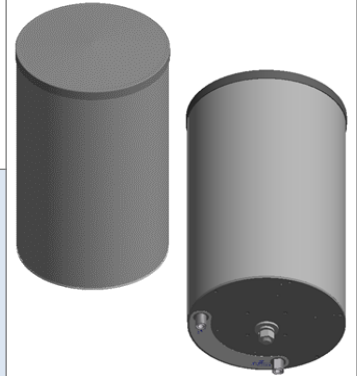


## CYL-X7CAP-2

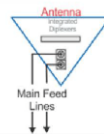
Small Cell Antenna, 698-896/1695-2180MHz, 2FT

- X-Pol Small Cell
- Internally Diplexed option
- Suitable for Pole or Building mount
- Broadband Radiators (AWS-3)
- Internal Beam combining
- Integrated Global Position System (GPS) option



### Integrated Diplexers

Requires half the number of feeder cables



## ELECTRICAL SPECIFICATIONS

| Frequency Band, MHz                          | 698-896    | 1695-2180  |
|--|------------|------------|
| Polarization                                 | +/-45°     | +/-45°     |
| Electrical Down Tilt                         | 0°         | 0°         |
| VSWR/Return Loss, dB, Maximum (Non-Diplexed) | 1.5:1/14.0 | 1.5:1/14.0 |
| VSWR/Return Loss, dB, Maximum (Diplexed)     | 1.5:1/14.0 | 1.5:1/14.0 |
| Isolation Between Ports, dB, Minimum         | 24         | 28         |
| Intermodulation (2x20w), IM3, dBc, Maximum   | -153       | -153       |
| Impedance, ohms                              | 50         | 50         |
| Maximum Power Per Connector, CW (w)          | 250        | 125        |

## MECHANICAL SPECIFICATIONS

|                             |   |
|-----------------------------|---|
| Dimensions, Height/Diameter | 24.2/15.1 in (615/384 mm)                 |
| Antenna RF Connector Type   | 7/16 DIN Female                           |
| Antenna RF Connector Torque | DIN 220-265 lbf-in (23-30 N-m)            |
| GPS Connector Type          | Mini DIN Female (4.1-9.5 per IEC 61169-4) |
| GPS Connector Torque        | Mini-DIN 88.5 lbf-in (10 Nm)              |
| Connector Location          | Bottom                                    |
| Radome Material             | PVC                                       |
| Wind Survival               | 150 mph (241 km/h)                        |
| Front Wind Load             | 45.9 lbf (204.18N) @100mph                |
| Equivalent Flat Plate       | 0.91 sq-ft (c=2) @ 100mph                 |

## ELECTRICAL SPECIFICATIONS (based on antenna configuration)

| Antenna Model | No. of beams | 698-824       |            | 824-896       |            | 1695-1880     |            | 1850-1990     |            | 1920-2180     |            |
|---------------|--------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|
|               |              | H-Beam V-Beam | Gain (dBi) | H-Beam V-Beam | Gain (dBi) | H-Beam V-Beam | Gain (dBi) | H-Beam V-Beam | Gain (dBi) | H-Beam V-Beam | Gain (dBi) |
| CYL-X7CAP-2-C | 1            | *360°<br>33°  | 6.4        | *360°<br>32°  | 6.8        | *360°<br>17°  | 8.6        | *360°<br>16°  | 8.8        | *360°<br>15°  | 9.0        |
| CYL-X7CAP-2-H | 1            | *240°<br>33°  | 7.3        | *240°<br>32°  | 7.9        | *240°<br>17°  | 10.8       | *240°<br>16°  | 10.9       | *240°<br>15°  | 11.3       |
| CYL-X7CAP-2-P | 1            | *180°<br>33°  | 7.5        | *180°<br>32°  | 8.0        | *180°<br>17°  | 10.8       | *180°<br>16°  | 10.9       | *180°<br>15°  | 11.3       |
| CYL-X7CAP-2-T | 3            | 69°<br>33°    | 10.1       | 63°<br>32°    | 10.5       | 68°<br>17°    | 13.1       | 64°<br>16°    | 13.5       | 62°<br>15°    | 13.9       |
| CYL-X7CAP-2-B | 2            | 69°<br>33°    | 10.1       | 63°<br>32°    | 10.5       | 68°<br>17°    | 13.1       | 64°<br>16°    | 13.5       | 62°<br>15°    | 13.9       |

\* Beam Width represented for functional purposes only. See pattern diagram for beam shape\*

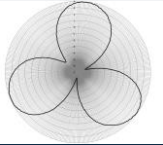
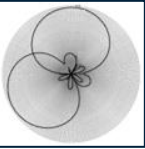
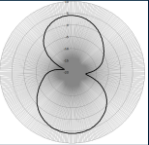
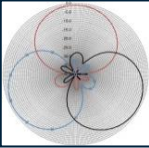

## MECHANICAL SPECIFICATIONS (based on antenna configuration)

| ANTENNA MODEL | BEAM CONFIGURATION | Connector Types |                | ANTENNA WEIGHT     |                      |
|---------------|--------------------|-----------------|----------------|--------------------|----------------------|
|               |                    | 7/16 DIN        | Mini-DIN (GPS) | ANTENNA            | Antenna w GPS Option |
| CYL-X7CAP-2-C | Omni Clover        | 2               | 1              | 23.0 lbs (10.4 kg) | 24.0 lbs (10.9 kg)   |
| CYL-X7CAP-2-H | Omni Heart         | 2               | 1              | 21.5 lbs (9.6 kg)  | 22.5 lbs (10.2 kg)   |
| CYL-X7CAP-2-P | Omni Peanut        | 2               | 1              | 20.5 lbs (9.3 kg)  | 21.5 lbs (9.8 kg)    |
| CYL-X7CAP-2-T | Tri-Sector         | 6               | 1              | 24.7 lbs (11.2 kg) | 25.7 lbs (11.7 kg)   |
| CYL-X7CAP-2-B | Bi-Sector          | 4               | 1              | 22.3 lbs (10.1 kg) | 23.3 lbs (10.6 kg)   |

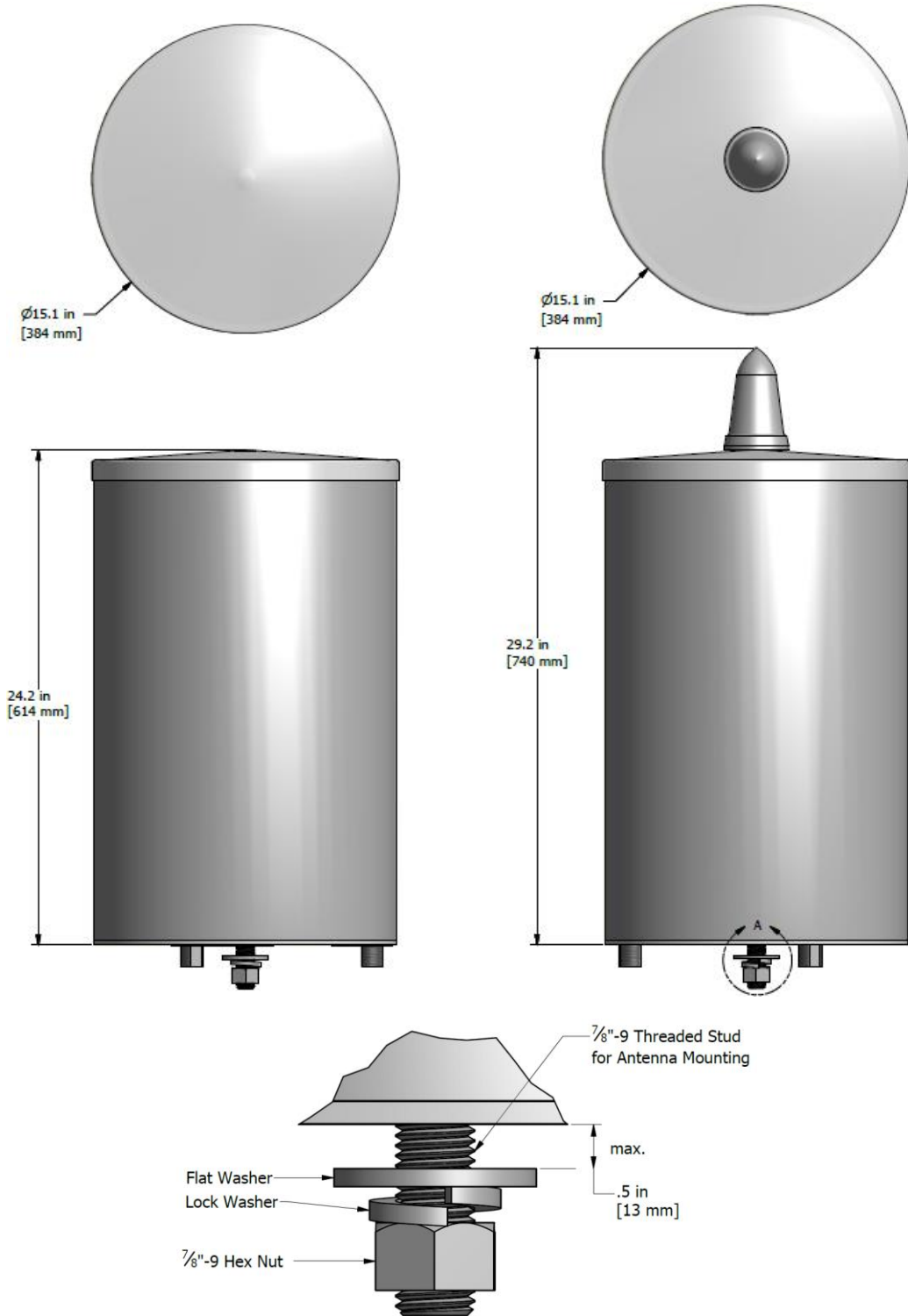
## GPS SPECIFICATIONS

| Frequency             | Amplifier Gain  | VSWR   | Max Noise       | Voltage Range          | Current @ 5V | Filtering                          | Out of band rejection            | Lightening protection  |
|-----------------------|-----------------|--------|-----------------|------------------------|--------------|------------------------------------|----------------------------------|------------------------|
| 1575.42Mhz<br>±1.2Mhz | 26.5dB<br>± 3dB | <2.0:1 | 4.5dB @<br>25°C | 3.3 - 12V<br>regulated | 40mA         | 4 stages including<br>pre-selector | 65dB @ 1559Mhz<br>65dB @ 1625Mhz | EN61000-4-5<br>Level 4 |

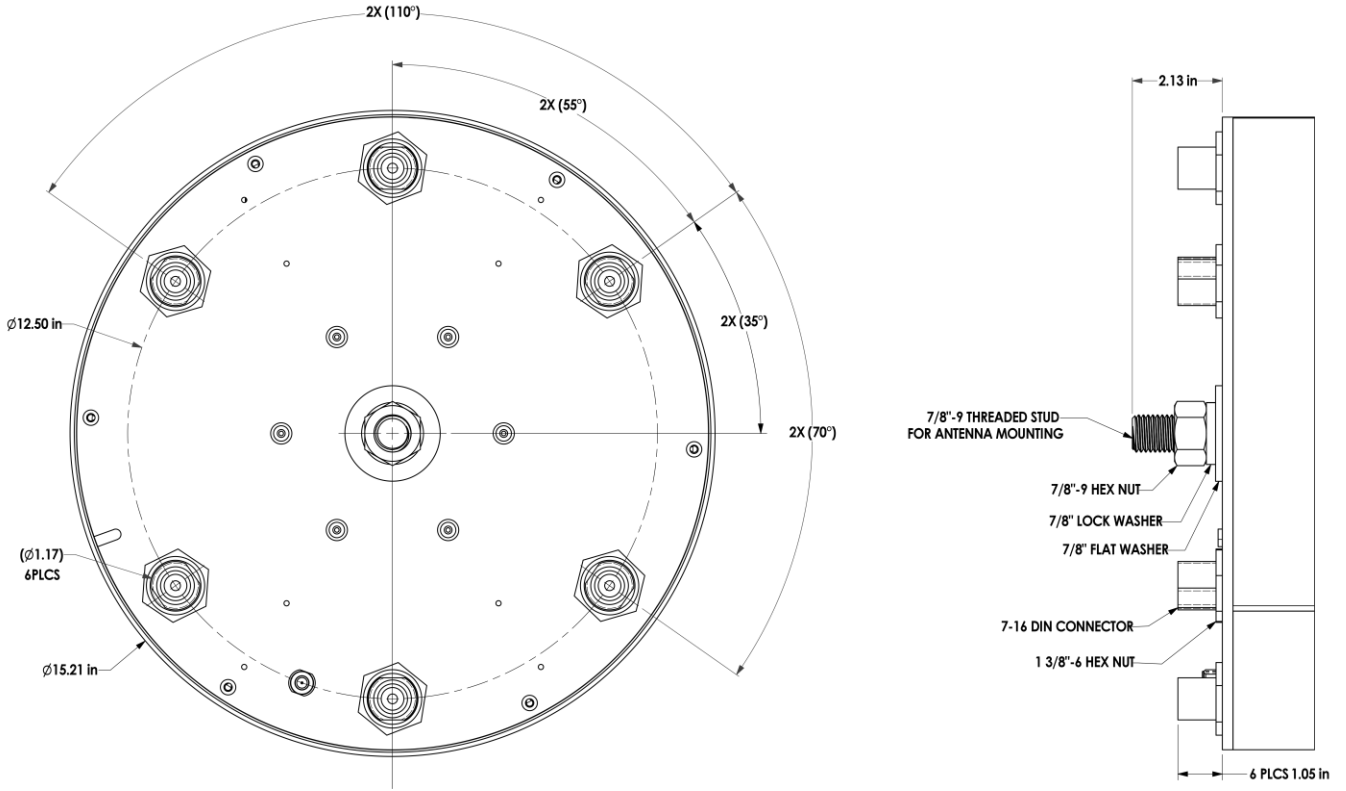
## ORDER INFORMATION

| Models             | Description  |
|--------------------|--|
| CYL-X7CAP-2-C      |  OMNI CLOVER    |
| CYL-X7CAP-2-C      | Cantenna with 2 DIN connectors Clover Omni pattern with integrated Diplexer                      |
| CYL-X7CAP-2-H      |  OMNI HEART     |
| CYL-X7CAP-2-H      | Cantenna with 2 DIN connectors Heart Omni pattern with integrated Diplexer                       |
| CYL-X7CAP-2-P      |  OMNI PEANUT    |
| CYL-X7CAP-2-P      | Cantenna with 2 DIN connectors Peanut Omni pattern with integrated Diplexer                      |
| CYL-X7CAP-2-P-ND-G | Cantenna with 4 DIN connectors Peanut Omni pattern W/O integrated Diplexer & GPS with 1 mini-DIN |
| CYL-X7CAP-2-T      |  THREE SECTORS |
| CYL-X7CAP-2-T      | Cantenna with 6 DIN connectors (3) 65° sectors with integrated Diplexer                          |
| CYL-X7CAP-2-T-G    | Cantenna with 6 DIN connectors (3) 65° sectors with integrated Diplexer & GPS with 1 mini-DIN    |
| CYL-X7CAP-2-B      |  TWO SECTORS  |
| CYL-X7CAP-2-B      | Cantenna with 4 DIN connectors (2) 65° sectors with integrated Diplexer                          |

### Mechanical Outline Drawing



### Mechanical Outline Drawing



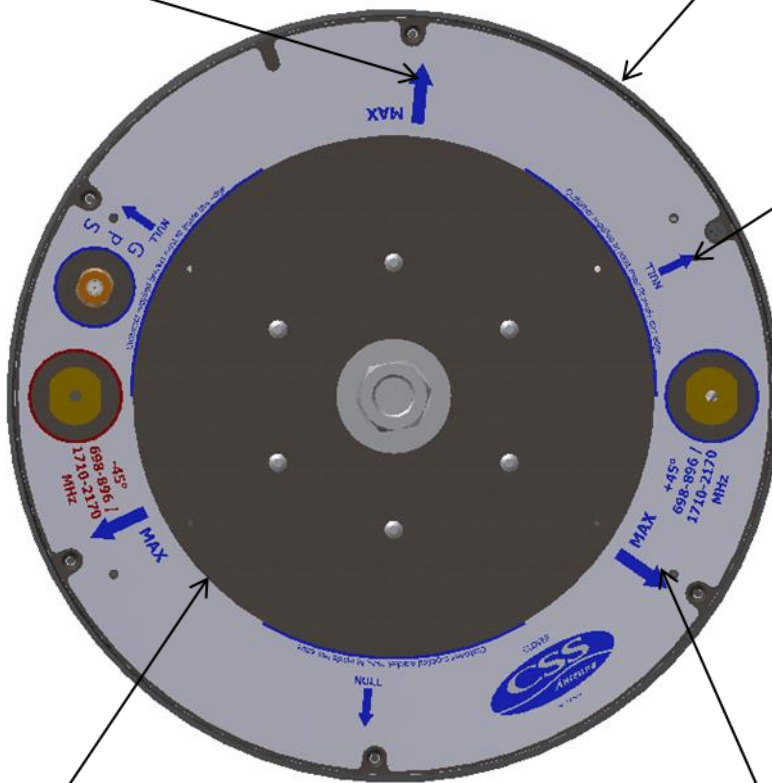
### Mechanical Outline Drawing

\*Shown below is the bottom view of the Omni Clover option. Connector location and count may vary depending on antenna option. Refer to page 2 for more details.

Max Labels point to the direction of maximum signal strength

15.1" [384 mm] dia

Null Labels point to the direction of minimum signal strength

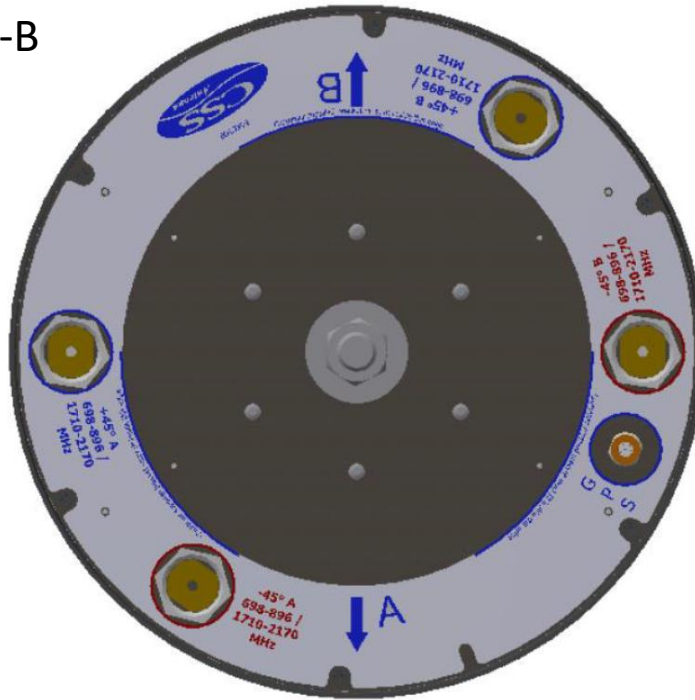


Mounting brackets must stay inside 10" [254 mm] circle

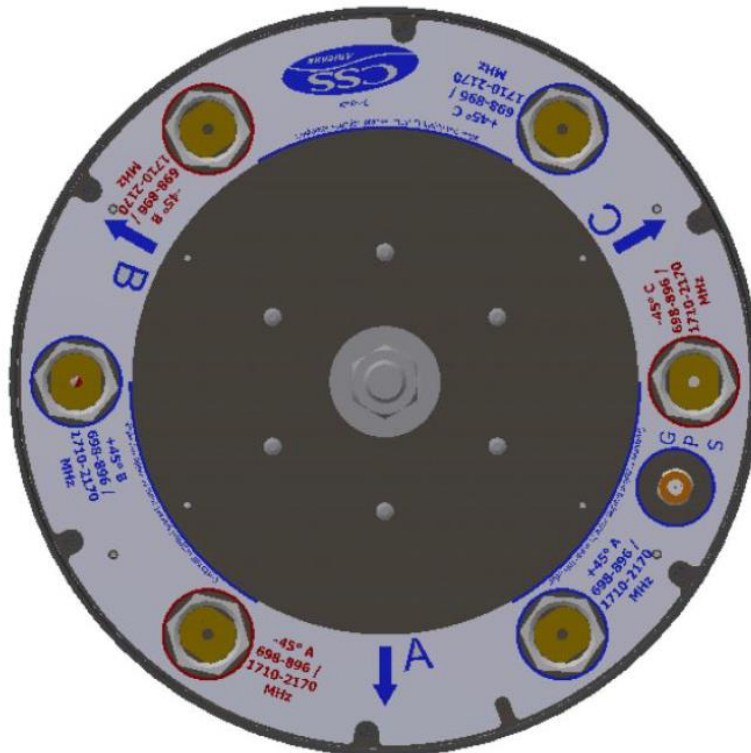
Drain Holes (multiple places)  
(Avoid any obstructions to drain holes)

Mechanical Outline Drawing

CYL-X7CAP-2-B  
(2 Sector)

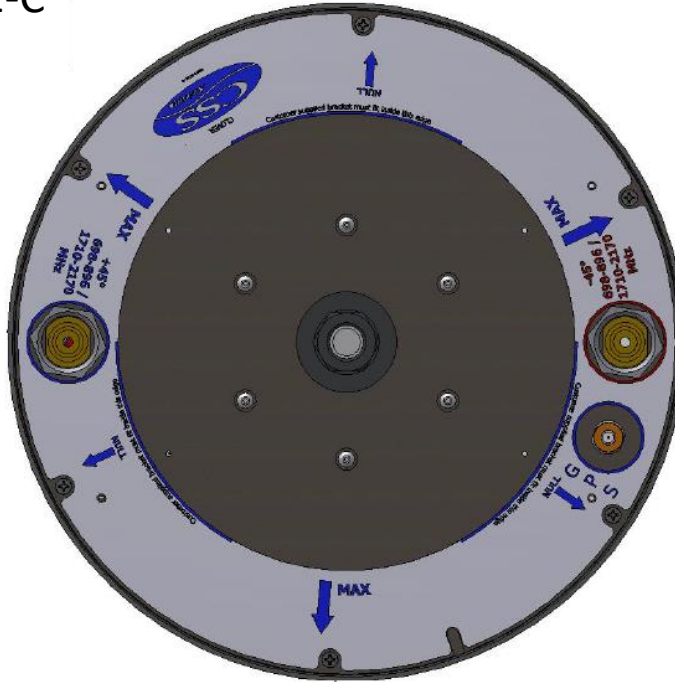


CYL-X7CAP-2-T  
(3 Sector)

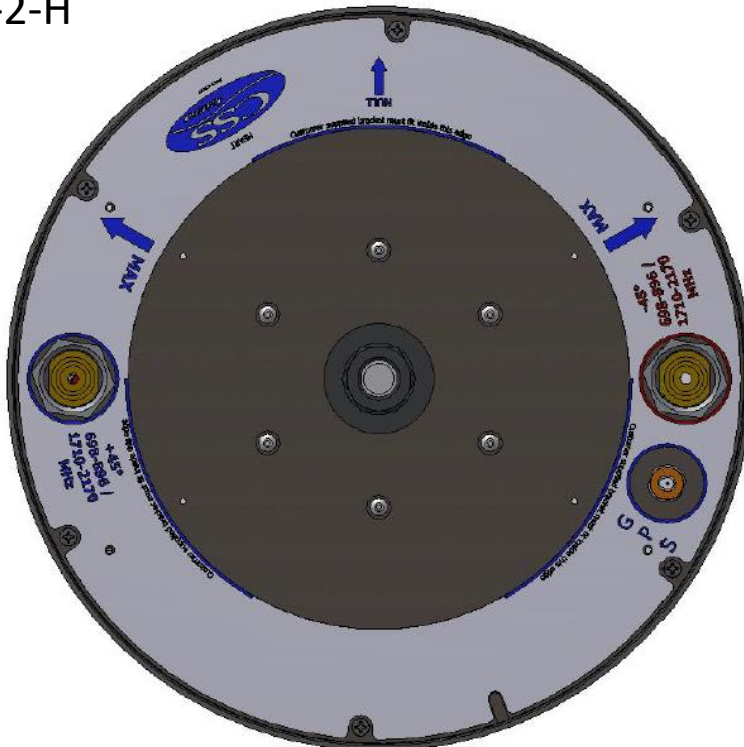


Mechanical Outline Drawing

CYL-X7CAP-2-C  
(Clover)



CYL-X7CAP-2-H  
(Heart)





### Mechanical Outline Drawing

CYL-X7CAP-2-P  
(Peanut)

