

Name: APENST818V01**Description:****Type:** Earth station, Receiving and Transmitting

Non-standard generic earth station antenna pattern described by 2 coefficients (A and B) and by angle phi0.

Region(s): 123**Required Input Parameters:**

gain,coefa,coefb,bmwidth

Validation Warnings/Errors:

Type	Message
Error	G(Phi0) () is less than A-B*log(Phi0) (). Gmax is too low or Phi0 is too big.
Error	CoefA () is out of limits [18:47].
Error	CoefB () is out of limits [10:50].

Pattern Information:

The pattern requires input parameter beamwidth.

BR software sets antenna efficiency to 0.7 for technical examination.

Co-Polar Component:

$$G = G_{\max} - 2.5 \times 10^{-3} (D/\lambda \cdot \varphi)^2 \quad \text{for } 0^\circ \leq \varphi < \varphi_0$$

$$G = \text{Max} (\text{CoefA} - \text{CoefB} * \log \varphi, -10) \quad \text{for } \varphi_0 \leq \varphi \leq 180^\circ$$

where:

$$D/\lambda = \sqrt{\frac{10^{\left(\frac{G_{\max}}{10}\right)}}{\eta \pi^2}}.$$