

**Name:** APEUAE229V01**Description:****Type:** Earth station, Receiving and Transmitting

Earth station antenna pattern submitted by UAE for 12 dB earth station.

**Required Input Parameters:**

gain

**Validation Warnings/Errors:**

Type	Message
Error	Gmax () is less than 12 (). Gmax is too low.

**Co-Polar Component:**

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

$$G = \text{CoefA} - \text{CoefB} * \log \varphi \quad \text{for } \varphi_m \leq \varphi < \varphi_b$$

$$G = G_{\min} \quad \text{for } \varphi_b \leq \varphi \leq 180^\circ$$

where:

$$\varphi_0 = 28^\circ$$

$$\varphi_m = 23^\circ$$

$$\varphi_b = 50^\circ$$

$$\text{CoefA} = 38$$

$$\text{CoefB} = 25$$

$$G_{\min} = -5$$