Power for a given subsystem and frequency band:

Πin = Πdiss = Mηω < v2 > = ηω < E >

|  |  |
| --- | --- |
| Πin & Πdiss | Input & dissipated power |
| M | Mass |
| η | Loss factor |
| ω | Angular frequency (rad/sec) |
| <v2 > | Spatial average mean velocity squared |
| < E > | Total mechanical energy |

Reference

J. Wijker, Random Vibrations in Spacecraft Structure Design, Springer,   
New York, 2009. Equations (4.38, 4.93, 4.192)