Excellence in Compliance Testing

Certification Exhibit

FCC ID: WYU-CMX300CA
IC: 9530A-CMX300CA

FCC Rule Part: 15.247
IC Radio Standards Specification: RSS-210

ACS Project Number: 11-0007

Manufacturer: Orderite, Inc.
Model: CMX300CA

RF Exposure

General Information:

Applicant: Orderite, Inc.
ACS Project: 11-0007
Device Category: Handheld
Environment: General Population/Uncontrolled Exposure

Technical Information for FCC ID: WYU-CMX300CA, IC: 9530A-CMX300CA (Bluetooth):

Antenna Type: Chip Antenna
Antenna Gain: 2dBi
Maximum Transmitter Conducted Power: 5.26dBm
Maximum System EIRP:7.26dBm, 5.23mW

Technical Information for FCC ID: WYU-CMX300CA, IC: 9530A-CMX300CA (802.11 b/g):

Antenna Type: Chip Antenna
Antenna Gain: 2dBi
Maximum Transmitter Conducted Power: 15.24dBm
Maximum System EIRP:17.24dBm, 52.97mW

Technical Information for FCC ID: MCQ-XBEEXSC, IC: 1846A-XBEEXSC (900MHz):

Antenna Type: Wire Antenna
Antenna Gain: 1.9dBi
Maximum Transmitter Conducted Power: 19.97dBm
Maximum System EIRP:21.87dBm, 153.8mW

Antenna Separation Distances:

To Antenna: 802.11b/g / Bluetooth – 5.1cm
Bluetooth / 900MHz – 8.9cm
802.11b/g / 900MHz – 14cm
To Hand: 802.11b/g - 0.3175 cm
Bluetooth - 6.985 cm
900MHz - 5.08 cm

RF Exposure Justification

As specified in this application, the modular approved devices as detailed above are integrated into the Orderite, Inc. handheld wireless device model HAND002. The Orderite, Inc. HAND002 is designed for handheld operation only and has no provisions for body worn or lap held operation.

Per KDB 447498(4)(c)(iii), hand SAR is exempt. Hand SAR is required for hand-held and hand-operated devices with output power > 1000·[f(GHz)]-0.5 mW that are designed with the hand operating closer than 5 cm from the antenna during normal use.

Output Power Thershold (> 1000·[sqrt f(GHz)] mW) Calculation

Bluetooth EIRP: 5.23mW
802.11b/g EIRP: 52.97mW
900MHz EIRP: 153.8mW

1000 / (sqrt 0.915) = 1045
1000 / (sqrt 2.44) = 640

(5.23 / 640) + (52.97 / 640) + (153.8 / 1054) = 0.239

0.0239 < 1
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