



# WIDE BAND DIGITAL CONTROL ATTENUATOR

## MDC020080R30B4

### 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



### ELECTRICAL SPECIFICATIONS@25°C:

| Parameter              | Min | Typical | Max | Units |
|------------------------|-----|---------|-----|-------|
| Frequency Range        | 2   |         | 8   | GHz   |
| Insertion Loss         |     |         | 3.2 | dB    |
| Mean attenuation Range | 0   |         | 30  | dB    |
| Step Size              |     |         | 2   | dB    |
| Control bits           |     | 4       |     | bits  |
| Attenuation accuracy   |     |         | ±1  | dB    |
| Speed                  |     |         | 100 | ns    |
| Flatness               |     | ±0.5    |     | dB    |
| VSWR                   |     |         | 2:1 | Ratio |
| DC Power +5V           |     | 50      |     | mA    |
| DC Power -5V           |     | 50      |     | mA    |

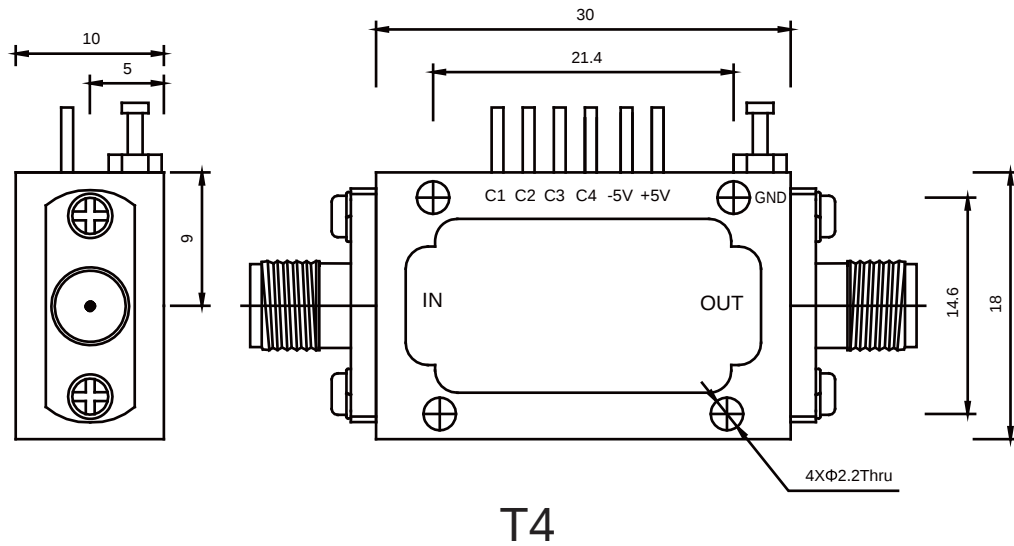
### ENVIRONMENTAL RATINGS:

| Parameter                          | Min   | Typical   | Max   | Units |
|------------------------------------|-------|-----------|-------|-------|
| Max Input Power                    |       |           | 27    | dBm   |
| Operating Temperature              | -40   |           | +70   | °C    |
| Non-operating Temperature          | -55   |           | 85    | °C    |
| Relative humidity (non-condensing) |       | 95        |       | %     |
| Altitude (MIL-STD-810F)            | 10000 |           | 30000 | feet  |
| Shock / Vibration (MIL-STD-810F)   |       | Airbone   |       |       |
| ROHS                               |       | Compliant |       |       |

### MECHANICAL SPECIFICATIONS:

| Parameter            | Value           | Limits | Units      |
|----------------------|-----------------|--------|------------|
| Dimensions           | 30*18*10        |        | Millimeter |
| Weight               | 100             | type   | gram       |
| RF Connectors Input  | SMA-F removable |        |            |
| RF Connectors output | SMA-F removable |        |            |
| Impedance            | 50              |        | ohms       |

### OUTLINE DRAWING(mm):



### TEST DATA:

| Frequency 2-8(GHz) |      |               |                 |      |      |      |      |      |       |       |       |       |
|--------------------|------|---------------|-----------------|------|------|------|------|------|-------|-------|-------|-------|
| IL(dB)             |      | VSWR<br>(Max) | Attenuation(dB) |      |      |      |      |      |       |       |       |       |
| Min                | Max  |               | 2               | 4    | 8    | 16   | 30   |      |       |       |       |       |
| 2.76               | 3.55 | 1.55          | 2.14            | 2.43 | 4.22 | 4.47 | 8.06 | 8.43 | 16.07 | 16.45 | 29.95 | 31.38 |