

Name: APSREC407V01**Description:****Type:** Space station, Receiving and TransmittingRecommendation ITU-R S.672-4 space station antenna pattern for use as a design objective in the FSS employing geostationary satellites. For $L_s = -10$ dB.**Region(s):** 123**Required Input Parameters:**

gain,maj_axis,min_axis,orient

Validation Warnings/Errors: None**Pattern Information:**

Single feed circular beams.

 $L_s = -10$ dB for use in article 22, table 22-2.**Co-Polar Component:**

$$G = G_{\max} - 12 \left(\frac{\varphi}{\varphi_0} \right)^2 \quad \text{for} \quad 0 \leq \left(\frac{\varphi}{\varphi_0} \right) \leq a/2$$

$$G = G_{\max} + L_s \quad \text{for} \quad a/2 < \left(\frac{\varphi}{\varphi_0} \right) \leq b/2$$

$$G = G_{\max} + L_s + 20 - 25 \log (2\varphi/\varphi_0) \quad \text{for} \quad b/2 < \left(\frac{\varphi}{\varphi_0} \right)$$

where:

$$L_s = -10 \text{ dB}$$

$$a = 1.83$$

$$b = 6.32$$