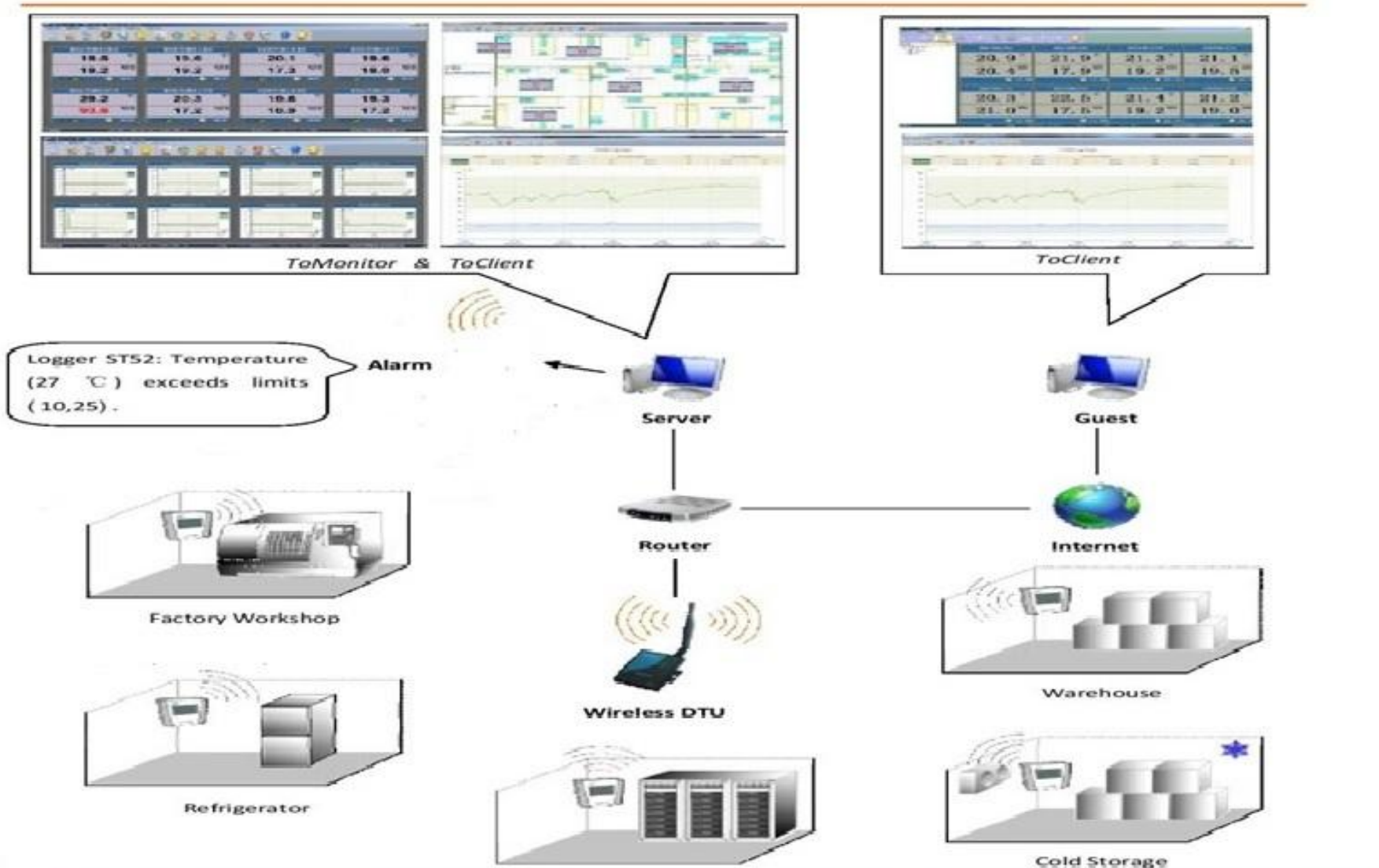


Wireless Data Logging System



As the pictures shows Wireless Base Station DTU collects all data from S400W data loggers and then transfer to ToMonitor server (PC). ToMonitor shows the real-time data, turn into EXCEL / Graph / Text format, all logger properties and SMS/email functions can be set on ToMonitor interface.



Temperature/Humidity Wireless Monitoring System



- Refrigerator
- Chamber
- Room control
- Children oven



IMC300W



Temperature only



IMC400W



Temperature with Humidity



PC Server



Alarm speaker



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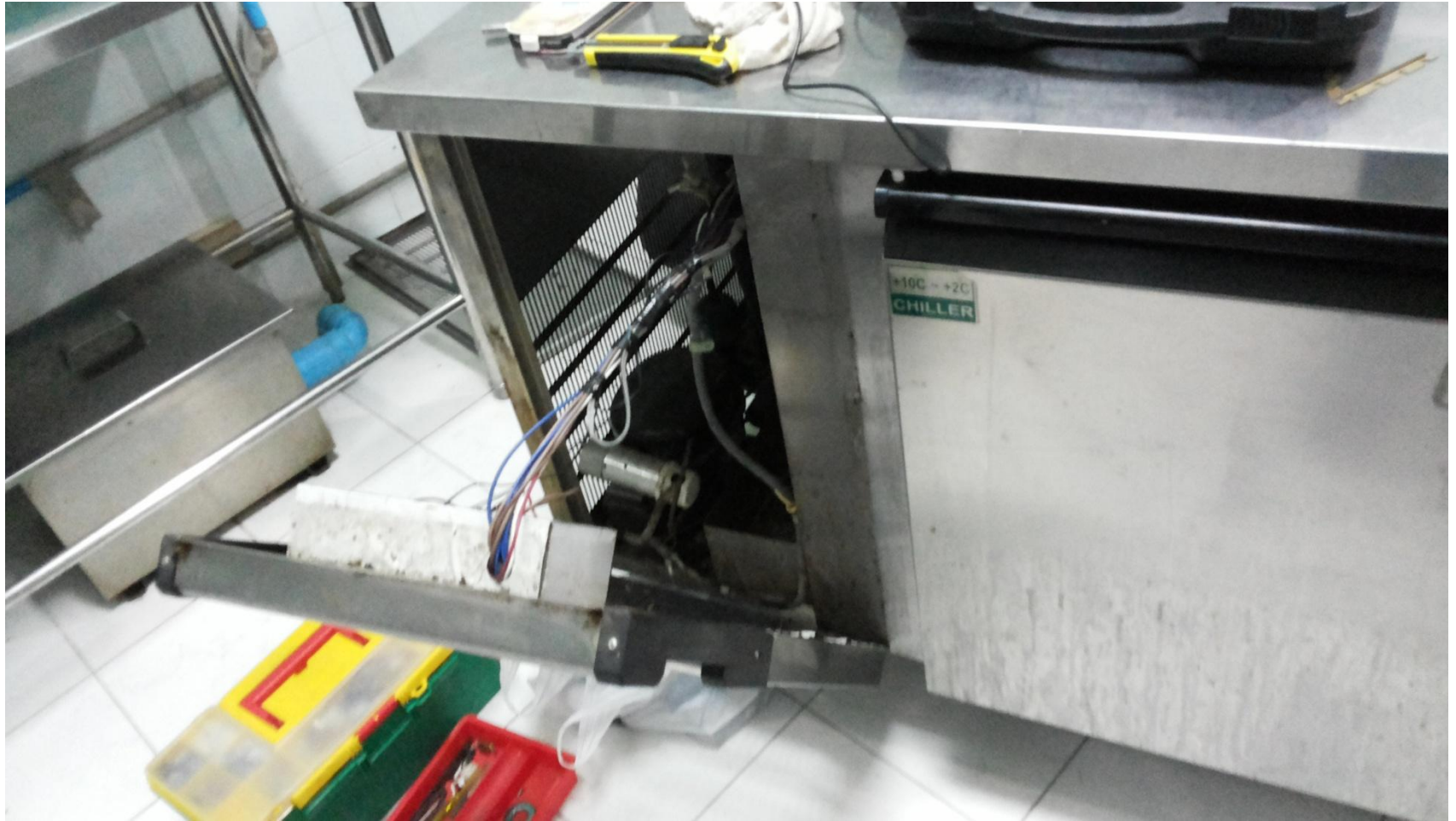


Wireless Data logger Installation

Chaopaya Hospital



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Base Station Installation



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Technical Specifications for IMC400W

- ◆ Recording Capacity : Maximum 8192, record for more than 2 years if log interval can be set 10 minutes.
- ◆ Long Interval : 2 second ~24 hours. Timing Recorder Time, Sample Interval and log interval can be set in the Software.
- ◆ Recording protection : Recording Function will stop when Battery is Low but Recording Values can be saved Forever Safely.
- ◆ Adopt Switzerland Digital Temperature Humidity Integration Sensor, which Assure the Reliability & Stability.
- ◆ Display Resolution : temperature: 0.1°C/ humidity: 0.1%RH
- ◆ PC interface : Zigbee + USB
- ◆ Wireless transmission rate: 115200 BPS
- ◆ Waterproof Level : IP54.
- ◆ Dimension : 90 * 87 * 44 mm.
- ◆ Wireless Antenna : Built-in (2.4G) .
- ◆ Installation : Wall-mounted with fixed support, easy to use and convenient to maintain.
- ◆ Alarm Type : Audible & Visual Alarm (LED + Buzzer). Automatic Alarm when any Setting Limits are Exceeded.
- ◆ Battery : 4*AA 1.5V Battery.

Technical Specifications for IMC2400 Wireless BaseStation (Transmission Relay)

- ◆ Wireless transmission rate: 115200 BPS.
- ◆ Wireless temperature humidity data logger terminal units available: 32 units.
- ◆ Frequency number supported: 15 Bands
- ◆ Display : Dual display. The first line shows the packets count received; the second line shows the last five numbers of the serial No of the last packets data logger.
- ◆ PC Interface: Zigbee + RJ45, can be connected directly to the internal LAN of enterprise.
- ◆ IP address : Fixed IP.
- ◆ Dimension : 126 * 120 * 30 mm。
- ◆ It will connect several data packets into one packet when receive data packet from multiple wireless data loggers and send to the ToMonitor system.
- ◆ **Relay Configuration Rules: Each relay has one unique ID to assure no conflict ; Every adjoining relay work in different band.**
- ◆ Installation : Wall-mounted.



Network Topology

In this project, there are lots of monitoring stations. Considering wireless signal and reliability problems, we adopt LAN and wireless equipment hybrid networking.

ToMonitor Software use TCP/IP networking protocol to monitor each transmission relay (station), which collect the wireless list data respectively and real-timely send to *ToMonitor* server software via internal LAN. The network mode adopts Client/Server framework, distributed stationing and centralized monitoring principle so that there is no mutual influence between the single point faults. Also the testing data can truly reflect the interior room (box) environment. In this way, we can improve the system reliability greatly and combine the unified monitoring and independent measurement and control.

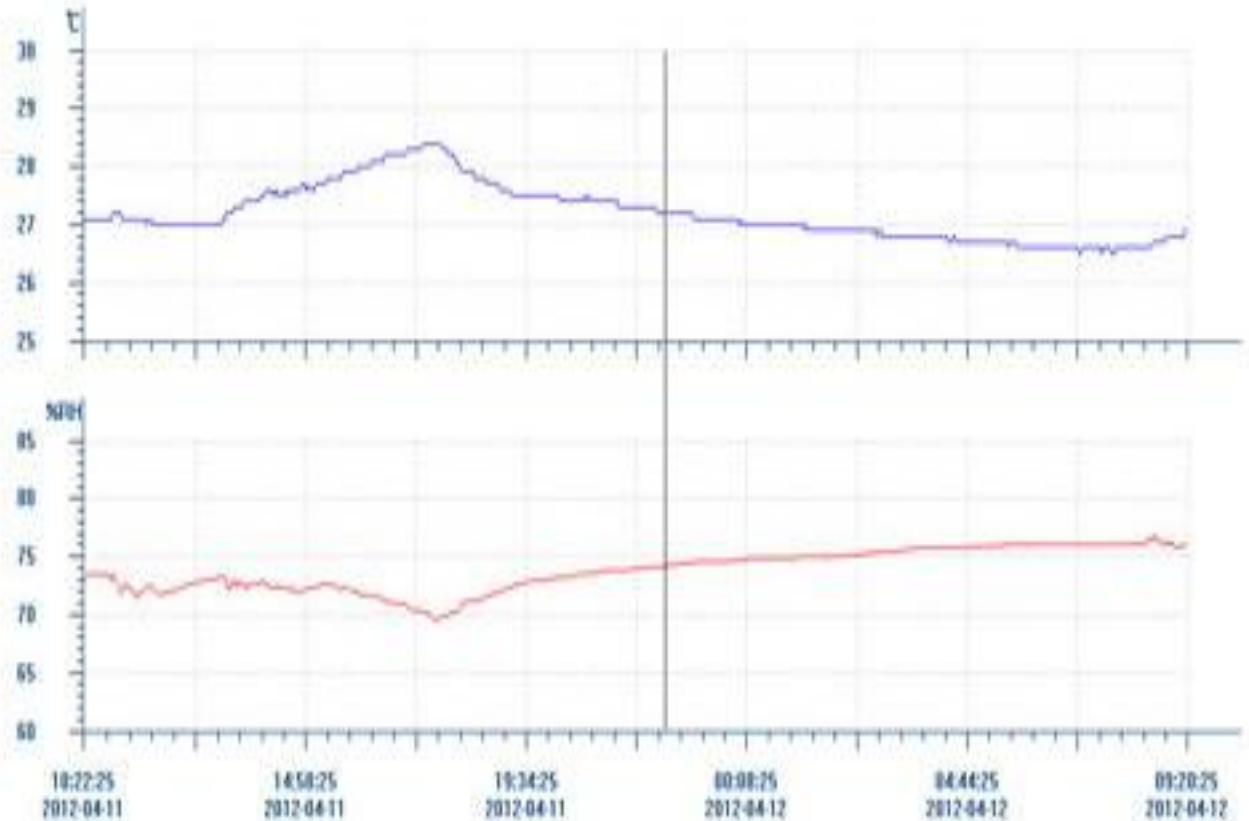
Real-time Monitoring

Data from the transmission relay can update automatically. It will have visual alarm and the color will turn into red font if any setting limit is exceeded.

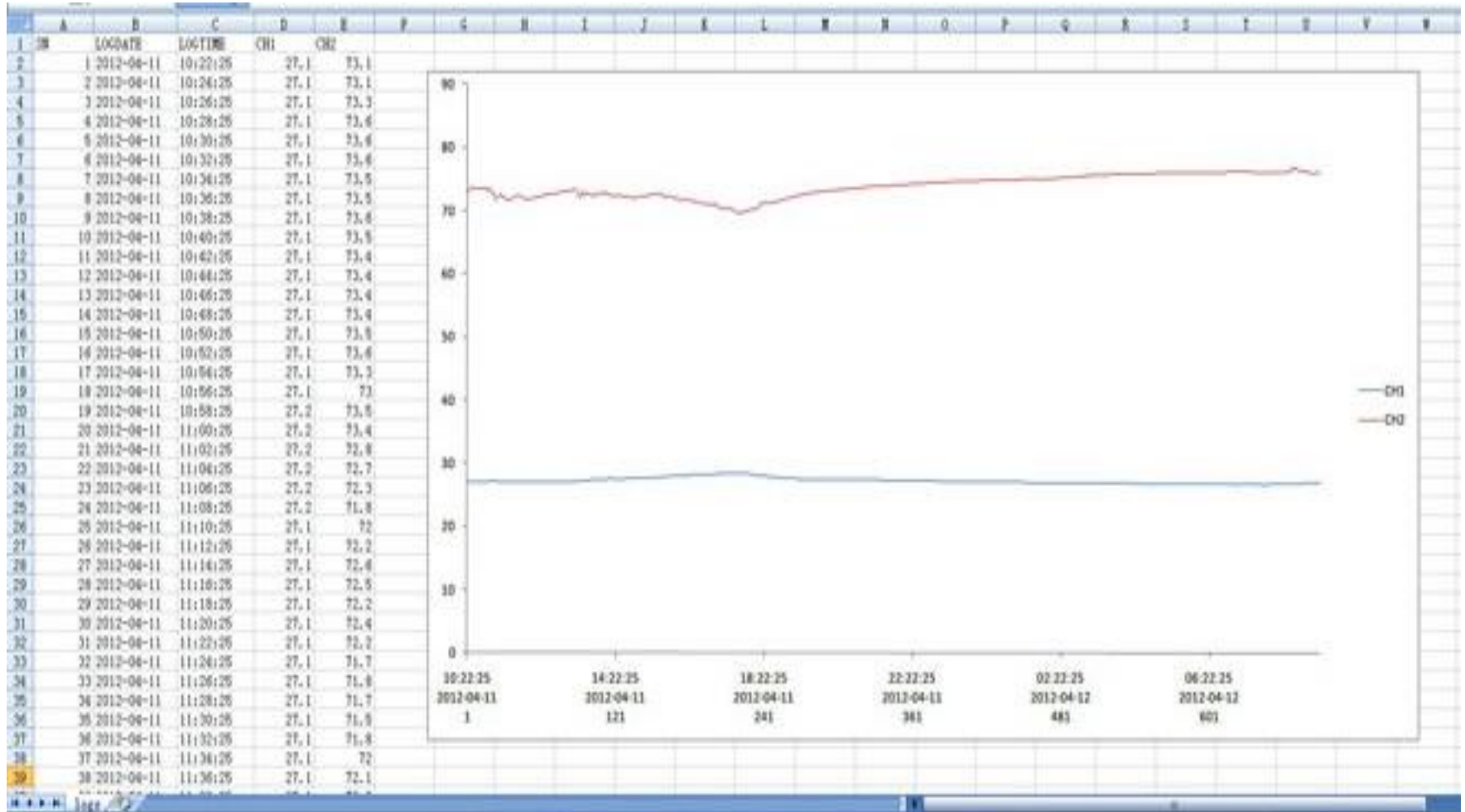
(the background picture can be changed according to the actual Situation, the display position of the monitoring station can be adjusted as well. Clients can enter gallery and warehouse by navigation chart and check the real-time temperature and humidity values.

Report- Format

13	2012-04-11	10:48:25	27.1	73.4
14	2012-04-11	10:49:25	27.1	73.4
15	2012-04-11	10:50:25	27.1	73.5
16	2012-04-11	10:52:25	27.1	73.6
17	2012-04-11	10:54:25	27.1	73.3
18	2012-04-11	10:56:25	27.1	73.0
19	2012-04-11	10:58:25	27.2	73.5
20	2012-04-11	11:00:25	27.2	73.4
21	2012-04-11	11:02:25	27.2	72.8
22	2012-04-11	11:04:25	27.2	72.7
23	2012-04-11	11:06:25	27.2	72.7
24	2012-04-11	11:08:25	27.2	71.8
25	2012-04-11	11:10:25	27.1	72.0
26	2012-04-11	11:12:25	27.1	72.2
27	2012-04-11	11:14:25	27.1	72.6
28	2012-04-11	11:16:25	27.1	72.5
29	2012-04-11	11:18:25	27.1	72.2
30	2012-04-11	11:20:25	27.1	72.4
31	2012-04-11	11:22:25	27.1	72.2
32	2012-04-11	11:24:25	27.1	71.7
33	2012-04-11	11:26:25	27.1	71.8
34	2012-04-11	11:28:25	27.1	71.7
35	2012-04-11	11:30:25	27.1	71.9
36	2012-04-11	11:32:25	27.1	71.8
37	2012-04-11	11:34:25	27.1	72.0
38	2012-04-11	11:36:25	27.1	72.1
39	2012-04-11	11:38:25	27.1	72.2
40	2012-04-11	11:40:25	27.0	72.3
41	2012-04-11	11:42:25	27.1	72.3
42	2012-04-11	11:44:25	27.1	72.4
43	2012-04-11	11:46:25	27.1	72.5
44	2012-04-11	11:48:25	27.0	72.3
45	2012-04-11	11:50:25	27.0	72.1
46	2012-04-11	11:52:25	27.0	72.0
47	2012-04-11	11:54:25	27.0	71.9
48	2012-04-11	11:56:25	27.0	71.7
49	2012-04-11	11:58:25	27.0	71.8
50	2012-04-11	12:00:25	27.0	71.7
51	2012-04-11	12:02:25	27.0	71.8
52	2012-04-11	12:04:25	27.0	71.9
53	2012-04-11	12:06:25	27.0	71.9
54	2012-04-11	12:08:25	27.0	72.0
55	2012-04-11	12:10:25	27.0	72.1



Report- Format



Description

- ◆ IMC300W Temperature indicator wireless. 12,500 THB
- ◆ IMC400W Temperature and Humidity indicator wireless 16,500 THB
- ◆ IMC100B Based station 10,500 THB
- ◆ IMC200S Software data logger and monitoring 28,000 THB
- ◆ Computer PC with Router switch 20,000 THB
- ◆ Speaker Alarm (Option) 6,000 THB
- ◆ Installation cost 30,000 THB
- ◆ Warrantee 2 Years and Calibration ISO/IEC 17025
- ◆ Site reference : Chowphaya Hospital



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Thank you

www.imcinstrument.com

