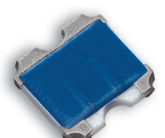
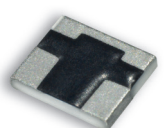
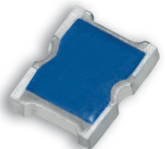
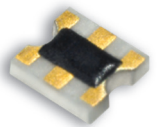
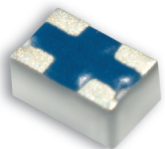
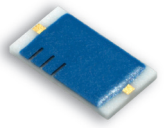
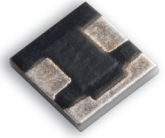




THE ATTENUATOR AUTHORITY

Superior Broadband Performance Through Q Band
 Broadest Offering of Temperature Variable Attenuators in the World
 40 Years of Space Heritage
 Reducing Manufacturing Costs in Telecom for 15 years



| THERMOPAD® TEMPERATURE VARIABLE CHIP ATTENUATORS | | | | | |
|--|------------------------|---------------------|-------------|-------------|-------------|
| | DC → 6 GHz | DC → 12 GHz | DC → 20 GHz | 16 → 36 GHz | 36 → 50 GHz |
| EMC Technology | TVA ETVA AN7 AN5 | MTVA WTVA AN5 | WTVA | KTVA | QTVA |
| Others | | | | | |

- The inventors of temperature variable attenuators
- Quality leaders, robust processes produce high degree of repeatability and reliability
- Performance leaders with cutting edge solutions and broad range coverage
- High volume price leaders for the commercial marketplace
- SMT, wire bondable and RoHS versions available
- Totally passive and contributes no signal distortion

| FIXED CHIP ATTENUATORS | | | | | |
|------------------------|--------------|----------------------|-------------|-------------|-------------|
| | DC → 6 GHz | DC → 12 GHz | DC → 20 GHz | 16 → 36 GHz | 36 → 50 GHz |
| EMC Technology | TS03 TS07 | TS03 TS05 TS09 | TS09 | KFA | QFA |
| Others | | | | | |

- Broadest frequency range in the market - DC through Q Band
- 40 years of S-level experience
- Commercial and high reliability standard products
- Thin- and thick-film technologies
- Extensive in-house test capabilities
- Standard and custom engineering design kits available

| FOOT PRINT | 1512 3.81 X 3.05mm | 1615 4.06 X 3.81mm | 0706 1.78 X 1.52mm | 0805 2.03 X 1.27mm | 0807 2.03 X 1.78 mm | 1206 3.05 X 1.52mm |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| THERMOPAD® | TVA | ETVA | WTVA | AN7 | MTVA /AN5 | KTVA /QTVA |
| FIXED | TS03 | TS03 | TS09 | TS07 | TS05 | KFA/QFA |



HIGH-RELIABILITY EXPERTS

- Global Leaders in fixed frequency and temperature compensated attenuation
- Standard high-reliability products available
- 4 decades of space and flight experience
- Extensive in-house testing capabilities
- Build and test to print
- Program management available
- Certified to the following standards: AS9100 and ISO9001



HIGH POWER ATTENUATORS SUPERIOR QUALITY WIDE VARIETY OF OPTIONS

Ideal for All High Power Applications

- Power ratings to 400 Watts
- Available in 0 through 30dB
- Frequencies up to 18GHz
- RoHS compliant or high-reliability finishes
- Materials – BeO, AlN and Alumina

High Power Attenuators in a Variety of Configurations

Chip SMT

- For ease of attachment and inspection
- Perfect for high volume pick and place
- Cost effective solution for high volume manufacturing

Tab and Cover

- Highest performing configuration
- Excellent heat transfer by attaching directly to heat sink
- Optional lead forming available

Flange Mount

- Convenient bolt on installation
- Many configurations available

Coaxial

- Fixed and temperature compensated versions DC to 18GHz
- Rugged construction ensures reliability and performance
- Suitable for Commercial, Military, and Space applications.

