

Name: APSUSA635V01**Description:****Type:** Space station, Receiving and Transmitting

Space station antenna pattern submitted by USA for USASAT-NGSO-9A network for TVA1 and RVA1 beams.

Required Input Parameters:

gain

Validation Warnings/Errors:

Type	Message
Error	Gmax () is less than 31.8 (). Gmax is too low.

Co-Polar Component:

$$G = G_{\max} - 3 \left(\varphi / \varphi_0 \right)^2 \quad \text{for} \quad 0^\circ \leq \varphi \leq \varphi_1$$

$$G = 34 - 25 \log \varphi \quad \text{for} \quad \varphi_1 < \varphi \leq 17.4^\circ$$

$$G = 3 \quad \text{for} \quad 17.4^\circ < \varphi \leq 180^\circ$$

where

$$\varphi_1 = 3.68^\circ$$

$$\varphi_0 = 1.84^\circ$$