHz**

*Simulation
Floor at theta=0deg

*Simulation
Theta =45deg
**Description:** In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**Part Number:** PSIBVU78 / PSIBVU78IP

---

**CHARTS** — antenna mounted against ceiling tile with 2ft x 2ft metal suspension frame

**Vertical plane 380-570MHz**

**Horizontal plane 380-570MHz**
**Description:** In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**PART NUMBER:** PSIBVU78 / PSIBVU78IP

---

**CHARTS** – antenna mounted against ceiling tile with 2ft x 2ft metal suspension frame

**Vertical plane 700-960MHz**

**Horizontal plane 700-960MHz**
Description: In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

Series: V-Thinity V/H/7/8

PART NUMBER: PSIBVU78 / PSIBVU78IP

* Spacer to be used in gypsum & concrete installations

Issue: 1907
**Description:** In Building Public Safety Antenna 132-174 / 380-570 / 700-960 MHz

**Series:** V-Thinity V/H/7/8

**PART NUMBER:** PSIBVU78 / PSIBVU78IP

### Packaging

- Each antenna packed in a plastic bag and a single box
- 1 label on each antenna with Part number, Description, Serial number, date code
- 34 single boxes of antennas packed in a master carton.
- 1 label on each carton with Qty, Part number, Date code.

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