

Amplitude Modulated Current Source

iam

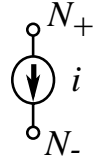


Figure 1: Independent Current Source Element.

Form: iam:<instance name> n_1 n_2 <parameter list>

n_1 is the positive element node,

n_2 is the negative element node.

Parameters:

Parameter	Type	Default value	Required?
oc: Offset Constant (Dimensionless)	DOUBLE	0	no
sa: Signal amplitude (V)	DOUBLE	0	no
fcarrier: Carrier frequency (Hz)	DOUBLE	0	no
fmod: modulation frequency(Hz)	DOUBLE	0	no
td: Time Delay (seconds)	DOUBLE	0	no

Example:

iam:isignal 8 0 oc=1 sa=10 fcarrier=1K fmod=100 td=1m

iam:i2 8 0 oc=1 sa=10 fcarrier=100 fmod=1K td=1m

Description:

The waveform for this source is

$$sourcevalue = saoc + \sin[2.\pi.fmod.(t - td)]\sin[2.\pi.fcarrier.(t - td)] \quad (1)$$

Notes:

This is the I element in the SPICE compatible netlist.

Version:

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Credits:

Name

Affiliation

Date

Links

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