

FEATURES

- Whole Solid State, Mixture Integrated
- Low Power Consumption
- Excellent Flatness & Accuracy
- Miniature Sizes for drop-in available



APPLICATIONS

- Military & Space
- Radar & Electronic warfare
- Test Equipment

SPECIFICATIONS@25°C:

| Part Number | Frequency Range (GHz) | Insertion Loss (dB) | Attenuation Range (dB) | Flatness (\pm dB) | Attenuation Accuracy (dB) | Speed (ns) | Step Size (dB) | Control Bits | VSWR (Max) | Current@ (+/-5VDC. Typ) | Case Type |
|----------------|-----------------------|---------------------|------------------------|----------------------|---------------------------|------------|----------------|--------------|------------|-------------------------|-----------|
| MDC000180R30B6 | 0-18 | 4.5 | 0-30 | 0.8 | 1.5 | 100 | 0.5 | 6 | 2.2:1 | 50/50 | T4 |
| MDC000180R30B5 | 0-18 | 4.5 | 0-30 | 0.8 | 1.5 | 100 | 1 | 5 | 2.2:1 | 50/50 | T4 |
| MDC000180R30B4 | 0-18 | 4.5 | 0-30 | 0.8 | 1.5 | 250 | 2 | 4 | 2.2:1 | 50/50 | T4 |
| MDC000180R60B7 | 0-18 | 8.5 | 0-63 | 1.5 | 3.0 | 150 | 0.5 | 7 | 2.2:1 | 50/50 | T5 |
| MDC000180R60B6 | 0-18 | 8.5 | 0-64 | 1.5 | 3.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC000180R60B5 | 0-18 | 8.5 | 0-63 | 1.5 | 3.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC000130R30B6 | 0-13 | 3.2 | 0-31.5 | 0.5 | 1.5 | 45 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC000130R30B5 | 0-13 | 3.2 | 0-31.5 | 0.5 | 1.5 | 45 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC000130R30B4 | 0-13 | 3.2 | 0-31.5 | 0.5 | 1.5 | 45 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC000130R60B7 | 0-13 | 6 | 0-63 | 1 | 2.5 | 45 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC000130R60B6 | 0-13 | 6 | 0-63 | 1 | 2.5 | 45 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC000130R60B5 | 0-13 | 6 | 0-63 | 1 | 2.5 | 45 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC001005R30B6 | 0.1-0.5 | 1 | 0-30 | 0.3 | 0.3 | 100 | 0.5 | 5 | 1.5:1 | 50/50 | T4 |
| MDC001005R30B5 | 0.1-0.5 | 1 | 0-30 | 0.3 | 0.3 | 100 | 1 | 5 | 1.5:1 | 50/50 | T4 |
| MDC001005R30B4 | 0.1-0.5 | 1 | 0-30 | 0.3 | 0.3 | 100 | 2 | 5 | 1.5:1 | 50/50 | T4 |
| MDC001005R60B7 | 0.1-0.5 | 2 | 0-63 | 1.0 | 1.0 | 100 | 0.5 | 7 | 1.5:1 | 50/50 | T5 |
| MDC001005R60B6 | 0.1-0.5 | 2 | 0-63 | 1.0 | 1.0 | 100 | 1 | 6 | 1.5:1 | 50/50 | T5 |
| MDC001005R60B5 | 0.1-0.5 | 2 | 0-63 | 1.0 | 1.0 | 100 | 2 | 5 | 1.5:1 | 50/50 | T5 |
| MDC001400R31B6 | 0.1-40 | 12.3 | 31.5 | / | / | / | 0.5 | 6 | 2.5:1 | 50/20 | T15 |
| MDC005010R30B6 | 0.5-1 | 2 | 0-30 | 0.3 | 1.0 | 100 | 0.5 | 6 | 1.5:1 | 50/50 | T4 |
| MDC005010R30B5 | 0.5-1 | 2 | 0-30 | 0.3 | 1.0 | 100 | 1 | 5 | 1.5:1 | 50/50 | T4 |
| MDC005010R30B4 | 0.5-1 | 2 | 0-30 | 0.3 | 1.0 | 100 | 2 | 4 | 1.5:1 | 50/50 | T4 |
| MDC005010R60B7 | 0.5-1 | 3.5 | 0-63 | 0.5 | 2.0 | 100 | 0.5 | 7 | 1.5:1 | 50/50 | T5 |
| MDC005010R60B6 | 0.5-1 | 3.5 | 0-63 | 0.5 | 2.0 | 100 | 1 | 6 | 1.5:1 | 50/50 | T5 |



WIDE BAND DIGITAL CONTROL ATTENUATOR

| Part Number | Frequency Range (GHz) | Insertion Loss (dB) | Attenuation Range (dB) | Flatness (\pm dB) | Attenuation Accuracy (dB) | Speed (ns) | Step Size (dB) | Control Bits | VSWR (Max) | Current@ (+/-5VDC. Typ) | Case Type |
|-----------------|-----------------------|---------------------|------------------------|----------------------|---------------------------|------------|----------------|--------------|------------|-------------------------|-----------|
| MDC005010R60B5 | 0.5-1 | 3.5 | 0-63 | 0.5 | 2.0 | 100 | 2 | 5 | 1.5:1 | 50/50 | T5 |
| MDC005020R30B6 | 0.5-2 | 2 | 0-30 | 0.3 | 1.0 | 150 | 0.5 | 6 | 1.8:1 | 50/50 | T4 |
| MDC005020R30B5 | 0.5-2 | 2 | 0-30 | 0.3 | 1.0 | 150 | 1 | 5 | 1.8:1 | 50/50 | T4 |
| MDC005020R30B4 | 0.5-2 | 2 | 0-30 | 0.3 | 1.0 | 150 | 2 | 4 | 1.8:1 | 50/50 | T4 |
| MDC005020R60B7 | 0.5-2 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 0.5 | 7 | 1.8:1 | 50/50 | T5 |
| MDC005020R60B6 | 0.5-2 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 1 | 6 | 1.8:1 | 50/50 | T5 |
| MDC005020R60B5 | 0.5-2 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 2 | 5 | 1.8:1 | 50/50 | T5 |
| MDC005020R63B8 | 0.5-2 | 5.5 | 63.75 | / | 2 | / | 0.25 | 8 | 1.6:1 | 50/50 | T19 |
| MDC005060R30B6 | 0.5-6 | 2.5 | 0-30 | 0.5 | 1.0 | 100 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC005060R30B5 | 0.5-6 | 2.5 | 0-30 | 0.5 | 1.0 | 100 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC005060R30B4 | 0.5-6 | 2.5 | 0-30 | 0.5 | 1.0 | 100 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC005060R60B7 | 0.5-6 | 5.8 | 0-63 | 0.5 | 2.0 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC005060R60B6 | 0.5-6 | 5.8 | 0-63 | 0.5 | 2.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC005060R60B5 | 0.5-6 | 5.8 | 0-63 | 0.5 | 2.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC005080R30B6 | 0.5-8 | 3.2 | 0-30 | 0.5 | 1.0 | 100 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC005080R30B5 | 0.5-8 | 3.2 | 0-30 | 0.5 | 1.0 | 100 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC005080R30B4 | 0.5-8 | 3.2 | 0-30 | 0.5 | 1.0 | 100 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC005080R60B7 | 0.5-8 | 6.4 | 0-63 | 0.8 | 2.5 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC005080R60B6 | 0.5-8 | 6.4 | 0-63 | 0.8 | 2.5 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC005080R60B5 | 0.5-8 | 6.4 | 0-63 | 0.8 | 2.5 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC005180R30B6 | 0.5-18 | 4.5 | 0-30 | 0.8 | 1.5 | 100 | 0.5 | 6 | 2.2:1 | 50/50 | T4 |
| MDC005180R30B5 | 0.5-18 | 4.5 | 0-30 | 0.8 | 1.5 | 100 | 1 | 5 | 2.2:1 | 50/50 | T4 |
| MDC005180R30B4 | 0.5-18 | 4.5 | 0-30 | 0.8 | 1.5 | 250 | 2 | 4 | 2.2:1 | 50/50 | T4 |
| MDC005180R60B7 | 0.5-18 | 8.5 | 0-63 | 1.5 | 3.0 | 150 | 0.5 | 7 | 2.2:1 | 50/50 | T5 |
| MDC005180R60B6 | 0.5-18 | 8.5 | 0-64 | 1.5 | 3.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC005180R60B5 | 0.5-18 | 8.5 | 0-63 | 1.5 | 3.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC005180R60H5 | 0.5-18 | 8.5 | 0-63 | 1.5 | 3 | 150 | 2 | 5 | 2:1 | 50/50 | T1 |
| MDC010020R30B6 | 1-2 | 2 | 0-30 | 0.3 | 1.0 | 150 | 0.5 | 6 | 1.8:1 | 50/50 | T4 |
| MDC010020R30B5 | 1-2 | 2 | 0-30 | 0.3 | 1.0 | 150 | 1 | 5 | 1.8:1 | 50/50 | T4 |
| MDC010020R30B4 | 1-2 | 2 | 0-30 | 0.3 | 1.0 | 150 | 2 | 4 | 1.8:1 | 50/50 | T4 |
| MDC010020R60B7 | 1-2 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 0.5 | 7 | 1.8:1 | 50/50 | T5 |
| MDC010020R60B6 | 1-2 | 2.8 | 0-60 | 1 | 0.8 | 50 | 1 | 6 | 1.8:1 | 50/50 | T5 |
| MDC010020R60B5 | 1-2 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 2 | 5 | 1.8:1 | 50/50 | T5 |
| MDC010018R50B8C | 1-18 | 8.5(Typ) | 60 | 5 | / | / | 0.25(Typ) | 8 | 2.2:1 | 40/40 | T23 |
| MDC010180R60B8 | 1-18 | 5 | 60 | 10 | / | / | 0.25(Typ) | 8 | 2.2:1 | 40/40 | T7 |



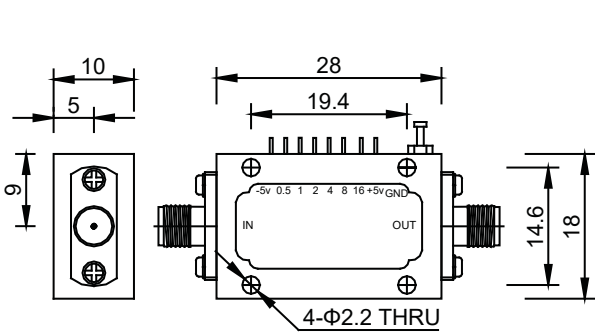
WIDE BAND DIGITAL CONTROL ATTENUATOR

| Part Number | Frequency Range (GHz) | Insertion Loss (dB) | Attenuation Range (dB) | Flatness (\pm dB) | Attenuation Accuracy (dB) | Speed (ns) | Step Size (dB) | Control Bits | VSWR (Max) | Current@ (+/-5VDC. Typ) | Case Type |
|--------------------|-----------------------|---------------------|------------------------|----------------------|---------------------------|------------|----------------|--------------|------------|-------------------------|-----------|
| MDC010400R31B6 | 1-40 | 12.3 | 31.5 | / | / | / | 0.5 | 6 | 2.5:1 | 50/50 | T15 |
| MDC010400R63B7 | 1-40 | 15.3 | 63.5 | / | / | / | 0.5 | 7 | 2.5:1 | 50/50 | T16 |
| MDC020040R30B6 | 2-4 | 2 | 0-30 | 0.3 | 1.0 | 150 | 0.5 | 6 | 1.8:1 | 50/50 | T4 |
| MDC020040R30B5 | 2-4 | 2 | 0-30 | 0.3 | 1.0 | 150 | 1 | 5 | 1.8:1 | 50/50 | T4 |
| MDC020040R30B4 | 2-4 | 2 | 0-30 | 0.3 | 1.0 | 150 | 2 | 4 | 1.8:1 | 50/50 | T4 |
| MDC020040R30B5H025 | 2-4 | 1.8 | 0-30 | / | / | / | / | 5 | 1.8:1 | 50/50 | T20 |
| MDC020040R60B7 | 2-4 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 0.5 | 7 | 1.8:1 | 50/50 | T5 |
| MDC020040R60B6 | 2-4 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 1 | 6 | 1.8:1 | 50/50 | T5 |
| MDC020040R60B5 | 2-4 | 3.5 | 0-63 | 0.5 | 2.0 | 150 | 2 | 5 | 1.8:1 | 50/50 | T5 |
| MDC020080R30B6 | 2-8 | 3.2 | 0-30 | 0.5 | 1.0 | 100 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC020080R30B5 | 2-8 | 3.2 | 0-30 | 0.5 | 1.0 | 100 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC020080R30B4 | 2-8 | 3.2 | 0-30 | 0.5 | 1.0 | 100 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC020080R60B7 | 2-8 | 6.4 | 0-63 | 0.8 | 2.5 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC020080R60B6 | 2-8 | 6.4 | 0-63 | 0.8 | 2.5 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC020080R60B5 | 2-8 | 6.4 | 0-63 | 0.8 | 2.5 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC020180R24B5 | 2-18 | 6.8 | 24 | 2 | / | / | / | 5 | 2.2:1 | 50/50 | T22 |
| MDC020180R30B6 | 2-18 | 4.5 | 0-30 | 0.8 | 1.5 | 100 | 0.5 | 6 | 2.2:1 | 50/50 | T4 |
| MDC020180R30B5 | 2-18 | 5.2 | 0-30 | 0.8 | 1.5 | 100 | 1 | 5 | 2.2:1 | 50/50 | T4 |
| MDC020180R30B4 | 2-18 | 4.5 | 0-30 | 0.8 | 1.5 | 250 | 2 | 4 | 2.2:1 | 50/50 | T4 |
| MDC020180R40B6 | 2-18 | 7 | 0-40 | 3 | / | / | / | 6 | 1.5:1 | 50/50 | T21 |
| MDC020180R60B8 | 2-18 | 10 | 0-64 | 3 | 2.5 | 250 | 0.3 | 8 | 2.2:1 | 40/40 | T3 |
| MDC020180R60B7 | 2-18 | 8.5 | 0-63 | 1.5 | 3.0 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC020180R60B6 | 2-18 | 8.5 | 0-64 | 1.5 | 3.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC020180R60B5 | 2-18 | 8.5 | 0-63 | 1.5 | 3.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC028057A60B8 | 2.8-5.7 | 4 | 0-60 | / | / | 250 | 0.25 | 8 | 1.6:1 | 40/40 | T8 |
| MDC029034R30B9 | 2.9-3.4 | 7 | 30 | / | / | 1us | 0.1 | 9 | 2:1 | 50/50 | T11 |
| MDC040080R30B6 | 4-8 | 3.4 | 0-30 | 0.5 | 0.5 | 100 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC040080R30B5 | 4-8 | 3.4 | 0-30 | 0.5 | 0.5 | 100 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC040080R30B4 | 4-8 | 3.4 | 0-30 | 0.5 | 0.5 | 100 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC040080R60B7 | 4-8 | 6 | 0-63 | 1.5 | 1.5 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC040080R60B6 | 4-8 | 6 | 0-63 | 1.5 | 1.5 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC040080R60B5 | 4-8 | 6 | 0-63 | 1.5 | 1.5 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC044051R90B7 | 4.4-5.1 | 7.5 | 0-95 | 0.8 | / | 150 | 1 | 7 | 1.8:1 | 50/50 | T9 |
| MDC060180R16B6 | 6-18 | 7.2 | 15.75 | / | 1.2 | / | 0.25 | 6 | 2.2:1 | 50/50 | T14 |
| MDC060180R75B4 | 6-18 | 8 | 75 | / | 2.5 | 150 | 5 | 6 | 2.2:1 | 50/50 | T13 |

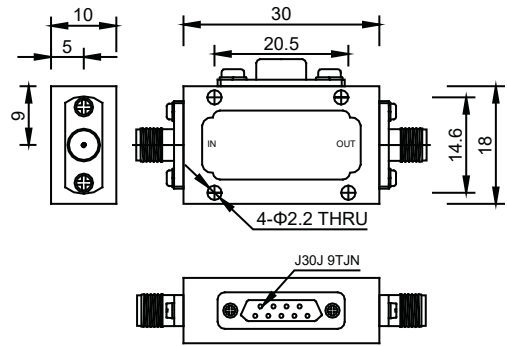


WIDE BAND DIGITAL CONTROL ATTENUATOR

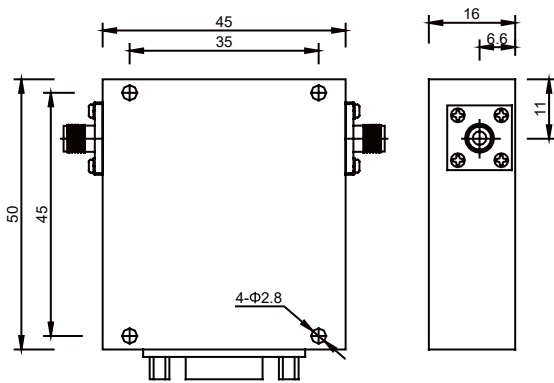
| Part Number | Frequency Range (GHz) | Insertion Loss (dB) | Attenuation Range (dB) | Flatness (\pm dB) | Attenuation Accuracy (dB) | Speed (ns) | Step Size (dB) | Control Bits | VSWR (Max) | Current@ (+/-5VDC. Typ) | Case Type |
|----------------|-----------------------|---------------------|------------------------|----------------------|---------------------------|------------|----------------|--------------|------------|-------------------------|-----------|
| MDC080120R30B6 | 8-12 | 4 | 0-30 | 1 | 1.5 | 150 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC080120R30B5 | 8-12 | 4 | 0-30 | 1 | 1.5 | 150 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC080120R30B4 | 8-12 | 4 | 0-30 | 1 | 1.5 | 150 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC080120R60B7 | 8-12 | 8 | 0-63 | 1.5 | 2.0 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC080120R60B6 | 8-12 | 8 | 0-63 | 1.5 | 2.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC080120R60B5 | 8-12 | 8 | 0-63 | 1.5 | 2.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC080124R31B8 | 8-12.4 | 6.5 | 31.875 | / | 1.5 | 600 | 0.125 | 8 | 2:1 | 50/50 | T18 |
| MDC080180R16B6 | 8-18 | 6.5 | 15.75 | / | 1.2 | / | 0.25 | 6 | 2.2:1 | 50/50 | T14 |
| MDC080180R30B6 | 8-18 | 4.5 | 0-30 | 1.0 | 1.0 | 150 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC080180R30B5 | 8-18 | 4.5 | 0-30 | 1.0 | 1.0 | 150 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC080180R30B4 | 8-18 | 4.5 | 0-30 | 1.0 | 1.0 | 150 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC080180R60B7 | 8-18 | 8.5 | 0-63 | 1.5 | 2.0 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC080180R60B6 | 8-18 | 8.5 | 0-63 | 1.5 | 2.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC080180R60B5 | 8-18 | 8.5 | 0-63 | 1.5 | 2.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC080180R75B4 | 8-18 | 8 | 75 | / | 2.5 | / | 5 | 4 | 2.2:1 | 50/50 | T13 |
| MDC094098R20B1 | 9.4-9.8 | 1.9 | 0-20 | / | / | / | 20 | 1 | 1.7:1 | 50/50 | T12 |
| MDC094098R40B2 | 9.4-9.8 | 2 | 0-40 | / | / | / | 10 | 2 | 1.7:1 | 50/50 | T12 |
| MDC100105R31B6 | 10-10.5 | 5(Typ.) | 31.5 | / | / | / | 0.5 | 6 | 2:1 | 50/50 | T17 |
| MDC120180R30B6 | 12-18 | 4.5 | 0-30 | 1.0 | 1.0 | 150 | 0.5 | 6 | 2:1 | 50/50 | T4 |
| MDC120180R30B5 | 12-18 | 4.5 | 0-30 | 1.0 | 1.0 | 150 | 1 | 5 | 2:1 | 50/50 | T4 |
| MDC120180R30B4 | 12-18 | 4.5 | 0-30 | 1.0 | 1.0 | 150 | 2 | 4 | 2:1 | 50/50 | T4 |
| MDC120180R60B7 | 12-18 | 8.5 | 0-63 | 1.5 | 2.0 | 150 | 0.5 | 7 | 2:1 | 50/50 | T5 |
| MDC120180R60B6 | 12-18 | 8.5 | 0-63 | 1.5 | 2.0 | 150 | 1 | 6 | 2:1 | 50/50 | T5 |
| MDC120180R60B5 | 12-18 | 8.5 | 0-63 | 1.5 | 2.0 | 150 | 2 | 5 | 2:1 | 50/50 | T5 |
| MDC120180R63B6 | 12-18 | 7(Typ.) | 63 | / | 0.5 | 200 | 1 | 6 | 2.2:1 | 50 | T23 |
| MDC130137R25B8 | 13-13.7 | 6.5 | 25 | / | / | 300 | 0.1 | 8 | 2:1 | 50/50 | T6 |
| MDC165175R31B6 | 16.5-17.5 | 3 | 0.5-31.5 | / | -0.9-1.5 | 50 | 0.5 | 6 | 26/23dB | 10 | T24 |
| MDC180265R31B6 | 18-26.5 | 7.8 | 31.5 | / | / | / | 0.5 | 6 | 2:1 | 50/50 | T15 |
| MDC180265R63B7 | 18-26.5 | 9.8 | 63.5 | / | / | / | 0.5 | 7 | 2.2:1 | 50/50 | T16 |
| MDC180400R32B6 | 18-40 | 13 | 31.5 | / | / | / | 0.5 | 6 | 2.5:1 | 50/50 | T16 |
| MDC265400R31B6 | 26.5-40 | 9.8 | 31.5 | / | / | / | 0.5 | 6 | 2.4:1 | 50/50 | T4 |
| MDC265400R63B6 | 26.5-40 | 12 | 63 | / | / | 30 | 1 | 6 | 2.4:1 | 50/50 | T16 |
| MDC265400R63B7 | 26.5-40 | 12.8 | 63.5 | / | / | / | 0.5 | 7 | 2.4:1 | 50/50 | T16 |
| MDC320360R16B6 | 32-36 | 7.2 | 15.75 | / | 1.5 | / | 0.25 | 6 | 2.2:1 | 50/50 | T14 |
| MDC320360R75B4 | 32-36 | 10.2 | 75 | / | 3 | / | 5 | 4 | 2.2:1 | 50/50 | T13 |
| MDC340350R31B6 | 34-36 | 4.3 | 0.5-31.5 | / | -1~-1.6 | 50 | 0.5 | 6 | 29/22 dB | 10 | T24 |



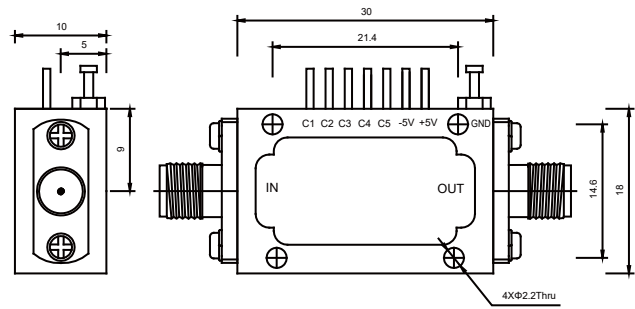
T1



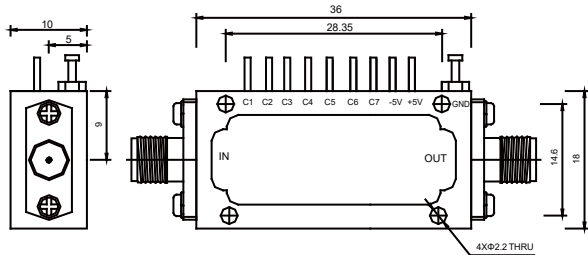
T2



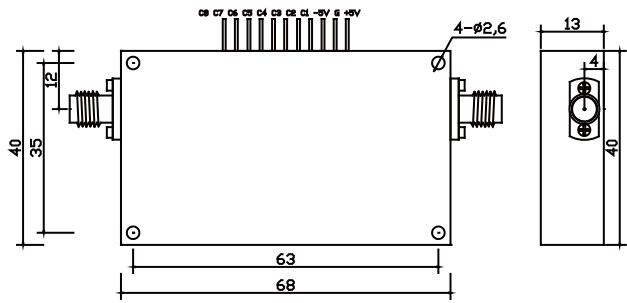
T3



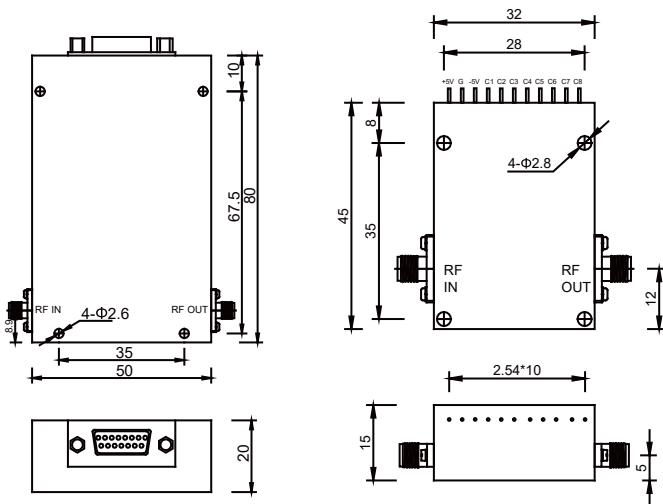
T4



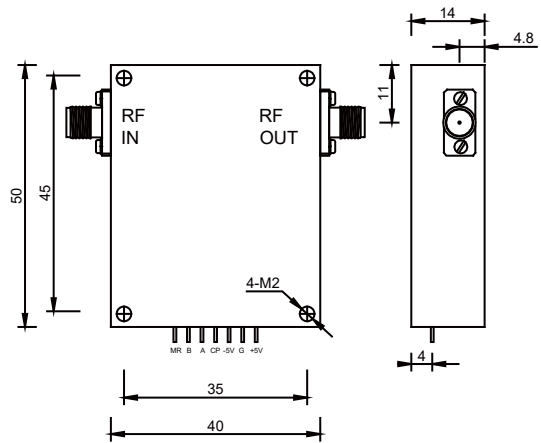
T5



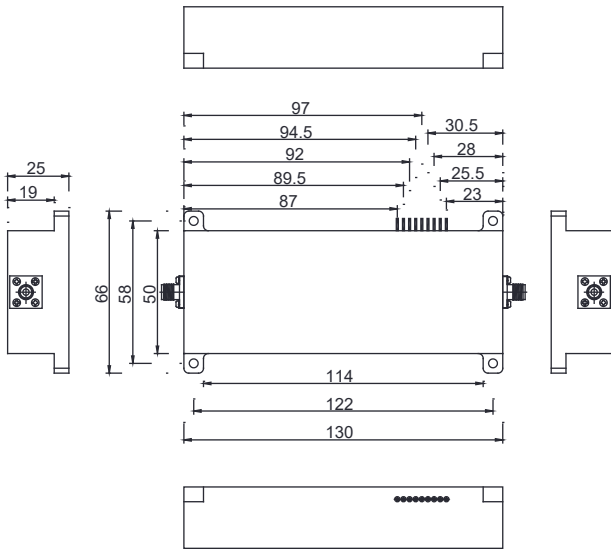
T6



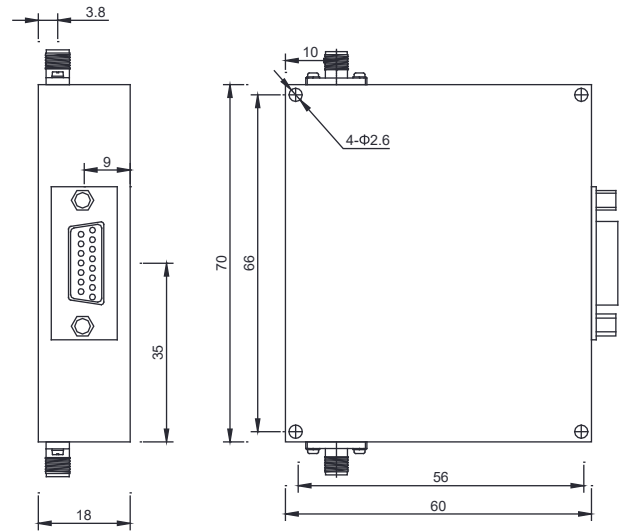
T7



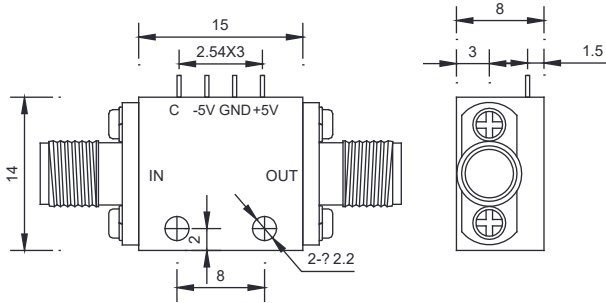
T9



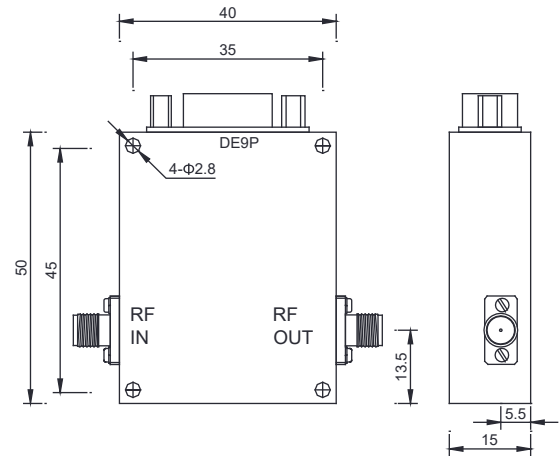
T10



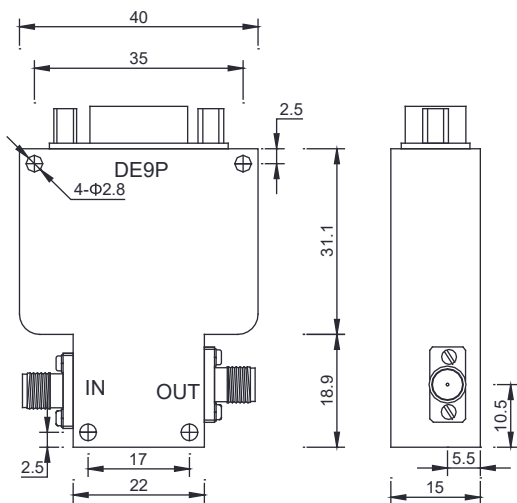
T11



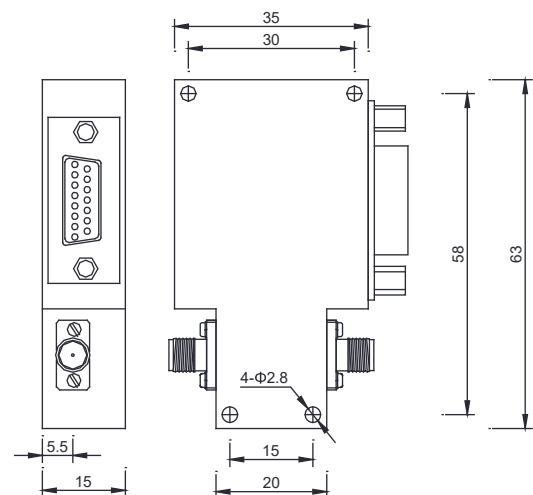
T12



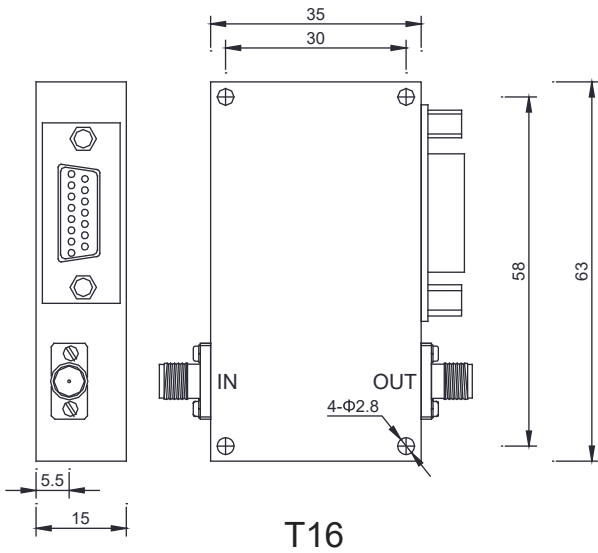
T13



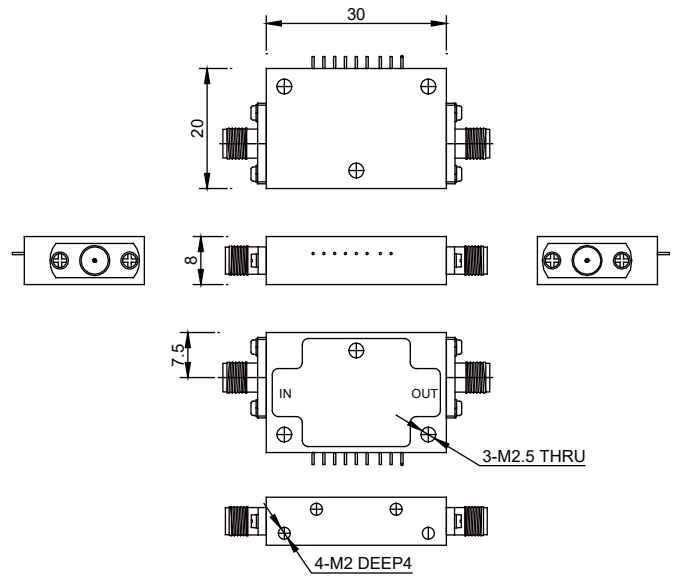
T14



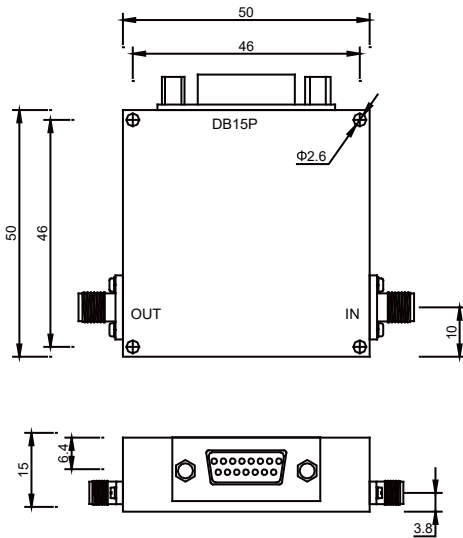
T15



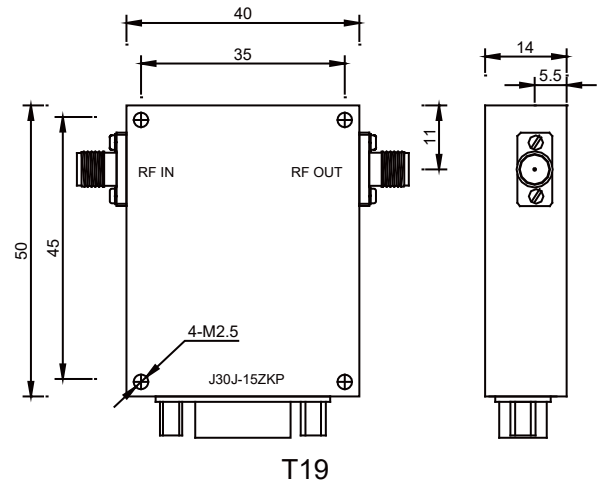
T16



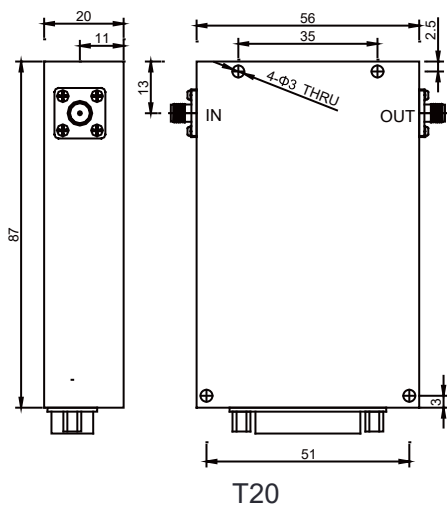
T17



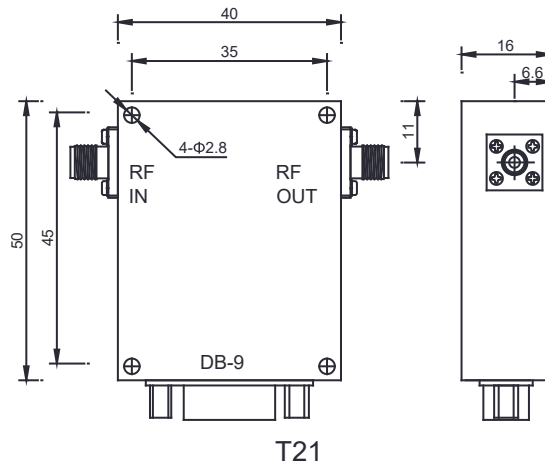
T18



T19



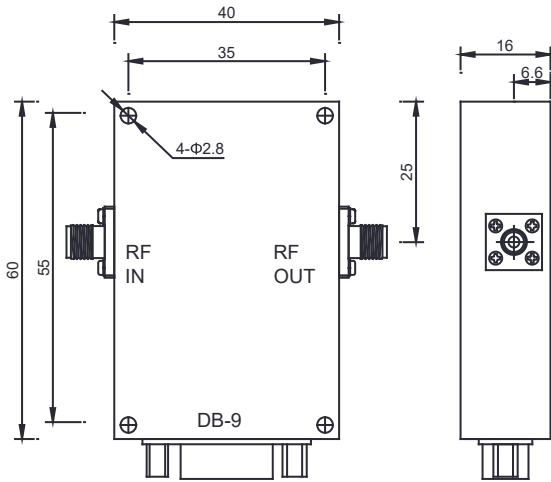
T20



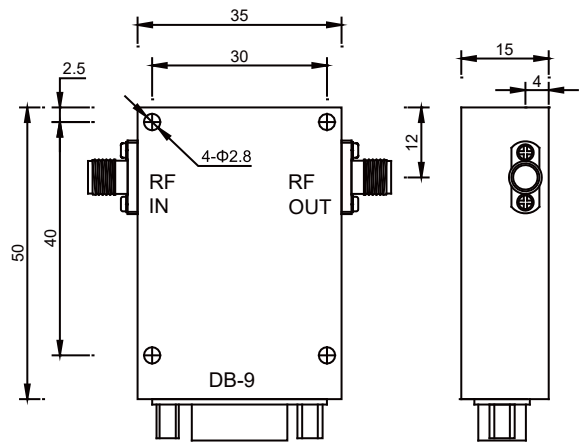
T21



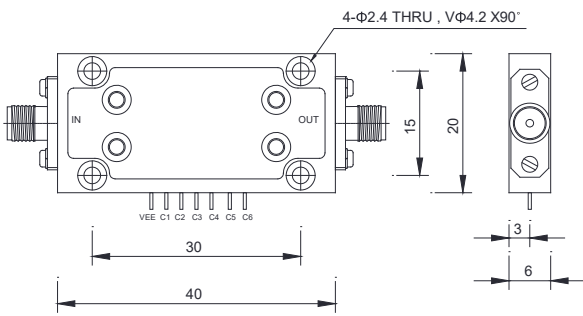
WIDE BAND DIGITAL CONTROL ATTENUATOR



T22



T23



T24