

Attenuator Module V2 for the PAM

- Frequency: 0.1-20GHz
- Attenuation: 5-BIT, max: 31 dB
- Impedance: 50Ω

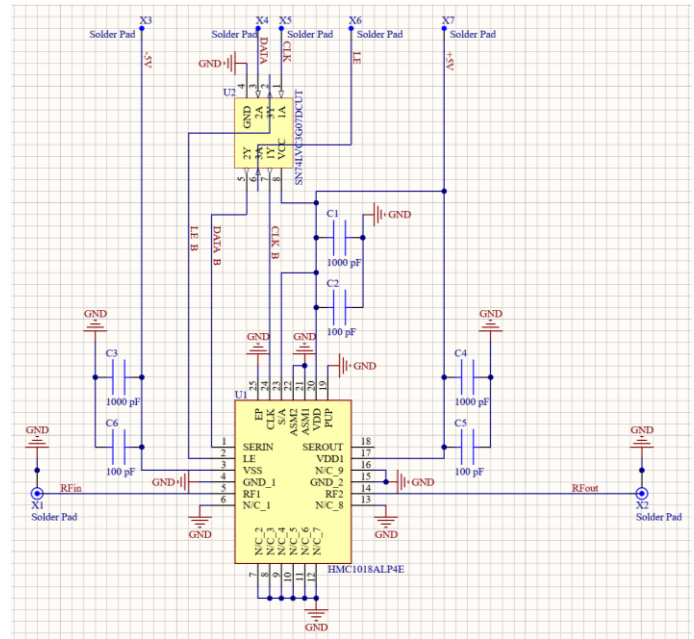
Schematic

Inputs:

- RFin: Radio signal input
- +5V: positive supply voltage (+5V@4.5mA)
- -5V: negative supply voltage (-5V@5.5mA)
- CLK: Clock Signal
- DATA: serial bit-pattern for attenuator
- LE: Latch Enable
- GND

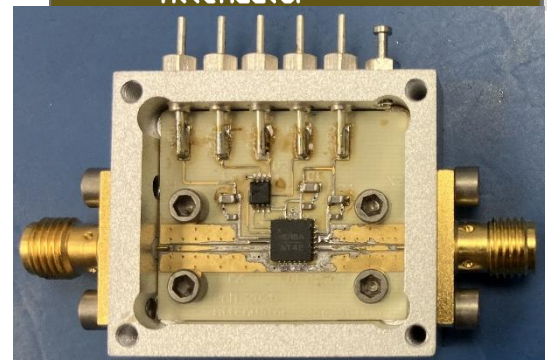
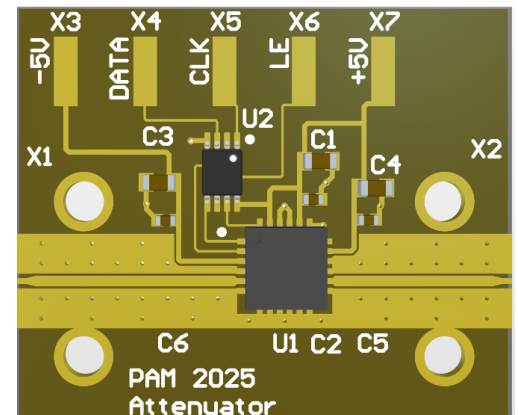
Outputs:

- RFout: Radio signal output



Components - All Case Codes are metric

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|--|------------|
| 2 – SMA 2Hole (142-1701-201) | [X1, X2] |
| 5 – Feed through cap 4-40UNC-2A (B3C153B) | [X3-7] |
| 1 – Turret Terminal 2-56 UNC – 2A (1595-2) | |
| 1 – variable attenuator (HMC1018ALP4E) | [U1] |
| 3 – 100pF 1005 (GRM1555C2A101FA01D) | [C2,C5,C6] |
| 3 – 1000pF 1608 (GCM1885C1H102FA16D) | [C1,C3,C4] |
| 1 – Non-Inv. buffer VSSOP-8 (SN74LVC3G17DCUR) | [U2] |
| 1 – RO4350 PCB | |
| 1 – Box | |
| 1 – Lid | |
| 4 – Screws 3-48 UNC - 2B x 3/16 (92196A091) | |
| 4 – Screws 2-56 UNC - 2B x 1/8 (21202) | |
| 4 – Screws 2-56 UNC - 2B x 5/32 (91771A884) | |
| 1 – RF-absorber PSA 0.08”, ca. 20 x 24 mm (MR42-0008-20) | |



Footprint

Ground pins surrounding the RF input and RF output are connected to the central ground pad.

