

Freerunner (GTA02) GPS

10pf capacitor re-work SOP version 0.1

2008/7/22 SOP08001CSD

SD capacitor rework for GPS performance

Step

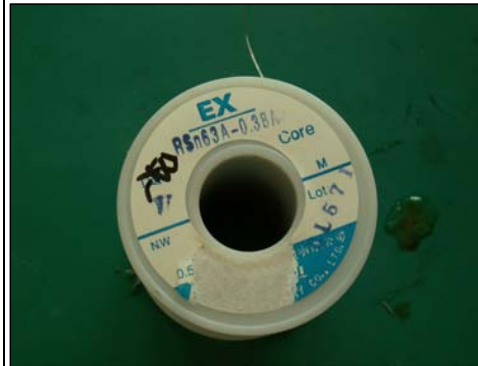


Setting the solder temperature to 350 C degree for lead free solder paste



Using the Lead free solder

Check items



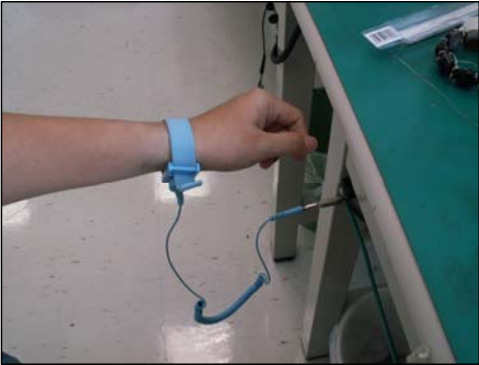

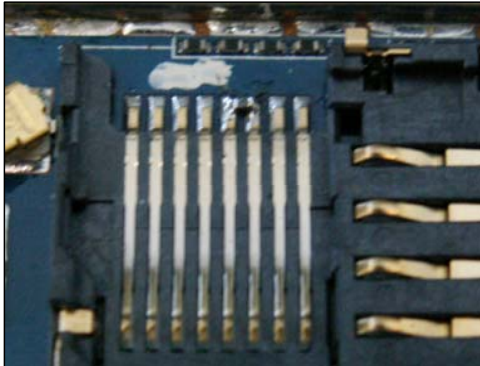
Equipment and Tools

NO.	Item name	Quantite	Durability
1	tweezers	1	1,000,000
2	Lead-free solder	1	1,000,000
3	lead-free solder paste	1	1,000
4	Anti-static ring	1	1,000,000
5	SD Card	1	100,000
6			
7			
8			
9			
10			


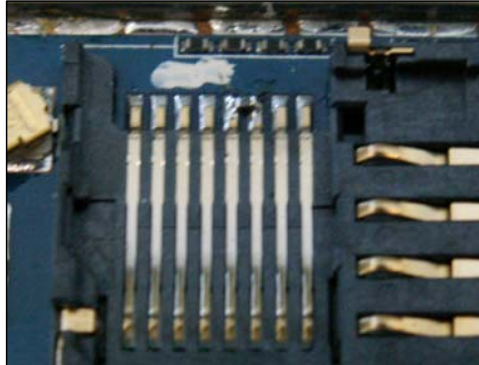
Attention

1. Please take attention must be under 350 C and operation under 12 seconds
2. 0402_10pF using bridge connection and must be horzonital to PCB
3. Watchout for cold solder, bad solder
4. Please wear anti-static ring all the time

SD capacitor rework for GPS performance

Step	Check items	Equipment and Tools			
<div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 2px; margin: 5px 0; text-align: center;">Please wear anti-static protection ring</div> <div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 2px; margin: 5px 0; text-align: center;">Put 10 pf capacitor in between pin5 and pin 6</div>	<div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 2px; margin: 5px 0; text-align: center;">Visual inspect the capacitor, see if the capacitor is put</div>	NO.	Item name	Quantite	Durability
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Using soder capacitor to SD ping 5,6

Visual inspect the result

SD capacitor rework for GPS performance

Step



Put into empty SD card and make GPS test

Check items



Make sure microSD card is on position, and the start Test




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<div style="text-align: center;">  </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px; width: fit-content; margin-left: auto; margin-right: auto;"> Boot NEO from standard Freerunner image </div>	<div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px; width: fit-content; margin-left: auto; margin-right: auto;"> Check NEO boot into Freerunner image (Default is 2008/04/24) </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 65%;">Item name</th> <th style="width: 10%;">Quantite</th> <th style="width: 20%;">Durability</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>tweezers</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1,000,000</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Lead-free solder</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1,000,000</td> </tr> <tr> <td style="text-align: center;">3</td> <td>lead-free solder paste</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1,000</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Anti-static ring</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1,000,000</td> </tr> <tr> <td style="text-align: center;">5</td> <td>SD Card</td> <td style="text-align: center;">1</td> <td style="text-align: center;">100,000</td> </tr> <tr> <td style="text-align: center;">6</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">7</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">8</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">9</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">10</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NO.	Item name	Quantite	Durability	1	tweezers	1	1,000,000	2	Lead-free solder	1	1,000,000	3	lead-free solder paste	1	1,000	4	Anti-static ring	1	1,000,000	5	SD Card	1	100,000	6				7				8				9				10					
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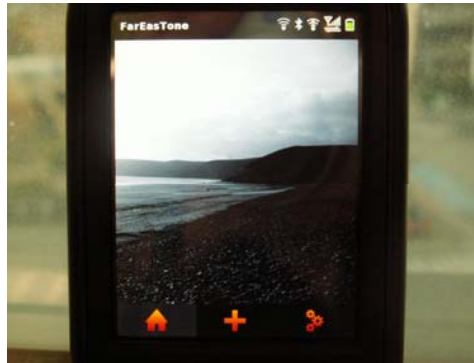
SD capacitor rework for GPS performance

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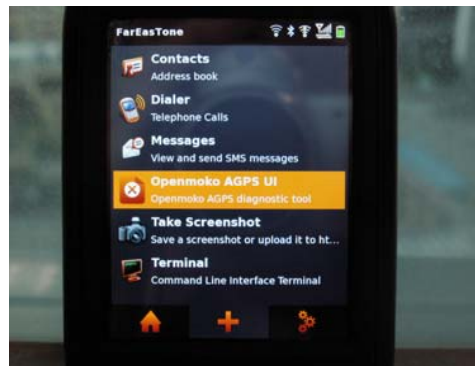


Install AGPS UI by using opkg install agpsui,
http://wiki.openmoko.org/wiki/Howto_Test_Your_GPS_with_agpsui

Check items



Check NEO boot into Freerunner image, using image 2008/04/24 default factory image



Make sure AGPSUI installed

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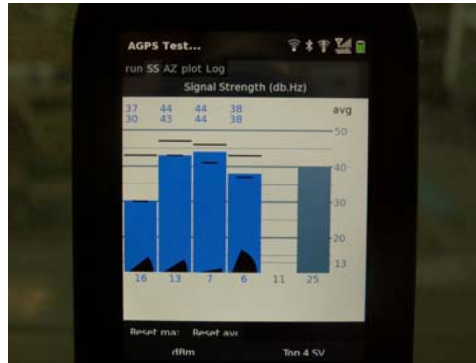
SD capacitor rework for GPS performance

Step



Press one fix under clear sky or location could get the good GPS signal, see if the NEO could get fixed within 180 seconds with SD card

Check items



Check SS page see if at least 3 signal C/N ratio avg above 35 after fixed

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