**Name:** APEG__216V01  
**Type:** Earth station, Receiving and Transmitting  

**Description:**
Earth station antenna pattern submitted by G for network INMARSAT earth station type Typical-0.4M.

**Required Input Parameters:**
- gain

**Validation Warnings/Errors:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>Gmax () is less than 11 (). Gmax is too low.</td>
</tr>
</tbody>
</table>

**Co-Polar Component:**

\[
G = G_{\text{max}} \quad \text{for } 0^\circ \leq \varphi < \varphi_1
\]

\[
G = G_1 \quad \text{for } \varphi_1 \leq \varphi < \varphi_r
\]

\[
G = \text{CoefA} - \text{CoefB} \times \log \varphi \quad \text{for } \varphi_r \leq \varphi < \varphi_b
\]

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

where:

\[
\varphi_1 = 18^\circ
\]

\[
\varphi_r = 30^\circ
\]

\[
\varphi_b = 10 \left( \frac{47}{25} \right) (76^\circ)
\]

\[
G_1 = 11
\]

\[
\text{CoefA} = 44
\]

\[
\text{CoefB} = 25
\]

\[
G_{\text{min}} = -3
\]