

Fields indicated in RED are mandatory. Your form will not be processed if they are left blank.

Section 0: Request for Quote Tracking Information	
TESSCO RFQ Number:	Date Submitted:

Section 1: Customer Contact Information		
Name:	TESSCO Account Number:	
Title:	Company Name:	
Address:	Country:	
City:	State/Province:	ZIP/Postal Code:
Email:	Phone:	Fax:
TESSCO Contact		
Name:	Phone:	
Email:		

Section 2: Site Information ¹ (Where Will the Structure Be Installed?)			
Site Name:			
Site Address:		Country:	
City:	State/Province:	ZIP/Postal Code:	
Latitude:	Longitude:	County:	
<i>Application:</i> Broadband SCADA Wireless LAN Microwave Lighting Private Network Broadcast CATV GPS PCS Other (Please specify):			

Section 3: Quote Type	
Budgetary	Ready to Purchase

Section 4: Structure Details			
Structure Height (ft):			
<i>Structure Type:</i> Self-Supporting Guyed Bracketed Monopole			
<i>Brand Preference:</i> ROHN Products Sabre Site Solutions Tylon TSF None			

Section 5: Design Criteria	
Building Code:	PE Stamped Drawings:

¹ If shipping location is different than the site address please complete Section 10.

Section 5: Design Criteria		
TIA/EIA 222-F-1996		
Basic Wind Speed (mph):	Ice Thickness (in):	Reduction Applied:
OR		
TIA/EIA 222-G-2009²		
Ice Thickness (in):		
3-Second Gust Wind Speed, no ice (mph):	3-Second Gust Wind Speed, with ice (mph):	

Section 6: Foundation	
Foundation Design:	Soil Analysis/Geotechnical Report Available ³ :
Structure Base:	If roof-mounted, how many feet above grade?

In order to accurately determine which structure most effectively meets your needs, TESSCO needs to know what you will be attaching to your structure (appurtenances). This includes antennas, antenna mounts, brackets, work platforms, and anything else that will impact the overall stability and reliability of the finished structure. **TESSCO will be unable to provide you with an accurate assessment of your structure needs without a detailed listing of all expected appurtenances.**

Section 7: Antenna Information									
Qty	Manufacturer / Model / Type	EPA (ft ²)	Weight (lbs)	Elevation C.O.R (ft)	Frequency (GHz)	Azimuth	Offset Distance (ft)	Transmission Lines	
								Qty	Diameter (in)

Section 8: Lighting	
Strobe – White, Medium-Intensity Strobe – White, High-Intensity Red Lights (With B1R at Top 151- 492-ft) Double Obstruction at Top Other (Please specify)	Strobe with Conduit Dual (red lights & strobe) Ice Shields Alarm
I would like TESSCO to recommend a lighting solution for me	

² If TIA/EIA 222-G-2006 is selected as the preferred design building code Section 12: TIA/EIA 222-G-2006 Worksheet must be completed

³ If a soil analysis or geotechnical review of the structure site is available please forward to your TESSCO representative along with this completed questionnaire.

TIA/EIA 222-G-2009 Worksheet

Note: This section only needs to be completed if TIA/EIA 222-G-2009 was selected in Section 5: Design Criteria

Section 12: TIA/EIA 222-G-2009 Worksheet	
Reliability Class ⁴ :	
<input type="checkbox"/>	Class I: Structures used for services where a delay in returning the services would be acceptable such as residential wireless, conventional two-way radio, television, scanner reception, wireless cable, amateur and CB radio.
<input type="checkbox"/>	Class II: Structures used for commercial services such as commercial wireless, television and radio broadcasting, cellular, PCS, CATV operators and microwave communications.
<input type="checkbox"/>	Class III: Structures used for essential wireless communications such as civil or national defense, emergency rescue or disaster operations, military navigation where a delay in the services would be unacceptable.
<i>Please answer the following if Class II or III was selected above:</i>	
Exposure Category ⁵ :	
<input type="checkbox"/>	B: Urban, suburban and wooded areas, closely-spaced obstructions (size of single-family dwellings or larger)
<input type="checkbox"/>	C: Flat, open grasslands, shorelines in hurricane regions, scattered obstructions less than 30-ft high
<input type="checkbox"/>	D: Flat, unobstructed inland shorelines, mud and salt flats, within a half mile of a shore line
Topographic Category ⁶ :	
<input type="checkbox"/>	1: No abrupt topographical changes immediately surrounding the tower
<input type="checkbox"/>	2: Tower located within a distance equal to the height of the tower, on or near the crest of an escarpment
Site Class ⁷ :	
<input type="checkbox"/>	A: Hard rock with 10-ft or less of overburden
<input type="checkbox"/>	B: Competent rock with moderate fracturing with 10-ft or less of over burden
<input type="checkbox"/>	C: Very dense soil, soft rock or highly weathered and fractured rock
<input type="checkbox"/>	D: Stiff Soil
<input type="checkbox"/>	E: Weak Soil with high moisture content

⁴ If this section is not completed, analysis will default to Class II

⁵ Allows for the adjustment of wind loading based on the type of terrain surrounding the site. Reduced wind loads are associated with rougher terrains that tend to slow the wind down. Three exposure categories have been defined based on terrain roughness. Wind loading is increased as the Exposure category changes from B (roughest terrain) to D (smoother terrain).

⁶ Used to determine increases in wind loading for sites located on hills and other elevated locations (other than buildings). The shape and size (topography) of an elevated site determines the increase in wind load. For structures supported on buildings, it is only necessary to specify the height of the building and the surrounding exposure category.

⁷ Allows for the adjustment of wind, ice, and earthquake loading matching the reliability requirements for a specific application. Three reliability classes have been established based on the type of service provided and on the structure's potential hazard to human life and property.

Calculating the Effective Projected Area (EPA) of Structure Appurtenances

The information contained on this page is strictly to be used as a guideline for determining the applicability of a potential tower type and design. Before placing an order, or if clarification is needed, please work with your TESSCO Technologies representative to make the final determination.

EPA, or Effective Projected Area, is the product of the actual area seen by the wind (A_c) multiplied by the appropriate force coefficient (C_a) (Reference ANSI/TIA/EIA-222-F-1996 paragraphs 2.2 and 2.3.10 and ANSI/TIA-222-G-2-2009 paragraph 2.6.9.2). The area seen by the wind, or "projected area", is dependent upon the angle of the wind with respect to the orientation of the item being considered. Force coefficients are well established and are dependent upon the shape, length and width of the item being considered and in some cases the wind speed.

Following is a summary of information to help in calculating Effective Projected Area for your application:

- A. If the antenna manufacturer provides $C_a A_c$ values: $EPA = C_a A_c$
- B. If the antenna manufacturer provides Flat Plate Area:
 - a. EPA for round member antennas = published Flat Plate Area from the Antenna Manufacturer x 1.8.
 - b. EPA for flat member antennas = published Flat Plate Area from the Antenna Manufacturer x 2.0.
- C. If the information listed in A and B above is not available:
 - a. EPA for round member items (where length/width is less than 7) = Actual projected area x 0.8.
 - b. EPA for round member items (where length/width is greater than 25) = Actual projected area x 1.2.
 - c. EPA for flat member items (where length/width is less than 7) = Actual projected area x 1.4.
 - d. EPA for flat member items (where length/width is greater than 25) = Actual projected area x 2.0.

The actual values and improved accuracy can be obtained by using linear interpolation for length/width ratios between 7 and 25.

When appropriate, the effects of ½-in radial ice will need to be considered in the above calculations. Most antenna manufacturers do not publish areas for their antennas that include ½-in radial ice. Regardless, the rules above still apply.

The effective projected area of all mounts must be added to the values obtained above. Your TESSCO Technologies representative can assist you with any EPA questions for these mounts as well as any other appurtenances that will add wind loading and must be accounted for in the design of the tower (platforms, ice shields, etc.).

Again, the above information is to be used strictly as a helpful guideline and should not be used to make the final determination of the applicability of a particular tower. That final determination should be made by working with your TESSCO Technologies representative.