Product Change Notification - PCN \# PCN No. $15^{\text {th }}$ Dec. 2017

Dear Valued Customer:

The purpose of this letter is to inform you that Moxa is planning to implement a change to certain products. Please review the detailed information given below to determine how these changes will affect your products and/or processes. If you have any questions regarding these changes, please contact Wen Hsuan Chen, Moxa Wireless.

## Subject:

Change in the default antenna shipped with the AWK-3131A-ANT-WDB-ARM-02 to be replaced with the ANT-WDB-ARM-0202.

## Service Level: Basic

Effective Date: $1^{\text {st }}$ April 2018

Model Names/ Current Version/ New Version:

| Model Name | Current Version | New Version |
| :--- | :--- | :--- |
| AWK-3131A | V2.0.0 | V2.1.0 |

## Change Description:

In order to ensure a better user experience for the AWK Series products, Moxa will offer a new default antenna, ANT-WDB-ARM-0202 with the AWK-3131A. A comparison of the new default antenna with the previous one is provided in the table below:

| Antenna | ANT-WDB-ARM-02 | ANT-WDB-ARM-0202 (New) |
| :--- | :--- | :--- |
| Type | Omni-directional | Omni-directional |
| Frequency | 2.4 to $2.5 \mathrm{GHz} / 5.2$ to 5.8 GHz | 2.4 to $2.5 \mathrm{GHz} / 4.9$ to 5.825 GHz |
| Gain | $2 \mathrm{dBi} / 2 \mathrm{dBi}$ | $1.8 / 1.8 \mathrm{dBi}$ |
| Return Loss | -7.5 to -14.1 dB | -16.5 to -50.2 dB |
| Radiation Efficiency | $77 \% @ 2.4 \mathrm{GHz}$ | $73 \% @ 2.4 \mathrm{GHz}$ |
|  | $60 \% @ 5 \mathrm{GHz}$ | $75 \% @ 5 \mathrm{GHz}$ |
| Connector | RP-SMA (male) | RP-SMA (male) |

Since the antenna gain on the ANT-WDB-ARM-0202 is not higher than the ANT-WDB-ARM-02, the existing radio certifications are still valid. The ANT-WDB-ARM-0202 guarantees less radiation return loss and better radiation efficiency.
The following two graphs show that given identical RF attenuation situation, the ANT-WDB-ARM-0202 can deliver higher throughput, over both the 5 GHz and 2.4 GHz frequencies, as compared with the ANT-WDB-ARM-02.

(a) Throughput performance (TP) over 5 GHz vs. RF attenuation

(b) Throughput performance (TP) over 2.4 GHz vs. RF attenuation

For a detailed specification of the ANT-WDB-ARM-0202 antenna, visit:
https://www.moxa.com/product/ANT-WDB-ARM-0202.htm

## Delivery Schedule:

The AWK-3131A Series V2.1.0 will be available to ship starting April ${ }^{\text {st }}, 2018$.

## Note:

1. If you are using the AWK-3131A Series V2.0.0 and require additional units of the same, be sure to place your orders before March $1^{\text {st }}$, 2018. We cannot guarantee that sufficient supplies of AWK-3131A Series V2.0.0 will be available after this date.
2. Moxa will continue to supply the AWK-3131A V2.0.0 units and do a running change to phase in the AWK-3131A Series V2.1.0 units. The target launch date for the AWK-3131A V2.1.0 is currently set at April, 2018.
3. The ANT-WDB-ARM-02 antenna is still available for order.
https://www.moxa.com/product/ANT-WDB-ARM-02.htm

Note: For questions, contact the Product Manager Wen Hsuan Chen, wenhsuan.chen@moxa.com or your regional sales contact.

