

## Broadband In-Building Antenna [380-6000 MHz]

# PEAR™ S5491i

### Description:

- Ceiling mount omni directional antenna for in-building applications such as DAS.
- The antenna is vertically polarized and operates at 380-6000 MHz supporting also public safety frequencies (TETRA).



380-520, 617-960, 1695-6000 MHz Omni SISO Antenna

### Electrical Specifications

Frequency Band [MHz]	380-520	617-698	698-790	790-960	1695-2200	2300-2700	2700-6000
<b>Input Connector Type</b>	1x N-Type (F) or 1x 4.3-10 DIN (F) with cable (12", 30 cm)						
<b>VSWR/Return Loss</b>	< 3:1/6.0 dB	< 2.1:1/9.0 dB	< 2:1/9.5 dB	< 2:1/9.5 dB	< 1.8:1/10.9 dB	< 1.8:1/10.9 dB	< 2.2:1/8.5 dB
<b>VSWR* / Return Loss* with 60x60cm ext. baseplate</b>	<1.7:1/11.8 dB	<1.5:1/14.0 dB	<1.5:1/14.0 dB	<2.0:1/9.5 dB	<1.9:1/10.1 dB	<2.0:1/9.5 dB	<2.2:1/8.5 dB
<b>Impedance</b>	50 Ω						
<b>Polarization</b>	Vertical						
<b>Horizontal Beamwidth</b>	Omni (360°)						
<b>Gain</b>	0 - 1.5 dBi	1 - 2 dBi	1.5 - 2.5 dBi	2.0 - 3.5 dBi	5.0 - 7.0 dBi	4.0 - 7.0 dBi	5.0 - 6.0 dBi
<b>Gain* with 60x60cm ext. baseplate</b>	2.0 - 4.0 dBi	3 - 4 dBi	1.5 - 3.5 dBi	3.0 - 4.0 dBi	5.0 - 7.0 dBi	4.0 - 7.0 dBi	5.0 - 6.0 dBi
<b>Max Power / Port</b>	50 Watts at ambient temperature 77°F (25°C)						
<b>PIM @ 2x43 dBm</b>	<-153 dBc for 4.3-10 DIN <-150 dBc for N-Type						

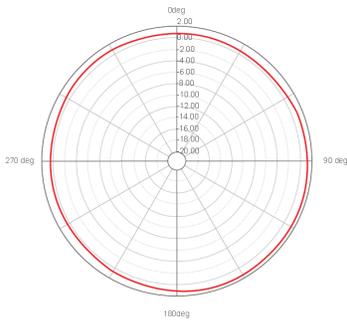
\* An External Base Plate (Part#27-272-09) is highly recommended to be used with the antenna for better gain and VSWR/RL for the public safety band.

### Mechanical Specifications

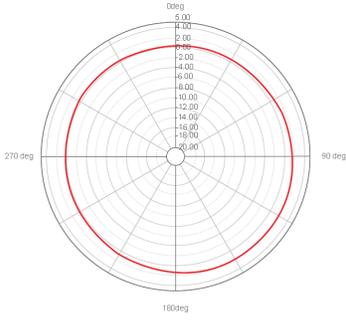
<b>Operating Temperature</b>	-40° to 158°F (-40° to +70°C)
<b>Environmental Conditions</b>	Indoor
<b>Antenna Weight</b>	1.65 lbs (750g)
<b>Antenna Dimensions (Diameter / Height)</b>	13.2" / 4.88" (335 / 124mm)
<b>Radome Material</b>	PC/ABS (halogen free)
<b>Radome Color</b>	RAL 9016 (white)*
<b>Flammability rating</b>	UL 94-V0
<b>RoHS</b>	Compliant
<b>Cable</b>	Plenum Rated
<b>Approved for use in Plenum Space</b>	Listed & tested by Intertek ETL

\* Radome can be painted with recommended paint "Krylon fusion for plastic"

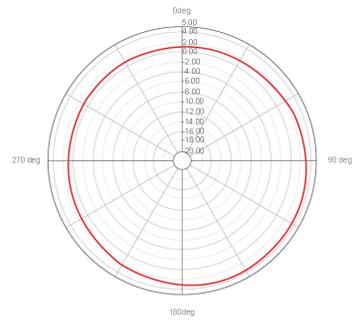
**Antenna Patterns**



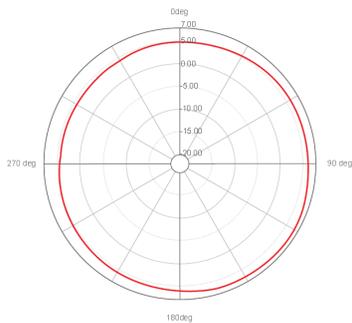
**410 MHz**



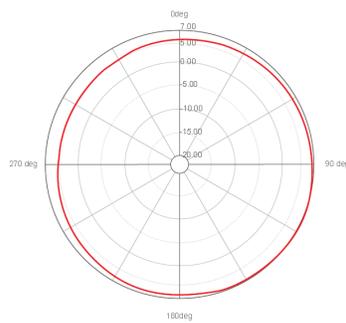
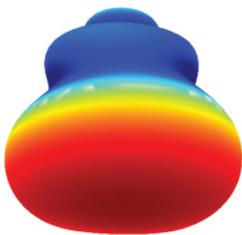
**710 MHz**



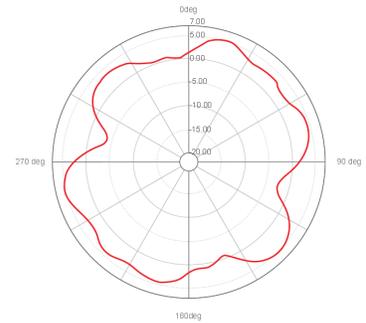
**850 MHz**



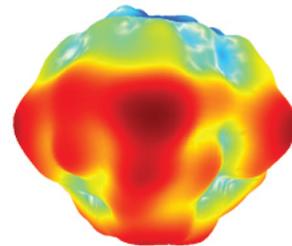
**1910 MHz**

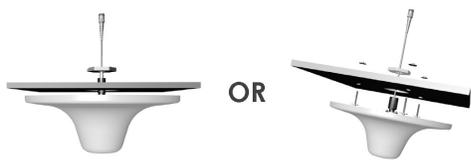
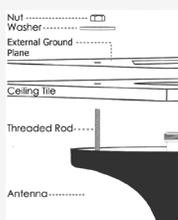
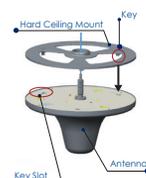


**2500 MHz**



**5500 MHz**



Part Numbers, Ordering Options and Accessories	
Description:	Part Number:
<b>Antenna with 1x N-Type (F) Connectors - Below Ceiling</b>	02121304-05491U
<b>Antenna with 1x 4.3-10 DIN (F) Connectors - Below Ceiling</b>	02130304-05491U
Mounting Options:	Part Number:
<p><b>Below Ceiling Mounting kit (included)</b></p> <p>Fasteners for below suspended ceiling mounting included with antenna. Maximum ceiling thickness 1.18"(30mm). Drill a hole with a 1.18"(30mm) diameter into suspended ceiling and secure the antenna with supplied plastic nut.</p> <p>Optionally the antenna can be installed below a suspended ceiling by using the provided M4 Threaded rod (x3) and M4 nuts.</p> <p><b>Included with antenna</b></p>	
<p><b>Through Ceiling Mounting Bracket (Optional)</b></p> <p>Through ceiling mounting conceals the antenna with only the nose protruding through the ceiling. The base plate is hidden above the false ceiling which results in a 40% reduction of the visible antenna footprint.</p>	 <p style="text-align: right;">62-17-09</p>
<p><b>Above Ceiling Mounting Bracket (Optional)</b></p> <p>The antenna can be installed above a suspended ceiling by using the optional above ceiling mounting bracket.</p>	 <p style="text-align: right;">62-40-09</p>
<p><b>External Ground Plane (Optional)</b></p> <p>The optional external ground plane can be placed above the suspended ceiling to improve gain and VSWR performance of the antenna.</p>	 <p style="text-align: right;">27-272-09</p>
<p><b>Hard Ceiling Installation (Optional)</b></p> <p>The hard ceiling mounting kit can be used to mount the antenna to drywall and concrete ceilings</p>	 <p style="text-align: right;">62-54-09</p>

**Mating Connector Torque:**

N-Type: 26.6 in-lb (3 Nm)

4.3-10: 44.3 in-lb (5 Nm)