Name: APS__D624V01

Type: Space station, Receiving and Transmitting

Description:

Space station antenna pattern submitted by D for HRWS network. Based on Recommendation ITU-R RS.2043, Table 9. Gmax is 49.5 dB.

Required Input Parameters:

gain

Validation Warnings/Errors: None

Co-Polar Component:

For G_{max} = 49.5 dB:

$G = G_{max} - 9.91\ \varphi^2$ for $0° \le \varphi < 1.149°$

$G = 37.689 - 1.944\ \varphi$ for $1.149° \le \varphi < 9.587°$

$G = 23.543 - 0.468\ \varphi$ for $9.587° \le \varphi < 29.976°$

$G = 15.062 - 0.185\ \varphi$ for $29.976° \le \varphi \le 50°$

$G = 5.791$ for $50° < \varphi < 180°$

For other G_{max}:

$G = G_{max} - 9.91\ \varphi^2$ for $0° \le \varphi < 1.149°$

$G = G_{max} - 47 + 35.189 - 1.944\ \varphi$ for $1.149° \le \varphi < 9.587°$

$G = G_{max} - 47 + 21.043 - 0.468\ \varphi$ for $9.587° \le \varphi < 29.976°$

$G = G_{max} - 47 + 12.562 - 0.185\ \varphi$ for $29.976° \le \varphi \le 50°$

$G = G_{max} - 47 + 3.291$ for $50° < \varphi < 180°$