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Date	2022 / 08 / 16	**SR#**	1-4025578514
Category	■FAQ □SOP	**Related OS**	N/A
Abstract	What is the Modbus Address definition of WISE-2410 and WISE-4610 with WISE-I/O board on WISE-6610		
Keyword	WISE-4610, Modbus address definition, LoRaWAN, WISE-6610		
Related Product	WISE-2410, WISE-4610, WISE-S614, WISE-S672, WISE-S617, WISE-S615		

■ Problem Description:

This document explains the Modbus address definition of **WISE-2410** and **WISE-4610 with WISE-I/O board WISE-S672, WISE-S614, WISE-S617, WISE-S615** on WISE-6610. Customer should notice that **each WISE-I/O board have its own Modbus address definition.**

The application scenario is as below. WISE-4610 with WISE-I/O board can send data to WISE-6610 via LoRaWAN, and WISE-6610 will parse the raw data and write into its built-in Modbus server. User can use Modbus/TCP (ModScan as example) to get the data of WISE-4610 with WISE-I/O board from WISE-6610 based on the Modbus Address definition as following pages.

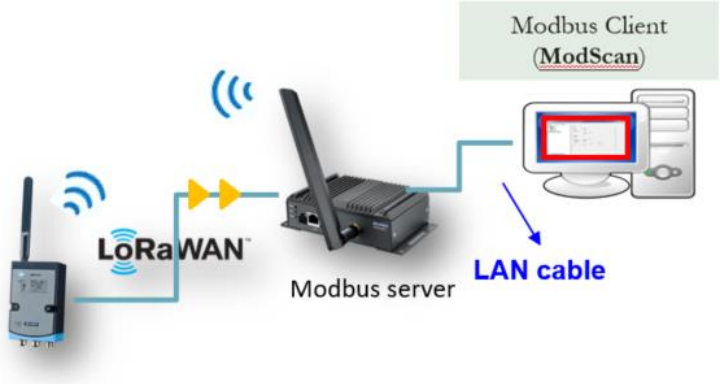


Fig.1 Use Modbus TCP to query WISE-4610 with WISE-I/O board data from WISE-6610

■ Solution:

For example, customer can use modbus address 40001~40004 to query data from WISE-6610. (Refer to the WISE-S614 Modbus table definition.) if customer wants to read the AI0~AI3 of WISE-4610 with WISE-S617 I/O board,which called **WISE-4610-S617**.
Below is the mapping table of the modbus address on WISE-6610 Application server.

Note: Since the web page refresh rate is slower, the Node Detail data on WISE-6610 would

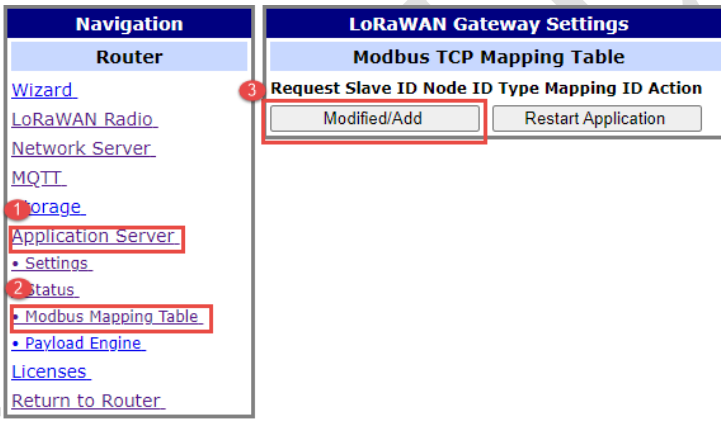
have a little difference compare to ModScan reading value.

1. Please follow the FAQ to setup WISE-2410 or WISE-4610 connected to WISE-6610.
   FAQ: How to connect WISE-2410 with WISE-6610?
   - https://www.advantech.tw/support/details/faq?id=1-1RTJSL4

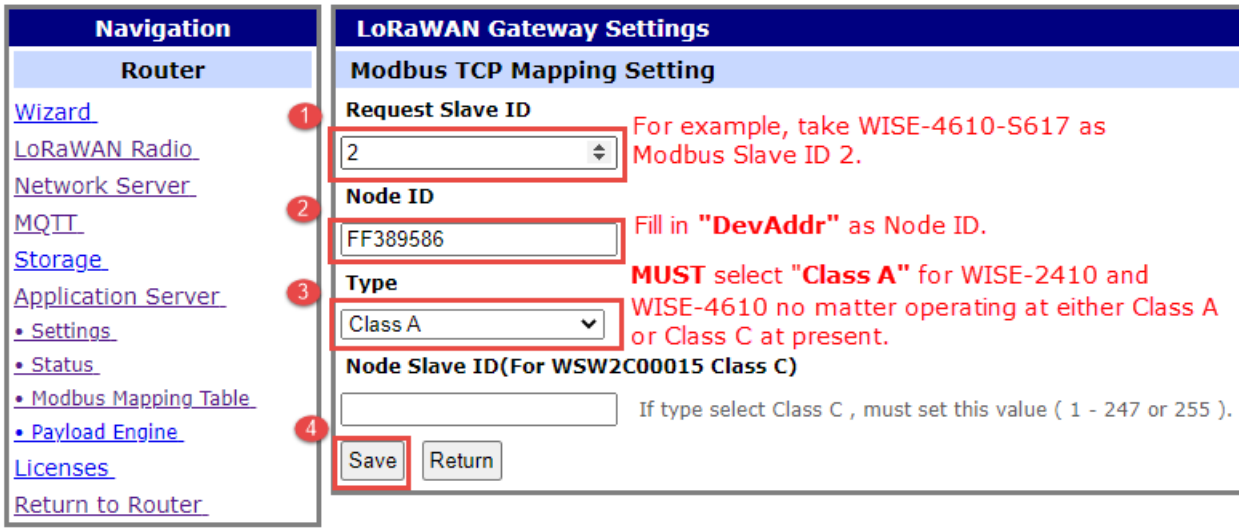
   FAQ: How to connect WISE-4610 with WISE-6610?
   - https://www.advantech.tw/support/details/faq?id=1-1QFTV45

2. Please follow the FAQ to subscribe WISE-2410/WISE4610 uplink data from WISE-6610 internal MQTT Broker.
   FAQ: How to use MQTT client to subscribe WISE-2410/WISE-4610 data from WISE-6610's MQTT Broker
   - https://www.advantech.tw/support/details/faq?id=1-24P889Z

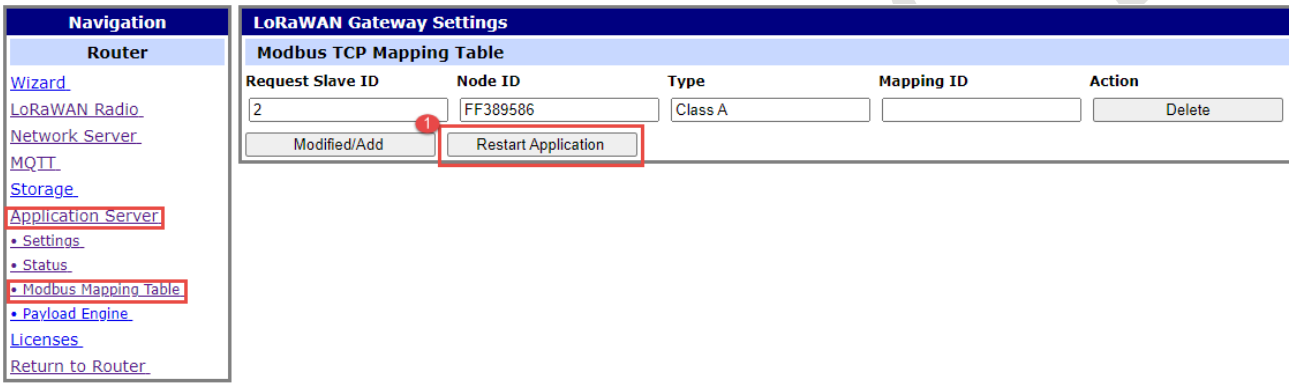
3. Go to "Application Server" → "Modbus Mapping Table" → "Modified/Add" for adding WISE-4610-S614 Modbus TCP Mapping Table.



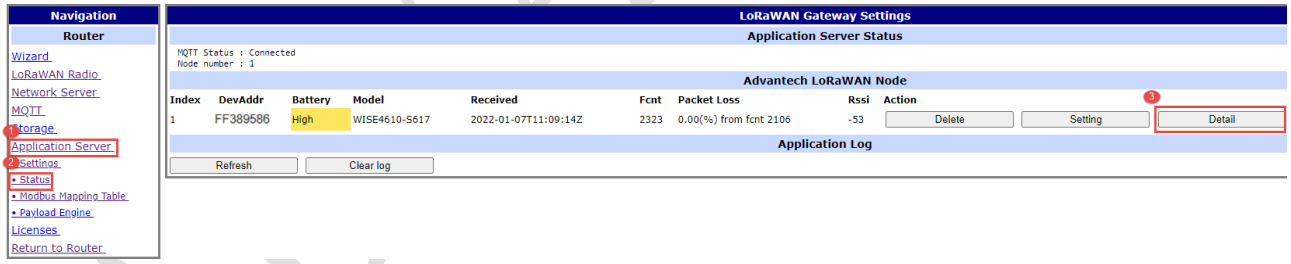
4. Fill in "**Request Slave ID"**, "**Node ID"** and select "**Type"** as Class A.
   - Request Slave ID: **Modbus Slave ID**. Here we take WISE-4610-S617 as Slave ID 2.
   - Node ID: **DevAddr**.
   - Type: Select **Class A** only for WISE-2410 and WISE-4610 no matter operating at either Class A or Class C at present.



5. **MUST** click "Restart Application", otherwise Modbus TCP Mapping function will not work.



6. Go to click "Application Server" → "Status" → "Detail". Check Node Detail Data.



7. Check “Node Detail Data” is the same as Modbus TCP (ModScan as example) queried data.

※Note: Since the web page refresh rate is slower, the Node Detail data on WISE-6610 would have a little difference compare to ModScan reading value.

LoRaWAN Gateway Settings

Node Detail Data

Devaddr

FF389586

Sensor	PowerSrc	Battery Level
Device	2	69

Sensor	Counter Value	Signal Logic Status	Start Counter Status	Get/Clean Counter Overflow Status	Clean Counter Status	Get/Clean L2H Latch Status	Get/Clean H2L Latch Status	DI Change Status
Digital input 0	0	0	1	0	0	0	0	0
Digital input 1	0	0	1	0	0	0	0	0
Digital input 2	0	0	1	0	0	0	0	0
Digital input 3	0	0	1	0	0	0	0	0

Sensor	Range	Value	Event	MaxVal	MinVal	Low Alarm Status	High Alarm Status	Clean Maximun AI Value
Analog input 0	0x0143	32773	0	33298	32767	0	0	0
Analog input 1	0x0143	32768	0	32786	32767	0	0	0
Analog input 2	0x0143	32768	0	32770	32767	0	0	0
Analog input 3	0x0143	32768	0	32769	32767	0	0	0
Analog input	0x0103	0	0	0	0	0	0	0

Fig 2. Node Detail Data on Application Server

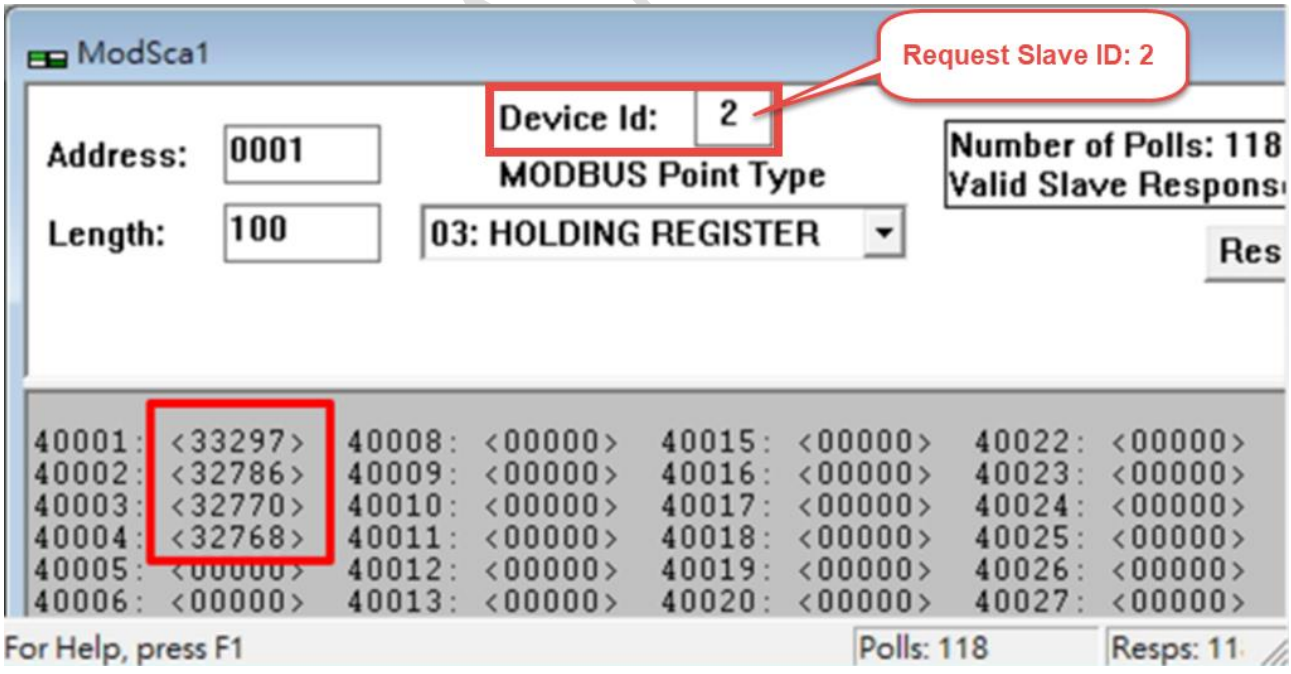


Fig 3. ModScan queries WISE-4610-S617 Modbus/TCP data from WISE-6610

For WISE-S672 I/O board

WISE-4610+WISE-S672 (for WISE-6610 LoRaWAN GW)							
DI	6		Serial Port	2			
Address 0X	Ch	Description	Attribute	Address 4X	Ch	Description	Attribute
00001	0	DI Value	Read	40017~40018	0	Counter/ Frequency Value	Read
00002	1		Read	40019~40020	1		Read
00003	2		Read	40021~40022	2		Read
00004	3		Read	40023~40024	3		Read
00005	4		Read	40025~40026	4		Read
00006	5		Read	40027~40028	5		Read
00033	0	Counter Start(1)/ Stop(0)	R/W	40301	All	DI Value	Read
00034	1		R/W				
00035	2		R/W				
00036	3		R/W				
00037	4		R/W				
00038	5		R/W				
00041	0	Clear Counter(1)	Write				
00042	1		Write				
00043	2		Write				
00044	3		Write				
00045	4		Write				
00046	5		Write				
00049	0	Clear Overflow	R/W				
00050	1		R/W				
00051	2		R/W				
00052	3		R/W				
00053	4		R/W				
00054	5		R/W				
00057	0	DI L2H Latch Status	R/W				
00058	1		R/W				
00059	2		R/W				
00060	3		R/W				
00061	4		R/W				
00062	5		R/W				
00065	0	DI H2L Latch Status	R/W				
00066	1		R/W				
00067	2		R/W				
00068	3		R/W				
00069	4		R/W				
00070	5		R/W				

(Addr): Upper word

(Addr+1): Lower word

Modbus RTU							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
01001 ~ 01032	**0~31**	**COM1 Bit value**	**R/W**	**41001 ~ 41032**	**0~31**	**COM1 Word value**	**R/W**
				41101 ~ 41132	**0~31**	**COM1 Bit value error code**	**Read**
				41201 ~ 41232	**0~31**	**COM1 Word value error code**	**Read**
02001 ~ 02032	**0~31**	**COM2 Bit value**	**R/W**	**42001 ~ 42032**	**0~31**	**COM2 Word value**	**R/W**
				42101 ~ 42132	**0~31**	**COM2 Bit value error code**	**Read**
				42201 ~ 42232	**0~31**	**COM2 Word value error code**	**Read**

Miscellaneous								
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**	
5001		RTC Battery Low Event	Read	**45004**		Battery Level (0 ~ 100 %)	Read	
5002		(Main) Battery Low Event	Read	**45006**		Power source (*4)	Read	
				45011	(Upper word)	Timestamp	Read	
				45012	(Lower word)			
				45301		RSSI (unit: - dBm)	Read	
				45302		SNR (unit: dB)	Read	
				45311 ~45314		*Device EUI (EUI-64)	Read	(Addr): Upper word ~ (Addr+3): Lower word * ABP mode: 45311~45312: 0000 **45313~45314**: DevAddr of ABP * OTAA mode: **45311~45314**: EUI-64
				45401 ~45402		GPS - Latitude (degree *10^5), N(+)/S(-)	Read	
				45403 ~45404		GPS - Longitude (degree *10^5), E(+)/W(-)	Read	

For WISE-S614 I/O board

WISE-4610+WISE-S614 (for WISE-6610 LoRaWAN GW)							
AI	4		DI	4		DO	-
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
00001	0	DI Value	Read	**40017~40018**	0	Counter/ Frequency Value	Read
00002	1		Read	**40019~40020**	1		Read
00003	2		Read	**40021~40022**	2		Read
00004	3		Read	**40023~40024**	3		Read
00033	0	Counter Start(1)/ Stop(0)	R/W	**40301**	All	DI Value	Read
00034	1		R/W				
00035	2		R/W				
00036	3		R/W				
00041	0	Clear Counter(1)	Write				
00042	1		Write				
00043	2		Write				
00044	3		Write				
00049	0	Clear Overflow	R/W				
00050	1		R/W				
00051	2		R/W				
00052	3		R/W				
00057	0	DI L2H Latch Status	R/W				
00058	1		R/W				
00059	2		R/W				
00060	3		R/W				
00065	0	DI H2L Latch Status	R/W				
00066	1		R/W				
00067	2		R/W				
00068	3		R/W				

(Addr): Upper word
(Addr+1): Lower word

Address 0X	Ch	Description	Attribute	Address 4X	Ch	Description	Attribute
00101	0	Reset Historical Max. AI Value	Write	**40001**	0	AI Value	Read
00102	1		Write	**40002**	1		Read
00103	2		Write	**40003**	2		Read
00104	3		Write	**40004**	3		Read
00105	Average Ch 0~3		Write	**40005**	Average Ch 0~3		Read
00111	0	Reset Historical Min. AI Value	Write	**40101~40102**	0	*AI Status	Read
00112	1		Write	**40103~40104**	1		Read
00113	2		Write	**40105~40106**	2		Read
00114	3		Write	**40107~40108**	3		Read
00115	Average Ch 0~3		Write				
00131	0	AI High Alarm Flag	R/W	**40111**	0	Historical Max. AI Value	Read
00132	1		R/W	**40112**	1		Read
00133	2		R/W	**40113**	2		Read
00134	3		R/W	**40114**	3		Read
00135	Average Ch 0~3		R/W	**40115**	Average Ch 0~3		Read
00141	0	AI Low Alarm Flag	R/W	**40121**	0	Historical Min. AI Value	Read
00142	1		R/W	**40122**	1		Read
00143	2		R/W	**40123**	2		Read
00144	3		R/W	**40124**	3		Read
00145	Average Ch 0~3		R/W	**40125**	Average Ch 0~3		Read
				40201	0	Type Code	Read
				40202	1		Read
				40203	2		Read
				40204	3		Read
				40205	Average Ch 0~3		Read

(Addr): Upper word
(Addr+1): Lower word

Miscellaneous								
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**	
05001		RTC Battery Low Event	Read	**45004**		Battery Level (0 ~ 100 %)	Read	
05002		(Main) Battery Low Event	Read	**45006**		Power source (*4)	Read	
				45011	(Upper word)	Timestamp	Read	
				45012	(Lower word)			
				45301		RSSI (unit: - dBm)	Read	
				45302		SNR (unit: dB)	Read	
				45311 ~45314		*Device EUI (EUI-64)	Read	(Addr): Upper word ~ (Addr+3): Lower word * ABP mode: 45311~45312: 0000 **45313~45314**: DevAddr of ABP * OTAA mode: **45311~45314**: EUI-64
				45401 ~45402		GPS - Latitude (degree *10^5), N(+)/S(-)	Read	
				45403 ~45404		GPS - Longitude (degree *10^5), E(+)/W(-)	Read	

*4 Power source	
Bit Order	Description
0	Line power
1	Battery
2	Solar panel
3~15	Reserved

*4 Power source	
Value	Description
1	Line power
2	Battery
3	Line power + Battery
4	Solar panel
5	Solar panel+ Line power
6	Solar panel+ Battery
7	Solar panel+ Battery+ Line power

	Modbus Type Code	
0	**0x0103**	-150mv~150mv
1	**0x0104**	-500mv~500mv
2	**0x0140**	-1v~1v
3	**0x0142**	-5v~5v
4	**0x0143**	-10v~10v
5	**0x0105**	0~150mv
6	**0x0106**	0~500mv
7	**0x0145**	0~1v
8	**0x0147**	0~5v
9	**0x0148**	0~10v
10	**0x0180**	4mA~20mA
11	**0x0181**	-20mA~20mA
12	**0x0182**	0~20mA

For WISE-S617 I/O board

WISE-4610-S617 (for WISE-6610 LoRaWAN GW)							
AI	2	DI	2	DO	1	Serial Port	1
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
00001	0	DI Value	Read	**40017~40018**	0	Counter/ Frequency Value	Read
00002	1		Read	**40019~40020**	1		Read
00033	0	Counter Start(1)/ Stop(0)	R/W	**40301**	All	DI Value	Read
00034	1		R/W				
00041	0	Clear Counter(1)	Write				
00042	1		Write				
00049	0	Clear Overflow	R/W				
00050	1		R/W				
00057	0	DI L2H Latch Status	R/W				
00058	1		R/W				
00065	0	DI H2L Latch Status	R/W				
00066	1		R/W				
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
00017	0	DO Value	R/W	**40303**	All	DO Value	R/W

(Addr): Upper word
(Addr+1): Lower word

Address 0X	Ch	Description	Attribute	Address 4X	Ch	Description	Attribute
00101	0	Reset Historical Max. AI Value	Write	**40001**	0	AI Value	Read
00102	1		Write	**40002**	1		Read
00103	Average Ch 0~1		Write	**40003**	Average Ch 0~1		Read
00111	0	Reset Historical Min. AI Value	Write	**40101~40102**	0	AI Status (*1, *2)	Read
00112	1		Write	**40103~40104**	1		Read
00113	Average Ch 0~1		Write				
00131	0	AI High Alarm Flag	R/W	**40111**	0	Historical Max. AI Value	Read
00132	1		R/W	**40112**	1		Read
00133	Average Ch 0~1		R/W	**40113**	Average Ch 0~1		Read
00141	0	AI Low Alarm Flag	R/W	**40121**	0	Historical Min. AI Value	Read
00142	1		R/W	**40122**	1		Read
00143	Average Ch 0~1		R/W	**40123**	Average Ch 0~1		Read
				40201	0	Type Code (*3)	Read
				40202	1		Read
				40203	Average Ch 0~1		Read

Modbus RTU							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
01001 ~ 01032	**0~31**	**COM1 Bit value**	**R/W**	**41001 ~ 41032**	**0~31**	**COM1 Word value**	**R/W**
				41101 ~ 41132	**0~31**	**COM1 Bit value error code**	**Read**
				41201 ~ 41232	**0~31**	**COM1 Word value error code**	**Read**

Miscellaneous							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
5001		RTC Battery Low Event	Read	**45001**		RTC Battery Voltage	Read
5002		(Main) Battery Low Event	Read	**45002**		External Power (mV)	Read
				45003		Main Battery Voltage	Read
				45004		Battery Level (0 ~ 100 %)	Read
				45005		Battery Status (*6)	Read
				45006		Power source (*4)	Read
				45011	(Upper word)	Timestamp	Read
				45012	(Lower word)		
				45101		Data Logger Status	Read
				45301		RSSI (unit: - dBm)	Read
				45302		SNR (unit: dB)	Read
				45311~45314		*Device EUI (EUI-64)	Read

5001 ~ 5099 : System Information
5101 ~ 5199 : Data Logger
5301~ 5399 : Network Status/Inform
5501 ~5599 : system control

GPS							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
				45401~45402		GPS - Latitude (degree *10^5), N(+)/S(-)	Read
				45403~45404		GPS - Longitude (degree *10^5), E(+)/W(-)	Read

*AI Status: (1st Register at Low Address)		
Bit Order	Description	I/O Type
0	Fail to provide AI value	AI, AO
1	Over Range	AI
2	Under Range	AI
3	Open Circuit (Burnout)	AI
4	Reserved	
5	Unavailable Channel Configuration	AI
6	Reserved	
7	ADC initializing/Error	AI
8	Reserved	
9	Zero/Span Calibration Error	AI, AO
10~15	Reserved	

*AI Status: (2nd Register at High Address)		
Bit Order	Description	I/O Type
0	DI triggered to Safety Value	AO
1	DI triggered to Startup Value	AO
2~15	Reserved	AO

*4 Power source	
Bit Order	Description
0	Line power
1	Battery
2	Solar pannel
3~15	Reserved

	***3 Modbus Type Code**	
0	**0x0103**	-150mv~150mv
1	**0x0104**	-500mv~500mv
2	**0x0140**	-1v~1v
3	**0x0142**	-5v~5v
4	**0x0143**	-10v~10v
5	**0x0105**	0~150mv
6	**0x0106**	0~500mv
7	**0x0145**	0~1v
8	**0x0147**	0~5v
9	**0x0148**	0~10v
10	**0x0180**	4mA~20mA
11	**0x0181**	-20mA~20mA
12	**0x0182**	0~20mA
13, 14		(Reserved)
15	**0x03A9**	PT100(385) -200~ +600°C
16	**0x03C9**	PT100(392) -200~ +600°C
17	**0x03E2**	PT1000 -40~ +160°C

For WISE-S615 I/O board

WISE-4610-S615 (for WISE-6610 LoRaWAN GW)								
RTD (AI)	4			DI	-	DO	-	
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**	
00101	0	Reset Historical Max. AI Value	Write	**40001**	0	AI Value	Read	
00102	1		Write	**40002**	1		Read	
00103	2		Write	**40003**	2		Read	
00104	3		Write	**40004**	3		Read	
00105	Average Ch 0~3		Write	**40005**	Average Ch 0~3		Read	
00111	0	Reset Historical Min. AI Value	Write	**40101~40102**	0	*AI Status	Read	(Addr): Upper word (Addr+1): Lower word
00112	1		Write	**40103~40104**	1		Read	
00113	2		Write	**40105~40106**	2		Read	
00114	3		Write	**40107~40108**	3		Read	
00115	Average Ch 0~3		Write					
00131	0	AI High Alarm Flag	R/W	**40111**	0	Historical Max. AI Value	Read	
00132	1		R/W	**40112**	1		Read	
00133	2		R/W	**40113**	2		Read	
00134	3		R/W	**40114**	3		Read	
00135	Average Ch 0~3		R/W	**40115**	Average Ch 0~3		Read	
00141	0	AI Low Alarm Flag	R/W	**40121**	0	Historical Min. AI Value	Read	
00142	1		R/W	**40122**	1		Read	
00143	2		R/W	**40123**	2		Read	
00144	3		R/W	**40124**	3		Read	
00145	Average Ch 0~3		R/W	**40125**	Average Ch 0~3		Read	
				40201	0	Type Code	Read	
				40202	1		Read	
				40203	2		Read	
				40204	3		Read	
				40205	Average Ch 0~3		Read	

Miscellaneous							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
05001		RTC Battery Low Event	Read	**45001**		RTC Battery Voltage	Read
05002		(Main) Battery Low Event	Read	**45002**		External Power (mV)	Read
				45003		Main Battery Voltage	Read
				45004		Battery Level (0 ~ 100 %)	Read
				45005		Battery Status (*6)	Read
				45006		Power source (*4)	Read
				45011	(Upper word)	Timestamp	Read
				45012	(Lower word)		
				45101		Data Logger Status	Read
				45301		RSSI (unit: - dBm)	Read
				45302		SNR (unit: dB)	Read
				45311~45314		*Device EUI (EUI-64)	Read
				45315~45316		Frame FCntUp	Read
				45317~45318		Frame FCntDown	Read
				45319		Packet Loss (0.01%)	Read

GPS							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
				45401~45402		GPS - Latitude (degree *10^5), N(+)/S(-)	Read
				45403~45404		GPS - Longitude (degree *10^5), E(+)/W(-)	Read

*AI Status: (1st Register at Low Address)		
Bit Order	Description	I/O Type
0	Fail to provide AI value	AI, AO
1	Over Range	AI
2	Under Range	AI
3	Open Circuit (Burnout)	AI
4	Reserved	
5	Unavailable Channel Configuration	AI
6	Reserved	
7	ADC initializing/Error	AI
8	Reserved	
9	Zero/Span Calibration Error	AI, AO
10~15	Reserved	

*AI Status: (2nd Register at High Address)		
Bit Order	Description	I/O Type
0	DI triggered to Safety Value	AO
1	DI triggered to Startup Value	AO
2~15	Reserved	AO

*4 Power source	
Bit Order	Description
0	Line power
1	Battery
2	Solar pannel
3~15	Reserved

	***3 Modbus Type Code**	
0	**0x0103**	-150mv~150mv
1	**0x0104**	-500mv~500mv
2	**0x0140**	-1v~1v
3	**0x0142**	-5v~5v
4	**0x0143**	-10v~10v
5	**0x0105**	0~150mv
6	**0x0106**	0~500mv
7	**0x0145**	0~1v
8	**0x0147**	0~5v
9	**0x0148**	0~10v
10	**0x0180**	4mA~20mA
11	**0x0181**	-20mA~20mA
12	**0x0182**	0~20mA
13, 14		(Reserved)
15	**0x03A9**	PT100(385) -200~ +600°C
16	**0x03C9**	PT100(392) -200~ +600°C
17	**0x03E2**	PT1000 -40~ +160°C

For WISE-2410

WISE-2410 (for WISE-6610 LoRaWAN GW)							
Sensor	Temperature		1				
Sensor	Accelerometer		Axis	3			
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
00231	0 (X)	Accelerometer High Alarm Flag	Read	**40501**	0 (X)	OA Value of Vibration Velocity (0.01 mm/sec)	Read
00232	1 (Y)		Read	**40502**	1 (Y)		Read
00233	2 (Z)		Read	**40503**	2 (Z)		Read
00234	3 (Tempe)	Temperature High Alarm Flag	R/W	**40504**	3 (Tempe)	Temperature Value (0.001)	Read
				40621	0 (X)	Sensor Range Code (*4)	Read
				40622	1 (Y)		Read
				40623	2 (Z)		Read
				40624	3 (Tempe)	Temperature Sensor Range Code (*4)	Read
				40634	3 (Tempe)	Temperature Sensor Status	Read
				40701	0 (X)	Peak Value of Acceleration (0.001g)	Read
				40702	1 (Y)		Read
				40703	2 (Z)		Read
				40721	0 (X)	RMS of Acceleration (0.001g)	Read
				40722	1 (Y)		Read
				40723	2 (Z)		Read
				40741	0 (X)	Kurtosis	Read
				40742	1 (Y)		Read
				40743	2 (Z)		Read
				40761	0 (X)	Crest factor	Read
				40762	1 (Y)		Read
				40763	2 (Z)		Read
				40781	0 (X)	Skewness	Read
				40782	1 (Y)		Read
				40783	2 (Z)		Read
				40801	0 (X)	Standard deviation	Read
				40802	1 (Y)		Read
				40803	2 (Z)		Read
				40821	0 (X)	Peak-to-Peak Displacement (unit: um)	Read
				40822	1 (Y)		Read
				40823	2 (Z)		Read

Miscellaneous							
Address 0X	**Ch**	**Description**	**Attribute**	**Address 4X**	**Ch**	**Description**	**Attribute**
5002		(Main) Battery Low Event	Read	**45003**		Main Battery Voltage	Read
				45004		Battery Level (0 ~ 100 %)	Read
				45006		Power source (*5)	Read
				45011	(Upper word)	Timestamp	Read
				45012	(Lower word)		
				45301		RSSI (unit: - dBm)	Read
				45302		SNR (unit: dB)	Read
				45311~45314	(Addr): Upper word (Addr+3): Lower word	Device EUI	Read
				45315~45316		Frame FCntUp	Read
				45317~45318		Frame FCntDown	Read
				45319		Packet Loss (%)	Read

*4 Sensor Range Code	
Value	Description
4096	Temperature(^{O}C)
4256	Accelerometer(g) (g: the standard acceleration due to Earth's gravity is 980.655 cm/s^2)
4257	Accelerometer(m/ s^2)

*5 Power source	
Bit Order	Description
0	Line power
1	Battery

*5 Power source	
Value	Description
1	Line power
2	Battery
3	Line power + Battery