



# Office of the Chief Scientist

## Research and Development

universal art

# WMD Development Kit User Guide

80-XXXXX-1 Rev. A

Mark Carter

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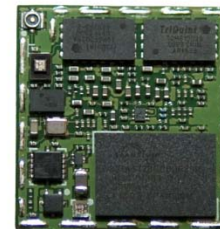
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Front



Back



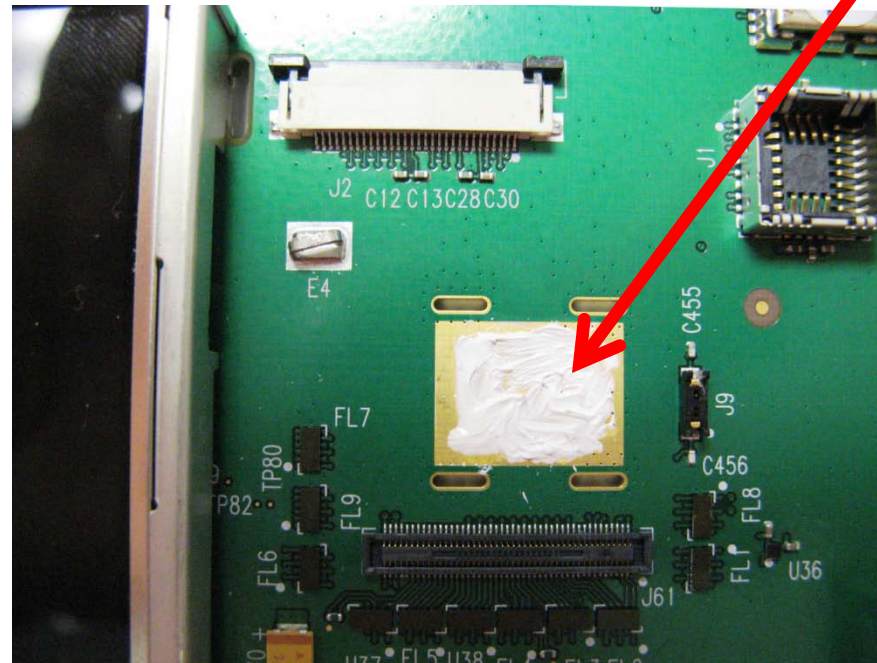
# Introduction

- The WMD development kit enables telephone & Data functionality with the entire family of WMD modules.
- The Kit includes:
  - WMD Module
  - Test Nest fixture
  - RF Antenna
  - Battery Pack
  - QCT Software
  - Handset
  - External Power Cable
  - Micro USB cable



# Getting Started

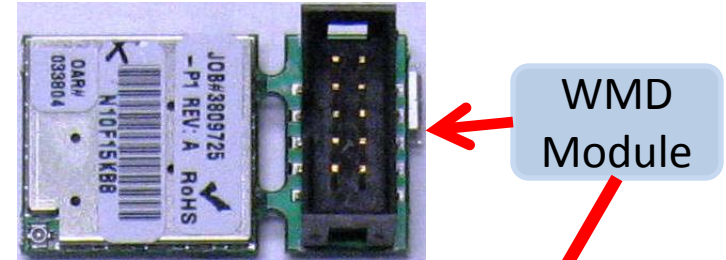
- Apply Thermal Grease to pad





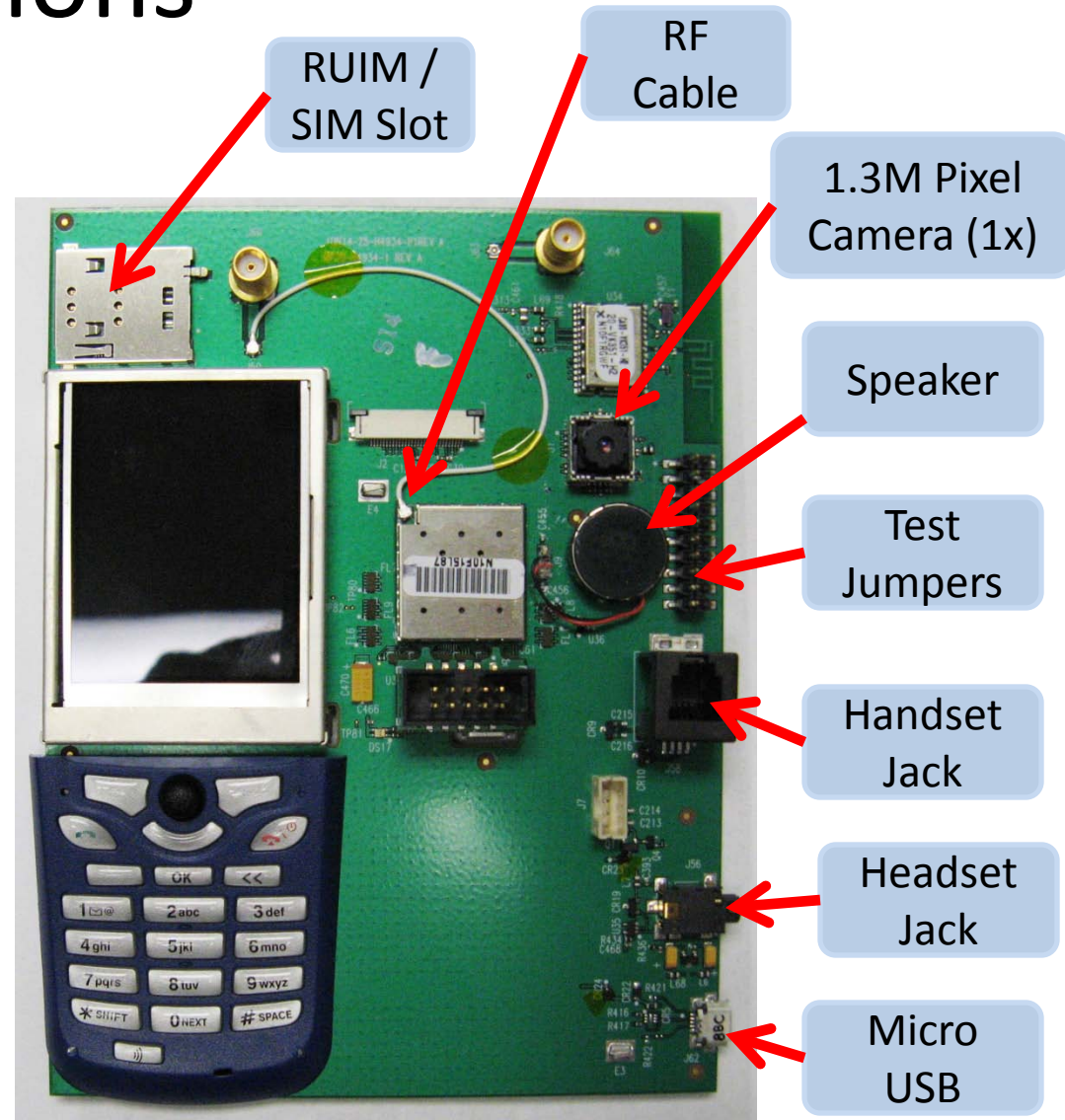
# Insert Module

- Insert the WMD module into the Test Nest fixture using the 90 pin connector with the JTAG connector still attached.



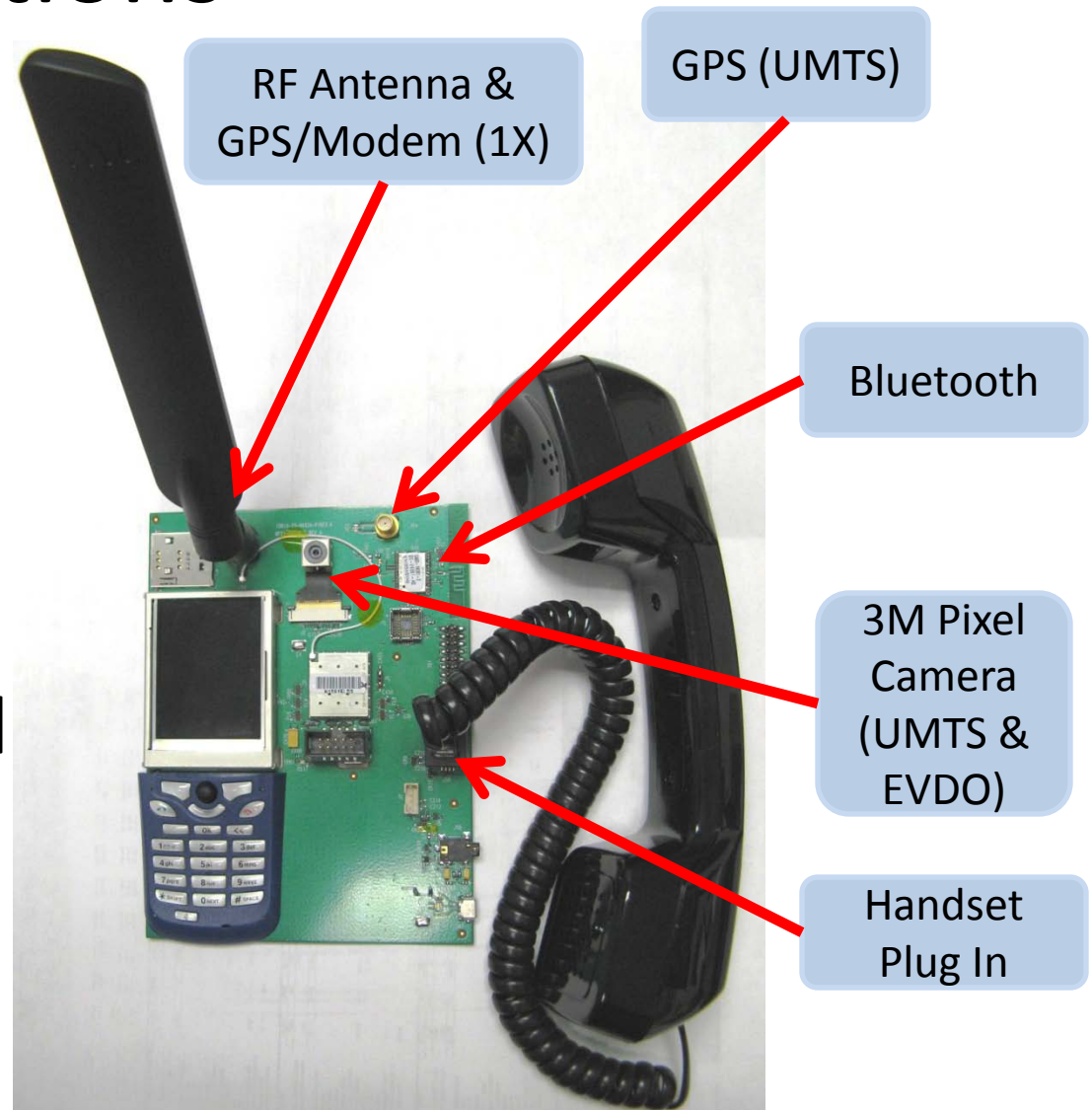
# Cable Connections

- Connect the internal RF cable



# Cable Connections

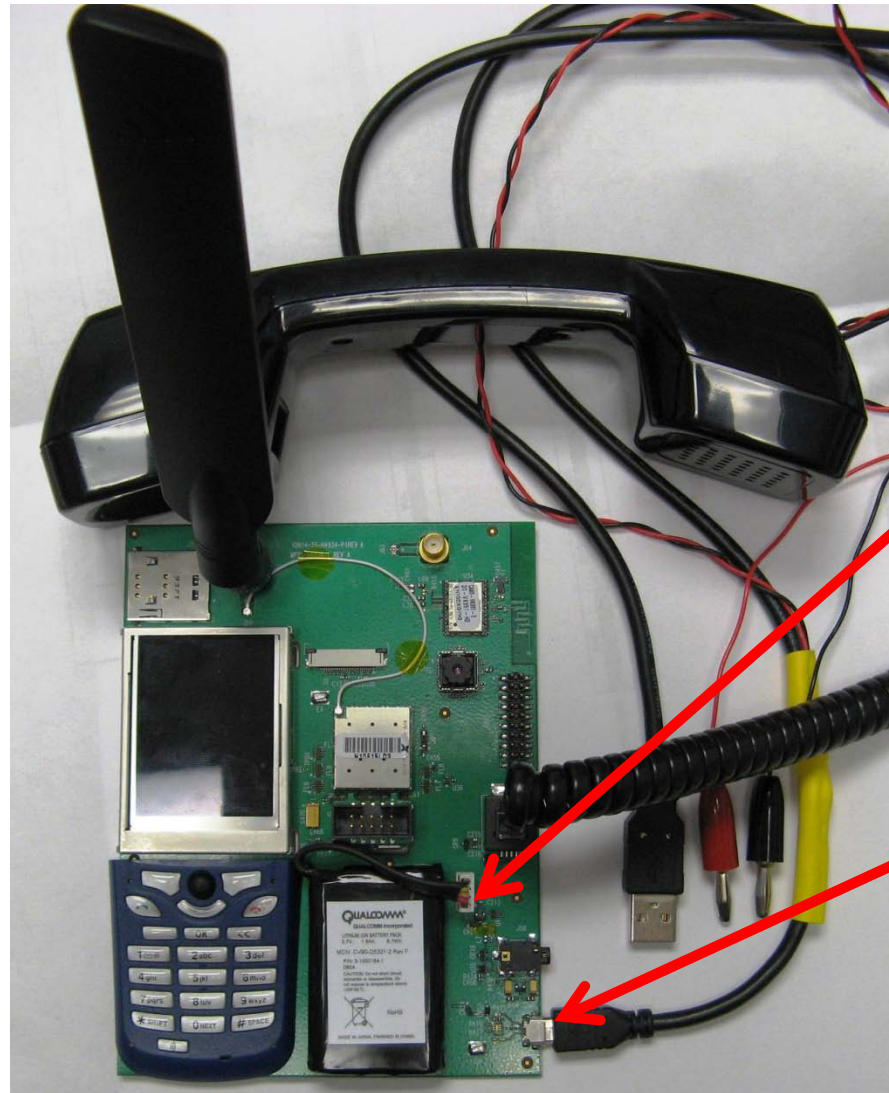
- Connect the external antenna
- Connect the handset
- For UMTS connect 3M Pixel camera





# Power Supply Connections

- Connect the power supply cable & or plug in battery connector
- Set power supply voltage to 3.7 volts – no battery
- Battery will charge if power supply is set to 5 volts



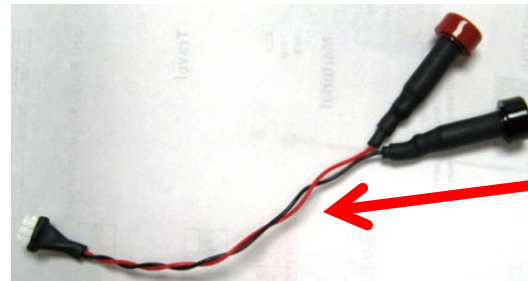
Battery Connector

Micro USB PWR Cable

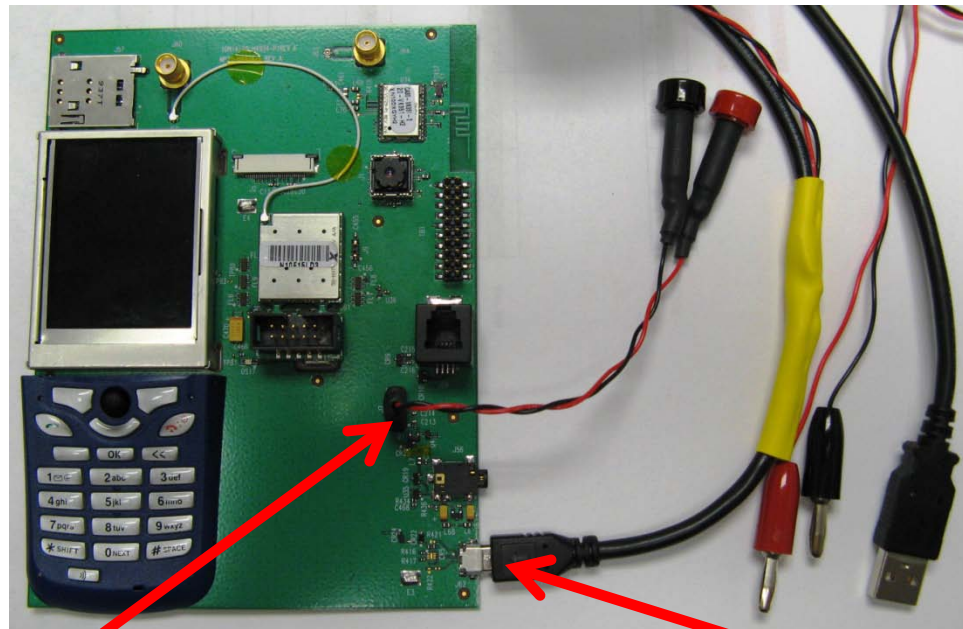


# Power Supply Connections - Alt

- Alternate power connection to replace battery
- Set power supply voltage to 3.7 volts



Alt Power Cable



Alt Power Connector

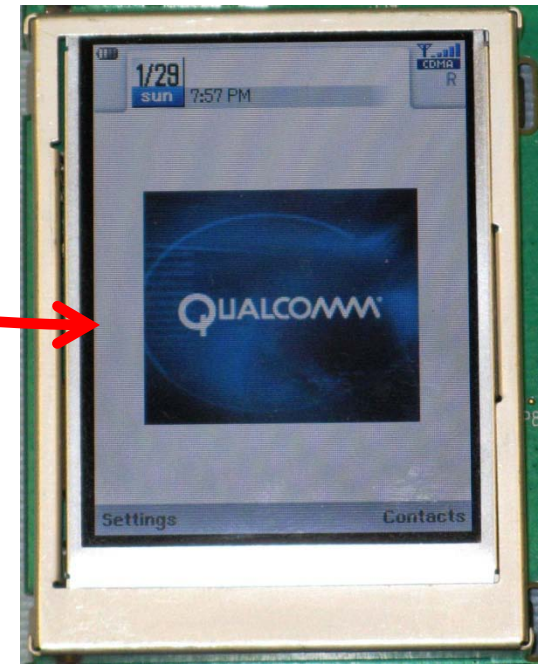
Micro USB Power/Data Cable

# Module Power Up

- Now power up the module by pressing the pwr button on the keypad
- LCD and backlight turn on

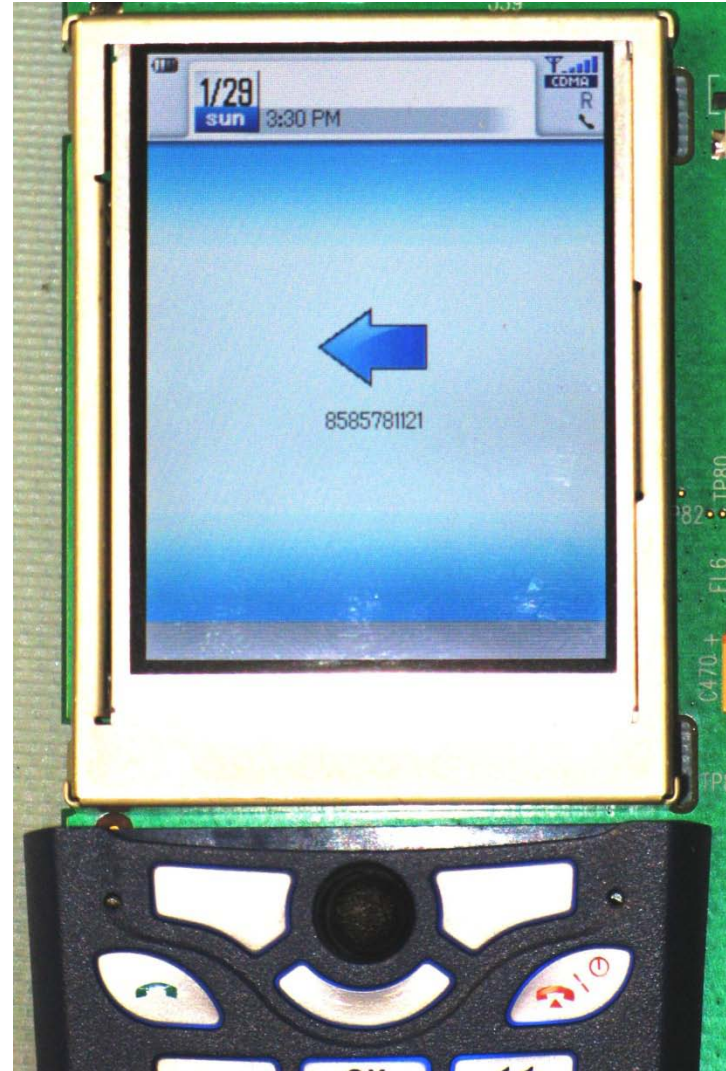


PWR button



# Telephone & Data Call Testing

- Now the Module is ready for basic telephone & Data call functionality
- Use keypad or USB/RF interfaces to initiate and end voice or data calls



# Standards

The WMD module conforms to the following standards requirements:

- CDMA
  - TIA/EIA IS-98E (CDMA2000 1x)
- FCC
  - 47 CFR Part 1 – RF radiation exposure limits
  - 47 CFR Part 2 – Equipment authorization
  - 47 CFR Part 15 – Intentional and unintentional radiators
  - 47 CFR Part 22 – Cellular
  - 47 CFR Part 24 - PCS
- Open Device Initiative Certification w/ VZW



# Regulatory Compliance

## Safety Warnings

Do not operate the WMD module in the following environments:

- In active blasting areas.
- In potentially explosive environments such as refueling points, fuel depots or chemical plants.
- Near medical equipment, especially life support equipment that might be susceptible to radio interference.
- In an aircraft.
  - The WMD module transmissions could interfere with aircraft electrical and communication systems. Like cell phones, using the WMD module in an aircraft is illegal in some jurisdictions.
  - If cell phone usage is permitted while the aircraft is on the ground, normal WMD module operation is permitted as well.

# Regulatory Compliance

The WMD module has been approved for mobile applications in the United States. Additional FCC certification is not required by host devices as long as the following conditions are met:

- Maintain at least 20 cm separation between the antennas and the user's body.
- Maximum antenna gain (including cable loss):
  - Cellular band < 7 dBi
  - PCS band < 4 dBi
- Independent WMD module operation. The WMD module must not be co-located or jointly operated with any other transmitter or antenna within the host device.
- A label with the following (or similar) statement must be attached to the host end product: This device contains Tx FCC ID:J9CWMD1X.
- Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

# Regulatory Compliance

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician to help.
- 
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the WMD module.