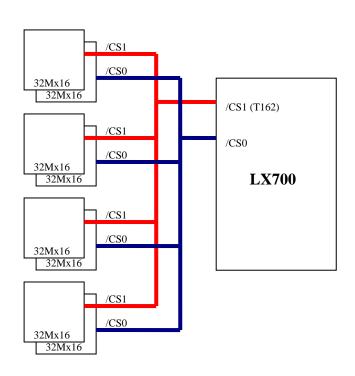
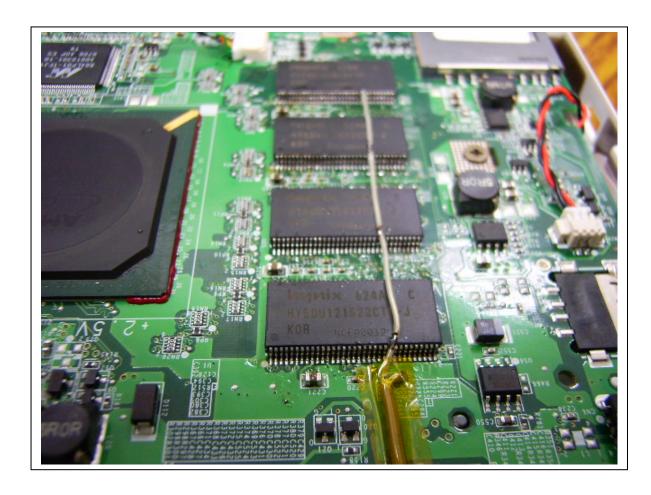
How to upgrade XO memory from 256 MB to 512 MB

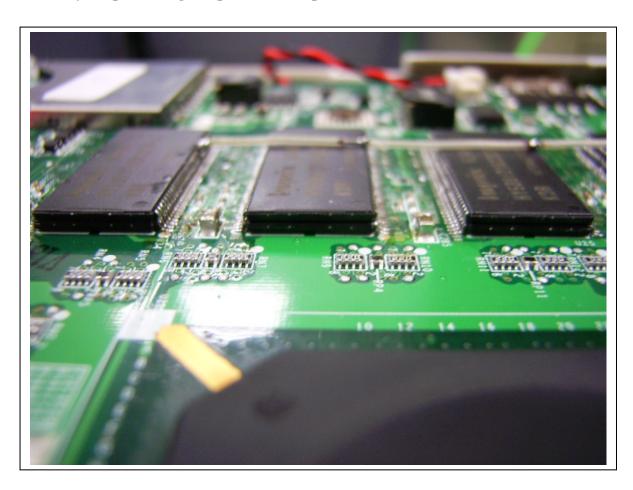
XO Current memory configuration was 32Mb x 16 x 4 = 256MByte Soldering extra four 32MbX16 memory component on top of original memory component the /CS Chip select (pin 24) must connect to test point T162 (CPU memory controller /CS1)



<u>x4</u>	<u>x8</u>	<u>x16</u>	_			<u>x16</u>	<u>x8</u>	<u>x4</u>
VDD NC VDDQ NC DQ0 VSSQ NC VDDQ NC VDDQ NC VDDQ NC VDDQ NC VDD NC NC VDD NC NC NC VDDQ NC NC NC NC NC NC NC NC NC NC NC NC NC	VDD DQ0 VDDQ NC DQ1 VSSQ NC DQ2 VDDQ NC DQ3 VSSQ NC NC VDDQ NC NC VDDQ NC NC NC NC NC AC	VDD DQ0 VDDQ DQ1 DQ2 VSSQ DQ3 DQ4 VDDQ CSSQ DQ7 NC VDDQ LDQS NC LDM WE /CAS /CAS /RAS /RAS /RAS /RAS /RAS /RAS /RAS /R	1 2 3 4 5 6 6 7 8 9 10 11 12 13 14 15 16 16 16 16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19	400mil X 875mil 66pin TSOP -II 0.65mm pin pitch (Lead free)	66 64 63 64 63 61 60 59 58 57 55 54 49 48 47 46 44 43 42 41 40 39 38 37 36 36 36 36 36 36 36 36 36 36 36 36 36	VSS DQ16 VSSQ DQ11 VSSQ DQ11 VSSQ DQ10 DQ9 VDDQ VDDQ VSSQ UDQS NC VSSQ UDQS NC CK	VSS DQ7 VSSQ NC DQ6 VDDQ NC DQ5 VSSQ NC DQ4 VDDQ NC VSSQ DQS NC VREF VSS DM /CK CK CKE NC A11 A9 A8 A7 A6 A5 A4 VSS	VSS NC VSSQ DQS NC VREF VSS DM DM A8 A7 A6 A5 A4 VSS

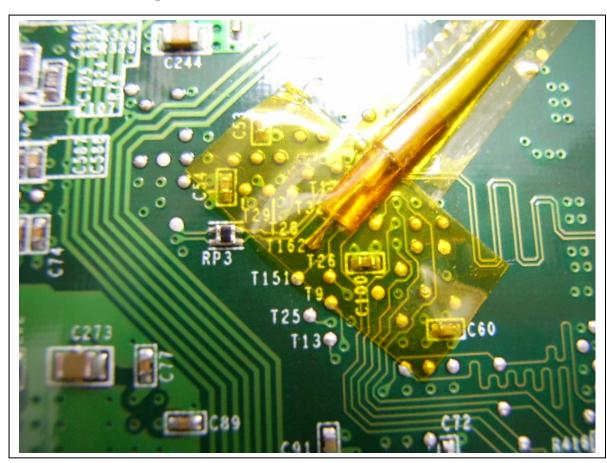


Use Coaxial cable and shelling GND will increase signal quality. (Memory Chip select signal speed almost up to 100 Mhz)





/CS1 connect to Test point T162 on circle board back side.



```
acue ruante.
              Luablea
                                       Cache Mode
 LZ Cache Enable:
                    Enabled
                                        Cache All
DIMM 0
                                       DIMM 1
Memory Optimization DIMMO:
                             Manual
                                        Memory Opt
 DIMM 0 Page Size:
                         8 KB
DIMM 0 Size:
                         512 MB
Number of Devices:
                         8 devices
DIMM 0 Module Banks:
                         2 banks
DIMM 0 Component Banks: 4 banks
CAS Latency:
             Auto
                                      Memory Laten
Refresh Rate: Auto
Interleave Select:
                   LOI
XOR BAO: Disabled
XOR BA1: Disabled
```

BIOS setting memory configuration by Manual (Insyde Embedded BIOS)



Running Memtest-86 V3.4 almost 200 hours without any Error.

This is very popular design on DDR1 DIMM module field for cost down purpose http://www.valueram.com/datasheets/KVR266X72RC25L_2G.pdf