

Name: APEPNG214V01**Description:****Type:** Earth station, Receiving

Receiving earth station antenna pattern submitted by PNG for network NYBSS and by USA for network AFRIBSS.

Required Input Parameters:

gain,bmwidth

Validation Warnings/Errors: None**Co-Polar Component:**

$$G = G_{\max} - 12 (\varphi/\varphi_0)^2 \quad \text{for } 0^\circ \leq \varphi \leq \varphi_m$$

$$G = G_1 \quad \text{for } \varphi_m < \varphi \leq 180^\circ$$

where:

$$D/\lambda = 10^{\left(\frac{G_{\max} - 7.7}{20}\right)}$$

$$G_1 = 2 + 15 \log (D/\lambda).$$

$$\varphi_m = \varphi_0 \sqrt{\frac{G_{\max} - G_1}{12}}.$$