

OBJECT LIST FOR **CTU4501 CP HP SUPER ST 19186412 PIC18F46K22**

MODBUS RTU Mode, Address Slave 1-247, Maximum replying timeout = 100ms, Baud rate= 9600, no parity, 8 data bits, 1 start/stop.

All Registers are Holding Registers (16-bit word, signed Integer). W-Register Writable.

Supported Commands:

0x03 = Read Holding Registers

0x06 = Preset Single Register

0x2B = Read Device Identification (Basic = 0x01, Regular = 0x02)

Register number = Address + 1

Reg num	Address Dec, [Hex]	Range	Description	Default
1*	0, [000]	7...32°C	T1_RoomTemperature ***	°C
2*	1, [001]	-40...89°C	T2_ChangeOverSensorTemperature ***	°C
3*	2, [002]	-40...89°C	T3_IndoorCoilTemperature ***	°C
4	3, [003]	0...10000 mV	AI1_AnalogInput ***	mV
5	4, [004]	0...10000 mV	AI2_AnalogInput ***	mV
6	5, [005]	0...10000 mV	CoolingOutput	0 mV (R)
7	6, [006]	0...10000 mV	HeatingOutput	0 mV (R)
8	7, [007]	0-Off, 1-On	DIPSW21_TestingOccupancySensor Time = 20 sec to pass to Unoccupied	0-Off (R)
9	8, [008]	0-Off, 1-On	BI_DIPSW23_START_STOP	0-Off(R)
10	9, [009]	0-Off, 1-On	DI_1	1-On(R)
11	10, [00A]	0-Off, 1-On	DI_2	0-Off(R)
12	11, [00B]	0-Off, 1-On	DI_3	0-Off(R)
13	12, [00C]	0-Off, 1-On	DI_4	0-Off(R)
14	13, [00D]	0-Off, 1-On	DI_5	0-Off(R)
15	14, [00E]	0-Off, 1-On	DI_6	0-Off(R)
16	15, [00F]	0-Off, 1-On	DI_7	0-Off(R)
17	16, [010]	0-Off, 1-On	DI8_OccupancySensor	1-On(R)
18	17, [011]	0-Off, 1-On	DO5_HEAT1	0-Off(R)
19	18, [012]	0-Off, 1-On	DO4_COOL1	0-Off(R)
20	19, [013]	0-Off, 1-On	DO8_FAN_LOW	0-Off(R)
21	20, [014]	0-Off, 1-On	DO7_FAN_MEDIUM	0-Off(R)
22	21, [015]	0-Off, 1-On	DO6_FAN_HIGH	0-Off(R)
23	22, [016]	0-Off, 1-On	OnOff	0-Off(W)
24	23, [017]	1-Celsius	Celsius	1-Celsius (R)
25	24, [018]	0-Off, 1-On	AutoFanInCool	0-Off (W)
26	25, [019]	0-Off, 1-On	AutoFanInHeat	1-On (W)

Reg num	Address Dec, [Hex]	Range	Description	Default
27	26, [01A]	0-Off, 1-Unocc	UnOccupancy	0-Off (R)
28	27, [01B]	0-Off, 1-Disable	DisableOccupancySensor	0-Off (W)
29	28, [01C]	0-Off, 1-Restore	RestoreDefault	0-Off (W)
30	29, [01D]	0-Off, 1-Lock	LockRoomModuleOnOff	0-Off (W)
31	30, [01E]	0-Off, 1-Lock	LockRoomModule	0-Off (W)
32	31, [01F]	0-Off, 1-Lock	LockRoomModuleMode	0-Off (W)
33	32, [020]	0-Off, 1-Lock	LockRoomModuleFanSpeed	0-Off (W)
34	33, [021]	0-Off, 1-Lock	LockRoomModuleSetPoint	0-Off (W)
35	34, [022]	0-Off, 1-On	DI1_Polarity	0 (W)
36	35, [023]	0-Off, 1-On	DI2_Polarity	0 (W)
37	36, [024]	0-Off, 1-On	DI3_Polarity	0 (W)
38	37, [025]	0-Off, 1-On	DI4_Polarity	0 (W)
39	38, [026]	0-Off, 1-On	DI5_Polarity	0 (W)
40	39, [027]	0-Off, 1-On	DI6_Polarity	0 (W)
41	40, [028]	0-Off, 1-On	DI7_Polarity	0 (W)
42	41, [029]	0-Off, 1-On	DI8_OccupancySensor_Polarity	0 (W)
43	42, [02A]	0...3	Mode (0-FanOnly; 1-Cool; 2-Heat; 3-AutoChange)	1-Cool (W)
44	43, [02B]	0...3	FanSpeed (0-AutoSpeed; 1-Low; 2-Medium; 3-High)	1-Low (W)
45*	44, [02C]	10...30°C	SetPoint	22°C (W)
46*	45, [02D]	10...30°C	SetPointLimitCool	10°C (W)
47*	46, [02E]	10...30°C	SetPointLimitHeat	30°C (W)
48*	47, [02F]	0...30°C	SetPointEffective	30°C (R)
49*	48, [030]	-6...6°C	ReturnAirSensorCalibration	0°C (W)
50*	49, [031]	0...5°C	DeadZoneForCool	1°C (W)
51*	50, [032]	0...5°C	DeadZoneForHeat	1°C (W)
52	51, [033]	1...300 sec	COOL_TS_SamplePeriod	120 sec (W)
53*	52, [034]	1...10°C	COOL_RTR_RegulationTemperatureRange	3°C (W)
54	53, [035]	-32768...32767	Not in use	100 (W)
55	54, [036]	0...100	COOL_KIC_IntegralConstant	10 (W)
56	55, [037]	-32768...100	Not in use	0 (W)
57	56, [038]	0...100%	COOL_Demand***	0% (R)
58	57, [039]	0...100%	COOL_MinimumValue	0% (W)
59	58, [03A]	0...100%	COOL_MaximumValue	100% (W)
60	59, [03B]	1...300 sec	HEAT_TS_SamplePeriod	120 sec (W)
61*	60, [03C]	1...10°C	HEAT_RTR_RegulationTemperatureRange	3°C (W)
62	61, [03D]	-32768...32767	Not in use	100 (W)

Reg num	Address Dec, [Hex]	Range	Description	Default
63	62, [03E]	0...100	HEAT_KIC_IntegralConstant	10 (W)
64	63, [03F]	-32768...32767	Not in use	0 (W)
65	64, [040]	0...100%	HEAT_Demand***	0% (R)
66	65, [041]	0...100%	HEAT_MinimumValue	0% (W)
67	66, [042]	0...100%	HEAT_MaximumValue	100% (W)
68*	67, [043]	0...5°C	HEAT_RELAY_RegulationTemperatureRange	1°C (W)
69*	68, [044]	0...10°C	HEAT_RELAY_Offset	1°C (W)
70	69, [045]	0...60 sec	HEAT_RELAY_TimeDelayOnNext	1 sec (W)
71	70, [046]	0...300 sec	COOL_DelayStartingFan	0 sec (W)
72	71, [047]	0...300 sec	COOL_DelayStoppingFan	0 sec (W)
73	72, [048]	0...300 sec	HEAT_DelayStartingFan	0 sec (W)
74	73, [049]	0...300 sec	HEAT_DelayStoppingFan	30 sec (W)
75	74, [04A]	0...3600 sec	TimeSwitchingToUnOccupiedMode	1200 sec (W)
76	75, [04B]	0...3600 sec	TimeSwitchingToOccupiedMode	0 sec (W)
77	76, [04C]	0...3	UnOccupancyModeSelect (0-On/Off; 1-Start/Stop; 2-Not in use; 3-Economy)	0-On/Off (W)
78	77, [04D]	0...100%	UnOccupancyTimeAction	50% (W)
79*	78, [04E]	0...10°C	UnOccupancyChangeSetpoint	0°C (W)
80	79, [04F]	0...100%	Humidity_FromPanel	0% (R)
81	80, [050]	0...5000 ppm	CO2_FromPanel	0 ppm (R)
82	81, [051]	0...10 sec	PanelTimeChangeDisplay 0 – only Temperature indicated on Panel; 5 - 5 seconds Temperature, 5 seconds Humidity; 10 - only humidity indicated on Panel.	0 sec (W)
83	82, [051]	10..255 sec	TimeBetweenFaultsIndication 10 - Faults and Alarms indicated once in 10 sec; 255 – Faults and Alarms not indicated on Panel.	10 sec (W)
84	83, [052]	0, 1	ViewFloatValue 0-Off, 1-On 0 – registers marked * are integer values 1 – registers marked * are float values (Values must be divided by 10)	0-Off (W)
85	84, [053]	0, 1	EnableOverrideInputsOutputs 0-Disable, 1-Enable	0-Disable (W)

***-writable only if the value of the register 85 (“EnableOverrideInputOutput”) is “1”.

Attention! Writing to the registers 57*** (“CoolDemand”) and 65*** (“HeatDemand”) could be used only for commissioning purposes.

When the commissioning operations finish, the technician must make Restore Default operation – write 1 to register 29 (“RestoreDefault”).