RM-26999 Calibration Procedure

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ni.com

This document contains the verification and adjustment procedures for the RM-26999. Use the procedures in this document to automate calibration or to conduct manual calibration. Review and become familiar with the entire procedure before beginning the calibration process.

Contents

Terms and Definitions

DUT	DUT is an acronym for Device Under Test, and refers to the NI product being calibrated. For this procedure, DUT refers to the RM-26999.
As-Found Limits	These limits are derived from the published specifications for the DUT. NI uses these limits to determine if the DUT is performing within the recommended calibration interval specifications at the time of calibration and before any adjustment is performed.
As-Left Limits	These limits are derived from the published specifications for the DUT minus guardband to ensure a high probability that the DUT will meet its specifications over the next recommended calibration interval.
Functional Test	Functional Tests determine whether the DUT is operating correctly. Functional tests are not directly related to performance specifications.
Verification	Verification evaluates the measured calibration results against the defined As-Found Limits. The result of the evaluation is expressed as a Pass/Fail condition in the calibration certificate using an established evaluation formula.
Adjustment	Adjustment performs a set of operations on the DUT to optimize the measurement performance and conform it to the assigned calibrated values.
Reverification	Reverification evaluates the measured calibration results against the As-Left limits after adjustment. The As-Left limits may be tighter than the As-Found limits.
Recommended Calibration Interval	This interval indicates the recommended period between each round of verification and adjustment of the DUT. There is a high probability that, within this interval, the DUT will remain within the published warranted performance specifications. Some measurement DUTs have warranted specifications for different calibration intervals, for example: 24 hours, 90 days, 1 year, and 2 years. In this case, the specification depends on the calibration cycle chosen by the user.

Calibration Overview

Recommended Calibration Interval
1 year

Password
NI

Note
This is the default password for all password-protected operations. This password is site-specific.

Task	Estimated Test Time	Operator Connections	Test Points
Setup	5 minutes	8 connections	—
Warm Up	30 minutes	—	—
Verify, Adjust, and Reverify	35 minutes	28 connections	88 points
Verify only	15 minutes	8 connections	41 points
Adjust only	5 minutes	12 connections	6 points

Note
Estimated test times assume the user is conducting a manual calibration. For most procedures, automating the calibration significantly reduces test times.

Environmental Conditions for Calibration	
Ambient temperature	23 °C ± 5 °C
Relative humidity	20% to 80%

Calibration Condition Guidelines

- Keep cabling as short as possible. Long cables act as antennas, picking up extra noise that can affect measurements.
- Ensure that all connections to the DUT are secure.
- Allow adequate warm up time for all components of the calibration system.

- Make all connections as shown in diagrams.
- Use shielded copper wire for all cable connections to the DUT.
- Use twisted-pair wires to eliminate noise and thermal offsets.
- Ensure that the PXI/PXI Express chassis fan speed is set to HIGH, that the fan filters are clean, and that the empty slots contain filler panels. For more information, refer to the Maintain Forced-Air Cooling Note to Users document available at ni.com/manuals.
- If a DUT fails reverification after adjustment, ensure that the Test Conditions have been met before returning the DUT to NI.
- Allow the calibrator and DMM to settle fully before taking any measurements. NI recommends a settling time of 10 seconds. Consult the calibrator and DMM user documentation for more information.
- Allow 2 minutes for the thermal EMF to stabilize after changing connections to the calibrator, DMM, or DUT.

Calibration Resources

Required Software

Note
Ensure that the most recent version of the required driver software is installed before conducting the calibration.

Install the following software on the calibration system:

- LabVIEW 2017 SPI Base/Full/Pro or later
- NI-DAQmx 17.0 or later
- RM-26999 API from the VI Package Manager

Recommended Documentation

Go to ni.com/manuals to locate the following documentation for more information when performing this calibration:

- RM-26999 Specifications
- RM-26999 Getting Started Guide
- RM-26999 User Manual

Test Equipment

This section details the equipment NI recommends for each test performed as part of this calibration procedure.

NI Calibration Executive Users
Refer to the Calibration Executive Help to find an updated list of test equipment for this calibration procedure.

Standard	Recommended Model	Where Used	Functional Requirement(s)
Calibrator	Fluke 5730A	Verifications: ▪ DC Gain ▪ AC Gain	▪ DC Range: ±1000 V ▪ DC Accuracy: ±20 µV/V ▪ AC Range: ±1000 V ▪ AC Accuracy: ▪ < 100 kHz: ±0.3% ▪ < 1 MHz: ±1.5%
Calibrator Amp	Fluke 5725A	Verifications: ▪ AC Gain	▪ AC Range: ±1000 V ▪ AC Accuracy: ▪ < 100 kHz: ±0.3% ▪ < 1 MHz: ±1.5%

DMM	Keysight 3458A	Verifications: ▪ DC Gain ▪ AC Gain	▪ DC Range: ±10 V ▪ DC Accuracy: ±20 µV/V ▪ AC Range: ±10 V ▪ AC Accuracy: <1 MHz: ±0.02%
Low Thermal EMF Cable with Banana Plugs	Fluke 5730A-7002	Verifications: ▪ DC Gain ▪ AC Gain	—
BNC (f) to Banana Plug Adaptor	Pomona Model 1269	Verifications: ▪ DC Gain ▪ AC Gain	—
Power Supply	NI PS-16	Verifications: ▪ DC Gain ▪ AC Gain	24 V DC, 5 A
BNC (f) to BNC (f) cable		Verifications: ▪ DC Gain ▪ AC Gain	—
Calibrator Amp Cable	Fluke 842901	Verifications: ▪ AC Gain	No substitution.
SMIO (DAQ) Module	PXIe-6356, PXIe-6358, PXIe-6366, PXIe-6368, PXIe-6376, or PXIe-6378	Verifications: ▪ DC Gain ▪ AC Gain	—
DAQ Device Cable	NI SH68F-68F-EPM	—	—

Initial Equipment Setup

1. Verify that the calibrator has been calibrated within 1 year and that DC Zero Calibration has been performed within the last 30 days.

Note
Consult the calibrator user documentation for calibration instructions.

2. Verify that the DMM has been calibrated within 1 year. Verify that ACAL (self-calibration) has been performed within the last 24 hours or when the temperature drifts more than ±1 °C from last ACAL temperature. The DMM must also be within ±5 °C from T_{CAL}. T_{CAL} is the temperature at which an external calibration was performed on the DMM.

Note
Conducting ACAL on the DMM provides additional correction for errors that result from measurement, such as temperature drift. Refer to the DMM user documentation for more information on conducting ACAL. Account for additional uncertainty if ACAL is not performed correctly or if T_{CAL} is outside the bounds of ±5 °C.

3. Verify that the calibrator and DMM have warmed up for at least 1 hour before making any measurements for this procedure.

4. Allow the calibrator and DMM to settle before taking any measurements.

Note
NI recommends a settling time of 10 seconds. Refer to the calibrator and DMM documentation for more information about manufacturer-recommended settling times.

5. Clean any oxidation from the banana connectors on the cables before connecting them to the calibrator, DMM or DUT.

Note
Oxidation tarnishes the copper plugs so that they appear dull rather than shiny and increases thermal EMF.

Warm Up the DUT

Warm up time is not required for the DUT prior to taking measurements. All test equipment used in this procedure require a warm up time of at least 1 hour.

Perform Verification

DC Gain Verification

Test Limits

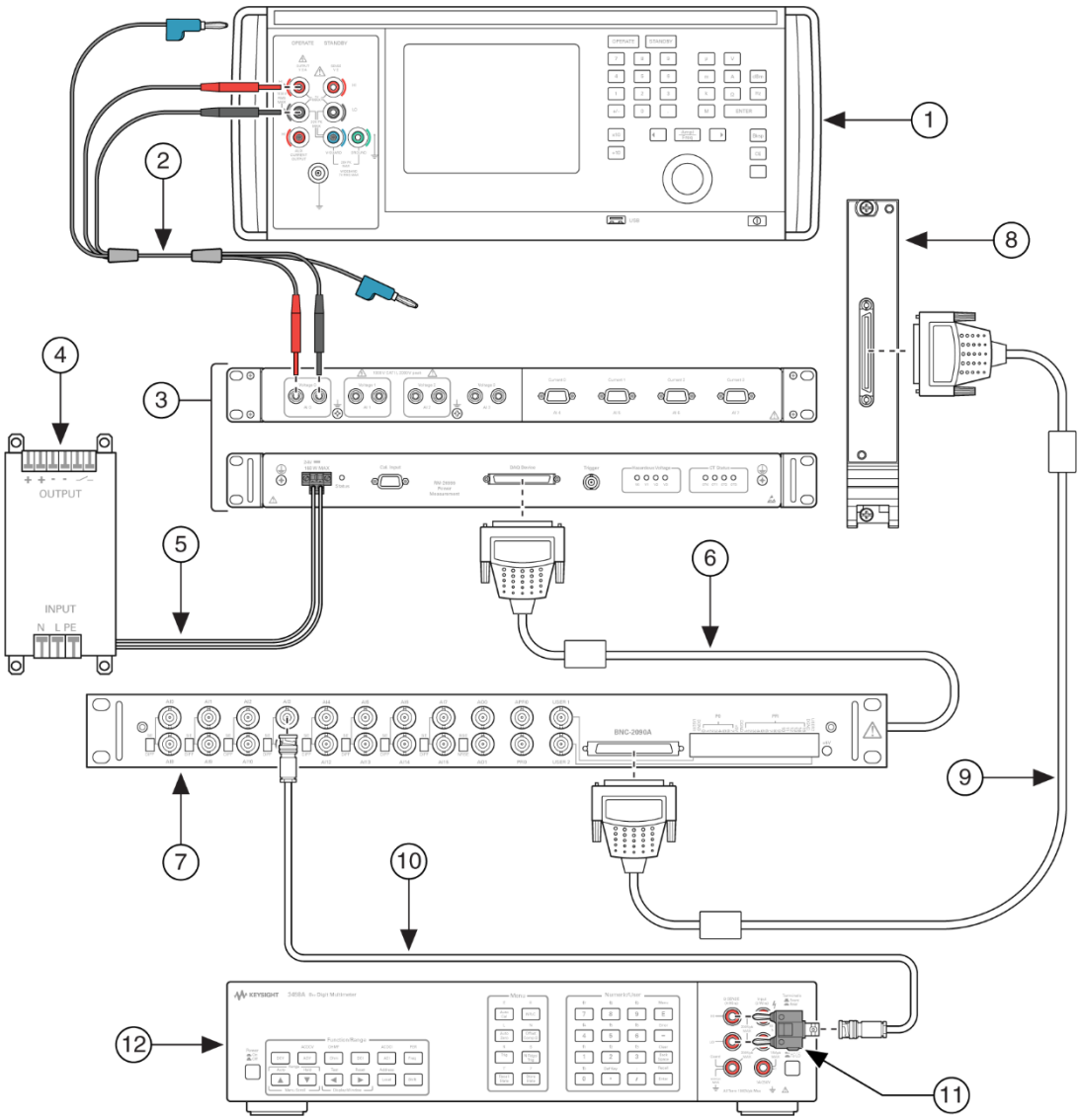
Table 1: DC Gain Verification Test Limits

High Voltage Input Value	Low Voltage Input Value	Calibrator Range	DMM Range	As-Found Test Limit		As-Left Test Limit	
				Lower Limit	Upper Limit	Lower Limit	Upper Limit
1000 V	5 V	1100 V	10 V	- 502 mV	+ 502 mV	- 251 mV	+ 251 mV
750 V	3.75 V	1100 V	10 V	- 377 mV	+ 377 mV	- 189 mV	+ 189 mV
500 V	2.5 V	1100 V	10 V	- 252 mV	+ 252 mV	- 126 mV	+ 126 mV
200 V	1 V	220 V	1 V	- 102 mV	+ 102 mV	- 51 mV	+ 51 mV
100 V	500 mV	220 V	1 V	- 52 mV	+ 52 mV	- 26 mV	+ 26 mV
10 V	50 mV	11 V	0.1 V	- 7 mV	+ 7 mV	- 3 mV	+ 3 mV
0 V	5 mV	11 V	0.1 V	- 2 mV	+ 2 mV	- 1 mV	+ 1 mV
-10 V	50 mV	11 V	0.1 V	- 7 mV	+ 7 mV	- 3 mV	+ 3 mV
-100 V	500 mV	220 V	1 V	- 52 mV	+ 52 mV	- 26 mV	+ 26 mV
-200 V	1 V	220 V	1 V	- 102 mV	+ 102 mV	- 51 mV	+ 51 mV
-500 V	2.5 V	1100 V	10 V	- 252 mV	+ 252 mV	- 126 mV	+ 126 mV
-750 V	3.75 V	1100 V	10 V	- 377 mV	+ 377 mV	- 189 mV	+ 189 mV
-1000 V	5 V	1100 V	10 V	- 502 mV	+ 502 mV	- 251 mV	+ 251 mV

Initial Test Connection

Caution: Possibility of Electric Shock
Power off all high-voltage signals before making any connections.

Figure 1: DC Gain Connection



1. Calibrator
2. Low thermal EMF cable with banana plugs
3. RM-26999
4. Power supply
5. Twisted, shielded power cable
6. SH68F-68F-EPM cable
7. BNC-2090A
8. PXIe-6356
9. SH68F-68F-EPM cable
10. BNC cable
11. BNC to banana plug adaptor
12. DMM

Verification Procedure

1. Connect all test equipment except the calibrator, as shown in Figure 1.

Repeat 4 times, once for each channel.

2. Ensure the DUT is identified by the DAQ device.
   a. Refer to the `RM-26999 Device Enumeration.vi` in the NI Examples Finder.
3. Ensure that the calibrator output is powered off

> **Caution: Possibility of Electric Shock**
> Power off all high-voltage signals and set the calibrator to standby before making any connections.

4. Connect the calibrator output to the appropriate channel on the DUT. Wait 2 minutes for thermal EMF to stabilize.

Repeat 13 times, once for each set of voltage input values.

5. Configure the DMM to measure the appropriate low voltage input value, as shown in Table 1.
   a. Set the DMM range.
   b. Implement PRESET before taking the measurement.
   c. Set NPLC to 100.
   d. Perform ACAL, if ACAL has not been performed within the last 24 hours or if the temperature has drifted more than ±1 °C from last ACAL temperature.
   e. Enable MATH NULL.
6. Configure the calibrator to the appropriate high voltage input value, as shown in Table 1.
7. Enable the calibrator to source the high voltage input value.

8. Allow the DMM and calibrator to settle before taking a measurement. NI recommends a settling time of 10 seconds.

> **Note**
> A settling time of 10 seconds accommodates any changes to range, polarity, and thermal EMF effects that increase the base settling time.

9. Take the measurement with the DMM.

10. Scale the DMM measurement with the coefficients stored on the DUT EEPROM.

    a. `RM-26999 Initialize Voltage Channel.vi`

    b. `RM-26999.lib\_getChannelsFromTask.vi`

    c. `RM-26999.lib\_filterPhysicalChannels.vi`

    d. `RM-26999.lib\_retrieveVoltageScaling.vi`

    e. `RM-26999 Close.vi`

> **Note**
> To find the RM-26999 VIs, navigate to **vi.lib»NI»RM-26999»rm-26999.llb** in the LabVIEW folder.

11. Compare the scaled measurement with the test limits defined in Table 1.

$$DUT\ Measurement = DMM\ Measurement \times DUT\ Gain + DUT\ Offset$$

12. Power off the calibrator output.

AC Gain Verification

Test Limits

Table 2: AC Gain Verification Test Limits

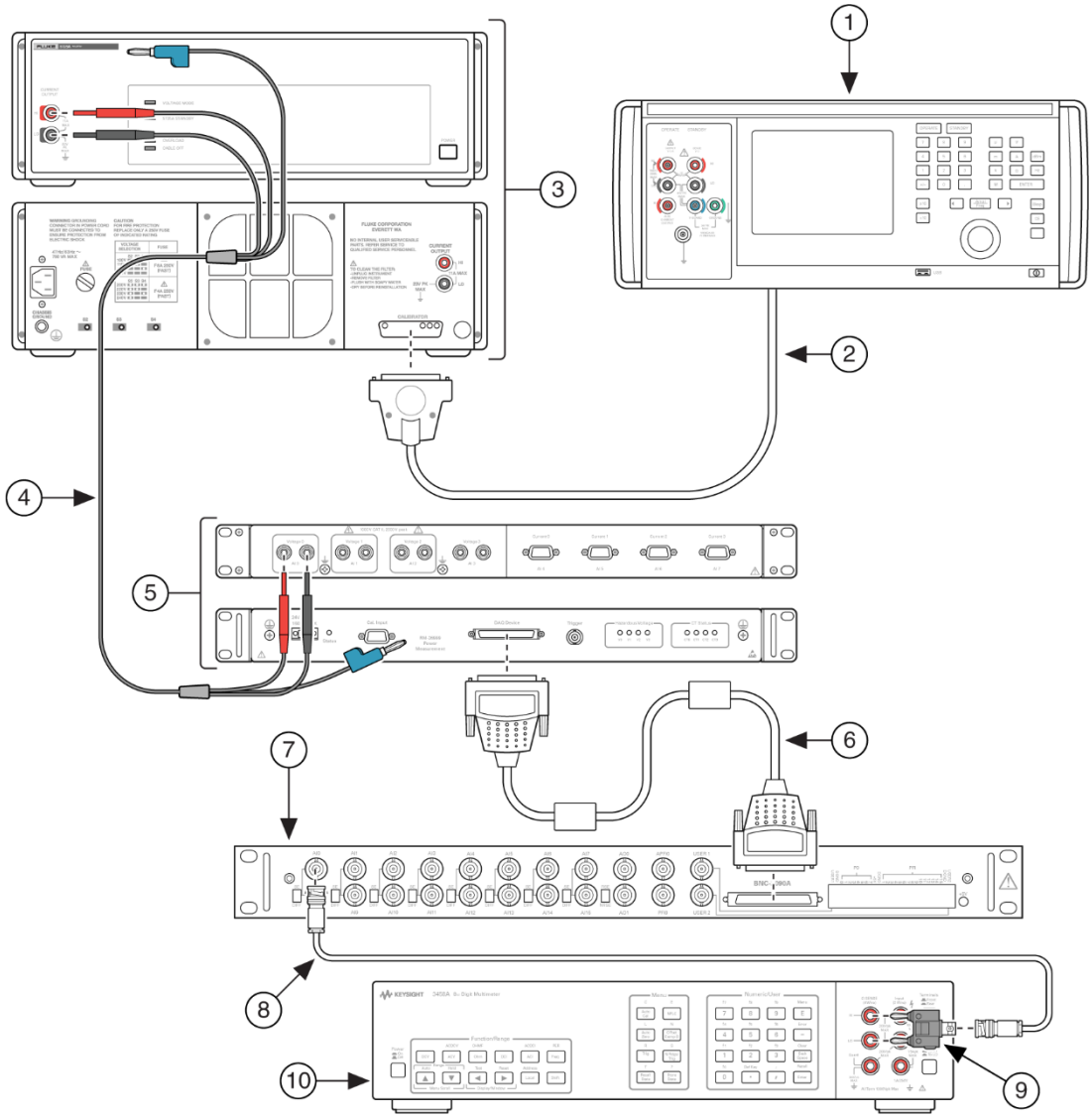
Frequency	High Voltage Input Value	Low Voltage Input Value	Calibrator Range	DMM Range	As-Found Test Limit		As-Left Test Limit	
					Lower Limit	Upper Limit	Lower Limit	Upper Limit
500 Hz	1000 V_{RMS}	5 V_{RMS}	1100 V	10 V	-1.0 V_{RMS}	+1.0 V_{RMS}	-500 mV_{RMS}	+500 mV_{RMS}
	500 V_{RMS}	2.5 V_{RMS}	1100 V	10 V	-513 mV_{RMS}	+513 mV_{RMS}	-260 mV_{RMS}	+260 mV_{RMS}
	50 V_{RMS}	0.25 V_{RMS}	22 V	1 V	-63 mV_{RMS}	+63 mV_{RMS}	-30 mV_{RMS}	+30 mV_{RMS}
	5 V_{RMS}	0.025 V_{RMS}	22 V	0.1 V	-18 mV_{RMS}	+18 mV_{RMS}	-9 mV_{RMS}	+9 mV_{RMS}
1 kHz	1000 V_{RMS}	5 V_{RMS}	1100 V	10 V	-2.0 V_{RMS}	+2.0 V_{RMS}	-1.0 VRMS	+1.0 V_{RMS}
	500 V_{RMS}	2.5 V_{RMS}	1100 V	10 V	-1.0 V_{RMS}	+1.0 V_{RMS}	-500 mV_{RMS}	+500 mV_{RMS}
	50 V_{RMS}	0.25 V_{RMS}	22 V	1 V	-113 mV_{RMS}	+113 mV_{RMS}	-55 mV_{RMS}	+55 mV_{RMS}
	5 V_{RMS}	0.025 V_{RMS}	22 V	0.1 V	- 80.5 mV_{RMS}	+80.5 mV_{RMS}	-40 mV_{RMS}	+40 mV_{RMS}
5 kHz	1000 V_{RMS}	5 V_{RMS}	1100 V	10 V	-9.0 V_{RMS}	+9.0 V_{RMS}	-4.5 V_{RMS}	+4.5 V_{RMS}
	500 V_{RMS}	2.5 V_{RMS}	1100 V	10 V	-4.5 V_{RMS}	+4.5 V_{RMS}	-2.1 V_{RMS}	+2.1 V_{RMS}
	50 V_{RMS}	0.25 V_{RMS}	22 V	1 V	-463 mV_{RMS}	+463 mV_{RMS}	-230 mV_{RMS}	+230 mV_{RMS}
	5 V_{RMS}	0.025 V_{RMSRMS}	22 V	0.1 V	- 80.5mV_{RMS}	+80.5 mV_{RMS}	-40 mV_{RMS}	+40 mV_{RMS}
10 kHz	1000 V_{RMS}	5 V_{RMS}	1100 V	10 V	-11.5 V_{RMS}	+11.5 V_{RMS}	-5.5 V_{RMS}	+5.5 VRMS
	500 VRMS	2.5 V_{RMS}	1100 V	10 V	-5.8 VRMS	+5.8 V_{RMS}	-2.6 V_{RMS}	+2.6 V_{RMS}
	50 V_{RMS}	0.25 V_{RMS}	22 V	1 V	-588 mV_{RMS}	+588 mV_{RMS}	-290 mV_{RMS}	+290 mV_{RMS}
	5 V_{RMS}	0.025 V_{RMS}	22 V	0.1 V	- 80.5mV_{RMS}	+80.5 mV_{RMS}	-40 mV_{RMS}	+40 mV_{RMS}
15 kHz	1000 V_{RMS}	5 V_{RMS}	1100 V	10 V	-13.5 V_{RMS}	+13.5 V_{RMS}	-6.5 V_{RMS}	+6.5 V_{RMS}
	500 V_{RMS}	2.5 V_{RMS}	1100 V	10 V	-6.8 V_{RMS}	+6.8 V_{RMS}	-3.4 V_{RMS}	+3.4 V_{RMS}
	50 V_{RMS}	0.25 V_{RMS}	22 V	1 V	-688 mV_{RMS}	+688 mV_{RMS}	-340 mV_{RMS}	+340 mV_{RMS}
	5 V_{RMS}	0.025 V_{RMS}	22 V	0.1 V	- 80.5mV_{RMS}	+80.5 mV_{RMS}	-40 mV_{RMS}	+40 mV_{RMS}

100 kHz	750 V_{RMS}	3.75 V_{RMS}	750 V	10 V	-10.1 V_{RMS}	+10.1 V_{RMS}	-5.0 V_{RMS}	+5.0 V_{RMS}
	500 V_{RMS}	2.5 V_{RMS}	750 V	10 V	-6.8 V_{RMS}	+6.8 V_{RMS}	-3.4 V_{RMS}	+3.4 V_{RMS}
	50 V_{RMS}	0.25 V_{RMS}	22 V	1 V	-688 mV_{RMS}	+688 mV_{RMS}	-340 mV_{RMS}	+340 mV_{RMS}
	5 V_{RMS}	0.025 V_{RMS}	22 V	0.1 V	- 80.5mV_{RMS}	+80.5 mV_{RMS}	-40 mV_{RMS}	+40 mV_{RMS}
1 MHz	220 V_{RMS}	1.1 V_{RMS}	220 V	1 V	-30.8 V_{RMS}	+30.8 V_{RMS}	-15.4 V_{RMS}	+15.4 V_{RMS}
	100 V_{RMS}	0.5 V_{RMS}	220 V	1 V	-14.0 V_{RMS}	+14.0 V_{RMS}	-7.0 V_{RMS}	+7.0 V_{RMS}
	20 V_{RMS}	0.1 V_{RMS}	22 V	0.1 V	-2.8 V_{RMS}	+2.8 V_{RMS}	-2.4 V_{RMS}	+2.4 V_{RMS}
	5 V_{RMS}	0.025 V_{RMS}	22 V	0.1 V	-713 mV_{RMS}	+713 mV_{RMS}	-350 mV_{RMS}	+350 mV_{RMS}

Initial Test Connection

Caution: Possibility of Electric Shock
Power off all high-voltage signals before making any connections.

Figure 2: AC Gain Connection



1. Calibrator
2. Calibrator amp cable
3. Calibrator amp
4. Low thermal EMF cable with banana plugs
5. NI RM-26999
6. NI SH68F-68F-EPM cable
7. NI BNC-2090A
8. BNC cable
9. BNC to banana plug adaptor
10. DMM
11. Power supply

Verification Procedure

1. Connect all test equipment except the calibrator, as shown in Figure 2.

Repeat 4 times, once for each channel.

2. Ensure that the calibrator output is powered off.

> **Caution: Possibility of Electric Shock**
> Power off all high-voltage signals and set the calibrator to standby before making any connections.

3. Connect the calibrator to the appropriate channel on the DUT. Wait 2 minutes for thermal EMF to stabilize.

Repeat 7 times, once for each frequency setting.

4. Set the calibrator and the DMM to the appropriate frequency defined in Table 2.

Repeat 4 times, once for each set of voltage input values.

5. Configure the DMM to measure the appropriate low voltage input value, as defined in Table 2.
   a. Implement PRESET before taking the measurement.
   b. Set the ACV function to **Synchronously sub-sampled computed true rms technique**.
   c. NI recommends enabling LFILTER for frequencies below 50 kHz.
   d. Perform ACAL, if ACAL has not been performed within the last 24 hours or if the temperature has drifted more than ±1 °C from last ACAL temperature.
6. Configure the calibrator to the appropriate high voltage input value, as defined in Table 2.
7. Enable the calibrator to source the high voltage input value.

8. Allow the DMM and calibrator to settle before taking a measurement. NI recommends a settling time of 10 seconds.

> **Note**
> A settling time of 10 seconds accommodates any changes to range, polarity, and thermal EMF effects that increase the base settling time.

9. Take the measurement with the DMM.

10. Scale the DMM measurement with the coefficients stored on the DUT EEPROM.

    a. `RM-26999 Initialize Voltage Channel.vi`

    b. `RM-26999.lib\_getChannelsFromTask.vi`

    c. `RM-26999.lib\_filterPhysicalChannels.vi`

    d. `RM-26999.lib\_retrieveVoltageScaling.vi`

    e. `RM-26999 Close.vi`

> **Note**
> To find the RM-26999 VIs, navigate to **vi.lib»NI»RM-26999»rm-26999.llb** the LabVIEW folder.

11. Compare the scaled measurement with the test limits defined in Table 2.

$$DUT\ Measurement = DMM\ Measurement \times DUT\ Gain + DUT\ Offset$$

12. Power off the calibrator output.

Perform Adjustment

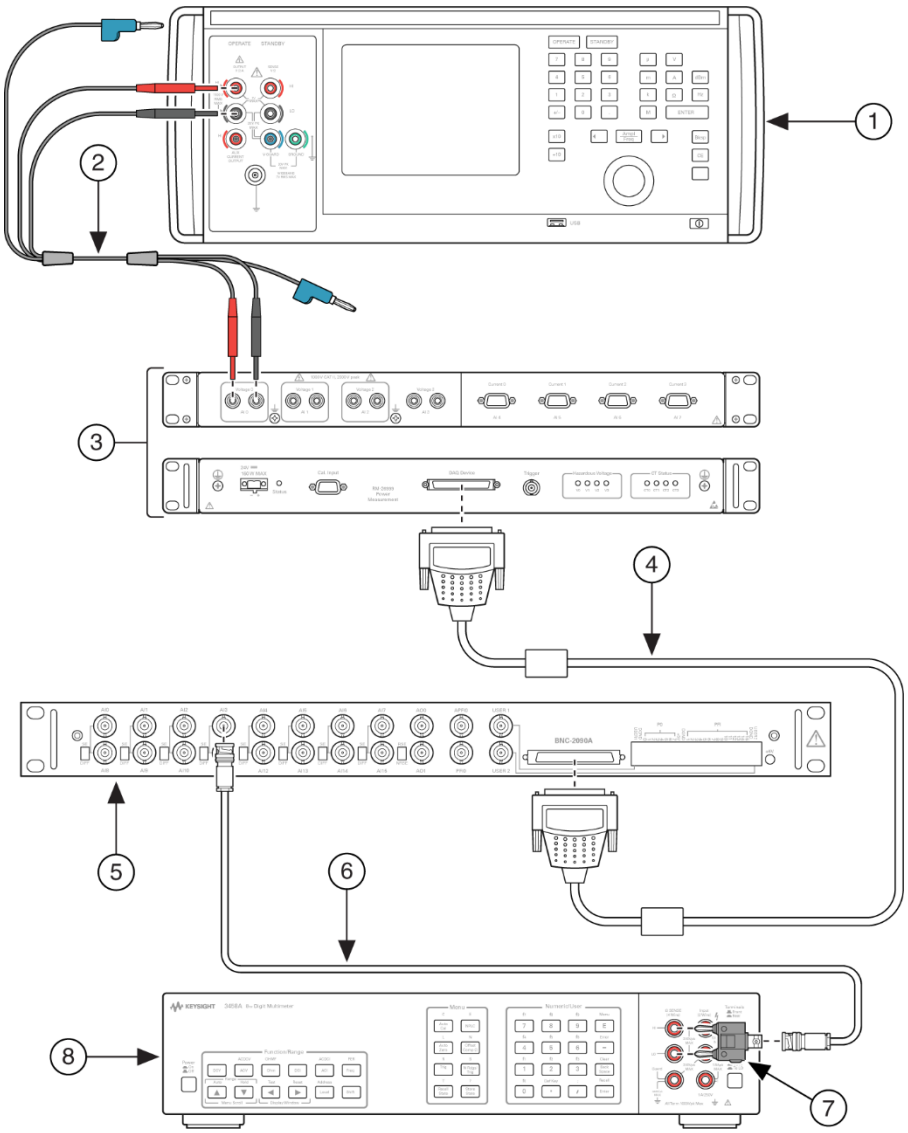
Perform an adjustment at least once within the calibration interval. Adjustment automatically updates the calibration constants, the date, and the temperature in the DUT EEPROM. If the DUT passes the verification procedures within the As-Left test limits, an adjustment is not required.

Note
NI recommends an adjustment to optimize the measurement performance of the DUT even if it passes verification within the As-Left limits.

Initial Test Connection

Caution: Possibility of Electric Shock
Power off all high-voltage signals before making any connections.

Figure 3: DC Gain Connection



1. Calibrator
2. Low thermal EMF cable with banana plugs
3. NI RM-26999
4. NI SH68F-68F-EPM cable
5. NI BNC-2090A
6. BNC cable
7. BNC to banana plug adaptor
8. DMM
9. Power supply

Adjustment Procedure

1. Connect all test equipment except the calibrator, as shown in Figure 3.
2. Call `RM-26999 Open External Calibration.vi`.

Note
Do not call `RM-26999 Close External Calibration.vi` before completing all adjustment steps. Closing the session early will invalidate all adjustments and measurements.

3. Call `RM-26999 Configure DC Calibration Stimulus.vi`.
   a. Use the high voltage values from Table 3 as input for the VI.

Repeat 2 times, once for each polarity.

Repeat 4 times, once for each channel.

4. Power off the calibrator output.

Caution: Possibility of Electric Shock
Power off all high-voltage signals before making any connections.

5. Connect the calibrator output to channel 1 on the DUT.

Repeat 4 times, once for each set of voltage values.

Table 3: DC Adjustment Test Points

High Voltage Value	Calibrator Range	Low Voltage Value	DMM Range
995 V	1100 V	4.975 V	10 V
500 V		2.5 V	
200 V	220 V	1 V	1 V
-200 V		-1 V	
-500 V	1100 V	-2.5 V	10 V
-995 V		-4.975 V	

6. Configure the DMM to the low voltage value, as defined in Table 3.
7. Enable the calibrator to source the high voltage value, as defined in Table 3.
8. Allow the DMM and calibrator to settle before taking a measurement. NI recommends a settling time of 10 seconds.

Note
A settling time of 10 seconds accommodates any changes to range, polarity, and thermal EMF effects that increase the base settling time.

9. Take the measurement with the DMM.
10. Call `RM-26999 Adjust DC Gain Calibration.vi`.
    a. Use the high voltage value as the reference voltage signal, as defined in Table 3.
    b. Use the low voltage value as the measured voltage signal, as defined in Table 3.

Repeat 4 times, once for each channel.

Repeat 1 time, once for each set of voltage values.

Table 4: Voltage Offset Test Points

High Voltage Value	Calibrator Range	Low Voltage Value	DMM Range
0 V	220 mV	0 V	100 mV

11. Configure the DMM to measure the low voltage value, as defined in Table 4.
12. Configure the calibrator to the high voltage value, as defined in Table 4.
13. Enable the calibrator to source the high voltage value.
14. Allow the DMM and calibrator to settle before taking a measurement. NI recommends a settling time of 10 seconds.

Note
A settling time of 10 seconds accommodates any changes to range, polarity, and thermal EMF effects that increase the base settling time.

15. Take the measurement with the DMM.
16. Call `RM-26999 Adjust DC Offset Calibration.vi`.
    a. Use the low voltage value as the measured voltage signal, as defined in Table 4.
17. Call `RM-26999 Get AC Calibration Stimulus.vi`.

Repeat 4 times, once for each channel.

Repeat 2 times, once for each signal path.

Repeat 1 time, once for each frequency.

Table 5: AC Voltage Test Point

Frequency	High Voltage Value	Calibrator Range	Low Voltage Value	DMM Range
15 kHz	10 V_{RMS}	22 V_{RMS}	50 mV_{RMS}	100 mV_{RMS}

18. Configure the DMM to measure the low voltage value, as defined in Table 5.
19. Enable the calibrator to source the high voltage value, as defined in Table 5.
20. Allow the DMM and calibrator to settle before taking a measurement. NI recommends a settling time of 10 seconds.

Note
A settling time of 10 seconds accommodates any changes to range, polarity, and thermal EMF effects that increase the base settling time.

21. Take the measurement with the DMM.

22. Call `RM-26999 Adjust AC Calibration.vi`.
    a. Use the high voltage value as the adjustment signal, as defined in Table 5.
    b. Use the low voltage value as the measured voltage signal, as defined in Table 5.
23. Call `RM-26999 Close External Calibration.vi` with the **commit** action to store all scaling coefficients for both DC and AC on the DUT EEPROM.

Perform Reverification

Perform all tests in the Verification section after completing Adjustment. This verification compares the As-Left limits with measurement data collected after the DUT adjustment. The As-Left limits may be tighter than the As-Found limits.

Revision History

Revision	Section	Changes
377699A-01 December 2020	—	This is the initial release version of the RM-26999 Calibration Procedure.

NI Services

Visit ni.com/support to find support resources including documentation, downloads, and troubleshooting and application development self-help such as tutorials and examples.

Visit ni.com/services to learn about NI service offerings such as calibration options, repair, and replacement.

Visit ni.com/register to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

NI corporate headquarters is located at 11500 N Mopac Expwy, Austin, TX 78759-3504, USA.

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