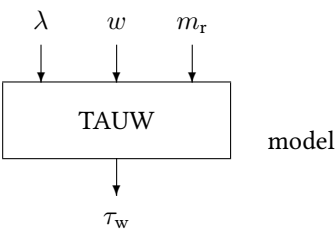


Block TAUW

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



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

Inputs

- 1

Wave length  $\lambda$  /  $\mu\text{m}$
- 2

Water vapor content in the atmosphere  $w$  / **unit?**
- 3

Relative air mass  $m_r$

Outputs

- 1

Spectral transmittance

Parameters

- 1

Model

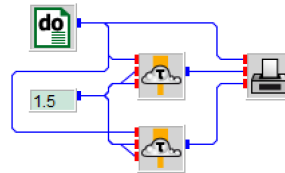
0LOWTRAN

1Lacis and Hanon

Strings

None

tauw.vseit



A **DO** block varies wavelengths between zero and five micrometers in steps of  $0.01 \mu\text{m}$ . 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.

