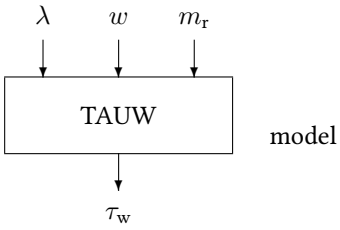
Block TAUW

The TAUW block calculates the spectral transmittance due to water vapor in the atmosphere.





model

Name	TAUW
Function	em0036
Inputs	3
Outputs	1
Parameters	1
Strings	0
Group	S

Inputs

1 Wave length λ / μm
2 Water vapor content in the atmosphere w / unit?
3 Relative air mass m_r

Outputs

1 Spectral transmittance

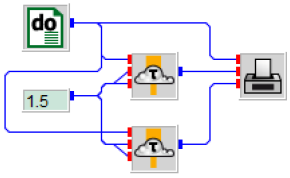
Parameters

1 Model
- 0 LOWTRAN
- 1 Lacis and Hanon

Strings

None

tauw.vseit



A DO block varies wavelengths between zero and five micrometers in steps of 0.01 μm. Water vapor content and relative air mass are both set constant to 1.5.

The upper TAUW block uses the wavelength dependent LOWTRAN approximation, while the lower TAUW block uses the Lacis Hanon correlation which depends on the product of water vapor and relative air mass only, and is therefore constant in this example.

As usual, the PLOT block is used to display the two curves.

