



AirPrime MC74xx / MC74x1

Migration Guide



SIERRA
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41113835
Rev. 1

Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sierra Wireless product are used in a normal manner with a well-constructed network, the Sierra Wireless product should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. Sierra Wireless accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sierra Wireless product, or for failure of the Sierra Wireless product to transmit or receive such data.

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Do not operate the Sierra Wireless product in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, near life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sierra Wireless product **MUST BE POWERED OFF**. The Sierra Wireless product can transmit signals that could interfere with this equipment.

Do not operate the Sierra Wireless product in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sierra Wireless product **MUST BE POWERED OFF**. When operating, the Sierra Wireless product can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. Sierra Wireless products may be used at this time.

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Revision History

Revision number	Release date	Changes
1	May 2020	Document creation

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>> 1: Introduction

This document provides information for developers planning to migrate from AirPrime MC74xx (MC7430/MC7455) Mini Card modules to AirPrime MC74x1 (MC7411/MC7421/MC7431) Mini Card modules. AirPrime MC74x1 modules are drop-in compatible with other MC74xx modules, sharing common characteristics (e.g. nominal dimensions, power supply, environmental specifications etc.).

Included in this document are summaries of specific RF, interface, and regulatory differences between these module series.

This document summarizes key differences between modules. For detailed module specifications, including module-specific current consumption and RF sensitivity measurements, refer to each device's Product Technical Specification — see [Reference Documents on page 8](#).

2.2 Module Pinouts

MC74xx and MC74x1 modules have identical pinouts, except for audio-related signals which are supported only on MC7430/MC7455, as detailed in [Table 2-2](#).

Table 2-2: Audio-related Pin Support

Pin #	MC74xx	MC74x1
30	I2C_CLK	NC
32	I2C_DATA	NC
45	PCM_CLK/I2S_CLK	NC
47	PCM_DOUT/I2S_DOUT	NC
49	PCM_DIN/I2S_DIN	NC
51	PCM_SYNC/I2S_WS	NC

2.3 Regulatory Compliance and Industry Certifications

The following table lists the regulatory compliance and industry certifications for each MC74xx/MC74x1 module. For detailed information, refer to the specific product specifications for each module, as listed in [Reference Documents on page 8](#).

Table 2-3: Regulatory Compliance and Industry Certifications

Reg/Cert	MC7430	MC7455	MC7411	MC7421	MC7431
ANATEL (Brazil)	Y	Y		TBD	
FCC (USA)		Y	Y		
GCF	Y	Y	Y	Y	Y
IC (Canada)		Y	Y		
MIC (Japan)	Y		Y		Y
NCC (Taiwan)	Y	Y		Y	
PTCRB		Y	Y		
RED (EU)	Y	Y	Y	Y	Y

>> 3: References

3.1 Web Site Support

Check source.sierrawireless.com for the latest available documentation for AirPrime MC74xx and AirPrime MC74x1 modules.

3.2 Reference Documents

- [1] AirPrime MC7411 Product Technical Specification and Customer Design Guidelines (Doc# 41113760)
- [2] AirPrime MC7421 Product Technical Specification and Customer Design Guidelines (Doc# 41113761)
- [3] AirPrime MC7430 Product Technical Specification and Customer Design Guidelines (Doc# 4116237)
- [4] AirPrime MC7431 Product Technical Specification and Customer Design Guidelines (Doc# 41113762)
- [5] AirPrime MC7455 Product Technical Specification and Customer Design Guidelines (Doc# 4116238)