

Feedback limiters are designed to have lower threshold and leakage levels than those of conventional limiters in order to protect more sensitive components. They incorporate input PIN diode limiters which are driven by one or more schottky detector diodes. Most circuits include DC blocks, which are required for proper operation.

In some very low frequency models, it is not possible to include DC blocks. The application must be such that no low impedance DC path from the center conductor to ground exists outside the unit. The limiter threshold (1dB compression) is typically +5dBm.

Feedback limiters will also handle peak power levels above 100W (1usec pulse width, 0.001 duty cycle, and 1kHz repetition rate). Peak leakages are higher than CW leakages as they are with conventional limiters. This becomes exaggerated at frequencies below 2GHz.



Features:

- Low Insertion Loss
- Low Leakage Power Circuit Protection
- High CW Power Handling
- Hermetically Sealed Modules
- Assorted Package Styles
- Custom Designs Available

| Frequency Range (GHz) | Part Number | Peak Input Power (Watts) *(3) | CW Input Power (Watts) *(2,3) | Maximum Flat Leakage (CW Power) (+dBm) | Maximum Insertion Loss (dB) *(1) | Maximum VSWR | Standard Case Styles | Optional Case Styles |
|-----------------------|-------------|-------------------------------|-------------------------------|--|----------------------------------|--------------|----------------------|----------------------|
| 0.02 - 0.1 | ACLM4885F | 100 | 1 | 15 | 0.5 | 1.7:1 | C3 | C36,M10,M22 |
| 0.1 - 0.2 | ACLM4769F | 100 | 1 | 11 | 0.5 | 1.7:1 | C36 | C3,M10,M22 |
| 0.02 - 0.5 | ACLM4594F | 100 | 3 | 13.5 | 0.4 | 1.3:1 | C3 | C36,M10,M22 |
| 0.03 - 1 | ACLM4675F | 100 | 3 | 13.5 | 0.3 | 1.3:1 | C3 | C36,M10,M22 |
| 0.1 - 1 | ACLM4786F | 100 | 2 | 13.5 | 0.3 | 1.3:1 | C3 | C36,M10,M22 |
| 0.1 - 2 | ACLM4800F | 100 | 2 | 13.5 | 0.5 | 1.3:1 | C3 | C36,C37,M10,M22 |
| 0.5 - 2 | ACLM4650F | 100 | 2 | 13.5 | 0.5 | 1.4:1 | C3 | C36,C37,M10,M22 |
| 1 - 2 | ACLM4586F | 100 | 2 | 13.5 | 0.5 | 1.3:1 | C3 | C36,C37,M10,M22 |
| 2 - 4 | ACLM4732F | 100 | 2 | 13.5 | 0.6 | 1.4:1 | C3 | C36,C37,M22 |
| 0.5 - 6 | ACLM4700F | 100 | 2 | 13.5 | 0.8 | 1.5:1 | C3 | C36,C37,M22 |
| 0.5 - 8 | ACLM4759F | 100 | 2 | 13.5 | 1.0 | 1.7:1 | C3 | C36,C37,M22 |
| 2 - 8 | ACLM4504F | 100 | 2 | 13 | 0.8 | 1.5:1 | C3 | C36,C37,M22 |
| 4 - 8 | ACLM4572F | 100 | 2 | 13 | 1.0 | 1.8:1 | C3 | C36,C37,M22 |
| 0.4 - 12 | ACLM4727F | 100 | 2 | 13 | 1.5 | 1.8:1 | C3 | C36,C37,M22 |
| 8 - 12 | ACLM4571F | 100 | 2 | 13 | 1.5 | 1.8:1 | C3 | C36,C37,M22 |
| 1 - 18 | ACLM4618F | 100 | 2 | 13 | 2.4 | 2.4:1 | C36 | C37,M22 |
| 2 - 18 | ACLM4619F | 100 | 2 | 13 | 2.4 | 2.2:1 | C36 | C37,M22 |
| 6 - 18 | ACLM4616F | 100 | 2 | 13 | 2.4 | 2.2:1 | C36 | C37,M22 |
| 8 - 18 | ACLM4797F | 100 | 2 | 13 | 2.4 | 2.2:1 | C36 | C37,M22 |
| 18 - 26.5 | ACLM4809F | 100 | 2 | 15 | 2.8 | 2.0:1 | C36 | C37,M22 |

NOTES:

- 1) CW leakage is measured at 1W input.
- 2) Higher power handling available. Contact the factory to discuss specific requirements.
- 3) Power handling is linearly derated from full power at +25°C to zero power at +150°C.

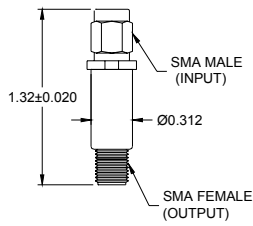


ENVIRONMENTAL SPECIFICATIONS:

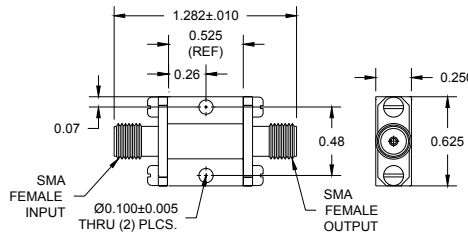
MIL-E-5400, MIL-STD-202, MIL-E-16400
 Operating Temp: -65°C to +125°C
 Storage Temp: -65°C to +150°C
 Humidity: MIL-STD-202F, M103, Cond B
 Shock: MIL-STD-202F, M213, Cond B
 Altitude: MIL-STD-202F, M105, Cond B
 Vibration : MIL-STD-202F, M204, Cond B
 Thermal Shock: MIL-STD-202F, M107, Cond A
 Temperature Cycle: MIL-STD-202F, M105C, Cond D

SCREENING :

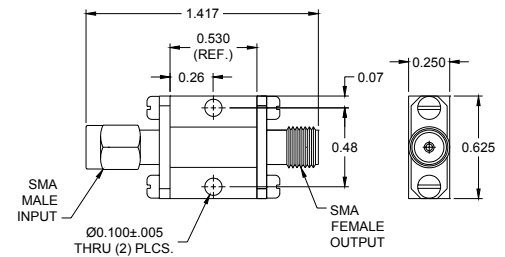
Standard Screening:
 Internal Visual per MIL-STD-883, Method 2017
 Temperature Cycle: -65°C to +100°C, 10 cycles
Optional High-Rel Screening (Ref MIL-PRF-38534):
 Internal Visual per MIL-STD-883, Method 2017
 Stabilization Bake per MIL-STD-883, Method 1008
 Temperature Cycle per MIL-STD-883, Method 1010
 Constant Acceleration per MIL-STD-883, Method 2001
 Burn-in per MIL-STD-883, Method 1015
 Leak Test per MIL-STD-883, Method 1014
 External Visual per MIL-STD-883, Method 2009



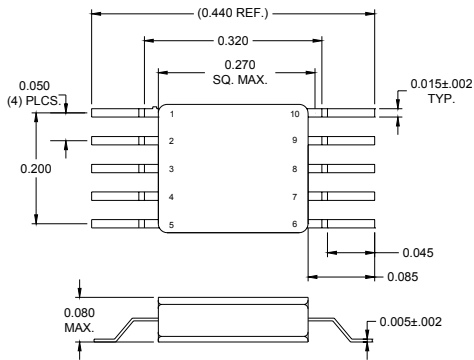
CASE STYLE C3



CASE STYLE C37

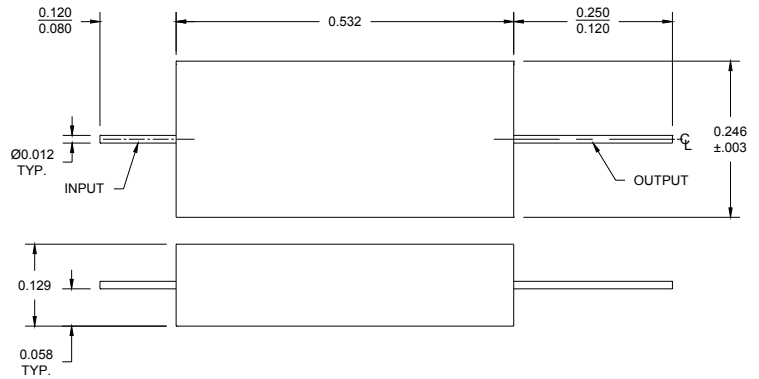


CASE STYLE C36



CASE STYLE M10

| PIN | CONNECTION | PIN | CONNECTION |
|-----|------------|-----|------------|
| 1 | N/C | 10 | GND |
| 2 | INPUT | 9 | N/C |
| 3 | N/C | 8 | N/C |
| 4 | N/C | 7 | OUTPUT |
| 5 | GND | 6 | N/C |



CASE STYLE M22

Part Number Ordering Information:

Example: ACLM4504FC3R1K
 ACLM4504F: Feedback limiter, 2 – 8GHz
 C3: Package type
 R: Reversed connectors (omit for standard configuration)
 1K: 1kW peak power handling (omit for standard 100W peak power handling)

LMF-0205