

1WTH_SMnt_RJ45 Comm Details

To get sensor values:

44 (convert temp)
B4 (convert supply volt)
B800 (copy 1st page to scratch pad)
BE00FFFFFFFFF (read page 0 from scratchpad)
018813 D6 00 (example response)

byte0 01 status byte
byte1 88 lsb of temp
byte2 13 msb of temp
byte3 D6 lsb of supply voltage
byte4 00 msb of supply voltage

Temp = &h1388 = 5000 : 5000 / 256 = 19.53125DegC
Supply voltage (SupV) = &h00D6 = 214 : 214 / 100 = 2.14V

To calculate humidity:

Humidity = (Volt - 0.958) X 32.57 = 38.5%RH

=> Do Temp Compensation if desired:

Relative Humidity (RelH) = Hum / [1.055 - (0.00216 * Temp)]
= 38.5 / [1.055 - (0.00216 * 19.53)]
= 38.5 / 1.013
= 38.01%RH