



110 Nortech Parkway  
San Jose, California, 95134

## 2.4 GHz External Antenna(s) Pictures and data sheets

### Addendum to EMI Test Report and Technical Documentation on Airespace Access Point. Model: 1200B

**FCC ID: QTZUSAP1200B**

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## 2400 MHz Sphere

### Omnidirectional Antenna

Part Number (P/N):

CAF94101 CAF94170  
CAF94150 CAF94144

### Features:

- Omnidirectional antenna provides a considerable gain improvement over traditional dipole antennas, within a remarkably small case that perfectly blends into any environment.
- It is particularly applicable in environments such as offices and hospitals, where aesthetics are critical to successful wireless deployment and wide angle coverage is necessary.
- For easy installation, the Sphere quickly attaches to a ceiling tile frame with a standard metal clip.

### Specifications:

<b>Element Type</b>	Air-Loaded Patch
<b>Frequency Range</b>	2400-2500 MHz
<b>Peak Gain</b>	3 dBi
<b>Polarization<sup>1</sup></b>	Linear
<b>Impedance</b>	50 ohms
<b>Maximum Input Power</b>	50 watts
<b>VSWR (Min. Performance)</b>	1.5:1
<b>Connector</b>	Customer Choice
<b>Dimensions (cm)</b>	6.4 x 6.3 x 1.7 cm
<b>Housing Coating Material</b>	ABS
<b>Operating Temperature</b>	-40° to +70°C
<b>Storage Temperature</b>	-40° to +70°C

Includes a low-loss, RG 142, plenum rated "pigtail" cable.

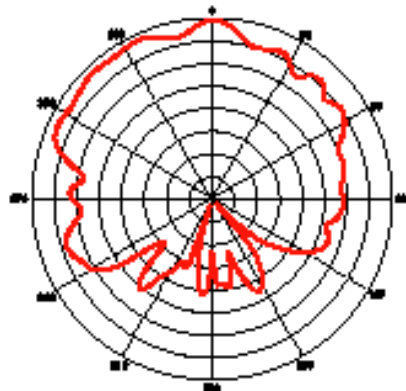
<sup>1</sup>Contains both vertical and horizontal components, the ratio of which varies with the spatial location.



Sphere 2400

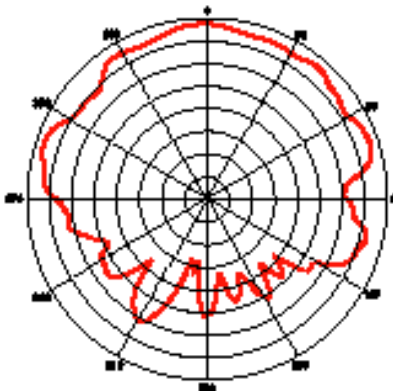
### Cables & Connectors:

Part Number	Cable	Connector
CAF94101	12" RG-142 Plenum Rated Coax	SMA-Male
CAF94170	12" RG-142 Plenum Rated Coax	N-Female
CAF94150	36" RG-142 Plenum Rated Coax	RP-TNC
CAF94144	36" RG-142 Plenum Rated Coax	RP-TNC



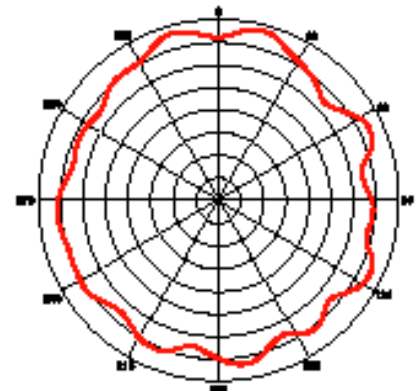
**Azimuth Plane**

Cut perpendicular to the antenna and perpendicular to the cable



**Elevation Plane**

Cut perpendicular to the antenna along the cable axis



**Omni Plane**

Cut in the plane of the antenna parallel to the cable

Specifications subject to change without notice

2400 MHz Sphere - 10/30/02



## DIRECTIONAL/BI-DIRECTIONAL ANTENNAS

### *Reliability Without the Expense...*

Reliable coverage is always a priority in streamlining the effectiveness of wireless devices. This is especially crucial in commercial, office, campus and residential environments that strive to cover a multitude of users in an open space or long corridor.

Centurion's Whisper directional and Terrace bi-directional antennas offer an affordable option for in-building antenna systems. Our innovative designs blend into any atmosphere and provide excellent coverage in high traffic areas.

#### **FEATURES & OPTIONS:**

##### **WHISPER - Directional Antenna**

- Self contained in a durable sleek radome, the Whisper is designed to blend in anywhere - residential, campus or commercial
- Inexpensive yet reliable, the Whisper utilizes Centurion's patented technology to achieve maximum efficiency.
- Typical applications include wireless local loop, in-building wireless (voice and data), WLAN, DECT, WPBX, and broadband Internet access.



##### **TERRACE - Bi-directional Antenna**

- Utilizes a patented low-profile design to provide coverage in corridors or long hallways
- Provides outstanding performance in healthcare and office environments, where a long hallway presents a design or coverage challenge





# In-Building

## DIRECTIONAL/BI-DIRECTIONAL ANTENNAS

### SPECIFICATIONS:

General specifications for In-Building Directional and Bi-Directional Antennas:

ELEMENT TYPE	Air-Loaded Patch
FREQUENCY RANGE	806-2500 MHz
PEAK GAIN	5.0-9.0 dBi
POLARIZATION <sup>1</sup>	Linear
IMPEDANCE	50 ohms
MAXIMUM INPUT POWER	50 watts
FRONT/BACK RATIO	18-20 dBi
VSWR (MIN. PERFORMANCE)	1.5:1-2.0:1
RADOME MATERIAL (INDOOR)	ABS or Luran
RADOME MATERIAL (OUTDOOR)	Kydex <sup>2</sup> or Luran <sup>2</sup>

All centurion products are designed for maximum efficiency and are customizable and scalable to meet your frequency and application requirements.

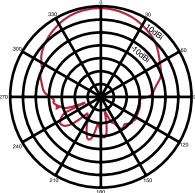
<sup>1</sup> Polarization axis is parallel to the cable axis, or along the long axis of the antenna for models without cable pigtails.

<sup>2</sup> UV tolerance rated to 7 years of outdoor exposure.

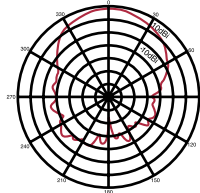
### PATTERNS:

As displayed in these typical patterns, In-Building Directional and Bi-Directional antennas offer superior high-gain reception over a broad area.

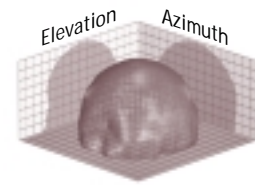
#### TYPICAL WHISPER ANTENNA PATTERNS



**AZIMUTH PLANE**  
cut perpendicular to the antenna  
and perpendicular to the cable

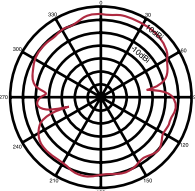


**ELEVATION PLANE**  
cut perpendicular to the antenna  
along the cable axis

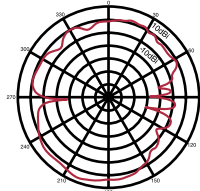


**OMNI PLANE**  
Spherical Projection

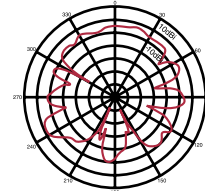
#### TYPICAL TERRACE ANTENNA PATTERNS



**AZIMUTH PLANE**  
cut perpendicular to the antenna  
and perpendicular to the cable



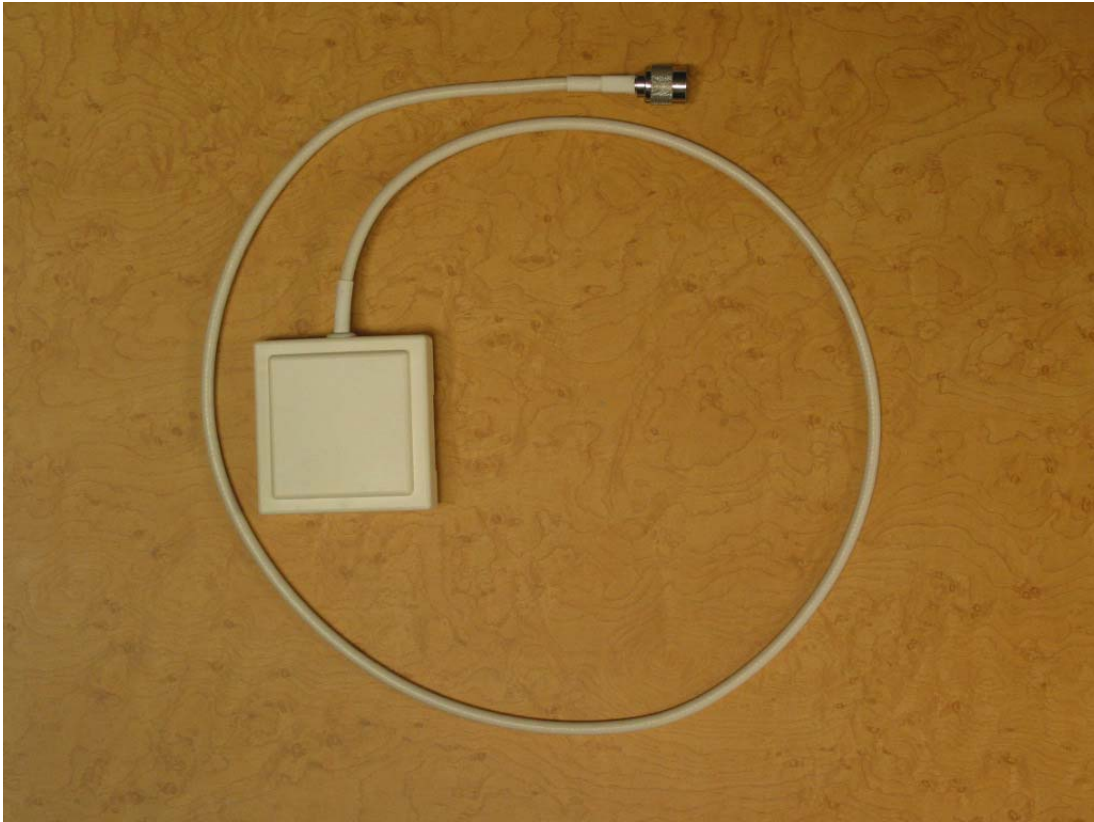
**ELEVATION PLANE**  
cut perpendicular to the antenna  
along the cable axis



**OMNI PLANE**  
cut perpendicular to the antenna  
along the cable axis

Specifications subject to change without notice

Centurion 2.4 GHz 3dBi (#94150) antenna

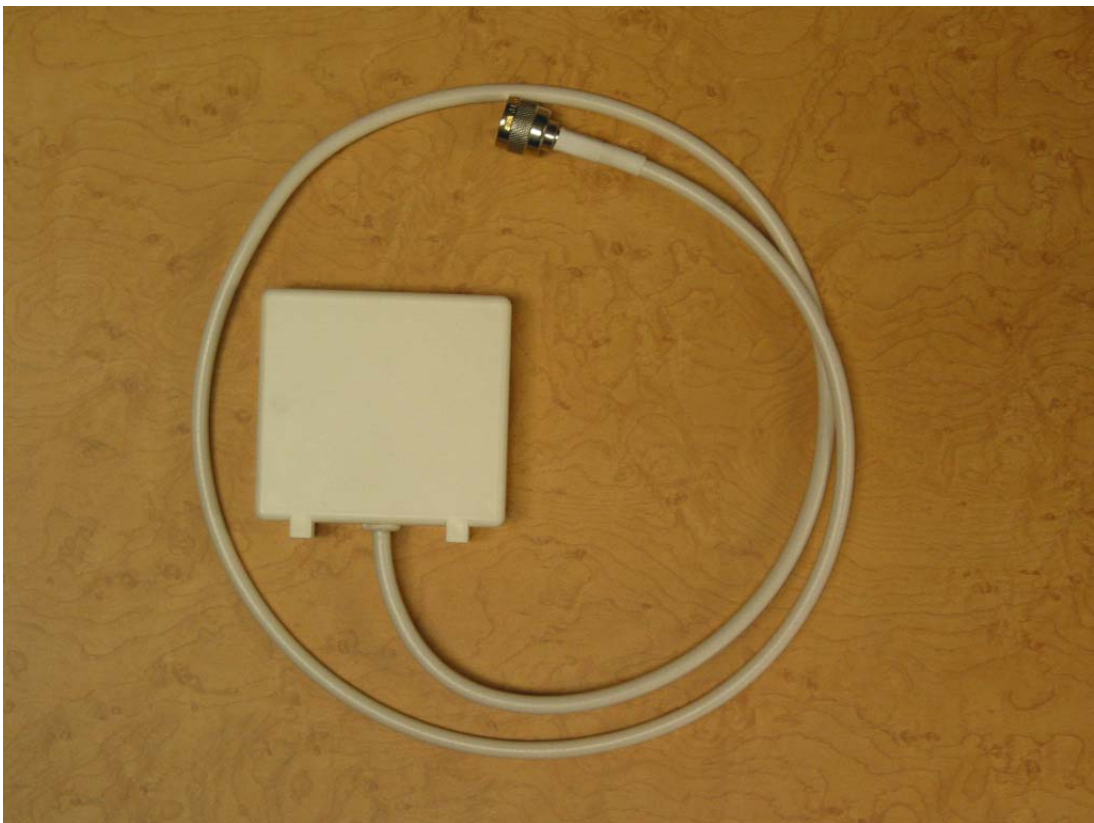
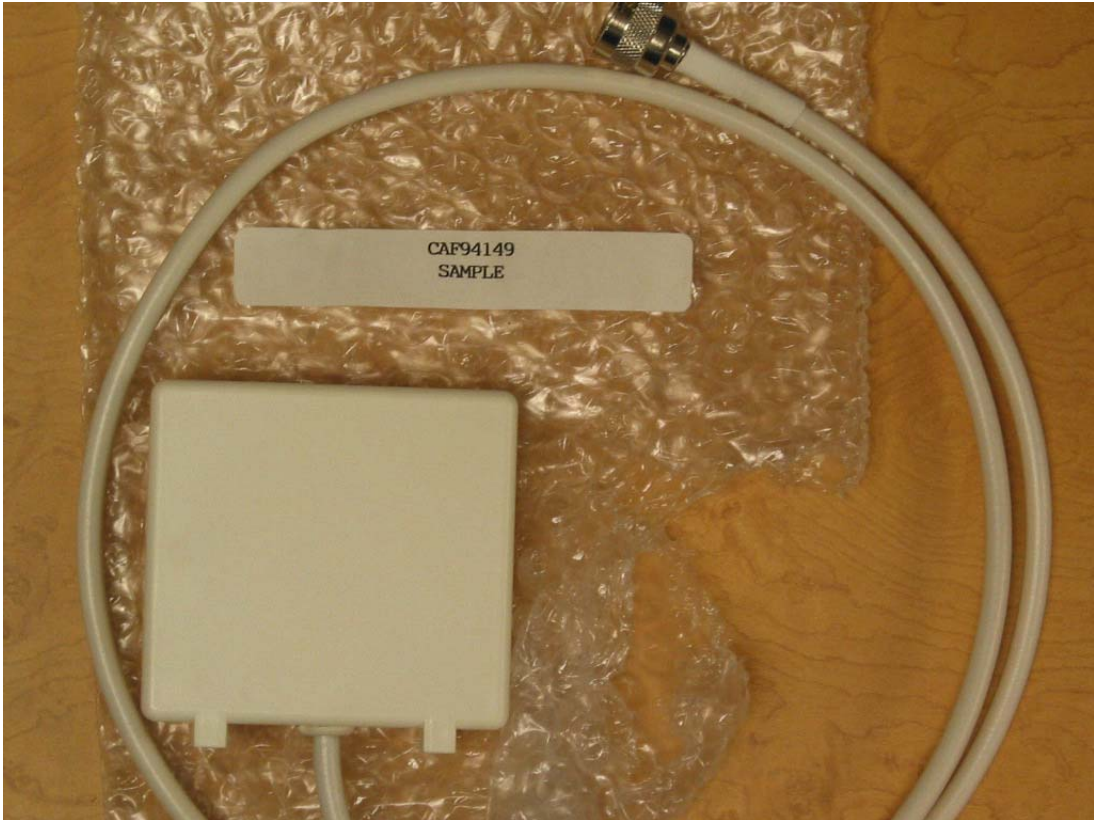




Centurion Wireless  
Technologies, Inc.  
Omnidirectional  
2.4-2.5 GHz 3dBi  
CAF94150 021112



Centurion 2.4 GHz 5dBi (#94149) antenna





CAF04140  
2.4-2.5 GHz

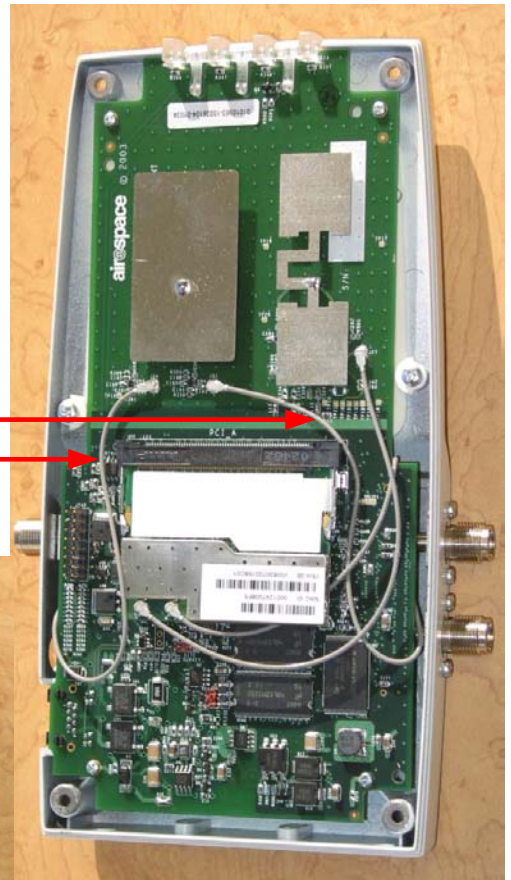
Centurion Wireless Inc.  
Bi-Directional

011108  
5db



The reverse TNC connectors used to support the use of external 2.4GHz antennas are connected to the main circuit board in the radio via short coaxial cables shown in the photos below. Note that the hardware is in place to support external 5 GHz antennas; however the configuration software does not support use of external 5 GHz antennas. Currently, until authorized by the commission, configuring the radio to operate with external 5GHz antennas is not possible.

These cables connect the main PCB to the external 2.4 GHz antenna connectors



Cables used to connect the main PCB to the 2.4 GHz external antennas connectors

5GHz external antenna connector, in place, but not supported by the configuration software.

