Name: APEJ__246V01

Type: Earth station, Transmitting

Description:

Earth station antenna pattern submitted by J for networks of N-SAT-Y17 series for TYPICAL-ESIM station types in the frequency band 29.5 - 30.0 GHz. Maximum antenna gain is between 38.9 dB and 54.4 dB.

Required Input Parameters:

gain

Validation Warnings/Errors:

Type	Message
Error	Gmax () is less than G(Phi1) (). Gmax is too low.

Pattern Information:

Antenna radiation pattern used for earth stations in motion communicating with GSO space stations of the FSS in the frequency band 29.5 - 30.0 GHz.

Co-Polar Component:

$G = G_{max}$ for $0° \le \varphi < \varphi_1$

$G = CoefA - CoefB * \log \varphi$ for $\varphi_1 \le \varphi < \varphi_m$

$G = G_1$ for $\varphi_m \le \varphi < \varphi_r$

$G = CoefC - CoefD * \log \varphi$ for $\varphi_r \le \varphi < \varphi_b$

$G = G_{min}$ for $\varphi_b \le \varphi \le 180°$

where:

$\varphi_1 = 2°$

$\varphi_m = 7°$

$\varphi_r = 9.2°$

$\varphi_b = 48°$

$G_1 = 8$ dB

CoefA = 29

CoefB = 25

CoefC = 32

CoefD = 25

$G_{min} = 0$ dB