

### Comparison Report

**Detail :** PATIENT MONITOR ID No. : MPT-ER-07  
Manufacturer : MINDRAY Model : IPM 10 Serial No. : FG 64026770

**Department :** โรงพยาบาลบางน้ำเปรี้ยว Section : ER  
อำเภอบางน้ำเปรี้ยว จังหวัดฉะเชิงเทรา

**Room Ambient :** Temperature : 23 °C ( 15-25 °C ) Humidity : 50 %RH ( 20-85 %RH )

**Tested Date :** 6/2/2563 **Approved Date** 2/3/2563

**Measurement Method :** ปฏิบัติตามวิธีสอบเทียบเครื่อง Patient Monitor รหัส W1-CAL-MPT-01 โดยใช้เครื่องมือวัดที่ได้รับการสอบเทียบจากหน่วยงานที่ได้มาตรฐาน และสอบเทียบภายใต้สภาวะแวดล้อมตามที่กำหนด

#### Standard Used :

| Equipment                        | Manufacture | Model       | Serial No. | Certification No. | Cal Date  |
|----------------------------------|-------------|-------------|------------|-------------------|-----------|
| ๑-Invasive Blood Pressur Simulat | Fluke       | Cufflink    | 2093020    | PRE-62-0074       | 4/7/2562  |
| prosim 2 Simulator               | Fluke       | Prosim 2    | 3362038    | PTS-62-0039       | 20/8/2562 |
| Pulse Oximeter Ananalyzer1       | Fluke       | INDEX 2 MFE | 2091101    | 19MD189           | 12/3/2562 |

#### Measurement Results :

| Systolic Pressure  | STD Setting (mmHg)      | UUC Reading (mmHg)      | Error (mmHg)      | Uncertainty (+/-mmHg)      | Accept value (+/-mmHg)      |
|--------------------|-------------------------|-------------------------|-------------------|----------------------------|-----------------------------|
|                    | 60.0                    | 62.33                   | 2.33              | 0.88                       | 8.00                        |
|                    | 120.0                   | 117.00                  | -3.00             | 1.29                       | 8.00                        |
|                    | 150.0                   | 149.67                  | -0.33             | 0.88                       | 8.00                        |
| Diastolic Pressure | STD Setting (mmHg)      | UUC Reading (mmHg)      | Error (mmHg)      | Uncertainty (+/-mmHg)      | Accept value (+/-mmHg)      |
|                    | 30.0                    | 27.33                   | -2.67             | 3.38                       | 8.00                        |
|                    | 80.0                    | 77.67                   | -2.33             | 0.88                       | 8.00                        |
|                    | 100.0                   | 95.67                   | -4.33             | 0.88                       | 8.00                        |
| Heart Rate         | STD Setting (Pulse/min) | UUC Reading (Pulse/min) | Error (Pulse/min) | Uncertainty (+/-Pulse/min) | Accept value (+/-Pulse/min) |
|                    | 60.0                    | 60.00                   | 0.00              | 0.58                       | 2.00                        |
|                    | 80.0                    | 80.00                   | 0.00              | 0.58                       | 2.00                        |
|                    | 120.0                   | 120.00                  | 0.00              | 0.58                       | 2.00                        |
| SpO2               | STD Setting (%)         | UUC Reading (%)         | Error (%)         | Uncertainty (+/-%)         | Accept value (+/-%)         |
|                    | 94.0                    | 94.00                   | 0.00              | 0.58                       | 2.00                        |
|                    | 96.0                    | 96.00                   | 0.00              | 0.58                       | 2.00                        |
|                    | 98.0                    | 98.00                   | 0.00              | 0.58                       | 2.00                        |

**Comment :** This report certifies the tested results as of the date, the location and the conditions of calibrate only.

|        |         |          |         |          |          |            |           |
|--------|---------|----------|---------|----------|----------|------------|-----------|
| I : OK | II : OK | III : OK | AVR : O | AVL : KO | AVF : OK | Alarm : OK | 1mV : N/A |
|--------|---------|----------|---------|----------|----------|------------|-----------|

The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor

$k = 2$ , Providing a level of confidence of approximately 95%

Tested by : นายตันศักดิ์ คงพ่วง

Approved by :



( นายทศพงษ์ ตรีเนตร )

หัวหน้ากลุ่มมาตรฐานวิศวกรรมการแพทย์

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