SX-* / DX-* / IX-* Antenna Weep Hole Modification Guide

Overview of weep hole additions

- To help create new weep holes on JMA stadium antennas (SX-*, DX-*, and IX-* models), this guide was created for alterations made directly in the field.

- Because there are many potential tilt and install angles, this guide allows for on-the-spot judgments to be made about where the ideal placement for new weep holes may be – this guide will help avoid damage to the antenna itself while drilling new holes.

- This guide includes:
  1) A guideline of key parameters for drilling new weep holes into the stadium antennas, including widths for new holes, clearance for drill depth, etc.
  2) A drawing of the front of the stadium antenna, showing what areas on the radome should be avoided when drilling, since elements of the antenna could be damaged.

- SX antennas can either be mounted vertically or horizontally. As such, weep holes are **required** to be drilled on site, prior to installation, dependent on the antenna orientation.

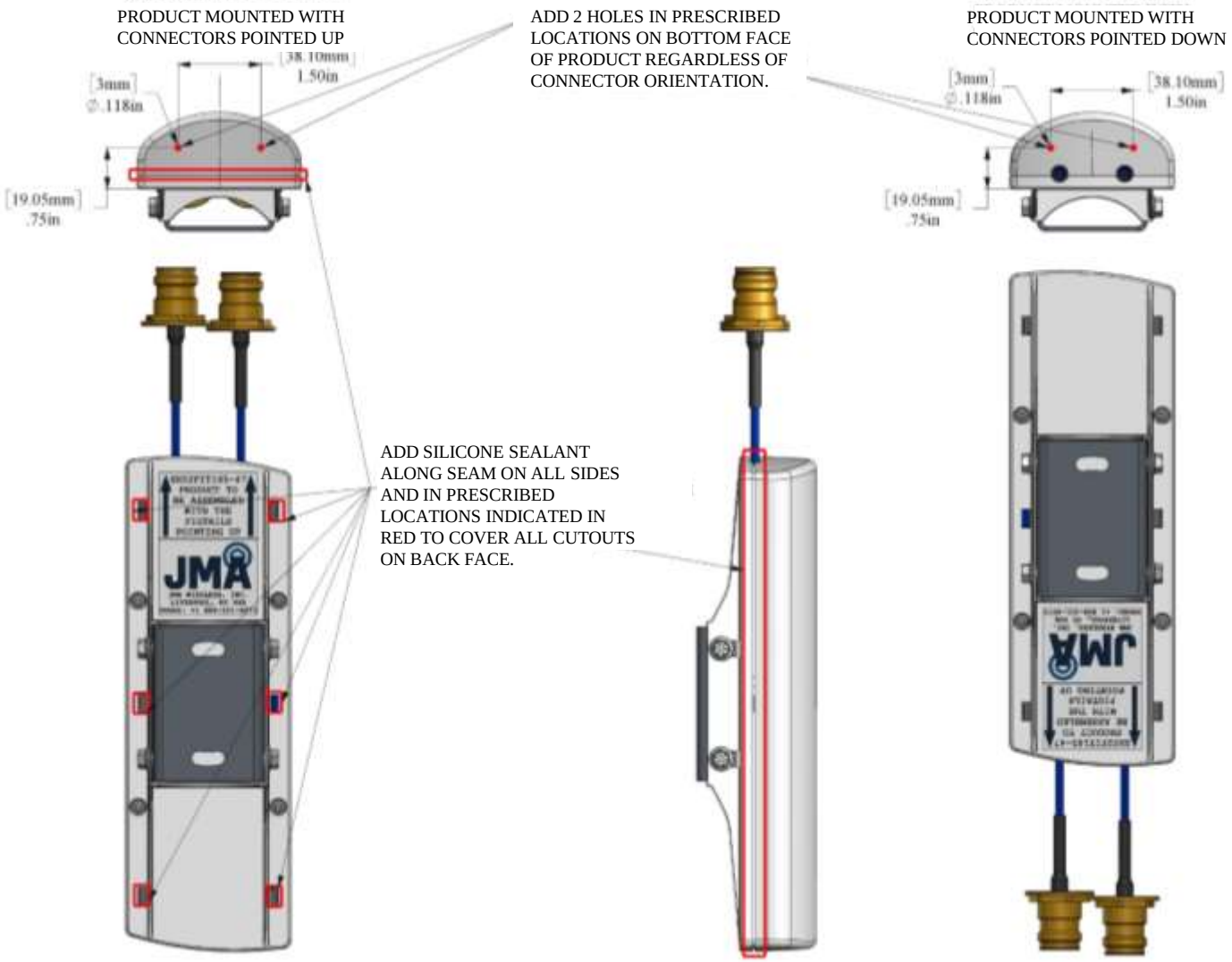
Key details for drilling weep holes

		Notes
Hole diameter		Hole should be created using single drill with a 1/8” bit.
# of weep holes		Minimum of 4 weep holes nearest to the low point as possible
Drill depth		Drill has to go only ¼” deep; drill a complete hole in the Radome (the Radome is only .100” thick).
Re-sealing holes		Recommended to use outdoor Silicone to seal the existing weep holes that will not be needed.
Considerations	**Hard stop**	Setting a ¼” hard stop on the drill bit is encouraged to limit risk of over-drilling.
	Danger zones	If it is required to drill in highlighted danger zones, the maximum clearance is ¼”.
	Side of radome	There are no danger zones if drilling from side of radome, but drilling should be limited to ¼” to reduce risk.

Stadium antenna guide table of contents

SX02FIT165-4X weep hole modifications

Specs of antenna – danger zones for drilling, and silicone sealant use for outdoor applications

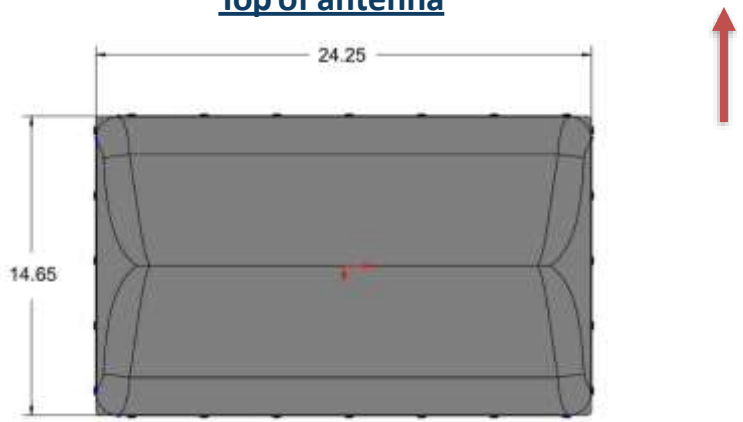


SX04FRO128, SX08FRO128 weep hole modifications

Specs of antenna

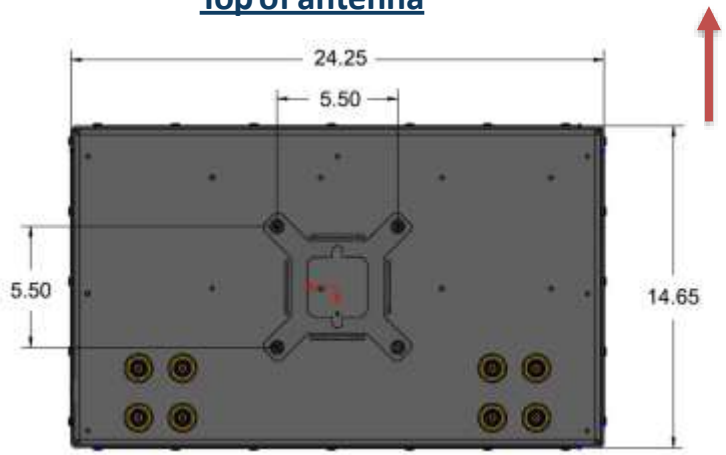
Front view

Top of antenna



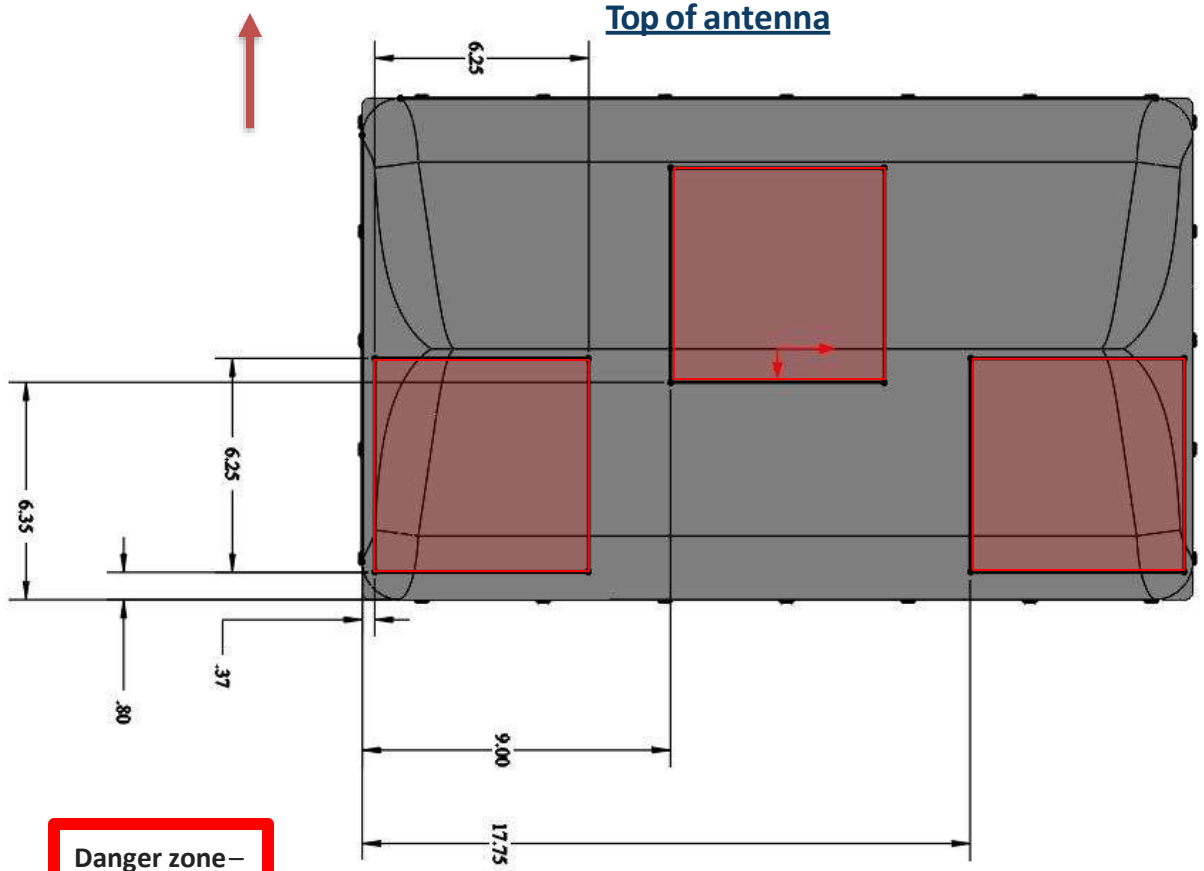
Back view

Top of antenna



Danger zones for drilling – showing front of radome

Top of antenna



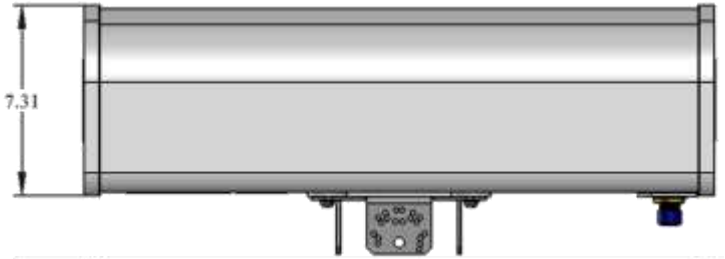
Danger zone – Advised to not drill within these borders

SX04FRO128-01E, weep hole modifications

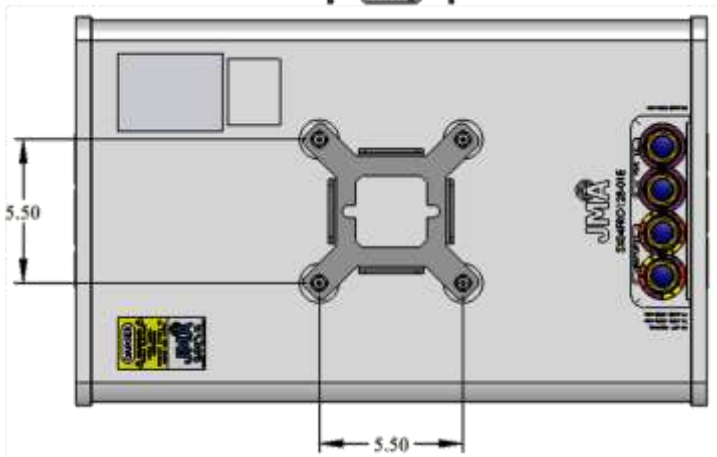
Specs of antenna

Front view

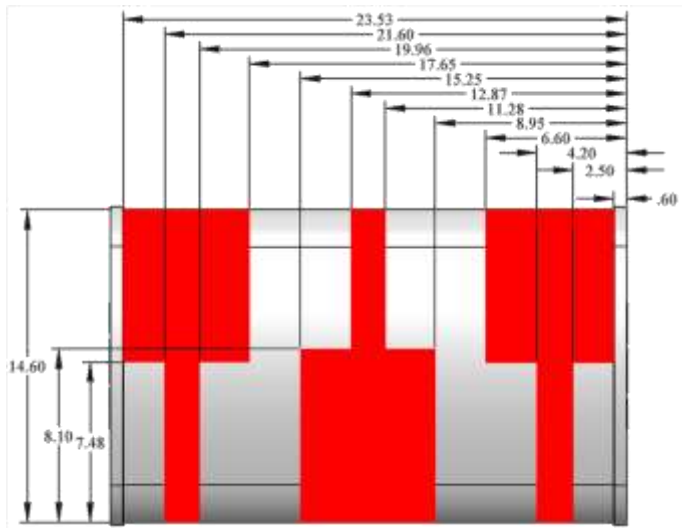
Side view



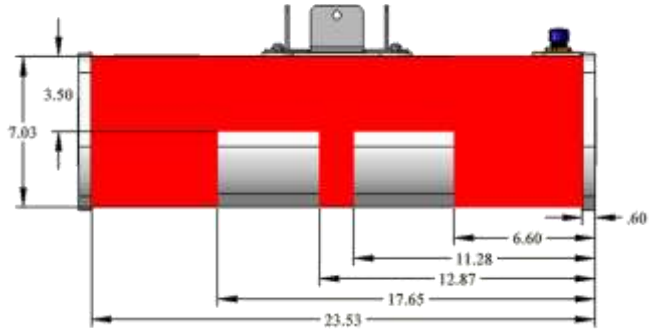
Back view



Danger zones for drilling

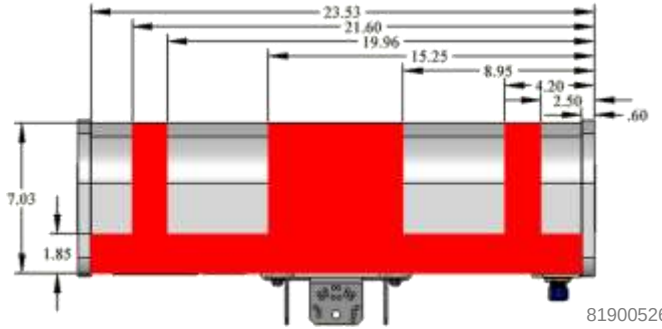


Front view



Side view

Danger zone – Advised to not drill within these borders



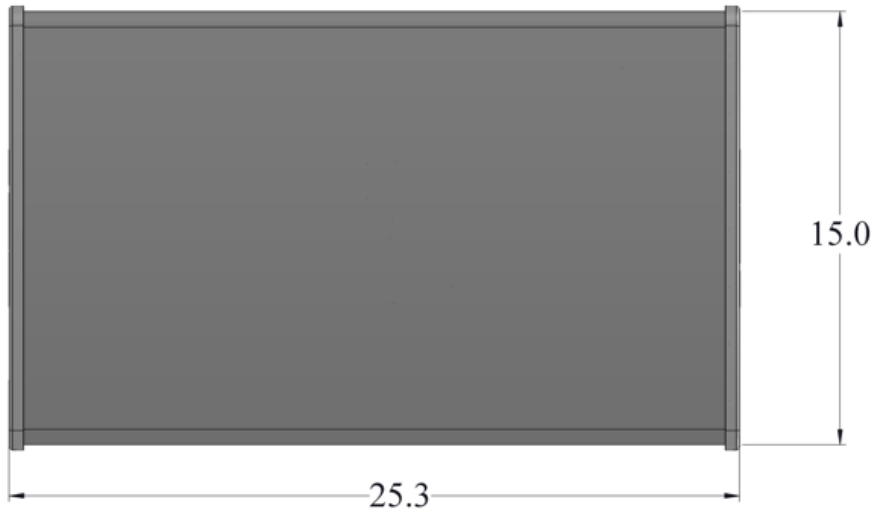
Side view

SX04FRO220 weep hole modifications

Specs of antenna

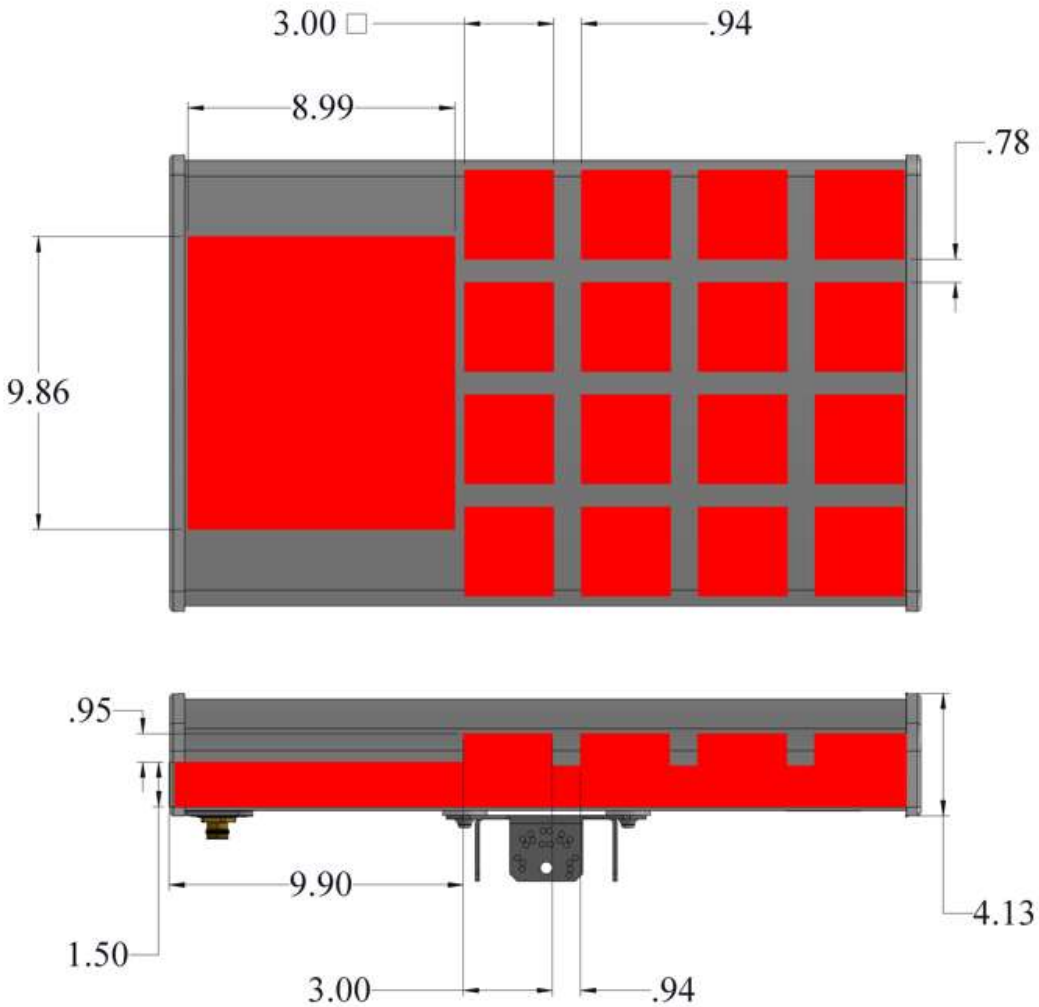
Top of antenna

Front view



Danger zones for drilling – showing front of radome

Top of antenna



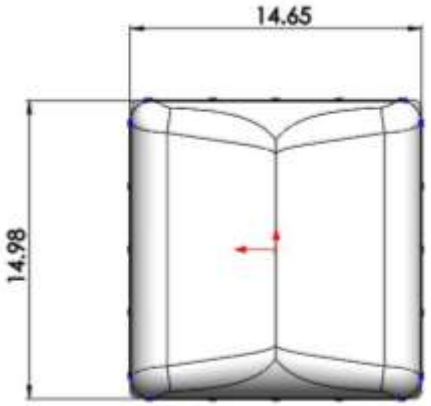
Danger zone – Advised to not drill within these borders

SX04FRO165, SX10FRO165 weep hole modifications

Specs of antenna

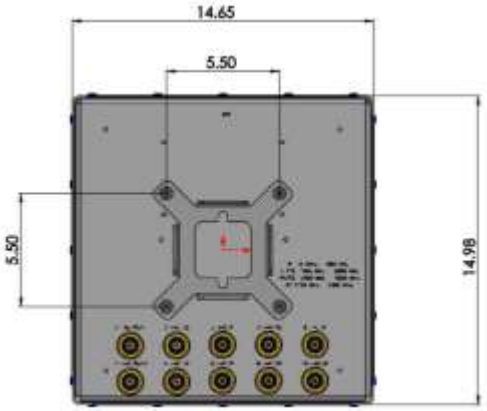
Top of antenna

Front view



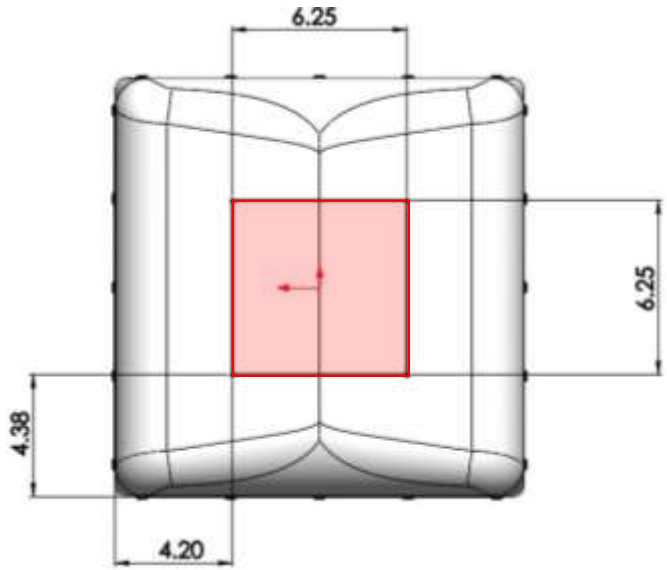
Top of antenna

Back view

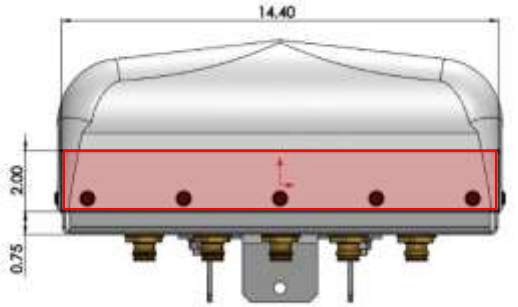


Danger zones for drilling – showing front of radome

Top of antenna



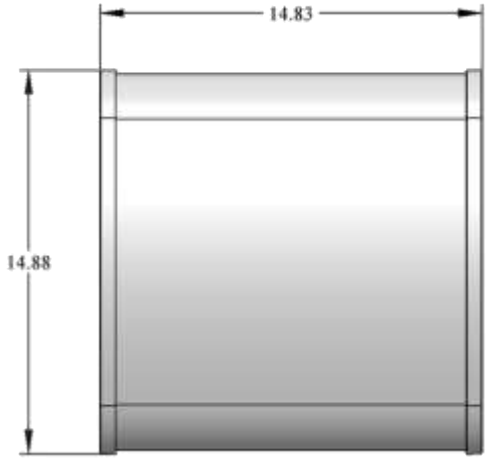
Danger zone – Advised to not drill within these borders



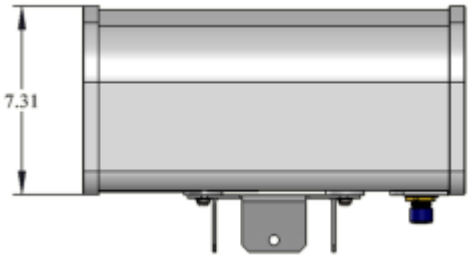
SX04FRO165-01E, weep hole modifications

Specs of antenna

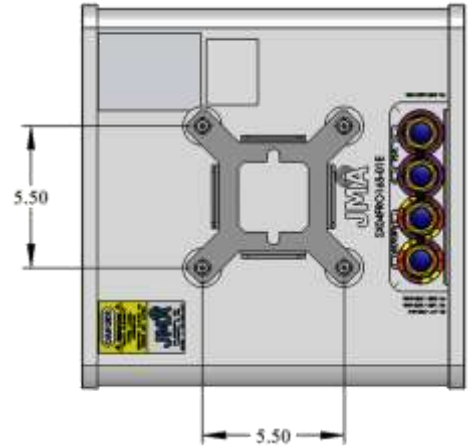
Front view



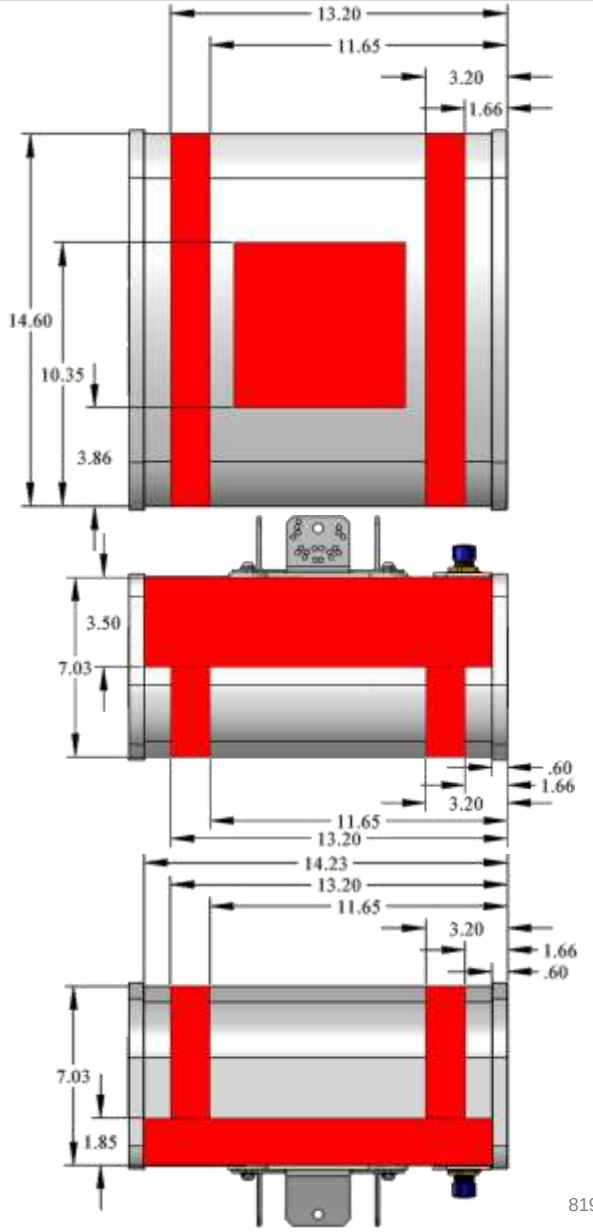
Side view



Back view



Danger zones for drilling



Front view

Side view

Side view

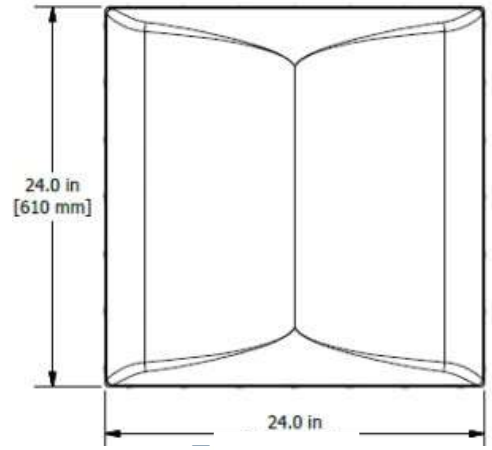
Danger zone – Advised to not drill within these borders

SX04FRO230, SX08FRO230 weep hole modifications

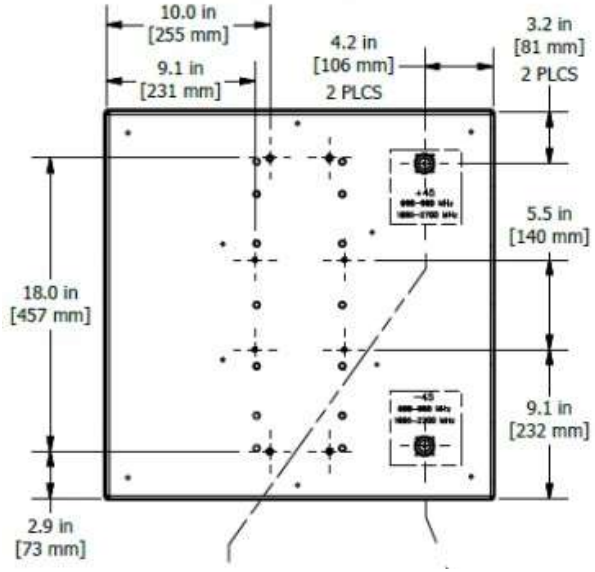
Specs of antenna

Top of antenna

Front view



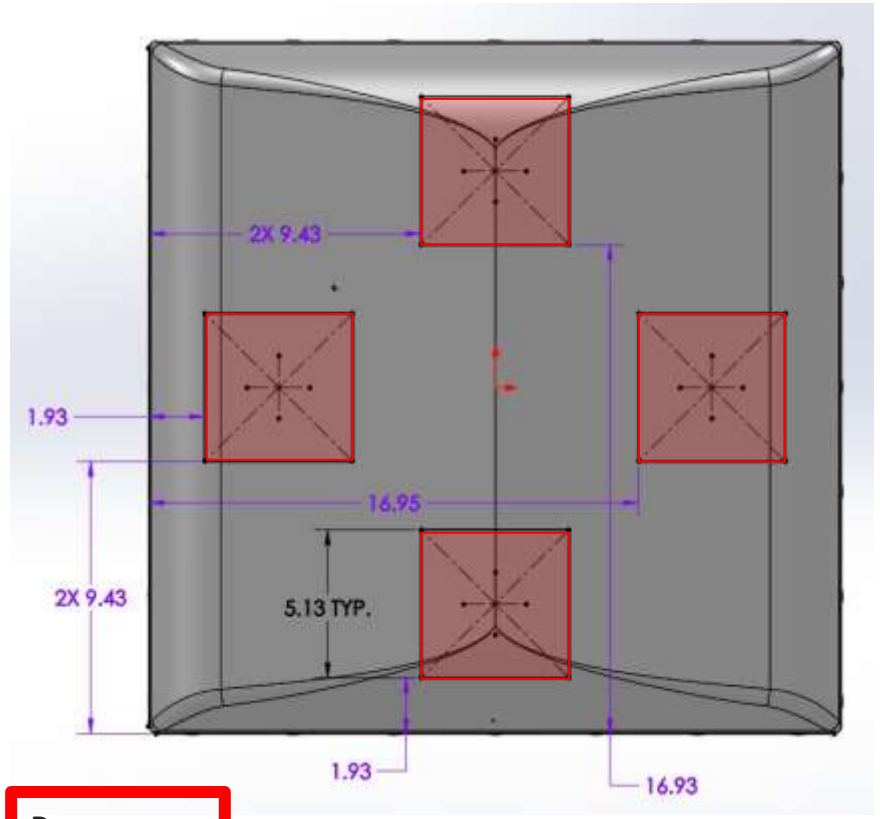
Back view



XGU-FRO-230-I shown for reference

Danger zones for drilling – showing front of radome

Top of antenna

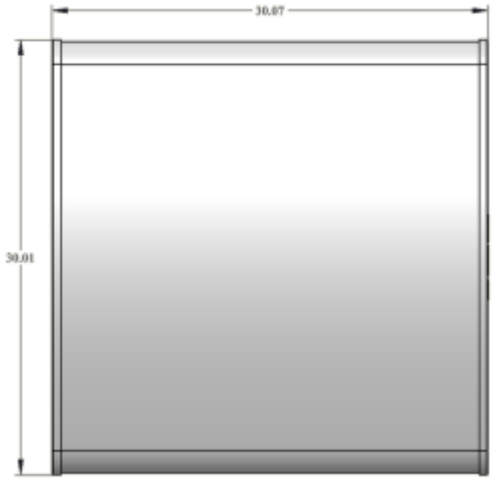


Danger zone – Advised to not drill within these borders

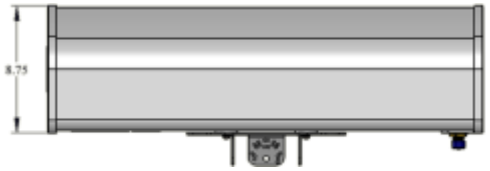
SX04FRO230-01E, weep hole modifications

Specs of antenna

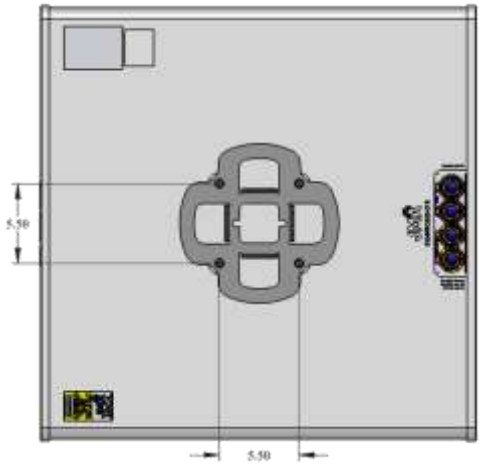
Front view



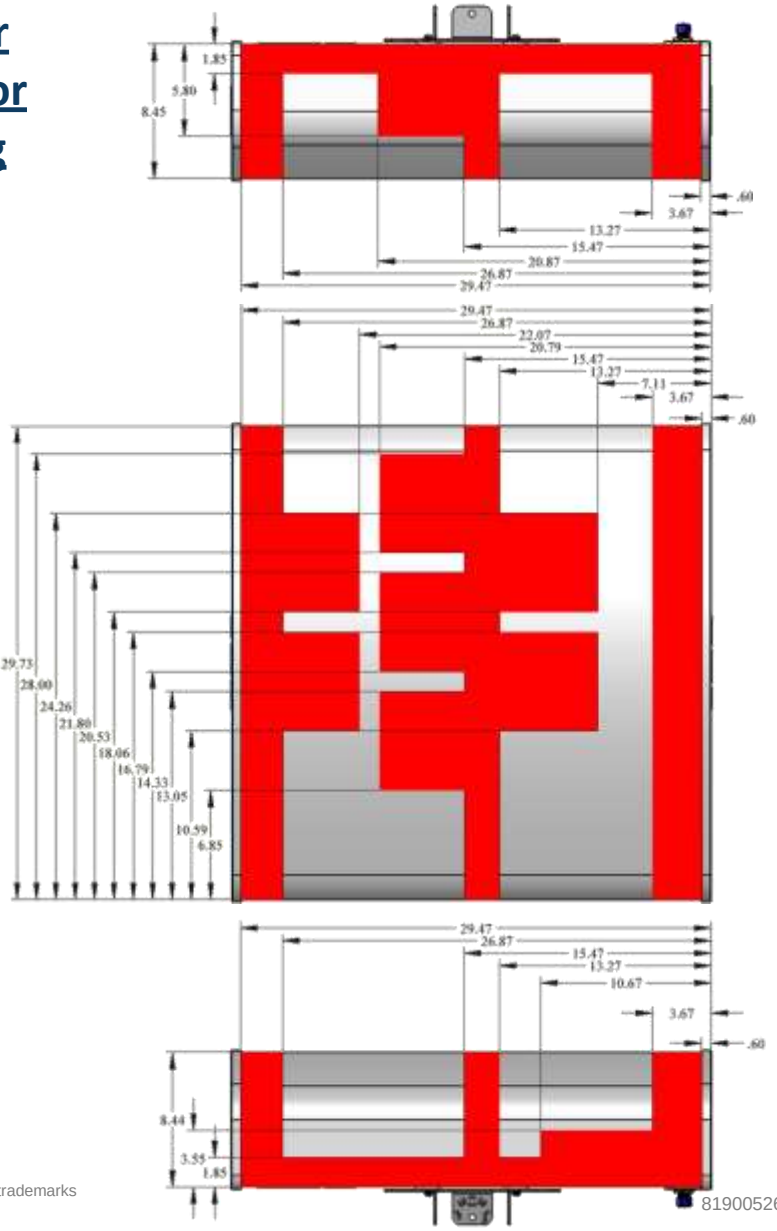
Side view



Back view



Danger zones for drilling



Side view

Front view

Side view

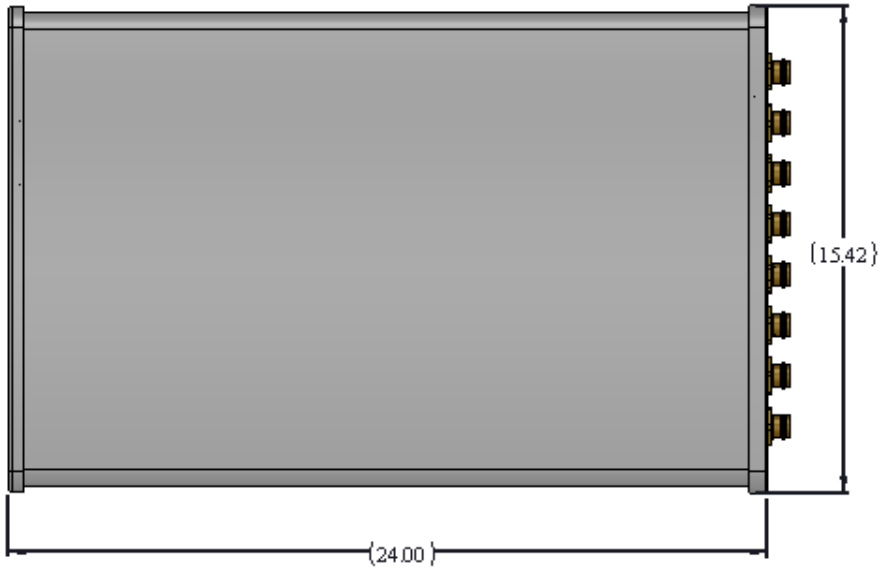
Danger zone – Advised to not drill within these borders

DX10FRO260 weep hole modifications

Specs of antenna

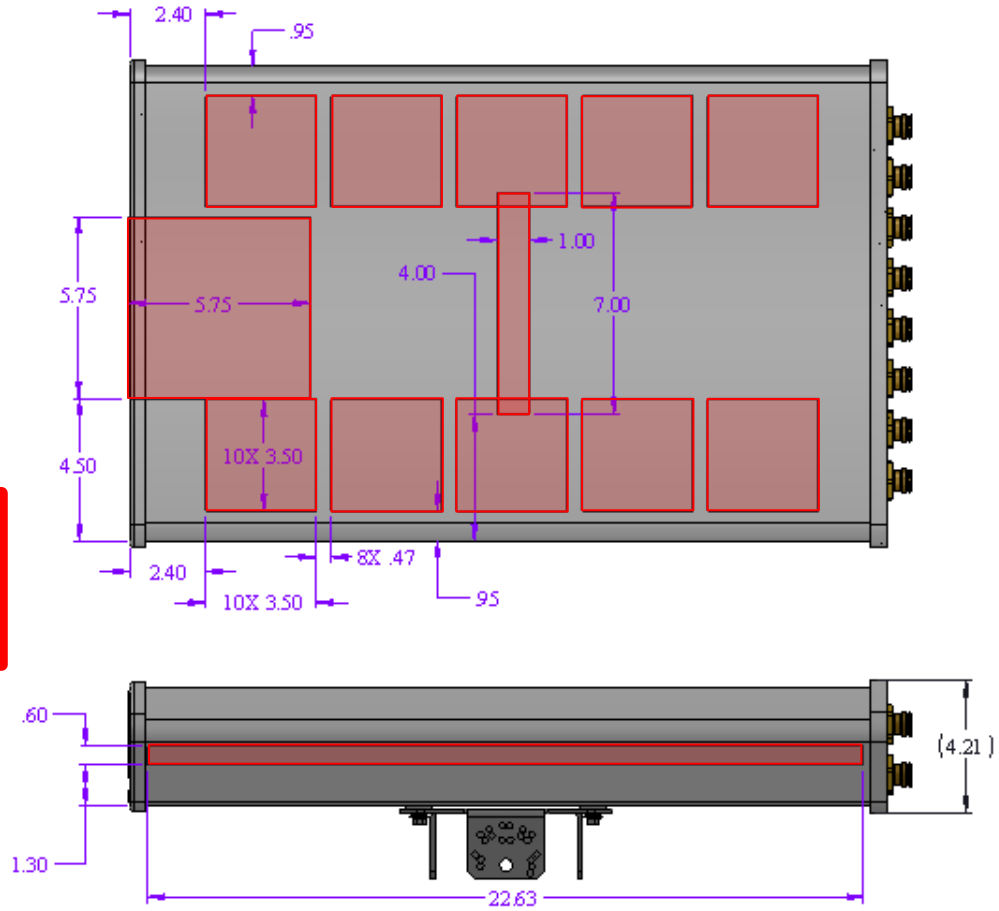
Top of antenna

Front view



Danger zones for drilling – showing front of radome

Top of antenna



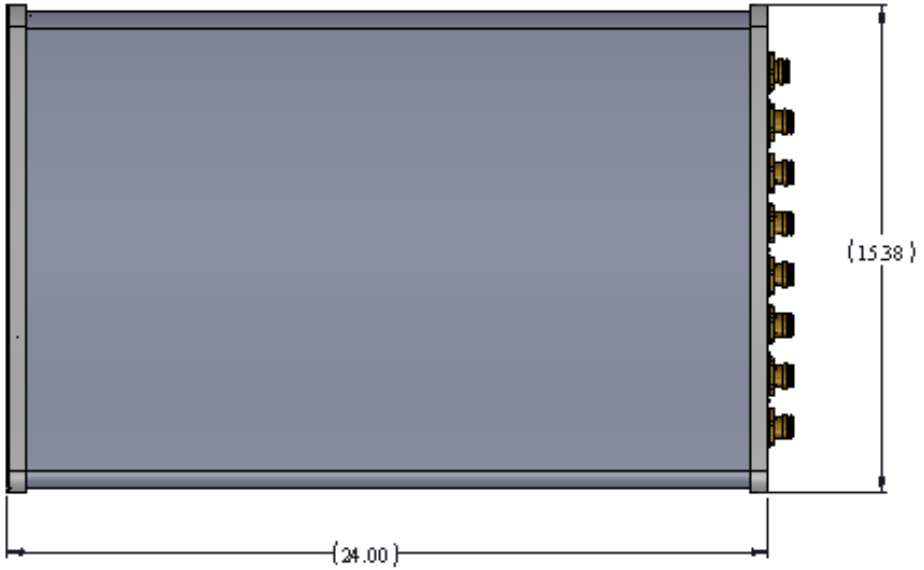
Danger zones – Advised to not drill within these borders

DX12FRO260 weep hole modifications

Specs of antenna

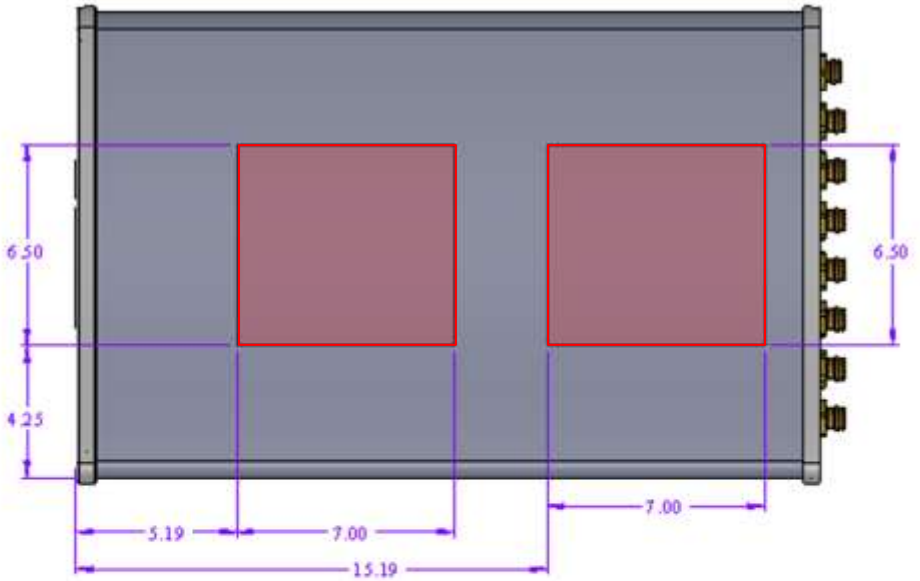
Top of antenna

Front view

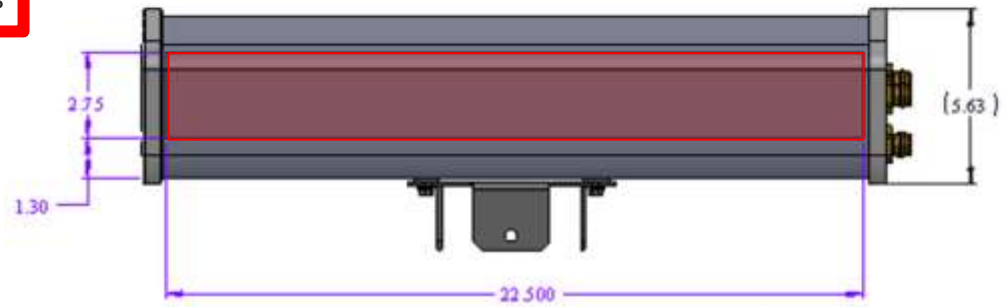


Danger zones for drilling – showing front of radome

Top of antenna



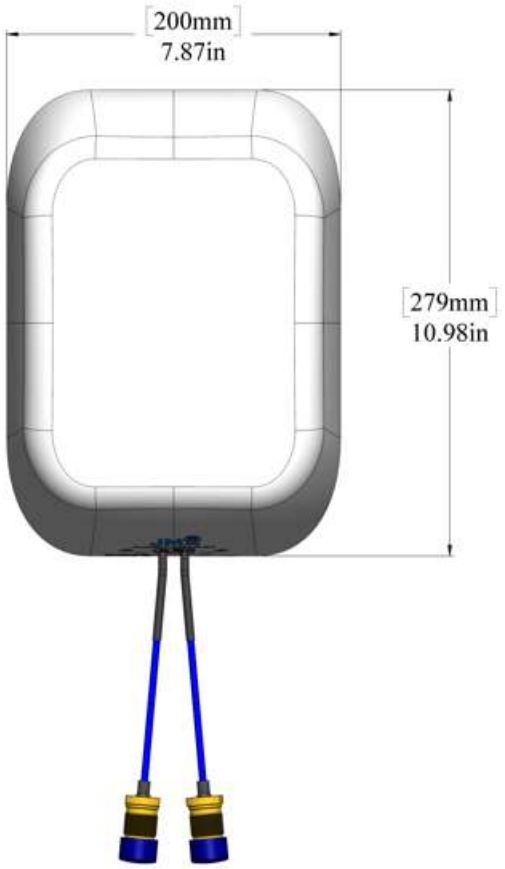
Danger zones – Advised to not drill within these borders



IX02PNL165-65 weep hole modifications

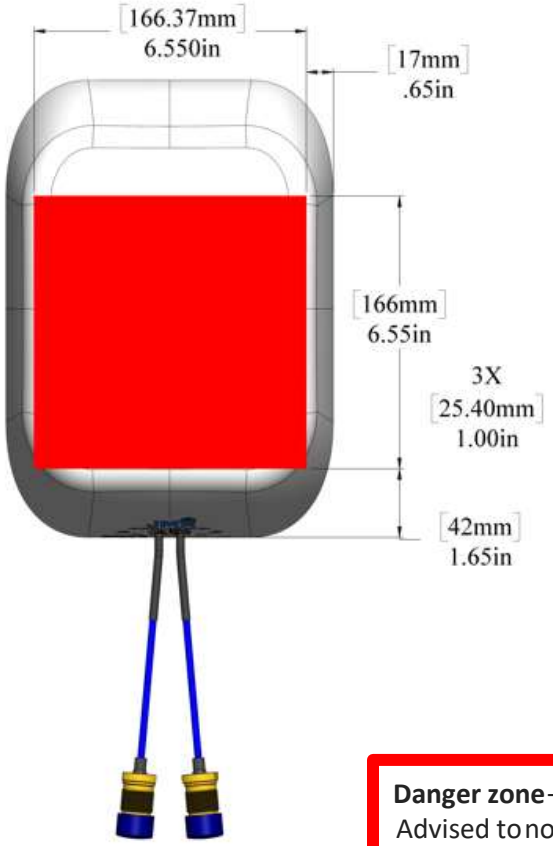
Specs of antenna

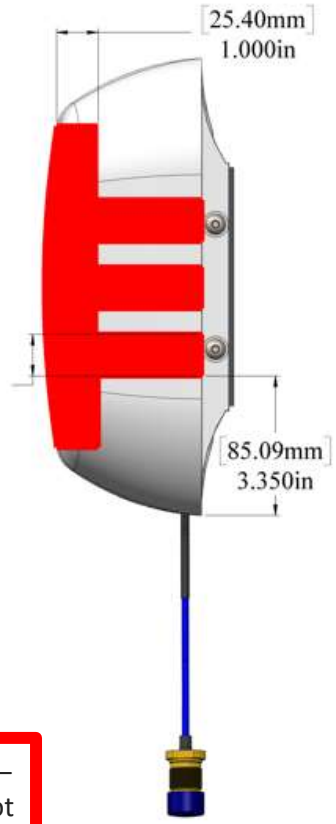
Top of antenna



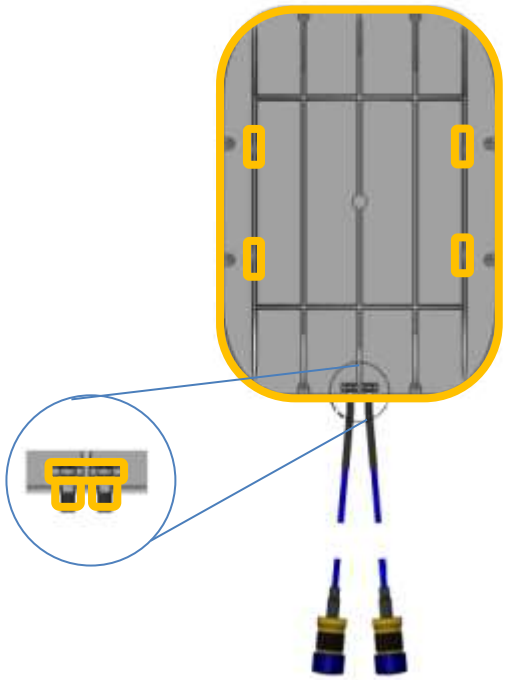
Danger zones for drilling – showing front of radome, and silicone sealant use for outdoor applications

Top of antenna





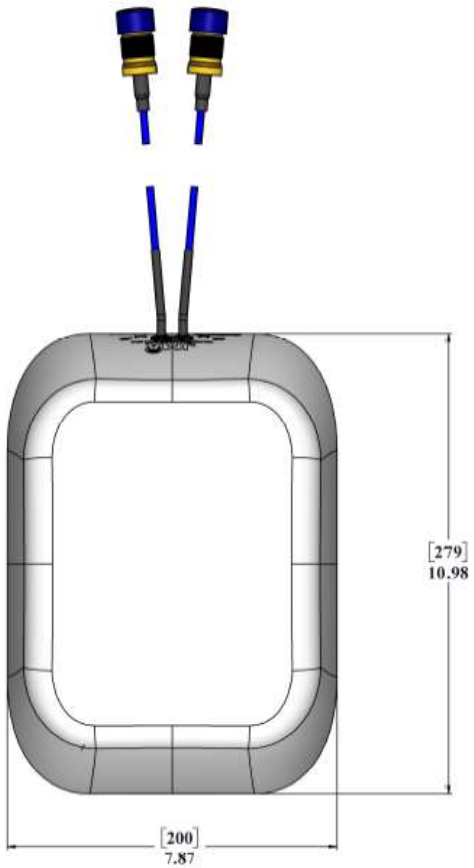
Danger zone– Advised to not drill within these borders



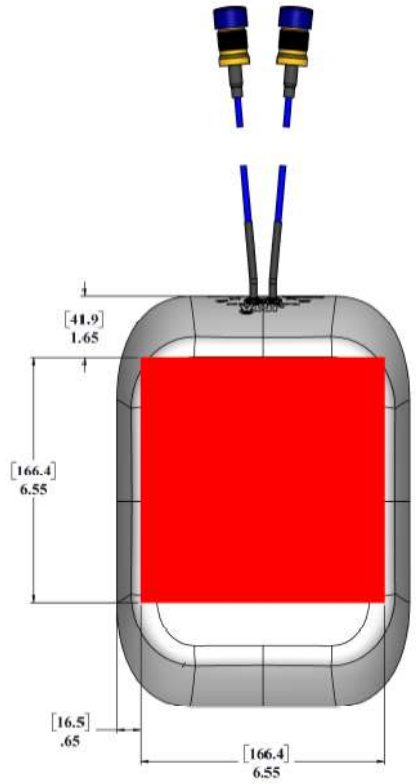
Apply Silicone Sealant to cover cutouts, around cable entry points, and around perimeter

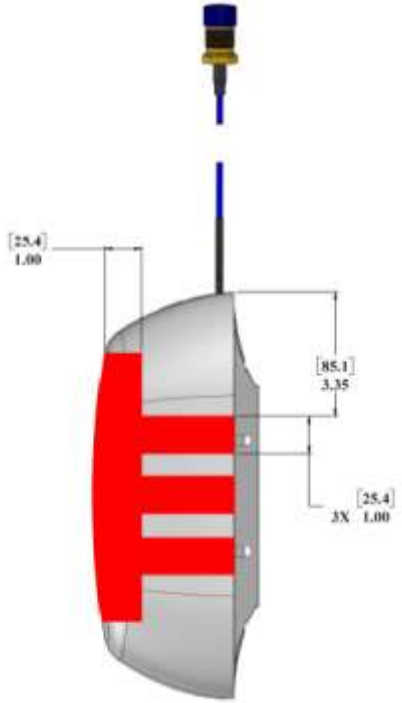
IX02PNL165-65 weep hole modifications - inverted

Specs of antenna

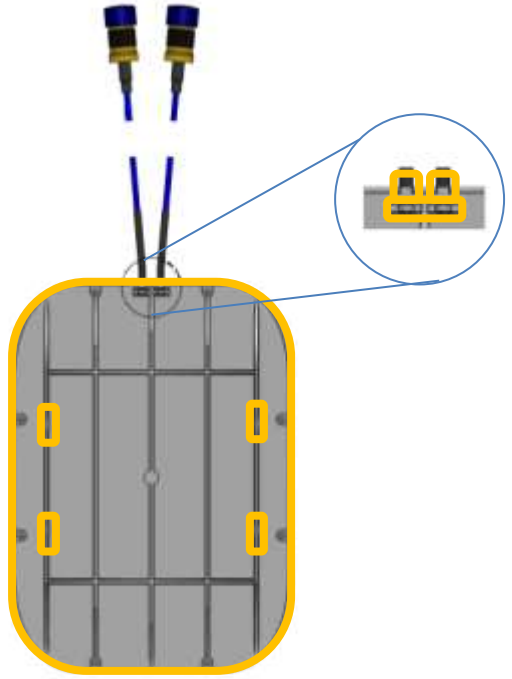


Danger zones for drilling – showing front of radome, and silicone sealant use for outdoor applications





Danger zone– Advised to not drill within these borders



Apply Silicone Sealant to cover cutouts, around cable entry points, and around perimeter

Document history

Rev.	Description	ECO number
A	Release. Document added to version control. Added IX02PNL165-65 information, removed EOL antennas, and clarified sealant use.	ECO-00909
B	Added the following antennas: SX04FRO128-01E, SX04FRO165-01E, and SX04FRO230-01E.	ECO-03332
C	Added a page for IX02PNL165-65 – Inverted.	ECO-03364