

### 1. Scope

These inspection standards apply to the 701855 High-Speed Isolation Module.

### 2. Inspection Items

#### 2.1 Visual and configuration

#### \*2.2 Insulation resistance

#### \*2.3 Withstanding voltage

#### \*2.4 DC Accuracy Test

Note: The items marked with an asterisk(\*) are subject to inspection by test certificate only.

### 3. Equipment Used

- Digital multimeter: Yokogawa's 2407 or equivalent
- Withstanding voltage tester: Kikusui's TOS-8750
- DC voltage generator: Yokogawa's 7651 or equivalent

### 4. Inspection Methods, Conditions, and Standards

Test conditions

- Temperature: 23 ±5°C
- Relative humidity: 55 ±10%
- Errors in power supply voltage and frequency: Within ±1% of each rating

#### 4.1 Visual and configuration

- Make sure there are no notable scratches or stains.
- Check against the specification.

#### 4.2 Test of Insulation Resistance

Using a 500 VDC insulation resistance tester, test the UUT to ensure that it satisfies the following ratings.

Test Point	Rating
Between the power supply terminal and the grounding terminal	10 MΩ minimum for a supply of 500 VDC/5 sec.

#### 4.3 Test of Withstanding Voltage

Using a withstanding voltage tester, apply the following AC voltage (60 Hz) to the UUT. Then, check that it satisfies the following ratings.

Test Point	Rating
Between the power supply terminal and the grounding terminal	A leakage of 10 mA maximum for a supply of 3700 VAC/1 min.

#### 4.4 DC Accuracy Test

- Connect the output terminal of the DC voltage generator to the input terminal.
- Settings T/div 1 ms/div  
Test channel ON, Position 0 div, Probe 1:1, Coupling DC, Filter 500 kHz
- Perform self-calibration immediately before measurement begins.
- Apply DC voltage with the DC voltage generator, and confirm whether the measurement values meet the test criteria.

Range	Input Voltage	Test Criteria
5 mV/div	+19.5 mV	$\pm(2.0\% \text{ of } 8 \text{ div} + \text{offset voltage accuracy})$
↓	0 mV	↓
↓	-19.5 mV	↓
10 mV/div	+39 mV	$\pm(1.5\% \text{ of } 8 \text{ div} + \text{offset voltage accuracy})$
↓	0 mV	↓
↓	-39 mV	↓
200 mV/div	+780 mV	↓
↓	0 mV	↓
↓	-780 mV	↓
500 mV/div	+1.95 V	↓
↓	0 V	↓
↓	-1.95 V	↓
10 V/div	+32 V	↓
↓	0 V	↓
↓	-32 V	↓

Offset axis accuracy:  $\pm(0.04\% \text{ of offset voltage range} + 1\% \text{ of setting value})$