# VIC100 GPS Antennas



Panasonic Electric Works of America http://pewa.panasonic.com/lighting/gps/

### **Panasonic ideas for life**

# Panasonic Electric Works of America

### The VIC100 Series antenna is an active L1 GPS antenna that is designed primarily for timing and synchronization for various industries:

Financial
ONetwork Timer Servers

Mobile Communication
Seismic Monitoring Networks

VIC100 Series GPS Antenna



#### Immunity to noise and interference

Secure performance by attenuating noise and interference near GPS L1 frequency through triple filtering design

#### **Durability in severe environments**

The VIC100 Series L1 GPS Antenna is housed in a waterproof enclosure that is designed for excellent performance under severe environment (rain, snow, etc.) with application conscious design. The unique shape of the antenna prevents accumulation of snow and ice, preventing interference from the elements and eliminating problems associated with bird perching.

#### Immunity to lightning surge

Due to the placement of the antenna on top of structures the VIC100 Series L1 GPS Antenna is designed with enhanced immunity to lightning surge [IEC61000-4-5 Level 4(4000V)] preventing antenna failure caused by induced lightning.



The VIC100 Series L1 GPS Antenna is designed in full compliance with the European RoHS Directive



VIC100 Series with Lightning Protection

VIC100 Series with Enhanced Filter

Panasonic has been supplying the VIC100 Series of GPS antenna to provide accurate timing and synchronization reference to the wireless telecommunication industry for many years. The VIC100 Series antenna features **advanced filtering** and **immunity to noise interference** as well as **improved lightning protection**. VIC100 Series antennas are in active field operation and over time have been proven for their durability and reliability.

VIC100 Series		Specifications for VIC100 Series	
Physical Dimensions: *(without connector Weight: Material: Radome: Bottom housing: Connector: Applicable Models CCAH32ST01 CCAH32ST03 CCAH32ST03 CCAH32ST04 CCAH32ST04	90 mm D x 98.4mm H 182/195/200/285 ±20g *Weight depends on model UV-stabilized polycarbonate Die-cast aluminum N-type or TNC	Electrical Frequency Range Polarization Total Gain (@ 90° elevation angle) Attenuation Noise Figure VSWR Power Operating Voltage Operating Current Environmental Operating Temperature RoHs Compliant Lightening Surge Protection	1575.42 +/- 1.023 MHz Right-hand circular 38 dB (Typical) 30 dB (Minimum) 60dB (Typical) at 1575.42 +/- 50 MHz 1.8dB (Typical) 2.2 dB (Maximum) 1.5 (Typical) 2.5 (Maximum) DC 5V +/- 0.5 V 20mA (Typical) 27mA (Maximum) -40 to +85° C YES 80V (Typical) for IEC1000-4-5 standard
VIC100 Series w Enhanced Lightning Surge		Specifications for VIC100 Serie	s w Enhanced Lightning Surge
Physical Dimensions: *(without connector Weight: Material: Radome: Bottom housing: Connector: Applicable Models CCAH32ST12 CCAH32ST13	90 mm D x 98.4mm H ) 182/195/200/285 ±20g *Weight depends on model UV-stabilized polycarbonate Die-cast aluminum N-type or TNC	Electrical Frequency Range Polarization Total Gain (@ 90° elevation angle) Attenuation Noise Figure VSWR Power Operating Voltage Operating Current Environmental Operating Temperature RoHs Compliant	1575.42 +/- 1.023 MHz Right-hand circular 38 dB (Typical) 30 dB (Minimum) 60dB (Typical) at 1575.42 +/- 50 MHz 1.8dB (Typical) 2.2 dB (Maximum) 1.5 (Typical) 2.5 (Maximum) DC 5V +/- 0.5 V 20mA (Typical) 27mA (Maximum) -40 to +85° C YES
CCAH32ST14 CCAH32ST15 CCAH32ST16		Lightening Surge Protection	4000V for IEC1000-4-5 standard



Blue base denotes enhanced filter models

# **GPS** Antenna Selection Guide

Model	Connector	Mounting Base Type		
VIC100 Series Series				
CCAH32ST01	TNC	A		
CCAH32ST02	TNC	В		
CCAH32ST03	Ν	Ant. Only		
CCAH32ST04	Ν	В		
CCAH32ST05	TNC	Ant. Only		
VIC100 Series Lightning Surge Protection				
CCAH32ST12	TNC	В		
CCAH32ST13	N	Ant. Only		
CCAH32ST14	Ν	В		
CCAH32ST15	TNC	Ant. Only		
CCAH32ST16	TNC	А		
VIC100 Series Top Filter Series				
CCAH32NT21	TNC	A		
CCAH32NT24	Ν	В		
Pole Mount Antenna Adapter				
GPS-N-MT2	Works with TNC connector + A-type Mounting Base			

# **GPS** Antenna Dimensions



\*Dimensions of CCAH32ST05, CCAH32ST15 can be provided if requested \*All dimensions are in mm

# **GPS** Antenna with Enhanced Filtering

#### For applications that require superior noise performance...

Panasonic enhanced filter technology provides long-life, reliable service in the GPS L1 frequency band for applications that may be subject to severe interference from extenal forces.

#### **Durability in servere environment**

Excellent performance under severe environment (rain, snow, etc.) with application conscious design.

#### **Blue Bottom Identifier**

Blue bottom identifier provides visual indication of newly installed enhanced filtering GPS L1 Antennas.



#### Immunity to noise interference

Secure performance by attenuating noise and interference near GPS L1 frequency through special filtering design.



#### 1575.42MHz

#### Specifications Series for VIC100 w Enhanced Filtering

#### VIC100 Series w Enhanced Filtering Physical

Filysical	
Dimensions:	90mm D x 98.4mm H
*(without connector)	
Weight:	200/295 ±20g
	*Weight depends on models

#### Material:

Radome: Bottom housina: Die-cast aluminum Connector: N-type or TNC Blue Bottom Identifier

**Applicable Models** CCAH32NT21 CCAH32NT24

UV-stabilized polycarbonate

**Electrical Frequency Range** Polarization Total Gain (@ 90° elevation angle) Attenuation Noise Figure **VSWR** Power **Operating Voltage Operating Current** Environmental **Operating Temperature RoHs Compliant** 

1575.42 +/- 1.023 MHz Right-hand circular 34 dB (Typical) 27 dB (Minimum) 65dB (Typical) at 1559.42, 1625 MHz 4dB (Typical) 5dB (Maximum) 1.5 (Typical) 2.5 (Maximum)

DC 5V +/- 0.5 V 23mA (Typical) 30mA (Maximum)

-40 to +85° C YFS

For N Connector



**TNC Connector** 





+ Mounting Base A



**Pole Mount Adapter** 





**Mounting Base B** 

Blue base denotes enhanced filter models

	Panasonic Electric Works of America http://pewa.panasonic.com/lighting/gps/
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