## **ITEMS LIST**

| ASSY  | CMD-100502      |
|-------|-----------------|
| DATE  | 27th March 2012 |
| ISSUE | 03 DRAFT D      |
| DRAWN | DAVE PATRICK    |

|     |      |                        | Manufactur            |                 |       |            |                                                                                                          |          |             | Q  |
|-----|------|------------------------|-----------------------|-----------------|-------|------------|----------------------------------------------------------------------------------------------------------|----------|-------------|----|
| DNF | Item | Description            | er                    | Part Number     | Value | Footprint  | Designator                                                                                               | Supplier | Supplier PN | ty |
|     |      |                        |                       |                 |       |            |                                                                                                          |          |             |    |
|     |      | ATEX Mini<br>Target RF | Guidance<br>Microwave |                 |       |            |                                                                                                          |          |             |    |
|     | 1    | PCB                    | Ltd                   | CMD-100503_03   |       |            |                                                                                                          |          |             | 1  |
|     | 2    |                        |                       |                 |       |            |                                                                                                          |          |             |    |
|     | 3    |                        |                       |                 |       |            |                                                                                                          |          |             |    |
|     |      |                        |                       | C0603C103J5RAC- |       |            | C1, C2, C3,<br>C4, C5, C6,<br>C10, C11,<br>C12, C15,<br>C16, C17,<br>C18, C19,<br>C20, C34,<br>C35, C36, |          |             | 1  |
|     | 4    | Capacitor              | Kemet                 | TU              | 10nF  | 1608[0603] | C37                                                                                                      | Farnell  | 1650831     | 9  |

| 5  | Capacitor                                | Kemet     | C0402C100J5GACTU      | 10pF   | 0402        | C49                                                   | Farnell  | 1414571   | 1 |
|----|------------------------------------------|-----------|-----------------------|--------|-------------|-------------------------------------------------------|----------|-----------|---|
| 6  | Capacitor                                | Kemet     | C0603C102K1RACTU      | 1nF    | 1608[0603]  | C47, C48                                              | Farnell  | 1414606   | 2 |
| 7  | Capacitor                                | Kemet     | C0603C109C5GAC        | 1pF    | 1608[0603]  | C7, C8,<br>C13, C14,<br>C21, C24,<br>C38, C39,<br>C46 | Farnell  | 1414611   | 9 |
| 8  | Capacitor                                | Kemet     | C0603C105K3PAC        | 1uF    | 1608[0603]  | C32, C33                                              | Farnell  | 1288202   | 2 |
| 9  |                                          |           |                       |        |             |                                                       |          |           | L |
| 10 |                                          |           |                       |        |             |                                                       |          |           |   |
| 11 |                                          | Yageo     | CC0402CRNPO9BNR<br>47 | 0.47pF | 0402_M      | C9, C40                                               | Farnell  | 3019081   | 2 |
| 12 |                                          | Multicomp | MC9A22-1434           |        | HDR2X7H     | RF_PL1                                                | Farnell  | 1099246   | 1 |
| 13 | HEXFET Power MOSFET HEXFET               | IR        | IRF7201               |        | SO-8_N      | Q19                                                   | Farnell  | 9102663   | 1 |
| 14 | Power                                    | IR        | IRF7220               |        | SO-8_N      | Q15, Q17                                              | Farnell  | 9103341   | 2 |
| 15 | IC - IQ Mixer                            | Hittite   | HMC521LC4             |        | LC4_HITTITE | IC1                                                   | Hittite  | HMC521LC4 | 1 |
| 16 | Inductor                                 | Тусо      | 36401J10NGTDF         | 10nH   | L0603       | L1                                                    | Farnell  | 1174047   | 1 |
| 17 | Inductor                                 | Тусо      | 36401E1N0ATDF         | 1nH    | 0402_M      | L2                                                    | Farnell  | 1174118   | 1 |
| 18 |                                          |           |                       |        |             |                                                       |          |           |   |
| 19 |                                          | Eudyna    | FHX35LG               |        | LG          | Q3, Q4, Q6,<br>Q8, Q22                                | Sumitomo | FHX35LG   | 5 |
| 20 | NPN<br>General-<br>purpose<br>Transistor | NXP       | BC847B                |        | SOT23_N     | Q9, Q11,<br>Q16, Q18                                  | Farnell  | 1081232   | 4 |
| 21 |                                          |           |                       |        |             |                                                       |          |           |   |
| 22 | PNP<br>General-                          | NXP       | BC857BS_NXP           |        | SOT363_N    | Q1, Q2, Q5,<br>Q7, Q21                                | Farnell  | 1081247   | 5 |

|   |          | purpose<br>Double     |             |                        |       |            |                  |           |         |     |
|---|----------|-----------------------|-------------|------------------------|-------|------------|------------------|-----------|---------|-----|
|   |          | Transistor            |             |                        |       |            |                  |           |         |     |
|   |          | PNP                   |             |                        |       |            |                  |           |         |     |
|   |          | General-              |             |                        |       |            | 042 044          |           |         |     |
|   | 23       | purpose<br>Transistor | NXP         | BC857B                 |       | SOT23_N    | Q13, Q14,<br>Q20 | Farnell   | 1081246 | 3   |
|   | 24       | Transision            | INAF        | DC037 B                |       | 30123_N    | Q20              | 1 alliell | 1001240 |     |
|   | 25       |                       |             |                        |       |            |                  |           |         |     |
|   | 25       |                       |             | CRCW0402100RFKE        |       |            |                  |           |         |     |
|   | 26       | Resistor              | Vishay      | AHP                    | 100R  | 1005[0402] | R28              | Farnell   | 1738837 | 1   |
|   |          | 110010101             | Violity     | CRCW0603100R0FK        | 10011 | 1000[0102] | R2, R4, R8,      | - amen    | 1100001 |     |
|   | 27       | Resistor              | Vishay      | EAHP                   | 100R  | 1608[0603] | R15, R81         | Farnell   | 1738891 | 5   |
|   |          |                       | ·           | CRCW060310K0FKE        |       |            |                  |           |         |     |
|   | 28       | Resistor              | Vishay      | AHP                    | 10k   | J1-0603    | R22, R76         | Farnell   | 1738918 | 2   |
|   |          |                       |             |                        |       |            | R40, R43,        |           |         |     |
|   |          |                       |             |                        |       |            | R45, R52,        |           |         |     |
|   | 00       | Danistan              | \ /i.a.la.a | CRCW060310R0FKE        | 400   | 14 0000    | R55, R57,        | Famall    | 4700070 | _   |
|   | 29       | Resistor              | Vishay      | AHP                    | 10R   | J1-0603    | R77, R78         | Farnell   | 1738878 | 8   |
|   | 30       |                       |             |                        |       |            |                  |           |         |     |
|   | 04       | Danistan              | \/:abass    | CRCW06031K0FKEA        | 41/0  | 14 0000    | R44, R47,        | Famall    | 4720005 | ا ۱ |
| - | 31       | Resistor              | Vishay      | HP                     | 1K0   | J1-0603    | R51, R53         | Farnell   | 1738905 | 4   |
|   | 32       |                       |             |                        |       |            |                  |           |         |     |
|   |          | 5                     |             | CRCW060322K0FKE        | 0016  |            | R5, R7, R9,      |           | 4=0000  | _   |
|   | 33       | Resistor              | Vishay      | AHP                    | 22K   | 1608[0603] | R17, R82         | Farnell   | 1738922 | 5   |
|   | 34       | Resistor              | Vishay      | CRCW06032K20FKE<br>AHP | 2K2   | J1-0603    | R75              | Farnell   | 1738909 | 1   |
|   | <u> </u> | 110010101             | rioriay     | 7 4 11                 | 2.112 | 0.0000     | R11, R12,        | i dirion  | 170000  | •   |
|   |          |                       |             | CRCW060333K0FKE        |       |            | R19, R20,        |           |         |     |
|   | 35       | Resistor              | Vishay      | AHP                    | 33K   | 1608[0603] | R84              | Farnell   | 1738924 | 5   |
|   |          |                       |             |                        |       |            | R1, R3,          |           |         |     |
|   |          |                       |             | CRCW06033K00FKE        |       |            | R14, R16,        |           |         |     |
|   | 36       | Resistor              | Vishay      | Α                      | 3K0   | 1608[0603] | R80              | Farnell   | 1469790 | 5   |
|   | 37       |                       |             |                        |       |            |                  |           |         |     |
|   |          |                       |             |                        |       |            | R59, R60,        |           |         |     |
|   | 00       | Design                | D           | ED ID00E4700\/         | 47016 | 14 0000    | R64, R65,        |           | 4750700 |     |
|   | 38       | Resistor              | Panasonic   | ERJP03F4703V           | 470K  | J1-0603    | R71, R72         | Farnell   | 1750709 | 6   |
|   | 39       | Resistor              | Vishay      | CRCW0603470R0FK        | 470R  | J1-0603    | R42, R48,        | Farnell   | 1738900 | 6   |

|     |    |                                            |                              | EAHP           |                    |       |           | R49, R54,<br>R66, R67                      |                                     |             |          |    |
|-----|----|--------------------------------------------|------------------------------|----------------|--------------------|-------|-----------|--------------------------------------------|-------------------------------------|-------------|----------|----|
|     | 40 | Resistor                                   | Vishay                       | CRCW00         | 60347K0FKE         | 47K   | J1-0603   | R41, R46,<br>R50, R56,<br>R58, R61,<br>R70 | Farne                               | slI         | 1738927  | 7  |
|     | 41 | Resistor                                   | Vishay                       | CRCW00         | 6034K70FKE         | 4K7   | J1-0603   | R6, R10,<br>R13, R18,<br>R83               | Farne                               | ell .       | 1738913  | 5  |
|     | 42 |                                            |                              |                |                    |       |           |                                            |                                     |             |          |    |
|     | 43 |                                            |                              |                |                    |       |           |                                            |                                     |             |          |    |
|     | 44 | Resistor                                   | Vishay                       | CRCW04         | 4022K20FKE         | 2K2   | 0402 M    | R85, R88,<br>R89, R90,<br>R91              | Farne                               | 11          | 1738854  | 5  |
|     | 46 | 110010101                                  | Violity                      | 7.111          |                    | ZIC   | 0 102_101 | 1.01                                       | Tarre                               | ···         | 1700001  |    |
|     | 47 | Schottky<br>Mixer Diode                    | Avago                        | HSMS-8101-TR1G |                    |       | SOT23_L   | D1                                         | Farnell                             |             | 1056851  | 1  |
|     | Α  | Test<br>Specification                      | Guidance<br>Microwave<br>Ltd | CMR-114        | 10                 |       |           |                                            |                                     |             |          |    |
|     |    | Components<br>Not Fitted:                  |                              |                |                    |       |           | 21, R26, R68, R<br>R73, R74, R92,          |                                     |             |          | 3, |
| DNF |    | Capacitor                                  | Kemet                        |                | C0603C104I         | K5RAC | 100nF     | 0603                                       | C22,<br>C26,<br>C28                 | Farnell     | 1288255  | 3  |
| DNF |    | Capacitor                                  | Kemet                        |                | C0603C224K3RA<br>U |       | 220nF     | 1608[0603]                                 | C30                                 | Farnell     | 1414626  | 1  |
| DNF |    | Capacitor                                  | Kemet                        |                | C0603C475          | K8PAC | 4.7uF     | 1608[0603]                                 | C23,<br>C25,<br>C27,<br>C29,<br>C31 | Farnell     | 1572625  | 5  |
| DNF |    | Low Noise,<br>Low Vos,<br>Single Op<br>Amp | Nat Semi                     |                | LMV751M5           |       |           | MF05A_N                                    | U2                                  | Nat<br>Semi | LMV751M5 | 1  |

|      | Operational         |                                       |                     |       |            |              |         |         |          |
|------|---------------------|---------------------------------------|---------------------|-------|------------|--------------|---------|---------|----------|
| DNF  | Amplifier -<br>Quad | Linear                                | LT1639CS#PBF        |       | S14_M      | U1           | Farnell | 1330682 | 1        |
|      |                     |                                       | CRCW06030000Z0E     |       | _          |              |         |         |          |
| DNF  | Resistor            | Vishay                                | Α                   | 0R    | J1-0603    | R79          | Farnell | 1469739 | 1        |
|      |                     | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | CRCW0603100K0FK     | 10016 |            | 504          |         | 4=00004 |          |
| DNF  | Resistor            | Vishay                                | EAHP                | 100K  | J1-0603    | R21<br>R26,  | Farnell | 1738931 | 1        |
|      |                     |                                       | CRCW0603100R0FK     |       |            | R68,         |         |         |          |
| DNF  | Resistor            | Vishay                                | EAHP                | 100R  | J1-0603    | R69          | Farnell | 1738891 | 3        |
|      |                     |                                       | CRCW060310K0FKE     |       |            |              |         |         |          |
| DNF  | Resistor            | Vishay                                | AHP                 | 10K   | J1-0603    | R23          | Farnell | 1738918 | 1        |
|      |                     |                                       | CRCW060312KFKEA     |       |            |              |         | 4700040 |          |
| DNF  | Resistor            | Vishay                                | HP                  | 12K   | J1-0603    | R94          | Farnell | 1738919 | 1        |
| DNF  | Resistor            | Vishay                                | CRCW0603220RFKE AHP | 220R  | J1-0603    | R31          | Farnell | 1738895 | 1        |
| DINE | Resisioi            | VISITAY                               | АПР                 | ZZUK  | 31-0003    | R86,         | ramen   | 1730093 | <u> </u> |
| DNF  | Resistor            |                                       |                     | 270R  | 1005[0402] | R87          |         |         | 2        |
|      |                     |                                       | MCHP03W8F3304       |       |            |              |         |         |          |
| DNF  | Resistor            | Multicomp                             | T5E                 | 3M3   | J1-0603    | R93          | Farnell | 1576332 | 1        |
| DNF  | Resistor            | Panasonic                             | ERJP03F4703V        | 470K  | J1-0603    | R63          | Farnell | 1750709 | 1        |
|      |                     |                                       |                     |       |            | R24,         |         |         |          |
|      |                     |                                       |                     |       |            | R25,         |         |         |          |
|      |                     |                                       |                     |       |            | R27,<br>R29, |         |         |          |
|      |                     |                                       |                     |       |            | R32,         |         |         |          |
|      |                     |                                       |                     |       |            | R33,         |         |         |          |
|      |                     |                                       |                     |       |            | R34,         |         |         |          |
|      |                     |                                       |                     |       |            | R35,         |         |         |          |
|      |                     |                                       |                     |       |            | R38,         |         |         |          |
|      |                     |                                       |                     |       |            | R39,         |         |         |          |
|      |                     |                                       |                     |       |            | R62,<br>R73, |         |         |          |
|      |                     |                                       | CRCW060347K0FKE     |       |            | R73,         |         |         | 1        |
| DNF  | Resistor            | Vishay                                | AHP                 | 47K   | J1-0603    | R92          | Farnell | 1738927 | 4        |
|      |                     |                                       | CRCW060356K0FKE     |       |            |              |         |         |          |
| DNF  | Resistor            | Vishay                                | AHP                 | 56K   | J1-0603    | R30          | Farnell | 1738928 | 1        |
| DNF  | Resistor            | Vishay                                | CRCW0603680R0FK     | 680R  | J1-0603    | R37          | Farnell | 1738903 | 1        |

| DNF  |
|------|
| DINI |
|      |
| DNF  |

|     | _ | _        |        |                 | _    |         | _   | _       |         |   |
|-----|---|----------|--------|-----------------|------|---------|-----|---------|---------|---|
|     |   |          |        | EAHP            |      |         |     |         |         |   |
|     |   |          |        | CRCW0603820R0FK |      |         |     |         |         |   |
| DNF |   | Resistor | Vishay | EAHP            | 820R | J1-0603 | R36 | Farnell | 1738904 | 1 |
|     |   | Schottky |        |                 |      |         |     |         |         |   |
|     |   | Barrier  |        |                 |      |         |     |         |         |   |
| DNF |   | Diode    | NXP    | BAS40           |      | SOT23_N | D2  | Farnell | 8734291 | 1 |

| Changes        |                        |  |
|----------------|------------------------|--|
| Issue 03C to   |                        |  |
| 03D:           |                        |  |
| PCB issue      |                        |  |
| changed        |                        |  |
| from 02 to     |                        |  |
| 03             |                        |  |
| Solder Mask, I | Fiducial added and IC1 |  |
| pads increase  | d.                     |  |