Coaxial Cable Characteristic Impedance Good Engineering

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*"**Engineering**" is the process of making workable compromises in design goals, where **theories** guiding different aspects of the design are in conflict, making it impossible to optimize all the goals. "**Good engineering**" is simply recognizing the correct choices in the compromises and relaxing the right goals.*

Example;

1. **75Ω** is the optimum coaxial cable Characteristic Impedance (Zo) for **Low Attenuation** (low loss) of signals during **"Reception". (RG-6/U and RG-11/U)**

2. **30Ω** is the optimum coaxial cable Characteristic Impedance (Zo) for handling **High Power** signals during **"Transmission".**

3. **60Ω** is the optimum coaxial cable Characteristic Impedance (Zo) for handling **High Voltage** signals during **"Transmission".**

4. **50 or 52.5Ω** is the "**Good Engineering**" compromise chosen as the optimum coaxial cable Characteristic Impedance (Zo) to be used with "Transceivers" for **optimizing the goal of acceptable low antenuation for "Reception" and high power / voltage for "Transmission" of signals. (RG-58/U, RG-8/X & RG-8/U)**