Name: APSUSA633V01

Type: Space station, Receiving and Transmitting

Description:
Space station antenna pattern submitted by USA for USASAT-NGSO-9A network for TUA1 and RUA1 beams.

Required Input Parameters:

gain

Validation Warnings/Errors:

Type	Message
Error	Gmax () is less than 23.8 (). Gmax is too low.

Co-Polar Component:

$G = G_{max} - 3\ (\varphi/\varphi0)^2$ for $0° \leq \varphi \leq \varphi1$

$G = 34 - 25 \log \varphi$ for $\varphi1 < \varphi \leq 20°$

$G = 1.5$ for $20° < \varphi \leq 180°$

where

$\varphi1 = 7.73°$

$\varphi0 = 3.87°$