Clarity Series™
Translucent & White DAS Antenna Family
Ultra-Thin, Ceiling-Mount Omni Antenna

Featuring PIMinator® Low PIM Performance

Industry leading -155 dBc PIM compliant in-building Ultra-Thin ceiling mount DAS omni antenna family including six different antenna products and one Energy Directive Reflector. The Pulse Electronics PIMinator® line of DAS in-building low PIM omni antenna meets the most demanding PIM requirements for 2G, 3G, 4G (LTE) and WiFi bands. DASUTC / DASUTWC product family includes a 500mm pigtail with N, Mini-DIN and 4.3-10 female connector.

Features
- Ultra-Thin
- Translucent (Clear) and White
- Industry leading -155 dBc at 2 x 20 watts (2 x 43dBm) PIM rating
- Covers cellular bands and WiFi from 608 through 2700 MHz
- Available with N, Mini-DIN and 4.3-10 female connector
- RoHS Compliant
- Patent Pending design

Applications
- Ultra-Thin structure of products allow installation in places where Aesthetics is important
- Clear (Translucent) structure of antenna make this product nearly-invisible
- In-building DAS systems requiring best PIM

Antennas and accessory products covered in this documents are as follows:

<table>
<thead>
<tr>
<th>Accessory Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DASUTCCAACC1</td>
<td>Reflector only (not antenna)</td>
</tr>
<tr>
<td>DASACABSORBER</td>
<td>PIM-Blocker Absorber</td>
</tr>
<tr>
<td>DASACHOLDER</td>
<td>Above-Ceiling Antenna Holder</td>
</tr>
<tr>
<td>DASCLINSERT</td>
<td>Clarity Installation Adapter</td>
</tr>
</tbody>
</table>

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Electrical Specifications (Both Clear & White configuration)

<table>
<thead>
<tr>
<th>Frequency [MHz]</th>
<th>608-960/1695-2200/2300-2700</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Impedance [Ω]</td>
<td>50</td>
</tr>
<tr>
<td>VSWR</td>
<td>&lt;2:1</td>
</tr>
<tr>
<td>608-960 MHz</td>
<td>&lt;2:1</td>
</tr>
<tr>
<td>1695-2200 MHz</td>
<td>&lt;2:1</td>
</tr>
<tr>
<td>2300-2700 MHz</td>
<td>&lt;2:1</td>
</tr>
<tr>
<td>Gain</td>
<td></td>
</tr>
<tr>
<td>Without Reflector</td>
<td>With Reflector</td>
</tr>
<tr>
<td>608-960 MHz [dBi typ]</td>
<td>4</td>
</tr>
<tr>
<td>1695-2200 MHz [dBi typ]</td>
<td>6</td>
</tr>
<tr>
<td>2300-2700 MHz [dBi typ]</td>
<td>6</td>
</tr>
<tr>
<td>Radiation Pattern</td>
<td></td>
</tr>
<tr>
<td>HPBW Horizontal Plane at 45° [°]</td>
<td>360</td>
</tr>
<tr>
<td>HPBW Vertical Plane (608-960) [° typ]</td>
<td>100</td>
</tr>
<tr>
<td>HPBW Vertical Plane (1695-2700) [° typ]</td>
<td>130</td>
</tr>
<tr>
<td>Polarization</td>
<td>Vertical</td>
</tr>
<tr>
<td>Power Rating [W]</td>
<td>40</td>
</tr>
<tr>
<td>PIM at 2x20 Watts [dBc]</td>
<td>-155</td>
</tr>
<tr>
<td>Connector</td>
<td>(NF), (4.1-9.5 Mini DIN F), (4.3-10 DIN F)</td>
</tr>
<tr>
<td>Cable Type</td>
<td>Plenum Rated, CM-Rated, NFPA262 compliant</td>
</tr>
</tbody>
</table>

Mechanical Specifications

<table>
<thead>
<tr>
<th>Radome Material</th>
<th>UV Protected, UL94 V-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight [oz/g]</td>
<td>1.65 / 750</td>
</tr>
<tr>
<td>Dimensions [Inches/mm]</td>
<td>9.41 / 239 diameter</td>
</tr>
<tr>
<td>Height [Inches/mm]</td>
<td>Full height 6.78 / 172</td>
</tr>
<tr>
<td></td>
<td>Extension from ceiling only 0.33 / 8.4</td>
</tr>
</tbody>
</table>

Environmental Specifications

| Operating Temperature [°C] | -40 to +70 |

San Diego, California 858 674 8100
Vancouver, Washington 360 944 7551
Europe 49 173 659 8521
China 86 512 69206053
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Mechanical Drawings without Reflector

Mechanical Drawings with Reflector
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Radiation Patterns for
DASUTCCR500NF, DASUTWCR500NF, DASUTCCR500MD, DASUTWCR500MD and DASUTCCR5004310, DASUTWCR5004310 i.e. antennas WITH Reflector DASUTCCACC1
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Radiation Patterns for
DASUTCCR500NF, DASUTWCR500NF,
DASUTCCR500MD, DASUTWC4500MD
and DASUTCCR5004310,
DASUTWCR5004310
i.e. antennas WITH
Reflector DASUTCCACC1
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Radiation Patterns for DASUTCCR500NF, DASUTWCR500NF, DASUTCCR500MD, DASUTWCR500MD, and DASUTCCR5004310, DASUTWCR5004310 i.e. antennas WITH Reflector DASUTCCACC1
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Radiation Patterns for
DASUTCC500NF, DASUTWC500NF,
DASUTCC500MD, DASUTWC500MD,
and DASUTCC5004310,
DASUTWC5004310
i.e. antennas WITHOUT
Reflector DASUTCCACC1

San Diego, California    Vancouver, Washington    Europe    China
858 674 8100    360 944 7551    49 173 659 8521    86 512 69206053
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Radiation Patterns for
DASUTCC500NF, DASUTWC500NF,
DASUTCC500MD, DASUTWC500MD,
and DASUTCC5004310,
DASUTWC5004310
i.e. antennas WITHOUT
Reflector DASUTCCACC1
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Radiation Patterns for
DASUTCC500NF, DASUTWC500NF,
DASUTCC500MD, DASUTWC500MD,
and DASUTCC5004310,
DASUTWC5004310
i.e. antennas WITHOUT
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<table>
<thead>
<tr>
<th>Items</th>
<th>Pulse Part Number</th>
<th>Function</th>
<th>Material, Size</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above-Ceiling Antenna Reflector</td>
<td>DASUTCCACC1</td>
<td>Energy directive reflector</td>
<td>Aluminum 411.8x38.6mm (16.2x52 Inch)</td>
<td>Enhances Gain</td>
</tr>
<tr>
<td>Above-Ceiling Antenna Holder</td>
<td>DASACHOLDER</td>
<td>Support antennas above ceiling tile rails.</td>
<td>Polycarbonate: 618x102x122mm (24.4x7.6x4.4 inch)</td>
<td>Low PIM; Rigid Construction</td>
</tr>
<tr>
<td>Clarity Solid-Ceiling Adapter</td>
<td>DASCLINSERT</td>
<td>Blind-hole installation of Clarity Antennas.</td>
<td>94 mm dia (3.7 inch dia)</td>
<td>Low PIM Installation</td>
</tr>
<tr>
<td>PIM-Blocker Absorber</td>
<td>DASACABSORBER</td>
<td>System PIM Reduction</td>
<td>500x500x50mm (19.7x12.7x1.97 inch)</td>
<td>Up to 30dB PIM Improvement</td>
</tr>
</tbody>
</table>

Below are some images of the various components of the Clarity Series DAS Antenna:

- Above-Ceiling Reflector
- Above-Ceiling Antenna Holder (Shown with Antenna Installed)
- DAS PIM-Blocker Absorber
- Clarity Solid-Ceiling Adapter
- Typical Assembly using the Clarity Installation Adapter

### Clarity-Pearl Series

| Public Safety DAS Antenna | PSUTWCNF | 380-570, 698-960 MHz | N/A | N-Female | White |

For more information, visit pulseantennas.com

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86 512 69206053