

## Product Change Notice

Issue Date: 04-October-2022

### Change Description:

1. Disabling of the UART interface for battery back-up multi-turn (BBMT) interface (Port C)
2. A revision of ASIC to enhance User Calibration procedures

### Parts Affected:

**Table 1: Affected product series**

Broadcom Part Number Series	Product Descriptions
AR25-AB0x	AR25 25 Bits Absolute ASIC, BiSS-C Option
AR25-AS0x	AR25 25 Bits Absolute ASIC, Standard SSI/485/ESL Option
AR25-AB1P-AxxT	AR25 PCBA with Codewheel, Standard SSI/485/ESL Option
AR25-AS1P-AxxT	AR25 PCBA with Codewheel, BiSS-C Option
AR25-AB1B-AxxT	AR25 ASIC + Codewheel, BiSS-C Option
AR25-AS1B-AxxT	AR25 ASIC + Codewheel, Standard SSI/485/ESL Option

Refer to Appendix 1 for full list of affected part numbers

### Description and Extent of Change:

**Table 2: Change descriptions**

	Before Change	After Change
1	AR25 series Port C BBMT interface supports UART or 3-wire SPI options	AR25 series Port C BBMT interface supports only 3-wire SPI options
2	User Calibration procedures require multiple command settings with multiple power cycle actions in between the process	User Calibration procedures are simplified with simple command bits settings with minimal power cycle actions in between the process

**Reasons for Change:**

**Table 3: Reasons for change**

	<b>Change Item</b>	<b>Reasons</b>
1	Disable BBMT UART Interface	This function may trigger an alarm at low operating temperature range (below 0°C) due to synchronization issue with externally connected BBMT peripheral or device.
2	ASIC Enhancement	User Calibration procedures are simplified with simple command bits settings with minimal power cycle actions in between the process

**Effect of Change on Fit, Form, Function, Quality, or Reliability:**

There is no impact to product Form & Fit at the product level. Proper process control will be assessed for volume production.

**Table 4: Effect of changes on functionality**

	<b>Change Item</b>	<b>Effect of Change on Functionality</b>
1	Disable BBMT UART Interface	BBMT UART is no longer supported. Customers should select the SPI interface option when designing in the AR25 with a BBMT peripheral. There is no impact to the BBMT functionality.
2	ASIC Enhancement	There is no impact to product functionality and performance. However, Customers will be able to simplify their Calibration procedures with this enhancement. Improvements in calibration times and efficiency are expected.

**Effective Date of Change:**

**Table 5: Effective dates**

	<b>Change Item</b>	<b>Effective Date of Change</b>
1	Disable BBMT UART Interface	Effective immediately. All new design should select the SPI interface option when designing a BBMT peripheral.
2	ASIC Enhancement	Product shipment using this change is targeted to be effective in or around November 2022.

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Please contact your Broadcom field sales engineer or Contact Center for any questions or support requirements. Please acknowledge the receipt of the notice within 30 days of delivery. Lack of acknowledgement within 30 days constitutes acceptance of the change per JEDEC J-STD-046.

**Appendix 1**
**Table A1: Affected Broadcom part numbers**

<b>A</b>	<b>ASIC Product Part Number</b>	<b>C</b>	<b>PCBA + Codewheel Part Number</b>
1	AR25-AS01	17	AR25-AB1P-A12T
2	AR25-AS02	18	AR25-AB1P-A13T
3	AR25-AB01	19	AR25-AB1P-A15T
4	AR25-AB02	20	AR25-AB1P-A18T
<b>B</b>	<b>ASIC + Codewheel Part Number</b>	21	AR25-AB1P-A20T
5	AR25-AB1B-A12T	22	AR25-AB1P-A30T
6	AR25-AB1B-A13T	23	AR25-AS1P-A12T
7	AR25-AB1B-A15T	24	AR25-AS1P-A13T
8	AR25-AB1B-A18T	25	AR25-AS1P-A15T
9	AR25-AB1B-A20T	26	AR25-AS1P-A18T
10	AR25-AB1B-A30T	27	AR25-AS1P-A20T
11	AR25-AS1B-A12T	28	AR25-AS1P-A30T
12	AR25-AS1B-A13T		
13	AR25-AS1B-A15T		
14	AR25-AS1B-A18T		
15	AR25-AS1B-A20T		
16	AR25-AS1B-A30T		