

# Digi XBee® S2C Pro Zigbee

**RF Module** 

## **Contents**

| Introduction   | 3      |
|--|--------|
| Specification considerations                             | 3      |
| Part number migration guide                              | 3      |
| Legacy part number migration                             | 3      |
| FCC and ISED ID  | 3      |
| Digi XBee 3 DigiMesh functional migration considerations | 4      |
| Hardware and I/O considerations                          | 4<br>4 |

## Introduction

The XBee-PRO® S2C Zigbee® RF Module has been updated to provide an alternative to parts that are not readily available.

# **Specification considerations**

The following specification numbers for the module are preliminary.

| Sleep current        | < 1 uA, unchanged on the new module          |
|----------------------|--|
| Receive current      | 31 mA @ 3.3 VDC, unchanged on the new module |
| Receiver sensitivity | -102 dBm                                     |
| Transmit power       | Unchanged @ 18 dBm                           |
| Transmit current     | 110 mA @ 3.3VDC                              |

# Part number migration guide

#### **Legacy part number migration**

| S2C part number | Description               | Migrate to      |
|-----------------|---------------------------|-----------------|
| XBP24CZ7UIS-004 | XBP, ZB S2C SMT UFL AT    | XBP24CZ7UIS-005 |
| XBP24CZ7RIS-004 | XBP, ZB S2C SMT RF Pad AT | XBP24CZ7RIS-005 |

### **FCC and ISED ID**

The new FCC IDs for these modules are listed below. Customers must have updated FCC IDs on their products.

| Previous FCC ID    | New FCC ID        |
|--------------------|-------------------|
| FCC ID: MCQ-PS2CSM | FCC ID: MCQ-PS2C5 |

 $The \ new\ ISED\ IDs\ for\ these\ modules\ are\ listed\ below.\ Customers\ must\ have\ updated\ ISED\ IDs\ on\ their\ products.$ 

| Previous ISED ID | New ISED ID     |
|------------------|-----------------|
| IC: 1846A-PS2CSM | IC: 1846A-PS2C5 |

## Digi XBee 3 DigiMesh functional migration considerations

#### Hardware and I/O considerations

#### **DIO9 and ON/SLEEP**

The **D9** command on other modules is used to configure the behavior of DIO9, which can act as general purpose IO or as a wake status indicator. On this revision the D9 command is unavailable. The DIO9 line will always be high when the device is awake and low when the device is asleep.

#### The SN command

Normally, the **SN** command is used for two purposes:

- On a router/coordinator, it is used when calculating the timeout for sending messages to sleeping end devices.
- 2. On a sleeping end device, the ON/SLEEP line will only be asserted one out of every **SN** sleep cycles.

The second of these two functions is unavailable on this part, as the ON/SLEEP line will always indicate the wake state of the radio.

#### Firmware update considerations

This radio uses a different firmware than the existing S2C PRO module. Firmware images for this revision have a version number starting with A (e.g. A062). Firmware for the existing S2C PRO module cannot be used with this hardware, or vice versa.

This module can be identified by querying the value of **HV**. Values beginning with 53 indicate the new hardware revision.