

Name: APELUX225V01

Description:

Type: Earth station, Receiving and Transmitting

Earth station antenna pattern submitted by LUX for earth station type Typical-0.2M.

Required Input Parameters:

gain

Validation Warnings/Errors:

Type	Message
Error	Gmax () is less than 4.5 (). Gmax is too low.

Co-Polar Component:

$$G = G_{\max}$$
$$G = G_1$$
$$G = \text{CoefA} - \text{CoefB} * \log \varphi$$
$$G = G_{\min}$$

$$\text{for } 0^\circ \leq \varphi < \varphi_1$$
$$\text{for } \varphi_1 \leq \varphi < \varphi_r$$
$$\text{for } \varphi_r \leq \varphi < \varphi_b$$
$$\text{for } \varphi_b \leq \varphi \leq 180^\circ$$

where:

$$\varphi_1 = 36^\circ$$
$$\varphi_r = 65^\circ$$
$$\varphi_b = 10^{\left(\frac{47}{25}\right)} (76^\circ)$$
$$G_1 = 4.5$$
$$\text{CoefA} = 44$$
$$\text{CoefB} = 25$$
$$G_{\min} = -3$$