

**Tecnología Aplicada
a la Información**

Temperature Sensor

TAI8520-B y S

Characteristics

- It works from -55°C to $+50^{\circ}\text{C}$ with a resolution of $\pm 0.5^{\circ}\text{C}$
- Bypass connection to the 1-Wire Network
- Based on IC DS18S20 (TAI8520-S) and DS18B20 (TAI8520-B)
- It fulfills Dallas Semiconductor's TAG-ID standard
- Plain connection through RJ11 connectors
- 9-bit resolution (TAI8520-S) and programmable from 9 to 12 bits (TAI8520-B)
- It doesn't require external power supply, it can operate with the voltage generated by the communication line.
- It doesn't require external components
- TMEX-standard compatible

Description

The module of indoor temperature measurement is a low cost device of easy installation that issues reports on surrounding temperature through a 1-Wire Network to a main computer.

The resolution-basis of the device is 9bits but it can be increased to 12 bits in the case of the TAI8520-B.

The device fulfills the TAG-ID standard in such a way that under its inclusion in a 1-Wire Network the main computer can locate the device and know

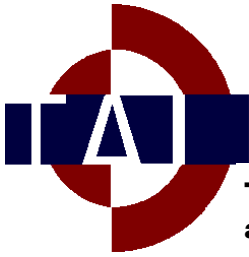


all the data related to it.

In order to locate the physical position in the network, the serial number can be seen on a label in the outside of the unit so its position in the network can be located visually.

For more information regarding its operation, see DS1820, DS18B20, DS18S20 and DS2407 spec's sheets at:

www.dalsemi.com



**Tecnología Aplicada
a la Información**

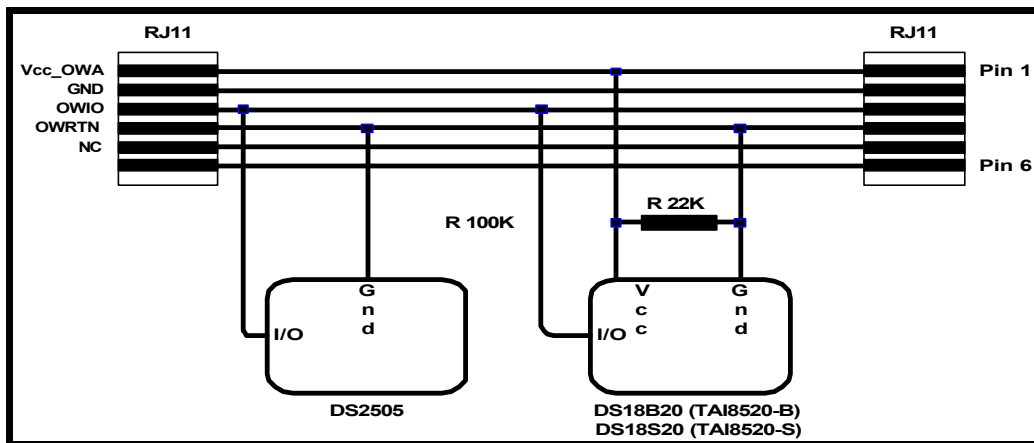
Temperature Sensor

TAI8520-B y S

Spec's

- 1-Wire load two devices 1-DS18x20 and DS2505
- Identification files within DS2505, compatible with the TAG-ID standard

Internal Diagram



File TAGB.000

Byte 0-3 Part ID : **TEMP**
 Byte 4-7 Serial : **nnnn**
 Byte 8-12 Manufacturer : **\$AAG**
 Byte 13-16 Mod. Function: **\$TMP**
 Byte 17-19 Interface Type : **\$01**
 Byte 20-22 Hardware Rev. : **\$01**
 Byte 23-27 Date Code : **\$yyww**

Where :
nnnn : TAI8520 serial number
yyww : yy: Year , ww: Week

File TAGD.000

```

{G: ParseData } [
  {D: Description (28)} TAI8520-B Temperature Sensor
  {D: Manufacturer (3) }AAG
  {D: ManufacturerCode (4) }$ AAG0
  {D: ClusterNum (6)}X1 X2 X3 X4 X5 X6 // owwnetAddress
  {D: ClusterRev(1)} 1
  {D: Enum (2)} nnnn // TAI8520 Serial #
  {D: SecondsSince1970 (4) dddddddd
  {G: OWCluster }[
    {G : OWSensor }[
      {D:Description ( 26 )} TAI8520 Temperature Sensor
      {D:OWNetAddress (8)} FF X1 X2 X3 X4 X5 X6 CC
      {D:AccessMethod (1)} AM_TEMPERATURE_18B20
    ]
  ]
]
  
```

Note: For more information please consult the document “Tagging Guidelines for 1-Wire Sensors and Instruments” at the www.ibutton.com website