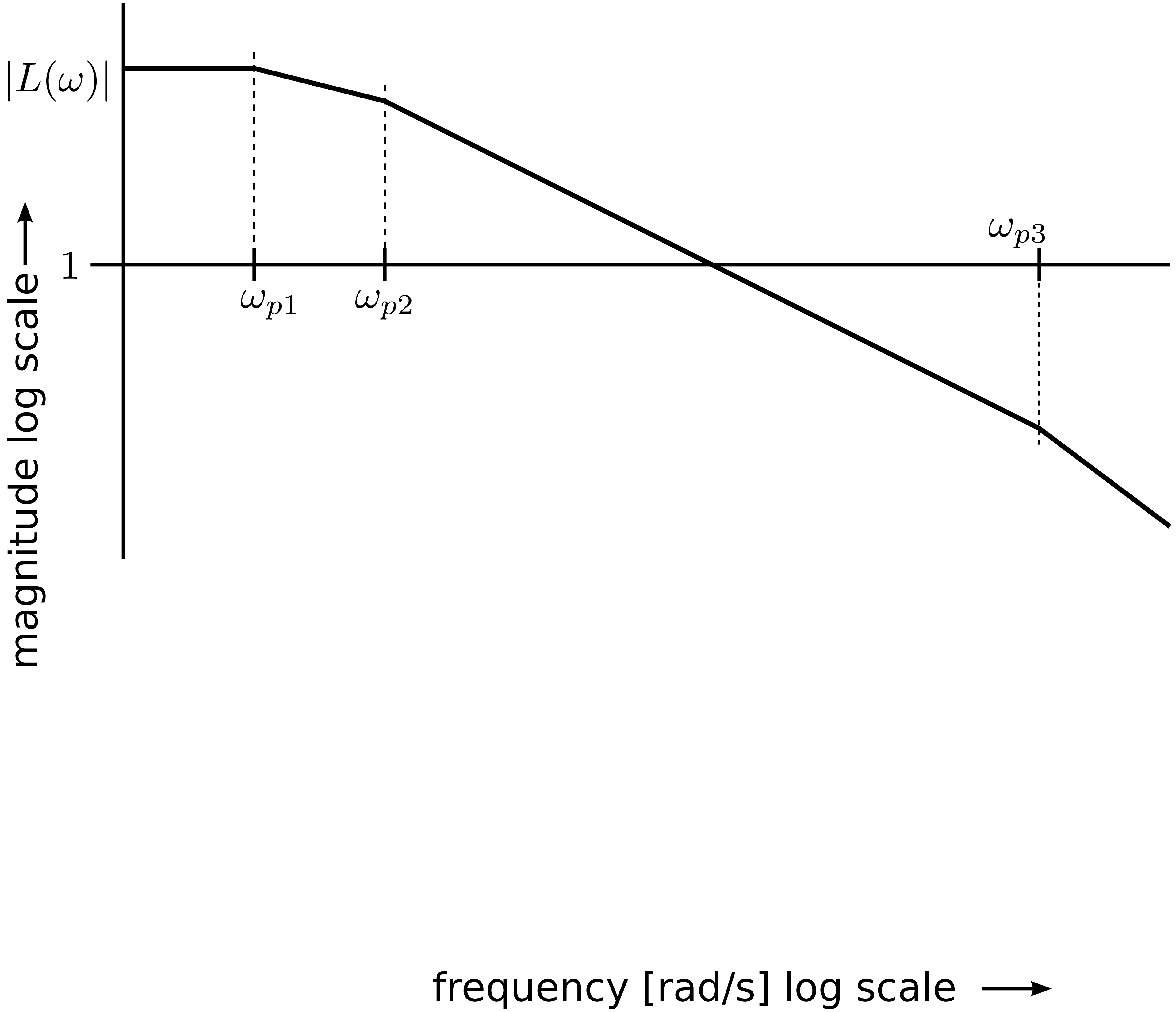
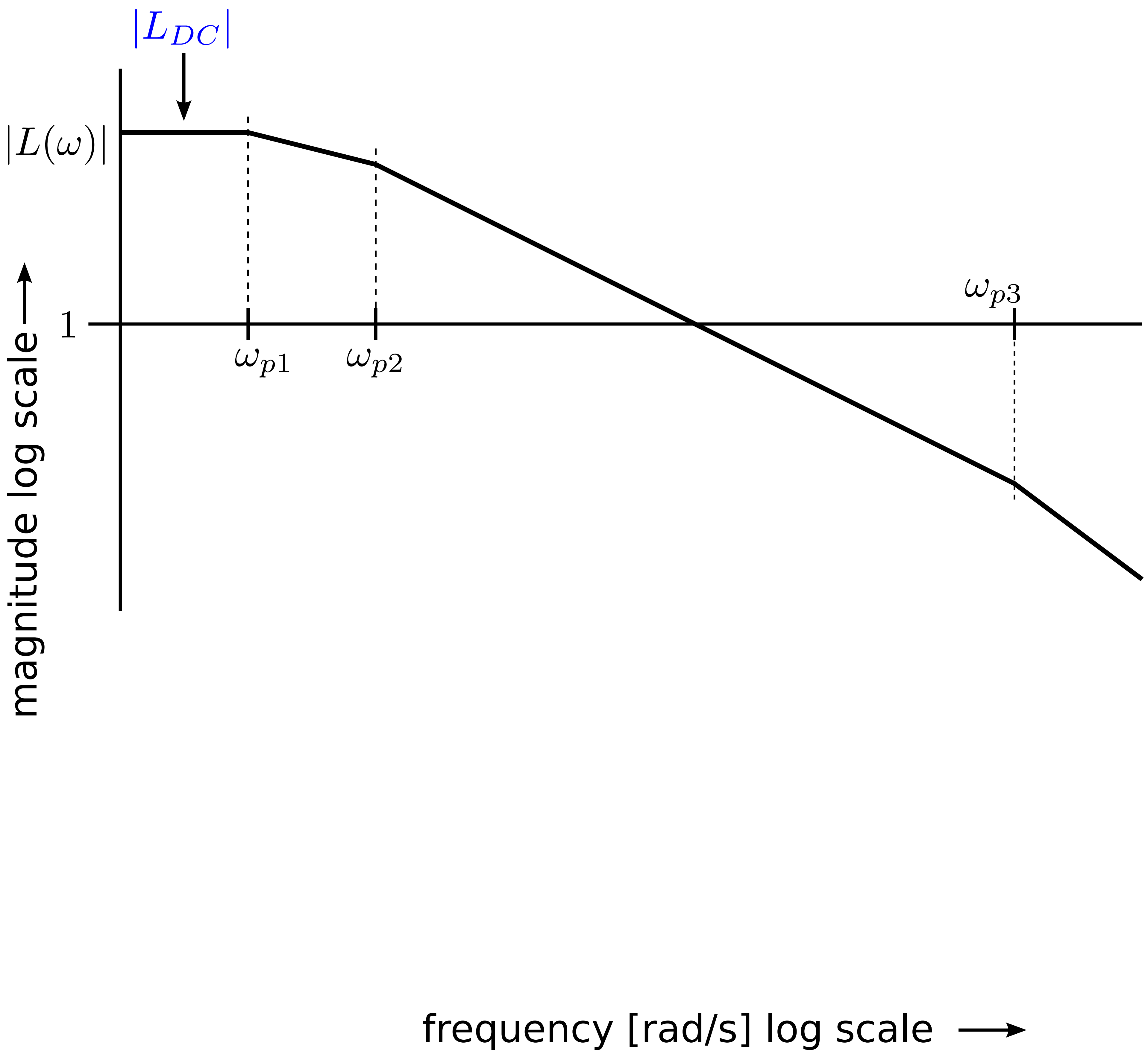
Structured Electronic Design
Dominant and non-dominant poles in feedback systems

Dominant and non-dominant poles



Magnitude plot with three separated negative real poles

Dominant and non-dominant poles



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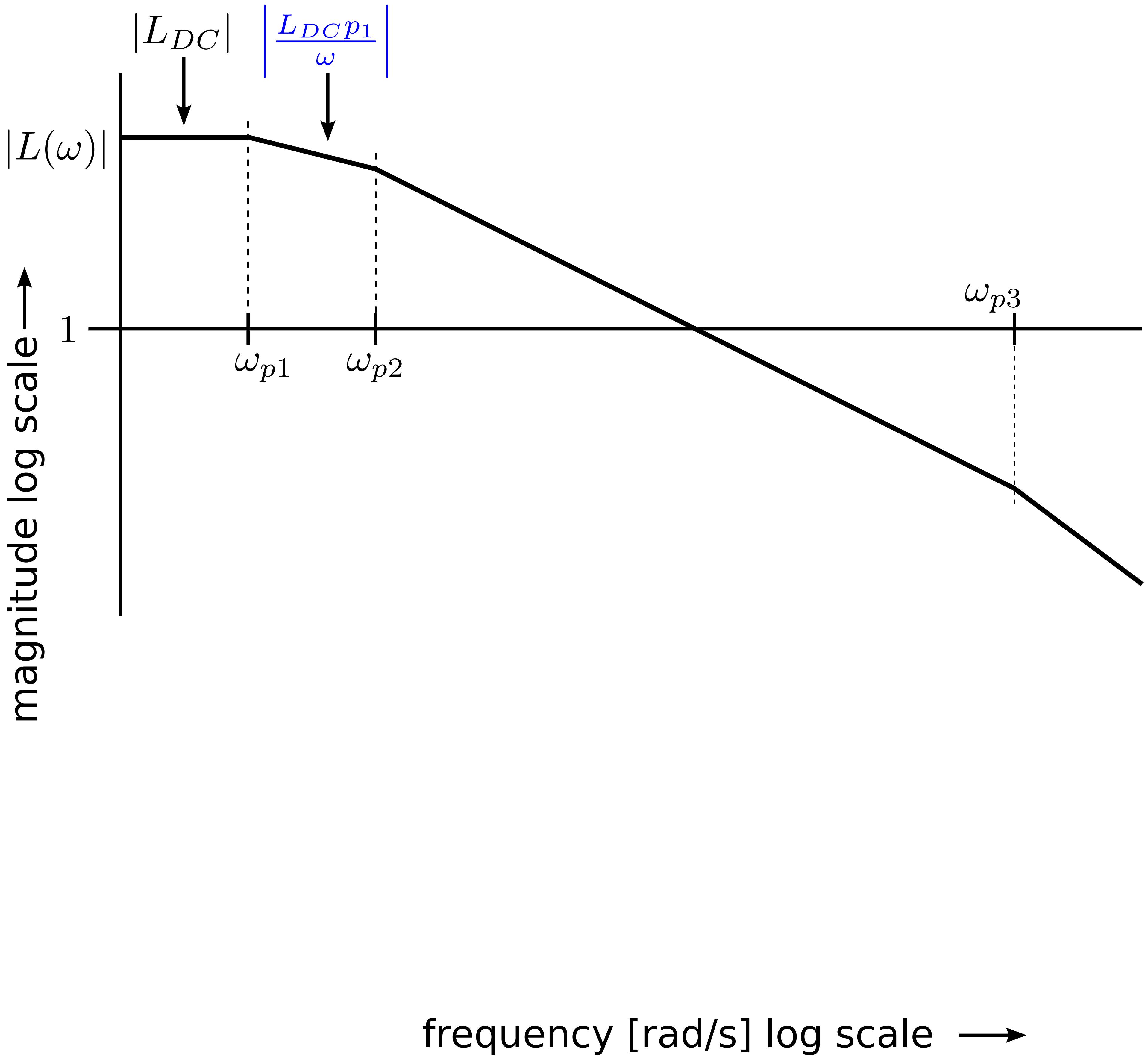
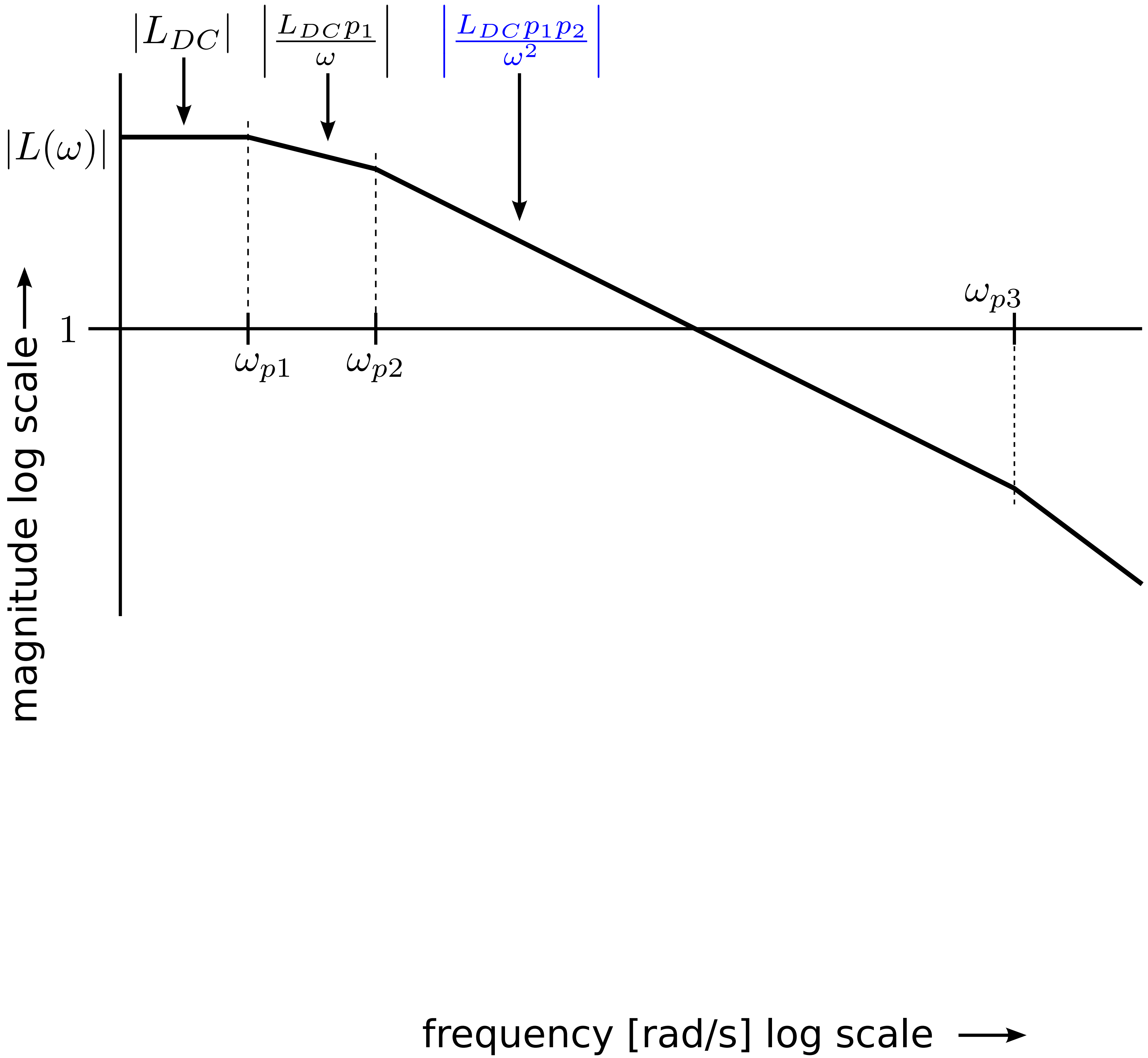


Magnitude plot with three separated negative real poles

$|L(\omega)|$

Dominant and non-dominant poles



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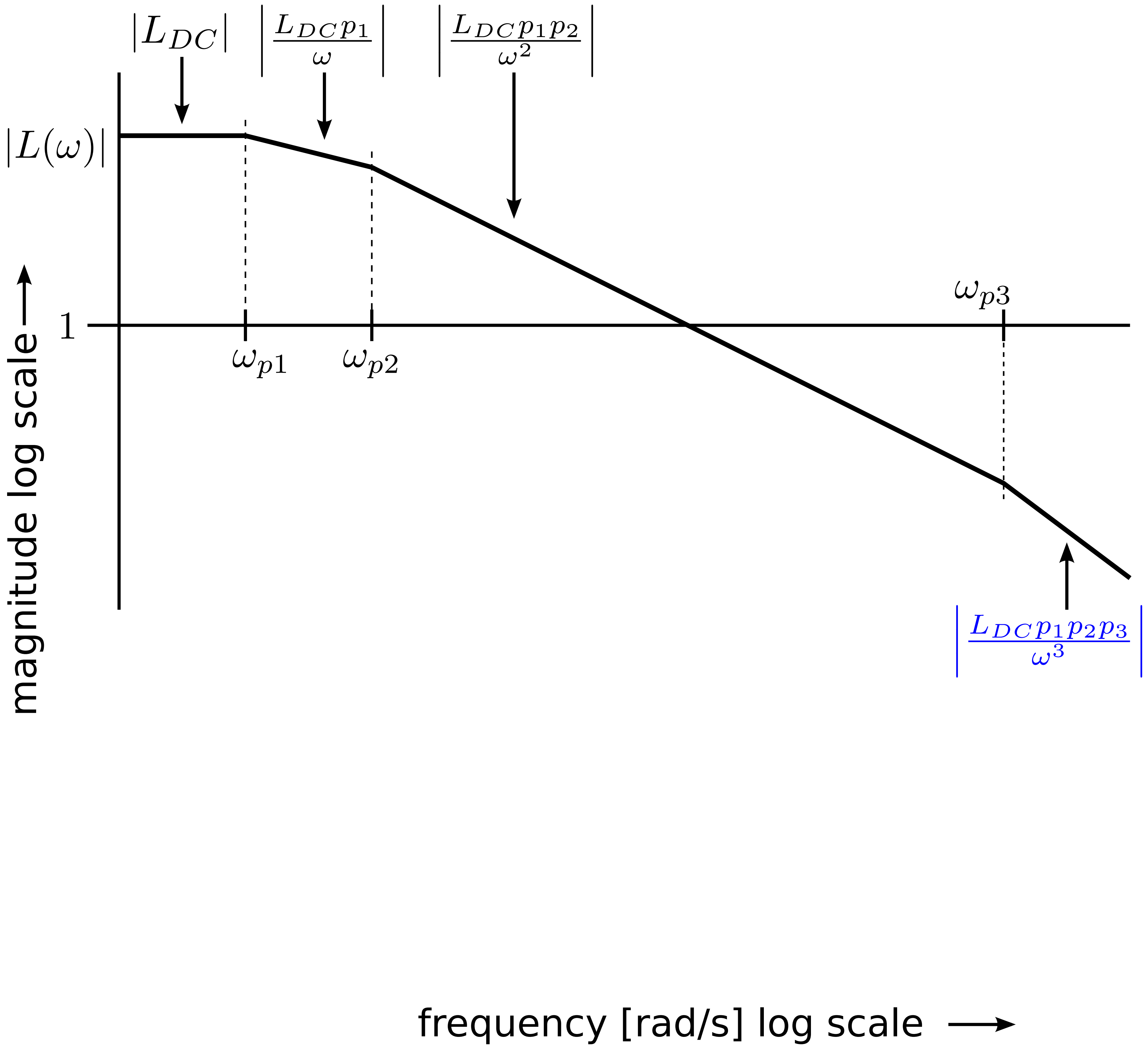

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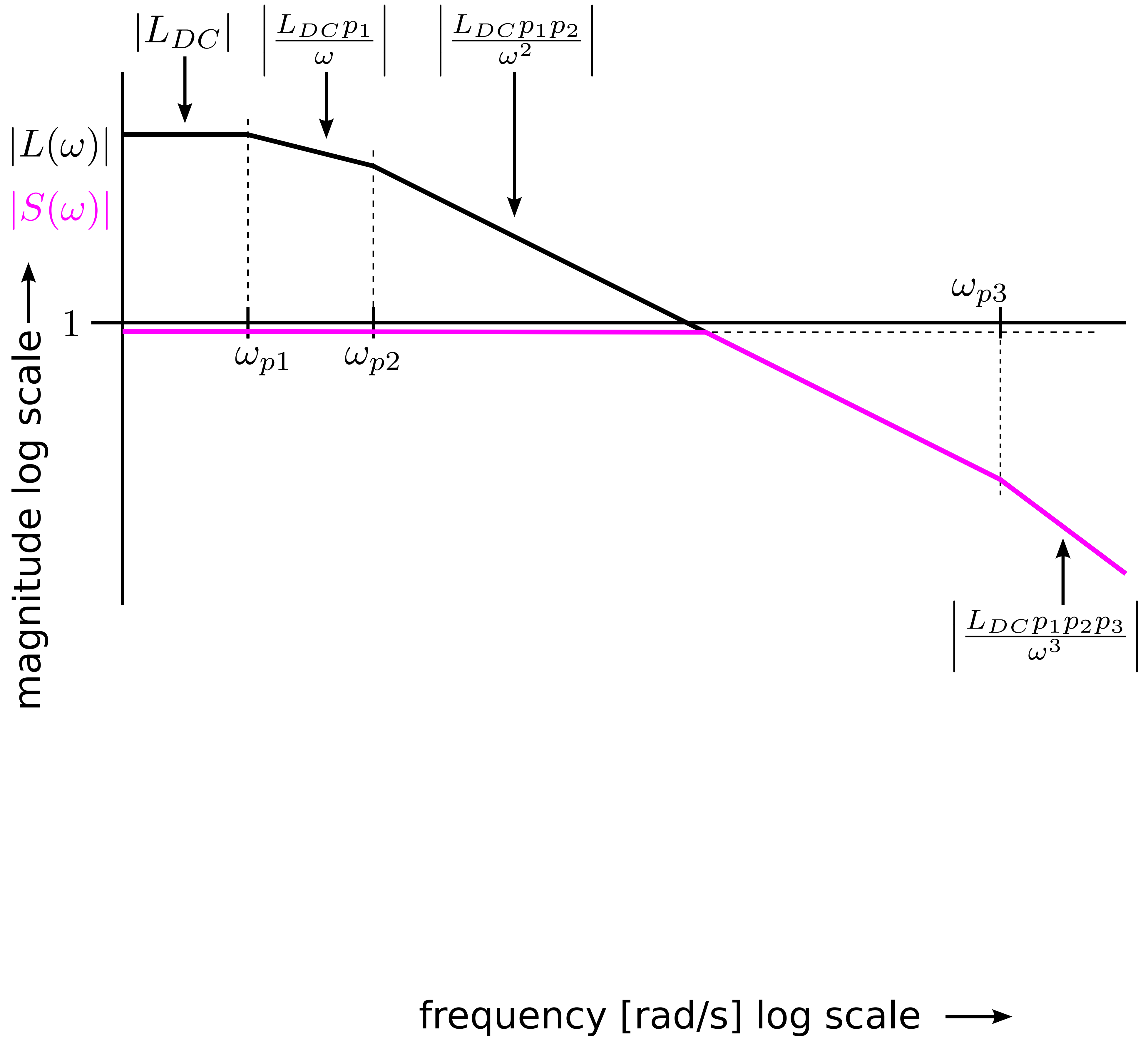
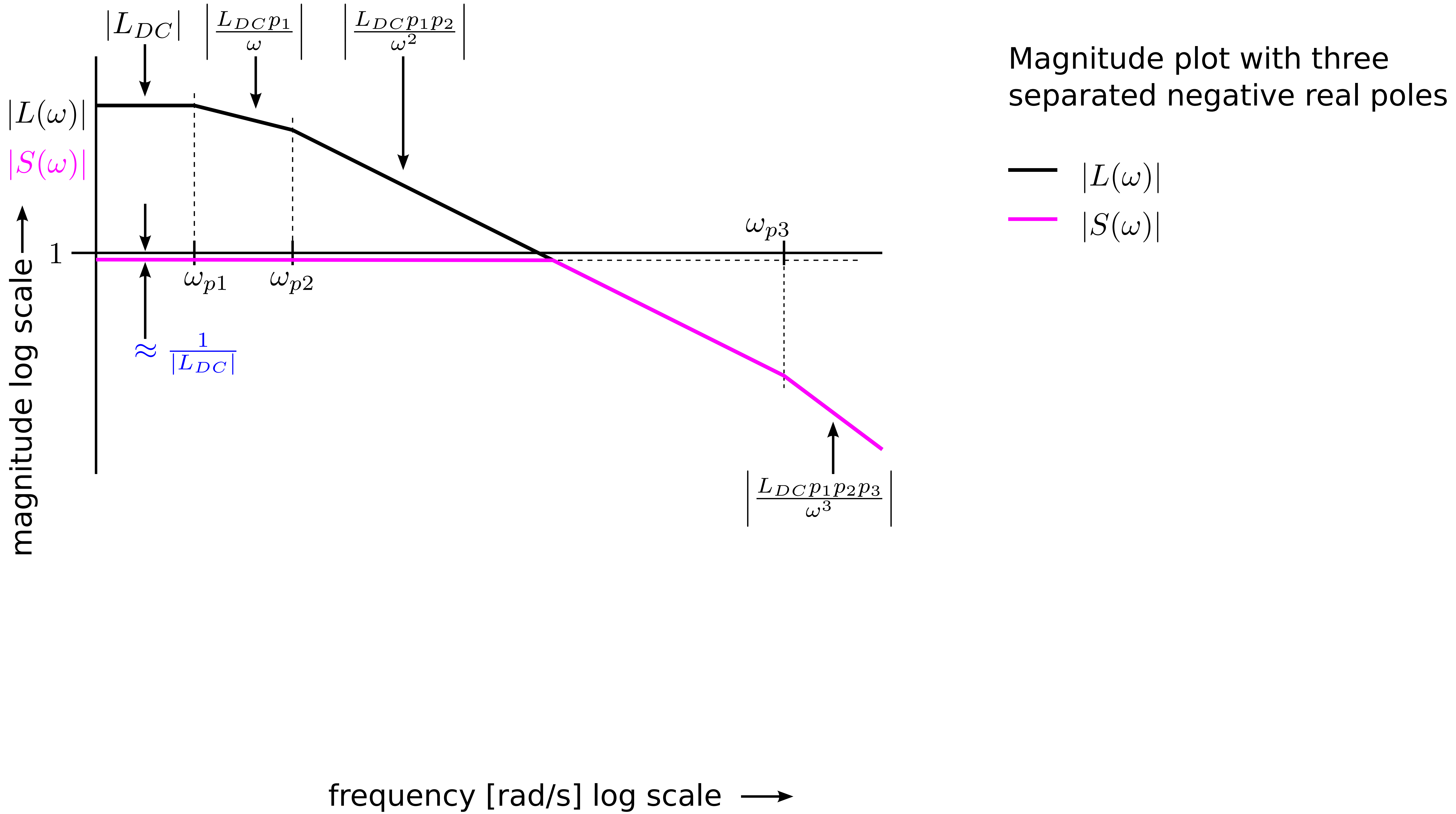


Magnitude plot with three separated negative real poles

$|L(\omega)|$
$|S(\omega)|$

Dominant and non-dominant poles



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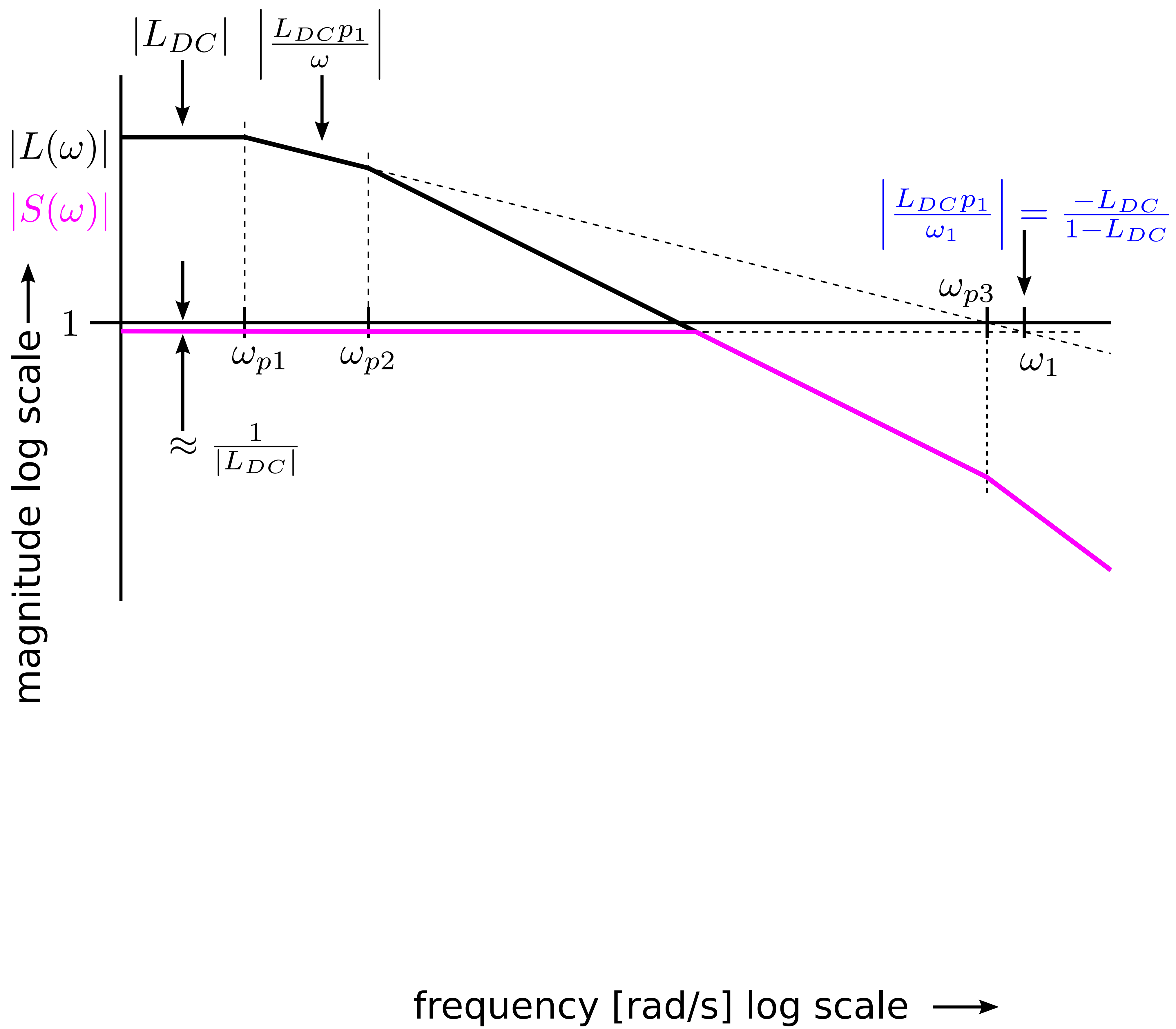

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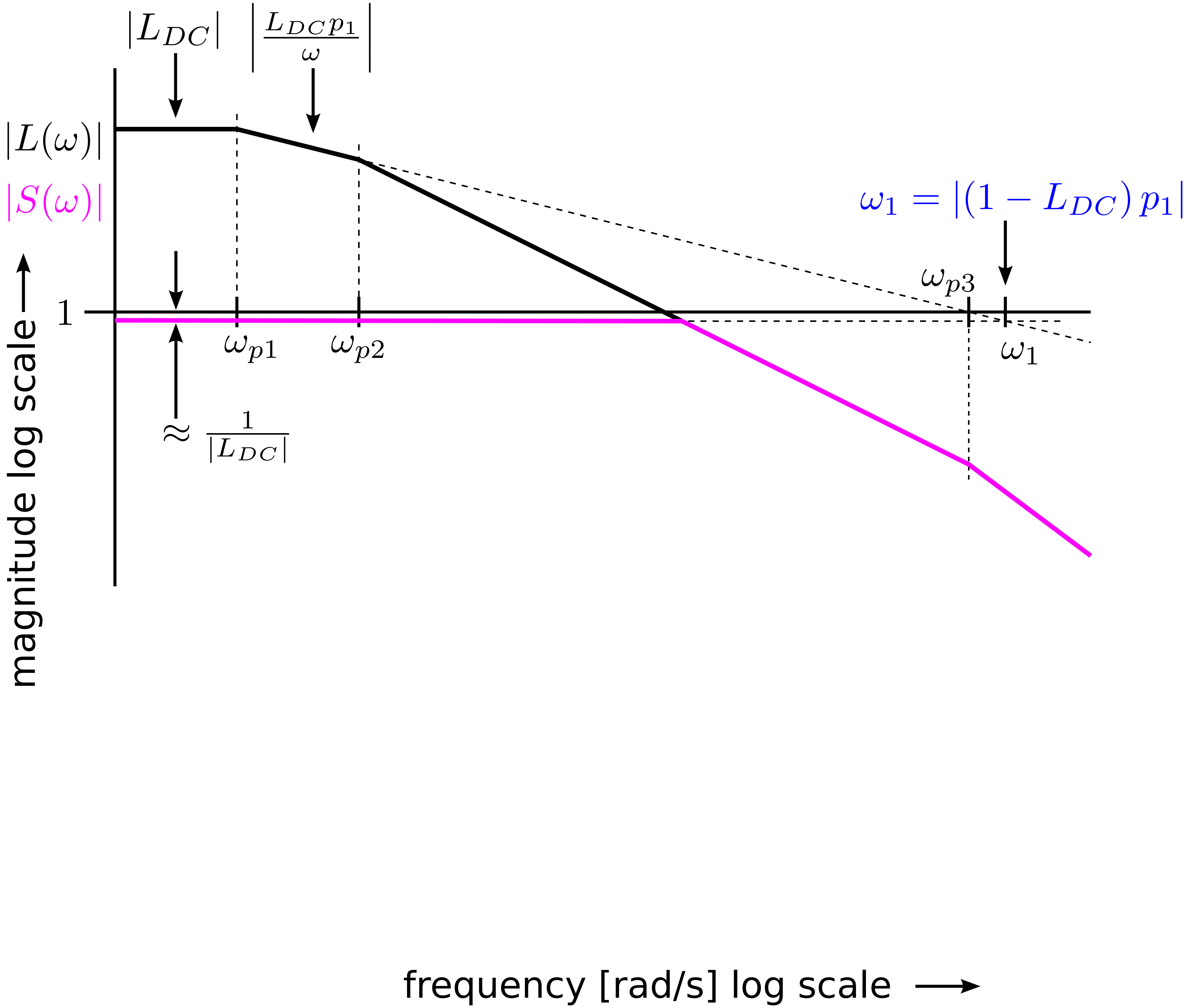

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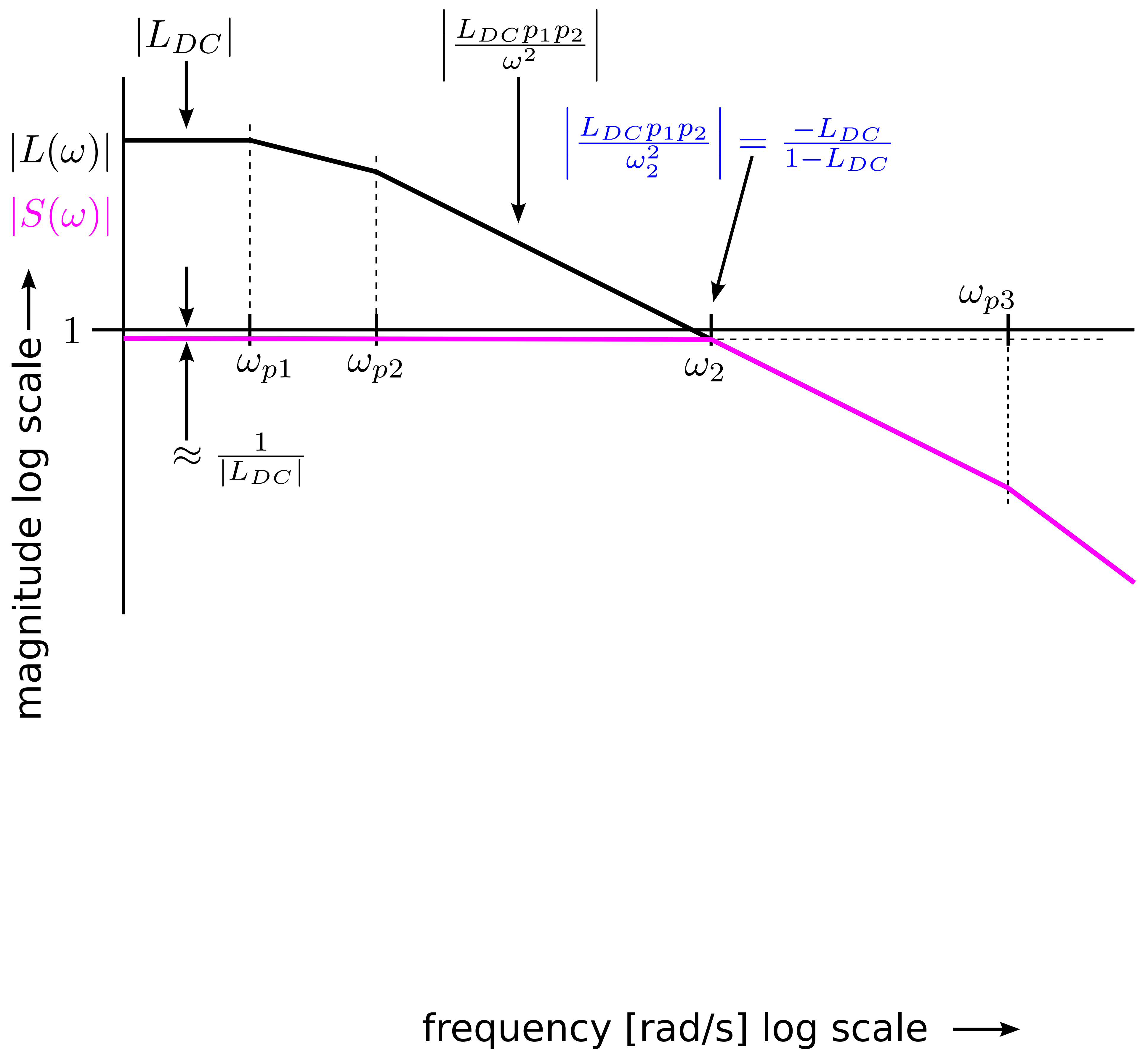

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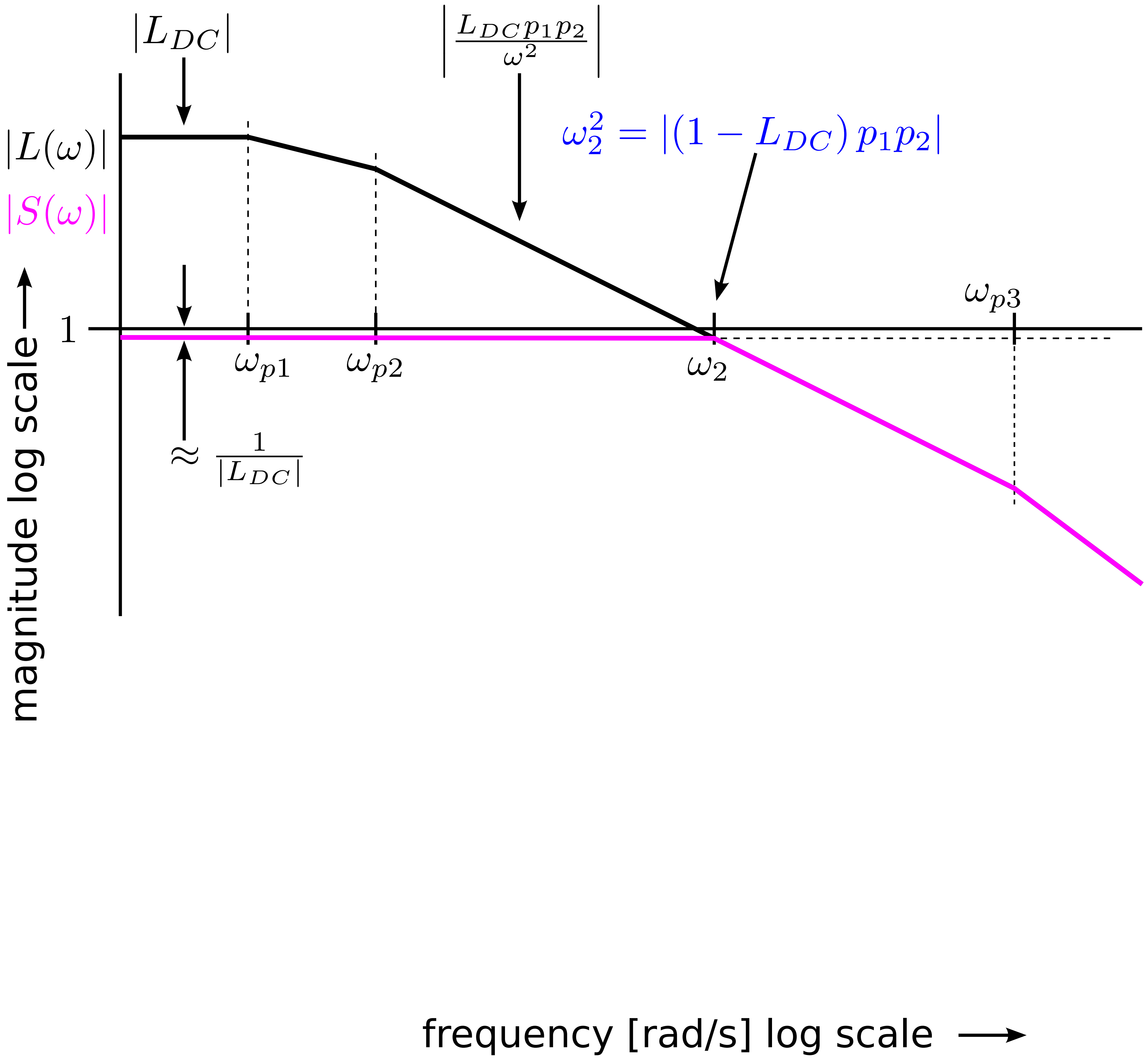

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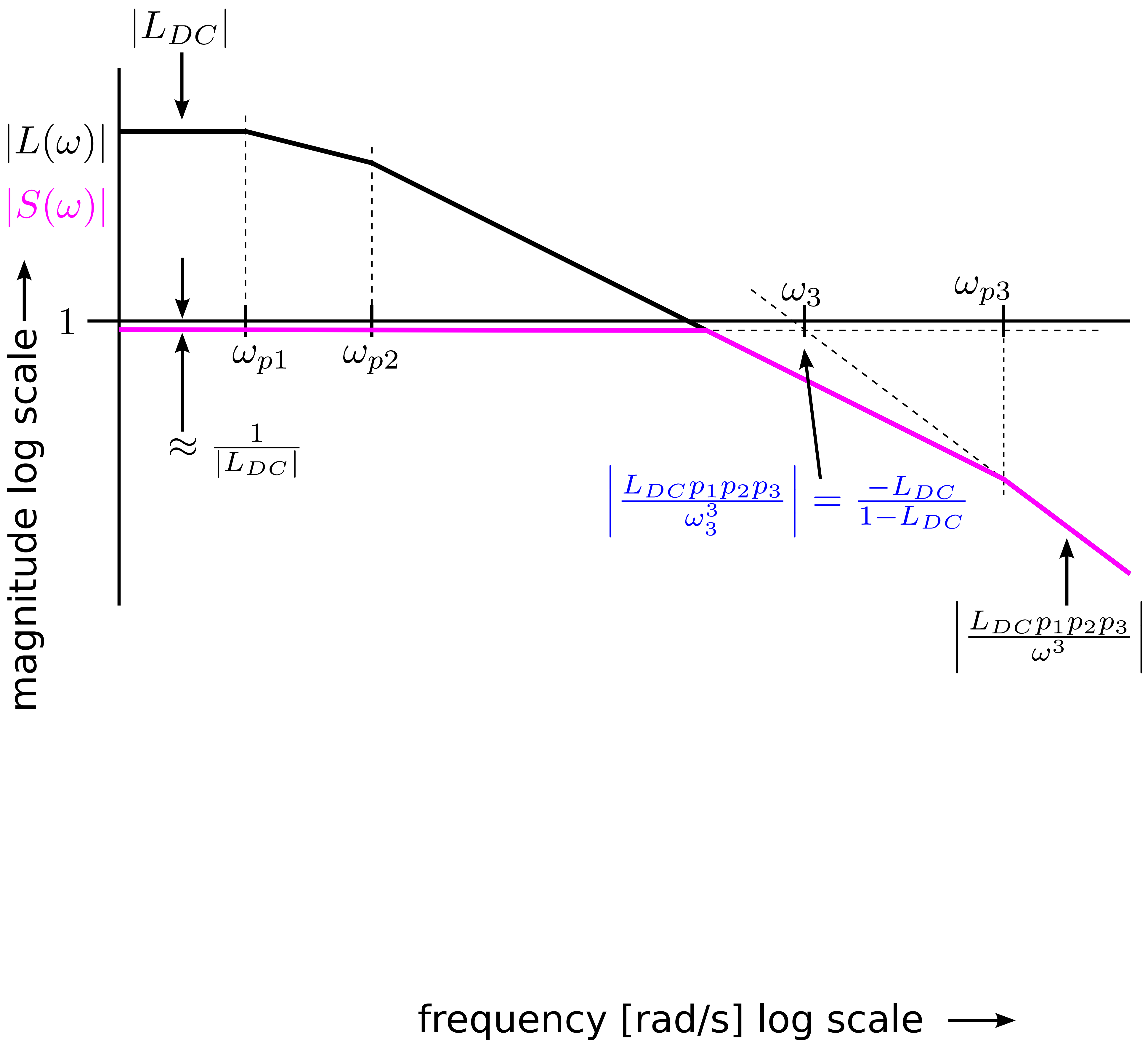

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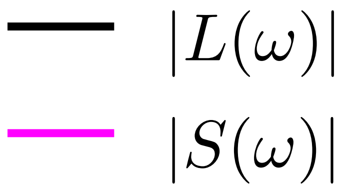

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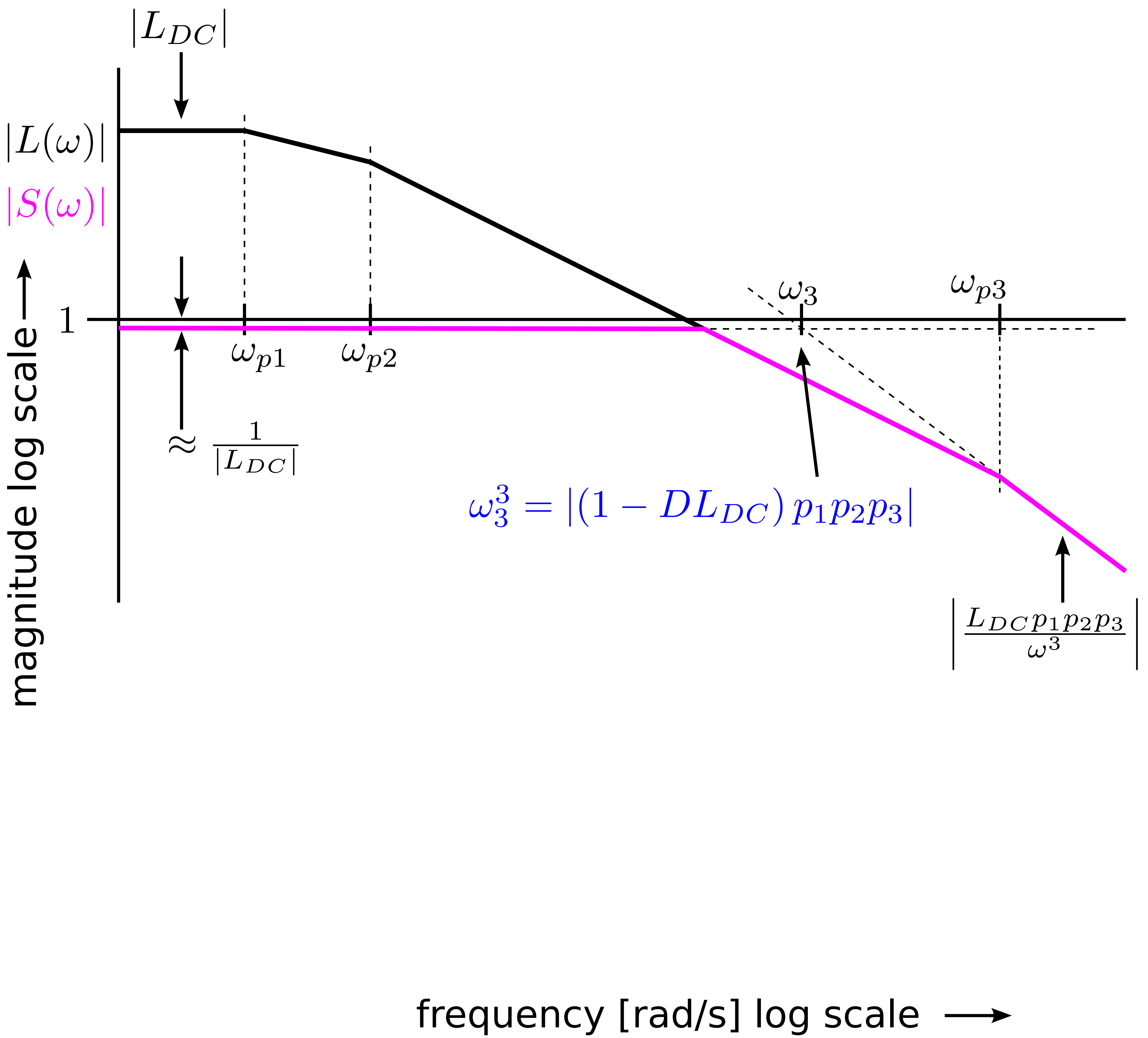

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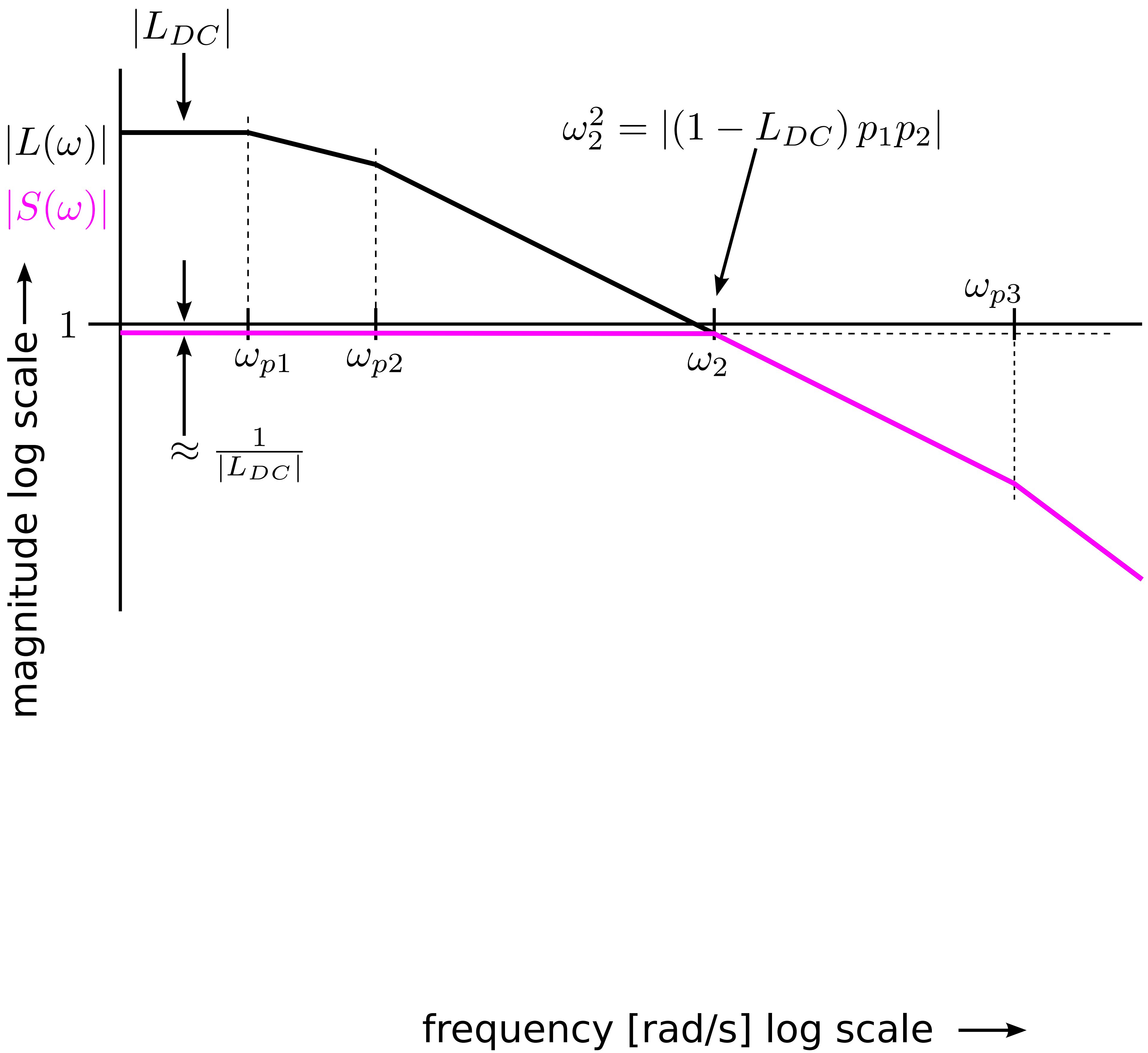

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$\omega_2 < \omega_3 < \omega_1$

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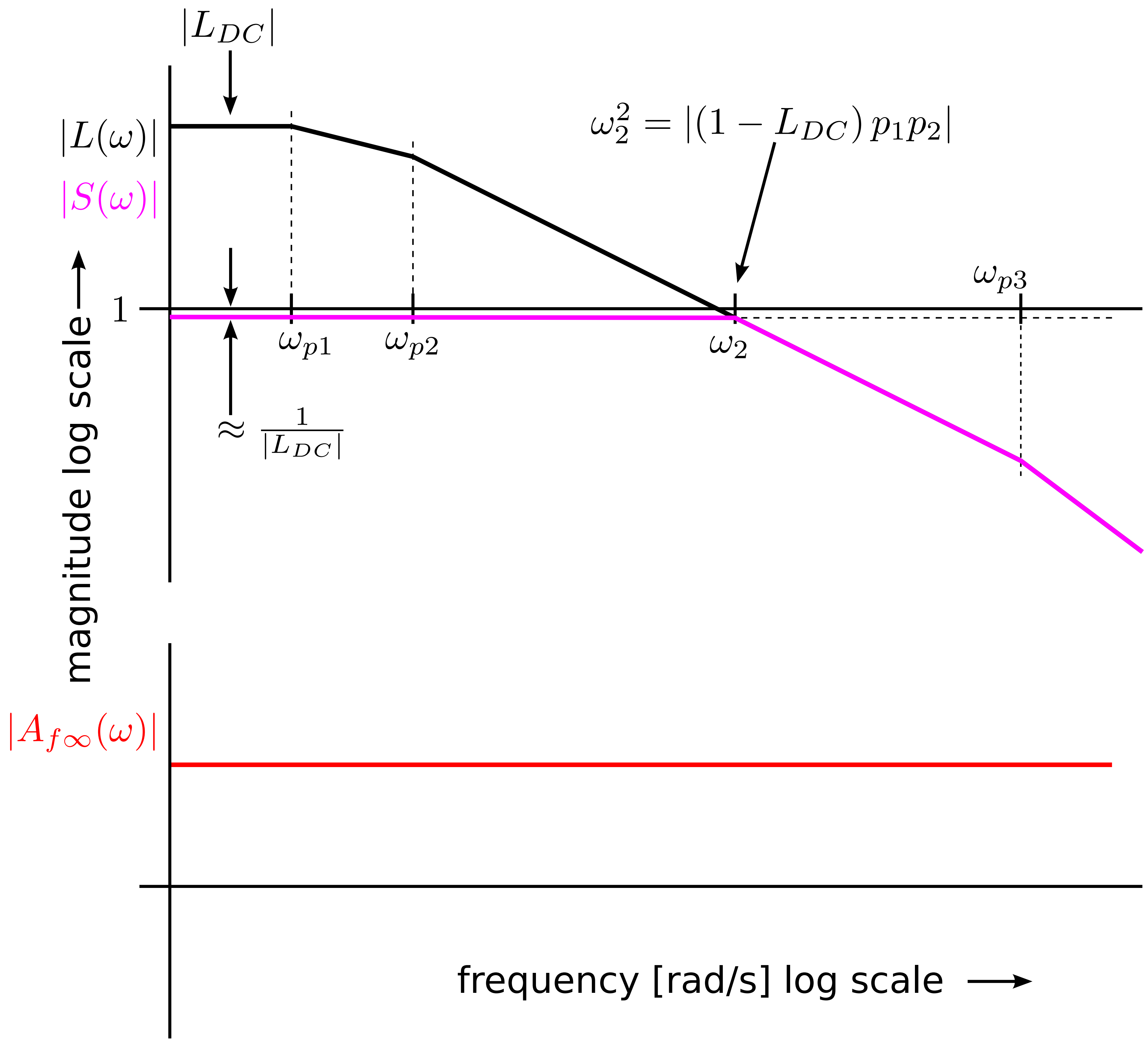

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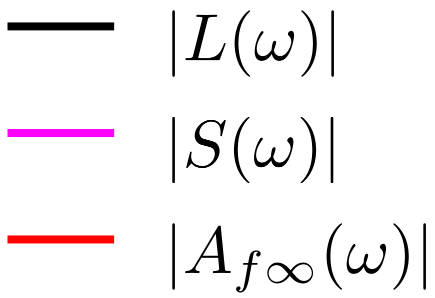

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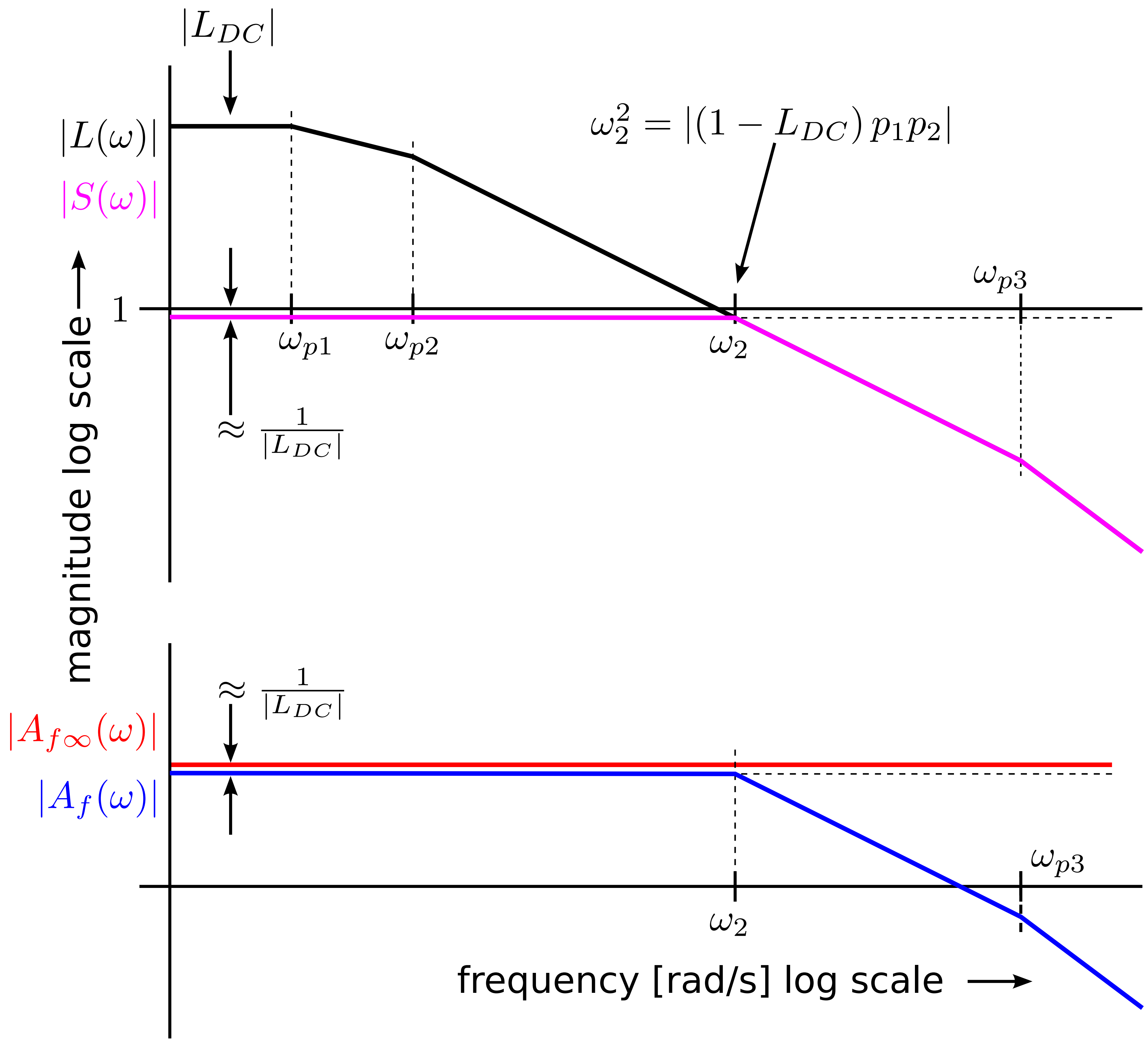

Magnitude plot with three separated negative real poles

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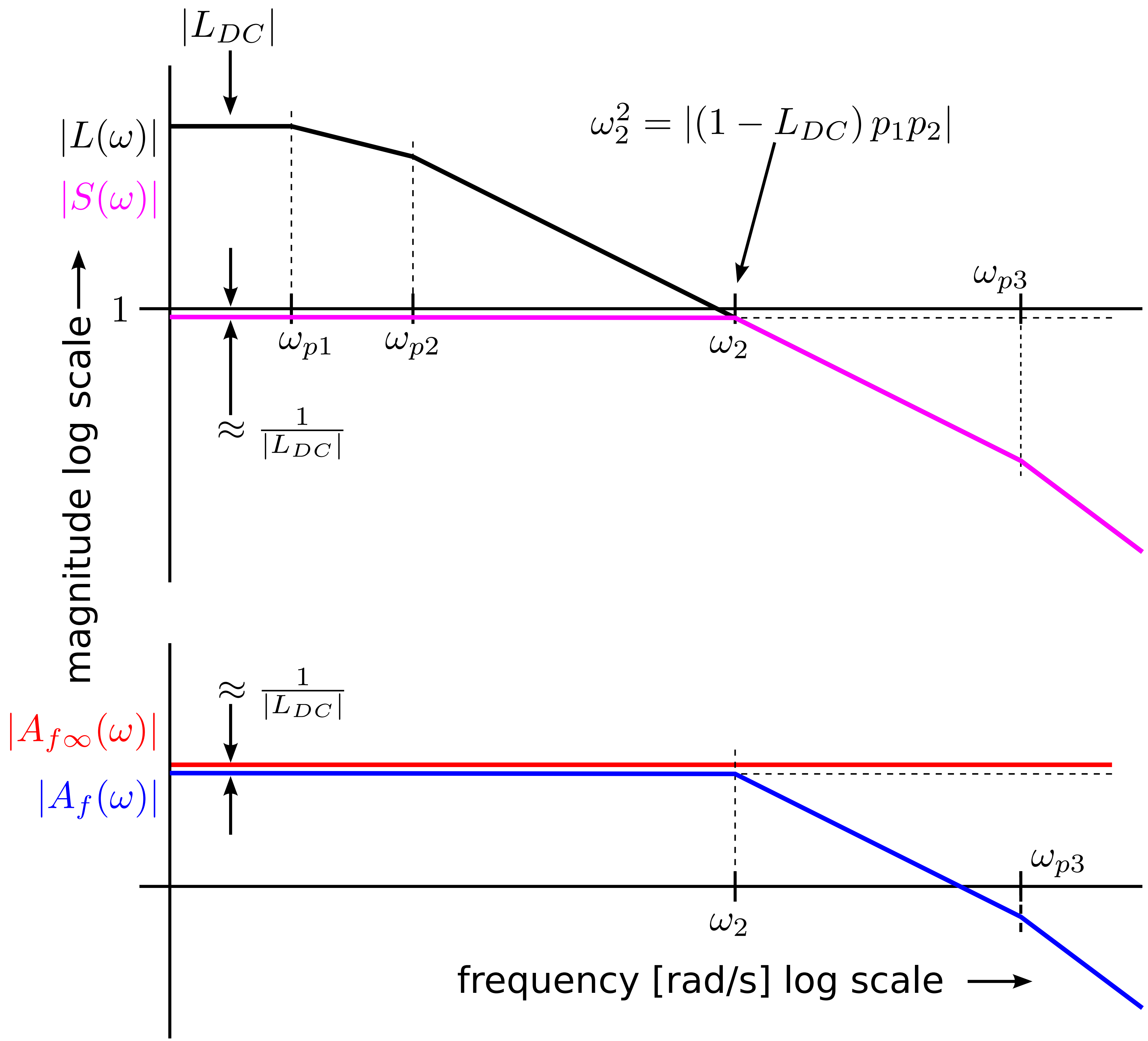

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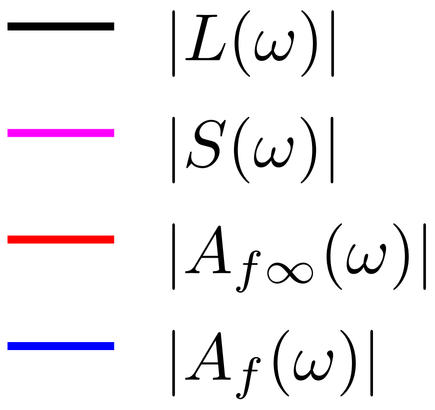

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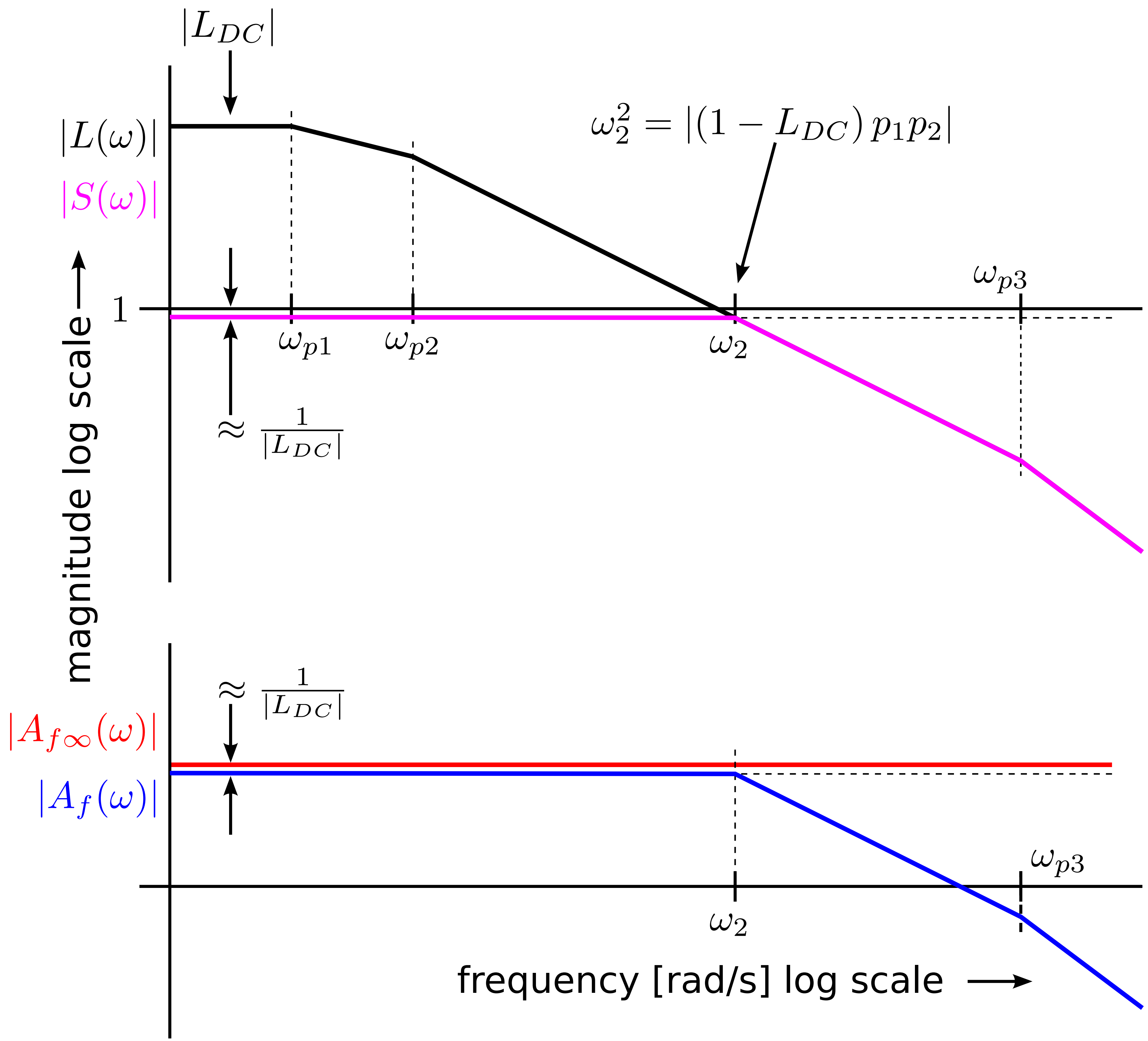

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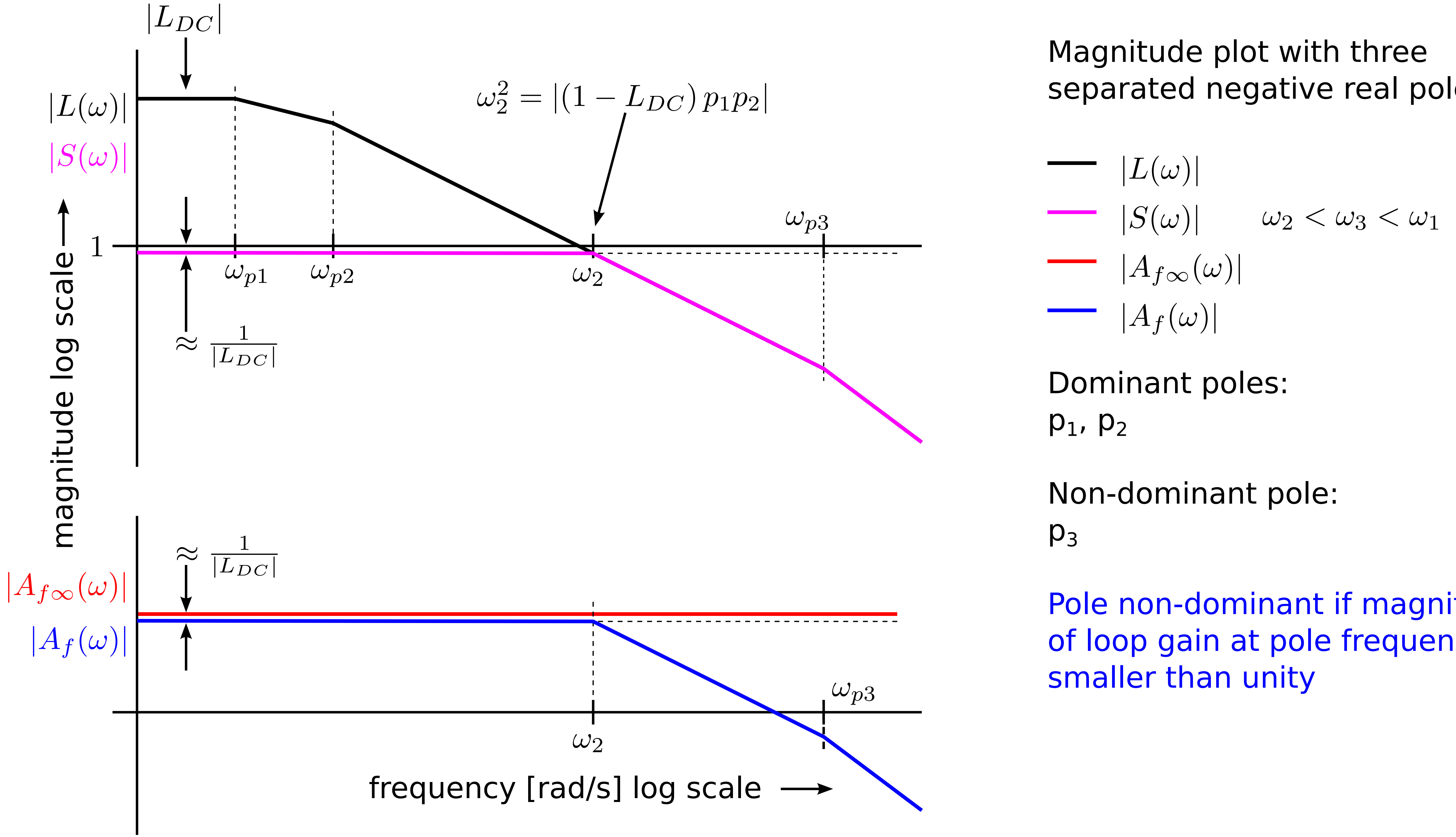

Magnitude plot with three separated negative real poles

Dominant poles:
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Non-dominant pole:
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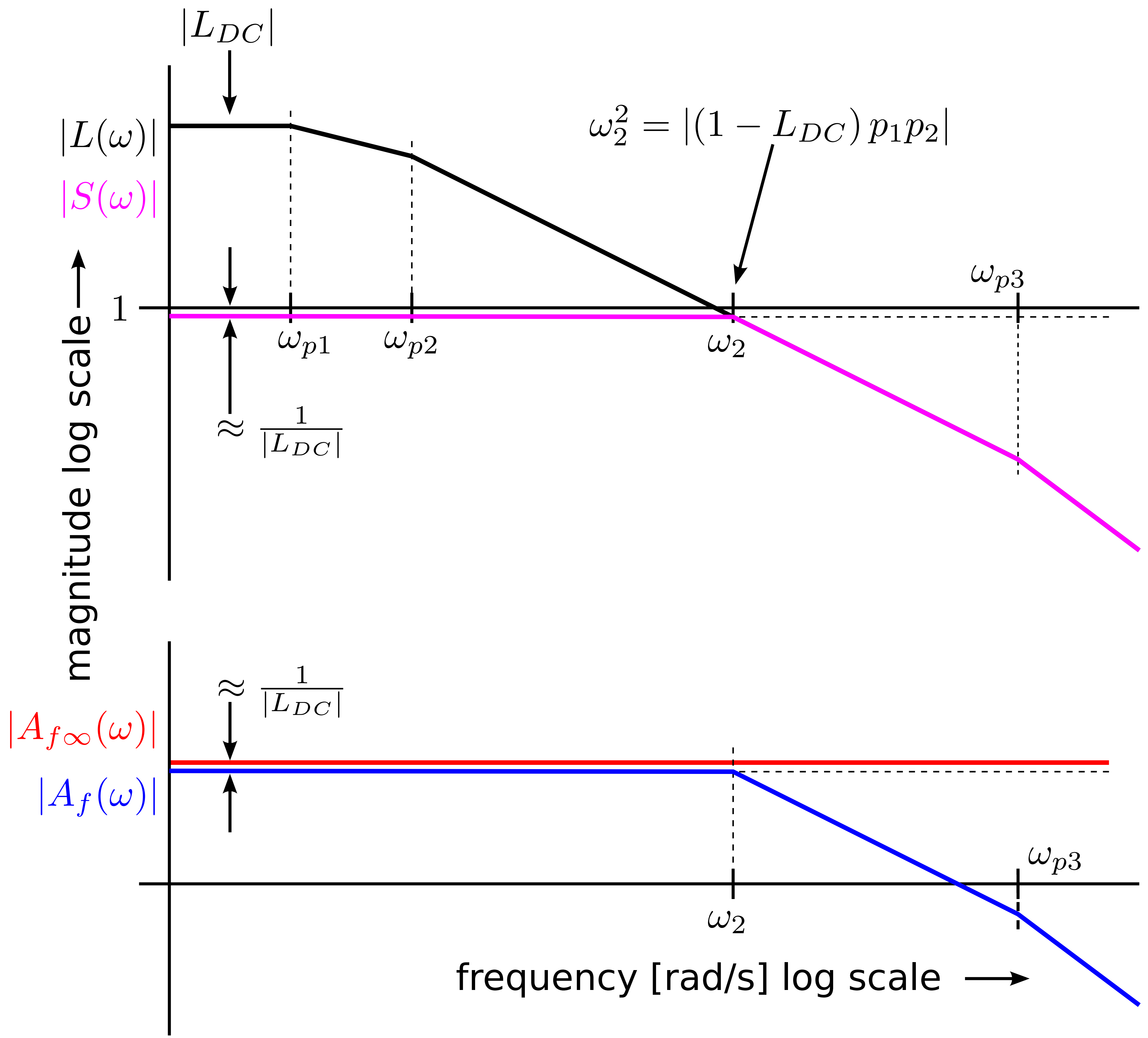
Pole non-dominant if magnitude of loop gain at pole frequency smaller than unity

Dominant and non-dominant poles



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