PRODUCT CHANGE NOTIFICATION

COMPANY	DEEPX
PCN NUMBER	DX-PCN-20260918
PUBLICATION DATE	September 18, 2026
CHANGE TITLE	NAND Flash Component Replacement & RC Circuit Optimization

1. CHANGE CLASSIFICATION

Type: Major Change

Hardware component (NAND Flash Memory) and related RC circuit optimization.

2. PRODUCTS AFFECTED

Product Name: DX-M1BNM5604

3. DESCRIPTION OF CHANGE

DEEPX announces the replacement of the NAND Flash memory component used in the DX-M1BNM5604 module, along with an optimization of related RC circuit components.

[AS-IS (Current)]

- Component Name: NAND Flash
- Manufacturer: Winbond
- Part Number: W25N01GWZEIG (Legacy NAND process >= 40nm)

[TO-BE (New)]

- Component Name: NAND Flash
- Manufacturer: Winbond
- Part Number: W25N01KWZEIG (32nm NAND process)

• Circuit Update: Optimization of related resistors & capacitors to align with VCC discharge characteristics of the new NAND component (tPWD - Min 1ms).

4. REASON FOR CHANGE

The transition is driven by the End-Of-Life (EOL) plan and process upgrade of the current W25N01GW series. Transitioning to the new 32nm process technology (W25N01KW) provides a more stable, long-term supply chain. The W25N01KW is a drop-in replacement with identical key specifications.

5. IMPACT ON FIT, FORM, FUNCTION, QUALITY & RELIABILITY

• Form: No change (Same WSON-8 package, 8x6 mm)

• Fit: No change

• Function: No change (Equivalent performance verified)

- Density: 1 Gb (128M x 8)
- Interface: SPI (Quad I/O, DTR)
- Supply Voltage: 1.7 V ~ 1.95 V
- Max Clock Freq: 104 MHz
- Operating Temp: -40 °C to 85 °C

• Quality & Reliability: Functional & performance evaluations completed; awaiting final confirmation via ongoing reliability tests (expected Oct 2026).

6. QUALIFICATION STATUS & RESULTS

Status: Passed Initial Validation; Reliability Tests Ongoing (expected Oct 2026)

[Validation Results]

1) Performance: Equivalent performance verified during spec comparison.

2) SMT Process: All 5 sample modules successfully passed FCT (Functional Circuit Test) and Aging Test after the SMT process.

3) Characteristics: Passed 1,000 Read/Write cycle tests with a 100% pass rate across Cold (-40°C), Room (25°C), and Hot (80°C) temperatures.

4) Reliability Test: Full suite of environmental stress tests (Thermal Shock, Vibration, High/Low Temp Storage & Op) are in progress and scheduled for completion by the end of October 2026. Final approval for mass production will be granted upon completion.

7. FORECASTED KEY MILESTONES

• Date of PCN Publication: September 18, 2026

• Expected Completion of Reliability Tests: October 31, 2026

• Expected Date of First Shipment (Due Date): November 01, 2026

8. CONTACT INFORMATION

For any questions or concerns regarding this notification, please contact:

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DEEPX reserves the right to make changes to products, materials, and specifications without further notice to improve reliability, function, or design.