

Structured Electronic Design Wrap-up Function and Requirements

Amplifiers

Amplifiers

Information processing task

Amplifiers

Information processing task

- accurate reproduction of information from the signal source at the load

Amplifiers

Information processing task

- accurate reproduction of information from the signal source at the load

Characteristic property

Amplifiers

Information processing task

- accurate reproduction of information from the signal source at the load

Characteristic property

- available power gain exceeds unity

Amplifiers

Information processing task

- accurate reproduction of information from the signal source at the load

Characteristic property

- available power gain exceeds unity

Amplifier types

Amplifiers

Information processing task

- accurate reproduction of information from the signal source at the load

Characteristic property

- available power gain exceeds unity

Amplifier types

- nine unilateral amplifier types

Amplifiers

Information processing task

Characteristic property

Amplifier types

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation
- imperfect implementation of amplification mechanism

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

Cost factors

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation
- imperfect implementation of amplification mechanism

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

Cost factors

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation
- imperfect implementation of amplification mechanism
- power dissipation

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

Cost factors

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation
- imperfect implementation of amplification mechanism
- power dissipation
- area

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

Cost factors

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation
- imperfect implementation of amplification mechanism
- power dissipation
- area
- dimensions

Amplifiers

Information processing task

Characteristic property

Amplifier types

Modeling of ideal behavior

Performance limitations

Cost factors

- accurate reproduction of information from the signal source at the load
- available power gain exceeds unity
- nine unilateral amplifier types
- five port configuration versions for each type
- transfer gain, input impedance, output impedance
- transmission-1 matrix parameters A, B, C and D
- noise addition
- bandwidth limitation
- V/I drive limitation
- imperfect implementation of amplification mechanism
- power dissipation
- area
- dimensions
- weight