



Specification for the Integration of the Sierra Wireless EM7455 Module

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Revision History

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PROPRIETARY NOTE

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Introduction

This document specifies incorporation of the Sierra Wireless EM7455 module into the XSLATE R12 tablet in the factory.

Important compliance information for North America use

Safety and Hazards

The EM7455 has been granted modular approval for mobile applications. EM7455 may be collocated with the Intel module FCC ID: PD98260NG, and IC: 1000M-8260NG.

The following conditions must be met when shipping XSLATE R12 with the EM7455 module.

1. At least 20 cm separation distance between the antenna and the user's body must be maintained at all times.
2. The EM7455 module may transmit simultaneously with other collocated radio transmitters within a host device.
3. A label with the below information must be affixed to the outside of the XSLATE R12 which incorporates the EM7455 module.

The following statement must be visible on the host device:

**This device contains FCC ID: Q2GEM7455
Contains transmitter module IC: 4596A-EM7455**

NOTE: The SAR compliance statement must be included in the host user manual in a prominent location.

Informations de conformité importantes pour l'utilisation en Amérique du Nord

Sécurité et risques

Le module EM7455 a reçu l'approbation modulaire pour les applications mobiles. EM7455 peut être co-implanté avec le module Intel ID FCC: PD98260NG et IC: 1000M-8260NG.

Les conditions suivantes doivent être remplies lors de l'expédition du XSLATE R12 avec le module EM7455.

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1. Une distance d'au moins 20 cm entre l'antenne et le corps de l'utilisateur doit être maintenue en tout temps.
2. Le module EM7455 peut transmettre simultanément avec d'autres émetteurs radio placés dans un dispositif hôte.
3. Une étiquette avec les informations ci-dessous doit être apposée à l'extérieur du XSLATE R12 qui incorpore le module EM7455.

L'instruction suivante doit être visible sur le périphérique hôte:

**Cet appareil contient l'ID FCC: Q2GEM7455
Contient le module émetteur IC: 4596A-EM7455**

REMARQUE: La déclaration de conformité SAR doit être incluse dans le manuel de l'utilisateur hôte dans un endroit bien en vue.

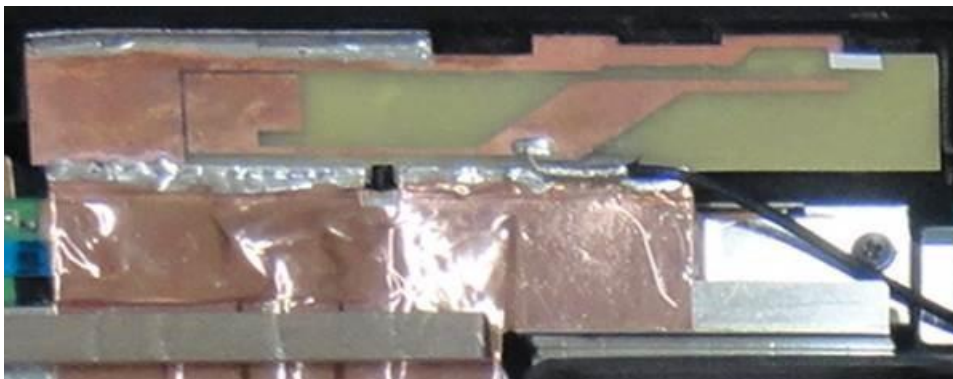
The EM7455 module was incorporated into the XSLATE R12 with the Intel® Dual Band Wireless-AC 8260 Wi-Fi plus Bluetooth® 4.2 and tested for SAR with the following configuration:

- Intel Core i7-7500U
- Windows® 10 64-bit
- 8 GB DDR4 2100 MHz SDRAM memory
- 512 GB SSD
- Sierra Wireless EM7455 (NA and EU) 4G LTE with GNSS (GPS + GLONASS + Beidou)

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Antenna Type:

Monopole



WWAN Gain and Tune-up

WWAN Gain-TX

Band	Freq (MHz)	Gain dBi (avg)
1	1920-1980	-4.34
2	1850-1910	-3.40
3	1710-1785	-5.30
4	1710-1755	-5.57
5	824-849	-3.90
7	2500-2570	-4.28
8	880-915	-5.09
12	699-716	-3.75
13	777-787	-2.36
20	832-862	-4.32
25	1850-1915	-3.40
26	814-849	-3.76
29	n/a	-
30	2305-2315	-4.08
41	2496-2690 (TDD)	-4.66

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Gain-TX (cont.)

Freq MHz	Gain dBi	Freq MHz	Gain dBi
698.00	-3.99	1930.00	-4.01
704.00	-3.78	1950.00	-4.51
710.00	-3.68	1960.00	-4.65
716.00	-3.56	1980.00	-4.83
720.00	-3.50	1995.00	-4.90
725.00	-3.36	2110.00	-4.50
730.00	-3.29	2140.00	-4.82
734.00	-3.18	2170.00	-4.67
740.00	-3.02	2300.00	-4.00
746.00	-2.90	2325.00	-4.17
756.00	-2.74	2350.00	-4.16
765.00	-2.62	2375.00	-4.40
772.00	-2.50	2400.00	-4.28
777.00	-2.39	2500.00	-4.20
782.00	-2.31	2515.00	-4.18
787.00	-2.38	2535.00	-4.24
791.00	-2.41	2555.00	-4.34
806.00	-2.85	2570.00	-4.45
821.00	-3.32	2570.00	-4.45
824.00	-3.42	2595.00	-4.61
836.00	-3.88	2620.00	-4.97
849.00	-4.41	2620.00	-4.97
862.00	-4.66	2630.00	-5.02
869.00	-4.63	2655.00	-5.09
880.00	-4.52	2680.00	-5.09
894.00	-4.89	2690.00	-5.07
900.00	-5.12		
915.00	-5.86		
925.00	-5.70		
940.00	-5.33		
960.00	-5.44		
1710.00	-5.57		
1730.00	-5.64		
1750.00	-5.50		
1770.00	-5.12		
1785.00	-4.68		
1805.00	-4.19		
1840.00	-3.45		
1850.00	-3.50		
1880.00	-3.18		
1910.00	-3.53		
1920.00	-3.72		

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Tune-Up

Table 4-6: Conducted Tx (Transmit) Power Tolerances

Parameter	Conducted transmit power	Notes
LTE		
LTE Band 1,2,3,4,5,8,12,13,20,25,26	+23 dBm \pm 1 dB	
LTE Band 7,30,41	+22 dBm \pm 1 dB	
UMTS		
Band 1 (IMT 2100 12.2 kbps) Band 2 (UMTS 1900 12.2 kbps) Band 3 (UMTS 1800 12.2 kbps) Band 4 (AWS 1700/2100 12.2 kbps) Band 5 (UMTS 850 12.2 kbps) Band 8 (UMTS 900 12.2 kbps)	+23 dBm \pm 1 dB	Connectorized (Class 3)