

# Key Product Recommendations

## I. TH2554 Series Data Acquisition

### Features

- 7-inch color capacitive touch screen, 800 x 480 resolution
- Linux operating system
- 5-slot mainframe, standard with 6 1/2 multimeter card
- Stand-alone support for up to 160 channels, single-channel cost is very low
- 6 1/2 multimeter (DMM) card supports DCV, DCI, ACV, ACI, 2WR, 4WR, period, frequency, temperature
- Temperature acquisition supports thermocouples, thermistors, and RTDs
- 0.0035% DC voltage (DCV) measurement accuracy
- 0.0100% base resistance measurement accuracy
- Scanning Speed  
Basic card: 90 channels/sec  
Fast card: 800 channels/sec
- USB data direct storage Standard SCPI command set
- Standard SCPI command set



RS232	LAN	HANDER	USB HOST	USB DEVICE
standard	standard	standard	standard	standard

### TH2554 Series

Rack mount (mm): 215(W) x 132(H) x 490(D)  
Dimension (mm) : 235(W) x 154(H) x 530(D)  
Weight: 7.8kg

### Applications

#### ■ Industrial

Motor, transformer, magnetic core, etc. temperature rise evaluation Resistance sintering furnace, new energy battery, charging pile, automobile motor, LED lamp, chip temperature test.

#### ■ Agriculture

Temperature monitoring of vegetable greenhouses, fruit greenhouses, seed refrigerators, etc.

#### ■ Chemical industry

Temperature monitoring of reaction furnace, production equipment, etc.

#### ■ Animal husbandry

Temperature monitoring of breeding greenhouses, pens, food preservation, seafood warehouses, etc.

#### ■ Medicine

Temperature monitoring of wards, examination rooms, drug storage rooms, sperm banks, ambulances, etc.

### Specifications

#### 1. DC Voltage

Range	24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
100.0000 mV	0.0030+ 0.0030	0.0040 + 0.0035	0.0050 + 0.0035	0.0065 + 0.0035	0.0005 + 0.0005
1.000000V	0.0020+ 0.0006	0.0030 + 0.0007	0.0040 + 0.0007	0.0055 + 0.0007	0.0005 + 0.0001
10.00000V	0.0015+ 0.0004	0.0020 + 0.0005	0.0035 + 0.0005	0.0050 + 0.0005	0.0005 + 0.0001
100.0000V	0.0020+ 0.0006	0.0035 + 0.0006	0.0045 + 0.0006	0.0060 + 0.0006	0.0005 + 0.0001
300.000V	0.0020+ 0.0006	0.0035+ 0.0010	0.0045+ 0.0010	0.0060 + 0.0010	0.0005 + 0.0001

#### 2. DC Resistance 2

Range	Test Current	24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
10 $\Omega$	10mA	0.0050+ 0.0030	0.008+ 0.004	0.010+ 0.004	0.012+ 0.004	0.0006 + 0.0005
100 $\Omega$	1mA	0.0030+ 0.0020	0.008+ 0.003	0.010+ 0.003	0.012+ 0.003	0.0006 + 0.0003
1k $\Omega$	1mA	0.0020+ 0.0005	0.008+ 0.001	0.010+ 0.001	0.012+ 0.001	0.0006 + 0.0001
10k $\Omega$	100uA	0.0020+ 0.0005	0.008+ 0.001	0.010+ 0.001	0.012+ 0.001	0.0006 + 0.0001
100k $\Omega$	10uA	0.0020+ 0.0005	0.008+ 0.001	0.010+ 0.001	0.012+ 0.001	0.0006 + 0.0001
1M $\Omega$	5uA	0.002 + 0.001	0.008+ 0.001	0.010+ 0.001	0.012+ 0.001	0.0030+ 0.0030
10M $\Omega$	500nA	0.015 + 0.001	0.020+ 0.001	0.040+ 0.001	0.060+ 0.001	0.0030+ 0.0030
100M $\Omega$	500nA//10M	0.300+ 0.010	0.800+ 0.010	0.800+ 0.010	0.800+ 0.010	0.0030+ 0.0030

# Key Product Recommendations

## I. TH2554 Series Data Acquisition

### 3.DC Current

Range	Internal Resistance Voltage Drop	24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
100uA	<0.11V	0.010 + 0.020	0.040 + 0.025	0.050 + 0.025	0.060 + 0.025	0.0020+ 0.0030
1mA	<0.11V	0.010 + 0.006	0.030 + 0.006	0.050 + 0.006	0.060 + 0.006	0.0020+ 0.0005
10mA	< 0.5 V	0.010 + 0.020	0.030 + 0.020	0.050 + 0.020	0.060 + 0.020	0.0020+ 0.0020
100mA	< 0.5 V	0.010 + 0.004	0.030 + 0.005	0.050 + 0.005	0.060 + 0.005	0.0020+ 0.0005
1A	< 0.7 V	0.050 + 0.006	0.080 + 0.010	0.100 + 0.010	0.120 + 0.006	0.0050+ 0.0010
3A	< 2.0 V	0.180 + 0.020	0.200 + 0.020	0.200 + 0.020	0.230 + 0.020	0.0050+ 0.0020
10A	< 0.5 V	0.050 + 0.010	0.120 + 0.010	0.120 + 0.010	0.150 + 0.010	0.0050+ 0.0010

### 4.Diode Test

Function	Test Current	24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
5V	1mA	0.002 + 0.030	0.008 + 0.030	0.010+ 0.030	0.012 + 0.030	0.0010+ 0.0020

### 5.Continuity (Conductivity) Test

Function	Test Current	24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
1k $\Omega$	1mA	0.002 + 0.030	0.008 + 0.030	0.010+ 0.030	0.012 + 0.030	0.0010+ 0.0020

### 6.Temperature Test

Temperature	
PT100 (DIN/ IEC 751)	Probe Accuracy + 0.05 $^{\circ} C$
5 k $\Omega$ Thermistor	Probe Accuracy + 0.10 $^{\circ} C$

### 7.AC Voltage Test

Frequency/Range	24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
3-5 Hz	1.00+0.02	1.00+0.02	1.00+0.03	1.00+0.03	0.100+0.003
5-10 Hz	0.35+0.02	0.35+0.03	0.35+0.03	0.35+0.03	0.035+0.003
10 Hz-20 kHz	0.04+0.02	0.05+0.03	0.06+0.03	0.07+0.03	0.005+0.003
20-50 kHz	0.10+0.04	0.11+0.05	0.12+0.05	0.13+0.05	0.011+0.005
50-100 kHz	0.55+0.08	0.60+0.08	0.60+0.08	0.60+0.08	0.060+0.008
100-300 kHz	4.00+0.50	4.00+0.50	4.00+0.50	4.00+0.50	0.200+0.020

### 8.AC Current Test

Frequency/Range		24 Hours $T_{CAL} \pm 1^{\circ} C$	90 Days $T_{CAL} \pm 5^{\circ} C$	1 Year $T_{CAL} \pm 5^{\circ} C$	2 Year $T_{CAL} \pm 5^{\circ} C$	Temperature Coefficient/ $^{\circ} C$
Range	Pressure Drop					
100 $\mu A$	<0.011V					
1mA	< 0.11V					
10mA	<0.05V					
100mA	<0.5V					
3Hz- 5kHz		0.10+0.04	0.10+0.04	0.10+0.04	0.10+0.04	0.015+0.006
5kHz - 10kHz		0.10+0.04	0.10+0.04	0.10+0.04	0.10+0.04	0.030+0.006
1A Range	<0.7V					
3Hz- 5kHz		0.10+0.04	0.10+0.04	0.10+0.04	0.10+0.04	0.015+0.006
5kHz - 10kHz		0.10+0.04	0.10+0.04	0.10+0.04	0.10+0.04	0.030+0.006
3A Range	<2.0V					
3Hz- 5kHz		0.23+0.04	0.23+0.04	0.23+0.04	0.23+0.04	0.015+0.006
5kHz - 10kHz		0.23+0.04	0.23+0.04	0.23+0.04	0.23+0.04	0.030+0.006
10A Range	<0.5V					
3Hz- 5kHz		0.15+0.04	0.15+0.04	0.15+0.04	0.15+0.04	0.015+0.006
5kHz - 10kHz		0.15+0.04	0.15+0.04	0.15+0.04	0.15+0.04	0.030+0.006