

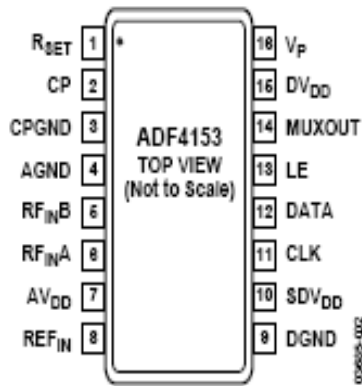
RoHS Compliant & Pb Free Product

MC1-SY01A

- Category: Synthesizer (detail refer to MC1-AN003 under Application Examples)
- Device Packages : PLL : TSSOP-16 (Analog Deive) ; VCO : 5x5mm²
- Cell Size: Single (2x3)
- PCB Material/Layer Details: RO4350/4 layer with thickness 0.030”
- Software: Please download directly from Analog Device Web Site: www.analog.com

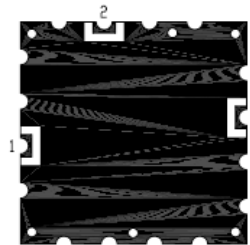
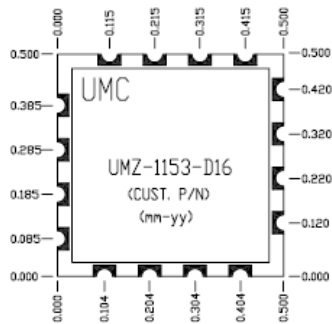
Supported Device Package and Its Pin Allocation:

PLL:

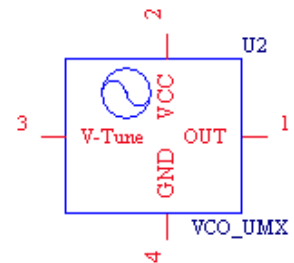


- ADF4110
- ADF4111
- ADF4112
- ADF4113
- ADF4116
- ADF4117
- ADF4118
- ADF4153
- ADF4154
- ADF4156

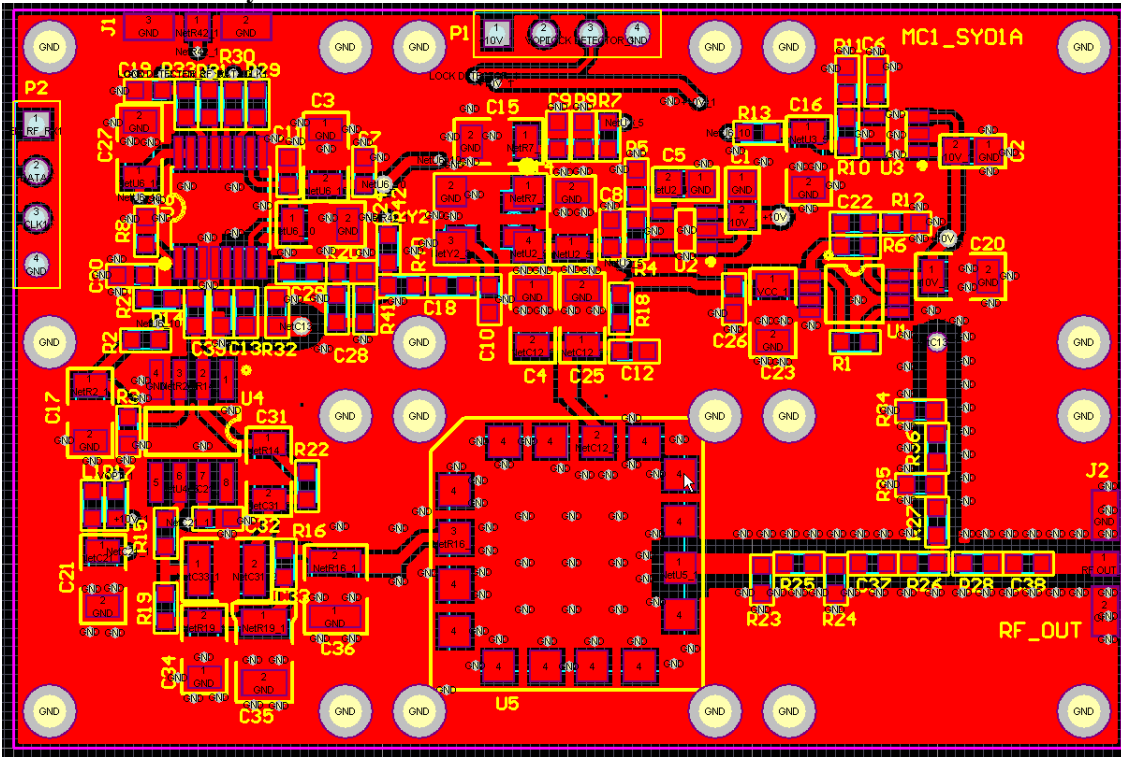
VCO:



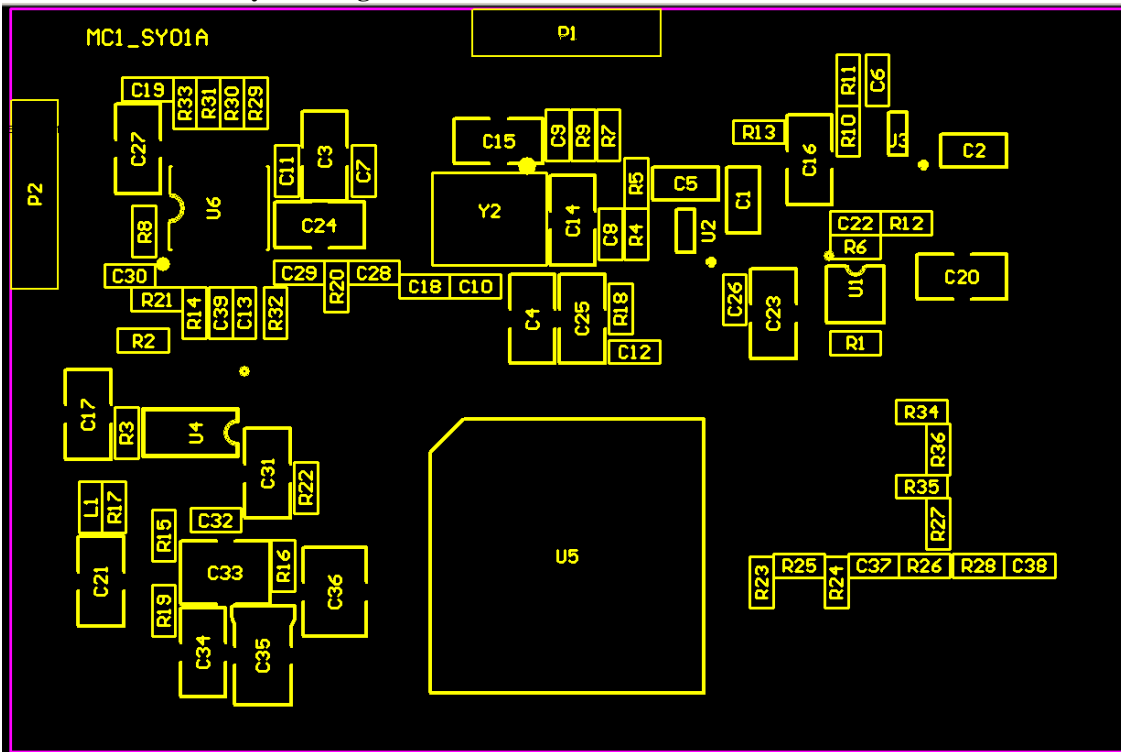
ALL DIMENSIONS IN INCHES



MC1-SY01A PCB Layout:



MC1-SY01A Assembly Drawing:



Bill of Material Example:

| Used | Part | Type | Designator | Footprint |
|------|--------------|------|-----------------------------|-----------|
| 4 | 0 | | R13 R14 R15 R16 | 0603 |
| 2 | 0.1uF | | C18 C19 | 0603 |
| 2 | 0.01uF | | C6 C7 | 0603 |
| 1 | 0.01uF | | C5 | 0805 |
| 1 | 0.18uF | | C36 | 1210 |
| 1 | 0.22uF | | C34 | 1206 |
| 1 | 0.22uF | | C35 | 3528 |
| 2 | 0.68uF/16V | | C1 C2 | 0805 |
| 2 | 0.68uF/16V | | C3 C4 | 1206 |
| 1 | 1.2uF | | C31 | 1206 |
| 2 | 1uF/35V | | C20 C21 | 1206 |
| 1 | 5.6uF | | C33 | 1210 |
| 2 | 5.11K | | R7 R8 | 0603 |
| 3 | 6.8uF/16V | | C23 C24 C25 | 1206 |
| 1 | 10K | | R9 | 0603 |
| 6 | 10pF | | C8 C9 C10 C11 C12 C13 | 0603 |
| 4 | 10uF/10V | | C14 C15 C16 C17 | 1206 |
| 2 | 12pF | | C37 C38 | 0603 |
| 1 | 13K | | R12 | 0603 |
| 3 | 15K | | R29 R30 R31 | 0603 |
| 2 | 20.5 | | R18 R19 | 0603 |
| 1 | 20pF | | C26 | 0603 |
| 1 | 22uF/6.3V | | C27 | 1206 |
| 1 | 26.7 | | R22 | 0603 |
| 1 | 27.4K | | R4 | 0603 |
| 4 | 30.1 | | R25 R26 R27 R28 | 0603 |
| 1 | 39nF | | C32 | 0603 |
| 1 | 39nH | | L1 | 0603 |
| 1 | 47.5K | | R10 | 0603 |
| 1 | 51 | | R20 | 0603 |
| 1 | 51.1 | | R32 | 0603 |
| 1 | 68.1K | | R11 | 0603 |
| 1 | 82.5 | | R36 | 0603 |
| 2 | 82.5K | | R5 R6 | 0603 |
| 2 | 90.9 | | R34 R35 | 0603 |
| 3 | 100K | | R1 R2 R3 | 0603 |
| 1 | 100pF | | C39 | 0603 |
| 2 | 178 | | R23 R24 | 0603 |
| 1 | 221 | | R33 | 0603 |
| 2 | 1000p | | C28 C29 | 0603 |
| 1 | 1000pF | | C22 | 0603 |
| 1 | ADF4153A | | U6 | TSSOP-16 |
| 1 | Jumper (Opt) | | R17 | 0603 |
| 1 | LP2951CMM | | U1 | MUA08A |
| 2 | MIC5205BM5 | | U2 U3 | SOT-23-5 |
| 2 | NEQ | | C30 R21 | 0603 |
| 1 | OP184ES | | U4 | SOIC-8 |
| 3 | OPT | | R40 R41 R42 | 0603 |
| 2 | PIN4 | | P1 P2 | P2_CON4_S |
| 1 | QEA05 10MHz | | Y2 | TCXO3X5 |
| 2 | SMA | | J1 J2 | P2_RF_43 |
| 1 | VCO_UMX | | U5 | UMX-VCO |