Answer on Question #79514 - Engineering - Electrical Engineering

Suppose that Vmax value read from the graticule on an oscilloscope screen is 4.6 divisions and Vmin is 0.7 divisions. Calculate the modulation index and percentage of modulation.

Solution

The modulation index is defined as

$$M = \frac{V_{\max} - V_{\max}}{V_{\max} + V_{\max}} = \frac{4.6 - 0.7}{4.6 + 0.7} = 0.736$$

The percentage of modulation is defined as

$$M_{\%} = M \cdot 100\% = 0.736 \cdot 100\% = 73.6\%$$

Answer

$M = 0.736,\ M_{\%} = 73.6\%.$