

DHT11 SICAKLIK VE NEM SENSÖRÜ

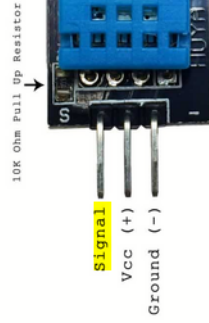
- Tek kablolu seri arayüz kullanır.

- 20 metreye kadar doğru bir şekilde sinyal iletimi sağlar.

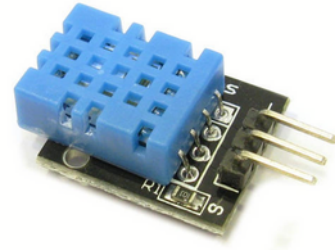
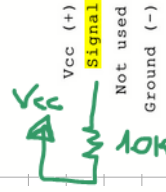
- 3-5.5V aralığında çalışabilir.

- Tam veri aktarımı 40 bittir. Bu işlemi yaklaşık olarak 4ms tamamlar.

1)

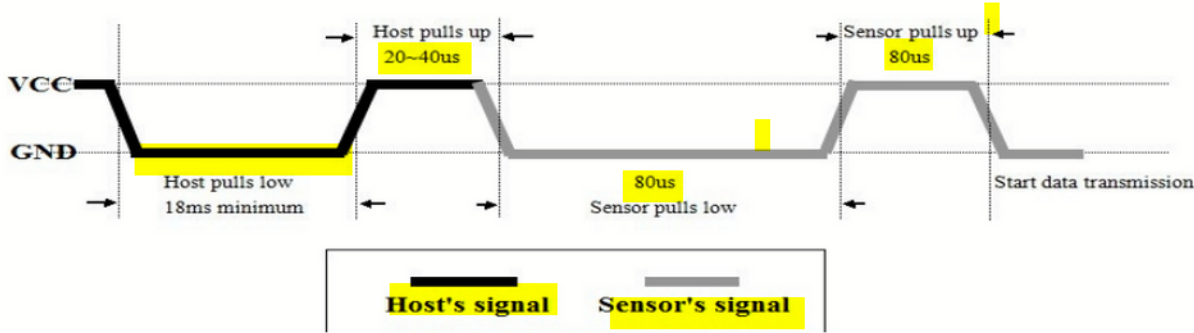


2)

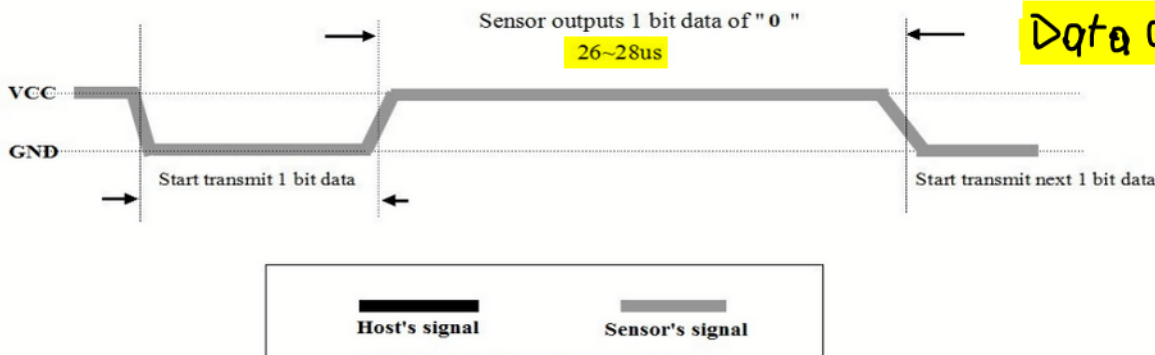


Item	Measurement Range	Humidity Accuracy	Temperature Accuracy	Resolution	Package
DHT11	20-90%RH 0-50 °C	±5%RH	±2°C	1	4 Pin Single Row

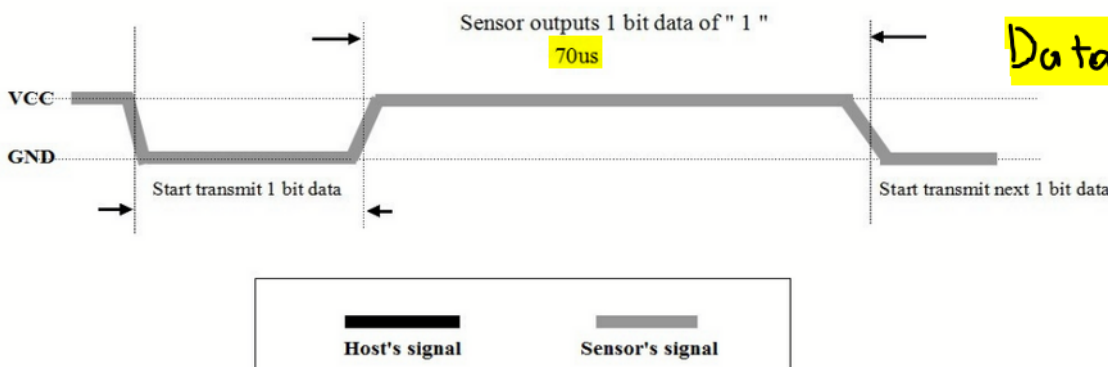
Step 1) Başlatma Komutu



Step 2) DHT11 Veri Alma



Data 0



Data 1

DATA=16 bits RH data+16 bits Temperature data+8 bits check-sum

Example: MCU has received 40 bits data from DHT11 as

<u>0010 0001</u>	<u>0000 0000</u>	<u>0001 1010</u>	<u>0000 0000</u>	<u>0011 1011</u>
Integral part of RH	Decimal part of RH	Integral part of T	Decimal part of T	check sum

Remarks: The decimal part of RH and T is always 0000 0000.

Here we convert integral part of RH from binary system to decimal system,

0010 0001 → 33

Binary system Decimal system, **RH=33%RH**

Here we convert integral part of T from binary system to decimal system,

0001 1010 → 26

Binary system Decimal system, **T=26 Celsius**

Sum=0010 0001+0000 0000+0001 1010+0000 0000=0011 1011

Check-sum=the last 8 bits of Sum=0011 1011