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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Typical Performance Curves

1.0 TYPICAL PERFORMANCE CURVES

Note 1: The following performance graphs are for the devices that are documented in the MCP48FEBXX data sheet (DS-20005429). This document allows the MCP48FEBXX data sheet's functional description to be in PDF format with a file size smaller than the 10 MB limit of many email file servers.

The graphs and tables provided following this note are a statistical summary based on a limited number of samples and are provided for informational purposes only. The performance characteristics listed herein are not tested or guaranteed. In some graphs or tables, the data presented may be outside the specified operating range (e.g., outside specified power supply range) and therefore outside the warranted range.

2: For quick indexing of Characterization Graphs, expand the PDF bookmarks. Graphs related to all devices (I_{DD} , I_{PD} , V_{IH} , V_{IL} , V_{OH} , V_{OL} , V_{IHH} , and V_{OUT} drive) are before the device V_{OUT} linearity graphs (Total Unadjusted Error, INL, and DNL).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

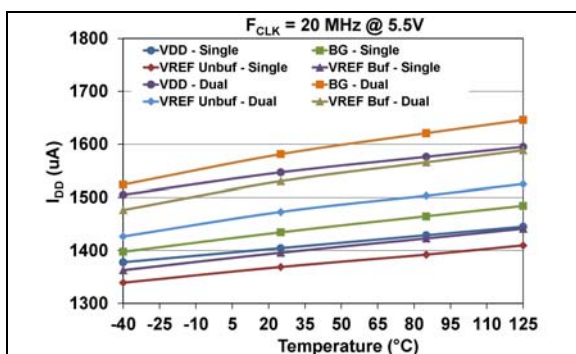


FIGURE 1-1: Average Device Supply Active Current (I_{DDA}) (at 5.5V and $F_{SCK} = 20\text{ MHz}$) vs. Temperature and DAC Reference Voltage Mode.

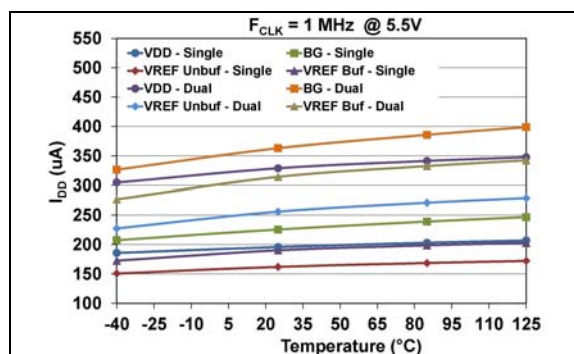


FIGURE 1-3: Average Device Supply Active Current (I_{DDA}) (at 5.5V and $F_{SCK} = 1\text{ MHz}$) vs. Temperature and DAC Reference Voltage Mode.

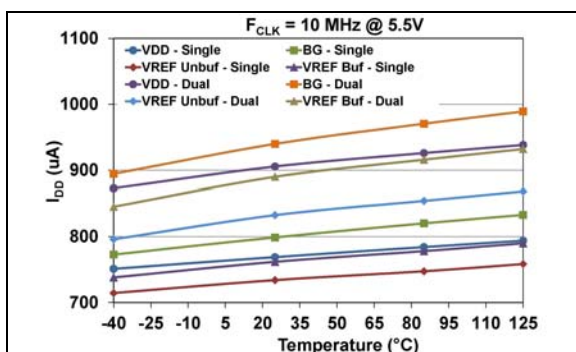


FIGURE 1-2: Average Device Supply Active Current (I_{DDA}) (at 5.5V and $F_{SCK} = 10\text{ MHz}$) vs. Temperature and DAC Reference Voltage Mode.

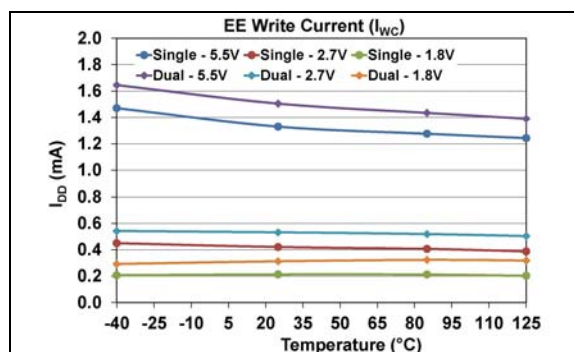


FIGURE 1-4: Average Device EEPROM Write Cycle Current (I_{WC}) vs. Temperature and Voltage. (MCP48FEBXX only).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

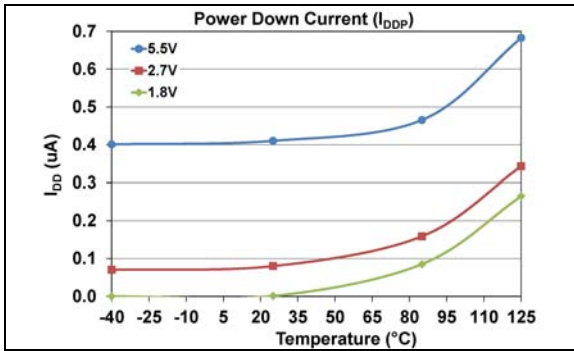


FIGURE 1-5: Average Power-Down Current (I_{DDP}) vs. Temperature and Voltage.

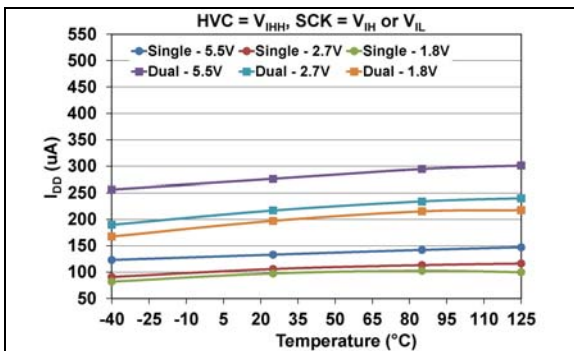


FIGURE 1-6: Average Device Current with High Voltage Command Pin (HVC) = V_{IH} , SCK = V_{IH} or V_{IL} vs. Temperature and Voltage, SCK = V_{IH} or V_{IL} .

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

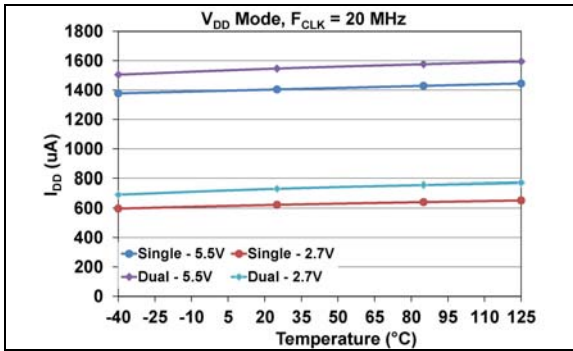


FIGURE 1-7: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 20\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '00'$ (V_{DD} mode).

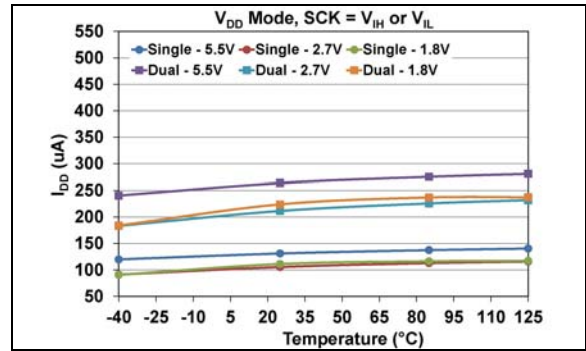


FIGURE 1-10: Average Device Supply Current - Inactive Interface (I_{DD}) ($SCK = V_{IH}$ or V_{IL}) vs. Voltage and Temperature, $VRxB:VRxA = '00'$ (V_{DD} mode).

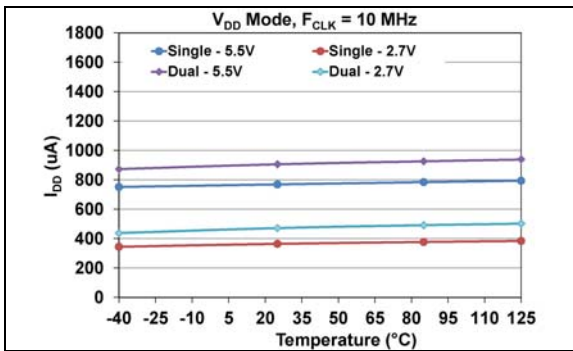


FIGURE 1-8: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 10\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '00'$ (V_{DD} mode).

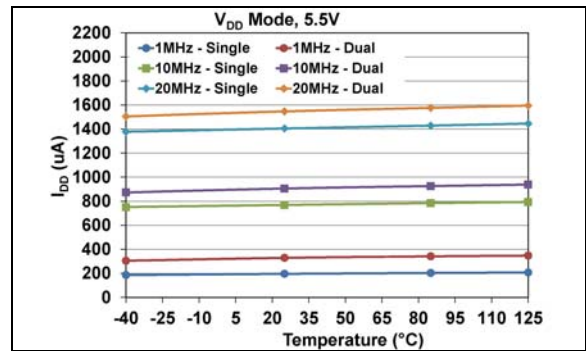


FIGURE 1-11: Average Device Supply Current vs. F_{SCK} Frequency, Voltage and Temperature, $VRxB:VRxA = '00'$ (V_{DD} mode).

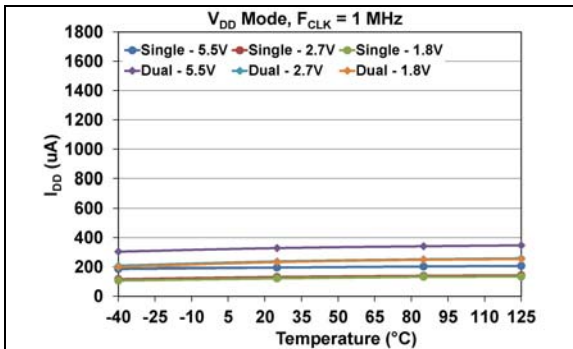


FIGURE 1-9: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 1\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '00'$ (V_{DD} mode).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

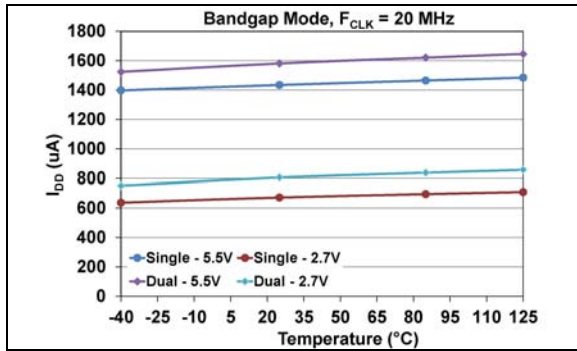


FIGURE 1-12: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 20\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '01'$ (Bandgap mode).

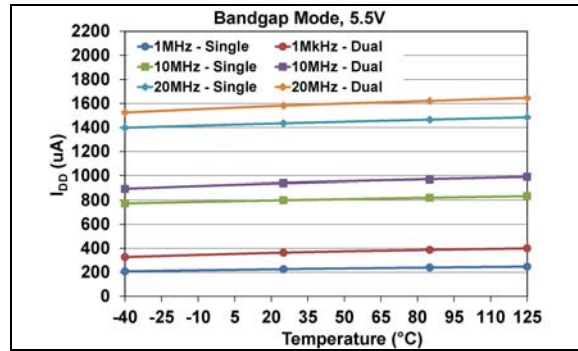


FIGURE 1-15: Average Device Supply Current vs. F_{SCK} Frequency, Voltage and Temperature, $VRxB:VRxA = '01'$, (Bandgap mode).

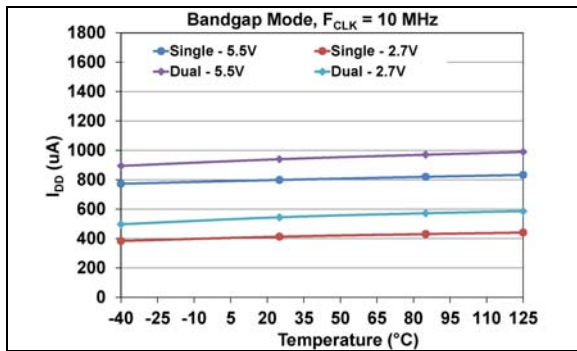


FIGURE 1-13: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 10\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '01'$ (Bandgap mode).

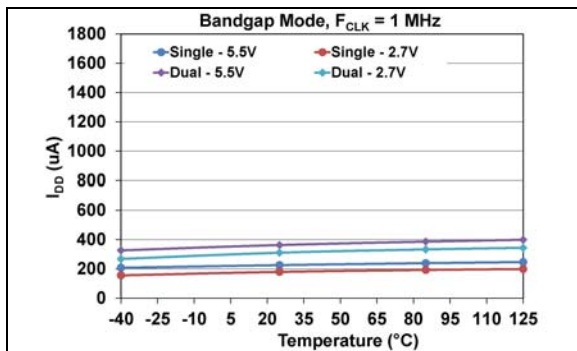


FIGURE 1-14: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 1\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '01'$ (Bandgap mode).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

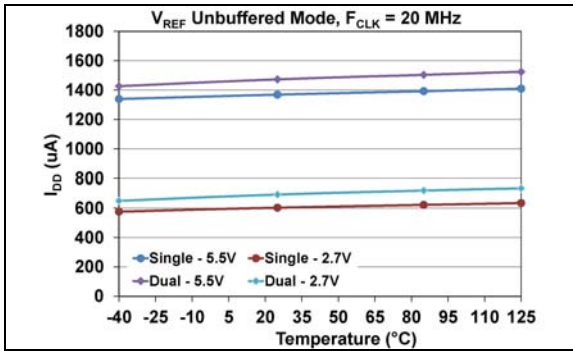


FIGURE 1-16: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 20\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered mode).

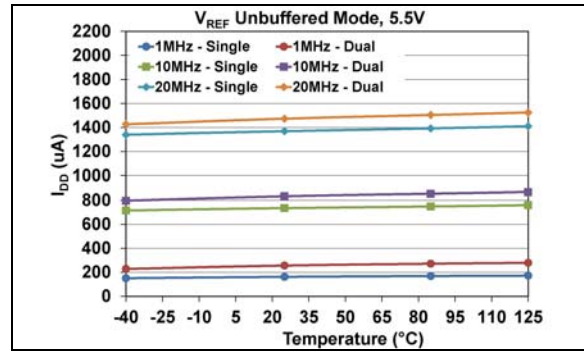


FIGURE 1-19: Average Device Supply Current vs. F_{SCK} Frequency, Voltage and Temperature, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered mode).

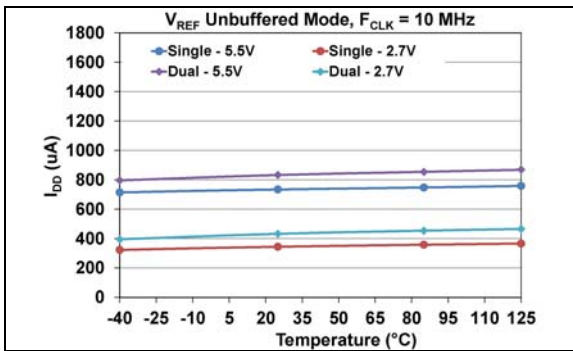


FIGURE 1-17: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 10\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered mode).

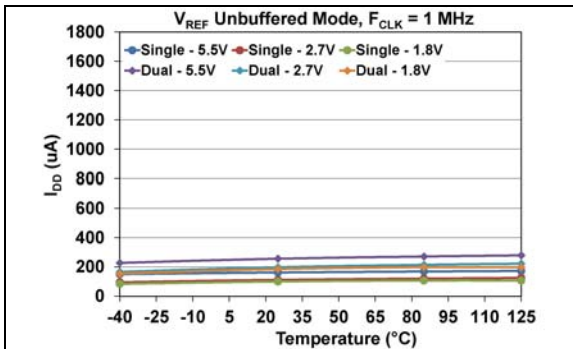


FIGURE 1-18: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 1\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered mode).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

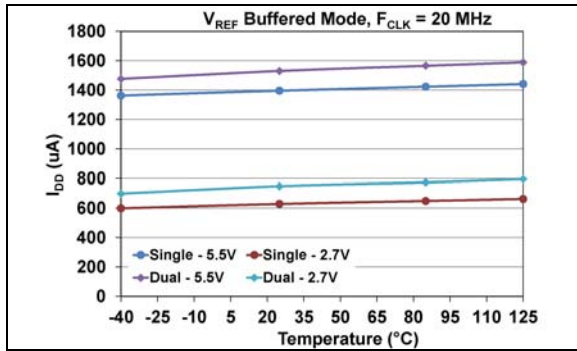


FIGURE 1-20: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 20\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '11'$ (V_{REF} Buffered mode).

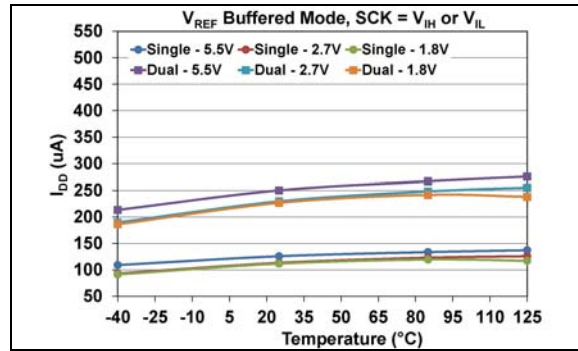


FIGURE 1-23: Average Device Supply Current - Inactive Interface (I_{DD}) ($SCK = V_{IH}$ or V_{IL}) vs. Voltage and Temperature, $VRxB:VRxA = '11'$ (V_{REF} Buffered mode).

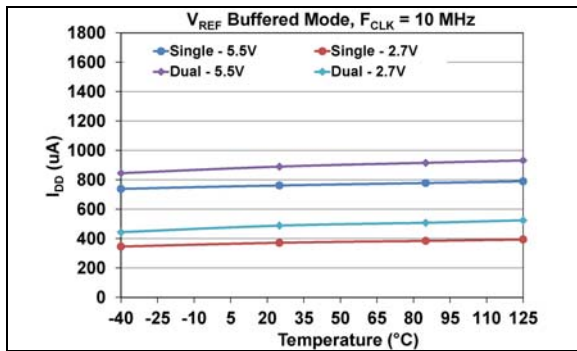


FIGURE 1-21: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 10\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '11'$ (V_{REF} Buffered mode).

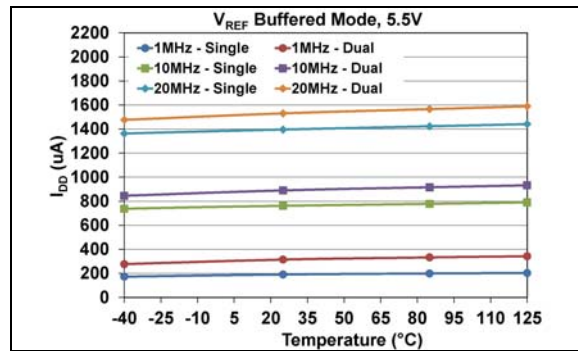


FIGURE 1-24: Average Device Supply Current vs. F_{SCK} Frequency, Voltage and Temperature, $VRxB:VRxA = '11'$ (V_{REF} Buffered mode).

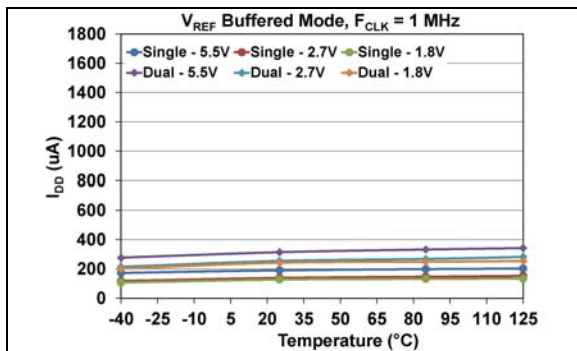


FIGURE 1-22: Average Device Supply Current - Active Interface (I_{DDA}) ($F_{SCK} = 1\text{ MHz}$) vs. Voltage and Temperature, $VRxB:VRxA = '11'$ (V_{REF} Buffered mode).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

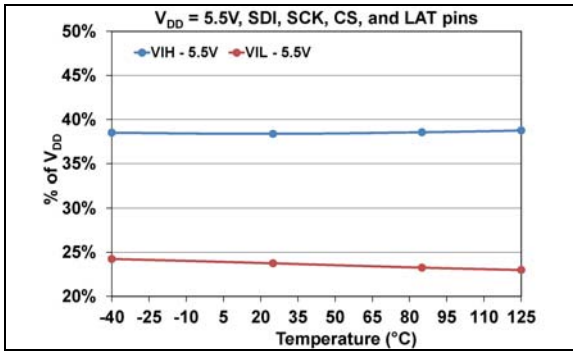


FIGURE 1-25: Average V_{IH} and V_{IL} (\overline{SDI} , \overline{SCK} , \overline{CS} , and \overline{LAT} pins) ($V_{DD} = 5.5\text{V}$) vs. Temperature.

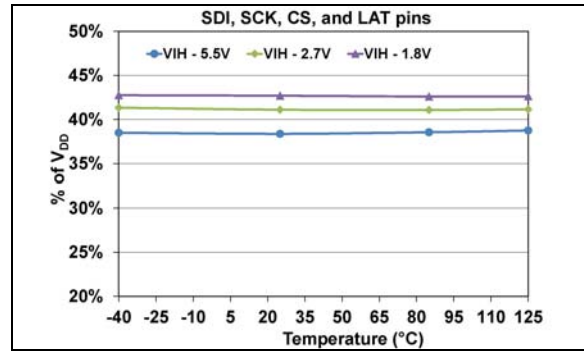


FIGURE 1-28: Average V_{IH} (\overline{SDI} , \overline{SCK} , \overline{CS} , and \overline{LAT} pins) vs. Voltage and Temperature.

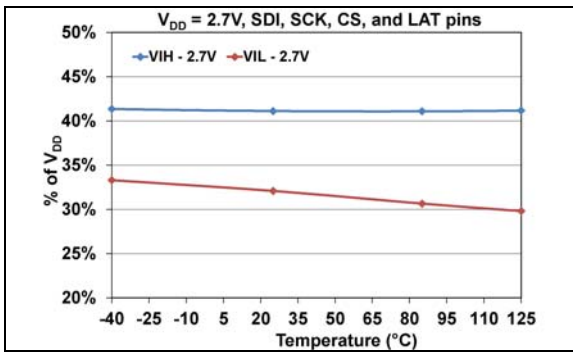


FIGURE 1-26: Average V_{IH} and V_{IL} (\overline{SDI} , \overline{SCK} , \overline{CS} , and \overline{LAT} pins) ($V_{DD} = 2.7\text{V}$) vs. Temperature.

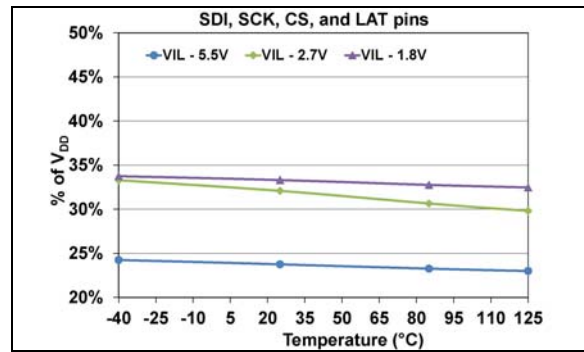


FIGURE 1-29: Average V_{IL} (\overline{SDI} , \overline{SCK} , \overline{CS} , and \overline{LAT} pins) vs. Voltage and Temperature.

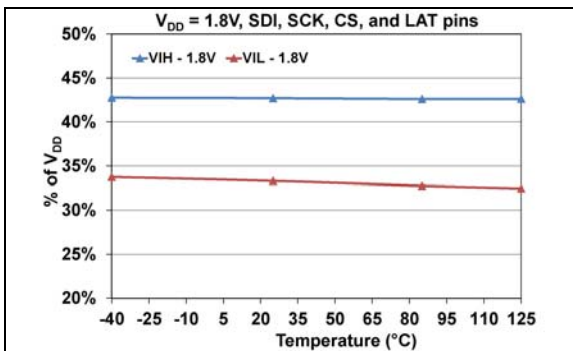


FIGURE 1-27: Average V_{IH} and V_{IL} (\overline{SDI} , \overline{SCK} , \overline{CS} , and \overline{LAT} pins) ($V_{DD} = 1.8\text{V}$) vs. Temperature.

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

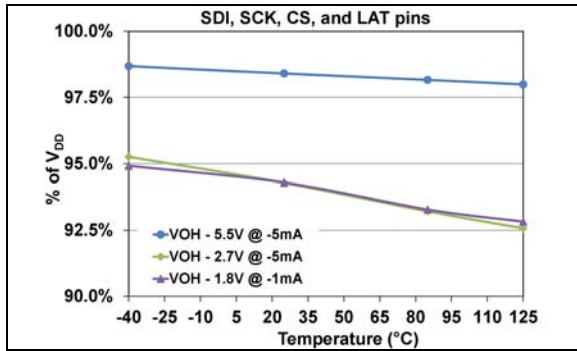


FIGURE 1-30: Average V_{OH} (SDO pin) vs. Voltage and Temperature.

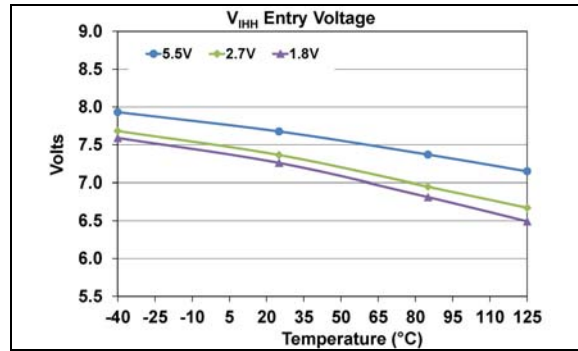


FIGURE 1-32: Average HVC pin High Voltage Entry Voltage ($V_{IHENTRY}$) vs. V_{DD} Voltage and Temperature.

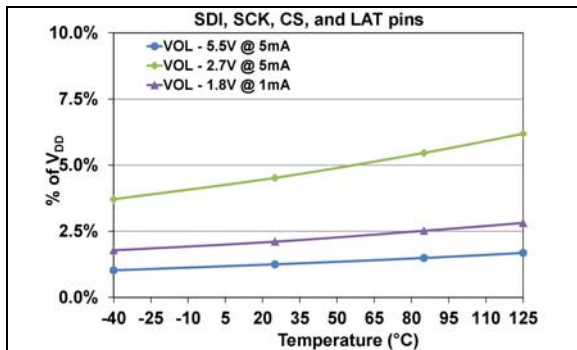


FIGURE 1-31: Average V_{OL} (SDO pin) vs. Voltage and Temperature.

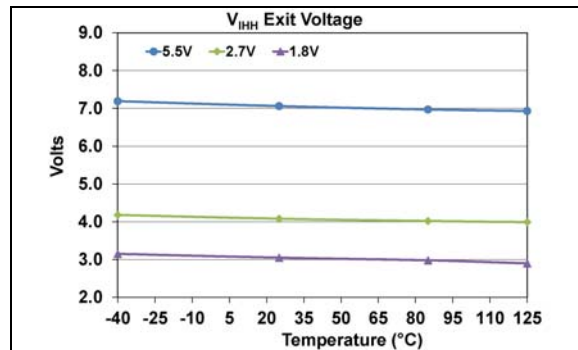


FIGURE 1-33: Average HVC pin High Voltage Exit Voltage (V_{IHEXIT}) vs. V_{DD} Voltage and Temperature.

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

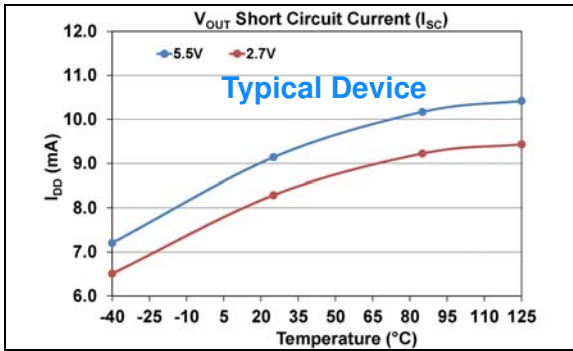


FIGURE 1-34: V_{OUT} Short-Circuit Current (I_{SC}) vs. Voltage and Temperature.

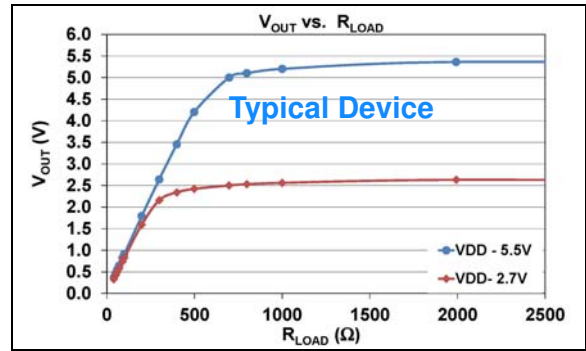


FIGURE 1-37: V_{OUT} vs. R_{LOAD} and Voltage (at $+25^\circ\text{C}$) ($R_{LOAD} 0\Omega - 2500\Omega$).

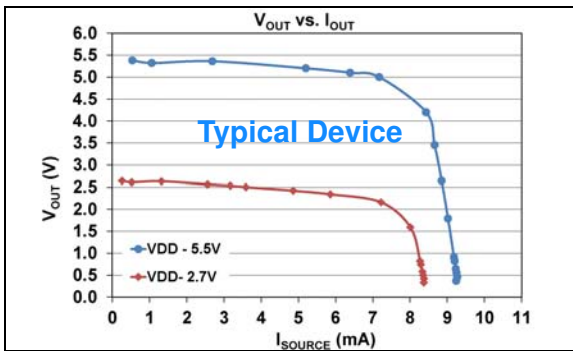


FIGURE 1-35: V_{OUT} vs. I_{OUT} and Voltage (at $+25^\circ\text{C}$).

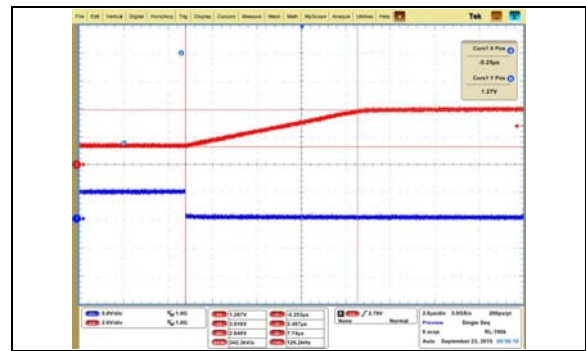


FIGURE 1-38: Half-Scale Settling Time – 400h to C00h (MCP48FXB2X).

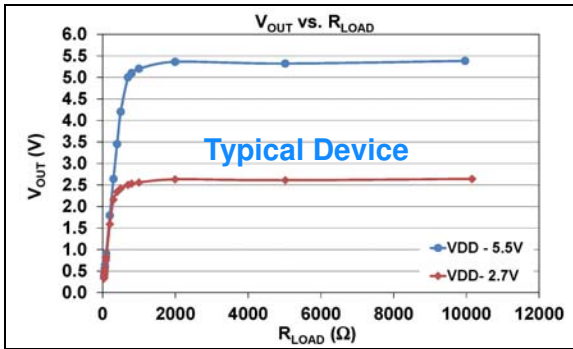


FIGURE 1-36: V_{OUT} vs. R_{LOAD} and Voltage (at $+25^\circ\text{C}$).

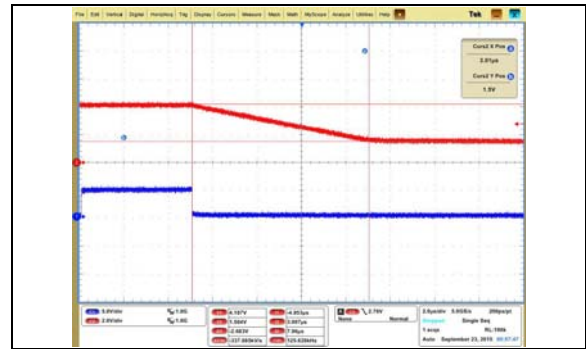


FIGURE 1-39: Half-Scale Settling Time – C00h to 400h (MCP48FXB2X).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '00'$ (V_{DD} Mode), $Gx = '0'$ (1x)

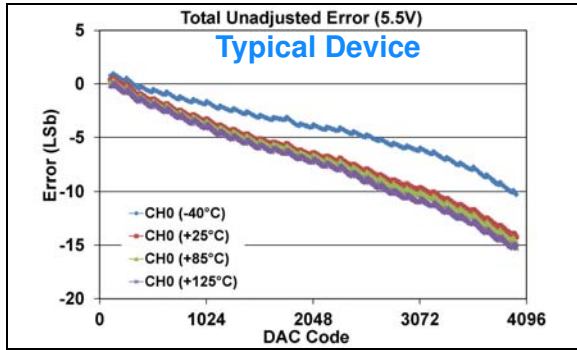


FIGURE 1-40: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)
(12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

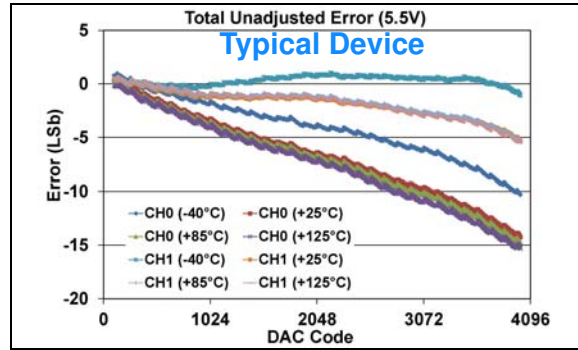


FIGURE 1-43: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)
(12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

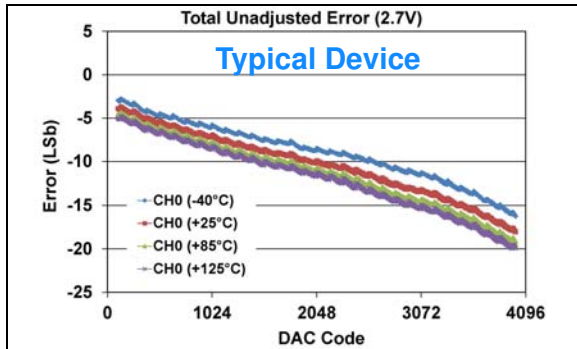


FIGURE 1-41: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)
(12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

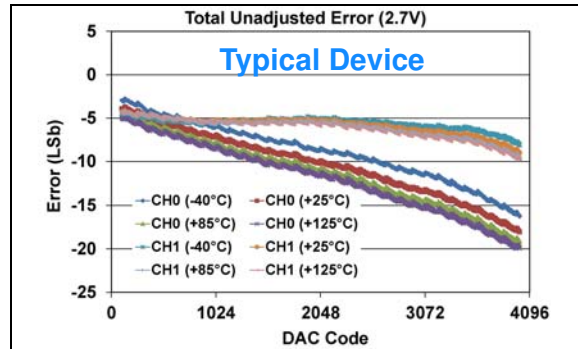


FIGURE 1-44: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)
(12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

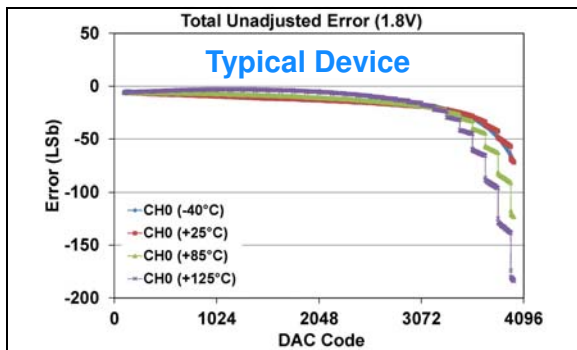


FIGURE 1-42: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)
(12-bit: $V_{DD} = 1.8\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)),
(see [Appendix B.1](#) for additional information).

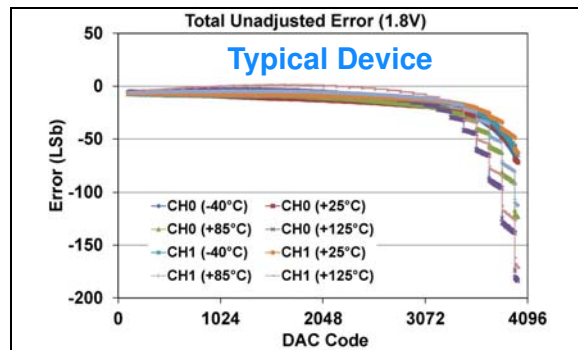


FIGURE 1-45: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)
(12-bit: $V_{DD} = 1.8\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)),
(see [Appendix B.1](#) for additional information).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '00'$ (V_{DD} Mode), $Gx = '0'$ (1x)

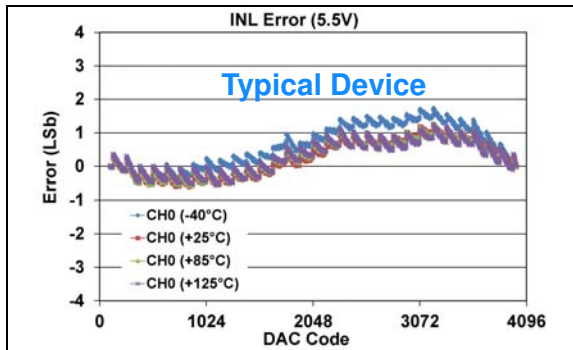


FIGURE 1-46: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

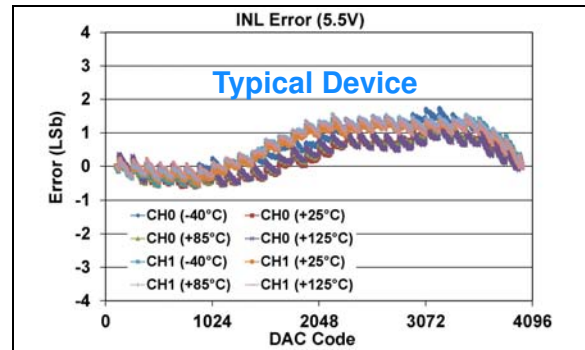


FIGURE 1-49: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

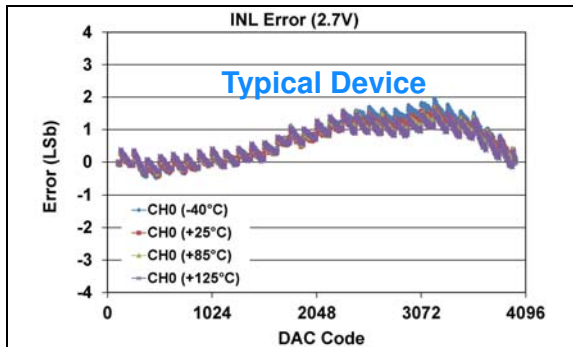


FIGURE 1-47: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

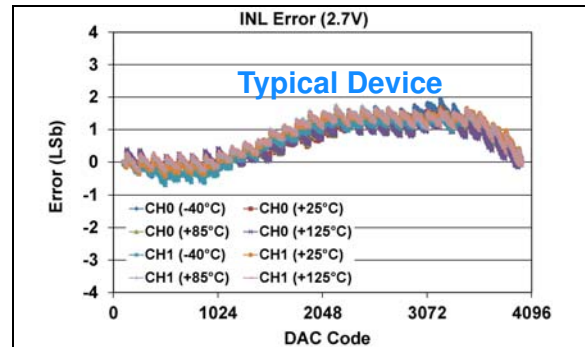


FIGURE 1-50: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

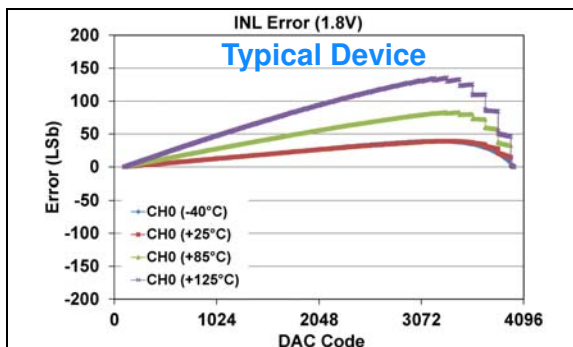


FIGURE 1-48: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 1.8\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)), (see [Appendix B.1](#) for additional information).

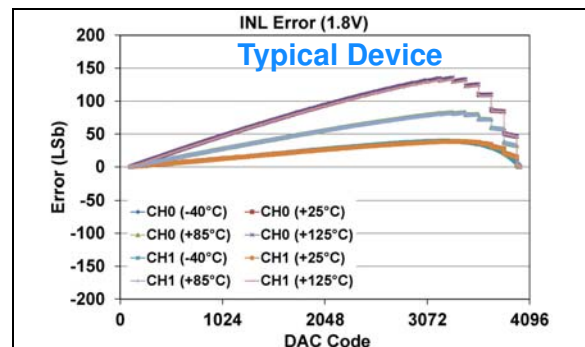


FIGURE 1-51: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 1.8\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)), (see [Appendix B.1](#) for additional information).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '00'$ (V_{DD} Mode), $Gx = '0'$ (1x)

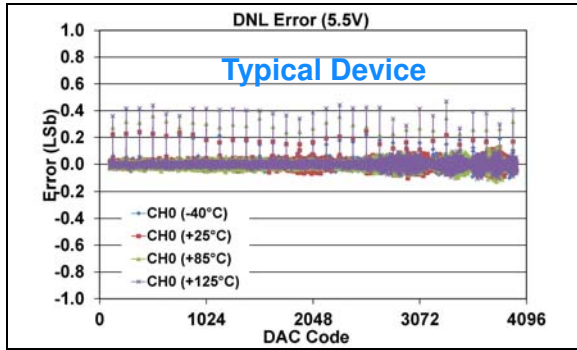


FIGURE 1-52: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

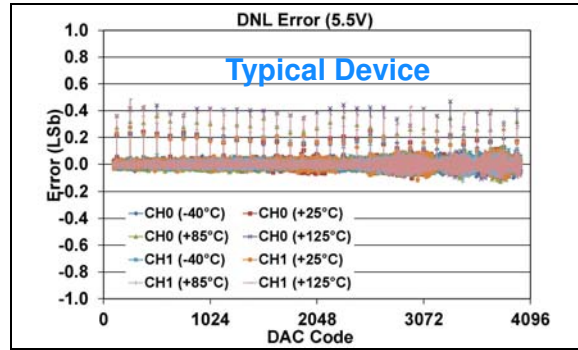


FIGURE 1-55: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

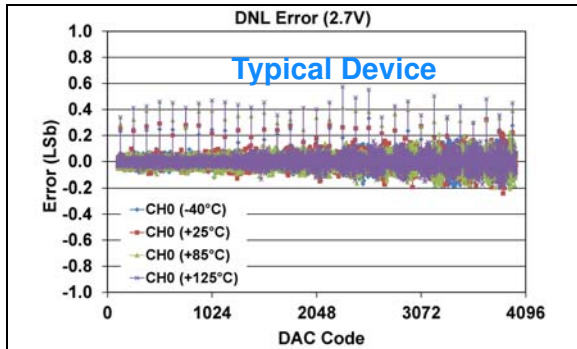


FIGURE 1-53: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

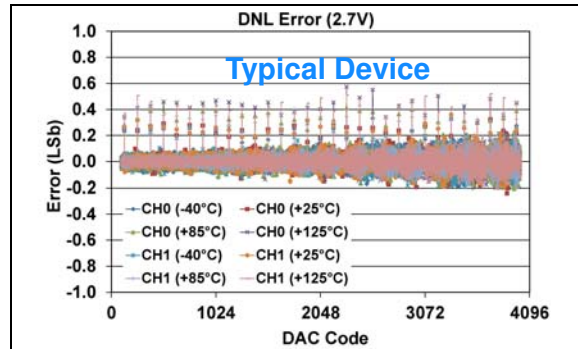


FIGURE 1-56: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)).

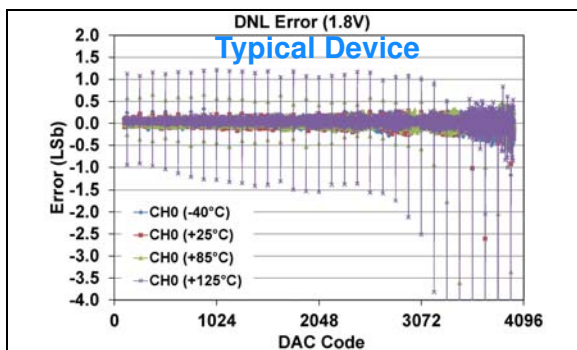


FIGURE 1-54: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (12-bit: $V_{DD} = 1.8\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)), (see [Appendix B.1](#) for additional information).

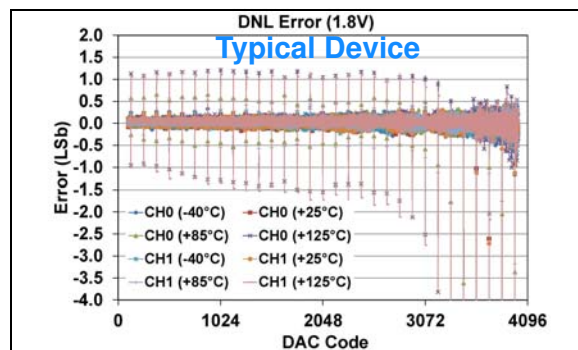


FIGURE 1-57: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (12-bit: $V_{DD} = 1.8\text{V}$, $VRxB:VRxA = '00'$ (V_{DD}), $Gx = '0'$ (1x)), (see [Appendix B.1](#) for additional information).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '01'$ (Bandgap Mode)

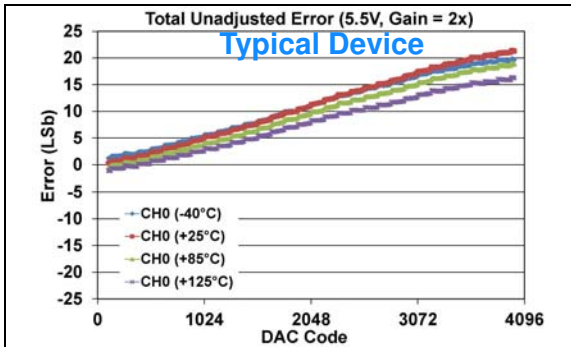


FIGURE 1-58: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '1'$ (2x)).

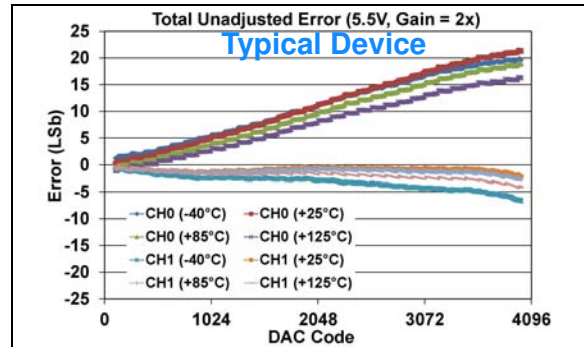


FIGURE 1-61: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '1'$ (2x)).

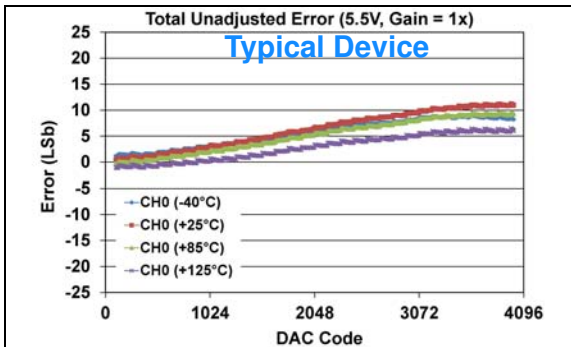


FIGURE 1-59: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

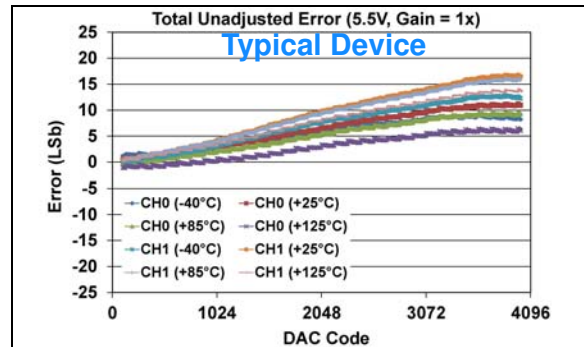


FIGURE 1-62: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

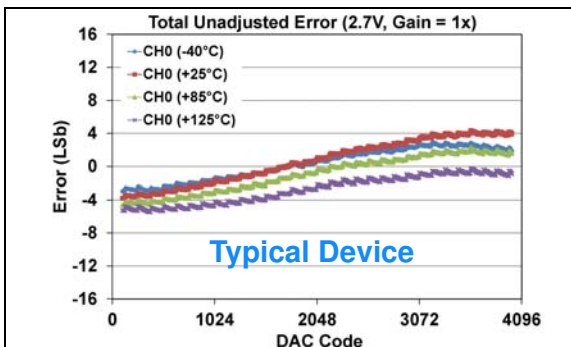


FIGURE 1-60: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

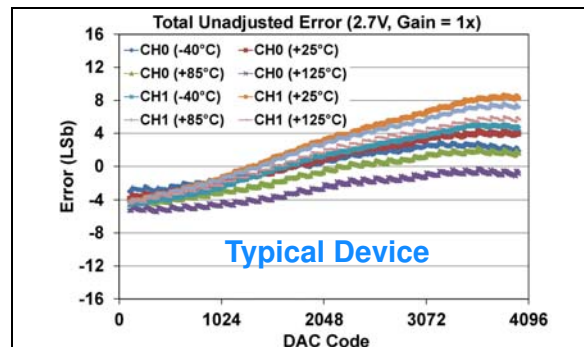


FIGURE 1-63: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '01'$ (Bandgap Mode)

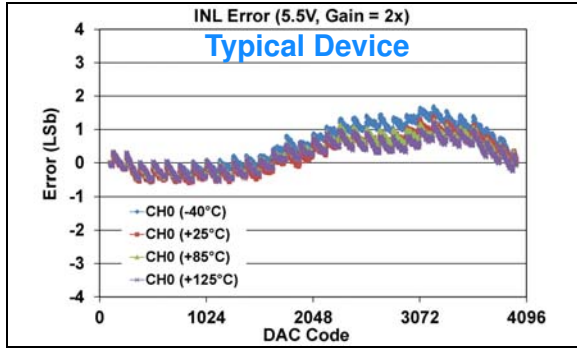


FIGURE 1-64: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '1'$ (2x)).

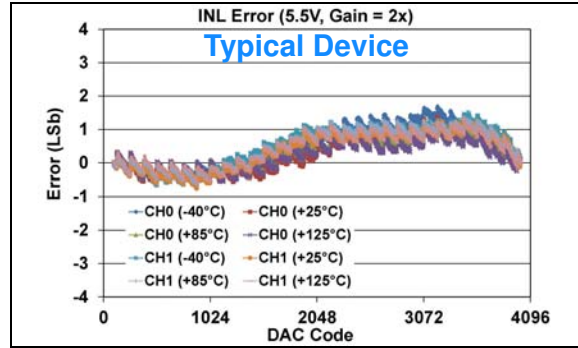


FIGURE 1-67: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '1'$ (2x)).

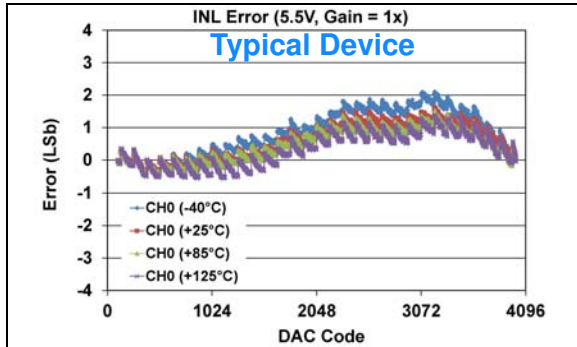


FIGURE 1-65: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

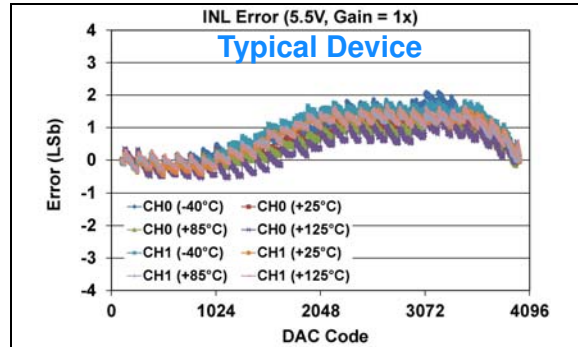


FIGURE 1-68: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (12-bit: $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

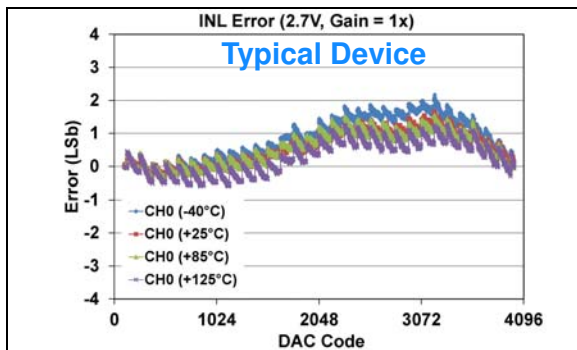


FIGURE 1-66: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

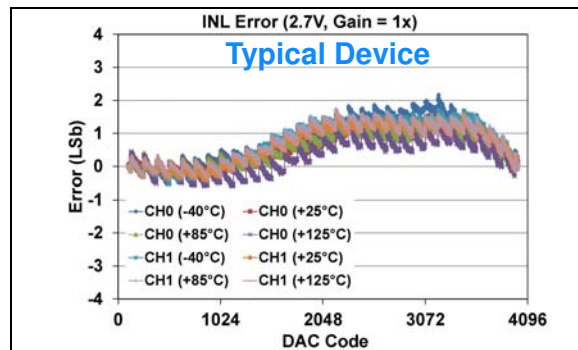


FIGURE 1-69: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (12-bit: $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $Gx = '0'$ (1x)).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '01'$ (Bandgap Mode)

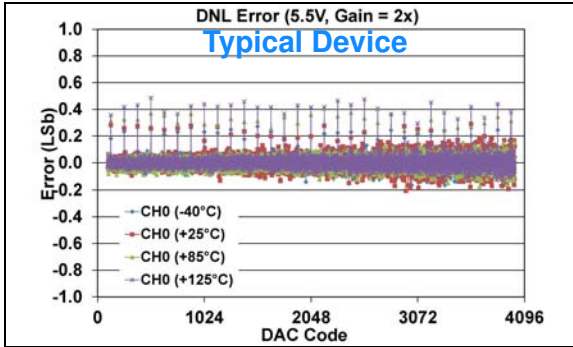


FIGURE 1-70: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (**12-bit:** $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $G_x = '1'$ (2x)).

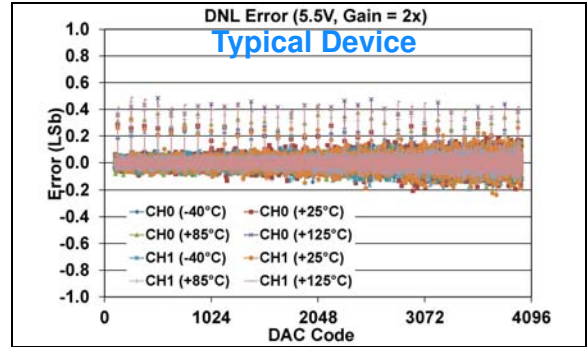


FIGURE 1-73: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (**12-bit:** $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $G_x = '1'$ (2x)).

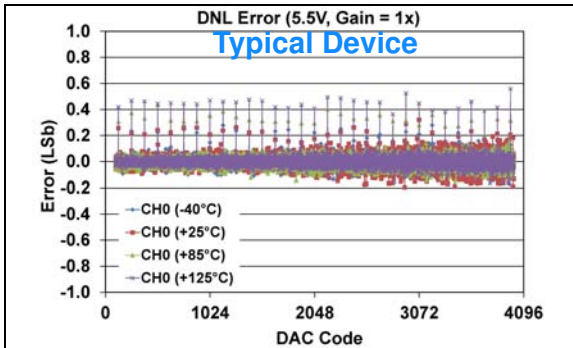


FIGURE 1-71: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (**12-bit:** $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $G_x = '0'$ (1x)).

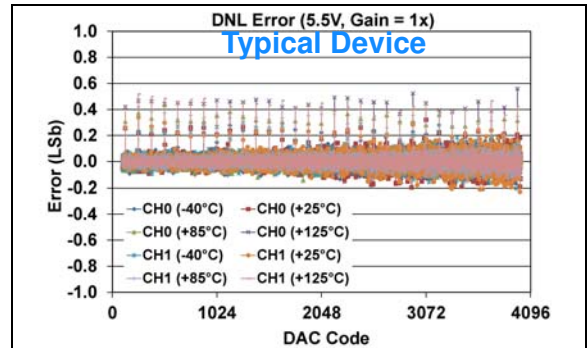


FIGURE 1-74: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (**12-bit:** $V_{DD} = 5.5\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $G_x = '0'$ (1x)).

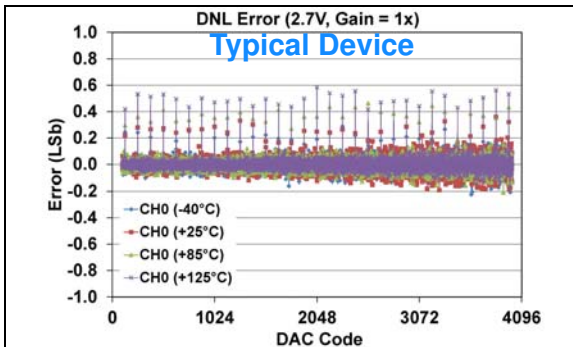


FIGURE 1-72: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - **MCP48FXB21**) (**12-bit:** $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $G_x = '0'$ (1x)).

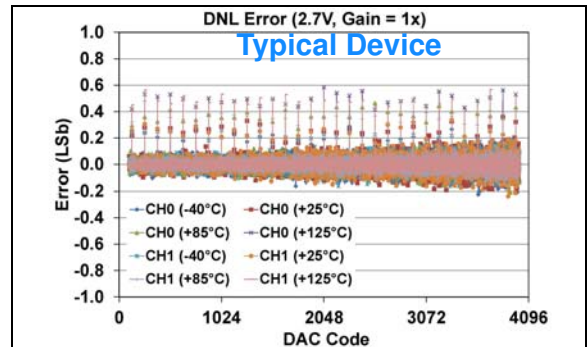


FIGURE 1-75: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - **MCP48FXB22**) (**12-bit:** $V_{DD} = 2.7\text{V}$, $VRxB:VRxA = '01'$ (Bandgap), $G_x = '0'$ (1x)).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = V_{DD}$, $Gx = '0'$ (1x)

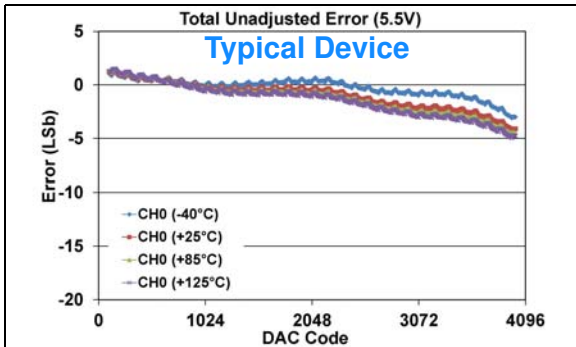


FIGURE 1-76: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)

(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

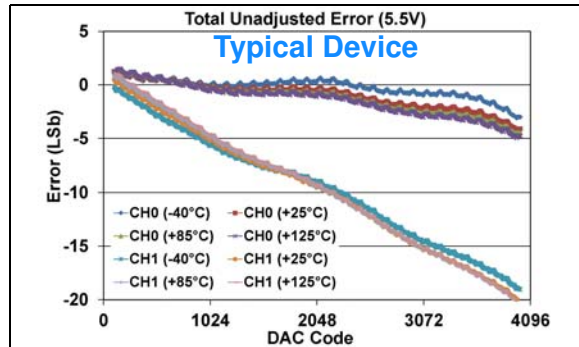


FIGURE 1-79: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)

(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

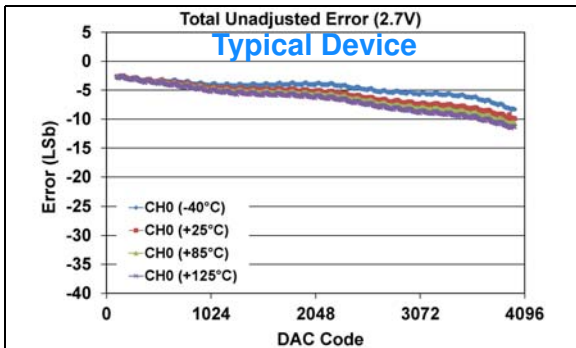


FIGURE 1-77: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)

(12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

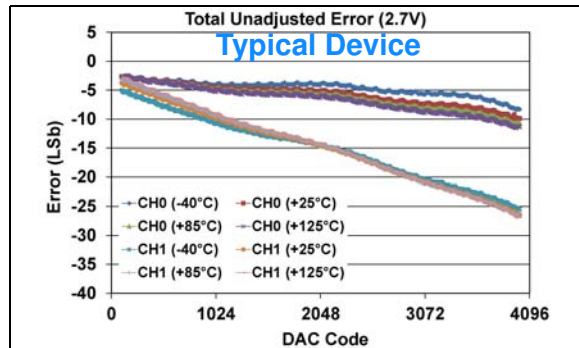


FIGURE 1-80: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)

(12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

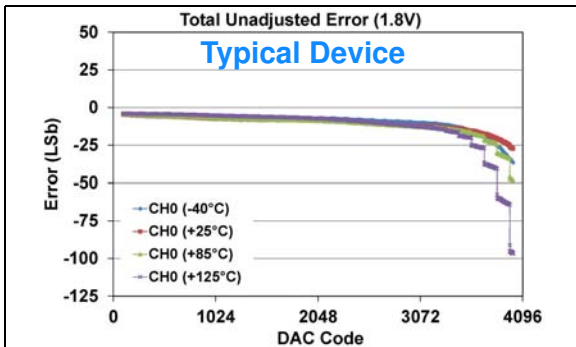


FIGURE 1-78: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)

(12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x), (see [Appendix B.2](#) for additional information).

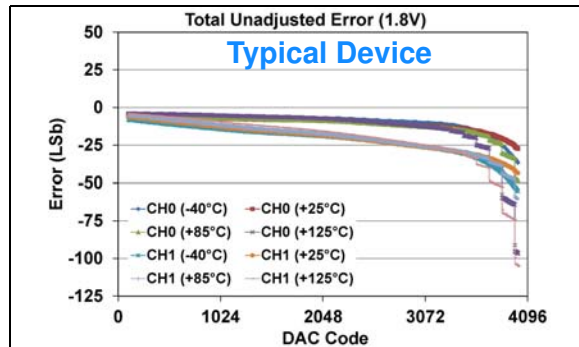


FIGURE 1-81: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)

(12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x), (see [Appendix B.2](#) for additional information).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = V_{DD}$, $Gx = '0'$ (1x)

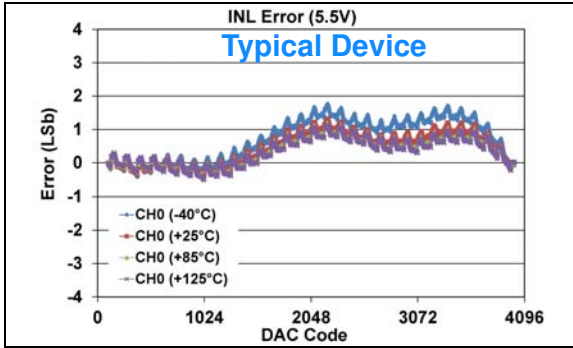


FIGURE 1-82: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

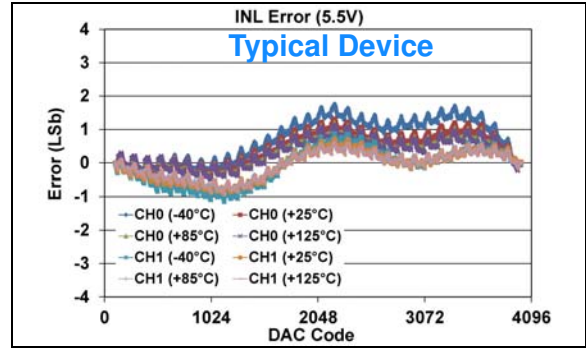


FIGURE 1-85: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

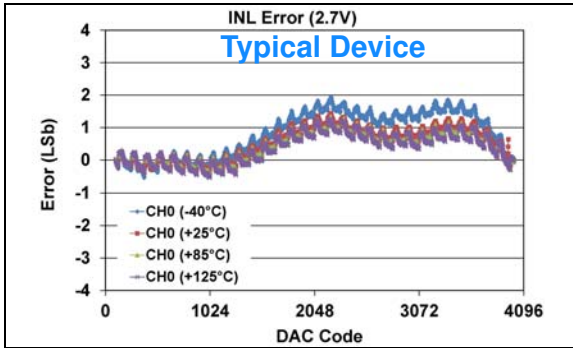


FIGURE 1-83: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

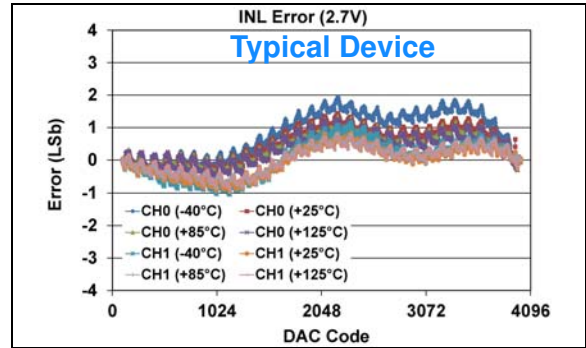


FIGURE 1-86: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

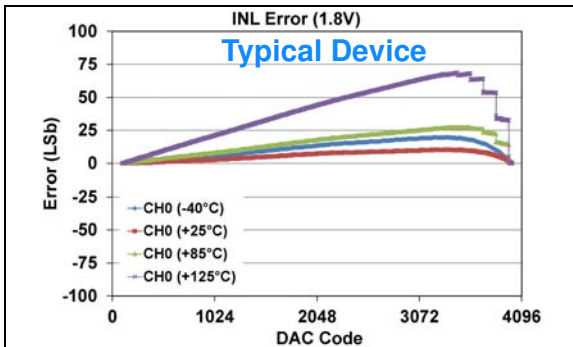


FIGURE 1-84: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)), (see [Appendix B.2](#) for additional information).

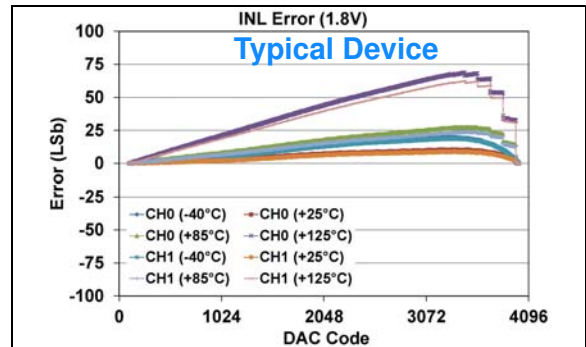


FIGURE 1-87: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)), (see [Appendix B.2](#) for additional information).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = V_{DD}$, $Gx = '0'$ (1x)

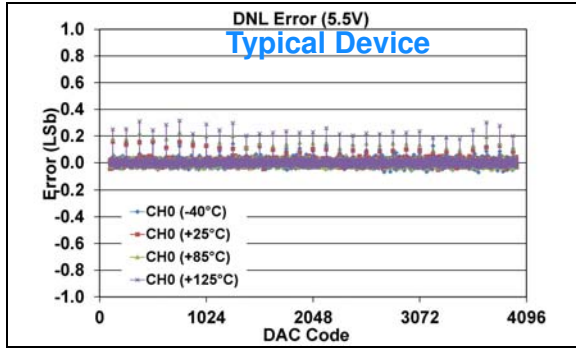


FIGURE 1-88: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

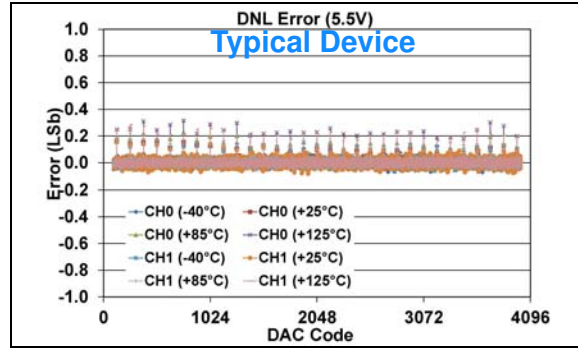


FIGURE 1-91: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

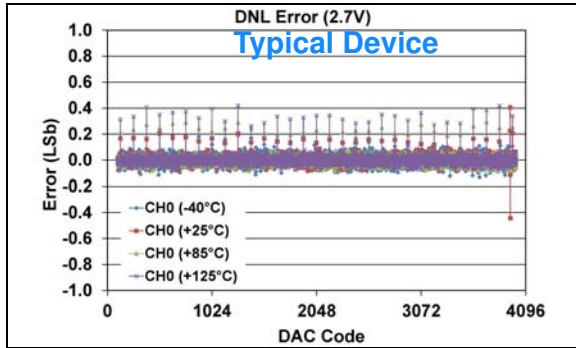


FIGURE 1-89: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

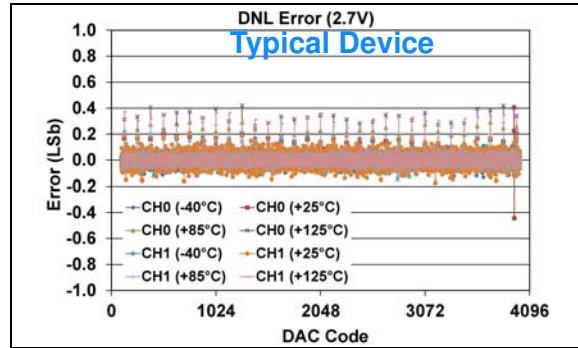


FIGURE 1-92: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

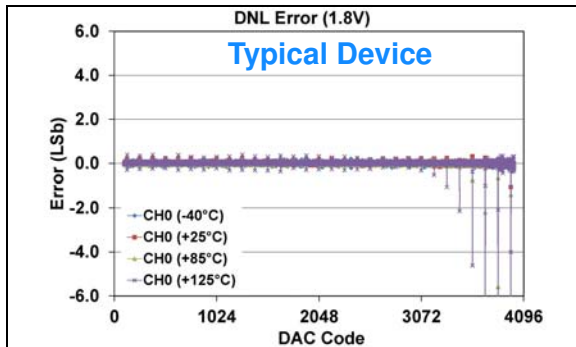


FIGURE 1-90: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)), (see Appendix B.2 for additional information).

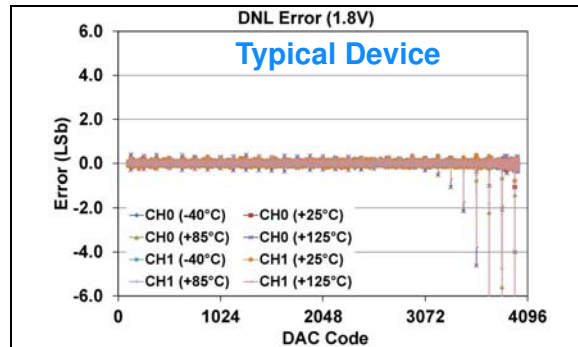


FIGURE 1-93: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = V_{DD}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)), (see Appendix B.2 for additional information).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 1\text{V}$, $Gx = '0'$ (1x)

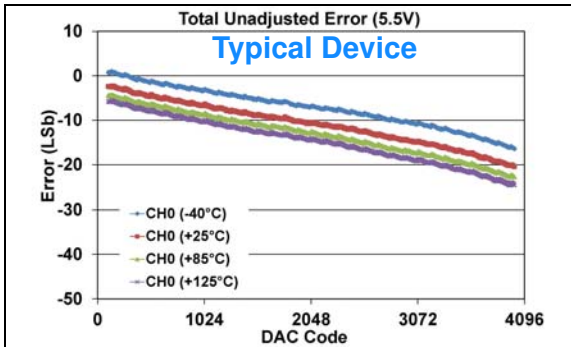


FIGURE 1-94: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

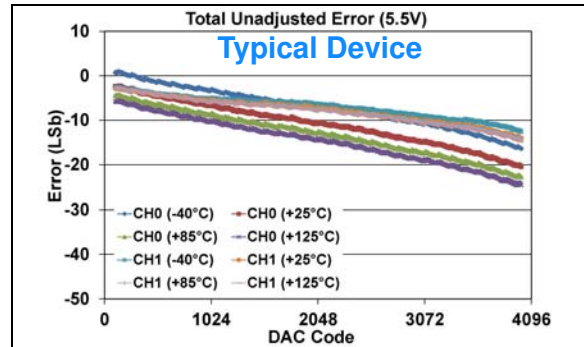


FIGURE 1-97: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

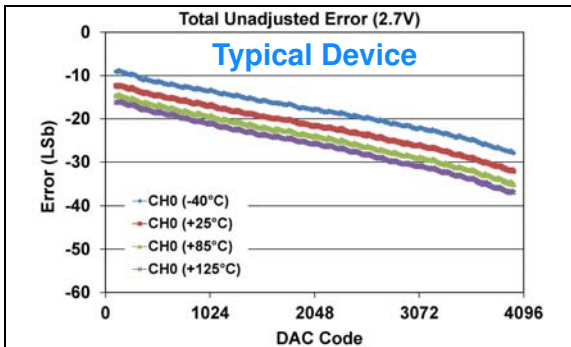


FIGURE 1-95: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

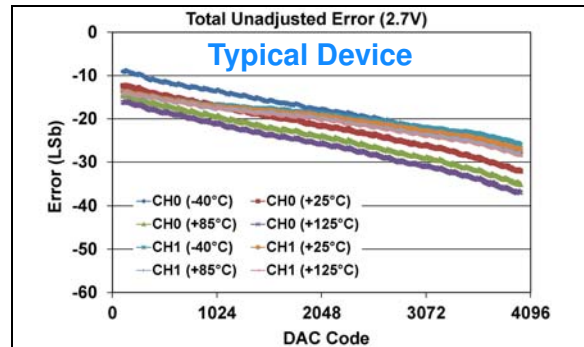


FIGURE 1-98: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

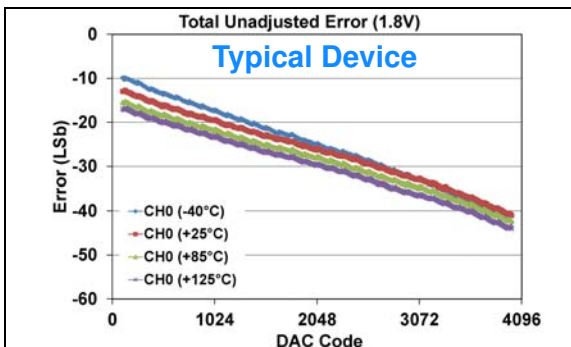


FIGURE 1-96: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

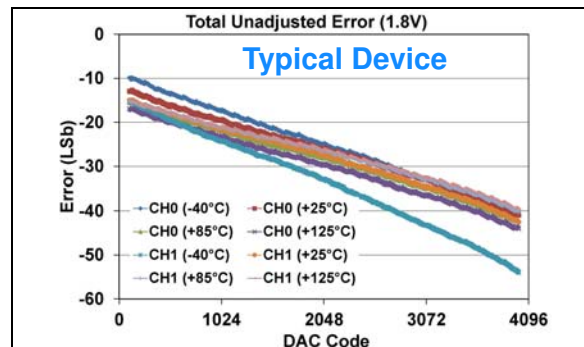


FIGURE 1-99: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 1\text{V}$, $Gx = '0'$ (1x)

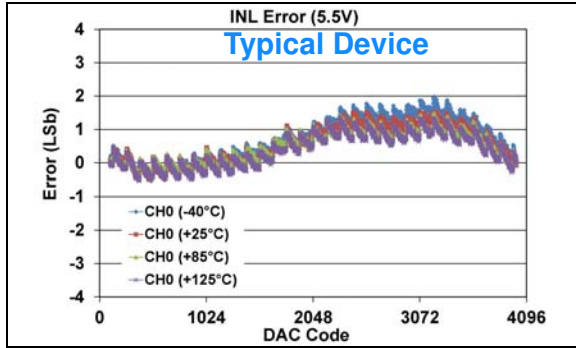


FIGURE 1-100: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

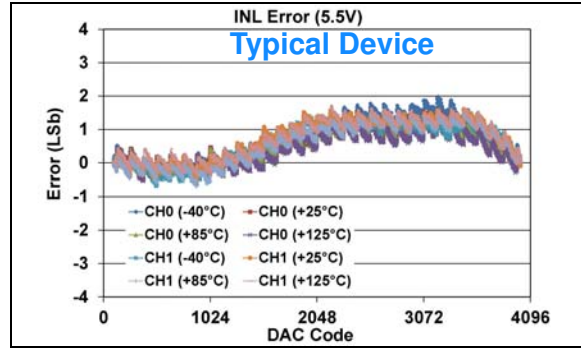


FIGURE 1-103: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

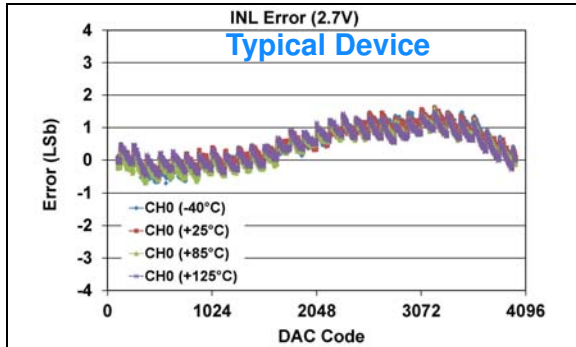


FIGURE 1-101: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

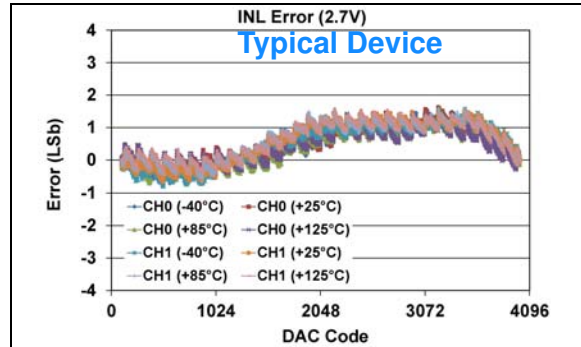


FIGURE 1-104: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

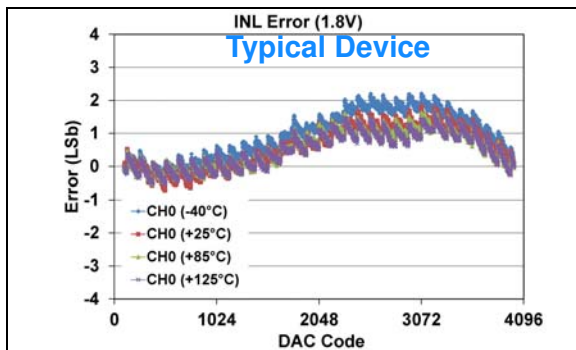


FIGURE 1-102: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

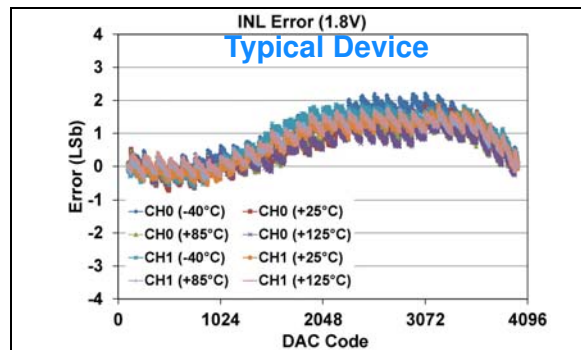


FIGURE 1-105: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 1\text{V}$, $Gx = '0'$ (1x)

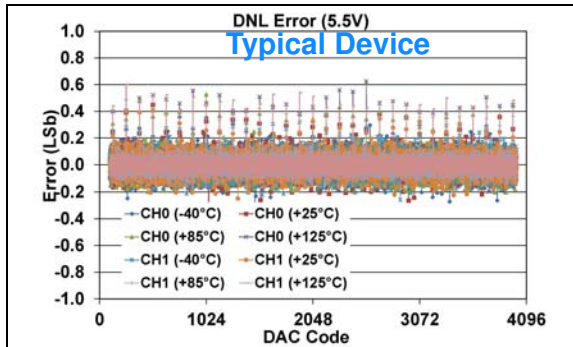


FIGURE 1-106: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

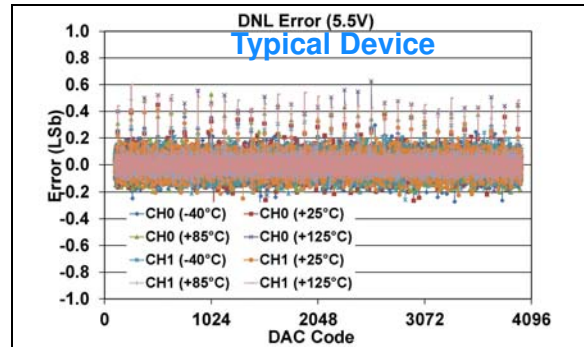


FIGURE 1-109: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

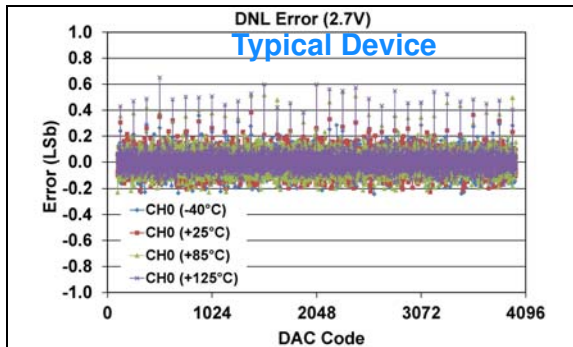


FIGURE 1-107: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

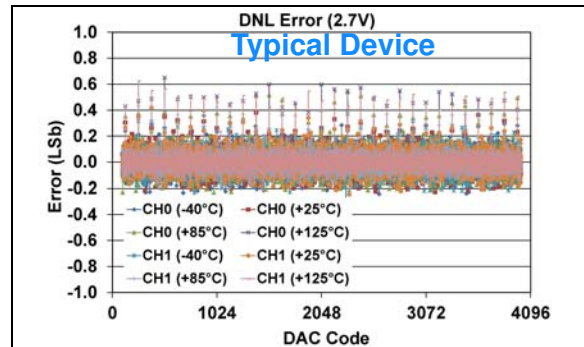


FIGURE 1-110: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

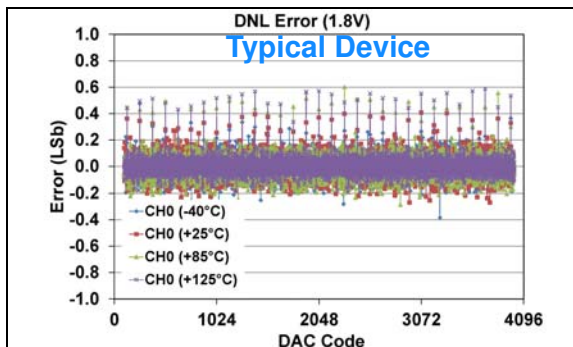


FIGURE 1-108: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

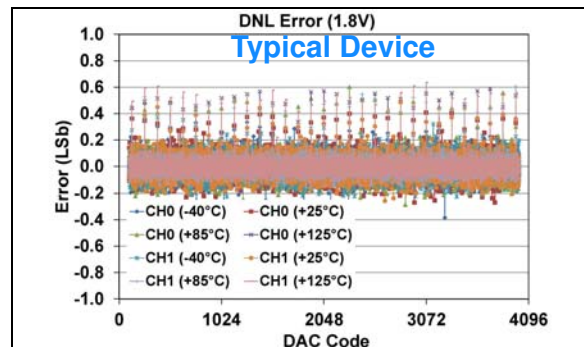


FIGURE 1-111: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 1\text{V}$, $Gx = '1'$ (2x)

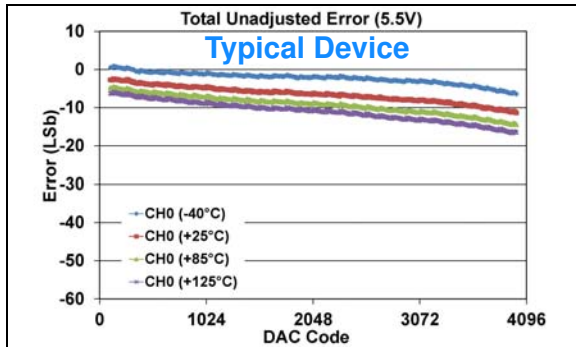


FIGURE 1-112: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)
(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

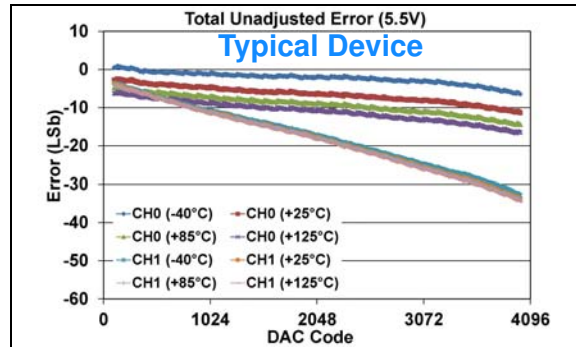


FIGURE 1-115: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)
(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

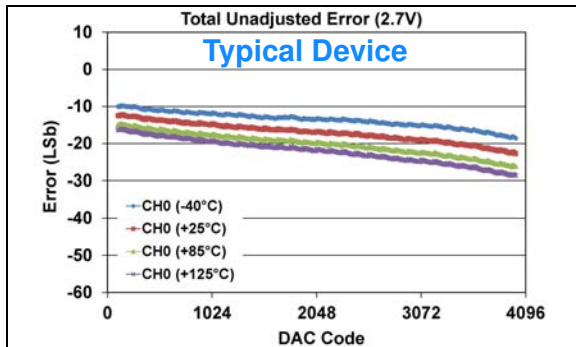


FIGURE 1-113: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)
(12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

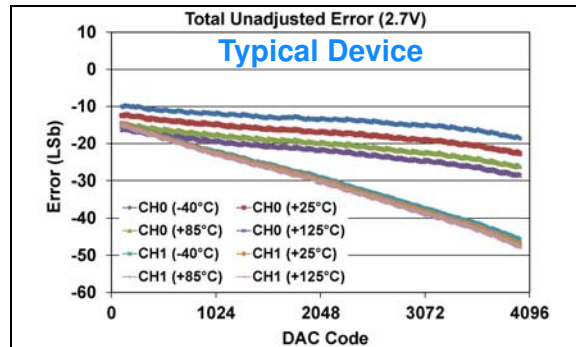


FIGURE 1-116: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)
(12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

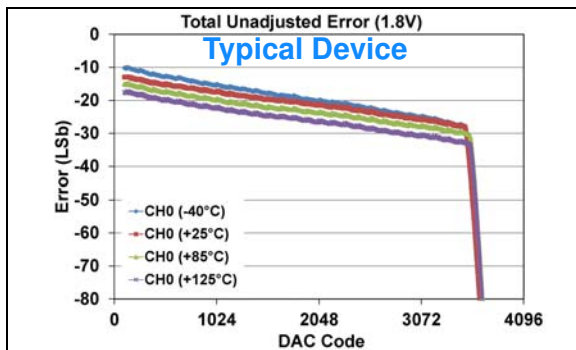


FIGURE 1-114: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - **MCP48FXB21**)
(12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)),
(see [Appendix B.3](#) for additional information).

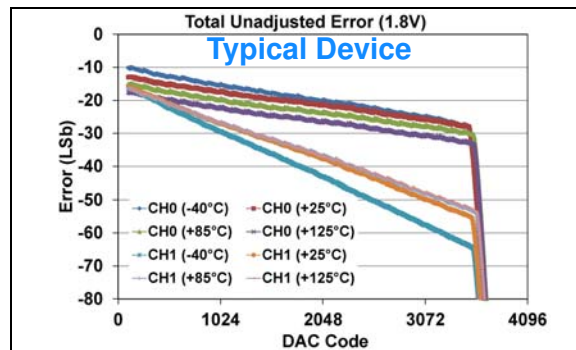


FIGURE 1-117: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - **MCP48FXB22**)
(12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)),
(see [Appendix B.3](#) for additional information).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 1\text{V}$, $Gx = '1'$ (2x)

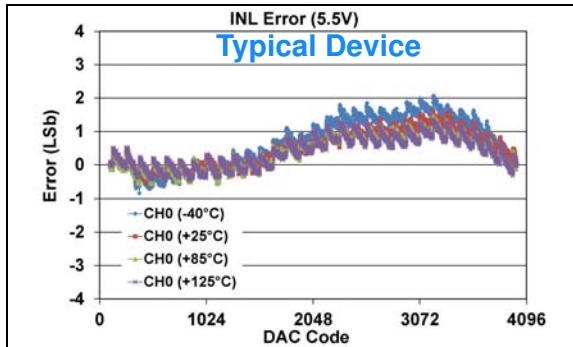


FIGURE 1-118: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

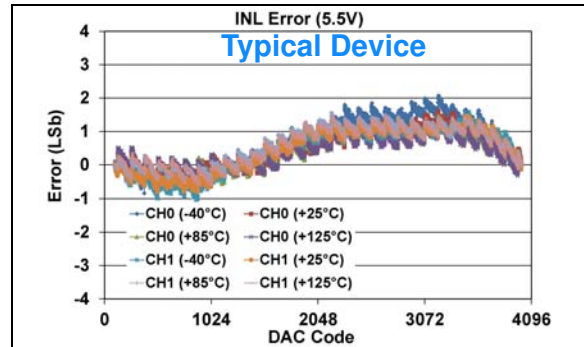


FIGURE 1-121: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

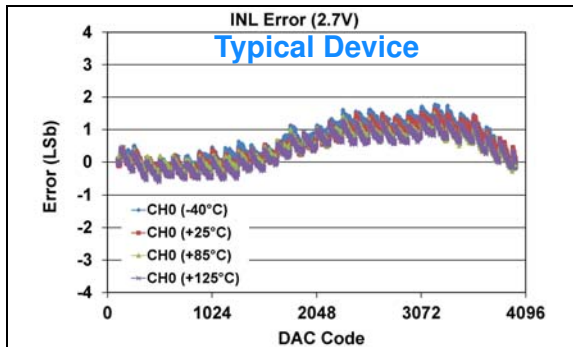


FIGURE 1-119: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

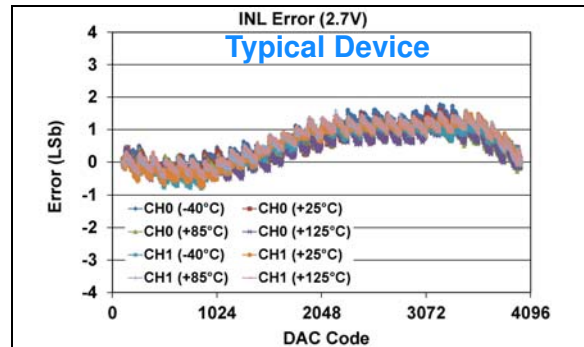


FIGURE 1-122: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

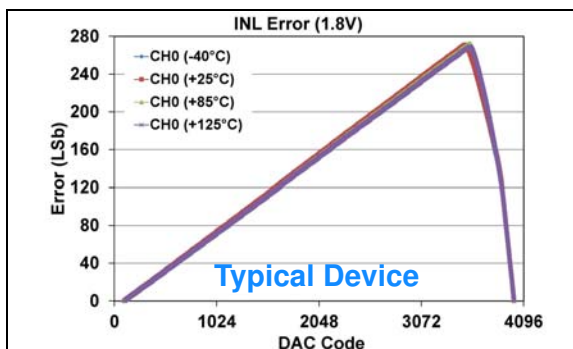


FIGURE 1-120: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)), (see [Appendix B.3](#) for additional information).

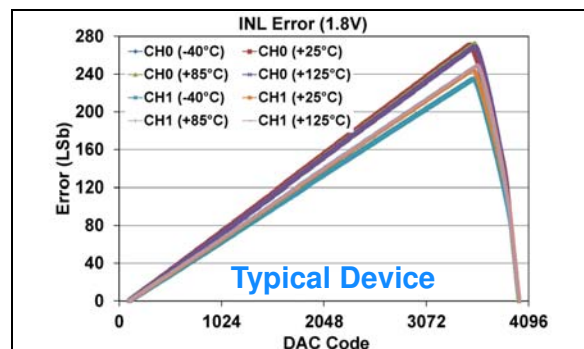


FIGURE 1-123: INL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (**12-bit:** $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)), (see [Appendix B.3](#) for additional information).

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Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 1\text{V}$, $Gx = '1'$ (2x)

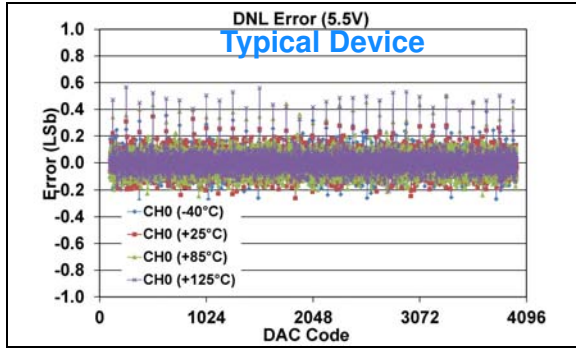


FIGURE 1-124: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

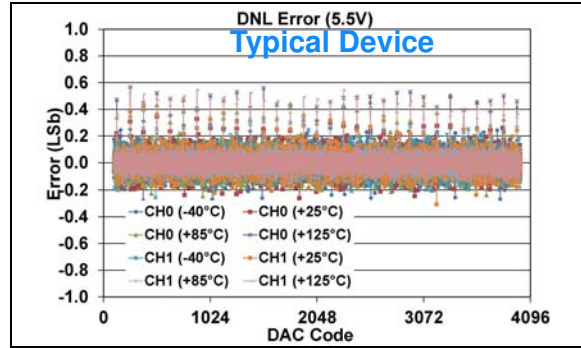


FIGURE 1-127: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

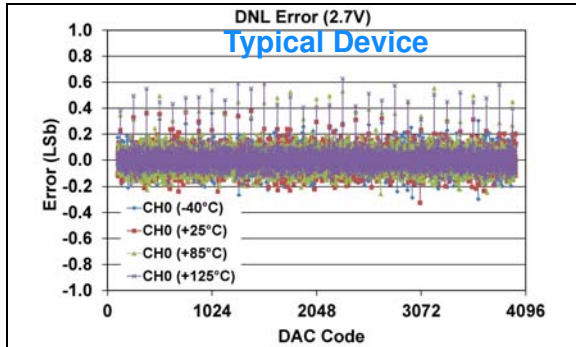


FIGURE 1-125: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

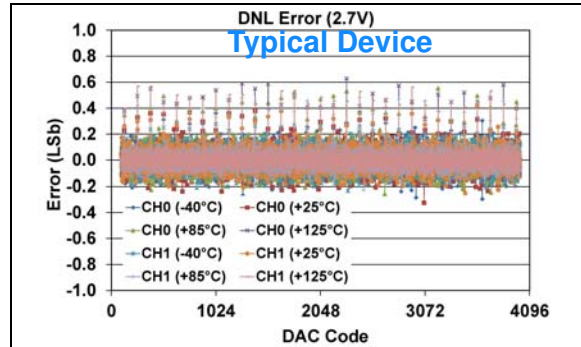


FIGURE 1-128: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

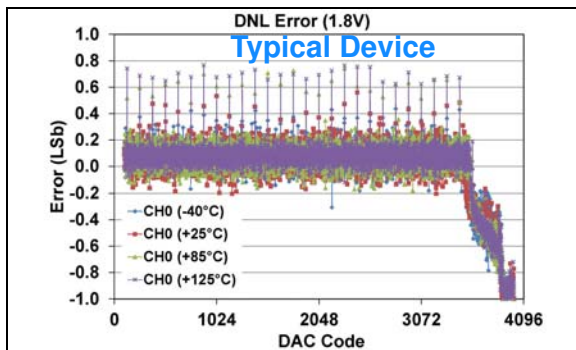


FIGURE 1-126: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Single Channel - MCP48FXB21) (12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)), (see [Appendix B.3](#) for additional information).

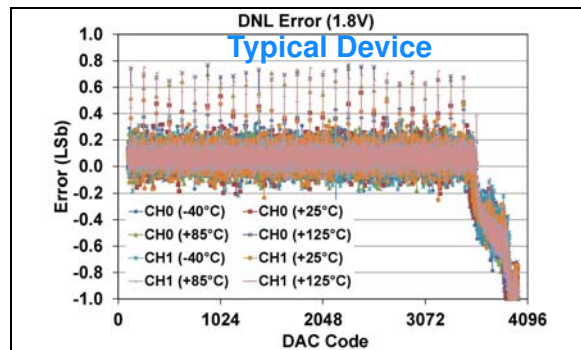


FIGURE 1-129: DNL Error vs. DAC Code, and Temperature (Code 100 - 4000) (Dual Channel - MCP48FXB22) (12-bit: $V_{DD} = 1.8\text{V}$, $V_{REF} = 1\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)), (see [Appendix B.3](#) for additional information).

Note: Unless otherwise indicated, $T_A = +25^\circ\text{C}$, $V_{DD} = 5.5\text{V}$.

12-bit: $VRxB:VRxA = '10'$ (V_{REF} Unbuffered Mode), $V_{REF} = 2.048\text{V}$

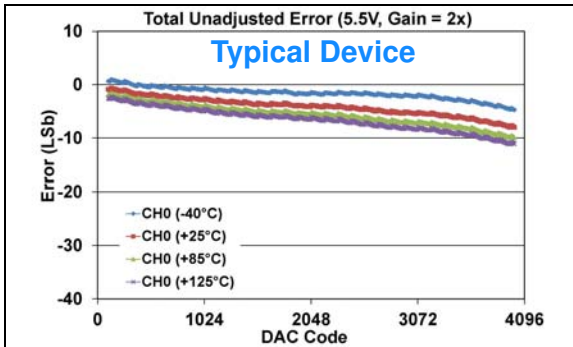


FIGURE 1-130: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 2.048\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

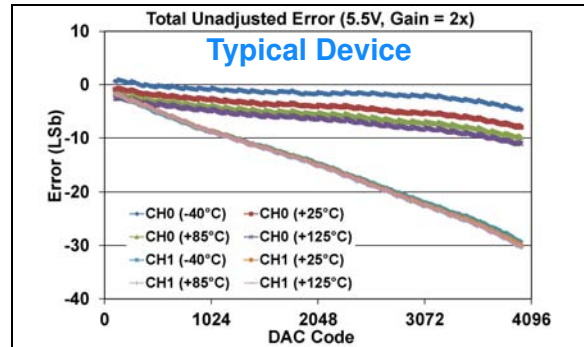


FIGURE 1-133: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 2.048\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '1'$ (2x)).

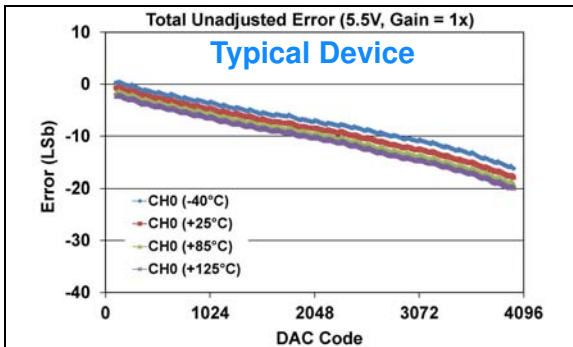


FIGURE 1-131: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 2.048\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

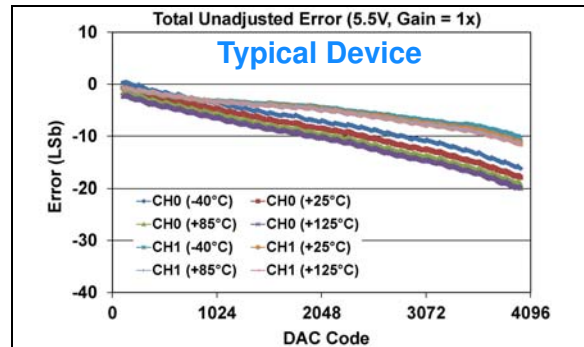


FIGURE 1-134: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(12-bit: $V_{DD} = 5.5\text{V}$, $V_{REF} = 2.048\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

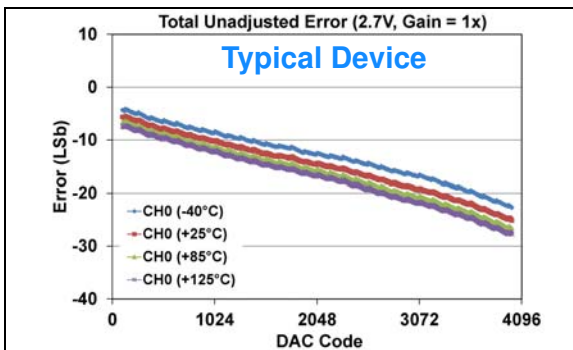


FIGURE 1-132: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Single Channel - MCP48FXB21)
(12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 2.048\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).

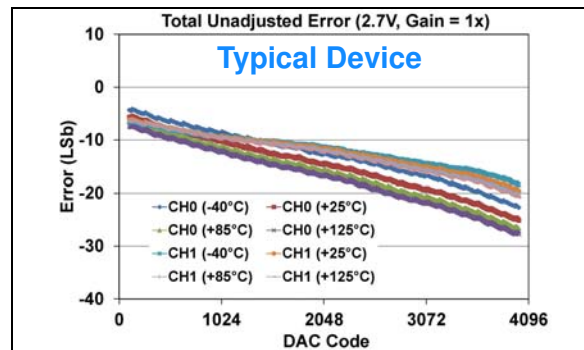


FIGURE 1-135: Total Unadjusted Error (V_{OUT}) vs. DAC Code, and Temperature (Dual Channel - MCP48FXB22)
(12-bit: $V_{DD} = 2.7\text{V}$, $V_{REF} = 2.048\text{V}$, $VRxB:VRxA = '10'$ (V_{REF} Unbuffered), $Gx = '0'$ (1x)).